



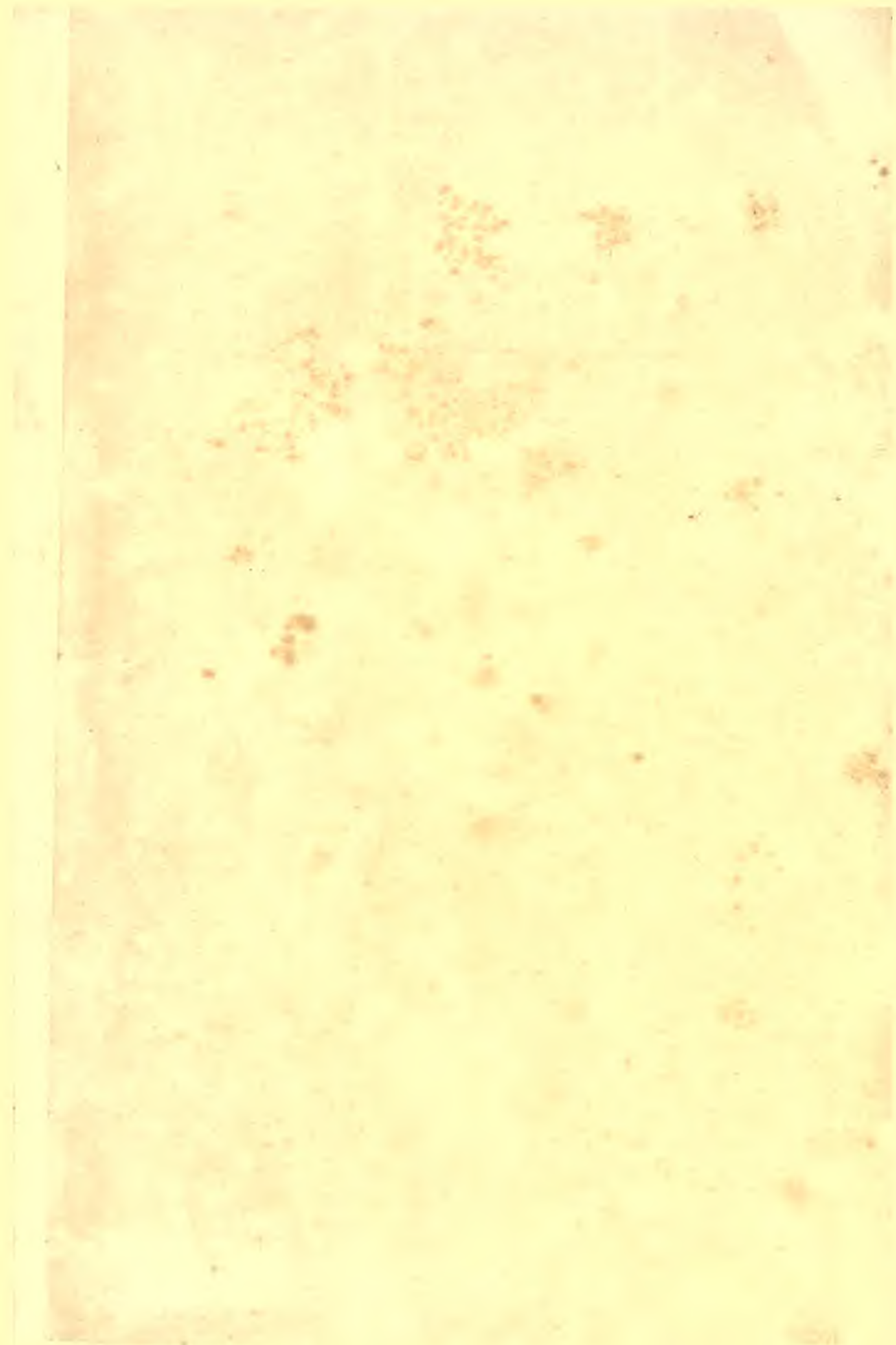
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SYLLOGE
FUNGORUM

OMNIUM HUCUSQUE COGNITORUM

DIGESSIT

P. A. SACCARDO

VOL. XVII.

SUPPLEMENTUM UNIVERSALE

Pars VI.

HYMENOMYCETÆ — LABOULBENIOMYCETÆ

AUCTORIBUS

P. A. SACCARDO ET D. SACCARDO FIL.

ADJECTA EST BIBLIOTHECA MYCOLOGICA AUCTORE J. B. TRAVERSO

Fol. 69 — Pretium it. lib. (francs) 69

PATAVII

Die 25 Maji MCMV. 1905

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BOTANICES PROFESSORIS

DE SCIENTIA MYCOLOGICA

TAM SYSTEMATICA QUAM BIOLOGICA

MERITISSIMI

MYCETUM DELINEATORIS EXQUISITI

AMICI OPTIMI

HEU PRÆMATURE EREPTI

VOLUMEN HOC SYLLOGES

MERENTES

DEDICANT AUCTORES

PRÆMONITUS

Vix triennium elapsum est post editum hujus operis volumen XVI, et novum, adjuvante Filio, est mihi in lucem proferendum. Sperabam, messem totam mycetum, per triennium ultimum collectam et evulgatam, in unum volumen me posse compellere, sed acquisitiones novæ, præcipue ex America australi et centrali, potissimum vero ex feracissima Brasilia, tam magnæ fuerunt ut materiam in volumina duo dividere coactus sim. Collectores et descriptores non pauci validam operam dederunt, sed duo imprimis honoris causa memorandi sunt: E. ULE, mycetum brasiliensium innumerorum strenuus collector, et P. HENNINGS, eorum indefessus illustrator. Nec parum contulerunt ad molem specierum augendam monographia Uredinearum Sydowiana et contributiones ad mycologiam Luxemburgensem a complorato J. FELTGENIO († XI Majo 1904) editæ.

Proponente cl. professore G. LINDAU, species plurimas Ascomycetum in Lichenibus parasiticas et hucusque tantum in libris lichenologicis, heu plerumque nimis breviter descriptas, suis locis addidi et sæpius ad subgenera propria, generibus affinioribus adjecta, accensere enisus sum *).

Septendecim species novæ in hoc volumine primitus descriptæ occurrunt, quarum elenchus mox sequitur **).

Patavii XV April. MCMV

P. A. SACCARDO

*) Cfr. infra p. 586, nota.

***) Cum hodie sæpe disseritur de usu litterarum majuscularum v. minuscularum ad initium nominum plantarum specificorum, liceat exponere normas, quæ mihi magis propriæ videntur.

I. Littera majuscula initialis adhibenda est ad specifica tam substantiva quam adjectiva ex viris derivata. Exempla: *Anixia Bresadolæ*, *Leptosphaeria Rehmiana*.

II. Eadem in substantivis regionum, matricum atque generum vel vernaculorum, quæ tamquam specifica adhibentur. Exempla: *Polyporus Venezuelæ*, *Sphaerella Chrysanthemi*, *Hypomyces Trichoderma*, *Amanita Coccola*.

III. Littera minuscula initialis adhibenda est ad cetera adjectiva specifica etiam geographica et substantiva communia, quæ similitudinis gratiâ sumuntur. Exempla: *Clavaria flava*, *Agaricus campester*, *Zignoëlla sardoæ*, *Venturia montellica*, *Therrya gallica*, *Leptosphaeria doliolum*, *Heterosphaeria patella*.

SPECIES FUNGORUM IN HOC VOLUMINE PRIMITUS DESCRIPTÆ

- | | |
|---|---|
| Aulographum anaxæum Sacc. et D.
Sacc. p. 895. | Nectria Bonanseana Sacc. p. 786. |
| Diaporthe (Chorostate) italica Trav.
p. 671. | Pistillaria Ferryi Quél. et F. * P. tremula Sacc. p. 202. |
| Eutypella Padi (Karst.) Sacc. v. pirina
Sacc. et Flag. p. 564. | Septobasidium Mariani Bres. p. 204. |
| Gnomonia pusilla Sacc. et Flag. p. 664. | Sphærella Cuboniana D. Sacc. p. 638. |
| — rigniacensis Sacc. et Flag. p. 666. | — elatior S. et Sp. v. apula Sacc.
p. 636. |
| Henningsomyces pulchellus Sacc. p. 689. | Valsella Saccardoï Berl. p. 567. |
| Leptosphæria aquilana D. Sacc. p. 724. | — Glechomæ Sacc. et Fl. p. 642. |
| Massaria marginata Fuck. v. aquilana
D. Sacc. p. 732. | — montellica Sacc. p. 645. |
| | Uredo Nicotianæ Anast. Sacc. et Sp.
p. 440. |
-

Botanici qui quocumque modo « Syllogi » v. mycologicae scientiæ profuerunt *)

(Continuatio. Cfr. vol. VIII p. IX, X p. V, XI p. VII, XIV p. V, XVI p. V)

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*) Plurimi ex citatis botanicis opera v. opuscula mycologica benevole miserunt, quibus æque ac prius laudatis editor devinctissimus gratias agit.

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*) Cfr. Nota, vol. X p. xi.

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HYMENOMYCETÆ *)

Syll. fung. V p. 3, IX p. 1, XI p. 1, XIV p. 63, XVI p. 1.

Fam. 1. Agaricaceæ FR.

Sect. 1. Leucosporæ FR.

AMANITA Pers. — Syll. V, p. 8, IX, p. 1, XI, p. 1, XIV, p. 63.

— De hujus generis et *Amanitopsisidis* speciebus cf. illustrationem cl. Boudier in Bull. Soc. myc. Fr. 1902, p. 251.

1. **Amanita flavoconia** Atkinson in Journ. of Mycol. 1902, p. 110. — 1

Sparsa vel gregaria, 6-12 cm. alta; pileo convexo-expanso, plano vel subumbonato, crasso, luteo-aurantiaco, levi, viscido, verrucis tenuibus, luteis, floccosis oblecto; lamellis 4-8 mm. latis, utrinque rotundatis liberis, albis subconfertis, initio serrulatis; sporis obovatis, 6-9 \approx 4-6, albis; stipite 4-15 mm. crasso, farcto, recto vel flexuoso, basi incrassatulo, floccoso-squamoso, luteo-citrino, inferne volva marginato; annulo luteo citrino, membranaceo; volva initio totum fungum cingente dein hiascenti.

Hab. ad terram in Amer. bor., valde frequens. — *Am. Frostianæ* et *A. muscaricæ* affinis.

2. **Amanita flavo-rubescens** Atkinson in Journ. of Mycol. 1902, 2

p. 111. — Sparsa vel gregaria, raro subcæspitosa, 10-14 cm. alta; pileo convexo-expanso 6-10 cm. lato, levi, margine leniter striato, verrucis floccosis luteis vestito, centro brunneo, margine luteo-brunneo, crasso; lamellis oblongo-ellipticis, liberis, albis, non stipatis; basidiis clavatis 4-sporis, 40-50 \approx 9-11; sporis ovatis, granulosis, levibus, 8-10 \approx 6-8; stipite 6-12 mm. crasso, æquali, basi bul-

*) Conferenda perspicua Hymenomycetarum expositio cl. N. Patouillardi (*Essai taxonomique des Hymén.* 1900), quam *Sylloge* dolet amplecti non posse, ne dispositio jam adhibita in voluminibus nostris præcedentibus nimis subvertatur.

boso, floccoso, superne floccis lutescentibus, inferne floccis rubescentibus vestito; annulo crasso, membranaceo, luteo 3 cm. lato, apicali, lacero; volva lutescente, lacera.

Hab. ad terram, Ithaca, Amer. bor. (C. H. KAUFFMANN). — *A. rubescenti* affinis.

3. **Amanita multisquamosa** Peck Rep. of the State Bot. 1899, p. 840, 3
tab. B, fig. 1-7. — Pileo convexo, dein planiusculo, 5-10 cm. lat. margine substriatulo, verrucis numerosis, angularibus, rectis persistentibus vestito, albido, interdum centro brunneo; carne albida; lamellis stipatis, liberis, albis; stipite æquali 4,5-10 cm. longo, 6-12 mm. cr., glabro, pleno vel cavo, basi bulboso, albo, annulo albo, persistenti, volva plus minusve marginata; sporis subglobosis vel late ellipticis 7,5-10 \times 6-7, 5.

Hab. ad terram, in silvis, Albany, Amer. bor.

4. **Amanita Frostiana** Peck — Syll. V, p. 14. — var. **pallidipes** Peck 4
Rep. of the State Bot. 1899, p. 855. — Pileo pallide luteolo; stipite annuloque albidis; verrucis molliusculis et flocculosis, numerosis, persistentibus, interdum paucis vel nullis.

Hab. ad terram in America boreali.

5. **Amanita grisea** Masee et Rodw. in Kew Bull. 1901, p. 156. — 5
Pileo carnosio e convexo depresso, levi, glabro, griseo-brunneo 3-5 cm. lato; lamellis latis, ventricosis, subdistantibus, ex albido pallidis; sporis globosis, levibus, 9-10 μ . diam.; stipite subæquali, solido, albido, 4-5 cm. longo, 1 cm. crasso; volva libera, persistente; annulo membranaceo.

Hab. ad terram in Tasmania (RODWAY).

6. **Amanita phalloides** Fr. — Syll. V, p. 9. — var. **striatula** Peck in 6
Rep. of the State Botanist 1901, pag. 961. — Pileo 2,5-5 cm. crasso, subplano, margine leviter striato, albo; stipite 7,5-12,5 cm. longo, 4-6 mm. crasso, basi parce incrassato, tenui, basi volva lacera cincto; cetera ut in typo.

Hab. ad terram, Bolton Amer. bor.

AMANITOPSIS Roze — Syll. V p. 20, IX p. 2, XVI p. 64.

1. **Amanitopsis albocreata** Atkinson in Journ. of Mycol. 1902, p. 111. 7
— Alta 10-13 cm.; pileo convexo-expanso, viscido albo, centro pallide luteo vel toto luteo, margine minute striato tuberculatoque verrucis vestito, 5-8 cm. lato; carne alba; lamellis antice rotundatis, postice angustatis 3-6 mm. latis, liberis vel subadnatis, margine floccosis; basidiis 30-45 \times 7-10, 4-sporis; sporis globosis, albis,

levibus, primum granulosis, maturitate vacuolo lato donatis; stipite cylindraceo, albo, minute floccoso, cavo, basi bulboso, 6-12 mm. crasso; volva interdum levissima, ocreata.

Hab. in silvis, Ithaca N. Y., Cascadilla, Cayuga Lake, Beebe Lake, Amer. bor. — Ab *A. nivali* Grev. volva albocreata differt.

2. **Amanitopsis volvata** (Peck) Sacc. Syll. V, p. 23. — var. **elongata** 8.

Peck Rep. of the State Bot. 1899, p. 856. — Pileo glabro, viscidulo, albo, margine striatulo; stipite longo, recto vel curvato, superne farinoso, inferne floccoso-squamoso, bulbo profunde immerso.

Hab. inter acus Coniferarum, ad terram, Claryville, Amer. borealis.

3. **Amanitopsis vaginata** (Bull.) Roze — Syll. V, p. 21. — var. **cras-** 9

sivolvata Peck Bull. Torr. bot. Cl. 1902, p. 562. — A typo differt statura majore, pileo 7-10 cm. lat., stipite 15-20 cm. longo, 2 cm. cr., præcipue vero volva multo crassiore poculiformi.

Hab. in uliginosis. Mt Desert Amer. bor. — Pileus cremeo-flavidus; sporæ globosæ 8-10 μ . diam.

LEPIOTA Fr. — Syll. V p. 27, IX p. 3, XI p. 2, XIV pag. 65, XVI p. 2.

1. **Lepiota rhacodioides** P. Henn. in Engl Bot. Jahrb. 1901, p. 56, 10

Syll. XVI, pag. 1110 (nomen). — Pileo carnosio, campanulato-explanato, obtuse umbonato ad medium squamis membranaceis, brunneolis, latis, sparsis tecto, ad marginem levi, glabro, albido usque ad 20 cm. diametro; stipite cavo, cylindraceo, levi, glabro, albo-brunnescente, 20-30 cm. longo, 2-3 cm. crasso, basi bulboso 3-4 cm. incrassato; annulo mobili crasso; lamellis liberis, confertis, lanceolatis, albidis; sporis ellipsoideis, grosse 1-guttulatis, 12-17 \times 8-10, episporio flavo-carnescente.

Hab. ad folia putrida, Kamerun Afr.

2. **Lepiota caloceps** Atkinson in Journ. of Mycol. 1902, p. 115. — 11

Gregaria, 6-10 cm. alta; pileo 4-8 cm. lato, ovoideo vel convexo-expanso, margine sæpe incurvo, carnosio, solido, interdum fragili, centro 3-4 mm. crasso, margine tenui, centro late gibboso, brunneo-olivaceo, margine luteolo, rimoso; lamellis brunneo-albis, fragilibus, stipatis, liberis, 3-4 mm. latis, acie erosis; sporis anguste ellipsoideis vel fere oblongis, sæpe basi oblique truncatis, albis, granulosis, levibus, 6-8 \times 2,5-3; stipite cylindrico, æquali, carnosio, cavo, superne albo, inferne roseo, interdum bulboso, basi mycelio obvoluto; cortina plus minusve sericeo-pilosa.

Hab. in silvis Cornell Heights, Ithaca N. Y. Amer. bor.

3. **Lepiota serenula** Karst. Fungi nov. Loennb. 1904, p. 7 (Finska 12
Vetensk. Soc.). — Pileo carnosulo, molli, convexo, albo, squamis
minutis, subconcentricis, obscurioribus, subfuscentibus obsesso, levi,
circiter 9 cm. lato; stipite cylindrico æquali, glabro albo, bulbo
magno, marginato, circiter 6 cm. longo; annulo infero membra-
naceo, fixo; lamellis confertis, in collarium liberum postice con-
junctis, pallescentibus; sporis ellipsoideis.

Hab. prope Кюопо Sibiriae Aug. 1903 (O. A. F. LÖNNBOHM).

4. **Lepiota nigro-marginata** Masee Eur. Fung. Fl. pag. 10, Trans. 13
British Mycol. Soc. 1903-1904, pag. 61. — Pileo campanulato-ex-
panso, subumbonato, squamoso; squamis umbrinis, infra subochra-
ceis; stipite cavo, sursum attenuato, glabro, ex albo salmonicolore;
annulo distanti, persistente, membranaceo, albo; lamellis antice
lterioribus, albidis, acie atro-umbrina; carne tenui, 5-6 cm. lat.,
3-4 mm. cr.; sporis

Hab. in graminosis, Scarborough Britanniae (W. G. SMITH).

5. **Lepiota discipes** P. Henn. in Engl. Bot. Jahrb. 1901, p. 56, Syll. 14
XVI, p. 1110 (nomen). — Pileo carnosulo, ex ovoideo campanulato
dein explanato, umbonato, flavo, squamis brunneolis adpressis ve-
stito, umbone obscuriori, 5-7 cm. diam; stipite farcto, cylindra-
ceo, pallido, fibroso, annulo membranaceo albido ornato, 10-18 cm.
longo, 8-15 mm. crasso, basi clavato, discoideo usque ad 2,5 cm.
cr.; lamellis liberis, confertis, pallidis; sporis globosis 3,5-4 hyalinis.

Hab. ad truncos emortuos, Kamerun Afr.

6. **Lepiota psalliotoides** P. Henn. in Abhandl. Bot. Ver. Brandenb. 15
1902, p. 177. — Pileo carnosulo, initio ovoideo, dein hemisphærico,
convexo, levi nec squamoso v. floccoso, pure albo, tactu flavo-
maculato, margine acuto, levi, rarius tomentello, 3-7 cm diam.;
stipite cavo-medullato, cylindraceo, deorsum clavato, albo, levi,
glabro, annulo coriaceo-membranaceo persistente prædito, 3-6 cm.
alt., 5-12 mm. cr.; lamellis liberis, confertis, 2-4 mm. latis, albis,
dein roseis, demum fuscescentibus; sporis albo-hyalinis, ovoideis,
1-2-guttatis, 6-9 \approx 5-6, siccis rubidis.

Hab. in herbosis post pluvias, majo-sept. in horto botanico
Dahlem Germaniae. — Caro alba, sapida, inodora. Nisi sporæ albæ,
videretur *Annulariæ* species.

7. **Lepiota atro-crocea** W. G. Smith, Trans. British Mycol. Soc. 1903- 16
1904, pag. 62. — Pileo expanso, leviter depresso, læte aurantio-
salmonicolori, flocculis purpureo-brunneis v. nigricantibus granu-

losis plus minus consperso; stipite cavo, sursum tenuato, aurantio-salmoneo, brunneo-salmoneo-squamuloso; annulo fugaci; lamellis late adnatis, salmoneo-albis; carne tenui, aurantio-salmoneo-brunnea, $4 \approx 3 \approx 0,3$; sporis

Hab. ad terram Clevedon, Somerset Britannia. — Affinis *L. granulata* et *L. amianthinæ*.

8. **Lepiota Henningsiana** Sacc. et Dom. Sacc. *Lepiota pulveracea* P. 17
Henn. in Engl. Bot. Jahrb. 1901, p. 56. — Syll. XVI, p. 1110 (nomen), nec Peck (1900). — Pileo carnoso, hemisphærico-campanulato, subumbonato, squamuloso, farinaceo albo, margine substriato, 4-7 cm. diam.; stipite fistuloso, tereti, squamuloso, farinaceo-albo, superne attenuato, basi incrassato; annulo membranaceo secedente, albo; lamellis liberis, confertis, integris; sporis ovoideo-ellipsoideis, hyalinis, episporio subincarnescente, basi oblique apiculatis, 7-10 \approx 5-6.

Hab. ad truncos emortuos, Kamerun Afr.

9. **Lepiota Hetieri** Boud. in Bull. Soc. Myc. de France 1902, n. 2, 18
t. 6, f. 1. — 3-6 cm. alta; pileo subcarnoso 1,5-3,5 cm. lato, primo albo, dein tactu v. ætate leviter rufo-ferruginescente, convexo, dein applanato, late umbonato, minute pulverulento-granuloso, margine flocculis appendiculato; stipite albido, infra anulum sæpe evanescentem flocculoso-fibrilloso et colore ferruginescente saturatiore tincto; lamellis adnato-liberis, albis, rubro-maculatis, postice non annulatim junctis; carne alba plus minusve colore externo tinctâ, cum stipite non continua; sporis oblongis intus granuloso-nebulosis, albis 6-7 \approx 2,5-3.

Hab. ad terram, in Jura Gallia (FR. HETIER).

10. **Lepiota ochroleuca** Speg. Mycet. argent. ser. I, in An. Soc. Cient. 19
Arg. 1899, p. 262. — Cæspitosa e terra erumpens; pileo primo subgloboso ochroleuco v. flavescente, minute denseque granuloso v. squarruloso-pulverulento, centro magis obscuro et sordido, levi, ambitu pallidiore et laxius pulverulento, margine stipiti adpresso atque velo connato, dein campanulato-explanato, 30-45 mm. diam., ochroleuco non v. obtuse latissimeque umbonato, carnosulo, rigidulo non striato; carne ex albo-flavescente, compactiuscula molli; lamellis, a stipite valde remotis, utrinque attenuato acutatis, medio 2 mm. latis, pallidioribus, confertis, subaridis; areola ad apicem stipitis latissima (2 mm. lat.) non marginata; stipite erecto vel flexuosulo, 50 mm. longo, pileo vix pallidiore, superne 4 mm. cr., glabro v. vix pruinuloso, ad tertium superum annulo tenuissime

membranaceo descendente mobili, facillime evanido, flavescente ornato, intus plus minusve late fistuloso, cavitate fibris albo-gossypinis farcta; sporis albis; odore farinaceo.

Hab. in umbrosis pinguibus hortorum, La Plata Argentinae. — Species non marcescens sed corrugato-arescens. *L. hiatuloidi* Speg. valde affinis, sed magis carnosa et pileo non striato.

11. **Lepiota pulveracea** Peck Rep. of the State Bot. 1900, p. 144, ²⁰
nec Henn. — Pileo hemisphærico dein convexo vel fere plano, sicco pulverulento vel minute granuloso-squamuloso, margine æquali, albido vel pallide brunneo, 2,5 cm. lato; lamellis tenuibus, stipatis, adnatis, luteo-albidis; stipite æquali, cavo, albo, superne pruinoso inferne granuloso vel squamuloso, pileo concolori, 2,5-5 cm. longo, 3-4 mm. crasso; annulo obsoleto; sporis minutis, subellipsoideis vel subglobosis $4 \approx 3$.

Hab. in silvis ad arbores dejectas, Floodwood, Amer. bor. — *L. granulosa* affinis, sed satis diversa.

12. **Lepiota brunnescens** Peck Bull. Torr. Bot. Cl. 1904, p. 177. — ²¹
Pileo tenui, convexo, v. subplano, obtuso v. umbonato, albido, cuticula mox fatiscente et granulos v. squamulas brunneolas (excepto centro pilei) formante subinde ad marginem radiatim rimulosa; carne alba, sapore dulci; lamellis confertis, ventricosis, liberis, albis; stipite æquali v. leviter basim versus incrassato, cavo, fibroso, albo, ad medium annulo exiguo sed persistenti prædito; sporis ellipsoideis, 6-8 \approx 4-5.

Hab. in silvis apertis locisque graminosis, prope St. Louis Mo Amer. bor. (N. M. GLATFELTER). — Pileus 2-3 cm. lat; stipes 3-5 cm. long., 2-4 mm. cr. *L. cristata* subaffinis.

13. **Lepiota Johnsonii** Masee Kew Bull. 1901, p. 161. — ²²
Pileo subcarnoso, e convexo expanso, flocculoso-squamuloso, lateritio, squamulis obscurioribus, 3 cm. lato; lamellis liberis, confertis, subventricosis, albis; stipite fistuloso, æquali, subflexuoso, 5 cm. longo. 2 mm. crasso, pileo concolori; annulo infero, fugaci, albido; sporis ellipsoideis, hyalinis, levibus, 8 \approx 5.

Hab. in silvulis, Alhuri, Gold Coast Africae occident. — *L. martiali* Cooke et Masee affinis.

14. **Lepiota adnatifolia** Peck Rep. of the State botanist 1901, p. 947. ²³
— Pileo tenui, centro crassiusculo, subconvexo vel fere plano, minute granuloso vel squamuloso, isabellino alutaceo vel rufo ferrugineo, margine sæpe ob residua cortinae, appendiculato, 2,5-6 cm. lato; carne alba; lamellis tenuibus, stipatis, adnatis, albis; stipite

basi subincrassato, firmo, farcto, dein maturitate cavo, glabro vel superne subsquamuloso, pallido vel subrufescenti 2,5-3,5 cm. longo, 4-8 mm. crasso; annulo tenui evanido; sporis 5-6 \times 3,5-5.

Hab. ad terram sub Coniferis, Bolton et Hague, Amer. bor. — Ad *Armillariam* vergit.

15. **Lepiota Glatfelteri** Peck Bull. Torr. Bot. Cl. 1904, p. 177. — 24

Pileo tenui convexo v. subplano, obtuso v. leviter umbonato, minute innato-fibrilloso, griseo, griseo-brunneo, subinde purpureo-tincto, centro sæpius obscuriore, margine subinde radiatim rimoso; carne alba; lamellis confertis, lanceolatis, liberis albis v. albidis; stipite æquali v. subæquali, firmo, farcto v. cavo, albido; annulo tenui, persistenti; sporis late ellipsoideis, 6-8 \times 4-5.

Hab. ad terram in silvis pr. St. Louis Mo Amer. bor. (N. M. GLATFELTER). — Pileus 2,5-5 cm. lat.; stipes 4-5 cm. long., 2-4 mm. cr.

16. **Lepiota mammosa** P. Henn. F. Indiæ or. II, in Hedw. 1901, 25

p. 335. — Pileo carnosulo, campanulato expanso, centro mammoso-apiculato, brunneolo, radiatim striato dein rimosoque, pallido-brunneo, zebrino, 2-5 cm. diam.; stipite tereti, fistuloso, gracili, levi, glabro, albido, subradicato, 3-8 cm. longo, 2-3 cm. cr., annulo membranaceo fugaci; lamellis liberis, confertis, ventricosis ca. 2 mm. latis utrinque obtusis, pallide cremeis; sporis ellipsoideis 1-guttulatis, 5-6 \times 4-5, hyalinis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

17. **Lepiota eriophora** Peck Bull. Torr. Bot. Cl. 1903, p. 95. — Pileo 26

tenui sicco, late convexo v. subplano, dense squamoso, squamis compactiusculis, brunneis, subinde lanuginosis; carne alba; lamellis tenuibus, angustis, confertis, liberis, albidis, senio v. siccitate fusciscentibus; stipite æquali, cavo, tomento brunneo vestito; sporis minutis 4 \times 2-2,5, sæpe in massulas conglobatis et tunc subangulosis.

Hab. ad terram, West Virginia Amer. bor. (C. G. LLOYD). — Pileus 2,5 cm. lat., stipes 2-3 cm. long., 2-3 mm. cr. Affinis *L. felinæ* et *L. fusc squameæ*.

18. **Lepiota ecitodora** Atkinson in Journ. of Mycol. 1902, p. 115. — 27

— Pileo convexo, cæruleo-cæsi, minute verrucoso 2 cm. lato; carne alba tenui; lamellis 3 mm. latis antice angustatis, postice rotundatis, albis luteoque tinctis; basidiis clavatis tetrasporis 25-28 \times 6-7; cystidiis nullis; sporis cylindræis, levibus 9-11 \times 2-2,5; subhymenio e cellulis 4-10 μ . diam. composito; stipite basi acumi-

nato intense brunneo, superne albo-pruinoso, 4 cm. alto; annulo pulverulento, evanescenti; carne alba minuscula, odore fœtido, formicino (*eciton ants*).

Hab. ad terram in silvis Cascadilla, Ithaca, N. Y., Amer. bor. (C. O. SMITH).

19. **Lepiota purpureoconia** Atkinson in Journ. of Mycol. 1902, p. 116. 25

— Sparsa 4-5 cm. alta; pileo convexo 1-2 cm. lato, tenui, albido, in juventute squamulis (veli) lilacino-purpureis vestito; lamellis latis, albis firmis, rotundatis, stipatis sed liberis, subdistantibus; sporis ellipsoideis, levibus, albis, 8-10 \approx 3-4; stipite æquali lilacino purpureo, solido, carnosio, supra anulum squamulis albis vestito 3-4 mm. diam.; annulo evanescenti, ex residuo cortinæ universalis; carne alba, luteo-tincta.

Hab. in silvis, ad terram, Ithaca Flats N. Y. Amer. bor. (C. O. SMITH).

20. **Lepiota rufidula** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 29

Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 129.

— Pileo carnosulo, e campanulato expanso-gibboso vel umbonato, castaneo, cute mox in squamas concolores in fundo rufidulo rupta, 1-2 cm. lato; lamellis subconfertis adnexo-secedentibus, albis, demum pallide rufis; stipite fistuloso, a basi subattenuato, supra anulum glabro vel subpruinato, pallido, striato, sub annulo rufo-castaneo, squamis floccosis, demum evanidis ornato, 2,5-3,5 cm. longo, 2 mm. circ. crasso; annulo infero floccoso, fugaci; basidiis clavatis 20-25 \approx 5-6; sporis oblongo-subamygdaliformibus, lateraliter apiculatis 12-15 \approx 5, hyalinis.

Hab. ad terram prope Setubal Lusitaniæ. -- *Lepiota castaneæ* Quéf. proxima, a qua sporis majoribus, colore magis rufidulo et lamellis primitus adnexis distinguitur.

SCHULZERIA Bres. — Syll. IX p. 72, XI p. 7, XIV p. 69.

1. **Schulzeria Grangei** Eyre Brit. Mycol. Soc. 1903, pag. 37, 1904, 30

tab. V, f. 1. — Pileo applanato-umbonato, atro-viridi, in squamas fibrosas subtus albas diffracto, 2,5-4 cm. lato; stipite cylindraceo, pileo concolore pariterque squamuloso; lamellis medio latioribus, subliberis, ex albo alutaceis, minute denticulatis sporis clavato-oblongis, basi apiculatis, minute pluri-guttulatis, hyalinis, 12-13 \approx 4-5.

Hab. ad terram inter folia faginea, autumnno, Swarraton Rectory Wood, Britannia. — *Schulzeria squamigeræ* affinis.

2. **Schulzeria lycoperdoides** Cooke et Masee, Trans. British Mycol. Soc. 1902, p. 13. — Pileo convexo, dein expanso, molli, castaneo, verrucis pyramidatis saturatoribus sæpe basi diffractis consperso (quasi *Lycoperdon*), margine appendiculato; stipite æquali, solido, minute fibrilloso, albido; lamellis satis confertis, liberis, albis; sporis ovoideis, $5 \approx 4$.

Hab. ad terram inter Cedros, Kew Britannia. — Pileus 3-4 cm. lat.; stipes 5 cm. long.

TRICHOLOMA F. — Syll. V p. 87, IX p. 13, XI p. 8, XIV p. 71, XVI p. 20.

1. **Tricholoma niveipes** Peck in the Torr. Bot. Club 1902, p. 69. — Pileo initio hemisphærico vel convexo, dein subconvexo vel fere plano, sicco fibrilloso, subvirgato, intense brunneo vel griseo-brunneo, 5-12 cm. lato; carne alba; lamellis confertiusculis, adnatis, sinuatis, niveo-albis; stipite æquali, solido, pleno, albo niveo, 5-7 cm. longo, 6-12 mm. crasso; sporis oblongis $7-8 \approx 3$.

Hab. ad terram inter acus Coniferarum, South Yarmouth, Massac., Amer. bor. (S. DAVIS).

2. **Tricholoma argyropotamicum** Speg. Mycet. Arg. ser. I, in An. Soc. Cient. Arg. 1899, p. 263. — Pileo hemisphærico convexo 45-50 mm. diam., carnosus, cute sicca flocculosa cinerescens centro reticulato-diffracta, ceterum subsquamulosa, ambitu nuda alba, margine (1 mm.) lamellas excedente tecto; carne alba, compacta, sapore terreo dulci-acri; lamellis 6 mm. alt., relaxatis, rigidulo-fragilibus, acie integerrimis, antice acutato-rotundatis, postice sinuato-adnatis; stipite 50 mm. longo, tereti, apice leniter incrassato 8 mm. cr., ima basi attenuato-obtusato (5 mm. cr.), farcto, carnosofibroso, intus albo, medio subannulato, extus superne levi, subnitente, infra minute squamuloso v. furfurello ac fusciscente, sub parte inflata fibrilloso-striato ac flavescens; sporis

Hab. ad terram denudatam pinguem, La Plata Argentina.

3. **Tricholoma terreum** Schaeff. — Syll. V, p. 104. -- var. **ætnense** Bacc. in Scalia Fungi Sicil. Orient. serie I, 1900, p. 19. — Cæspitosum; pileo fuligineo-sericeo, margine involuto, primitus subrotundo dein conico-umbonato, postea magis explanato; stipite centrali, albido, fibrilloso; lamellis nec decurrentibus nec constanter crenulatis; odore tenui farinaceo.

Hab. ad terram, Pedara, prope Cataniam Sicilia.

4. **Tricholoma radicum** Peck in Rep. of the State Botanist, 1902, 35

p. 22, tab. 82, fig. 15-19. — Pileo carnosio, firmo, convexo, sicco, minute sericeo-fibrilloso vel obscure fibrilloso-squamuloso, sæpe lucenti, pallide griseo-brunneo, centro rufo-brunneo tincto, margine tenui, 5-7,5 cm. lato; carne alba, sapore ingrato; lamellis tenuibus, stipatis, emarginatis, adnatis, subdecurrentibus, albis; stipite firmo, subæquali, cavo, subfibrilloso, distincte radicato, albo, 3,5-10 cm. alto, 6-10 mm. crasso; sporis subellipsoideis 5-6 \times 4-5.

Hab. in silvis Coniferarum, North Elba, Amer. bor.

5. **Tricholoma bisontinum** Rolland in Bull. Soc. myc. de France 1901, 36 tab. I. — Pileo pulvinateo, carnosio, cuticula crassa, rigida, brunnea, subvirente, fibrillis minutissimis, adpressis virgata, margine inflexo et fragili; stipite solido, deorsum attenuato, intus farcto, extus rigido, fibrilloso striato, sursum granulis minimis, obscuris punctato, ad summum lutescente, ad inferam partem albido et serius leviter rubescente; lamellis subdistantibus, sinuatis, integris 500 μ . et ultra crassis, fragilibus, cinereis, transverse venis planis, plus minus ramosis, distinctis conjunctis; sporis hyalinis, ovoidis, crasse virgulæformibus, guttula magna donatis, circiter 10-12 \times 6.

Hab. in regionibus juranis, Besançon Galliæ. — Caro albida, in pileo sericea, firma, in stipite floccosa, prope cuticulam lutescens, farinam redolens. — A *Tr. murinaceo* sporis multo minoribus, granulosis, magis rotundatis differt.

6. **Tricholoma rimosum** Peck in Rep. of the State Botanist, 1901, 37 p. 947. — Pileo carnosio, convexo, dein fere plano, sæpe margine rimoso, glabro, hygrophano, brunneo-lucenti, in sicco pallido 2,5-4 cm. diam.; carne brunnea, in sicco albida, sapore farinaceo; lamellis tenuibus, constrictis, stipatis, rotundatis, adnatis, acie irregularibus, albidis vel subcinereis; stipite subæquali, sericeo-fibrilloso, cavo, albido 2,5-5 cm. longo, 3-5 mm. crasso; sporis ellipsoideis 7,5-9 \times 4-5.

Hab. in silvis, Bolton Amer. bor.

7. **Tricholoma panæolum** Fr. — Syll. V, p. 132. — var. **deserticola** 38 Speg. in Ann. Soc. Cient. Arg. 1899, p. 274.

Hab. in pratis editioribus prope Choiquelánen, Chubut Patagoniæ (N. ILLIN). — Varietas cum typo habitu, statura, contextu plane conveniens, tamen sporis conspicue majoribus 9-11 \times 4-6, sat recedens.

8. **Tricholoma viscosum** Peck Bull. Torr. Bot. Cl. 1904, p. 178. — 39 Pileo carnosio, convexo, margine irregulariter undulato, sæpe senio

sursum involuto, glutinoso, levi, sicco lucenti, flavido-fulvo, centro obscuriore v. rubenti-brunneo; carne alba, odore levi sed ingrato; lamellis angustis, confertis, subliberis, albis; stipite firmo, æquali, solido, flexuoso, glutinoso, sursum albo, deorsum brunneolo; sporis minutis, subglobosis, 3-4 μ . diam.

Hab. ad terram pr. St. Louis Mo. Amer. bor. (N. M. GLATFELTER). — Pileus 2-5 cm. lat; stipes 2,5-4 cm. long., 4-5 cm. cr.

9. **Tricholoma humile** (Fr.) Quél. — Syll. Fung. V, p. 136, — var. 40
bulbosum Peck in Ricker Prel. List Maine Fungi, Orono, 1902, p. 61. — A typo differt stipite basi bulboso.

Hab. ad terram, Orono Amer. bor.

10. **Tricholoma Spegazzinii** Sacc. et D. Sacc., *Trichotoma humile* Speg. 41
Mycetes argent. ser. II, 1902, p. 49, nec Fr. — Pileo convexo-plano 20-40 mm. diam. pallide e cinereo avellaneo, centro non vel obsoletissime subumbonato obscuriore, levi, glabro intus carnosulo albo; carne 2-3 mm. cr. parum succosa; lamellis polymacriis antice attenuato-acutatis, postice sinuato-adnatis 4-5 mm. alt., membranaceis, acie integerrimis, albidis, confertis; stipite brevi, centrali, cylindrico, erecto, superne glabro, inferne tenuiter albo-pulverulento 10-15 mm. long., 3-5 mm. cr.; sporis elliptico-ovatis 7-8 \approx 3,5-4, obsolete rugulosis, inferne inæquilateraliter acutatis; cystidiis parce clavulatis, obtusis 20-24 \approx 12-14, hyalinis, levibus.

Hab. in pratis pinguibus herbosis circa S. Catalina pr. Buenos Aires in Argentina

CLITOCYBE Fr. — Syll. V pag. 141, IX p. 18, XI pag. 13, XIV p. 74, XVI, p. 23.

1. **Clitocybe tortilis** Bolt. — Syll. V, p. 198. — var. **gracilis** Peck in 42
Rep. of the State Botanist 1902, p. 36. — Pileo exili 6-12 cm. lato, convexo vel subumbilicato, dein centro depresso vel infundibuliformi, irregulari, margine striato, carne rubra, in sicco pallidiori; lamellis latis, distantibus, adnatis vel decurrentibus, pruinosis; stipite filiformi, firmo, glabro, spongioso, cavo, 12-20 mm. longo, 2 mm. crasso.

Hab. gregaria ad terram in horto botanico New York Americæ borealis.

2. **Clitocybe piceina** Peck Bull. Torr. Bot. Cl. 1904, p. 178. — Pileo 43
carnoso, convexo v. subplano, sicco, albo v. albido, juniore griseo-tincto; carne compacta, alba, sapore acri, odore forti ingrato; lamellis confertis, decurrentibus v. interdum, per stipitem longe de-

currentibus, albo-cremeis; stipite æquali v. subæquali, firmo, obtuso, solido, subfibroso, sæpe apice lineis elevatis striato; sporis, 5-6 μ . diam.

Hab. sub Piceis pr. Chicago Amer. bor. (W. S. MOFFAT et L. H. WATSON). — Pileus 6-10 cm. lat.; stipes 5-7 cm. long., 12-18 mm. cr. *C. cerussatæ* et *C. albissimæ* affinis.

3. **Clitocybe marginata** Peck Bull. Torr. Bot. Club. 1902, XXIX, 44 p. 558. — Pileo carnosulo, crassiusculo, subcampanulato, dein convexo, obtuso, v. late umbonato, glabro v. subglabro, sicco, badio-fulvescente, margine primitus involuto; carne flava; lamellis angustis, confertis, decurrentibus, acie rubentibus; stipite subæquali, obtuso, cavo, glabro, nitido, flavido, lineis rubescentibus longitudinalibus notato; sporis subglobosis, 5 \approx 4-5.

Hab. ad truncos emortuos, cæspitose, Mt. Desert Maine Amer. bor. — Pileus 5-8 cm. lat.; stipes 5-8 cm. long., 6-12 mm. cr. In subsect. II *Disciformium* locanda species distinctissima.

4. **Clitocybe bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 45 Syll. XVI, p. 1111 (nomen). — Pileo carnosulo hemisphærico-convexo, centro depresso-umbilicato v. subinfundibuliformi, albido, pruinoso, 2-5 cm. diam., glabro; stipite farcto, cylindræo v. compresso velutino-pruinoso, 4-6 cm. longo, 4 mm. 1 cm. crasso; lamellis decurrentibus, subconfertis, angustis 0,5-0,9 mm. latis, albidis, flexuosis; sporis ovoideis v. subglobosis 3,5-4 μ . diam. hyalinis.

Hab. ad folia putrida, Kamerun Afr.

5. **Clitocybe regularis** Peck in Rep. of the State Botanist, 1901, p. 948, 46 tab. K, fig. 1-7. — Pileo exili 2,5-6 cm. lato, flexuoso, subconvexo dein subplano, sæpe centro subdepresso, orbiculari, regulari albido, in sicco albo; carne alba, sapore grato; lamellis tenuibus, constrictis, stipatis, decurrentibus, albidis; stipite firmo 2,5 cm. longo, 3-5 mm. crasso, æquali, glabro, solido, raro lacunosulo, albido, basi spongioso; sporis minutis 5 \approx 2,5-3.

Hab. ad terram in foliis dejectis, in silvis, Bolton, America borealis.

6. **Clitocybe subconcava** Peck in Rep. of the State Botanist, 1901, 47 p. 948, tab. K, fig. 8-13. — Pileo exili 2,5-5 cm. lato, profunde umbilicato, glabro, hygrophano, brunneo vel rufo-brunneo, margine incurvo striatulo, in sicco albido; lamellis arcuatis decurrentibus, stipatis, pallidis vel subcinereis; stipite æquali, firmo, solido, sæpe lacunoso, subfibrilloso, pileo concolori 2,5-5 cm. longo, 3-4 mm. crasso; sporis minutis 5-5,8 \approx 2,5-3.

Hab. in silvis Coniferarum, Bolton, Amer. bor. — *C. concavæ*, *C. cyathiformi*, *C. expallenti* affinis sed satis distincta.

7. **Clitocybe popinalis** (Fr.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 66, *Agaricus popinalis* Fr. Syst. Myc. I, p. 194, *Agaricus Amarella* Pers. Myc. Europ. 3, p. 99, *Clitocybe senilis* Fr. Ic. Sel. tab. 56, f. 1, Hymen. Europ. p. 98, Syll. V, p. 174.

Hab. ad folia decidua *Quercus*, augusto-octobri, Polonia. — Sporæ in cumulo luride carneæ, sed sub microscopio prorsus hyalinae, subglobosæ, episporio punctato-scabro, $4\frac{1}{2}$ -5 \approx 4-4 $\frac{1}{2}$. Species hæc mihi frequens obvia in silvis coniferis, frondosis et pratis vix dubie *Clitocybes* sp., nec *Clitopilis* affinis. *Clitocybe senilis* Fr. ejus statum vetustum sistit (Bres. l. c.).

8. **Clitocybe dealbata** Sow. — Syll. V, pag. 157. — var. **deformata** 48 Peck in Rep. of the State Botanist, 1902, p. 35. — Pileo exili, valde irregulari convexo vel centro depresso, margine undulato-lobato; hymenio interdum in superficie pilei fere dædaloideo et circumcirca lamellato, albo niveo; lamellis adnatis, subdecurrentibus transverse ramosis v. anastomosantibus, albidis; carne albida, sapore farinaceo; stipite irregulari, interdum compresso, plus minusve basi confluenti, cavo vel farcto, albo, basi tomentoso-lanuginoso; sporis subglobosis 3-3,5 μ . diam.

Hab. in calidariis, Newark, Amer. bor.

9. **Clitocybe? castanicola** Bacc. in Scalia, Fungi Sic. orient. ser. I, 49 1900, p. 19. — Pileo carnoso, conico-depresso, umbonato, margine involuto, primum fere circinato; trama stipitis cum trama pilei continua; carne primum albido-straminea dein cærulescente-testacea; stipite farcto; lamellis undulatis, crenatis, sulphureis, decurrentibus, inæqualibus, dein cum carne concoloribus.

Hab. ad terram, Pedara prope Catanam Siciliæ.

10. **Clitocybe centralis** Peck Rep. of the State Bot. 1899, p. 841, 50 tab. C, fig. 16-20. — Pileo tenui 12-30 mm. lato, subconvexo v. subplano, parce umbilicato, glabro, hygrophano, pallide griseo-brunneo et margine substriatulo, centro brunneo, in sicco griseo-albido; carne albida; sapore odoreque farinaceo; lamellis constrictis, stipiti adnatis vel subdecurrentibus, albidis; stipite brevi 2, 5-3,5 cm. longo, 2-4 mm. crasso, æquali, farcto vel cavo, fibroso, pileo concolori; sporis minutis, ellipticis, 6 \approx 3.

Hab. ad terram inter folia dejecta Essex et Warren Americæ borealis.

11. **Clitocybe pumila** (Fayod) Sacc. et D. Sacc. *Laccaria pumila* Fayod 51

in Ann. R. Acc. d' Agric. Torino 1893, p. 91. — Pileo pelliculoso, primo campanulato 5 mm. lato, dein applanato, centro depresso, undulato, radiatim striato, 1-1,5 cm. lato, udo lateritio-carneo (mahagonicolore) centro saturatiore, subsiccio ochraceo; lamellis adnexas, submarginatis, carneis; stipite 1,5 mm. cr., sursum incrassato, in pileum expanso, 2 cm. longo, flexuoso, fistuloso, concolore, basi gossypino, albo; basidiis 2-sterigmaticis haud emergentibus; cystidiis curtis clavato-globosis; sporis sphaericis echinulatis, 12-18 μ . diam.

Hab. catervatim ad terram arenosam, locis humidis, pr. Terra-Pellice in alpibus Pedemontii. — Elegantissima species.

12. **Clitocybe cyanea** Rick in Ann. Mycol. 1904, p. 244. — Cæspitosa; pileo subinfundibuliformi, vagis minimis striato, pulcre cyaneo, 3 cm. lato; stipite cylindrico, 5 cm. alto, 4 mm. cr., torto, striato, cyaneo, apicem versus albide consperso; lamellis confertis, inæqualibus, angustis, albis, subdecurrentibus; sporis polygonalibus 2 μ . diam.; mycelio albo cæspites circumtegente.

Hab. ligna terram spectantia, Sao Leopoldo Brasiliæ. — Videtur affinis *C. cyanophææ*.

13. **Clitocybe paulensis** P. Henn. F. S. Paul. III in Hedw. 1904, p. 204. — Pileo carnosulo, infundibuliformi, aurantiaco, levi, glabro v. margine striatulo, 1-2 cm diam.; stipite subfarcto, tereti, subflexuoso, cinereo-incarnato, substriato, pruinoso, 2,5-3 cm. longo, 1,5 mm. cr.; lamellis longe decurrentibus, confertissimis, angustis, flavidis; sporis globosis 1-guttulatis, hyalinis, 4-5 μ . diam.

Hab. ad terram, Penha da Franca, S. Paulo Brasiliæ. — *Cl. inversæ* proxima, sed vix carnosula.

14. **Clitocybe parasitica** Wilcox, Oklahoma Agr. Exp. Stat. Bull. 1901, n. 49. — Pileo carnosulo fortiter convexo, dein umbonato, demum plano-depresso, melleo demum flavido rubello, centro squamis minutis verrucisque concoloribus consperso; margine valde involuto dein sensim horizontaliter sursumque leniter verso, maturitate sæpe radiatim fisso; stipite solido, sinuoso, basim verso leniter tenuato, imaque basi non incrassato, glabro sed vulgo ob cutem diffractam squarruloso; lamellis æqualiter decurrentibus, remotis, numero 80-125, e roseo-albis demum flavido-brunneo tinctis v. uniformiter carneis; sporis ellipsoideis v. subsphaericis, 6,4-7,4 \approx 5,6-6, albis.

Hab. cæspitose ad truncorum vivorum, denique mortuorum basim Persicæ, Cerasi, Mali, Quercus in Oklahoma, Amer. bor. — Pileus 7-8 cm. lat.; stipes 12-15 cm. alt., 0,5-1 cm. cr.

Fungus generat sub terra *Rhizomorpham* albo-roseam demum nigrescentem, noctu phosphorescentem arboribus valde noxiam, æque ac *Armillaria mellea*. Affinis videtur *Cl. monadelphæ*.

COLLYBIA Fr. — Syll. V p. 200, IX p. 27, XI p. 17, XIV p. 77, XVI p. 25.

1. **Collybia subclavata** W. G. Smith, Trans. Brit. Mycol. Soc. 1902, 55 p. 14. — Pileo submembranaceo, firmo, campanulato, obtuso, sicco, floccoso, opaco, brunneo, 7 cm. alt., 10 cm. lat.; stipite elongato, cavo, sat gracili, sursum leviter tenuato, basi præmorso, flocculoso, pallide brunneo, 16 cm. long., 6-9 mm. cr.; lamellis adnatis, distantibus, latissimis, 15 mm., albis; sporis

Hab. inter truncos in silvis, Epping Britannia.

2. **Collybia Henriettæ** (W. G. Sm.) Sacc. *Agaricus Henriettæ* W. G. 56 Smith in Journ. of Bot. 1903, p. 139. — Pileo sicco, plano, tenuiter lanuginoso, flavido-umbrino, 10 cm. lat.; stipite sursum tenuato, subpruinoso, levi, leviter radiculoso, intus et extus pallide flavido-brunneo, 18 cm. longo, 5-6 mm. cr.; lamellis distantibus, late adnatis sinuatisque, 15 mm. cr.; sporis 12-17 μ . long.; carne tenuissima.

Hab. ad truncos in Britannia, Sept. — Intermedia species inter *Collybiam radicatam* et *C. longipedem*.

3. **Collybia albidula** Pat. in Duss Enum. Champ. Guadel. 1903, p. 49. 57 — Pileo carnosio albo v. rufescente, convexo, orbiculari, plus minus sinuato, glabro, levi, 4-8 cm. lato; lamellis mollibus, albis, latis, adnatis, inæqualibus; sporis incoloribus, ovoideis, levibus, 8-10 \times 5-6; stipite centrali, tenaci, basi inflato, 5 cm. long., regulari, cylindrico, glabro.

Hab. in ligno emortuo in Guadalupa (Duss).

4. **Collybia rugosiceps** Atkinson in Journ. of Mycol. 1902, p. 112. — 58 Pileo sæpe campanulato, firmo, rugoso, luteo-fuligineo, 5 cm. lato; carne alba; lamellis 6 mm. latis, distantibus, adnatis, albis; basidiis 4-sporis oblongo-clavatis, 50-65 \times 6-8; cystidiis clavato-subellipticis, longis, 100-180 \times 25-35, hyalinis; sporis obovatis vel subellipsoideis, levibus albis, 8-11 \times 7-9. stipite albo, 6-7 cm. alto, 1,5 cm. crasso, inferne brunneo, sulcato, ventricosus, spongiosus dein cavo.

Hab. ad terram in silvis South Hill, Ithaca, N. Y., Amer. bor. (C. O. SMITH). — Color et sapor subnulli.

5. **Collybia calabarensis** Syd. Ann. Mycol. 1903, p. 177, *Coll. oli-* 59

vacea Masee Kew Bull. 1901, p. 161, nec Lamb. — Pileo tenui, e convexo applanato, levi, glabro, sicco obscure olivaceo, marginem versus pallidior, 4 cm. lato; lamellis confertis, angustis, postice annexis, albidis, acie integris; stipite cylindrico cartilagineo, glabro, albo-virenti, 8 cm. longo, 6-7 mm. crasso; sporis ellipsoideis, levibus, $8 \approx 5$.

Hab. ad terram, Old Calabar Africæ occident.

6. **Collybia lachnocephala** Pat. Bull. Soc. Mycol. 1902, p. 299^{bis}. — 60

Pileo convexo plano, ochraceo, orbiculari, 2-3 cm. lato, verrucis erectis, conicis, apice conniventibus, concoloribus obsito; lamellis pallidioribus, inæqualibus, venoso-connexis; stipite cylindrico deorsum incrassato, tenaci, 5 cm. longo, 3 mm. crasso, dense tomentosovelutino, ochraceo.

Hab. ad terram?, Oubangui Africæ (DYBOWSKY). — *C. rheicolori* Bk. et *C. cayennensi* Mtg. affinis.

7. **Collybia umbonata** Peck Bull. Torr. Bot. Cl. 1904, p. 178. — Pi- 61

leo tenui, conico demum convexo v. subplano, margine deflexo, elate umbonato, glabro, badio-rubro v. castaneo, subinde centro obscuriore; lamellis numerosis subdistantibus, postice tenuatis, subliberis, albidis; stipite longiusculo, glabro, æquali v. sursum leniter tenuato, cavo, radicato, pileo concolori v. paullo dilutiori; sporis minutis, ellipsoideis, $6 \ 8 \approx 4-5$.

Hab. ad truncos vetustos *redwood* (*Sequoja?* *Ceanothus?*), California (W. R. DUDLEY et E. B. COPELAND). — Affinis *C. radicatae*. Pars radicata stipitis subinde partem exertam æquat. — Pileus 2-3 cm. lat.; stipes 5-15 cm. long., 4-6 mm. cr.

8. **Collybia sulphurea** P. Henn, in Engl. Bot. Jahrb. 1901, p. 56. — 62

Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo-carnosulo, campanulato-convexo, levi, glabro, sulphureo vel jove pluvio subaurantiaco, 2-3,5 cm. diam.; stipite farcto, tenaci, tereti, æquali, concolori, glabro 2,5-3,5 cm. longo, 1,5-2 mm. crasso, basi albidobyssaceo; lamellis adnatis, confertis, angustis, sulphureis; sporis subgloboso-ellipsoideis, $3-3,5 \approx 3$, hyalinis, levibus.

Hab. in ligno putri, Kamerun Afr.

9. **Collybia badia** QuéL., Assoc. franç. p. l'Avanc. Scienc. 1901, II 63

partie p. 494, tab. III, f. 2. — Pileo convexo, orbiculato, 2-3 cm. lat. minute tomentoso, pallide badio; carne tenui, alba, dein margine rosea; lamellis sinuatis, confertis, ventricosis, albis; stipite fistuloso, gracili, flocculoso; sporis ovoideis basi apiculatis (lacrimæformibus), 8 μ . long. hyalinis.

Hab. in silvis Pini silvestris prope Parisios et in Normandia, autumnno (BOUDIER). — Affinis *C. pullæ*.

10. **Collybia cyanocephala** Pat. Champ. de la Guadel. ser. III, in 64
Bull. Soc. Myc de France t. XVIII, 1902, p. 171. — Pileo car-
noso convexo, orbiculari, levi, intense azureo, 2-2,5 cm. lat.; la-
mellis remotiusculis, latis, adnatis, intermixtis brevioribus, pileo
concoloribus sed paullo saturatoribus; stipite centrali, farcto, cy-
lindraco, albido sursum cyaneo, tenaci, 5-7 cm. longo, levi, gla-
bro; sporis hyalinis, subglobosis, levibus, $6 \approx 5$.

Hab. ad terram in Guadalupa (Duss). — Colore pulvere cyaneo
mox dignoscitur.

11. **Collybia confluens** Pers. -- Syll. V, p. 222. — var. **campanulata** 65
Peck in Rep. of the State Botanist, 1901, p. 963. — Pileo cam-
panulato 2,5-7,5 cm. lato; lamellis stipiteque albidis vel subci-
nereis.

Hab. in silvis, Bolton, Amer. bor. — Pilei in circulum dispo-
siti, sæpe dense stipati.

12. **Collybia irrorata** Pat. in Duss Enum. Champ. Guadel. 1903, 66
p. 49. — Pileo carnosio, convexo-rotundato, brunneolo, margine
striolato, præcipue in regione media pilis incoloribus, mollibus,
adpressis pruina albam formantibus vestito; lamellis albidis, bre-
vioribus intermixtis; cystidiis copiosis eminentibus incoloribus, cy-
lindracois, apice tenuatis obtusisve, crasse tunicatis et sæpe incru-
statis, $50-70 \approx 15-20$; sporis albis, ovoideis, levibus, $6-7 \approx 4$; stipite
cylindrico, æquali, gracili, cavo, tenaci, fulvello, parce et molliter
albo-villoso.

Hab. ad ligna putrida Guareæ simplicifoliæ in silvis,
Guadalupa (Duss). — Fungus 2-5 cm. alt.; pileus 10-15 mm lat.;
stipes 1 mm. cr.

13. **Collybia ligniaria** Peck Rep. of the State Bot. 1900, p. 145. — 67
Pileo tenui, convexo vel subplano, obtuso vel umbonato, glabro,
margine striatulo, pallido vel isabellino, centro brunneolo, 16-24
mm. diam.; lamellis tenuibus, angustis, ventricosis, postice late
excavatis, subdistantibus, albis; stipite æquali 2,5-5 cm. longo, 2
mm. crasso, rigido, glabro, cavo, albido vel pallido; sporis late
ellipsoideis vel subglobosis, $7,5-8,5 \approx 6-7,5$.

Hab. in truncis dejectis, North Elba, Amer. bor. — Ad *My-
cenam* vergit.

14. **Collybia Bresadolæ** Sacc. et D. Sacc. *Collybia badia* Bres. Myc. 68
Lusitanici novi, in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati

in Roveredo, vol. VIII, 1902, p. 129 (nec Quél. 1901). — Pileo carnosulo, e convexo subexpanso, haud hygrophano nec margine striato, badio, 1,5-2,5 cm. lato; lamellis subconfertis postice sinuato-adnaxis, acie integra, luride carneolis; stipite tereti fistuloso, glabro, pileo concolori, radicato, simul cum radice 3-5 cm. longo, 2 mm. circ. cr.; carne pallide subcarneola, inodora et insipida; sporis obovatis, 6-7 \times 4; basidiis clavatis, 20-25 \times 6-7, hyalinis; trama subhymeniali cellulosa; contextu lamellarum e cellulis cylindraceis, latis conflato.

Hab. ad terram pr. Setubal Lusitaniæ.

15. **Collybia subdryophila** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, ⁶⁹ Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo carnosulo, convexo expanso, flaccido, centro obtuso v. umbilicato-depresso, gilvo-brunneo, levi, glabro, margine sæpe undulato, 1,5-3,5 cm. diam.; stipite fistuloso, compresso, levi interdum sulcato, 3-5 cm. longo, 3-5 mm. cr.; lamellis adnatis, confertis, angustis ca. 1 mm. latis, flavidis; cystidiis clavatis 20-30 \times 7-9; sporis subglobosis, hyalinis, 3-4 μ . diam.

Hab. ad truncos, Kamerun Afr.

MYCENA Fr. — Syll. V p. 251, IX p. 34, XI p. 20, XIV p. 82, XVI p. 26.

1. **Mycena fusco-purpurea** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, ⁷⁰ Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo v. carnosulo, convexo-expanso, centro depresso-umbilicato, pruinoso fusco-purpureo 2-3 cm. diam.; stipite subfistuloso, tereti curvato, striatulo 2-3 cm. longo, 2-3 mm. crasso concolori; lamellis sinuoso-adnatis interdum dente decurrentibus, subconfertis, ventricosis, acie subcrassiusculis, atro-purpureis; sporis ellipsoideis v. ovoideis, 3,5-4 \times 3-3,5 hyalinis.

Hab. in caudicibus putridis, Kamerun Afr.

2. **Mycena Arcangeliana** Bres. in Barsali Agg. Micol. Pis. in Bull. ⁷¹ bot. It. 1904, p. 78. — Cæspitosa; pileo submembranaceo e conico campanulato expanso-umbonato, ad medium striato, pallido, umbone fuscidulo, dein unicolore, 1,5-3 cm. lato; lamellis subconfertis, postice adnato uncinatis, albis, demum læte roseis; stipite tereti v. rarius compresso, glabro, nitido e fumoso-violaceo fuscidulo, fistuloso, basi radice albo-strigosa prædito, carne pallida, stipitis subcartilaginea, intus fibrosa, fuscidula, odore forti, fere carnis anatae, sapore miti; sporis obovoideis v. subglobosis, hyalinis,

6-9 \times 4,7-6, plerumque 6-7 \times 5-5,5; basidiis clavatis 25-30 \times 6,5-7,5; cellulis aciei lamellarum obovoideis apice muriculato v. scabro, tenuiter tunicatis, 30-38 \times 15-30.

Hab. ad stipitem Pritchardiæ filiferæ in horto botanico Pisano Dec. (G. ARCANGELI). — Ab affini *M. levigata* differt odore forti, lamellis demum roseis et stipite fusco.

3. **Mycena cuspidata** Masee in Bot. Tidsskrift, Copenhagen 1902, 72
vol. 24, p. 213. — Pileo e conico-campanulato subexpanso, umbone valde prominente prædito; margine undulato, striato, luteo-brunneo, centro atro-umbrino, 2-3 cm. lato; stipite fistuloso, æquali, glabro, pallido, 4-5 cm. longo; lamellis confertis, fere liberis, ventricosus, pallidis sporis 4 \times 2,5, hyalinis.

Hab. in ligno emortuo Koh Chang Noi, Siam Asiæ merid. — *M. galericulata* Fr. affinis.

4. **Mycena rugosoides** Peck in Rep. of the State Botanist, 1902, p. 22, 73
tab. M, fig. 17-34. — Pileo carnosulo sed tenui, campanulato, vulgo subumbonato, glabro, hygrophano, æquali, margine striato, in sicco pallido et irregulari, irregulariter radiato-rugoso, colore variabili 12-24 mm. lato; lamellis subdistantibus, rotundatis, stipitem versus emarginatis, adnatis, albidis v. albido-isabellinis; stipite longo, æquali, glabro, cavo, albido, radicato, basi villosulo tomentosulo rufobrunneo, 3,5-7,5 cm. longo, 1-3 mm. crasso; sporis ellipsoideis 7,5 \times 5, granulosis.

Hab. gregaria in muscosis truncisque dejectis Coniferarum, North Elba, Amer. bor.

5. **Mycena bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 74
Syll. XVI, pag. 1111 (nomen). — Pileo carnosulo-membranaceo campanulato v. subconico, cinereo, radiato, obscuriori striato, subruguloso, vertice obtuso v. subumbonato, atro, 1-3 cm. diam.; stipite tenaci, subfarcto, striato interdum torto, cinereo, 3-4 cm. longo, 3-4 mm. cr.; lamellis sinuoso-adnatis, subconfertis, lanceolatis, pallidis; sporis subglobosis levibus, 3,5-4 μ . diam., hyalinis.

Hab. ad truncos putres, Kamerun Afr.

6. **Mycena cinerea** Masee et Crossl., The Naturalist 1902, p. 1. — 75
Tota grisea vel pallide plumbea; odore intenso raphanoideo; pileo 1,5-2 cm. diam., subgibboso vel obtuso, dein expanso, margine striatulo, in sicco pallido sericeoque; lamellis adnatis, subdistantibus, margine pallidis; sporis ellipticis, levibus, albis, 8 \times 5; cystidiis fusiformibus; stipite 5-7 cm. longo, tenui, cylindrico, glabro, fistuloso, basi lanuginoso, albo.

Hab. in graminosis, Selby, Yorks, Kew, Surrey, in Britannia.
— *M. plumbeæ* Fr. affinis.

7. ***Mycena conocephala*** P. Henn. F. Indiæ or. II, in Hedw. 1901, 76
p. 334. — Cæspitosa; pileo submembranaceo, primo subovoideo
dein conico-campanulato, albido, apice conico-acuto brunneolo, ra-
diatim striato, levi, glabro 1-2 cm. diam.; stipite fistuloso, æqua-
li-tereti, levi, glabro, substriato, pallido, 2-3 cm. longo, 1 mm. cr.;
lamellis adnatis, subconfertis, subventricosis 1-1,5 mm. latis, pal-
lidis; sporis subglobosis v. ovoideo-ellipsoideis, 1-guttulatis, 5-7 \times
4-6, hyalinis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

8. ***Mycena Aschi*** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, Syll. 77
XVI, p. 1111 (nomen). — Pileo tenui membranaceo, campanu-
lato-expanso, centro subconico-papillato, radiato-striato, ca. 1 cm.
diam., albido; stipite fistuloso, gracili, levi, glabro 4-6 cm. longo,
1 mm. crasso, albo; lamellis sinuoso-adnatis, subdistantibus, lan-
ceolatis, pallidis; sporis ellipsoideis, 4-5 \times 3, hyalinis.

Hab. ad terram, Kamerun Afr.

9. ***Mycena rubidula*** Bres. Mycologia lusitanica, in Broteria vol. II, 78
1903. p. 87. *Myc. rubro-marginata* Fr. p. p.? — Pileo conico-
campanulato, membranaceo, centro umbonato, carnosulo, glabro,
striato-sulcato, rubello, margine expallido, 8-12 mm. lato; lamellis
distantibus, adnato-subuncinatis, albis, acie fuscidulo-rubella; sti-
pite pallido, fistuloso, glabro 3-4 cm. longo, 1-2 mm. cr., basi al-
bo-tomentoso-fibrilloso; basidiis clavatis 25-30 \times 7-8; sporis hya-
linis, sublimoniformibus, 7-9 \times 4,8-5,5.

Hab. ad corticem Eucalypti globuli, in Lusitania. — Spe-
cies hæc *Mycenæ rubro-marginatæ* Fr. admodum proxima, forte
hucusque cum ista confusa, nam cum eiusdem figura in Fries Icon.
sel. Tab. 78, fig. 4 bene convenit at ab hac specie, qualis a me
et etiam ab auctoribus est intellecta, satis superaue distincta
(Bres. l. c.).

10. ***Mycena illuminans*** P. Henn. Hedw. 1903, p. (309). — Pileo tenui 79
membranaceo, subcampanulato, dein convexo, pallido v. flavidulo,
medio umbilicato-depresso, viscido, obscuriori, radiatim striato pli-
catoque, 5-15 mm. diam.; stipite fistuloso, tereti, curvato, pallido,
levi, glabro, 5-12 \times 0,7-1 mm., basi bulbilloso subdiscoideo, usque
2 mm. incrassato; lamellis sinuoso-adnatis, subdistantibus, inæqui-
longis latisque medio usque 2 mm. latis, ventricosis, utrinque at-

tenuatis, pallidis v. albis; basidiis clavatis 20-25 \approx 6-8; sporis globosis levibus, 1-guttulatis, hyalinis, 6-8 μ . diam.

Hab. ad truncos Calami in horto Bogor. Javæ (VOLKENS). — Vivide phosphorescens.

11. **Mycena sphærospora** Masee in Kew Bull. 1901, p. 161. — Pi- 80
leo campanulato, sicco, levi, olivaceo, 4-6 mm. lato; lamellis annexis, angustis, subdistantibus, albido-olivaceis; stipite filiformi, basi incurvato, pileo concolori, 2-3 cm. longo; sporis hyalinis, globosis, verruculosi, 4 μ . diam.

Hab. in silvulis, Old Calabar Africæ occident.

EOMYCENELLA Atkins. Bot. Gaz. 1902, p. 36 (Etym. *eos* primitivus et *Mycena*). — Fungus stipitatus, pileatus. Pileus e campanulato expansus, imperfecte lamellatus, tenuissimus, e filamentis articulatis, ramosis, radiantibus formatus, subtus remote anguste radiatim plicato-lamellatus, lamellis stipitem non attingentibus, trama rudimentali. Basidia clavata, tetraspora. Sporæ 1-cellulares, hyalinæ. Ad *Mycenas* et *Marasmios* tenuissimos accedere videtur.

1. **Eomycenella echinocephala** Atkins. l. c. f. 1. — Tota 3-8 mm. 81
alta, candida; pileo 0,5-0,75 mm. lat., supra et margine echinato-fimbriato; stipite filiformi pilis veluti capitellatis consperso; basidiis breve clavatis 9-12 \approx 6-9; sporis obovoideo-oblongis, levibus, basi subapiculatis, 6-8 \approx 3-4, hyalinis.

Hab. in foliis emortuis Rhododendri maximi, Blowing Rock N. C. Amer. bor.

OMPHALIA Fr. — Syll. V p. 308, IX p. 41, XI p. 23, XIV p. 84.

1. **Omphalia calycinoides** P. Henn. Fungi Indiæ or. II, in Hedw. 82
1901, p. 334. — Membranacea tenuis, cæspitose fasciculata; pileo infundibuliformi, radiatim striato plicatoque albido, sicco flavido, margine subrepando, 1-2 cm. diam.; stipite fistuloso, gracili superne incrassato, subclavato, levi glabro v. substriato, e pallido brunneo, 1-1,5 cm. longo, 0,5 mm. lato; lamellis longe decurrentibus, triquetris, distantibus basi anastomosantibus usque ad 1 mm. latis, pallidis; basidiis clavatis, 18-20 \approx 6, sterigmatibus 4 subulatis; sporis subglobosis v. ellipsoideis, hyalinis, levibus 5-6 \approx 4.

Hab. ad terram v. in radicibus?, Saharanpur-Garden Indiæ orient.

2. **Omphalia sphagnophila** Peck, Harrim. Alaska Exped. Crypt. p. 47. 82
— Pileo anguste obconico et centro depresso, demum tubiformi

v. subinfundibuliformi, tenui, glabro, albido v. pallide flavo; lamellis latiusculis, distantibus, longe decurrentibus, flavis, interstitiis sæpe venosis; stipite brevi, solido v. medullato, pruinoso v. minute tomentoso, albido, basi albo-mycelioso; sporis late ellipsoideis, $6-7 \approx 4-5$.

Hab. inter Sphagna, Port Clarence Alaska (TRELEASE). — Pileus 1-2 cm. lat.; stipes 1-2 cm. long., 2-4 mm. cr. *Omph. umbelliferæ* vere affinis, a qua forma pilei junioris et lamellis longius decurrentibus distinguitur.

3. **Omphalia Arechavaletæ** Speg. Myc Arg. ser. I, in Ann. Soc. Ci- 84
cut. Argent. 1899, pag. 263. — Solitaria v. paucigregaria; pileo hemisphærico 10-15 mm. diam., convexo, carnosulo, exumbonato, centro glabro v. pulvisculo heterogeneo adperso, margine integro, in juventute subinvoluta; carne tenui flocculosa, citrina; lamellis subangustis atque subconfertiusculis, antice acutis, postice truncato-adnatis denticuloque breviter decurrentibus, primo citrinis dein nubecula ex albo-violascente velatis; stipite erecto flexuosulo, sæpius compresso sæpeque longitudinaliter grosse parceque sulcato 20-25 mm. long. 2,5-5, mm. cr., basi attenuato, apice abrupte in pileum expanso, glabro, levi, inferne citrino medio flavo, superne aurantiaco et sæpe glauco-pruinoso intus latissime fistuloso; sporis ovatis v. ellipticis, $12 \approx 6-7$, nubiloso-farctis, hyalinis.

Hab. ad terram in pratis editioribus pr. Montevideo, Uruguay.

4. **Omphalia Stuckerti** Speg. Mycet. argent. ser. II, 1902, p. 49. — 85
Pileo primo hemisphærico, leniter umbilicato dein elongato infundibulari vel subcornucopiformi 5-8 mm. long. et diam., margine semper plus minusve involuto, glabro, fulvo, testaceo v. lateritio-aurantiaco; lamellis subconfertis, non tuberculatis, anguste linearibus utrinque acutis, 5-8 mm. long. et 0,5 mm. latis, subtenuibus acie integerrimis polymacriis, deorsum sensim longeque decurrentibus pallidioribus; stipite tereti v. subcompresso fistuloso 6-12 mm. longo 0,5-1 mm. diam., pileo concolori, basi abruptiuscule subbulboso 2,5-4 mm. diam.; basidiis et cystidiis subcylindræis 16-20 $\approx 4-5$ hyalinis, levibus, sterigmatibus brevibus; sporis ovatis, apice altero obtusis, altero acutiusculis, 6-6,5 $\approx 3,5-4$, hyalinis, levibus, sæpius grosse 1-guttulatis.

Hab. ad radices superficiales Punicæ Granati, prope Cordoba in Argentina (T. STUCKERT).

5. **Omphalia Campanella** Batsch — Syll. V, p. 327. — var. **sparsa** 86
Peck in Rep. of the State Botanist. 1901, p. 964. — Pileo con-

vexo parce umbilicato interdum nigro-papillato, 8-12 mm. lato; lamellis luteis, decurrentibus, latiusculis, subdistantibus; stipite filiformi 2,5-5 cm. longo, æquali, glabro, cavo, nigro vel brunneo-nigro, basi tomentoso.

Hab. sparsa in silvis Coniferarum, ad terram, Bolton, Amer. bor.

6. **Omphalia virginalis** Quélet XIX Suppl. des Champ. de Jura e 87 des Vosges, pag. 2, planche III, fig. 4. — Pruinosa, translucida, alba; stipite capillari, 5-6 mm. long., basi inflato ibique filamentis sericeis radiantibus cincto; pileo convexo, dein applanato, 3-4 mm. lato, umbilicato, striato; lamellis arcuatis, remotis, latiusculis; sporis ovoideo-sphæricis, 8-9 μ . long., punctatis, hyalinis.

Hab. ad truncos muscosos, Jura Galliæ.

PLEUROTUS Fr. — Syll. V p. 339, IX p. 45, XI p. 24, XIV p. 88, XVI p. 36.

1. **Pleurotus lignatilis** (Pers.) Gill. — Syll. V, p. 344. — var. **albo-virens** Quél. *Omphalia lignatilis* (Pers.) Quél. var. *albo-virens* Quél., Assoc. franc. p. l'Avanc. Scienc. 1901, partie II, 1902, p. 494 tab. III, fig. 1. — Pileo convexo undulato, 4-8 cm. lat., umbilicato, pruinoso, albo; carne tenui, sapida, alba, odore farinæ; lamellis adnatis, confertis, tenuibus, undulatis, demum dentato-fimbriatis (ut in *Lentino*), albo-virentibus; stipite excentrico, farcto, tenaci, subradicante, pruinoso albo; sporis ovoideo-oblongis, 7-8 μ . longis, hyalinis.

Hab. cæspitosa ad Populos in viridario Tête-d'Or, Lyon, Gallia (M. COUVERT).

2. **Pleurotus spadiceus** Karst. Fung. nov. Loennb. 1904, p. 1 (Finska Vetensk. Soc.). — Pileo suborbiculari, plano, carnosulo, cute gelatinosa, ut videtur, marginem versus submembranaceo, confertissime pellucide striatulo siccitateque cartilagineo, glaberrimo, spadiceo, circiter 10 cm. lato; stipite excentrico, incurvo, siccitate cartilagineo, præsertim apice furfuraceo, inferne incrassato, rufescente, circiter 3 cm. longo, 1 cm. crasso; lamellis adnatis, secedentibus, confertis, albis; cystidiis nullis; sporis subsphæroideis 3-4 μ . diam.

Hab. in regione Knopioënso, Sibiria Aug. 1903 (O. A. F. LÖNNBOHM). — Ad *Pleurotum subpalmatum* proxime accedit.

3. **Pleurotus violaceo-cinerescens** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, Syll. XVI, p. 1111 (nomen). — Imbricato-cæspitosus; pileo

carnoso, excentrico, convexo-conchiformi, violaceo-cinerecente, sparse obscurius squamuloso, 3-6 cm. longo, 2-5 cm. lato, margine tenui involuto; stipite excentrico v. laterali, farcto, subtereti usque ad 4 cm. longo, 1,5 cm. crasso, cinereo-striatulo; lamellis decurrentibus, subconfertis, 1,5-2 mm. latis, albo-flavescentibus; basidiis clavatis 20-25 \times 6-8; sporis subglobosis, levibus, hyalino-flavescentibus 4,5-6 μ . diam.

Hab. in basi truncorum, Kamerun Afr.

4. **Pleurotus membranaceus** Masee in Kew Bull. 1901, p. 151. — 91
Pileo membranaceo, dimidiato, flabelliformi, margine ut plurimum lobato, albo, glabro 5-7 cm. lato; lamellis subconfertis, angustis, albis, postice decurrentibus; sporis ovato-oblongis, hyalinis 9-10 \times 5-6.

Hab. in truncis, Poona, prov. Bombay Indiæ brit. (WOODROW).

5. **Pleurotus stratosus** Atkinson in Journ. of Mycol. 1902, p. 116. 92
— Gregarius vel sæpe imbricatus; pileo sessili, late aliter brevi stipitato 2-5 cm. lato, 2-3 cm. longo, obovato vel late cuneato, margine plano, in exemplaribus majoribus crenato, viscoso, sordide albo vel pallide fulvo, minute tomentoso vel longis setulis in cæspitulos confertis, consperso, convexo vel depresso, tenui, duro, non striato; lamellis sordide albis vel maturitate pallide luteis, angustis, 1-1,5 mm., ad stipitem convergentibus, stipatis; basidiis clavatis 4-sporis 20-25 \times 4-5; cystidiis numerosis, breve lanceolato-fusoideis, hyalinis vel sordide luteolis, 45 \times 10-14; sporis ovoideis vel subglobosis, levibus, granulosis 2-3 μ . diam.

Hab. ad ligna putrida Cayuga Lake, Warner's Glen, Ithaca N. Y. Amer. bor.

6. **Pleurotus similis** Peck Rep. of the State bot. 1899, p. 841. — 93
Pileo carnoso 2,5-5 cm. diam., flexibili, spathulato, flabellato vel suborbiculari, convexo, glabro, albo vel luteo-albo; carne alba; lamellis angustis, subdistantibus, decurrentibus, basi distinctis, albis; stipite brevi, 6-12 mm. longo, 4-6 mm. crasso, glabro, basi villosa, solido, laterali vel excentrico, albo; sporis subellipticis 5-7,5 \times 3-4,2.

Hab. in truncis emortuis Ostryæ virginianæ, solitarius v. cæspitosus, West Shokan Amer. bor. — *Pl. pantoleuco* affinis.

7. **Pleurotus Eryngii** (DC.) Gill. — Syll. V, p. 347. — var. **cæspitoso-terrester** P. Henn. in Hedw. 1901, p. 98, Syll. XVI, pag. 1111 (nomen). — Plerumque cæspitosus, pileo lente carnoso, tenaci, firmo, convexo, explanato dein medio depresso, irregulari, cinereo-

rubescente, interdum subsericeo, demum rimoso subsquamulescente, margine undulato, interdum lobato-inciso, 2-8 cm. diam.; stipite subexcentrico, firmo, tereti, subclavato, pallido usque ad 4 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus subdistantibus, tenacibus, angustis, pallide flavescentibus; sporis oblongo-ellipsoideis, 1-guttulatis, hyalinis, 8-11 \approx 6, levibus.

Hab. prope Biskra, Algeria.

8. **Pleurotus macilentus** Masee in Kew Bull. 1901, p. 161. — Pileo 95
flaccido, tenuissimo, flabelliformi, margine interdum lobato, albo flavido, glabro, striato, 4-5 cm. lato; lamellis latis, subconfertis, albidis, postice abrupte attenuatis; stipite laterali, brevi, 6-8 mm. longo crassoque; sporis ellipticis 9-10 \approx 6.

Hab. in ligno emortuo, Old Calabar Africæ occident.

9. **Pleurotus Harmandi** Har. et Pat., Champ. rec. au Jap., in Bull. 96
du Mus. d'Hist. nat. 1902, n. 2, p. 131. — Sparsus v. subcæspitosus, primitus clausus et subglobosus, sessilis, lateraliter uno puncto affixus, dein secundum æquatorium circumscissus, parte superiori in pileum antice liberum postice indehiscentem abeunte, parte inferiori tuberculiformi, limbo volviformi prædita, primitus libera, dein cum pilei margine concrenatis; pileo conchiformi, centro pallidiori depresso, integro v. sinuoso, squamoso, velutino, fulvo-brunneo, margine involuto; lamellis dilute luteis, decurrentibus, confertis, strictis, inæqualibus, simplicibus, basim versus distantibus magis venosulis, contextu carnosio, obscure luteo; basidiis 2-4-sterigmaticis, clavatis, 40-50 \approx 5-6; cystidiis apiculatis capitatisve; sporis globosis, levibus 9 μ . crassis.

Hab. in silva Chuiznipi, Tokyo Japoniæ (HARMAND).

10. **Pleurotus bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, 97
Syll. XVI, p. 1111 (nomen). — Pileo carnosio molli, flabellato v. reniformi, horizontali, sæpe lobato v. inciso-crenato, albido, pruinoso 2-4 cm. diam.; stipite laterali, late compresso, concolori ca. 5 mm. longo latoque, basi discoideo, byssino; lamellis decurrentibus latiusculis, subconfertis, inæquilongis, albidis; sporis cylindraceis, obtusis, basi oblique apiculatis, 8-10 \approx 3-3,5.

Hab. ad caudices emortuos, Kamerun Afr.

11. **Pleurotus portegnus** Speg. — Syll. V, p. 366. — var. **microsporus** 98
Speg. Myc. Arg. ser. II, 1902, p. 50. — A typo differt sporis minoribus, 6 \approx 3.

Hab. ad ramos dejectos putrescentes in silvula S. Catalina pr. Buenos Aires.

12. **Pleurotus minutus** Peck in Rep. of the State Botanist, 1901, 99 p. 949. — Pileo minuto, reniformi vel suborbiculari, dein resupinato, interdum maturitate subreflexo, sæpe centro subdepresso 2-4 mm. lato, flocculoso-pruinoso, albo, margine involuto; lamellis inæqualibus, angustis, distantibus, decurrentibus, albis v. albidis; stipite brevi, excentrico, curvo, pruinoso albido, basi tomentoso, 2 mm. longo.

Hab. in truncis emortuis Betulæ prope Loonlake, Amer. bor.

13. **Pleurotus graminicola** (Fayod) Sacc. et D. Sacc. *Pleurotellus hypnophilus* Fayod olim nec B., *Pleurotellus graminicola* Fayod Ann. Acc. d'Agr. Torino 1893, p. 90. — Perpusillus, 3-11 mm. lat., reniformis, albus, inferne subcarneus, parasiticus; pileo sessili, sub lente pubescenti, margine inflexo, in juventute subcupulari; lamellis confertis, angustis, subcarneis; subhymenio subnullo; basidiis et cystidiis claviformibus; sterigmatibus binis-quaternis; sporis sublacrimiformibus, $7 \approx 3$.

Hab. ad gramina in Pedemontio. — *Pl. craterello* et *Pl. hypnophilo* affinis.

14. **Pleurotus septicoides** P. Henn. F. Amaz. I in Hedw. 1904, p. 184. 101 — Pileo subresupinato basi affixo, sessili, tenue membranaceo, subreniformi, integro v. lobato, superne lacteo gilvescente, pruinoso, levi, basi subbyssino, 3-8 mm. diam.; lamellis radiantibus subdistantibus, inæquilongis, pallidis, in sicco alutaceis, angustis, c. 0,3 mm. latis; basidiis clavatis; sporis subglobosis hyalinis, levibus, 2,5-3,5 μ . diam.

Hab. ad ramos putres Rio Juruá, Juruá-Miry. — *Pleuroto septico* habitu proximus, sed sporæ omnino diversæ.

15. **Pleurotus rufipes** (Mass. et W. G. Smith) Sacc. et D. Sacc. *Agaricus rufipes* Mass. et Sm. in Journ. of Bot. 1903, pag. 385. 102 Pileo dimidiato v. reniformi, convexo, membranaceo, udo valde glutinoso, albo, centro salmonicolore, margine incurvato; stipite denique incurvato, viscoso-rubido, intus salmonicolore, medio albo, basi pubescente; lamellis adnatis, latis, distantibus, albis, interstitiis subroseis; sporis (non descriptis).

Hab. ad ligna in Britannia. — Pileus 3-4 mm. diam., stipes 4-5 mm. long., 0,6 mm. cr.

HYGROPHORUS Fr. — Syll. V p. 378, IX p. 52, XI p. 27, XIV p. 91, XVI p. 39.

1. **Hygrophorus** (*Limacium*) **castaneus** P. Henn. in Engl. Bot. Jahrb. 103

1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo carnosulo, convexo v. centro depresso, viscido, granuloso vel verrucoso, castaneo, margine involuto, velo viscoso, ca. 0,5-1,5 cm. diam.; stipite farcto, tereti pallide flavido, levi, glabro 1-2,5 cm. longo, 1,5-2,5 mm. cr.; lamellis adnatis, subdecurrentibus, subconfertis, arcuatis, pallide flavis; basidiis clavatis, 23-25 \approx 6-8; sporis ellipsoideis v. ovoideis, hyalinis 6-8 \approx 3,5-4.

Hab. ad ramos putres, Kamerun Afr.

2. **Hygrophorus** (*Limacium*) **glutinosus** Peck in Rep. of State Botan. 1901, pag. 950. — Pileo carnosulo, firmo, convexo glutinoso, albo, sæpe glutine luteo tincto, in sicco margine involuto, 2,5-5 cm. lato; carne alba; lamellis subdistantibus, adnatis, albis; stipite æquali, solido, albo, floccoso-tomentoso, inferne glutinoso, superne guttulis glandularibus consperso vel in sicco rubro punctulato 2,5 cm. longo, 6-8 mm. crasso; sporis 7,5-10 \approx 5-6.

Hab. ad terram in Amer. bor. — Ab *Hygr. gliocyclo* lamellis adnatis differt, ab *Hygr. eburneo*, stipite solido, superne rubro picto differt.

3. **Hygrophorus** (*Limacium*) **paludosus** Peck in the Torr. Bot. Club. 1902, p. 70. — Pileo carnosulo, convexo, obtuso verrucis luteo-brunneis dense vestito, 2-4 cm. lato; carne albida, sapore subacri, odore terreo; lamellis adnatis vel subdecurrentibus, subdistantibus, albidis, in vetustate griseo-luteo zonatis; stipite subæquali, longiusculo, flexuoso, basi subcurvulo, solido, glutinoso, albo, superne punctis luteis notato, in sicco longitudinaliter brunneo striato-fibroso, 5-10 cm. longo, 4-8 mm. crasso; sporis albis, subellipticis 8-10 \approx 5-7.

Hab. ad terram turfosam, inter muscos, Greenville, Mich., Amer. bor. (B. O. LONGYEAR).

4. **Hygrophorus** (*Limacium*) **Peckii** Atkinson in Journ. of Mycol. 1902, p. 114. — Gregarius vel sparsus, 6-10 cm. alt.; pileo convexo, margine sæpe curvulo, dein expanso depressoque vel subumbilicato fulvo vel fulvo-vinoso, 1-2,5 cm. lato, viscido, interdum griseolo, margine rubro-striato; lamellis latis, albis, stipitem versus luteolis, distantibus, arcuatis, decurrentibus; sporis ellipsoideis, subinæquilateralibus, levibus, granulosis 6-8 \approx 4-5; stipite 2-4 mm. crasso, fragili, cavo, sæpe longitudinaliter fisso, odore fœtido.

Hab. in silvis, Cornell Heights, Ithaca (C. H. KAUFFMAN), Blowing Rock, N. C. et Piseco, N. Y. (DOCT. PECK).

5. **Hygrophorus** (*Limacium*) **pusillus** Peck in the Torr. Bot. Club. 107
1902, p. 69. — Pileo convexo, tenui, subviscido, glabro, albo, 1-2
cm. diam ; stipite brevi, glabro, cavo, albo, basi tomento mycelioi-
deo albido donato, 2-2,5 cm. longo, 1-2 mm. crasso; lamellis ar-
cuatis, subdistantibus, decurrentibus, albis; sporis 4-6 μ . longis.
Hab. ad terram in silvis, Moscow Mountains, Idaho. Amer.
bor. (L. F. HENDERSON).
6. **Hygrophorus** (*Limacium*) **subviolaceus** Peck Rep. of the State Bot. 108
1899, pag. 842, tab. C, fig. 11-15. — Pileo firmo, hemisphærico
dein convexo, glabro, viscido, hygrophano, violaceo, in sicco pal-
lido vel griseo 2,5-4 cm. lato; carne alba; lamellis arcuatis, di-
stantibus, decurrentibus, pallide violaceis; stipite æquali vel utrin-
que conico, firmo, glabro, albo 2,5-4 cm. longo, 4-8 mm. crasso;
sporis subglobosis vel fere ellipsoideis, 6-7,5 \approx 5-6.
Hab. in paludosis, Meadowdale, Amer. bor.
7. **Hygrophorus** (*Hygrocybe*) **miniatus** Fr. — Syll. V, p. 413. — var. 109
sphagnophilus Peck Rep. of the State bot. 1899, p. 856. — Pileo
late convexo, subumbilicato, rubro; lamellis adnatis, albidis, dein
luteolis, interdum rubro-tinctis, raro margine rubris; stipite pileo
concolori, basi albidulo, superne fragilissimo.
Hab. in muscosis Kasoag, Amer. bor
8. **Hygrophorus** (*Hygrocybe*) **pallidus** Peck in the Torr. Bot. Club. 110
1902, p. 69. — Pileo tenui, convexo, dein subplano, margine in-
terdum recurvato undulatoque, glabro, hygrophano, pallide lila-
cino vel pallide violaceo, interdum margine striatulo, in sicco gri-
seo-albo, 1,5-3 cm. lato; lamellis subincrassatulis, distantibus, ar-
cuatis adnatis vel subdecurrentibus, pileo concoloribus, in sicco
subcinereis; stipite tenui, æquali, glabro, cavo, albo, 2,5-5 cm.
longo, 2-4 mm. cavo; sporis albis, subglobosis, 5-6 \approx 4-5.
Hab. ad terram, Massachusset, Amer. bor. (S. DAVIS). — *Hygr.*
sphærosporo et *H. Peckii* affinis.
9. **Hygrophorus** (*Hygrocybe*) **subrufescens** Peck in Rep. of the State 111
Botanist. 1902, p. 23, tab. M, fig. 1-6. — Pileo carnosio, margine
tenui, convexo vel fere plano, sicco minute floccoso-squamuloso,
pallide roseo vel griseo-roseo, 2,5 cm. lato; carne albida, roseo
picta; sapore grato; lamellis subdistantibus, decurrentibus, albidis;
stipite longiusculo, subæquali, flexuosulo, glabro, solido, albo, 3,
5-5,7 cm. longo, 4-8 mm. crasso; sporis ellipsoideis 7,5 \approx 5.
Hab. in silvis, Port Jefferson, Amer. bor.
10. **Hygrophorus** (*Hygrocybe*) **hypholomoides** P. Henn. in Engl. Bot. 112

Jahrb. 1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo subcarnoso, convexo-expanso, flavo, sicco, levi, glabro, 2,5-3 cm. diam., centro obtuso, subaurantiaco; stipite farcto dein fistuloso, tereti, interdum flexuoso, glabro 2-5 cm. longo, 2-3 mm. cr., flavo-rubescenti; lamellis adnatis, subconfertis, flavidis, angustis; sporis subglobosis, levibus 4-5 μ . diam. hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

11. **Hygrophorus** (*Hygrocybe*) **bipindensis** P. Henn. in Engl. Bot. 113

Jahrb. 1901, p. 49, Syll. XVI, p. 1111 (nomen). — Pileo carnoso e campanulato expanso, centro depresso umbilicato obscuriori, margine striato, glabro, sicco aurantiaco-cinnabarino, 2,5-4 cm. diam.; stipite farcto, tereti, æquali, levi, 3-7 cm. longo, 2,5-4 mm. cr., concolori, basi fibroso; lamellis decurrentibus, subdistantibus, inæquilongis, luteis v. pallide aurantiacis, acie incrassatis; sporis subglobosis, levibus 3,5-4 μ . diam. hyalinis.

Hab. ad terram umbrosam, Kamerun Afr.

12. **Hygrophorus** (*Hygrocybe*) **juvuensis** P. Henn. F. Amaz. I in Hedw. 114

1904, p. 181. — Pileo carnoso-ceraceo, rotundato, umbilicato, depresso v. infundibuliformi, levi, glabro, sicco margine radiato-striatulo, coccineo, 1-2 cm. diam.; stipite fistuloso, tereti, æquali v. subclavato, aurantiaco, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr.; lamellis decurrentibus, distantibus, inæquilongis, subventricosis, usque ad 2 mm. latis, pallide flavidis, ceraceo-rigidis, acie integris, obtusis; basidiis clavatis, 25-35 \times 7-10: sporis ellipsoideis v. subovoideis, 1-guttulatis, hyalinis, 7-11 \times 5-8, levibus.

Hab. ad terram argillaceam Rio Juruá, Bom Fim, Amazonia (ULE).

LACTARIUS Fr. — Syll. V p. 423, IX p. 56, XI p. 31, XIV p. 94, XVI p. 43.

1. **Lactarius** **fœtidus** Peck in Rep. of the State Botanist, 1901, 115

p. 949. — Pileo carnoso, firmo, subplano vel centro depresso, minute sericeo-lanuginoso, pallide luteo-brunneo, dein brunneo, 5-7,5 cm. lato; carne albida, lacte albo, odore fœtido, sapore grato; lamellis subdistantibus, adnatis vel subdecurrentibus, luteo-albis, dein rubro-brunneis; stipite 2,5-5 cm. longo, 4-6 mm. crasso, æquali, solido, glabro, albido; sporis subellipsoideis vel subglobosis 6-8 μ . diam.

Hab. ad terram, in silvis Snyders, Rensselaer co., Amer. bor.

2. **Lactarius** **subdulcis** (Bull.) Fr. — Syll. V, p. 450. — var. **oculatus** 116

Peck in Rep. of the State Botanist, 1902, p. 37. — Pileo humido, subhygrophano, vinaceo, centro (in umbone) macula parvula persistenti rufo-brunnea prædita; cetera ut in typo.

Hab. in abietinis, North Elba Americæ bor.

LACTARIOPSIS P. Henn. in Engl. Bot. Jahrb. 1901, pag. 51, Syll. XVI, p. 1111 (Etym. *Lactarius* et *opsis* facies). — Pileus carnosus, margine involuto cum stipite velo membranaceo conjunctus. Hymenophorum cum stipite contiguum; lamellæ adnato-decurrentes inæquales, ceraceo-rigidulæ, lactescentes. Sporæ globosæ subhyalinæ asperulæ. A *Lactario* differt margine pilei cum stipite (velo membranaceo) conjuncto; cetera eadem.

1. **Lactariopsis Zenkeri** P. Henn. l. c. — Pileo carnosus, rigido, plano-convexo, centro umbilicato depresso, dein expanso subinfundibuliformi, flavo-brunneo, pruinoso 1-3 cm. diam., margine involuto, subrepando vel striato, primo cum stipite velo membranaceo conjuncto; stipite farcto, cylindraceo-subclavato, striatulo, concolori, postice annulato-marginato. basi attenuato, ca. 2-4 cm. longo, 3-6 mm. lato; lamellis adnato-decurrentibus, confertis, ceraceis, rigidulis, angustis ca. 1 mm. latis, flavo-ochraceis; cystidiis obclavatis 35-46 \times 18-21; basidiis clavatis 20-26 \times 7-9; sporis globosis, hyalinis vel minute flavidulis, aculeato-asperatis, 6-8 μ . d.

Hab. ad terram et in lignis putridis, Kamerun Afr. orient.

RUSSULA Pers. — Syll. V p. 453, IX p. 59, XI p. 29, XIV p. 96, XVI p. 46.

1. **Russula magnifica** Peck in Rep. of the State Botanist 1902, p. 24, 118 tab. N, fig. 1-4. — Pileo carnosus, convexo vel umbilicato, centro depresso vel infundibuliformi, glabro, viscido, æquali, centro squamoso 10-25 cm. diam.; carne albida, odore saporeque alcalino, forti ingratoque; lamellis angustis, stipatis, inæqualibus, adnatis subdecurrentibusque, albidis roseoque pictis, dein rufo-brunneis; stipite æquali vel inferne constricto, solido, dein spongioso, albo 5-12,5 cm. longo, 16-36 mm. crasso; sporis albis, subglobosis, 7, 5-10 vel 6-7,5 μ . diam.

Hab. in silvis, Port Jefferson, Amer. bor.

2. **Russula indecorata** Karst. Fungi nov. Loennb 1904, p. 1 (Finska 119 Vetensk. Soc.). — Mitis; pileo carnosus, ex convexulo explanato depresso, firmo, dein fragili ut plurimum regulari, subruguloso, rufo vel subbrunneo, marginem subpatentem, tenuem, demum le-

viter sulcatum versus pallidiore, pellicula sicca subseparabili tecto, carne alba, circiter 10 cm. lato; stipite cylindræo, deorsum leviter incrassato, spongioso-farcto vel cavo, sublevi, albo, inferne obsolete rufescente, circiter 12 cm. longo, 2-4 cm. crasso; lamellis subliberis æqualibus, confertis, ex albo pallidis, simplicibus.

Hab. in silva acerosa montana, Syrjö, prope Mustiala Fenniaë, parce Aug. 1902 (P. A. KARSTEN).

3. **Russula cremoricolor** Earle in New York Bot. Gard. 1902, p. 340. 120

— Pileo convexo 6-10 cm., centro depresso, intense cremeo, disco obscuriore, levi, margine integro, incurvo; lamellis heterophyllis, subsinuosis, substipatis, planiusculis, pallide cremeis; sporis albis, globosis, parce echinulatis, 5,5-7 μ . diam.; stipite 4-6 \approx 2,5-3,5 cm., irregulari, subæquali, levi, albo, solido; carne albida, immutabili, sapore piperino, odore fere nullo.

Hab. ad terram in silvosis, Stanford University Californiaë. — *R. mustelinæ* Fr. affinis.

4. **Russula rugulosa** Peck Rep. of the State Bot., 1900, pag. 179, 121

tab. 72, fig. 12-18. — Pileo tenui, fragili, convexo, dein fere plano vel centro depresso, viscido, dein ruguloso-tuberculato, margine æquali dein tuberculato-striato, pellicula margine secedenti, 5-10 cm. lato, rubro; carne alba, sapore subnullo dein acri; lamellis stipatis, adnatis et subrotundatis, albis; stipite fere æquali, dein spongioso, albo 5-7, 5 cm. longo, 8-16 mm. crasso; sporis albis, rugosis, subglobosis, 7,5-10 μ . diam.

Hab. in silvis Adirondack, Amer. bor.

5. **Russula paxilloides** Earle in New York Bot. Gard. 1902, p. 341. 122

— Pileo expanso, subdepresso, carnosio, 5-9 cm. diam., disco albido plus minusve ad marginem integrum miniato, levi, viscidulo; lamellis anastomosantibus, subsinuosis, latis, subplanis albidis v. cremeo-luteolis; sporis pallide luteis, globosis e latere rugosis, 7-9 μ . diam.; stipite variabili 5-11 \approx 1,5-3 cm., æquali, levi, spongioso; carne albida, immutabili; sapore intense piperino; odore fere nullo.

Hab. ad terram in silvulis, Stanford University Californiaë. — *R. veterinosæ* Fr. affinis.

6. **Russula ventricosipes** Peck in the Bull. Torr. Bot. Club, 1902, 123

p. 70. — Pileo tenui, subconvexo, subplano vel parce centro depresso, glabro, pallide alutaceo usque brunneo-luteo, 5-7 cm. lato; carne alba; lamellis tenellis, angustis, adnatis, subsinuosis, albis vel albidis, in sicco decoloratis; stipite firmo, ventricosio, solido raro intus spongioso, subglabro, superne albido, basi rufulo, 5-7

cm. longo, 2,5 cm. crasso, ad medium paullo constricto; sporis late ellipticis vel subglobosis, 6-8 \approx 6.

Hab. in arenosis, South Yarmouth, Massac., Amer. bor. (S. DAVIS).

7. **Russula palustris** Peck Rep. of the State Bot., 1890, p. 842. -- 121

Pileo tenui, fragili, subgloboso vel hemisphærico, dein convexo v. subplano, viscido rufo-brunneo vel purpureo-rubro, margine tuberculato-striato, 5-7,5 cm lato; carne alba, pelliculam versus rubro-tincta; sapore acri; lamellis integris, substipatis, albidis dein luteolis; stipite æquali, glabro, spongioso dein cavo, fragili, albido, sæpe rubro-tincto, 4-7,5 cm. longo, 8-12 mm. crasso; sporis subglobosis, 1-nucleatis 7,5-10 μ . diam.

Hab. in paludosis sub Alni, Jayville, St. Lawrence co., Amer. bor. — *R. decoloranti* affinis.

8. **Russula granulata** Peck Rep. of the State Bot. 1899, t. C, f. 1-5. 125

— Pileo convexo, dein subplano vel centro depresso, viscido, minute granuloso-squamuloso, dein margine tuberculato-striato, intense luteo et rubro-brunneo tincto 5-7,5 cm lato; carne albida, sapore acri; lamellis angustis, stipatis, adnatis basi furcatis, albidis; stipite æquali vel summo abrupte contracto, glabro, spongioso, albido 2,5-3,5 cm. longo, 12-16 mm. crasso; sporis subglobosis 7,5 μ . diam.

Hab. in silvis, Denning, Ulster co., Amer. bor. — Rara! — var. **lepiotoides** Atk. apud Peck, Rep. of the State Bot., 1902, p. 37. A typo differt pileo rimoso-squamoso. Cetera ut in typo. In silvis, Piseco, Hamilton county, Amer. bor. valde frequens.

9. **Russula æruginescens** Peck Rep. of the State Bot. 1899, p. 843. 126

— Pileo convexo dein umbilicato vel centro depresso, glabro, viscido, margine æquali griseo vel griseo-luteo 5-7,5 cm. lato; carne alba, sapore acri; lamellis angustis stipatis, 1-2-furcatis, adnatis vel subdecurrentibus, albis; stipite æquali, spongioso, albo, 2,5-5 cm. longo, 12-20 cm. crasso; sporis albis, subglobosis 7,5 μ . diam.

Hab. in silvis, Claryville, Americæ borealis. — *R. æruginea* affinis.

10. **Russula abietina** Peck Rep. of the State Bot. 1900, pag. 180, 127

tab. 72, fig. 1-11. — Pileo tenui, fragili, convexo, dein fere plano, vel centro subdepresso, viscido, tuberculato, margine striato 2,5-6 cm. lato; carne alba, sapore grato; lamellis subdistantibus, ventricosus, stipitem versus angustatis, rotundatis, subliberis, albidis, dein pallide luteis; stipite æquali, apice conico, farcto vel cavo,

albo, 2,5-5 cm. longo, 6-10 mm. crasso; sporis luteo-ochraceis, subglobosis, rugosis 7,5-10 μ . diam.

Hab. in silvis inter truncos Coniferarum, Amer. bor.

11. **Russula integra** (L.) Fr. — Syll. V, p. 475. — var. **rubro-tincta** 128

Peck Rep. of the State Bot. 1900, p. 164. — Stipite rubescenti; pileo intense rubro; lamellis pulvere lutea (sporæ) conspersis

Hab. ad terram prope Placid Lake, Amer. bor. (Miss N. L. MARSHALL et Miss H. C. ANDERSON).

12. **Russula delica** Fr. — Syll. V, p. 455. — var. **glaucophylla** Quél. 129

Assoc. franc. p. l'avanc. scienc. 1901, partie II, 1902, p. 495. — Differt a typo lamellis glaucis, sapore acri piperato.

Hab. ad terram in Gallia. — Sec. Quél. huc spectat *Lactarius chloroides* et *L. Listeri* Krombh. t. 56, f. 8-9 et 56, f. 1-4.

13. **Russula purpureo-lilacina** Fayod in Ann. R. Acc. d'Agr. Torino 130

1893, p. 87. — Pileo denso subtenaci, obscure purpureo subvelutino, primo hemisphærico, margine sinuato, dein pulvinato, 4,3-6 cm. lato, centro leniter depresso minute granulato-diffracto, margine levi; lamellis integris, postice attenuatis, antice rotundatis semper flavidis; stipite æquali farcto roseo-lilacino, præcipue primo lilacino-pruinoso; basidiis 36 \approx 6 emergentibus; sporis sphæricis verrucosis, 6 μ . diam.

Hab. catervatim v. solitaria ad terram in castanetis pinetisque in alpibus Pedemontii et Liguriæ orient. — Præcipue stipite basi *persicina* dignoscenda species.

14. **Russula flaviceps** Peck Rep of the State Bot. 1899, pag. 843, 131

tab. C, fig. 6-10. — Pileo convexo vel centro depresso, glabro, viscido, initio margine æquali, dein subtuberculoso-striato, pallide luteo 5-10 cm. lato; lamellis stipatis, constrictis, acie subrotundatis, pallide luteolis, dein luteis; stipite æquali, farcto dein spongioso, albo, 4-6,5 cm. longo, 8-16 mm. crasso; sporis luteis, subglobosis 7,5 μ . diam.

Hab. in silvis Claryville, Amer. bor.

15. **Russula Earlei** Peck in Rep. of the State Botan. 1902, p. 25, 132

t. N, fig. 5-10. — Pileo carnosio, firmo, hemisphærico, dein late convexo vel fere plano, interdum centro depresso, glabro, viscido, margine æquali vel interdum rimoso, stramineo, dein maturitate pallido, 3,5-6 cm. lato; carne albida vel luteola, sapore grato; lamellis tenuibus, distantibus, adnatis, initio albidis dein luteolis; stipite brevi, firmo, æquali, solido dein spongioso, albo, 2,5-3,5 cm. longo, 6-10 mm. crasso; sporis albis, subglobosis, 5-6 μ . diam.

Hab. in silvis, Port Jefferson, Amer. bor.

16. **Russula pulverulenta** Peck in the Torr. Bot. Club, 1902, p. 70. 133

— Pileo subtenui, convexo, dein centro depresso vel subumbilicato, margine æquali pulverulento-furfuraceo, griseo-brunneo, 3-5 cm. lato; carne albida, odore fœtido, sapore ingrato; lamellis substipatis, albis; stipite subæquali, superne albo, inferne pallido, dense luteo punctato; 3-4 cm. longo, 8-10 mm. crasso; sporis globosis 8 μ . diam.

Hab. in silvis, Michigan, Amer. bor. (B. O. LONGYEAR).

17. **Russula luteo-basis** Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 134'

Pileo convexo, demum subplano, levi v. margine leviter et indistincte striato, roseo v. rubenti, demum toto pallidiori v. flavido v. centro tantum, cuticula separabili; carne alba v. albida; lamellis adnatis v. adnexis, æqualibus, cremeo-flavidis v. albidis, senio v. siccando infuscatis; stipite subæquali, leviter purpuraceo, farcto, albo, basi flavo; sporis subglobosis, 8 μ . diam., subinde tantum 7 μ .

Hab. ad terram pr. St. Louis Mo Amer. bor. (GLATFELTER). —

Pileus 2,5-7 cm. lat.; stipes 2,5-5 cm. long., 4-12 mm. cr.

18. **Russula deremensis** P. Henn. Fungi Afr. orient. II, in Bot. 135

Jahrb. XXVIII, p. 36. — Pileo carnosio, primo subgloboso, dein convexo, centro depresso, flavo brunneolo, cute rimoso, 3-4 cm. diam., margine primo subinvoluto, dein acuto, tenui, levi, vix striatulo; stipite spongioso farcto, tereti, pallide flavo, 2,5-3 cm. longo, 0,8-1 cm. cr.; lamellis adnatis, vix decurrentibus, subconfertis, pro parte ad marginem furcatis, utrinque attenuatis, medio 3-4 mm. latis, pallide flavis; basidiis clavatis 23-30 \times 8-10, sterigmatibus 2-4, subulatis ca. 4 μ . longis; sporis globosis 6-8 μ ., episporio hyalino-flavidulo, aculeato asperatis, aculeis ca. 1 μ . longis.

Hab. ad terram, Derema, Usambara Afr. (SCHEFFLER).

CANTHARELLUS Adans. — Syll. V p. 482, IX p. 63, XI p. 32, XIV p. 99, XVI p. 48.

1. **Cantharellus cibarius** Fr. — Syll. V, p. 482. — var. **multiramis** 136

Peck Rep. of the State Bot. 1899, p. 856. — Pileo regulari, margine recurvato; lamellis ramosissimis et anastomosantibus, ut in *C. floccoso*.

Hab. ad terram, Denning, Amer. bor. — Var. **neglectus** Souché in Bull. Soc. Myc. France 1904, p. 39. — A typo differt pileo tenuiore, dilutius citrino, lamellis brevius decurrentibus, pallide griseo-violaceis, stipite graciliori, odore fungi subnullo. Ad terram

prope Pramproux, Deux Sévres Galliaë. — Var. **albipes** Peck in Rep. of the State Botanist, 1902, pag. 37. A typo differt stipite albido. Ad terram in Amer. bor.

2. **Cantharellus subcarneus** Fayod in Annali R. Acc. d' Agr. Torino 137 1893, p. 81. — Pileo campanulato, repando, 2-4 cm. lat., margine undulato, tenui; plicis lamelliformibus, parum reticulatis, primo pure subcarneis, pruinosis, dein in aurantiacum vergentibus; stipite subexcentrico deorsum leviter attenuato, c. 6-10 mm. cr.; subhymenio denso unistratoso; basidiis claviformibus, longissimis, $55 \approx 11$, tetra- vel disterigmaticis; sporis ellipsoideis, dorsaliter parum depressis, $15 \approx 5$.

Hab. in graminosis vulgo catervatim, mense Aug. pr. S. Lorenzo Pellice in alpebus Pedemontii frequens. — *Canth. cibario* proximus sed minor, firmior, margine tenuior.

3. **Cantharellus miniatus** Fayod in Ann. R. Acc. d' Agr. Torino, 1893, 138 p. 82, *Ch. ignescens* Fayod in Ann. Sc. Nat. Bot. IX ser., 9 tom., p. 304. — Minor; pileo 1,5-3,5 cm. lat., 1 mm. cr., excentrico, centro depresso, tenui, plus minus lobato et sinuoso, primo miniato dein subaurantiaco stipiteque subtiliter velutino; lamellis carneis, pliciformibus v. typicis, interstitiis venosis; stipite farcto vulgo curvato, miniato; sporis ellipsoideis, æquilateris, $8-10 \approx 5-6$.

Hab. ad terram nudam, juxta vias, catervatim, Angrogna Pellice et S. Germano Pedemontii, Aug. — *C. subcarneo* affinis, sed colore, statura minore sporisque majoribus recedit.

4. **Cantharellus pulcrifolius** Peck in the Torr. Bot. Club, 1902, p. 71. 139 Pileo exili convexo vel centro subdepresso, glabro, margine indistincte ciliato, albo, circ 1 cm. lato; lamellis simplicibus, inæqualibus, distantibus, decurrentibus, luteis; stipite 1-1,5 cm. longo, 1 mm. crasso, æquali, glabro, cavo, albo; sporis ellipticis $8 \approx 4-5$.

Hab. in lignis putridis, Moscow Mountains, Idaho, Amer. bor. (L. F. HENDERSON).

5. **Cantharellus violaceo-griseus** P. Henn. in Engl. Bot. Jahrb. 1901, 140 p. 45, Syll. XVI, p. 1112 (nomen). — Pileo submembranaceo, infundibuliformi, levi, 2-3,5 cm. longo, 3-5 mm. cr., basi subbulboso incrassato, tomentosulo; lamellis pliciformibus, striiforme decurrentibus, inæquilongis, haud dichotomis, pallide violaceis; sporis haud conspicuis.

Hab. ad ligna putrida, Kamerun Afr.

6. **Cantharellus dovrejeldiensis** Henn. et Kirschst. in Hedw. 1902, 141 p. (62). — Pileo minutissimo, subcarnoso, flavo vel citrino, con-

confertis, angustissimis, acie incrassatis; sporis ellipsoideis, subhyalinis $5 \approx 3$.

Hab. in ramis emortuis Akin Forest, prope Aburi, Gold Coast Africae occident. — *T. Alni* Peck affinis.

RIMBACHIA Patouill. — Syll. XI p. 32, XVI p. 1112.

1. **Rimbachia ? camerunensis** P. Henn. in Engl. Bot. Jahrb. 1901, 149 p. 45. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo subgelatinoso, tubiformi, stipitato, erecto, lacteo, pagina externa levi, glabro cum stipite contiguo, 1-3 cm. alto, 1-2 cm. lato; stipite excentrico v. centrali 3-10 mm. longo, 1-1,5 mm. cr., concolori; hymenio superiorem partem infundibuliformem obtegente, primo levi dein striato-pliciformi, gyroso-reticulato; sporis haud conspicuis.

Hab. ad caudices putres, Kamerun Afr.

MARASMIUS Fr. — Syll. V p. 503, IX p. 65, XI pag. 32, XIV p. 101, XVI p. 50.

1. **Marasmius subplancus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 150 — Syll. XVI, p. 1112 (nomen). — Pileo coriaceo, campanulato-expanso, flavido, centro subumbilicato v. subpapillato, brunneo, obscuriore, radiatim striato sulcatoque, 3-6 cm. diam.; stipite cavo, corticato, alutaceo, striato, contorto, 6-12 cm. longo, 2-3 mm. cr.; lamellis adnatis subconfertis, late ventricosis, pallide flavidis.

Hab. ad terram, Kamerun Afr.

2. **Marasmius subpilosus** Peck Bull. Torr. Bot. Cl. 1903, p. 95. — 151 Pileo tenui, levi v. centro ruguloso, margine striato, pruinoso-pubescente, convexo v. subplano, subinde leviter umbilicato, albedo, sæpe centro brunneo-flavido-tincto; lamellis latiusculis, ventricosis, adnatis, subsinuatis, albis, acie minute ciliatis; stipite gracili, tenaci, farcto v. cavo, pruinoso-pubescente, basi griseo-tomentoso, rufo-brunneo, sursum albo.

Hab. inter folia et ramulos in silvis udis, Idaho Amer. bor. (L. F. HENDERSON). — Pileus 1-2 cm. lat.: stipes 2,5-5 cm. long., 0,5-1 mm. cr.

3. **Marasmius pseudosplachnoides** P. Henn. in Engl. Bot. Jahrb. 152 1901, p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo, convexo, pallide flavo, centro umbilicato, brunneo, concentricè subzonato, radiato-striatulo, ca. 1 cm. diam.; stipite tenaci, fistuloso, 3-5 cm. longo, 1 mm. cr., flavo-brunneo, basi in-

crassato, strigoso; lamellis adnatis subconfertis, angustis, brunneolis; sporis globosis 3,5 μ . diam., hyalino-flavidulis, levibus.

Hab. in foliis putridis, Kamerun Afr.

4. **Marasmius Copelandi** Peck Bull. Torr. Bot. A. 1904, p. 182. — 153

Pileo tenui, molli late convexo, glabro, fulvo, sapore et odore fortibus, ingratis; lamellis paucis, inæqualibus, distantibus, adnatis, pallidis; stipite gracili, molli, cavo, deorsum velutino-pubescenti et brunneo, sursum pallidiore et minus pubescenti; sporis subfusoides, uno apice acutioribus, 12-15 \approx 4.

Hab. in foliis emortuis *Quercus densifloræ*, Woodside California (C. B. COPELAND). — Pileus 1-2 cm. lat.; stipes 4-6 cm. long., 1-2 mm. cr.

5. **Marasmius ochraceo-papillatus** P. Henn. Pilz. S. Paul. III, in Hedw. 154

1904, p. 203. — Pileo membranaceo, convexo-campanulato, centro depresso, subochraceo, conico-papillato, niveo, sericeo nitenti, villosa, margine plicatulo, 1,5-2 cm. diam.; stipite curvato, tereti, ferrugineo, subtomentoso, c. 1 mm. longo, 0,3 mm. cr.; lamellis adnexis, paucis, distantibus, ventricosis, flavidulis; sporis ovoideis v. subglobosis, hyalinis, 1-guttulatis, 4-5 \approx 4.

Hab. in ramis tenellis emortuis, Serra da Cantareira, S. Paulo Brasilæ. — Pusilla species pileo albo-sericeo flavo-papillato distincta.

6. **Marasmius platensis** Speg. Myc. argent. ser. II, 1902, p. 51. — 155

Collybioides, scorteus, candidus, laxe cæspitosus; pileo convexo-applanato non hygrophano, tenacello, opaco, levi, 15-35 mm. diam., glabro, candido; carne tenacello-subflocculosa, 0,5-1 mm. cr. alba; lamellis 2-3,5 mm. latis, ex albo-cremeis, remotis adnatis subcrassiusculis, dense venoso-clathratis concoloribus; stipite albo, compresso, tenacello, pulverulento, 25-50 mm. long., 3-3,5 mm. lat., 1,5 cr., basi mycelio himantiaceo albo radicato; basidiis clavulatis, 20-25 μ . long., 6-7 μ . cr., tetrasporis hyalinis; sporis ex elliptico subnavicularibus, inferne acutiusculis 5-6 \approx 3-3,5, levibus, hyalinis.

Hab. ad folia putrida coacervata, S. Catalina in Argentina. — Species notis nonnullis ad *Heliomycetem* vergens, natura tamen recedens.

7. **Marasmius leptopus** Peck in Rep. of the State Botanist, 1902, 156

p. 25. — Pileo tenui, subconvexo vel fere plano, glabro, margine rugoso-striatulo, rufo-brunneo, 6-10 mm. lato; lamellis tenuibus, angustis, stipatis, adnatis, albis; stipite filiformi, glabro, cavo,

albido vel pallido 2,5-3,5 cm. longo, 1-2 mm. crasso; sporis oblongis vel anguste ellipsoideis 7,5-8,5 \approx 3-4.

Hab. in foliis dejectis, in horto botanico Bronxpark N. Y. Americæ borealis.

8. **Marasmius jonides** Pat. in Duss Enum. Champ. Guadel. 1903, 157 p. 45. — Pileo orbiculari, e convexo plano, tenui submembranaceo, opaco, centro sordide violaceo, marginem versus brunneo, 2-6 cm. lat., glabro, sub vitro pulverulento, cute e cellulis rotundo-ellipsoideis, tenui-tunicatis, levibus, 20-50 \approx 20-30, materie violacea v. brunnea farctis formata; hymenio albo-flavido; lamellis distantibus, angustis, inæqualibus, stipiti adnatis; basidiis 30 μ . long.; cystidiis cylindræis apice rotundato-obtusis v. ovoideis, 30-50 \approx 12-16, tenui-tunicatis; sporis incoloribus, ovoideis, tenui-tunicatis, 10 \approx 3; stipite centrali, cylindræo, 2-4 cm. longo, 1-3 mm. cr., regulari, rufescente, ubique pilis patulis albis copiosis vestito.

Hab. ad terram, in silvis Trois-Rivières in Guadalupa (Duss).

9. **Marasmius hygrocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 158 — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, convexo, flavo-subaurantiaco, radiatim striato, medio umbilicato v. depresso papillatoque atro-aurantiaco, 6-11 mm. diam.; stipite tenaci, filiformi, fistuloso, tomentosulo 1-2 cm. longo, 0,5-0,8 mm. cr., flavo-brunneo; lamellis adnatis, subconfertis, lanceolatis flavo-aurantiacis.

Hab. ad ramos putres. Kamerun Afr.

10. **Marasmius griseo-flavus** P. Henn. in Engl. Bot. Jahrb. 1901, 159 p. 46. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato-expanso, centro obtuso v. subumbilicato, griseo-fuscescente, margine striatulo, 1-2 cm. diam.; stipite tenaci, fistuloso, tereti, pallido, pruinoso, basi subincrassato, 1,5 cm. longo, 1-2 mm. cr.; lamellis sinuoso-adnatis, subconfertis, latis, flavis; sporis subglobosis, 3-3,5 hyalinis.

Hab. ad folia putrida, Kamerun Afr.

11. **Marasmius glaucopus** (Pat.) Sacc. et D. Sacc. *Androsaceus glaucopus* Pat. in Duss Enum. Champ. 1903, p. 43. 160 — Pileo campanulato-convexo, margine involuto, plicato-sulcato, centro venoso-ruguloso, obscure rufo-purpureo, velutino, 2 cm. diam., cuticulæ cellulis erectis, rubris, apice oblongo-cylindrico; lamellis latis, parum confertis, inæqualibus, utrinque attenuatis, acie integris, venis nullis connexis, atro-purpureis, pruina glauca, copiosa; sporis incoloribus, ovoideis, 8 \approx 5; stipite 3 cm. longo, tenaci, cylindrico,

cavo, obscure fulvo-rubescente, apice præsertim pruina cinerea obducto, 3 mm. cr.

Hab. in trunco *Chrysophylli*, Pointe-Noire, Guadalupa. — *M. atrorubenti* affinis, sed robustior, stipite crassiore, lamellis aliter coloratis.

12. **Marasmius flavidulus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 161

— Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato expanso, centro umbilicato v. depresso, papillato, radiato-striato v. subsulcato, flavidulo, 2-3 cm. diam.; stipite fistuloso, gracili subcorneo, flavidulo, pruinoso, 6-10 cm. longo, 1-1,5 mm. cr. lamellis adnatis, subconfertis, ventricosis 2 mm. latis, concolaribus.

Hab. ad folia emortua, Kamerun Afr.

13. **Marasmius elæicola** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 162

— Syll. XVI, pag. 1112 (nomen). — Pileo coriaceo, campanulato expanso, centro umbonato, pallide flavo, radiato striato, margine undulato, 3-5 cm. diam.; stipite fistuloso, tereti, flexuoso, æquali, substriato, flavo v. flavo-brunneo, usque ad 10 cm. longo, 2-3 mm. cr., basi incrassato, curvulo; lamellis adnatis breve decurrentibus, inæquilongis, late subventricosis, pallidis v. flavidulis; sporis ellipsoideis, levibus, 5-7 \approx 3,5 hyalinis.

Hab. ad stipites Palmarum oleiferarum, Kamerun Afr.

14. **Marasmius biformis** Peck in Rep. of the State Botanist, 1902, 163

p. 25. — Gregarius; pileo tenui, submembranaceo, campanulato vel fere plano, sæpe umbilicato, glabro, luteo vel pallide brunneo, striatulo, in sicco pallide griseo, ruguloso striato, 8-16 mm. diam.; lamellis stipatis, adnatis, ad stipitem conjunctis, griseis, cremeo-luteo-tinctis; stipite filiformi, farcto vel subcavo, pubescenti, brunneo, in sicco cinereo, interdum basim versus brunneo, 2,5 cm. longo, 1 mm. crasso.

Hab. in Coniferis, Sandlake, Amer. bor.

15. **Marasmius albo-farinaceus** P. Henn. in Engl. Bot. Jahrb. 1901, 164

p. 49. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato, obtuso v. centro umbilicato-depresso obscuriori, radiato striato v. subplicato, incarnato, 2-4 cm. diam.; stipite fistuloso, subcorneo-corticato, gracili, fusco-brunneo, albido, pulverulento, subtomentosulo, 5-7 cm. longo, 1,5-2 mm. cr.; lamellis adnatis inæquilongis, confertis, angustis, albidis, ca. 1 mm. latis.

Hab. ad folia putrida, Kamerun Afr.

16. **Marasmius subomphalodes** P. Henn. F. Indiæ or. II, in Hedw. 165

1901, p. 329. — Calopus; pileo membranaceo-tenaci e convexo expanso, centro depresso, infundibuliformi, levi, glabro, radiatim substriato 1-2 cm. diam., isabellino; stipite fistuloso, tenaci-corticato, gracili, cinnamomeo, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr., basi incrassato; lamellis decurrentibus, tenui-lanceolatis, ca. 1 mm. latis, pallide isabellinis; sporis haud conspicuis.

Hab. in herbis putridis, cæspitosus, Saharanpur-Garden Indiæ orient.

17. **Marasmius reticulatus** P. Henn in Engl. Bot. Jarb. 1901, p. 46. 165

— Syll. XVI, pag. 1112 (nomen). — Pileo tenui, membranaceo, translucente, campanulato, centro depresso 1,5-3 cm. diam., radiatim striato, cinereo; stipite fistuloso, corticato, tereti, æquali, testaceo, 4-7 cm. longo, 2-3 mm. cr.; lamellis adnatis, subdecurrentibus, distantibus, angustis substriiformibus, reticulato-convexis, sepiaceis.

Hab. ad folia putrida, Kamerun Afr.

18. **Marasmius pseudo-calopus** P. Henn. in Engl. Bot. Jahrb. 1901, 167

p. 46. — Syll. XVI, p. 1112 (nomen). — Pileo tenui membranaceo, convexo-plano, umbilicato-depresso, radiato-plicato, pallide flavo, 1,5-3 cm. diam.; stipite fistuloso, subcorneo, atro-brunneo pruinoso, tomentosulo, superne pallido levi, 1,5-3 cm. longo, 1 mm. cr., basi discoideo; lamellis sinuoso-adnatis, flavidulis, subconfertis, angustis ca. 0,7 mm. latis; basidiis clavatis, 18-24 \approx 4,5-5,5, sporis subglobosis, levibus, 3,5 μ . diam. hyalinis.

Hab. ad ramos putres, Kamerun Afr.

19. **Marasmius pallide-sepiaceus** P. Henn. in Engl. Bot. Jahrb. 1901, 168

p. 48. — Syll. XVI. p. 1113 (nomen). — Pileo membranaceo, campanulato-expanso, obtuso, granuloso-squamuloso, pallide cinnamomeo, radiato-striato, 0,5-2 cm. diam.; stipite fistuloso, subcorneo, pruinoso, pallide brunneo, 0,5-1 cm. longo, 1-1,5 mm. cr., basi discoideo villosulo, e mycelio rhizomorfoideo, filiformi, atro oriente; lamellis subtriquetro-decurrentibus, distantibus, ventricosis, pallide sepiaceis; sporis globosis 3-3,5 μ . diam., hyalinis.

Hab. ad ramos putres, Kamerun Afr.

20. **Marasmius missangoënsis** Pat. Bull. Soc. Myc. 1902, p. 299. 169

Pileo primitus globoso, dein explanato, 2-10 cm. lato, tenui, membranaceo, glabro, rufo, margine sinuato, sulcis radiantibus, profundis, distantibus notato; lamellis paucis ventricosis, latiusculis, utrinque attenuatis, attingentibus, interstitiis latis, levibus; stipite procero, coriaceo, brunneo-atro, longitudinaliter striato, pruinoso, sursum attenuato, 12 cm. longo, 5-6 mm. crasso.

Hab. ad terram, Oubangui prope Missango (DYBOWSKI). — *M. Sthulmanni* P. affinis.

21. **Marasmius cerussatus** Pat. in Duss Enum. Cham. Guadel. 1903, 170
p. 46. — Pileo orbiculari, convexo, centro mamillato, sulcato-ru-
goso, tenui, membranaceo, glabro, opaco, cerussato-albo, margine
crenulato; lamellis integris, vix confertis, albo-flavidis (in sicco),
adnatis, intermixtis brevioribus, venis connectentibus nullis; sti-
pite centrali, gracili, æquali, farcto, sordide albo, non pellucido,
glabro, e mycelio membranaceo, albo, matricem ambiente oriundo.

Hab. ad ramos putres in silvis Pointe-Noire, Guadalupa (Duss).

— Fungus 8-15 mm. alt.; pileus 6-8 mm. lat.; stipes 1 mm. cr.

22. **Marasmius resinosus** Peck — Syll. V, pag. 522. — var. **niveus** 171
Peck in Rep. of the State Botanist, 1902, p. 38. — Totus fungus
albus, cetera ut in typo.

Hab. ad terram, Port Jefferson, Amer. bor.

23. **Marasmius testaceus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 172
— Syll. XVI, pag. 1112 (nomen). — Pileo tenui, membranaceo,
campanulato, centro umbilicato, atro-testaceo, pruinoso, radiato-
striato sulcatoque, margine pallidiori 1-1,5 cm. diam.; stipite fi-
stuloso, filiformi, corneo, pallido v. stramineo nitenti, glabro, 3-6
cm. longo, 1 mm. cr.; lamellis collariato-connexis, distantibus, sub-
integris, lanceolatis, pallide testaceis.

Hab. ad ligna et folia putrida, Kamerun Afr.

24. **Marasmius thujinus** Peck in Rep. of the State Botanist, 1902, 173
p. 26. — Pileo membranaceo, hemisphærico vel convexo vel sub-
umbilicato, subglabro, marginem versus striato, cinereo, lilacino
picto, 2-3 mm. diam.; lamellis paucis, distantibus, adnatis, albis;
stipite capillari, cavo, glabro, basi minute, sparse flocculoso, pal-
lido, basi sæpe brunneo.

Hab. in foliis dejectis Thujæ occidentalis, North Elba,
Amer. bor.

25. **Marasmius tomentosipes** Peck in the Torr. Bot. Club. 1902, p. 71. 174
— Pileo tenui, convexo, dein subplano, plerumque umbilicato,
glabro, margine striato, brunneo-luteo vel ferrugineo, dein in sicco
brunneo, 1-3,5 cm. lato; lamellis angustis, subdistantibus, inæ-
qualibus, arcuatis, decurrentibus, pallide luteis, interstitiis veno-
sis; stipite tenui 2-4 cm. longo, circ. 1 mm. crasso, duro, elastico,
cavo, nigro-brunneo, tomentoso; sporis ellipticis 6-7 × 3-4.

Hab. in silvis Coniferarum, Moscow, Idaho, Amer. bor.
(L. F. HENDERSON).

26. **Marasmius amazonicus** P. Henn. F. Amaz. I in Hedw. 1904, 175 pag. 183. — Pileo membranaceo, convexo-applanato, umbilicato, sanguineo, pruinoso, radiatim subplicato, c. 6 cm. diam.; stipite fistuloso, tereti compresso, subcarneo, corticato, striatulo, pallide brunneo, usque ad 11 cm. long., 2-3 mm. cr.; lamellis valde distantibus, (c. 20) medio ventricosis, c. 6 mm. lat., utrinque angustissimis, subpliciformibus alutaceis; sporis subglobosis, hyalino-flavidulis, 1-guttulatis, 3-4 μ . diam.

Hab. ad ligna putrida, Juruá Miry, Amazonia (ULE).

27. **Marasmius clitocybiformis** P. Henn. F. Amaz. I in Hedw. 1904, 176 p. 182. — Cæspitosus; pileo carnosulo-membranaceo, sicco translucenti, rotundato, umbilicato depresso v. subinfundibuliformi, albedo, radiatim striatulo, 4-6 cm. diam.; stipite firmo lignescenti, tereti, æquali, levi, glabro, v. pruinoso, pallide fuscescenti, 5-7 cm. longo, 1,5-2 mm. cr., basi incrassato; lamellis decurrentibus, membranaceis, confertis, angustis, 1-1,5 mm. latis, pallide fuscescentibus; sporis haud conspicuis.

Hab. ad truncos putres, Rio Juruá, Miry, Amazonia (ULE). —

Hic *Clitocybæ infundibuliformi*, hinc *Mar. clitocyboidi* affinis.

28. **Marasmius superbus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. 177 — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, convexo, centro umbonato, ruguloso-venoso, atro-violaceo, radiatim sulcato plicatoque violaceo, 3-9 cm. diam., margine repando, apicibus plicarum albidis; stipite fistuloso corneo-corticato, tereti interdum contorto, levi, glabro rufo-brunneo, 4-12 cm. longo, 3-5 mm. cr.; lamellis sinuoso-adnatis v. subliberis, collariatis, distantibus, ventricosis, ca. 1 cm. latis, albidis.

Hab. ad ligna putrida, Kamerun Afr.

29. **Marasmius subimpudicus** P. Henn. in Engl. Bot. Jahrb. 1901, 178 p. 48. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato v. subconico, centro pallido v. umbilicato, ruguloso, 7-15 mm. diam., rufo-brunneo; stipite corneo, fistuloso, gracili, superne pallido, inferne castaneo nitenti, 2-8 cm. longo, 0,5-0,9 mm. cr.; lamellis adnatis, angustis, subconfertis, pallidis v. flavescenscentibus; sporis ellipsoideis, 5-6 \approx 3,5-4, hyalinis.

Hab. ad ligna vetusta, Kamerun Afr.

30. **Marasmius sub-Curreyi** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. 179 — Syll. XVI, p. 1113 (nomen). — Cæspitosus; pileo membranaceo, campanulato-expanso, centro obtuso-umbonato, flavo-lateritio, radiato-striatulo, 1,5-2 cm. diam., margine tenui, flaccido; stipite

filiformi, fistuloso, corneo, atro, brunneolo-squamuloso, superne pallidiori, 2,5-4 cm. longo, 0,7-0,9 mm. lato; lamellis collariato-connexis, confertis, lanceolatis, inæquilongis.

Hab. ad folia putrida, Kamerun Afr.

31. **Marasmius ochraceo-niger** P. Henn. in Engl. Bot. Jahrb. 1901, 180 p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo campanulato, centro papillato, radiato-striato, ochraceo, pruinoso 1-1,5 mm. diam.; stipite filiformi, corneo, atro-castaneo, pruinoso, 2-5 cm. longo, 0,3 mm. cr.; lamellis collariato-connexis, paucis, ventricosis, pallide ochraceis.

Hab. in foliis putridis, Kamerun Afr.

32. **Marasmius geophyllus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 181 — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, campanulato expanso, obtuso v. subdepresso, radiato, dense striatulo, cinereo-gilvo, centro obscuriori, 1-1,5 cm. diam.; stipite corneo, fistuloso, levi, glabro, superne flavo, inferne atro-castaneo, 1-2 cm. longo, 1-1,5 mm. cr. lamellis sinuoso-adnatis, inæquilongis, subconfertis, angustis, lanceolatis, cinereo-fuscidulis.

Hab. ad ligna putrida, Kamerun Afr.

33. **Marasmius Delilei** De Seyn. Bull. Soc. Myc. de France, 1901, 182 p. 225, tab. VIII^{bis} f. 2 (ex Delile). — Pileo demum umbilicato, depresso, membranaceo, lacteo, vetusto sordescente, margine reflexo striato; lamellis albis, latis, adnatis, remotiusculis, dimidiatis aut furcatis intermixtis; sporis oblongis basi acutis; cystidiis haud visis; stipite brevi, glabro, nigro, sursum albicante, sæpe excentrico, basi subbulbilloso.

Hab. in ramis, foliis, calamis pr. Montpellier Gallia (DELILE, Icon. ined.). — Pileus 15-20 mm. lat.

34. **Marasmius cinereo-flavidus** P. Henn. in Engl. Bot. Jahrb. 1901, 183 p. 48. — Syll. XVI, pag. 1113 (nomen). — Pileo membranaceo, campanulato, centro obtuso rotundato v. depresso, levi, glabro ad marginem substriato, cinereo, 0,5-1 cm. diam.; stipite fistuloso, corneo, brunneo, 1,5-3 cm. longo, 0,5 mm. crasso, levi glabroque, basi albo byssaceo; lamellis adnato-decurrentibus, distantibus, lanceolatis, flavidis; sporis ellipsoideis, 4-5 \approx 3-3,5, hyalinis.

Hab. ad caudices emortuos, Kamerun Afr.

- 35 **Marasmius Puttemansii** P. Hen. F. S. Paul. III in Hedw. 1904, 184 p. 203. — Mycelio rhizomorphaideo, criniformi, repente, ramoso, atro; pileo submembranaceo, convexo radiato-plicato, atrocastaneo, opaco, medio discoideo umbonato, flavido, granuloso, papilla sub-

globosa v. hemisphærica grisea ornato, 3-5 mm. diam. stipite setiformi, corneo, atro, nitenti, levi usque ad 8 cm. longo, 0,2 mm. cr.; lamellis postice subcollariatis, distantibus, inæquilongis, anastomosantibus, ventricosis, usque ad 1 mm. latis, pallidis; basidiis clavatis; sporis subglobosis, hyalinis 2,5-3 μ diam.

Hab. ad folia putrida, Serra da Cantareira, S. Paulo Brasiliæ.

36. **Marasmius tosensis** P. Henn. Pilze Jap II in Hedw. 1904, p. 151. 185

— Pileo membranaceo subgelatinoso, convexo-campanulato, castaneo, levi, glabro 5-6 mm. diam.; stipite tereti corneo, atro brunneo, levi, glabro, c. 1,5 cm. longo, 0,5 mm. cr.; lamellis adnatis, distantibus, (c. 10-14) ventricosis, acie obtusis, alutaceis; basidiis clavatis, 20 \approx 4-5, sporis subglobosis, 3,5-4 μ . diam., episporio granulato-verrucoso v. subechinato, flavidulo; mycelio rhizomorphaeide, 20 cm. longo, 0,5 mm. cr. atro, ramoso.

Hab. ad ramos emortuos, Tosa, Tokano-Mura Japoniæ (A. AKISAWA). — Pileo subgelatinoso sporisque subechinatis mox dignoscenda species; a typo generis tamen nonnihil recedens.

37. **Marasmius amabilis** Har. et Pat. Journ. de Bot. 1903, p. 12. — 186

Pileo membranaceo, tenerrimo, primum campanulato, dein explanato, glabro, albido, venulis strictis, ramosulis cristatis e centro vix umbonato radiantibus notato; lamellis distantibus, strictissimis, integris ramosisve concoloribus; stipite corneo, cylindrico, levi, glabro, atro, apice pallidiori e basi alba tomentosa orto.

Hab. ad cortices Monimiæ anisatæ putres in silvis prope Meo-Nov, Nova Caledonia (BERNIER). — Totus 4-10 cm. altus; pileus 2,5 cm. lat.; stipes 1 mm. cr.; lamellæ 0,5 mm. latæ. Ad Sect. *Chordales* spectat.

38. **Marasmius reniformis** P. Henn. in Engl. Bot. Jahrb 1901, p. 45. 187

— Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, reniformi, striatulo, tessellato-subrugoso, niveo, pruinoso, 8-15 mm. diam.; stipite laterali, brevi, pallide brunneolo 0,6-0,8 cm. longo crasque, discoideo-affixo; lamellis sinuoso-adnatis, paucis, distantibus, anastomosantibus, pallidis; sporis ovoideis, 5-6 \approx 3,5, hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

39. **Marasmius discopus** Masee in Bot. Tidsskrift-Copenhagen 1902, 188

vol. 24, pag. 214. — Pileo convexo-expanso, demum disco depresso, udo, striato, lurido, margine incurvo 1-2 cm. lato; lamellis liberis, angustis, confertis, albidis; sporis hyalinis 5 \approx 3; stipite tenaci, fusco, incurvo, basi disco applanato albicante adnato, 3-4 cm. longo.

Hab. ad terram, prope Klong Son, Siam Asiæ merid. *Mar. stylobati* Berk. et Curt. affinis.

40. **Marasmius flabellatus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 46. 189

— Syll. XVI, p. 1112 (nomen). — Pileo tenui-membranaceo, flabelliformi v. palmatifido-lobato, pleuropede, radiatim striato, albidoflavescente, 2-6 cm. diam., margine crenato v. varie lobato; stipite plus minus elongato v. obsoleto, late compresso usque ad 2 cm. longo, 3 mm. lato, concolori, discoideo affixo; lamellis decurrentibus, inæquilongis, subconfertis 1-1,5 mm. latis, pallidis; sporis subglobosis, ellipsoideis, levibus, 3,5-4 × 3-3,5, hyalinis.

Hab. ad caudices putres, Kamerun Afr.

41. **Marasmius calosporus** (Pat.) Sacc. et D. Sacc. *Crinipellis calo-* 190

sporus Pat. in Duss Enum. Champ. Guadel. 1903, p. 44. — Pileo sessili, resupinato, primitus pezizoideo, dein hinc fissus et fere dimidiatus, tenuissimo, membranaceo, albo, glabrescente, margine levi v. sulcato; cutis cellulis stratosis, tenacibus, prælongis, crasse tunicatis, 4-5 µ. diam; lamellis parvis (5-7) albo-flavidis, distantibus, venis nullis connexis, tenuibus, integris, e puncto eccentrico radiantibus; cystidiis clavatis, crasse tunicatis, incoloribus, superne sæpe incrustatis, 33 × 10-15; sporis ovoideis, levibus, 10 × 7, hyalino-roseolis, guttulas nonnullas lucidas continentibus.

Hab. catervatim in ramulis putridis Clibadii erosi, in silvis Bains-Jaunes, Guadalupa — Minutus vix 2 mm. latus, *M. asperifolio* et *M. nidulo* proximus.

LENTODIOPSIS Bubak Hedw. 1904, p. 196 (Etym. *Lentodium* et *Lentinus*, cui affinis). — Pileus carnosocoriaceus, exsiccando persistens in stipitem centralem abiens; lamellis tenuibus, longe decurrentibus deorsum venose-connexis. Velum ad stipitem annulatim secedens v. radiatim diffractum. Sporæ cylindræ, hyalinæ.

1. **Lentodiopsis albida** Bubak Hedw. l. c. — Pileis albis, solitariis, 2-3 cm. latis, 0,5-1 cm. alt, glabris; stipite cum pileo continuo, 1,5-2 cm. alto, 9,8-1,3 cm. cr. cylindræo, farcto, levi, cum pilei margine velo modo annuliformi modo laciniato connexo; lamellis tenuibus, usque ad medium stipitis decurrentibus, inferne reticulatim junctis, siccis flavidis; sporis breve cylindræis, 10-14 × 3,5-4,5, hyalinis, crasse 1-guttatis, apice rotundatis, basi tenuatis v. oblique apiculatis.

Hab. ad radices vivas Abietum pr. Tabor Bohemiæ.

Pleurothecium
191
Fr.
vs. lephrothecium

LENTINUS Fr. (incl. *Pano* p. p.). — Syll. V p. 571 et 614, IX p. 71 et 76, XI p. 39 et 41, XIV p. 117 et 122, XVI p. 61.

1. **Lentinus radicosus** Pat. Champ. des colon. franc., in Bull. du 192
jard. colon. 1902, n. 2, p. 264, tab. II, fig. 3. — Pileo coriaceo, tenui, albido-rufo, 15 cm. lato, explanato, margine involuto, infundibuliformi, nec sulcato, nec striato, sed tomentosulo; lamellis fuscis, angustis, integris, valde adnatis, decurrentibus; stipite brevi, 2 cm. basi attenuato, summo 2 cm. lato, rufo-pallido, velutino, superne striato (in proximitate lamellarum), basi radicato, duro, cylindrico, strigoso.

Hab. in terra ferruginosa Novæ-Caledoniæ. — A *L. vellereo* stipite obconico et radice elongata differt.

2. **Lentinus cordubensis** Speg. Mycet. argent. ser. II, 1902, p. 50. — 193
Pileo pallide avellaneo, hemisphærico, 5-8 mm. diam., primo centro umbonatulo dein plano, postremo minute umbilicato, obsolete concentricè subsulcato, in juventute pallide avellaneo adpresse subpaleaceo-villoso, margine integro non sulcato; lamellis subconfertis antice acutis, postice adnato-sinuatis, albidis, aridis, 0,51 mm. lat., acie sæpius minute eximieque denticulatis; stipite erecto, gracili, farcto, pileo concolore, 20-30 mm. longo, 0,5 mm. cr., in sicco longitudinaliter ruguloso; sporis ovatis 5-6 \approx 2,5-3, apice obtusiusculis, basi inæquilateraliter rostellatis, levibus non vel 1-guttulatis, hyalinis; basidiis clavulatis, obtusis, 25-30 \approx 5-7; cystidiis non visis.

Hab. ad ramenta inter folia dejecta in silvulis prope Cordoba in Argentina (T. STUCKERT). — Species habitu *Marasmiis* peraffinis sed pileo stipiteque villosis lamellis acie denticulatis inter *Lentinos* potius recensenda

3. **Lentinus clitocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 45. 194
— Syll XVI, p. 1113 (nomen) — Pileo carnosolento, infundibuliformi, brunneo cinerescente, subsquamuloso, centro pallidiori 4-6 cm. diam.; stipite farcto, tereti, concolori, tomentosulo, 3-5 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus, confertis, angustis, lineolatis, ca. 1 mm. latis, pallide cinereis v. flavidulis acie integris; sporis subglobosis 5-6 μ diam. hyalinis.

Hab. ad cortices putres, Kamerun Afr.

4. **Lentinus americanus** Peck in the Torr. Bot. Club, 1902, p. 72. — 195
— Pileo exili, convexo, fere plano, centro depresso vel subinfundibuliformi, glabro, irregulari et margine lobato, pallido, 2-2,5 cm. lato; lamellis subadnatis, margine dentato-laceratis, subdecurrentibus, albidis; stipite brevi, 1-1,5 cm. longo, 2-4 mm. crasso, sub-

æquali, solido, brunneo v. rufobrunneo strigoso, basi villosa; sporis late ellipticis vel subglobosis, $6 \approx 5-6$.

Hab. sparse vel gregarie, ad terram, Volmer, Idaho, Amer. bor. (L. F. HENDERSON).

5. **Lentinus eradicatus** Pat. Champ. des colon. franc., in Bull. du 196
jardin. colon. 1901, n. 2, p. 264. — Pileo rubro, tenui, coriaceo-
membranaceo, infundibuliformi, nec striato nec zonato, superne ve-
lutino, margine integro et reflexo; lamellis rufo-rubris, angustis,
adnatis, integris, decurrentibus; stipite gracili, erecto, cylindraco,
velutino, rufo-pallido, superne et basi paullulum indurato, non ra-
dicato.

Hab. in truncis emortuis, Nova Caledonia. — Totus 25 cm.
altus. Affinis *L. radicato* Cooke.

6. **Lentinus flavidus** Masee in Kew Bull. 1901, pag. 163. — Pileo 197
cyathoideo, membranaceo-coriaceo, 5-8 cm. diam., albido-flave-
scenti, glabro, margine incurvo, striatulo; lamellis angustis, con-
fertis, attenuato-decurrentibus, acie integris; stipite recto, densis-
sime velutino-hispidulo, brunneo, 2 cm. longo, 1 cm. crasso, e
sclerotio subgloboso 4-5 cm. diam., extus glabro, castaneo-fusco,
intus albido enascenti; sporis ellipticis, $10 \approx 4$.

Hab. in terra humosa, Old Calabar Africæ occident.

7. **Lentinus Araucariæ** Har. et Pat. Journ. de Bot. 1903, p. 11. — 198
Pileo orbiculari, excentrico, profunde umbilicato, brunneo-casta-
neo, pruinoso, squamis distantibus erectis, crassis, substellato-py-
ramidatis, macula nigra insidentibus, margine incurvo pectinatim
striato; stipite excentrico, lignoso, albido-rufescente, subæquali e
basi effusa atra assurgente, glabriusculo, apicem versus annulo ni-
gricante frustulatim fracto ornato; lamellis decurrentibus, distan-
tibus, simplicibus, acie integra, pileo subconcoloribus.

Hab. ad truncos Araucariæ, Tendea, Nova Caledonia (BER-
NIER). — Pileus 5-6 cm. lat.; stipes 2-4 cm. long., 6 mm. cr.;
lamellæ 2 mm. latæ.

8. **Lentinus lamelliporus** Har. et Pat. Champ. rec. au Japon, in Bull. 199
du Mus. d'hist. nat. 1902, n. 2, p. 130. — Lignicola, cæspitosus;
stipite nullo v. brevissimo, crasso, excentrico, in pileum firmo-
coriaceum dilatato, antice elongatum, postice multo breviorum,
margine acuto, integro, subtus vix recurvato, sinuoso, superiori
facie alba, roseola, glabra, levi, medio depressa, postice marginata;
hymenio albo, in media parte inferiori in tubulos, favoloideos mu-
tato, dissepimentis tenuibus integris leviterque denticulatis, in me-

dia superiori parte in lamellas e tubulis ortas expanso, antice attenuatas, brevioribus immixtis, 4-5 mm. latas, acie distincte denticulatas acutasque, verrucis emergentibus numerosissimis.

Hab. ad truncos, Tokyo Japoniæ (HARMAND).

9. **Lentinus cochlearis** (Pers.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 69, *Lentinus suavissimus* Fr. Syn. Lent. p. 13, *Lentinus anisatus* P. Henn. in Sydow, Mycoth. March. n. 4702, *Agaricus cochlearis* Pers. Myc. Europ. III, p. 33, n. 36, *Panus cochlearis* Fr. Hym. Eur. p. 489. — Syll. V, p. 622. — Micheli Gen. pl. t. 65, f. 5-6. — Pileo carnosolento, dimidiato, subintegro vel integro, in dimidiatis subreniformi, spathulato vel ovato-subspathulato, in integris convexo-umbilicato demum cyathiformi vel infundibuliformi, margine primo involuto dein revoluto, hirtello vel pubescente, mox glabro, levi vel etiam radiato-striatulo, stramineo-lutescente, centro sæpe vel rarius ex integro fulvo, demum pallescente, 1-3 cm. lato; lamellis ex albido stramineis, postice anastomosantibus, acie fimbriato-denticulata, ætate subintegra; stipite solido variæ longitudinis, e pubescente glabrato, pallido, sæpe basi vel etiam ex integro fulvo, 5-15 mm. longo, 3-4 mm. crasso; carne alba, carnosolenta, odore grato, aniseo prædita; basidiis clavatis, 20-28 \approx 6-7; sporis hyalinis, subcylindraceis, uno latere subcompressis, 7-9 \approx 2-3.

Hab. ad ramos Salicis capræ in Polonia. — Hujus speciei specimina vidi ex integro fulva, forma cum iconibus a cl. Micheli l. c. editis prorsus consona, ideoque de identitate vix dubito, quæ etiamsi colore diverso omnino specificè cum specie Henningiana l. c., cujus specimina comparavi, jungenda. Species friesiana huc quoque ducenda absque dubio, nam species hæc quoad formam et colorem valde variabilis etiam in speciminibus gregatim ad eundem ramum nascentibus (BRESADOLA l. c.).

PANUS Fr. — Syll. V p. 614, IX p. 76, XI p. 41, XIV p. 122.

1. **Panus stipticus** (Bull.) Fr. — Syll. V, p. 622. — var. **alba** Bresadola Fungi polonici, in Ann. Myc. 1903, pag. 69. — A forma typica differt colore ex integro candido, lamellæ tamen exsiccando cremæ evadunt. Cetera omnia concordant.

Hab. ad truncos Betulæ albæ, in Polonia.

2. **Panus luteolus** Masee in Bot. Tidsskrift-Copenhagen 1902, vol. 24, 201 pag. 215. — Sessilis, imbricatus; pileo fere membranaceo, lento, subreniformi, tomento flavo obducto, 3-5 cm. longo; lamellis an-

gustissimis, confertissimis, pallidis, acie acutis; sporis hyalinis 5×3 .

Hab. in lignis emortuis prope Klong Prao, Siam Asiæ merid.
— *Pano aureofulvo* Cooke affinis.

3. **Panus spathulatus** Masee in Bot. Tidsskrift-Copenhagen 1902, 202
vol. 24, p. 215. — Cæspitosus; pileo tenui, lento, pallido, suborbiculari seu reniformi, margine arcte involuto, albido, 3-5 cm. lato; lamellis confertissimis, angustissimis, acie integris, albidis; sporis hyalinis $4 \times 2,5$; stipite exacte laterali, elongato, cylindrico, fibroso-lignoso, pileo concolori, 4-6 cm. longo

Hab. ad terram prope Klong Son, Siam Asiæ merid.

4. **Panus michailowskojensis** (P. Henn.) Sacc. et D. Sacc. *Lentinus* 203
P. Henn. in Hedw. 1904, p. 67. — Pileo membranaceo-coriaceo, subapode, conchiformi vel subflabellato, convexo, postice affixo, brunneolo, basi isabellino, hyalino granuloso, pilosulo, ad marginem radiato-striato, 0,5-1 cm. lato, 4-8 mm. longo; lamellis ad basim radiatis, membranaceo-coriaceis, inæquilongis, angustis, utrinque attenuatis, medio 1-1,5 mm. latis, pallide alutaceis, acie integris, acutis; basidiis clavatis 8-10 \times 3-3,5; sporis subcylindraceis vel clavatis, obtusis, hyalinis, 3,5-4 \times 1,5.

Hab. in ramis Alni incanæ, Michailowskoje, in ditione Mosquensi Rossia.

XEROTUS Fr. — Syll. V p. 630, IX p. 78, XI p. 41, XIV p. 123, XVI p. 67.

1. **Xerotus martinicensis** Pat. in Duss Enum. Champ. Guadel. 1903, 204
p. 48. — Mesopus; pileo convexo, centro papillato, 1-2 cm. diam., subtenui, sicco, rigidulo, albo-brunneolo, ruguloso, pulverulento, ad centrum plicato-sulcato, margine acuto, integro; stipite solido, duro, gracili, 1-2 cm. long., 1-1,5 mm. cr., cylindrico, regulari, brunneo-rufo, breviter ruguloso-pubescente; basi vix incrassato; lamellis parcis (8-12) distantibus, rigidulis, brunneolis, crassiusculis, integris, acie obtusis circa stipitis apicem insertis, non decurrentibus, latis, intermixtis brevioribus, interdum venæformibus.

Hab. ad ramos putres A verrhoæ Bilimbi in Guadalupa et Martinica (Duss). — Habitus marasmiodeus.

2. **Xerotus changensis** Rostr. in Bot. Tidsskrift-Copenhagen 1902, 205
vol. 24, p. 211. — Pileo coriaceo, rigido, tenui, sessili, dimidiato, opaco, atro, pulverulento, radiatim sulcato, 2-3 cm. lato, margine initio integro, dein lobato, subtus rufo, plicis radiantibus, distantibus, integris.

Hab. ad truncos Siam Asiæ merid.

3. **Xerotus echinosporus** P. Henn. F. Amaz. I in Hedw. 1904, p. 182. 206

— Pileo coriaceo, spathulato-erecto, v. anguste flabellato, substipitato, alutaceo-brunneo, levi, pruinoso, 1-1,5 cm. longo, 3-5 mm. lato, basi albido-byssino; lamellis coriaceis, decurrentibus, distantibus, dichotomis, acie obtusa crassis, alutaceis; basidiis clavatis, 20-25 × 6-8; sporis subglobosis 5-6 μ . cr., aculeato-verrucosis, hyalino-flavidulis.

Hab. ad terram detriticam, Rio Madeira pr. Marmellos, Amazonia (ULE). — Forma spathulata sporisque verrucosis pradistincta species.

LENZITES Fr. — Syll. V p. 637, IX p. 78, XI p. 42, XVI, p. 67.

1. **Lenzites betulina** (L.) Fr. — Syll. V, p. 638. — var. **radiata** Peck 207 in Rep. of the State Botanist, 1901, p. 965. — Pileo tenui, 2 mm. crasso, 3,5-7,5 cm. lato, coriaceo, velutino-piloso, anguste plurizonato, radiato-striato, brunneo; lamellis inæqualibus, raro furcatis, non anastomosantibus, griseo-albidis vel brunneolis.

Hab. in truncis Fagi, Hague, Amer. bor.

2. **Lenzites Gussonei** Scalia Fungi Sicilia orient. ser. I, 1900, p. 21. 208 — Pileo suberoso, explanato v. undulato, ochroleuco, squamulis adpressis, melleis obsito; lamellis concoloribus undulatis, versus stipitem dichotomis anastomosantibus, reticulum tenuem, fuscum, ostendentibus; stipite crasso, brevi, alutaceo-fusco, farcto intus stuposo.

Hab. in truncis Cytharexyli subserrati et Yuccæ aloifoliæ, Catania, Sicilia, in horto botanico.

3. **Lenzites sibirica** Karst. Fungi nov. Loennb. 1904, p. 3 (Finska 209 Vetensk. Soc.). — Pileo coriaceo, rigido, dimidiato, plano postice gibboso, cervino, fibrillis innatis radiantibus, teneris obtecto, obscurius zonato, intus pallescente, margine acutiusculo, inæquali, concolore, 3-5, cm. lato; lamellis crassiusculis, inæqualibus, poroso-anastomosantibus, sordide pallidis, demum fusciscentibus.

Hab. ad truncum arborum frondosarum in regione Baicalensi. Listoinitschnoje Sibiriae Aug. 1902 (O. A. F. LÖNNBOHM).

Sect. 2. **Rhodosporæ.**

VOLVARIA Fr. — Syll. V p. 656, IX p. 82, XI p. 43, XIV p. 124, XVI, p. 69.

1. **Volvaria submyochroa** Clem. in Bot. Surv. Nebr. 1901, p. 10. — 210

Pileo subcarnoso, convexo, subplano, parce umbonato, lucenti, in umbone fibrillis sericeis dense vestito, margine substriato, 3-4 cm. crasso, avellaneo-cinereo; stipite carnoso, æquali, solido, albo, lucenti, apice farinoso, 3-4 cm. longo, 5 mm. crasso; volva minuta, hirsuta 2-3-fida, concolore; lamellis liberis, remotis, subconfertis, ventricosis, initio carneis dein isabellinis; sporis ellipsoideis, 1-guttulatis, levibus, 6-7 \times 4.

Hab. ad terram humidam, University Campus, Lincoln Americæ borealis.

2. **Volvaria concinna** Clem. in Bot. Surv. Nebr. 1901, p. 9. — Pileo 211 submembranaceo, expanso, subumbonato, levi, pallide avellaneo 0,5-1,5 cm. diam.; stipite gracillimo, concolore, 0,5-1,5 cm. 1-2 mm.; volva minuta valde adpressa; lamellis liberis, roseis; sporis ovato-ellipticis, granulosis vel guttatis, levibus, roseis, 8-11 \times 5-7; cystidiis nullis.

Hab. ad terram ad flumen Humboldt et Marysville, Kansas, Amer. bor.

3. **Volvaria liliputiana** P. Henn. Fungi Indiæ or. II, in Hedw. 1903, 212 p. 333. — Parvula; pileo convexo campanulato medio depresso obtuse umbonato, albido, subvelutino, margine obsolete striatulo, 0,5-1 cm. diam.; stipite fistuloso, gracili, levi, glabro, albido 1-1,5 cm. longo, vix 1 mm. cr., volva membranacea, lacerato-fissa; lamellis liberis, subconfertis, flavido-roseis; sporis ovoideo-ellipsoideis, 1-grosse guttulatis, levibus, 4-5 \times 4, basi apiculatis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

ANNULARIA Schulz. — Syll. V p. 668, IX p. 82, XI p. 43, XIV p. 125.

1. **Annularia baicalensis** Karst. Fung. novi Loennb. 1904, pag. 2 213 (Finska Vetensk. Soc.). — Pileo carnoso, sat crasso, convexo, obtuso, glabro, levi, alutaceo (in statu sicco), circiter 7 cm. lato; stipite solido, æquali, glabro, concolore, circiter 7 cm. longo et 2 cm. crasso; annulo membranaceo; lamellis liberis, confertissimis, angustissimis, æqualibus, carneis; cystidiis mellis; basidiis clavulatis 20 \times 4.

Hab. in regione Baicalensi Sibiria (O. A. F. LÖNNBOHM).

PLUTEUS Fr. — Syll. V p. 665, IX p. 83, XI p. 44, XIV, p. 125, XVI p. 72.

1. **Pluteus cervinus** (Schäff.) Quéf. Syll. V, p. 665. — var. **griseo-vi-** 214

ridis P. Henn. Fung. S. Paul. III Hedw. 1904, p. 204. — Pileo carnosio, convexo, explanato, centro obtuso, levi, glabro, subglutinoso, margine striatulo, griseo-viridi, 5-7 cm. diam; stipite solido, cylindraceo, pallido, levi, glabro, 4-7 cm. long., 3-5 mm. cr. basi incrassato; lamellis liberis confertis, ventricosis, 3-4 mm. latis; flavido-incarnatis; sporis ellipsoideis, 1-guttulatis, carneis, 4-5 \approx 4; cystidiis lageniformibus, apice 2- v. 3-dentato-hamatis, 40-60 \approx 15-20.

Hab. ad caudices, Serra de Cantareira, S. Paul. Brasiliæ. — Præcipue colore pilei et sporis paullo minoribus a typo recedit.

2. **Pluteus flavo-fuliginus** Atkinson in Journ. of Mycol. 1902, p. 117. ²¹⁵
— Sparsus, 5-7 cm. altus; pileo ovoideo, convexo, interdum subumbonato, initio intense flavo-fuligineo, minute tomentosulo, dein pallidiori et centrum versus plus minusve fuligineo-radiato, margine non striato, 4-5 cm. lato; carne alba; lamellis liberis, utrinque rotundatis, 3-5 mm. latis, non stipatis, intense carneis; basidiis clavatis, 4-sporis, 30-35 \approx 6-7; sporis ovoideis, levibus carneis, 5-7 \approx 4-6; cystidiis numerosis, fusoides, apice obtusis 80-100 \approx 12-20 hyalinis; stipite pallide carneo, levi, solido, dein fistuloso, 4-6 mm. crasso.

Hab. in lignis putridis, in silvis Coy Glen, Ithaca N. Y. Americæ borealis.

3. **Pluteus roseipes** Höhnelt Fragmente zur Mykologie, 1903, p. 24. ²¹⁶
— Pileo carnosulo, margine submembranaceo, subumbonato, explanato ad 5-6 cm. lato, fuliginoso, centro obscuriore, subtiliter sericeo et velutino-flocculoso, margine leviter striato; lamellis attingenti-liberis, confertissimis, roseis, 5 mm. latis, acie subtiliter albo-fimbriata; stipite solido, tereti, intus extusque roseo, levissimo, æquali, basi leviter incrassato; sporis globosis, levibus, 6-8 \approx 7, griseo-incarnatis; cystidiis numerosis, fasciculatis, clavatis, obtusis vel apiculatis, usque 60 \approx 16, membrana subtili, solum versus apicem incrassata.

Hab. in pratis subalpinis prope Puchberg ad montem Schneeberg Austriæ inferioris.

4. **Pluteus floccifer** Boud. in Bull. Soc. Myc. de France 1902, n. 2, ²¹⁷
tab. 6, fig. 2. — Pileo convexo-campanulato, 3-4,5 cm. diam., eximie hygrophano, parum carnosio, brunneo, siccitate fulvo, ad marginem longe striato, undique floccis acutis filamentosis, albis, subtiliter consperso, toto 10-12 cm. alto; lamellis liberis, latiusculis, diu albidis, dein rufo-ferrugineis; stipite elongato, sericeo, striato.

plus minusve torto, sed colore pallide rufescente leviter tincto, ad basim paululum incrassato; sporis ovatis, guttulato-granulosis, sub lente pallide ferrugineis, magna copia rufo-fulvis.

Hab. ad terram graminosam, in montibus Juranis Galliæ.

5. **Pluteus Termitum** P. Henn. F. Amaz. I in Hedw. 1904, p. 183. 218

--- Pileo carnosulo, campanulato, vertice umbonato-obtuso, brunneo, radiatim substriato, albido, 3-4 cm. diam.; stipite fistuloso tereti, substriato, levi, basi interdum curvulo, incrassato, pallide brunneo, 4-5 cm. longo, 2-3 mm. cr.; lamellis liberis, confertis, ventricosis, 3 mm. latis, pallidis dein flavidis; sporis ellipsoideo-fusoideis, utrinque acutiusculis, 1-2-guttulatis, episporio pallide incarnato, levi, 7-10 \approx 4-5.

Hab. ad excavationes Termitum, Fortaleza Amazoniæ. — Nonnullis notis ad *Lepiotas* nutat.

6. **Pluteus bulbipes** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54. — 219

Syll. XVI, p. 1113 (nomen). — Pileo submembranaceo, carnosulo, convexo obtuso, subsquamuloso granuloso, radiato-striato, brunneo-olivaceo 3-4 cm. diam.; stipite subfarcto, tereti, striatulo, pallide brunneo, 4-6 cm. longo, 3-4 mm. crasso, basi bulbiloso, 6-8 mm. incrassato; lamellis sinuoso-adnatis 2-2,5 mm. latis, confertis, albidis dein flavo-carnescentibus; sporis subglobosis, intus granulatis, 4-5 diam. episporio levi, flavo-carnescente.

Hab. ad terram, Kamerun Afr.

7. **Pluteus citrino-carnescens** P. Henn. in Engl. Bot. Jahrb. 1901, 220

p. 54 — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo carnosulo, convexo expanso, radiato-striato, citrino 2,5-5 cm. diam., centro umbilicato v. subpapilloso, venoso-rugoso fuscidulo; stipite subfarcto, tereti, levi, glabro vel striatulo, incarnato, 2-5 mm. longo, 2-4 mm. crasso; lamellis sinuoso-adnatis v. subliberis, confertis, 3-5 mm. latis, roseo-carneis; cystidiis subulatis ca. 25-30 \approx 8-9; basidiis clavatis 18-24 \approx 5-7; sporis subglobosis v. ellipsoideis 1-grosse guttulatis, levibus, flavo-carnescentibus, 4,5-6 \approx 4-5.

Hab. ad terram, Kamerun Afr.

ENTOLOMA Fr. — Syll. V p. 679, IX p. 83, XI, p. 44, XIV p. 126, XVI p. 76.

1. **Entoloma clypeatum** (L.) — Quéf. — Syll. V, p. 694. — var. **Par-** 221

thelii Star. in Verhandl. d. bot. Ver. Brandenb. 1903, p. 91. — A typo imprimis differt sporis angulosis, 11-14 \approx 8-11, 1-guttatis.

Hab. ad terram Fuhnehang, Anhalt Germaniæ.

2. **Entoloma graveolens** Peck Rep. of the State bot. 1899, p. 844, ²²² tab. II, fig. 1-7. — Pileo 5-10 cm. lato, firmo subfragili, convexo, sæpe irregulari, glabro, margine flocculoso, albido, interdum violaceo tincto; carne alba; sapore odoreque ingrato; lamellis angustis, stipatis, adnatis, griseo-albis pallide salmonis; stipite 3,5-10 cm. longo, 16-24 mm. crasso, firmo, solido, basi bulboso tomentosum, superne lanuginosum, albo; sporis pallide roseis, ellipticis 6-7,5 \times 3,5 sæpe 1-nucleatis.

Hab. in silvis Meadowdale, Amer. bor.

3. **Entoloma Farrahi** Mass. et Cross. in the Naturalist 1904, pag. 1, ²²³ tab. I, fig. 1-4. — Pileo cylindrico-ovato dein campanulato, subrepando, umbonato, levi, sericeo-fibrilloso, sicco, atro-cæruleo, circa marginem pallidiore, 6-8 cm. diam.; lamellis latis, sinuato-adnexis, ventricosis, subdistantibus, carneis; stipite solido, ventricoso, glabro, pileo concolori, basi albo, 5-7 cm. longo, 1,5-2 cm. crasso; sporis oblongo-ellipticis, levibus, carneis 10 \times 4,5-5; cystidiis cuspidatis, ventricosis, 50-60 \times 12-15.

Hab. in graminosis Helmsley Britannicæ (J. FARRAH).

4. **Entoloma variable** Peck Rep. of the State bot. 1900, pag. 145, ²²⁴ tab. F, fig. 17-27. — Pileo conico, ovato vel subcampanulato, umbonato interdum subdepresso vel apice subumbilicato, parce fibrilloso, pallide luteo dein rufo-brunneo, margine luteolo, 16-50 mm. lato; lamellis modice stipatis, ascendentibus, acie erosis, antice latis, albidis, dein pallide roseis; stipite filiformi, æquali, cavo, subfibrilloso-striato albido vel pallido, basi tomentosum 7,5-12,5 cm. longo, 2-4 mm. crasso; sporis angulosis, 1-nucleatis, 10-12,5 μ . diam.

Hab. in Sphagno, Floodwood, Amer. bor.

5. **Entoloma nigricans** Peck in the Torr. Bot. Club. 1902, p. 72. — ²²⁵ Pileo exili, convexo, irregulariter expanso, centro depresso, sericeo-fibrilloso, intense griseo vel nigrescenti, cuticula radiato-erumpenti, inodoro, 2,5-4 cm. diam.; stipite æquali sericeo-fibrilloso, initio firmo, dein cavo, 2,5-5 cm. longo, 4-8 mm. crasso, albo et nigro zonato, interdum superne furfuraceo; lamellis latis, subdistantibus, sinuatis, adnatis, rufo-roseis; sporis roseo-carneis, angulosis, uninucleatis 8-12 μ . diam.

Hab. ad terram in silvis prope St. Louis, Mo, Amer. bor. (N. M. GLATFELTER).

6. **Entoloma Peckianum** Burt in Peck Rep. of the State Bot. 1900, ²²⁶ p. 146, Tab. F, fig. 9-16. — Pileo tenui 16-30 mm. diam., co-

nico dein convexo vel subcampanulato, subhygrophano, intense brunneo, umbonato, margine obscure rugoso, minute fibrilloso; lamellis adnatis, stipatis, ascendentibus, latis, abrupte rotundatis albidis, dein salmoneis; stipite carnosus, filiformi, æquali, cavo, fibrilloso-striato, pallide brunneo, sæpe basi albicante, intus albido 5-10 cm. longo, 2-4 mm. crasso; sporis angulosis 1-nucleatis 10-12,5 \times 7,5-10.

Hab. in Sphagno, Floodwood, Amer. bor. — *Habitus Nolanæ infulæ* Fr.

7. **Entoloma strictius** Peck — Syll. V, pag. 698. — var. **irregulare** ²²⁷
Peck Rep. of the State bot. 1899, p. 856. — Pileo exili, fragili, campanulato convexo vel fere plano, umbonato vel non, sæpe irregulari, intense brunneo et indistincte striatulo, in sicco griseo-brunneo; lamellis initio griseis, maturitate pallide roseis; stipite breviusculo, sæpe irregulari, sericeo-fibrilloso, plano vel cavo, lucenti, albo.

Hab. in graminosis, Albany, Amer. bor.

8. **Entoloma luteum** Peck Rep. of the State bot. 1900, p. 146, t. *F*, ²²⁸
fig. 1-8. — Pileo 12-20 mm. lato, conico vel subcampanulato, obtuso, apice squamuloso, luteo vel fuligineo-luteo dein sæpe griseo; lamellis ascendentibus, modice stipatis, latis, albidis dein pallide salmoneis; stipite filiformi, æquali, cavo, subfibrilloso-striato, pileo concolori, basi mycelio albo obvoluto, 7,5-10 cm. longo, 2-4 mm. crasso; sporis angulosis, subquadratis, 10-12 μ . diam.

Hab. in silvis, Floodwood, Amer. bor.

CLITOPILUS Fr. — Syll. V p. 698, IX p. 85, XI p. 45, XIV p. 128, XVI p. 77.

1. **Clitopilus noveboracensis** Peck — Syll. V, p. 702. — var. **subviolaceus** ²²⁹
Peck Rep. of the State bot. 1900, p. 165. — Pileo tenui, in statu juvenili subplano dein centro depresso, pallide griseo violaceo, sæpe obscure zonato vel concentricè maculato, margine valde involuto; carne albida, sapore farinaceo; lamellis decurrentibus, pallidis dein cremeo-luteolis; stipite pallido, basi albido-tomentoso, interdum excentrico.

Hab. in silvis, inter folia dejecta Floodwood, Amer. bor. — Var. **umbilicatus** Peck l. c.: pileo subplano, umbilicato, albo vel albido; carne alba; sapore aquoso; stipite brevi, albo, tomentoso vel piloso, rivuloso vel concentricè rimoso. In silvis, Floodwood, Amer. bor.

2. **Clitopilus sphaerosporus** Peck Bull. Torr. Bot. Cl. 1984, p. 179. 230

— Pileo carnoso sed tenui, subplano, margine involuto, v. curvo, umbonato v. leviter centro depresso, sicco, minute tomentosopubescenti, atro-griseo v. nigrescenti-brunneo; carne alba; lamellis tenuibus, angustis, confertis, inæqualibus, leviter decurrentibus, albidis, roseo-tinctis; stipite æquali v. sursum leviter tenuato, solido, firmo, pileo concolori, basi tomento mycelico albo vestito; sporis globosis, 1-nucleatis, 5-6 μ . diam., roseis.

Hab. inter folia dejecta pr. St. Louis Mo. Amer. bor. (N. M. GLATFELTER). — Pileus 1-2,5 cm. lat.; stipes 2-4 cm. long, 2-4 mm. cr.

LEPTONIA Fr. — Syll. V p. 706, IX p. 87, XI p. 46, XIV p. 128, XVI p. 78.1. **Leptonia bicolor** Masee Kew Bull. 1901, p. 154. — Pileo sub- 231

membranaceo, conico, umbilicato, levi, glaberrimo, pallide roseo, 3-5 cm. alto; lamellis confertis adnexis, angustis, albidis dein incarnatis; stipite fistuloso, sursum attenuato, glabro, nitente, pileo concolori, 8-10 cm. longo, 6-8 mm. crasso; sporis oblongis, nodulosis, incarnatis, 10-11 \approx 7.

Hab. ad terram, Singapore, Malacca (RIDLEY).

2. **Leptonia tricolor** Masee Kew Bull. 1901, pag. 154. — Pileo sub- 232

membranaceo e convexo plano-depresso, virgato, lilacino, 2-3 cm. lato, margine striatulo incurvo; lamellis annexis, angustis, subdistantibus incarnatis, acie serrulatis; stipite farcto, sursum attenuato, albido, glabro, 5-6 cm. longo, 6-7 mm. crasso; sporis subglobosis, apiculatis, 8-9 μ . diam.

Hab. ad terram, Penang, Malacca (RIDLEY).

3. **Leptonia seticeps** Atkinson in Journ. of Mycol. 1902, p. 116 — 233

Pileo convexo expanso, margine interdum incurvo, brunneo, centro intense concolori, substriatulo, levi vel minute granuloso, nigropunctulato, 1-3 cm. lato; carne albida tenui; lamellis subadnatis, circ. 4 mm. latis, ellipsoideis, acie erosis, pallide carneis; basidiis cylindraceutis, 4-sporis, 18-25 \approx 6-8; cystidiis nullis vel raris in superficie lamellarum, in acie numerosis, clavato-ellipticis, hyalinis, 50-60 \approx 10-15; sporis ovoideis v. subglobosis, levibus, carneis, sub lente pallidis; stipite levi, inferne albido, superne griseo pallidiori, fibroso striato, æquali vel basi incrassatulo, erecto vel curvulo, solido, 1-2 cm. alto, 2-3 mm. crasso.

Hab. in ligno putri ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

4. **Leptonia hortensis** Peck in Rep. of the State botanist 1902, p. 26. 234
— Pileo tenui, convexo, umbilicato, hygrophano, rufo-brunneo, striatulo, in sicco pallido, sericeo, 10-20 mm. lato; lamellis tenuibus, stipatis, adnatis, initio albidis dein maturitate roseis; stipite brevi, 16-24 mm. longo, 2 mm. crasso, tenui, glabro, carne pileo concolori; sporis angulosis, 1-nucleatis, 7,5-10 \approx 7,5.

Hab. ad terram, Menands, Albany co., Amer. bor.

5. **Leptonia Kummeriana** P. Henn. Fungi Afr. orient. II, in Bd. 235 Jahrb. XXVII, p. 36. — Pileo membranaceo, carnosulo, campanulato-umbonato, subobtusulo, squamis granulosis atrocyaneis, verruculoso, violaceo, 12-15 mm. diam.; stipite cartilagineo, fistuloso, gracili, granuloso-verrucoso, atrocyaneo, 3-4 cm. longo, 1 mm. cr.; lamellis adnexis, subdistantibus, inæquilongis, ventricosis, utrinque attenuatis, ca. 1,5 mm. latis, pallidis, dein subcarnescens, acie integris; basidiis clavatis, intus flavo-guttulatis, 16-24 \approx 6-8; sporis 4-5 angulatis, basi apiculatis, flavo-carneis, grosse 1-guttulatis, 8-10 \approx 6 8.

Hab. ad terram, Usambra Afr. orient. (KUMMER).

NOLANEA Fr. — Syll. V p. 716, IX p. 88, XI p. 47, XIV p. 129, XVI p. 80.

1. **Nolanea nodospora** Atkinson in Journ. of Mycol. 1902, p. 114. -- 236
Totus fungus intense brunneus, 6-7 cm. altus; pileo campanulato squamuloso, floccis squarrosis; carne brunnea, externe compacta, intus floccosa; lamellis ascendentibus, ventricosis, postremo adnatis; basidiis 4-sporis, 30-35 \approx 8-10; sporis oblongis, noduloso-oblongis, 12-18 \approx 6-9 roseolis, in charta carneis; cystidiis in acie lamellarum, ventricosolanceolatis; stipite superne pallido, fistuloso 1,5-2,5 mm. crasso, basi subincrassato.

Hab. ad terram, in silvis, Six Mile Creek, Ithaca, Amer. bor. 237

2. **Nolanea fibrillosa** Peck Rep. of the State bot. 1900, p. 147, t. I, fig. 12-19. — Pileo tenui, fragili, campanulato vel convexo, hygrophano, brunneo et striatulo, in sicco pallido, lucenti, fibrilloso 12-20 mm. lato; lamellis adscendentibus, stipatis, acie constrictis, adnatis, interdum ventricosis, albidis vel pallidis dein roseis; stipite filiformi, glabro, cavo, pallido, 5-7,5 cm. longo, 1-2 mm. crasso; sporis angulosis, 12,5-15 \approx 7,5-10, uninucleatis.

Hab. ad terram in silvis, Floodwood, Amer. bor.

3. **Nolanea rhodospora** (Broome et W. G. Sm.) Sacc. et D. Sacc., 238
Agaricus rhodosporus Broome et Sm. Journ. of Bot. 1903, p. 385.
 — Pileo convexo, fusco-fibrilloso v. rufescenti-piloso; stipite subbulboso, albo; lamellis sinuatis v. liberis, salmonicoloribus v. roseis, 25-31 \approx 1,5 mm.; sporis.... (non descriptis).
Hab. ad terram et fragmenta lignea in calidariis in Britannia.
 — Affinis dicitur *Nol. rubidæ*.

ECCILIA Fr. — Syll. V p. 729, IX p. 88, XIV p. 129, XVI p. 80.

1. **Eccilia mordax** Atkinson in Journ. of Mycol. 1902, pag. 113. — 239
 Sæpe gregaria, 5-7 cm. alta; pileo convexo, umbilicato, margine revoluto, levi, rufo-brunneo vel pallide brunneo, hygrophano, viscido, raro radialiter rimoso, 2-5 cm. lato; carne albido-isabellina; lamellis carne concoloribus, adnatis vel subdecurrentibus, non stipatis; basidiis clavatis, 25-30 \approx 6-8, 4-sporis; cystidiis nullis; sporis ovalibus, 6-7 \approx 4-5, pallide roseis; cellulis lamellarum, 30-60 \approx 6-10; stipite pileo concolori, cartilagineo, fistuloso, levi, sæpe compresso, 3-5 mm. crasso; sapore subnullo, sed gulæ valde acri.
Hab. ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.
2. **Eccilia rhodocylicioides** Atkinson in Journ. of Mycol. 1902, p. 113. 240
 — Sparsa vel 2-3-congesta, 3-5 cm. alta; pileo 5-12 mm. lato, plumbeo-griseo, convexo, umbilicato, centro minute floccoso-squaroso, margine substriatulo; lamellis pallide concoloribus, arcuatis, distantibus, decurrentibus, acie, ob cystidia albis, setulosis; basidiis clavato-cylindræis, 4-sporis, 30 \approx 10-12; sporis subquadrangularibus, 8-10 μ . diam.; stipite cartilagineo, cavo, superne pallido, pileo concolori, 1-2 mm. crasso
Hab. in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.
3. **Eccilia pentagonospora** Atkinson in Journ. of Mycol. 1902, p. 113. 241
 — Sparsa, 2-3 cm. alta; pileo plumbeo-griseo, 0,5-1,5 cm. lato, umbilicato vel infundibuliformi, tenui, fibroso-striato, levi vel in superficie minute rugoso; lamellis roseis, 2-4 mm. latis, non stipatis, decurrentibus, ascendentibus; basidiis clavatis, 25-30 \approx 8-10, 4-sporis; sterigmatibus conicis, base incrassatulis; sporis subquadratis, prominenti 4-5-angulosis, 6-10 μ . diam., roseis; cystidiis nullis; stipite cylindrico, solido, æquali, griseo-plumbeo, basi albido tomentoso, carne albida, 1-2 mm. crasso.
Hab. ad terram, Stewart Ave., Ithaca N. Y. Amer. bor.

4. **Eccilia sphagnophila** Peck Rep. of the State bot. 1900, pag. 147, 242

tab. I, fig. 20-23. — Pileo hemisphærico vel umbonato-turbinato, glabro, margine striato, intense brunneo, 8-12 mm. lato; lamellis latis, distantibus, decurrentibus, albidis dein subroseis; stipite filiformi, 3,5-5 cm. longo, 1,5-2 mm. crasso, glabro, pileo concolori; sporis angulosis, 7,5-12,5 \times 6-7,5.

Hab. in paludosis intra Sphagna, Floodwood, Amer. bor.

5. **Eccilia Henningsii** (Star.) Sacc. et D. Sacc., *Agaricus* (*Eccilia*) *Henningsii* Star. Verhandl. Bot. Ver. Prov. Brandenbg. XIV, 1903, p. 90. — Pileo carnosulo, primo umbilicato, usque ad 4 cm. diam., fusco-brunneo cinerescente, margine revoluto; stipite fistuloso, cartilagineo, concolori, basi villosulo, haud punctulato, usque ad 5 cm. longo; lamellis incarnatis, cinereo-maculatis, paullum decurrentibus, acie subdenticulata, haud atra; sporis 8-12 \times 7-10.

Hab. ad terram inter gramina, Grosskühnauer Park Dessau Germaniæ. — *Ecc. atridi* et *E. griseo rubellæ* affinis.

CLAUDOPUS W. Sm. — Syll. V p. 733, IX p. 89, XI p. 48, XIV p. 130, XVI p. 82.

1. **Claudopus argentinensis** Speg. Myc. Arg. ser. I. in Ann. Soc. Cient. Argent. 1899, pag. 264. — Pileo irregulariter orbiculari, 8-9 cm. diam. et leniter inæquilaterali, horizontali convexo, centro late obtuseque umbonato, margine incurvulo, integro vel vix sinuoso-repandulo, cute tenui, sæpius radiatim minute fibrilloso-riposa, sordide argentea v. subcinerea, in vivo subviscosa, in sicco subsericea vestito; carne candida immutabili, in umbone flocculoso-compactiuscula super lamellas tenuissima vix evoluta, cum illa stipitis continua; lamellis segmentiformibus, tenuiusculis, 10-12 mm. lat., membranaceis, confertiusculis, polymacriis, pro ratione latis-
simis, antice attenuato-rotundatis, postice abrupte subtruncato-rotundatis, a stipite remotis, primo albis, dein roseis, postremo pallide carneis; stipite laterali adscendenti-incurvo, tereti 7-8 cm. longo, 6-7 mm. cr., intus farcto albo, extus albo v. subpalescente, sæpius plus minusve obsoleteque fibrilloso-reticulato v. fibrilloso-striato; sporis ovatis, inæquilateralibus, 8 \times 4, levibus.

Hab. ad truncos emortuos putrescentes *Eucalypti* globuli La Plata Argentinæ.

2. **Claudopus byssisedoides** P. Henn. F. Amaz. I in Hedw. 1904, p. 183. — Pileo carnosulo, subresupinato, basi affixo v. substipitato, flabelliformi v. reniformi, superne pallido, pruinoso, levi, 3-7 mm. longo latoque; stipite laterali, brevissimo, curvato, basi ef-

fuso albido-byssino; lamellis decurrentibus, confertis, inæquilongis, ventricosis, 0,5 mm. lat., flavido-incarnescentibus, acie integris; basidiis clavatis; sporis ovoideis v. ellipsoideis, 1-guttulatis, pallide incarnatis, 4-6 \approx 4-5.

Hab. in petiolis putrescentibus *Palmarum*, Rio Juruá, Juruá-Miry, Amazonia (ULE). — Præcipue sporis regularibus ab affinis *Cl. byssisedo* differt.

Sect. 3. Ochrosporæ.

PHOLIOTA Fr. — Syll. V p. 736, IX p. 90, XI p. 48, XIV p. 131, XVI p. 83.

1. **Pholiota grandis** Rea Trans. Brit. Myc. Soc. 1903, pag. 37. — 246

Pileo convexo dein expanso et late gibboso, sicco, 23-30 cm. lato, fulvo, squamulis innatis saturatius fulvis tecto; carne læte flava, centro 5 cm. crassa; stipite 25-30 \approx 6-7 cm., firmo, fusoideo, supra annulum profunde stricto, infra squamuloso, fulvescente; annulo distante, fugaci; stipitis carne ferruginea, apice flavida, centro scissili; lamellis latissimis, 1,5-2 cm. lat., antice attenuatis, postice sinuato-decurrentibus, pallidis dein fuscis, sat confertis; sporis oblongis, 6 \approx 3, fuscis.

Hab. cæspitosa ad basin Fraxini, Worcester et Exeter Britanniae. — Odor et sapor grati. — Species inter *Ph. squarrosam* et *Ph. spectabilem* media.

2. **Pholiota Gollani** P. Henn. Fungi Indiæ or II, in Hedw. 1901, 247

p. 333. — Magna, carnosissima, crassa; pileo convexo explanato, obtuso-rotundato, levi, glabro, brunneo, margine integro, 3-16 cm. diam.; stipite farcto, tereti, æquali, crasso, interdum curvulo, albido subnitenti, sparse brunneolo-furfuraceo, usque ad 16 cm. longo, 3 cm. crasso, annulo membranaceo-floccoso, pallido, fugaci; lamellis sinuoso-adnatis, confertis, lanceolatis, medio usque ad 5 mm. latis, utrinque attenuatis, primo stramineis dein subochraceis, acie integris; sporis ellipsoideis, utrinque rotundatis, 1-2 guttulatibus, pallide flavis, levibus, 10-13 \approx 6-8; carne pallida, firma.

Hab. in trunco Tamarindi indici, Saharanpur-Garden Indiæ orient.

3. **Pholiota fulvo-squamosa** Peck, Bull. Torr. Bot. Cl. 1903, p. 95. — 248

Pileo carnosissimo, sat tenui, convexo, demum subplano, sicco, squamis adpressis copiosis, fulvo-brunneolis consperso, concentricè fatiscen-

tibus; carne alba, cæsa brunneola, sapore et odore raphani; lamellis angustis, confertis, introrsum tenuatis et collario angusto connexis, albidis dein rubido-cinnamomeis; stipite æquali, rigido, farcto v. cavo, deorsum squamis erectis subfloccosis, fulvis squaroso, apice glabro et infra annulum amplum persistentem subglabro; annulo supra albedo, infra fulvo-floccoso-squamuloso; sporis ellipsoideis, $8 \approx 4-5$.

Hab. ad basin *Quercuum*, Michigan Amer. bor. (B. O. LONGYEAR). — Pileus 6-12 cm. lat.; stipes 5-8 cm. long., 8-10 mm. crass.

4. **Pholiota ventricosa** Earle in New York Bot. Gard. 1902, p. 341. 249
— *Gregaria* vel *cæspitosa*; pileo 7-8 cm. diam., convexo, obtuso, rufo-brunneo, disco sæpe concavo, minute fibrilloso vel subglabro, luteolo, margine æquali, subappendiculato, floccis incrustato; lamellis subsinuosis, adnatis, latiusculis vel subventricosis, margine integris, initio pallide brunneis dein cinnamomeis; sporis ferrugineis, ovatis vel subellipticis, $8-9 \approx 4-5$. volva luteo-pallida v. pallide brunnea, exili, fibrillosa; annulo persistenti, exili, in summitate stipitis posito; stipite firmo basi tomentoso ventricosoque, 14-18 \approx 2-3 cm., brunneolo, fibrilloso vel subglabro, in proximitate annuli dense albo-tomentoso; carne pallide lutea, immutabili, sapore odoreque nullis.

Hab. in pinetis, Standfort University Californiæ.

5. **Pholiota præcox** — Syll. V, p. 738. — Var. **silvestris** Peck in 250
Harrim. Alaska Exped. Crypt. p. 46. — A typo differt pileo toto, nec tantum centro, rufo-flavido v. rubiginoso.

Hab. ad terram Yakutat Bay Alaska (TRELEASE).

6. **Pholiota indica** Masee in Kew Bull. 1901, p. 151. — Pileo car- 251
noso, e conico-campanulato expanso, sicco, squamis concentricis adnatis ornato, brunneolo, marginem versus albedo, 3-8 cm. lato; lamellis adnexis, latis, subdistantibus, umbrinis; sporis subglobosis, umbrinis, $9-10 \approx 7-8$; stipite farcto, æquali, basi subincrassato, albo, usque ad annulum remotum peronato.

Hab. ad terram, Poona, prov. Bombay, Indiæ britann. (WOODROW). — *Phol. radicosæ* Bull. affinis.

7. **Pholiota Aschersoniana** P. Henn et Ruhl. Verh. Brandbg. 1901, 252
XLIII, p. 119. — Pileo carnoso, convexo-plano, centro paullum umbonato, obtuse rotundato vel plano, 3-6 cm. diam., cupreo-violascente, pilis fasciculato-radiatis, obscurioribus vestito, margine tenui, flavo-brunnescente, ochraceo-tomentoso; stipite fistuloso, sub-

tereti, superne flavido, inferne rufo-brunneolo striatulo, basi subincrassato, curvulo, 2-3,5 cm. longo, 2,5-4 mm. crasso, annulo tenui-membranaceo, fisso, albido secedente; lamellis sinuoso-adnatis dente decurrentibus, inæquilongis, confertis, lanceolatis, flavidis dein ferrugineis; basidiis clavatis, 4-sterigmaticis, 18-21 \times 6-8; sporis ellipsoideis vel ovoideo-ellipsoideis, basi apiculatis, læte brunneis, in massa ferrugineis, 6-7,5 \times 4-5; carne flavida; odore ingrato.

Hab. in calidariis in horto botanico Berolinensi Germaniæ.

8. **Pholiota aggericola** Peck — Syll. V, pag. 740. — Var. **retirugis** 253
Peck in Rep. of the State bot. 1900, p. 167. — Pileo rugoso-reticulato, cetera ut in typo.

Hab. in silvis, Westport, Amer. bor.

9. **Pholiota Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, pag. 53, 254
Syll. XVI, pag. 1113 (nomen). — Pileo carnosio, convexo plano, squamoso, aurantiaco, squamis adpressis, vertice obtuso rotundato, pallide ochraceo, 2,5-4 cm. diam.; stipite farcto tereti, curvulo, flavo-rufo, brunneo-striato, 2-3 cm. longo, 2-3,5 mm. crasso, annulo membranaceo, pallido; lamellis sinuoso-adnatis, late ventricosis, confertis, flavo-aurantiis dein ochraceis; sporis ellipsoideis, levibus, 6-8 \times 4-4,5, ochraceis.

Hab. ad caudices emortuos, Kamerun Africæ

10. **Pholiota granuloso-verrucosa** P. Henn. F. Indiæ or. II, in Hedw, 255
1901, p. 333. — Pusilla; pileo carnosulo, convexo, obtuso-rotundato ex pallido isabellino, verrucis granulosis obtusioribus vestito, 0,5-1 cm. diam.; stipite fistuloso-floccoso, tereti, brunneolo, sparse verrucoso-granuloso, 1,5-3 cm. longo, 1-1,5 mm. cr., annulo membranaceo secedente; lamellis subliberis v. adnexis, confertis, angustis, cinereo-ferrugineis; sporis ellipsoideis, flavo-brunneis, 3,5-4 \times 3, levibus.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

11. **Pholiota martinicensis** Pat. in Duss Enum. Champ. Guadel. 1903, 256
p. 54. — Pileo carnosio, convexo dein expanso, 8-15 mm. diam., brunneo-rufo, centro saturatiore, squamulis erectis, remotis, angustis, rufis consperso; lamellis adnatis, brunneis, inæqualibus; sporis ovoideis, levibus, 6 \times 4, brunneis; stipite centrali, gracili, 2-3 cm. long., sursum levi, basi furfuraceo-squamuloso; annulo medio, membranaceo, erecto, persistenti.

Hab. ad cortices putres Mangiferæ in silvis inferioribus in Montagne Pelée Martinicæ,

LOCELLINA Gill. — Syll. V p. 761, IX p. 94, XVI p. 87.

1. **Locellina Starnesii** Peck in the Torr. Bot. Club. 1902, p. 72. — 257

Pileo carnosio-tenui, convexo vel subplano, interdum umbonato, centro brunneo, radiatim lineariter brunneo-striato vel punctulato; carne alba; lamellis angustis, adnatis, dein liberis, initio roseo tinctis dein cinereo-brunneis; stipite tenui, sæpe curvulo, interdum erecto submedullato, albo, basi bulboso; annulo superiori; sporis brunneis, ellipticis, 5-6 \times 4

Hab. in Georgia, Amer. bor. (V. STARNES). — Pileus 2,5-5 cm. latus; stipes 2,5-5 cm. long., 4 mm. crassus.

INOCYBE Fr. — Syll. V p. 762, IX p. 95, XI p. 50, XIV p. 132, XVI p. 87.

1. **Inocybe cortinata** Roll. in Bull. Soc. Myc. de France 1901, p. 117, 258

t. 3, f. 1. — Pileo carnosulo sed crasse umbonato, primum campanulato dein sat expanso, usque ad 4 cm. diam., dilute albido-stramineo, umbone ferruginescente, subtiliter fibrilloso-striato, demum lacerato, magis colorato, velo albo-floccoso; lamellis adnato-decurrentibus ventricosis, acie dilutiori, floccoso-serrulata, primum albidis dein ochraceo-fuscescentibus; sporis ovoideis, ochraceis, 8 \times 4,5; stipite cylindraceo fragili, curvato flexuoso, farcto, albo sursum furfuraceo, 7-8 cm. long., 5 mm. cr., annulo fibrilloso, albo.

Hab. catervatim sub Pinu maritima, La Maure, Golf Juan Galliæ. — *In. tomentellæ*, *I. vatricosæ* et *I. sindoniæ* affinis sed habitu et velo differt.

2. **Inocybe (Asterosporina) flavo-fusca** P. Henn. in Engl. Bot. Jahrb. 259

1901, p. 52, Syll. XVI p. 1113 (nomen). — Pileo carnosulo, campanulato-expanso, flavo-cinereo, margine minute striatulo, centro obtuso, fusco-squamuloso, 2-4 cm. diam.; stipite subfarcto, tereti, flavo-brunneo, inferius brunneo-squamuloso, 4-6 cm. longo, 2-3 mm. cr.; lamellis adnatis, subconfertis, angustis, flavidis dein olivaceo-ferrugineis; sporis subglobosis asteroideis, fusco-olivaceis, 5-7 μ . diam.

Hab. ad terram, Kamerun Africæ.

3. **Inocybe squamosa** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 260

Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 129. — Pileo carnosulo, e convexo expanso, sæpe umbonato, ochraceo-fulvo, squamis concoloribus, fibrilloso-hirtis dense obsito, centro subievi, sæpe areolato, 1-1,5 cm. lato; lamellis subdistantibus, latis postice sinuatis, e cystidiis copiosis villosis, pallide fulvis; stipite

subæquali, fibrilloso-flavidulo e farcto subcavo, 1-3 cm. longo, 2-4 mm. crasso; carne flavida, miti, odore vix ullo; sporis obovatis, 9-11 \approx 6-7, ochraceis; basidiis clavatis, 25-30 \approx 9-10; cystidiis subclavatis, apice muricellatis, 70-90 \approx 10-13.

Hab. ad terram pr. Setubal Lusitaniæ. — *Inocybe dulcamaræ* Alb. et Schw. et *In cæsariatæ* Fr. proxima, quarum formam et colores quoque habet, sed pileo evidentius squamoso, sporis latioribus et præsentia cystidiorum optime distincta.

4. **Inocybe bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 261
Syll. XVI, pag. 1113 (nomen). — Pileo carnosulo, campanulato-obtuso, tomentosulo-squamoso, castaneo, 1,5-2 cm. diam.; stipite farcto, tereti, squamuloso, cinereo-brunneo, 3-5 cm. longo, 1,5 mm. cr.; lamellis adnatis, subconfertis, pallidis dein olivaceo-fuscis; sporis ellipsoideis, 1-guttulatis, 5-7 \approx 3,5-4, episporio flavo-brunneo, levi.

Hab. in ligno putri, Kamerun Africae.

5. **Inocybe subochracea** Peck — Syll. V, p. 796, sub *Hebeloma*. — 262
Var. **Burtii** Peck Rep. of the State Bot. 1900, p. 167. — Cortina conspicua, fibrillosa; margine pilei magis fibrilloso; stipite longiori et etiam magis fibrilloso.

Hab. ad terram paludosam, Glodwood, Amer. bor. (E. A. BURT).

HEBELOMA Fr. — Syll. V p. 791, IX p. 102, XI pag. 54, XIV p. 134, XVI p. 91.

1. **Hebeloma Bakeri** Earle in New York Bot. Gard. 1902, p. 342. — 263
Solitarium; pileo 5-7 cm., expanso, cremeo, disco intensius concolori, viscido glabro, margine integro; carne albida vel cremea; odore saporeque grato; stipite circ. 8 cm. longo, 7 mm. lato, æquali, inferne subglabro, superne pruinoso, solido, pileo concolori, firmo; lamellis profunde sinuosis, heterophyllis, stipatis, subventricosis, pallide ochraceo-brunneis, margine albidis et subcrenulatis; sporis elliptico-ovatis, 10-12 \approx 6-7, centro vacuolatis.

Hab. sub quercetis, Stanford University Californiae.

2. **Hebeloma sericipes** Earle in New York Bot. Gard. 1902, p. 342. 264
— Solitarium; pileo 4-6 cm. late convexo-plano vel subdepresso, obtuso, pallide olivaceo-brunneo, sicco, disco glabro, margine sericeo-fibrilloso, integro; carne albida, sapore odoreque grato; stipite 4-6 cm., 7-9 mm., æquali, inferne subglabro, superne sericeo-fibrilloso, albido, firmo, tertuoso; lamellis sinuosis, stipatis, subconstrictis, fere

planis, initio albidis dein ochraceo-brunneis, margine albidis, crenulatis; sporis ellipticis vel subovatis, levibus, late centro vacuolatis, 7-10 \approx 5-7.

Hab. ad terram, in silvis Stanford University Californiæ.

3. **Hebeloma albidulum** Peck Rep. of the State bot. 1900, pag. 148. 265

— Pileo carnoso, firmo, subconvexo vel fere plano, glabro, subviscido dein brunneo albido vel griseo-albo, 2,5-6 cm. lato; carne alba; lamellis stipatis, constrictis, adnatis, minute denticulatis, acie albidis, albis dein brunneo-ferrugineis; stipite æquali, firmo, glabro, superne farinoso-pruinoso, sæpe bulbosulo, cavo, pileo concolori, 3,5-6 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, obtusis, 10-12,5 \approx 6-7,5.

Hab. in silvis, Westport, Amer. bor. — *H. albo* Peck valde affinis species sed pilei colore, sporisque obtusis differt.

4. **Hebeloma pascuense** Peck Rep. of the State Bot. 1899, pag. 844, 266

t. C, fig. 21-27. — Pileo convexo dein subplano, viscido, obscure fibrilloso, brunneo-argillaceo, sæpe centro rufescenti, margine albicanti, 2,5-5 cm. diam.; carne albida, sapore grato, odore subnullo; lamellis stipatis, acie rotundatis, albidis dein pallide ochraceis; stipite firmo, brevi, 2,5-5 cm. alto, 4-6 mm. crasso, æquali, fibrilloso, sursum farinoso, albido vel pallido; sporis pallide ochraceis, subellipticis, 1-nucleatis, 10 \approx 6.

Hab. in herbosis aridis, gregarium vel subcæspitosum, prope Warrensburg, Amer. bor.

5. **Hebeloma album** Peck Rep. of the State Bot. 1900, p. 147, t. G, 267

fig. 1-7. — Pileo carnoso, firmo, convexo dein fere plano v. concavo, margine incurvato, glabro, subviscido, albo vel luteo-albo, 2,5-3,5 cm. diam.; carne alba; lamellis tenuibus, constrictis, stipatis, emarginatis, adnatis, albidis dein brunneo-ferrugineis; stipite æquali, firmo, longiusculo, solido, farcto, superne farinosulo, albo, 3,5-7,5 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, utrinque apiculatis vel 1-apiculatis, 12,5-15 \approx 6-7,5.

Hab. in silvis, Westport, Amer. bor.

6. **Hebeloma bulbosum** Fayod in Ann. R. Acc. d'Agr. Torino 1893, 268

p. 95, *Agaricus fastibilis parvulus* Secret.? — Pileo hemisphærico albo v. lutescente, levi, dein pulvinato, 4-5 cm. lat, umbone obtuso, jove udo subviscoso; carne alba, centro circ. 1 cm. cr.; stipite medullato-farcto, 6-7 cm. longo, 0,5 cm. lato, albo, apice farinoso, basi in bulbillum subsphæricum inflato; lamellis liberis subconfertis, acie crenulatis et albo punctatis, cinnamomeis; cy-

stidiis clavatis; basidiis emergentibus $27 \approx 9$, tetrasterigmaticis; sporis ovoideo-conoideis, $9 \approx 6$, levibus v. subtiliter punctatis, sub microscop. ochraceis.

Hab. catervatim in graminosis, betuletis et alnetis in alpibus Bricherasio Pedemontii.

FLAMMULA Fr. — Syll. V pag. 809, IX pag. 104, XI p. 56, XIV p. 136, XVI p. 94.

1. **Flammula californica** Earle in New York Bot. Gard. 1902, p. 342. 269
— Gregaria vel cæspitosa; pileo 4-7 cm. diam., expanso, subumbonato pallide ochraceo-brunneo, umbone sæpe intense concolori, glabro, subhygrophano, margine integro; carne cremea, sapore odoreque subnullo; lamellis subsinuoso-decurrentibus, heterophyllis, stipatis, subventricosis, pallide ochraceis vel fusco-ferrugineis; stipite 5-6 cm., 3-4 mm., subæquali, apice et basi fere incrassatulo, superne glabro, albo-luteo, inferne fibrilloso, brunneo, firmo; sporis ferrugineis, ellipticis, $6-7 \approx 4$.

Hab. in silvosis, Stanford University Californiæ.

2. **Flammula ochraceo-tristis** P. Henn in Engl. Bot. Jahrb. 1901, 270
p. 53, Syll. XVI, p. 1114 (nomen). — Pileo carnosulo, convexo-expanso, centro obtuso fusco-squamuloso, radiato striatulo, ochraceo-brunneo, margine pallidiori, 4-6 cm. diam.; stipite farcto tereti, flexuosulo, striato, subfimbriato, atro-brunneo, 6-8 cm. longo, 4-5 mm. cr.; lamellis sinuoso-adnatis, late ventricosis, subconfertis, pallide flavis fuscescentibus; sporis ellipsoideis vel ovoideis, basi apiculatis, intus granulosus, episporio flavidulo vel brunneolo, levi.

Hab. ad terram, Kamerun Afr. — *Fl. flocciferæ* affinis.

3. **Flammula Braendlei** Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 271
Pileo convexo dein subplano, margine incurvo, interdum irregulari, fibrilloso-squamuloso, præsertim ad centrum, leniter viscido, juniore purpureo, dein flavido v. flavido-albo, interdum virescenti-tincto; carne albida; lamellis tenuibus, confertis, adnatis v. breve decurrentibus, maturis ferrugineis: stipite æquali v. sursum leviter tenuato, fibrilloso, cavo, albido brunneo-variegato; velo arachnoideo, interdum zonam sericeam circa stipitem formante; sporis ellipsoideis $6-8 \approx 4-5$, ferrugineis.

Hab. solitaria v. cæspitosa ad truncos dejectos, pr. Washington et St. Louis Amer. bor. (BRAENDLE et GLATFELTER). — Pileus 2, 5-5 cm. lat.; stipes 2,5-5 cm. long., 4-8 mm. cr.

4. **Flammula excentrica** Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 272

Pileo tenui, late convexo, obtuso v. leviter umbonato, sicco, minute squamuloso, fulvo, flavido v. rubido-ferrugineo; carne albidâ; lamellis latiusculis, confertis, subsinuato-adnatis, fumose ochraceis, demum ferrugineis; stipite æquali v. sursum leviter tenuato, vulgo excentrico, solido, fibrilloso, flavido v. subochraceo, demum intus extusque brunneo; sporis late ferrugineis, ellipsoideis, $15-16 \approx 8$.

Hab. ad ligna putrida pr. St. Louis Mo. Amer. bor. (GLATFELTER). — Pileus 2,5-3, cm. lat.; stip. 2-3 cm. long., 4-8 mm. cr.

5. **Flammula velata** Peck Bull. Torr. Bot. Cl. 1903, p. 96. — Pileo 273

carnoso, ad marginem attenuato, convexo, udo, sulphureo-flavo, centro rubescente vel aurantio, margine persistenter incurvato; carne flavida v. viridi-flavida, sapore dulci; lamellis arcuatis, adnatis vel leviter decurrentibus, 5 mm. lat., pallide flavis, denique subrubiginosis, primitus velo distincto, tenuiter arachnoideo, flavido-albo obductis; stipite brevi, tenui, flexuoso, farcto, apice sulphurelo, deorsum brunneolo, basi tomentello; sporis ellipsoideis, 5-8 μ . longis.

Hab. ad terram silvaticam ad pedem M.r Moscow Idaho Amer. bor. — Pileus 2-4 cm. lat., stipes 2,5-4,5 cm. long., 2-4 mm. cr.

6. **Flammula alnicola** Fr. — Syll. V, p. 820. — Var. **marginalis** Peck 274

Rep. of the State Bot. 1900, p. 167. — Pileo carnoso, firmo, conico v. subcampanulato, viscido, glabro, margine fibrilloso-tomentoso, luteo, 16-32 mm. diam.; carne alba, sapore grato; lamellis tenuibus, stipatis, rotundatis, pallide luteis dein ferrugineis; stipite firmo, subæquali, farcto vel cavo, fibrilloso, subannulato, superne luteo, inferne ferrugineo, 6-8,5 cm. longo, 4-8 mm. crasso; sporis ellipsoideis, 7,5-10 \approx 5.

Hab. cæspitosa in lignis emortuis Aceris rubri, Westport, Amer. bor.

7. **Flammula echinospora** Speg. Myc. argent. ser. II, 1902, p. 51. — 275

Solitaria v. rarius 2-3-cæspitosa, pileo primo convexulo dein concavo, postremo infundibuliformi, 15-25 mm. diam., plus minusve excentrico, lutescenti-ferrugineo, pulverulento-pruinoso; carne pallide lutescente; lamellis non confertis, latiusculis, 1,5-2 mm. lat., fulvis, longe decurrentibus, primo ferrugineis dein fusco-ferrugineis; stipite 10-20 mm. longo, 2-3 mm. crasso, pulverulento, velutino, ferrugineo farcto, basi non dilatato, e tereti compressulo; cystidiis nullis; basidiis clavulatis, 30-35 \approx 8-10 hyalinis; sporis

globosis, 7-8 μ . diam. non vel vix rostellatis, tenuiter tunicatis, dense verruculoso-papillosis, ferrugineis.

Hab. ad terram humosam prope Cordoba in Argentina.

8. **Flammula sulphurea** Masee in Bot. Tidsskrift-Copenhagen 1902, ²⁷⁶ vol. 24, pag. 215. — Cæspitosa; pileo convexo expanso, glabro, margine pellucide striato, sicco levi, late sulphureo, 1-2 cm. lato; lamellis distantibus, decurrentibus, concoloribus; sporis fulvidis, 6 \times 4; stipite e farcto cavo, glabro, sursum attenuato, flavido, basi fuscescenti, 4-6 cm. alto.

Hab. ad terram prope Klong Son, Siam Asiæ merid. — *Fl. tilopodæ* Kalchbr. et Mc. Ov. affinis.

9. **Flammula aureo-viridis** Pat. in Duss Enum. Champ. Guad. 1903, ²⁷⁷ p. 55. — Pileo convexo, centro umbilicato, e flavo-aureo viridulo, unicolore, glabro, levi, 15 mm. diam.; lamellis adnatis, confertis, angustis, rufescenti-brunneis; stipite centrali, cylindrico, flexuoso, flavo-virenti, fibrilloso, 4-7 cm. long., 1 mm. cr.; sporis ochraceo-purpureis, 6-8 \times 5.

Hab. catervatim ad ligna putrescentia, Camp Jacob Guadalupa (Duss). — Analoga *Hypholomati fasciculari*.

10. **Flammula olivacea** Pat. in Duss Enum. Champ. Guadel. 1903, ²⁷⁸ p. 55. — Pileo convexo, centro mamillato-obtuso, flavo-olivaceo, unicolori, glabro, levi, 6-12 mm. diam.; lamellis angustis, confertis, adnatis, brunneolis; stipite filiformi, centrali, cylindrico, pileo concolori, 15 mm. long.; sporis flavo-rufescentibus, ovoideis, levibus, 8 \times 5.

Hab. cæspitosa ad ligna putrida, Basse-Terre Guadalupa (Duss).

11. **Flammula pusilla** Peck in Rep. of the State Botan. 1902, p. 26, ²⁷⁹ t. M, fig. 35-41. — Pileo tenui, convexo dein subplano, glabro, viscido, pallide fulvo v. luteo-ferrugineo, 12-24 mm. lato; lamellis constrictis, adnatis, stipatis, albidis dein brunneo-ferrugineis; stipite æquali, solido, farcto, floccoso-fibrilloso, albido dein basi ferrugineo, villosa-strigoso, sursum floccoso-pulverulento, 16-30 mm. longo, 2 mm. crasso; sporis ellipsoideis, 7,5 \times 4.

Hab. in truncis putrescentibus, in silvis Smithtown, Suffolk co., Amer. bor.

12. **Flammula granulosa** Peck in Bull. Torr. Bot. Club 1902, XXIX, pag. 561. — Pileo hemispharico 1,5-3 cm. d., squamuloso, fulvo; lamellis latis, vix decurrentibus, flavo-ferrugineis; stipite 2,5-3 cm. l., 2 mm. cr., concolore; sporis 7-8 \times 4-5.

Hab. ad ligna emortua M.t Desert Am. bor.

NAUCORIA — Fr. Syll. V p. 828, IX p. 109, XI p. 57, XIV p. 139, XVI, p. 97.

1. **Naucoria striata** Clem. et Shear in Bot. Surv. Nebr. 1901, p. 10. 280
— Gregaria; pileo carnosio, convexo, dein explanato repandoque, glabro, glutinoso, ochroleuco, pallide marginato, 3-6 cm. diam.; stipite æquali vel basi subincrassato, interdum compresso solido vel ætate medullato, fibroso, in parte superiore lineato, lucenti, pallide cremeo, inferne fuscescenti 4-7 cm. longo, 13-15 mm. cr.; lamellis liberis, interdum stipatis, ventricosis, initio pallide umbrinis, dein ferrugineis; sporis ovoideis, levibus, ferrugineis, 7-8 \times 5.

Hab. in terra humosa, Lincoln, Nebraska, Amer. bor.

2. **Naucoria firma** Peck Rep. of the State Bot. 1900, p. 148, t. *H*, 281
fig. 10-16. — Pileo carnosio, firmo, subconvexo, cito fere plano, hygrophano, nigro-brunneo, in sicco ochraceo-brunneo, sæpe ruguloso, 16-24 mm. diam.; carne alba, sapore farinaceo, dein aquoso; lamellis tenuibus, constrictis, stipatis, acie rotundatis, adnatis, minute flocculosis, pallidis; stipite firmo, æquali, sæpe curvulo, farcto vel cavo, fibrilloso-striato minuteque flocculoso, pileo concolori v. pallidiori, 2,5-5 cm. longo, 2-4 mm. crasso; sporis ellipticis, brunneo-ferrugineis, 7,5 \times 5.

Hab. in truncis emortuis, Floodwood, Amer. bor.

3. **Naucoria tuberosa** P. Henn. Hedw. p. (310) c. ic. — Pileo hemi- 282
sphærico, convexo, subcarnoso, levi, glabro, flavo-brunneo, 2,5-2 cm. diam., stipite cylindrico gracili, albo-medullato, dein subcavo, flavo-brunneolo; striatulo glabro, 4-8 cm. long, 2-3 mm. cr., basi conspicue bulboso-incrassato, mycelio albido, filamentoso vel submembranaceo infra munito; lamellis sinuoso-adnaxis, medio subventricosis, 3 mm. lat., remotiusculis, umbrinis, acie pallidiore; cystidiis ampulliformibus, 30-40 \times 10; basidiis clavatis, 20-25 μ . long.; sporis ellipsoideis, raro ovoideis, sordide flavo-brunneolis, levibus, 7-9 \times 4-5.

Hab. in hortis Michailowskoje gub. Mosquensis Rossia. — (Comitissa K. SCHEREMETJEFF.).

4. **Naucoria uliginosa** Peck Rep. of the State Bot. 1900, pag. 149, 283
tab. *H*, fig. 1-9. — Pileo tenui, convexo, dein fere plano, glabro, hygrophano, intense brunneo, margine striatulo, dein in sicco pallidiori, 12-20 mm. lato; carne brunnea; lamellis latis, modice stipatis, acie rotundatis, adnatis, crenulatis, subventricosis, fractis ochraceis; stipite filiformi, firmo, subfibrilloso, cavo, rubro-brunneo

dein in sicco pallido, 2,5-5 cm. longo, 2 mm. crasso; sporis brunneo-ferrugineis, subellipticis, sæpe 1-nucleatis, 10-12,5 \times 5-6.

Hab. in paludosis, Sandlake, Rensselaer Co., Amer. bor.

5. **Naucoria fuispora** P. Henn. Fungi Indiæ or. II in Hedw. 1901, 284 p. 332. — Purpurea; pileo submembranaceo-carnosulo, campanulato, vertice subumbilicato depresso, conico v. obtuso-papillato, radiato-striato, 1-2 cm. diam.; stipite fistuloso, tenaci corticato, æquali, gracili, levi, glabro, basi radicato, castaneo vel purpureo, 5-11 cm. longo, 1-2 mm. crasso; lamellis adnatis, subconfertis, lanceolatis, 1,5-2 mm. latis, purpureis; sporis oblongo-fusoideis, utrinque apiculatis, 1-guttulatis, 6-8 \times 4, flavo-ochraceis.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

6. **Naucoria coloradensis** Tracy et Earle in Plantæ Bakerianæ fasc. I, 285 fungi pag. 25. — Pileo convexo, expanso, subumbonato, luteo-brunneo; sæpe in umbone intensius concolori, sericeo, setulis luteolis, margine non striato, in ætate juvenili fortiter incurvato; lamellis adnatis, brunneo-albidis dein intense brunneis, cortina archnoidea mox evanida; stipite 4-6 cm. alt., 4-8 mm. crass., subbulboso, pileo concolori, pruinoso; sporis ovoideis, ferrugineo-brunneis, 1-vacuolatis, 10 \times 6.

Hab. ad terram udam, in umbrosis, Mancos, South Colorado, Amer. bor.

7. **Naucoria Cucumis** Pers. Syn. p. 316. — Syll. V, p. 831. — *Nolanea pisciodora* Ces. Comm. critt. ital. p. 61, t. 3, f. 2! *Nolanea picea* Kalchbr. Ic. Hung. t. 11, f. 2!

Hab. quoque ad terram in Polonia. — Species hæc prorsus singularis et vix recte ad genera hucusque admissa trahenda. Forma sporarum straminearum oblonga, 8-10 \times 3 $\frac{1}{2}$ -4, magis cum *Naucoriis* conjungit: consistentia pilei et stipitis ad *Collybias* accedit (Bres. Fungi Polon. in Ann. Mycol. 1903, p. 71).

8. **Naucoria Zenkeriana** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 286 Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo, convexo-campanulato, vertice subconico-papillato, radiatim substriato, flavo-olivascens, 6-10 mm. diam.; stipite tenaci, fistuloso, gracili, levi, glabro, 2-5 cm. longo, 1-1,5 mm. crasso, luteo; lamellis adnatis, subconfertis, cinereo-flavidis dein fuscidulis; sporis ellipsoideis, levibus, flavo-brunneolis, 5,5-7 \times 3,5-4.

Hab. in udis silvaticis, Kamerun Africae.

9. **Naucoria jaundensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 287 Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo,

campanulato-expanso, levi, glabro, ferrugineo-brunneo, centro obscuriori, ad marginem minute striatulo, 3-7 mm. diam.; stipite subfistuloso, tenaci, tereti, flexuoso, levi, glabro, rufo-brunneo. 1,5-2 cm. long., 0,7-1 mm. cr.; lamellis adnatis, inæquilongis, vix confertis, angustis, ferrugineis; sporis ellipsoideis, 1-guttulatis, flavo-brunneolis, 5-6 \approx 3,5-4,5.

Hab. in silvis Jaunde, Kamerun Africæ.

10. **Naucoria nana** L. Petri, in Ann. Mycol. 1904, p. 9, fig. 1-2. — 283

Pileo carnosulo, primo e conico campanulato dein convexo-plano, umbonato, 4-6 mm. lato, viscido, nigricante, ad ambitum ferrugineo, striatulo; velo arachnoideo-fugaci; stipite fistuloso, tenui, 9-12 mm. longo, deorsum incrassato, sericello, albo-fibrilloso; lamellis ventricosis, distantibus, latis, flavo-ferrugineis, denticulo decurrentibus; basidiis clavulatis, 19-21 μ . longis bisporis; cystidiis elongatis, basi inflatis, 40-45 μ . longis, apice incrustato-capitatis; sporis ovato-lanceolatis, levibus, subferrugineis, sterigmate brevi suffultis, apice minute papillatis, 10-12 \approx 4,5-6.

Hab. ad terram e detritis Castaneæ in calidariis Horti bot. florentini. — An species exotica cum plantis cultis allata? *N. triscopodæ* et *N. sideroidi* subaffinis.

11. **Naucoria juruensis** P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 289

— Pileo membranaceo, convexo applanato, medio interdum papillato, margine radiatim subsulcato, ochraceo, ca. 1-2 mm. diam.; stipite filiformi vel setiformi, brunneo vel atro-ferrugineo pruinoso, 1 $\frac{1}{2}$ -2 cm. longo, 120-140 μ . crasso; lamellis adnatis, confertis, ventricosis, crispulis, ochraceis; sporis ovoideis vel subellipsoideis, intus granulatis, ochraceis, 3-4 $\frac{1}{2}$ \approx 2 $\frac{1}{2}$ -3.

Hab. ad truncos putres inter muscos, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — Videtur affinis *N. rimulincolæ*, tamen bene distincta.

12. **Naucoria myriensis** P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 290

— Pileo carnosulo, convexo-campanulato, obtuso vel subpapillato, radiatim sulcatulo, castaneo, ca. 1 $\frac{1}{2}$ mm. diam.; stipite filiformi, atro-castaneo, pruinoso 3-5 cm. longo, 0,3 mm. crasso, basi incrassato; lamellis adnatis, subdistantibus, acie obtusis, castaneis; sporis ellipsoideis vel ovoideis, brunneolis, 1-guttulatis, levibus, 4-5 μ .

Hab. ad ramos putres Rio Juruá, Juruá-Miry Amazoniæ (ULE). — *N. rimulincolæ* quoque affinis.

PLUTEOLUS Fr. — Syll. V p. 859, XI p. 60, XIV p. 141, XVI pag. 102.

1. **Pluteolus aleuriatus** Fr. — Syll. V p. 859. — Var. **gracilis** Peck 291
Rep of the State bot. 1900, pag. 149. — Pileo submembranaceo, fragili, subplano, viscido, margine profunde striato, hygrophano, intense griseo-brunneo, in sicco pallido, 16-24 mm. lato; lamellis tenuibus, stipatis, constrictis, subventricosis, liberis, albidis dein ferrugineis; stipite filiformi, æquali, cavo, minute pulverulento, superne substriato, niveo albo, 2,5-3,5 cm. longo, 1-2 mm. crasso; sporis ferrugineis, ellipsoideis, 1-nucleatis, 10-12,5 \times 5-6.

Hab. in silvis, Westport, Amer. bor.

2. **Pluteolus glutinosus** Clem. Bot. Surv. Nebraska 1901, p. 10. — 292
Pileo membranaceo, conico-campanulato dein explanato v. repando, glabro, umbonato, dense mucilaginoso, margine striato, griseo-stramineo, marginem versus fuscescenti, 1,5-2 cm. lato; stipite gracili, cavo, lucenti, æquali, dense fibrilloso-pulverulento, pallide ochroleuco, apicem versus albo-striato, 3 mm. crasso, 5-10 cm. alto; lamellis liberis, distantibus, ventricosis, brunneis; sporis ovatis vel ovato-ellipsoideis, levibus, succineis, 13-16 \times 10-12.

Hab. in foliis stercoreatis, in silva Octowanie, Nebraska Americæ borealis.

BOLBITIUS Fr. — Syll. V pag. 1073, IX p. 143, XI p. 74, XIV p. 156, XVI p. 127.

1. **Bolbitius Glatfelteri** Peck Bull. Torr. Bot. Cl. 1903, pag. 97. — 293
Pileo tenui, conico v. subcampanulato, mox expanso, margine incurvo, subinde umbonato, glabro, admodum viscido, margine lato striato, albo, centro flavido v. subfulvo; lamellis confertis, sat angustis, subventricosis, liberis, pallidis, demum ferrugineis et pulverulentis; stipite æquali v. sursum leviter tenuato, cavo, supra striatulo, juniore squamuloso v. furfuraceo, demum glabro, nitido et pure albo; sporis 12-16 \times 8-10.

Hab. gregatim vel cæspitosus in fimetis, Missouri et Illinois Amer. bor. (N. M. GLATFELTER). — Subaffinis *B. sordido* Lloyd.

2. **Bolbitius Demangei** (Quél.) Sacc. et D. Sacc., *Pluteolus Demangei* 294
Quél. Assoc. franç. l'Avanc. Sc., 1901, II partie, p. 495, pl. III, f. 5. — Pileo convexo-plano, 3-4 cm. lato, membranaceo, striato, viscoso, fusco-lilacino, margine pallidiore; carne alba, stipitis rosea; lamellis liberis vel subdistantibus, sinuatis, confertis, ochraceo-pal-

lidis dein fuscellis; stipite fistuloso, recto, pruinoso, albo dein deorsum roseo; sporis pruniformibus, ochraceis, 12-14 μ . longis.

Hab. in fimetosis ad margines viarum, catervatim, in Vogesis, autumnno (VICT. DEMANGE). — Forte var. *P. titubantis*.

GALERA Fr. — Syll. V p. 860, IX p. 113, XI p. 60, XIV p. 141, XVI pag. 103.

1. **Galera bryophila** Peck Rep. of the State bot. 1900, pag. 149, 295
t. *G*, fig. 15-21. — Pileo tenui, ovato vel subconico, obtuso, hygrophano, luteolo dein in sicco albo, æquali v. margine striatulo, 6-10 mm. lato; lamellis tenuibus, constrictis, subdistantibus, albis vel albidis dein ochraceo-luteis; stipite filiformi, flexuoso, cavo, subsericeo-fibrilloso, superne lanuginoso-pruinoso, basi mycelio albedo obvoluto, 3,5-5 cm. longo, 1 mm. crasso, albido vel pallido; sporis pallide brunneis, ochraceis, ellipsoideis, 10-12,5 \times 6-7,5.

Hab. in muscosis, Westport, Amer. bor.

2. **Galera reticulata** Peck Rep. of the State bot. 1900, pag. 150. — 296
Pileo tenui, fragili, hemisphærico v. campanulato, obtuso, glabro, hygrophano, cinnamomeo, dein cremeo-luteo, ruguloso-reticulato, 10-24 mm. lato; carne alba vel albida; lamellis angustis, stipatis, ascendentibus, luteolis dein subferrugineis; stipite filiformi, æquali, cavo, subpruinoso, superne striato, albo, 2,5-6 cm. longo, 2-4 mm. crasso; sporis ferrugineis, ellipsoideis, 7,5 \times 4-5.

Hab. in muscosis, Ithaca, Amer. bor. (G. F. ATKINSON).

3. **Galera paradoxa** Speg. in Ann. Soc. Cient. Arg. 1899, p. 274. — 297
Solitaria vel laxe gregaria; pileo cylindraceo, 20-40 mm. long., 5-7 mm. diam., superne breviter sensimque attenuato ac in umbone rostriformi, 4-6 mm. long., 1-1,5 mm. diam., cylindraceo-conoideo producto, deorsum subcoarctato repandulo subplicato; stipite adpresso, margine recto e castaneo-ferrugineo, tenuiter minuteque fibrilloso-sericeo, nitentiusculo, fibris spiraliter longitrorsum dispositis (et pileo torto viso); carne vix evoluta sordide rufescente; lamellis confertis, angustis, 1 mm. lat., tenuiter membranaceis, acie integris, utrinque acutissime attenuatis, a stipite liberis, ferrugineis; stipite pileo duplo vel quintuplo longiore, gracili, 60-100 mm. longo et 1,3-5 mm. crasso, tereti, rigidulo, fistuloso, pileo concolori, levi v. vix fibrilloso, sericeo-nitentiusculo, basi non vel vix incrassato, intus late fistuloso; sporis ellipticis vel ovatis, 16-20 \times 10-12 levibus, ferrugineis.

Hab. in pratis arenosis secus Rio Chubut, Patagoniæ. — Spe-

cies habitu *Orthotricha* v. *Phasca* nonnulla calyptra adhuc vestita in mentem revocat.

TUBARIA W. Ser. — Syll. V p. 872, IX p. 114, XI p. 61, XIV p. 143, XVI p. 105.

1. **Tubaria asperata** P. Henn. Fungi Indiæ or. II. in Hedw. 1901, 298 p. 331. — Carnosula; pileo convexo-expanso, medio depresso, subochraceo, squamis aculeatis, rigidis obscurioribus, sparse asperato, margine obsolete striato, 8-18 mm. diam.; stipite subfistuloso, postice incrassato, tereti, striato, levi, curvulo, basi discoideo, flavo-brunneo, 1,5-2 cm. longo, 1-1,5 cm. cr.; lamellis longe decurrentibus subtriquetris, subconfertis, ventricosis, 1,5-2 mm. latis, flavo-ochraceis; sporis ellipsoideis vel subovoideis, levibus, flavo-ochraceis, 6-7 \approx 4.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

2. **Tubaria saharanpurensis** P. Henn. Fungi Indiæ or. II, in Hedw. 299 1901, pag. 332. — Pileo submembranaceo, convexo campanulato, medio depresso subumbilicato, albido, sicco flavescente, levi glabroque, 5-12 mm. diam.; stipite fistuloso, subcompresso, levi, glabro, subpruinoso, 1,5-2,5 cm. longo, 1 mm. cr., pallido, sicco brunneo; lamellis flavidis, adnatis, paullo decurrentibus subconfertis, angustis; sporis subgloboso-ellipsoideis, 5-6 \approx 4, flavidis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

3. **Tubaria brevipes** P. Harrim. Alaska Exped. Crypt. p. 45. — Pileo 300 tenui convexo, glabro, ferrugineo; lamellis latis arcuatis, distantibus, adnatis vel leviter decurrentibus, ferrugineis; stipite brevi, gracili, glabro, cavo, brunneo; sporis ellipsoideis, 1-nucleatis, 10-12 \approx 7-8.

Hab. ad terram Port Clarence Alaska (TRELEASE). — Pileus 6-10 mm. lat.; stipes 6-14 mm. long., vix 1 mm. cr. Habitus *Omphalica campanellæ* sed sporæ ferrugineæ.

CREPIDOTUS Fr. — Syll. V pag. 876, IX p. 155, XI p. 62, XIV p. 144, XVI p. 108.

1. **Crepidotus laceratus** Pat. Champ. de la Guadeloupe, ser. III, in 301 Bull. Soc. Myc. de France, tab. XVIII, fasc. II, 1902. — Pileo carnosio, ochraceo rufo, pulverulento, ruguloso, flabellato, profundè lacero, postice attenuato, 10-15 mm. long., 8-10 mm. lat.; lamellis numerosis, inæqualibus, integris concoloribus; sporis ovoideis, verrucosis, ochraceis, 5-6 \approx 4-5.

Hab. ad ligna putrescentia in Guadalupa (Duss). — *C. pyrrho* affinis sed minutie pilei pulverulenti etc. diversus.

2. **Crepidotus cuneiformis** Pat. Champ. de la Guadeloupe, ser. III, 302 in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo convexo-plano, antice incurvo, margine striolato, postice cuneato, carnosus, molli, glabro, pallide-brunneo, 8-12 mm. lat.; lamellis latis, inæqualibus, brunneolis, subremotis, mollibus, ad punctum insertionis productis; sporis levibus globulosis, brunneis, 6 μ . diam.

Hab. in fragmentis ligneis, putridis, in Guadalupa (Duss).

3. **Crepidotus Psychotriæ** Pat. Champ. de la Guadeloupe, ser. III, 303 in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus vel cæspitosus; pileo carnosus, firmo, convexo, glabro, nec sulcato, nec inciso, orbiculari, postice emarginato, ochraceo-pallido, 5-10 mm. lato; stipite nullo; lamellis inæqualibus, latis, confertis, brunneolis; sporis pallide brunneis, 8 \approx 5, ovoideis, levibus.

Hab. in ramis putridis Psychotriæ glabratae in Guadalupa (Duss). — Affinis *Crep. molli*.

4. **Crepidotus Citri** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 304 Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus, resupinatus dein dimidiatus; pileo orbiculari, convexo, tenui, molli, albo-rufescente, glabro, nec striato, nec inciso, minuto, 3-6 mm. diam., postice reniformi; stipite excentrico obsoleto, fugaci, albo, in centro maculæ mycelicæ albæ et tenuissimæ inserto; lamellis tenuibus excentricis, ochraceis; sporis ovoideis, levibus, 7 \approx 4 flavido-pallidis.

Hab. in cortice putri Citri in Guadalupa (Duss).

5. **Crepidotus Dussii** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 305 Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Pileo convexo, orbiculari, postice emarginato, glabro, subviscoso non striato, flavo, margine incurvo integro, 3-5 mm. diam.; stipite nullo; lamellis distantibus, latis, flavo-brunneis, inæqualibus; sporis ovoideis, levibus, ochraceis, 8-9 \approx 6.

Hab. in fragmentis putridis, ligneis in Guadalupa (Duss).

CORTINARIUS Fr. — Syll. V p. 889, IX p. 117, XI p. 64, XIV p. 845, XVI p. 110.

1. **Cortinarius aurasiacus** Pat. Champ. Algero-Tunis. in Bull. Soc. 306 Myc. de France t. XVIII, 1902, fasc. I, p. 49. — Pileo carnosus, firmo, convexo, dein plano, 10-12 cm. diam, levi, luteo ochraceo pallido, centro albido-lucenti; margine acuto, reflexo, lilacino-mar-

ginato; cortina filamentosa, fulva, infera; lamellis adnatis stipatis, fulvis, margine sublilacinis; sporis verrucosis, 10-12 \times 6, ochraceis.

Hab. ad ligna *Quercus Ilicis*, Sgag Algeriæ. — Initio hypogæus, dein erumpens, more *Terfeziæ*. Sapor dulcis. *C. multiformi*, *C. largo* et *C. dibapho* affinis.

2. **Cortinarius Whiteæ** Peck in Bull. Torr. Bot. Club 1902, XXIX, 307
p. 560. — Pileo carnosio, hemisphærico, demum subplano, margine undulato-lobato, sicco, glabro, subpruinoso, rubescenti v. e brunneolo-aurantio fulvescenti; lamellis subdistantibus, profunde et late emarginatis rubido-brunneis, dein subcinnamomeis; stipite longo, æquali, solido, fibroso, pileo concolori, lineis fibrosis saturatoribus ornato; sporis subglobosis, 7-8 \times 7.

Hab. in silvis Mont Desert Amer. bor. (Miss. V. WHITE). — Pileus 6-12 cm. lat.; stipes 7-12 cm. long, 1,5-2 cm. cr. Magna species, inter subgen. *Dermocyben* et *Telamoniam* nutans.

3. **Cortinarius radians** Earle in New York Bot. Gard. 1902, p. 343. 308
— Pileo 7,5-11 cm. diam., expanso, obtuso, pallide brunneo, disco griseo, venulis radiantibus, griseis striato, fere levi, sed minute radiato-fibrilloso, viscidulo, margine constricto, reflexo vel subrevoluto; stipite 6,5-8,5 \times 1,5-3 cm., subæquali, inferne subincrassatulo, fere levi vel parce fibrilloso, brunneo, firmo, sed intus molli; carne pallide brunnea, odore saporeque grato; lamellis heterophyllis, constrictè sinuatis, stipatis, subventricosis, initio pallidis? dein intense cinnamomeis; sporis ferrugineo-cinnamomeis, anguste ovatis, granulosis, 9-11 \times 5-6.

Hab. in quercetis, Stanford University Californiæ.

4. **Cortinarius submarginalis** Peck in Rep. of the State bot. 1901, 309
p. 950, tab. L, fig. 6-10. — Pileo carnosio, 5-10 cm. lato, firmo, convexo dein subplano v. margine elevato concavo, viscido, luteo-brunneo, margine fibrilloso; carne albida; lamellis constrictis, stipatis, adnatis, cremeo-luteis dein cinnamomeis; stipite 7,5-15 cm. longo, 8-12 mm. crasso, æquali v. basi incrassatulo, solido, sericeo-fibrilloso, subviscido, albido vel pallido; sporis subellipsoideis, 10-12,5 \times 5-6.

Hab. in silvis, Bolton, Amer. bor.

5. **Cortinarius subvolvatus** (Fayod) Sacc. et D. Sacc, *Telamoniam sub-* 310
volvata Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 97.
— Pileo firmo subelastico, 4-8 cm. lato, centro carnosio, marginibus tenuibus, primo campanulato convexo badio helvolo, margine infracto e velo sericeo candido, mox pulvinate nitente, circa margi-

nem squamis albis secedentibus eleganter ornato; lamellis fulvo-cinnamomeis, rotundato-adnaxis, apice angustatis subdistantibus, demum ferrugineis; stipite æquali, 5-8 cm. longo, 6-8 mm. lat., farcto, pallido, apice cortina (e sporis) ferruginea ornato, basi (ex velo generali) albo peronato-subvolvato; carne stipitis pileique alba; basidiis parum emergentibus, 4-sterigmaticis; sporis ferrugineis obovoideis, granulatis, $6 \approx 4$.

Hab. catervatim in pratis salicetisque arenosis et humidis, Pinerolo Pedemontii.

6. **Cortinarius sublateritius** Peck Rep. of the State bot. 1900, p. 151. 311

— Pileo carnosus, 5-7,5 cm. lato, subconvexo v. fere plano, glabro, viscido, rubro; carne alba; lamellis planis, constrictis, stipatis, emarginatis, adnatis, pallidis dein cinnamomeis; stipite brevi, 3,5-6 cm. longo, 6-10 mm. crasso, æquali v. superne subconico, abrupte bulboso, farcto, sericeo, albido; sporis subellipsoideis, utrinque acutis, $10-12,5 \approx 5-6,5$.

Hab. in silvis, Westport, Amer. bor. — *Cort. testaceo* Cooke affinis.

7. **Cortinarius obliquus** Peck in Rep. of the State Bot. 1901, p. 951, 312

tab. L, fig. 1-5. — Pileo carnosulo, 5-7,5 cm. lato, subconvexo v. fere plano, sicco, sericeo-fibrilloso, albido v. griseo, sæpe violaceo; carne albida; lamellis constrictis, stipatis, adnatis v. subrotundatis, acie minute crenulatis, obscure transverse striatis, violaceis dein cinnamomeo-brunneis; stipite æquali, solido, lucenti, sericeo-fibrilloso, albido et violaceo tincto dein violaceo, abrupte oblique bulboso, 5-7,5 cm. longo, 6-10 mm. crasso; sporis ellipsoideis, 1-nucleatis, $7,5 \approx 5$.

Hab. inter folia, in silvis, Bolton, Amer. bor.

8. **Cortinarius nudipes** Earle in New York Bot. Gard. 1902, p. 343. 313

— Gregarius; pileo 5,5-6,5 cm. diam., convexo-expanso, obtuso, rufo-brunneo, lucenti, disco intense colorato, levi, viscido, margine integro subinflexo; stipite 5 cm., 8-10 mm. æqualiter vel leviter superne incrassato, albido, inferne levi, sordido, cavo; carne albida, in sicco fragili, odore saporeque grato; lamellis heterophyllis, adnatis, postice rotundatis, latiusculis, ad marginem angustatis, ochraceo-cinnamomeis (probabiliter initio pallidis); sporis ellipticis, levibus, $7 \approx 4$ ochraceo-cinnamomeis; cortina fugaci.

Hab. in herbosis, Sanford University Californiæ.

9. **Cortinarius torvus** Fr. — Syll. V pag. 950. — Var. **nobilis** Peck 314

Rep. of the State bot. 1900, pag. 167. — Pileo carnosus, firmo,

convexo vel hemisphærico dein subconvexo v. fere plano, glabro, margine fibrilloso, violaceo v. griseo-violaceo dein griseo v. griseo rubro; carne griseo-alba, sub jove pluvio violacea; sapore grato; lamellis rubro-violaceis dein brunneo-cinnamomeis, distantibus, acie rotundatis; stipite variabili, longo vel brevi, æquali vel basi subincrassato, firmo, cortina alba obvoluto, interdum subannulato griseo, sæpe violaceo variegato.

Hab. gregarius vel subcæspitosus, Westport, Amer. bor.

10. **Cortinarius maculipes** Peck Rep. of the State Bot. 1900, p. 150. 315

— Pileo carnosio, 3,5-6 cm. lato, convexo dein subplano, glabro, tenaci glutinoso, rubro, dein pallido; carne albida; lamellis constrictis, stipatis, rotundatis, subadnatis albidis dein brunneis cinnamomeis; stipite æquali vel superne subconico, 5-7,5 cm. longo, 6-12 mm. crasso, subradicato, solido, farcto, sericeo-fibrilloso, squamoso maculato, sæpe subannulato; sporis ellipsoideis, 7,5-10 \times 5-6.

Hab. in silvis in muscosis, Westport, Amer. bor.

11. **Cortinarius elatior** Fr. — Syll. V p. 917. — Var. **pallidifolius** 316

Peck Rep. of the State Bot. 1900, p. 151, tab. G, fig. 22-26. — Pileo carnosio, 2,5-6 cm. lato, convexo, dein subplano, interdum margine revoluto rugulosoque, viscido, subfusco dein ochraceo; lamellis constrictis, stipatis, adnatis vel postice subrotundatis, acie inæqualibus, pallidis dein ochraceis v. cinnamomeis; stipite æquali, solido, viscido, sericeo-tomentoso, albido, lilacino maculato, 5-7,5 cm. longo. 8-12 mm. crasso; sporis oblongo-ellipsoideis, 15-17,5 \times 7,5-8,5.

Hab. in silvis, in foliis dejectis, Floodwood, Amer. bor.

12. **Cortinarius erythrojonipus** (Fayod) Sacc. et D. Sacc., *Hydrocybe* 317

erythrojonipoda Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 96, Syn. *Ag. erythrojonipes* Fayod in Ann. de Sc. nat. VII ser., t. IX, p. 373. — Formosus, subhygrophanus; pileo conico, umbone excepto, pelliculoso dein expanso, acute umbonulato, 2-3 cm. lat., badio, adpresse bombycino, ad subcyaneum vergente; carne lilacina; lamellis adnatis, melleis, ventricosis (ordine lamellarum 13231) subconfertis; stipite firmo, 3-7 cm. alto, 2-3 mm. cr. ascendente, apice leniter tenuato, lilacino-nitenti, inferne cinnabarino e velo fibrilloso; basidiis 45 \times 9, tetrasterigmaticis, parum emergentibus; sporis obovoideis, levibus vel subtiliter granulatis, 7 \times 4.

Hab. gregatim ad terram inter *Polytricha* locis umbrosis, Chiesa della Tanna, Angrognia in alpebus Pedemontii, aut. — Cuticula pilei ex hyphis brevibus inflatis radiatim dispositis conflata,

subhymenium ramoso-pseudoparenchymaticum; cellulæ hymeniales clavatæ.

13. **Cortinarius squarrosus** Clements in Bot. Surv. Nebr. 1901, p. 11. 318

— Pileo carnoso, campanulato dein convexo, sicco, subumbonato, centro squarroso, squamis umbrinis, fibrilloso-fasciculatis, dense vestito usque ad marginem, umbrino-ochroleuco, 2,5-3 cm. diam.; stipite cavo, fibroso-carnoso, flexuoso, subæquali, subsquarroso, fibrillis umbrino-fulvis vestito, 3-4 cm. longo, 5 mm. crasso; lamellis leviter adnatis, ventricosis, interdum stipatis, fulvis vel umbrinis; fibrillis cortinæ umbrinis, fugacibus; sporis irregulariter ellipsoideis, levibus, eguttatis, $12 \approx 6$.

Hab. in herbosis in silvis, Little Blue River, Nebraska, Amer. bor. — Adest forma minori; pileo 12 mm. lato, stipite 16 mm. longo, 2 mm. crasso.

14. **Cortinarius punctifolius** Peck Bull. Torr. Bot. Cl. 1903, p. 96. 319

— Pileo carnoso, margine tenui, convexo v. subplano, sicco, leviter fibrilloso et squamuloso, flavido-brunneo, subinde viridulotincto; carne flava; lamellis latis, subdistantibus, introrsum profunde et abrupte excavatis, adnexis v. subliberis, flavido-brunneis, viridi-tinctis dein cinnamomeis, flavo-punctatis; stipite subæquali, sæpe flexuoso vel irregulari, glabro vel leviter fibrilloso, striato, flavo, cyaneo-viridi-tincto; sporis late ellipsoideis vel subovoideis, $5-7 \approx 4-5$.

Hab. ad terram silvaticam ad pedem Mt. Moscow, Idaho Amer. bor. (HENDERSON). — Pileus 2,5-6 cm. lat., stipes 2,5-5 cm. long., 5-10 mm. cr. Lamellis flavo-punctatis mox dignoscitur. E sect. *Dermocybe*.

PAXILLUS Fr. — Syll. V p. 983, IX p. 135, XVI p. 111.

1. **Paxillus involutus** (Batsch) Fr. — Syll. V p. 987. — Var. **simplex** 320

Peck Rep. of the State bot. 1899, pag. 857. — A typo differt lamellis basi distinctis, nec crispatis, nec anastomosantibus

Hab. ad terram Minnewaska, Amer. bor.

PHÆOHYGROCYBE P. Henn. in Engl. Bot. Jahrb. 1901, p. 50, Syll.

XVI, p. 1114 (Etym. *phaios* fuscus et *Hygrocybe*). In Tab. comp. p. 8 occupabit n. 119. — Pileus submembranaceo-ceraceus; hymenophorum cum stipite contiguum. Lamellæ acie acutæ, hymenio in massam ceraceam mutando vestitæ nec membranacæ; basidia clavata, 4-sterigmatica; sporæ globosæ echinatae, fusciculæ.

1. **Phæohygrocybe Zenkeri** P. Henn. l. c. — Pileo membranaceo, ce- 321
 raceo fragili, convexo expanso, centro depresso, umbilicato, gra-
 nuloso, radiatim sulcato-subtuberculato, citrino, 1-3 cm. diam.;
 stipite fistuloso, tereti vel compresso, sulcato, flexuoso, levi, con-
 colorati, 2-3 cm. longo, 1,5-3 mm. crasso; lamellis adnatis subdecur-
 rentibus, subdistantibus, ceraceis, crassis, basi venoso-connexis,
 citrinis, 2 mm. latis; basidiis clavatis, 20-25 \times 9-12, sterigmatibus 4,
 subulatis, 6-9 μ . long., 1,5 μ . cr.; sporis globosis, dense aculeatis,
 flavo-fuscidulis, 8-11.

Hab. in ligno putri, Kamerun Africae.

Sect. 4. Melanosporæ.

AGARICUS Linn. em. — Syll. V pag. 996, IX pag. 137, XI p. 69,
 XIV p. 150, XVI p. 113.

1. **Agaricus sphærosporus** Peck Bull. Torr. Bot. Cl. 1904, p. 181. — 322
 Pileo carnosio, firmo, late convexo, leviter centro depresso, glabro,
 albido, cuticula subinde rimoso, margine primitus incurvo, demum
 irregulariter undulato; carne alba immutabili; lamellis tenuibus,
 confertis, postice rotundatis, attingentibus sed liberis, roseis, de-
 mum nigro-brunneis; stipite subæquali, crasso, firmo, solido, recto
 v. curvulo, albido, velo tenui albo, dein fracto, pileique margini
 stipitique adhærente, annulumque fimbriatum mox evanescentem
 formante; sporis globosis v. subglobosis, 7,5-8 \times 6-7,5.

Hab. in solo humoso, Denver, Colorado Amer. bor. (STERLING).
 — Pileus 7-12 cm. lat.; stipes 3-10 cm. long., 2-3 cm. cr.

2. **Agaricus rufescens** Peck Bull. Torr. Bot. Cl. 1904, p. 180. — 323
 Pileo carnosio, firmo, convexo, margine incurvo, demum subplano,
 levi v. subrimoso et minute fibrilloso, sordide albo, demum ferru-
 gineo, in sicco rubido-brunneo v. badio; carne albida, rupta ru-
 bescente; stipite æquali v. subæquali, firmo, farcto, sericeo, albo,
 vulnerato rubescente, sæpe abrupte bulboso; velo albo, sæpe pilei
 margini stipitique adhærente; sporis ellipsoideis 7-8 \times 5-6.

Hab. ad terram humosam in pascuis, Denver Colorado Amer.
 bor. (E. B. STERLING). — *Ag. campestri* var. *rufescenti* affinis.

3. **Agaricus Sterlingii** Peck in the Torr. Bot. Club 1902, p. 73. — 324
 Pileo carnosio, firmo, convexo vel interdum centro subdepresso,
 sericeo vel centro maculato squamoso, pallide brunneo vel griseo-
 brunneo, 5-12 cm. lato; carne brunnea v. alba; lamellis tenuibus,

confertis, liberis, pallide brunneis, dein maturitate brunneo-nigrescentibus; stipite æquali, solido, farcto albido, interdum supra anulum intensius concolori, 2-5 cm. longo, 8-12 mm. crasso; cortina tenui, margine pilei stipitique adhærente; sporis subellipticis, 6-8 \times 4.

Hab. cæspitosus ad terram, New Jersey, Amer. bor. (E. B. STERLING).

4. **Agaricus microspermus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 52, 325
sub *Psalliota*, Syll. XVI p. 1114 (nomen). — Pileo carnosus, campanulato expanso, pallido dein griseo-violaceo, atro-brunneo, medio obtuso umbonato, margine levi, 5-9 cm. lato; stipite tereti, farcto, fibroso, pallide cinereo, 5-8 cm. longo, 3 mm. cr., annulo membranaceo pallido; lamellis subliberis, pallidis cinerescentibus dein atro-brunneis, confertis, lanceolatis; sporis ellipsoideis, atro-brunneis vel atro-purpureis, 4-5 \times 3, uniguttulatis.

Hab. ad terram, Kamerun Africae.

5. **Agaricus cretacellus** Atkinson in Journ. of Mycol. 1902, p. 110. 326
— Gregarius 5-8 cm. altus, pileo 4-7 cm. lato, albo, convexo-expanso, crasso, levi, subviscido, interdum maculis minutis luteolis consperso; carne alba, interdum roseo tincta; lamellis angustis, 3-6 mm., liberis, diu albis dein roseis, lateraliter griseo-brunneis dein nigrescentibus; sporis 4-5 \times 3; stipite 6-10 mm. crasso, basi incrassato, albo, solido, supra anulum levi, subtus minute scabroso; annulo persistenti, albo, superne levi, in pag. inferiore floccoso; sapore odoreque amygdalino ut in *Ag. arvensi* Schaeff.

Hab. in silvis, Cascadilla creek, Ithaca, N. Y. Amer. bor.

6. **Agaricus rimosus** (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. 327
F. Indiae orient. II, in Hedw. 1901, pag. 331. — Pileo carnosus, campanulato-expanso, obtuso, centro rugoso-fusco, pallido, radiatim fusco-badio striato rimoseque squamuloso, 3-8 cm. diam.; stipite fistuloso, tereti striato, fusco-brunneo, 3-8 cm. long, 0,5-1 cm. cr., basi incrassato, annulo amplo membranaceo-squamoso; lamellis liberis, confertis, lanceolatis, angustis ex pallido badiis; sporis ellipsoideis, 4-7,5 \times 3, rufo-brunneis.

Hab. ad terram, Saharanpur-Garden Indiae orient.

7. **Agaricus Woodrowii** Masee in Kew. Bull. 1901, p. 151. — Pileo 328
subgloboso, glabro, primitus levi dein centro rimoso-areolato, ex albido fuscescenti, 3-5 cm. lato; carne 1 cm. lata, fuscescenti; lamellis confertis, liberis sed approximatis, umbrinis; stipite ventricosus, albido, deorsum fuscescenti, glabro, 3-5 cm. longo, annulo

supero, evanescenti donato; sporis ellipticis, glabris, umbrinis, $8 \approx 5$.

Hab. ad terram, Poom, prov. Bombay Indiæ britannicæ. — Edulis, *Ag. silvatico* Schaeff. affinis.

8. **Agaricus solidipes** Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 329

Pileo carnosio, firmo, convexo, squamoso v. rimoso, albo v. albido, margine involuto; carne alba, immutabili, sapore dulci; lamellis crebris, liberis, e rubello dein sepiaceis, demum brunneo-nigriscantibus; stipite brevissimo, æquali v. uno apice tenuato, glabro, solido, albo v. albido; velo albo tenui, sæpe margini pilei omnino adhærente; sporis ellipsoideis, $8-10 \approx 5-6$.

Hab. in pascuis, Colorado Amer. bor. — Pileus 2-7 cm. lat.; stipes 2-4 cm. long., 6-10 mm. cr. Pileo squamoso, margine involuto sæpeque appendiculato, stipiteque solido brevi facile dignoscenda species.

9. **Agaricus comosus** (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. 330

F. Indiæ or. II, in Hedw. 1901, pag. 331. — Pileo carnosulo ex ovoideo-campanulato dein explanato, vertice obtuso umbonato, rugoso-comoso, squamis obscurioribus membranaceis, adpressis, farinoso, albido, rubescente, 1-3 cm. diam.; stipite fistuloso, cylindraceo æquali, usque ad 5 mm. longo, 1-3 mm. cr., farinaceo, pallido dein rufescente, annulo membranaceo, pallido, evanescente; lamellis liberis, confertis, lanceolatis, usque ad 2 mm. latis, pallidis dein atris; sporis ellipsoideis, fusco-brunneis, $5-6 \approx 3,5-4$.

Hab. ad terram, Saharanpur-Garden, Indiæ orient.

10. **Agaricus exstinctoriiformis** Borszcz. in A. Th. Middendorf-reise in 331

den äussersten Norden und Osten Sibiriens, Band. I, Eh. 2, St. Petersburg 1850, p. 144. — Pileo carnosio, e conico hemisphærico-umbonato, levi, viscoso, ochraceo-fulvescente; lamellis subliberis angustis, nigro-fuscis; stipite subfistuloso, glabro, basi in bulbum oblongum desinente, sursum supra annulum laceratum, patulum albo-pulverulento.

Hab. in locis graminosis, ad fl. Uda in Sibiria. — Pileus junior exacte conicus, adultus conico-hemisphæricus v. potius hemisphæricus acute umbonatus, tenuis, levis, viscosus, 27 mm. latus, 14-16 mm. altus, ochraceo-rufescens, immutabilis! Lamellæ vix 2-2.5 mm. latæ subliberæ, nigro-fuscæ. Stipes 5-7 cm. alt., 4-5 mm. cr. subfistulosus, sat tenax, passim flexuosus amœne cinnamomeus, basi bulbo oblongo instructus, apice dilute cinnamomeus v. pallidus albo-pulverulentus. Annulus laceratus subfugax, reflexo-patulus,

albidus. Insignis videtur; ab *Agar. luteonitenti* Fl. Dan. bene diversus.

11. **Agaricus cothurnatus** Peck Bull. Tor. Bot. Cl. 1904, p. 181. — 332

Pileo carnosio, convexo, margine involuto, sicco, glabro v. margine minute pulverulento, calceo-albo, carne alba; lamellis confertis, liberis, ex castaneo nigricantibus; stipite subæquali, albo, basi fibris radicalibus copiosis obsito, veloque albo, anulum caliciformem sursum laceratum formante, cincto; sporis subglobosis, $8-9 \approx 7-8$.

Hab. in terra humosa juxta vias Denver, Colorado, Amer. bor. (E. B. STERLING). — Lamellis iditio theobrominis, stipiteque basi subvaginato species mox dignoscitur.

12. **Agaricus nanus** (Masse) Sacc. et D. Sacc., *Psalliota* Masee in 333

Kew. Bull. 1901, pag. 152. — Pileo e convexo explanato, levi, glabro, sicco, albido, 1-2 cm. lato; lamellis confertis, angustis, adnatis, purpureo-brunneis, acie integris concoloribus; stipite 3 cm. longo, vix 1 mm. crasso, fistuloso, candido; sporis ellipsoideis, levibus, purpureo-brunneis, $9 \approx 7$.

Hab. ad terram Poona, prov. Bombay Indiæ Britannicæ (WOODROW). — *P. obtusato* Fr. affinis.

13. **Agaricus pusillus** Peck Rep. of the State Bot. 1900, p. 152. — 334

Pileo carnosio, fragili, convexo dein plano, interdum subpresso v. centro subumbilicato, floccoso-fibrilloso, pallide griseo-brunneo maculis ferrugineis vel luteis consperso, centro intense brunneo, 1.5 cm. lato; carne albida, odore saporeque amygdalino; lamellis angustis, adnatis, liberis, subventricosis, fragilibus, initio griseis dein roseis, postremo brunneis; stipite 12-24 mm. longo, 2-6 mm. crasso, æquali, superne sæpe incrassatulo, inferne bulboso e farcto cavo, subfibrilloso, albo; annulo interdum evanescente; sporis late ellipticis vel subglobosis, $5 \approx 3$.

Hab. in pratis fertilibus, Delhi, Amer. bor. (S. SHERWOOD).

STROPHARIA Fr. — Syll. V p. 1012, IX p. 138, XI p. 70, XIV p. 151, XVI p. 119.

1. **Stropharia hypholomoides** P. Henn. in Engl. Bot. Jahrb. 1901, 335

p. 52, Syll. XVI p. 1114 (nomen). — Pileo carnosio, campanulato convexo, obtuso, cinereo-flavo, levi, glabro, centro brunneolo, margine pallido, 3-6 cm diam., stipite fistuloso, tereti, levi, 4-8 mm. longo, 4-5 mm. cr., pallido, annulo membranaceo, albido; lamellis adnatis, confertis, pallide flavis dein atro-violaceis; sporis ellipsoideis v. ovoideis, $5,5-7 \approx 3,5-4$, atro-violaceis, levibus.

Hab. ad radices arborum, Kamerun Afr.

2. **Stropharia coprinophila** Atkinson in Journ. of Mycol. 1902, p. 118. 336

— Cæspitosa, 3-7 cm. alta; pileo 2-6 cm. lato, convexo-expanso, interdum margine elevato, carnosio, 2-3 mm. crasso, margine tenui, sordide albo, tenuissime floccoso, sæpe multis squamis vestito, margine appendiculato; lamellis adnatis, subsinuatis, 4-6 mm. latis, griseis vel intense brunneis, margine albis; sporis nigrescentibus v. subpurpureis, ovato-oblongis v. ellipsoideis, levibus, 7-8 \approx 3,5-4,5; basidiis clavatis, 30-35 \approx 6-8, 4-sporis; cystidiis clavatis vel subventricosis, 60-65 \approx 10-12; stipite carnosio, 6-15 mm. crasso, farcto, cavo, æquali vel sæpe basi incrassatulo, albido, fibroso-striato, floccoso; annulo delicatulo.

Hab. in Coprini atramentario parasitica, Ithaca Flats, N. Y. Amer. bor. et in St. Paul, Minnesota, Amer. bor. — Sapor *Coprini atramentarii*.

3. **Stropharia lepiotoides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 52. 337

Syll. XVI, p. 1115 (nomen). — Pileo carnosulo, ex ovoideo campanulato, cinereo-flavescente, radiato-striato, levi, centro umbonato, fusco-brunneolo, 2-4 cm. diam.; stipite farcto, pallido brunnescente, striatulo, 3-6 cm. longo, 1½-2 cm. cr., medio annulo membranaceo, amplo, albido; lamellis adnatis, confertis, lanceolatis, primo pallidis dein nigrescentibus; sporis ellipsoideis, levibus, brunneo-violaceis, 5-7 \approx 4.

Hab. ad folia putrida, Kamerun Afr.

4. **Stropharia psathyroidea** P. Henn. F. Indiæ or. II, in Hedw. 338

1901, p. 330. — Pileo submembranaceo, convexo explanato, apice obtuso, levi, glabro, pallide brunneo, margine obsolete striato, 3-3,5 cm. diam.; stipite cavo, tereti, æquali, levi, glabro, stramineo, annulo membranaceo-floccoso, lacerato, fugaci, 6-7 cm. longo, 3-4 mm. crasso; lamellis sinuoso-adnatis, fusco-brunneis, 1-1,5 mm. latis; sporis ellipsoideis, fusco-purpureis, levibus, 5-6,5 \approx 4.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

5. **Stropharia magnivelaris** Peck in Harrim. Alaska Exped. Crypt. 339

p. 44. — Pileo convexo demum subplano, interdum umbonato, glabro v. obscure radiato-fibrilloso v. fibrilloso-squamuloso, fibrillis innatis, sicco ochraceo-fulvo; lamellis subconfertis, maturis brunneo-nigricantibus; stipite longo, gracili, glabro, solido, basi incrassatulo, albido; annulo late membranaceo, albo, persistente; sporis ellipsoideo-oblongis, 14-16 \approx 7-8.

Hab. ad terram, Yakutat, Alaska (TRELEASE). --- Pileus 2-3 cm.

lat., stipes 5-7 cm. long., 2-4 mm. cr. Annulo amplo, firmo, albo mox dignoscenda species.

6. **Stropharia grisea** P. Henn. Fung. S. Paulens III, p. 204 (Hedw. 340 1904). — Pileo carnosulo, convexo-campanulato, obtuso, griseo, subnitenti, levi, glabro, margine striatulo, centro obscuriori, 1 1/2-2 cm, diam.; stipite subfistuloso, tereti, pallido, levi, glabro, annulo membranaceo, persistenti, albido; lamellis adnexus, confertis, inæquilongis, ventricosis, pallidis dein fusco-cinnamomeis; sporis ellipsoideis, fusco-atris, 1-guttulatis, levibus, 4-5 \approx 3.

Hab. ad fragmenta vegetabilia putrida, Serra da Cantareira St. Paulo Brasiliæ. — Affinis *Str. inunctæ* affinis, sed satis diversa.

7. **Stropharia rhombispora** v. Höhnelt in Annales Mycol 1902, I, 341 p. 393. — Pileo applanato-convexo, umbone deficiente, membrana detrahenda, lutescenti-brunneo, levi, paullum glutinoso, imprimis versus marginem squamulis albis, furfureo-fibrillosis, cito evanescentibus, adnatis obtecto, circ. 15 mm. alt., 4-5 mm. alto, tenuiter carnosulo, intus consistentia tenaci et brunnescente, parte pilei marginali albido-floccosa, vix inflexa; stipite cavo, tenaci, brunneolocarnosulo, cylindrico, plerumque curvato, supra annulo exiguo, squamoso-floccoso instructo, brunneolo, undique indumento albido, fibrilloso-microsquamoso obtecto, infra tantum leviter incrassato, non radicante, 30-40 mm. long., 2-3 mm. crasso; stipitibus plerumque binis vel paucis conjunctis ex hypharum tomento, membranam albam formante, orientibus; lamellis haud approximatis, remotiusculis, ad 2 mm. lat., plano-adnatis, vix emarginatis, cum dentibus decurrentibus, brunneolis sed paulum in colorem violaceum vergentibus, acie alba, tenuiter crenulata; sporis acervatis nigro-violaceis, singulis pellucido-violaceis, plerumque 6-7 μ . long., 5-6 μ . latis, 3 μ . crassis, applanato-rhomboideis, subcordatis, supra papilliferis, infra cuneatis; cystidiis solum in lamellarum margine evolutis, rigidis, filiformibus, infra paulo latioribus ibique anguste conicis vel leviter clavatis, apice obtusiusculis.

Hab. in foliis dejectis, siccis Fagi in silvis ad pedem montis Wexen et ad montem Rehgrabenberg dictum, Wiener Wald Austriæ inferioris.

8. **Stropharia Staudtiana** P. Henn. in Engl. Bot. Jahrb. 1901, p. 51. 342 — Syll. XVI, p. 1114 (nomen). — Pileo subcarnosulo, campanulato-expanso, pallide brunneo, obtuso-umbonato 1-2,5 cm. diam., striatulo; stipite fistuloso, gracili, tereti, 5-10 cm. longo, 1-2 mm. cr., pallido, striatulo, annulo amplo membranaceo, persistente, al-

bido; lamellis adnatis, confertis, pallidis dein fuscescentibus; sporis ellipsoideis, atro-rufis, levibus 5,5-7,5 \times 4-4,5.

Hab. ad terram, Kamerun Afr.

9. **Stropharia depilata** Pers. Syn. p. 408. — Syll. V, p. 1012.

Hab. quoque ad truncos Pini silv. et Betulæ, in Polonia. — Species hæc *Stropharia æruginosæ* Curt. proxima, a qua in statu sicco specimina minora vix distinguenda. Statura tamen generatim multo major et etiam spora differt, quæ subamygdaliformis, apice truncata, 10-12 \times 5-6 $\frac{1}{2}$. Specimina vidi pileo 14 cm. lato, stipite 15 cm. longo, apice 3-4 cm. crasso, infra annulum pulcre albo-squamuloso (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 71).

10. **Stropharia siccipes** Karst — Syll. V, p. 1022. — var. **radicata** ³¹³
Peck in Rep. of the State botanist, 1902, p. 37. — A typo differt stipite longe radicato.

Hab. in horto botanico, New York, Amer. bor. (F. S. EARLE).

HYPHOLOMA Fr. — Syll. V p. 1027, IX p. 139, XI p. 71, XIV p. 152, XVI p. 121.

1. **Hypholoma californicum** Earle in New York bot. Gard. 1902, ³¹⁴
p. 344. — Dense cæspitosum; pileo subtili, 5-5,5 cm. diam. convexo, dein expanso et subumbonato, intense brunneo, levi, hygrophano, margine integro, in sicco obscuro striato; pileo 7-10 cm., 4-5 mm., æquali, glabro sed raro irregulariter inflato, sordido, albedo et maculis brunneis consperso, cartilagineo, cavo, fragili, sæpe fisso; carne pallide brunnea, colore saporeque grato; lamellis adnatis vel subliberis, leviter ventricosis, pallide brunneis; sporis intense rubro-brunneis, oblongo-ellipticis 5-6 \times 3; cortina albida, fibrillosa; fibrillis ad marginem confertis.

Hab. ad basim truncorum Quercus in silvis prope Palo Alto Californiæ.

2. **Hypholoma pacosense** Cockerell in Journ. of Mycol. 1904, p. 108. — ³¹⁵

Pileo leviter convexo, centro subconico, 2,5-4 cm. diam., margine subverticali, levi, viscidulo, numquam squamoso v. sericeo, cremeo-albo, centro subochraceo, sed semper pallido, margine ex veli residuis flavido-squamuloso; lamellis pallide griseo-purpureis, postice albidis, acie albo-furfuracea; stipite 5-9 cm. longo, flavido-albo, v. pallidissime ochraceo ob lamellas leviter decurrentes summo apice striatulo, et albo-furfurello, ceterum glabro nitidulo, sursum fistuloso; carne dulci, colore immutabili; sporis purpureo-brunneis, dein omnino atris, ovoideis, 12 \times 8.

Hab. ad terram, Pecos, New Mexico (M. GRABHAM).

3. **Hypholoma pseudostorea** (W. G. Smith) Sacc. *Agaricus pseudostorea* W. G. Smith, Journ. of Bot. 1903, p. 386. — Pileo convexo obtuso v. subumbonato, dein expanso, carnosus, initio purpureo-brunneo, centro obscuriore, mox in squamas latas purpureo-brunneas fibrillosas diffracto, sub squamis ex albo fulvello; stipite cavo æquali v. deorsum attenuato, primitus levi dein sericeo-brunneo-fibrilloso, sursum albo, infra pallide flavo; lamellis adnatis, albis, dein roseis, demum brunneis v. purpureo-brunneis, non plorantibus; sporis 5-7 \approx 2,5-3.

Hab. in silvis, sub Laricibus etc. in Britannia. — Vulgo cæspitosum, rarius solitarium; sapor parum gratus, tenuis; odor fortis nauseosus. *H. lacrimabundo* affine.

4. **Hypholoma aggregatum** Peck — Syll. XI, p. 71. — var. **sericeum** Peck in Rep. of the State botanist 1901, p. 965. — Pileo sericeo-fibrilloso, squamis maculisque destituto. Cetera ut in typo.

Hab. in silvis, North Bolton, Amer. bor.

PSILOCYBE Fr. — Syll. V pag. 1043, IX p. 140, XI p. 72, XIV p. 154, XVI p. 124.

1. **Psilocybe tristis** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 330. — Carnosula; pileo campanulato dein expanso, centro subumbonato, obtuso, obscuriori, radiato-striato, velutino-squamosulo, 5-8 cm.; stipite sæpe late compresso, levi, glabro, pallide brunneo 10-13 mm. longo, 1-1,5 mm. cr.; lamellis liberis vix confertis ca. 1 mm. latis, utrinque attenuatis, fusco-cinnamomeis; sporis oblique ovoideis, basi apiculatis, 4 \approx 3-3,5, fuscis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

2. **Psilocybe citrina** Masee in Kew Bull. 1901, pag. 162. — Pileo primo subgloboso, margine stipite contiguo subinvoluta, dein campanulato-expanso, submembranaceo, levi, glabro, læte citrino, 3 cm. lato; lamellis confertis, attenuato-annexis, lætis, purpureo-brunneis; stipite tereti, levi, glabro, pileo concolori, 4 cm. longo, 3 mm. crasso; sporis oblique ovoideis, glabris, purpureo-brunneis 7 \approx 4.

Hab. ad terram in horto botanico, Aburi, Gold Coast Africæ occident.

3. **Psilocybe unicolor** Peck Rep. of the State bot. 1899, p. 845. — Pileo tenui, subconvexo, hygrophano, striatulo, brunneo, in sicco pallide brunneo vel albicante. 12-20 mm. lato; carne alba, sapore

ingratulo; lamellis constrictis, tenuibus, stipatis, adnatis, brunneis dein intense coloratis; stipite brevi, recto vel curvo, æquali, glabro, cavo vel farcto, brunneo, 16-24 mm. longo, 2 mm. crasso; sporis brunneis, ellipsoideis $6 \approx 3,3$.

Hab. in truncis dejectis, in silvis, Savannah, Amer. bor. — *Ps. camptopodi* affinis.

4. **Psilocybe tuberosa** Karst. Fungi novi Loennb. 1904, p. 2 (Finska 351
 Vetensk. Soc.). — Pileo carnosulo, conico-campanulato, demum convexo-explanato glabro, striato (siccitate sæpe sulcato), sicco fulvo, circiter 2 cm. lato; stipite subæquali, fistuloso, glabrescenti, vulgo sulcato scissoque, pallescenti, 5-6 cm. longo, circiter 2 mm. crasso; lamellis adnexis, confertis sat angustis, fuscis.

Hab. in nemore prope oppidum Ufo Rossix, Junio 1902. Legit cl. J. G. OKSANEV. — Species singularis. Pilei ut plurimum complures e tubere albido terræ immerso enati.

PSATHYRA Fr. — Syll. V pag. 1060, IX p. 142, XI p. 73, XIV p. 154, XVI p. 126.

1. **Psathyra conica** Peck Rep. of the State bot. 1900, p. 153, tab. H, 352
 fig. 17-22. — Pileo tenui, conico, raro convexo, glabro, hygrophano, intense brunneo, in sicco pallide ochraceo, 8-12 mm. lato; lamellis latis, stipatis, adnatis, albo-pallidis, dein maturitate intense brunneis, margine albo-flocculosis; stipite filiformi, cavo, sericeo-fibrilloso, brunneo, 2,5-3,5 cm. longo, 1 mm. crasso; sporis ellipsoideis, $5-6 \approx 4$.

Hab. in truncis emortuis Abietis, Floodwood, Amer. bor.

2. **Psathyra musicola** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 353
 XXVIII, p. 36. — Pileo carnosulo, excentrico, convexo dein subresupinato, pallido, griseo-fuscescente, levi, glabro, pruinoso, 2-4 mm. diam.; stipite excentrico, brevi, curvulo, 2-3 mm. longo, 0,5-0,7 mm. cr., pallido, levi, basi albido-byssino; lamellis sinuoso-adnatis, vix decurrentibus, subconfertis, inæquilongis, ventricosis, primo pallidis, dein atrofuscis; sporis ellipsoideis, basi oblique apiculatis 1-guttulatis, flavo-brunneis, fuscis $6-6,5 \approx 4-4,5$.

Hab. in foliis Musæ sapientum, Usambara (KUMMER).

COPRINUS Pers. — Syll. V pag. 1078, IX p. 144, XI p. 75, XIV p. 156, XVI, p. 128.

1. **Coprinus semianus** Pat. Bull. Soc. Mycol. 1904, p. 53. — Solita- 354
 rius v. aggregatus; pileo carnosulo ovoideo vel cylindraco, apice

rotundato-obtuso, albido, squamis crassis adpressis flavo-ochraceis sursum consperso; lamellis latis, inæqualibus, albis dein nigris; sporis coacervatis brunneo-flavidis, sub microscopio flavo-fuliginis, ovoideis v. subglobosis, $8-10 \approx 6-8$; stipite sursum carnosus, deorsum indurato subligneo, albido, cylindrico, levi, parce minute adpresse squamuloso, basi sensim bulbosa radicante; annulo et volva nullis.

Hab. in alveis pr. Laghonat Algeriae (Cap. SEM). — 7-12 cm. alt., stipes basi 2 cm., sursum 10 mm. cr. *C. ovato* et *C. imbricato* proximus, sporis rotundioribus aliterque coloratis distinguendus.

2. **Coprinus dryophilus** Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — Pileo campanulato convexo, luteo-citrino, centro rubro-pallido, carnosus 4-7 cm. lato, squamis distantibus rubris consperso, margine striato; lamellis stipatis, nigris; sporis ovoideo-citriformibus, sub microscopio brunneis, levibus $10-12 \approx 7-8$; stipite tenaci cylindraco, basi attenuato, concolore, striatulo, paullo squamoso, cavo.

Hab. cæspitosus in truncis *Quercus* El Feidia Algeriae.

3. **Coprinus miniato-flexuosus** Bres. et Pat. in Lloyd Myc. Not. n. 6, 1901, p. 49. — Pileo submembranaceo ex ovoideo campanulato, fulvello, rimoso-sulcato, squamulis miniatis eleganter obsito, glabrescente, 1,5-3 cm. lato; lamellis ex albido fuscis, postice ex adnato liberis; stipite cavo subconcolore, 3-5 cm. longo, 3-5 mm. cr.; sporis ellipsoideis, $5-7 \approx 4-4,5$, fulvis, binucleatis, nucleis flavis.

Hab. ad terram in insula Samoa Polynesiae.

4. **Coprinus pseudo-domesticus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 51. — Syll. XVI, p. 1115 (nomen). — Pileo submembranaceo, ex ovato campanulato-obtuso, vertice subdiscoideo, pallido, carnosulo-incrassato, umbilicato, fusco, radiatim striato-sulcato, cinereo, margine fisso 1,5-4 cm. diam.; stipite cavo, cylindraco albo, levi, glabro 2-8 cm. longo, 5-8 mm. cr. d. mycelio filiformi repente brunneolo oriente; lamellis subcollariato-adnatis confertis, subcinereis dein atris; cystidiis cylindraco-clavatis $30-40 \approx 18-20$; sporis ellipsoideis, fuscis, levibus, $4-5 \approx 3-6$.

Hab. ad terram, Kamerun Afr.

5. **Coprinus Chaignoni** Patouill. in Bull. Soc. Myc. de France 1903, fasc. 3, p. 246. — Subcæspitosus; pileo tenui, carnosulo, ex ovato conico-expanso, campanulato dein explanato, striato sulcato, velo universali ochraceo, furfuraceo, sub lente squamuloso-imbricato,

margine evanescenti, apice persistenti tecto; stipite albido, gracili, basi e volvæ residuis ochraceis cupulato; lamellis angustis, atris; sporis ovoideis, nigrescentibus, $10 \approx 5$.

Hab. ad terram arenosam Bir m' Chegga Algeriæ (Cl. DE CHAIGNON). — Affinis *C. cinerato*. Pileus 15-20 mm. lat., 6-10 mm. alt.; stipes 2 cm. longus.

6. **Coprinus straminis** E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 4. 359
— Pileo ovoideo v. ellipsoideo, dein conico, 2-5 cm. lato, sulcato-striato, disco levi 1 cm. lat., vulgo stramineo rarius brunneolo v. albo, demum nigro, minute tomentoso diu continuo, dein deliquescente inter lamellas fisso, pellicula medio 2 mm. cr.; lamellis confertis, 2-5 mm. latis, adnatis; stipite 3-8 cm. alto, 4-5 mm. cr., uniformiter levi, albo, basi subincrassato obsolete volvato, anulo nullo; cystidiis $90 \approx 40$; sporis 12-14 \approx 7-8, nigris.

Hab. in stramine vetusto putri, Stanford University, California, vere.

7. **Coprinus alnicola** E. B. Copeland, Ann. Mycol. 1904, p. 2, fig. 5. 360
— Pileo campanulato-conico, 3-7 mm. lato, 3-5 mm. alto, sulcato-striato, glabro, albo v. brunneolo, dein sensim nigricanti fragili; lamellis paucis, adnatis; stipite evolvato, 2-5 cm. alto, 1-2 mm. cr., cavo; cystidiis nullis; sporis atro-brunneis, coacervatis nigricantibus, $7 \approx 3-3,5$.

Hab. ad truncos et ramos emortuos dejectos, præsertim *Alni rhombifoliæ* Stanford University Californiæ vere.

8. **Coprinus fuscusporus** E. B. Copeland, Ann. Mycol. 1904, p. 2, 361
fig. 2-3. — Pileo cupuliformi, crassiusculo, 6 cm. circ. diam. et 4 cm. alt., pellicula 1-2 mm. cr., aquoso brunnea, striatu, squamuloso-furfuracea; lamellis stipiti adhærentibus, dein liberis, 7 mm. et amplius latis; stipite 8-14 cm. alt., 1 cm. cr., subcartilagineo et extus submucoso, basi subincrassato et volva rudimentali cincto; cystidiis 120-130 \approx 50 oculo nudo conspicuis; sporis ovoideis, 7-8 \approx 4, atro-brunneis, non nigris.

Hab. in cineribus ligneis in Arboreto Stanford University, California, vere.

9. **Coprinus Stanfordianus** E. B. Copeland, Ann. Mycol. 1904, p. 1, 362
f. 1. — Pileo tereti-ovoideo, demum conico-campanulato, margine demum elevato, secundum lamellas profunde fisso, centro 2-4 mm. cr., primitus sericeo, ad strias rufo-brunneo; lamellis 3-5 mm. lat. liberis, acie alba, brunneo-rubentibus, demum nigris; stipite cylindræo 12-20 cm. alto, cavo, albo, sericeo, basi vix dilatato

et volva adherente margine vero libera et lobulata; sporis ovoideis 10-15 \times 8-9, levibus, nigricantibus; cystidiis nullis.

Hab. ad terram in arboreto Stanford University, California, vere. — *Copr. comato*, *sterquilino* et *calyptrato* affinis, sed notis datis sat diversus.

10. **Coprinus Gibbsii** Masee et Crossl., The Naturalist, 1902, p. 1. — 363

Pileo minuto, 0,5 cm. diam., hemisphærico dein expanso, striato, glabro, pallide ochraceo, disco obscuriori; lamellis adnatis, 5-7-confertis; sporis subcircularibus, compressis, levibus, rubro-brunneis 8-9 μ . diam., 5 μ . cr.; cystidiis subpiriformibus 40 \times 25; stipite 4-7 mm. longo, tenuissimo, albo, pellucido, glabro, basi mycelio albido obvoluto.

Hab. in fimo equino prope Sheffield, in Britannia (T. GIBBS). — *C. radiato* Berk. affinis.

PANÆOLUS Fr. — Syll. V p. 1118, IX p. 147, XI p. 77, XIV p. 161, XVI p. 134.

1. **Panæolus albellus** Masee in Bot. Tidsskrift-Copenhagen 1902, 364

vol. 24, p. 216. — Pileo carnosulo e convexo-campanulato, expanso, livido, dein albello, glabro, 2-3 cm. lato; lamellis confertis, postice attenuato-adnatis, fuliginosis; sporis ellipsoideis utrinque apiculatis, atro-fuscis 20 \times 10; stipite e farcto cavo, sursum attenuato, fibrilloso, pubescente, pallido, 7-10 cm alto.

Hab. in fimo bubalino, Siam Asiæ merid. — *Pan. campanulato* L. affinis.

2. **Panæolus alveolatus** Peck Rep. of the State bot. 1900, pag. 153, 365

tab. H, fig. 30 36. — Pileo tenui, fragili, fere convexo, glabro, hygrophano, intense brunneo, in sicco griseo-brunneo alveolato 16-24 mm. lato; carne brunnea; lamellis latis, stipatis, adnatis, subventricosis, nigrescentibus, acie albis; stipite æquali, filiformi, cavo, glabro, apice subpruinoso, pallido 3,5-7,5 cm. longo, 2-4 mm. crasso; sporis nigris, subellipsoideis 12,5-14 \times 7,5-10.

Hab. in fimo, in silvis, Floodwood, Amer. bor.

3. **Panæolus Regis** De Seym. in Bull. Soc. Myc. de France 1901, 366

p. 209, tab. VIII bis, f. 1 (ex Delile). — Pileo albo-fuscescente, conico expanso, demum plano, glabro, non omnino levi, carnosulo-membranaceo, zona marginali striato-undulata, coronam regularem fingente, 3-4 mm. lata, senio nigricanti ornata; lamellis fuligineo-nigris, 4 mm. latis, ventricosis, confertis, adnatis, lamellis intermixtis, sub zona marginali pilei insertis; sporis . . . ; stipite

pallescente, levi, fistuloso, fibrillis albis farcto, sub pileo incrassato, 3-4 cm. longo, bulbilloso, radícula insititia, usque 3-5 cm. longa.

Hab. ad terram tritam in horto botanico Montpellier Galliae (DELILE Iconogr. ined.).

PSATHYRELLA Fr. — Syll. V p. 1126, IX p. 149, XI p. 77, XIV p. 162.

1. **Psathyrella fragilis** Earle in New York Bot. Gard. 1902, p. 344. 367
— Gregaria; pileo fragili, subtili, 4-8 mm., subconico, late convexo, brunneo-griseo, dein maturitate pallide griseo, disco intensius concolori, minute furfuraceo, profunde radiato-sulcato usque ad marginem; stipite filiformi 2-3 cm., 0,8-1 mm., æquali vel superne paullo incrassato, albido et levi, inferne minute furfuraceo, pallide griseo cartilagineo, cavo; carne albida; lamellis subliberis, heterophyllis, subdistantibus, ventricosis, pallide griseis, maturitate paullo nigrescentibus; sporis hyalinis, in massa obscurioribus, oblongo-ellipticis, 1-vacuolatis, 8-9 \approx 4-5.

Hab. in foliis dejectis Pini, Stanford University Californiæ.

Psath. disseminata Pers. affinis.

2. **Psathyrella subtilis** (Fr.) Quél. — Syll. V, p. 1135.

Hab. ad fimum, etiam in Polonia. — Sporæ sub micr. fuscorufæ, oblongæ, apice subtruncatæ, 7-8 \approx 3; basidia clavata 15-18 \approx 6-7; cystidia fusoideo-ventricosa, utrinque valde attenuata, 28-32 \approx 9-10. A *Psathyrella disseminata*, cui valde affinis, differt statura graciliori, pileo potius striato quam sulcato; sporis aliquantulum longioribus et strictioribus, cystidiis fusiformibus et matrice. In *Psath. disseminata* sporæ 6-7 \approx 3 $\frac{1}{4}$ -4 et cystidia clavata vel ventricosa, apice tantum umbonata. Pili pilei in utraque specie identici (Bresadola Fungi Polonici, in Ann. Mycol. 1903, p. 72).

GOMPHIDIUS Fr. — Syll. V p. 1137, XI p. 68, XIV p. 164, XVI p. 136.

1. **Gomphidius flavipes** Peck Rep. of the State bot. 1900, pag. 153, 368 tab. I, fig. 1-4. — Pileo convexo vel fere plano, viscido, centro minuto tomentoso, margine sericeo-fibrilloso, fusco-roseo, 20-24 mm. lato; lamellis arcuatis, decurrentibus, distantibus, albis; stipite æquali vel superne sæpe constricto, basi attenuato, solido, subfibrilloso, superne albido, alibi pallide luteo intus et in cute

3,5-6 cm. longo, 6-8 mm. crasso; sporis oblongo-fusiformibus, 22,5-30 \times 6-7,5.

Hab. in silvis, Westport, Amer. bor.

MONTAGNITES Fr. — Syll. V p. 1140, XI p. 79, XVI p. 137.

1. **Montagnites Candollei** Fr. — Syll. V, pag. 1140. — f. **minor** P. 369

Henn. in Hedw. 1901, p. 98. — Volva lacerata; stipite 2-3 cm. longo, 3 mm. ca. lato, levi v. vix lineis distincto, leviter sericeo; pileo 2-2,5 cm. diam., disco ca. 1-1,5 cm. lato; sporis ellipsoideis 5-8 \times 4-6, levibus, nigris.

Hab. in arenosis in Ægypto. — Var. **coprinoides** P. Henn. Hedw. 1901, p. 98. Syll. XVI, p. 1115 (nomen): pileo subcylindraco, campanulato, dein convexo-plano, ca. 4 cm. alto, 5-6 cm. lato, disco depresso ca. 3 cm. lato, pallido, brunneo-maculato; lamellis liberis, dense radiatis, persistentibus, utrinque obtusis, ca. 0,6-1 cm. latis, atris; stipite æquali cylindraco 4-5 cm. longo, 1-2 cm. cr., intus spongioso-farcto, dein cavo, fibroso-sericeo, extus squamoso-fibroso, albo, basi velato, volva ampla, membranacea, lacerata; basidiis late clavatis ca. 20-25 \times 10, 2-4-sterigmaticis; sporis ellipsoideis v. late ellipsoideis, primo pallidis, dein atris 7-11 \times 4-6. — In arenosis Biskra, Algeria.

Fam. 2. **Polyporaceæ** FR. *).

BOLETUS Dill. — Syll. VI p. 2, IX p. 150, XI p. 79, XIV, p. 164, XVI p. 138 **).

1. **Boletus sardous** Belli et Sacc. in Bull. Soc. Bot. It. 1903, p. 225. 370
— Pileo convexo, pulvinato, firmo, demum molli et expanso, sub-

*) Cfr. elaboratam monographiam Polyporearum americanarum, inchoatam in Bull. of Torr. Bot. Cl. 1903-1904 a cl. W. A. Murrill, ubi tamen plura nomina generica vetusta, indefinita, heterogenea omnino inusitata iterum et perperam sunt restaurata. Iconographiam phototypicam, cum analysi, omnium perdifficilis familiæ specierum a cl. Murrill avide exoptamus.

**.) Cfr. cl. CH. E. MARTIN monographiam absolutam, eximiis iconibus exornatam, *Le Boletus subtomentosus de la région genevoise*, Berne, 1903, ubi quam plurimæ formæ speciei proteiformis diligentissime illustrantur.

viscoso (humectato), fusco-ferrugineo vel fusco-rubescenti, levi nec squamuloso nec granuloso; stipite exannulato, pallide luteolo vel flavescenti-stramineo, punctato-grnuloso, subsquamuloso, basi constanter bulboso; tubulis adnatis, luteo-sulphureis, interdum subvirescentibus, sub vitro irregulariter ellipticis; sporis subfusoideo-oblongatis, luteolis 14-16 \approx 5-7.

Hab. in planitie totius insulæ Sardiniaë ad radices Cisti monspeliensis. — A *B. granulato* Fr. et *B. badio* Fr. differt præsertim stipite basi constanter bulboso, squamuloso et magnitudine sporarum.

2. **Boletus scabripres** Peck in Bull. Torr. Bot. Club 1902, XXIX, 371 p. 555. — Pileo crasso, late convexo, firmo, sicco, glabro, rufo-brunneo; hymenio convexo; tubulis adnatis v. leviter depressis circa stipitem, brunneis; poris minutis rotundis saturatioribus; stipite obtuso, æquali, solido sed intus spongioso, griseo-albido, verruculis copiosis punctiformibus, prominulis, nigris consperso; sporis oblongo-fusoideis, 12-15 \approx 4-5.

Hab. ad terram humosam silvaticam Mont Desert Amer. bor. — Pileus 15 cm. lat.; stipes 10 cm. long., 2-3 cm. cr. *B. scabro* affinis sed verruculæ stipitis copiosiores et adhuc minores.

3. **Boletus Ridleyi** Masee in Kew Bull. 1901, p. 154. — Pileo convexo-plano, levi, glabro, citrino, 2-3 cm. alto; carne alba, lutescenti, sapore dulci; tubulis flavo-virentibus, stipiti adnatis, 3-4 mm. longis; sporis angulatis, amplis; stipite solido subæquali, glabro, supra annulum evanescentem albo, infra citrino, 4 cm. longo, 5-7 mm. crasso; sporis flavo-viridibus, 7-8 \approx 5.

Hab. ad terram, Singapore, Malacca (RIDLEY). — *B. chrysen-tero* Fr. affinis.

4. **Boletus purpureus** Fr. — Syll. VI, pag. 35. — var. **fumosus** 373 Peck Bull. Torr. Bot. Cl. 1902, vol. 29, p. 554. — A typo differt pileo fumoso-brunneo; carne cremea, tactu cyaneo-virescente; tubulis flavido-viridulis, poris minutis brunneo-rubellis, tactu cyaneo-virescentibus; sporis 10 \approx 5.

Hab. in silvis M.t Desert Amer. bor. — Pileus 4-14 cm. lat.; stipes 4-12 cm. long., 1-2,5 cm. cr.

5. **Boletus pedemontanus** Fayod in Ann. Acc. d' Agric. di Torino 1893, 374 p. 103. — Pileo primo pulvinateo, sicco stipiteque amœne carneo v. cupreo; carne alba leniter cyanescente; stratu tubulifero libero, poris minutissimis tubulisque flavo-pallidis, deinde pileo (præcipue locis umbrosis) plus minusve lateritio, cute diffracta areolata vel

squamosa, stipiteque levi concolori; cystidiis hyalinis, dispersis, parvis, piliformibus; sporis pallidis $12 \approx 4$.

Hab. solitarius ad terram apricam in quercetis Bricherasio, Roche-plate Pedemontii.

6. **Boletus velatus** (Rostr.) Sacc. et D. Sacc., *Suillus velatus* Rostr. 375
in Bot. Tidsskrift-Copenhagen 1902, vol. 24, pag. 207. — Pileo convexo-plano, rufo-fusco, rimoso-granuloso, 4 cm. lato, margine velo crasso, stellatim fissio ornato; tubulis liberis; poris amplis, angulatis; stipite cylindrico, gracili, levi, 5-6 cm. 0,5-1 cm.; sporis hyalinis, ellipsoideis, apiculatis, sæpe obliquis.

Hab. ad terram, Siam Asiæ merid.

7. **Boletus hygrophanus** (Rostr.) Sacc. et D. Sacc. *Suillus hygrophanus* 376
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo albo, hygrophano, convexo-plano, initio piloso-squamoso, dein glabro, 2-3 cm. lato; stipite gracili, flexuoso, sursum fibroso squamoso, 5-6 \approx 2-3 cm., cartilagineo, albo, nitido; tubulis liberis; poris mediis inæqualibus, sinuosis; sporis hyalinis, ellipsoideis, 9-10 \approx 5.

Hab. ad terram, Siam Asiæ merid.

8. **Boletus Rostrupii** Syd. Ann. Mycol. 1903, p. 177, *Boletus lacunosus* Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207 nec Otth nec Masec. — Pileo e pulvinateo expanso, glabro, levi, alutaceo 4-5 cm.; tubulis liberis, mediis, dilute fuscis; stipite gracili, elongato, cylindrico v. sursum attenuato, profunde areolato-lacunoso, annulato, 10-12 cm. longo; sporis ferrugineis, fusiformibus 13-15 \approx 6-7.

Hab. in arbore cava, Siam, Asiæ merid.

9. **Boletus costatus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, v. 24, 378
p. 207. — Pileo dilute fusco, hemisphærico-pulvinateo, levi, glabro, 2 cm. lato; stipite ventricosus, utrinque attenuato, sursum profunde costato-lacunoso, inferne obsolete reticulato, 4-5 \approx 2 cm., basi curvato; tubulis levibus, liberis; poris minutis; sporis oblongis, ferrugineis, subtiliter striatis 18-20 \approx 6-8.

Hab. ad terram, Siam Asiæ merid.

10. **Boletus changensis** (Rostr.) Sacc. et D. Sacc., *Suillus changensis* 379
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo convexo-plano, rubro, levi, glabro, 2-3 cm. lato; stipite gracili, cylindrico, sæpe compresso, basi incurvo, crassiore; tubulis adnatis; poris mediis sulphureis; sporis hyalinis, oblongis 9 \approx 4; carne secta cyanescente.

Hab. ad terram, Siam Asiæ merid.

11. **Boletus chrysenteron** Fr. — Syll. VI, p. 14. — var. **albocarneus** 380

Peck Rep. of the State bot. 1900, p. 185, tab. 76, fig. 21-25. — Pileo carnosio, superne convexo, sicco, subglabro, rufescenti 2,5-6,5 cm. lato; carne alba, sæpe in superficie rubro tincta; tubulis longiusculis, adnatis, stipitem versus subdepressis, griseo-luteis, acie subrotundis, levibus; stipite æquali, firmo, subglabro, pileo concolori, intus albo, 2,5-5 cm. longo, 4-8 mm. crasso.

Hab. ad terram, Amer. bor. Edulis. — Var. **deformatus** Peck in Rep. of the State botanist 1901, p. 966: pileo tenui 2,5-4 cm. lato, irregulari, rubro vel brunneo-rubro; stipite brevi, sæpe irregulari, ventricosio, latitudine et crassitudine æquali. — In terra uda, Bolton, Amer. bor.

12. **Boletus granulatus** L. — Syll. VI, p. 5. — var. **albidipes** Peck 381

Rep. of the State bot. 1900, pag. 168. — A typo differt, carne pilei albida, sed in proximitate tubulorum luteola; stipite intus et in cute albo.

Hab. in pinetis, Westport, Amer. bor.

13. **Boletus Betula** Beardslee ap. Lloyd Mycol. Not. 1902, n. 10, Se- 382

ptemb. p. 97, cum icone. — Pileo firmo hemisphærico-convexo, rufo-tomentoso vel squamuloso, sæpe rimoso, rubro vel flavido-rubro; carne firma, flavida; tubulis adnatis circa stipitem plerumque depressis, sordide flavis vel flavido-viridibus; poris latiusculis; stipite longo æquali vel sursum attenuato, reticulato-asperato.

Hab. in silvis, in planitie Asheville frequens, Amer. bor. — Pileus 5-7 cm. latus, stipes 10-25 cm. long., 7-15 mm. crassus.

14. **Boletus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901. p. 44. — 383

Syll. XVI, p. 1115 (nomen). — Pileo carnosio, convexo-plano, pruinoso, atro-castaneo, levi, glabro, 2-3 cm. diam.; stipite cylindraceo, farcto, atropurpureo v. atro-brunneo, striatulo v. subsquamuloso 3-5 cm. longo, 4-6 mm. cr., superne subattenuato; tubulis adnatis subdecurrentibus, 2-5 mm. long., poris rotundato-angulatis ca. 1-1,5 mm. amplis, acie integris, luteis; basidiis clavatis, intus brunneo-granulosis, 24-28 \times 12-15; sporis ellipsoideis v. ovoideo-subfusoides, utrinque obtusis, castaneis v. atro-brunneis, 1-guttulatis, levibus, 12-15 \times 8-13.

Hab. in silvis, Kamerun, Afr.

15. **Boletus umbrosus** Atkinson in Journ. of Mycol. 1902, p. 112. 384

— Pileo convexo dein expanso 5-9 cm. lato, carnosio, subtomentoso, dein areolato ut in *B. subtomentoso*, brunneo dein isabellino;

carne albida dein brunneola; tubulis convexis, initio albis dein pallide brunneis, postremo intense brunneis; stipite concolori 7-8 cm. alto, irregulariter longitudinaliter canaliculato-rugoso, minutissime intense punctulato, basi conico, breviter radicato.

Hab. ad terram, Caynga Lake Amer. bor. (C. H. KAUFFMAN).

16. **Boletus Dupainii** Boud. in Boll. Soc. Myc. de France 1902, n. 2, 385

tab. *F*, fig. 1. — Pileo carnosio, convexo, luteo ochraceo, non tomentosio, sed glutine, in junioribus, rubro-sanguineo, dein evanescente, omnino tecto, 7-10 cm. lato; tubulis elongatis, olivaceo-lutescentibus, liberis, ore sanguineo, versus marginem luteo-aurantiacis; stipite pleno, crasso, sæpius subbulboso, luteo, non reticulato sed punctis rubris, crebris tecto, ad apicem luteo-aurantiaco ad extremam basim olivascente; carne, etiam stipitis, pallide lutea, sapida, non amara et præcipue circa tubulos cærulescente; sporis oblongis, olivascentibus, intus guttulosis, 14-15 \approx 5-7.

Hab. in silvosis, ad terram calcareo-argillosam prope La Mothe-St-Heray Galliæ.

17. **Boletus chamæleontinus** Atkinson in Journ. of Mycol. 1902, p. 112. 386

— Pileo convexo, crasso, 8-10 cm. lato, subtomentoso vel minute subfloccoso e latere leviter rimoso-areolato ut in *B. scabro*, brunneo; carne albo-lutea, dein rubra vel violacea; tubulis convexis, stipitem versus depressis, initio luteolis dein rubescentibus, maturitate acie rubris, tenuibus, rotundatis vel irregularibus, tactu cyaneis; sporis sub lente olivaceo-luteis, elliptico-oblongis, 12-15 \approx 4-5, levibus; stipite superne rubescenti, reticulato vel punctulato (ut in *B. lurido*), æquali vel basi subincrassato; carne centro lutea, externe rubra, tactu cyanea.

Hab. in silvis, Ithaca, N. Y. Amer. bor.

18. **Boletus Bakeri** Tracy et Earle in Plantæ Bakerianæ fasc. I fungi 387

p. 23. — Pileo 10-20 cm. diam., convexo, rubro-lateritio vel roseolo lucenti, viscido, maturitate areolato; carne albida, aeri exposita rubescente; tubulis initio albidis, repletis, planis, dein ventricosis, brunneis, purpureo-cinctis, profunde sinuatis; stipite firmo, inferne incrassatulo, 3-4 cm. cr., superne abrupte conico, 1,5-2 cm. cr., 8-12 cm. long., solido, intus albo, externe albido, superne squamulis brunneis asperso, inferne levi.

Hab. ad terram, Cicken Creek et La Plata, South Colorado, Amer. bor.

19. **Boletus ater** P. Henn in Engl. Bot. Jahrb. 1901, pag. 44. — 388

Syll. XVI, p. 1115 (nomen). — Pileo carnosio convexo-explanato,

sublevi, glabro, pruinoso, atro-violaceo v. atro-olivaceo 2,5-3,5 cm. diam.; stipite farcto, tereti fusco-atro, granuloso 2,5-3 cm. longo, 2,5-3 mm. cr.; tubulis sinuoso-adnatis interdum subdecurrentibus 2-3 mm. long., poris oblongis v. rotundato-angulatis subgyrosis 1-1,5 \approx 1-2 mm. amplis, atro-cinereis, basidiis clavatis 4-sterigmati-
cis, intus fusco-granulatis; sporis fusoides utrinque acutiusculis, 1-pluriguttulatis 12-14 \approx 5-6, episporio fuscidulo; carne atra.

Hab. ad terram in silvis, Kamerun Afr.

20. **Boletus multipunctus** Peck in Rep. of the State botanist 1901, 389
pag. 952, tab. K, fig. 19-22. — Pileo carnosio convexo vel sub-
plano, sicco brunneo-ochraceo sæpe leviter rubro-tincto, centro
maculis multis punctiformibus, minutis donato 7,5-12,5 cm. lato;
carne albida, sapore grato; tubulis tenuibus adnatis vel stipitem
versus depressis, acie subrotundis, initio albidis, dein griseo-luteo-
lis; stipite æquali vel superne conico, pallido, firmo, fibroso-striato
7,5-12,5 cm. longo, 8-16 mm. crasso; sporis intense olivaceo-gri-
seis, oblongis 11-15 \approx 3-5.

Hab. in silvis, Bolton, Amer. bor.

21. **Boletus griseus** (Quél.) Sacc. et D. Sacc. *Gyroporus griseus* Quél. 390
Assoc. franc. l'Avanc. d. Scienc. 1901, partie II, 1902, p. 495. —
Pileo convexo, 5-10 cm. lat., pruinoso, griseo, interdum albo-gri-
seo-marmorato; carne crassa, tenera, alba, sub aere leviter viola-
ceo-fusco-tincta, in stipite virescente, sapidissima; tubulis longis
porisque rotundis albis dein griseis; stipite elongato, sat crasso,
albido, squamulis cinereis punctato; sporis ellipsoideo-oblongis,
10-15 μ . longis, guttulatis, citrinis.

Hab. in silvis arenosis Galliae, æstate autumno. Videtur spe-
cies intermedia inter *B. scabrum* et *B. rufum*.

22. **Boletus Torrendii** Bres. Myc. Lusitanici novi, in Atti R. Acc. 391
di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902,
p. 130. — Pileo pulvinateo, purpureo-brunneo vel castaneo, sicco,
levi, dein areolato-rimoso, rimis luteis, 8-12 cm. lato; tubulis fla-
vis; stipite ex parte adnatis; poris oblongis, acie obtusa, e flavo
rubiginoso-brunneis; stipite solido, ventricosissimo-fusiformi, flavo, de-
orsum rubro-maculato, pruinato, haud reticulato, 4-7 cm. longo,
1,5-4 cm. in parte ventricosa crasso, subradicato; carne lutea, fra-
cta ad pileum cærulescente, ad apicem stipitis demum rubescente,
odore grato, sapore miti; sporis luteis, subcylindræis 6-7 \approx 3-3,5;
basidiis clavatis 20-25 \approx 7; cystidiis fusoides 34-36 \approx 8-9.

Hab. ad terram in pinetis pr. Setubal Lusitaniæ. — *Boleto ru-*

bello Krombh. proximus, sed statura majori, sporis minoribus etc. bene distinctus.

23. **Boletus albidus** (Romagnoli) R. Maire Bull. Soc. bot. de France 392 1901, tom. I, p. 243, tab. XIV, fig. 1 et 2, *Ceratomyces albidus* Romagnoli Ined. — Pileo convexo, circulari, levi, albo 7 cm. diam.; stipite albo, levi, crasso, basi bulboso, annulato, 10 cm. longo; carne alba; tubulis roseis vel rubro-pallidis, non decurrentibus; sporis roseis?

Hab. ad terram, Ponteprato prope Bastia, Corsica (ROMAGNOLI 1840!).

STROBILOMYCES Berk. — Syll. VI p. 49, IX p. 159, XI, p. 81.

1. **Strobilomyces excavatus** (Kalchbr.) P. Henn. F. Austral. II, p. 187. Huc, teste Henn. l. c., spectant *Secotium excavatum* Kalchbr. et *Strobilomyces pallescens* Cooke et Masee. Cf. Syll. VII, p. 55 et IX, p. 159. — Lectus quoque ad Tovamba Queenslandiæ a cl. HARTMANN.

FISTULINELLA P. Henn. in Engl. Bot. Jahrb. 1901, p. 43. — Syll. XVI, p. 1115 (nomen) (Etym. a *Fistulina*, cui affinis). — Pileus carnosus, stipitatus, margine velato-membranaceo, involuto. Hymenium porosum; tubuli cylindracei inter se subliberi et separati. Pileus et stipes Boleti, hymenium *Fistulinæ*.

1. **Fistulinella Staudtii** P. Henn. l. c. pag. 44. — Syll. l. c. — Pi- 393
leo carnosus, convexo plano, levi, glabro, olivaceo-virescenti, 1, 5 cm. diam., margine membranaceo veliformi, involuto, pallido; stipite centrali, tereti, farcto, carnosus, levi, glabro, albo, ca. 3 cm. longo, 2,5-3 mm. cr., æquali; hymenio pallido, sublibero; tubulis inter se subliberis et discretis c. 3 mm. longis, 350-400 μ . cr., primo apice clausis dein poro rotundato apertis; basidiis clavatis intus granulosis 20-30 \times 5-7; sporis fusoides 1-2-guttulatis, hyalinis 13-16 \times 3,5-4, episporio dilute brunneo.

Hab. in lignis putridis, Kamerun Africae.

POLYPORUS Mich. em. Syll. VI p. 55, IX p. 161, XI p. 82, XIV p. 171, XVI, p. 142.

1. **Polyporus variiporus** Murrill Bull. Torr. Bot. Cl. 1904, p. 37. — 394
Pileo orbiculari convexo-depresso, 1-2,5 \times 0,1-0,2 cm., extus gla-

bro, plus minus radiatim striato, concentrice subrugoso, stramineo-isabellino circa marginem fulvo-castaneo, margine tenui inflexo, undulato, subtiliter sed fugaciter ciliato; contextu 1-1,5 mm. cr. molli, albo; tubulis 0,5 mm. longis, valde irregularibus prope stipitem elongatis nec distincte decurrentibus, flavidis, polygoniis v. sublamellatis, acie firma integra, demum denticulatis v. fimbriatis; sporis ellipsoideis, levibus, hyalinis, 7×4 ; stipite centrali, cavo, sursum incrassato, pileo paullo dilutiore, subglabro, sericeo-nitidulo, 2 cm. longo, 2-6 mm. cr., ima basi tomentosa, sæpe nigra.

Hab. ad fragmenta lignea sabulo immersa, Porto Rico (EARLE). — Affinis *P. tricholomati* sed firmior, stipite crassiore, poris magis irregularibus.

Polyp. orbicularis Fr. VI, 67
2. Polyporus Penningtonii Speg. Myc. argent. ser. II, 1902, p. 52. — 395

Leucoporus; pileo orbiculari e convexulo leniter umbilicato, levissimo, tenui, 50 mm. diam., submembranaceo, margine acuto integro, recto, superne castaneo nitidulo; hymenio pallidiore cum pileo concreto; poris majoribus 0,2-0,3 mm. long., 0,3-0,5 mm. diam., rotundato subhexagonio, dissepimentis tenuibus mollibus, acie minute denticulatis, marginem versus sensim brevioribus tenuioribus evanescentibus, in margine ipso subnullis sterilibusque; stipite subconcolore, centrali v. vix subexcentrico, tereti 25 mm. longo, 6-8 mm. diam., intus sordide albo, levi v. vix ruguloso, glabro.

Hab. ad truncos putres *Erythrinæ* crista-galli, Paraná-Guazú in Argentina (S. PENNINGTON). — Species pulcra ad *Favolum* nonnihil vergens.

3. Polyporus læticolor (Murr.) Sacc. et D. Sacc., *Scutiger læticolor* 396

Murrill in Bull. Torr. Bot. Club. 1903, p. 428. — Pileo orbiculari centro depresso $10 \times 10 \times 1$ cm., extus glabro, lateritio vel purpureo, margine acuto, initio inflexo, irregulariter undulato; contextu carnoso firmo, pallide roseo, homoganeo 0,75 cm. crasso; tubulis 1-2 mm. long. in quoque millimetro 5, decurrentibus, saturate aurantiacis, poris subcircularibus vel polygoniis, sepimentis tenuibus serius dentatis (præcipue decurrentibus); sporis ovoideis, levibus, hyalinis, copiosis, $5-6 \times 4$; stipite brevi, crasso sursum incrassato $2 \times 1-2,5$ cm., pileo concolore, solido, firmo, carne obscuriore.

Hab. ad terram in Alabama, Amer. bor. (UNDERWOOD).

4. Polyporus subradicatus (Murrill) Sacc. et D. Sacc. *Scutiger sub-* 397

radicatus Murrill Bull. Torr. Bot. Cl. 1903, p. 430. — Pileo irregulari convexo v. plano, 12 cm. lat., 0,5 cm. cr., superficie fi-

brilloso avellaneo-isabellino, margine tenuissimo, juniore inflexo, maturo irregulariter undulato; contextu carnosissimo, 1-7 mm. cr., pure lacteo, etiam in sicco; tubulis initio foveolaribus, maturis brevibus et minutis, vix 1 mm. alt., 3-4 in quoque mm., usque ad partem atratam stipitis decurrentibus, albis, siccis flavidis, ore polygonio, regulari, demum subirregulari, acie tenui tandem denticulata v. fimbriata; sporis ovoideo-ellipsoideis, levibus, hyalinis, non copiosis, 5-7 \times 3-4; stipite brevi, crasso, centrali, deorsum tenuato, nigro-fuligineo 4 cm. long., 2,5 cm. cr., contextu lacteo, carnosissimo-firmo, extus minute tomentoso, sicco rugoso-reticulato.

Hab. ad terram, London Canada (DEARNESS) et New York (OVERACKER). — Subsimilis *P. radicato*.

5. **Polyporus Whiteæ** (Murr.) Sacc. et D. Sacc. *Scutiger Whiteæ* Murr. 398
 Bull. Torr. Cl. 1903, p. 432. — Pileo subcirculari, convexo, centro depresso, 8-10 cm. lat., 0,5-1 cm. cr., pruinoso velutino, ex isabellino fulvo, margine acuto, initio inflexo, maturitate inæqualiter undulato; contextu carnosissimo, sicco roseo, prope tubulos atro-rubro; tubulis 10-30 mm. long., 3 in quoque mm., valde decurrentibus, albis, tactis vetustisque roseis ore subcirculari, acie tenui, fimbriata; sporis ovoideis, hyalinis, levibus, copiosis, 5 \times 3,5; stipite brevi, solito excentrico, basi dilatato, 3 cm. long., 2-4 cm. cr. concolore.

Hab. inter muscos ad ripas, Bor Harbor Maine Amer. bor. (Miss V. WHITE). — Cæspitosus, pileo flavido-brunneo, tubis albis dein roseis dignoscendus. Affinis *P. ovino*.

6. **Polyporus Puiggarianus** P. Henn. F. St. Paul. III, p. 200 (Hedw. 399
 1904). — Pileo carnosissimo-spongioso, mesopode, infundibuliformi, omnino ferrugineo, superne subproliferante tuberculato-lobato, rugoso, velutino, ca. 10 cm. lato, 7 cm. longo, 2-3 cm. crasso; stipite centrali, farcto subcylindræo, compresso, ferrugineo pruinoso, deinde nitenti, fragili, corticato, 4-5 cm. longo, 1-1 1/2 cm. crasso; tubulis sinuoso-adnatis, 5-8 cm. longis, poris rotundato-vel oblongo-angulatis, laceratis, ferrugineis; sporis subglobosis v. ovoideis, 10-14 μ . verrucosis, ferrugineis; carne spongiosa, ferruginea usque ad 2 cm. crassa.

Hab. ad terram (radices?) St. Paulo Brasiliæ (PUIGGARI). — Affinis *P. sistotremoidi* et *P. tubuliformi*, sed sporis brunneis verrucosis etc. distinctus.

7. **Polyporus marmellosensis** P. Henn. F. Amaz. I, p. 178 (Hedw. 400

= *P. cachoeirasensis* Henn. 115, XV 11

Ganoderma infermedium
 Pres. x lat. IX, 1877

1904). — Pileo subcarnoso lento, convexo, medio umbilicato, castaneo, subnitenti, radiatim substriato, levi, glabro, ca. 5 cm. diam., margine sinuoso-crenato vel lobato-inciso, lobis triquetris, 2-3 mm. longis; stipite centrali, subtereti, lignescenti, ferrugineo-tomentoso vel squamuloso ca. 7 cm. longo, 3 mm. crasso; poris decurrentibus rotundato-polyhedricis, ca. 1 1/2-2 mm. amplis, pallide ferrugineis, acie tenuibus integris; sporis globosis, 3-3 1/2 μ . hyalino-fuscidulis.

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (ULE). — *P. arculario* affinis, poris valde amplis faviformibus dignoscendus.

8. **Polyporus Cowellii** Murrill Bull. Torr. Bot. Cl. 1904, p. 39. — 401

Pileo orbiculari, convexo-plano, umbilicato, 1-2 cm. lat., 0,2-0,5 mm. cr., extus subglabro, minute concentrice rugoso e stramineo isabellino, demum saturatiore et hygrophano, prope marginem pustuloso v. levi, sæpe leviter lineis albis v. brunneis radiato-striato prope centrum; margine tenuissimo, recto v. inflexo, sæpe ambitu irregulari, tenuiter denticulato, dentibus in cilia productis; contextu tenuissime membranaceo albo-pallido subtranslucido; tubulis 0,2-0,4 mm. long., 3-6 in quoque mm., confluenso crassioribus, adnatis, pallidis, polygonis, acie tenuissime subintegra dein fimbriatula; sporis ellipsoideis, levibus, binucleatis, 5 \times 2,5; stipite centrali, solido, gracili, æquali, concolori vel paullo saturatiore, pruinoso v. glabro, levi, longitrorsum striato, 2-3 cm. long., 0,3-1 mm. cr., intus molli, lacteo.

Hab. ad truncos emortuos in insula St. Kitts (BRITTON et COWELL) et in Porto Rico (HELLER). — Pileo fere translucido, agaricoideo dignoscenda species.

9. **Polyporus maculosus** Murrill, Bull. Torr. Bot. Cl. 1904, p. 41. — 402

Pileo irregulariter orbiculari, profunde depresso, 3-3,5 \times 0,1-0,2 cm. extus tenuiter et dense tomentosus, radiatim striato, isabellino, maculis pluribus læte fulvis v. castaneis præcipue inter centrum marginemque sitis ornato, margine tenuissimo, striato, irregulariter fisso, nec dentato nec fimbriato, contextu 0,5-1,5 mm. cr., suberoso-molli, pallido; tubulis 0,2-0,4 mm. long., 6-7 in quoque mm., decurrentibus, pallidis v. flavidis, subcylindræis, acie integra; sporis ovoideis, hyalinis, levibus, 4 \times 3 (immaturis visis); stipite centrali, solido, ligneo, sursum tenuato, basi castaneo flavo-pustuloso, inæquali, subglabro, 2 cm. longo, 2-4 mm. cr.

Hab. ad ligna in America centrali (C. L. SMITH). — *P. fisso* affinis, sed minute tomentosus, maculosus etc.

10. **Polyporus holocyaneus** Atkinson in Journ. of Mycol. 1902, p. 117. 403

— Gregarius, 5-7 cm. altus; pileo in sicco intense brunneo vel rufo-brunneo, in statu juvenili rufo vel violaceo-amethystino, 2-6 cm. lato, convexo-expanso, maturitate depresso, margine plus minusve irregulari undulatoque, hygrophano, levi; stipite æquali, superne reticulato, 4-8 mm. crasso, pileo concolori; tubulis latiusculis, angularibus vel irregularibus, margine lacerato-fimbriatis violaceis dein griseo-brunneis; basidiis clavatis 20-25 \approx 5-6, 4-sporis; sporis hyalinis, levibus, crasse 1-guttulatis, 4-5 \approx 3-4.

Hab. inter acus Coniferarum, ad terram, Blowing Rock N. C., Amer. bor.

11. **Polyporus Gœtzei** P. Henn. in Engl. Bot. Jahrb. 1901, p. 255, 404

Sacc. Syll. XVI, p. 1115. — Pileo subcarnoso-spongioso, convexo, vertice late umbonato, concentricè zonato sulcatoque, cute rimosa squamulescente isabellina, in sicco pallide cinerea, subsericea, ca. 12-14 cm. diam., margine interdum crenato v. subsinuoso; hymenio plano, subferrugineo, tubulis longis, adnexis haud decurrentibus, poris rotundato-angulatis ca. 1-2 mm. diam., acie subintegris, ferrugineis; carne albida; basidiis clavatis, 16-20 \approx 8-10; sporis subglobosis, ovoideis v. ellipsoideis, 6-9 \approx 5-8, episporio dilute flavido; stipite tereti, farcto, basi interdum proliferanti 4-6 cm. longo, 1, 5 mm. crasso, subvelutino, alutaceo e sclerotio, subgloboso, tuberoso, contextu albido, carnosofibroso, superficie subareolato, rimoso, sulcato, corticato, ca. 7 cm. diam. oriente.

Hab. ad terram, in silvis Unyika, Afr. orient.

12. **Polyporus Puttemansii** P. Henn. F. S. Paul. III, p. 200 (Hedw. 405)

1904). — Pileo e lento subcoriaceo, mesopode, convexo explanato, centro paulo depresso, pallido gilvescente, margine substriato, alutaceo, ca. 2 $\frac{1}{2}$ cm. diam., 2-2 $\frac{1}{2}$ mm. crasso, contextu albido; stipite centrali farcto cylindraco, atro, ferrugineo tomentoso, 3-4 cm. longo, 2-3 mm. crasso, tubulis sinuoso-adnatis, ca. 2 cm. longis, pallidis, poris 1-3 mm. amplis, oblongo-vel rotundato-polyhedricis, acie subfimbriatis; sporis oblongo fusoideis hyalinis, 2-guttulatis, 12-15 \approx 3 $\frac{1}{2}$ -4.

Hab. ad truncos Iponemæ St. Paulo Brasiliæ. — Ab affini *P. eleganti* consistentia, poris latioribus angulosis sporisque diversus.

13. **Polyporus scutellatus** Borecz. in A. Th. Middendorf-reise in den 406

= Favosites
405
melanopus
11,398

äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 144. — (*Mesopus*; *Biennes*). Pileo coriaceo-membranaceo orbiculari plano, disco depresso umbilicato, alutaceo-pallido velutino-sericeo zonato radiatim striato; stipite fragili subtomentoso rufo deorsum incrassato; poris rufo-ferrugineis 5-6-gonis tenuibus, demum denticulato-laceris.

Hab. ad lacum Mar-kel, ad terram et ad fluv. Ujans (var. β) in Sibiria. — Pileus 1-1 $\frac{3}{4}$ mm. latus, tenuis, margine tenuissimo demum lacerato, eleganter zonatus striatusque, alutaceo-pallidus velutinus, villo sericeo canescenti sparso immixto, senilis sordide cinerescens. Stipes 25 mm. alt., 4-6 mm. crassus, fragilis. Pori rufo-ferruginei 5-6-goni, interdum confluentes. — Var. β . **ramosus**: pileis 2-3 stipitatis, stipite communi brevi, crasso suffultis. Ad *Polyp. parvulum* Klotzsch., boreali americanum non parum accedit.

14. **Polyporus marasmioides** (Pat.) Sacc. et D. Sacc. *Melanopus marasmioides* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902 — Pileo orbiculari, tenui, molli, integro, convexo-plano, centro profunde umbilicato, ochraceo, glabro, margine obsolete striato, sulco levi circulari peripherico notato, margine recto, acuto, fulvo, pellucido, angusto, puberulo, denticulato; stipite centrali, cylindrico, brunneo-nigro, farcto, intus albo, tenaci, lignoso, fasciculis setulosis, rigidis hispido; hymenio ochraceo, poroso-reticulato; poris latis radiantibus, parum profundis, sepimentis crassis et duris divisis, integris vel denticulato-laceris (irpicoideis), zona marginali sterili, angusta; sporis hyalinis ovoideo-oblongis, 10 \approx 4, guttulatis.

Hab. ad semina putrida *Meliosmæ Hebertii* in Guadalupe et in trunco *Citharexyli* in insula Martinica (Duss). — Stipes 1 cm. long., interdum usque 10-15 cm. et tunc *Xylariam* simulans. *Favolo melanopodi* proximus.

15. **Polyporus tunetanus** (Pat.) Sacc et D. Sacc. *Melanopus tunetanus* Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — (*Melanopus*). Carnoso-coriaceus, stipitato-mesopus; pileo convexo, ochraceo-pallido, in sicco rubro, squamis latis, distantibus, concoloribus consperso, margine fibrilloso et deinde fisso, ad centrum rimoso; carne firma albida; poris albis, dein rubro-pallidis, angulosis, permagnis, usque ad 50-80 mm. decurrentibus, integris, membrana subtili divisis; sporis cylindræis 6-8 \approx 3, hyalinis; stipite centrali, elongato, summo apice reticulato deinde velutino, albido, basi nigro v. rubro-nigro.

= *Polyp. orbicularis* Berk.
VI, 154

Hab. in lignis emortuis Erycæ et Arbuti, El Feidja-Algeria.

16. **Polyporus flexipes** Fr. Epicr. p. 432. — Syll. VI, pag. 69. — 409

var. **myriensis** P. Henn. F. Amaz. I, p. 177 (Hedw. 1904). — Cæspitosus; pileo tenuissime membranaceo, sicco subtranslucente fragili, mesopode, infundibuliformi, alutaceo, levi glabroque 0,5-3 cm. diam.; stipite subtereti, æquali, levi, glabro, brunneolo, 3-6 cm. longo, 0,5-1 1/2 mm. crasso; poris planis subrotundato-polyhedricis, ca. 0,2-0,3 mm. diam., acie integra, pallida; sporis subglobosis, hyalinis, ca. 2 µ.

Hab. ad truncos putrescentes, Rio Juruá, Juruá-Miry Amazoniæ (ULE). A typo videtur differre pileo tenuissimo, translucido, non scrobiculato etc.

17. **Polyporus lithophylloides** Har. et Pat. Champ. rec. au Japon in 410

Bull. du Museum d'hist. nat. 1902, n. 2, pag. 129. — *Merisma*. Pileo carnosus, fragili, convexo 15 cm. lato, 6 cm. alto, cavernoso, pileolis numerosis, liberis plus minusve confluentibus, basi fibrillis numerosioribus, cylindricis, ramosis, gracilibus, radicellarum instar pendulis terminatis, efformato; pileolis spathulatis, antice curvatis, rotundatis paululumque lobatis, depressis longeque decurrentibus, postice in partem stipitiformem et fibrilliferam connatis, imbricatis, tenuibus, carnosis, fragilibus, unicoloribus et non zonatis, 8-12 mm. latis, grosse velutinis; fibrillis radiciformibus, 5 cm. circiter longis, apice 2 mm. cr. et filiformi-attenuatis. poris totam inferiorem pileolorum faciem partesque decurrentes usque ad fibrillarum originem occupanti, minimis, rotundatis, dissepimentis tenuibus, integris, superficialibus. (= *P. melanocephalus* H. & Pat. XVII, 109)

Hab. ad terram, Tokyo Japoniæ. — Habitus *Lithophylli*. =

18. **Polyporus helopus** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63 c. 411

icone. — Dense cæspitosus e basi carnososclerotioidea, magnitudine pugni, extus fusco-atra, intus alba, inverse conoidea enatus; pileo carnosus tenui excentrico v. sublaterali, orbiculari, profunde umbilicato, margine incurvo, rufo-brunneo, nonnullis squamis latis adpressis, obscurioribus consperso, 3-4 cm. lat., 2 mm. cr.; stipite cylindrico, inferne attenuato, simplici, 3-5 cm. alto, 5-10 mm. cr., albido, basi fuscidulo, glabriusculo; hymenio albido, partem pilei inferiorem et totam stipitis usque ad basim superficiem obtegenti; poris magnis alveolatis, angulatis, tubulis brevioribus, dissepimentis carnosis, integris.

Hab. in ambulacris viridarii Musei parisiensis. — Species perpulchra cum *P. umbellato* comparanda.

P. squamosus
fr. cespit.
VI, 79

19. **Polyporus conglobatus** (Karst.) Sacc. et D. Sacc. *Polypilus con-* 112
globatus Karst. Fungi novi nov. Loennb. 1904, p. 2, (Finska Ve-
tensk. Soc.). — Imbricatus, ex axi communi oriundus, circiter
12 cm. altus et latus; pileis carnosio-sublentis, convexulis, glabris,
alutaceo-pallescentibus; poris primitus rotundis, parvis dein an-
gulatis majusculisve, curtis, albidis.

Hab. in graminosis ad terram juxta vias prope arbores in
horto Mustialaënsi Fenniaë, Septembri 1903, semel lectus.

20. **Polyporus Sumstinei** (Murr.) Sacc. et D. Sacc. *Grifola Sumstinei* 413
Murr. Bull. Torr. Bot. Cl. 1904, p. 335. — Pileo imbricato-mul-
ticipiti, 30 × 20 cm., pileolis flabelliformi-spathulatis 6-8 × 0,3-0,5
cm., extus radiato-rugosis, minute tomentosus læte vel saturate
brunneis, margine tenui, sicco inflexo et fisso; contextu albo-fi-
broso, carnosio-molli v. subcoriaceo, 0,3 cm. cr.; tubulis 0,2 cm.
long., 7 in quoque mm., initio fuligineis, demum pallidis, polygo-
niis, irregularibus, acie tenuissima, fragili, demum lacerata; sporis
globosis levibus, hyalinis, tenui-tunicatis, copiosis, 5 μ. diam.; sti-
pite tuberculiformi, ligneo, infra nigricante, connato-ramoso, sur-
sum pallidiore in pileolos sensim abeunte.

Hab. ad truncos varios, Ohio, Louisiana, Pennsylvania Amer.
bor. — Affinis *P. giganteo*.

21. **Polyporus sahranpurensis** P. Henn. Fungi Indiaë orient. II, in 114
Hedw. 1901, p. 325. — Carnoso-spongiosus; pileo excentrico v.
lateraliter stipitato, interdum cæspitoso-multiplici, superne molli
velutino, glabro v. tuberculoso, isabellino, margine subacuto, in-
terdum rufo-corticato, usque ad 8 cm. diam.; stipite brevi sub-
cylindraceo-clavato, 1-2 cm. longo, latoque v. confluyente defor-
mi-compresso, farcto, alutaceo, molli; hymenio concolori, poris la-
cerato-decurrentibus, rotundato-angulatis, brevibus, planis ca. 3,
5-4 × 3-3,5; carne floccoso-spongiosa, subcaseoso-molli, alutacea,
crassa.

Hab. in radicibus arborum, Saharanpur-Garden Indiaë orient.

22. **Polyporus Dielsii** P. Henn. in Hedw. 1903, pag. (75). — Pileo 115
primo carnosio-molli, sessili, subhemisphærico-convexo, levi, su-
perne isabellino-brunneolo, verrucis planis, polyhedricis, pallidis,
subfarinaceis tecto, ca. 40 cm. diam.; carne sicca molli spongiosa,
pallida, dein flavo-isabellina, ca. 3-5 cm. crassa; tubulis flaccidis,
ferrugineis, ca. 3-9 cm. longis; poris subrotundato-angulatis vel
laceratis, fusco-ferrugineis, ca. 1-2 mm. diam.; sporis ellipsoideis,
flavo-brunneis 7-8 × 4,5-5,5, levibus 1-guttulatis.

Hab. ad terram argillaceam sub *Eucalypto occidentali*, in Australia occid. (L. DIELS). — Teste cl. auctore, subgenus proprium (*Paniopsis*) format.

23. **Polyporus croceus** (Pers.) Fr. Syst. Myc. I, p. 364. — Syll. VI, p. 117. — *Boletus* Pers. Obs. I, p. 87.

Hab. quoque ad truncos *Quercus*, in Polonia. — Sporæ hyalinæ, guttulis stramineis, obovatæ, 6-7 \approx 4-5; hyphæ tubulorum molles, hyalinæ, conglutinatæ, 2 $\frac{1}{2}$ -3 $\frac{1}{2}$ μ . latæ. Tubuli subcarnosi, exsiccando nigrescentes. Pulcra species rarissima. (*Bresadola Fungi Polonici* in Ann. Mycol. 1903, p. 74).

24. **Polyporus cinnamomeo-squamulosus** P. Henn. in Engl. Bot. Jarbh. ⁴¹⁶

1901, p. 43. — Syll. XVI, p. 1115 (nomen). — Pileo carnosolento dein subcoriaceo, pleuropode, conchato subreniformi, cinnamomeo, radiato-striatulo, velutino-squamuloso, squamulis obscurioribus evanescentibus, 5-9 cm. lato, 4-5 cm. longo, carne lignicolori; stipite laterali brevi, atro-fusco, 0,3-0,7 mm. longo latoque, basi discoideo; tubulis 1-1,5 mm. longis, decurrentibus; poris minutis atrocastaneis rotundatis, setulis furcatis v. asteroideis vestitis, acie integris; sporis haud conspicuis.

Hab. ad truncos, Kamerun Afr.

25. **Polyporus Niaouli** (Pat.) Sacc. et D. Sacc., *Xanthochros Niaouli* ⁴¹⁷

Pat. Champ. des colonies franc., in Bull. du jard. colon., 1901, n. 2, p. 263 — *Xanthochrous*. Pileo sessili, dimidiato, in forma unguis equine, rufo-brunneo, albicante, velutino, 3-4-concentrice et profunde largeque sulcato; margine rotundato, obtuso, indurato; cute suberosa, ferrugineo-brunnea, radiata et zonata; hymenio plano, rufo-brunneo; poris parvulis, angulosis, stratis distinctis, integris; tubulis concoloribus, longioribus in parte mediana; sporis rotundatis, levibus, 5-6 μ . diam., ferrugineis.

Hab. in *Melaleuca viridiflora* in Nova Caledonia. — Imbricatus, 10-15 cm. latus, 6-8 cm. altus.

26. **Polyporus melanocephalus** (Har. et Pat.) Sacc. et D. Sacc., *Xan-* ⁴¹⁸

thochrous melanocephalus Har. et Pat. Champ. rec. au Jap. in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 130. — *Xanthochrous*. Pileo orbiculari, profunde umbilicato, nigro, glabro, levi, non striato 1 $\frac{1}{2}$ cm. lato, tenuiter membranaceo, margine incurvatulo, tenui, hinc inde laceratulo; stipite centrali, 2 cm. longo, ad basim incrassatulo, circ. 3 mm. crasso, longitudinaliter striato-sulcato (forte exsiccationis ope) luteo-ferrugineo, undique furfuraceo; poris fuscescentibus, nudo oculo vix conspicuis, angulosis, superfi-

= *P. Lithophylloides*
H. X. P. 107, XVII

cialibus, dissepimentis tenuibus integrisque, in stipitis apicem leviter decurrentibus; cystidiis nullis.

Hab. ad terram, Tokyo Japoniæ.

27. **Polyporus Bernieri** (Har. et Pat.) Sacc. et D. Sacc., *Xanthochrous* 419
Bernieri Har. et Pat. Journ. de Bot. 1903, p. 9 — Maximus, vix ponderosus, solitarius vel subimbricatus; pileo sessili, pulvinato, convexo v. applanato, non sulcato, setis strigosis erectis undique vestito, pallide cervino, dein fusco-brunneo, tandem senio atro, margine obtuso crassiusculo, concolori, pag. inf. pallidius concolori; poris aliis in situ horizontali integris, angulatis, grandiusculis, dissepimentis tenuibus, non dentatis, alteris decurrentibus, plus minus laceratis, tubulis cremeis mollibus, pruina flavida conspersis; cystidiis nullis; sporis numerosis, flavidis, ovoideis, levibus, $10 \approx 6$, uniguttulatis; contextu pilei molliusculo, cremeo, e fibrillis radiantibus, stuppeis composito.

Hab. ad truncos cariosos, raro, Ile des Pins, Nova Caledonia (BERNIER). — Pileus 8-15 cm. lat., concrescendo usque 25 cm., 3-15 cm. cr. Ab affini *P. hispido* trama crenea præcipue diversus.

28. **Polyporus illicicola** P. Henn. in Engl. Jahrb. 1902, XXXII, 420
 p. 39. — Pileo suberoso, dimidiato sessili, postice effuso, interdum subresupinato, ferrugineo, azono, tomentoso-asperato, margine acuto, mox nudo, 3-6 cm. lato, 0,5-1 cm. longo; poris laceratis irregularibus, cinnamomeis, acie cinerescentibus; sporis ellipsoideis utrinque obtusis interdum ovoideis $13-16 \approx 8-10$, episporio brunneo, levi, contentu ferrugineo.

Hab. in ramis emortuis Illicii religiosi, M.t Kijosum Japoniæ (S. KUSANO). — Affinis *P. gilvo*.

29. **Polyporus plorans** (Pat.) Sacc. et D. Sacc., *Xanthochrous plorans* 421
 Pat. Bull. Soc. Mycol. 1904, p. 52. — Sessilis, dimidiatus, convexus, semiorbicularis, 10-50 cm. lat., margine rotundato-obtuso, nec recurvato, spongioso-mollis, postice ruditer tomentosus, antice glabrescens levis, undulatus v. rugulosus, ferrugineo-rufus, dein uniformiter brunneus, margine plus minus flavus; tubulis 2-8 cm. longis, flavo-citrinis dein ferrugineo-rufis poris mediocribus rotundatis dein oblongis, fimbriato-laceris; trama 5-8 cm. cr., friabili, fibroso-radiante, brunneo-rufescente, non v. vix zonata; sporis ellipsoideis, levibus, $8-10 \approx 6-7$, pallide citrinis.

Hab. ad truncos Populi pyramidalis, rarius Salicis pr. Laghouat Algeriæ (Cap. SEM). — *P. Tamaricis* et *P. hispido* af-

P. gilvus 17, 101
juvenile

finis, differt præsertim levitate, friabilitate tramæ, sporis pallidioribus etc.

30. **Polyporus Tamaricis** (Pat.) Sacc. et D. Sacc., *Xanthochrous Tamaricis* Pat. Bull. Soc. Mycol. 1904, pag. 51, *Polyporus Rheades* Bres. Trid. II, pag. 30, t. 136, nec Pers. — A *P. Rheade* Pers. differt dimensionibus majoribus, præcipue crassitie majori, trama molliore laxiore, læte flava et zonis alternatis flavis brunneisque variegata; pileo brevius velutino, tandem glabrato, nunquam sulcato; sporis $8-9 \approx 6$ (nec $5-6 \approx 4$).

Hab. in truncis Tamaricis in Algeria et Ital. bor. — Affinis potius *P. hispido* quam *P. Rheadi*.

31. **Polyporus Hollandii** Masee in Kew Bull 1901, p. 163. — Pileo unguolato-dimidiato, postice latissime adnato, plus minusve decurrenti, effuso, 5-6 cm. lato, 10-12 cm. longo, superne levi, azono, glaberrimo, læte citrino; hymenio e tubulis albis brevissimis, ore minuto rotundo dense composito; carne crassa, compacto-elastica, alba.

Hab. ad truncos, Old Calabar Africae occident. — *P. betulino* Fr. affinis.

32. **Polyporus castanophilus** Atkinson in Journ. of Mycol. 1902, p. 118. — Pileo dimidiato, sessili, convexo, 10-20 cm. lato, 10-12 cm. longo, zonato, plus minusve rugoso, interdum basi tomentoso, rubro-luteo vel rubro-aurantiaco; carne lutescente, zonata, molli, in sicco dura; tubulis planis, margine fimbriatis luteo-aurantiacis, in sicco luteo- vel rufo-brunneis, 6-8 mm. longis; basidiis clavatis, 4-sporis, $15-20 \approx 4-5$; sporis albis, hyalinis, levibus, $3 \approx 2$, granulosis.

Hab. in ligno decorticato Castaneæ, Wood, Blowing Rock, N. C. Amer. bor.

33. **Polyporus bambusicola** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 326. — Carnoso-suberosus, laterali-stipitatus, pileo subflabellato v. subtriquetro interdum clavato, sulphureo, molle subvelutino, ruguloso, margine subacuto v. incrassato, obscuriori, repando, 1-1,5 cm. longo latoque; carne spongiosa ferruginea; stipite compresso irregulari, 0,5-15 mm. longo, 5 mm. lato concolori; hymenio ferrugineo; poris decurrentibus, minutis rotundatis v. oblongis, acie integris pallide pruinosis; sporis subglobosis, hyalinis, levibus 4 p. diam.

Hab. in culmis Bambusacearum, Saharanpur-Garden Indiæ orient.

34. **Polyporus asperulus** Har. et Pat. Journ. de Bot. 1903, p. 7. — 426

Leucosporus, pleurotus, stipitatus; pileo semiorbiculari, conchiformi, rigido carnosio-indurato, castaneo, zonis paucis concentricis obscurioribus notato, superficie tactu rudi, postice sub lente leniter cristato; stipite cylindrico, brevi, asperulo; hymenio albido; poris minutissimis, angulosis, dissepimentis tenuibus; tubulis longiusculis, concoloribus, tenuibus; contextu pilei albo.

Hab. ad truncum Aleuritidis emortuum, Tenda, Nova Caledonia (BERNIER). — Pileus 3-5 cm. lat, 6 mm. cr.; stipes 1 cm. long., 6-8 mm. cr.

35. **Polyporus aquosus** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 427

1904). — Pileo subcarnoso aquosissimo, lateraliter stipitato, horizontali, subreniformi vel flabellato, isabellino vel pallide coffeaceo. levi, glabro, margine integro vel inciso-sublobato, ca. 12-15 cm. lato, longoque, 1 1/2-2 cm. crasso, sicco tenui membranaceo v. subpapyraceo ca. 1/2-1 mm. crasso; stipite tereti levi, glabro, concolori ca. 4 cm. longo, 1 1/2-2 cm. crasso, contextu pallido; hymenio interrupte poroso, pallido; poris planis, rotundato-angulatis, dein laceratis flaccidis, ca. 1/2-1 mm. diam.; sporis oblongis v. ellipsoideis, obtusis, levibus, hyalino, subflavidulis, 7-10 × 4-5.

Hab. ad truncos emortuos, Serra de Contareira S. Paulo Brasilæ (ULE). — Videtur affinis *P. hydrophilo* et *P. rigescenti*.

36. **Polyporus Leprieurii** Mont. Cent. II, n. 13, t. 6, f. 1. — Syll. 428

VI, p. 87. — var. **juruanus** P. Henn. F. Amaz. I, p. 176 (Hedw. 1904). — Pileo membranaceo-coriaceo infundibuliformi vel subflabellato; margine inciso-crenato vel lobato, gilvo, subtiliter radiato striato, levi glabroque, 1 1/2-4 cm. diam.; stipite subcentrali vel excentrico, atro-ferrugineo pruinoso, 1-3 cm. longo, 1-1 1/2 mm. crasso; poris decurrentibus, planis, rotundato v. oblonge polyhedricis, isabellinis, acie integris, rigidis, usque ad 1 mm. diam.

Hab. in truncis putridis, Rio Juruá, Born Fim. Juruá-Miry Amazoniæ (ULE). — Etsi facies valde aliena, tamen ad typum polymorphum videtur spectare.

37. **Polyporus fusco-maculatus** Bres. et Pat. in Lloyd Myc. Not. n. 6, 429

pag. 49. — Pileo papyraceo-membranaceo, in sicco flabelliformi, alutaceo-brunneo, squamis saturatoribus adpressis variegato, 7-8 cm. lato, 4-6 cm. antice producto; stipite laterali suberoso-molli, alutaceo, 1,5-3 cm. longo, 1-1,5 cm. cr. basi haud nigro; tubulis brevibus, vix 1 mm.; poris amplis angulatis, acie demum fimbriatis, sæpius 1 mm. lat.; sporis oblongis, 8-10 × 3-4, hyalinis.

Hab. ad truncos in insula Samoa. — Species habitu *Polyporo squamoso* admodum similis, sed substantia papyraceo-membranacea (saltem in sicco) pilei et spongioso-molli stipitis basi non nigri certe distinguenda.

38. **Polyporus squamosus** Huds. — Syll. VI, pag. 79. — var. **lenticinoides** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 1904). — Pileo carnosolento, mesopode convexo, centro infundibuliformi depresso, albido flavescenti, fusco-squamosulo subglabroque, ca. 8 cm. diam., 1-1½ cm. crasso, contextu albido ca. ½-1 cm. crasso; stipite centrali subcylindraco, pallide isabellino, firmo, duro, farcto, levi glabroque, basi incrassato, curvato, nigricante, radicato, ca. 7 cm. longo, 1½-2 cm. crasso; tubulis decurrentibus, albidis, medio ca. 6 mm. longis; poris rotundato-vel oblongo-angulatis, 1-2 mm. diam. sublaceratis, acie crenulatis, pallidis; sporis fusoidis vel subclavatis utrinque obtusis, 1-2-guttulatis, hyalinis, levibus, 12-14 × 5-6.

Hab. ad terram (?), St. Paulo Brasiliæ (PUIGGARI). — A forma *mesopoda P. squamosi* habitu et consistentia sat diversus, sporis tamen convenit et ut var. tropicalis habenda.

39. **Polyporus podlachicus** Bres. Fung. polonici in Syd. Ann. Mycol. 431 1903, vol. I, pag. 73. — Pileo carnosolento, demum indurato, glabro, levi vel postice subnaucoso, tenui, reniformi, avellaneo 0,5-1 cm. lato, 0,5 cm. circiter antice producto; stipite laterali, rudimentali tantum, basi scutato-dilatato; tubulis albis 0,5 mm. latis; poris mediocribus 300-500 μ. latis, subrotundis v. angulatis, acie puberula, ex albo stramineis; substantia carnosolenta, demum indurata, alba; sporis hyalinis, oblongis 7-9 × 3-3,5.

Hab. ad ramos Populi tremulæ, in Polonia rossica. — *Polyporo elongato* affinis, a quo statura multo minore, stipite tantum rudimentali et poris majoribus satis videtur distincta; transit ad *Favolos*.

40. **Polyporus labiatus** (Pat.) Sacc. et D. Sacc., *Leucoporus labiatus* 432 Pat. in Duss. Enum. Champ. Guadel. 1903, p. 25. — Pileo pendulo v. laterali, conico, basi punctiformi affixo, regulariter infundibuliformi, dein in laminam tenuem supra productionem et fere bilabiata expanso, longitrorsum plicato-striato, glabrescente, obscure zonato, griseo-nigricante, antice fulvo, margine integro v. inciso, tenui; hymenio concavo, rufescente tubulis brevissimis; poris exiguis quasi reticulatis, ad marginem nullis.

Hab. ad lignum Simarubæ amaræ, Trois-Rivières, Guada-

lupa. *P. evoluto* proximus, 2-4 cm. long., 1 mm. cr., exsiccatione valde contractus.

41. **Polyporus cæsius** (Schrad.) Fr. Syst. Myc. I, p. 360. — Syll. VI, p. 113 — *Boletus* Schrad. Spic. p. 167.

Hab. quoque ad ramos Pini, Quercus, in Polonia. — Species hæc quoad formam et magnitudinem pororum variabilis; interdum etiam resupinato-reflexa vel ex integro resupinata. Vidi quoque pileo atro-cæruleo. *Polyporus cæruleus* Schum., specie omnibus auctoribus ignota meo sensu huc quoque ducendus. Nota alata substantiæ ochraceæ vix attendenda (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 73).

42. **Polyporus albidus** (Schaeff.) Trog in Flora, Fr. Epicr. pag. 475, *Boletus* Schaeff. Icon. Bav. tab. 124, *Polystictus albidus* (Schaeff.). — Syll. VI, p. 239.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Fungus prorsus variæ figuræ, sessilis vel stipitatus vel etiam resupinatus, generatim in junioribus fragilis, friabilis, demum induratus. Sporæ hyalinæ, oblongæ, $4\frac{1}{2}$ -5 \approx $2\frac{1}{2}$ - $2\frac{3}{4}$; hyphæ contextus tubulorum 3-4 μ . latæ, crasse tunicatæ; sapor amariusculus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 74).

43. **Polyporus sulphureo-pulverulentus** (Karst.) Sacc. et D. Sacc. *Ino-* 433
notus sulphureo-pulverulentus Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Pileo suberoso, dimidiato, fulvo-ferrugineo præcipue marginem obtusum versus sulphureo-pulverulento, strato interno superiore ferrugineo fulvo, inferiore sulphureo, 3-5 cm. lato; poris brevibus (circiter 1 mm.), minutis, difformibus lacerisque, primitus cinerescentibus, sulphureo irroratis.

Hab. in territorio Baicalensi, Listvinitchnoje Sibiriaë, Aug. 1902 (O. A. F. LÖNNBOHM).

44. **Polyporus nauseosus** (Pat.) Sacc. et D. Sacc. *Leptoporus nauseo-* 434
sus Pat. in Duss. Enum. Champ. Guadel. 1903, p. 27. — Pileo convexo-dimidiato, antice decurrenti et plus minus imbricato, 6 cm. lat., viscoso, glabro flavo-cinereo, odore nauseabundo; trama carnosofibrosa, alba; tubis tenuissimis, albis, mollibus; poris minutis, dentatis, sepimentis tenuibus.

Hab. in truncis Coffeæ, Camp Jacob Guadalupa (Duss). — Species *P. tephroleuco* analoga.

45. **Polyporus minusculus** Boud. in Bull. Soc. Myc. de France 1902, 435
p. 141, tab. 6, fig. 3. — *Leptoporus*; pileo pallido dein ferruginascente, uno latere adfixo, minuto, 1-3 mm. lato, tuberculiformi

sed tenui, absolute immarginato, glabro, ex albo-ochraceo aut ferrugineo; carne vix ulla, subtus tubulis perpauca (5-20 numero) pro ratione longissimis, 4-5 mm., sat amplis, vix dentatis, albis, pendulis non ligno adnatis; basidiis brevibus tetrasporis, 12-15 \times 6-7, clavatis, intus spumosis; sporis rotundatis, 1-guttulatis, hilo conspicuo, 4-6 μ . diam., hyalinis.

Hab. in ligno abietino, Domont prope Montmorency Galliae (D. LOUVET).

46. **Polyporus duracinus** (Pat.) Sacc. et D. Sacc., *Leptoporus duracinus* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, T. XVIII, fasc. II, 1902. — Pileo convexo, rigido, duro, semiorbiculari 15-25 mm. lat., 8-15 mm. long., albo-rufescente, antice saturatiore, glabro, 1-2 sulcis concentricis, profundis exarato vel zonis angustis rufis parcis notato, postice basi lata membranacea affixo, deorsum decurrente, margine recto, obtuso, integro v. in lobos binos, ternos, rotundos diviso; poris albidis, rotundatis, ad marginem punctiformibus; sepimentis crassis, obtusis, integris, pruinosis; trama albida, dura 1-2 mm. crassa; tubis concoloribus 1-1,5 mm. longis; cystidiis nullis; sporis cylindratis rectis curvulisve, hyalinis, 4 \times 1.

Hab. in ramis putridis *Cecropiæ peltatæ*, in Guadalupa (Duss). — *Pol. evolutus*, *Pol. stereinus* et *Pol. versicuti* affinis sed sepimentis crassis, obtusis, diversus.

47. **Polyporus cachoeirasensis** P. Henn. F. Amaz. I, p. 177 (Hedw. 437 1904). — Pileo carnososubcoriaceo, flabellato erecto, cinnamomeo, nitido, radiatim striatulo, interdum subrugoso, 2-2½ cm. lato, 1 cm. longo, margine tenui; stipite gracili lignescente, tereti, laterali, ferrugineo-velutino, basi flexuoso, ca. 12-15 cm. longo, 1½-2 mm. crasso; poris rotundato-hexagonis ca. 1-1½ mm. amplis, acie flaccida, integra; sporis subglobosis, alutaceis, castaneis, dense granulato-vel tuberculato-verrucosis, 10-15 μ . diam. = *P. macromellosus* (P. Henn.) XVII, 103

Hab. ad terram silvaticam Cachoeiras ad Marmellos Amazoniæ (ULE). — Stipite longo, flexuoso sporisque tuberculato-verrucosis distincta species.

48. **Polyporus ufensis** (Karst.) Sacc. et D. Sacc., *Inonotus ufensis* 438 Karst. Fung. nov. Loennb. 1904, p. 3 (Finska Vetensk. Soc.). — Pileo suberoso, concrecente, sat tenui, scrupuloso, colliculoso, umbrino-fusco, margine obtusiusculo, pallidiore, 3-4 cm. lato; poris parvis, forma variis, irregularibus, mox laceris, concoloribus albo-irroratis.

Hab. prope oppidum Rossiaë, Ufa (leg. O. H. F. LÖNNBOHM et J. G. OKSAHEN). — *Lenzitem* in memoriam revocat.

49. **Polyporus nigrellus** (Pat.) Sacc. et D. Sacc., *Leptoporus nigrellus* 439
Pat. in Duss Enum. Champ. Guadel. 1903, p. 28. — Omnino resupinatus, late effusus, carnosomembranaceus, separabilis, margine sterili vix distincto, albido, non fimbriato, adpresso; trama alba; hymenio cinereo-nigricanti, violascente tincto; poris minutis, rotundis, distantibus, sepimentis integerrimis; tubulis curtis.

Hab. ad truncum putrem *Sterculiæ caribææ*, Basse-Terre Guadalupa. — A *P.* (*Poria*) *rivuloso* colore præsertim diversus. An ergo potius gen. *Poriæ* adscribendus?

FOMES Fr. -- Syll. VI p. 150, IX p. 173, XI p. 88, XIV p. 180, XVI pag. 151.

1. **Fomes albogriseus** Peck in Bull. Torr. Bot. Cl. 1903, p. 97. — 440
Pileo elongato, ungulato, extus lignoso, concentricè sulcato, azono, parte crusta juniore isabellina v. pallide grisea, pruinulosa, parte vetusta inæquali, rimosa et griseo-nigricanti, substantia intus mollicula, friabili, albida; poris minutis, obscure stratosi, intus albis, ore pallido v. isabellino.

Hab. ad truncos *Pini contortæ* et *P. Strobi* Kent county, Michigan Amer. bor. (B. O. LONGYEAR). — Pileus 7-35 cm. long., 10-25 cm. lat., 5-15 cm. cr. — *F. fomentario* et *F. juniperino* affinis.

2. **Fomes versicolor** P. Henn. in Hedw. 1903, p. (75). — Pileo sub- 441
ungulato, obsolete sulcato-zonato, rufo-brunneo, basi nigricante rimoso, crustaceo, subnitenti, ca. 8 cm. longo, 5 cm. lato, contextu cinnamomeo, lignoso; hymenio convexo, poris rotundato-angulatis, ca. 0,3 mm. diam., aureis dein ferrugineis; sporis late ellipsoideis, flavo-brunneis, levibus, 4-4,5 × 3,5-4.

Hab. in truncis viventibus, ad flum. Russel, N. Queensland Australiae (PRITZEL).

3. **Fomes yucatensis** (Murrill) Sacc. et D. Sacc., *Pyropolyporus yuca-* 442
tensis Murr. Bull. Torr. Bot. Cl. 1903, p. 119. — Pileo lignoso, dimidiato applanato, posterius incrassato, 7-9 × 9-12 × 2-3 cm., extus primitus tomento fulvo vestito, demum atro-brunneo v. nigro et uniformiter tuberculoso et in areas minutas sulcis numerosis concentricis radialibusque diffracto, margine angusto, acuto, velutino, fulvo, contextu duro, fulvo, 0,5 cm. cr.; tubulis obsolete stratosi, in quoque stratu, 0,25 cm. long., in quoque mm. 7, fulvis, poris

circularibus, punctatis, acie crassa obtusa; sporis globosis v. subglobosis, levibus, pallide flavido-brunneis, 3,5-5 μ . diam.; hyphis ferrugineis; cystidiis 17-35 μ . long., acutis, basi incrassatis.

Hab. ad truncos in Yucatan (MILLSPAUGH) et Nicaragua (L. SMITH).

4. **Fomes Underwoodii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Underwoodii* Murr., Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, late unguolato, basi tenuata adnato, infra concavo, 7-14 \times 11 cm., extus pluries concentrice sulcato, rimoso, uniformiter ex atro-brunneo, nigro; margine fulvo, acuto v. obtusulo, velutino, undulato, zonis angustis notato; contextu duro e fulvo atro-brunneo, parcissimo, vix 0,5 cm.; tubulis distincte stratosi, in quoque stratu, 0,5-1,5 cm. long., in quoque mm. 3, intus brunneis, acie circularibus v. polygoniis, acutis, integris, saturatioribus; sporis ellipsoideis, levibus, tenui-tunicatis, læte flavido-brunneis, 9 \times 7; cystidiis nullis.

Hab. ad truncos prope Coamo Springs Porto rico (UNDERWOOD et GRIGGS). — Habitus *F. Robiniæ* sed tubulis, colore, sporis diversus.

5. **Fomes Robiniæ** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Robiniæ* Murr., in Bull. Torr. Bot. Cl. 1903, pag. 114. — Pileo lignoso duro, dimidiato unguolato v. subapplanato, 5-25 \times 5-50 \times 2-12 cm., extus velutino, levi, mox valde rimoso-rugoso, e fulvo purpureo-nigro, denique sordide nigro, profunde et late concentrice sulcato, margine rotundato velutino fulvo; contextu lignoso duro, concentrice zonato, 1-3 cm. cr. fulvo; tubulis stratosi, 0,15-0,5 cm. long., in quoque mm. 5, fulvis, poris subcircularibus, dissepimentis integris, pori diam. æquantibus; sporis subglobosis, levibus, tenui-tunicatis, ferrugineis, copiosis, 4-5 μ . cr.; cystidiis nullis.

Hab. in truncis Robiniæ in Amer. bor. pluribus locis, nec non in Gallia merid. (FAUTREY in herb. Upsal.). — Distinguitur statura ampla, superficie rimoso-rugosa, hymenio fulvo etc.

6. **Fomes prærimosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus prærimosus* Murr. Bull. Torr. Bot. Cl. 1903, p. 115. — Pileo lignoso, rotundato-angulato, 8-12 \times 7-10 \times 8-11 cm., extus rimosissimo (post primum annum), late sulcato, protuberantiis tandem fassis, ex atro-brunneo nigro, margine obtuso, velutino, ferrugineo-canescente; contextu suberoso-lignoso, concentrice zonato, fulvo, 0,5 cm. cr.; tubulis indistincte stratosi, 1-2 cm. long. in quoque stratu, 3 in quoque mm., concoloribus cum contextu, poris rotundato-polygo-

niis, primitus ochraceis, acie crassiuscula obtusa, demum tenui et sæpe fissa; sporis globosis, levibus, obscure ferrugineis, 3-4 μ . diam.; spinulis (cystidiis?) ferrugineis, 10-17 \approx 5-10, basi crassioribus.

Hab. ad truncos *Quercus undulatae* in Mont El Capitan, New Mexico, 2200 metr. — Species *F. Everhartii* affinis, pileo amplo unguato, hymenio plano brunneo et cortice rimosissimo dignoscenda.

7. **Fomes Langloisii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Lan-* 446
gloisii Murr. Bull. Torr. Bot. Cl. 1903, p. 118. — Pileo suberoso, flabellato, basi angusta adnato, sæpe posterius depresso, 8-13 \approx 10-25 \approx 0,3-1,5 cm., extus primitus anodermeo, molli, tomento brunneo vestito, pluries concentrice sulcato, tandem glabro, rugoso, indurato, nigro, sulcis numerosis levibus notato; margine velutino, brunneo, tenui, acuto, undulato v. sublobato; contextu suberoso-molli, sensim indurato, atro-brunneo, 0,2-0,5 cm. cr.; tubis reviscentibus, distiucte stratosis, 0,2-0,5 cm. long. in quoque stratu, 8-9 in quoque mm. brunneis, poris polygoniis, concoloribus, acie maturitate tenui; sporis globosis, levibus, hyalinis, 3 μ . diam.; cystidiis nullis,

Hab. ad truncos emortuos v. morientes *Crataegi?* (*hawthorn*) in Louisiana frequens (LANGLOIS). — Fungus late expansus, hymenio brunneo, superne brunneus v. nigricans. *F. Ribis* affinis.

8. **Fomes jamaicensis** (Murrill) Sacc. et D. Sacc., *Pyropolyporus ja-* 447
maicensis Murr. Bull. Torr. Bot. Cl. 1903, pag. 120. — Pileo lignoso, applanato, posterius incrassato, 8-13 \approx 0,5-5, extus inæquali, radiatim rimoso, ex atro-brunneo nigro, margine ferrugineo, velutino, acuto, demum nigro, expanso-lobato; contextu lignoso, fulvo, 0,5-1 cm. cr.; tubulis stratosis, stratu tenui annuo contextus separatus, 0,2-0,7 cm. long., in quoque mm. 7, intus fulvis, poris rotundis vel polygoniis, primitus canescentibus, acie tenui, acuta integra; sporis globosis vel subglobosis, tenui-tunicatis, levibus, pallide aureo-flavis (senio probabil. saturatoribus), 5-7 μ . diam.

Hab. ad truncum vetustum *Psidii*, Port Antonio Jamaicae (EARLE). — Species sat minuta, flabelliformis, stratosata.

9. **Fomes Hæmatoxyli** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Hæ-* 448
matoxyli Murr. Bull. Torr. Bot. Cl. 1903, pag. 117. — Pileo lignoso, dimidiato, sessili, posterius incrassato, 12-14 \approx 4 cm., extus glabro, atro-brunneo, profundiuscule concentrice sulcato, lineis numerosis concentricis saturatoribus notato; margine fulvo, tenui,

rotundato, subundulato; contextu suberoso-lignoso, indistincte concentricè zonato, melleo-flavido, 1 cm. cr.; tubulis distincte stratosi, posterius longioribus, 0,5-1 cm. long. (in quoque strato), in quoque mm. 6, sordide brunneis; poris polygoniis concoloribus, acie obtusa dein attenuata; sporis globosis, rarius ovoideis, tenuitunicatis, levibus, hyalinis, 3,5-5 μ . diam.; hyphis ferrugineis; cystidiis nullis.

Hab. in truncis *Hæmatoxyli*, Paradise Jamaicae (EARLE). — Species levis, applanata, ampla, tubulis brunneis, contextu melleo.

10. **Fomes Earlei** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Earlei* 449

Murr., Bull. Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, basi lata adnato, subtus plano, 6-13 \times 17 cm., extus concentricè sulcato, admodum rimoso in partibus vetustis, e fulvo brunneo-nigricante, demum ob intemperies griseo-nigro; margine lato obtuso, atro, flavido-aurantio, tomento denso concolore brevi vestito; contextu lignoso, atro rufo-aurantio, concentricè lineis saturatioribus zonato, sub tubulis rimoso; tubulis inæqualiter stratosi, 0,5-0,75 cm. long. (in quoque strato), in quoque mm. 1-2, primitus intus ochraceis dein latericiis, poris circularibus, ochraceis, acie obtusa, tenui; sporis ellipsoideis, levibus, tenuitunicatis, ferrugineis, 9 \times 7-8.

Polyporus
Subsquameus
Fr., VI, 56

Hab. in trunco stante *Juniperi* in montanis New Mexico (EARLE). — Affinis *F. juniperino*, sed multo rimosior, pori ampliores etc.

11. **Fomes crustosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus cru-* 450

status Murr., Bull. Torr. Bot. Cl. 1903, p. 113. — Pileo lignoso, supra convexo, infra plano, subinde compresso, unguato, 7-12 \times 5 cm., extus glabro, corneo-incrustato, atro-brunneo, concentricè sulcato, flavido-brunneo, sterili; contextu duro, concentricè zonato, ferrugineo, 2 cm. cr.; tubulis indistincte stratosi, quotannis 0,5-1 cm. long., in quoque mm. 5-6, intus avellaneis, poris polygoniis, concoloribus, acie tenui, acuta, integra; sporis globoso-ovoides, levibus, tenuitunicatis, hyalinis, 4 \times 3,5-4, hyphis obscuris; cystidiis nullis.

Hab. ad truncos stantes, 1300 m alt. Rose Hill Jamaica (EARLE). — Distinctus forma unguata, tubulis brunneis, contextu ferrugineo, crusta atro-brunnea.

12. **Fomes Calkinsii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Cal-* 451

kinsii Murr., Bull. Torr. Bot. Cl. 1903, pag. 113. — Pileo durissimo, lignoso, unguato, 10 \times 10 \times 10 cm., extus glabro, atrobrunneo-nigro, sulcis profundiusculis, concentricis exarato; crusta tenui,

cornea, numquam rimosa; margine rotundato, concolore cum hymenio; contextu lignoso duro fulvo, 1 cm. cr.; tubulis obsolete pluristratosi, minutis, angustis, in quoque mm. 7, fulvis, poris subcircularibus, obtusis, integris; sporis ovoideis, hyalinis, tunica crassa levi, pallide ferruginea, $5-7 \times 3-5$; hyphis ferrugineis; cystidiis nullis.

Hab. ad truncos vivos *Quercus virentis?* (*Live-oak*) in Florida Amer. bor. (W. W. CALKINS). — Latus, unguatus, durus, sulcatus, intus fulvus.

13. **Fomes rubritinctus** Murr. in Bull. Torr. Bot. Club. 1903, p. 232. 452

— Pileo suberoso-lignoso, dimidiato, convexo, $4-12 \times 5-15 \times 3-10$ cm., demum atro-brunneo et ruguloso, margine obtuso, sterili, concolori; contextu suberoso, demum lignoso, pallido, 1,5 cm. cr.; tubulis inæqualiter stratosi, stratis contextus cum stratis tubulorum alternantibus, 0,5-1 cm. long., 2 in quoque mm., intus isabellinis, demum umbrinis, poris subcircularibus v. polygoniis, acie tenui isabellina, trita atro-rubra; sporis ovoideis vel subglobosis, $5-7 \mu$. long., levibus, hyalinis, membrana modice crassa; hyphis hyalinis.

Hab. ad truncos, Nicaragua, Amer. centr. (C. L. SMITH). — Fungus magnus, stratosus, poris latis, isabellinis, tritis atro-rubris dignoscendus.

14. **Fomes Cajanderi** Karst. Fung. nov. Loennb. 1904, p. 8 (Finske 453

Vetensk. soc.). — Pileo sessili, dimidiato, intus floccoso, fomentario, ferrugineo, circ. 15 cm. lato, 1 cm. crasso; poris minimis, rotundis, nudis, haud stratosi, rubiginoso-ferrugineis.

Hab. ad laricem dahuricam in insula fluvii Sibiriae orientalis Lena, Agrafena m. Aug. 1901 (A. K. CAJANDER).

15. **Fomes annosus** Fr. Syst. Myc. I, p. 375, Icon. sel. tab. 186, f. 2

— Syll. VI, p. 197, *Polyporus cryptarum* (Bull.) Fr. Syst. Myc. I, p. 376, *Polyporus Gillotii* Roum. in Rev. Mycol. Oct. 1882, Fungi Gall. exsicc. n. 2207!

Hab. ad truncos *Pini silvestris*, in Polonia. — Sporæ hyalinæ, subglobosæ vel ellipsoideæ, $5-6 \times 4-4\frac{1}{2}$. Species hæc præcipue in fodinis ad ligna fabrefacta coniferarum sub omnibus formis frequentissime obvia; in silvis vero magis communis forma resupinata (= *Polyporus makraolus* Rostk.). (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 75).

16. **Fomes musashiensis** P. Henn. F. japonici IV, in Bot. Jahrbü- 454

cher vol. XXXVI, 1902, p. 737. — Pileo suberoso-lignoso, duro,

firmiter, pleuropodo v. per pluries confluyente, concentricè zonato v. sulcato, ruguloso, cinnamomeo, breviter tomentosus, 3-8 cm. diam., margine subacuto, subintegro; stipite pleuropodo brevi vel usque ad 2 cm. elongato, ca. 1-1,5 cm. crasso, basi incrassato, cinnamomeo tomentosulo; contextu suberoso, fulvo; hymenio concolori, poris decurrentibus, minute punctiformibus, rotundatis, acie integris; sporis subglobosis 3,5-4 μ . diam., hyalino-flavidulis, levibus.

Hab. ad truncos, Musashi Japoniæ.

17. **Fomes bomfimensis** P. Henn. F. Amaz. I, p. 175. — Pileo coriaceo-lignoso rigido, spathulato v. flabellato, flavo-brunneo v. alutaceo, concentricè versicolori zonato, radiatim substriatulo, margine tenui integro, 2-3 cm. lato, 2 $\frac{1}{2}$ -3 $\frac{1}{2}$ cm. longo; stipite laterali compresso, lignoso, duro, alutaceo pruinoso, 1-4 cm. longo, 2-4 mm. crasso; contextu sublignoso pallido; poris rotundato-angulatis, minutis, flavidis vel subferrugineis; sporis subglobosis, hyalinis, intus granulatis, 3-3 $\frac{1}{2}$ μ .

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (ULE). — Substantia lignea dura ad *Fomitum*, ceteris notis vero ad *Polystictum* nutat.

18. **Fomes cremeo-tomentosus** P. Henn. F. Amaz. I, p. 175 (Hedw. 1904). — Stipite elongato subcylindraco, sulcato, basi radicato, lignoso, duro, pallido, ca. 10 cm. longo, 1-1 $\frac{1}{2}$ cm. crasso, apice ramoso, velutino, pileis (3-4) subflabellatis, sublignosis, rigidis, duris, involutis, superne molle velutinis, obsolete zonatis v. azonis, pallidis v. isabellinis, 3-5 cm. latis, 3-4 cm. longis, carne tenui pallida; tubulis ca. 1 mm. longis alutaceis, sporis minutissimis, punctiformibus, rotundatis, pallidis; sporis subglobosis, hyalino-flavidulis, 3-4 μ . diam.

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (ULE).

19. **Fomes paulensis** P. Henn. F. St. Paulens III, pag. 202 (Hedw. 1904). — Pileo sublignoso, duro, rigido, mesopode, convexo, centro infundibuliformi, subcinereo-cinnamomeo; ferrugineo tomentosulo, concentricè obscuriori zonato, radiatim rugoso, margine tenui, sicco involuto, 13-15 cm. diam., medio ca. 1 cm. crasso, contextu albedo; stipite centrali, lignoso, inæquali subtereti, postice sulcato, atrocinnamomeo-corticato, ferrugineo-tomentosulo, ca. 4 cm. longo, 1-1 $\frac{1}{2}$ cm. crasso; tubulis sinuoso-adnatis, medio ca. 5 mm. longis, isabellinis, poris minutissimis vix conspicuis, rotundato-angulatis, pallidis dein alutaceis; sporis subglobosis vel ovoideis, hyalinis v. subflavescentibus, 6-7 μ . diam.

457 angustis
VI, 159

Hab. ad truncos (?) St. Paulo Brasiliæ (PUIGGARI). — *F. angusto* proximus videtur, sed consistentia lignea coriaceo-spongiosa recedit.

20. **Fomes stipitatus** Murr. in Bull. Torr. Bot. Club 1903, p. 229. 458

Pileo stipitato, omnino corneo indurato, deplanato subtriangulari v. juniore suborbiculari, demum dimidiato, centro unguolato, margine tenui expanso, lobato vel fisso; hymenio vulgo plano, sed sæpe etiam convexo, 5-10 \times 3 cm., superficie glabra, vernicea, rubenti-castanea, sulcis numerosis leviter exarata dein nitida nigra, demum opace fumoso-brunnea, margine lato, plano, glabro, obtuso, 3 mm. cr., parte sterili, 0,5 cm. lata, alba; contextu duro, ligneo, 0,5-1 cm. cr., pallide ochraceo, interposita substantia cornea nitida a stipite ad marginem dendritice disposita; tubulis molliusculis, inæqualiter stratosis, 2-4 mm. long., 4-5 in quoque mm., intus griseo-brunneis, poris circularibus albis v. pallidis, rimis læte flavis, sepimentis crassis, obtusis, integris; sporis late ovoideis, basi tenuatis, læte flavido-brunneis, levibus, 5 \times 3,5; stipite laterali, 1 cm. cr. et alt., cylindræo, æquali, glabro, nitide brunneo-nigro, intus cum pilei substantia concolori.

Hab. ad truncos in Nicaragua Amer. centr. (C. L. SMITH et B. SHIMEK). — Nonnullis notis typo *Ganodermatidis* accedit.

Subgen. GANODERMA (Karst.)

21. **Fomes zonatus** (Murrill) Sacc. et D. Sacc., *Ganoderma zonatum* 459

Murr. in Bull. Torr. Bot. Club 1902, p. 606. — Pileo subereo-molli, sessili, dimidiato, supra applanato v. convexo, infra concavo, glabro, zonato, non sulcato, 7 \times 5 \times 1,5, margine velutino, acuto dein obtuso et concolori; contextu molli, floccoso, radiato-fibroso, concentricè zonato, 0,5 cm. long., theobromino-brunneo; hymenio velutino, non stratoso, tubulis 1 cm. long., 3-4 in quoque mm., intus umbrinis; poris ex albo umbrinis, regularibus, polygoniis, materie albida initio obturatis, zona marginali, 0,5-2 cm. lata, vernice flavida v. rubida tectis; dissepimentis integris, obtusis v. acutis; sporis elongato-ellipsoideis, levibus, pallide flavido-brunneis, 8-10 \times 4-6.

Hab. ad truncos in Florida Amer. bor. (UNDERWOOD). — Affinis *F. sulcato* et, teste cl. Bresadola in litt., forte non satis diversus a *F. resinaceo* Boud.

22. **Fomes sessilis** (Murrill) Sacc. et D. Sacc., *Ganoderma sessile* 460

Murr. in Bull. Torr. Bot. Club 1902, XXX, pag. 604. — Pileo

suberoso-lignoso, dimidiato, sessili, imbricato v. connato, conchato, postice crassiore, margine tenuato, 5-15 \times 7-25 \times 1-3 cm., e flavido rubro-castaneo, denique opace atro-brunneo, superficie glabro, laccato, lucido, radiato rugoso, concentricè sulcato prope marginem zonis alternis plerumque badiis fulvisque notato, margine tenuissimo, acuto, deorsum vulgo curvato, sæpe undulato, numquam truncato albo, demum concolori; contextu subereo-molli v. ligneo, radiatim fibroso, concentricè zonato, ochraceo-fulvo; tubulis 0,5-2 cm. long. 3-5 in quoque mm., intus brunneis, ore circulari v. anguloso, ex albo griseo-brunneolo, acie tenui integra; sporis ovoideis, obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, 9-11 \times 6-8.

Hab. in truncis arborum frondosarum in Amer. bor. pluribus locis. — Affinis *F. lucido*, immo verisimiliter, forte ejusdem forma quædam sessilis.

23. **Fomes parvulus** (Murrill) Sacc. et D. Sacc., *Ganoderma parvulum* 461
Murr. in Bull. Torr. Bot. Cl. 1902, XXX, p. 606. — Pileo lignoso, ambitu subcirculari, puncto adfixo, supra convexo, infra plano vel convexo, postice crassiore, 2-2,5 \times 1, superficie glabro, laccato, azono, leviter tuberculato, sulcis concentricis levissimis notato, margine acuto, contextu lignoso-molli, pallide ochraceo, 0,5 cm. cr., lineis subcorneis radiantibus a puncto insertionis; tubulis non stratosis, 3 mm. long., 5 in quoque mm., intus umbri-
nis, ore polygonio, melleo-flavo, dissepimentis integris, obtusis; sporis subglobosis, levibus, pallide flavido-brunneis, 5 \times 4.

Hab. ad truncos in Nicaragua (C. L. SMITH). — Fungus minutus sessilis, supra nitidus, badius, infra melleo-flavus.

24. **Fomes Tsugæ** (Murrill) Sacc. et D. Sacc., *Ganoderma Tsugæ* 462
Murrill in Bull. Torr. Bot. Cl. 1902, XXX, pag. 601. — Pileo stipitato, suberoso-ligneo, flabellato, supra convexo, infra concavo, 4-20 \times 5 \times 1-4 cm., superficie glabro, inæquali, concentricè sulcato, laccato, e flavido-rubro atro-rubro vel nigricante, margine læte flavo, acuto, demum concolori, truncato, sulcis levibus notato, sæpe undulato et plus minus lobato, contextu molli-suberoso, radiato-fibroso, albo v. albido, 1-3 cm. cr., tubulis annuis, 0,5-0,7 cm. long., 4-6 in quoque mm., intus brunneis, poris circularibus v. polygoniis, ex albo pallide cinnamomeis, acie obtusa dein acuta; sporis ovoideis, apice obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, 9-11 \times 6-8; stipite laterali, ascendente, frequenter furcato, cylindræo, æquali, 2-20 \times 1-4 cm., colore, superficie et contextu pileo similibus.

Hab. ad truncos *Tsugæ canadensis* in Amer. bor. pluribus locis. — Affinis *F. lucido* sed annuus, pinicola, pallidior etc. Forte non satis diversus a *F. valesiaco* Boud.

25. **Fomes Lionnetii** (Roll.) Sacc. et D. Sacc., *Ganoderma Lionnetii* 463
Rolland Bull. soc. myc. de France 1901, p. 180, t. VIII et Syll. XVI, p. 1115 (nomen). — Pileo applanato, haud crasso, spadiceo-umbrino, ut valva orbiculato, superficiem crustaceam, tenuem, fragilem, rugis profundis, radiantibus, plus minus longis, capillationis ad instar percursam et sulcis manifeste zonatam præbente, ad limbum acuto; hymenio margine sterili pallescente cincto et tubulis tenuibus, longis, brunneis, in senectute stratosi præditi; poris polygoniis, denticulatis, minutissimis, dilutioribus, primum albo-farctis; sporis ovatis, ad basim hyalino-truncatis, levibus, $8 \approx 5$, centro fulvis, ad circuitum brunneo-concretis.

Hab. in truncis quibusdam Isthmi Panamæ, Amer. centr. — Insignis species manifeste pilis crusta agglutinatis tecta. Antequam explicetur in flabellum, fungus apparet veluti processus quidam tuberculosus, hymenophorus, stipitem simulans, unde posteriori vegetatione surgit forma conchata Substantia floccosa, elastica, tenax, brunneo-rufa, in partibus obsoletis canescens, fibris ramosis, prælongis, sinuosis, intricatis, sæpe latis efformata. *F. Mangiferae* Lév. et *F. testaceæ* affinis.

26. **Fomes auriscalpioides** P. Henn. in Hedw. 1904, pag. 82 (*Gano-* 464
derma). — Pileo subhorizontali, tuberoso, convexo-rotundato, ferrugineo pruinoso vel sublanato, cute deinde rimoso, 1-3 mm. diam., 4-5 mm. crasso; stipite subcentrali v. excentrico, subtereti, flexuoso, rigido, proliferante, atro corticato, nitenti, laccato vel pruinoso, 5-6 cm. longo, 2-3 mm. crasso; tubulis 2-3 mm. longis, ferrugineis, poris minutis, punctiformibus, rotundatis, acie pallida dein ferruginea; sporis subglobosis vel late ellipsoideis, levibus, brunneis, 8-10 μ . diam.
- Ganoderma*
sp. subglobosus
ell. (10-12 x 7-10)
oblongulae
longitudinaliter
rugose *fla*
vide

Hab. ad ligna, Rio de Janeiro Brasiliæ.

27. **Fomes subamboinensis** P. Henn. F. Amaz. I, pag. 175 (Hedw. 465
1904) (*Ganoderma*). — Pileo suberoso-lignoso, cochleariformi, concentricè sulcato, rugoso, cinnamomeo v. sanguineo laccato, nitido, margine obtuso, flavido, 3-10 cm. diam., stipite laterali plus minus elongato, interdum proliferante ramoso, concolori laccato; contextu subferrugineo; poris ferrugineis, rotundatis minutis, ca. 0,2 mm. diam.; sporis ovoideis, flavo-brunneis, levibus, $5-7 \approx 4-5$.

Hab. ad truncos emortuos, Rio Juruá, St. Clara, Juruá-Miry.

Marary Amazoniæ (ULE). — Ab affini *F. amboinensi* præcipue sporis minoribus levibus diversus.

28. **Fomes aratus** Sacc. et D. Sacc., *Ganoderma sulcatum* Murr. in 466
Bull. Torr. Bot. Club 1902, XXX, pag. 607, nec *Fomes sulcatus*
Cooke. — Pileo suberoso, dimidiato, sessili v. e tuberculo laterali
oriundo, supra plano v. convexo, postice crassiore, 8-11 \approx 2 cm.,
superficie laccato glabro, azono, fulvo v. castaneo, profunde sulcato,
margine rotundato, velutino, ochroleuco, denique concolori; con-
textu molli, floccoso, radiato-fibroso, concentrice zonato, 1 cm. cr.,
umbrino-castaneo; tubulis indistincte stratosi, 125 cm. long., 4-5
in quaque mm., intus umbrinis, poris albidis v. flavidis, denique
umbrinis, dissepimentis integris obtusis; sporis ellipsoideis, pallide
flavido-brunneis, levibus, 8-10 \approx 4-6.

Hab. ad stipitem Sabaleos Palmetto, Florida (C. G. LLOYD).
— Fungus majusculus, sessilis, azonus, sed conspicue concentrice
sulcatus. Peraffinis *F. zonato*.

29. **Fomes insularis** (Har. et Pat.) Sacc. et D. Sacc., *Ganoderma* (A- 467
mauroderma) *insulare* Har. et Pat. Journ. de Bot. 1903, p. 11.
— Terrester, mesopus, solitarius; pileo orbiculari, convexo, fusco-
brunneo vel ochraceo, bis-ter profunde concentrice sulcato, plus
minus transverse plicato-rugoso, centro (in sicco) minute cerebri-
formi-alveolato, undique pruinoso; hymenio plano aut convexo
usque ad marginem extenso, fusco-atro; poris mollibus angulosis
mediis, dissepimentis tenuibus integris v. denticulatis; tubulis lon-
giusculis, pallide umbrinis; sporis globoso-ovoideis, flavo-fuscis,
subtiliter verruculosi, 13 \approx 10; stipite lignoso, rigido, cylindraco,
rugoso, fusco-atro, apice pallidiori, pruina fuscidula consperso,
intus cavo, contextu pilei molli pallide cervino.

Hab. ad terram (« an ad lignum infossum? »), Ile des Pins,
Nova Caledonia (BERNIER). — Pileus 3 cm. lat., tubuli 1 cm. long.,
trama 3 mm. cr. (centro); stipes 1-2 cm. long., 4 mm. cr. Affi-
nis *Fom.* (Gan.) *pullato*.

CRYPTOPORUS (Peck) Shear in Bull. of the Torr. bot. Club. 1902,
p. 450 (Etym. *cryptos* absconditus et *porus*) *Polyporus* sect. *Cry-*
ptoporus Peck Bull. Torr. bot. Cl. 1880, p. 104. — A typo *Poly-*
pori et *Fomitis* differt pilei margine in extensionem volvæformem,
pororum majorem partem tegentem producto.

1. **Cryptoporus volvatus** (Peck) Shear l. c., *Fomes volvatus* (Peck) 468
Sacc. Syll. VI, p. 165 cum varr. — Adde loca ad *Pinum virgi-*

nianam et *P. contortam Murrayanam* pr. Washington nec non in Colorado et Oregon Amer. bor.; Mexico (Prof. SILVIO BONANSEA!).

POLYSTICTUS Fr. — Syll. VI p. 208, IX p. 181, XI p. 90, XIV p. 185, XVI p. 254.

1. **Polystictus pusillus** Rostr. in Bot. Tidsskrift, Copenhagen 1902, 469 vol. 24, p. 209. — Pileo papyraceo, umbilicato, obsolete zonato, levi, glabro, ochraceo, margine crenato, 8 mm. lato, poris mediis, subhexagonis, albidis; stipite centrali, atro-fusco, scabro, 1,5 cm. longo, 1 mm. crasso.

Hab. in ligno, Siam Asiæ merid.

2. **Polystictus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42, 470 Syll. XVI, p. 1115 (nomen). — Pileo coriaceo, mesopodo, orbiculari v. reniformi, centro depresso v. umbilicato, pallide ochraceo, azono levi glabroque, 2-5 cm. diam.; margine tenui, integro vel subcrenulato; stipite excentrico, tereti farcto, firmo nigricante, ferrugineo-tomentoso v. pruinoso, basi discoideo, 2-5 cm. longo, 1,5-3 mm. cr.; hymenio pallide ochraceo, poris decurrentibus, brevissimis, punctiformibus, vix conspicuis, rotundatis, acie integris; sporis haud visis.

Hab. ad ligna, Kamerun Afr.

3. **Polystictus nigripes** Masee, in Kew Bull. 1901, p. 163. — Pileo 471 cyathoideo-infundibuliformi, carnosomembranaceo, lento, levi, glabro, pallide ochraceo, margine membranaceo integro, undulato; tubulis minutis, pileo pallidioribus, ore rotundato-angulato, circa 200 μ . diam.; sporis ellipsoideis, hyalinis $7 \approx 4$; stipite erecto, æquali 1-5 cm. longo, 2-5 mm. crasso, cute crustacea atra.

Hab. in ligno emortuo in horto botanico Aburi, Gold Coast Africæ occident. — *P. xanthopodi* Fr. affinis.

- P. exilis*
VI, 154
4. **Polystictus Parmula** Berk. et Hook. Journ. 1856, pag. 173. — 472 Syll. VI, pag. 214. — var. **madeirensis** P. Henn. F. Amaz. I, p. 179 (Hedw. 1904). — Pileis papyraceis, tenuibus, flaccidis, flabellatis vel rotundatis, umbilicatis, cinnamomeis, concentricè zonis, nitentibus, margine inciso-lobatis, pallidis, 3-5 cm. diam.; hymenio cinereo-fuscescenti, poris rotundato-angulatis, ca. 60-70 μ . diam.; stipite gracili, corneo, pruinoso-fusco, radicante, ca. 15 cm. longo, 1-1 $\frac{1}{2}$ mm. crasso.

Hab. ad terram silvaticam, Rio Madeira, pr. Marmellos Amazoniæ (ULE). — Præcipue poris multo minoribus (nec circ. 220 μ . diam. ut in typo) dignoscendus.

5. **Polystictus subbulbipes** P. Henn. F. St. Paulens III, pag. 202 473
(Hedw. 1904). — Pileo spongioso-molli, ferrugineo, mesopodo, subruguloso, tomentosus, ca. 5 cm. diam., $\frac{1}{2}$ -1 cm. crasso, margine tenui, subcrenato, carne spongiosa, ferruginea, 0,3-0,8 mm. crassa; stipite centrali inæquali, ferrugineo pruinoso, basi subincrassato, ca. 7 cm. longo, 4-5 mm. crasso; tubulis adnatis subdecurrentibus, 1-1 $\frac{1}{2}$ mm. longis, poris subrotundatis, acie incrassatis, ferrugineis; sporis globosis, 3 $\frac{1}{2}$ -4, 1-guttulatis, hyalino-flavidulis, levibus.

Hab. ad terram (?) Serra da Cantareira Brasiliæ. — Affinis *P. bulbipedi* et *P. Ehrenreichii*, sed præsertim sporis sphericis nec ellipsoideis (6-8 \approx 5 in prima, 4-5 \approx 3,5 in altera) dignoscitur.

6. **Polystictus sacer** Fries Fung. Guin. t. 20. — Syll. VI, p. 213. — 474
var. **juvuensis** P. Henn. F. Amaz. I, pag. 180 (Hedw. 1904). — Pileo coriaceo-lignoso, crasso, rigido, orbiculari, medio umbilicato rugoso, concentrice zonato, radiatim sulcato, rugoso, castaneo pruinoso, ca. 8 mm. diam.; stipite lignoso, radicato, tereti, flexuoso, castaneo, ferrugineo pruinoso, ca. 13 cm. longo, 3 mm. crasso; hymenio pallide fuscidulo, poris vix conspicuis, punctiformibus, rotundatis, contextu alutaceo.

Hab. ad terram silvaticam, Rio Juruá, Marary Amazoniæ (ULE). — Præcipue consistentia et poris punctiformibus a typo distinctus

7. **Polystictus atripes** Rostr. in Bot. Tidsskrift, Copenhagen 1902, 475
vol. 24, p. 209. — Pileo coriaceo-papyraceo, flavo, glabro, radiatim striato, margine tenui, flexuoso-lobato, ciliato, 4-5 cm. lato; poris minutissimis, decurrentibus; stipite centrali, longo, aterrimum, glabro, 4-5 cm. longo, 4 mm. crasso.

Hab. in Siam Asiæ merid.

8. **Polystictus Memmingeri** (Murr.) Sacc. et D. Sacc., *Coltricia Mem-* 476
mingeri Murr. Bull. Torr. Bot. Cl. 1904, p. 347. — Pileo valde irregulari, circulari vel dimidiato, e convexo plano vel depresso, 10 \approx 1 cm., extus fulvo vel brunneo, squamis imbricatis concoloribus vestito, margine alutaceo, pubescenti, sterili subacuto, undulato; cortice suberoso, fragili, azono 0,5-1 cm. cr., marginem versus tenuiore concolore; tubulis adnatis, 1-4 mm. longis, 1-3 in quoque mm., umbrinis, senio nigrescentibus; poris primitus circularibus et albidis, demum angulosis et sæpius obscurioribus, sepimentis integris dentatisve; sporis ovoideis, levibus, læte ferrugineis, vulgo 2-guttulatis, 7 \approx 4; hyphis aureis; cystidiis nullis; stipite centrali v. excentrico, subinde confluyente, brevissimo, crasso, basi dilatato,

1-3 \approx 3-5 cm., substantia coloræ et superficie cum pileo conformi.

Hab. ad terram ad Blowing Rock North Carolina Amer. bor. (E. R. MEMMINGER).

9. **Polystictus circinatus** Fr. — Syll. VI, p. 208. — var. **triqueter** ⁴⁷⁷ (Fr.) Bres. Fungi polonici in Syd. Ann. myc. 1903, vol. I, p. 75, *Polyporus triqueter* Fr. in Syll. VI, p. 248. — Sporis substramineis, ellipsoideis, 6-8 \approx 3,5-4,3; setulis hymenii fulvis, apice cuspidatis et ut plurimum curvatis, basi ventricosis, 50-80 \approx 6-15; hyphis contextus tubulorum, 2,5-5 latis.

Hab. quoque ad truncos Pini silvestris in Polonia rossica. — Species hæc ad folia coacervata vel ad truncos Coniferarum obvia, quoad formam variabilissima, sæpe regularis stipite centrali, sed frequens etiam stipite excentrico vel laterali (= *Polyst. circinatus*) rarius vero stipite rudimentali nullo vel tantum pileo dimidiato aut postice attenuato (= *Polyst. triqueter*).

10. **Polystictus albo-luteus** Rostr. in Bot. Tidsskrift Copenhagen, 1902 ⁴⁷⁸ vol. 24, p. 209. — Pileo tenui, papyraceo, reniformi, 1-2 cm. lato, albo-nitido, concentrice striato; margine in stipitem brevem, lateralem, basi scutato-dilatatum attenuato; contextu albo; poris minutissimis, luteis.

Hab. in ramis, Siam Asiæ merid.

11. **Polystictus Warmingii** Berk. Fungi Glaz. p. 752, Syll. VI, p. 103. — Teste cl. Henn. F. Amaz. I, p. 176 (Hedw. 1904), ad hanc speciem vere proteiformem spectant *Craterellus sparassoides* Speg. et *Thelephora multifida* Kl. (= *Hydnum multifidum* Kl.) Henn. — Lectus quoque in Amazonia a cl. ULE.

12. **Polystictus Schmidtii** Rostr. in Bot. Tidsskrift, Copenhagen 1902, ⁴⁷⁹ vol. 24, pag. 210. — Pileis coriaceo-rigidis, tenuibus, imbricatis, conchatis, densissime concentrice striatis, tomentosulis, cinnamomeis, 1-2 cm. latis; poris minutissimis, ferrugineis, contextu concolori.

Hab. Siam Asiæ merid. — Habitus fere *Hymenochaetes rubiginosæ*.

13. **Polystictus tigrinus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, ⁴⁸⁰ vol. 24, p. 209. — Pileo reniformi-orbiculari, ochraceo, distincte fusco-zonato, radiatim sericeo-striato, 3 cm. lato; stipite laterali, æquali, verrucoso, 1 cm. longo, 4 mm. crasso; poris mediis, decurrentibus, ochraceis.

Hab. in ligno, Siam Asiæ merid.

14. **Polystictus purpureo-albus** Rostr. in Bot. Tidsskrift, Copenhagen ⁴⁸¹

1902, vol. 24, pag. 210. — Pileis imbricatis, dimidiatis, postice effusis, coriaceis, tenuibus, rugosis, glabris, fusco-purpureis, margine late albo; hymenio pallido; poris mediis, angulatis; dissepimentis tenuibus.

Hab ad truncos, Siam Asiæ merid.

15. **Polystictus olivascens** Rostr. in Bot. Tidsskrift-Copenhagen 482
1902, vol. 24, pag. 209. — Pileo suberoso-coriaceo, horizontali, reniformi, fusco-olivaceo, zonato, adpresse sericeo, 1-2 cm. lato; stipite brevissimo, disciformi; contextu ferrugineo; poris minutis, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

16. **Polystictus minutissimus** Rostr. in Bot. Tidsskrift-Copenhagen 483
1902, vol. 24, p. 209. — Pileis gregariis, coriaceo-membranaceis, reniformibus, albidis, obscure zonatis, striatis, ca. 2 mm. latis; stipite albo exacte laterali, curto 0,5-1 mm; poris rotundis, albis. *Polyp. Fungi - mensur. VI, 242*

Hab. ad ramos corticatos, Siam Asiæ merid.

17. **Polystictus simulans** Blonsk.) — Syll. IX, p. 185. — var. **borealis** 484
Karst., *Coriolus simulans* (Blonsk.) Karst., var. *borealis* Karst. Fung. non Loennb. 1904, p. 3 (Finska Vetensk. soc.). — Pileo suberoso-coriaceo, dimidiato, convexo-plano, postice gibboso, pallescente, concentricè sulcato, rufo-striguloso, margine acuto obscuriore, circiter 3 cm. lato; poris rotundis tenuibus, minutis, flavescenscentibus.

Hab. unicum forte juvenile specimen prope Knopio Sibiria: legit cl. O. A. F. LOENNBOHM.

18. **Polystictus applanatus** (Karst.) Sacc. et D. Sacc., *Coriolus applanatus* 485
Karst Fungi nov. Loennb. 1904, pag. 3 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo, sessili, semiorbiculari aut spathulato, utrinque plano, subglabro, obsolete concentricè sulcato, margine extenuato, acuto, subinde confluyente, albo dein lutescente, 4-7 cm. lato, 1-3 mm. crasso; poris rotundis, exiguis, tenuibus, albis.

Hab. truncos, Tungust in Karelia boreali rossica. Legit rusticus carelicus.

19. **Polystictus changensis** Rostr. in Bot. Tidsskrift, Copenhagen 486
1902, vol. 24, p. 210. — Pileo tenui, plano, coriaceo, reniformi, glabro, dense concentricè striato-sulcato, vernicoso-polito, dilute brunneo, postice atro-purpureo, 4-5 cm. longo; contextu pallido; hymenio cinerescente; poris mediis exacte uniformibus.

Hab. in ramis exsiccatis et ad truncos Siam Asiæ merid.

20. **Polystictus crenatoporus** Rostr. in Bot. Tidsskrift-Copenhagen 487

1902, vol. 24, p. 210. — Pileo coriaceo, molli, tenui, sessili, albo-villoso, 1-3 cm. longo, 0,5 cm. lato; contextu citrino; poris mediis, irregularibus, citrinis; dissepimentis crenatis.

Hab. ad truncos, Siam Asiæ merid.

21. **Polystictus Gleadowii** Masee, in Kew Bull. 1901, pag. 152. — 488

Pileo semiorbiculari, dimidiato, sessili e convexo plano v. depresso, niveo tomentoso dein subglabrescenti, margine incurvo, 4-5 cm. lato; poris angulosis, albo-stramineis; carne fibrosa, alba, tenuissima; sporis albidis, ellipticis, 6-7 \times 4.

Hab. ad ligna emortua, Dehra Dun Indiæ britann. (GAMBLE).

— *P. virgineo* Cooke affinis.

22. **Polystictus sanguineus** (Lin.) Mey. Essequ. p. 304. — Syll. VI, 489

p. 229. — form. **lactescens** Henn. F. Amaz. I, p. 179. — Pileo albido, nitidulo, concentrice zonato, breve lateraliter stipitato; hymenio cremeo-flavido, intus pallido.

Hab. ad caudices emortuos Rio Negro, Manáos Amazoniæ (ULE).

— Adsunt formæ cinnabarinæ albo-maculatæ transitum ad typum sistentes.

23. **Polystictus Gollani** P. Henn. F. Indiæ or. II, in Hedw. 1901, 490

p. 327. — Imbricato-cæspitosus, ca. 15 cm. longus, 20 cm. latus; pileo suberoso, dimidiato, crasso, superne margineque stupeo-fibroso, filis rigidis, ramosis stramineis vestito, vertice squamoso-rugoso tuberculato, rufofulvo, margine obtuso v. acuto stramineo-velutino usque ad 10 cm. diam.; poris rotundato-angulatis, 1-1,5 mm. diam. vel oblonge laceratis, decurrentibus, stramineis, acie subdenticulatis; sporis ellipsoideis, 1 grosse guttulatis, 7-10 \times 5-6 hyalinis, levibus; carne spongioso-suberosa, cremaceo-isabellina.

Hab. in truncis Terminaliæ tomentosæ, Siwalik Range Indiæ orient. — An potius *Trametis* spec.?

24. **Polystictus Shenoii** P. Henn. F. japonici IV, in Bot. Jahrbücher 491

vol. XXXI, 1902, pag. 737. — Imbricato-cæspitosus; pileo suberoso, coriaceo, rigido, dimidiato, convexo, apodo, sericeo-villoso, depresso-velutino, obsolete zonato, cinereo-umbrino, postice plerumque depresso obscuriori velutino, margine integro, obtuso suberoso, vel acutiusculo, 1,5-3 cm. lato, 1,5-2 cm. longo; contextu fulvo, hymenio levi, isabellino; poris curtis, minutis, punctiformibus, rotundatis, acie integris; sporis haud conspicuis.

Hab. in truncis arborum, Oki Japoniæ.

PORIA Fr. — Syll. VI p. 292, IX p. 189, XI p. 93, XIV p. 188, XVI, p. 159.

1. **Poria platensis** Speg. Mycet. argent. ser. II, 1902, p. 53. — Can- 492
dida, ab initio arida, late effusa 5-20 cm. diam., persistente, margine sensim effuso-evanescente, repandula, subiculo arcte ubique matrice adnato; hymenio subrimoso, albo v. dilute alutaceo; poris brevibus 0.3-0,5 mm. long., semper verticalibus polymorphis, nonnullis minutis angulato-subrotundis 0,3-0,5 mm. diam., aliis linearibus flexuosis 0,8-3 mm. long. commixtis; basidiis et sporis nondum inventis.

Hab. ad trabes pineas fabre factas, La Plata, in Argentina.

2. **Poria vaporaria** Fr. (vix Pers.) Syst. Myc. I, p. 382. — Syll. VI, p. 311.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Color ex albido ligneus; pori ampli, rotundati vel angulati, non flexuosi nec dædaloides; sporæ hyalinæ, cylindræo-curvulæ, mobiles, $4 \approx 1-1\frac{1}{4}$; hyphæ contextus crassiuscule tunicatæ, septatæ, ad septa sæpe unilateraliter nodosæ, $2\frac{1}{2}-3 \mu$. *Poriæ sinuosæ* affinis. Cum specimine cl. Friesii concordat; sed *Poria vaporaria* Pers. vix dubie identica cum *Poria Vaillantii* (De Cand.) Fr. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

3. **Poria undata** (Pers.) Bres. F. Polon. in Ann. Myc. 1903, p. 78
Polyporus undatus Pers. Myc. Europ. II, p. 90, tab. 16, f. 3, *Polyporus vitreus* Fr. (an Pers.?) Syst. Myc. I, p. 381, *Polyporus Broomei* Rabenh. Fungi Europ. n. 2004, *Polyporus cinctus* Berk. Outl. p. 250, *Poria vitrea* Pers. — Syll. VI, p. 296, etc.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Species hæc genuinum *Polyporum vitreum* Fr. sistere vix dubitandum, si diagnoses in Syst. Myc. l. c., Elenc. I, p. 119 et Hym. Europ. p. 577 comparantur. Specimina originalia non adsunt. *Poria vitrea* Pers. forte distincta, at ego frustra hucusque identitatem comprobare potui. Mea *Poria vitrea* in Hym. Hung. Kmet. p. 21 absque dubio est forma *Poriæ vulgaris* Fr. *Poria*, prout de *P. vitrea* prædicatur, mycelio xylostromeo, tenaci, separabili prædita; poris carnosis, sæpe in nodulos collectis etc., inter innumeras *Poriæ* formas a me visas, tantum in specie hic proposita quærenda. (Bresadola, l. supra c.).

4. **Poria sinuosa** (Fr.) — Syll. VI, p. 322, *Polyporus* Fr. Syst. Myc. I, p. 381, Icon. select. tab. 190, fig. 1.

Hab. quoque ad ligna adusta Pini silvestris, in Polonia.

Specimen examinatum prorsus typicum, cum figura l. c. plane concordans. Color ex luride albido ligneus vel alutaceus; pori ampli, flexuosi, dædaloidei; sporæ hyalinæ, cylindræo-curve, $5-6\frac{1}{4} \approx 1-1\frac{1}{4}$; basidia clavata, $15-16 \approx 4-5$; hyphæ contextus tubulorum $2\frac{1}{2}-3\frac{1}{2} \mu.$, tenaces, non septatæ. Variat poris non sinuosis nec dædaloideis: hæc forma sistit *Poriam vaporariam* auct. pl. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

5. **Poria radula** Pers. Obs. 2, p. 14. — Syll. VI, p. 310.

Hab. quoque ad ramos Coryli Avellanæ, in Polonia. — Sporæ hyalinæ, subglobosæ, $3-4 \approx 3$, (non ut errore, ex inspectione Notæ ad speciem diversam spectantis, datum est in Hym. Hung. Kmet. p. 24); basidia clavata, $15-20 \approx 4-5$; cystidia fusioidea, furfuræo-tunicata, $50-60 \approx 10-15$; hyphæ subhymeniales, crasse tunicatæ, $2-3 \mu.$ latæ. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 80).

6. **Poria Placenta** (Fr.) Sacc. — Syll. VI, p. 302.

Hab. quoque ad corticem Pini silvestris, in Polonia. — Subiculum manifestissimum, sed plus minusve evolutum, interdum usque ad 5 mm. crassum, suberoso-carnosum, ad marginem liberum, subrevolutum, ex albo pallide vinosum; tubuli carnosii, molles, subobliqui, hinc inde stratosi, usque ad 7 mm. longi, colore incarnato, dein fuscescente; pori medii, subrotundi vel oblongi, colabentes, concolores; sporæ hyalinæ, oblongæ, $5-6 \approx 2\frac{1}{2}-3$; hyphæ contextus tubulorum $3-5 \mu.$ crassæ; hyphæ subiculi $3\frac{1}{2}-6 \mu.$ crasse tunicatæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

7. **Poria fumosa** Bres. et Pat. in Lloyd Myc. Not. n. 6, 1901, p. 49. — 493

Late effusa, griseo-fumosa; subiculo spongioso-membranaceo, 0,5 mm. cr., ambitu tomentosulo, sterili; tubulis 1 mm. long.; poris minutis, subrotundis v. angulatis, sæpe e situ oblique oblongis; hyphis $3-4 \mu.$ cr.; sporis obovato-subangulatis vel semilunatis, $4 \approx 2,5-3$.

Hab. ad ramos in insula Samoa. — Forma pororum sæpe e loco natali pendet; si ad ramos prostratos, pori recti regulares, si ad ramos stantes, obliqui, oblongati etc.

8. **Poria locellata** (Karst.) Sacc. et D. Sacc., *Physisporus locellatus*, 494

Karst. Fungi nov. Loennb. 1902, p. 8 (Finska Vetensk. Soc.). — Effusa, innata, tenuis, pallescens, sicca obscurior, intus locellis exiguis, plus minusve elongatis; poris exiguis rotundis vel variis, inæqualibus, tenuissimis, laceris fimbriatisque.

Hab. supra lignum semiputridum in regione Baicalensi, Listvinitchnoje Sibiriaë, Aug. 1902 (O. A. F. LÖNNBOHM).

9. **Poria microspora** (Karst.) Sacc. et D. Sacc., *Physisporus microsporus* Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.) 495
— Orbiculata, crassiuscula, pallescens, subiculo tenui; poris rotundatis, minutissimis æqualibus, dissepimentis tenuissimis.

Hab. supra lignum semiputridum prope Mustiala Fenniaë semel tecta. — Dicitur *microspora*, sed de sporis nulla mentio.

10. **Poria lamellosa** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. XXVIII, p. 35. — Resupinata, late effusa, crustuloso-coriacea, isabellina; hymenio poroso-lamelloso; poris decurrentibus, lacerato-labyrinthiformibus, acie inciso-denticulatis vel fimbriatis; basidiis clavatis; sporis subglobosis, hyalinis $3,5 \approx 3$. 496

Hab. in truncis, Usambara (KUMMER).

11. **Poria aneirina** (Somm.) Sacc. — Syll. VI, p. 314, *Poria corticola* Fr. pr. p. sc. forma in populo (status juvenilis).

Hab. quoque ad ramos et truncos Populi Tremulæ, in Polonia. — Cl. Dr. H. O. Juel in sua egregia dissertatione «Muciporus und die Familie der Tulasnellaceen» speciem hanc ad novum genus *Muciporus* ducit ex eo quod basidia et sporas generis *Tulasnellæ* possidet. In speciminibus a me examinatis basidia jam absorpta et tantum sporas seu conidia, ut mavult cl. Juel, solutas vidi, obovatas, $5-6 \approx 3\frac{1}{2}-4\frac{1}{2}$. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

12. **Poria xantha** (Fr.) Sacc. — Syll. VI, p. 317, *Polyporus xanthus* Fr. Obs. I, p. 128?

Hab. quoque ad ligna Pini silvestris, in Polonia. — Specimen huc relatum dubium manet quia sterile. Color ex albo mox vivide flavo-luteus. Sporæ in speciminibus a me lectis, hyalinæ, cylindræo-curvulæ, $5-6\frac{1}{2} \approx 1\frac{1}{2}-2$; hyphæ contextus tubulorum crasse tunicatæ, $2\frac{1}{2}-3$. Specimen orig. *Poriæ xanthæ* Fr. a me visum quoad structuram convenit, sed e vetustate decoloratum et sterile inveni. Etiam *Poria vulgaris* var. *flava* Fr. hic videtur referenda. Hujus specimina non exstant in Herbario cl. Friesii, sed adest specimen sub nomine *Poria vulgaris* var. *flavescens*, quod ad *Poriam molluscam* Pers. pertinet. *Poria xantha*, nostro sensu intellecta, affinis quidem *Poriæ vulgari* Fr. est, sed bene specificè distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

13. **Poria nitida** Pers. Obs. Myc. II, p. 15, tab. 4, f. (non Fr.) *Poria aurantiaca* (Rostk.) Sacc. — Syll. IX, p. 191, *Poria aurantiaca*

var. *saloisensis* Karsten in Revue Myc. n. 33, p. 10, *Poria xantha* Quél. (non Fr.) fide speciminum.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Subiculum ut plurimum manifestissimum, usque ad 6 mm. crassum, aurantiacum, in magis evolutis basi album, in exsiccatis sæpe roseum, ex hyphis crasse tunicatis, 3-6 μ . crassis, conflatum; tubuli et pori carnosi, molles, colore primitus carneolo dein vitellino vel aurantio-incarnato, compressione vel tactu fuscescentes, mox collapsi; sporæ hyalinæ, oblongæ, 5-6 \times 2 $\frac{1}{2}$ -3; basidia clavata, 12-15 \times 5-6; hyphæ contextus tubulorum, intus granulosa, 2 $\frac{1}{2}$ -4 μ . Species hæc a *Poria placenta* colorum variatione modo diversa videtur et valde probabiliter tantum ejus forma. Cum mihi modo e speciminibus siccis hæ duo species sint notæ, distinctas retinui, sed melius in vivo considerandæ, utrum hæc distinctio revera comprobata, an non. *Poria nitida* Pers. absque dubio formam tenuiorem hujus speciei sistit, nam diagnosis et icon l. c. exhibitæ optime cum fungo nostro conveniunt. Contra *Poria nitida* Fr. prorsus diversa. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

14. ***Poria carnososa*** Rostr. in Bot. Tidsskrift, Copenhagen 1902, v. 24, 497 p. 211. — Pileo carnosio, molli, resupinato, marginato, 3-4 cm. diam.; contextu ferrugineo, margine obtuso, pallido; poris brevibus, mediis, angulatis, inæqualibus, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

15. ***Poria myceliosa*** Peck in Rep. of the State botanist 1901, p. 952. 498 — Subiculo membranaceo, a matrice facile secedente; poris brevibus, subrotundo-angulosis vel subflexuosis, tenuibus, acutis, dentatis vel sublaceratis, pallide luteis; sporis minutis, subglobosis, 2-2,5 μ . diam.

Hab. in truncis emortuis, Round Lake, Saratoga co. Amer. bor. 499

- Poria Sabellina*
IX, 192
16. ***Poria delicatula*** P. Henn. in Bot. Jahrb. 1904, pag. 44. — Innata, omnino resupinata, effuso-crustacea, vix subiculosa, tenuissima; hymenio cretaceo-flavidulo; poris rotundato-angulatis, ca. 0,2 mm. diam., acie crassis, contextu subflavidis; sporis oblonge ellipsoideis vel ovoideis, sæpe inæquilateralibus, utrinque obtusis, intus guttulatis vel granulatis, hyalinis 9-12 \times 5,5-6,5.

Hab. in ramis emortuis, Bomule, Ost Usambara Africae orient. (ZIMMERMANN).

17. ***Poria carbonicola*** Karst. Fungi nov. Loennb. 1904, p. 4 (Fin- 500 ska Vetensk. Soc.). — Effusa, levigata, glabra, testaceo-spadicea,

opaca, ambitu depressa, concolor, 4-6 mm. crassa; poris perexiguis, tenuibus, rotundis nullâ membranâ impositis.

Hab. supra carbones in regione Baicalensi, Listvinschnoje Sibiriaë, Aug. 1902 (O. A. F. LÖNNBOHM).

18. **Poria Loennbohmii** Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Effusa, marginata, adnata vel subinnata, pertenuis; poris minutis, obtusis, rotundis, ferrugineo-fulvis, dein pruina densa pallida vel albida obtectis, stratosi, stratum circiter 1 cm. crassum formantibus.

Hab. ad carbones in territorio Baicalensi, Listvinitchnoje Sibiriaë (O. A. F. LÖNNBOHM).

19. **Poria violacea** Fr. — Syll. VI, p. 319, diagn. imperfecta, Bres. Fungi polonici in Syd. Ann. mycol. 1903, vol. I, p. 76. — Constantiter dilute violacea; subiculo tenuissimo; tubulis brevissimis ita ut potius *Merulius* appareat; poris mediis 0,5 mm. circ. latis, sæpe e loco oblongatis; sporis hyalinis, subcylindraceis, uno latere subcompressis $5 \approx 2,5-3$; hyphis contextus regularibus, 2-3,5 μ . lat.

Hab. ad ligna mucida pinea in Polonia rossica. — Species hæc rarissima vix ab auctoribus intellecta. Fries ipse in El. I, p. 118 cum aliis commiscuit. Etiam icon Rostkovii 27 tab. 3 a Friesio in Hym. Eur. p. 572 huc relata prorsus aliena. (Bres. l. c.).

20. **Poria sanguinolenta** (Alb. & Schw.) Pers. — Syll. VI, p. 330, *Polyporus* Fr. Syst. Myc. I, p. 383, *Boletus* Alb. & Schw. p. 257.

Hab. quoque ad ligna pinea, in Polonia. — Forma hic exhibita est, meo sensu, forma typica, in statu vetusto vix distinguenda et generatim cum *Poria violacea* confusa. Frequens est ad ligna abiecta et pinea, sæpe etiam ad corticem, primitus omnino alba et tactu tantum cruentata, sed exsiccando incarnata evadit, dein in herbariis purpurea vel demum violaceo-fusca. In hac forma sporæ sunt $6-8 \approx 2-2\frac{1}{2}$; basidia 15-18 $\approx 4-5$ et hyphæ subhymeniales 3-5 μ . cr. Forma vero ad ligna arbor. frond., a me in « Fungi Kmet. » p. 19-20 enumerata, forte specificè distinguenda, nam crassior est, poris magis regularibus, ætate et in herbario semper pallidior evadit et sporis et hyphis aliquantulo minoribus prædita (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 79).

21. **Poria rufincta** B. et Curt. cfr. Syll. VI, p. 310 (nomen), A. L. Smith Fungi from the West Indies in Linn. Soc. Jour. bot. vol. XXXV. — Late effusa, rufa, circa 1 mm. crassa; poris regularibus, minutissimis, circa 800 μ . diam., altitudine variantibus.

Hab. in insula Dominica Indiaë occid.

22. *Poria purpurea* (Hall.) Sacc. — Syll. VI, p. 319 — *Polyporus* Fr. Syst. Myc. I, p. 379, Rostk. 27, tab. 3, Bresadola Fungi Hung. Kmet. p. 16, *Poria spissa* Schw. e specimine communicato, vix e diagnosi.

Hab. quoque ad ramos Alni, in Polonia. — var. **roseo-lilacina** Bres. l. c. (*Polyporus purpureus* Fr. El. I, p. 118, nec alibi). Ad ligna Betulæ, in Polonia. Hæc varietas a typo differt subiculo crassiusculo, dissepimentis tubulorum quoque crassiusculis, colore constanter roseo-lilacino, expallente; sporis et hyphis aliquantulo majoribus, sc. sporis cylindræo-curvulis, $8-10 \approx 2-2\frac{1}{2}$, hyphis usque ad 6 μ . latis. Est forma media ad *Poriam placentam* transiens. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 76).

TRAMETES Fr. — Syll. VI p. 334, IX p. 194, XI pag. 96, XIV p. 192, 1136.

1. *Trametes aratoides* Har. et Pat. Journ. de Bot. 1903, p. 8. — 504

Pileo conchiformi, lateraliter substipitato, rigido, fusco, concentrice et crebre sulcato, postice subruguloso, glabrato, margine undulato plus minusve profunde inciso-lobato, recto, luteo-olivascenti; hymenio concavo, umbrino, cum zona marginali sterili angustissima; poris minutis angulosis, dissepimentis integris, crassiusculis; contextu luteo; tubulis brevibus, vix $\frac{1}{2}$ mm., umbrino-fuscis; cystidiis nullis; sporis non visis.

Hab. ad ligna emortua, Mea in Nova Caledonia (BERNIER). — Pileus 2 mm. cr.; stipes, ubi adest, 5 mm. long., basi discoidea; pori in quoque mm. 5. Affinis *T. arata* et *T. luteo-olivacea*.

2. *Trametes sepium* Berk. in Lond. Journ. Bot. VI, 6, p. 322. — Syll. VI, p. 342.

Hab. quoque ad palos Betulæ et Alni, in Polonia. — Sporæ hyalinae, oblongæ, lateraliter depressæ, $10-16 \approx 4-7$. Specimina europæa quam americana minus regularia, laxius imbricata, sæpe magis resupinato-producta, hymenio quoque magis lenzitoideo. Species hæc ad *Lenzitem albidam* Fr. proxime accedit et vix specificè distinguitur, nam modo colore pilei alutaceo differt, nota hæc variabilis cum *Trametes sepium* quoque interdum albida vel albidogrisea sit. Specimina *Lenzitis albidæ* prorsus cum figuris Friesii in Icon. select. tab. 177, f. 1 congruentia, a me visa, potius genuinam *Trametem* quam *Lenzitem* sistunt. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 81).

3. *Trametes subsinuosa* Bres. Fungi Polonici, in Ann. Mycol. 1903, 505

p. 82 (*Polyporus sinuosus* Aut. plur. non Fr.). — Generatim resupinata, raro rudimenta pileorum vel pileos genuinos exserens; ex orbiculari longe lateque effusa; subiculo tenui, membranaceo, $\frac{1}{2}$ mm. circiter crasso, albido, ambitu demum separabili et sub-reflexo vel pileiformi; pileis tunc 3-5 mm. antice protensis, tenuissimis, in magis evolutis zonatis, zonis interdum pubescentibus, ex albo griseolis; tubulis crassiusculis, 2-3 mm. longis, albidis; poris ex albido stramineis vel ochroleucis, mediis vel majusculis, $\frac{3}{4}$ 3 mm. latis, variantibus quoad formam sc. rotundatis, angulatis vel oblongis, acie demum lacerato-subfimbriata; sporis oblongo-subamygdaliformibus, hyalinis, $7-9 \approx 2\frac{1}{2}-3\frac{1}{4}$; basidiis clavatis, 20-25 \approx 5-6; hyphis tortuosis, crasse tunicatis mollibus, $3\frac{1}{2}-5\frac{1}{2}$ μ . latis, ad septa sæpe nodosis.

Hab. ad ramos corticatos Pini silvestris, in Polonia. — Species hæc *Trameti flavescenti* Bres. affinis, præcipue cum ejusdem formis resupinatis confluere videtur, sed colore primitus albido, poris majoribus et præsertim forma sporarum certe specificè distinguitur. Forma resupinata hucusque cum *Polyporo sinuoso* Fr. ab auctoribus fuit confusa, a quo optime diversa, ut supra vidimus. Specimina teneo ex regione tridentina (ipse), ex Hungaria, Greschik 1898 n. 44) Germania et Anglia (Bres. l. c.).

4. **Trametes flavescens** Bres. Fungi Polonici in Ann. Mycol. 1903, 506 p. 80. — Pileis stuppeo-suberosis, effuso-reflexis, ut plurimum seriatis elongatis, sæpe scalari imbricatis, tomentoso-villosis, stramineo-flavidis, lignicoloribus vel ochroleucis, 3-8 cm. latis, 1-1 $\frac{1}{2}$ cm. antice productis, margine obtuso; tubulis crassiusculis, 3-6 mm. longis, concoloribus; poris mediis vel majusculis, subrotundis, angulatis vel subsinuosis, $\frac{1}{2}$ -2 mm. acie ex obtusa demum subfimbriata, concoloribus; substantia fibroso-suberosa, lignicolore; sporis hyalinis, cylindræo-curveis, 6-8 \approx 2-3; basidiis clavatis, 18-20 \approx 4-6; hyphis subhymenialibus crassiusculis, mollibus, crasse tunicatis, 2 $\frac{1}{2}$ -4 μ . latis.

Hab. ad palos Pini silvestris, in Polonia. — Species hæc *Trameti seriatae* Fr. proxima, a qua tamen substantia magis fibrosa, pileis evidentius villosis, colore pororum et tubulorum nunquam pure albo et forma sporarum optime diversa. Hucusque in regione tridentina (ipse; in *Abiete excelsa* et *Pino silv.*) et in Polonia rossica observata. Variat ex integro resupinata, margine elevato tomentoso-villoso.

- 5 **Trametes cervina** (Schw.) Bres. Fungi Polonici in Ann. Myc. 1903, 507

p. 81, *Polyporus* Schw. Car. n. 902, *Polystictus cervinus* (Schw.) Sacc. — Syll. VI, p. 238, *Polyporus biformis* Fr. in litt. ad Klotz. Linn. (1833) VIII, pag. 486, *Polystictus biformis* (Fr) Sacc. — Syll. VI, p. 240, *Polyporus populinus* Schulz. Mpt. p. 747, f. 3, *Polyporus vulpinus* Kalchbr. tab. 37, fig. 16, *Trametes populina* Bres. Hym. Hung. Kmet. p. 26.

Hab. quoque ad truncos Populi tremulæ, in Polonia. — In Fung. Hung. Kmet. deceptus specimine dubio Herbarii Musei Berolinensis frustra *Polyporum biformem* Fr. ad *Pol. pergamenum* Fr. duxi; sed postea, visis speciminibus authenticis Musei Upsaliensis tam *Polypori biformis* Fr. quam *Polypori cervini* Schw., mox diversitatem specierum hic in synonymia allatarum perspexi. (Bresadola l. c.).

6. **Trametes styracicola** P. Henn. in Engl. Jahrb. 1902, XXXII, 508 p. 40. — Pileo resupinato-effuso, tenui coriaceo, primo orbiculari, margine revoluto, papyraceo, pallido subnitenti, levi; poris mediis, angulatis, lacerato-inæqualibus, alutaceis, acie flaccidis, denticulatis; sporis subglobosis vel ovoideis, hyalinis, $3\frac{1}{2}$ -4 μ . diam.

Hab. in ramis emortuis *Styracis obakiæ*, Komaba-Tokyo Japoniæ (T. FUKUBARA). — Proxima *T. serpenti*.

7. **Trametes Theæ** Zimm. in Centr. f. Bakter, Parap. 1901, n. 3, 509 p. 101, fig. 1. — Adnata, tenuis, anguloso-orbicularis, applanata, sordide flava marginem versus sterilis; poris subrotundis, 0,15 mm. diam.; sporis . . . non visis.

Hab. ad radices et basin truncorum *Theæ* cultæ, cui gravem morbum affert, in insula Java.

HEXAGONIA Fr. — Syll. VI p. 356, IX p. 198, XI pag. 97, XIV p. 194, XVI p. 166.

1. **Hexagonia Casuarinæ** Pat. Champ. des colonies françaises in Bull. 510 du jard. colon. 1901, n. 2, p. 263, tab. I, f. 1-2. — Sessilis, 6-12 cm. lata, plana, coriacea, orbicularis, ochraceo-rubra, lucida, glabra, in extremitatibus integris v. sinuosis, parum villosa, concentrice pluri-sulcata et stipita, intense concolorata; hymenio rufo-brunneo, plano; poris hexagonalibus parvulis, parum profundis, interne cinereis, stratis integris obtusis.

Hab. in *Casuarina equisetifolia* in Nova Caledonia. — Ab *H. polygramma* poris minimis differt.

2. **Hexagonia amplexans** Pat. Bull. Soc. Mycol. 1902, p. 299, t. XIV, 511 f. 2. — Pusilla, 20-25 mm. lata, 20 mm. crassa, orbicularis, late-

raliter adnata, supra convexa, glaberrima, postice gibbosa minuteque papulosa, antice 2-3 sulcis concentricis ornata, margine acuto, tenui recto; inferiori parte convexa, postice decurrenti; poris latiusculis, brunneis, 4-5-gonis, dissepimentis integris, acutis, tenuibus, subchartaceis, tubulis profundis, 5-8 mm., glabris; cystidiis nullis; contextu brunneo, suberoso, vix concentricè striato.

Hab. in ramis emortuis Acaciæ in Nova Caledonia.

DÆDALEA Pers. — Syll. IV p. 370, IX p. 199, XI p. 100, XVI p. 167.

1. **Dædalea bonariensis** Speg. Myc. argent. ser. II, 1902, p. 52. = 512 *Polyporaceæ*

Pileis quandoque solitariis, quandoque cæspitosis et sæpe confluentibus, semiorbicularibus 35-70 × 20-40 mm. diam. ant. post., coriaceis, superne planiusculis v. concaviusculis, primo albis dein sordide subroseis v. subisabellinis, squamulosis vel tomentosulis, raro hirsutulis, ambitu glabratis, opacis, levibus, margine acutissimis, repandulis v. denticulatis, postice truncatis vel plus minus cuneatis; stipite brevi v. elongato usque 10 cm. longo, coriaceo; carne tenui, stupposa albo-subcarnea; hymenio primo albo, dein sordide subcarneo, 3-5 mm. crass., cum pileo concreto, in stipite decurrente; lamellis tenuibus dense sinuoso-gyrosis, confertis, acie acutis, integris; basidiis clavulatis 20-25 × 5-7 hyalinis; cystidiis nullis; sporis ellipticis 5-6 × 3,5-4,5, levibus, hyalinis, 1-guttulatis.

Hab. ad truncos putrescentes cariosos S. Catilina prope Buenos Aires in Argentina.

2. **Dædalea incana** (Karst.) Sacc. et D. Sacc., *Dædaleopsis incana* 513

Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo resupinato, crasse marginato, pubescente, incano, circiter 2 cm. lato; poris parvis, crassiusculis, difformibus, dein laceris, concoloribus.

Hab. ad corticem Alni incanæ prope Kuspio Sibiriae Junio (O. A. F. LÖNNBOHM).

3. **Dædalea boganidensis** Borczcz. in A. Th. Middendorf Reise in den 514

äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 142. — Resupinata, determinata, primo erumpens tuberculosa, demum seriatim confluens incrustans, tenuis sublignoso-suberosa fuscescente-fulva, 5-7 cm. longa et lata, ambitu marginata pubescenti-velutina, luteo-fulva; poris subrotundis difformibusque laceris; subtus pubescente, fusca; contextu ligneo-fulvo.

Hab. ad ramos Laricis, Boganida, in Sibiria. — Modo crescendi evolutionisque tota historia ad *D. serpente* Fr. accedit, tamen substantia sublignoso-suberosa, contextu ligneo-fulvo et colore pilei ejusque marginis bene diversa.

BRESADOLIA Speg. — Syll. VI, p. 388.

1. **Bresadolia Mangiferæ** Pat. in Duss. Enum. Champ. Guad. 1903, 515
p. 36. — Carnoso-coriacea, stipitata, mesopoda; pileo orbiculari convexo-plano, 10 cm. lato, 3-4 mm. cr., rufescente, tenuiter tomentoso, verruculoso-papuloso; stipite obconico, albido, 5 cm. long., apice 1 cm. cr., deorsum sensim tenuato, villosa, e portione tuberosa indurata brunnea et villosa oriundo; facie inferiore pilei et stipitis superioris alveolis poriformibus irregularibus, sterilibus excavata; trama alba, tota lacunis oblongis radiantibus partim superne, partim inferne apertis.

Hab. in trunco Mangiferæ indicæ, Camp-Jacob, Guadalupe. — Fungus omnino sterilis e *Polyporo* (= *Leucoporo*) oriunda.

CERIOMYCES Corda — Syll. VI p. 385, IX p. 201, XIV p. 194, XVI, p. 169.

1. **Ceriomyces sculus** Cavara in Bull. Soc. bot. ital. 1902, p. 188. 516
— Subhemisphæricus v. irregularis, primo mollis mucidusque, extus flavo-carneus, maculis sanguineis conspersus, intus fibroso-zonatus, pulverulentus, ochraceus, ad basim pedicellatam v. effusam typice radiatus, pileis longis, 250-280 \approx 6-8, rigidiusculis castaneo-fuscis ornatus; sporophoris simplicibus v. parce ramosis, flavidis; sporis (gasterosporis) ad apicem sporophororum ortis v. intercalaribus, valde polymorphis, sphaericis, ovoideis, clavatis irregularibusque, sæpe pedicellatis, primo flavidis, dein ochraceis, granuloso-farctis, 8-32 \approx 8-16.

Hab. ad corticem et lignum Cytharoxyli quadrangularis in horto botanico, Catania Siciliae.

2. **Ceriomyces Stuckerti** Speg. Myc. Arg. Ser. I, in An. Soc. Cient. 517
Arg. 1899, p. 265. — Sessilis e suberoso lignosus repando-globosus 10-20 diam., 8-12 cm. crass., contextu fibroso-radiante ad basim compacto sublignoso intense fulvo-ferrugineo, ambitu sensim relaxato substupposo; sporis pulverulentis densissime constipatis, stratum 3-8 mm. crass., crassiusculum superficiale efficientibus, pulchre ferrugineis, globosis 10-15 μ . diam., episporio crasso levi vestitis, intus protoplasmate dense minuteque granuloso-farctis;

sæpe adsunt sporæ alteræ piriformes 15-20 \approx 10-14, anticæ rotundatæ, postice cuneatæ atque in pedicello breviusculo attenuatæ.

Hab. ad truncos dejectos putrescentes, prope Córdoba Argentina.

FAVOLUS Fr. — Syll. VI p. 390, IX p. 202, XI pag. 101, XIV p. 195, XVI p. 169.

1. **Favolus albidus** Masee in Bot. Tidsskrift, Copenhagen 1902, v. 24, 518 p. 217. — Pileo membranaceo, lento, albido, glabro, convexo-expanso, 1-2 cm. lato; poris e rotundato-subhexagonis, radiatim dispositis, albido-stramineis, ætate pallidis; stipite centrali, subæquali, concolori 1,5-2,5 cm. longo.

Hab. ad terram prope Kloug Sou, Siam Asiæ merid. — *Fav. Sprucei* Berk. affinis.

2. **Favolus portoricensis** (Murr.) Sacc. et D. Sacc. *Hexagona portoricensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, profunde umbilicato, 4 \approx 0,3 cm. extus subglabro, umbrino, centro concolori, margine integro, subtenui, sicco valde inflexo; contextu albo, fibroso, 1 mm. cr., opaco; tubulis subdecurrentibus, albis 2 mm. long., 4-6 angulis; poris 3 \approx 1 mm, prope marginem magis regularibus minoribusque; acie tenui, fimbriatula; sporis ellipsoideis, levibus, hyalinis, 2 guttulis, 8-10 \approx 3-5; stipite centrali, compresso, deorsum tenuato, subconcolori, minute tomentoso, 2 cm. long., 4 mm. cr.

Hab. ad ligna putrida in montibus Porto Rico (EARLE). — *Fav. hondurensis* affinis.

3. **Favolus hondurensis** (Murr.) Sacc. et D. Sacc. *Hexagona hondurensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, leviter umbilicato, 2-4 \approx 0,05 cm., extus leviter radiato-striato, subglabro, fulvo, centro fuligineo; margine tenui, regulari, tessellato, sicco inflexo, ciliis numerosis, brevibus fugaciter fimbriato; contextu albo, fibroso, 0,25 mm. cr., marginem versus translucido; tubulis adnatis, albis, 0,3 mm. longis, hexagoniis, radiatim elongatis; poris 2 \approx 1 mm., prope marginem multo minoribus, acie tenui subintegra; sporis ellipsoideis, levibus, hyalinis, 9 \approx 3-5; stipite centrali, æquali concolori, pruinoso v. glabrescente, 2-3 cm. long, 2 mm. cr.

Hab. ad truncos emortuos, Honduras (PEROY WILSON).

4. **Favolus caperatus** Pat. Champ. de la Guadeloupe ser. III, in Bull. 521 Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo carnosio,

putrescibili, solitario v. pluribus basi cohærentibus, convexo-planis, plus minus incisio-lobatis, in sicco rufescentibus deorsum cuneatis, tomento brevi denso, griseo, antice rarescente obductis, margine inflexo nec ciliato nec tessellato; alveolis radiantibus profundis, angulosis, concoloribus, sepimentis carnosis, latis, mollibus, acie fimbriatis; cystidiis nullis; sporis ovoideo-cylindræis, hyalinis, $10-12 \approx 5$.

Hab. ad truncos *Byrsonimæ spiratæ* in Guadalupa (Duss). — Pileus sessilis vel tuberculo subrotundo, laterali suffultus. A *F. tessellato* tomento mox dignoscitur.

5. **Favolus bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 43. 522
— Syll. XVI, p. 1116 (nomen). — Pileo carnosulo submembranaceo, lateraliter stipitato v. sessili, flabellato vel subreniformi, reticulato-rugoso, albido-flavescente, 2-8 cm. lato, 2-5 cm. longo; stipite brevi v. obsoleto, compresso, basi discoideo; alveolis oblonge rhomboideis v. pentagonis, ca. 2-7 mm. longis, 1,5-2,5 mm. latis, acie flaccidis, tenuibus, denticulatis, concoloribus.

Hab. ad caudices et ramos, Kamerun Afr.

6. **Favolus Taxodii** (Murr.) Sacc. et D. Sacc. *Hexagona Taxodii* Murr. 523
Bull. Torr. Bot. Cl. 1904, pag. 332. — Pileo reniformi, applanato, umbonato, sessili, $3-6 \approx 6-8 \approx 0,2$, extus glabro, radiato-striato, cremeo v. ochraceo, e centro ad marginem semel v. bis undulato, margine tenui, integro, inæqualiter undulato-lobato, sicco deflexo; contextu molli, albo, homogæneo, 0,5 mm. cr.; tubulis atro-fulvis, hexagoniis, non radiatim elongatis, $1,5 \approx 1$, acie tenui, minute denticulata; sporis ellipsoideis, levibus, hyalinis, $14 \approx 7$, copiosis; stipite discum scutatatum vix 1 cm. lat. formante.

Hab. ad truncos *Taxodii distichi*, pr. Miami, Florida Americæ borealis.

7. **Favolus tessellatulus** (Murr.) Sacc. et D. Sacc., *Hexagona tessellatula* Murr. Bull. Soc. Bot. Cl. 1904, p. 330. 524
— Pileo flabelliformi convexo, postice depresso, $1-3 \approx 2-4 \approx 0,2$ cm., extus leviter et minute tessellato, minute hispido, demum glabrescente, albo, sicco flavido, margine tenui, denticulato, sicco leviter incurvo, sæpe brunneo et hygrophano; contextu albo, membranaceo, translucido; tubulis decurrentibus, albis, 2 mm. long., 4-6-angulis; poris $3 \approx 1$ mm., demum radiatim confluentibus, acie tenui, lacerata; sporis ellipsoideis, levibus, hyalinis, 2-guttulatis, $10 \approx 3$; stipite laterali, brevi, sursum subincrassato, concolori, hispido, 3-5 mm. long., 2-3 mm. cr., vulgo supra umbilicato.

Hab. ad ligna putrescentia, Cuba (UNDERWOOD et EARLE).

8. **Favolus microsporus** (Murr.) Sacc. et D. Sacc., *Hexagona microspora* Murr. Bull. Torr. Bot. Cl. 1904, p. 328. — Pileo flabelliformi v. reniformi, convexo, vulgo umbilicato, v. postice depresso, 2-4 \approx 2,5 \approx 0,2-0,4 cm, extus glabro, levi, stramineo vel cremeo, margine acuto, undulato v. sublobato, raro reflexo, irregulariter denticulato, atro-brunneo; contextu albo, 1-2 mm. cr.; tubulis decurrentibus, ochraceis, 1-2 mm. long.; poris 4-6-angulis, 0,3-0,5 \approx 0,6-1 mm. acie firma, denticulata; sporis ellipsoideis, levibus, hyalinis, 9 \approx 3; stipite laterali v. excentrico, infra subincrassato, concolori, minute tomentoso v. glabrescente, 1-7 mm. long., 3-5 mm. cr.

Hab. ad truncos emortuos *Betulae*, Bar Harbor Maine Ohio, New York, New Jersey, Wisconsin Amer. bor. — *F. alveolari* similis.

9. **Favolus fragilis** (Murr.) Sacc. et D. Sacc., *Hexagona fragilis* Murr. Bull. Torr. Bot. Cl. 1904, p. 329. — Pileo flabelliformi, convexo, depresso, 2,3-2,4 \approx 0,1-0,3 cm., extus dense hispido, minute radiato-striato, candido, dein arescendo cremeo; margine crassiusculo, regulari, sicco inflexo, partim hygrophano, breve fugaciter fimbriato; contextu tenui, albo, partim translucido, sicco fragili; tubulis decurrentibus albis, 2-3 mm. long., 4-6-angulis, poris 4 \approx 1, demum radiatim confluentibus, sublamellosis, acie tenui, lacerata, sepimentis fimbriatis; sporis ellipsoideis, levibus, hyalinis, 10 \approx 4-5; stipite laterali subæquali, concolori, hispido, brevi, 5 mm. long., 2,5 mm. cr., rarius supra umbilicato.

Hab. ad truncos *Chrysophylli* in Jamaica (EARLE).

10. **Favolus Wilsonii** (Murr.) Sacc. et D. Sacc., *Hexagona Wilsonii* Murr. Bull. Torr. Bot. Cl. 1904, p. 329. — Pileo flabelliformi, applanato, 4,7-4,9 \approx 0,05-0,2 cm., extus radiato-striato, leviter hispido, partim tessellato, candido, dein arescendo cremeo, margine tenuissimo, vulgo lobato v. fisso, pilis fugacibus consperso; contextu carnosissimo, membranaceo, albo, partim v. omnino translucido; tubulis decurrentibus, albis, 1-2 mm. long., 4-5-angulis; poris 1,5 \approx 5 mm., prope marginem minoribus, acie tenuissima, denticulata; sporis ellipsoideis, levibus, 10 \approx 5; stipite exacte laterali, æquali, concolori, 0,5-1 cm. long., 2,5-5 mm. cr., hispido, supra umbilicato.

Hab. ad truncos putres, Mont. Luquillo, Porto Rico (PERCY WILSON).

11. **Favolus floridanus** (Murr.) Sacc. et D. Sacc., *Hexagona floridana* 528
Murr. Bull. Torr. Bot. Cl. 1904, pag. 330. — Pileo flabelliformi
applanato, 2-2,5 \approx 3-0,2 cm., extus hispidulo, candido dein are-
scendo stramineo, tenuiter radiato-striato; margine leviter undu-
lato, tessellato, ciliis numerosis minutis fimbriato; contextu tenuis-
simo albo, membranaceo, translucido; tubulis decurrentibus, albis,
dein ochraceis, 1,5-2 mm. longis, typice hexagoniis; poris 2-3 \approx
0,5-1, non radiatim confluentibus, acie tenui, fimbriata; sporis el-
lipsoideis, levibus, hyalinis, 9 \approx 4; stipite laterali subæquali, basi
scutato, concolori, hispido, 2-3 mm. long., 1-2 mm. cr.

Hab. ad truncos putres in silvis pr. Miami, Florida, Amer. bor.

LASCHIA Fr. — Syll. VI p. 404, IX p. 204, XI pag. 103, XIV
p. 196, XVI p. 170.

1. **Laschia amœne-rosea** P. Henn. F. St. Paul. III, p. 202 (Hedw. 529
1904). — Pileo gelatinoso, convexo sessili laterali affixo, ca. 400-
500 μ . diam, amœne rosea pallescente, levi, cellulis ovoideis vel
subgloboso-clavatis, echinulatis, roseolis, 20-30 \approx 15-25; poris pau-
cis, 5-8, rotundatis; basidiis clavatis, 13-18 \approx 4; sporis ellipsoideis
hyalinis, 4 \approx 3.

Hab. in ramis emortuis, Alto da Serra, St. Paulo Brasiliæ (ULE).
— Perexigua, sessilis, pulchella species.

2. **Laschia (Favolaschia) sanguinea** P. Henn. in Engl. Boh. Jahrb. 530
1901, p. 43. — Syll. XVI, p. 1116 (nomen). — Pileo gelatinoso,
tenui, suborbiculariter campanulato v reniformi, centro umbonato,
reticulato-tuberculato 5-11 mm. diam., sanguineo v. atro-rubro;
hymenio plano v. subconvexo concolori; alveolis rotundatis v. ob-
longis subangulatis, acie integris, crassiusculis 1-1,5 mm. diam.,
stipite gracili, levi, glabro, sanguineo, basi pallide byssino 1,5-2
cm. longo, 1,5 mm. crasso; sporis ellipsoideis, hyalinis 5-6 \approx 4.

Hab. ad ligna putrida, Kamerun Afr.

3. **Laschia (Porolaschia) chaugensis** Rostr. in Bot. Tidsskrift, Copen- 531
hagen 1902, vol. 24, pag. 211. — Orbicularis carnosogelatinosa,
superne brunnea, glabra, subtus carnea, sessilis, puncto dorsi ex-
centrico affixa 1-1,5 cm. lata; hymenio reticulato-poroso.

Hab. ad truncos, Siam Asiæ merid.

4. **Laschia (Porolaschia) cæspitosa** Berk. — Syll. VI, pag. 407. P. 532
Henn. in Hedw. 1903 p. (76). — Dense cæspitosa; pileo carnosogelatinoso,
convexo, pallido, pellucido, levi, glabro, vertice obtuso
applanato, pallide brunneolo, interdum conico subumbonato, 0,8-

1,5 cm. diam.; stipite centrali, tereti, carnosio, subfistuloso, albido, sublevi v. pruinoso 2,5-4,5 cm. longo, 2-3 mm. cr., basi incrassato; hymenio plano v. convexo, lacteo; poris adnexus, interdum decurrentibus, subrotundatis v. oblonge angulatis, ca., 0,7-1 mm. diam.; tubulis usque ad 3,5 mm. longis; carne ca. 1 mm. cr.; basidiis clavatis, 16-20 \times 4-6, sterigmatibus 2-4; sporis late ellipsoideis, intus granulatis, hyalinis, 4-4,5 \times 3-3,5.

Hab. gregatim in radicibus vetustis, Eumundi, S. Queensland, Australiæ. — Diagnosis Berkeleiana omnino incompleta.

MERULIUS Hall. — Syll. VI p. 411, IX p. 205, XI p. 104, XIV p. 200, XVI p. 172.

1. **Merulius pseudolacrymans** P. Henn. F. Indiæ or. II, in Hedw. 533 1901, pag. 328. — Carnosus, dimidiato-apodus vel subimbricatus. aurantio-rufescens v. pallescens, sublevis, glaber v. pruinosis 4-12 cm. diam., margine obtuso pallido subvillosus; hymenio ceraceo, alveolato-plicato v. reticulato, ferrugineo; poris angulato-rotundatis 1-2 mm., acie obtusis, integris; sporis subgloboso-ellipsoideis flavidis, obtusis, 1-guttulatis, 4-5 \times 3,5-4.

Hab. in radicibus arborum, Saharanpur-Garden Indiæ orient.

2. **Merulius aureus** Fr. El. I, p. 62. — Syll. VI, p. 415.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Species hæc rarissima sæpe rudimenta pilei exserit; color subiculi et marginis aureus; hymenium concolor exsiccando aurantium; sporæ stramineæ, cylindraceæ, 3 1/2-4 1/2 \times 2-2 1/2; hyphæ 2-3 μ . latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 82).

3. **Merulius molluscus** Fr. Syst. Myc. I, p. 329, Icon. select. t. 193, f. 2. — Syll. VI, p. 416, *Merulius læticolor* Berk. et Br. Ann. Nat. Hist. n. 1681, *Merulius subaurantiacus* Peck 38 Rep. St. Mus. p. 93! *Merulius aureus* Auct. pl. non Fr.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ flavidæ, ellipsoideæ, 5 1/2-7 \times 4-4 1/2 rarius 5 1/2 μ .; basidia clavata, 30 \times 6-8; hyphæ 3-5 μ . latæ. Variat crassior et tenuior, margine fimbriato vel subreflexo et subpileato, hymenio carneo, carneo-aurantio etc. (Bresadola, Fungi Polonici in Ann. Mycol. pag. 83).

4. **Merulius himantioides** Fr. Syst. Myc. I, p. 329, Icon. Sel. t. 193, f. 1. — Syll. VI, p. 415 — *Hydnum Pinastri* Fr. Syst. Myc. I, p. 417! *Hydnum sordidum* Weinm. Ross. p. 370!

Hab. quoque ad ligna Pini silvestris, in Polonia. — Sporæ

ellipsoideæ, sub microscopio flavo-aureæ, fulvescentes, $5-6 \times 3 \frac{1}{2} - 4 \frac{1}{2}$. Hymenium in speciminibus vetustis hydnoideum. Hunc statum sistunt *Hydnum Pinastris* Fr. et *Hydnum sordidum* Weinm., prout e speciminibus originalibus a nobis examinatis clare comprobatum fuit. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

5. **Merulius crispatus** Fl. Dan. tab. 716, f. 2, Fries Syst. Myc. I, p. 328. — Syll. VI, p. 418.

Hab. quoque ad ramos Alni glutinosæ et Coryli Avelanæ, in Polonia. — Sporæ hyalinæ, oblongæ, sæpe biguttulatæ, $4-4 \frac{1}{2} \times 2-2 \frac{1}{2}$; basidia clavata $15-20 \times 4-5$; hyphæ $3-4 \frac{1}{2} \mu$. latæ. Parum a *Merulio serpente* Tode diversus. Meo sensu *Merulius fugax*, *M. porinoides* et *M. crispatus* vix formæ *Merulii serpentis* Tode considerandæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

6. **Merulius hydnoides** P. Henn. in Hedw. 1903, XXI, p. 179. — 534
Absque diagnosi.

Hab. in lignis fabrefactis humidis in Germania. — L. c. p. 183 cl. Hennings ex iisdem locis descripsit speciem alteram, ut videtur, novam, sed sine nomine.

SOLENIA Hoffm. — Syll. VI p. 424, IX p. 208, XI p. 106, XIV p. 201, XVI p. 172.

1. **Solenia confusa** Bres. Fung. Polonici in Ann. Mycol. 1903, p. 84 535
(*Solenia anomala* Aut. pr. p.). — Turbinato-substipitata; receptaculis dense gregariis vel basi connatis et cæspitulos circulares, 2 mm. circiter latos, sæpe confluentes, efformantibus, mycelio tenui farinaceo insidentibus, villosis, subcervinis, expallentibus, $\frac{1}{2}$ mm. circiter latis, disco e cinereo pallido; sporis pure hyalinis, cylindraceo-subcurvulis, $7-10 \times 2-2 \frac{1}{2}$; basidiis clavatis, $30 \times 4-6$; pilis luteis, apice granulosis, $250-600 \times 3$, sæpe conidiophoris; conidiis $8-10 \times 4 \frac{1}{2}-6$.

Hab. ad ramos corticatos Alni glutinosæ, Salicis cinereæ, Betulæ et Populi tremulæ, in Polonia. — Species hæc forma connata *Soleniæ anomalæ* et forma gregaria *Soleniæ stipitata* simillima, a quibus nota sporarum præcipue diversa. In *Solenia anomala* sporæ sunt hyalino-stramineæ, $7-11 \times 4-5$. Etiam *Soleniæ populicolæ* videtur proxima, sed sporis fere duplo minoribus, forma et colore receptaculorum distincta.

2. **Solenia stipata** Fr. Syst. Myc. II, p. 106. — Syll. VI, f. 428.

Hab. ad ligna arbor. frond., in Polonia. — Sporæ hyalinæ,

subcylindrææ, 8-10 \times 3-4; basidia clavata, 30-34 \times 6-7; pili griseo-fusci, sub micr. lutei, apice sæpe hyalini, inflati, conidia obovata 7-9 \times 5-7 exserentes; discus pallidus. A *Solenia anomala* differt forma cupulari receptaculorum et deficientia subiculi tomentosi. Discum nigrescentem nunquam vidi. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 84).

PHÆOSOLENIA Speg. Mycetes argentinenses, ser. II, 1902, pag. 53 (Etym. *phaios* fuscus et *Solenia*). — Fabrica et natura *Soleniæ*, sed sporæ ochraceæ. In Tab. comp. fung. (vol. XIV, p. 10) genus hoc occupabit n. 122.

1. **Phæosolenia platensis** Speg. l. c. — Subiculum effusum arcte matrice adnatum plagulas majusculas sordidas 1-10 cm. diam. efficiens, ambitu indefinitum, pilis erectis 20-60 \times 3-5 fulvellis, hirsutum; pileis numerosissimis, dense gregariis, rectis v. cernuis, turbinatis, margine obtuse rotundatis 0,4-0,8 mm. alt., 0,3-0,5 mm. diam.; pilis confertissimis, brevibus acutiusculis 15-25 \times 2-3, continuis, levibus, albo-velutinis; basidiis clavulatis 20 \times 6-7, obtusis, sterigmatibus 2-3 brevissimis coronatis; cystidiis nullis; sporis utrinque obtusis vel subacutatis 5 \times 4-5, grosse uni-guttulatis e chlorino-ochraceis. 536

Hab. ad ramos vetustos putrescentes *Manihotis carthagensis*, La Plata in Argentina.

Fam. 3. Hydnaceæ.

HYDNUM L. — Syll. VI p. 430, IX p. 208, XI p. 106, XIV p. 201, XVI p. 174.

1. **Hydnum umbilicatum** Peck in Rep. of the State Botanist 1901, p. 953. — Pileo carnosio, convexo, glabro, umbilicato, rufo brunneo, 12-36 mm. lato; carne alba, sapore grato; aculeis planis, fragilibus, subæqualibus, pileo pallidioribus; stipite subæquali, glabro, firmo, albido 2,5-3,5 cm. longo, 4-8 mm. crasso; sporis globosis 7,5-10 μ . diam. 537

Hab. in silvis, Hague, Amer. bor. — *H. rufescenti* affinis.

2. **Hydnum Ikeni** Sacc. ad interim *Hydnum*... P. Henn. F. japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, p. 736. — Pileo carnosio, subramoso-imbricato, pallide isabellino, superne longitudinaliter 538

striatulo, interdum verrucoso, margine inciso-lobato, basi in stipitem porrecto, ca. 15 cm. longo; hymenio subisabellino, aculeis densissimis, basi fasciculatis, filiformi-subulatis, acutis, ca. 0,5-1 cm. longis, 100-200 μ . cr.; basidiis clavatis; sporis ovoideis 4-5 \times 3,5-4 hyalinis.

Hab. ad truncos Carpini spec., Musashi Japoniæ. — Exemplaria visa tantum sicca et contracta, hinc forma ignota. Forte ad subgenus *Merisma* spectat.

3. **Hydnum graveolens** Delast. — Syll. VI, p. 442. — var. **subzonatum** Peck Rep. St. Bot. 1903, p. 24. — A typo differt pileo plus minus zonato aculeisque pallidioribus. 539

Hab. ad terram North Elba et Lake Pleasant, Amer. bor.

4. **Hydnum imbricatum** L. — Syll. VI, p. 430. — forma **dolichopus** C. Mass. Novit. Fl. Myc. ver. 1902, p. 73. — Pileo superne squamis parvis (deciduis?) vestito, stipite laterali (ad instar *Hydni auriscalpii*) usque ad 10 cm. longo et 1 cm. crasso. 540

Hab. ad terram pr. Tregnago Italia bor.

5. **Hydnum colossus** Bres. Myc. Lusitanici novi in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 130. — Pileo carnosus, crasso, e convexo explanato-depresso, margine repando, levi, pubescente, badio-rubiginoso, usque ad 15 cm. lato; aculeis validis, confertis, pileo concoloribus, usque ad 2 cm. longis; stipite napiformi, valido, solido, concolore, pruinato, apice punctato-scabro, 6 cm. circ. longo, apice 4 cm., basi 1-2 cm. cr.; carne lurido-pallida, subconcolore, odore forti, subnauseoso, sapore subamaro; sporis angulato-echinulatis, stramineis, 7-8 \times 5-7; basidiis clavatis 35-40 \times 6-8. 541

Hab. ad terram in pinetis pr. Setubal Lusitaniæ. — *Hydno versipelli* Fr. proxime affine.

6. **Hydnum albo-magnum** Banker in Bull. Torr. Bot. Cl. 1901, p. 207. — Pileo levi, glabro, repando, 5-8 cm. lato; substantia carnosus, fragili, alba; stipite brevi, crasso, centrali v. excentrico, 2-4 cm. alto, 1-2,5 cm. cr., in basim incrassatam expanso; dentibus tenuibus, 2-4 mm. longis, breve decurrentibus; sporis ovoideis, interdum irregularibus, apiculatis, minutis 3,5-4 \times 5,5-7. 542

Hab. ad terram Auburn Ala Amer. bor. — Affine *Hydno repando* et *albido*, sed colore, glabritie, sporis, statura diversum.

7. **Hydnum diabolicum** Rick in Ann. Mycol. 1904, p. 244. — Pileo 2 cm. lato, 3 mm. crasso, carnosus, fragili, brunneo-atro, tomento levi consperso; aculeis 3 mm. altis, regularibus, densis, ex cine- 543

reo brunneo-atris non decurrentibus; stipite 1-2 cm. alto, 4 mm. lato, versus terram brunneo-tomentoso; sporis valde verrucosis 6-8 μ . diam., globosis vel irregularibus brunneis.

Hab. ad terram in silvis prope S. Leopoldo Brasiliæ.

8. **Hydnum boreale** Banker in Bull. Torr. Bot. Club 1902, XXIX, 544 p. 553. — Albo-virescens, udum; pileo crasso, convexo, undulato, 12-15 cm. lat.; stipite brevi, crasso, compresso, 7 cm. long., 7 cm. lat., e lat. 2 cm. cr.; aculeis brevibus, 5 mm. long., 5 mm. lat., apicibus albis rotundatis vel in sicco interdum nodulosis, decurrentibus, brunneolis; substantia zonata, strato superiore albo, inferiore obscuriore, spongiosa, crassa, inferius compactiore, stipitis dilute azurrea; mycelio purpurascens, persistente; odore ingrato.

Hab. ad terram humosam et inter folia Mont Desert Americæ borealis.

9. **Hydnum humidum** Banker in Bull. Torr. Bot. Club. 1902, p. 553. 545 — Flavium, dein brunneum, hygrophanicum; pileo irregulari, spongioso, scrobiculato, 9 cm. v. amplius lat.; stipite obtuso, brunneo, circ. 2 cm. long., 1,5 cm. cr.; aculeis 5 mm. long., brunneis, apice albis; substantia suberosa, sicca duriore et grisea vel lignicolore, maculis obscurioribus subcartilagineo-gummosis notata intusque zonata; odore forti non ingrato; sapore dulci.

Hab. ad terram detriticam compactam, Mont Desert Amer. bor. — Fungus vivus, ubi pressus, aquam exsudat.

10. **Hydnum cyaneo-tinctum** Peck Bull. Torr. Bot. Cl. 1903, p. 98. — 546 Pileo vix tenaci, potius molliter spongioso, subplano, minute tomentoso, albido v. fulvescente, margine cyaneo-tincta; carne isabellina v. pallida, demum ferrugineo-brunnea; stipite brevi, firmo, fere usque ad pileum tomento isabellino dense vestito; sporis globosis, verrucosis, coloratis, 4 μ . diam.

Hab. ad terram, Orris Island Maine (Miss A. C. ANDERSON). — Subaffine *H. suaveolenti*, sed inodorum, carne diverse colorata, stipite dense tomentoso.

11. **Hydnum cristatum** Bresadola in Journ. of Mycol. 1902, apud 547 Atkinson. — Pileo 6-10 cm. lato, convexo expanso plus minusve inæquali, irregulari, margine interdum undulato, carnosum, crassum, molli vel sæpe duro ochraceo-luteo, strigoso-cristato; stipite concolori 6-10 cm. alto, 8-15 mm. crasso; aculeis 3-6 cm. longis, brunneo-olivaceis, dein intense griseis, decurrentibus; basidiis clavatis 25-30 \times 6-8, 4-sporis; sporis brunneo-olivaceis in charta, sub lente pallide brunneis, globosis, tuberculatis, 4-5 μ . diam.

Hab. ad terram, Blowing Rock N. C., in America boreali.

12. **Hydnum juranum** (Quél.) Sacc. et D. Sacc. *Dryodon juranum* Qué- 548
let Assoc. franç. p. l'Avanc. Scienc. 1901, part. II, 1902, p. 496,
tab. III, f. 10. — Trunco erecto, ramoso, villosa, albo, ramis acu-
leis brevibus, confertis, acutis, roseo-rubris obtectis; carne elastica,
sapida, alba; sporis sphaericis, 6-7 μ . diam., ocellatis, hyalinis.

Hab. ad caudices pineos in Jura pr. Neufchâtel autumno (L. FAVRE).

13. **Hydnum cucullatum** Har. et Pat. Champ. rec. au Japon, in Bull. 549
du Mus. d'hist. nat. 1902, n. 2, p. 130. — Totum albido-lute-
scens, simplex v. imbricato-caespitosum, pileo carnosio, glaberrimo,
conchiformi, postice marginato, dorsaliter affixo, pendulo, margine
undulato, plus minusve lobato, inflexo; aculeis confertis, simplici-
bus, acutis, 3 mm. circiter longis.

Hab. ad truncos, Chuizupi Japoniæ.

14. **Hydnum conigenum** Peck, Bull. Torr. Bot. Cl. 1903, p. 97. — 550
Pileo coriaceo, 1-2 cm. lat., obconico, supra subplano, levi, minute
pubescente, griseo-aurantiaco v. flavido, subinde margine fisso;
substantia fibrosa, azona, aurantio-brunnea; aculeis brevibus de-
currentibus, albidis dein brunneis; stipite tenui. centrali v. sub-
excentrico, pileo concolore, deorsum incrassato ob massam spon-
gioso-tomentosam, aurantiam sporis globosis, coloratis, 4-5 μ . diam.

Hab. ad conos Pini ponderosæ, ad pedes Mont Moscow Idaho Amer. bor. (L. F. HENDERSON). — Affine *H. aurantiaco* sed minus, stipite tenuiore, pileo levi, substantia azona.

15. **Hydnum dichroum** Pers. Myc. Europ. II, p. 213 (Cfr. Syll. VI, 551
p. 456), *Hydnum ochraceum* Quél. non Pers. fide specimenum. —
Pileis coriaceis, dimidiato-sessilibus, basi sæpe porrectis, dense im-
bricatis, pallidis, tomentoso-villosis, levibus vel sulcato-zonatis,
parvis, 1 cm. circiter latis, 5-6 mm. antice productis; aculeis cras-
siusculis, spathulatis, teretibus immixtis, apice demum incisus, car-
neolis; sporis subglobosis, 1-guttulatis, 4-5 \approx 3 1/2-4; basidiis cla-
vatis, 15-20 \approx 4-5; cystidiis clavatis vel subfusoides, superne fur-
furaceo-tunicatis, 60-80 \approx 7-9, demum deteris tumque 5-7 μ . latis.

Hab. ad corticem Pruni Padi, in Polonia. — Species hæc ab *Hydno pudorino*, cui ceu synonymon a cl. Friesio subjungitur, clare distincta pileo crassiori, generatim dimidiato-sessili, aculeis spathulatis et sporis fere globosis, 1-guttulatis. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 84).

16. **Hydnum sajanense** (Karst.) Sacc. et D. Sacc., *Sclerodon sajanensis* 522

Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo membranaceo, effuso-reflexo, glabro, circiter 3 cm. lato; aculeis confertissimis, acicularibus, gracilibus, flaccidis, æqualibus, ferruginascentibus, circiter 3 mm. longis.

Hab. in cortice arborum frondosarum in regione Sajanensi Sibiriaë, Sept. 1902 (O. A. F. LÖNNBOHM).

17. **Hydnum sericeum** (Pat.) Sacc. et D. Sacc., *Acia sericea* Pat. in 553

Duss Enum. Champ. Guadel. 1903, p. 19. — Tenue, omnino resupinatum, fragile, ochraceo-pallidum, margine floccoso-albido, vix distincto; aculeis æqualibus, confertis, brevissimis, 200-300 \times 50-80, apice sterilibus, habitum velutinum præbentibus; cystidiis nullis; basidiis claviformibus, 13-15 \times 4-6, sterigmatibus quaternis; sporis incoloribus, ovoideo-globulosis, levibus, 6 \times 4.

Hab. ad radices sublignosas Scitamineæ cujusdam, Camp Jacob. Guadalupa (Duss).

18. **Hydnum populinum** Peck Rep. of the State bot. 1899, p. 846. — 554

Resupinatum, effusum, 4-8 mm. long., subiculo tenui, minute flocculoso dein submembranaceo, adnato albo vel albido, margine tenuissimo, nudo, albo; aculeis sparsis vel congestis, brevissimis, obtusis dein papilliformibus, 1 mm. longis, teretibus vel mutua pressione compressis, albis, sæpe leviter roseo-tinctis, intus stipatis superficie distantiusculis; sporis albis, ellipticis 6-7,5 \times 3-3,5.

Hab. in corticibus Populi tremuloidis, Gansevoort America borealis.

19. **Hydnum pexatum** Masee in Kew Bull. 1901, p. 157. — Subi- 555

culo resupinato late et irregulariter effuso, submembranaceo, ochraceo; aculeis confertis, brevibus, acutiusculis, apice subincisis, nonnullis levissime umbilicatis; sporis ellipsoideis, hyalinis, 7 \times 5.

Hab. ad ligna emortua, in Tasmania (RODWAY).

20. **Hydnum combinans** Peck Rep. of the State bot. 1899, p. 846. — 556

Late effusum; subiculo tenui, floccoso-farinoso, adnato, indeterminato, albido; aculeis ad marginem sparsis, albidis, v. stipatis, subfasciculatis, cremeo-luteis, vel constricto-conicis, duriusculis, subobtusis, margine ciliatis; sporis subglobosis, 3-4 μ . diam., uniguttulatis.

Hab. in truncis decorticatis, Warrensburg, Amer. bor. — Aculeis vere multiformibus ad *Poriam Odontiamque* vergit. Ab *Hydno farinaceo* et *H. stipato* satis diversum.

21. **Hydnum chlorascens** Pat. Champ. Algero-Tunis., in Bull. Soc. 557

Myc. de France T. XVIII, 1902, fasc. I. — Resupinatum, mem-

branaceum, molle, albidum, subtile, fimbriatum, mycelio albedo, ramoso circumdatum; aculeis initio albis, deinde rubris et postremo olivaceis, simplicibus, dense stipatis 3 mm. long., conicis, acutis, carnosus, facile secedentibus; cystidiis nullis; sporis ovoideo-fusiformibus singulis, hyalinis, 8×3 , acervatis rubro-chlorinis.

Hab. in ligno decorticato putri *Quercus Suberis*, El Feidja, Algeria.

22. **Hydnum fastigiatum** Rick Ann. Mycol. 1904, p. 243. — Resupinatum, effusum, ceraceum, subiculo tenui, flavescenti, margine griseo, fimbriato, ochraceo-ferrugineum; dentibus in apice et ad latera multiramosis, clavariæformibus, glabris, compressis, albis, dein ochraceo-ferrugineis, usque 2 mm. altis, usque 4 mm. latis, denticulis 0,5 mm. latis; sporis ovoideis $5-6 \times 3$; basidiis 10×6 ; sterigmatibus quaternis 6 μ . longis; cystidiis basidio paullo angustioribus.

Hab. in ramis putridis St Leopoldo, Rio grande do Sul Brasiliæ. — Dentes similes sunt ramificationi *Clavariæ fastigiatæ*. Siccando læte aurantiacum.

23. **Hydnum balsameum** Peck Rep. State Bot. 1903, p. 15. — Resupinatum; subiculo tenuissimo albedo vel pallido; aculeis conicis, dense sparsis, non confertis, brunneis, superficiem brunneam reddentibus.

Hab. in lignis decorticatis *Abietis balsameæ*, North Elba, Amer. bor. Interdum per corticem repit.

24. **Hydnum macrescens** Banker in Peck Rep. St. Bot. 1903, p. 15. — Resupinatum, effusum, subiculo vix 1 mm. cr., ochraceum, subfarinaceum (præcipue in partibus tenuioribus), rimosum, margine indeterminato; mycelio albo, arachnoideo, circa subiculum expanso; aculeis sparsis, minutis, $\frac{1}{10}$ - $\frac{1}{4}$ mm. long., 50-100 μ . cr., obtusis, sæpe furcatis, subiculo concoloribus sed pallidioribus, apice subciliato albo.

Hab. in hymenio *Sterei frustulosi* lignoque emortuo proximo, Saratoga Co Amer. bor. — Affine *H. sulphurello* Peck a quo differt colore, margine indefinito, aculeis ciliatis etc.

25. **Hydnum Earleanum** D. R. Sumstine, Torreyia Apr. 1904. — Resupinatum; aculeis 3-6 mm. long, aureo-flavis

Hab. in latere inf. truncorum decorticatorum *Ostryæ virginianæ*, Armshung County, Pa Amer. bor.

PROTOHYDNUM Moell. — Syll. XIV, p. 251.

1. ?**Protohydnum lividum** Bres. Fungi Polonici, in Ann. Mycol. 1903, 562 pag. 117. — Subiculo late effuso, adnato, ceraceo-membranaceo, ambitu similari, fusco-livido vel fusco-vinoso fertili; aculeis parvis, papilliformibus, acutis, $\frac{1}{2}$ mm. circiter longis, concoloribus, apice sterilibus, interrupte crescentibus, in sicco collabentibus; sporis hyalinis, subglobosis vel obovatis, interdum uno latere subcompressis et crasse 1-guttulatis, $5\frac{1}{2}$ -8 \approx 4-5; basidiis late obovatis, 9-10 \approx 6-8, 2-4-sterigmaticis; hyphis conglutinatis, crasse tunicatis, $1\frac{1}{2}$ μ . circiter latis.

Hab. ad ligna mucida Betulæ, in Polonia. — Species hæc in sicco *Sebacinam* refert, nam aculei omnino collapsi, nec amplius visibiles, in vegeto vero evidentissimi, sed tantum interrupte conglomerato-crescentes, subiculum quoque, ubi aculei desunt, fertile est; aculei tantum infra dimidium fertiles.

IRPEX Fr. — Syll. VI p. 482, IX p. 213, XI p. 110, XIV p. 205, XVI p. 178.

1. **Irpex lacteus** Fr. Fl. I, p. 145, Bres. Hym. Hung. Kmet. p. 37 563 cum syn. — Syll. VI, p. 485.

Hab. quoque ad truncos Alni, in Polonia. — Bres. Fungi Polonici in Ann. Mycol. 1903, p. 88. — var. **canescens** Bres. l. c. (*Irpex canescens* Fr.). — Syll. VI, p. 485. — Ad ramos Frangulæ Alni et Populi tremulæ, in Polonia. Specimina examinata pulchella, parva, hymenio ex maxima parte cyclomycetoideo; sporæ cylindræ, uno latere subdepressæ, $5-7\frac{1}{2}$ \approx $2\frac{1}{2}-3\frac{1}{2}$; basidia clavata, 20-25 \approx 5-6; cystidia furfuraceo-truncata, fusoidea, valida, 60-100 \approx 8-10; hyphæ contextus $2\frac{1}{2}-4$ μ .

2. **Irpex tasmanicus** Syd. / Ann. Mycol. 1903, p. 177, *I. depauperatus* Masee in Kew Bull. 1901, pag. 157, nec B. et Br. — Subiculo resupinato, tenui, cervino, ambitu tomentoso, albido; aculeis subconfertis, obsolete reticulato-convexis, brevibus, lateribus subincisis; sporis ellipsoideis, 6 \approx 3-4, hyalinis.

Hab. in ligno emortuo in Tasmania (RODWAY).

RADULUM Fr. — Syll. VI p. 493, IX p. 214, XI pag. 111, XIV p. 206, XVI p. 178. — Cfr. Grev. XX p. 33.

1. **Radulum spathulatum** (Schrad.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 89. *Hydnum* Schrad. Spic. tab. 4, f. 3, *Irpex spathulatus* Fr. El. I, p. 146. — Syll. VI, p. 490.

Helveticum
564
delicata
(Kl.) Pres.
VI, 407

Hab. ad ligna Pini silvestris, in Polonia. — Species hæc potius *Radulum* quam *Irpex*. Subiculum bene evolutum subceraceum et aculei vix coriacei, insuper sæpe tuberculati et teretes. Sporæ hyalinæ, 1-guttulatæ, subglobosæ, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx $3\frac{1}{2}$ -4; basidia clavata, 15-20 \approx 4-5; hyphæ 2-3 μ . Teste cl. P. Hennings, hujus speciei status gasterosporus esset *Ceratomyces rubescens* Boud.

2. **Radulum Eichlerii** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 89. 565

— Effusum, luride carneolum, margine byssino, albido; subiculo tomentoso-submembranaceo; tuberculis ceraceo-subspongiosis, irregulariter sparsis, cylindræis vel spathulatis vel compressis, apice truncatis, pubescentibus, interdum poroso-connæxis, in sicco valde diminutis, pallidis, apice sub lente fimbriatis; sporis flavo-rufis, subglobosis, uno latere subdepressis, 5-7 \approx $4\frac{1}{2}$ - $6\frac{1}{2}$; basidiis clavatis, 30-35 \approx 7-8, 2-4 sterigmaticis; hyphis tenuibus, septato-nodosis, 4-7 μ . latis.

Hab. ad truncos Coryli Avellanæ in Polonia. — Species hæc exsiccando collabatur, deformatur et vix primitivæ formæ vestigia relinquit.

3. **Radulum stratosum** Annie L. Smith Journ. Linn. Soc. XXXV, 566

pag. 8, tab. 1, fig. 1-5 (extr.). — Syll. XVI p. 1116 (nomen). — Effusum, fuscum, margine paullo reflexum, circa 1 mm. crassum; tuberculis dentiformibus, raro papilliformibus, minutis, obliquis, fuscis, plerumque in apicem pallidum sterilem attenuatis; thallo sectione verticali e stratis cellularum parenchymaticum et sporarum velut inclusarum pluribus alternis composito; basidiis amplis, irregularibus, obtusis; sporis ovato-oblongis, spadiceis, levibus 10 \approx 7.

Hab. ad ligna, in ins. Dominica Indiæ occid. — In formam rosaceam crescit.

GRANDINIA Fr. — Syll. VI p. 500, IX p. 215, XI pag. 113, XIV p. 207, XVI p. 179.

1. **Grandinia Burtii** Peck Rep. of the State bot. 1899, pag. 847. — 567

Resupinata, tenuis, adnata, minute rimosâ, alba vel albida, dein cremeo-lutea, ambitu definito albo; granulis minutis, hemisphæricis vel papillosis, numerosis, stipatis sed parce congestis; sporis subellipsoideis 6 \approx 5.

Hab. in corticibus Fagi, East Galway, Saratoga co., Amer. bor. (E. A. BURT).

2. **Grandinia cinereo-violacea** P. Henn. in Hedw. 1903, p. (74). — 568

Crustacea, innata, late effusa, emarginata, interdum rimosâ, con-

textu cinnamomeo, hymenio cinereo-violaceo, pruinoso, dense granulato, granulis verruciformibus, subfimbriatis, ca. 60-100 μ . diam.; sporis subglobosis, 3-4 μ . diam., levibus.

Hab. in truncis corticatis, Eumundi, S. Queensland Australiae (L. PRITZEL).

3. **Grandinia helvetica** (Pers.) Fr. Hym. Eur. p. 627. — Syll. VI, p. 502 — *Hydnum* Pers. Myc. Europ. II, p. 184.

Hab. quoque ad truncos Populi tremulæ, Betulæ, Tiliæ, Abietis et Pini silv., in Polonia. — Mycelium himantioideum, e fibrillis pallidis, reticulatis, ex hyphis regularibus 5-7 μ . crassis, conflatis constans; granulis globosis, in sicco ut plurimum collapsis, griseo-alutaceis; sporis globosis, hyalinis, punctato-asperulis, 4-4 $\frac{1}{2}$ \approx 3 $\frac{1}{2}$ -4; basidiis clavatis, 20-25 \approx 4-6; hyphis contextus hic illic inflatis, 4-8 μ . latis. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 89).

PHLEBIA Fr. — Syll. VI p. 497, IX p. 215, XI pag. 112, XIV p. 207.

1. **Phlebia Kriegeriana** Henn. in Hedw. 1902, p. (146). — Mycelio 569 (subiculo) albido, carnosomembranaceo, effuso, ambitu tenuimembranaceo, effuso, ambitu tenuimembranaceo v. fibroso-radiatofimbriato; hymenophoro ex tuberculis usque 0,5 mm. altis, sæpe anastomosantibus, carnosulis, demum longitudinaliter plicatis vel obtuse rimulosis, formato; tuberculis subinde pluribus, ex uno puncto oriundis et radiantibus; hymenio læte brunneolo, griseo-variegato; basidiis clavatis, 2-4-sterigmata ferentibus; sporis cylindræis, curvulis, utrinque rotundatis, 3,5-4 \approx 1,5-2, hyalinis levibus.

Hab. in trunco dejecto, vetusto, Aceris Pseudoplatani in cacumine Winterberg, in Helvetia Saxonica (W. KRIEGER). — Descriptionem plenioram et forte magis exactam confer loco citato.

2. **Phlebia albida** Fr. Monogr. II, p. 280. — Syll. VI, p. 438.

Hab. quoque ad ramos Alni, in Polonia. — Cartilagineo-membranacea, ex orbiculari oblonga, vegeta substraminea vel pallide alutacea, demum centro tinctura subcarneola, exsiccando candicans vel flavescens, margine albo-fimbriato, rugis radiantibus obsita, centro papillosa; sporæ hyalinæ, subcylindrææ, 4 $\frac{1}{2}$ -5 \approx 2 $\frac{1}{2}$ -2 $\frac{3}{4}$; basidia clavata 15-20 \approx 4-5; hyphæ 4-5 μ . (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 90).

ODONTIA Pers. — Syll. VI p. 506, IX p. 216, XI p. 113, XIV p. 208, XVI pag. 180.

1. **Odontia diaphana** (Schrad) Quél., Bres. Fungi Pol. in Ann. Mycol. 1903, p. 87, *Hydnum diaphanum* Schrad. Spic. tab. 3, f. 3? — Syll. VI, pag. 472.

Hab. quoque ad truncos *Carpini*, in Polonia. — Species hæc, meo sensu intellecta, vix specificè distincta ab *Od. crustacea*. Structura identica, modo aculei regulariter explicantur, e granuliformibus teretibus, elongatis, usque ad 2 mm. longis, glabris, apice sterili, subfimbriato, raro bifido, subdiaphanis. *Hydnum diaphanum*, subiculo diaphano, nondum vidi (BRESADOLA l. c.).

2. **Odontia brassicicola** Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131. — Late effusa; subiculo tomentoso, albo, ubique fertili; aculeis dense congestis, e granulosis verruciformibus, apice breviter fimbriatis, albis, minutis, vix 0,5 mm. long.; sporis subvirguliformibus, 3,5-4,5 \times 1,5-2 hyalinis; basidiis clavatis, 15-18 \times 5; hyphis 2,5-4,5 μ . latis.

Hab. ad caules vetustos exsiccatos *Brassicæ oleraceæ* pr. Setubal Lusitaniæ.

3. **Odontia stipata** (Fr.) Quél. Fl. Myc. pag. 435, *Hydnum* Fr. Syst. Myc. I, pag. 425. — Syll. VI, pag. 473.

Hab. quoque ad truncos *Ulm*i, in Polonia. — Subiculum tomentosum, ex hyphis tenacibus, copiosis, 2-2', μ . latis conflatum; aculei dense congesti, breves, fimbriati vel dentati; sporæ subglobosæ, punctatæ, hyalinæ, 4 \times 3; basidia clavata, 12 \times 3-4. Ab *Odontia farinacea* præcipue subiculo tomentoso distincta (BRESADOLA, Fungi polonici in Ann. Mycol. 1903, p. 87).

4. **Odontia subalbicans** (Pers.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 87, *Thelephora granulosa* β . *subalbicans* Pers. Syn. p. 576, *Hydnum* Myc. Europ. II, p. 184 — Sordide albida, tenuis, granulis concoloribus plus minusve dense congestis, demum subverruciformibus, apice subfusco fimbriato; sporis hyalinis, subcylindraceis, 7-10 \times 3-4; basidiis clavatis, 30-35 \times 6-7; hyphis irregularibus 5-6 μ . crassis.

Hab. quoque ad truncos *querneos* in Polonia. — Bene evoluta *Odontia bicolori* Alb. et Schw. sat similis evadit.

5. **Odontia Himantia** (Schw.) Bres. Fungi polonici in Ann. Mycol. 1903, pag. 85, *Hydnum* Schw. n. 992, Bres. Hym. Hung. Kmet. p. 30 c. syn. — Syll. VI, p. 469.

Hab. quoque ad truncos *Coryli* et *Quercus*, in Polonia. — Sporæ genuinæ, hyalinæ, oblongæ, 8-10 \times 3-4 (non ut in Hym. Hung. Km. loc. cit. errore exposui) basidia clavata, 24-28 \times 6-8; hyphæ contextus 3-4 μ . latæ. Pulchra hæc species hucusque jam pluribus locis in Europa lecta, scil. in Hungaria (Kmet, Greschik) in Suecia (Romell) et in Polonia rossica (Eichler). Crescit etiam ad truncos Coniferarum.

6. **Odontia lusitanica** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 572
Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131.
— Resupinata et late effusa; subiculo tenui, submembranaceo, in sicco cartilagineo; aculeis carnosis, exsiccando corneis, subulatis, dense aggregatis v. basi connatis, apice fimbriatis, glabrescentibus, ex hyalinis pallide carneo-fumosis, 6-10 mm. longis, basi 1 mm. circ. cr.; sporis obovatis, 6-7 \times 4-4,5 hyalinis; basidiis clavatis, 25-30 \times 6-7; cystidiis subfusoides, apice obtusis, 12-15 μ . latis.

Hab. ad truncos *Amygdalis communis* pr. Setubal Lusitanicæ.

7. **Odontia platensis** Speg. Mycol. argent. ser. II, 1902, pag. 54. — 573
Pileis tenuibus, primo suborbicularibus, 2-5 mm. diam., centro roseo, margine matrici adnatis, latiuscule sterilibus albis, subfimbriatulis dein confluentibus, margine relaxato involuto; hymenio tenui, ceraceo subochroleuco v. subroseo laxo v. crebre granuloso, granulis hemisphæricis, 0,3-0,4 mm. alt. et diam., obtusis v. acutiusculis ac subpenicillatis; basidiis obovatis 12 \times 8, sterigmatibus brevibus minutis. sporis 8-10 μ . diam. hyalinis, minute apiculatis, guttulatis.

Hab. ad ramos aridos *Paulowniæ imperialis* La Plata in Argentina.

8. **Odontia acerina** Peck Rep. of the State botanist 1899, p. 847. — 574
Effusa, tenuissima, crustacea, adnata, indeterminata, griseo-isabellina; verrucis minutissimis, papillatis, 1 vel pluri-pallide-ciliatis; sporis hyalinis, ellipsoideis, 7,5 \times 4.

Hab. in ligno et in corticibus emortuis *Aceris rubri*, Montezuma, Amer. bor. — *O. rimosissimæ* valde affinis.

9. **Odontia Brinkmanni** Bres. Fungi Polonici in Ann. Mycol. 1903, 575
p. 88. — Ex albo luride alutacea; subiculo tenui, farinaceo-subcrustoso; aculeis subdistantibus, e granuloso acutato-fimbriatis, brevibus, $\frac{1}{2}$ -1 mm. demum longis; sporis hyalinis, cylindræis 3 $\frac{1}{2}$ -4 $\frac{1}{2}$ \times 2-2 $\frac{1}{2}$; basidiis clavatis, 12-14 \times 4-5; hyphis 2-2 $\frac{1}{2}$ μ . cr.

Hab. ad truncos *Alni* et *Betulæ*, in Polonia. — Habitus *Odonticæ papillosæ*, sed subiculo tenuiori et sporis minoribus bene

distincta. Primo detexit et claro Bresadola communicavit egregius mycologus W. BRINKMANN.

10. **Odontia straminella** Bres. Myc. Lusitanici novi, in Atti R. Acc. 576 di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Effusa; subiculo albo, tenui, submembranaceo, margine fimbriato, sterili; aculeis albis, demum stramineis, subdistantibus, verruciformibus, minutis, apice multifidis, 500-650 μ . long.; sporis obovatis, 4-5 \times 2,5-3 hyalinis; basidiis clavatis, 15 \times 4; hyphis crasse tunicatis, 2-3 μ . latis.

Hab. ad ramenta lignea, conos Pini etc., prope Setubal Lusitaniæ.

11. **Odontia bicolor** Alb. et Schw. p. 270. — Syll. VI, p. 470. — *Hydnum subtile* Fr. Syst. Myc. I, p. 425! — Syll. VI, p. 476.

Hab. quoque ad truncos Pini silvestris et Betulæ albæ, in Polonia. — Sporæ hyalinæ, cylindræ, 5-7 \times 2 $\frac{1}{2}$ -3; basidia clavata, 15 \times 4-5; cystidia capitata, capitulo aculeato, 7-15 μ . diam. vel rarius glabro, 6-9 μ . Specimina originalia Schweinitziana in Herbario Link asservata vidi, quæ exacte concordant cum speciminibus *Hydni subtilis* Fr. Musei Upsaliensis (BRESADOLA Fungi polonici in Ann. Mycol. 1903, p. 87).

MUCRONELLA Fr. — Syll. VI p. 512, IX p. 218, XI p. 115, XIV p. 211, XVI p. 181.

1. **Mucronella Ulmi** Peck in Rep. of the State botan. 1900, p. 154. — 577
Aculeis fasciculatis, 2-8 congestis, raro singulis, sæpe curvulis v. flexuosis, raro erectis, acutis, 2-3 mm. longis, griseis v. pallidis.

Hab. in ligno emortuo Ulmi, Westport, Amer. bor. — A *M. fasciculari* (Alb. et Schw.) Fr., aculeis griseis minoribus differt.

2. **Mucronella calva** (Alb. et Schw.) Fr. Hym. Europ. pag. 629. — Syll. VI, p. 513. — *Hydnum* Alb. et Schw. p. 271, t. X, f. 8.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Specimen polonicum habitu potius *Mucronellam aggregatam* Fr. sistit, nam aculei dense gregarii sunt, at quam in typica *Mucronella calva* breviores et tenuiores ita ut ad *Mucr. aggregatam* ducere nequeam. Sporæ hyalinæ, oblongæ, 4-6 \times 2-3; basidia clavata, 15 \times 4; hyphæ contextus aculeorum, 3-7 μ . Adest alter specimen quoque ad truncos Pini lectum, sed non in societate cum priore quod structura aculeorum, sporis etc. exacte concordat, sed aculei subiculo manifestissimo subtomentoso, ex hyphis irregularibus, tenuiter tunicatis, hic illic inflatis, 4-12 μ . latis conflato, insidentes,

quodque ad interim conjuncta relinquo. Forte in posterum distinguenda si formæ intermediæ non adsint (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 90).

3. **Mucronella Rickii** Oud. Bot. Centralbl. 1902, Beibl pag. 3 (Extr.). 578

— Subiculo nullo; aculeis albidis, vage distributis, solitariis vel numero 2-6-8 fasciculatis, primo erectis, strictis, postea decumbentibus, flexuosulis, cernuis v. hamatis, 3-5 mm. longis, subtilissimis, 100-120 μ . cr. subuliformibus; sporis ellipticis, hyalinis, inæquilateralibus, utrinque obtusis, continuis, eguttulatis, 7-9,5 \times 3,5-4,5; sporophoris bacilli- v. fusiformibus, sporâ longioribus, ut videtur, monosporis.

Hab. in caulibus *Asparagi officinalis* exsiccatis aliisque quisquiliis et ramulis circa jacentibus, Valkenberg Hollandiæ.

4. **Mucronella fascicularis** (Alb. et Schw.) Fr. Hym. Europ. p. 629.

— Syll. VI, p. 512. — *Hydnum* Alb. et Schw. p. 269, t. 10, f. 9.

Hab. quoque ad ligna mucida *Pini silvestris*, in Polonia. — Sporæ hyalinæ, subglobosæ, 5-8 \times 4-6; basidia clavata, tetraspora, 25-30 \times 5-7; hyphæ contextus 5-12 μ . latæ, tenues. Specimen polonicum formam sistit aculeis minus fasciculatis, fere subgregariis, habitu ad *Clavariam Bresadolæ* Quél. accedens (BRESADOLA Fungi polonici in Ann. Mycol. 1903, p. 90).

KORDYANELLA v. Höhn. Ann. Mycol. 1904, p. 273 (Etym. a gen.

Kordyana, cui affinis) (absque diagnosi). — Pilei (verruculæ) hemisphærici, perexigui, sessiles. Basidia e nucleo centrali radiantia, subphialiformia, 2-3-raro 4-sterigmica. Sporæ oblongæ, continuæ, hyalinæ. Sec. auct. *Kordyanæ* affinis. — Forte haberi potest ut analogum sessile *Stilbi* sensu Juelii.

1. **Kordyanella austriaca** v. Höhn l. c. — Verruculis 30-60 μ . lat., 579

hemisphæricis vel depressis, hyalinis, intus brunneolis; basidiis e nucleo centrali celluloso radiatim divergentibus, hyalinis, 8-13 \times 2 deorsum incrassatulis, subphialiformibus, sterigmata 2-3, raro 4 gerentibus; sterigmatibus tenuissimis, acutis, subdivergentibus; sporis copiosis oblongis v. breve cylindræis, 2,5-4 \times 1.

Hab. in trunco subputrescente *Pini nigricantis*, Wiener Wald pr. Vindobonam Austriæ.

Fam. 4. Thelephoraceæ Pers.

CRATERELLUS Fr. — Syll. VI p. 514, IX p. 218, XIV pag. 212, XVI p. 181.

1. **Craterellus Queletii** R. Ferry in Rev. Myc. 1892, p. 96, t CXXVI, 580
fig. 6. — Pileo campanulato, 3 cm. diam., submembranaceo, subumbonato, aurantiaco-fulvo; stipite solido, gracili flexuoso, 7 cm. longo, 5 cm. lato, duro, fibrilloso, concolori; lamellis rugiformibus, brevibus, vix ramosis, concoloribus; sporis ellipsoideis, pruniformibus 10 μ . hyalinis; carne alba; odore *Cantharelli cibarii*.

Hab. in silvis montuosis prope Bagnères-de-Luchon in montibus Pyrenæis.

2. **Craterellus taxophilus** C. Thom, Bot. Gaz. 1904, n. 3. 581

Hab. in foliis et ramulis dejectis putrescentibus *Taxi canadensis* Ithaca N. Y. Amer. bor. — Pusilla species vix 14-18 mm. alta.

THELEPHORA Ehr. — Syll. VI p. 521, IX pag. 220, XI pag. 115, XIV p. 212, XVI p. 182.

1. **Thelephora Martii** Sacc. et D. Sacc. *Th. albo-marginata* Mart. Ver- 582
such eines Comment. in Werk. Marcgrav und Piso. Münch. 1853 (Akad. Wiss.), nec Schw. ap. Berk. (1847). — Laxe gregaria, stipitata; pileo erecto cyathiformi, margine tenuiore albo subdentato; stipite pileoque intus zonato, pallide testaceo-fuscescente, hoc postremo extus pallidiore.

Hab. ad ligna putrida in silvis ad fl. Japurá in terra Amazonica, Jan. 1820. — Fungus 12-15 mm. alt., stipes basi orbiculari plana ligno affixus, teres, 2-4 mm. long., pileus cyathiformis, uno latere brevior. Affinis *Th. caperata*.

2. **Thelephora vitellina** Plowr. in Journ. of Bot. 1901, p. 385. — 583
Pileo pallide flavo-vitellino, flabelliformi, sursum expanso, margine superiore rimoso, lateraliter parvulo incurvato; hymenio ruguloso, azono; stipite deorsum attenuato, basi dilatato; sporis ovoideis, 3 \approx 1-1,5.

Hab. ad ramos emortuos pineos inter muscos prope Boat of Garden N. B. Britanniae. — Pileus 10-18 mm. cr., 20-30 mm. alt. Affinis *T. Sowerbeyi*, sed colore, habitatione, sporis sat diversa.

3. **Thelephora Amigenatska** P. Henn. in Engl. Bot. Jahrb. 1901, 584 p. 42. — Syll. XVI, pag. 1116 (nomen). — Papyraceo-coriacea, stipitata, flabellata, infundibuliformis v. plurilobata, brunnea vel flavo-ochracea; pileo radiato-striato v. subplicato 2-5 cm. diam., margine subintegro v. fisso-lobato interdum proliferante; hymenio levi v. striato, pruinoso, subochraceo; stipite farcto, tereti v. compresso, simplici v. ramoso, flavo-brunneo v. fusco 1-5 cm. longo, levi v. ruguloso; sporis subglobosis v. ellipsoideis, 6-8 \times 4-6 flavidulis.

Hab. ad truncos, Kamerun Afr.

4. **Thelephora Braunii** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. — 585 Syll. XVI, p. 1116 (nomen). — Coriacea, erecta, flavo-ferruginea, pruinosa ca. 4 cm, alta lataque; stipite late compresso, ca. 1,5 cm. longo, 5 mm. lato, sulcato, palmato-ramoso; ramis flabellatis apice palmatifidis vel cristatis, levibus obscurioribus; hymenio levi v. minute papillato, ferrugineo; sporis subglobosis 3,5-4, episporio levi, brunneo.

Hab. ad caudices, Kamerun Afr.

5. **Thelephora palmata** (Scop.) Fr. — Syll. VI, p. 529. — var. **americana** Peck Rep. of the Stat. Bot. 1899, p. 857. — 586 Ramis ultimis sæpe tenuibus, teretibus, acuminatis, apice albidis vel concoloribus.

Hab. in America bor.

6. **Thelephora terrestris** Ehrb. Cr. n. 179. — Syll. VI, p. 536, *Auricularia caryophyllea* Bull. tab. 278 et tab. 483, f. 6, 7, *Thelephora caryophyllea* Pers. Obs. I, p. 36 (non Schæff.), *Thelephora laciniata* Pers. Syn. pag. 567, *Thelephora intybacea* Fr. Hym. Eur. p. 635 (non Pers.). — Syll. VI, p. 536.

Hab. quoque ad terram, in Polonia. — Sporæ fusco-ferrugineæ, 8-12 \times 7-9. Species hæc quoad formam variabilissima, modo stipitata, stipite centrali vel laterali, sæpe cæspitosa, pileis concentricis (= *Th. intybacea* Fr.), interdum sessilis, pileo laterali, dimidiato (= *Th. laciniata* Pers.). *Auriculariam caryophylleam* Bull. l. c. huc referendam certum est, prout ex iconibus evidentissime patet; *Thelephora caryophyllea* Pers. (non Schæff.) etiam huc pertinet fide speciminum originalium; *Thelephora intybacea* Fr. (non Pers.) quoque nulla nota vere specificè differentiali distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).

7. **Thelephora exigua** Peck in Rep. of the State Botanist, 1901, 587 p. 953. — Pileo tenuissimo, submembranaceo tubæformi vel in-

fundibuliformi, leviter radiatim fibroso-striato, margine parce lacero-rato, pallide alutaceo 3-6 mm. lato; hymenio æquali vel substriato, pruinoso-pubescenti, brunneo 4-6 mm. longo; sporis ellipsoideis $4 \approx 2$.

Hab. ad terram, Westport Essex co., Amer. bor.

8. **Thelephora komabensis** P. Henn. F. Japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, pag. 736. — Terrestri; pileo tenui, membranaceo, infundibuliformi v. flabellato, margine crenulato-inciso v. subintegro, tenui, pallido, levi glabroque, 1-2 cm. lato longoque; stipite centrali v. laterali, pileo confluyente, compresso, basi subbulboso-incrassato, pallido, pruinoso, 0,5-1 cm. longo, 1-1,5 mm. cr.; hymenio pallido, levi, glabro, vix striatulo, opaco; sporis subglobosis v. ovoideis, levibus, 3-5 \approx 3,5-4,5 hyalinis.

Hab. ad terram, Tokyo Japoniæ.

9. **Thelephora sparassoides** P. Henn. Fungi Indiæ orient. II in Hedw. 1901, pag. 324. — Caulicola, membranaceo-papyracea, confluens, cristata; pileo substipitato, flabellato, plicato, fisso, margine palmato-dentato, dentibus sæpe subulatis, cremeo, 5-7 mm. longo, 2-3 mm. lato; hymenio plicato, pallido; sporis subovoideis hyalinis levibus, 2-4 μ . diam.

Hab. in ramis emortuis Mussoorie, Arnigadh Indiæ orient.

10. **Thelephora pusiola** Pat. in Duss, Enum. champ. Guadel. 1903, p. 12. — Laminæformis; laminis triangularibus, albis, duris, minutis, integris v. incisus lobatis, glabris, levibus v. plicatis, subinde zonatis, in stipitem gracilem concolorem, glabrum, cylindraceum, lignosum tenuatis; hymenio infero, levi, brunneolo; basidiis clavatis 25 \approx 10, tetrasporis; sporis globoso-angulosis, incoloribus v. vix fuliginis, 6 μ . diam.; cystidiis nullis.

Hab. solitaria v. cæspitosa in lignis emortuis in silvis Bains-Jaunes Guadalupa (Duss). — Fungus 1 cm. alt., 5 mm. cr. — Var. **terrestris** Pat. l. c.: laminis angustioribus laciniatis, divergentibus, rigidis. Ad terram Matouba Guadalupa (Duss).

11. **Thelephora (Sebacina) ambigua** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 116. — Late effusa, arcte adnata, gelatinosa, pallida; hymenio subtuberculato-undulato, exsiccando collapsio, levi; sporis hyalinis, obovatis vel subglobosis, 9-12 \approx 7-10; basidiis obovatis, 2-4-sterigmaticis, 15-10 \approx 10-12; hyphis contextus 1 $\frac{1}{2}$, crassis.

Hab. sub cortice Quercus in Polonia. — Forma tuberculata ad *Tremellam* nutans.

CLADODERRIS Pers. — Syll. VI p. 547, IX p. 222, XVI p. 185.

1. **Cladoderris mussooriensis** P. Henn. Fungi Indiæ or. II in Hedw. 592
1901, pag. 324. — Imbricato-subcæspitosa; pileo tenue coriaceo, subflabellato, sulcato, plicato, azono, velutino, isabellino, margine integro v. repando undulatoque, basi attenuato, interdum substipitato 1-4 cm. lato, 2-3 cm. longo; hymenio stramineo, ruguloso, costis subramosis, angustis radiantibus, haud verrucosis; sporis globosis v. subovoideis, hyalinis, echinato-asperatis 5-6 μ . diam.

Hab. ad terram Mussoorie, Arnigadh Indiæ orient.

2. **Cladoderris Pritzellii** P. Henn. in Hedw. 1903, p. (74). — Pileis 593
cæspitose imbricatis, apodis, basi decurrentibus, coriaceis, conchatis, sinuoso-crispatis, superne dense tomentosis, zonato-sulcatis, rugulosis, margine acutis, cinnamomeis, sinuosis, usque ad 8 cm. longis, 5 cm. latis; hymenio cinereo-ferrugineo, costis ramoso-radiantibus, sulcato-rugosis, verrucosis, velutinis; sporis subglobosis, intus punctulatis, hyalinis, levibus 3,5-4.

Hab. ad ligna emortua, pr. Kurauda, N. Queensland Australiae (PRITZEL).

STEREUM Pers. — Syll. VI p. 551, IX p. 222, XI p. 119, XIV p. 215, XVI p. 186.

1. **Stereum Burtianum** Peck Rep. St. Bot. 1903, p. 21, t. 0, f. 30-34. 594
Pileo tenui, submembranaceo, coriaceo, fibroso, subinfundibuliformi, vulgo dimidiato, ob fibras radiantes rivuloso, pallido in cervinum v. rufescentem vergente, nitidulo; margine erecto, expanso v. recurvo, radiatim striato, decurrente pallide badio v. ochraceo-badio; stipite brevi, solido, minute tomentoso v. pruinoso-tomentoso, subcinereo; sporis minutis, hyalinis, levibus, globosis v. subglobosis, 15-2 μ . diam.

Hab. ad terram inter dumeta, Ulster co. Amer. bor. — Pileus 8-16 mm. lat.; stipes 4-6 mm. alt., circ. 1 mm. cr. Interdum individua bina v. plura coalescunt.

2. **Stereum cupulatum** Pat. in Duss. Enum. champ. Guadel. 1903, 595
p. 23. — Sparsum v. approximatum, orbiculare, e resupinato cupuliforme, puncto dorsali affixum, coriaceum, durum, rigidum, extus glabrum, azonum, brunneum, margine integro v. sinuato, acuto; hymenio pruinoso, levi, concavo, sordide cinereo, prope marginem rubescenti; trama compacta, umbrina; sporis cylindraceo-ovoideis, incoloribus, 6 \times 3; cystidiis nullis.

Hab. in cortice Pruni Dussii in silvis Bains-Jaunes Gua-

dalupa. — Fungus 6-8 mm. diam. Affinis *S. Coffearum*, sed cystidia nulla.

3. **Stereum versicolor** Fr. — Syll. fung. VI, p. 561. — var. **illyricum** G. de Beck in Zahlbruckn. Sched. ad Crypt. exs. Cent. IV, p. 446. — Pileis imbricatis late flabelliformibus, 4-7 cm. latis, antice rotundatis v. lobatis, basi angustatis et in stipitem brevissimum sæpe umboniformem attenuatis, tenuissimis chartaceo-membranaceis, ferrugineis demum versicoloribus, pulcre concentrice zonatis in margine acutissimo ochraceis, rarius purpurascens, zonis ferrugineis griseisve et breve strigoso-tomentosis adpresse pilosis purpureis; contextu sup. ferrugineo, sub hymenio pallido; hymenio levi, sicco rubiginoso-lutescente v. sæpius carneo; basidiis cylindræis 37-50 μ . long.; cystidiis nullis; sporis oblongis 5 μ . l.

Hab. ad truncos Fagi silvaticæ in silvis subalpinis in M. Smolin Bosniae et Carnioliae.

4. **Stereum neocaledonicum** Har. et Pat. Journ. de Bot. 1903, p. 6. — Eximie imbricatum, tenue, coriaceum, pileis numerosis e basi communi ortis, margine prolificantibus, papyraceis, cuneiformibus, antice rotundatis, lobatis, fuscis, velutinis, postice nigricantibus glabrescentibusque, undique crebre zonato-sulcatulis; hymenio concavo, levi, nitide fusco-cinereiscenti, non setuloso; contextu fusco radiante; hyphis laxiusculis, 4 μ . cr., in fasciculos facie tomentosos 50 μ . altos surrectis; cystidiis nullis; sporis non visis.

Hab. ad lignum mortuum, Mea, Nova Caledonia (BERNIER). — Pileus usque 15 cm. long., $\frac{1}{2}$ mm. cr., habitu fere *Thelephoræ adustæ* Lev., quæ cystidiis rigidis rufis ex hymenio 4-20 μ . excedentibus dignoscitur et tunc *Hymenochæte adusta* (Lév.) Pat. l. c. vocanda est.

5. **Stereum Huberianum** P. Henn. Fungi paraenses II in Hedw. 1902, p. 15. — Mycelio membranaceo, pallido, effuso; pileis sparsis v. gregariis, subpapyraceo-coriaceis, sicco rigidis, flabellatis, sæpe inciso-lobatis v. subpalmatifidis, fulvis, longitudinaliter striatulis, levibus, glabris, $\frac{1}{2}$ -2 cm. longis latisque, in stirpem late compressam protractis v. sessilibus; hymenio paullo pallidiori, levi, glabro, subpruinoso; sporis globosis, levibus 3,5-4,5 hyalinis.

Hab. in ramulis, Parà Amer. austr.

6. **Stereum scalare** Karst. Fungi nov. Loënb. 1904, p. 9 (Finska Vetensk. Soc.). — Pileis suberosis, rigidis, dimidiatis, dense scalariformibus, subinde connascentibus, pallescentibus, in spadiceum

leviter vergentibus tomentosus, parvis; hymenio pallido vel lutescenti-pallido, vulgo levi.

Hab. supra terram in regione Kuopioënsi Sibiriaë, Aug. 1903 (O. A. F. LÖNNBOHM).

7. **Stereum ochroleucum** Fr. Hym. Europ. pag. 639, Brinkmann. Westf. getrockn. Pilze, Lief. I, n. 49. — Syll. VI, p. 566 — *Stereum sulphuratum* Berk. et Rav. North. Amer. Fungi n. 236. — Syll. VI, p. 566.

Hab. quoque ad truncos in Polonia. — Forma typica hujus speciei, rarissime in Europa obvia, optime a *Stereo hirsuto*, cui valde affinis, distincta, sc. pileo resupinato-effuso, margine tantum reflexo, e leniter sulphurato albido, hymenio avellaneo-isabellino vel avellaneo-fuscidulo, canescente; sporis hyalinis, cylindraco-subcurvulis, $6-10 \approx 2\frac{1}{2}-3\frac{1}{2}$; basidiis clavatis $40-45 \approx 4-5$. Specimina, quæ in exsiccatis edita sunt, maxima ex parte, prout etiam specimina herbarii friesiani, a Friesio ipso tamen non determinata, ad *Stereum hirsutum* forma *resupinata* referenda sunt. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).

8. **Stereum subcostatum** Karsten in Hedw. 1881, p. 178. — Syll. VI, p. 570. *Stereum album* QuéL. Quelq. Esp. 1882. — Syll. VI, p. 571.

Hab. quoque ad ramos et truncos Alni, Betulæ, Salicis, Quercus, Coryli, in Polonia. — Sporæ hyalinæ, cylindracoæ, uno latere depressæ, $5\frac{1}{2}-8 \approx 2\frac{1}{2}-3\frac{1}{2}$; basidia clavata, $20-25 \approx 4-6$; hyphæ tenuiter tunicatæ, septato-nodosæ, $3-6 \mu$. latæ. Bene evolutum hymenio gaudet laxè tuberculoso, tuberculis sæpe valde elongatis, more *Raduli penduli* Fr., cui valde accedit et a quo forte non specificè distinctum. Forma ad *Alnum* ex albo pallide ochroleuca, forma ad *Betulam*, *Corylum* etc. hymenio demum læte auro-reo-incarnato. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

9. **Stereum rufum** Fr. Epicr. p. 553. — Syll. VI, p. 575 — *Thelephora* Fr. El. p. 127 (1828), *Thelephora rufo-marginata* Pers. Myc. Eur. I, pag. 124, *Tubercularia pezizoidea* Schw. (1831) Syn. Am. bor. p. 301, n. 3013, *Hypocrea Richardsonii* Vetestergren Micr. rar. n. 404, an Berk. et Mont.?

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Specimina americana *Tuberculariæ pezizoideæ* a cl. prof. Ed. A. Burt missa cum speciminibus *Stereii rufi* Fr. exactè concordant (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

10. **Stereum odoratum** Fr. Epicr. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 445, *Stereum alneum* Fr. Epicr. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 446, *Stereum suaveolens* Fr. Epicr. p. 553, *Thelephora* El. I, p. 208.

Hab. quoque ad truncos Pini silvestris, Alni et Populi tremulæ, in Polonia. — Resupinatum et late effusum interdum margine subpileato, coriaceum, in annosis stratosum, ex hyphis rigidis, ramosis, 1-2 $\frac{1}{2}$ raro 3 crassis, conflatum, colore e pallido alutaceo vel pallide gilvo; sporis hyalinis, obovato-oblongis, 4 $\frac{1}{2}$ -6 \approx 2-3; basidiis 4-sporis 18-20 \approx 4-5; odore tantum in vegeto manifesto. Hucusque specimina ad *Alnos* obvia mihi, semper sterilia visa ideoque in Fung. Kmet. p. 44, n. 155, ex identitate structuræ, ad *Stereum alneum* Fr. speciem ad truncos *Salicis Capreæ* vigentem duxi, quæ, cum sporis gaudeat globosis, diversa est, quæque contra ad *Corticium portentosum* Berk. probabiliter ducenda. Species Berkeleyana structura, forma et colore cum *Stereo odorato* Fr. concordat, sed, teste Burt in litteris, sporas habet globosas. Specimina ab amicis americanis mecum benevole communicata sterilia inveni. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

11. **Stereum quercinum** Potter in Trans. Engl. Arbor. Soc. New 600
Castle-on-Tyne 1902, p. 1-8 (extr.) fig. 1-3 (Absque diagnosi). — Resupinatum, coriaceum, in rimis corticis nidulans, margine vix emergente, pallido griseo-brunneum, ambitu sæpe pallidiore; basidiis filiformibus apice clavato-truncatis; sterigmatibus subquaternis; sporis ellipsoideis, utrinque rotundatis, 8,5 \approx 4,3, hyalinis.

Hab. in cortice *Quercus Roboris*, cui morbum cancerosum affert, in Anglia variis locis. — Forte affine *St. frustuloso*.

HYMENOCHÆTE Lév. — Syll. VI p. 588, IX p. 227, XI p. 122, XIV p. 217, XVI p. 188.

1. **Hymenochæte fisso-lobata** P. Henn. F. Amaz. I p. 172 (Hedw. 1904) 601
— Pileis ramicolis, coriaceis, flabellatis, stipitatis v. sessile confluentibus, ramosis, superne atrocinnamomeis, radiato-striatis rugosis vel sulcatis, margine ad medium fisso-lobatis, hymenio cinereo-ferrugineo, pruinoso-subsetuloso, setulis ca. 20 \approx 3 μ ., fuscis septatis vel ramosis; sporis... (non visis).

Hab. ad lianas viventes, Rio Juruá, Sao Jao Amazoniæ (ULE). — Forte aptius *Thelephoræ* adscribenda, tamen *Hym. formosæ* subsimilis.

2. **Hymenochæte crateriformis** P. Henn. F. Amaz. I p. 172 (Hedw. 602

Stereum hydrophorum V1, 555.

1904). — Pileo coriaceo, regulariter infundibuliformi, castaneo velutino, obscurius zonato, margine tenui, pallidiori, integro vel crenulato, 5-7 cm. lato, 5-6 cm. longo; stipite centrali æquali tereti, lignoso, ferrugineo-tomentoso, basi discoideo, incrassato, 3-5 cm. longo, 4-5 mm. crasso; hymenio ferrugineo, velutino-setuloso, setulis filiformibus, flexuosis, simplicibus, apice obtusis, flavido-fuscidulis, $40-80 \approx 3-3\frac{1}{2}$; sporis non conspicuis.

Hab. ad truncos putrescentes Rio Madeira ad Marmellos Amazoniæ (ULE). — Affinis *H. infundibuliformi*.

3. **Hymenochæte ussanguensis** P. Henn. in Engl. Bot. Jahrb. 1901, 603 p. 255. — Sacc. Syll. XVI, p. 1117 (nomen). — Corticola, effusa, resupinata, cinnamomea, velutina, subiculo tenui, albido-byssino, setulis simplicibus v. subramosis, obtusiusculis, flavidis, $30-60 \approx 4-5$; sporis subglobosis, 6-8 μ . diam., episporio subfuscidulo, levi.

Hab. in ramis arboris indeterminatæ, in montibus, Kinga Africae orient.

4. **Hymenochæte septobasidioides** P. Henn. F. Amaz. I p. 172 (Hedw. 604 1904). — Pileo longitudinaliter subresupinato effuso, pileis subliberis, tenue coriaceis vel membranaceis, subdimidiatis sæpius serialiter confluentibus, atrocinnamomeis, concentricè sulcatis velutino-fibrosis, ca. 5 mm. longis, margine tenuibus, interdum pallidis; hymenio subcinereo, velutino-setuloso, setulis filiformibus, flexuosis, ramosis, ca. $10-20 \approx 2\frac{1}{2}-3\frac{1}{2}$; sporis subglobosis, hyalinis, levibus, $2-2\frac{1}{2}$ μ .

Hab. ad ramos Sapindaceæ cujusdam, Rio Juruá, Menino de Deus Amazoniæ (ULE). — Hic *Septobasidio velutino*, hinc *Hymen. elegantissimæ* cognata.

5. **Hymenochæte arida** (Karst.) — Sacc. Syll. IX, p. 228 — *Hymenochætella arida* Karst. Finl. Basidv. p. 428.

Hab. quoque ad truncos Alni et Betulæ, in Polonia. — Sporæ hyalinæ, subcylindraceæ, uno latere subdepressæ, $6-8 \approx 2-2\frac{3}{4}$; basidia clavata, $15-20 \approx 4-5$; setulæ cuspidatæ, $100-150 \approx 6-8$; hyphæ 3-4 μ . Cum speciminibus originalibus comparavi, nec sporas tantum $\frac{1}{2}-1\frac{1}{2}$ μ . latas, uti habet cl. Karsten, vidi. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 93).

6. **Hymenochæte fuliginosa** (Pers.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 93 non Lév. *Thelephora* Pers. Myc. Europ. I, p. 145. *Stereum fuliginosum* Fr. Hym. Eur. p. 645. — Syll. VI p. 594.

Hab. quoque ad ramos Pini silv., in Polonia. — Setulæ fulvæ, 80-110 μ . long., basi ventricosa, 8-9 μ . cr., 40-50 μ . pro-

minentes; basidia clavata; hyphæ 3-4 μ . crassæ. Sporas nondum vidi. Ab *Hymenochæte fuliginosa* Lév., sensu Berk., specie exotica, omnino diversa (Bres. l. c.).

CORTICIUM Fr. — Syll. VI p. 603, IX p. 230, XI p. 124, XIV p. 219, XVI p. 189.

1. **Corticium usambarense** (P. Henn.) Sacc. et D. Sacc., *Aleurodiscus* 605
usambarensis P. Henn. in Bot. Jahrb. 1904, p. 43. — Resupinato-subpezizoideus, extus albidus subfibrillosus, margine evoluto; hymenio subceraceo, pallide roseolo v. flavidulo, levi 0,5-2 cm. diam.; basidiis clavatis, intus grosse oleoso-roseo-guttulatis, 50-80 \approx 15-25, plerumque 2-sterigmaticis; sporis oblonge ovoideis v. ellipsoideis, oleoso-guttulatis, 20-25 \approx 11-16, episporio hyalino, granuloso.

Hab. in ramis emortuis, Bomule, Ost Usambara, Afr. orient. (ZIMMERMANN).

2. **Corticium dendriticum** P. Henn. Fungi costaricensis I in Hedw. 606
1902, p. 102. — Carnoso-ceraceum, pallide carneum, dendroideo-ramosum v. radiato-effusum, margine sicco reflexo, albo-villosulo; hymenio ceraceo, pruinoso, carneo, sicco rimoso; basidiis clavatis, 2-4-sterigmaticis, 20-28 \approx 7-8; sporis subglobosis, subroseis, levibus, 4-5 μ . diam.

Hab. in truncis, San José de Costa Rica, Amer. centr.

3. **Corticium abnorme** P. Henn. F. Amaz. I, p. 186 (Hedw. 1904). 607
— Foliicola, paginam inferiorem occupans, effusum, isabellinum, margine radiatim byssinum, hymenio verrucoso, verrucis hemisphæricis, ca. 1 mm. diam., contextu fibroso, hyphis hyalinis, hamato-cirratis, ca. 2-2 $\frac{1}{2}$ μ . crassis; sporis subglobosis, 1-guttulatis, 2 $\frac{1}{2}$ -3 $\frac{1}{2}$ μ ., episporio granuloso, hyalino-flavidulo.

Hab. ad folia coriacea Myrtaceæ cujusdam, Rio Juruá Marary Amazoniæ (ULE). — Species quoad situm in foliis prædistincta, ob hyphas apice hamatas ad *Septobasidium* nutat.

4. **Corticium rubro-pallens** Schw. Syn. N. A. Fung. pag. 168 (sub *Thelephora*), *Corticium rubro-canum* Thüm. Bull. Torr. Bot. Club VI, p. 95, Myc. univ. n. 409. — Syll. VI, p. 632.

Hab. quoque ad ramos Alni, in Polonia. — Sporæ cylindraceo-curvulæ, hyalinæ, 5 $\frac{1}{2}$ -7 $\frac{1}{2}$ \approx 2-2 $\frac{1}{2}$; basidia clavata, 20-25 \approx 6; hyphæ conglutinatæ 2-3 μ . Specimen hic exhibitum juvenile, minus evolutum, sed vix dubie ad *Corticium rubro-pallens* Schw. ducendum. In speciminibus americanis a cl. Burt benevole mecum communicatis, sporæ 5 $\frac{1}{2}$ -6 \approx 1 $\frac{1}{2}$ -2, basidia 30-35 \approx 6 et hyphæ basales

receptaculi optime evolutæ 4-7 μ . crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 97).

5. **Corticium komabense** P. Henn. in Engl. Jahrb. 1902, XXXVI, 608 p. 38. — Erumpens, papyraceo-ceraceum tenue, orbiculare dein explanatum, confluens, 2-6 mm. diam., medio subplicato, margine elevato, tenui, levi; hymenio griseo-brunnescenti, pruinoso; basidiis clavatis, 15-18 \times 4-5, 4-sterigmaticis; sporis ovoideo-subglobosis, hyalinis, 3,5-4 \times 3-3,5.

Hab. ad ramos emortuos *Quercus glanduliferæ*, Komaba Japoniæ (P. SUZUKI).

6. **Corticium Torrendii** Bres. Myc. Lusitanici novi, in Atti. R. Acc. 609 di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Late effusum, adnatum, crassum, membranaceo-subtomentosum, margine mox similari sublibero; hymenio pallido, ætate subfumoso, in vegeto laxè tuberculoso, sub lente pruinoso; sporis hyalinis, subglobosis, 8-10 \times 7-8,5; basidiis clavatis, 25-30 \times 6-7; hyphis vix distinctis, substantiam subamorpham efformantibus, 3-4 μ . latis.

Hab. ad ramos *Oleæ europææ* prope Setubal Lusitaniæ (TORREND!).

7. **Corticium Ulmi** Lasch Bot. Zeit. 1853, p. 235. — Syll. VI p. 618.

Hab. quoque ad truncos *Ulmi campestris* et *Betulæ* in Polonia. — Sporæ subglobosæ, hyalinæ, 5-7 \times 4 $\frac{1}{2}$ -6; basidia clavata, 20-25 \times 5-7; hyphæ irregulares, 4-5 μ . inferne usque ad 9 μ . crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 95).

8. **Corticium Zimmermanni** Sacc. et Syd. Syll. XVI, p. 117 (nomen), 610

Cortic. javanicum A. Zimm. in Centralbl. f. Bakter. Paras. 1901, VII, p. 103, f. A-C, nec *C. javanicum* (Henn.) Sacc. et Syd. — Membranaceum truncum ramosque subinde late ambiens, carneum vel flavidum, matrici hyphis mycelicis laxis adhærens; cystidiis nullis; basidiis clavatis, tetrasporis; sterigmatibus gracilibus, 4-6 μ . long.; sporis piriformibus, hyalinis, apiculatis, 9-12 \times 6-7 (in aqua mox germinantibus).

Hab. in truncis, ramisque *Coffeæ arabicæ* et *C. libericæ*, quibus morbum, *Djamur upas* vulgo dictum, affert in ins. Java. — Species interdum nascitur in eadem insula, in *Thea*, *Bixa*, *Bœhmeria*.

9. **Corticium albo-ochraceum** Bres. Fungi Polonici in Ann. Myc. 1903, 611 p. 96. — Effusum, fibrilloso-byssinum, ochroleucum vel luride

ochraceum, ambitu fibrilloso-fimbriato; hymenio levi, subrimoso sub lente pruinato; sporis hyalinis, circulo interno fulvo, punctatis, subamygdaliformis, $5-6 \approx 3\frac{1}{2}-4$; basidiis clavatis, $20 \approx 3-4$; hyphis irregularibus, septatis, granuloso-farctis, $2-4 \mu$. crassis.

Hab. ad truncos Alni, in Polonia. — *Corticio ochroleuco* Bres. simillimum, sed structura diversum.

10. **Corticium geogenium** Bres. Fungi Polonici in Ann. Mycol. 1903, 612 p. 98. — Late et interrupte effusum, membranaceo-subflocculosum, ambitu subsimilari, e niveo pallescens; hymenio levi, haud rimosis; sporis hyalinis, obovatis, interdum uno latere subdepressis et 1-guttatis, $8-9 \approx 5-6$; basidiis clavatis, $25-30 \approx 6-7$; hyphis subhymenialibus, 4μ . cr., basalibus 6μ . crassis.

Hab. ad terram sabulosam, in Polonia. — Unam alteramve cellulam clavatam, vacuam, levem, prominentem, latitudinis basidiorum, observavi, sed vix cystidia crederem.

11. **Corticium terrigenum** Bres. Fungi Polonici in Ann. Mycol. 1903, 613 p. 98. — Interrupte effusum, flocculoso-submembranaceum, ambitu furfuraceo, album, pallens; hymenio subundulato, irregulari; sporis hyalinis, oblongis v. frequentius fusiformibus hilariterque depressis, $14-15 \approx 5-6$; basidiis clavatis, $30-35 \approx 9$, sterigmatibus usque ad 12μ . longis; hyphis irregularibus, $6-10 \mu$. crassis.

Hab. ad terram, in Polonia.

12. **Corticium niveum** Bres. Fungi Polonici in Ann. Mycol. 1903, 614 pag. 98. — Late effusum, flocculoso-submembranaceum, ambitu subsimilari, e niveo pallido-subcremeum; hymenio levi, in sicco flocculoso-fatiscente; sporis hyalinis, oblongis, $7-8 \approx 3-3\frac{1}{2}$; basidiis clavatis, $24-26 \approx 5-6$; hyphis $2\frac{1}{2}-4 \mu$. crassis, septato-nodosis.

Hab. ad ligna Betulæ, in Polonia. — Habitu et colore *Corticio sero* Pers. simillimum, sed sporis præcipue bene diversum.

13. **Corticium lactescens** Berk. Outl. p. 274. — Syll. VI, p. 618.

Hab. ad truncos Ulmi campestris, in Polonia. — Sporæ hyalino-stramineæ, subgloboso-ellipticæ, $6-8 \approx 4\frac{1}{2}-6$, granuloso-farctæ; basidia clavata, $40-45 \approx 6-8$; vasa lactifera subcystidiformia, vix prominula, apice attenuata; hyphæ septato-nodosæ, $3-4 \mu$. crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 95).

14. **Corticium leve** Pers. Disp. p. 30, nec Fr., *Thelephora laxa* Pers. Myc. Eur. I, p. 143, *Corticium evolvens* Fr. Epicr. pag. 557. — Syll. VI, p. 604.

Hab. quoque ad truncos Tiliæ, Salicis, Ulmi, Coryli et Pini, in Polonia. — Species hæc variabilissima, tenuis vel crassa,

levis v. tuberculosa, interdum quoque subpileata. *Thelephora papyracea* Schrad. Spic. pag. 187 ab auctoribus, duce Persoonio, huc ducta, absque dubio est forma juvenilis *Merulii Corii* Fr. *Corticium leve* Fr., e speciminibus in Museo Kewensi asservatis, est *Peniophoræ* sp., de qua infra (Bresadola, Fungi polonici, in Ann. Mycol. 1903, pag. 94).

15. **Corticium subleve** Bres. Fungi Polonici in Ann. Mycol. 1903, 615 p. 95. — Late effusum, membranaceum, subsecedens, *pallidum* v. leviter *carneolum*, ambitu fimbriato-subfibrilloso; hymenium e tuberculoso levi, vix rimoso; sporis hyalinis, obovatis, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx $2\frac{1}{2}$ - $2\frac{3}{4}$; basidiis clavatis, 15-16 \approx 4; hyphis contextus septato-nodosus, tenuibus, 2-3 μ . crassis.

Hab. ad truncos Alni, in Polonia. — Habitu ad *Corticium leve* accedit.

16. **Corticium pruinaum** Bres. Fungi Polonici in Ann. Mycol. 1903, 616 p. 98. — Late effusum, byssaceo-tomentosum, molle, laxè contextum, ambitu subsimilari, demum secedenti-revolutum, ex albido mox luride cremeum; hymenio exsiccando flocculoso-fatiscente; sporis hyalinis, amygdaliformibus, 5-7 \approx 3- $3\frac{1}{2}$; basidiis clavatis, 18 \approx 6-7; hyphis subhymenialibus, 7-8 μ ., basalibus usque ad 15 μ . crassis, septatis, vix nodosis.

Hab. ad ramos corticatos Frangulæ Alni, in Polonia. — Species valde *Corticio isabellino* (Schroeter) Eichler affinis, sed forma sporarum, colore et hyphis subhymenialibus latioribus differt.

17. **Corticium frustulosum** Bres. Fungi polonici in Ann. Mycol. 1903, 617 p. 98. — Late effusum, flocculoso-submembranaceum, molle, ambitu pruinato, ex albido luride alutaceo-subumbrinum; hymenio levi, subpruinoso, minute rimoso; sporis hyalinis, subglobosis, majusculè apiculatis, 7-10 \approx 7-8; basidiis clavatis, 20-25 \approx 10-11, 2-4-sterigmaticis, sterigmatibus usque ad 15 μ . longis; hyphis principalibus usque ad 10 μ . crassis et fuscidulis.

Hab. sub cortice Populi tremulæ, in Polonia.

18. **Corticium tephroleucum** Bres. in P. Strasser, Zweiter Nachtr. zur 618 Pilzflora des Sonntagberges in Verhandl. d. k. k. zool.-bot. Ges. in Wien 1902, p. 430. — Late effusum, adglutinatum, ceraceum, ambitu e pruinato mox similari e griseo-pallidum vel ex albo cremeum; hymenio laxè subtuberculoso, ætate rimoso; sporis obovatis, 9-12,5 \approx 6-8,5 hyalinis; basidiis clavatis, 20-25 \approx 7-8; hyphis contextus mox grumoso-collapsus, 4-5 μ . crassis.

Hab. ad corticem truncorum Piri communis, Sonntagsberg.

Austria bor. — Sub duabus formis obvium. Prima e grisea vel griseo-subargillacea pallescens, secunda ex alba cremea. Structura et cetera omnia identica. Forte hæc diversitas e tempore vegetationis pendet, nam forma grisea mense Januario lecta et forma alba mense Februario.

19. **Corticium polygonium** Pers. Disp. p. 30. — Syll. VI p. 627.

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Sporæ cylindræo-curvulæ, hyalinæ, 8-12 \times 3-4; basidia clavata, 30-35 \times 6-7; inter basidia et contextum adsunt cellulæ obverse obovatæ, vacuæ, tenuiter tunicatæ, numquam prominentes, sed semper immersæ, 40-50 \times 15-20 (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

20. **Corticium cinereo-carneum** P. Henn. Fg. S. Paul. III, pag. 197 619 (Hedw. 1904). — Effusum, tenue crustaceo-membranaceum, cinereo-carneum, pruinatum, margine conformi, contextu fusco-subvino, fimbriato; basidiis clavatis, 15-20 \times 8-10; sporis globosis, levibus, hyalinis, 8-10 μ .

Hab. ad truncos, Alto da Serra Iponema, S. Paulo Brasiliæ.

21. **Corticium isabellinum** (Schroeter) Eichler. ap. Bres. Fungi Pol. 620 in Ann. Mycol. 1903, p. 97, *Hypochnus isabellinus* Schroeter Pilz. Schl. I, p. 417, nec Fries. — Effusum, isabellinum, tenue; sporis hyalinis, obovatis, 4 $\frac{1}{2}$ -6 \times 3-3 $\frac{1}{2}$; basidiis clavatis, 18-20 \times 4-5, hyphis subhymenialibus 3-5 μ .; hyphis basalibus, usque ad 15 μ . cr.

Hab. quoque ad ramos Coryli, in Polonia.

22. **Corticium alutaceum** (Schrad.) Bres. Fungi Kmet. pag. 46. Ita 621 vocandum *Corticium radiosum* Fr. Epicr. pag. 560. — Syll. VI, pag. 611.

Hab. quoque ad truncos Pini silvestris et ad ligna Betulæ. — var. **molle** (Karst.) Bres. l. infra cit., *Corticium granulatum* var. *molle* Karsten Hattsv. II, p. 147. Ad truncos Pini silv., etiam in Polonia. Hæc varietas meo sensu ad *Corticium alutaceum* potius ducenda, a quo differt sporis et hyphis aliquantulum majoribus (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 94).

23. **Corticium sulphureum** Pers. Obs. I, p. 38, nec Fr.

Hab. quoque ad ligna Quercus, in Polonia. — Sporæ hyalinæ, subglobosæ, asperulæ, 4-5 \times 3-4; basidia clavata, 16-20 \times 6-7. Meo sensu *Corticium fumosum* Fr. et *Phlebia vaga* Fr. (cfr. Syll. VI p. 613 et 698) haud specificè sunt distincta (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

24. **Corticium atrovirens** Fr. Epicr. p. 562 — Syll. VI p. 614. — *Thelephora* Fr. El. I, p. 202, *Corticium cærulescens* Karst. Hattsv. II, p. 154, *Hypochnus chalybæus* Schroet. (an Pers.?) Fl. Schl. I, pag. 416.

Hab. quoque ad truncos putridos Alni glutinosæ, in Polonia. — Sporæ globosæ, 3 μ . diam.; basidia clavata, 15-20 \times 4; hyphæ septato-nodosæ, 2-3 μ . Color luride cæruleus, sæpe pruina flavo-viridi conspersus (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

25. **Corticium botryosum** Bres. Fungi Polonici in Ann. Mycol. 1903, 622 pag. 99. — Late effusum, flocculosum, ambitu subsimilari, demum secedenti subrevoluto, album, pallescens; hymenium lacunoso-pulverulento; sporis hyalinis, fusoideo-ventricosis, utrinque apiculatis, 7-9 \times 4; basidiis clavatis, cæspitose aggregatis, 4-6-sterigmatibus, 20-25 \times 8-10; hyphis septatis, sæpe ad septa nodosis, 7-9 μ . crassis.

Hab. ad ligna Pini, in Polonia. — A *Corticio fusisporo* (Schröt.) optime distinctum.

26. **Corticium Eichlerianum** Bres. Fungi Polonici in Ann. Mycol. 1903, 623 pag. 95. — Effusum, membranaceum, subsecedens, ex albido pallide subisabellinum v. subcarneolum, ambitu pruinato-subfimbriato; hymenio levi, haud rimoso; sporis hyalinis, cylindraceo-curvulis, 6-8 \times 2 $\frac{1}{2}$ -3 $\frac{1}{4}$; basidiis clavatis, 30-35 \times 7-8, sterigmatibus usque ad 8 μ . longis; hyphis crasse tunicatis, 4-6, inferne, 8 μ . crassis.

Hab. ad ramos Quercus, in Polonia. — A *Corticio sublevi* habitu non distinguendum.

27. **Corticium chartaceum** Pat. in Duss Enum. Champ. Guadel. 1903, 624 p. 19. — Resupinatum, late effusum, tenue, coriaceo-membranaceum, glauco-cinereum, sub vitro pruinatum, subpellucidum, margine similari, superficie continua, levi, trama alba, dura, 60-100 μ . cr.; cystidiis emergentibus, 30-50 \times 12, copiosis, acutis, incoloribus, parte libera aspero-incrustatis; sporis incoloribus, ovoideo-oblongis, 7 \times 4.

Hab. ad truncos putres Simarubæ amaræ, in stagno Walkanaers Guadalupa. — *C. giganteo* subaffine.

28. **Corticium lætum** (Karst.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 94, *Hyphoderma lætum* Karst. Revue Myc. 1889, Sacc. Syll. X, p. 530, *Corticium hypnophilum* Karst. Rev. Myc. 1890.

Hab. quoque ad truncos Alni et Coryli, in Polonia. — Sporæ oblongo-obovatae, interdum uno latere subdepressa, hyalinae, 10-

14 \approx 6-8; basidia clavata, 4-sterigmatica, 35-50 \approx 7-12; hyphæ contextus septatæ, haud nodosæ, irregulares, 4-10 μ . crassæ. Cum Speciminibus a cl. Karsten benevole missis comparavi, nec differentiam inveni. Forte ad *Corticium auroram* Berk., mihi ignotum, ducendum (Bres. l. c.).

29. **Corticium deflectens** Karst. Krit. Ofv. p. 414, *Grandinia deflectens* K. Hattsv. II, p. 239. — Syll. VI, p. 503.

Hab. quoque ad ramos et truncos Salicis et Frangulæ Alni, in Polonia. — Sporæ oblongæ, hyalinæ, 6-8 \approx 2 $\frac{1}{2}$ -3; basidia clavata, 25 \approx 5-6; hyphæ 2-4 μ . Cum speciminibus authenticis comparavi, in quibus sporas ut supra inveni, nec prout habet Karsten l. c. (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 95).

30. **Corticium Queletii** Bres in Nuovo G. Bot. Ital. 1901, pag. 170, 625

Corticium calceum Quél. olim, non in Fl. Myc., nec Pers., nec Fr. — Ex orbiculari effuso-confluens, membranaceo-molle, adnatum, margine primitus subfimbriato dein similari et libero, ex albo pallide crustulinum; hymenio subruguloso, ætate late rimoso; sporis oblongis, 8-9 \approx 3-4; basidiis clavatis, 35-40 \approx 5-6; hyphis contextus septato-nodosis, tenuiter tunicatis, 3-4,5 μ . cr.

Hab. in ramis corticatis Abietis pectinatæ in Jura (QUÉLET), Helvetia pr. Neuchâtel (MORTIER) et Vallombrosa Etruriæ (CAVARA).

31. **Corticium acerinum** Pers. var. **dryinum** Pers. Syn. p. 581 (sub 626
Thelephora) *Stereum acerinum* (Pers.) Fr. — Syll. VI p. 687.

Hab. quoque ad corticem Æsculi Hippocastani, in Polonia. — Sporæ 11-14 \approx 6-8. — var. **macrospora** Bres. Fungi Polonici, in Ann. Mycol. 1903, pag. 96. Ad ramos Corni sanguineæ, in Polonia. Sporæ ovato-oblongæ, 15-20 \approx 6-9; basidia clavata, 70-100 \approx 10-12; paraphyses 4-6 μ . crassæ; hyphæ 3-4 μ . Species hæc quoad dimensionem sporarum et basidiorum variabilissima!

32. **Corticium centrifugum** (Lév.) Bres. Fungi Polonici in Ann. Myc. 627
1903, pag. 96, *Rhizoctonia centrifuga* Lév. Ann. Sc. Nat. 1843, pag. 225.

Hab. ad truncos Betulæ, Populi et Pini, in Polonia. — Sporæ hyalinæ, oblongæ, 5-7 \approx 3-4; basidia clavata, 20-25 \approx 5-6; hyphæ tenues, septato-nodosæ, 3-5 μ . Sclerotia non vidi. A *Cort. arachnoideo* Berk. notis micrologicis distinctum (Bres. l. c.).

33. **Corticium Typhæ** (Pers.) Fuckel Symb. pag. 27, *Athelia Typhæ*

Pers. Myc. Eur. I, pag. 84, *Athelia scirpina* Thüm. Myc. Univ. n. 1505! *Corticium scirpinum* Winter Pilze p. 340.

Hab. ad culmos et folia *Scirpi silvatici* et *Caricis* sp., in Polonia. — Sporæ hyalinæ, oblongæ, subnaviculares, 18-27 \times 7-8; basidia clavata, 2 4 sterigmatica, 25-35 \times 8-10; hyphæ irregulares, 2-5 μ . latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

34. ***Corticium muscicola*** Bres. Fungi Polonici in Ann. Mycol. 1903, 628 p. 96. — Interrupte effusum, membranaceum, ex albido luride alutaceum, ambitu fibrilloso-byssinum; hymenio e muscis undulato, secus levi, vix rimoso; sporis hyalinis, obovatis, 4-4 $\frac{1}{2}$ \times 2-2 $\frac{1}{2}$ guttulatis; basidiis clavatis, 15-18 \times 4-5; hyphis subhymenialibus tenuibus, 3-4 μ . contextus rigidis, 5-8 μ . sæpe ad septa nodosis.

Hab. ad muscos, in Polonia.

35. ***Corticium chlamydosporium*** Burt Ann. Rep. N. Y. State Mus. 629 1901, n. 54, p. 154 (Diagnosis l. c. desideratur).

PENIOPHORA Cooke — Syll. VI pag. 640, IX p. 237, XI p. 128, XIV p. 223, XVI p. 193. — Cfr. *Kneiffia*, infra.

1. ***Peniophora amaniensis*** P. Henn. in Bot. Jahrb. 1904, p. 43. — 630 Crustaceo-effusa, subcarnescens, pallide flavida, ambitu pallido byssacea; hymenio minute verrucoso; cystidiis sparsis, subulatis, granuloso-verrucosis, hyalinis, apice obtusis, 20-40 \times 5-8; basidiis subclavatis, 10-14 \times 3,5; sporis ovoideis vel ellipsoideis, hyalinis, 1-2-guttulatis, 3,5-4,5 \times 2,5-3.

Hab. in silvis sempervirentibus supra Amani, Ost Usambara Africæ orient. (ENGLER).

2. ***Peniophora Coffeæ*** Zimm. in Centr. f. Bakter. Paras. 1901, n. 3, 631 pag. 102. — Adpressa, tenuis, subcoriacea, usque 5 mm. diam., margine radiato-fimbriato, læte flavido; hymenio rubiginoso-brunneo, velutino; cystidiis solitariis, conico-oblongatis, supra basidia eminentibus, crasse tunicatis, apice acutis, 80-95 \times 8, rufis; basidiis tetrasporis; sterigmatibus 3 μ . longis; sporis hyalinis, levibus, globosis, 5-6 μ . diam.

Hab. in cortice ramorum adhuc vivorum *Coffeæ arabicæ*, cui innocua videtur, in insula Java.

3. ***Peniophora disciformis*** (DC.) Cooke — Syll. VI pag. 642 — var. 632 ***borealis*** Peck, Harrim Alaska Exped. Crypt. pag. 43. — A typo differt colore rubescente; cystidiis dimidio minoribus, disco pruinoso v. pulvereo; sporis

Hab. ad terram. Yakutat Bay, Alaska (TRELEASE). — Ubi specimen fertilia, forte species nova demonstrabitur.

4. **Peniophora crassa** Burt, Ann. Rep. N. Y. State Mus n. 54, 1901, 633 p. 155 (Diagnosis l. c. desideratur).

KNEIFFIA Fr. Epicr. p. 529 (1838), *Peniophora* Cooke in Grev. VIII, p. 20 (1879) — Syll. VI p. 510, IX p. 216, XI pag. 114, XIV p. 11 et 210. Cfr. *Peniophora*, supra. — Genus *Kneiffia* Fr. ad typum *Kneiffia setigeræ* constitutum, a genere *Peniophora* Cooke non distinguendum. Nota aliqua exhibita erronea, prout basidia monospora, nam in genuina quoque *Kn. setigera* basidia sunt tetraspora. De cetero est *Corticium* cystidiis præditum. — Sensu Auctorum hoc genus heterogeneum, nempe *Peniophoræ* sp. et *Odon-tiæ* sp. amplectens, contra sensum Auctoris (Fries) qui clare dicit: «hymenium granulis verrucisque destitutum, sed tantum setis rigidis strigoso-exasperatum (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

1. **Kneiffia setigera** Fr. Epicr. pag. 529. — Syll. VI p. 510 et IX p. 218 — Bres. Hym. Hung. Kmetiani p. 40.

Hab. quoque ad truncos Alni, Betulæ, Populi tremulæ et Salicis Capræ, in Polonia. — Forma consueta omnino *Corticiorum*; resupinata late effusa, ceraceo-membranacea, ambitu pruinato, primitus alba, dein alutaceo-crustulina; hymenium generatim leve, rarius tuberculosum, demum rimosum; cystidiis velutino-exasperatum; sporæ hyalinæ, cylindræ, subcompressæ, 10-15 \times 4-4 $\frac{1}{2}$; basidia clavata, tetraspora, 30-35 \times 6-7; cystidia sparsa, rarissime subfasciculata, cylindræ v. subfusoidæ, tenuiter tunicata, tuberculoso-furfuraceo-incrustata, interdum septata et ad septa sæpe nodosa, 120-180 \times 8-12 vel ultra; hyphæ contextus 4-6 μ . latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

2. **Kneiffia tomentella** Bres. Fungi Polonici, in Ann. Mycol. 1903, 634 pag. 103. — Late et interrupte effusa, mollis, tomentosula, laxè contexta, ambitu arachnoideo, ex albida alutacea vel demum subochracea; hymenio e sublacunoso levi; sporis hyalinis vel substramineis, 1-guttulatis, obovatis, 3 $\frac{1}{2}$ -4 $\frac{1}{2}$ \times 2 $\frac{1}{2}$ -3; basidiis clavatis, 20-25 \times 4-5; cystidiis subfusoides, apice obtuso, tenuiter tunicatis, apice laxè granuloso-incrustatis, mox glabris, interdum septato-nodosi, 70-90 \times 4-5, parte prominula 30-40 μ .; hyphis contextus, 2-3 μ . cr.

Hab. ad folia coacervata et ligna mucida, in Polonia.

3. **Kneiffia subabscondita** Bres. Fungi Polonici in Ann. Mycol. 1903, 635 p. 101, *Corticium confluens* Fr. var. *subcalceum* Karst. in Revue Myc Avril 1888 — Syll. VI p. 627 et IX p. 232 — *Corticium leve* Pers. var. *subcalceum* Karst. Krit. Ofv. 1892, pag. 51? — Late effusa, adglutinata, submembranacea, ambitu radiato v. pruinato, pallida, subalutacea; hymenio sublevi vel colliculoso-subtuberculoso; sporis hyalinis, oblongis, $3\frac{1}{2}$ - $4\frac{1}{2}$ \approx 2 - $2\frac{3}{4}$; basidiis clavatis, 20-25 \approx 4-5; cystidiis raris, cylindraceis, apice obtuso, subattenuato, basi pedicellatis, crassiuscule tunicatis, granuloso-incrustatis, ut plurimum immersis, rarius usque ad 20 μ . emergentibus, 60-75 \approx 10-15; hyphis $2\frac{1}{2}$ -4 μ . crassis.

Hab. ad truncos Betulæ, Alni et Pini silv., in Polonia. — Habitu et colore *Corticio confluente* Fr. simillima, a quo notis micrologicis tantum tute distinguitur. Cl. Karsten locis citatis fungum describit, qui, fide speciminum mecum benevole communicatorum, cum nostro optime convenit; cystidia quoque adsunt etiamsi in diagnosi Karsteniana haud sint memorata; at sporas frustra quæsi, quas cum Karsten globosas, 9 μ . diam. dicat, quod a fungo nostro est alienum, ejus cum specie Karstenii identitatem absolutam asserere nequeo et ideo ceu novum propono (Bres. l. c.).

4. **Kneiffia polonensis** Bres. Fungi Polonici in Ann. Mycol. 1903, 635 p. 102. — Late effusa, tomentosa, ambitu similari, nivea, demum cremea; hymenio scruposo, velutino; sporis hyalinis, oblongis, 6-9 \approx 4-5; basidiis clavatis, tetrasporis, 30-35 \approx 6-7; cystidiis subcylindraceis, tenuiter tunicatis, parte prominula granuloso-incrustata, septata, ad septa interdum nodosa, 200-230 \approx 8-9, circiter 80-90 μ . emergentibus; hyphis basidiophoris 5-6 μ . cystidiophoris 6-8 μ . latis, septato-nodosis.

Hab. ad truncos Quercus et Ulmi, in Polonia.

5. **Kneiffia Frangulæ** Bres. Fungi Polonici in Ann. Mycol. 1903, 637 p. 100. — Late effusa, membranaceo-mollis, crassa, subtus fibrillosa, ambitu fimbriato, ex albida cremeo-subalutacea; hymenio levi, interdum subundulato, haud rimoso; sporis hyalinis, oblongis, hilariter depressis, 7-9 \approx 4-5; basidiis clavatis, 25-30 \approx 5-6; cystidiis fusoideis, glabris, 30-45 \approx 6-8 parum prominulis, raro usque ad 15 μ .; hyphis subhymenialibus tenuibus, irregularibus, 3-4 μ .; hyphis basalibus rigidiusculis, regularibus, horizontalibus, septato-nodosis, 3-4 μ . cr.

Hab. ad ramos Frangulæ Alni, in Polonia. — Habitu videtur prorsus *Corticium leve* Pers. f. *pallida* (= *Thel. laxa* Pers.).

6. **Kneiffia farinosa** Bres. Fungi Polonici in Ann. Myc. 1903, p. 105. 638

— Late effusa e farinosa submembranacea, membranula tenui, laxe contexta et demum separabili, ambitu pruinato, ex alba cremea; hymenio sublevi, furfurello; sporis hyalinis, subglobosis vel subellipticis, $7-11 \approx 5-7\frac{1}{2}$; basidiis clavatis, $30-35 \approx 7-8$; cystidiis subcylindratis, apice obtuso, subattenuato, crasse tunicatis, granuloso-incrustatis, glabrescentibus, $75-90 \approx 7-12$; hyphis contextus, $2\frac{1}{2}-4\frac{1}{2}$ μ . crassis.

Hab. ad ramos Salicis, Ulmi etc., in Polonia.

7. **Kneiffia clavigera** Bres. Fungi Polonici in Ann. Myc. 1903, p. 103. 639

— Late effusa, submembranacea, ambitu pruinato, ex albida cremeo-subalutacea; hymenio in vegeto subtuberculoso, in sicco levi; sporis hyalinis, oblongis, $9-10 \approx 5-6$; basidiis clavatis, $35-40 \approx 6-7$; cystidiis clavatis vel clavato-subcapitatis, tenuiter tunicatis, glabris, $60-75 \approx 14-17$; parte prominula, $20-24$ μ .; hyphis contextus $4-6$ μ . cr.

Hab. ad lignum Populi moniliferæ, in Polonia.

8. **Kneiffia avellanea** Bres. Fungi Polonici in Ann. Myc. 1903, p. 102. 640

— Late effusa, tenuis, ceraceo-rigescens, adglutinata, ex avellanea fuscidula, ambitu pruinato, albo; hymenio e cystidiis sub lente velutino, haud rimoso; sporis hyalinis, cylindratis-curvulis, $7-8 \approx 2-2\frac{1}{2}$; basidiis clavatis, $18-20 \approx 4-5$; cystidiis fusoido-cuspidatis crasse tunicatis, furfuraceo-incrustatis, glabrescentibus, $75-100 \approx 9-12$; hyphis conglutinatis, $3-4$ μ . crassis.

Hab. ad ramos Ulmi campestris, in Polonia. — *Peniophoræ cinereæ* Fr. proxima, sed præcipue colore et cystidiis multo majoribus distincta.

9. **Kneiffia carneola** Bres. Fungi Polonici, in Ann. Mycol. 1903, 641

p. 104. — Late et interrupte effusa, flocculosa, ambitu furfuraceo, pallide et luride incarnata; hymenio velutino, haud rimoso; sporis hyalinis, subamygdaliformibus, apiculatis et hilariter depressis, $6-8 \approx 4-4\frac{1}{2}$, raro $9-10 \approx 5$; basidiis clavatis, $20-25 \approx 5-6$, 4-sterigmaticis, sterigmatibus $4-6$ μ . longis; cystidiis raris, conico-cuspidatis, basi ventricosis, e ruguloso-subincrustatis mox levibus, $90-100 \approx 8-9$; hyphis irregularibus, mollibus, septatis, raro nodosis $3-5$ μ . cr.

Hab. ad ramos Pini silvestris, in Polonia. — Specimen parum diversum habuit cl. Bres. quoque a Suecia a cl. Romell.

10. **Kneiffia velutina** (De C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 100, *Thelephora* De C. Fl. Fr. VI, p. 33, *Xerocarpus*

alneus Karsten Hattsv. II, p. 137 pr. p.. *Peniophora velutina* (DC.) Cooke et *Peniophora Karstenii* Masee Monogr. of Thel. p. 153. — Syll. VI, p. 644 et IX, p. 238.

Hab. quoque ad truncos *Quercus*, *Tiliæ*, *Coryli*, *Populi* et *Pini* in Polonia. — In vegeto color hujus speciei sæpe pallidus vel cremeo-gilvidus, sed in sicco semper carneus fit. *Peniophora Karstenii* est forma pallidior ambitu subsimilari vel minus strigoso. Specimina a Karsten mecum benevole communicata ex parte huc et ex parte ad *Stereum alneum* Fr. genuinum spectant (Bresadola, l. c.).

11. **Kneiffia tenuis** (Pat.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 105, *Corticium tenue* Patouillard in Revue Myc. 1885, p. 182. — Syll. VI, p. 632.

Hab. ad ramos *Coryli*, in Polonia. — Sporæ cylindræ, 8-9 \approx 4-4 $\frac{1}{2}$; basidia clavata, 30-35 \approx 6-7; cystidia cylindræ, tenuiter tunicata, apice tuberculoso-incrustata more cystidiorum *Inocybarum*, 70-75 \approx 9-12; hyphæ 3-5 μ . crassæ. *Kneiffiæ setigeræ* forte nimis affinis.

12. **Kneiffia subsulphurea** (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subsulphureum* Karsten Symb. VIII, p. 12. — Syll. VI, p. 632.

Hab. quoque ad ligna *Pini silvestris*, in Polonia. — Sporæ hyalinæ vel stramineæ, cylindræo-subcurvulæ, 7-9 \approx 2-3; basidia clavata, 20-25 \approx 5-6; cystidia rara, subfusoides-cuspidata, sæpe sinuosa, tenuiter tunicata, laxè superne granuloso-scabra, valde prominula, 6-8 μ . crassa; hyphæ subhymeniales 3-4 μ .; basales usque 6 μ . latæ. Cum speciminibus authenticis a cl. Karsten habitis comparavi. (Bres. l. c.).

13. **Kneiffia subalutacea** (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subalutaceum* Karsten Symb. Myc. Fenn. X, p. 65. — Syll. VI, p. 636.

Hab. ad ligna *Pini silvestris*, in Polonia. — Sporæ hyalinæ, cylindræo-curvulæ, 6-8 \approx 1 $\frac{1}{2}$; basidia clavata, 20-24 \approx 4; cystidia cylindræa, apice obtuso, levia, tenuiter tunicata, 70-100 \approx 5-6; hyphæ 2-3 μ . *Kneiffiæ glebulosæ* Bres. proxima. Cum speciminibus authenticis *Corticii subalutacei* K. comparavi. Etiam e Suecia habui a cl. L. Romell (n. 845).

14. **Kneiffia serialis** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 101, *Corticium* Fr. Dpier. p. 563. — Syll. VI, p. 624, *Xero-carpus cacao* Karst. Hedw. 1890, p. 271.

Hab. ad ligna et truncos *Pini silvestris*, in Polonia. — Sporæ hyalinæ, cylindræco-subcurvulæ, $5-6 \times 2-2\frac{1}{2}$; basidia clavata, $15-16 \times 4-5$; cystidia fusoidæo-cuspidata, apice primitus granuloso-incrustata, dein glabra, interrupte distributa, $56-64 \times 4-5$; hyphæ contextus conglutinatæ, parum evidentes, $3-4\frac{1}{2}$ μ . crassæ: Variat pallida, subtetacea, carneo-fuscidula, sublivida etc. Habitu videtur forma tenuis *Corticii lividi* Fr. (Bres. l. c.)

15. **Kneiffia Roumeguerii** Bres. Fungi Polonici in Ann. Mycol. 1903, ⁶⁴⁶ p. 102 et in Fungi Trid. II, p. 36, tab. 144, f. 1 sub *Corticio*. — Syll. XI, p. 125.

Hab. quoque ad truncos *Quercus*, in Polonia et pr. Romam — Specimina hujus speciei habui ex America boreali a cl. Prof. Burt sub nomine *Peniophora Ravenelii* Cooke cum nota «distributed in Ravenel Fung. Car. 2, n. 39 under name of *Corticium leve*». Diagnosis tamen Cookei in Grev. VIII, pag. 21 cum meo fungo minus concordat et insuper Cooke scripsit quod sua species = *Corticio Auberiano* Rav. n. 1369 (non Mont.) est. An *Corticium leve* Rav. est = *Corticium Auberianum* Rav.? (Bres. l. c.)

16. **Kneiffia sanguinea** (Fr.) Bres. Fungi Polonici in Ann. Mycol. ⁶⁴⁷ 1903, p. 101, *Corticium* Fr. Epicr. p. 561. — Syll. VI, p. 612, *Corticium glabrum* Berk. et C. North Am. Fung. n. 255, non Ellis.

Hab. ad ramos *Quercus silvestris*, in Polonia. — Sporæ hyalinæ, obovatæ, $5-6 \times 3$; basidia clavata, $35-40 \times 6-7$; cystidia fusoidæa, cuspidata, glabra, $55-60 \times 6-7$, non ubique distributa; hyphæ septatæ, vix nodosæ, subhymeniales 4 μ ., basales usque ad 8 μ . crassæ, succo granuloso fulvo farctæ. Color hujus speciei in sicco lateritio-miniatus, sed in vegeto pallidus, hymenii pallido-cremeus; tactu ut in sicco coloratur. Specimina originalia Friesiana vidi, cum quibus specimina americana *Corticii glabri* B. & C., a cl. Prof. Burt missa, exacte conveniunt. *Corticium glabrum* Ellis North Am. Fung. n. 716 est = *Peniophora carnea* (B. et C.) Cooke (Bres. l. c.)

17. **Kneiffia purpurea** (Cooke et Morg.) Bres. Fungi Polonici in Ann. ⁶⁴⁸ Mycol. 1903, p. 100, *Thelephora purpurea* Cooke et Morg. Myc. Fl. Miami Valley p. 198, *Hymenocharte* Cooke — Syll. VI, p. 597.

Hab. ad truncos, in Polonia. — Sporæ hyalinæ, subcylindræcæ, $6-7 \times 3$; basidia clavata 6-7 μ . lata; cystidia cylindræco-subfusoidæa, hyalina, demum basi straminea, crassiuscule tunicata, apice obtusa, primitus tunicata, dein granuloso-asperula, $100-120 \times$

8-10; hyphæ contextus 3-4 μ . latæ. Cum speciminibus authenticis in Morgan n. 683 comparavi (Bres. l. c.).

18. **Kneiffia plumbea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Hym. Eur. p. 663. — Syll. VI, p. 624.

Hab. quoque ad ligna, in Polonia. — Late effusa, primitus purpureo-violacea, dein ætate plumbea, rimosissima; sporæ hyalinæ, cylindræo-curvulæ, 9-11 \approx 3-4; basidia clavata, 30-32 \approx 6-7; cystidia parum prominula, tunicata, fusoidea, 36-40 \approx 7-10; hyphæ irregulares, conglutinatæ, parvæ, 3-4 μ . crassæ. *Peniophoræ cinereæ* Fr. admodum affinis et forte tantum ejus varietas. Cum speciminibus originalibus friesianis comparavi. Specimina a Karsten habita jam primitus plumbea et minus compacta, forsitan quia sterilia, de cetero vix diversa (Bres. l. c.).

19. **Kneiffia longispora** (Pat.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 1051, *Hypochnus* Patouill. Journ. Bot. 1894, n. 221. — Syll. XI, p. 130.

Hab. quoque ad truncos *Betulæ*, *Alni*, *Carpini*, *Populi* et *Æsculi*, in Polonia. — Sporæ hyalinæ, sinuato-vermiculares, 12-15 \approx 2 $\frac{1}{2}$; basidia clavata, tetraspora, longe sterigmatica, 30-32 \approx 5-6; cystidia subuliformia, tenuiter tunicata, laxè granuloso-incrustata, 70-90 \approx 3-4 $\frac{1}{2}$; hyphæ septato-nodosæ 2 $\frac{1}{2}$ -4 μ . Species hæc, primo in Tunisia detecta, in Polonia rossica admodum communis videtur; etiam in Austria lecta fuit a cl. prof. equite de Höhnel. Specimina nostra cum speciminibus originalibus a cl. Patouillard benevole missis comparavi. (Bres. l. c.).

20. **Kneiffia levis** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 99, *Corticium leve* Fr. — Syll. VI, p. 611 — non Pers.

Hab. quoque ad corticem *Carpini*, *Coryli*, *Alni*, *Populi* et *Betulæ*, in Polonia. — A *Corticio levi* Pers. differt notis microscopicis, quæ secuntur: sporæ obovatæ, biguttulatæ, hyalinæ, 5-6 \approx 2 $\frac{1}{2}$ -3; basidia clavata, 35-40 \approx 6-7; cystidia subcylindræa vel subfusiformia, tenuiter tunicata e granulato-incrustata sublevia, 50-80 \approx 6-7; hyphæ basidiophoræ tenues, 3-4; hyphæ cystidiophoræ crassiuscule tunicatæ, basi usque ad 7 μ . crassæ. Teste Burt in litt., qui specimina Friesiana in Herbario Kewensi vidit, species hæc genuinum *Corticium leve* Fr. sistit. (Bres. l. c.).

21. **Kneiffia levigata** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 104, *Corticium* Fr. Epicr. p. 565. — Syll. VI, p. 628 — *Xerocarpus Juniperi* Karst. Hattsv. II, p. 138 (forma biennalis).

Hab. quoque ad ramos *Juniperi*, in Polonia. — Sporæ hya-

linæ, cylindræ, 7-10 \approx 3-4; basidia clavata, 25-30 \approx 5-6; cystidia fusioidea, furfuraceo-tunicata, 40-60 \approx 7-9; hyphæ conglutinatæ 3-4 μ . E lurido cinnamomea canescens. Species hæc a *Stereo areolato* Fr. forma resupinata, meo sensu, non distinguenda. (Bres. l. c.).

22. **Kneiffia incarnata** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103, *Corticium* Fr. Epicr. p. 564. — Syll. VI, p. 625.

Hab. quoque ad ramos Pini silvestris, in Polonia. — Sporæ hyalinæ, subcylindræ, uno latere depressæ, 8-10 \approx 4-4 $\frac{1}{2}$; basidia clavata, 35-50 \approx 6-7; cystidia fusioidea, incrustata, crasse tunicata, 60-75 \approx 10-18. (Bres. l. c.).

23. **Kneiffia gigantea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 99, *Corticium* Fr. Epicr. p. 559. — Syll. VI, p. 610.

Hab. ad ligna Pini silvestris, in Polonia. — Sporæ hyalinæ, elongato-subcylindræ, 6-8 \approx 3-3 $\frac{1}{2}$; basidia clavata, 30-35 \approx 5-6; cystidia fusioidea, crasse tunicata, furfuraceo-incrustata, 54-10 \approx 8-15; hyphæ contextus crasse tunicatæ, 4-7 μ .

24. **Kneiffia cremea** Bres. Fungi Polonici in Ann. Myc. 1903, p. 100 et in Fungi Trid. II, p. 63, tab. 173, f. 2 sub *Corticio*. *Peniophora cremea* (Bres.) Sacc. et Syd. — Syll. XVI, p. 195.

Hab. ad truncos et ramos Quercus, Carpini, Alni, Castaneæ et Pini. — Species valde communis in Polonia rossica; variat cremea, ochracea et luride straminea. Cystidia in junioribus sæpe apice granuloso-asperula, sed mox glabra.

25. **Kneiffia cinerea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Epicr. p. 563.

Hab. ad ramos Salicis cinereæ, in Polonia. — Sporæ hyalinæ, cylindræ-curvulæ, 8-11 \approx 2 $\frac{1}{2}$ -3; basidia clavata 30-35 \approx 6-7; cystidia fusioidea, tunicata, 36-50 \approx 7-12; hyphæ contextus 3-4 μ ., parcæ.

26. **Kneiffia aurantiaca** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103 et in Fungi Trid. II, p. 37, tab. 144, f. 2 sub *Corticio*. — Syll. XI, p. 126.

Hab. ad ramos Alni glutinosæ, in Polonia. — In hoc specimine sporæ 15-18 \approx 10-12; basidia 80-90 \approx 12-14; cystidia ut in typo; hyphæ 3-4 μ . crassæ.

CONIOPHORA D. C. — Syll. VI p. 646, IX p. 241, XI pag. 129, XIV p. 224, XVI p. 195.

1. **Coniophora arida** Fr. Hym. Europ. p. 659. — Syll. VI, p. 64S, 642 *Thelephora* Fr. Elenc. p. 197.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ luteæ, obverse ovatæ, 10-14 \approx 7-9; basidia clavata, 35-40 \approx 8-10; hyphæ subbasidiales hyalinæ, contextus stramineæ vel ex ætate plus minusve coloratæ, septatæ, ad septa interdum inflatæ vel nodosæ, 3-6 μ . crassæ. — Var. **lurida** Karsten Symb. VIII, p. 12 (ut species). Cum typo, a quo colore, de cetero variabili, tantum diversa. — Var. **flavo-brunnea** Bres. Fungi Polonici, in Ann. Mycol. 1903, p. 110: late effusa, primitus flocculosa, flava, ambitu albo fimbriato, dein subpapyracea, secedens, brunneo-livida, sublevis; sporæ luteæ, 9-13 \approx 6 $\frac{1}{2}$ \approx 8; hyphæ 3-8 μ . crassæ. Ad ligna Pini silv., in Polonia.

CONIOPHORELLA Karst. Finl. Basidsv. p. 438. — Syll. XIV, p. 12. — Ab affini *Coniophora* (unde nomen *Coniophorella*) differt cystidiis clavato-fusoideis eminentibus.

1. **Coniophorella byssoidea** (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Coniophora byssoidea* (Pers.) Fr. — Syll. VI, p. 652, *Thelephora* Pers. Syn. p. 577, *Diplonema sordescens* Karst. Finl. Basidsv. p. 430, *Tomentella obducens* Karst. l. c. pag. 421, *Peniophora unicolor* Peck 43 Rep. p. 23, Cfr. Syll. IX, p. 239 et 240.

Hab. quoque ad corticem et ramenta Pini silv. et ad thallum Peltigeræ cujusdam, in Polonia. — Sporæ primitus hyalinæ, guttula straminea, dein stramineæ, oblongæ, 5-6 \approx 3-3 $\frac{1}{2}$, raro 4 μ .; basidia clavata, 20-25 \approx 5-6; cystidia fusoidea, levia, sæpe 1-pluri-septata, ad septa interdum nodosa, 70-90 \approx 4 $\frac{1}{2}$ -6; hyphæ cystidiophoræ flavidæ, regulares, septato-nodosæ, 2 $\frac{1}{2}$ -4 $\frac{1}{2}$ μ .; hyphæ basidiophoræ tenues, hyalinæ, subirregulares, 4-6 μ . crassæ.

2. **Coniophorella olivacea** (Fr.) Karst. Finl. Basidsv. p. 438. — Syll. VI, p. 649, *Hypochnus* Fr. Obs. 2, p. 282 pro parte, *Coniophora Ellisii* (B. et C.) Cooke. — Syll. VI, p. 648.

Hab. quoque ad ligni Pini silvestris, in Polonia. — Sporæ luteo-fuscæ, obverse ovatæ, sæpe uno latere compressæ, 10-14 \approx 5-6; basidia clavata, 30-35 \approx 8-9 cystidia clavata vel fusoidea, e granuloso-scabra leviuscula, septata, flavida, 100-150 \approx 9-12; hyphæ contextus septatæ, raro nodosæ, fuscidulæ, 4-8 μ . crassæ. In Herbario Friesii sub nomine *Hypochnus olivaceus* Fr. duæ inveniuntur species, sc. species hic exhibita et *Hypochni* sp. sporis globosis, echinulatis etc. qui sub nomine *Hypochnus olivaceus* remanere potest. Specimina Karstenii mecum benevole communicata

cum nostris concordant. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 111).

3. **Coniophorella umbrina** (Alb. et Schw.) Bres. Fungi Polonici in Ann. Mycol. 1903, pag. 111, *Coniophora umbrina* (A. S.) Fr. — Syll. VI, p. 652 -- *Thelephora* Alb. et Schw. p. 281 β.

Hab. ad truncos Pini silvestris, in Polonia. — Sporæ fusciculæ, obverse obovatæ vel subamygdaliformes, 9-12 × 6-8; basidia clavata, 30-9-10 μ.; cystidia subfusoides, e granuloso-scarbris levia, septata, 100-120 × 9-12; hyphæ fuscae, 3-7 μ. crassæ. A *Coniophorella olivacea* Fr. fere tantum colore diversa, quæ in speciminibus visis semper constans.

HYPOCHNUS Fr. — Syll. VI p. 653, IX p. 242, XI p. 130, XIV p. 225, XVI p. 196, 1117.

1. **Hypochnus puniceus** (Alb. et Schw.) Fr. — Syll. VI, p. 661. — var. **bolaris** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Late effusus, tomentosus, lateritius, ambitu vix diversus; hymenio demum granuloso; sporis sub micr. subluteis, angulato-subglobosis, aculeolatis, 9-10 × 7-8; basidiis clavatis, 25-30 × 7; hyphis granulis fulvis repletis, 4-6 μ. crassis.

Hab. quoque ad acus Coniferarum, in Polonia. — A typo, cui colore et forma simillimus, differt sporis sinuato-angulatis, minus globosis minusque valide aculeatis.

2. **Hypochnus Gardeniæ** Zimm. in Centr. f. Bakter. Paras. 1901, n. 3, p. 102, fig. 2. — Applanatus, albus, tæniæformis, 1 mm. lat., e ramis ad petiolos et fol. pag. inf. foliorum extensus ibique tenuissimus, ex hyphis usque 13 μ. cr., intermixtis angustioribus, formatus, denique carneus et fertilis; basidiis fasciculatim stipatis cylindraceo-clavatis 15-20 μ. longis, sterigmatibus quaternis 4-5 μ. long.; sporis ovoideis, hyalinis, 5-6 × 4-5.

Hab. in ramis petiolisque Gardeniæ floridæ cultæ, cui valde noxius, in horto bot. Buitenzorg Javæ.

3. **Hypochnus fusco-ferruginosus** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 109. — Latissime effusus, tomentosus, fuscus, ambitu mox similari; hymenio sublevi, luride ferrugineo-fulvello; sporis subellipsoideo-angulatis, aculeatis, fusco-fulvis, cum aculeis 12-15 × 10-12; basidiis clavatis, 40-45 × 9-10; hyphis subhymenialibus hyalino-fumosis, contextus fuscis, septato-nodosis, ad nodos subinflatis, 4-6 μ. crassis.

Hab. ad ramos Frangulæ Alni, in Polonia. — Exacte

medius inter *Hypochnum ferrugineum* Pers. et *Hypochn. rubiginosum* Bres.

4. **Hypochnus albo-stramineus** Bres. Fungi Polonici in Ann. Mycol. 645
1903, pag. 109. — Longe lateque effusus, furfuraceo-flocculosus, straminellus, ambitu pruinato; hymenio minute scrobiculato, concolori; sporis hyalinis, ovato-subglobosis, breviter aculeolatis, 8-9 \approx 7-8; basidiis cylindraceo-subclavatis, 50-60 \approx 6-7; hyphis hyalinis, septato-nodosis, subhymenialibus 4-4 $\frac{1}{2}$ μ , basalibus usque ad 6 μ . crassis.

Hab. ad ramos Populi tremulæ, in Polonia. — Ab *H. cremicolore* cui valde accedit, sporis majoribus longiusque aculeatis et contextu laxiori præcipue differt.

5. **Hypochnus cremicolor** Bres. Fungi Polonici in Ann. Mycol. 1903, 647
p. 109. — Longe lateque effusus, tomentosus, ex albo cremicolor, ambitu furfuraceo; hymenio sublevi, concolori, demum late rimoso; sporis hyalino-substramineis, ovato-subglobosis, ambitu regulari, episporio punctato-scabro vel granuloso, 5-6 \approx 4 $\frac{1}{2}$ -5; basidiis clavatis, 30-35 \approx 6-7; hyphis contextus hyalinis, 3-8 μ . cr.

Hab. ad corticem truncorum Alni glutinosæ, in Polonia.

6. **Hypochnus cæruleus** Bres. Fungi in Ann. Mycol. 1903, p. 109. 648
— Late effusus, tomentosus, ambitu furfuraceus, atrocæruleus, tinctura sæpe subæruginea; hymenio floccoso-subscrobiculato; sporis subglobosis, subsinuatis, aculeolatis, fuscidulis, 6-9 \approx 6-7; basidiis clavatis, 30 \approx 9; hyphis hyalino-fumosis, septato-nodosis, ad nodos sæpe subinflatis, 3-6 μ . crassis.

Hab. ad terram et ad frustula lignea adhærentia, in Polonia. — Habitu et colore *Corticium cæruleum* Fr. simulat, sed structura optime distinctus.

7. **Hypochnus chlorinus** Masee in Kew Bull. 1901, p. 158. — Su- 649
biculo latissime effuso, membranaceo, subsecedenti, subtus et ambitu fibrilloso; hymenio chlorino, densissime granuloso; basidiis clavatis, apice truncatis 11-13 \approx 5, 4-sterigmaticis; sporis globosis hyalinis 4 μ . diam.

Hab. in truncis in Tasmania (RODWAY). — Zonæ effusæ luteo-griseæ granuloso-pulverulentæ, lecideiformes.

8. **Hypochnus Bresadolæ** Brinkmann in Bres. Fungi Polonici in 650
Ann. Mycol. 1903, p. 108. — Late effusus, tomentosus, cacainus, ambitu subradiato, albido, mox concolore; hymenio pruinato-furfuraceo; sporis globosis, luteo-fuscis, vix una alterave uno latere depressis, eximie aculeatis, cum aculeis 12-16 \approx 11-16; basidiis cla-

vatis, 35-40 \times 10-12; hyphis fuligineis, septato-nodosis, ad nodos inflatis, regularibus, 5-8 ad nodos 12 μ . crassis.

Hab. ad corticem Quercus et Pruni Cerasi in Westfalia (BRINKMANN). — Variat in forma polonica sporis 12-14 μ . diam. et hyphis 4-7 μ .

9. **Hypochnus alutaceo-umbrinus** Bres. Fungi Polonici in Ann. Myc. 651 col. 1903, p. 109. — Longe lateque effusus, tomentosus, umbrinus, margine pallide fimbriato dein similari; hymenio sublevi, pallide alutaceo vel subisabellino; sporis luteis, echinulatis, subglobosis, vix sinuatis vel angulatis, 8-9 μ . diam. vel 9 \times 8; basidiis clavatis, 40-45 \times 9-10; hyphis subhymenialibus hyalinis, subregularibus contextus stramineo-fuscis, septato-nodosis, 3-5 μ . cr.

Hab. ad Carpinum Betulum, in Polonia.

10. **Hypochnus epimyces** (Bres.) Sacc. et D. Sacc. *Corticium* (*Hypochnus*) *epimyces* Bres. Verh. Z. B. G. Wien 1901, p. 641. — Effusus tenuis, tomentosulus, fuligineo griseus; hymenio unito, pallidiore; sporis globosis v. rarius subglobosis, fumoso-hyalinis muriculatis, 8-10 μ . diam. v. 9-10 \times 8-9; basidiis clavatis, 45-50 \times 7-8; hyphis basidiophoris hyalinis, contextus stramineo-hyalinis, regularibus, 2,5-3,5 μ . cr.

Hab. supra Trametem odoratam in Sonntagberg Austriæ (STRASSER).

11. **Hypochnus fulvescens** Sacc. in D. Sacc. Myc. ital. n. 1206 et in 653 Ann. Mycol. 1904, p. 2, tab. III, fig. 1. — Effusus, ramulos ambiens, tenuissimus, sub vitro velutinus, ambitu conformi vix distincto, superficie setulis acicularibus, obtusulis, croceis, 80-90 \times 4-6 conspersus; hyphis subhymenialibus filiformibus, varie ramosis, laxè intricatis, septulatis, aureo-fulvis; basidiis ex hypharum ramulis ultimis orientibus, tereti-clavatis, apice obtusis, 14-16 \times 3-4, dilute fulvis; sterigmatibus subbinis brevissimis; sporis globosis, non omnino regularibus, minutis, 3-4 μ diam., subhyalinis.

Hab. ad ramulos emortuos Callunæ vulgaris, Riva Valdobbia (Novara), autumno 1900 (Ab. ANT. CARESTIA). — Affinis *Hypochno setoso* Schröt.

12. **Hypochnus chætophorus** v. Höhnelt, Fragmente zur Mykologie 1903, 654 p. 21. — Late effusus, tenuis, arcte adnatus, indeterminatus, floccoso-grumosus, setulis dense approximatis hispidulo-velutinus, candidus vel pallidus, hymenio e basidiis tetrasporis, 4-5 μ . crassis et setulis albis, rigidis, acutis, levibus, acicularibus, crassissime

tunicatis, ad basin plerumque ramoso-dilatatis, 100-160 \times 5-10 formato; sporis ellipsoideis, hyalinis, levibus 6 \times 3.

Hab. in Laricis ligno putrido in silvis ad Krummbachleithen montis Schneeberg Austriæ inferioris.

13. **Hypochnus Weisseanus** P. Henn. Verh. Brandbg. XXXXIII, 655 1901, p. XII. — Pellicula tenui, albida, subcompactiuscula, folia tegente; hyphis intricato-ramulosis, hyalinis, septulatis 4-6 μ . crassis; basidiis interdum dense compressis, clavulatis, 15-22 \times 4-6, hyalinis, apice sterigmata 2 vel 4 gerentibus; sporis subglobosis, hyalinis, levibus vel subechinulatis, 4-5 μ . crassis; conidiis episorio brunneo, verruculoso, 7-10 μ . diam.

Hab. in foliis Leucobryi vulgaris, pr. Nahmitz Germaniæ (Doct. A. WEISSE).

14. **Hypochnus arachnoideus** (Berk. et Br.) Bres. Fungi Polonici in 656 Ann. Mycol. 1903, pag. 108, *Thelephora* B. et Br. F. of Ceyl. n. 581. — Syll. VI, pag. 543, *Thelephora floridana* Ell. et Ev. Journ. Mycol. II, p. 37.

Hab. quoque ad ramos Tiliæ in Polonia. — Sporæ globosæ, subangulatæ, fuscæ, aculeatæ, 8-10 \times 8-9, rarius 7-9 \times 7; basidia clavata, 30-35 \times 7-8; hyphæ contextus fuscæ, regulares, basales punctato-scabræ vel tunica granoso-aculeolata primitus indutæ, usque ad 9 μ . crassæ. — Var. **murinus** Bres. l. c.: late effusus, tomentosus, fuscus, ambitu primitus pallido-subfimbriato, dein concolori et similari; hymenio sublevi, fumoso vel murino-fumoso; sporis fuscis, subgloboso-angulatis, aculeatis, 8-9 μ . diam. vel 9-10 \times 7-8 sine aculeis; basidiis clavatis, 30-35 \times 9-10; hyphis subhymenialibus pallidis, 3-4 μ ., contextus fuscis, regularibus, septato-nodosis, 5-6 μ . crassis. Ad ramos, in Polonia A typo different hymenio discolore (an ex ætate?) et contextu fusco, nec umbrino-castaneo.

15. **Hypochnus cæsius** (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107, *Corticium* Pers. Obs. I, p. 15, tab. 3, f. 6, *Thelephora* Fr. Hym. Europ. p. 638. — Syll. VI, p. 540.

Hab. quoque ad terram et folia decidua, in Polonia. — E cæσιο-cinereo canescens vel in perfecte evolutis ravidus, ambitu subfimbriato; sporæ globosæ vel globoso-subsinuosæ, fuscæ, aculeolatæ, 8-11 μ . diam. vel 9-11 \times 7-9; basidia clavata, 30-35 \times 8-10; hyphæ septato-nodosæ, ad septa sæpe inflatæ, 3-7 μ . crassæ.

16. **Hypochnus chalybeus** (Pers.) Sacc. — Syll. VI, p. 659, *Tomentella chalybea* Pers. Obs. II, p. 2.

Hab. quoque ad ramos *Coryli Avellanæ*, in Polonia. — Late effusus, tomentosus, brunneolus, margine fimbriato vel sub-similari; hymenium leve, plumbeum vel chalybeo-cinereum, ætate substrato concolor; sporæ subglobosæ. subdepressæ, aculeatæ, 10-14 \times 9-10; basidia clavata, 40-45 \times 10-12; hyphæ subhymeniales hyalinæ, 3-4 μ .; hyphæ contextus fuscae, regulares, septato-nodosæ, 4-7 μ . Specimina authentica persooniana non vidi, nec in Museo lugdunensi exstant; diagnosis tamen l. c. bene convenit, exclusâ tinctura olivacea, quæ in fungo nostro nunquam obvia. Sensus Auctorum nonnullorum genuina *Tomentella chalybea* Pers. esset = *Corticium atrovirens* Fr., de quo supra, quod tamen non chalybeum sed cæruleum, nec olivaceo-cinereum sed flavo-viride (Bresadola, Fungi Polonici in Ann. Mycol 1903, p. 106).

17. **Hypochnus cinerescens** Karsten Finl. Basidsv. p. 441. — Syll. IX, p. 244.

Hab. quoque ad truncos *Quercus* et *Alni*, in Polonia. — Sporæ globosæ, luteolæ, echinulatæ, 6-7 \times 5-6-6 $\frac{1}{2}$; basidia clavata, 20-25 \times 5-6; hyphæ contextus hyalino-stramineæ, basales punctato-scabræ, regulares, septato-nodosæ, 3-4 $\frac{1}{2}$ μ . Ab *Hypochno granoso* B. et C. colore modo diversus et probabiliter tantum ejus statum juvenilem sistit. Hymenium quoque granosum, prout in specimenibus authenticis a cl. Karsten habitis. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 108).

18. **Hypochnus eradians** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 106, *Thelephora* Fr. El. I, p. 195. *Coniophora eradians* Fr. — Syll. VI, p. 651.

Hab. quoque ad corticem *Frangulæ Alni* et *Pini silv.*, in Polonia. — Hymenium rugoso-radiatum vel etiam leve, demum granulosum, ambitu pulchre albo-fibrilloso-radiato; sporæ fuscae, subglobosæ, plus minusve angulato-sinuosæ, echinulato-granulosæ, 8-12 \times 7-9, generatim 9-10 \times 7; basidia clavata, 30-35 \times 7-8; hyphæ fuscae, septato-nodosæ, sat regulares, 4-7 μ . Species hæc forte nil aliud quam forma lignicola *Hypochni crustacei* (Schum.) Karst.

19. **Hypochnus furfuraceus** Bres. Fung. Trid. II, p. 97, tab. 208, ⁶⁵⁷ f. 2. — forma **cinerella** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Syll. XVI, p. 196.

Hab. ad ligna *Pini silv.* et *Betulæ*, in Polonia. — Quam typus tenuior, cinerellus; basidiis 12 \times 9-10, 2-4-sporis, ut plurimum bisporis, sterigmatibus usque ad 7 μ . longis; sporis globosis 6-7 μ . diam. punctato-scabris. Probabiliter forma juvenilis.

20. **Hypochnus granosus** (Berk. et C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 108, *Thelephora* Berk. et C. North Am. Fungi n. 224. — Syll. VI, p. 546.

Hab. quoque ad truncos *Betulæ*, in Polonia. — Sporæ fuscoluteæ, subglobosæ, subangulatæ, echinulatæ, 7-8 \times 6-7; basidia clavata, 20-25 \times 5-6; hyphæ subhymeniales, tenues, 4-5 μ .; hyphæ contextus regulares, tenaces, hyalino-fuscidulæ, septato-nodosæ, 3 μ ., basales punctato-scabræ, 4-5 μ . crassæ.

21. **Hypochnus isabellinus** Fr. Obs. II, p. 281, tab. VI, f. 3. — Syll. VI, pag. 657. — *Hypochnus argillaceus* Karst. Symb. Myc. Ser. VIII, p. 13, *Tomentella flava* Bref. Unters. VIII, p. 11, fide specimenis a Brinkmann missis ad cl. Bres.

Hab. quoque ad corticem *Pini silv.*, in Polonia. — Sporæ globosæ, flavæ, aculeatæ, 10-12 μ . diam. cum aculeis, absque aculeis 7-9 μ .; basidia clavata variæ longitudinis, 20-60 \times 8-10, 2-4-stigmatica; hyphæ irregulares, hyalino-stramineæ, septatæ, ad septa inflatæ, 8-15 μ . crassæ. Color in specimenibus junioribus luride argillaceus, in bene evolutis, trama magis compacta, læte isabellinus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 106).

22. **Hypochnus pellicula** Fr. ut var. *Hypochni mollis* Fr. Syll. VI, p. 656 — *Corticium echinosporum* Ellis in E. et E. N. A. Fungi n. 608. — Syll. VI, p. 633.

Hab. quoque ad ramos *Pini silvestris* et vix diversus ad ramos *Alni*, in Polonia. — Sporæ stramineæ, globosæ, echinulatæ, 5 $\frac{1}{2}$ -7 \times 5-6 vel 6-7 μ . diam.; basidia clavata, 20-25 \times 5-6 vel in specimenibus crassioribus 30 \times 4-8; hyphæ hyalinæ, septato-ramosæ, raro nodosæ, regulares, 3-4 $\frac{1}{2}$ μ . crassæ. Specimina americana exacte concordant. *Hypochnus mollis* Fr. typicus sporis gaudet subellipticis, levibus; insuper receptaculum magis compactum etc. ita ut var. *pellicula* ceu specificè distincta habeatur. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 107).

23. **Hypochnus tristis** Karsten Finl. Basidsv. p. 440, *Hypochnopsis* 653 *fuscata* Karsten l. c. p. 443, *Hypochnus fuscatus* (Karst.) Sacc. Syll. IX, p. 244, *Hypochnus sitnensis* Bres. Hym. Kmet. p. 51.

Hab. quoque ad ramos *Rhamni cathartice*, in Polonia. — Specimina originalia *Hypochnopsis fuscata* Karsten examinavi et cum specimenibus *Hypochni tristis* K., pariter originalibus, et *Hypochni sitnensis* Bres. comparavi et identica inveni. Sporæ *Hypochnopsis fuscata* quoque sunt globoso-subangulatæ, muricato-verrucosæ, 9-12 \times 9-11, nec, ut habet Karsten, leves, 3-4 μ . diam.

(Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 107). — Var. **ardosiacus** Bres. l. c.: differt hymenio fusco-palumbino. Ad truncos Betulæ in Polonia.

EXOBASIDIUM Wor. — Syll. VI p. 664, IX p. 244, XI pag. 130, XIV p. 229, XVI p. 198.

1. **Exobasidium Yoshinagai** P. Henn. Fungi japonici IV, in Botan. Jahrbücker vol. XXXI, 1902, p. 736. — Maculis rotundato-effusis, fuscis; hymenio hypophyllo, haud incrassato, cinereo-incarcescente, subceraceo, dein subpulverulento; basidiis clavatis; sporis subcylindræis v. oblonge subfusoides, utrinque obtusis, 5-6 \approx 2-2,5 hyalinis. 659

Hab. in foliis Rhododendri tosaënsis, Tosa Japoniæ.

2. **Exobasidium shiraianum** P. Henn. Engl. Jahrb. 1902, XXXII, p. 38. — Hymenio hypophyllo, effuso albido, pruinoso, haud bulboso; basidiis clavatis 4-sterigmatibus, sporis fusoides, rectis vel subcurvulis 7-11 \approx 2 1/2 hyalinis. 660

Hab. in pag. inf. foliorum juniorum Rhododendri Metternichii, Mont Shirane Japoniæ (S. KUSANO).

3. **Exobasidium Pieridis** P. Henn. in Engl. Jahrb. 1902, p. 38. — Hymenio in foliis petiolisque nodulis galliformibus, subcarnosis, subglobosis vel laceratis, corneis, pruinosis, varia magnitudine; basidiis 4-sterigmaticis; sporis oblonge fusoides, rectis, hyalinis 7-9 \approx 3. 661

Hab. in foliis vivis Pieridis ovalifoliæ, Mont Tukubo Japoniæ (S. KUSANO).

ENDOBASIDIUM N. Speschnew Fungi transcaspici et turkestanici, 1901, pag. 12 (Etym. *endon* intus et *basidium*). — Hymenium fibrosum, endophytum, nunquam erumpens. Hyphæ steriles crassæ, septatæ. Hymenium leve, interdum undulatum, tenuissime granulatum. Basidia apice truncato-rotundata, bi-sterigmatica; sporæ globosæ, hyalinæ, dein olivaceo-brunnæ. Conidia minuta, globosa, hyalina.

1. **Endobasidium clandestinum** N. Speschnew, l. c., tab. II, fig. 6-11. — Maculis in acinis submaturis solitariis v. confluentibus atro-violaceis determinatis, leviter concentrico-undulatis; mycelio crassiusculo, ex hyphis stipatis, 9-14 μ . cr., tortuosis sæpe moniliformibus, intus pluri-vacuolatis, formato; hyphis fertilibus, diaphanis 80-90 \approx 2-4, apice basidiosporis; sporis ovoideis, continuis, acrogenis binis v. rarius solitariis, 8-12 \approx 7-9, ex hyalino olivaceis; hy-

phis conidiophoris paullo crassioribus, apice conidia globosa copiosissima 2 μ . diam. gerentibus.

Hab. sub epidermide acinorum submaturorum *Vitis vinifera*, quos exurit, Samarkand, Bukhara Asiæ.

CYPHELLA Fr. — Syll. VI p. 667, IX p. 245, XI p. 132, XIV p. 231, XVI p. 200.

1. **Cyphella flocculenta** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Thelephora flocculenta* Fr. El. I, p. 184 (1828), *Corticium flocculentum* Epicr. p. 559. — Syll. VI, p. 605, *Cyphella ampla* Lév. Ann. sc. nat. 1848, p. 126. — Syll. VI, p. 667.

Hab. quoque ad ramos *Populi Tremulæ*, in Polonia. — Sporæ hyalinæ, cylindræo-subcurvulæ, 9-11 \times 2 $\frac{1}{2}$; basidia clavata, apice 4-sterigmatica.

2. **Cyphella cochlearis** Bres. Fungi Lusit. in Broteria, 1903, vol. II, 663 pag. 88. — Cupulari-stipitata; cupula subhemisphærica, cernua, horizontaliter posita, angulum rectum fere cum stipite efformans, grisea, villosula 3-4 mm. lata; hymenio discoideo e levi radiatim ruguloso, griseo-fumoso; stipite farcto, tereti, pallido-griseo, puberulo, basi albo-tomentoso 3-5 mm. longo, 1 mm. circiter cr.; basidiis clavatis 25-30 \times 7-8; sporis hyalinis, obovatis v. piriformibus, 6-9 \times 4,5-6.

Hab. ad terram inter muscos minores, in Lusitania. — Adest varietas subsessilis et auriformis, sed rarior.

3. **Cyphella pseudovillosa** P. Henn. in Bot. Jahrb. 1904, p. 43. — 664 Subglobosa, clausa, initio subcupulata, extus albida villosa 0,3-0,7 mm. diam., pilis simplicibus haud septatis, acutis, hyalinis, levibus, usque ad 250 \times 4-6, disco pallido levi; basidiis ovoideis vel clavatis 13-17 \times 7-8, 2-sterigmaticis; sporis ovoideis vel late ellipsoideis, hyalinis, levibus 4-5 \times 4.

Hab. in ramis emortuis Schagajuwald, Ost Usambara, Afr. orient. (ENGLER).

4. **Cyphella muscigena** (Pers.) Fr. Epicr. p. 567. — Syll. VI, p. 681, *Thelephora* Pers. Syn. pag. 572, *Stereophyllum boreale* Karsten Symb. Myc. Fenn. XXIX, p. 104. — Syll. IX, p. 223.

Hab. ad *Atrichum undulatum*, in Polonia. — Sporæ hyalinæ, subglobosæ, guttula subolivacea, 3-4 \times 3; basidia clavata, 14-15 \times 3; hyphæ 2 μ . crassæ. Species quoad formam variabilissima. Specimen *Stereophylli borealis* Karst. a me visum formam spa-

thulatam hujus speciei sistit (Bresadola, Fungi Polonici in Ann. Mycol. p. 111).

5. **Cyphella juruensis** P. Henn. F. Amaz. I, p. 173 (Hedw. 1904). 665

— Pileo coriaceo-membranaceo, unguiculato vel oblique campanulato, postice affixo, superne pallido-brunneolo vel flavido, levi, glabro ca. $1\frac{1}{2}$ mm. longo, 1 mm. lato, hymenio concavo pallido, sublevi; basidiis clavatis, hyalinis, $7-10 \approx 2\frac{1}{2}-3\frac{1}{2}$; sporis subglobosis vel ovoideis, hyalinis, levibus, $2\frac{1}{2}-3$ μ . diam.

Hab. ad ramos Juruá St. Clara Amazoniæ (ULE). — Pilei minuti, sparsi.

6. **Cyphella patens** Annie L. Smith Journ. Linn. Soc. XXXV, p. 10 666

(extr.). — Syll. XVI pag. 1117 (nomen). — Sparsa, tubæformis, elongata, fere ad basim fissa et expansa, margine superiore incurvata, circa 5 mm. longa, 2 mm. lata, extus flava tomentosa; hymenio brunneo, plicis paucis angustis lamelliformibus instructo; sporis globosis, minute asperulis 5 μ . diam., hyalinis

Hab. in corticibus arboris in ins. Dominica Indiæ occid.

7. **Cyphella marginata** Mc Alp. Fungus diseases, Melbourne 1902, 667

p. 120, fig. 229-232. — Subgregaria, ochracea, cyathiformis, erecta, fere pedicellata, membranaceo-gelatinosa, margine setulis curvulis luteolis villosa, 0,5-1 mm. diam.; hymenio concavo, cremeo-albo; sporis hyalinis, subglobosis vel subellipticis 8-9 μ . diam. vel $11-12 \approx 8$; basidiis elongato-clavatis, hyalinis tetrasporis.

Hab. in ramis emortuis Pruni Persicæ, Armadale prope Melbourne Australiae.

8. **Cyphella lilacina** Masee in Kew Bull. 1901, p. 164. — Pileo sub- 668

sessili, campanulato, erecto, tenui, membranaceo-tenacello, margine primo involuto, undulato, 0,5-1 mm. diam et alt., extus dense tomentoso-pubescenti, pilis continuis 50-60 $\approx 5-6$, succineis, hymenio levissimo lilacino-albescente; sporis ellipticis, lilacinis, $8 \approx 5-5,5$.

Hab. in caule herbaceo emortuo, in horto botanico Aburi, Gold Coast Africae occident. — Dense gregaria, valde pilosa, *C. albo-violascenti* W. affinis.

9. **Cyphella tijucensis** P. Henn. in Hedw. 1904, p. 81. — Pileo ses- 669

sili, medio affixo, ceraceo, cupulato, 1-2 mm. diam., extus pallido, pruinoso, subfarinaceo; hymenio levi, pallido; basidiis clavatis 15-20 ≈ 4 ; sporis subglobosis v. ovoideis, 1-guttulatis, hyalinis, $4 \approx 3,5$.

Hab. in ramis Calami, Tijuca, Rio de Janeiro, Amer. merid.

10. **Cyphella Vitis** (Bon.) v. Höhn. in litt. Ita nuncupanda *Volutella Vitis* (Bon.) Sacc. III, p. 688.

TREMELLOPSIS Pat. in Duss Enum. champ. Guadel. 1903, pag. 13 (Etym. a *Tremella* et *opsis* aspectus). — Gelatinoso-tremellacea, erecta, foliaceo-lobata. Hymenium amphigenum, continuum. Basidia clavata, non septata, apice sterigmata subulata 2-4 ferentia. Cystidia nulla. Sporæ continuæ ochraceæ.

1. **Tremellopsis Antillarum** Pat. l. c. — Pileo massam gelatinosam, 670 e foliolis erectis, crispis, integris lobatisve, plus minus ramosis, radiantibus, sessilibus breviterve stipitatis formatam, efficiente, e griseolo rufo-ochraceo, parum crasso; basidiis 30-35 \times 10; sporis ochraceis, ovoideis, levibus, 8-10 \times 5-6.

Hab. ad ligna putrida, Matouba Guadalupæ (Duss). — Fungus 1-2 cm. alt., 2-3 cm. cr. Trama mollis, filamentis 10 μ . cr., tenui-tunicatis, laxiusculis.

BORNETINA Mang. et Vial. La phthiriose de la vigne, Paris 1903, pag. 6 et seqq. — Mycelium radices late ambiens membranaceo-coriaceum, superficiale, ambitu varium. Hyphæ steriles filiformes, varie intricato-contextæ, ramosæ, continuæ; fertiles ascendentes, sursum ramuloso-sporigeræ, noduloso-septatæ. Sporæ globosæ, 1-cellulares, initio leves, dein distincte verrucosæ, vertice apiculatæ, basi pedicellatæ et cum pedicello secedentes. — Videtur ad *Thelephoraceas* magis accedere. — Illustri J. B. BORNET dicatum genus.

1. **Bornetina Corium** Mang. et Vial. l. c. t. I-IV. — Characteres 671 generis. Mycelio crasso ex albo sordide fusco; sporis initio hyalinis, dein fuscescentibus, 10-12 μ . diam.

Hab. in radicibus *Vitis viniferae*, *Dactylopio Vitis* in vasis Jaffa et Caiffa in Palæstina — Radices *Dactylopio* et *Bornetina* obductæ, asphyxiâ laborant et tandem emoriuntur. Sporæ tunica duplici instructæ, initio endogenæ.

Fam. 5. Clavariaceæ CORDA

CLAVARIA Vaill. — Syll. VI p. 692, IX p. 247, XI p. 134, XIV p. 236, XVI 203.

1. **Clavaria densissima** Peck Bull. Torr. Bot. Cl. 1903, pag. 98. — 672 Cæspitibus 7-10 cm. altis, totidem fere crass., densissimis, a basi conferte et intricato ramosis, ramis solidis, intus albis, sæpe compressis, repetito et irregulariter ramulosis, subinde anastomotis,

siccis pallide ochraceis, ramulis ultimis plus minus compressis et dilatatis, in apices obtusos v. acutos binos v. plures albos terminatis; sporis navicularibus, sæpe 1-nucleatis, 8-10 \times 4-5; mycelio albido.

Hab. ad humum et detrita in silvis mixtis, Greenville Michigan Amer. bor. (B. O. LONGYEAR). — Affinis *Cl. densæ* et *Cl. condensatæ*.

2. **Clavaria caloceriformis** Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 673

Ramaria leucospora, læte colorata, luteo-aurantiaca, tandem subviscosa, tamen siccando minime cornea, sed in putredinem abiens et odorem fœtidissimum nauseosum spargens; trunco 3-5 cm. alto, flexuosulo, basim versus multo pallidior, 3-5 mm. cr., subobeso, quasi hydropico, superficie inæquali, sursum semel ramoso, ramis trunco bis ad ter brevioribus et paullo angustioribus, summo in mucrones breves, molles, acutiusculos divisus.

Hab. ad terram argillaceam, graminosam prope Bergen, Hollandiæ. — Quoad habitum et colorem maxime accedit ad fig. Schaeffer Fung. Icon. t. CLXXIV.

3. **Clavaria byssiseda** Pers. Obs. Myc. I, p. 32, Comment. pag. 54, t. 3, f. 7. — Syll. VI, p. 706.

Hab. ad ramos Quercus et Salicis fragilis, in Polonia. — Species hæc, meo sensu, vix ab auctoribus recentioribus recte est intellecta et diagnoses iconesque ultimis decenniis datæ vix dubie ad *Clavariam crispulam* Fr. ducendæ, qua de causa diagnosis novam hic exhibemus: Dense gregaria vel connato-cæspitosa, carnosu-sublenta; trunco brevi vel subnullo, puberulo, pallido, mox ramis concolore, 1-7 mm. longo, 1-3 mm. crasso, basi mycelio candido, tomentoso-lanoso, radiculis albis vel pallidis percurso, sæpe peronato; ramis brevibus, semel vel bis furcato-aut verticillato-divisis, apicibus acutis, longioribus, bi- vel trifidis vel etiam palmatis, glabris, avellaneis, demum luride isabellinis, in sicco sæpe minutissime rimosi ut furfuracei appareant; sporis hyalinis, elongato-sinuatis, veluti subsigmoideis, 13-18 \times 4-6; basidiis clavatis, 25-30 \times 8-10; hyphis contextus septatis, 4-6 μ . crassis. *Clavaria leucotephra* B. et C., *Clavaria fragrans* Ellis, *Clavaria pinophila* Peck et *Lachnocladium Micheneri* B. et C., quæ certe ad unicum speciem ducendæ sunt, videntur tantum formæ majores hujus speciei (Bresadola Fungi Polonici in Ann. Myc. 1903, p. 112).

4. **Clavaria cervicornis** Annie L. Smith Journ. Linn. Soc. XXXV, 674

pag. 10, tab. 1, fig. 6-8 (extr.). — Syll. XVI, p. 1116 (nomen). — Lignicola, 8 cm. alta, trunco simplici, subtereti, 2 cm. alto; ramis subdichotomis, supra spinosis, compressis, siccitate sulcatis; tota carnea, dein cinnamomea, velutino-pruinosa; sporis ellipticis, echinulatis, flavido-brunneis 6×8 .

Hab. ad ligna putrida, ins. Dominica Indiæ occid.

5. **Clavaria crassipes** Peck in Rep. of the State Botanist 1902, p. 27. 675

— Stipite crasso, firmo, solido vel basi sublacunoso, glabro, albedo, superne repetito ramoso; ramulis numerosis, firmis, in apices obtuse dentatos desinentibus, albidis vel luteolis; sporis oblongis, 1-nucleatis $15-17,5 \times 5,5-7,5$, basi oblique minute apiculatis.

Hab. in silvis, Sandlake, Amer. bor. — Planta 7,5-15 cm. alta, 5-10 cm. lata; stipes 2,5 cm. circ. alto; caro stipitis sub incisione brunnea.

6. **Clavaria grandis** Peck in Bull. Torr. Bot. Club. 1902, p. 73. — 676

Fragrans, 12-20 cm. alta et in summitate subæqualiter lata; stipite firmo, superne ramoso, ramis erectis vel subdivergentibus, superne attenuatis et repetito ramulosis, solido fragilique, glabro, rufo brunneo 2-2,5 cm. crasso; apicibus in statu juvenili albis, dein maturitate ferrugineo-brunneis; sporis ferrugineis subellipticis vel subglobosis, distincte verrucosis, $10-12 \times 6-8$.

Hab. inter cæspites Smilacis ad terram, Maryland, Amer. bor. (F. J. BRAENDLE).

7. **Clavaria Holmskjoldi** Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 677

Ramaria coralloides, alba, apicibus purpurascens Holmsk. Otia I p. 117 et icon. ultima n. 32 fig. dextra non sinistra. — Alba vel avellanea; ramis crassioribus semel v. bis partitis plerumque obesis v. quasi inflatis 2-4 mm. cr., plenis deorsum confluentibus; ramulis primi v. secundi ordinis varie intertextis; ramulis singulis in appendiculam bilobam v. bifurcatam curtam et obesam atro-purpuream abeuntibus; parte basilari totius plantæ sæpe longitudinaliter sulcata v. crustata; basidiis clavatis 10 μ . long.; sterigmatibus quaternis, sursum filiformibus; sporis globosis 4,2 μ . diam. hyalinis.

Hab. ad terram argillaceam prope Bergen op Zoom Hollandiæ (M. LA FONTYN). — Odor mucido-aniseus.

8. **Clavaria bicolor** Masee in Kew Bull. 1901, p. 154. — Clavulis 678

robustis, brevibus, circ. 1 cm. crassis longisque; ramis ramulisque numerosis, cylindræis, pallide umbrinis, apicibus cristato-multifidis, amethystinis; basidiis clavatis, tetrasporis; sporis hyalinis, subglobosis, asperatis, $9 \times 7-8$.

Hab. ad terram, Penang, Malacca (RIDLEY). — Totus fungus. 7-8 cm. alt.; *Cl. amethystinæ* Bull. affinis.

9. **Clavaria tsugina** Peck Rep. of the State botanist 1902, p. 27. — 679
Stipite brevissimo, glabro, e basi ramoso, solido; ramis paucis v. compluribus, suberectis, sæpe stipatis, flexuosis, duriusculis, firmis, acutis, initio cremeo-luteis dein vinoso-cinnamomeis vel rubro-brunneis; sporis ochraceis, ellipsoideis $7,5 \approx 3$.

Hab. in truncis emortuis *Tsugæ canadensis*, in montibus Adirondack, Amer. bor. — Planta 2,5-7,5 cm. alta, usque 7 cm. lata. *Cl. abietina* affinis.

10. **Clavaria ornithopoda** Masee in Kew Bull. 1901, p. 154. — Cla- 680
vulis tenuibus 1 cm. longis, ad apicem ramos 3-5 flabelliformes gerentibus, ramulis ultimis terminalibus aculeatis, nodulosis, arcuatis; ramis ramulisque pallide ferrugineis (in spiritu vini); basidiis anguste clavatis, tetrasporis; sporis ellipticis, hyalinis, glabris $6-7 \approx 4$.

Hab. ad terram, Penang, Malacca (RIDLEY).

11. **Clavaria myceliosa** Peck Bull. Torr. Bot. Cl. 1904, p. 182. — 681
Stipite tenui, solido, sursum irregulariter ramoso, fulvo; mycelio copioso ténias ramosas albas inter folia et ramulos repentis formante; ramis brevibus divergentibus, late patienti-ramulosis, stipiti concoloribus, ultimis ramulis acutis albidis; sporis subglobois, 4μ . long.

Hab. sparse v. gregatim inter folia dejecta ramulosque sub arboribus (*redwood*), in montanis pr. Standford University, California Amer. bor. — Stipes vix 0,5 mm. cr., cum ramis 1-2,5 cm. alt. *Clavaria pusillæ* affinis sed adhuc minor, apice tantum ramosa etc.

12. **Clavaria Peckii** Sacc. et D. Sacc. *Clavaria bicolor* Peck in Rep. 682
of the State Botanist 1901, p. 954, nec Masee. — Gregaria, tenuis, 16-24 mm. alta; stipite exili 1-2 mm. crasso recto vel flexuoso, solido, tomentoso, pallide luteo, superne brevi 2 vel pluridiviso; ramis aurantiacis 1-2 dichotomice divisis, acutis, concoloribus.

Hab. in pinetis, Bolton, Amer. bor. — *Lachnocladio* affinis.

13. **Clavaria luteo-alba** Rea, Trans. British Mycol. Soc. 1903-1904, 683
p. 66, pl. 3. — Clavulis simplicibus, fasciculatis v. sparsis, farctis, 4-5 cm. alt., 2-3 mm. cr., deorsum sensim tenuatis, apice constanter albis, acutis obtusisve, ceterum saturate flavis; sporis albis lacrimæformibus, h. e. obovatis basi oblique apiculatis, $5-6 \approx 3$.

Hab. inter gramina Invermay, Perthshire Britanniae. — Præcipue apice jugiter albo ab affinibus dignoscitur.

14. **Clavaria fusiformis** Sow. — Syll. fung. VI p. 718. — var. **An-** 684
tillarum Pat. in Duss Enum. champ. Guad. 1903, pag. 14. — A
typo differt cæspitibus minus densis, clavulis gracilioribus rube-
scentibus, in portionem inferiorem albam tenuatis et habitatione.

Hab. in fragmentis ligneis putridis in silvis interioribus, Pointe-Noire, Guadalupa (Duss).

15. **Clavaria Michelii** Rea Trans. Brit. Mycol. Soc. 1903, p. 39, *Cl.* 685
fragilis Holmsk. var. *gracilis* Bolt. t. 111, f. 1 (nec Pers.). —
Syll. VI, p. 721. — Fasciculata, valde fragilis, tenuis, cylindrica,
flava, deorsum alba, clava 4-7 cm. alta, 1-2 mm. cr., cava, apice
acuta; sporis albis, subglobosis, 3 ≈ 2.

Hab. ad terram sub arboribus in Britannia, Italia, Germania etc. — Teste Fries est *Clavaria minima, nivea* Mich. N. P. G. p. 208, t. 87, f. 6.

16. **Clavaria nivea** Qué. Assoc. franc. p. l'Avanc. Sc. 1901, partie II, 686
1902, p. 496, tab. III, f. 11. — Cæspitosa; clavula subfiliformi,
longa, flexuosa, fragilissima, glabra, nivea, translucida, sursum
acuta, subinde bifida, albo-cremea subochracea; sporis ovoideo-pru-
niformibus, 7-8 μ . longis, minute granulosis, hyalinis.

Hab. in pascuis montanis in Jura prope Neufchâtel, autumnno (L. FAVRE). — Affinis *Cl. fragili*.

17. **Clavaria tenerrima** Mass. et Crossl. in the Natur. 1904, p. 2. — 687
Gregaria, subtenax, farcta, candida; clavulis simplicibus, cylindri-
cis, flexuosis, apice subattenuatis; sporis hyalinis subglobosis, api-
culatis, verrucosis, 8-9 μ . diam.

Hab. in graminosis, Halifax Britanniae (C. CROSSLAND). — *Cl. fragili* Fr. affinis.

LACHNOCLADIUM Lév. — Syll. VI p. 738, IX p. 252, XI p. 139,
XIV p. 239, XVI p. 209.

1. **Lachnocladium strictissimum** P. Henn. F. Amaz. I, p. 174 (Hedw. 688
1904). — Subcoriaceum, ferrugineum, strictum scopiforme, ca. 15
cm. altum, basi breve crasseque stipitatum ca. 1 cm. crassum, ra-
mis erectis strictissimis, teretibus, ca. 2-3 cm. longis, 1 1/2-4 mm.
crassis, repetito dichotomis vel verticillatis, ramulis subteretibus
axillis vix compressis, erectis, apice longe subulatis, fuscidulis nu-
dis; sporis subglobosis vel ellipsoideis, levibus, 5-6 μ . hyalinis.

(= *Lachn. kamatum* Hung. XVII, 198)

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (ULE).

2. **Lachnocladium hamatum** P. Henn. F. Amaz. I pag. 174 (Hedw. 689 1904). — Alutaceum, ca. 3-6 cm. altum, erectum, basi brevi stipitatum, ramosum, ramis subteretibus vel compressis, repetito dichotomis, ramulis flexuosis compressis sulcatis, cinereo-pruinosis, subsetulosis, curvulis apicibus cirrato-hamatis; basidiis clavatis, plerumque 2 sterigmatibus, 30-40 \times 6-7; sporis ovoideis, hyalinis vel flavidulis, 1-guttulatis, 6-7 \times 4-5.

Hab. ad terram silvaticam udam in Amazonia (ULE). — *L. cirrato* affine sed sporis aliisque notis diversum.

3. **Lachnocladium madeirense** P. Henn. F. Amaz. I, p. 174 (Hedw. 690 1904). — Alutaceo-cinereum, strictum, 5-9 cm. altum, stipitibus basi connexis vel liberis usque ad 3 cm. altis, 2 mm. crassis, ramis repetito dichotomis vel verticillatis, axillis vix compressis, ramulis teretibus divergentibus, cinereo-setulosis, apice longe subulatis; sporis subglobosis, hyalinis, 2-3 μ . diam.

Hab. ad terram v. ligna, Rio Madeira ad Marmellos Amazoniæ. — *Lachnocl. pteruliformi* affine.

4. **Lachnocladium Hoffmanni** P. Henn. Pilz. Costar. und Par. p. 147 691 (Hedw. 1904). — Incarnatum, coriaceum, ramosissimum, ca. 12 cm. altum, vix stipitatum, ramis repetito dichotomis, late compressis, divergentibus, apicibus subulatis, rarissime bifidis; stipite brevi vel radicato; sporis ellipsoideis vel subovoideis, 4-5 \times 3-4, hyalino flavescentibus, levibus.

Hab. ad lignum putre, Aguacata, Costarica (C. HOFFMANN). — Colore incarnato a speciebus notis mox distinctum.

5. **Lachnocladium Atkinsonii** Bresadola apud Atkinson in Journ. of 692 Mycol. 1902, p. 119. — Subcoriaceum; stipite elongato, compresso-canaliculato, pallido, tomentosus, 5-6 cm. longo, 1 cm. circ. cr., apice subquadrifido; ramis compressis, sulcatis, repetito verticillato aut dichotomo-divisis, latere sterili tomentosulis, luride ochraceis; ramulis subteretibus, apice furcatis, flavido-stramineis; sporis hyalinis vel substramineis, levibus, amygdaliformi-oblongatis vel subcylindratis 9-10 \times 4,5-5,5; basidiis clavatis.

Hab. ad Blowing Rock, N. C., Amer. bor. — Species pulchra, ambitu ramorum 6-7 cm. alta, 5-6 cm. lata, gracilitate et colore ad *Clavariam* vergens, sed hymenio unilaterali et stipite evidenter pulveraceo inter *Lachnocladia* adnumeranda.

6. **Lachnocladium mussooriense** P. Henn. Fungi Indiæ orient. II, in 693

Lach. cirrato
P. Henn. F. Amaz. I, p. 174, 1904
Lach. madeirense
P. Henn. F. Amaz. I, p. 174, 1904
Lach. Hoffmanni
P. Henn. Pilz. Costar. und Par. p. 147, 1904
Lach. Atkinsonii
Bresadola apud Atkinson in Journ. of Mycol. 1902, p. 119

Hedw. 1901, p. 324. — Tuberosum, fasciculato-ramosum, subrumfum 6-8 cm. altum, ramis fasciato-compressis sulcatis, flexuosis, repetito dichotomis v. trichotomis in axillis paullo compressis, haud flabellatis, ramulis compressis, squarrosis, levibus, apice bifurcatis, longe subulatis subteretibus v. denticulatis; sporis ovoideis, basi oblique apiculatis, hyalinis, levibus, 7-8 \times 4-5.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

7. **Lachnocladium usambarense** P. Henn. in Bot. Jahrb. 1904, p. 44. ⁶⁹⁴

— Cæspitosum, pallidum, 6-8 cm. alt.; stipite compresso, plus minus elongato, basi mycelio ramoso, albido, superne repetito ramoso; ramis late compressis, axillis flabellatis, membranaceis, dichotomo ramulosis; ramulis apice subulatis vel palmatifidis, pallidis; sporis ovoideis, hyalinis, asperatis, 5-6 \times 3-3,5.

Hab. in ramis terra dejectis supra Amani, Ost Usambara Africæ orient. (ENGLER).

8. **Lachnocladium Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. ⁶⁹⁵

— Syll. XVI, pag. 1116 (nomen). — Coriaceo-papyraceum, late compressum, album, pruinatum, 5-7 cm. altum; stipite compresso e mycelio membranaceo cretaceo oriente usque ad 2 cm. longo, 1 mm. cr., brunneolo, repetite dichotomo v. palmatifido; ramis in axillis late compressis, subflabellatis, ramulis apice membranaceis, palmatifidis v. furcatis, apicibus sæpe longe subulatis; sporis subglobosis v. ovoideis 3,5-4, levibus, hyalinis.

Hab. ad folia putrida in silvis, Kamerun Afr.

9. **Lachnocladium moniliforme** P. Henn. F. S. Paul. III, p. 198 (Hedw. ⁶⁹⁶

1904). — Stipite sublignoso, sclerotoideo, ramoso, articulato-moniliformi, extus alutaceo pruinato, intus pallido 3 cm. alto; articulis fragilibus, subovoideis v. oblongis subteretibus 4-10 mm. longis, 3-4 mm. crassis, constrictis, ramis fasciculatis subcoriaceis, ferrugineofuscidulis repetito ramosis, plerumque dichotomis, divergentibus, compressis, c. 2-2 $\frac{1}{2}$ cm. altis, apicibus subulatis; sporis ovoideis, 3-4 μ ., hyalino-subfuscidulis, levibus. (= *Thelophora clavarioides* Torr.)

Hab. ad terram, Serra da Cantareira, S. Paulo Brasiliæ. — Species notabilis, sed in genere dubia, præcipue ex eo quod basidia non reperta.

PTERULA Fr. — Syll. VI p. 740, IX p. 255, XI p. 140, XIV p. 242, XVI p. 213.

1. **Pterula aurantiaca** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). ⁶⁹⁷

— *Tenax aurantiaca*, sicca alutacea, 4-6 cm. alta, basi fasciculata;

Lachnocladium guadalupense Lév.

stipite 1-2 cm. longo, 1-2 mm. crasso, tereti, repetito dichotomo vel scopiforme verticillato, axillis compressis, ramulis subcompressis apice subulatis; sporis subglobosis vel ovoideis, hyalinis, levibus intus granulatis 5-7 \approx 5-6.

Hab. ad terram paludosam, Rio Negro, Manaós Amazoniæ (ULE). — Nonnullis notis ad *Lachnocladii* typum nutat.

2. **Pterula pennata** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). — 698

Cinereo-alutacea, ca. 5 cm. alta, basi fasciculata, ramis erectis filiformibus utrinque penniformi-ramosis; ramulis recurvatis, subulosis, simplicibus, 1 1/2-3 mm. longis, 80-120 μ . crassis; sporis ovoideis vel subpiriformibus, subangulatis, grosse 1-guttulatis, basi oblique apiculatis, hyalinis subflavidulis, 10-13 \approx 7-8.

Hab. ad lignum putre, Rio Juruá, Juruá Miry Amazoniæ (ULE).

3. **Pterula nana** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 699

Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Albido-rufescens (in sicco); clavulis sparsis, solitariis vel fasciculatis, duris; basidiis clavatis a basi usque fere ad summitates dispositis; sporis hyalinis, levibus, ovoideis, 7-10 \approx 5-6.

Hab. in ramis putridis arborum variarum in Guadalupa (Duss). — Species exigua 1-1,5 mm. alta, vix 250 μ . crassa, *Mucronellæ* æmula.

4. **Pterula nivea** Pat. Champ. de la Guadeloupe ser. III, in Bull. 700

Soc. Myc. de France t. XVIII, fasc. II, 1902. — Omnino alba, omnino albo-nivea, in sicco rufescens; clavula gracili erecta, cylindrica, subulata, tenaci, simplici vel vix basi ramosa, pluribus in cæspitulos densos e puncto communi orientes congestis; basidiis clavatis in tota superficie partis superioris dispositis; sporis hyalinis, levibus, ovoideis 10-14 \approx 8.

Hab. ad caudices putres in Guadalupa (Duss). — Fungus 10-18 mm. alt.; clavulæ 330 μ . cr. Affinis *Pter. fasciculari*.

5. **Pterula squarrosa** P. Henn. Fungi parænses II, in Hedw. 1902, 701

p. 16. — Cartilaginea, brunneola, cinereo-pruinosa, ca. 4 cm. longa; stipite subtereti, simplici, 1-2 cm. longo, 0,5-1 mm. cr., ramoso; ramis 1-2 repetito dichotomis, teretibus arcuato-reflexis, ramulis elongato-subulatis, squarrosis, usque ad 2,5 cm. longis, apice rufo-brunneolis, nudis; sporis ovoideis 3-3,5 hyalinis.

Hab. ad terram, in silvis, Parà, Amer. austr.

6. **Pterula fascicularis** Bres. et Pat. in Lloyd Myc. Not. n. 6, p. 50. 702

— Cæspitoso-fascicularis; cæspitulis parvis, 1 cm. circ. alt., 0,5 cm. basi cr.; ramulis cartilagineis, filiformibus, simplicibus v. raro

Pterula pennata
Henn.

Pterula squarrosa
Henn.

hic illic ramosis, sordide gilvis; substantia ex hyphis tenacibus, 3 μ . cr.; basidiis clavatis v. subcylindræis, 30-35 \times 9-10; sporis globosis, 9-12 μ . diam.

Hab. in insula Samoa. — *Pt. subsimplici* P. Henn. affinis.

7. **Pterula laxa** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 703
Soc. Myc. de France t. XVIII, fasc. II, 1902. — Clavulis solitariis, sparsis, albis vel rufescentibus, simplicibus vel ramulis patulis 1-3-lateraliter auctis, 250 μ . crass. filiformibus, apice acutis, parte media fertilibus et pruinosis; basidiis clavatis; sporis ?

Hab. in fragmentis putridis Richeriæ grandis, Guadalupe (Duss) — Fungus 5-8 mm. alt., *Pter. simplici* affinis.

PHÆOPTERULA P. Hennings, Monsunia I, 1899, pag. 9. Cfr. Syll. XVI, p. 214 (Etym. *phaeos* obscurus et *Pterula*). — A gen. *Pterula* sporulis coloratis, nec hyalinis, præcipue dignoscitur.

1. **Phæopterula juruensis** P. Henn. F. Amaz. I, p. 175 (Hedw. 1904). 704
— Brunneola cinerescens, ca. 1 cm. alta, basi subsimplex vel fasciculata; stipite tereti 2-3 mm. longo, hirsuto-tomentoso, repetito racemoso, ramulis filiformibus, subulatis, squarrosis, cinereo-pruinosis; sporis subglobosis, 1-guttulatis, brunneis, levibus, 4-6 μ .

Hab. ad ligna putrida, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — A *Phæopt. hirsuta* omnino diversa, æque ac ab *Hirsutella* Pat.

TYPHULA Pers. — Syll. VI p. 743, IX p. 255, XI p. 141, XIV p. 243, XVI p. 214.

1. **Typhula bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. 705
— Syll. XVI p. 1116 (nomen). — Carnosa, simplex, filiformi-clavata, substipitata, fusco-rufa, ca. 3-5 mm. longa, 160-220 μ . cr., vertice rotundata, basi attenuata; basidiis clavatis, 4-sterigmaticis; sporis fusoideis 5-6 \times 3, hyalinis.

Hab. in foliis putridis, Bipindi, Kamerun Afr.

PISTILLARIA Fr. — Syll. VI p. 752, IX p. 255, XI p. 141, XIV p. 243, XVI p. 215.

1. **Pistillaria Johnsonii** Masee in Kew Bull. 1901, p. 165. — Can- 706
dida; clavulis simplicibus, erectis, levissimis, sursum albo-pruinosis, in sicco longitudinaliter rugosis, filiformibus, superne clavulatis, 2 mm. altis; sporis ellipsoideis, hyalinis, 2 \times 1.

Hab. in caule herbaceo emortuo in horto botanico Aburi, Gold

Coast Africæ occident. (JOHNSON). — Gregaria, *P. puberulæ* Berk. affinis.

2. **Pistillaria Quercus** Oud. Contrib. Fl. Myc. des Pays XVIII, p. 674. 707
— Albida, 800 \approx 120, irregularis; basidiis obovatis 8-12 \approx 6-7 tetrasporis; sporis obovatis 4 \approx 2,5 hyalinis; sterigmatibus cylindraceis 3 μ . long., paraphysibus filiformibus simplicibus vel summo bifurcatis 1-1,5 μ . long. obvallatis.

Hab. in foliis putridis *Quercus Roboris*, Bussum Hollandiæ.

3. **Pistillaria cæspitulos**a Sacc. in Atti Congr. bot. di Palermo 1902. 708
— Microscopica, sordide alba, hinc inde in cæspitulos aggregata; clavulis e basi communi carnosula (4-10) divergentibus, cylindraceis, apice obtusulis, sursum minutissime asperulis, 600-800 μ . altis, 100-130 μ . cr., contextu anguste prosenchymatico, carnosulo; hyphis in parte clavulæ superiore breviter exsertis et in basidia 14-16 \approx 2, minute denticulata patula abeuntibus; sporis e denticulis oriundis, oblongo-ellipsoideis, basi apiculatis, 10-12 \approx 3, biguttulatis, dein spurie 1-septatis, hyalinis.

Hab. in cortice emortuo *Loniceræ Periclymeni*, Côte d'Or Galliæ. — Ab affinibus *P. pusilla*, *P. diaphana* certe differt, basidiis potius denticulatis quam sterigmatophoris; tamen ad Stilbaceas referre nequeo.

4. **Pistillaria Ferryi** Quél. et Fautr. — Syll. XI, p. 141. — * **P. tremula** Sacc. subsp. nov. — Vix capillaris, tenuissima, sed proportionem elongata, 3-5 mm. long. vix 80-100 μ . cr., tota persistenter candida, tremula et exsiccando varie tortuoso-contorta, tota longitudine fertilis et ob basidia prominentia puberula, æqualis, vix summo apice attenuata sterilis; basidiis tereti-oblongis transverse parallelis, 18-20 \approx 5-6, sterigmatibus binis acicularibus coronatis; sporis obovoideis basi apiculatis, 8-11 \approx 3-3,5, sæpius 1-guttulatis, hyalinis.

Hab. ad fructum putrem *Trichosanthis anguinæ*, ubi *Botrytis vulgaris* et *Acremoniella atra* jam viguerant, in horto botanico Patavino, febr. 1904. — In capsula vitrea se evolvit. Tota fertilis, vix ima basi parum distincta sterilis nec non summo apice hyphis paucis laxè fasciculatis formato. Tenuitate extrema vere mucedinea dignoscitur. Interdum clavulæ 2-4 basi fasciculatæ oriuntur. A typo differt colore immutato, statura minore etc.; a *P. Patouillardii* Quél. sporis multo majoribus, a *P. mucedinea* Boud., quia longior et exilior et basidiis bisporis, a *P. at-*

tenuata, quia numquam ramosa et multo minor, ab omnibus stipite subnullo.

PHYSALACRIA Peck — Syll. VI p. 759, IX p. 256.

1. **Physalacria changensis** Rostr. in Bot. Tidsskrift-Copenhagen, 1902, 710 v. 24, p. 206. — Flavo-brunnea, cæspitosa; capitulo globoso, vesiculoso-inflato, membranaceo glabro, 3-4 mm. diam., basi circulari perforato; stipite gracili, circ. 1 cm. longo; sporis ellipsoideis, minutis; cystidiis clavatis, $32 \approx 12$.

Hab. in truncis, Siam Asiæ merid.

Fam. 6. Tremellaceæ

(sensu lato h. e. *Hymenomycetæ heterobasidiæ*).

SACCOBLASTIA Moell. — Syll. XIV, p. 244.

1. **Saccoblastia graminicola** Bres. Fungi Polonici, in Ann. Mycol. 711 1903, p. 112. — Late effusa, tomentosa, alba, dein straminea, ex hyphis laxè intertextis, septato-nodosis, 4-7 μ . crassis, formata; basidiis erectis, cylindræis, 3-4-septatis, 60-90 \approx 5-6, basi sacculo obovato-elongato, 15-20 \approx 8-9 sæpe præditis; sterigmatibus filiformibus, 9-15 μ . longis; sporis ovalibus, hyalinis, 8-12 \approx 5-8, mox apice germinantibus.

Hab. ad gramina sicca, quæ simul conglobat, in Polonia. — Habitus omnino *Hypochni* vel *Corticii*; basidia non omnia basi sacculo prædita multa enim omnino simplicia ideoque non satis a *Stypinella* mihi videtur hoc genus distinctum et potius eeu subgenus considerandum. (Bres. l. c.).

SEPTOBASIDIUM Pat. — Syll. XI p. 118, XIV p. 215, XVI p. 184.

1. **Septobasidium fusco-violaceum** Bres. Fungi Polonici, in Ann. Mycol. 712 col. 1903, p. 112. — Longe lateque effusum, membranaceum, ambitu fimbriato, castaneo- vel tabacino-violaceum, demum cinere-scens; hymenio tuberculoso v. rugoso-plicato; contextu ex hyphis coloratis, subluteis, 3-3 $\frac{1}{2}$ μ . crassis conflato; basidiis cylindræis, apice curvatis, hyalinis, 3-4-septatis, 2 $\frac{1}{2}$ -3 μ . crassis; sporis hyalinis, cylindræo-curvatis, 10-15 \approx 4-5, una alterave 21 \approx 6 μ .; hyphis subbasidialibus hyalinis, 2 $\frac{1}{2}$ -3 μ . crassis.

Hab. ad ramos Salicis cinereæ, in Polonia. — Species hæc

media inter *Septobasidium* et *Helicobasidium*. Habitu et consisten-
tia membranacea *Septobasidium* refert, sed basidiis primitus non
ovoideis ad *Helicobasidium* vergit. De cetero forsitan nota generica
vere differentialis inter duo ista genera nondum satis elucet.

2. **Septobasidium Mariani** Bres. in Sacc. Notæ Mycol. III in Syd. 713
Ann. Mycol. 1903, n. 1, p. 24, *Hypochnus Michelianus* Cald. var.
quercinus Sacc. olim. — Resupinatum, longe lateque effusum, con-
textu spongioso-molli, fusco-tabacino, ex hyphis fasciculatis, ere-
ctis, sub micr. fulvis, $4-4\frac{1}{2}$ μ . crassis, conflato; hymenio mem-
branaceo, levi, pallide umbrino vel subspadiceo, margine fibroso-
strigoso; basidiis ex obovato cylindratis, erectis vel subcurvulis,
3-septatis, $30-40 \approx 4\frac{1}{2}-5$; sporis cylindratis-subclavatis, curvulis,
hyalinis, demum 1-septatis, $13-18 \approx 3\frac{1}{2}-5$.

Hab. in truncis vivis junioribus adhuc levigatis *Quercus* pe-
dunculatæ, Montello (Treviso) 1870 (SACCARDO); in ramis vivis
Piri communis, quam valde vexat, Miane (Treviso) 1902 (Ab.
P. CANELLO); in ramis *Piri* et *Cratægi* in silva Cisterna prope
Romam (MARIANI).

3. **Septobasidium paulense** P. Henn. F. S. Paulens II, p. 197 (Hedw. 714
1904). — Resupinato-effusum, cinereum, pruinatum, contextu
molle coriaceum, floccosum; hyphis ramosis, septatis, 3-4 μ . crassis,
sæpe cirratis, fuscidulis; sporis subglobosis v. ovoideis, 13-18 μ .,
episporio subfuscidulo.

Hab. ad ramos arborum, Alto da Serra S. Paulo Brasiliæ. —
Sept. velutino affine.

PLATYGLŒA Schroet. — Syll. VI p. 771, XI p. 146, XIV p. 247,
XVI p. 216.

1. **Platyglœa miedzyrzecensis** Bres. Fungi Polonici in Ann. Mycol. 715
1903, p. 113, t. III, fig. 3. — Pulvinata; pulvinulis gelatinosis,
gregariis, subrotundatis vel oblongis, levibus vel demum rugoso-
cerebriformibus, albis, 2-4 mm. diam. aut $2-4 \approx 1\frac{1}{2}-3$ mm. in sicco
collapsis et fuscescentibus; contextu ex hyphis intricatis, laxe septa-
tis, ad septa interdum nodosis, $1-2\frac{1}{2}$ μ . crassis, ramosis, apice basi-
diophoris, conflato; basidiis cylindratis vel subclavatis, rectis vel
subarcuatis, $75-200 \approx 4-6$, 3-5-septatis; sterigmatibus $50-60 \approx 4$,
apice ventricoso-cuspidatis; sporis hyalinis, obovatis, apiculatis, $10-13 \approx 7-9$,
lateraliter germinantibus; conidiis subglobosis, $4-5 \approx 3\frac{1}{2}-4$.

Hab. ad corticem *Ulm*i, in Polonia.

2. **Platyglœa nigricans** Schröt. — Syll. VI p. 771. — Huc, teste v. 716

Höhn. in Ann. Mycol. 1904, p. 273, spectant *Stictis Betuli* v. *nigrescens* Fr., *St. Tiliæ* Lasch, *Achroomyces pubescens* Riess, *Tachaphantium Tiliæ* Bref.

TREMELLA Dill. — Syll. VI p. 780, IX p. 258, XI p. 147, XIV p. 249, XVI p. 218.

1. **Tremella inflata** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 717
soc. myc. de France t. XVIII, fasc. II, 1902. — Gelatinosa, cava,
globoso-depressa, albido-luteola, sparsa vel aggregata, levis, 3-8
mm. lata; hyphis conidiferis longis, ramosis; conidiis ovatis 1-2 μ .
longis; basidiis profunde insertis ovatis, 20-25 \approx 8-10; sterigmatibus
oblongis, subulatis; sporis ovatis levibus, 7-8 \approx 6 hyalinis.

Hab. ad lignum emortuum Guadalupa Amer. sept.

2. **Tremella rosea** v. Höhnel in Ann. Mycol. 1903, I, pag. 394. — 718
Minutissima, 250 μ , 1 mm. lata, hemisphærica, pulvinata, sæpe
irregulariter diffluens, e roseo rufescens, gelatinoso-carnosa; hyphis
subtilibus 2-4 μ . latis, septatis, hyalinis, hinc inde ad septa nodu-
loso-incrassatis; basidiis ovoideo-globosis, cruciatim partitis 14 μ .
latis; sporis ovatis v. subsphæroideis, 8-9 μ . cr.

Hab. in caulibus siccis Parietarie officinalis, Vindobonæ
Austriæ.

3. ? **Tremella phyllachoroidea** Saccardo, Harrim. Alaska Exped. Crypt. 719
pag. 42, tab. III, fig. 11. — Erumpenti-adnata, epiphylla, ap-
planato-pulvinata, ambitu suborbicularis vel oblonga, 2-4 mm.
diam., 7-1 mm. crass., uda exquisite gelatinosa, superficie nigra,
opaca, minute rugulosa, intus pallidior, tota filamentosa; filamentis
seu hyphis angustissime filiformibus, 1,5-2 μ . cr, longissimis, varie
intricatis, furcatis vel varie ramosis, hyalinis, intus granulosis,
apicibus subinde lenissime incrassatis, obtusis; basidiis....; sporis....

Hab. ad folia dejecta Menziesiæ ferrugineæ, Silka Alaska
(MERTENS). — Videtur affinis *Tremellæ atro-virenti* Fr.; dubia
tamen, quia sterilis.

4. **Tremella Patouillardi** Syd. Ann. Mycol. 1903, p. 177. — Ita vo-
canda *T. inflata* Pat. Bull. Soc. myc. 1902, p. 178, nec Fr.

NÆMATELIA Fr. — Syll. VI p. 792, IX p. 259.

1. **Næmatelia** H. M. Ward in Trans. Brit Mycol. Soc. 1899- 720
1900, p. 143, t. VI et VII.

Hab. ad folia pinea in Britannia. — Est status chlamydospo-

rus omnino peculiaris, a typo generis non parum deflectens. Chlamydosporæ *Mycogonem* in mentem revocant.

GUEPINIA Fr. — Syll. VI p. 805, XI p. 150, XIV p. 252, XVI pag. 221.

1. **Guepinia pezizoidea** P. Henn. F. S. Paul. III, pag. 197 (Hedw. 721 1904). — Orbiculari-pulvinata vel subcupulata sessilis, succinea, extus subvelutina, 1-2 mm. diam., basidiis linearibus 2-sterigmati-
cicis, 40-50 \approx 3-4; sporis cylindraceutis, curvatis, 3-septatis, loculis 1-guttulatis, hyalinis, 12-14 \approx 4-5.

Hab. ad ramos putres, Alto da Serra, S. Paulo Brasiliæ. — *Guep. Pezizæ* affinis, sed omnino sessilis extusque subvelutina.

2. **Guepinia juruensis** P. Henn. F. Amaz. I, p. 171 (Hedw: 1904). — 722
Pileo subgelatinoso, sicco corneo, spathulato vel flabelliformi erecto, margine crenulato ciliatoque v. inciso-lobato, superne tomentoso ferrugineo, pilis flexuosis, cirratis, hyalino-fuscidulis, 10-25 \approx 3-3 $\frac{1}{2}$; hymenio castaneo levi, 3-12 mm. longo latoque; stipite subtereti, ferrugineo-velutino, 3-12 \approx 1-1 $\frac{1}{2}$; sporis subcylindraceutis curvulis, obtusis, 3-septatis, hyalinis.

Hab. ad truncos emortuos, Rio Juruá, Bom Fim Amazoniæ (ULE). — Species prædistincta, *Polyporum* quemdam spathulatum v. *Stereum obliquum* in mentem revocans; *Guep. dilatatæ* forte affinis.

3. **Guepinia monticola** Tracy et Earle in Plantæ Bakerianæ fasc. I, 723
fungi p. 23. — Cupulata ferruginea, breve stipitata, expansa, in sicco revoluta, 3-8 mm. diam., externe sulcato-costata; setulis inflatis, 50 μ . longis, basi 20-25 μ . cr. vestita; hymenio compacto, cylindrico, basidiis luteolis, 40-50 \approx 3,5 superne bifurcatis, composito; sporis cylindraceutis, curvulis, continuis (?), guttulatis, 12-16 \approx 4, sterigmatibus filiformibus, circ. 10 μ . longis.

Hab. in ligno decorticato Piceæ Engelmanni, Glide Rock Cañon, South Colorado, Amer. bor.

4. **Guepinia lutea** Bresadola, Harrim. Alaska Exped. Crypt. p. 42. — 724
Gregaria v. subcæspitosa, tremelloso-tenax, flavo-lutea; conceptaculis cupulari-stipitatis; cupula glabra, complanato-concava, margine sinuoso, disco hymeniophoro, 2-5 mm. lata; stipite 1-4,5 mm. longo, 5-1 mm. crasso; basi demum fuscidulo; basidiis cylindraceutis, apice subcapitatis, 45-50 \approx 3-4, bifidis; sporis subcylindraceutis, subcurvatis, 5-9-septatis, 18-20 \approx 6-7.

Hab. ad truncos, Orca et Lowe Julet B. C. Alaska (TRELEASE).

— *Guepinia merulina*, cujus gaudet structura, affinis; differt cupula et stipite levibus nec non sporis majoribus magisque septatis.

5. **Guepinia alpina** Tracy et Earle in Plantæ Bakerianæ fasc. I, fungi 725
p. 23. — Cupulata, breve stipitata; disco luteo-aurantiaco, in sicco 6 mm. diam, margine leviter involuto; stipite pruinoso, 3 mm. alto, setulis inflatis, $50 \approx 16$, simplicibus vel 1-septatis, non constrictis, minute rugulosis; hymenio compacto; basidiis granulis luteis repletis, subsimplicibus, inferne bifurcatis, $40 \approx 3,5$; sporis oblongis, continuis, immaturis $12 \approx 4$

Hab. in lignis dejectis *Piceæ Engelmanni*, Glide Rock Cañon, South Colorado, Amer. bor.

EXIDIA Fr. — Syll. VI p. 772, IX p. 257, XI p. 146, XIV p. 249, XVI p. 217.

1. **Exidia minutissima** v. Höhn. Ann. Mycol. 1904, p. 38. — Minu- 726
tissima, rotundata, verruciformis v. oblonga, hinc inde confluens, e cæsiō vel griseo in colorem albidum v. hyalinum vergens, subgelatinosa, 70-120 μ . tata; hyphis radiantibus, dendroideo-v. coralloideo-ramosis, hyalinis. $1-1\frac{1}{2}$ μ . crassis, in apice sæpe globoso-incrassatis; basidiis ovoideis, supra truncatis, cruciatim partitis, $8 \approx 7$, sterigmata quatuor, flexuosa, $10 \approx 1,5$ gerentibus; sporidiis oblongis, rectis, uno latere subdepressis, supra rotundatis, infra lateraliter et oblique apiculatis, granuloso-farctis, $5-8 \approx 2-3\frac{1}{2}$, sæpe $5-7 \approx 2-3$.

Hab. in ligno carioso *Fagi* in silvis ad Wassergesprenge, Wiener Wald Austriæ inferioris mense Octobri anno 1903. — Species quoad genus dubia.

ULOCOLLA Bref. — Syll. VI p. 777, XVI p. 218.

1. **Ulocolla badio-umbrina** Bres. Fungi Polonici in Ann. Mycol. 1903, 727
p. 115. — Receptaculo primitus tuberculiformi dein pulvinato et gyroso-cerebriformi, gelatinoso, parvo, 3-6 mm. lato, lateritio-badio v. badio-umbrino, sæpe confluenti, exsiccando collapsō, levi; sporis hyalinis, cylindræo-curvulis, $12-14 \approx 4\frac{1}{2}-5$; conidiis baculiformibus, $3 \approx 1$; basidiis obovatis, $12-18 \approx 9-12$; hyphis ramosis, 2 μ . circiter crassis.

Hab. ad ramos corticatos *Salicis cinereæ* et *Alni glutinosæ*, in Polonia. — Sporas quoque vidi lateraliter germinantes, promycelium breve emittentes, apice conidium parvum, subglobosum gerens.

TREMELLODENDRON Atkins. Journ. of Mycol. 1902, p. 106 (Etym. *Tremella* et *dendron* arbor). — A *Sebacina* differt præsertim, quia non incrustans et quia contra est libera, ascendens et dendroidea.

1. **Tremellodendron candidum** (Schw.) Atk. l. c., *Merisma candida* Schw., *Telephora candida* (Schw.) Fr. — Syll. VI p. 535.
2. **Tremellodendron Schweinitzii** (Peck) Atk. l. c., *Thelephora Schweinitzii* Peck — Syll. VI p. 534.

SEBACINA Tul. Ann. Sc. nat. Bot. XV, p. 223 (1871) — Syll. VI p. 521, XI p. 117, XIV p. 13 et 214, XVI p. 183 (Etym. *sebum*).

1. **Sebacina podlachica** Bres. Fungi Polonici in Ann. Mycol. 1903, 728 pag. 117. — Late effusa, arcte adnata, crassiuscula, gelatinosa, e pallido-cærulea cæσιο-hyalina; hymenio sublevi vel parum undulato; sporis hyalinis, subpiriformibus v. subcylindræis, uno latere depressis, 7-9 \approx 4-5; basidiis obovatis, 9-10 \approx 6-8, 2-4-sterigmaticis; sterigmatibus usque ad 40 μ . longis; hyphis conglutinatis, 1-1 $\frac{1}{2}$ μ . crassis.

Hab. ad ligna Betulæ, in Polonia.

HIRNEOLINA (Pat.) Bres. in litt., *Eichleriella* Bres. Fungi Polonici in Ann. myc. 1903, pag. 116, *Sebacina* sect. *Hirneolina* Pat. Essai taxon. 1900, p. 25, f. 17 (Etym. *Hirneola*, cui affinis). — Fungi membranaceo-ceracei v. membranaceo-subgelatinosi, cupulares vel plano-concavi, raro penduli. Hymenium typice superum, discoideum, tantum in formis pendulis inferum, leve v. subrugulosum. Basidia globoso-ovoidea, cruciatim partita, 2-4-sterigmatica. Sporæ hyalinæ, cylindrææ, subcurvulæ. Est *Stereum* vel *Cyphella* fructificatione tremellacea.

1. **Hirneolina incarnata** Bres. in litt., *Eichleriella incarnata* Fungi 729 Polonici in Ann. Mycol. 1903, pag. 116, t. III, f. 1. — Receptaculo membranaceo, expanso-resupinato, oblongo v. subrotundato, margine demum libero, revoluto, sericeo, pallido, subumbrino, 1-3 cm. lato, ex hyphis contextis, horizontaliter positus, 2-4 μ . crassis conflato; hymenio levi v. subruguloso, membranaceo-subgelatinoso, pallide roseolo; basidiis obovatis, longitudinaliter partitis, 2-4-sterigmaticis, 16-21 \approx 10-13; sporis hyalinis, cylindræo-curvulis, demum spurie 1-3-septatis, 13-18 \approx 5-6; hyphis subbasidialibus, 2 μ . crassis, mox horizontalibus.

Hab. ad ramos arborum frondosarum et Berberidis vul-

garis. — E forma valde *Cyphellæ flocculentæ* (Fr.) accedit, cum qua forte hucusque confusa; etiam *Stereo ochroleuco* Fr. sat similis.

2. **Hirneolina leucophæa** Bres. in litt., *Eichleriella leucophæa* Bres. 730
l. c. t. III, f. 2. — Receptaculo membranaceo, erumpenti, cupuliformi, sæpe pendulo, libero, raro late expanso et stereiformi, fusco-umbrino, villosotomentoso, ex hyphis horizontalibus, 3 μ . crassis, conflato, 5-12 cm. lato; hymenio levi, membranaceo-ceraceo, subgelatinoso, pallido; basidiis longitudinaliter partitis, obovatis, 2-4-sterigmaticis, 18-27 \times 9-12; sporis hyalinis, cylindraceo-curvulis, demum spurie 1-3-septatis, 14-18 \times 5-5 $\frac{1}{2}$; hyphis subbasidialibus, 2-3 $\frac{1}{2}$ μ . crassis.

Hab. ad ramos Carpini Betuli in Polonia. — Specimina hujus speciei, ex agro lipsiensi a cl. Winter missa, etiam in meo herbario sub nomine *Sterei ochroleuci* Fr. inveni.

HETEROCHÆTE Pat. — Syll. XI p. 144, XIV p. 247.

1. **Heterochæte europæa** v. Höhnelt in Ann. Mycol. 1903, I, p. 393. 731
— Fungus late effusus, e carneo pallidus, fere hyalinus, gelatinoso-translucens, supra levis vel (in statu sicco) hinc inde rugis elevatis præditus, tomento albo velutinus, floccis sæpe planis, ex hyphis hyalinis, 3 μ . crassis, parallele conglutinatis formatis, supra sæpe fimbriatis, 200-400 μ . longis, in basi 40-100 μ . latis, acutiusculis; basidiis biseriatis, globoideo-ovatis, cruciatim partitis, apice sterigmata 4-gerentibus, 16 \times 12; sporis cylindraceo-curvulis, granuloso-guttulatis, hyalinis, continuis, 16 \times 6-8.

Hab. ad Fagi corticem levem in valle Schedinaz pr. Jaize, Bosnia.

TULASNELLA Schroet. — Syll. VI pag. 625, XIV pag. 234, XVI pag. 202.

1. **Tulasnella Eichleriana** Bres. Fungi polonici, in Ann. Mycol. 1903, 732
p. 113. — Longe lateque effusa, tenuis in vegeto subgelatinosa, cinereo-violacea, in sicco furfuracea, pallide roseola; hymenio scabriusculo; sporis (conidiis sec. Juel) hyalinis, subglobosis vel obovatis, 3 $\frac{1}{2}$ -5 \times 3-3 $\frac{1}{2}$ lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis obverse obovatis vel clavato-subcapitatis, 12-13 \times 5-6; sterigmatibus (sporibus sec. Juel) quaternis, ex ovoideis apice elongato-subulatis; hyphis hyalinis, septatis 2 $\frac{1}{2}$ -3 $\frac{1}{2}$ μ . crassis.

Hab. ad ligna putrescentia Betulæ, in Polonia.

2. **Tulasnella pallida** Bres. Fungi Polonici, in Ann. Mycol. 1903, 733 p. 114. — Late et interrupte effusa, tenuissima, in vegeto subgelatinosa, hyalina, in sicco pallida, hymenio sublevi; sporis hyalinis, obovato-elongatis vel subpiriformibus, raro apice subapiculatis tuncque subfusoido-ventricosis, $8-14 \times 4\frac{1}{2}-6\frac{1}{2}$; basidiis obverse obovatis, $10-14 \times 8-10$; sterigmatibus bene evolutis, basi subfusiformibus, apice subulatis; hyphis hyalinis, septatis, $4-6 \mu$. cr.; sporis secundaris quoque observatis.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — Sporis interdum utrinque attenuatis ad *Tulasnellam violaceam* accedit.

3. **Tulasnella pinicola** Bres. Fungi Polonici, in Ann. Mycol. 1903, 734 p. 114. — Late et interrupte effusa, tenuis, in vegeto gelatinosa hyalina, in sicco subcartilaginea et fusca; hymenio sublevi, undulato dein collapsio; sporis obovatis, uno latere subcompressis, hyalinis, $8-10 \times 5-6$, lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis clavato-capitatis vel obovatis, $12-21 \times 8$, 1-4-sterigmaticis, sterigmatibus demum valde productis, basi obovatis; hyphis hyalinis, septatis, $2-4 \mu$. cr.

Hab. ad ligna Pini silvestris, in Polonia. — A *Tulasnella incarnata* (Tul.) Juel colore et sporis diversa.

4. **Tulasnella violacea** (Joh. Ols.) Juel — Syll. XIV p. 235 var. 735
lilacea Bres. Fung. Polonici in Ann. Mycol. 1903, p. 114.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — A typo differt colore in vegeto lilacino, in sicco pallescente et sporis $8-14 \times 5-7$. Sporæ, ut in typo, fusoidæ, utrinque apiculatæ, hilaliter germinantes et sporam secundariam, obovatam, 10×7 , gignentibus; basidia obovata, $12-13 \times 8-10$; hyphæ septatæ, $4-6 \mu$.

5. **Tulasnella calospora** (Boud.) Juel loc. cit. pag. 23. — Syll. XIV p. 235 — *Prototremella* Boud. Journ. de Bot. 1896, p. 85 c. fig.

Hab. quoque ad ligna mucida Quercus, in Polonia. — Sporæ in hoc specimine polonico, $26-45 \times 4-6$, ut in typo, fusoidæ et sæpe flexuosæ; basidia clavato-subcapitata, 12×9 ; sterigmata 2-4, demum basi late obovata et longe subulato-producta; hyphæ $3-6 \mu$. crassæ (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 114).

DACRYOMYCES Nees — Syll. VI pag. 796, IX p. 259, XI p. 148, XIV p. 252, XVI p. 220.

1. **Dacryomyces tristis** Pat. in Duss Enum. champ. Guadel. 1903, 736

p. 11. — Olivaceo-virens, gelatinoso-mollis, sessilis, subglobosa, cerebriformis; hymenio amphigeno; basidiis cylindricis, furcatis, 35-40 \times 5-6; sporis incoloribus ovoideis, basi tenuatis, continuis, 9-12 \times 4-6.

Hab. ad ligna putrida, Basse-Terre, Guadalupa (Duss). — Fungus 4-10 mm. diam., sparsus v. confluens et tunc massam 1-2 cm. longam formans.

EUCRONARTIUM Atkinson in Journ. of Mycology 1902, vol. 8, p. 107 (Etym. *Eu* bene et *Cronartium*). — Fungilli plus minusve erecti, filiformes, columnares, in sicco duri, subgelatosi; hymenium lateraliter tectum vel expositum. Basidia curva vel flexuosa, tenella, transverse divisa, 4 sterigmata (raro 3 vel 5) gerentia; sporæ continuæ, albo-hyalinæ. — Habitus *Typhulæ muscicolæ* (Pers.) Fr.

1. **Eucronartium typhuloides** Atkinson l. c. — Albidum, filiforme, 737 conicum, gradatim curvulum, basi tenellum, 10-15 mm. altum, 0,5-1 mm. crassum, interdum pro columnis confertissimis subanastomosantibus videtur clavulatum, longitudinaliter sulcatum, generaliter sparsum; basidiis curvulis, plus minusve sinuosis, 3-5-septatis, 25-40 \times 6-9; sterigmatibus flexuosis, elongatis, 10-20 \times 3-4; sporis fusoides, curvis vel inæquilateraliter granulosis, 18-24 \times 3,5-5.

Hab. in foliis vivis muscorum, in silvis Cascadilla, Ithaca, Amer. bor. (H. H. WHETZEL).

GASTEROMYCETÆ *)

Syll. Fung. VII p. 1, IX p. 262, XI p. 152, XIV p. 254,
XVI p. 224.

Fam. 1. Phallaceæ FR.

ITHYPHALLUS Fr. — Syll. VII p. 8 et 469, IX p. 262, XI p. 153,
XVI p. 1118.

1. **Ithyphallus impudicus** (F.) Fr. — Syll. VII, p. 263. — var. **car-** 738
neus Lemmermann in Abh. Nat. Ver. Brem. 1901, p. 183 c. icone.
— A typo differt quia minor (9 cm. alt.) carneus; sporis paullo
minoribus, 2,7-4 \approx 1,3-1,5 (nec 4 \approx 2), tereti-subpiriformibus, chlo-
rinis.

Hab. in dumetis insularum Frisiæ orient.

2. **Ithyphallus sanguineus** (P. Henn.) Sacc. et D. Sacc. *Phallus san-* 739
guineus P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — Syll. XVI,
p. 1118 (nomen). — Altus 10-13 cm.; stipite utrinque attenuato
1,5-2 cm. crasso, incarnato, cavo pariete e 2-3 (apicem versus e
1-2) stratis composito, volva lobata pallida; pileo ovoideo-clauso,
haud limbato, ca. 2-2,5 cm. alto latoque; sporis oblonge-ellipsoi-
deis 3,5-4,5 \approx 1,5 hyalino-chlorescentibus.

Hab. in silvis udis ad radices, Kamerun Afr.

BLUMENAVIA Möller — Syll. XI p. 154.

1. **Blumenavia usambarensis** P. Henn. Fungi Afr. orient. II, p 37, 740
in Bot. Jahrb. XXVIII, pag. 37. — Receptaculo oblongo-ova-
to, ca. 8 cm. alt., 2,5-3 cm. lato (in alcoole), e 5 ramis verti-
calibus, pluristratosi consistente; ramis subquadrangularibus vel

*) Conferendæ sunt contributiones variæ recentiores de Gasteromycetis cl.
virosum BUCHOLTZ, ED. FISCHER, P. HENNINGS, L. HOLLOS, C. G. LLOYD, O.
MATTIROLLO, L. PETRI, WHITE, ubi plurima genera et species tam morphologicæ
quam systematicæ illustrantur vel emendantur.

triangularibus superne attenuatis, ca. 5-6 mm. latis, ca. 1 cm. latis, extus transverse lamelloso-favosis, rugulosis, albidis, intus lateraliter appendicibus membranaceis triquetris vel dentiformibus, interdum incis, usque ad 5 mm. diam., glebam olivaceo-atram sustentibus præditis; sporis subcylindræis, hyalinis, 3-3,5 \times 1,5; volva irregulariter lobata, extus pallida, subolivaceo-maculata, 3, 5-4 cm. diam.; mycelio radiciformi, ramoso, pallido.

Hab. ad terram Usambara in Afr. orient. (SCHEFFLER, KUMMER).

CLATHRUS (Mich.) L. — Syll. VII p. 18, IX p. 264, XI p. 154, XIV p. 225, XVI p. 228.

1. **Clathrus** (*Clathrella*) **Baumii** P. Henn. in *Ergebn. der Kunene-Sambesi Expedit.* pag. 164 (1902). — Receptaculo oblongo-ovoido, reticulato, basi attenuato substipitato e 5-6 ramis partito, 6-10 cm. alto, 3-5 cm. lato, flavo-aurantio, ramulis teneris 1-stratos, fistulosis, fasciatis, plicatulis, 2-2,5 mm. latis, in axillis verrucam ferentibus pulpa sporarum atro-violacea tegentem interstitiis polyhedricis oblongis 5 mm. 2 cm. longis, 5 mm. 1 cm. latis; sporis oblonge fusoides v. cylindræis, 4-5 \times 1,5 hyalinis; volva tenui papyracea, albida, lobata, mycelio albido. Fœtens.

Hab. in silvis Longa prope Mapalanka Africæ austr. — *Cl. camerunensi* et *Cl. chrysomycelino* affinis.

DICTYOBOLÉ Atkins. *Bot. Gaz.* 1902, p. 43 (Etym. *dictyon* rete et *bole* jactus). — Fungus stipitatus, volvatus et pileatus; stipes cavus e pariete concamerata formatus, apice pileo parum evoluto, gleba tecto coronatus. Gleba dimorpha, pars apicalis laminis radiantibus copiosis, brevibus sterilibus percursa, inferior demum in lobos irregulares convolutos subclathratos partita. Sporæ unicellulares, leves, pallide olivaceo-brunnæ.

1. **Dictyobole texensis** Atkins. et Long. l. c. f. 3. — Initio subterranea, dein emergens, 7-10 cm. alt.; stipite albido-cremeo crasse cylindrico, deorsum leniter tenuato; pileo apice impervio, gleba avellanea, dein nigra; radiis 8-16, superficie rugosis, senio subreticulatim divisis; sporis irregulariter ovoideis, 3-4 \times 2-3, olivaceofuscis; volva lata, alba, circumscissa, basi radicante.

Hab. in solo arenoso, Denton Texas Amer. bor. — Planta vegeta fortiter, nec ingræte olet. Ad Clathreas spectat.

LYSURUS Fr. — Syll. VII p. 22, IX p. 264, XVI p. 229.

1. **Lysurus borealis** (Burt.) P. Henn. *Anthurus borealis* E. A. Burt. 743
Syll. XI, pag. 155. — var. **Klitzingii** P. Henn. in Hedw. 1902,
p. 173. — Mycelio filiformi v. radiciformi, ramoso, albido; exo-
peridio primo subgloboso dein ovoideo-ellipsoideo usque ad 3 cm.
longo, 2,5 cm. lato, volva extus albida, papyracea, medio gelati-
nosa, intus membranacea, alba, longitudinaliter striis 5-7 incre-
sata, 2-5 irregulariter lobata; stipite clavato, basi valde attenuato,
ad apicem usque ad 2 cm. incrassato, 2-7,5 cm. longo, intus
omnino cavo, extus albido reticulato-celluloso, pariete inferne 1-2,
superne 3-stratoso, apice annulato-subincrassato, in lacinias 5-7
anguste lanceolatas diviso; ramis medio longitudinaliter sulcatis,
sulco ad apicem late planeque nudo, albo subsericeo, sed ubique
extra basim introrsum transverse rugosis, albidis, massa castanea
sporarum vestitis, deinde liberis, separatis, erectis, apice obtusis
v. subacutis 1-2,8 \approx 0,4-0,5 cm.; basidiis oblonge clavatis, conti-
nuis; sporis 5-8 ellipsoideo-subfusoides, hyalino-chlorinis 3,5-
4 \approx 1,5-2,

Hab. in arenosis cultis Ludwigslust-Mecklemburg (H. KLITZING).

ANTHURUS Kalchbr. — Syll. VII p. 23, XI p. 155.

1. **Anthurus trifidus** Har. et Pat. Champ. rec. au Japon, in Bull. du 744
Mus. d'hist. nat. 1902, n. 2, p. 132. — Stipite cavernoso, vol-
vam non superante, stipiti adpressam et æquilongam, cylindraco,
brevissimo, 2 cm. circ. alto, 1 cm. diam., apice in tres lacinias
elongatas, acutas, sursum attenuatas, erectas et paullum ad cen-
trum incurvas, 5 cm. longas, diam. basi 1 1/2 cm., dorsaliter levi-
ter canaliculatas, intus rugulosas et fructiferas, sectione triangu-
lares, diviso.

Hab. ad terram, Tokyo Japoniæ (HARMAND).

Fam. 1. Nidulariaceæ FR.

CYATHUS Hall. — Syll. VII p. 32, IX p. 226, XI p. 156, XIV
p. 256, XVI p. 229.

1. **Cyathus hirsutus** (Schäff.) Sacc. *C. striatus* Willd. — Syll. fung. 745
VII, p. 33, *Cyathia hirsuta* (Schäff.) White *) The Nidul. of N.

*) Nomen *Cyathia* P. Browne, Civ. and Nat. Hist. Jamaica, pag. 78 (1756),

Amer. in Bull. Torr. bot. Cl. 1902, p. 259, var. **infundibuliformis**
White l. c. p. 261, pl. 14, f. 15. — A typo differt peridio omnino
infundibulari, sparse strigoso-piloso; sporis 14-17 \approx 8-12.

Hab. in foliis et muscis, Montana Amer. bor.

2. **Cyathus durus** White l. c. p. 261, pl. 14, t. 16-19 (*Cyathia*). — 746

Peridiis late patenti-infundibuliformibus, 8-13 mm. alt., 8-12 mm.
latis (apice), 2-4 mm. lat. (basi), extus brunneo-griseis, squamuloso-
rugosis, vere duris, sed fragilibus, pariete interiore sordide albido,
sulcis latiusculis exarato, orificio margine reflexo, radiatim inciso,
sed non fimbriato, peridii basi contracta et sæpius fasciculis my-
celiaribus cincta; sporangiolis sordide griseis ovoideis v. globulo-
sis, 2,5 mm. long., 1,5 mm. cr.; sporis 14-18 \approx 8-10, hyalinis,
crasse tunicatis.

Hab. ad terram, Denver Colorado Amer. bor. — Duritiæ et
fragilitate peridii dignoscenda species.

NIDULA White l. c. p. 271 (1902) (Etym. *nidus*). — Peridium mem-
branâ homogœnea, sed stratosâ, initio supra orificium peridii con-
tinuâ formatum. Sporangiola copiosissima, initio substantia gluti-
nosâ immersa, dense stipata, cavitatem omnino implentia parieti
peridii non adnexa. Sporæ filamentis nullis mixtæ.

1. **Nidula candida** (Peck) White. l. c. *Nidularia candida* Peck —
Syll. XI, p. 156.

2. **Nidula microcarpa** Peck ap. White l. c. pag. 272, pl. 17, f. 1-6, 747
pl. 18, f. 14-15. — Peridiis 4-6 mm. alt., 4-5 mm. lat. (apice),
3-5 mm. lat. (basi), subcylindricis, extus albidis v. pallide flavidis,
minute tomentosâ, firmis, pariete interiore levi, e materie gluti-
nosa exsiccata subnitentibus, orificio integro erecto et firmo; spo-
rangiolis copiosissimis, lenticularibus, striato fibroso crasso dein
secedente obtectis, siccis rugosis, udis levibus, rufo-brunneis, 0,5-
1 mm. lat.; sporis 6-9 \approx 4-6, late ellipsoideis v. subglobosis.

Hab. ad ligna et terram in California et Montana (DUDLEY et
WILLIAMS) Amer. bor. — Var. **rugispora** (Ell. et Ev.) White l.
c. p. 272; pl. 17, f. 7-9: a typo differt orificio dilatato-recurvato
et minute fimbriato-lacero; sporis paullo crassioribus 6-9 \approx 4-7. In
ramis emortuis, Skamania Washington Amer. bor. (SUKSDORF),

White The Nidular. of N. Amer. in Bull. Torr. Bot. Cl. 1902, p. 255, est ante-
rius quam *Cyathus* Hall. sed omnino obsoletum dum *Cyathi* nomen a 150 annis
est ubique acceptum, adhibitum et usu universali sancitum.

NIDULARIA Fr. — Syll. VII p. 28, IX p. 265, XI pag. 156, XIV p. 256, XVI p. 229.

1. **Nidularia castanea** Ell. et Everh. herb. *Granularia castanea* White 748 l. c. p. 276, pl. 17, f. 17-19, pl. 18, fig. 20 *). — Peridiis minutis, elongato-globosis v. subsphæricis, sessilibus, interdum confluentibus, 0,5-2 mm. latis, 0,5-1 mm. alt.; tunica peridiali tenuissima et fragili, flavido-fulva, demum griseola, ob pressionem sporangiorum sæpe tuberculosa, irregulariter dehiscente; sporangiolis flavido-brunneis copiosissimis, densis, globoso-depressis, 0,25 mm. diam., sublevibus; sporis subglobosis, hyalinis, crasse tunicatis, 4-7 \approx 3-6.

Hab. gregatim ad ligna, Newfield N. J. Amer. bor.

2. **Nidularia rudis** Peck ap. White l. c. pag. 277, pl. 17, f. 21-23 749 (sub *Granularia*). — Peridiis hemisphæricis v. subglobosis, sessilibus, indehiscantibus v. sensim hinc inde fatiscantibus, tunica tenui, levi, sicca fragili, cellulosa, uda subgelatinosa, flavido-brunnea, ad griseum vergente; sporangiolis paucis, irregularibus, angulosis v. compressis, 2-2,3 mm. diam., nigricantibus v. virentibus sporis late ellipsoideis v. subglobosis, hyalinis, 7-9 \approx 6-8.

Hab. in lignis putrescentibus, California (W. R. DUDLEY).

3. **Nidularia Heribaudii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63. 750 — Peridio globoso, albido, villosa, membranaceo, crassiusculo, 5-6 mm. lato, superne sæpe depresso et rimose dehiscente, intus plumbeo; sporangiis parum numerosis, majusculis, 2-3 mm. reniformibus, v. lentiformibus, glabris, cinereis, levibus, tunica crassiuscula præditis; trama alba, linea hymeniifera obscuriori centro percursa; sporis ovoideis, ad basim attenuatis, 10-11 \approx 7.

Hab. gregatim in ramis abiegnis pr. Durtol Arvernæ (HÉRIBAUD). — Sporangiiis magnis, paucis, plumbeis etc. præsertim dignoscitur.

SPHÆROBOLUS Tod. — Syll. VII p. 46.

1. **Sphærobolus dentatus** (With.) W. Sm. in Journ. of Botany 1903, p. 280. Huc ducenda est *Nidularia dentata* With. — Syll. VII, p. 31. — Peridio externe dilute fulvo v. vinoso brunneo v. brun-

*) Genus *Granularia* Roth in Ust. Ann. bot. I, pag. 6 (1791) a sæculo et amplius omnino obsolevit, dum *Nidulariæ* nomen ubique jugiterque adhibetur et est usu universali sancitum.

neo, interne albo vel eburneo vel albido-griseo; sporangiolis rubello-brunneis 16 μ . diam.

Hab. quoque in Sambuco emortuo, Failand, Somerset Britanniae.

Dubiæ sedis.

MICHENERA B. et C. — Syll. VI p. 652, XI p. 230.

1. **Michenera Rompelii** Rick, Ann. Mycol. 1904, p. 243. — Erum- 751
pens; pezizæformis usque ad 0,8 cm. lata, oblique sessilis, extus straminea, subpruinosa, intus albida; hymenio tumefacto turgido, subgelatinoso, butyraceo; sporis usque ad 20 μ . diam., globosis, endo et exosporio lucem egregie refringente.

Hab. in ligno arido St. Leopoldo, Rio grande do Sul Brasiliæ.

Fam. 3. Lycoperdaceæ EHRENB.

SECOTIUM Kunze — Syll. VII p. 51, IX p. 266, XI p. 157, XIV p. 257.

1. **Secotium arizonicum** Shear et Griff. in Bull. of the Torr. Bot. 752
Club. 1902, p. 450. — Peridio subgloboso vel subpiriformi pallide albido-luteo, levi 2-4 cm. alt., 1,5-3 cm. diam., in sicco, constricto fragili, sessili vel raro brevi-stipitato, apice irregulariter dehiscente; columella non bene evoluta; gleba initio lutea, maturitate brunnea, marmorata; sporis sphaericis vel subglobosis, pallide cremeo-albidis, levibus, guttulatis, 8-12 μ . diam., breve pedicellatis.

Hab. prope Tucson, Arizona, Amer. bor.

2. **Secotium andinum** Speg. Mycet. argent. ser. II, 1902, p. 55. — 753
Cæspitosum, albo-ochraceum; peridio irregulariter subgloboso 10-35 mm. diam. et alt., levi, glabro, superne obtuso non vel vix umbilicato, inferne non v. modice excavato, subsuberoso-carnoso, primo integro dein irregulariter dehiscente; stipite erecto, subcylindræo 10-50 mm. longo, 6-10 mm. diam, concolore levi vel rugoso-sulcato, glabro; gleba olivacea, compactiuscula ac minute alveolato-spongiosula; sporis ex ovato subsphaeroideis, minute rostellatis 15-20 \times 12-20, levibus v. obsolete subrugulosis, chlorinis.

Hab. ad radices Patagonii pinifolii secus Rio Tupungato prope Mendoza in Argentina. Species magnitudine sporarum ab omnibus adhuc cognitis longe recedens.

3. **Secotium Rodwayi** Masee in Kew Bull. 1901, p. 158. — Peridio 754
2-3 cm. lato, globoso-depresso, tomentosus, ochraceo-albido, inferne profunde excavato; sporis globosis, verruculosis, subhyalinis, plerumque stipitatis 7-8 μ . diam.; stipite brevissimo, primitus infra furfuraceo, cavo.

Hab. ad terram in Tasmania (RODWAY).

ELASMOMYCES Cavara — Syll. XIV p. 258.

1. **Elasmomyces krjukowensis** (Buch.) Sacc. et D. Sacc. *Secotium* Bu- 755
choltz in Ann. Mycol. 1903, p. 159, t. V, Hedw. 1903, pag. 314, Beitr. Hypog. p. 143, t. III, f. 1-10. — Globosus v. irregularis, hypogæus sive erumpens, c. 3 cm. diam., superficie levis, candidus; stipitello in fossula sito et in glebæ columellam producto; columella et excipulo et cellulis sphaericis nidi modo dispositis et ex filamentis contextis compositis; gleba venis tramæ gyrosis, multiloculari, aurantiaca, initio ad basim columellæ aperta sive excipuli margine obtecta, initio ad basim columellæ aperta sive excipuli margine obtecta, dein clausa; hymenii basidiis et cystidiis paucis; basidiis 2-4-sporis; sporis sphaericis, regularibus, 8,7-11,6 μ . diam., spinulosis, dilute ochraceis, jodi ope caerulescentibus; fungi odore dulci.

Hab. sub terra, Station Krjukowo in prov. Mosquensi Rossiaë.

2. **Elasmomyces michailowskjanus** (Buch.) Sacc. et D. Sacc. *Secotium* 756
Bucholtz Ann. Myc. 1903, pag. 171, tab. V, f. 11, Hedw. 1903, p. 314, Beitr. Hypog. p. 143, t. III, f. 11. — Hypogæus, globosus, minor, circ. 1 cm. diam., rufescens, habitu tuberis rufescentis; gleba griseo-ochracea, multiloculata; columella crassiuscula, structura ut in *El. krjukowensi*; hymenii cystidiis acutis; sporis forma et reactione ut in dicta specie.

Hab. sub terra in prov. Mosquensi prope Michalowskoje, in Rossia.

CAULOGLOSSUM Grev. — Syll. VII p. 57.

1. **Cauloglossum transversarium** (Bosc) Fr. — Syll. VII, p. 57, Cl. 757
Johnston in Proceed. Amer. Acad. 1902, p. 70 c. tab., observans quod genus *Cauloglossum* ut plurimum synonymon est *Podaxi*, speciem prædictam novo nomine *Rhopalogasteris* salutatur; tamen rectius videtur in gen. *Cauloglossum* char. emend. retinere.

PODAXON (Desv.) Fr. — Syll. VII p. 58, IX p. 267, XI p. 158, XIV p. 257, XVI p. 232.

1. **Podaxon Mülleri** P. Henn. F. Austral. II, p. 187 (Hedw. 1904). 758

— Peridio albido-isabellino, squamoso, basi irregulariter dehiscente, ca. 8 cm. longo, 3 1/2 cm lato, apice rotundato; stipite cylindraceo, pr. p. membranaceo-squamoso, basi subincrassato, 6-7 cm. longo, 8 mm. crasso, gleba cinereo-olivacea; filis capillitii fasciatis, flexuosis, flavo-brunneis, plerumque 5-10 μ .; sporis ellipsoideis vel subovoideis, apice rotundatis vel subapplanatis, subincrassatis, late brunneis, ca. 10-16 \times 10-12.

Hab. ad terram, Gascogne River Australiae (F. v. MÜLLER). — Ab affini *P. carcinomali* sporis omnino differt.

2. **Podaxon algericum** Pat. Bull. Soc. Mycol. 1904, p. 53, tab. V. — 759

Peridio globuloso 3-4 cm. cr., carnosissimo, dein membranaceo-rigido, albido, squamis latis, tenuibus subchartaceis, lividis tecto, basi secedendo v. laciniatim dehiscente; stipite rigido, gracili, 5-8 mm. cr., cylindrico, interdum deorsum incrassato, albo, plus minus viridi v. brunneo-maculato, levi v. plicato-striato, costulatoque albo-squamuloso, intus anguste fistuloso, albo, tactu viridibrunneo-maculato; gleba floccosa, alba dein olivacea v. aurantia; capillitii filamentis hyalinis, simplicibus 6 μ . cr., basidia fasciculato-radiantia ovoidea, 20 \times 15, hyalina hinc inde gerentibus; sporis ovoideis v. subglobosis, sessilibus, 10-12 \times 9-10, hyalinis, dein olivaceis v. rufis v. aurantiis.

Hab. in sabulosis desertis Saharæ Algeriae, pluribus locis (SEM, DYDOWSKI). — *P. axato* affine sed minus et gleba aliter colorata.

3. **Podaxon Gollani** P. Henn. F. Indiae orient. II, in Hedw. 1901, 760

pag. 338. — Peridio obovato, ellipsoideo, membranaceo, alutaceo, squamoso, apice obtuso ca. 3 cm. longo, 2 cm. lato; stipite lignoso, duro, squamoso, fibroso, subtereti, alutaceo, intus cavo, pallido, fibroso, 7-9 cm. longo, 0,8-1 cm. crasso, basi bulboso, usque ad 2 cm. crasso; gleba cremaceo-flavida, farinacea; filis capillitii fasciatis, hyalinis 3-6 μ . cr.; sporis angulato-subglobosis v. ellipsoideis 10-12 \times 8-10, hyalino-flavidulis, levibus.

Hab. ad terram, solitarie, Saharanpur-Garden Indiae orient.

4. **Podaxon strobilaceum** E. B. Copeland, Ann. Mycol. 1904, pag. 4, 761

fig. 7. — Peridio rufescente squamis crassiusculis rudibus margine inferiore liberis consperso, obconico vel subgloboso, infra libero et profunde in paucas lacinias fisso, 5 cm. lat., 4 cm. alto; gleba 2 cm. alt., vulgo nigra, e filamentis capillitii liberis v. la-

teraliter anastomosantibus, pandulis conflata; sporis maturitate atro-brunneis, levibus, $7 \approx 6,5$, basi apiculatis; stipite 8-10 cm. alto, rufescente v. rubro-tincto, levi, basi fibrosa ad 2 cm. incrassato, glebam, veluti columella, percurrente, carne albida.

Hab. in argillosis v. lutosis Lake co. Californiæ (C. F. BAKER). — Præcipue peridii forma distingueretur sed, præeunte cl. P. Hennings, potius *Gyrophragmii* forma videtur.

TYLOSTOMA Pers. — Syll. VII p. 60, IX p. 268, XI p. 159, XIV p. 258, XVI p. 233 *).

1. **Tylostoma kansense** Peck in Bull. Torr. Bot. Club. 1901, p. 430, 762
tab. 32, fig. 9. — Peridio subgloboso 1-2 cm. lato, 1-1,5 cm. alto, compacto, firmo, glabro, albo, interdum basi plano raro ostiolato; ore sublacerato, plano, sæpe subprominenti; annulo 2,5 mm. lato, membranaceo, a stipite distante; stipite æquali, basim versus subconstricto, sæpe abrupte bulboso, 1,5-7 cm. longo, 6-8 mm. crasso, farcto cavo, sæpe sulcato-striato, albo; capillitii floccis raro ramosis 7-11 μ . cr., hyalinis, septis non visis; sporis subglobosis 4-5 μ . diam., brunneo-ferrugineis.

Hab. ad terram, Kansas, Amer. bor. (BARTHOLOMEW).

*) Conferendæ sunt dissertationes sequentes de *Tylostomate* genere: White, *The Thylostomaceæ of North America* (Bull. Torr. Bot. Club, 1901) et L. Petri *Osservazioni sul genere Tylostoma* (Nuovo Giorn. bot. ital., Firenze 1904). Ex hac postrema optima opella sequentem conspectum synopticum specierum principum excerpimus:

Tylostoma Pers.

I. Sporæ leves.

A. Capillitium incolor v. inconstanter et partim coloratum. Filamenta longa vittæformia.

1. Filamenta in articulos vix secedentia, apicibus ochraceis et incrassatis.

T. pulchellum

2. Filamenta in articulos facile secedentia, apicibus achrois et non incrassatis.

T. Boissieri?

B. Capillitium constanter brunneum. — Filamenta brevissima in articulos facile secedentia.

T. obesum

II. Sporæ verruculosæ v. plus minus echinulatæ.

A. Filamenta brevia et valde sinuosa, extremitatibus parum incrassatis.

T. Vittadini

B. Filamenta longa.

1. Filamenta apice quam inferne duplo crassiora.

T. mammosum

2. Filamenta apice paullo v. vix crassiora.

2. **Tylostoma fibrillosum** White in Bull. Torr. Bot. Club. 1901, p. 433, 763
n. 33, fig. 4-6. — Peridio globoso 1-2 cm. alto, 1-2,5 cm. diam. albido, sublevi, intus membranaceo, basi subrotundato; annulo indistincto adhærente; ore prominulo, fimbriato, rotundato; stipite æquali vel basi subconico, sulcato, firmo, albo, interdum cavo fibrilloso 2 cm. long. vestito basi inflatulo, albido, 5-7 cm. longo, 5 mm. diam.; floccis capillitii albi hyalinis 4-8 μ . crassis, parce septatis, sæpe subinflatis; sporis subglobosis, minute verrucosis, hyalino-isabellinis, breve appendiculatis, 3-5 μ . diam.

Hab. ad terram, Ontario (DEARNESS), Michigan Americæ bor. (HICKS).

3. **Tylostoma gracile** White in Bull. Torr. Bot. Club 1901, p. 430, 764
tab. 32, fig. 1-3. — Peridio depresso-globoso 1-1,5 cm. alto, 1,5-2 cm. diam., levi, albido, lucenti; ore plano, lacerato; annulo integro, angusto, rotundato; stipite gracili 3-5,5 cm. longo, 6 mm. diam., inferne 3 mm. diam., basi subincrassato, interdum sulcato, lacerato, albido, fibrilloso farcto, dein cavo; capillitii floccis intense ferrugineis 4-6 μ . crassis, apice rotundatis sæpe inflatulis, ramosis, parce septatis; sporis subglobosis 3-5 μ . diam., levibus, brevi pedicellatis.

Hab. ad terram, Las Cruces, New Mexico, Amer. bor. (WOOTON).

4. **Tylostoma poculatum** White in Bull. Torr. Bot. Club 1901, p. 431, 765
tab. 34, fig. 4-6. — Peridio globoso, interdum depresso, 1-1,5 cm. alto, 1-2 cm. diam., levi, fulvo, membranaceo, squamuloso, persi-

a. Filamentorum parietes numquam undulati.

α Filamenta in articulos non secedentia, extremitatibus flavis incrassatis.

— Filamenta breviuscula, sinuosa, membrana parum incrassata.

T. granulosum

— Filamenta longa, non sinuosa, membrana incrassata. **T. squamosum**

β Filamenta in articulos facile secedentia, extremitatibus non diverse coloratis nec incrassatis.

— Filamenta tota flava

T. campestre

— Filamenta achroa.

T. fimbriatum

b. Filamentorum parietes fere constanter undulati.

α Filamenta apice achroa, facile in articulos secedentia.

— Filamenta 4-12,5 μ . cr.

T. cæspitosum

— Filamenta 4-8,5 μ . cr.

T. Giovanellæ

β Filamenta apice flava, non secedentia.

T. pusillum

III. Sporæ reticulatæ. — Filamenta breviter apice plerumque clavata.

T. Levelleanum

stenti, ore paullo prominenti, annulo integro, inconspicuo; stipite 1-3 cm. longo, 3-6 mm. crasso, cylindrico, firmo, subbulboso, cavo vel farcto, squamuloso; floccis capillitii luteolis, subramosis, septatis, in ramificatione noduloso-incrassatis, 4-7 μ . crassis; sporis ferrugineis, subglobosis, levibus vel irregulariter rugosis, brevi pedicellatis 4-5 μ . diam.

Hab. ad terram, Nebraska, in Alabama et in Colorado Amer. bor. (BATES, CARVER et D. M. ANDRES).

5. **Tylostoma subfuscum** White in Bull Torr. Bot. Club. 1901, p. 433, 766 tab. 34, fig. 10-12. — Peridio globoso 0,8-1,3 cm. alto, 1-1,5 cm. diam., squamuloso basi levi, subrotundo, intus brunneo; ore prominulo, fimbriato; annulo inconspicuo, adnato; stipite brunneo, sæpe lacerato-squamuloso, laterali, sulcato, basi subbulboso, 2-3 cm. longo, 3-5 mm. diam.; capillitio luteolo e floccis hyalinis, ramosis, filiformibus, longis, 4-6 μ . crassis, apice rotundatis, raro septatis inflatisque composito; sporis subglobosis, minute verrucosis, breve pedicellatis, 3-5 μ . diam.

Hab. ad terram, Colorado Amer. bor. (BETHEL).

6. **Tylostoma Vittadini** Petri N. Giorn. bot. ital. 1904, p. 65 c. ic. 767 *T. mammosum* Vitt. Mon. Lycop. p. 199, t. II, fig. 4, non Mich. nec Fr. — Endoperidio subgloboso, albicante, non nitido, sicco ochraceo, basi zona granulosa cincto, ore prominente sublacero, margine crasso, duro, tuberculoso-papilloso cincto; stipite recto aut flexuoso, extus rufo-fuligineo, squamuloso-diffracto, striato, farcto v. leviter fistuloso, rigido, basi cortici vestigiis fibrillisque albidis instructo; capillitii hyphis numerosissimis, brevissimis, sinuosis, crasse tunicatis, rotundatis; sporis ochraceo-ferrugineis echinulatis, 4,5-5 μ . diam.

Hab. in aridis sabulosis pr. Milano, Pavia (VITTADINI in herb. Sacc.!).

7. **Tylostoma tuberculatum** White in Bull. Torr. Bot. Club. 1901. 768 p. 432, tab. 33, fig: 7-9. — Peridio depresso-globoso, 1-1,2 cm. alto, 1-1,8 cm. diam. levi squamuloso, albido; ore prominulo, fimbriato, rotundato; annulo inconspicuo; stipite filiformi, albido, cavo vel farcto, basi subincrassato, 2-3 cm longo, 3 mm. crasso; floccis capillitii luteolis, hyalinis, ramosis 4-8 μ . crassis, inflatulis, apice rotundatis, latis, raro septatis; sporis subglobosis, fere levibus, raro tuberculato-verrucosis, 3-5 μ . diam.

Hab. ad terram, Colorado, Amer. bor. (BAKER) et in Columbia Britannica (MACOUN).

8. **Tylostoma mussooriense** P. Henn. F. Indiæ or. II, in Hedw. 1901, 769 p. 337. — Peridio globoso, papyraceo, dense granuloso-verrucoso, ferrugineo, ore submammoso-rotundato, ca. 1 mm. amplo, basi hemisphærico excavato, margine acuto integro ca. 1 cm. diam.; stipite lignoso, fistuloso, duro, fragili, gracili interdum flexuoso ad apicem attenuato ca. 1,5-2 mm. crasso, usque ad 10 cm. longo, fusco, ferrugineo-fibroso v. squamoso, basi usque 2,5-3 mm. cr., late comoso, squamis membranaceis, ferrugineis vestitis; filis capillitii repetito dichotomis, obscurius noduloso-septatis, flavidulis 4-8 μ . cr.; sporis subglobosis, flavo-brunneis, 4 μ . verrucosis.

Hab. ad terram, gregatim, Mussoorie, Arnigadh Indiæ orient.

9. **Tylostoma minutum** White in Bull. Torr. Bot. Club. 1901, p. 433, 770 tab. 31, fig. 11-13. — Peridio globoso 0,7-1 cm. alto, 0,7-1,2 cm. diam., brunneolo, levi dein squamuloso; ore plano, fimbriato, levi; annulo integro, indistincto; stipite 1,5-2 cm. longo, superne 3 mm. diam., basi incrassato 5 mm. diam., gracili, cavo, intus fibrilloso; capillitii floccis luteolis, hyalinis, parce ramosis, apice rotundatis, 3-5 μ . crassis; sporis irregulariter globosis, fere levibus, appendiculatis, 3-5 μ . diam.

Hab. ad terram, Colorado (BETHEL) et in Kansas, Amer. bor. (KELLERMAN).

10. **Tylostoma albicans** White in Bull. Torr. Bot. Club. 1901, p. 428, 771 tab. 31, fig. 4-7. — Peridio depresso globoso 0,7-1 cm. alto, 1-1,5 cm. diam., levi, albido, dein squamuloso, membranaceo; ore prominulo, brevi, tubulari, integro, annulo irregulari 3-5 mm. a stipite distant; stipite æquali, basi subincrassatulo, superne lacerato-squamoso, albido, 4-6 cm. longo, 0,5 cm. diam.; capillitii floccis hyalinis, ramosis, septatis, in ramificatione incrassatis, apicibus liberis, rotundatis, 4-6 μ . crassis; sporis rubro-brunneis, irregulariter globosis, appendiculatis, levibus, raro rugosis 4-5 μ . diam.

Hab. ad terram, Texas, Amer. bor. (E. D. COPE).

BATTARREOPSIS Henn. in Hedw. 1902, p. (212) (Etym. a *Battarrea*, cui affinis). — Peridium stipitatum; stipes centralis, subcarnosus, fibrosus; volva coriacea, ampla, laciniato-incisa; peridium pileiformi-hemisphæricum, coriaceum; gleba cellulosa, in loculos septis membranaceis sinuosis divisa; capillitium? sparsum; sporæ subglobosæ, subochraceæ.

1. **Battarreopsis Artini** Henn. l. c. cum icone. — Stipite carnosus, 772 sicco subcorneo, fibroso-fusco, flexuosus?, ca. 20-30 \times 2-4 cm.; volva

coriacea, ampla, laciniato-incisa, ca. 5 cm. longa, 4 cm. lata, basi mycelio radiciformi; peridio subcoriaceo, convexo-hemisphærico, superne dehiscente, ca. 7-10 cm. lato, 3 cm. lato; gleba cellulosa in loculos septis membranaceis divisa; filis capillitii? sparsis, filiformibus, simplicibus vel ramosis vel subfasciatis flexuosis 2-6 μ . cr., subhyalinis vel subochraceis; sporis subglobosis vel ovoideis, interdum angulatis 5-7 μ ., episporio subochraceo, granuloso-verrucoso, interdum sporis subglobosis, hyalinis, levibus, 8-12 μ . (immaturis?) intermixtis; basidiis? clavatis.

Hab. in terra asphaltica, dimidio immersa, in Villa Tito-Pascha-Hekekyan, Alexandriae Ægypti.

BATTARREA Pers. — Syll. VI p. 65, IX p. 270, XIV pag. 259, XVI p. 236.

1. **Battarrea levispora** Masee in Kew Bull. 1901, p. 152. — Peridio 773
globoso depresso, glabro, albido 4-6 cm. lato; gleba croceo-ochracea; stipite undique squamis paleisve tecto, deorsum attenuato 8-12 cm. longo; volva libera, magna, vaginali, limbo lobata, albida; sporis dilute ochraceis, subglobosis, glabris, 6-7 μ . diam.

Hab. ad terram, Poona, prov. Bombay Indiæ brit. (WOODROW).
— *Batt. Muelleri* Kalchbr. affinis.

2. **Battarrea laciniata** Underwood apud White in the Torrey Botan. 774
Club. 1901, pag. 439, tab. 36, f. 1-6. — Peridio 5-6 cm. diam., 2-3 cm. alto, levi, membranaceo, convexo, margine tenui, molli, inflexo, portione glebæ vestito, inferne luteo albido; stipite 25-35 cm. longo, lignoso, cavo, fibroso-squamuloso secedente, sublacerato, basi subincrassato 1,5 cm. superne inflato, 2,5 cm. crasso; volva complexa, pluri-stratosa, capillitio albido; floccis hyalinis, indefinitis, irregularibus, interdum fasciculatis; cellulis 30-50 μ . longis, 5-7 μ . crassis, annulato-spiralibus; sporis subglobosis, rufo-brunneis, 5-7 μ . diam., fere levibus.

Hab. in Mesilla Park, New Mexico (COCKERELL).

3. **Battarrea Griffithsii** Underwood apud White in the Torr. bot. 775
Club. 1901, p. 440, tab. 37, fig. 1-6. — Peridio 2-3,5 cm. diam., 1-2 cm. alto, levi, membranaceo, inferne plano, distincte dehiscente; stipite cavo, æquali 1-1,5 cm. diam., 9,5-15 cm. longo, sulcato, fibrilloso; volva facile evanescente, e squamulis obtusis, fibrillosis composita; capillitii floccis 4-10 μ . crassis, albidis, subapplanatis, irregularibus, ramosis; cellulis 24-85 \times 6-8 annulato-

spiralibus; sporis subglobosis, minute verrucosis, fere levibus, rufo-cinnamomeis 4-5 μ . diam.

Hab. ad terram in Arizona Amer. bor. (D. GRIFFITHS).

4. **Battarrea arenicola** E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 6. 776

— Peridio 4-5 cm. lato, applanato v. late campanulato, brunneo, centrum versus pallidior, area centrali plicato-tuberculata, sæpe arena v. fragmentis variis obruta, margine varie flexo et subfimbriato; filamentorum capillitii fasciculis e peridii superf. inter. dependentibus, filamentis paucis annulatis, 3,5-5 μ . cr.; sporis globosis, sublevibus, 3-8-5 μ . diam. atro-brunneis, coacervatis nigris; stipite subepigæo v. ad medium hypogæo, 12-15 cm. longo, 8-15 mm. cr., levi, albido, sed sæpe fœdato, carne alba, vetusto corrugato-squamoso, ligneo, cremeo-brunneo; volva persistente tubulosa, irregulariter laciniata.

Hab. in sabulosis, Antioch et S. Francisco Californiae (C. F. BAKER). — An, præeunte cl. Hennings, = *Montagnites*?

5. **Battarrea Franciscana** E. B. Copeland, Ann. Mycol. 1904, p. 3. 777

— A *B. phalloide* præsertim differt squamis latis liberis ad stipitem deficientibus, hujus contextu minus ligneo, peridii parte inferiore molliore; sporis rugulosis 4-4,5 μ . diam.; capillitii filamentis subinde 4,5 μ . diam., spira irregulari præditis; odore typico nullo.

Hab. ad terram, Arizona et Texas Amer. bor. (PALMER).

MITREMYCES Nees. — Syll. VII p. 68, IX p. 270, XI p. 162.

1. **Mitremyces microsporus** (Atkins.) Sacc. et D. Sacc. *Calostoma* 778

Atkinson in Journ. of Mycol. 1903, pag. 17. — Peridio ovoideo 10-15 mm. lato, ore 5-7-dentato, prominenti, intus cinnabarino; exoperidio in verrucas numerosas, minutas, duriusculas diffracto; partem mediam et inferiorem endoperidii obtegente, vulgo omnino secedente et aream levem circa ostiolum endoperidii relinquente; sporis oblongis, rarius ellipsoideis, albis, levibus, 6-10 \approx 3,5-5,5, plasmate granuloso subinde medio diviso; stipiti cylindræo vel ventricoso, subinde compresso 3-6 cm. alto, 1-2 cm. crasso.

Hab. ad terram, Rugby Tennessee, Amer. bor. (PERCIVAL).

2. **Mitremyces japonicus** (P. Henn.) Sacc. et D. Sacc. *Calostoma* P. 779

Henn. Fg. japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, p. 738. — Exoperidio subgloboso v. ovoideo, cinereo-fuscidulo ca. 5-8 mm. diam., squamis crassis, verrucosis, fuscis peridii extremi vestito, dein nudo, subareolato, brevi v. obsolete stipitato; stipite e fibris crassis, tortis, cartilagineis in sicco corneis, ferrugineis con-

sistente, ca. 2-5 mm. longo crassoque; osculo vix coronato dentibus 4-5, sæpe basi laciniato-partitis, margine cinnabarinis, dehiscenti; endoperidio membranaceo, subgloboso, 3-5 mm. diam., cremeo, glabro; floccis ramosis, hyalinis 1-2 μ . cr.; sporis ellipsoideis, hyalino-flavidulis, 8-13 \times 6-8, episporio sublevi v. granuloso.

Hab. ad terram, Nagasaki et Izu Japoniæ.

GEASTER Mich. — Syll. VII p. 70, IX p. 271, XI p. 162, XIV p. 260, XVI p. 237.

1. **Geaster Dybowskii** Pat. Bull. Soc. Mycol. 1902, p. 300. — Exoperidio 4-5 cm. diam., globuloso, usque ad medium 5-8-fido, laciniis membranaceis, cuneiformibus intus levibus, nigrescentibus, sæpe rimosis, extus lateritiis, tomentoso-verrucosis; endoperidio globoso, levi, glabro, papyraceo, sessili, pallide umbrino, peristomio conico, atro, pectinato-sulcato, rima circulari circumscripto; gleba atrobrunnea; columella capitata; capillitio ex hyphis rufo-brunneis 3-7 μ . crassis, composito; sporis in cumulo atris, sub lente brunneis, globosis, asperulis, 4-5 μ . lat.; mycelio superficiali, filamentoso, copioso, albo.

Hab. ad ligna putrescentia, Oubangui (DYBOSWKI). — *G. javanico* Lév. affinis.

2. **Geaster Giacomellianus** Speg. Myc. argent. ser. II, 1902, p. 56. — Exareolatus; exoperidio 4-5-partito subgloboso 20-25 mm. diam., extus albido-cinerecente, tenui-subpapyraceo, laciniis subtriangularibus, intus umbrino; endoperidio globoso, 18-22 mm. diam., umbrino, sessili, glabro, tenuiter chartaceo rigidulo, ostiolo minuto denticulato dehiscente; gleba fuligineo-nigra pulverulenta; sporis globosis, parvis, grosse laxaque papillatis, 4-5 μ . diam., fuligineis.

Hab. in pratis aridis, Aimonacid et Cochaugasta, La Rioja in Argentina (A. GIACOMELLI). — Species *G. platensi* Speg. valde affinis, sed tamen distincta.

3. **Geaster Lloydii** Bres. et Pat. in Lloyd. Mycol. Not. n. 6, 1901, p. 50. — Exoperidio membranaceo, 4-6-fido, revoluta, intus brunneo, levi, extus luride alutaceo, tomentoso-villoso, tomento ex hyphis tortuoso-intricatis crasse tunicatis, more *Hirneolæ polytrichæ* conflato, basi mycelio copioso radiciformi albo prædito; laciniis obovatis infra medium partitis; endoperidio globoso-obovato, papyraceo, sessili, avellaneo-umbrino; peristomio indeterminato, piloso-fimbriato; capillitio brunneo-fusco, ex hyphis 3-8 μ . cr. con-

flato; columella clavata v. clavato-subcapitata; sporis globosis, levibus, flavis, episporio crasso fusco, 3-4 μ . diam.

Hab. ad terram in insula Samoa. — Exoperidio tomentoso a ceteris speciebus (nisi *G. velutino* parum noto) optime distincta.

4. **Geaster pseudolimbatus** Hollós in Matem. es Termeszett. Ertesito, 783 Budapest 1901, p. 507. — Exoperidio in 6-8 lacinias inæquales acutas ad basim partito, rigido, coriaceo, subfornicato, intus atro-brunneo-purpurascente mox griseo, pedicellato, subtus apophysato; peristomio ciliato-sericeo, circulis pallescentibus cincto vel indeterminato; columella basi latiuscula, usque ad medium endoperidium excurrente; gleba umbrino-purpurea; capillitio e filis simplicibus brunneis 6-7 μ . cr.; sporis globosis, atro-brunneis, episporio dense verrucoso, 5-6 μ . diam.

Hab. in Hungaria. — Endoperidium 1-2 cm. latum; exoperidium expansum ad 3-4 cm. raro 7 cm. diam.

5. **Geaster hungaricus** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, p. 506. — Exoperidio in 5-10 plerumque in 7 lacinias acutas ad basim partito, hygrometrico, siccitate arcte involuto, extus niveo, intus ochraceo, mox brunneo; endoperidio subgloboso, cinereo v. castaneo, sessili, levi, subfurfuraceo; peristomio plano-conico, ciliato-fimbriato, rima circulari marginali circumspecto; columella longa sed exemplaribus parvis obsoleta; gleba cinerea; capillitio flavidulo, subhyalino, e filis simplicibus 2-4 μ . crassis; sporis globosis, flavo-brunneis, uni-guttulatis, verruculosis, 4-6 μ . diam., plerumque breviter pedicellatis.

Hab. in Hungaria. — *Geasterum* minimus est. Endoperidium 2-5 mm. latum; exoperidium explanatum circ. 10 mm. metiens. Nonnunquam fungus siccus involutus non amplius ac 2-3 mm. est.

6. **Geaster pseudostriatus** Hollós in Matem. es Termeszett. Ertesito, 785 Budapest 1901, pag. 505. — Exoperidio 7-8-fido, crasso, rigido, intus levi, brunneo, rimoso, basi integra subfornicata; laciniis acuminatis explanatis, non hygrometricis; endoperidio subgloboso, depresso, griseo-brunneo, dense verrucoso, scabro, flavo-pedicellato, subtus apophysato; peristomio orbiculo marginato, sulcato plicato; columella parva, subglobosa, ultra medium exoperidium non excurrente; gleba brunnea; capillitio flavo-brunneo, floccoso, e filis simplicibus 6 μ . cr. versus apicem attenuatis; sporis globosis, brunneis, 5-6 μ . diam., episporio dense verrucoso.

Hab. in Hungaria. — Endoperidium 1-1,5 cm. lat., diametrum exoperidii expansi usque ad 5-6 cm.

7. **Geaster Englerianus** P. Henn. Engl. bot. Jahrb. XIV, 1891, p. 361, 786
t. VI, f. 8. — Syll. XI, pag. 162. — var. **lignicola** P. Henn. F.
Amaz. I, p. 185 (Hedw. 1904). — Exoperidio coriaceo, 5-7-fido
explanato, laciniis triangularibus rigidis, intus strato ceraceo atro-
castaneo rimoso, $1\frac{1}{2}$ -2 cm. explanato; endoperidio sessili subglo-
boso depresso, papyraceo, atro-fusco, ca. 1 cm. diam. levi, peri-
stomio fimbriato, azono; capillitio atro, floccis 3-6 μ . crassis, fu-
sco-castaneis; sporis globosis, verrucosis, atro-castaneis, $3-3\frac{1}{2}$ μ .
Hab. in fragmentis ligneis putridis, Birco do Tejo, Juruá sup.
Amazoniæ (ULE). — A typo sporis paullo majoribus et habita-
tione differt. Ad *G. Englerianum*, teste cl. Lloyd, spectat *G. mau-
rus* Masee (1899) posterior.

8. **Geaster leptospermus** Atk. et Coker Bot. Gaz. 1903, Oct. p. 306, 287
c. icon. — Solitarius v. gregarius ovoideo-globosus; peridio 3-4,5
mm. diam., exoperidio matrici filamentis mycelii arcte fixo, ra-
diatim in 3-4 lacinias diviso; laciniis in strata duo facile separatis,
apice tamen coalitis, superficie interiore minute granulosa alba v.
carneo-tincta; endoperidio sessili v. brevissime pedicellato, 2,5-3,5
mm. diam., globoso, ore definito, fibrillis sericeis prædito (nec sul-
cato, nec striato), pallide alutaceo, circa ostiolum albo; capillitio
copioso pallido v. flavido-brunneo, filamentis 2-6 μ . cr., rectis v.
flexuosis, simplicibus v. ramosis; sporis perexiguis e globoso an-
gulosis, levibus, 1,5-2,5 μ . diam., e pallido flavido-brunneis.

Hab. inter muscos ad cortices Juniperi virginianæ, Ca-
ryæ, Ulmi, Chapel Hill N. Carolina Amer. bor. (COKER).

Subgen. MYCELIOSTROMA P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — Mycelium
stromaticum late effusum.

9. **Geaster juruensis** P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — 788
Terrestris, mycelio effuso, membranaceo-coriaceo, albido; peridio
stipitato primo piriformi, apice umbonato, alutaceo, coriaceo ru-
guloso, 2-2 $\frac{1}{2}$ cm. alto, $1\frac{1}{2}$ -2 cm. lato; stipite usque ad 1 cm.
longo, 5 cm. crasso, exoperidio irregulariter ad medium paucifido,
laciniis ca. 5 triangularibus; endoperidio subgloboso, cinereo, ses-
sili, papyraceo, levi, disco plano, peristomio conico, fimbriato, co-
lumella subclavata, gleba atra, filis capillitii flexuosis, brunneis,
utrinque attenuatis, ca. 3-4 μ . crassis; sporis globosis, atro-casta-
neis, granulato-verrucosis, ca. 2-2 $\frac{1}{2}$ μ .

Hab. ad terram silvaticam, Rio Juruá, Bom Fim Amazoniæ

(ULE). — *G. stipitato* et *G. mirabili* affinis et præcipue stromate mycelico late effuso (subgenus novum præbente) distinguitur. A *Geast. stipitato* etiam sporis dimidio minoribus dignoscitur.

GEASTEROPSIS Hollós Külön. Növenyt. Közl. 1903, II, 2 (Etym. *Geaster*, cui affine genus). — Exoperidium crassum, rigidum, in lacinias irregulares dehiscens, centro stilum sublignosum gerens; stilo obconico dilatato, columellam subrotundam formante. Similis *Geasteri*, at endoperidio secedente et columella sublignosa obturbinata distinguitur.

1. **Geasteropsis Conrathi** Hollós l. c. cum ic. — Exoperidio crasso, 789 duro, rigido, coriaceo, subhygrometrico, extus ochraceo, brunneo et albo variegato, rimis longitudinalibus, intus umbrino, rimoso, in decem inæquales curvatas lacinias fisso, in centro stilum latum, durum gerente; stilo obconico-dilatato et sublignoso, subrotundam columellam formante; endoperidio albello, molli, flexibili, cum gleba omnino secedente; gleba umbrina; sporis globosis, umbrinis, densis, verrucosis, sessilibus vel breve pedicellatis, 1-grosse guttulatis, 6 nonnumquam 8 μ . diam.; capillitio subhyalino, dilute umbrino, non vel raro ramoso, nonnumquam septato, 4 μ . diam.; exoperidio expanso usque ad 10 cm., columella prope 3 cm. lata.

Hab. ad terram graniticam prope Johannesburg Africae merid. (CONRATH). — Similis *Geasteri*, quia exoperidium in lacinias finditur, endoperidium autem non peristomio aperitur, sed omnino sejungitur et tunc sublignosa columella cum exoperidio remanet.

DIPLODERMA Link — Syll. VII p. 92, IX p. 273, XI p. 163.

1. **Diploderma glaucum** Cooke et Masee. — Syll. VII, pag. 93. — Quoad hanc speciem cfr. Hollós in Külön. Növenyt. Közl. 1902, I, 4 cum icone; qui pro ea genus *Potoromyces* F. Müll. in herb. Sacc. admittit.

LYCOPERDON Tourn. — Syll. VII p. 106, IX p. 275, XI p. 165, XIV p. 263, XVI p. 241.

1. **Lycoperdon favosum** Oud. Bot. Centr. 1902, Beil. p. 4 (extr.). — 790 Altum ad 12 cm., umbrinum; peridio subgloboso, 3 cent. diam., papyraceo, fragili, summo tandem varie lacerato-dehiscente, granulis minimis, partim muticis, partim mucronatis, dense et inæqualiter vestito, ætate provecta levissimo, deorsum interruptione tantum superficiali intercessa in stipitem paullo tenuiorem abeunte;

stipite cylindrico, per totam superficiem impressionibus fere contiguis 4-6-gonis, amplitudinis 3-7 mm., p. m. micantibus verrucisque una v. pluribus, primo spiniferis, denique calvis ornatis, obsesso, ceterum pulvere furfuracea consperso; glebula flocculoso-gossypina, pulvere farcta, dilute umbrina; floccis tenellis, gracilibus 2-3 μ . cr., parce ramulosis, continuis vel parcissime septatis, avellaneis; sporis globosis 4,5-5 μ . diam. minutissime asperulis, saturate avellaneis.

Hab. ad terram, Valkenberg Hollandiæ.

2. **Lycoperdon tasmanicum** Masee in Kew Bull. 1901, p. 158. — 791

Peridio obovato, membranaceo, sordide ochraceo, verrucis pyramidatis demum deciduis ornato, basi fibrillis longis repentibus radicante, 3-6 cm. alto, basi sterili distincta; gleba dilute brunnea; hyphis capillitii subhyalinis, ramosis; sporis globosis olivaceo-brunneis, verruculosis, 4 μ . diam.

Hab. ad terram in Tasmania (RODWAY).

3. **Lycoperdon erinaceum** Speg. Myc. argent. ser. II, 1902, p. 56. — 792

Candidum; peridio subhemisphærico, superne rotundato, inferne subapplanato 40 mm. diam., 32 mm. alt., cortice duplici, externo verrucis magnis pyramidatis 2,5-3,5 \times 1,5-2 mm., confertis subpersistentibus ornatis, interno subpapyraceo; stipite obconico 25 \times 15-18 mm. terra ad medium usque infosso, subsuberoso extus levi, albo, intus latissime fistuloso-vacuo a cavitate peridii septo transverso rigidulo, separato; glena grumoso-subpulverulenta ochracea, floccis nullis sed nodulis minutissimis proliferis difformibus 30-50 μ . diam. donata; sporis globosis, levibus, an minutissime subrugulosis, non rostellatis 6-8 μ . diam., subcrassiuscule tunicatis, grosse 1-guttulatis, subhyalinis.

Hab. in pratis sabulosis, prope Posadas, Misiones in Argentina (E. KERMES). — Species pulcherrima distinctissima habitu *Calodermati* accedens.

4. **Lycoperdon atrum** Pat. Champ. de la Guadeloupe, ser. III, in 793

Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Peridio piriformi vel turbinato, supra rotundato, deorsum sensim stipitiformi attenuato, basi in mycelium fibrillosum terminato, papyraceo (in sicco), flavido, vertice ostiolo minuto irregulari dehiscente, verrucis minutissimis, confertis, granuliformibus, deterrentibus, crustam nigram in tota parte peridii inflata et rufam ad stipitem formantibus; parte sterili glæ fulvo-pallida sericea, cellulis obsoletis, stipitem quoque occupante; parte fertili fulva vel fulvo-

brunnea plus minus rubescente, floccoso-pulveracea; capillitii filamentis rufis 3-5 μ . crassis, longissimis, ramulosis, apicibus cuspidatis; sporis globulosis, levibus, ochraceis, 4-5 μ . diam. exappendiculatis vel hilo brevissimo præditis.

Hab. ad terram in Martinica et Guadalupa (Duss). — Peridium 3-4 cm. altum, velo nigro et gleba fulvo-rubescete distinctum. Columella nulla.

5. **Lycoperdon endotephrum** Pat. Bull. Soc. Mycol. 1902, pag. 300, 794 t. XIV, f. 3. — Pileo sursum convexo, hemisphærico, tenui albido-ochraceo, 2-4 cm. lato, 15-25 mm. alto, apice osculo irregulariter aperto, cortice adnato, verrucoso, verrucis minutis, aculeiformibus, stellatim apice confluentibus, deorsum breviter obconico, plicato rugoso, glabriusculo; basi sterili parum evoluta, albida, tenuissime cellulosa, persistenti; gleba floccoso-pulveracea, sordide violascenti; capillitio adnato ex hyphis hyalinis 3-7 μ . crassis simplicibus vel ramosis composito; sporis sub lente fuscidulis, minute verrucosis, subglobosis vel globoso-ellipticis 3,5-4,5 μ . diam., hilo brevissimo donatis.

Hab. ad terram in Madagascar.

6. **Lycoperdon pseudoradicans** Lloyd Mycol. Not. n. 9, p. 84, c. ic. 795 (1902). — Peridio globoso, basi contracto et in processum radiciformem longum (basim sterilem) producto; cortice persistente, tenui, spinulis brevibus quaternatis et apicem versus convergentibus consperso; columella lata prominenti; sporis coacervatis olivaceo-brunneis, minutis, globulosis, minute asperulis, apiculatis, 4 μ . diam.; filamentis 4-8 μ . cr.

Hab. inter muscos præcipue *Leucobryum*, Washington Amer. bor. (F. J. BRAENDLE). — *L. pratensi* et *L. piriformi* affine, sed notis datis satis differt.

7. **Lycoperdon pseudoumbrinum** Hollós Külön. Noveny. Közl. 1903, 796 II, 2 cum ic. — Peridio globoso, 1-1,5 cm. lato, sessili, sordide ochraceo vel rufidulo, subtiliter furfuraceo vel aculeis parvis convergentibus obsesso, basi ramoso; basi sterili obsoleta vel nonnumquam distincta; gleba olivacea; columella centrali; capillitiis flavidulis vel brunneis, sporarum diametro æqualibus, sparsis, ramosis; sporis globosis, flavidulis, 1-guttulatis, verrucosis 4-5 μ . diam., 4-26 μ . longe pedicellatis.

Hab. ad terram in Carolina meridionali. — *Lyc. umbrino* simile, sed pedicello sporarum permanente vel raro secedente.

8. **Lycoperdon juruense** P. Henn. F. Amaz. I, p. 184 (Hedw. 1904). 797

— Peridio piriformi, stipitato, membranaceo-subcoriaceo dense atro-fusco granulato vel squamosulo, 3-5 cm. longo, 2-3 cm. lato, stipite farcto, sterili, spongioso; gleba cinereo-subviolacea; filis capillitii flavo-fuscidulis, 2-3 μ . crassis; sporis globosis, dense verrucosis, atro-castaneis, 3-3 $\frac{1}{2}$ μ ., pedicello usque ad 12 \times 1, hyalino-fuscidulo.

Hab. ad terram silvaticam, Rio Juruá, Juruá-Miry Amazoniæ (ULE). — Habitu *L. piriformi* accedit; sporis longe pedicellatis mox dignoscitur.

9. **Lycoperdon hungaricum** Hollós in Matem. es Termeszett. Ertesito, 798 Budapest 1901, p. 510. — Peridiis subglobosis vel depressis, flavo-brunneis, rufidulis, granulis pallidis parvulis tectis, sessilibus, subtus plicatis; basi sterili parum distincta, parva; gleba olivaceo-viridi; floccis non ramosis, simplicibus, fragilissimis, flavidis, sporarum diametro æquali vel magis tenui; sporis globosis, verrucosis, flavidulis uniguttulatis, breviter pedicellatis, 4-5 μ . diam.

Hab. ad terram in Hungaria. — A *Lyc. colorato* sporis capillitiisque præcipue differt.

10. **Lycoperdon pseudocepæforme** Hollós in Matem. es Termeszett. 799 Ertesito, Budapest 1901, p. 511. — Peridiis late ovoideis, subglobosis, subtus plicatis, breve stipitatis, mollibus, ochraceis, rufidulis 1,5 cm. latis; squamis atris; basi sterili obsoleta; columella centrali; capillitio ramoso, flavo, 4 μ . diam.; sporis globosis, interdum complanatis 4-8 μ . diam., flavis, pedicellatis v. sessilibus; pedicellis plerumque longis, deformatis, flavis.

Hab. ad terram in Hungaria. — A *Lycop. cepæformi* sporis præcipue distinctum.

11. **Lycoperdon djurense** P. Henn. in Hedw. 1901, p. 100. — Syll. 800 XVI, pag. 1117 (nomen). — Peridio subgloboso v. ovoideo, basi sulcata, farinaceo-granulosa, brevi radicata attenuato, extus verrucis subconoideis, polyhedricis v. sulcatis pallidis exasperato, dein areolato, flavo-brunneo, ore rotundato, 0,8-20 mm. diam.; gleba pallide umbrina, basi sterili, pallida, favosa; filis capillitii paullum ramosis, hyalino-flavidulis 3,5-4,5 μ . cr.; sporis globosis flavo-fuscidulis, minute verrucosis, 3,5-4.

Hab. ad terram, Djur Afr. centr.

12. **Lycoperdon pseudopusillum** Hollós Külön. Növény. Közl. 1903, 801 II, 2 c. icone. — Peridio globoso, tenui, molli, estipitato, sessili, sordide ochraceo, subtiliter furfuraceo 5-8 cm. lato, subtus cum mycelio radicante; basi sterili obsoleta; gleba olivacea; capillitio

flavidulo, sporarum diametro æquali, sparso, ramoso; sporis globosis, flavidulis, subtiliter verrucosis, uniguttulatis, sessilibus vel breviter pedicellatis, 4-5 μ . diam.

Hab. in Hungaria, Florida et Transylvania. — A *Lyc. pusillo* sporis verrucosis distinctum.

13. **Lycoperdon samoëense** Bres. et Pat. in Lloyd Myc. Not. n. 6, 802 1901, pag. 50. — *Globalaria*. Peridio sessili v. subradicato, basi fibrillis mycelialibus, albis, copiosis prædito, utriforimi v. obovoideo, apice ore lacerato irregulari dehiscente; cortice externo purpureo, umbrino, granulis parvis, sæpe pyramidatis, demum deciduis, dense obsito; cortice interno papyraceo, pallide alutaceo; gleba matura olivaceo-fusca, basi sterili nulla; capillitio laxo, ex hyphis subhyalinis, 3-5 μ . cr. conflato; sporis globosis levibus, fulvis, nucleis flavidis, 3-3,5 μ . diam.

14. **Lycoperdon acuminatum** Berk. — Sacc. Syll. XI, pag. 166. — 803 var. **Seurati** Patouill., Bull. Soc. Mycol. 1904, p. 134. — Minutissimum 4-6 mm. altum, ovoideo-acuminatum; peridio albido dein ochraceo, verrucis conicis longitudinaliter striatis tecto; gleba olivacea pulverulenta; basi sterili nulla; capillitio raro ex hyphis pallide olivaceis longissimis, parce ramosis, 3-6 μ . cr. composito; sporis globosis, levibus 3 μ . lat. concoloribus.

Hab. ad truncos *Artocarp*i inter muscos in insulis Gambier (SEURAT). — A typo differt peridio dimidio minore, sporis quoque minoribus etc.

15. **Lycoperdon piriforme** Schaeff. — Syll. VII, p. 117. — Citetur *Schaeff.* tab. 185, nec tab. 189 quæ *L. cœlatum* spectat.

DISCISEDA Czern. — Syll. VII p. 92. — De hoc genere completente pro parte species plures *Catastomæ*, *Bovistæ*, *Globalariæ* in Syll. Fung., cfr. dispositionem reformatam cl. L. Hollós in Hedw. 1903, p. 120.

1. **Disciseda Hollosiana** P. Henn. in Hedw. 1902, p. (62). — Peridio 804 depresso-glabro, exoperidio fragili evanescente, endoperidio superne levi, glabro, atro-castaneo v. griseo pruinoso, inferne circumscisso, ruguloso, pallide fusco, ca. 3 cm. diam., intus floccoso, olivaceo; floccis capillitii longis, ramosis vel simplicibus, flexuosis, flavido-olivaceis ca. 3-5 μ . cr.; sporis globosis, atro-castaneis, granulato-verrucosis, 9-12, pedicello persistenti usque ad 30 μ . longo, 2-2,5 μ . crasso, fuscidulo.

Hab. ad terram, Mexico? (C. EHRENBURG).

BOVISTA Dill. — Syll. VII p. 96, IX p. 273, XI pag. 164, XIV p. 261, XVI p. 240. — Cfr. notam ad *Discisedam*.

1. **Bovista hungarica** Hollós in Matem. es Termeszett Ertesito, Budapest 1901, p. 512. — Peridiis sessilibus, compressis v. depressis, cavernosis, cinereis, nitidis, levibus, papyraceis, superne irregulariter ostiolato-perforatis, 3-4,5 cm. diam.; gleba castaneo-purpurea, tota fertili, absque basi sterili; floccis levibus, ramulosis, atrobrunneis 16-20 μ . diam.; sporis globosis umbrinis, levibus 5-6 μ . diam., pedicellatis, episporio crassiuscule et excentrice 1-grosetgulato.

Hab. ad terram in Hungaria.

2. **Bovista Stuckerti** Speg. Myc. argent. ser. II, pag. 56 (1902). — 806 Peridio 20-25 mm. diam., superne rotundato, inferne subturbinate non plicato, latiuscule terra adnato, tenui, papyraceo, levissimo, glabro, sordide atro-violaceo; ostiolo subrotundo dehiscente 1-4 mm. diam.; gleba subcompactiuscula avellanea; floccis ramosis crebre flexuosis 3-4 μ . crassis, olivascentibus; sporis sphaeroides ecaudatis, muriculatis, dense papillatis, eguttulatis 8-10 μ . diam. fusco-subolivaceis. = ? *Calvatia plumbea* Lloyd, Fungi, Sacc. XXI, p. 433

Hab. in pratis secus Rio Primero prope Cordoba, in Argentina (T. STUCKERT).

3. **Bovista dealbata** (Lloyd) Sacc. et D. Sacc. *Bovistella dealbata* Lloyd 807 Mycol. Not. n. 9, p. 86, c. ic. (1902). — Peridio globoso, tenui, poro minuto definito dehiscente; exoperidio tenuissimo, albo, adnato, minuto-furfuraceo, primitus in areas diffracto, dein evanescente; basi sterili nulla; gleba brunnea; capillitio filamentis tenuibus, vage ramosis; sporis globosis levibus, 4 μ . diam., pedicello usque 12 μ . longo instructis.

Hab. in pascuis siccis pr. Rockland Washington Amer. bor. (SUKSDORF). — Specimina majora 1 cm. metiuntur. Affinis *Bov. plumbeæ*.

CALVATIA Fr. — Syll. VII p. 105, XIV p. 262.

1. **Calvatia hungarica** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, p. 510. — 808 Peridio globoso depresso, ovoideo, sessili, subtiliter furfuraceo, dilute umbrino, cum maculis rufis, basi plicata; apice fragilissimo, in lacinulas erupto demumque ex toto evanido; basi sterili parvo convexa, cellulari; gleba flavida, olivacea; capillitio pallide lutescente, ramoso, in loco ramificationis triangulum crassum formante; sporis sphaeroides, levibus, dilute

luteis, brevissime pedunculatis 1-grosse guttulatis, 4-6 μ . diam.

Hab. ad terram in Hungaria. — Peridium 9 cm. latum, 6,5 cm. altum, aliquo modo *Solani tuberosi* simile est.

2. **Calvatia Diguettii** Har. et Pat., Bull. Soc. Mycol. 1904, p. 64. — 809
Glaboso-depressa, 4-6 cm. lata, inferne subapplanata, c. 2 cm. alta, brevissime radicata, velo ochraceo, tenui, sub lente furfuraceo; peridio glabro, ochraceo-fulvo, vix 1 mm. cr., rigido, irregulariter parte superiori frustulatim dehiscenti; basi sterili nulla; gleba gossypina, ochracea; capillitio fragili ex hyphis ochraceis 3-6 μ . latis, ramosis composito; sporis subglobosis, levibus, 3-4 latis, hilo brevissimo donatis.

Hab. ad terram arenosam in California littorali (DIGUET). — Basi sterili nulla, velo et colore distinguenda.

3. **Calvatia tatrensis** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, pag. 508. — 810
Peridio globoso, tenui, molli, collabescente, primo pallide, mox sordide ochraceo, dilute umbrino; aculeis parvis convergentibus obsesso; stipite brevi, subtus plicato; margine oris magni serrato; basi sterili molli, cellulari, purpurascens et communiter parva; gleba olivacea, mox umbrina; capillitio cylindrico, septato, rigido, fragilissimo, in extrema parte subito in conum transeunte, 5-6 μ . diam.; sporis sphaeroideis estipitatis v. brevissime pedunculatis 1-guttulatis, episporio dense verrucoso 5-6 μ . diam., flavo-brunneis.

Hab. ad terram in Hungaria. — Peridium 3-5 cm. latum, maturum calvescens, partim leve et nitidum fit, partim autem aculeos parvos servat.

SCLERODERMA Horn. — Syll. VII p. 134, IX p. 278, XI p. 167, XIV p. 266, XVI p. 244.

1. **Scleroderma hemisphaericum** B. Lázaro in Bol. Soc. españ. de Hist. Nat. Madrid, 1902, p. 158, t. IV (absque diagnosi). — 811
Peridio initio globoso, mox basi applanato-concavo, tunc depresso hemisphaerico, 3-6 cm. diam., flavido, squamis adpressis griseis consperso; gleba e flavo grisea demum pulverulenta, griseo-virente; mycelio e rhizoidibus dense fasciculatis formato; sporis filamentis capillitii brevibus et crassis intermixtis, (mensuræ desiderantur).

Hab. inter muscos in Asturiis Hispaniæ. — *Scl. vulgari* affine.

2. **Scleroderma verrucosum** (Bull.) Pers. — Syll. VII, pag. 136. — 812
var: **maculatum** Peck Rep. of the State Bot. 1899, p. 848, tab. B, f. 8-12. — Subsessile, globosum vel depresso-globosum, 2,5-7,5 cm.

diam.; peridio crasso, firmo, brunneo, squamulis minutis intense brunneis vestito, in parte superiore facile evanescentibus et maculas pallide luteolas relinquentibus; sporis in massa nigrescentibus, globosis, verrucosis 15-17,5 μ . diam.; cellulis capillitii luteo-brunneis.

Hab. ad terram in silvis, Rosendale, Amer. bor.

3. **Scleroderma Pteridis** Shear in Bull. of the Torr. bot. club. 1902 ⁸¹³
p. 451. — Peridio globoso vel depresso-globoso, sessili, sordide albo vel subluteo, irregulariter squamoso, fibroso-radicato, 3-6 cm. diam.; cortice 3-8 mm. cr.; gleba firma, interdum indistincte areolata, rubro-brunnea; columella nulla; sporis irregulariter globosis rubro-brunneis, rugoso-asperulis, 6-8 μ . diam.

Hab. in rhizomatibus Pteridis aquilinæ, Amer. bor.

4. **Scleroderma Torrendii** Bres. Myc. Lusitanici novi in Atti R. Acc. ⁸¹⁴
di Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 132. — Peridio subgloboso, basi radicato, 2-5 cm. diam., fusco-purpureo, primitus levi, dein areolato-rimoso, areolis fusco-purpureis, interstitiis alutaceis, cute 1-1,5 mm. crassa, irregulariter rupta, substantia fracta rubescente; radice brevi, intus lutea, extus fibris mycelialibus copiosis, albis prædita; gleba juvenili compacta, atro-purpurea, venis albis marmorata, dein matura pulveracea, griseo-purpurea, floccis lutescentibus; sporis globosis, atro-purpureis, aculeatis, 12-15 μ . diam.; basidiis obverse piriformibus mox absorptis; hyphis capillitii subhyalinis, septatis 3-6 μ . latis, ad septa hinc inde inflatis.

Hab. ad terram sub Fico Carica pr. Setubal Lusitaniæ. —
Sclerodermati Bovistæ Fr. proxime accedit.

5. **Scleroderma Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — ⁸¹⁵
Syll. XVI, p. 1118 (nomen). — Peridio subgloboso vel ovoideo, sessili v. substipitato, coriaceo corticato, pallide ochraceo dein ferrugineo, punctato-areolato, vertice irregulariter dehiscente 8-12 mm. diam.; gleba ferruginea minute marmorata, floccis ramosis, subhyalino-flavescentibus, fasciatis 3-5 μ . cr.; sporis globosis flavis v. brunneis 8-11 μ . diam., episporio atro-brunneo dense aculeato-asperato.

Hab. ad terram inter folia, Kamerun Afr.

Subgen. MYCENASTRUM Desv.

6. **Scleroderma Corium** (Guers.) Grav. — Syll. VII, p. 142. — var. 816
Sterlingii Lloyd Mycol. Not. n. 12 (1902) p. 120, fig. 10-11. —
 A typo differt peridii superficie omnino levi, nec squamosa.

Hab. ad terram, Denver Colo Amer. bor. (E. B. STERLING).

7. **Scleroderma martinicense** (Pat.) Sacc. et D. Sacc. *Mycenastrum* 817
martinicense Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc.
 Myc. de France T. XVIII, ser. II, 1902. — Ovoideum 5 cm. alt.,
 3 cm. crass., ochraceo-griseum; peridio duro e pilis pyramidalibus
 superne prædito, inferne in pseudo-stipitem 1 cm. long., atte-
 nuato; cortice nigro, rigido, corneo pseudoparenchymatico e cellulis
 magnis composito; columella gracili, albida, firma, tertium cavi-
 tatis attingente, superne incrassatula, laminae tenues radiantes
 emittente; capillitii floccis liberis, simplicibus, longe fusoides,
 utrinque attenuatis 500-600 \approx 10-13, fuligineo-pallidis, levibus;
 gleba fuliginea; sporis rotundatis 3-5 μ . diam. pallidis, levibus,
 centro guttulatis.

Hab. ad terram in insula Martinica Americæ centr. — *Scl.*
cædato Pat. affinis species.

SCLERANGIUM Lév. — Syll. VII, p. 134, 138. — *Stella* Masee. —
 Syll. IX. p. 272.

1. **Sclerangium brasiliense** P. Henn. F. Amaz. I, pag. 186 (Hedw. 818
 1904). — Peridio globoso-depresso, sessile 7-8 cm. diam., vertice
 ad medium stellatim dehiscente in lacinias 6 crasse coriaceas, extus
 rufo-brunneo squamoso, basi mycelio ramoso, filiformi; endoperidio
 evanescente; sporis globosis, ferrugineis vel castaneis 4-6 μ . ver-
 rucosis, capillitio nullo.

Hab. ad terram silvaticam, Rio Juruá, Marary Amazoniæ (ULE).
 — *Scl. americano* (Masee, sub *Stella*) forte affine.

POLYSACCUM D. C. — Syll. VII p. 146, IX p. 280, XI p. 167.

1. **Polysaccum pusillum** Har. et Pat. Journ. de Bot. 1903, p. 13. — 819
 Subglobosum, exiguum, 15-20 mm. lat., sessile v. basi in stipitem
 brevissimum, vix 5 mm., attenuatum, extus atro-brunneum vel
 olivaceo-brunneum vix rugulosum, compactum; sporangiolis, mi-
 nutis vix 1 mm. lat., angulatis, valde compressis, fuscis, dissepi-
 mentis tenuissimis, fragilibus, brunneis; sporis sphaericis, subtiliter
 verrucosis, 8-12 μ . diam., ochraceo-brunneis.

Hab. ad terram pr. Tendea, Nova Caledonia (BERNIER). — Peridii et sporarum minutie prædistincta species.

DICTYOCEPHALUS Underw. in Bull. Torr. Bot. Club. 1901, p. 441 (Etym. *dictyon* rete et *cephalos* caput). — Peridium stipitatum, irregulariter secedens; stipes firmus farctus; volva cupulata, persistens ad basim stipitis; gleba parenchymatico-gossypina capillitium includens.

1. **Dictyocephalus curvatus** Underw. l. c. cum icone. — Exoperidio 820 lignoso ad basim stipitis volvam cupulatam efformante; endoperidio *sclerodermeo*, rugoso, intense brunneo, squamoso dehiscente 3-6 cm. alto, 5-8 cm. crasso; stipite 25-40 cm. longo, summo 3-6 cm. diam., ad basim 1,5-4 cm. diam., farcto, contorto, intense brunneo, longitudinaliter sulcato, apice rotundato et in columellam brunneo-luteolam producto; annulo subindistincto in summitate stipitis adfixo; gleba parenchymatico-gossypina; capillitio filamentoso, luteo, cylindrico, septato, ramos 8-10 μ . crasso; ramulis extremis liberis; sporis subglobosis, verrucosis, 6-7 μ . diam.

Hab. ad terram, Colorow, Colorado, Americæ bor. (E. BETHEL).

XYLOPODIUM Mont. — Syll. VII p. 143, IX p. 279.

1. **Xylopodium Bonacinæ** Speg. in Ann. Soc. Cient. Arg. 1899, p. 268. 821 — Solitarium vel hinc inde 2-3-gregarium, 8-20 cm. alt.; nodulo myceliali basali terra infosso e globoso obovato, 2-3 cm. long., 2-2,5 cm. diam., compactiusculo extus subspongioso granulis arenæ implexo; peridio primitus obovato clauso 3-10 cm. longo, 2,5-6 cm. diam., albo, levi v. grosse laxe subconcentrice retrorsumque squamoso-rimoso, apice obtuse rotundato atque in stipite ejusdem longitudinem subæquante 3-8 cm. long. 1-2 cm. diam., tereti v. compressulo, concolore, longitudinaliter minute striato-sulcato, cortice squamuloso, exoperidii vestigiis frustulatim secedente tecto, intus farcto, coriaceo rigidulo attenuato, dein exoperidio crassiusculo calyptratim caduco orbato, endoperidio mox longitudinaliter laciniatim dehiscente, laciniis 5-9 irregulariter linearibus vel lanceolatis, flexilibus revolutis, infundibulariter aperto; gleba subtabacina pulverulenta copiosissima, cavum totum endoperidii implente, sporis minutis globosis 4-5 μ . diam., levibus chlorinis efformata, floccis omnino destituta.

Hab. in aridis sabulosis et saxosis secus Rio Colorado Argen-

tinia. — *Xyl. Delastrei* Dur. et Mont. valde affine, sed, ut videtur, satis riteque distinctum.

PHELLORINA Berk. — Syll. VII p. 145, IX p. 279, XI pag. 167, XIV p. 267.

1. **Phellorina leptoderma** Patouill. in Bull. Soc. Myc. de France 1903, 822 p. 250. — Peridio globoso, levi, circ. 3 cm. diam., flaccido, tenui, omnino evanescenti; stipite cylindrico 8 cm. longo, 8-10 mm. crasso, lignoso-corneo, farcto, basi bulboso, squamis membranaceis, tenuibus vestito, apice in discum orbicularem, lignosum, abrupte dilatato; gleba compacta, ochracea; sporis globosis 4-5 μ . diam., pallide ochraceis.

Hab. in desertis prope Obock Africae orient. — Affinis *Ph. Delastrei* Dur. et Mont.

2. **Phellorina (Areolaria) strobilina** Kalchbr. Grev. IX, p. 4 (1880). — Syll. VII, p. 144. — Huc spectat, teste cl. Hennings in Hedw. 1904, p. 187, *Xylopodium ochroleucum* Cooke et Masee, quæ species ergo delenda. Sporæ sunt globosæ 6-9 μ . diam., episporio flavo-brunneolo, asperulo (nec levi ut ap. C. et M.).

Fam. 4. Hymenogastraceæ VITT.

HYMENOGASTER Vitt. — Syll. VII p. 168, IX p. 281, XI p. 170, XVI p. 252.

1. **Hymenogaster albidus** Masee in Kew Bull. 1901, p. 158. — Pe- 823
ridio globoso-diformi, 1-2 cm. diam., floccoso, sordide albido, demum lutescente; gleba brunnea, firma, cellulis tortuosis majusculis e basi ipsa sterili vix conspicuis; sporis ellipsoideis, utrinque obtusis, longitudinaliter carinatis, flavo-brunneis, 21-28 \approx 14-18, in quoque basidio binis.

Hab. ad terram in Tasmania (RODWAY).

2. **Hymenogaster Rehsteineri** Bucholtz, Hedw. 1903, p. 318, Ann. My- 824
col. 1903, t. V, f. 18, Beitr. Hypog. p. 156, t. III, f. 18, *Hym. decorus* Rehst. nec Tul. — Hypogæus sive subepigæus, irregulari-rotundatus, nucis avellanæ magnit.; peridio levi, c. 0,25 mm. cr., albo, dein luteolo; glabæ lacunis irregularibus e basi sterili subradiantibus; septis luteolis (sub microsc.), hyphis vascularibus (?) jodio interdum cærulescentibus instructis; basidiis hymenium raro

superantibus, bisporis; sporis ellipsoideis utrinque angustatis, apice papillatis, gutta oleosa impletis, $17-23 \times 11, 5$; episporio irregulariter rugoso-sinuoso, luteo-brunneo, diaphano, sinus $0,5 \mu$. altis.

Hab. sub Tiliis, Michailowskoje Rossiaë.

3. **Hymenogaster verrucosus** Bucholtz, Hedw. 1901, pag. 319, Beitr. 825 Hypog. pag. 158, t. III, f. 19. — Hypogæus, globosus, albidus, habitu et glebæ structura *Hym. Rehsteineri* similis; sporis obovato-ellipsoideis v. oblongis, breve papillatis $19-29 \times 10-12$ (sine sculptura), guttulatis, episporio brunneo, sinuoso-verrucoso, verrucis magnis irregularibus (ut in sporis *Hydnotrîcæ carneæ*), usque ad 3μ . elevatis.

Hab. sub Tiliis, Michailowskoje prov. Mosquensis Rossiaë.

4. **Hymenogaster Suzukianus** P. Henn. in Engler Jahrb. 1902, XXXII, 826 p. 41. — Peridio subgloboso-ovato, substipitato vel sessili, tenui, plicato-gyroso, clauso, corneo-brunneo ca. 5-10 mm. diam.; gleba carnosa laciniis irregularibus, gyrosis, creberrimis exculpta, ochracea; sporis citriformibus, verrucosis, rufo-brunneis, $15-18 \times 12-14$, superne papillatis, inferne substipitatis.

Hab. ad terram, Komaba (Japoniæ (F. SUZUKI)).

LEUCOGASTER Hesse — Syll. IX p. 281, XVI p. 249.

1. **Leucogaster badius** Mattiolo I funghi ipog. ital. in Mem. R. Acc. 827 di Scienze, Torino 1903, p. 356, tab. I, fig. 1-3. — Irregularis, globosus vel gibberosus, (siccus) castaneo-badius, nucis avellanæ aut ovi magnitudine; peridio fibroso levi, tenui, mycelii ramulis radiciformibus adhærentibus saltim instructo; gleba castaneo-badia, loculis sporiferis, plerumque polygonis, magnitudine varia farcta; loculis, ob basidia dein labentia, sporis plerumque repletis; sporis $12-15 \mu$. diam.; exosporio minutissime tuberculato, reticulum simulante, gelatina hyalina cincto.

Hab. in abietinis, Boscolungo prope Pistorium (Pistoia), oppidum Italiaë centr. (O. BECCARI, 1862).

- DENDROGASTER** Bucholtz, Beitr. Morph. Syst. Hypog. 1902, p. 148 (Etym. *dendron* arbor et *gaster* venter, ob columellam ramosam). — Fungus hypogæus, globosus. Peridium tenue, glebæ adnatum et ægre separabile. Gleba carnosa, lacunis irregularibus percursa. Columella ramosa e fungi basi sterili exsiliens (ut in *Hysterangio*, sed non cartilaginea). Tramæ septa e columella ramisque ejus orientia, in peridium divergentia, undique cum eo concrenentia.

Basidia bispora; sporis ellipsoideis irregulariter verrucosis sive sulcatis.

1. **Dendrogaster connectens** Bucholtz l. c. p. 149, t. III, f. 15-16. 828
— Globosus, nucis avellanæ magnitudine, rufus, intus clarior; peridio tenui, glabro; gleba dilute ochraceo-brunnea; basidiis bisporis; sporis rufo-brunneis, oblongo-ellipsoideis, $20 \approx 10,7$ (incluso sterigmate et sculptura) membrana irregulariter verrucosa vel sulcata.

Hab. in silvis Michailowskjanis in prov. Mosquensi Rossiaë.

TORRENDIA Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc., Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1901, p. 132 (Etym. a CAMILLO TORREND S. J. floræ mycologicæ lusitanicæ scrutatore sollertissimo). — Receptaculum stipitato-volvatum. Peridium pileatum, convexo-subhemisphæricum, ceraceo-subgelatinosum, intus cellulosum, a stipite liberum; stipite carnosio fibroso a peridio discreto; volva universali ampla, membranacea, persistenti; sporæ hyalinæ; basidia 1-4-spora. — Videtur *Amanitopsis* gasterospora. Generi *Batarreæ* et *Tylostomatibus* volvatis analogum, sed contextu ceraceo-gelatinoso v. carnosio-fibroso, teste auct., inter *Hymenogastraceas* locandum. « An *Secotio* quoque proximum? ».

1. **Torrendia pulchella** Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc., Lett. et Arti degli Agiati in Roveredo, vol. VIII, 1902, pag. 132, f. 1-6. — Peridio convexo-subhemisphærico, pileiformi, albo, minute reticulato-areolato, subtus libero, fere ubique æque crasso, margine obtuso, 1-1,5 cm. lato, 8-10 mm. alto, cuticula tenui, glabra, non separabili 18-20 μ . crassa, contextu subparenchymatico; gleba subgelatinosa, alba, cellulosa, cellulis sæpe vacuis subrotundis, contextu intercellulari subparenchymatico, basidiophoro; basidiis clavatis 1-4-sporis, $25-30 \approx 7-10$; sporis oblongis, sæpe crasse 1-guttatis 12-16 $\approx 6-7$ hyalinis; stipite carnosio-fibroso, centrali, a peridio discreto, albido, subglabro, tereti v. compresso, sæpe deorsum attenuato, 2-4 cm. longo, 2-6 mm. crasso, ex hyphis septatis, cylindræis, usque ad 30 μ . latis, contexto; volva membranacea, ampla, lobata, pallida, libera, sæpe in peridio fragmenta relinquente, basi radiculis prædita.

Hab. in locis sabulosis pr. Setubal Lusitaniæ.

RUHLANDIELLA P. Henn. in Hedw. 1903, p. (24) (Etym. a cl. doctore W. RUHLAND berolinensi). — Ascomata superficialia, globosa,

levia glabra, intus gelatinoso-carnosa, pseudoparenchymatica, hyalina, basi myceliophora. Asci cylindraceo-clavati, octospori, paraphysati; sporæ globosæ, brunneæ, reticulato-verrucosæ.

1. **Ruhlandiella berolinensis** P. Henn. l. c., cum icone. — Ascomate 830 superficiali, globoso, basi depresso myceliophoro, extus levi, glabro, pallido v. brunnescente, ca. 5-6 mm. diam., intus gelatinoso-subcarnoso, pallido, pseudoparenchymatico, homoganeo; ascis cylindraceo-clavatis, raro subovoideis, vertice subrotundato-obtusis, basi plus minus attenuatis 8-sporis, ca. 200-220 μ . longis, p. spor. plerumque 150-180 \times 20-25, interdum ca. 100 \times 45; paraphysibus copiosis, filiformibus, septatis, hyalinis, apice vix incrassatis, obtusis, ca. 3-3,5 μ . cr.; sporis plerumque monostichis, interdum subdistichis, ca. 15-18 μ . (sine sculpt.), episporio primo hyalino, levi, dein brunneo, reticulato-verrucoso; verrucis subbacillatis, apice obtusis v. applanatis 3-3,5 \times 1,5.

Hab. in tepidariis, ad terram in olla *Melaleucæ*, in horto berolinensi Germaniæ.

LYCOGALOPSIS Fisch. — Syll. VII p, 153.

1. **Lycogalopsis Dussii** Pat. Champ. de la Guadeloupe, ser. III, in 831 Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peridiis globulosis, aggregatis vel sparsis ex albo ochraceis, infra applanatis vel attenuatis, astomis, denique vertice irregulariter diffractis, verrucis albis remotis, perexiguis, angulosis subinde 3-4 apice conniventibus conspersis, mycelio albo, submembranaceo vel fasciculato-ramoso basi cinctis; gleba pallide ochracea cavitatem totam implente, initio in lacunas minutas radiantes excavata; basidiis lacunæ parietes investientibus ovoideis; sterigmatibus quaternis brevibus; sporis globulosis perexiguis 2 μ . diam., pallidissime ochraceis, asperulis, sessilibus vel interdum hilo brevissimo præditis.

Hab. ad terram ad fragmenta lignea putrida, in Martinica (Duss). — *L. Solmsii* peraffinis, sed peridiis majoribus et verrucosis diversa. Gleba denique pulverulenta et filamentis capillitii e basi peridii radiantibus angustissimis, 2 μ . crass. percursa.

Dubiæ sedis.

GASTROSPORIUM Mattiolo, I funghi ipog. ital. in Mem. R. Accad. di Torino, 1903, p. 361 (Etym. *gaster* venter, gleba et *spora*). — Peridium hypogæum, subglobosum, intus gelatinosum, hyalinum,

homogeneum absque lacunis, sporis minutissimis globulosis sub-olivaceis farctum.

1. **Gastrosporium simplex** Mattiolo, I funghi ipog. ital. in Mem. R. 832 Acc. d. Scienze, Torino 1903, p. 361, tab. I, fig. 4-10. — Fungus hypogæus globosus vel globoso-irregularis; peridio crasso, externe lacteo, pulverulento, interne gelatinoso, hyalino nitente; gleba homogenea, sine lacunis; sporis minutissimis, innumeris, sphaericis, levibus, hyalinis, olivaceis, 3 μ . diam. composita; capillitio nullo.

Hab. inter radices graminum in Etruria et Æmilia Italiæ (P. BECCARI, 1862-64!).

PAUROCOTYLIS Berk. — Syll. VII, p. 152. — Teste cl. Patouillard in Bull. Soc. Mycol. 1903, p. 339, *P. pila* Berk. est ex *Hymenogastreis*, affinis generi *Hydnocysti* et *P. fulva* B. et Br. est *Endogoni* affinis; utraque ideo a *Lycoperdaceis* expungenda.

UREDINACEÆ Brongn. *)

Syll. VII p. 528, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

Sect. 1. Amerosporæ.

UROMYCES Link — Syll. VII p. 531, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

1. **Uromyces Mulgedii** Lindr. Act. pro Fauna et Fl. Fenn. XX, n. 9, 833 1901, p. 18 cum icone. — Soris punctiformibus, brunneis, amphigenis, initio nudis dein pulverulentis; teleutosperis 20-28 × 10-21, rotundato-ellipticis vel elliptico-oblongis, episporio brunneo verruculoso donatis; poro germinationis singulo, mediano vel in summo vertice; pedicello brevi, hyalino, caduco.

Hab. in foliis *Mulgedii tatarici*, Tibet (herb. Stockholm).

2. **Uromyces Saussureæ** Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 834 ska Vetensk. Soc.). — Soris epiphyllis sparsis, epidermide rupta cinctis, fuscis; teleutosporis sphæroideis, fuscis, 20-25 µ. diam.

Hab. in foliis *Saussureæ* circa Kurgan-Onsk Sibiriae Julio 1902 (O. A. F. LÖNNBOHM).

3. **Uromyces cucullatus** Syd. in Ann. Mycol. 1904. p. 349. — Soris 835 teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, circ. $\frac{1}{2}$ mm. diam., omnino pulverulentis, atris; teleutosporis globosis v. subglobosis, rarius ovoideis, utrinque rotundatis, verrucosis, apice cucullo hyalino-flavescenti magno, 6-8 µ. alto, instructis, castaneo-brunneis, 22-33 µ. longis (cum cucullo), 18-22 µ. lat., episporio circ. 3 µ. cr., pedicello hyalino, persistenti, crassiusculo, usque 45 µ. longo.

Hab. in foliis *Zexmeniae aurantiacæ*, Costarica (TONDUZ

*) Conferenda potissimum eximia *Monographia Uredinearum* coll. P. et H. SYDOW (cujus complementum avide exspectamus), nec non egregiæ contributiones bio-morphologicæ v. systematicæ de Uredineis coll. J. ERIKSSON, H. KLEBAHN, ED. FISCHER, P. DIETEL, P. MAGNUS etc.

ex F. W. NEGER). — Cucullo teleutosporarum mox dignoscenda species.

4. **Uromyces Wulffiæ** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904). 836

— Maculis rotundato-angulatis vel effuso-confluentibus, exaridis, ferrugineis; soris amphigenis, sparsis vel aggregatis, minutis, fuscis vel cinnamomeis; uredosporis subglobosis, ovoideis vel ellipsoideis, flavidis v. subfuscidulis, 15-20 \times 10-14, episporio aculeato; teleutosporis oblonge subfusoides vel clavatis, apice plus minus incrassatis, applanatis, papillatis vel crenulatis, episporio flavo brunneo, levi, 20-35 \times 14-18; pedicello usque ad 40 \times 4, hyalino.

Hab. in foliis Wulffiæ spec., Rio Juruá, Juruá-Miry Americæ meridionalis.

5. **Uromyces Wedeliæ** P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). 837

— Soris amphigenis, sparse gregariis, pulvinatis, ferrugineo-brunneis, ca. 0,3 mm. diam.; uredosporis subglobosis vel ellipsoideis, 25-40 \times 22-30, episporio castaneo, aculeato; teleutosporis ovoideis vel subellipsoideis, apice crasse papillatis, rotundatis, papilla ca. 6-10 μ . diam., flavido-brunnea, episporio læte brunneo, levi, 25-40 \times 20-26; pedicello 30-60 \times 4, hyalino, persistenti.

Hab. in foliis Wedeliæ prostratæ, Tosa, Shinoyama, Japonia (T. YOSHINAGA).

6. **Uromyces Komarovii** Bubák Sitzungsber. Kgl. böhm. Ges. Wi- 838

sensch. 1902, p. 11 (extr.) fig. 25-35. — Soris hypophyllis, congestis, in maculis luteis vel brunneolis, rotundatis, sæpe confluentibus insidentibus; teleutosporis fusiformibus, raro breve ellipsoideis 22-35,2 \times 8,8-15,4 pallide luteis, depressis apice late v. obtuse protractis, basi plerumque conicis; pedicello exili, hyalino, sporâ usque duplo longiore, superne 4-5 μ . crasso.

Hab. in foliis Solidaginis Virgaureæ, ad trajectum Dschai-guan-zai-lin, in via ex oppidulo Omoso ad urbem Kirin in silvis primævis jugi Mandschurici Rossicæ asiat. (WLADIMIR KOMAROW).

7. **Uromyces sakavensis** P. Henn. in Hedw. 1903, p. (107). — Ma- 839

culis fuscidulis, rotundatis; soris teleutosporiferis hypophyllis, sparsis v. aggregatis, ferrugineis, pulvinatis; teleutosporis fusoides, apice incrassatis, apiculatis v. bifidis 20-22 \times 10-12, episporio pallide flavido, levi; pedicello persistente, hyalino 20 \times 2,5-3.

Hab. in foliis Solidaginis virgaureæ, Sakawa, Tosa Japoniæ (YOSHINAGA).

8. **Uromyces Hellerianus** Arthur, Bull. Torr. Bot. Cl. 1904, p. 2. — 840

Pycnidiis et æcidiis non visis; soris uredosporiferis rotundatis, fere nudis, pulverulentis, pallide brunneis; uredosporis globosis vel 3-anguloso-globosis 20-26 μ . diam., episporio 1,5-2 μ . cr., cinnamomeo-brunneo; poris 2 vel 3 sparsis; soris teleutosporiferis hypophyllis, rotundatis, subnudis, pulverulentis, intense brunneis; teleutosporis globoso-ovoideis, 27-36 \times 21-24, utrinque rotundatis; episporio brevi, exili, hyalino.

Hab. in foliis Cayaponiæ racemosæ, Ponce, Porto Rico Amer. (H. A. HELLER). — Ab *Urom. Cayaponiæ* P. Henn. teleutosporis levibus umbonatisque differt.

9. **Uromyces Psychotriæ** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 841 1904). — Maculis sparsis rotundatis vel effusis paginam foliorum omnino occupantibus, flavido-fuscidulis; soris hypophyllis gregarie sparsis, minutis, rotundato-angulatis, flavido-brunneis, subceraceis; uredosporis hyalinis, minute aculeatis, intermixtis; teleutosporis ovoideis, clavato vel subfusoideo-oblongis, apice rotundatis haud incrassatis, 22-30 \times 11-14, intus granulatis, episporio hyalino flavidulo; stipite plus minus elongato, hyalino, ca. 3 μ . crasso.

Hab. in foliis Psychotriæ, Rio Juruá, Juruá-Miry Amer. merid. — Soris subceraceis sporisque subhyalinis bene distincta species.

10. **Uromyces Bouvardiæ** Syd. Ann. Mycol. 1903, pag. 16. — Soris 842 uredosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute flavo-brunneis, 19-27 \times 19-25; soris teleutosporiferis amphigenis, sæpius epiphyllis, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, atro-brunneis v. atris; teleutosporis globosis, subglobosis v. ovatis verruculosus, amœne castaneo-brunneis, episporio in sporis globosis æqualiter crasso 5-6 μ ., in sporis ovatis v. ellipsoideis apice incrassato, usque 8 μ ., 32-42 \times 32-38; pedicello hyalino, crasso, persistenti, leniter inflato, usque 40 μ . longo.

Hab. in foliis vivis Bouvardiæ leianthæ, Jumaytepeque in Guatemala (HEYDE et LUX).

11. **Uromyces induratus** Syd. et Holw. Ann. Mycol. 1903, p. 16. — 843 Æcidiis plerumque hypophyllis, maculis rotundatis v. irregularibus flavo-brunneis v. brunneis, minutis ca. 2-4 mm. diam. insidentibus, paucis 3-10 plerumque irregulariter aggregatis, ut plurimum ad nervos foliorum in partibus leniter tumefactis et irregularibus insidentibus, cupulatis, margine revoluto, inciso, albo-

flavo; æcidiosporis globoso-angulatis, tenuissime verrucosis vel sublevibus, flavescens 14-19 μ . diam.; soris teleutosporiferis præcipue in caulibus evolutis, rarius hypophyllis, oblongis, perduris, compactis, atris, mediocribus, 1-3 mm. long.; teleutosporis quoad formam et magnitudinem valde variabilibus, ovatis, ovato-oblongis, oblongis vel interdum subclavatis, apice rotundatis vel leniter attenuatis, leniter incrassatis, usque 6 μ ., basi sæpe in pedicellum attenuatis, levibus, flavis v. flavo-brunneolis 27-38 \times 10-15, interdum etiam usque 50 μ . longis; pedicello flavo, persistenti; crassiusculo, usque 40 μ . longo; paraphysibus numerosissimis, rufo-brunneis, densissime coalitis.

Hab. in foliis caulibusque vivis *Diclipterae* spec. Morelia in Mexico (HOLWAY).

12. **Uromyces venustus** Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 844

Æcidiis hypophyllis, sparsis vel in parvulos greges congestis, hemisphæricis, poro pertusis; æcidiosporis globosis v. ellipticis 29 \times 20-25, minute verrucosis; soris teleutosporiferis epiphyllis, æcidiorum oppositis, in greges circulares dispositis, magnitudine variabilibus, interdum confluentibus, immersis, pulverulentis, intense brunneis; teleutosporis ovato-ellipsoideis, interdum fere globosis 32-40 \times 20-28, pallide brunneis, apice pallidioribus acuminatis; episporio crasso longitudinaliter striatulo; pedicello hyalino sporæ æquilongo, exili.

Hab. in foliis *Cestri nitidi*, Amecameca Mexico. — *Ab Ur. Cestri* Mont. papilla apicali, episporio striatulo differt.

13. **Uromyces dolichosporus** Diet. et Holw. in Bot. Gaz. 1901, p. 327. 845

— Pycnidiis epiphyllis; soris uredosporiferis plerumque hypophyllis, intense brunneis; uredosporis obovatis intense brunneis 33-47 \times 23-27, episporio crassiusculo echinulato donatis; poris germinationis 3; soris teleutosporiferis plerumque hypophyllis, sparsis, circulatim dispositis, luteo-aurantiacis; teleutosporis oblongo-fusiformibus vel oblongo-clavatis 45-65 \times 12-18, episporio hyalino, levi; pedicello firmo sporæ æquilongo.

Hab. in foliis *Tournefortiæ velutinæ*, Oaxaca Mexico.

14. **Uromyces cabo-friensis** P. Henn. in Hedw. 1904, p. 79. — Soris 843

teleutosporiferis amphigenis, gregariis, pulvinatis, firmis, atris; teleutosporis ellipsoideis vel ovoideis, apice rotundatis, haud incrassatis, brunneis, medio 1-septatis constrictis 16-25 \times 13-20, pedicello persistente, hyalino usque 120 \times 4.

Hab. in foliis *Oxypetali* spec., Cabo Frio, pr. Rio de Janeiro Brasiliæ (C. ULE).

15. **Uromyces Fraseræ** Arthur et Bicker in Journ. of Mycol. 1902, 847 p. 128. — Soris amphigenis, ovoideis vel ellipticis, interdum confluentibus, 1-2 mm. longis; uredosporis obovatis, ellipticis vel oblongis 22-32 \approx 19-26 luteo-viridulis, episporio hyalino minute verrucoso; poris germin. numerosis; teleutosporis globosis obovatis vel oblongis, interdum subangulosis 25-35 \approx 19-26 pallide brunneis, pedicello hyalino, fragili, 7-16 \approx 3 donatis.

Hab. in foliis *Fraseræ speciosæ*, Wilson, Wyo Amer. bor.

16. **Uromyces Ferulaginis** Lindroth, Umbellif. Ured. 1902, p. 148. — 848 Teleutosporis minutis, planis, vix 1 mm. diam., nigris, nitidulis, initio epidermide tectis, dein nudatis, leviter emergentibus; teleutosporis subglobosis v. sæpius ellipsoideis, 18-33 \approx 17-23; membrana brunnea, 2 μ . cr., levi; poro germinativo unico laterali v. infero, papilla latiuscula rotundata, usque 3 μ . alt.; stipite brevi, hyalino, tenui, caduco.

Hab. in *Ferulagine monticola* in reg. inf. M. Parnassi Græciæ (ORPHANIDES).

17. **Uromyces Ferulæ** Juel in Bull. Soc. Myc. de France 1901, p. 259, 849 cum icone, *Æcidium Ferulæ* Rouss. et Dur. — Syll. VII, p. 793. — Soris teleutosporiferis subrotundis vel oblongis 0,5-1 mm. latis, paullo prominentibus, diu epidermide velatis, intense brunneis; teleutosporis breve pedicellatis, ellipsoideis vel irregularibus 23-30 μ . diam., episporio pallide brunneo, superne incrassato.

Hab. in caulibus et petiolis *Ferulæ communis*, Alger Africae bor.

18. **Uromyces Sii-latifolii** Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 850 ska Vetensk. Soc.). — Soris teleutosporiferis, hypophyllis, per epidermidem fissam erumpentibus confertissimis, interdum confluentibus, mediocribus, fuscis; teleutosporis sphæroideis, verruculosus, fuscis, 14-20 μ . diam.

Hab. in foliis vivis *Sii latifolii* prope oppidum Rossiae Samara Junio 1902 (O. A. F. LÖNNBOHM).

19. **Uromyces Pteroclænæ** Lindr. Die Umbellif. Ured. 1902, p. 148. 851 — Teleutosporis punctiformibus, minutis, fere nigris, compactis ab epidermide diu tectis; teleutosporis inæqualiter ellipsoideis 22-40 \approx 15-25, vertice sæpe obtusis; membrana levi flavido-brunnea, vertice sæpe obscuriore et 3-5 μ . rarius usque 9 μ . cr.; poro germinativo unico, sæpe laterali; stipite persistente, flavido, 60-70 \approx 6 9.

Hab. in *Cachryde pteroclænæ*, Constantine in Algeria (C. CHOLETTE).

20. **Uromyces Mercurialis** Henn. in Hedw. 1902, p. (62). — Maculis 852 minutis, rotundatis, fuscidulis; soris gregarie sparsis, epidermide rupta, pallida cinctis, ferrugineis, pulverulentis, ca. 0,6-1 mm. diam.; teleutosporis ellipsoideis v. ovoideis, interdum subglobosis, apice subhyalino papillatis, papilla hemisphærica 3-4 μ . diam., flavo-brunneolis, intus granulatis, 15-26 \approx 15-18, episporio brunneo, tenui, levi; stipite fragili, hyalino brunnescente, usque ad 20 \approx 3-4.

Hab. in foliis vivis *Mercurialis leiocarpæ*, Mont Yokogura Japoniæ (YOSHINAGA).

21. **Uromyces oaxacanus** Diet. et Holw. in Bot. Gaz. 1901, p. 327. 853 — Soris epiphyllis, irregulariter sparsis, rarissime hypophyllis, parvulis, pulverulentis, nigris; teleutosporis ovatis, ellipticis vel subglobosis, frequenter angulosis et irregularibus, 25-35 \approx 18-24, episporio pallide brunneo, apice non incrassato, verrucoso; pedicello hyalino, sæpe sporæ æquilongo.

Hab. in foliis *Jatrophæ urentis*, Oaxaca Mexico.

22. **Uromyces Euphorbiæ-connatæ** N. Speschnew, Fungi transcaspici 854 et turkestanici, 1901, p. 7, tab. I, fig. 16-21. — Soris amphigenis sparsis, in acervulos plus minus mediocres, circulares congestis, in pag. inferiore foliorum hemisphæricis, epidermide tectis, dein suberumpentibus; uredosporis dilute brunneis, obovatis, irregulariter verrucosis, 20-24 \approx 16-19, poris germinationis 2 æquatorialibus instructis. teleutosporis ellipsoideis vel obovatis, flavido-castaneis, 24-29 \approx 20-25; pedicello ca. 50 μ . longo, hyalino.

Hab. in foliis *Euphorbiæ connatæ* in Rossia asiatica.

23. **Uromyces hypsophilus** Speg. Mycet. Argent. ser. II, 1902, p. 60. 855 — Maculis nullis sed matrice carnosulo-incrassata, pallescente; acervulis rarissime epiphyllis suborbicularibus, 0,5-1 mm. diam., epidermide disrupta cinctis, sæpius per ætatem confluentibus ac totum hypophyllum obtegentibus; soris subconfluentibus fulvo-ferrugineis; sporis globosis v. obovatis 26 \approx 20-25, eximie minuteque apiculatis, spiraliter tenuiterque 10-15-striatis, fulvis, pedicello hyalino fragilissimo brevioribus donatis.

Hab. ad folia viva *Euphorbiæ* spec. prope Mendoza, in Argentina. — Species *Ur. scutellato* (Schrk.) Lév. et *Ur. Kalmusii* Sacc. affinis, tamen sat distinctus videtur.

24. **Uromyces Kabatianus** Bub. in Vetergr. Mic. rar. selecti, Bot. Not. 856 1902, pag. 176. — Pycnidiis et æcidiis in maculis luteis, rotun-

dati; pycnidiis amphigenis, magnis, melleis, postea obscuris; pseudoperidiis hypophyllis, dense aggregatis, basi immersis, primo subhemisphæricis, clausis, dein medio apertis cupuliformibus; æcidiosporis aurantiacis, raro rotundatis vel polyhedricis, maxima ex parte oblongis, ovoideis vel ellipsoideis 24-33 \times 18-26, membrana lutea, dense et conspicue tuberculata; soris uredosporiferis hypophyllis, maculis luteis insidentibus, in circulis dispositis, raro dispersis, brunneis, pulvinatis; uredosporis globosis vel rarissime ovoideis 22-26,5 μ . diam, membrana lutea, disperse aculeata donatis; soris teleutosporiferis hypophyllis, oblongis, orbiculariter dispositis, confluentibus, brunneis, pulvinatis, membrana tenui et nitida haud diu tectis; teleutosporis ovoideis, ellipsoideis v. oblongis 31-42 \times 20-24; membrana dilute fusca 1 μ . crassa levi, apice papilla fusca, planiuscula 2-3 μ . alta donatis.

Hab. in foliis Geranii pyrenaici, Pragæ in Germania.

25. **Uromyces Pavoniæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 1. — 857

Soris teleutosporiferis hypophyllis, subrotundatis, in greges 1-3 mm. circinato-congestis, compactis, fere nudis, pulvinatis pallide brunneis; teleutosporis obovato-globosis, 23-28 \times 18-20, utrinque rotundatis; episporio superne 4-7 μ . crasso, centro 2-3 μ . cr., levi, brunneolo; pedicello filiformi, hyalino 35-55 μ . longo.

Hab. in foliis Pavoniæ racemosæ, Mayagues Joyua, Porto Rico Amer. (L. M. UNDERWOOD).

26. **Uromyces capitatus** Syd. in Oesterr. bot. Zeitschr. 1902, n. 5. — 858

Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, verrucosis, dilute brunneis, 18-23 μ . d.; teleutosporis perfecte globosis v. depresso-globosis, apice non incrassatis, dense verrucosis, obscure brunneis, subopacis 18-24 μ . diam. vel 16-22 μ . altis et 22-25 μ . latis; pedicello hyalino, crassiusculo, persistenti, ca. 30-35 μ . longo.

Hab. in foliis vivis Desmodii yunnanensis in prov. Yunnan Sinarum (DELAVEY).

27. **Uromyces huallagensis** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 859

1904). — Maculis gregarie sparsis, rotundatis, flavis; soris amphigenis, sparsis, pustulatis vel confluentibus, ochraceo-ferrugineis, uredosporis subglobosis, ovoideis, brunneis, echinatis, 20-26 \times 17-20; teleutosporis elongato-fusoideis vel clavatis, apice obtuse rotundatis vel subacutiusculis, vix incrassatis, 20-40 \times 12-16, episporio tenui, hyalino-fuscidulo, pedicello hyalino, ca. 10-20 \times 2-4.

Hab. in foliis *Desmodii* spec. Peru, Rio Huallaga, Tarapoto Amer. mer. — A ceteris speciebus in *Desmodio* crescentibus diversa.

28. **Uromyces yurimaguasensis** P. Henn. Fungi Amaz. I, pag. 157 860 (Hedw. 1904). — Maculis rotundatis vel explanatis, pallide ferrugineis; soris sparsis vel subgregariis, pulvinatis, ferrugineis, pulverulentis; uredosporis ellipsoideis vel subglobosis, brunneis, verrucosis, 16-25 \times 14-20; teleutosporis subglobosis læte brunneis, 20-23 μ . levibus; stipite hyalino, fragili, ca. 20-40 \times 3.

Hab. in foliis *Clitoria* ejusdam, Peru, Rio Huallaga, Yurimaguas, Amer. merid.

29. **Uromyces Trigonellæ-occultæ** Henn. in Hedw. 1902, p. (211). — 861 Maculis flavidis vel obsolete; uredosoris amphigenis, sparsis, brunneis, minutis; uredosporis subglobosis 17-20 μ .; episporio cinnamomeo, minute verrucoso; teleutosoris rotundato-pulvinatis, amphigenis, sparsis vel gregariis atro-castaneis; teleutosporis subglobosis vel ovoideis 19-23 \times 18-20, episporio verrucoso, atro-cinnamomeo; stipite brevi, fragili hyalino.

Hab. in foliis *Trigonellæ occultæ* pr. Katatbe-Kanal in Ægypto.

30. **Uromyces occidentalis** Diet. in Hedw. 1903, p. (98). — Soris in 862 maculis expallentibus orbicularibus plerumque hypophyllis, sparsis vel circinatis, minutis, subinde confluentibus, pulveraceis; uredosoris ochraceo-brunneis; teleutosoris atro-castaneis, epidermide elevata cinctis; uredosporis globosis rarius late ellipsoideis, 19-23 μ . diam.; membrana 1,5-2,5 μ . cr., brunnea, breve spinulosa; poris germinationis 6-8; teleutosporis globosis v. late ellipsoideis, 17-26 \times 16-21, intense brunneis, membrana 1-2 μ . cr. dense verrucosa, apice non incrassata; stipite caduco.

Hab. in foliis *Lupini latifolii*, Sissons Californiae (BLASDALE), *Lupini argentei* et *Lupini Sileri*, Gunnison Californiae (BARTHOLOMEW).

31. **Uromyces Yoshinagai** P. Henn. in Hedw. 1901, p. (124). — Ma- 863 culis flavidis v. fuscidulis; æcidiis hypophyllis interdum epiphyllis sparsis vel gregarie dispositis, sine pycnidiis; pseudoperidiis cupulatis, pallide flavidis, margine subfimbriatis ca. 0,3 mm. diam., contextu cellulis polyhedricis, granulosis, hyalinis; æcidiosporis subgloboso- v. ellipsoideo-angulatis, intus aurantiaco-oleosis 14-19 \times 10-14, episporio granulato, subhyalino; soris uredosporiferis amphigenis, pallide ferrugineis, epidermide pallide velatis; uredospo-

ris subglobosis v. ellipsoideis, flavidis, 20-25 \times 18-20, episporio subtiliter granulato-verrucoso; soris teleutosporiferis amphigenis, sparsis, minutis, ferrugineis, epidermide velatis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, plus minusve incrassatis, papillatis 20-28 \times 16-20, episporio castaneo, levi, pedicello persistente, crasso, fusco-cinereo, 18-30 \times 6-7.

Hab. in foliis Pisi sativi prope Kamomura in prov. Tosa Japoniæ (T. YOSHINAGA).

32. **Uromyces valesiacus** Ed. Fischer Bull. Herb. Boiss. 1902, p. 952 ⁸⁶⁴

(absque diagnosi). — I. *Æcidium*. Pseudoperidiis poculiformibus, margine albido-flavido, reflexo, denticulato; cellulis pseudoperidii irregulariter seriatis, tunica externa 5-7 μ . cr., interiore tenuiore (cum sculpturis) 3 μ . cr., verruculosa; æcidiosporis ellipsoideo-polyhedricis 18-24 μ . diam., membrana tenui minute crebre verruculosa. II. Uredosporis inter teleutosporas sparsis, globosis, 24-28 μ . diam. laxe verrucosis; poris germinativis 4 vel 3. III. Teleutosporis fere ut *Urom. Fabæ*, sed paullo minoribus apice depresso-papillatis pedicellisque multo magis caducis.

Hab. in foliis Viciæ onobrychioidis in Helvetia (MORTIER, ED. FISCHER). — Affinis *U. Fabæ*.

33. **Uromyces Viciæ - Craccæ** Constantineanu, Ann. Mycol. 1904, ⁸⁶⁵

p. 252 cum icone. — Soris teleutosporiferis amphigenis, ellipsoideis vel rotundatis, primo epidermide bullata et fissa tectis, deinceps cinctis et pulvinatis; teleutosporis castaneo-brunneis, raro subsphæricis, diametro 18,5-23, vulgo ellipsoideis vel piriformibus 21,6-26 μ . longis, 20,9-22,2 μ . crassis, apice papilla conica obtusa, hyalina ornatis; membrana longitudinaliter lineolis parallelis vel anastomosantibus præditis, raro sublevibus; pedicello deciduo, hyalino, usque 40 μ . longo; paraphysibus filiformibus, hyalinis.

Hab. in foliis Viciæ Craccæ ad Valea-adinca et Breazu in districtu Jassy Romanæ.

34. **Uromyces Psophocarpi** Syd. Ann. Mycol. 1903, p. 16. — Pseu- ⁸⁶⁶

doæcidiis amphigenis, irregulariter sparsis, minutis, epidermide semigloboso-elevata diu tectis, tandem liberis et epidermide fissa cinctis, cinnamomeis; sporis globosis, subglobosis vel ovato-ellipsoideis, levibus, flavis v. flavo-brunneolis 19-34 \times 17-26; teleutosporis adhuc ignotis.

Hab. in foliis vivis Psophocarpi longepedunculati Chinchoxo, in Africa occ. (West-Afrika) (SOYKAUX).

35. **Uromyces tarapotensis** P. Henn. Fungi Amaz. I, p. 156 (Hedw. ⁸⁶⁷

1904). — Maculis rotundatis vel confluentibus inflatis, subferrugineis; soris hypophyllis sparsis v. aggregatis, bullatis, ferrugineis; teleutosporis subfusoides, ovoideis vel ellipsoideis, apice rotundatis vel applanatis haud incrassatis, 20-30 \times 15-20, episporio tenui, levi, hyalino subfuscido, pedicello hyalino, gracili usque ad 45 μ . longo, 3-4 μ . crasso.

Hab. in foliis *Camptosemæ* spec.? Peru, Huallaga, Tarpoto, Amer. merid. — Sæpe *Tuberculinâ* infectus.

36. **Uromyces Pseudarthriæ** Cooke — Cfr. Syll. VII, pag. 579. — Syd. in Ann. Mycol. I, 1903, p. 324. — Maculis epiphyllis, brunneis, indeterminatis; soris uredosporiferis hypophyllis, irregulariter sparsis vel hinc inde laxè aggregatis, in tomento plantæ nutriticis nidulantibus, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneolis, 19-25 \times 16-22; episporio tenui.

Hab. in foliis *Pseudarthriæ Hookeri* in insula Togo (R. BÜTTNER).

37. **Uromyces Bolusii** Masee in Kew Bull. 1901, p. 168. — Soris 868 epiphyllis, innato-prominulis, compactis, brunneo-cinnamomeis, sæpe ob confluentiam linearibus, diu epidermide albicanti tectis; teleutosporis ellipticis, episporio levissimo sursum valde incrassato et in mucronem papillæformem producto, 29-35 \times 24-26, pallide brunneis, stipite longissimo 125-160 \times 7-8 hyalino suffultis.

Hab. in foliis vivis *Aspalathi pachylobæ*, in Colonia Capitis Bonæ Spei Africæ merid. (BOLUS). — *U. Junci* Tul. affinis.

38. **Uromyces Indigoferæ** Diet. et Holw. in Bot. Gaz. 1901, p. 328. 869 — Soris plerumque epiphyllis, sparsis vel in parvulos greges congestis, in maculis brunneis insidentibus, vel in petiolis fructuum immaturorum, parvulis, immersis, erumpentibus, intense-brunneis; uredosporis globosis vel ellipsoideis, spinulosis, brunneis 20-25 \times 18-23; teleutosporis ellipsoideis vel globosis, levibus, pallide-brunneis, apice subincrassatis 20-30 \times 18-25; pedicello longo, firmo, hyalino.

Hab. in foliis petiolisque *Indigoferæ mexicanæ*, Oaxaca Mexico.

39. **Uromyces sphærocarpus** Syd. in Ann. Mycol. 1904, p. 349. — 870 Soris uredosporiferis hypophyllis, rarius epiphyllis, maculis nullis v. obsoletis sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis 18-24 μ .

diam., rarius usque 26 μ . longis; soris teleutosporiferis conformibus, epidermide fissa cinctis, obscurioribus; teleutosporis globosis, apice non incrassatis, verrucis conicis acutiusculis dense obtectis, castaneo-brunneis, 18-20 μ . diam.; pedicello brevi, hyalino, deciduo.

Hab. in foliis vivis Indigoferæ tinctoriæ, Kawakita pr. Tosa Japoniæ (T. JOSHINAGA).

40. **Uromyces ingicola** P. Henn. Fungi Amaz. I, pag. 157 (Hedw. 871 1904). — Maculis rotundatis, fuscidulis; soris sparsis vel aggregato-confluentibus hypophyllis interdum epiphyllis, pulvinatis, fuscis; uredosporis subglobosis, brunneis, verrucosis, 18-22 μ .; teleutosporis ovoideis vel fusoides, apice incrassato papillatis vel rotundatis, 23-30 \times 17-20, episporio flavido-fuscidulo, longitudinaliter flexuose striato, subtuberculato; pedicello fragili, brevi, hyalino-fuscidulo.

Hab. in foliis Ingæ spec. Rio Juruá, Juruá-Miry, Amer. merid. — Teleutosporis longit. flexuoso-striatis dignoscitur.

41. **Uromyces caraganicola** P. Henn. in Hedw. 1901, pag. (124). — 872 Maculis nullis; soris uredosporiferis hypophyllis, sparsis, minutis, epidermide pallida fissa tectis, dein pallide ferrugineis; uredosporis ellipsoideis, ovoideis v. subglobosis, pallide brunneis 20-25 \times 18-20, episporio minute aculeato; soris teleutosporiferis sparsis hypophyllis, ferrugineis, epidermide fissa velatis; teleutosporis ellipsoideis v. ovoideis apice rotundato-obtusis, paullo incrassatis, interdum papillatis 20-25 \times 15-20, episporio punctulato, castaneo, pedicello brevi hyalino.

Hab. in foliis Caraganæ Chamlagu, prope Sakawa in prov. Tosa Japoniæ (T. YOSHINAGA).

42. **Uromyces Sophoræ-japonicæ** Diet. in Bot. Jahrb. 1902, p. 47. — 873 Soris hypophyllis, sparsis, minutis, epidermide fissa cinctis v. semitectis, uredosporiferis cinnamomeis, teleutosporiferis obscure castaneis; uredosporis obovatis flavo-brunneis, spinulosis 26-34 \times 18-25, poris binis instructis; teleutosporis ellipticis, rarius subglobosis, apice plerumque conoideis, 35-47 \times 27-35, castaneis, irregulariter verrucosis, pedicellis longitudine sporas superantibus, hyalinis suffultis.

Hab. in foliis Sophoræ japonicæ, Tokyo Japoniæ (KUSANO).

43. **Uromyces Sophoræ-flavescentis** Kusano Bot. Mag. Tokyo 1904, 874 VIII, p. 203, fig. 3. — Uredosporis hypophyllis, indefinite sparsis, irregularibus, rufo-aurantiis pulverulentis, aparaphysatis; uredo-

sporis globosis, subglobosis v. obovoideis, 20-25 μ . diam., 26 \approx 22, grosse echinulatis, tunica tenui, contentu aurantio; poris germinat. 7-8; teleutosoris hypophyllis, discretis, sparsis v. circinantibus, uredosoro junctis v. separatis, irregularibus. 1 mm. diam., subinde confluentibus, nigricantibus v. brunneo-atris; teleutosporis inæqualibus obovoideis v. rarius subglobosis, compressione angulosis, 22-28 \approx 20-22, tunica tenui, verrucosa, atro-brunnea.

Hab. in foliis Sophoræ flavescens var. galegoidis in horto bot. Tokyo Japoniæ.

44. **Uromyces Pittierianus** P. Henn. Fungi costaricensis I, in Hedw. 875 1902, p. 101. — Maculis rufo-brunneis, rotundatis; soris hypophyllis sparsis ad marginem interdum gregariis, minutis, ca. 1 mm. diam., pulverulentis, pallidis; uredosporis subglobosis, ellipsoideis v. ovoideis, flavidis v. pallescentibus, 9-12 μ . diam., episporio flavo, subverrucoso; teleutosporis intermixtis oblonge clavatis v. fusoides, apice haud incrassatis, obtusis, applanatis vel subacutiusculis, intus flavidis v. hyalinis 40 70 \approx 20-25, episporio tenui, levi, hyalino; pedicello plus minus elongato, 50 \approx 4, persistente hyalino.

Hab. in foliis Rubi prope Santa Maria de Dota Amer. centrale.

45. **Uromyces Rubi** Diet. et Holw. in Bot. Gaz. 1901, p. 327. — Ma- 876 culis circularibus, circ. 5 mm. diam., raro confluentibus luteis; soris uredosporiferis et teleutosporiferis ellipticis, obovatis v. globosis 23-35 \approx 18-25, episporio hyalino spinuloso; teleutosporis ellipticis vel clavatis 26-35 \approx 17-24, episporio minuto hyalino; pedicello brevi.

Hab. in foliis Rubi, Cuernavaca, Mexico (C. G. PRINGLE).

46. **Uromyces crassivertex** Diet. in Bot. Jahrb. 1903, pag. 624. — 877 Soris in pagina superiore foliorum, in circulos 5-15 mm. latos, irregulares laxè dispositis vel sparsis, in pagina inferiore singulis erumpentibus, præterea cauliculis, secus nervos foliorum et in caulibus haud raro confluentibus; soris uredosporiferis epidermide rupta cinctis, cinnamomeis; uredosporis ellipsoideis vel subglobosis 25-30 \approx 20-25, brunneis echinulatis, poris ca. 6 instructis; soris teleutosporiferis primo semitectis, deinde nudis, pulvinatis, minutis, atris; teleutosporis cuneatis, ovoideis vel subglobosis, basi plerumque attenuatis, apice tunicatis vel conoideis, rarius rotundatis 30-43 \approx 18-25, episporio levi superne usque 17 μ . incrassato castaneo, apice interdum dilutiore indutis.

Hab. in foliis *Lychnidis Miquelianæ* in prov. Musashi Japoniæ (KUSANO).

47. **Uromyces Basellæ** Syd. in Oest. bot. Zeitschr. 1902, n. 5. — 878

Æcidiis amphigenis, maculis pallidis flavescentibus insidentibus, plerumque in greges rotundatos 2-5 mm. diam. laxè v. annulatim dispositis, minutis v. late ellipsoideis, subtiliter verrucosis, subhyalinis 22-27 μ . diam.; soris teleutosporiferis sparsis, minutis, punctiformibus, pulverulentis, obscure brunneis; teleutosporis ova-tis, apice incrassatis (5-10 μ .), levibus, flavis, 30-40 \approx 22-27; pedicello hyalino, apice leniter colorato, crasso, teleutosporam æquante.

Hab. in foliis vivis *Basellæ rubræ*, Pisang Ins. Manillæ.

48. **Uromyces giganteus** Speg. Dec. Mycol. ital. n. 30, Trott. in Ann. 879

Mycol. 1904, n. 4, p. 360, c. ic. — Soris in caulibus compactis, sparsis, per epidermidem erumpentibus eaque fissa cinctis, crassissimis, obscure fuscis, 3 cm. usque longis, 1,5-2 cm. latis; uredosporis non visis; teleutosporis variabilibus, ovoideis vel subsphæroideis, quandoque (frequenter) clavatis vel cylindræis, tunica crassiuscula vestitis, levibus, interne granulosis, fuligineis, 25-30 \approx 15-20, 28-30 \approx 18-22 vel sæpe 30-35 \approx 13-18, pedicello 90-100 \approx 5 rarius brevior, fusco vel pallide luteo v. hyalino præditis.

Hab. in caulibus emortuis vivis *Schoberiaë* (Suædæ) maritimæ in Campo Martio, Venetiis, 29 martio 1879. — Var. **erythræus** Trotter l. c. c. ic.: soris teleutosporiferis profundioribus; teleutosporis subglobosis v. ovoideis, 25-35 \approx 20-28, episporio pachydermo, sæpe inæqualiter crasso, vertice paullo crassiore; pedicello hyalino, brevi 15-20 μ ., raro usque 90-100 μ . longo. — In caulibus vivis, hypertrophicis *Suædæ fruticosæ*, Scheik-Said Coloniæ erythrææ (TELLINI). Observante cl. Trotter l. c., tam species quam var. notis datis ab *U. Chenopodii*, quocum sæpe *U. giganteus* jungebatur, distinctæ.

49. **Uromyces Celosiæ** Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 880

Soris hypophyllis sæpe in maculis indistinctis, luteis insidentibus, sparsis vel congestis, epidermide velatis; soris uredosporiferis cinnamomeo-brunneis; uredosporis brunneis ellipticis vel globosis sæpe obovatis, 27-34 \approx 24-26, episporio crasso, spinuloso, poris germinationis 2; soris teleutosporiferis intense brunneis; teleutosporis elliptico-globosis, dense verrucosis, pallide brunneis, apice papillatis, 28-38 \approx 22-30; pedicello hyalino sporæ æquilongo vel paullo longiore, exili, fugaci.

Hab. in foliis *Celosia latifolia*, Oaxaca Mexico.

50. **Uromyces Deeringia** Syd. in Ann. Mycol. vol. I, n. 4, 1903, 881 p. 324. — *Æcidiis* hypophyllis, maculis rotundatis vel irregularibus interdum leniter incrassatulis, flavescens insidentibus, in greges irregulares laxè dispositis vel paucis tantum irregulariter laxèque associatis, cylindræis margine parum inciso, tamen leniter recurvato; *æcidiosporis* angulato-globosis, verrucosis, hyalino-flavescens 22-28 μ . diam.; *soris* teleutosporiferis amphigenis, sparsis ut videtur (paucis tantum visis!) subinde juxta *æcidia* sitis, subpulverulentis, brunneis; teleutosporis ovatis vel ovato-oblongis, apice incrassatis, usque 8 μ ., levibus, dilute flavo-brunneis, 30-42 \times 19-26; pedicello hyalino, crasso, persistenti, usque 55 μ . longo.

Hab. in foliis *Deeringia indica*, in ins. Java et Luzon Philippinarum.

51. **Uromyces Saururi** P. Henn. Einige neue japan. Ured. III, in 882 Hedw. 1902, p. 19. — Maculis subrotundatis, gregariis, atro-fuscis, minutis; *æcidiis* hypophyllis sparsis punctiformibus, cupulatis, *æcidiosporis* subglobosis 15-25 \times 15-20, hyalino-fuscidulis; *soris* teleutosporiferis hypophyllis sparsis, minutis, fuscis; teleutosporis ovoideis, apice plus minus incrassatis, obtusis v. applanatis, 20-28 \times 15-22, episporio brunneo, levi; pedicello brevi clavato, brunneo, 10 \times 5-6.

Hab. in foliis *Saururi Loureiri*, Tosa Japoniæ.

52. **Uromyces Rickerianus** Arthur in Bull. of the Torr. bot. Club. 883 1902, pag. 227. — *Æcidiis* amphigenis, dense congestis; peridiis pallidis; *æcidiosporis* globosis vel oblongis, 16-22 \times 18-26, minute verrucosis, fere levibus; *soris* teleutosporiferis cum *æcidiis* intermixtis, ellipticis, 4 mm. long., epidermide grisea tectis, dein pulverulentis, brunneo-nigris; teleutosporis intense brunneis, globosis vel oblongis vel irregularibus, 20-25 \times 23-35, utrinque rotundatis, pedicello hyalino, fragili, brevissimo donatis.

Hab. in foliis *Rumicis Geyeri*, Teton Pass, Wy. Americæ borealis.

53. **Uromyces tingitanus** P. Henn. in Annuaire Conser. et Jard. bot. 884 Genève, 1903-1904, p. 243. — Maculis sanguineis rotundatis vel effusis; *soris* teleutosporiferis amphigenis, sparsis v. aggregatis, rotundato-pulvinatis, firmis, atro-castaneis usque ad 1 $\frac{1}{2}$ mm. diam., interdum confluentibus; teleutosporis oblongo-ellipsoideis apice usque ad 10 μ . incrassatis, rotundatis v. papillatis, læte brunneis,

levibus, 20-38 \approx 17-22; pedicello valde elongato, persistenti, hyalino, usque ad 180 \approx 4-5.

Hab. in foliis vivis Rumicis tingitani Ain Sefra, Oran Africae sept. (HOCHREUTINER). — Ab *U. Acetosæ*, cui affinis, differt sporis apice incrassatis et longe pedicellatis.

54. **Uromyces Fatouæ** P. Henn. Einige neue japan. Ured. III, in 885 Hedw. 1902, p. 18. — Maculis nullis; soris uredosporiferis hypophyllis sparsis, minutis punctiformibus, diutius tectis; uredosporis subglobosis v. ellipsoideis 15-22 μ . diam., brunneis, asperatis; soris teleutosporiferis hypophyllis sparsis, minutis atrofuscis, subpulverulentis; teleutosporis ovoideis, pallidius papillatis, intus granulatis, castaneis, 25-35 \approx 20-25, pedicello hyalino 10-20 \approx 3-4.

Hab. in foliis Fatouæ pilosæ var. subcordatæ, Tosa Japoniæ.

55. **Uromyces Stenorrhynchi** P. Henn. F. Amaz. III, p. 399 (Hedw. 886 1904). — Maculis fuscidulis, rotundatis; soris hypophyllis gregariis, paginam inferiorem occupantibus, rotundato-pulvinatis, firmis, applanatis, atris, 0,3-1 mm. diam.; uredosporis intermixtis ovoideis vel subellipsoideis, læte brunneis vel fuscidulis, aculeato-echinatis 25-28 \approx 15-20; paraphysibus copiosis clavatis, membrana incrassatis, læte brunneis vel fuscis, 30-35 \approx 10; teleutosporis ovoideis, apice rotundatis, haud incrassatis ca. 20-30 \approx 12-18, episporio tenui, brunneo, levi, pedicello subclavato, hyalino-flavidulo, elongato, ca. 8-10 μ . crasso.

Hab. in foliis Stenorrhynchi sp. Yurimaguas Peru. — Notabilis species habitu potius *Melampsoræ*, soris firmis nigris, paraphysibus stipatis, teleutosporis rarioribus dignoscenda.

56. **Uromyces Microtidis** Cooke — Cfr. Sacc. Syll. VII, p. 519. — Syd. in Ann. Mycol. 1903, p. 324. — Uredosporis globosis, subglobosis, ovatis vel ellipsoideis, minute aculeato-verruculosis, flavo-brunneolis 22-30 \approx 17-25.

Hab. in foliis vivis Microtidis porrifoliæ, Chatham Island (KRULL).

57. **Uromyces Joffrini** Delacr. in Bull. Soc. Mycol. 1902, p. 284 c. 887 ic. — Soris leviter bullatis mox apertis; uredosporis ovoideis, pedicellatis, levibus, fulvis, c. 30 \approx 24; paraphysibus 35-40 μ . long. apice incrassatis atque circ. 8-10 μ . cr.; teleutosporis fuscis, levibus, granulatis, c. 45 \approx 24, apiculo obtuso, subhyalino, 4-5 μ . alto ornatis.

Hab. in fructibus Vanillæ planifoliæ, Taiti.

58. **Uromyces reticulatus** (Thüm.) Bubák, Sitzungsber. Kgl. böhm. 888
Ges. Wissensch. 1902, pag. 22 (extr.) f. 49-54, *Æcidium reticulatum* Thüm. — Syll. VII, pag. 830. — Maculis luteolis; pycnidiis epiphyllis vel inter æcidium in pag. inf. commixtis, melleo-luteis; æcidiis in maculis luteis, anguste oblongis congestis, luteis, initio pustuliformibus, dein breve cylindræis, margine irregulariter lacerato recurvatoque, postremo libero; æcidiosporis valde irregularibus, globulosis, ovoideis vel oblongatis, plerumque polygonis, episporio tenui, minute verrucoso, 26,4-33 \approx 22-24,2; soris uredosporiferis minimis rotundis vel ellipsoideis, epiphyllis, epidermide tectis, teleutosporas etiamque continentibus; teleutosporis globosis vel ovoideis 22-30,8 \approx 19,8-24,2; soris teleutosporiferis rotundato-ellipticis, amphigenis, epidermide tectis, intense brunneis pulverulentis; teleutosporis globosis vel ovalibus v. ellipsoideo-oblongis 26,4-33 \approx 19,8-26,4, pallide castaneo-brunneis, episporio verrucosulo, crassiusculo, apice papilla hyalina conica ornatis; pedicello brevi, hyalino, fugaci.

Hab. in foliis *Allii victorialis*, Tirol, Kaprunerthal (DIETEL I, II, III), in Hungaria (SPIES II et III), in Sibiria (MARTIANOFF I, II?, III).

59. **Uromyces Mac-Owani** Bubák, Sitzungsber. Kgl. böhm. Ges. Wis- 889
sensch. 1902, p. 19, fig. 39-43. — Soris amphigenis minimis subrotundis in parvulos greges congestis, epidermide velatis, dein pulverulentis, pallide brunneis; teleutosporis rotundis, vel ovalibus vel piriformibus, sæpe angulosis 17,6-28,6 \approx 15,4-26,4, depressis, episporio crassiusculo donatis, luteo-brunneis, raro basi subconicis; pedicello hyalino, fugaci, sporæ æquilongo v. longiore.

Hab. in foliis *Scillæ prasinæ* prope Somerset East, Caput Bonæ Spei Africæ merid. (MAC OWAN).

60. **Uromyces mogianensis** Bubák Sitzungsber. Kgl. böhm. Ges. Wis- 890
sensch., 1902, pag. 16, fig. 36-38. — Pycnidiis in maculis parvulis pallidis insidentibus, epiphyllis, raro hypophyllis, melleo-luteolis minimis; soris in maculis rotundatis insidentibus, sæpe amphigenis, circulatim dispositis rotundis, brunneo-nigris, pulverulentis; teleutosporis subrotundatis, raro ovoideis, episporio 6,6 μ . crasso donatis, 33-41,8 \approx 33-35,2 castaneo-brunneis, crasse verrucosis, papilla latiuscula hyalina apice ornatis; pedicello hyalino usque 20 μ . longo, fugaci.

Hab. in foliis *Fritillariæ bucharicæ*, in regione fl. Seravschan prope Mogiam Turkestanicæ (KOMAROW).

61. **Uromyces nyikensis** Syd. Ann. Mycol. 1904, p. 27. — Soris te- 891
leutosporiferis amphigenis, maculis nullis v. obsoletis insidentibus,
sparsis, minutis, rotundatis v. oblongatis, ca. 0,4-1 mm. longis,
interdum elongatis sublinearibusque, usque 2 mm. longis, epider-
mide plumbea semper tectis; teleutosporis variabilibus, subglobo-
sis v. ovatis, sæpe angulatis, apice rotundatis, truncatis v. acu-
tiusculis, mox vix incrassatis, mox magis incrassatis 2,5-6 μ ., le-
vibus, dilute brunneis 19-27 \approx 14-22, rarius usque 32 μ . longis,
episporio tenui; pedicello hyalino, tenui, usque 30 μ . longo.

Hab. in foliis vivis Gladioli nyikensis, Nyika-Plateau
Africæ (WHYTE).

62. **Uromyces Sparaxidis** Syd. Ann. Mycol. 1904, pag. 27. — So- 892
ris uredosporiferis amphigenis, maculis nullis v. obsoletis insiden-
tibus, sparsis, minutissimis, punctiformibus, aurantiaco-flavis; ure-
dosporis globosis v. subglobosis, subtiliter verruculosus, hyalino-
flavescentibus, 15,5-20 μ . diam.; soris teleutosporiferis amphige-
nis, sparsis, hinc inde paucis aggregatis, minutis, rotundatis vel
oblongis, ca. 300-500 μ . longis, epidermide diu tectis, compactiu-
sculis, atro-brunneis; teleutosporis variabilibus, plerumque ovatis
v. angulato-ovatis, apice rotundatis, truncatis v. acutiusculis, in-
crassatis 4-8 μ ., basi plerumque attenuatis, levibus, brunneis 19-
28 \approx 14-20, episporio tenui; pedicello leniter brunneolo, tenui, per-
sistenti, usque 30 μ . longo.

Hab. in foliis vivis Sparaxidis lineatæ, Natal (J. M.
WOOD).

63. **Uromyces Antholyzæ** Syd. Ann. Mycol. 1904, pag. 27. — Soris 893
teleutosporiferis amphigenis, maculis nullis vel obsoletis insidenti-
bus, sparsis, minutis, rotundatis v. subrotundatis, epidermide diu
tectis, atro-brunneis, compactiusculis; teleutosporis ovatis v. ova-
to-ellipsoideis, apice rotundatis v. obtuse attenuatis, incrassatis 4-
7 μ . levibus, brunneis 21-30 \approx 14-22, episporio subtenui; pedicello
flavidulo, persistenti, crassiusculo, usque 32 μ . longo.

Hab. in foliis Antholyzæ abyssinicæ in Abyssinia
(SCHIMPER).

64. **Uromyces Melasphærulæ** Syd. Ann. Mycol. 1904, p. 28. — Soris 894
uredosporiferis amphigenis, maculis orbicularibus vel irregulari-
bus, brunneolis, sæpe obsoletis insidentibus, sparsis, minutis, pun-
ctiformibus, rotundatis, dilute flavo-brunneolis v. flavis; uredo-
sporibus globosis vel ellipsoideis verruculosus, hyalino-flavescentibus
19-25 \approx 16-22, episporio 2-2,5 μ . crasso; soris teleutosporiferis con-

formibus, epidermide diutius tectis, obscure griseo-brunneis; teleutosporis regulariter globosis vel subglobosis, apice semper rotundatis, incrassatis 3-6 μ ., levibus, brunneis, 22-26 \approx 19-24, episporio ca. 2 μ . crasso; pedicello brunneolo, usque 30 μ . longo.

Hab. in foliis *Melaspærulæ* gramineæ, Hopefield, in Capite Bonæ Spei (F. BACHMANN).

65. **Uromyces tosensis** P. Henn. in Hedw. 1903 p. (107). — Maculis ⁸⁹⁵ fuscis, rotundatis; soris plerumque hypophyllis, interdum epiphyllis, sparsis, minutis, ferrugineis, epidermide fusco velatis; uredosporis subglobosis, ovoideis v. ellipsoideis 18-24 \approx 16-20, episporio fusco, aculeato-asperato; teleutosporis raro intermixtis, subglobosis v. ovoideis, apice haud incrassatis, 20-29 \approx 20-24, episporio fusco, aculeato; pedicello 15-20 \approx 3,5-4, hyalino fuscidulo.

Hab. in foliis *Commelinæ* communis, Sakawa-machi, Tosa Japoniæ (YOSHINAGA).

66. **Uromyces atro-fuscus** Dudley et Thomps. in Journ. of Mycol. ⁸⁹⁶ 1904, p. 55. — Amphigena; maculis parvulis, pallide luteis; soris subrotundatis vel breve ellipticis, sparsis vel congestis, non confluentibus paullo prominentibus, brunneo-nigris; uredosporis paucis ellipsoideis 16-17,5 \approx 25-26, crassiuscule tunicatis, echinulatis; poris germinationis æquatorialibus; teleutosporis intense brunneis, obovatis vel globosis, plus minusve utrinque rotundatis, angulosis 19-26 \approx 25-31, papillatis; pedicello hyalino spora duplo-triplo longiore, deciduo.

Hab. in foliis *Caricis Douglasii* prope Palmers, Mariposa County et in foliis *C. ustæ* Bear Valley, San Bernardino County in California.

67. **Uromyces chubutensis** Speg. Mycet. argent. ser. II, 1902, p. 60. ⁸⁹⁷ — Maculis nullis: acervulis epiphyllis, erumpenti-subsuperficialibus, nudis, nodulosis, compactis 3-5 \approx 0,5-1 mm., atro-cinnamomeis; teleutosporis versiformibus, ellipticis v. obvatis, 25-30 \approx 25, apice truncatis, obscure ferrugineis, levibus, pedicello gracili, recto 60-70 \approx 5-6, vix pallidiore donatis.

Hab. ad folia languentia *Poæ chubutensis* prope Carrenleofü in Argentina.

68. **Uromyces Cynosuroidis** Henn. in Hedw. 1902, p. (211). — Ma- ⁸⁹⁸ culis fuscidulis, irregulariter explanatis; soris amphigenis, sparsis v. gregarie confluentibus, oblongis vel striiformibus, fusco-cinnamomeis, pulverulentis; uredosporis subglobosis v. ovoideis, brunneis 20-32 \approx 20-28, episporio dense aculeato-verrucoso, castaneo,

paraphysibus capituliformibus vel clavatis, obtuse rotundatis, brunneis 20-32 \approx 20-28, episporio dense aculeato-verrucoso, castaneo, paraphysibus capituliformibus v. clavatis, obtuse rotundatis, brunneolis, 30-40 \approx 14-17; teleutosporis oblonge ovoideis, apice incrassatis, verrucosis, brunneis 28-40 \approx 22-30; stipite usque 20 \approx 4-5 hyalino.

Hab. in foliis *Eragrostidis cynosuroidis*, Bassia. pr. Port Said Ægypti.

69. **Uromyces Microchloæ** Syd. Ann. Mycol. 1903, p. 15. — Soris 899 teleutosporiferis hypophyllis, minutissimis, ægre conspicuis, atrobunneis; uredosporis globosis v. subglobosis, subtiliter echinulatis, flavidis 16-20 μ . diam.; teleutosporis globosis, subglobosis v. ellipsoideis, utrinque rotundatis, apice non incrassatis, levibus, brunneis 24-30 \approx 21-27, episporio æquabili crassitudine, ca. 2-2,5 μ . cr.; pedicello hyalino, apice leniter brunneolo, usque 30 μ . longo.

Hab. in foliis *Microchloæ setaceæ*, Seriba Ghattas Africae centr. (G. SCHWEINFURTH).

70. **Uromyces phyllachoroides** P. Henn. in Hedw. 1900, p. (129). — 900 Soris uredosporiferis amphigenis, sparsis, rotundatis vel oblongo pulvinatis, pallide brunneis, epidermide rupta cinctis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus aurantiacis v. brunneis 20-22 \approx 18-20, episporio aculeato, castaneo, paraphysibus longe clavatis, hyalinis, usque ad 40 \approx 5-6; soris teleutosporiferis amphigenis, gregariis, punctiformibus vel striiformibus, diutius tectis, dein epidermide atra fissa velatis: teleutosporis oblonge ovoideis, subpiriformibus, interdum ellipsoideis v. subfusoides, apice plus minusve incrassatis, rotundatis v. subpapillatis, intus granulatis, brunneis episporio castaneo, levi v. subpunctulato 20-30 \approx 14-20, pedicello persistente hyalino v. flavo-fuscidulo 15-25 \approx 2-3.

Hab. in foliis *Cynosuri elegantis*, Bu-Quornen, Tunisia (G. SCHWEINFURTH).

71. **Uromyces Rottboelliae** Arthur in Bull. of the Torr. bot. Club. 901 1902, p. 228, *Uredo Rottboelliae* Diet. in Bot. Jahrb. 1902, p. 52. — Soris hypophyllis, oblongis, prominentibus, castaneo-brunneis, dein erumpentibus; uredosporis ovato-globosis 18-25 \approx 20-30, episporio 3 μ . crasso, aureo-brunneis, tuberculatis, poris 4 æquatorialibus, pedicello hyalino, delicatulo sporæ æquilongo, subpersistenti donatis; teleutosporis globosis, colore et magnitudine uredosporarum, episporio 2 μ . crasso, superne 8 μ . crassis, late subtruncatis,

inferne rotundatis, pedicello hyalino exili sporæ æquilongo, persistenti, donatis.

Hab. in foliis *Rottboelliæ speciosæ*, Jaunsar, Himalaya Indiæ (J. F. DUTHIE) (*Uromyces*) et in foliis *Rottboelliæ compressæ* var. *japonicæ* in horto botanico Tokyo Japoniæ (KUSANO) (*Uredo*).

72. **Uromyces Parnassiæ** (DC.) Schroeter ap. Cooke *Grevillea* VII, 902 p. 334, Plowright, *Brit. Ured. and Ustilag.* p. 128 (1899), *Uredo P.* DC., *Fl. franç.* VI, p. 68, *Uromyces Valerianæ* Auct. et Syll. VII, p. 536 ex p. — *Æcidiis* (*Æc. Parnassiæ* Grev.) hypophyllis in maculis pallidis in soros rotundos dispositis; pseudoperidiis fulvo-flavidis, suburceolatis, margine crassiusculo; sporis pallidis; uredosporis (*Trichobasis Parnassiæ* Cooke) sphaericis, rugulosis 20-25 μ . diam; teleutosoris amphigenis primo bullatis dein erumpentibus, sparsis sæpe confluentibus; teleutosporis subgloboso-ovoideis, brunneis, levibus, 25-30 \approx 20-22.

Hab. in foliis *Parnassiæ palustris* in Gallia et Britannia.

73. **Uromyces lupinicola** Bubák, *Sitzungsber. Kgl. böhm. Ges. Wissensch.*, 1902, p. 8 (extr.) Ita vocandus *Urom. Lupini* Sacc. (1875) non Berk. et Curtis (1859), *Urom. Anthyllidis* Schröt. p. p., Harriot p. p., *Urom. Genistæ-tinctoriæ* Winter p. p., *Dicæoma Lupini* Hoffm. in schedis.

74. **Uromyces Valerianæ** (Schum.) Fuck. — Syll. VII, pag. 536. — Huc, teste Tranz., ducenda sunt *Urom. Prunellæ* Schneid. et *Uredo Parnassiæ* West. Exs. (nec Schröt.) species ex errore de matrice conditæ.

ENDOPHYLLUM Lév. — Syll. VII p. 767, XVI p. 322, 1118.

1. **Endophyllum singulare** Diet. et Holw. in *Bot. Gaz.* 1901, p. 336. 903
— Soris cauliculis et foliiculis, conicis, usque 2 mm. longis, irregulariter erumpentibus; pseudoperidiis bene evolutis; sporis coacervatis ochraceis, ellipsoideis vel oblongis, apice sæpe acuminato 40-55 \approx 24-30; episporio pallide brunneo apice conspicue conico, dense verrucoso.

Hab. in *Ericaceæ* quadam, Jalisco, Mexico (M. E. JONES).

CLASTOPSORA P. Dietel in *Ann. Mycol.* 1904, p. 26 (Etym. *clao* rumpo, *secedo* et *psora* scabies). — Sori teleutosporiferi primum plani ceracei (ut in genere *Coleosporio*) maturi hemisphaerici, pulverulenti, epidermide diu tecti, denique ea fissa cincti. Teleutosporæ

catenulatæ simplices. Catenæ sporarum immaturarum conglutinatæ, maturarum facile disjunctæ, fragiles.

1. **Clastopsora Komarowii** P. Diet. l. c. pag. 24, *Pucciniostele Clarkiana* Kom. et Tranz. — Syll. XVI, p. 321 — nec *Xenodochus Clarkianus* Barcl.

MELAMPSORA Cast. — Syll. VII pag. 586, IX p. 296, XI p. 183, XIV p. 287, XVI p. 1118 *).

1. **Melampsora Hirculi** Lindr. Myk. Mitth. V-X, 1902, p. 19 (Act. ⁹⁰⁴ Soc. Faun. Flor. Fenn. v. XXII), *Melampsora Saxifragæ* Lindr. olim. — Uredosoris ut plurimum hypophyllis subrotundis, flavidis, minutis, maculis peculiaribus nullis; paraphysibus copiosis, hyalinis, clavatis vel capitatis, 40-60 \approx 20, membrana apice usque 5 μ . crass.; uredosporis ellipsoideis v. ovoideis, 18-25 \approx 14-19, pluriguttulatis, hyalinis, spinulosis; teleutosporis in crustas carneas dein atro-brunneas minutas aggregatis, hypophyllis et cauliculis ex stratu hymeniali flavido oriundis, oblongis ex compressione angulosis, sursum inæqualiter rotundatis, 30-40 \approx 8-12, membrana flavida, superne obscuriore.

Hab. in foliis et caulibus *Saxifragæ Hirculi* in Fennia, Rossia et Helvetia.

2. **Melampsora Yoshinagai** P. Henn. in Hedw. 1903, pag. (108). — ⁹⁰⁵ Maculis fuscidulis rotundatis v. explanatis, uredosporis hypophyllis, sparsis vel gregariis, minutis, rotundato-applanatis, ceraceis, pallide fuscidulis; uredosporis ovoideis vel ellipsoideis, hyalinis, dense verrucosis, 15-22 \approx 12-15; paraphysibus clavatis, hyalinis, 20-40 \approx 10-20.

Hab. in foliis *Wikstrœmiæ japonicæ*, Mt. Yokogura, Tosa Japoniæ (YOSHINAGA).

3. **Melampsora argentiniensis** Speg. Myc. Arg. ser. I. in Ann. Soc. ⁹⁰⁶ Cicut. Arg. 1899, p. 266. — Maculis nullis v. partis infectæ obsoletissime pallescentibus; soris amphigenis, quandoque sparsis, quandoque circinantibus, minutis, 0,25-0,50 mm. diam.; uredosporicis erumpenti-prominulis, pulverulentis e rufo aurantiacis; teleutosporicis applanatis, subsclerotiaceis, innatis; uredosporis globosis,

*) Plures species novas, præcipue ob notas heterœciæ distinguendas, tam *Melampsoræ* quam aliarum Uredinearum, illustravit cl. H. Klebahn, quarum elenchus additur in calce familiæ præsentis.

20-25 μ . diam., episporio tenui dense minuteque papilloso vestitis, grosse 1-guttulatis, rufo-fumosis; teleutosporis subcylindræis, 60-80 \times 10-15, levibus apice truncatis, episporio antice incrassato atque infuscato vestitis.

Hab. in foliis, petiolis caulibusque vivis *Crotonis hirti* pr. Cordoba Argentinæ. — *Mel. Helioscopiæ* (Pers.) Cast. peraffinis sed notis plurimis, ut videtur, sat distincta.

4. **Melampsora microsora** Diet. in Bot. Jahrb. 1902, p. 50. — Soris 907 uredo- et teleutosporiferis minutissimis, nudis oculis singulis vix conspicuis, hypophyllis; uredosporis ellipsoideis, echinulatis, 15-20 \times 13-17; paraphysibus capitatis vel clavatis intermixtis; teleutosporis cuneato-prismaticis, 20-35 \times 10-18, apice vix incrassatis, brunneis.

Hab. in foliis *Salicis nipponicæ* prope Tokyo Japoniæ (KUSANO).

5. **Melampsora humilis** Diet. in Bot. Jahrb. 1902, pag. 50. — Soris 908 uredosporiferis in maculis flavidulis, fuscis v. violaceo-rubiginosis, hypophyllis, singulis etiam epiphyllis, sparsis v. in acervulos circulares, semicirculares irregularesve dispositis, minutis, aureis; uredosporis ellipsoideis v. obovatis, verrucosis, 17-20 \times 12-19; paraphysibus capitatis, superne usque 22 μ . latis, intermixtis; soris teleutosporiferis hypophyllis in maculis nigricantibus v. arescentibus, sparsis v. dense confertis, planiusculis, nigris, epidermide tectis; teleutosporis cuneatis v. subcubicis, 13-25 \times 6-15, episporio tenui, apice haud incrassato præditis.

Hab. in foliis *Salicis multinervis*, Tokyo Japoniæ (MIYOSHI et KUSANO).

6. **Melampsora epiphylla** Diet. in Bot. Jahrb. 1902, p. 50. — Soris 909 uredosporiferis in maculis melleis hypophyllis, minutissimis, sparsis; uredosporis ellipsoideis vel subglobosis, 12-15 \times 11-13, echinulatis, aurantiacis; paraphysibus clavatis intermixtis; soris teleutosporiferis epiphyllis, sub cuticula orientibus, sparsis vel sæpe confertis, atro-fuscis; teleutosporis prismaticis vel cuneatis, apice modice incrassatis, 30-45 \times 7-13.

Hab. in foliis *Salicis Shikokianæ*, Nikko Jap. (KUSANO).

7. **Melampsora coleosporioides** Diet. in Bot. Jahrb. 1902, p. 50. — 910 Soris uredosporiferis in pagina inferiori foliorum dispersis, minutis, aureis; uredosporis obovatis vel piriformibus, 20-27 \times 13-20, echinulatis; paraphysibus capitatis, superne 14-20 μ . latis intermixtis; soris teleutosporiferis amphigenis, minutis, sæpe confertis, flavo-rufis; teleutosporis prismaticis, 20-35 \times 7-13.

Hab. in foliis *Salicis babylonicæ*, prope Tokyo, Japoniæ (KUSANO).

8. **Melampsora Allii-populina** Kleb. in Zeitschr. f. Pflanzenkrankh. 1902, 911 XII, pag. 22 c. ic. — Cæomosporis in foliis *Allii ascalonici* etc. in maculis flavicantibus, in soros 1 mm. lat. confertis, globoso-ovoideis, subinde polygoniis, 17-23 \times 14-19, minute verrucosis, aurantiis; pycnidiis pustulas prominulas formantibus, 140 \times 100; uredosoris in pag. inf. *Populorum* vix 1 mm. diam. pulvinatis, rubro-aurantiis, epidermide cinctis; uredosporis oblongis v. ovato-clavulatis, 24-38 \times 11-18, laxe muriculatis; paraphysibus, clavatis, 14-22 \times 3-5; teleutosoris hypophyllis subcutaneis $\frac{1}{4}$ -1 mm. diam., atro-brunneis, opacis; teleutosporis irregulariter prismaticis utrinque rotundatis, 35-60 \times 6-10, membrana 1-1,5 μ . cr., brunnea.

Hab. I in foliis *Allii ascalonici*, II, III in foliis *Populi nigræ*, *P. canadensis* et *P. balsamiferæ*, Triglitz in Germania (JAAP).

9. **Melampsora Allii-Salicis albæ** Kleb. in Zeitschr. f. Pflanzenkrankh. 912 1902, XII, pag. 19 c. icon. — Cæomosporis in foliis caulibusque *Alliorum* in soros vivide aurantios aggregatis, in maculis flavidis sitis, 1 mm. diam. epidermide cinctis irregularibus sæpe polygoniis et isodiametris, 17-26 \times 15-18, membrana 1-1,5 μ . cr., minute verruculosa; pycnidiis depresse pustulatis 210 \times 120; uredosporis obovato-clavatis laxe muriculatis 24-30 \times 11-14, aurantiis; teleutosporis epidermide tectis brunneis cylindraceis, stipatis, tenui-tunicatis, 35-50 \times 6-8.

Hab. I in foliis *Allii vinealis*, *Schœnoprasi*, *ursini*, *Porri*, II, III in foliis *Salicis albæ* in Germania.

10. **Melampsora Abietis-Caprearum** Tubeuf, in Centr. f. Bakter. 1902, 913 II Abt., IX, pag. 241. — Cæomosporis (*Cæoma Abietis-pectinatæ* Rees) in *Abiete pectinata*; uredo- et teleutosporis in foliis *Salicis capreæ*.

Hab. in matricibus indicatis in Germania. — An sit morphologice diversa a *M. Laricis-Caprearum* Kl. non constat, teste Kleb.

MELAMPSORELLA Schröt. — Syll. VII p. 596.

1. **Melampsorella Blechni** Syd. Ann. Mycol. 1903, p. 537. — Soris 914 uredosporiferis hypophyllis, maculis indeterminatis, magnam pinnularum partem vel totam pinnulam occupantibus, in vivo flavidis exsiccando brunneis insidentibus, sub epidermide evolutis, pseudo-peridio tandem apice minute aperto inclusis, flavidis, aparaphy-

satis; uredosporis ovoideis, ellipsoideis v. ovoideo-oblongis, hyalinis convexo-echinulatis, 27-42 \approx 18-24, poris germ. nullis; teleutosporis intercellularibus in cellulas plures divisis, hyalinis.

Hab. in frondibus *Blechni Spicant*, pluribus locis ad montem Grosser Winterberg Saxoniae.

2. **Melampsorella Dieteliana** Syd. Ann. Mycol. 1903, p. 537. — Soris 915 uredosporiferis hypophyllis, maculis indeterminatis flavo-brunneis v. sæpius atro-brunneis insidentibus, sub epidermide evolutis, pseudoperidio tandem apice minute aperto inclusis, flavidis, aparaphysatis; uredosporis variabilibus, plerumque ovoideis vel oblongis, raro subglobosis, hyalinis, echinulatis, 25-48 \approx 18-30, poris germ. nullis; teleutosporis intracellularibus (ut videtur, paucis tantum visis) in cellulas plures divisis, hyalinis.

Hab. in frondibus *Polypodii vulgaris*, pluribus locis, ad montem Grosser Winterberg, præcipue pr. Schmilka Saxoniae. — Præcipue maculis matricis valde atris a *M. Blechni* distinguitur.

3. **Melampsorella Feurichii** Magnus in Berichte d. Deut. Bot. Gesell. 916 1902, pag. 609, t. XXVII (absque diagnosi). — Subepidermica, erumpens; uredosporis hyalinis brevissime stipitatis, poris germinaticis nullis præditis, oblongo-piriformibus, deorsum attenuatis v. ovoideis, 28 \approx 19, paraphysibus clavatis circumdatis.

Hab. in foliis *Asplenii septentrionalis* in Lusatia sup. Saxoniae (G. FEURICH).

4. **Melampsorella Kriegeriana** P. Magn. Bar. II. G. B. 1901, p. 581, 917 tab. 33 (absque diagnosi). — Teleutosporis in cellulis epidermicis, intracellularibus, hypophyllis, globoso-oblongis, 1-pluricellularibus; uredosporis ovato-ellipsoideis, verruculosis, subcutaneo-erumpentibus.

Hab. in frondibus *Aspidii spinulosi*, in Helvetia Saxonica.

PHACOPSORA Diet. — Syll. XIV p. 289, XVI p. 270.

1. **Phacopsora (?) Kraunhiæ** Diet. in Hedw. 1902, p. (178). — Ure- 918 dosporis obovatis v. ellipsoideis, flavescentibus, echinulatis, 20-24 \approx 15-18; soris teleutosporiferis hypophyllis, minimis, sparsis v. confertim dispositis in maculis brunneis vel atro-purpureis vel sine maculis, primo epidermide castanea tectis, deinde eam erumpentibus, griseis (in sicco tantum?); teleutosporis valde irregularibus, interdum clavatis vel fusiformibus vel cylindræis, usque 25 μ .

longis, 8-13 μ . latis, episporio tenui incolorato, vestitis, statim germinantibus.

Hab. in foliis *Kraunhiæ floribundæ*, Tokio Japoniæ (NISHIDA).

HYALOPSORA P. Magn. in Ber. der D. B. G. 1901, p. 582, absque diagnosi. (Etym. *hyalos* vitrum et *psora* scabies). — A genere *Melampsorella* differt, quoad uredosporas, ut *Schröteriaster* a *Phacopsora*.

1. **Hyalopsora Polypodii** (Pers.) P. Magn. l. c. — Huc ducenda est *Uredo Polypodii* Pers. e. p. — Syll. VII p. 857. — In *Cystopteride fragili*.

2. **Hyalopsora Polypodii-Dryopteridis** (Moug. et Nest) P. Magn. Hedw. 1902, pag. (224). — Ita nominanda *Uredo Aspidiotus* Peck: cfr. Syll. VII p. 858 et XI p. 228, seu *Hyalopsora Aspidiotus* (Peck) Magn. Bericht. Deutsch. Bot. Gesell. 1901, p. 582.

3. **Hyalopsora Adianti-Capilli-Veneris** (DC.) Syd. Ann. Mycol. 1903, 919 pag. 248, *Uredo Polypodii* γ ? *Adianti Capilli-Veneris* DC. in Fl. franç. VI, p. 81 (1815). — Soris uredosporiferis hypophyllis, in epiphylo maculas plerumque angustas lineares efformantibus, minutis, ellipticis, secus nervos distributis, aurantiacis; uredosporis tenuiter tunicatis globosis, subglobosis, ellipsoideis vel angulato-ellipsoideis, punctatis, intus aurantiacis, 20-34 \approx 16-25, poris germinationis præditis; paraphysibus clavatis præsentibus; teleutosporis intracellularibus, 1-vel pluricellularibus, hyalinis, 8-11 μ . diam., membrana tenui.

Hab. in foliis *Adianti Capilli-Veneris* ad ripas fluminis Isonzo Istriæ (L. GORZ), Vittorio Veneto (BERENGER).

ZAGHOUANIA Pat. in Bull. soc. myc. de France 1901, p. 185 et 1902, p. 23. — Syll. XVI pag. 1120. — Sori erumpentes, subpulverulenti; pseudoperidia nulla; uredosporæ pedicellatæ, solitariae. Teleutosporæ (probasidia) unicellulares, ovoideæ, episporio hyalino, paullo incrassato, pedicellatæ, e quibus mox germinantibus promycelium (protobasidium) quadricellulare semiinternum, sporidiola sessilia gerens, oritur.

1. **Zaghouania Phillyreæ** Pat. in Bull. Soc. Myc. de Fr. 1901, p. 185 920 et 1902, pag. 23 cum icon., *Uredo Phillyreæ* Cooke — Syll. VII p. 856, *Æcidium Phillyreæ* DC. — Syll. VII p. 847 — *Cavoma Phillyreæ* Thüm. et Bagn. — *Æcidiiis* plerumque numerosis, dense confertis, semiimmersis, bullas in foliis v. plagulas in ramis effor-

mantibus vel juvenilia tota deformantibus; pseudoperidiis paullulum introrsum incurvis; æcidiosporis versiformibus, sphæroideis, oblongo-piriformibus vel sæpius ovoideis, 20-30 \times 14-18, episporio hyalino, alveolato-reticulato, contentu guttulis oleosis, luteo-aurantiacis farcto; pycnidiis lageniformibus penicillo ostiolarum valde evolutis, hyalino, sporulis ovoideis, 4-5 \times 2-3 hyalinis; soris uredosporiferis hypophyllis plerumque in maculis luteis vel lutescentibus fere solitariis seu gregariis, luteo-aurantiacis, primo epidermide tectis, demum liberis; uredosporis globosis vel ovoideis, 24-32 \times 12-16, episporio hyalino, echinulato, contentu oleoso, luteo-aurantiaco; teleutosporis (probasidiis) uredosporis immixtis, episporio crassiusculo, hyalino, verruculoso, oblongo-ovoides; promycelio (protobasidio), sporidiola subglobosa, 12-14 μ . diam., levia, sessilia, efformante.

Hab. pycnidia et æcidia in juvenilibus ramis foliisque, uredosporæ et teleutosporæ in foliis adultis *Phillyrææ mediæ*, *latifoliæ*, *angustifoliæ* in Tunisia (PATOILLARD), Corsica (P. DUMÉE et R. MAIRE), Algeria (TRABUT), Britannia (COOKE), Italia (BAGNIS et D. SACC.), Austria (SYDOW) et Germania.

UREDINOPSIS P. Magn. — Syll. XI pag. 230, XIV pag. 290, XVI p. 271. — Teste cl. Plowright in Trans. Brit. Mycol. Soc. 1898-1899, p. 98, genus *Uredinopsis* Magnus cum anteriore *Milesia* cl. Buchana White collidit. Cfr. Syll. VII pag. 768. Nomen *Milesia* illustri MILES JOSEPHO BERKELEY est dedicatum.

1. **Uredinopsis americana** Syd. in Ann. Mycol. vol. I, 1903, p. 325. 921
— Soris uredosporiferis hypophyllis, minutis, plus minusve irregulariter sparsis, pseudoperidio dein fissis cinctis, flavis; uredosporis fusiformibus, apice in mucronem brevem vel elongatum acutum abeuntibus, 35-50 \times 11-16, membrana hyalina, tenui, striolato-verruculosis; soris teleutosporarum unicellularum hypophyllis, minutis, hemisphæricis, diu peridio inclusis; teleutosporis unicellularibus (v. uredosporis crassius tunicatis?) subpolyhedricis, 22-32 \times 15-22, pallide brunneolis, subtiliter verruculosis, ad marginem in angulos exeuntibus membrana ibique incrassata; pedicello plus minusve longo, deciduo; teleutosporis entoparenchymaticis 2-4-cellularibus, paucis tantum visis.

Hab. in foliis vivis *Onocleæ sensibilis*, Weston in Massachusetts Americæ bor. (H. M. NOYES et A. B. SEYMOUR).

2. **Uredinopsis Atkinsonii** P. Magn. in Hedw. 1904, p. 123, tab. II, 922

fig. 1-7 (absque diagnosi). — Soris hypophyllis, subepidermicis, pseudoperidio cinctis; uredosporis suboblongis, sæpe tenuiter mucronatis, subinde muticis in eodem soro, $42 \approx 13$ (muticis $26 \approx 14$); teleutosporis in parenchymate nidulantibus, amphigenis, bi-quadrifidularibus, ellipsoideis.

Hab. in foliis *Aspidii Thelypteridis*, Cayuga Lake, Ithaca, Amer. bor. (ATKINSON).

3. **Uredinopsis Copelandi** Syd. Ann. Mycol. 1904, pag. 30. — Soris 923 uredosporiferis hypophyllis, plus minusve sparsis, minutis, pseudoperidio dein fisso cinctis, dilute brunneis; uredosporis fusiformibus, apice breviter acutiusculis, rarius in mucronem elongatum acutum abeuntibus, $33-44 \approx 10-13$, membrana hyalina, tenui, una serie aculeorum brevium obsessis; soris teleutosporarum unicellularium hypophyllis, minutis, hemisphæricis, diu peridio inclusis, brunneis; teleutosporis 1 cellularibus (vel uredosporis crassius tunicatis?) plerumque polyhedricis, $19-26 \approx 13-20$, subtiliter verruculosus, ad marginem in angulos exeuntibus, ibique membrana incrassata hyalina; teleutosporis entoparenchymaticis, 2-4-cellularibus.

Hab. in frondibus vivis *Athyrii cyclosori*, Sisson Californiæ (E. B. COPELAND).

4. **Uredinopsis Osmundæ** P. Magn. in Hedw. p. 123, t. II, f. 8-16 924 (absque diagnosi). — Soris hypophyllis majusculis, pseudoperidio et paraphysibus cinctis; uredosporis brevius vel longius mucronatis vel muticis, $42 \approx 13$ (mucronatis); teleutosporis 2-8 v. pluricellularibus, globulosis v. irregulariter ellipsoideis.

Hab. in foliis *Osmundæ cinnamomeæ*, Cajuga Lake, Ithaca, Amer. bor.

5. **Uredinopsis Corchoropsidis** Diet. in Bot. Jahrb. 1903, p. 628. — 925 Soris uredosporiferis minimis, nudo oculo inconspicuis, sparsis; pseudoperidio tenerrimo, diu clauso, paraphysibus arcuatis composito inclusis; uredosporis obovatis vel ellipsoideis, episporio incolorato echinulato præditis, sine poris, $17-23 \approx 10-17$; teleutosporis in parenchymate plantæ nutricis irregulariter dispersis v. in acervulos laxè congestis, subglobosis vel oblongis, plerumque bi-vel 1-cellularibus, $12-24 \mu$. diam., episporio levi, dilute flavescenti indutis.

Hab. in foliis *Corchoropsidis crenatæ*, in Monte Amagi Japoniæ (NAMBU).

Sect. 2. Didymosporæ.

GYMNOSPORANGIUM Hedw. — Syll. VII pag. 737, IX p. 314, XI p. 205, XVI p. 314.

1. **Gymnosporangium aurantiacum** Syd. Ann. Mycol. 1904, p. 28. — 926

Soris teleutosporiferis foliicolis, sparsis, solitariis, vix hinc inde confluentibus, 0,7-1,5 mm. diam., pulverulento-mollibus vix gelatinosis, amœne aurantiacis; teleutosporis continuis v. 1-5-septatis, subglobosis usque oblongo-clavatis, apice plerumque rotundatis, ad septa leniter constrictis, 25-85 \approx 17-26, granulis numerosissimis, aurantiacis repletis; pedicello filiformi, hyalino, 200-350 μ . longo, in aqua tandem valde intumescente et usque 25 μ . crasso.

Hab. in foliis vivis Libocedri decurrentis, Mt. Eddy, Siskiyou Co., California (E. B. COPELAND).

2. **Gymnosporangium gracile** Pat. Champ. Algero-Tunisien. in Bull. 927

Soc. Myc. de France T. XVIII, fasc. I (1902). — Soris erumpentibus, parvulas columnas cylindræas formantibus, sparsis, acutis, ochraceo-rubris, mollibus simplicibus, raro summitate incisus, 2-4 mm. long., 1 mm. latis; teleutosporis nunc oblongato-lanceolatis, 60-80 \approx 12-15, utrinque attenuatis, subhyalinis, 1-septatis, subinde 2-septatis, ad septa constrictis, nunc brevioribus et latioribus, 50-60 \approx 18, apice rotundatis, crassius tunicatis et brunneolis.

Hab. in ramulis Juniperi Oxycedri in montanis, Aurès Africae bor. — Species soris per ramulos non deformatos, ubique effusis breviter cylindræeis gracilibus sporisque lanceolatis, sæpe bi-septatis, mox dignoscenda.

3. **Gymnosporangium Nelsonii** Arthur in Bull. Torr. Bot. Cl. 1901, 928

p. 665. — Soris plerumque solitariis, raro congestis, globosis, pulvinate-cinnamomeo-brunneis, 1-2 mm. diam.; teleutosporis ellipticis vel anguloso-ellipticis, 22-26 \approx 41-52, obtusis, ad septa non constrictis, utrinque constrictis; pedicello filiformi, firmo, hyalino, 30-90 μ . longo.

Hab. in foliis Juniperi scopulorum, Sargent, Laramie Hills, Wyoming, Amer. bor.

4. **Gymnosporangium Oxycedri** Bres. Fungi Lusitanici in Broteria 929

1903, vol. II, p. 88. — Soris teleutosporiferis cartilagineo-gelatinosis, erumpentibus, gregariis, solitariis v. raro 2-3 connatis, verticalibus, conicis vel subcylindræeis, angulatis vel compressis, apice ut plurimum subcapitatis, ex aurantiaco fusciscentibus, 2-4 mm.

altis, basi 1-1,5 mm. cr.; teleutosporis aurantiacis, oblongo-subellipsoideis vel subfusiformibus, 1-septatis, ad septa vix constrictis, 40-45 \times 18-21, rarissime 24 μ .; pedicello longissimo, hyalino, æquali, 5-6 μ . cr.

Hab. ad ramos Juniperi Oxycedri, in Lusitania. — *Gymnosporangio Sabinæ* proximum, a quo soris duplo minoribus et sporis strictioribus præcipue diversum.

Puccinia Pers. — Syll. VII p. 600, IX p. 298, XI p. 184, XIV p. 292, XVI p. 273. — *Jackya* Bub. Oest. bot. Zeitschr. 1902, p. 42 (pro *Pucc. Cirsii-lanceolati* Schröt. et *Pucc. Cirsii-eriophori* Jacky).

1. **Puccinia expansa** Link, Spec. pl. VI, 2, pag. 75 (1825) — Syd. 930 Mon. Ured. vol. I, p. 146: cfr. Sacc. Syll. VII p. 667, n. 2313 ex parte. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis flavescentibus v. brunneolis orbicularibus insidentibus, in greges orbiculares v. rarius irregulares, $\frac{1}{2}$ - $\frac{3}{4}$ cm. latos, densissime confertis confluentibusque, atro-brunneis; teleutosporis ovatis vel late ellipsoideis, utrinque late rotundatis, apice papilla minuta dilutiore instructis, medio non v. vix constrictis, levibus, brunneis, 30-40 \times 19-30; pedicello brevissimo, hyalino.

Hab. in foliis petiolisque vivis Adenostylis albifrontis, alpinæ, Senecionis aquatici, S. cordati, S. Doronici, S. subalpini, in Austria, Hungaria, Helvetia, Italia, Hollandia, Britannia; in foliis Senecionis lugentis in California (HOLWAY).

2. **Puccinia Vernoniæ** Schw. Syn. N. Ann. Fr. n. 2926 (1831) Syd. 931 Mon. Ured. vol. I, p. 178. — Soris teleutosporiferis plerumque hypophyllis, maculis minutis flavescentibus vel purpureis, sæpe obsoletis insidentibus, sparsis, hinc inde confluentibus, minutis, subrotundatis, mox nudis, pulverulentis, atro-brunneis; uredosporis plerumque immixtis globosis v. subglobosis, echinulatis, flavis 24-27 μ . diam.; teleutosporis oblongo-ellipsoideis, plerumque utrinque rotundatis, apice leniter incrassatis, medio non v. vix constrictis, intus granulosi, brunneis, 32-44 \times 20-25; pedicello hyalino, usque 120 μ . longo, sed deciduo.

Hab. in foliis vivis Vernoniæ Baldwinii, fasciculatæ, noveboracensis in America bor.

3. **Puccinia oaxacana** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 331 '932 Sacc. Syll. XVI p. 1120 (nomen). — Syd. Mon. Ured. vol. I, p. 24, t. II, f. 21. — Soris teleutosporiferis hypophyllis, maculis minutis fuscis, plerumque insidentibus, sparsis minutis, compactiu-

sculis, brunneis; uredosporis immixtis subglobosis, ellipsoideis vel ovatis, echinulatis, flavidis, 22-29 \times 20-23; teleutosporis oblongo-ellipsoideis v. oblongis, apice rotundatis, non vel vix incrassatis, medio leniter constrictis, basi rotundatis vel attenuatis, levibus, pallide brunneis, 32-50 \times 16-25, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante vel eam parum superante.

Hab. in foliis vivis *Baccharidis hirtellæ*, Oaxaca Mexico (HOLWAY).

4. **Puccinia Baccharidis-hirtellæ** Diet. et Holw. Bot. Gaz. XXI, 1901, 933 p. 331, Sacc. Syll. XVI pag. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 23, t. II, f. 20. — Soris teleutosporiferis hypophyllis, maculis irregularibus minutis fuscis, plerumque insidentibus, sparsis, minutis, compactiusculis, castaneo-brunneis, uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, pallide flavo-brunneis, 20-27 \times 18-25; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel lenissime incrassatis, medio leniter constrictis, subtiliter punctatis, dilute brunneis, 32-46 \times 20-30; pedicello hyalino, tenui, usque 50 μ . longo, fragili.

Hab. in foliis vivis *Baccharidis hirtellæ*, Amecameca, Mexico (HOLWAY).

5. **Puccinia Baccharidis-multifloræ** Diet. et Holw. Bot. Gaz. XXXI, 934 1901, p. 331, Syd. Mon. Ured. vol. I, pag. 24, t. II, fig. 22. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis, minutis, dilute castaneis; uredosporis ellipsoideis vel ovatis, echinulatis, flavo-brunneis, apice cucullato-incrassatis, usque 7 μ . cr., 30-42 \times 22-28; soris teleutosporiferis conformibus, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 10 μ ., medio leniter constrictis, basi rotundatis vel sæpius attenuatis, levibus, flavo-brunneis, 38-60 \times 21-30; pedicello hyalino, fragili, usque 60 μ . longo.

Hab. in foliis vivis *Baccharidis multifloræ*, Amecameca, Mexico (HOLWAY).

6. **Puccinia cæomatiformis** Lagh. in Syd. Mon. Ured. vol. I, p. 24, 935 t. II, f. 24. — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus brunneis, ca. 2-3 mm. latis, subinde confluentibus, insidentibus, plerumque sparsis vel hinc inde paucis aggregatis, rotundatis v. irregularibus, verruciformibus, majusculis, ca. 1-2,5 mm. diam., compactis, cæomatiformibus, pallidis; teleutosporis clavatis, apice rotundatis v. truncatis, incrassatis usque

8 $\mu.$, medio constrictis, deorsum attenuatis, levibus flavidis, 70-135 \approx 25-40; pedicello hyalino, apice valde inflato et usque 28 $\mu.$ lato, deorsum sensim attenuato, longissimo, usque 140 $\mu.$ longo, persistenti.

Hab. in foliis vivis *Baccharidis* spec. pr. Quito Æquatoriæ (LAGERHEIM).

7. **Puccinia subglobosa** Diet. et Holw. in Bot. Gaz. XXXI, 1901, 936 p. 332. — Syd. Mon. Ured. vol. I, p. 181, t. X, f. 158. — Soris uredosporiferis amphigenis, plerumque hypophyllis, maculis indeterminatis, pallescentibus insidentibus, sparsis, minutissimis. punctiformibus, pulverulentis, castaneo-brunneis; uredosporis globosis, ellipsoideis vel ovatis, echinulatis, flavo-brunneis, 18-25 \approx 10-22; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, interdum subglobosis, utrinque rotundatis, apice non v. vix lenissime incrassatis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis, 28-40 \approx 24-30; pedicello hyalino, sursum leniter incrassato, interdum obliquo, usque 55 $\mu.$ longo, subpersistenti.

Hab. in foliis vivis *Viguieræ Palmeri*, Mexico (HOLWAY).

8. **Puccinia punctoidea** Syd. Mon. Ured. vol. I, pag. 182, tab. XI, 937 fig. 159. — Soris teleutosporiferis plerumque epiphyllis, sine maculis, sparsis, punctiformibus, minutis, ca. 500-650 $\mu.$ diam., pulverulentis, atris; teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio plerumque leniter constrictis, levibus, brunneis, 35-46 \approx 18-25; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis *Viguieræ Pringlii* pr. Zapotlan, Mexico (PRINGLE).

9. **Puccinia nanomitra** Syd. Mon. Ured. vol. I, p. 182, t. XI, f. 160. 938 — Soris teleutosporiferis amphigenis, præsertim epiphyllis, sine maculis, sparsis, minutissimis, punctiformibus, pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humili dilutiore auctis, medio non constrictis, verruculosus, atro-brunneis, opacis, 32-42 \approx 25-32, episporio ca. 3 $\mu.$ crasso; pedicello hyalino, crasso, flexuoso, persistenti, usque 80 $\mu.$ longo.

Hab. in foliis vivis *Viguieræ dentatæ*, Oaxaca, Mexico (HOLWAY).

10. **Puccinia inopinata** Syd. Mon. Ured. vol. I, pag. 183, tab. XI, 939 f. 101. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 500 $\mu.$ diam., compactis, atro-brunneis; teleutosporis

oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, 8-14 μ ., medio plerumque leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice pallidioribus, 32-54 \times 16-27; pedicello hyalino, persistenti, crassiusculo, usque 70 μ . longo.

Hab. in foliis vivis *Viguieræ stenophyllæ* var. *discoideæ*, Cordoba, Argentina (LORENTZ).

11. **Puccinia Ximenesiæ** Long in Bull. Torr. Bot. Cl. 1902, p. 114, 940 t. 5. — Syd. Mon. Ured. vol. I, p. 173. — Soris teleutosporiferis amphigenis, sine maculis, sparsis, rotundatis, ca. $\frac{1}{2}$ -1 mm. diam., subpulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 24-32 \times 20-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papilla lata humili instructis, medio non vel vix constrictis, levibus, atro-castaneis, opacis, 30-44 \times 25-32; pedicello subhyalino, crasso, persistenti, sporam subæquante.

Hab. in foliis *Verbesinæ* (*Ximenesiæ*) *encelioidis*, Austin, Texas Americæ bor. (LONG, W. L. BRAY).

12. **Puccinia affinis** Syd. Mon. Ured. vol. I, p. 174, t. X, fig. 151. 941 — Soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, in epiphylo sæpe perfecte annulatim dispositis, interdum confluentibus, minutis v. mediocribus, $\frac{1}{2}$ -3 mm. diam., primitus epidermide tectis, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 20-27 μ . diam.; teleutosporis globosis, subglobosis vel late ellipsoideis, utrinque rotundatis, apice papilla dilutiore plana instructis, medio non constrictis, levibus, atro-brunneis, 32-46 \times 27-36; pedicello hyalino, flexuoso, crasso, persistenti, usque 110 μ . longo.

Hab. in foliis vivis *Verbesinæ trilobatæ*, Oaxaca, Mexico (HOLWAY).

13. **Puccinia cognata** Syd. Mon. Ured. vol. I, p. 172, t. X, f. 149, 942 *Puccinia similis* Long in Bull. Torr. Bot. Cl. 1902, p. 114, f. 4 nec Ellis et Ev. — *Æcidiis* hypophyllis, irregulariter sparsis, albis, margine lacerato; *æcidiosporis* globosis, subglobosis v. ovatis, verrucosis, pallide flavis, 27-30 \times 20-27; soris uredosporiferis hypophyllis, maculis nullis v. obsoletis brunneolis insidentibus, sparsis, interdum aggregatis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ . diam. v. 24-30 \times 21-24; soris teleutosporiferis conformibus, atro-brunneis vel atris; teleutosporis ellipsoi-

deo-oblongis, apice rotundatis, incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis, rarius leniter incrassatis, levibus, brunneis, 40-48 \times 22-27; pedicello subhyalino, sporam æquante.

Hab. in foliis vivis *Verbesinæ virginicæ*, Austin, Texas Americæ bor. (LONG).

14. **Puccinia ferox** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 333 — 943
Syd. Mon. Ured. p. 174, t. X, f. 152. — Soris teleutosporiferis amphigenis, folia incrassata et deformata reddentibus et sæpe ex toto obtegentibus, pulverulentis, irregularibus, magnis, confluentibus, brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, subtiliter verruculosis, pallide brunneolis, 34-48 \times 18-26; pedicello hyalino, brevi.

Hab. in foliis vivis *Verbesinæ diversifoliæ*, Oaxaca, Mexico (HOLWAY).

15. **Puccinia minutula** Peck in 25 Rep. of New York State Mus. 944
p. 117. — Syd. Mon. Ured. vol. I, p. 152. — Soris teleutosporiferis hypophyllis, maculis suborbicularibus subinde confluentibus, flavis, centro sæpe brunneis v. purpureis insidentibus, aggregatis, confertis, minutis, atro-brunneis v. atris; teleutosporis oblongis, apice plerumque obtuse acuminatis, medio leniter constrictis, 40-58 \times 16-18; pedicello colorato, sporam æquante.

Hab. in foliis vivis *Solidaginis altissimæ*, Catskill mountains Americæ bor.

16. **Puccinia glomerata** Grev. in Berk. Engl. Flora V, p. 365 (1837) 945
— Syd. Mon. Ured. vol. I, p. 148, t. VIII, f. 125. — Soris teleutosporiferis amphigenis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. oblongos plerumque totam maculam occupantes, 3-6 mm. latos dense gregariis confluentibusque, sæpe circinatim dispositis, epidermide diutius tectis, tandem subpulverulentis, brunneis; teleutosporis ovato-oblongis v. oblongis, apice papilla minutissima dilutiore instructis, medio non v. vix constrictis, basi rotundatis v. leniter attenuatis, levibus dilute brunneis, 30-45 \times 16-24; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Senecionis Jacobææ* in Belgio, Britannia.

17. **Puccinia recedens** Syd. Mon. Ured. vol. I, pag. 146, tab. VIII, 946
f. 124. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus demum emortuis obscure brunneis dein centro atris purpureo-marginatis insidentibus, in quaque macula

sparsis vel paucis aggregatis, minutis, punctiformibus, compactis, obscure brunneis; teleutosporis clavulatis, apice rotundatis, incrassatis, 2,5-4 μ ., medio valde constrictis, basi semper attenuatis, levibus, pallide flavidis, subinde subhyalinis, 30-40 \times 12-16; pedicello hyalino, persistenti, usque 18 μ . longo; mesosporis paucis, 24-30 \times 12-18.

Hab. in foliis Senecionis spec. Ann Arbor, Michigan Americæ bor. (HOLWAY).

18. **Puccinia Senecionis** Lib. Crypt. Ard. exs. n. 92. — Syd. Mon. 947

Ured. vol. I, pag. 143. — Æcidiis hypophyllis, maculis flavescensibus vel brunneolis insidentibus, solitariis vel in greges minutos sine ordine dispositis, explanatis, albidis, margine irregulariter laciniato; æcidiosporis globoso-angulatis, hyalino-flavescentibus, punctatis 15-20 μ . diam.; soris teleutosporiferis hypophyllis, paucis in greges minutos sine ordine dispositis, minutis, punctiformibus, epidermide medio perforata tectis, atro-brunneis; teleutosporis ovatis v. late ellipsoideis, utrinque late rotundatis, apice non incrassatis, sæpe papilla minuta pallida instructis, medio non v. lenissime constrictis, levibus, brunneis, 24-30 \times 18-21; pedicello brevissimo v. subnullo, hyalino. — Cfr. Syll. VII, p. 667, n. 2313 ex p.

Hab in foliis vivis Senecionis Fuchsii, nemorensis, saracenicis, in Germania, Austria, Helvetia et Gallia.

19. **Puccinia tasmanica** Dietel in Ann. Mycol. 1903, pag. 535. — 948

Æcidiis laxe gregariis, cupuliformibus, margine irregulariter lacinato donatis; æcidiosporis globoso-polyhedricis; 13-17 μ . diam., subtilissime verruculosus; soris teleutosporiferis æcidiis immixtis, atris, pulvinatis, confluentibus, epidermide fissa vel integra diu velatis; teleutosporis clavatis vel oblongis, apice rotundatis, truncatis vel conoideis, basi attenuatis, medio modice constrictis, 35-53 \times 18-25, episporio levi, apice usque 10 μ . incrassato castaneo, infra dilutiore donatis, pedicello firmo, superne flavescenti suffultis; adsunt etiam teleutosporæ uniloculares.

Hab. in caulibus foliisque Senecionis vulgaris, IV, 1895, in Tasmania.

20. **Puccinia Millefolii** Fuck. Symb. myc. pag. 55, Syd. Mon. Ured. 949

I, p. 2, tab. 1, fig. 2. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, maculis pallidis v. vix distinctis, minutis, rotundatis sed sæpe irregularibus, plerumque sparsis, compactis, obscure brunneis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. leniter acutiusculis, incrassatis 4-8 μ .,

medio constrictis, basi rotundatis vel sæpius attenuatis, levibus, pallide brunneolis, 35-50 \approx 13-19; pedicello apice flavidulo, crasso, persistenti, circa 40 μ . longo; mesosporis subinde paucis immixtis.

Hab. in foliis vivis *Achilleæ Millefolii*, *A. setaceæ*, in Germania, Hungaria, Italia, Britannia, Belgio, Hollandia.

21. **Puccinia Ptarmicæ** Karst. Myc. Fenn. IV, p. 41. — Syd. Mon. 950

Ured. vol. I, p. 3. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, plerumque autem hypophyllis, maculis flavis v. flavo-brunneis usque 5 mm. longis insidentibus, minutis, punctiformibus, sed semper dense aggregatis et sæpe omnino confluentibus et tunc 1-3 mm. v. ultra longis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, valde incrassatis 5-10 μ ., medio constrictis, deorsum attenuatis, levibus, pallide brunneis, 36-54 \approx 17-24; pedicello apice leniter brunneolo, crasso, persistenti, circ. 40 μ . longo; mesosporis obovatis v. piri-formibus interdum immixtis, 32-38 \approx 16-22.

Hab. in foliis *Achilleæ Ptarmicæ*, cartilagineæ, in Germania, Belgio, Suecia, Fennia, Rossia.

22. **Puccinia Pyrethri** Rabh. in Herb. myc. n. 1990, Syd. Mon. Ured. 951

vol. I, p. 45. — Soris uredosporiferis plerumque hypophyllis, maculis nullis, sparsis, minutis, non confluentibus, rotundatis v. rarius oblongis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis 20-32 \approx 16-24; soris teleutosporiferis amphigenis, plerumque hypophyllis, interdum cauliculis, sine maculis, sparsis v. in caule confluentibus, minutis v. mediocribus, mox nudis, rotundatis, compactiusculis, atro-brunneis v. atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis apice incrassatis, usque 6 μ ., medio non vel vix constrictis, sublevibus vel subtiliter, præcipue ad apicem, verruculosus, castaneo-brunneis, 38-54 \approx 24-32; pedicello hyalino, crasso, persistenti, usque 110 μ . longo.

Hab. in foliis vivis *Chrysanthemi (Pyrethri) corymbosi*, *C. parthenifolii* in Germania, Austria, Hungaria, Italia, Rossia, Romania, et *Chrys. sinensis* in Japonia.

23. **Puccinia seriata** Syd. Mon. Ured. vol. I, p. 162, tab IX, f. 142. 952

— Soris teleutosporiferis amphigenis v. sæpissime cauliculis, sine maculis, sparsis, aggregatis v. præsertim in caule longe seriatis, rotundatis, discoideis, ca. 1 mm. diam., compactiusculis, in caule sæpe omnino confluentibus et seriem angustam plus minusve elongatam efformantibus, atris; teleutosporis oblongis, utrinque rotun-

dati, apice incrassatis, usque 6 μ ., medio constrictis, subtiliter, præcipue ad apicem, verruculosis, brunneis 37-54 \times 18-25; pedicello hyalino, persistenti, usque 70 μ . longo.

Hab. in foliis, petiolis caulibusque Tanaceti spec. in Kurdistania (HAUSSKNECHT).

24. **Puccinia Anthemidis** Syd. Mon. Ured. Vol. I, pag. 7 (1902). — 953

Soris teleutosporiferis amphigenis vel cauliculis, sparsis, minutis, rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis oblongo-clavatis, apice rotundatis usque 6 μ . incrassatis vel conico-attenuatis et magis incrassatis, usque 10 μ ., medio constrictis, basi attenuatis, levibus, flavo-brunneolis, 32-54 \times 15-22; pedicello hyalino, crasso persistenti, sporam æquante.

Hab. in foliis caulibusque vivis Anthemidis altissimæ Lattes, Hérault Galliæ (LAGERHEIM).

25. **Puccinia Asteris-alpini** Syd. Mon. Ured. vol. I, p, 18. — Soris 954

teleutosporiferis hypophyllis, maculis minutis orbicularibus 1-2 mm. diam., flavidis v. brunneolis insidentibus, sparsis v. hinc inde aggregatis, non confluentibus, mediocribus 1-2 mm. diam., orbicularibus, diu epidermide nitida plumbea tectis, compactis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, valde incrassatis, usque 11 μ ., medio constrictis, basi plerumque rotundatis, levibus, dilute brunneis, apice obscurioribus 40-54 \times 19-25; pedicello hyalino, apice brunneolo, crasso, persistenti, usque 60 μ . longo; mesosporis paucis 40 \times 16.

Hab. in foliis vivis Asteris alpini in Helvetia (MORTIER).

26. **Puccinia artemisiicola** Syd. Mon. Ured. vol. I, pag. 14, tab. I, 955

f. 11. — Soris teleutosporiferis amphigenis v. cauliculis, subinde maculis minutis flavis insidentibus, sparsis v. aggregatis confluentibusque, minutis, rotundatis v. irregularibus, epidermide fissa sæpe cinctis, pulvinatis, atro-brunneis; teleutosporis clavatis, apice plerumque rotundatis, raro acutiusculis, valde incrassatis, usque 11 μ ., medio constrictis, basim versus attenuatis, levibus, pallide fuscis, loculo inferiore pallidiore 14-19 μ . lato, superiore 19-27 μ . lato, totis 40-60 μ . long., rarius usque 70 μ . longis; pedicello hyalino v. apice flavidulo, crasso, persistenti usque 70 μ . longo.

Hab. in foliis caulibusque vivis Artemisiæ campestris, A. austriacæ in Germania, Austria, Hungaria, Rossia.

27. **Puccinia artemisiella** Syd. Mon. Ured. vol. I, pag. 14, tab. 1, 956

fig. 12. — Soris teleutosporiferis hypophyllis, raro paucis etiam epiphyllis, maculis vix distinctis, irregulariter sparsis, rotundatis

v. irregularibus, minutis vel mediocribus, vix confluentibus, tomento folii sæpe obtectis, pulvinatis, atris; teleutosporis ellipsoideo-oblongis, oblongis v. oblongo-clavulatis, apice plerumque rotundatis, incrassatis 4-8 μ ., medio constrictis, basi attenuatis vel rotundatis, levibus, dilute castaneis 35-49 \times 14-21; pedicello hyalino, apice leniter brunneolo, crasso, persistenti, usque 70 μ . longo; mesosporis paucis circa 38 \times 18.

Hab. in foliis vivis Artemisiæ vulgaris prope Berolinum Germaniæ (SYDOW).

28. **Puccinia ferruginosa** Syd. Mon. Ured. vol. I, p. 13, t. 1, f. 10 ⁹⁵⁷ (1902). — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus brunneis v. flavo-brunneis insidentibus, minutis, punctiformibus, in greges minutos laxè vel densiuscule aggregatis, vix omnino confluentibus interdum etiam solitariis, in tomento folii nidulantibus, pulvinatis, obscure ferrugineis; teleutosporis oblongis v. clavatis, apice plerumque rotundatis, valde incrassatis, 5-8 μ . diam., medio constrictis, basi attenuatis, levibus, pallide flavis 35-46, rarius usque 54 \times 14-19; pedicello hyalino, crasso, persistenti, usque 50 μ . longo; mesosporis paucis 35- \times 14.

Hab. in foliis vivis Artemisiæ vulgaris var. japonicæ, Tokyo Japoniæ (SHIRAI).

29. **Puccinia Calendulæ** Mc. Alp. Proc. Linn. Soc. N. S. Wales 1903, ⁹⁵⁸ p. 558. — Æcidiis luteo-aurantiacis, congestis sæpe circinantibus 320-360 μ . diam.; pseudoperidiis margine reflexis; cellulis peridii polygonalibus, margine striatis 21-24 μ . diam.; æcidiosporis irregularibus, subglobosis vel polygonalibus minutissime echinulatis pallide aurantiacis, 14-17 \times 11-12; soris teleutosporiferis nigris, erumpentibus, immersis, sæpe confluentibus; teleutosporis luteo-brunneis, clavatis, ad septum constrictis, apice conicis rotundatis vel acutis episporio levi donatis, 36-52 \times 19-23; pedicello hyalino, persistenti 28-37 \times 7-8, apice usque 10 μ . lato; mesosporis teleutosporæ concoloribus, ellipsoideis vel piriformibus, apice conicis, 30-42 \times 21-23.

Hab. amphigena in foliis Calendulæ officinalis, Armadale et Killara, in Victoria, Australiæ.

30. **Puccinia conyzella** Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 51. ⁹⁵⁹ — Soris teleutosporiferis hypophyllis, sparsis, plerumque solitariis, majusculis, 2-3 mm. diam., rotundatis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, truncatis v. acutiusculis, valde incrassatis, usque 14 μ ., medio constrictis, basi at-

tenuatis, levibus, pallide flavo-brunneolis, 38-60 \approx 14-21; pedicello hyalino v. apice flavidulo, crasso, persistenti, usque 45 μ . longo.

Hab. in foliis vivis *Conyzæ myriocephalæ* pr. Santiago Chile (NEGER).

31. **Puccinia confluens** Syd. Mon. Ured. vol. I, p. 81, t. V, f. 68. — 960

Soris teleutosporiferis plerumque hypophyllis, maculis irregularibus brunneis insidentibus, minutis v. mediocribus sed plerumque aggregatis et omnino confluentibus et tunc pustulas irregulares crassas usque 8 mm. longas efformantibus, epidermide fissa cinctis, pulvinatis, atris; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ ., medio constrictis, levibus, intus granulosus, brunneis, 36-50 \approx 18-27; pedicello hyalino, persistenti, sæpe flexuoso, usque 110 μ . longo.

Hab. in foliis vivis *Erigerontis macranthi* in Colorado Americæ bor. (BARTHOLOMEW).

32. **Puccinia inanipes** Diet. et Holw., Bot. Gaz. XXXI, 1901, p. 332 961

et p. 422. — Sacc. Syll. XVI p. 119 (nomen). — Syd. Mon. Ured. vol. I, p. 83, tab. V, fig. 70. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, minutis, pulverulentis, brunneis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, 20-28 \approx 16-24; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, sæpe papillula humillima lata instructis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis 32-42 \approx 27-34; pedicello hyalino, crasso, persistenti, usque 75 μ . longo, 14 μ . lato, cavo.

Hab. in foliis vivis *Eupatorii brevipedis*, Oaxaca, Mexico (HOLWAY).

33. **Puccinia Espinosarum** Diet. et Holw. Bot. Gaz. XXXI, 1901, 962

p. 332. — Sacc. Syll. XVI, p. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 83. — Soris uredosporiferis amphigenis, maculis pallidis sæpe insidentibus, sparsis, minutis v. mediocribus, pulverulentis, brunneis; uredosporis ellipsoideis v. ovatis, echinulatis, flavo-brunneis 30-36 \approx 20-24; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice sæpe papillula lata humili instructis, medio leniter constrictis, levibus, obscure castaneo-brunneis, subopacis, 38-50 \approx 30-36, episporio crassiusculo; pedicello hyalino persistenti, usque 125 μ . longo, 12 μ . crasso, basi cavo.

Hab. in foliis vivis *Eupatorii Espinosarum*, Oaxaca, Mexico (HOLWAY).

34. **Puccinia Madiæ** Syd. Mon. Ured. vol. I, p. 121, tab. VI, f. 100. 963

— Soris teleutosporiferis amphigenis, sparsis, sine maculis, rotundatis, minutis, ca. 1 mm. diam., compactis, atris; uredosporis globosis v. subglobosis, subtiliter verruculosis, flavis 25-28 μ . diam.; teleutosporis oblongis v. clavatis, apice rotundatis et incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide brunneis, 35-68 \times 13-26; pedicello hyalino, crasso, persistenti, usque 60 μ . longo.

Hab. in foliis vivis Madiæ sativæ, M. viscosæ in Chile.

35. **Puccinia Zinniaë** Syd. Mon. Ured. vol. I, p. 188, t. XI, f. 167. — 964

Soris teleutosporiferis hypophyllis, maculis irregularibus usque 1 cm. latis, medio brunneis flavo-marginatis insidentibus, minutis, punctiformibus, dense aggregatis, sed plerumque non confluentibus, pulvinatis, griseo-atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 6 μ ., medio valde constrictis, basi plerumque rotundatis, levibus, pallide flavo-brunneis, 40-62 \times 14-24, loculis facile secedentibus; pedicello concolori, persistenti, usque 70 μ . longo.

Hab. in foliis vivis Zinniaë tenuifloræ, Chapala Mexico (HOLWAY).

36. **Puccinia Actinomeridis** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, 965 p. 295, t. XIII, f. 19-22. — Sacc. Syll. XVI, p. 1120 (nomen).

— Soris teleutosporiferis plerumque hypophyllis, sparsis v. hinc inde confluentibus, minutis v. mediocribus, pulverulentis, atris; uredosporis immixtis globulosis, subglobosis vel late ellipsoideis, subtiliter echinulatis, flavo-brunneis 21-25 \times 18-23; teleutosporis ellipsoideis, utrinque rotundatis, apice leniter papillato incrassatis, usque 5 μ ., medio non v. parum constrictis, punctatis, castaneo-brunneis 32-40 \times 21-27; pedicello hyalino, apice leniter brunneolo, subpersistenti, usque 70 μ . longo.

Hab. in foliis Actinomeridis squarrosæ, Potomac River, Washington Americæ bor.

37. **Puccinia corsica** R. Maire in Bull. Soc. bot. de France 1901, 966

tom. I, p. 214, tab. 13, fig. 6. — Soris uredosporiferis plerumque hypophyllis, in maculis flavis plerumque orbiculatim dispositis, cinnamomeo-brunneis, mox nudis, minutis; uredosporis globosis v. ovoideis 25-29 \times 18-24, episporio brunneo, subtiliter aculeolato, duobus poris prædito; soris teleutosporiferis minutissimis atris, diu tectis, inter soros uredosporiferos evolutis vel in maculis propriis irregulariter congregatis; teleutosporis ovoideis vel ellipsoi-

deis 28-39 \times 18-26, haud constrictis, episporio crassiusculo æquali, brunneo, subtilissime punctulato vel sublevi, utraque cellula poro varie posito prædita, pedicello hyalino brevissimo; pycnidiis æcidisque nullis.

Hab. in foliis vivis Aronici corsici prope Ghisoni et Vivario et in silvis Aitone Corsicæ.

38. **Puccinia Doronici** Niessl in Beitr. zur Kenntniss der Pilze p. 9. 967
 Syd. Mon. Ured. vol. I, p. 75, tab. IV, fig. 60. — Soris teleutosporiferis hypophyllis, maculis orbicularibus v. irregularibus flavis usque 1 cm. diam. insidentibus, minutis, punctiformibus, in greges rotundatos v. irregulares usque $\frac{3}{4}$ cm. latos aggregatis, pulvinatis, compactis, atris; teleutosporis clavatis v. oblongo-clavatis, apice rotundatis v. truncatis, valde incrassatis, usque 11 μ ., medio constrictis, basi attenuatis, levibus, dilute brunneis, apice pallidioribus, 38-54 \times 16-24; pedicello hyalino v. hyalino-flavidulo, crasso persistenti, usque 55 μ . longo.

Hab. in foliis vivis Doronici austriaci in Austria.

39. **Puccinia daronicella** Syd. Mon. Ured. vol. I, p. 74, t. IV, f. 59. 968
 — Soris uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, minutis, pulverulentis, flavo-brunneolis; uredosporis globosis v. subglobosis, echinulatis, flavis 24-28 μ . diam.; soris teleutosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio plerumque non constrictis, basi plerumque rotundatis, rarius leniter attenuatis, subtilissime verruculosus, brunneis 26-38 \times 16-22, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis caulibusque vivis Doronici austriaci prope Laibach Carniolæ (Voss).

40. **Puccinia Galactitis** Syd. Mon. Ured. vol. I, p. 86, t. V, f. 75. — 969
 Soris teleutosporiferis hypophyllis, maculis orbicularibus 1-3 mm. latis, purpureo-brunneis depressis insidentibus, sparsis, interdum paucis aggregatis, rotundatis 1-1,5 mm. diam., firmis, compactis, tectis, griseo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. acutiusculis, incrassatis, usque 8 μ ., medio leniter constrictis, basi plerumque attenuatis, levibus, flavo-brunneis 36-46 \times 16-19; pedicello hyalino crasso, persistenti, usque 55 μ . longo.

Hab. in foliis vivis Galactitis tomentosæ pr. Coimbra Lusitaniæ (MOLLER).

41. **Puccinia Galatellæ** Syd. Mon. Ured. vol. I, p. 86, t. V, f. 76. — 970

Soris teleutosporiferis foliicolis v. cauliculis, sparsis v. aggregatis, confluentibus et usque 5 mm. longis, striiformibus, epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 14 μ ., medio constrictis, basi attenuatis, levibus, pallidissime brunneolis 32-58 \times 16-20; pedicello hyalino, crasso, persistenti usque 60 μ . longo.

Hab. in foliis caulibusque vivis Galatellæ punctatæ, Marseille Galliae (RIEDEL).

42. **Puccinia Otopappi** Syd. Mon. Ured. vol. I, p. 129. — Soris te- 971

leutosporiferis epiphyllis, rarius paucis hypophyllis, sine maculis, sparsis v. ad nervos interdum confluentibus 0,5-1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute-brunneis, 24-30 \times 21-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humillima concolori vel leniter dilutiori instructis, medio non constrictis, levibus, atro-brunneis, opacis, 38-46 \times 27-32; pedicello hyalino persistenti, crassiusculo, sporam subæquante.

Hab. in foliis vivis Otopappi alternifolii, San Jose Pass, Limestone Hills, Mexico (PRINGLE).

43. **Puccinia Marianæ** Syd. in Hedw. 1901, pag. 127 et Mon. Ured. 972

vol. I, p. 48, tab. III, fig. 42. — Soris teleutosporiferis amphigenis, maculis indeterminatis irregularibus flavis v. obsolete insidentibus, sparsis vel irregulariter aggregatis et interdum paucis confluentibus, minutis, rotundatis, compactiusculis, atris; teleutosporis plerumque oblongis v. oblongo-clavulatis, interdum ellipsoideis, apice rotundatis v. raro leniter acutiusculis, leniter incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis v. rarius attenuatis, levibus, brunneis 40-66 \times 19-27, episporio 4 μ . crasso; pedicello subhyalino, apice flavo-brunneolo, crasso, persistenti recto vel flexuoso, usque 150 μ . longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Chrysopsidis Marianæ, Sanibel Island Florida (S. M. TRACY).

44. **Puccinia Batesiana** Arth. in Bull. Torr. Bot. Cl. 1901, p. 661, 973

Syd. Mon. Ured. vol. I, p. 94. — Æcidiis hypophyllis, in greges minutos dispositis, longiusculis; æcidiosporis subglobosis, verruculosus, pallidis 18-26 μ . diam.; soris teleutosporiferis plerumque hypophyllis, maculis minutis 2-3 mm. diam., rotundatis v. irregula-

ribus brunneis insidentibus, in greges minutos dispositis, compactis, pulvinatis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. sæpe attenuatis, valde incrassatis, usque 12 μ ., medio non v. parum constrictis, basi attenuatis, levibus, dilute brunneis 40-62 \approx 12-18; pedicello flavido, 10-25 μ . longo.

Hab. in foliis vivis Heliopsidis scabræ in Jowa et Nebraska Americæ bor.

45. **Puccinia Rhapontici** Syd. Mon. Ured. vol. I, p. 139, tab. VIII, 974 f. 120. — Soris teleutosporiferis amphigenis, sine maculis, sparsis minutis, rotundatis, non confluentibus, diutius epidermide cinerea tectis, demum nudis, pulverulentis, atro-brunneis; teleutosporis subglobosis, late ellipsoideis v. rarius oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. raro parum constrictis, subtiliter verruculosus, obscure castaneo-brunneis, 24-35 μ . diam. vel rarius usque 35-46 μ . longis, 20-24 μ . latis, episporio 3 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis Rhapontici pusilli in regionibus subalpinis jugi Sanin Libani (BORNMÜLLER).

46. **Puccinia obducens** Syd. Mon. Ured. vol. I, p. 38, t. III, f. 36. 975 — Soris teleutosporiferis hypophyllis, omnino confluentibus et crusta crassiuscula totam folii superficiem obducentibus, pulverulentis, obscure brunneis; uredosporis immixtis, perpaucis tantum visis, globosis vel subglobosis, ca. 22 μ . diam., flavo-brunneolis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio constrictis, verrucosis, castaneo-brunneis, 32-46 \approx 19-28; pedicello hyalino, brevissimo.

Hab. in foliis vivis Centaureæ ruthenicæ, fluv. Seravshan super. Turkestanicæ (KOMAROW).

47. **Puccinia pencana** Syd. Mon. Ured. vol. I, p. 41, t. III, f. 37. — 976 Soris uredosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 25-29 μ . diam.; soris teleutosporiferis conformibus, minutis, atro-brunneis; teleutosporis ellipsoideo-oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, subtilissime verruculosus, castaneo-brunneis, 30-45 \approx 22-27, episporio ca. 2,5-3 μ . crasso; pedicello sæpe sporâ longiore, sed valde deciduo, hyalino.

Hab. in foliis vivis Centaureæ bulbosæ pr. Conception Chile (F. W. NEGER).

48. **Puccinia vestita** Syd. Mon. Ured. vol. I, p. 42, t. III, f. 38. — 977

Soris uredosporiferis amphigenis, sine maculis, sparsis, nunquam confluentibus, minutis, punctiformibus, semper epidermide plumbea tectis; uredosporis globosis v. subglobosis, echinulatis flavis, 22-27 μ . diam.; soris teleutosporiferis omnino conformibus; teleutosporis subglobosis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter punctatis, obscure castaneo-brunneis, 30-40 \times 25-30, episporio circiter 2,5 μ . crasso; pedicello hyalino, tenui, sæpe flexuoso, usque 65 μ . longo.

Hab. in foliis vivis *Centaureæ myriocephalæ* ad Schaklava in monte Kuh Sefin ditionis Erbil Kurdistaniaë Assyriacæ (BORNMÜLLER).

49. **Puccinia Centaureæ** Mont. Fl. Mosq. p. 226, Syd. Mon. Ured. 978 pag. 39. — Cfr. Sacc. Syll. VII, pag. 633, n. 2210 et pag. 709, n. 2466. — Soris uredosporiferis plerumque hypophyllis, maculis flavis v. brunneolis v. obsoletis, minutis, sparsis, interdum confluentibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, brunneis 22-30 \times 16-28; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, castaneo-brunneis 24-40 \times 16-27, episporio tenui; pedicello hyalino, tenui, plerumque brevissimo, interdum autem elongato.

Hab. in foliis vivis *Centaureæ Adami*, americanæ, asperæ, atratæ, aurantiacæ, axillaris, badensis, Calcitrapæ, cheiracanthæ, conglomeratæ, coriaceæ, dealbatæ, decipientis, Endressii, exarataë, Fenzlii, glomeratæ, ibericæ, Jaceæ, maculosæ, melitensis, Meryonis, nervosæ, nigræ, nigrescentis, paniculatæ, phrygiæ, pseudo-phrygiæ, rhenanæ, salonitanæ, Scabiosæ, solstitialis, spinulosæ, unifloræ, in Germania, Austria, Hungaria, Italia, Gallia, Hispania, Lusitania, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Serbia, Romania, Asia minori, Sibiria, America bor.

50. **Puccinia Cyani** (Schleich.) Pass. in Rabh. Fg. europ. n. 1767, 979 Syd. Mon. Ured. vol. I, pag. 38. — Cfr. Sacc. Syll. VII, p. 633, *Puccinia suaveolens* (Pers.) Rostr. f. *Cyani* Wint. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis v. confertis, minutis, orbicularibus v. ellipticis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, subtiliter echinulatis, flavo-brunneis 22-30 \times 19-24; soris teleutosporiferis amphigenis,

sparsis, minutis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosus, castaneo-brunneis, 30-35 \approx 22-27, raro usque 40 μ . long.; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis *Centaureæ Cyani* in Germania, Austria, Helvetia, Italia, Gallia, Hollandia, Belgio, Suecia et Serbia.

51. **Puccinia Microlonchi** Syd. Mon. Ured. vol. I, p. 122. — Soris 980
 uredosporiferis amphigenis, sine maculis, sparsis, rotundatis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis, 24-27 μ . diam.; soris teleutosporiferis amphigenis, sparsis, non confluentibus, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, primo hemisphæricis, demum pulverulentis, castaneo-brunneis; teleutosporis ellipsoideis v. ovato-oblongis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, castaneo-brunneis, 30-42 \approx 19-26, episporio ca. 25 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis *Microlonchi salmantici*, Testa di Gargano Italiæ (MARTELLI).

52. **Puccinia Centrophylli** Syd. Mon. Ured. vol. I, p. 104, tab. VI, 981
 f. 91. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, mediocribus 1-2 mm. diam., rotundatis v. subrotundatis, epidermide plumbea centro demum irregulariter fissa semper tectis, atris, pulverulentis; uredosporis immixtis globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, dein brunneis 24-28 μ . diam.; teleutosporis forma variabilibus, plerumque ellipsoideis v. oblongis, apice rotundatis v. truncatis, non v. lenissime incrassatis, medio non constrictis, basi rotundatis, levibus v. subtilissime punctatis, obscure brunneis, 32-48 \approx 15-28, episporio ca. 2,5 μ . crasso; pedicello hyalino, tenui, usque 50 μ . longo, sed deciduo.

Hab. in foliis vivis *Centrophylli cretici*, *C. syriaci* in ins. Creta.

53. **Puccinia Scolymi** Syd. Mon. Ured. vol. I, p. 141. — Soris ure- 982
 dosporiferis amphigenis, sine maculis, irregulariter sparsis, minutis, pulverulentis, brunneis; uredosporis globosis vel subglobosis, echinulatis, flavo-brunneis 24-30 μ . diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio non constrictis,

punctulatis, castaneis, 30-45 \times 24-30, episporio tenui; pedicello hyalino, tenui, usque 40 μ . longo, sed caduco.

Hab. in foliis vivis Scolymi grandiflori in Sicilia (SCALIA) et Sc. hispanici in Syria (BORNMÜLLER)..

54. **Puccinia Acarnæ** Syd. Mon. Ured. vol. I, p. 130, t. VII, f. 110. 983

— Soris teleutosporiferis amphigenis, sine maculis, in tomento foliorum nidulantibus, sparsis, hinc inde confluentibus, orbicularibus, mediocribus 1-1,5 mm. diam., primo interdum compactiusculis, tandem pulverulentis, atris v. atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis 23-27 μ . diam.; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ ., medio non v. parum constrictis, subtiliter punctatis, brunneis 35-54 \times 21-30; pedicello hyalino, persistenti, usque 60 μ . longo.

Hab. in foliis vivis Picnomy Acarnæ in Italia, Dalmatia, Syria, Kurdistania, Persia, Afghanistan, Algeria.

55. **Puccinia Atractylidis** Syd. Mon. Ured. p. 18, tab. I, f. 14. — 984

Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus circa 1 mm. diam., pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis, ovatis v. oblonga subclavulatis, apice rotundatis, incrassatis usque 6 μ ., medio non v. raro parum constrictis, basi late rotundatis v. etiam leniter attenuatis, subtiliter verrucosis, amœne castaneo-brunneis 40-54 \times 24-30; pedicello hyalino, persistenti, crasso, usque 75 μ . longo.

Hab. in foliis vivis Atractylidis comosæ, in saxosis ad Brummana Libani in Syria (BORNMÜLLER).

56. **Puccinia Bardanæ** Corda Icon. IV, p. 17 (1840), Syd. Mon. Ured. 985
vol. I, p. 113. — Cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. —

Soris uredosporiferis primariis epiphyllis, maculis orbicularibus v. irregularibus insidentibus, sparsis, interdum confluentibus, magnis, 1-5 mm. latis, rotundatis v. irregularibus, planis, epidermide fissa cinctis, pulverulentis, cinnamomeis; soris uredosporiferis secundariis, amphigenis, sine maculis, minutis, circiter $\frac{1}{2}$ -1 mm. diam., sparsis v. gregariis, orbicularibus, epidermide fissa cinctis, pulverulentis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, dilute brunneis 26-30 \times 22-27; soris teleutosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis v. gregariis, minutis, $\frac{1}{2}$ -1 mm. diam., rotundatis, pulverulentis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis,

medio plerumque leniter constrictis, subtiliter verruculosis, obscure brunneis 30-42 \approx 22-27; pedicello hyalino, brevi.

Hab. in foliis vivis Lappæ majoris, minoris, nemorosæ, officinalis, tomentosæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Fennia, Rossia, Romania.

57. **Puccinia Onopordi** Syd. Mon. Ured. vol. I, p. 128. — Soris te- 986
leutosporiferis amphigenis, sine maculis, omnino in tomento foliorum absconditis, sparsis vel aggregatis, minutis vel mediocribus, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 24-28 μ . diam. vel 27-31 \approx 18-24; teleutosporis ellipsoideis v. ovato-ellipsoideis, rarius oblongis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis 35-48 \approx 23-32, episporio ca. 2,5 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis Onopordi Cardunculi, Aintab Syriæ.

58. **Puccinia Acanthii** Syd. Mon. Ured. vol. I, p. 129. — Soris ure- 987
dosporiferis plerumque hypophyllis, maculis obsoletis insidentibus, sparsis, minutis, pulverulentis, pallide brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis 22-26 μ . diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis, 25-34 \approx 20-24, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis vivis Onopordi Acanthii, prov. Posen Germaniæ.

59. **Puccinia Tinctoriæ** P. Magn. in Abhandl. der Nat. Ges. Nürnberg 988
XIII, p. 37 (1900), Syd. Mon. Ured. vol. I, p. 150, tab. VIII, f. 127. — Soris uredosporiferis amphigenis, maculis obsoletis pallidis insidentibus, sparsis, minutis, rotundatis, pulverulentis, obscure cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, 24-35 \approx 19-26; soris teleutosporiferis amphigenis, conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 27-42 \approx 19-27; pedicello hyalino, usque 14 μ . longo.

Hab. in foliis vivis Serratulæ tinctoriæ, coronatæ, heterophyllæ in Germania, Austria, Italia, Gallia, Suecia et Serr. centauroidis in Sibiria.

60. **Puccinia Serratulæ-oligocephalæ** Syd. Mon. Ured. vol. I, p. 149, 989

tab. VIII, fig. 126. — Soris uredosporiferis amphigenis, plerumque hypophyllis, per totam superficiem foliorum sparsis, medio-cribus, subcircularibus, planis, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, echinulatis, flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, interdum confluentibus, irregularibus, 1-2 mm. latis, epidermide plumbea diutius tectis, demum pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosus, castaneo-brunneis, 35-40 \approx 27-30; pedicello hyalino, usque 15 μ . longo.

Hab. in foliis vivis *Serratulæ oligocephalæ*, Aintab Syriæ (HAUSSKNECHT).

61. **Puccinia inclusa** Syd. Mon. Ured. vol. I, p. 56, tab. III, f. 43. 990

— Soris uredosporis hypophyllis, in lana foliorum nidulantibus, sparsis, minutis, rotundatis, cinnamomeis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis 24-32 μ . diam., soris teleutosporiferis conformibus, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosus, læte castaneis, 35-40 \approx 24-28, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Cirsii (Cnici) undulati* in Kansas Americæ bor. (BARTHOLOMEW).

62. **Puccinia Benedicti** Syd. Mon. Ured. vol. I, p. 61, tab. IV, f. 49. 991

— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, 22-27 μ . diam.; poris germinationis tribus instructis; soris teleutosporiferis conformibus, atris, teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 30-40 \approx 22-27, episporio tenui; pedicello hyalino, tenui, sporam subæquante, deciduo.

Hab. in foliis vivis *Cnici benedicti*, in horto botanico Belgrad Serbiæ (N. RANOJEVIC).

63. **Puccinia obtegens** (Lk.) Tul. in Ann. Sc. nat. IV, p. 87 (1854), 992

Syd. Mon. Ured. vol. I, pag. 53: cfr. Sacc. Syll. VII, p. 633, n. 2209, p. p. — Pycnidiis hypophyllis, confertis, totam foliorum superficiem obtegentibus, grati odoris, intense melleis; soris uredosporiferis et teleutosporiferis primariis hypophyllis, totam superficiem occupantibus, minutis, confertis, sæpe confluentibus, pulverulentis, rufo-fuscis, demum obscurioribus; soris uredosporiferis

et teleutosporiferis secundariis hypophyllis, sparsis non confluentibus, minutis, atro-brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute brunneis, 21-28 μ . diam.; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis vel basi leniter attenuatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 26-42 \approx 17-25, episporio tenui; pedicello hyalino, tenui, brevi.

Hab. in foliis vivis *Cirsii arvensis* in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Fennia, Rossia, Sibiria et in America bor.

64. **Puccinia Cardui-pycnocephali** Syd. Mon. Ured. vol. I, p. 34. t. III, 993 fig. 35, D. Sacc. Myc. ital. n. 1085. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutis, dilute brunneis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis, 22-26 μ . diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, in tomento plantæ nutricis nidulantibus, brunneis; teleutosporis oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 38-50 \approx 16-23, episporio tenui; pedicello hyalino, tenui, usque 40 μ . longo, sed deciduo.

Hab. in foliis vivis *Cardui pycnocephali*, Testa di Gargano Italiæ (U. MARTELLI, A. FIORI).

65. **Puccinia galatica** Syd. Mon. Ured. vol. I, pag. 34. — Soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, dilute brunneis 22-28, μ . diam., teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque parum constrictis, subtiliter punctatis, obscure brunneis, 30-45 \approx 22-28, episporio ca. 3 μ . crasso; pedicello hyalino, tenui, usque 30 μ . longo.

Hab. in foliis vivis *Cardui pycnocephali* var. *albidi*, in Ponto Galactico Asiæ minoris (BORNMÜLLER).

66. **Puccinia Cnici-oleracei** Pers. apud Desm. Catal. des plant. omises, 995 p. 24, 1823, Syd. Mon. Ured. p. 58, tab. III, f. 47, *P. spectabilis* Otth. — Sacc. Syll. XIV, p. 314. — Soris teleutosporiferis hypophyllis, maculis orbicularibus usque 5 mm. diam., pallidis insidentibus, minutis, circinatis, sed plerumque in greges usque 5 mm. latos orbiculares diu tectos omnino confluentibus, compactis, brunneis; teleutosporis clavatis, apice plerumque rotundatis, rarius conico-acutiusculis, valde incrassatis, 5-10 μ ., medio constrictis, basi at-

tenuatis; levibus, flavo-brunneis, 38-56 \approx 14-21; pedicello hyalino flavidulo, crasso, persistenti, usque 50 μ . longo.

Hab. in foliis vivis *Cirsii ochroleuci*, oleracei, lanceolati, *Cardui crispi* (?) in Germania, Italia, Helvetia, Belgio, Britannia, Fennia.

67. **Puccinia kermanensis** Syd. Mon. Ured. vol I, p. 57, tab. III, 996 f. 45. — Soris uredosporis amphigenis, sparsis, sine maculis, rotundatis, mediocribus, circiter 1 mm. diam., epidermide fissa cinctis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 24-32 μ . diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, interdum subconfluentibus, mediocribus, 1-2 mm. diam., pustuliformibus, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, verrucosis, castaneo-brunneis, 37-54 \approx 19-27, episporio circiter 3-3,5 μ . crasso; pedicello hyalino, fragili, usque 35 μ . longo.

Hab. in foliis vivis *Cirsii bracteosi*, spectabilis in prov. Kerman Persiæ aust. (BORNMÜLLER).

68. **Puccinia Cirsii** Lasch in Rabh. Fg. europ. n. 89, Syd. Mon. 997 Ured. vol. I, pag. 55: cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Soris uredosporiferis amphigenis, sparsis, minutis, mox nudis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis, ellipsoideis v. ovatis, echinulatis, dilute brunneis, 22-28 \approx 19-24; soris teleutosporiferis conformibus, atro-brunneis v. atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosus, castaneo-brunneis, 25-38 \approx 17-25, episporio tenui; pedicello hyalino.

Hab. in foliis vivis *Cirsii acaulis*, altissimi, bulbosi, californici, cani, discoloris, *Drummondii*, *Erisithalis*, heterophylli, japonici, monspessulani, oleracei, palustris, rivularis, ruthenici, spinosissimi, tatarici, in Germania, Austria, Hungaria, Helvetia, Italia, Hispania, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Sibiria, Japonia et in America bor.

69. **Puccinia Echinopis** D. C. Fl. franç. VI, p. 57, Syd. Mon. Ured. 998 vol. I, p. 75. — Sacc. Syll VII, p. 711, sub *P. Echinopis* Haszl. — Soris uredosporiferis amphigenis, plerumque epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, plerumque non confluentibus, mediocribus, orbicularibus, pulverulentis, cinnamomeis; uredosporis

globosis, echinulatis, dilute brunneis, 24-27 μ . diam; soris teleutosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, raro confluentibus, mediocribus 1-1,5 mm. diam., hemisphærico-prominentibus, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosus, dilute brunneis, 32-46 \approx 18-27; pedicello hyalino brevi, tenuissimo.

Hab. in foliis caulibusque vivis *Echinopis banatici*, E. Ritro, *E. sphærocephali*, in Germania, Austria, Hungaria, Italia, Serbia, Rossia.

70. **Puccinia Fuckelii** Syd. Mon. Ured. vol. I, p. 103, tab. VI, f. 90, 999

P. Compositarum f. *Jurineæ* Fuck. in Fg. rhen. n. 345. — Soris uredosporiferis epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, ferrugineis, uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneis, 19-27 μ . diam.; soris teleutosporiferis conformibus, usque 1 mm. diam., atro-brunneis teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, levibus, castaneo-brunneis, 35-48 \approx 21-27; pedicello hyalino, tenui, deciduo usque 30 μ . longo.

Hab. in foliis vivis *Jurineæ cyanoidis* pr. Budenheim Nassoviæ in Germania (L. FÜCKEL).

71. **Puccinia Carduncelli** Syd. Mon. Ured. vol. I, p. 33. — Soris te- 1000

leutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis $\frac{1}{2}$ -1 mm. diam., rotundatis vel oblongis, subpulverulentis, atris; uredosporis immixtis subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 25-32 \approx 19-26; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque crasso; pedicello hyalino, brevissimo.

Hab. in foliis *Carduncelli cærulei*, in Sicilia.

72. **Puccinia Cousiniæ** Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 52. — 1001

Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus, convexis, 1-1,5 mm. diam., atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, 21-27 μ . diam.; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, rarius leniter attenuatis, non v. parum incrassatis, usque 4 μ ., medio non v. vix constrictis, basi rotundatis, subtiliter punctatis, castaneo-brunneis, 37-54 \approx 21-30; pedicello hyalino, brevi, tenui, deciduo.

Hab. in foliis vivis Cousiniæ anomalæ, bicoloris, bu-phthalmoidis, contumacis, fallacis, libanoticæ, Onopordi in Syria, Armenia, Turkestan et Persia.

73. **Puccinia Pinaropappi** Syd. in Hedw. 1901, p. 127 et Mon. Ured. 1002
vol. I, p. 132. — Soris uredosporiferis amphigenis, maculis minutis flavis rotundatis insidentibus, sparsis, minutis, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, dilute brunneis, 22-28 μ . diam.; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis, subtilissime verruculosus v. tantum punctatis, obscure brunneis, 32-40 \times 21-28; pedicello hyalino, crassiusculo, brevi, deciduo.

Hab. in foliis vivis Pinaropappi rosei, Austin, Texas (LONG).

74. **Puccinia Pyrrhopappi** Syd. Mon. Ured. vol. I, p. 138. — Soris 1003
uredosporiferis amphigenis, maculis nullis v. obsoletis pallidis aut brunneis insidentibus, sparsis, quandoque circulariter dispositis, minutis, orbicularibus, non confluentibus, pulverulentis cinnamomeis; uredosporis globosis, subglobosis v. ovatis, echinulatis, flavo-brunneis, 22-27 μ . diam. v. 22-27 \times 17-21; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosus, fuscis, 30-40 \times 19-25; pedicello hyalino usque 15 μ . longo.

Hab. in foliis vivis Pyrrhopappi scaposi in Kansas (BARTHOLOMEW).

75. **Puccinia Stobææ** Mac Owan. — Sacc. Syll. VII, pag. 615. — 1004
var. **Woodii** Syd. Mon. Ured. vol. I, p. 160, tab. IX, fig. 138. — Soris hypophyllis, in epiphylo maculas orbiculares purpureo-brunneas generantibus, sparsis; uredosporis globosis, regularibus, echinulatis, obscure brunneis, 20-28 μ . diam.; teleutosporis late ellipsoideis, rarius suboblongis, apice valde incrassatis usque 11 μ ., sed semper late et obtuse rotundatis nec productis, basi rotundatis, medio non v. lenissime constrictis, obscure brunneis, 43-57 \times 27-38; pedicello hyalino, persistenti, usque 54 μ . longo, 6 μ . cr., basi tenuiore.

Hab. in foliis vivis Stobææ speciosæ ad Port Natal Africae austr. (WOOD).

76. **Puccinia Acanthospermi** Henn. in Hedw. 1902, p. 296. — Ma- 1005

culis rotundatis, fuscis; soris hypophyllis, aggregatis, minutis pulvinatis, ferrugineis, plerumque in circulos 1-2 mm. diam. dispositis; teleutosporis clavatis vel subfusoides, apice paullo incrassatis, rotundato-obtusis vel apiculatis, flavo-brunneis, 30-40 \times 13-24, septo plus minus constrictis; pedicello subclavato, fuscidulo, persistente, 10-25 \times 3-5, episporio levi, brunneo.

Hab. in foliis *Acanthospermi xanthioidis*, in horto botanico, S. Paulo Brasiliæ. — *P. Acanthospermi* Syd. Ann Myc. 1903, p. 17 non differt. Hæc in eadem matrice, Venezuela.

77. **Puccinia Acroptili** Syd. Mon. Ured. vol. I, pag. 4, tab. I, f. 4, 1006 1902. — Soris uredosporiferis amphigenis, sine maculis, sparsis, non confluentibus, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 22-27 μ . diam.; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtilissime verruculosus, dilute brunneis, 35-42 \times 19-27; pedicello hyalino, usque 28 μ . longo.

Hab. in foliis vivis *Acroptili Picridis* in Kurdistania, Persia (HAUSSKNECHT, BORNMÜLLER).

78. **Puccinia Ainsliæ** Syd. Mon. Ur. vol. I, p. 6 (1902). — Soris 1007 teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus fuscis circ. 2-3 mm. diam., insidentibus, minutis, 50-750 μ . diam., rotundatis, in macula annulariter dispositis, compactis, pulvinatis, atro-brunneis; teleutosporis oblongis v. oblongo-clavatis v. ovato-oblongis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 12 μ ., medio constrictis, basi plerumque attenuatis, levibus, dilute flavo-brunneis apice obscurioribus, 32-45 \times 14-20; pedicello flavido persistenti, usque 60 μ . longo.

Hab. in foliis vivis *Ainsliæ* gracilis in prov. Hupe Sinarum (A. HENRY).

79. **Puccinia Aplopappi** Syd. Mon. Ured. vol. I, p. 8, tab. I, f. 7 1008 (1892). — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus flavidis insidentibus, solitariis, sparsis v. in greges minutos aggregatis, subinde confluentibus, rotundatis circa 1 mm. diam., pulvinatis, atro-castaneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 12 μ ., medio constrictis, basi plerumque attenuatis, levibus, dilute castaneo-brunneis, 40-64 \times 16-28; pedicello hyalino, crasso, persistenti, usque 140 μ . longo.

Hab. in foliis vivis *Aplopappi spinulosi, squarrosi*, in Montana et California Americæ bor. (Mc CLATCHIE).

80. **Puccinia Zœgeæ-crinitæ** N. Speschnew *Fungi transcaspici et turkestanici* 1901, p. 9, tab. I, f. 22-26. — Maculis in pag. sup. et inf. foliorum, fuscis, subrotundatis, sparsis, inflatis 1-5 mm. diam.; soris uredosporiferis irregulariter dispositis, rotundatis, primo epidermide velata, pallida tectis, postremo cinctis, pulvinatis brunneolis · uredosporis globosis, ellipsoideis v. ovoideis, sempiternis germinationis 2-3 ad mediam altitudinis sporæ dispositis, sine papilla, episporio minute verrucoso, brunneis, 20-24 \times 19-20; soris teleutosporiferis minutis, rotundatis, atro-fuscis, sparsis, raro confluentibus, prominulis; teleutosporis subellipsoideis, clavatis, medio septatis, non constrictis, apice mediocr. incrassatis 30-36 \times 24-28; episporio flavo-brunneo, levissime verrucoso; pedicello hyalino, persistente, sporam longitudine æquante vel eam superante.

Hab. in foliis caulibusque *Zœgeæ crinitæ*, in Rossia asiat.

81. **Puccinia Xylorrhizæ** Arth. in *Bull. Torr. Bot. Cl.* 1901, p. 662, Syd. 1010
Mon. Ured. vol. I, p. 185. — Soris teleutosporiferis amphigenis, maculis flavis insidentibus, dense circinatim dispositis, minutis, rotundatis, epidermide rupta cinctis, mox nudis, pulvinatis, atris; uredosporis paucis interdum immixtis, globosis v. ellipsoideis, flavis, verruculosis, 24-26 μ . diam.; teleutosporis oblongis, apice rotundatis et parum incrassatis vel conico-attenuatis et valde incrassatis vel conico-attenuatis et valde incrassatis, usque 10 μ ., medio constrictis, basi plerumque rotundatis, levibus, brunneis, 40-65 \times 20-27; pedicello persistenti, crasso, flavescenti, usque 100 μ . longo, interdum lateraliter disposito.

Hab. in foliis vivis *Xylorrhizæ glabriusculæ* in Wyoming Americæ bor.

82. **Puccinia Wyethiæ** (Peck) Ell. et Ev. in *North Am. Fg.* n. 2987, 1011
Uredo Wyethiæ Peck. — *Sacc. Syll.* VII, p. 863. — *Syd. Mon. Ured.* vol. I, pag. 184, tab. XI, f. 162. — Soris uredosporiferis amphigenis, maculis plerumque nullis, sparsis, sed sæpe numerosis, minutis, pulverulentis, pallide fuscis; uredosporis globosis subglobosis v. late ellipsoideis, echinulatis, brunneis, 30-40 \times 23-30; soris teleutosporiferis amphigenis, sparsis, interdum aggregatis confluentibusque, minutis v. mediocribus, 0,5-1,5 mm. diam., rotundatis, epidermide lacerata cinctis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non in-

crassatis, medio non v. vix constrictis, dense punctatis, læte castaneis, 30-45 \approx 18-27; pedicello hyalino, deciduo, brevissimo.

Hab. in foliis vivis *Wyethiæ angustifoliæ* in Colorado et California Americæ bor.

83. **Puccinia Stizolophi** Syd. Mon. Ured. vol. I, pag. 158, tab. IX, 1012
f. 136. — Soris teleutosporiferis amphigenis, sine maculis, sparsis mediocribus v. majusculis, 1-3 mm. diam., subrotundatis v. irregularibus, pustuliformibus, epidermide plumbea diutius tectis, demum ea fissa cinctis, pulverulentis, atris; uredosporis immixtis, globosis, ellipsoideis v. ovatis, subtiliter echinulatis, flavo-brunneolis, 21-30 \approx 18-24; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque non constrictis, punctatis, castaneo-brunneis, 30-48 \approx 21-30, episporio circiter 3-4 μ . crasso; pedicello hyalino, tenui, deciduo, usque 35 μ . longo.

Hab. in foliis vivis *Stizolophi coronopifolii* pr. *Mersina* Anatoliæ orient. (BORNMÜLLER).

84. **Puccinia subdecora** Syd. et Holw. Ann. Mycol. 1903, p. 17. — 1013
Soris teleutosporiferis amphigenis, sine maculis, rotundatis v. irregularibus, mediocribus confluentibusque, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ovatis, minute aculeatis, brunneolis, 25-30 \approx 19-28; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, sæpe autem papilla dilutiore lata donatis, medio vix v. leniter constrictis, punctatis, castaneis, 34-50 \approx 16-28, episporio ca. 2-2,5 μ . crasso; pedicello hyalino, crasso subpersistenti, usque 30 μ . longo.

Hab. in foliis vivis *Brickelliæ grandifloræ*, Georgetown Colorado Amer. bor. (HOLWAY).

85. **Puccinia præmorsa** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 332, 1014
Syd. Mon. Ured. vol. I, p. 31, tab. III, f. 32. — Soris teleutosporiferis hypophyllis, maculis rotundatis brunneis depressulis insidentibus, singulis in quaque macula, mediocribus, plerumque et pluribus minoribus omnino coalitis formatis, pulvinatis, atro-brunneis; teleutosporis oblongo-clavatis, apice truncatis, conico-atenuatis v. irregularibus, incrassatis, usque 8 μ ., medio leniter constrictis, basi attenuatis, levibus brunneis, 40-70 μ . long, loculo superiore 16-30 μ . lato, inferiore semper angustiore; pedicello brevi, firmo, brunneolo.

Hab. in foliis vivis *Brickelliæ veronicæfoliæ*, Oaxaca Mexico.

86. **Puccinia Picrosiæ** Syd. Mon. Ured. vol. I, p. 131. — Soris te- 1015
leutosporiferis amphigenis, maculis nullis vel obsoletis brunneis
insidentibus, in greges rotundatos ad nervos sæpe elongatos 5-10
mm. longos dense aggregatis, pulvinatis, obscure brunneis; teleu-
tosporis clavatis v. oblongo-clavatis, apice rotundatis vel conico-
angustatis, incrassatis, usque 9 μ ., medio constrictis, basi angu-
statis, levibus, flavidis, 35-46 \times 15-21; pedicello hyalino, crasso,
persistenti, usque 38 μ . longo.

Hab. in foliis vivis Picrosiæ longifoliæ, in Brasilia.

87. **Puccinia Lugoæ** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, p. 293, 1016
Syd. Mon. Ured. vol. I, p. 118. — Soris teleutosporiferis hypo-
phyllis, maculis orbicularibus vel suborbicularibus rufo-brunneis,
usque 1 cm. diam. insidentibus, in greges rotundatos annulatim
laxeque dispositis, minutis, rotundatis, compactiusculis, atris; ure-
dosporis immixtis, globosis, subglobosis v. ellipsoideis, aculeatis,
flavo-brunneis, 27-40 \times 18-26; teleutosporis ellipsoideis v. oblon-
go-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, 4-6 μ .,
medio non v. vix constrictis, punctulatis 33-42 \times 17-27; pedicello
hyalino, persistenti crasso, ad insertionem subinde leniter incre-
sato, usque 120 μ . longo.

Hab. in foliis Lugoæ revolutæ, pr. Tagauana, Teneriffa
in ins. Canariis (BORNMÜLLER).

88. **Puccinia Leuzeæ** Syd. Mon. Ured. vol. I, p. 118. — Soris ure- 1017
dosporiferis hypophyllis, sine maculis, sparsis, non confluentibus,
minutis, pulverulentis, cinnamomeis; uredosporis globosis v. sub-
globosis, subtiliter echinulatis, flavo-brunneis, 21-25 μ . diam.; so-
ris teleutosporiferis conformibus, brunneis; teleutosporis ellipsoi-
deis v. ovatis, utrinque rotundatis, apice non incrassatis, medio
plerumque non constrictis, subtilissime verruculosus, brunneis, 22-
34 \times 18-24, episporio tenui; pedicello hyalino, brevissimo.

Hab. in foliis Leuzeæ carthamoidis, in Sibiria occid.

89. **Puccinia Krigiæ** Syd. Mon. Ured. vol. I, p. 104. — Soris uredo- 1018
sporiferis amphigenis, maculis minutis pallidis insidentibus, spar-
sis, minutis, rotundatis, pulverulentis, dilute brunneis; uredosporis
globosis v. subglobosis, rarius ellipsoideis, subtiliter echinulatis,
dilute flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis con-
formibus, obscure brunneis; teleutosporis ellipsoideis, utrinque ro-
tundatis, apice non incrassatis, medio non v. vix constrictis, pun-
ctatis v. subtilissime verruculosus, castaneo-brunneis 32-40 \times 19-
23, episporio tenui; pedicello hyalino tenui, brevi, deciduo.

Hab. in foliis caulibusque vivis *Krigiæ amplexicaulis* pr. Asheville, North Carolina Americæ bor. (B. L. ROBINSON).

90. **Puccinia Jostephanes** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 334. 1019
Sacc. Syll. XVI, p. 1119 (nomen), Syd. Mon. Ured. vol. I, p. 101, t. VI, p. 86. — Soris teleutosporiferis plerumque epiphyllis, rarius hypophyllis, maculis minutis purpureis sæpe insidentibus, sparsis, minutis, punctiformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice et sæpe sub septo papillula dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, $35-50 \times 24-35$; episporio ca. 3μ . crasso; pedicello hyalino e latere inserto, persistenti, usque 80μ . longo.

Hab. in foliis vivis *Jostephanes heterophyllæ*, Cuernavaca Mexico (HOLVAY).

91. **Puccinia Homoianthi** Syd. Mon. Ured. vol. I, p. 99, t. VI, f. 85. 1020
— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, $22-28 \mu$. diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, $30-40 \times 22-27$, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis vivis *Homoianthi variabilis* et *Hom. viscosi* in Chile.

92. **Puccinia Helianthellæ** Arthur Bull. Torr. Bot. Cl. 1904, p. 4. — 1021
Soris uredosporiferis amphigenis, sparsis rotundatis, immersis, pulverulentis, pallide brunneis; uredosporis globosis, $25-32 \mu$. latis, episporio pallide-brunneo, 3μ . cr., minute subechinulato, poris 2 æquatorialibus vel oppositis; soris teleutosporiferis amphigenis, sparsis, rotundatis, immersis, pulverulentis, pallide-brunneis; teleutosporis ellipsoideis v. obovato-oblongis, $30-40 \times 20-26$, utrinque obtusis vel rotundatis, ad septum non vel vix constrictis; episporio levi pallide brunneo, $2-2,5 \mu$. cr., apice incrassatulo; pedicello hyalino, exili, sporæ æquilongo, fugaci.

Hab. in foliis *Helianthellæ Nevadensis*, Nevada County Californiæ (A. A. HELLER).

93. **Puccinia Guardiollæ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 334, 1022
Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, pag. 90, t. V, fig. 79. — Soris uredosporiferis plerumque hypophyllis, maculis irregularibus, purpurascensibus insidentibus, sparsis, minutis, obscure brunneis, pulverulentis; uredosporis globosis,

subglobosis vel ovatis, echinulatis, brunneis, 24-32 \approx 20-25, poris germinationis binis instructis; soris teleutosporiferis conformibus, compactiusculis, atro-brunneis; teleutosporis oblongo-clavatis vel clavatis, apice rotundatis vel rarius truncatis, incrassatis, 4-8 μ ., medio constrictis, basi plerumque attenuatis, rarius rotundatis, levibus pallide brunneis, apice subhyalinis, 45-60 \approx 18-25; pedicello hyalino, crassiusculo, persistenti, usque 60 μ . longo.

Hab. in foliis vivis *Guardiolæ mexicanæ*, Cuernavaca, Mexico (HOLWAY).

94. **Puccinia Gonospermi** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, 1023
p. 293, Sacc. Syll. XVI, pag. 1120 (nomen) — Syd. Mon. Ured. vol. I, p. 89. — Soris teleutosporiferis hypophyllis, maculis nullis v. vix distinctis insidentibus, sparsis, minutis, rotundatis, compactiusculis, atris; uredosporis immixtis, subglobosis v. ellipsoideis, subtiliter echinulatis, flavo-brunneis, 27-35 \approx 19-25; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis 4-6 μ ., medio non v. vix constrictis, punctulatis, dilute brunneis, 32-42 \approx 18-25; pedicello hyalino, persistenti, crassiusculo, usque 100 μ . longo.

Hab. in foliis vivis *Gonospermi fruticosi* pr. Laguna, Teneriffa ins. Canar. (BORNMUELLER).

95. **Puccinia Franseriæ** Syd. in Ann. Mycol. vol. I, 1903, pag. 326. 1024
— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, punctiformibus, pulverulentis, obscure brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis, 25-32 μ . diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque late rotundatis, apice valde incrassatis, usque 10 μ ., medio plerumque leniter constrictis, levibus, brunneis, 38-50 \approx 26-32; pedicello crasso, hyalino, persistenti, usque 110 μ . longo.

Hab. in foliis vivis *Franseriæ ambrosioidis*, Tucson Mts. in Arizona Americæ bor. (GRIFFITHS).

96. **Puccinia Barroeteæ** Syd. Mon. Ured. vol. I, p. 28, t. II, fig. 28. 1025
— Soris uredosporiferis hypophyllis, maculis irregularibus fuscis, insidentibus, sparsis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, flavo-brunneis, 27-35 \approx 19-27; soris teleutosporiferis conformibus etiam cauliculis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice papilla subhyalina auctis, medio constrictis, le-

vibus, castaneo-brunneis, 40-65 \approx 27-35; pedicello hyalino, persistenti, crasso, usque 110 μ . longo.

Hab. in foliis caulibusque vivis Barroeteæ sabuligeræ, Aguas Calicutes, Mexico (HOLWAY).

97. **Puccinia Calimeridis** Syd. Mon. Ured. vol. I, p. 32, t. III, f. 34. 1026

-- Soris teleutosporiferis amphigenis, maculis nullis vel vix distinctis, sparsis, mediocribus, ca. 1-1,5 mm. rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis, raro acutiusculis, valde incrassatis, 8-13 μ , medio constrictis, basi rotundatis vel in pedicellum attenuatis, levibus, pallide brunneolis, loculo superiore paullo obscuriore, plerumque 36-50 \approx 18-27, rarius usque 60 μ . long.; pedicello hyalino, crasso, persistente, usque 70 μ . long.; mesosporis paucis obovatis.

Hab. in foliis Calimeridis altaicæ, Minussinsk Sibiricæ (MARTIANOFF).

98. **Puccinia clarioneicola** Syd. Mon. Ured. vol. I, p. 61. — Soris 1027

uredosporiferis amphigenis, sine maculis, sparsis, numquam confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, echinulatis, brunneis, 24-30 μ . diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongis utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 35-44 \approx 23-27, episporio tenui; pedicello brevi hyalino.

Hab. in foliis vivis Clarionearum variarum in Chile et Fuegia.

99. **Puccinia crassicutis** Syd. Mon. Ured. vol. I, pag. 125, t. VII, 1028

f. 105. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., primo tomento folii tectis dein nudis, pulverulentis, atris; uredosporis immixtis oblongis v. ellipsoideis, aculeatis, flavis, 32-40 \approx 16-20, apice incrassatis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice papilliformi-incrassatis, usque 10 μ . et subhyalinis, medio vix v. leniter constrictis, verrucosis, obscure brunneis, 52-60 \approx 27-38, episporio usque 8 μ . crasso; pedicello hyalino, crasso, persistenti, flexuoso, usque 80 μ . longo.

Hab. in foliis vivis Mutisicæ Clematis, S. Cruz Bolivicæ.

100. **Puccinia Desmanthodii** Diet. et Holw. Bot. Gaz. XXXI, 1901, 1029

p. 334, Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 73, t. IV, f. 58. — Soris teleutosporiferis hypophyllis, maculis magnis irregulariter limitatis, violaceis v. flavis, usque 1

cm. diam. insidentibus, minutis sed in greges magnos dense confertis, compactis, atris, paraphysibus atro-brunneis coalitis circumscriptis; teleutosporis oblongo-lanceolatis vel fusiformibus, apice attenuatis vel truncatis, incrassatis, usque 9 μ ., medio non vel leniter constrictis, basi attenuatis, levibus, dilute brunneis, 40-60 \approx 10-16; pedicello brunneolo, firmo, usque 40 μ . longo.

Hab. in foliis *Desmanthodii ovati*, Oaxaca, Mexico (HOLWAY).

101. **Puccinia Electræ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 333, 1030

Syll. XVI, p. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 76, tab. IV, f. 62. — Soris uredosporiferis epiphyllis, maculis varie coloratis insidentibus, rarius hypophyllis, sparsis, minutis, pulverulentis, obscure brunneis, 26-35 \approx 20-25; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, verrucosis, obscure castaneo-brunneis, 35-48 \approx 24-32, episporio crasso; pedicello hyalino, sursum brunneolo, crasso, persistenti, usque 80 μ . longo, interdum laterali.

Hab. in foliis vivis *Electræ Galeottii*, Oaxaca, Mexico (HOLWAY).

102. **Puccinia Hypochæridis** Oud. in Nederl. Kruidk, Archief II, 1031

ser. I, pag. 175 (1873): cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Syd. Mon. Ured. vol. I, p. 100. — Soris uredosporiferis amphigenis v. sæpe cauliculis, plerumque maculis minutis insidentibus, sparsis, pulverulentis, cinnamomeis, primariis mediocribus, secundariis minutis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, pallide brunneis, 22-28 μ . diam.; soris teleutosporiferis amphigenis, sæpe cauliculis, sparsis, minutis, punctiformibus, in caule majoribus, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius attenuatis, subtiliter verruculosus, brunneis, 30-46 \approx 18-24, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis caulibusque vivis *Hypochæridis glabræ helveticæ*, maculatæ, radicatæ, unifloræ, in Germania, Italia, Austria, Hungaria, Helvetia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Lusitania, Sibiria, America bor. et Chile.

103. **Puccinia hemisphærica** (Peck) Ell. et Ev. in North Am. Fung. 1032

n. 3144. — Syd. Mon. Ured. vol. I, pag. 109, t. VI, f. 93: cfr. Sacc. Syll. VII, p. 805, sub *Acidio hemisphærico* Peck. — Py-

cnidiis amphigenis, minutis, brunneolis; æcidiis plerumque hypophyllis vel cauliculis, interdum etiam epiphyllis, maculis nullis, per totam foliorum superficiem æque sparsis vel præcipue nervum medium sequentibus, sæpe etiam cauliculis, hemisphæricis, diu clausis dein poro centrali apertis, flavis, pariete proprio vix evoluto; æcidiosporis globosis vel subglobosis, verruculosis, pallide aurantiacis 20-27 μ . diam.; soris uredosporiferis amphigenis, plerumque hypophyllis, maculis minutis, flavis v. viridibus insidentibus, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, brunneis, 20-28 \approx 18-25; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosis, brunneis, 27-42 \approx 16-25; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis *Lactucæ* (*Mulgedii*) *pulchellæ*, *Ludovicianæ* in America bor.

104. **Puccinia Lactucarum** Syd. Mon. Ured. vol. I, p. 108. — *Æci-* 1033
diis plerumque hypophyllis vel cauliculis, maculis irregularibus, flavo-brunneis insidentibus, paucis plerumque irregulariter et laxè aggregatis, primo hemisphæricis, dein applanatis, flavis; æcidiosporis globosis vel subglobosis, subtiliter verrucosis, pallide aurantiacis, 18-27 μ . diam.; soris uredosporiferis plerumque hypophyllis, maculis irregularibus indeterminatis pallidis insidentibus, sparsis vel paucis aggregatis, minutis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 18-27 μ . diam.; soris teleutosporiferis plerumque hypophyllis, sæpe autem cauliculis, maculis rotundatis v. irregularibus flavidis insidentibus, in foliis sparsis v. in greges minutos aggregatis, rotundatis, in caule rotundatis vel sæpe elongatis et hinc inde confluentibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, castaneo-brunneis, 30-43 \approx 22-30; pedicello hyalino, brevissimo.

Hab. in foliis caulibusque vivis *Lactucæ* *perennis*, *altissimæ* (?), *quercinæ* (?), *sagittatæ* (?), in Germania, Austria, Helvetia, Gallia, Rossia.

105. **Puccinia lactucina** Syd. Mon. Ured. vol. I, pag. 111. — Soris 1034
uredosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis non confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-

brunneis vel brunneis, 18-27 μ . diam. vel 24-28 \approx 18-22; soris teleutosporiferis conformibus, obscure castaneis; teleutosporis regularibus, ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, punctatis, brunneis, 34-39 \approx 21-24, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis vivis Lactucæ scarioloidis, in prov. Kerman Persiæ austr. (BORNMUELLER).

106. **Puccinia Leontodontis** Jacky in Compositen-Puccin. p. 75 (1899) 1035

— Syd. Mon. Ured. vol. I, p. 114. — Soris uredosporiferis amphigenis, sparsis non confluentibus, minutis, punctiformibus, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, pallide brunneis, 25-37 μ . diam. vel 27-35 \approx 24-27; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis variabilibus plerumque ellipsoideis, ovato-ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosus, castaneo-brunneis, 30-42 \approx 21-27, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis vivis Leontodontis autumnalis, glabrati, hastilis, hispidi, incani, nigricantis, pyrenaici, squamosi, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Serbia, Rossia, Fennia.

107. **Puccinia Mulgedii** Syd. Mon. Ured. vol. I, p. 123. — *Æcidiis* 1036

hypophyllis, maculis minutis flavidis indeterminatis insidentibus, solitariis v. paucis tantum aggregatis, minutis, planis, flavis; *æcidiosporis* globosis, subglobosis vel ovatis, subtiliter verruculosus, flavescens, 19-24 μ . diam.; soris uredosporiferis hypophyllis, maculis nullis vel indeterminatis, sparsis, minutissimis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, subtilissime echinulatis, flavis, 20-27 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, minutissimis, epidermide diutius tectis dein ea cinctis, obscure brunneis, pulverulentis; teleutosporis ovoideis vel oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis subtilissime verruculosus, brunneis, 27-38 \approx 19-24, episporio tenui; pedicello hyalino, tenui, brevi, deciduo.

Hab. in foliis vivis Mulgedii alpini, aurei, macrophylli, in Germania, Austria, Gallia, Helvetia, Suecia, Norvegia Serbia.

108. **Puccinia Crepidis-leontodontoidis** R. Maire in Bull. Soc. bot. de 1037

France, année 1904, tab. 13, fig. 1. — Spermogoniis plerumque

epiphyllis, lageniformibus, penicillo ostiolarum valde evolutis; æcidiis plerumque hypophyllis, in maculis flavescens orbicularibus seu marginalibus semiorbicularibus, laxiuscule congregatis, cupulato-explanatis; pseudoperidiis albidis, margine fere integro nec revolutis; æcidiosporis subglobosis vel irregulariter polyhedricis, subtiliter verrucosis, hyalinis, guttulis oleosis aurantiacis, farctis, 13-18 \times 13-14; soris uredosporiferis amphigenis, minutis, punctiformibus, maculæ flavidæ 2-3 mm. insidentibus, pulverulentis, cinnamomeo-brunneis; uredosporis ovoideis v. subglobosis, 16-23 \times 14-22 episporio dilute brunneo, aculeolato, duobus, rarius tribus, poris germinationis instructo; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovoideis vel ovoideo-ellipsoideis, 26-34 \times 18-26, utrinque rotundatis, apice haud incrassatis nec ad septum constrictis, episporio brunneo, subtiliter punctulato; poro germinationis cellulæ superioris, plerumque apicali, cellulæ inferioris a septo plus minusve remoto; pedicello hyalino, valde deciduo, sæpe laterali, teleutosporam æquante vel ea brevior.

Hab. in foliis *Crepidis leontodontoidis*, Ajaccio Corsicæ et Avellino Ital. merid.

109. **Puccinia Picridis-strigosæ** Syd. Mon. Ured. vol. I, pag. 131, 1038 tab. VII, fig. 112. — Soris teleutosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, interdum confluentibus, orbicularibus, mediocribus, 1-2 mm. diam., pulverulentis, atris; uredosporis immixtis, globosis vel subglobosis, echinulatis, flavo-brunneis, 24-32 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, punctatis, obscure castaneo-brunneis, 32-46 \times 27-32; pedicello hyalino, persistenti, circiter 16 μ . longo.

Hab. in foliis vivis *Picridis strigosæ* pr. Kerman Persiæ australis (BORNUELLER).

110. **Puccinia altaica** Syd. Mon. Ured. vol. I, pag. 137, tab. VIII, 1039 fig. 117. — Soris teleutosporiferis foliicolis vel cauliculis, mediocribus, sparsis, hinc inde confluentibus et tunc usque 3 mm. longis, oblongis vel elongatis, epidermide plumbea nitida sæpe tectis vel semivelatis, compactis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel sæpius acutiusculis, valde incrassatis, usque 13 μ ., medio vix leniter constrictis, deorsum attenuatis, levibus, brunneis, 43-54 \times 16-25; pedicello hyalino vel hyalino-brunneolo, persistenti, crasso, usque 115 μ . longo.

Hab. in foliis caulibusque *Prenanthis diversifoliæ*

(*Crepidis baicalensis*) in regione altaica Asiæ centralis (LEDEBOUR).

111. **Puccinia Prenanthis** (Pers.) Lindr. Mykol. Mittheil., pag. 6, in 1040
Act. Soc. pr. Fauna et Flora fennica 1901, n. 9. — Syd. Mon. Ured. vol. I, pag. 106: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p. — *Æcidiis* hypophyllis, raro paucis etiam epiphyllis v. petiolicolis, maculis flavis vel purpureis usque 1 cm. diam. insidentibus, in greges rotundatos vel irregulares 6 mm. latos ad nervos sæpe elongatos dispositis, primo hemisphæricis dein applanatis, flavis vel albidis, interdum flavo-purpureis; *acidiosporis* globosis, subglobosis vel ellipsoideis, subtiliter verruculosus, pallide aurantiacis, 13-24 μ . diam.; *soris* uredosporiferis hypophyllis, maculis irregularibus pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, pulverulentis, pallide brunneis; uredosporis globosis vel subglobosis, echinulatis, flavo-brunneis, 16-24 μ . diam.; *soris* teleutosporiferis conformibus, epidermide fissa cinctis, atro-brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, subtilissime verruculosus, brunneis, 26-36 \approx 16-24; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Lactucæ* (*Prenanthis*) muralis, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Fennia, Rossia.

112. **Puccinia Prenanthis-purpureæ** (DC.) Lindr. Mykol. Mittheil. p. 7, 1041
in Act. Soc. pro Fauna et Fl. fennica 1901, n. 9. — Syd. Mon. Ured. vol. I, pag. 135: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p. — *Æcidiis* hypophyllis, maculis orbicularibus usque 5 mm. diam., flavis vel flavo-purpureis insidentibus, in greges rotundatos vel irregulares, usque 6 mm. latos ad nervos subinde elongatos dispositis, primo hemisphæricis dein late apertis, flavis vel albidis, interdum flavo-purpureis; *acidiosporis* globosis, subglobosis v. ellipsoideis, subtiliter verrucosus, pallide aurantiacis, 15-24 \approx 12-20; *soris* uredosporiferis hypophyllis, maculis minutis flavis insidentibus, sparsis, minutissimis, punctiformibus, pulverulentis, dilute rufo-brunneolis; uredosporis globosis vel subglobosis, subtiliter echinulatis, flavidis, 17-25 μ . diam.; *soris* teleutosporiferis conformibus brunneis; teleutosporis ellipsoideis vel ovatis, apice rotundatis, subtilissime verruculosus, brunneis, 24-37 \approx 16-24, episporio tenui; pedicello hyalino brevi.

Hab. in foliis vivis *Prenanthis* albæ, purpureæ, te-

nuiifoliæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia.

113. **Puccinia Prenanthis-racemosæ** Syd. Mon. Ured. vol. I, p. 137. 1042

— Soris uredosporiferis amphigenis, maculis minutis obsoletis vel nullis insidentibus, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter echinulatis, dilute brunneis, 22-30 μ . diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis, non incrassatis, medio non vel raro parum constrictis, basi plerumque rotundatis, subtilissime verrucosis, brunneis, 30-45 \times 21-28, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis *Prenanthis racemosæ*, Saskatchewan, America bor. (E. BOURGÉAU).

114. **Puccinia Rhagadioli** (Pass.) Syd. Mon. Ured. vol. I, pag. 139, 1043

Æcidium Rhagadioli Pass.: cfr. Sacc. Syll. VII, p. 805. — Pycnidii epiphyllis; æcidiis amphigenis, sine maculis, per totam superficiem foliarum æque sparsis, cupulatis, margine albido, laciniato, reflexo; æcidiosporis globosis v. subglobosis, subtiliter verrucosis, pallide aurantiacis, 15-26 μ . diam.; soris uredosporiferis amphigenis, maculis nullis v. minutis flavidis insidentibus, sparsis minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, subtiliter aculeatis, flavidis 20-28 μ . diam.; soris teleutosporiferis conformibus, sæpe cauliculis et tunc diu tectis, atrobunneis; teleutosporis late ellipsoideis v. interdum subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, obscure castaneis, 30-43 \times 24-32; pedicello hyalino, brevi.

Hab. in foliis vivis *Rhagadioli stellati*, in Italia, Gallia.

115. **Puccinia sejuncta** Syd. in Ann. Mycol. 1903, vol. I, p. 326. — 1044

Pycnidii epiphyllis, flavidis; æcidiis amphigenis, plerumque hypophyllis, vulgo per totam foliorum superficiem æque distributis, minutis, cupulatis, flavidis, margine leniter recurvato, subtiliter inciso; æcidiosporis subglobosis, angulato-globosis v. angulato verrucosis, hyalino-flavescentibus, 14-20 \times 11-16; soris uredosporiferis amphigenis, maculis nullis v. vix distinctis flavescentibusque insidentibus, sparsis v. subinde etiam partem folii majorem æque obtegentibus, minutis, rotundatis v. irregularibus, epidermide fissa cinctis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis v. brunneis, 24-30 μ . diam. vel 24-32 \times 22-27; soris teleutosporiferis conformibus, atro-

brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, subtiliter punctatis, brunneis 32-40 \times 20-25, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Hieracii albiflori, Falcon Valley, Washington (SUKSDORF), Hieracii spec., Lisson Cal. (HOLWAY).

116. **Puccinia variabilis** Grev. Scot. Crypt. Fl. 1823, tab. 75 et Fl. 1045 Edimb. p. 431 (1824), Syd. Ured. vol. I, p. 163. — *Æcidii* amphigenis, maculis minutis indeterminatis flavis v. purpureis hinc inde confluentibus insidentibus, solitariis v. perpaucis tantum aggregatis, cupulatis, humilibus, margine laciniato albido; *æcidiosporis* subglobosis v. ovatis, intus aurantiacis, verruculosis, 20-25 \times 15-20; *soris* uredosporiferis amphigenis, maculis minutissimis, flavis v. purpureis plerumque insidentibus, sparsis, minutis, punctiformibus, mox nudis, brunneis; uredosporis globosis, subglobosis vel ovatis echinulatis, brunneis, 22-32 \times 19-26; *soris* teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 28-40 \times 18-25, episporio tenui; pedicello hyalino, sporam subæquante, sed deciduo.

Hab. in foliis vivis Taraxaci officinalis, palustris, in Britannia, Italia et Suecia.

117. **Puccinia Willemetiæ** Bubák in *Æst. bot. Zeits.* 1902, pag. 95, 1046 Syd. Mon. Ured. vol. I, p. 183. — *Soris* uredosporiferis amphigenis, præcipue hypophyllis, maculis violaceo-purpureis minutis insidentibus, sparsis, minutissimis, punctiformibus, mox nudis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute brunneis 19-26 \times 17-23; *soris* teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, verruculosis, brunneis, 26-35 \times 19-24, episporio tenui; pedicello hyalino, tenui, sporam æquante, sed deciduo.

Hab. in foliis vivis Willemetiæ hieracioidis in Bohemia (BUBÁK).

118. **Puccinia sonchina** Syd. in *Revista Agronomica de Portugal*, 1047 1903, n. 10, p. 331. — *Soris* uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, irregulariter sparsis, minutis vel rarius confluendo mediocribus, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis,

subtiliter echinulatis, flavo-brunneis, 24-27 μ . diam. vel 24-32 \times 22-27; poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosis, brunneis, 30-45 \times 22-27, episporio tenui; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis v. languidis *Sonchi* spec., prope Beja Lusitaniæ. — An huc spectat *Uredo sonchina* Thuem., quæ viget in foliis *Sonchi arvensis* ad Orenburg Rossicæ? Uredosporæ duarum specierum non differunt, sed teleutosporæ in specie Thumeniana adhuc desiderantur.

119. **Puccinia tagananensis** Magnus Ber. d. deutsch. bot. Ges. XIX, 1048 1901, p. 297, pl. XIV, fig. 1-3. — Ab affini *P. Sonchi* specificè differret uredosoris tantum uredosporas nec teleutosporas commixtas præbentibus (sed, teste cl. Sydow, differentia nimis tenuis).

Hab. in foliis *Sonchi radicati*, in Algeria (?) et in foliis *Sonchi tenerrimi*, Tunis Africæ bor. (JUEL).

120. **Puccinia Podospermi** DC. Fl. franç. II, p. 595 (1805) et Syn. 1049 p. 46 (1806), Syd. Mon. Ured. vol. I, p. 133. — Pycnidiis epiphyllis; æcidiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revolutato; æcidiosporis globosis, subglobosis v. ellipsoideis, dense verrucosis, pallide aurantiacis, 20-30 μ . diam.; soris uredosporiferis amphigenis, maculis nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis, aculeatis, brunneolis, 24-32 \times 22-26; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis globoso-ellipsoideis vel ellipsoideis, utrinque rotundatis apice non incrassatis, medio non constrictis, verruculosis, castaneis, 27-40 \times 22-30; pedicello hyalino, brevi.

Hab. in foliis vivis *Podospermi calcitrapifolii*, Jacquiniæ, laciniati, in Germania, Austria, Helvetia, Gallia, Italia, Rossia.

121. **Puccinia Scorzonæræ** (Schum.) Jacky, in Composit. Puccin. p. 54 1050 (1899), Syd. Mon. Ured. vol. I, pag. 141, *Æcidium minutellum* Speg.: cfr. Sacc. Syll. VII, p. 774. — Pycnidiis epiphyllis; æcidiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revolutato; æcidiosporis globosis, subglobosis v. ellipsoideis, pallide aurantiacis, dense verrucosis, 20-30 \times 18-24; soris uredosporiferis amphigenis, maculis

nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis aculeatis, brunneolis, 20-32 \times 20-26; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovatis, apice rotundatis, non incrassatis, medio non v. vix lenissime constrictis, basi rotundatis v. attenuatis, subtiliter verruculosus, brunneis, 27-38 \times 17-26; pedicello hyalino, brevi.

Hab. in foliis vivis *Scorzoneræ austriacæ*, *hispanicæ*, *humilis*, *purpureæ*, in Germania, Austria, Hungaria, Italia, Gallia, Dania, Suecia, Rossia.

122. ***Puccinia scorzonericola*** Tranzsch. Ann. Mycol. 1904, p. 161. — 1051

Uredosoris primariis amphigenis, subcircinatis, pycnidia circumambientibus, epidermide rupta cinctis, brunneis, in maculis flavicantibus sitis; soris secundariis minutis, amphigenis sparsis, brunneis, senio ob teleutosporas atro-brunneis; uredosporis globosis v. ellipsoideis, 28-31 \times 23-30, membrana brunnea spinulosa, binis poris germinationis prædita; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, basi rotundatis vel breve attenuatis, septo non constrictis, 33-38 \times 21-24, membrana castanea, minute verrucosa, æquicrassa; poris germinationis in quaque cellula subcentralibus; pedicello tenui.

Hab. in foliis *Scorzoneræ humilis* in Belgio, Silesia, Italia, Fennia, Rossia. — *Puccinia Plantaginis* West. (et Bérang. in Herb. meo!) huc spectat, non tamen in *Plantagine* sed in *Scorzonera humili* viget. Cfr. Tranzs. l. c.

123. ***Puccinia Stephanomeriæ*** Syd. Mon. Ured. vol, I, p. 157, t. IX, 1052

f. 135. — Soris teleutosporiferis amphigenis v. cauliculis, sine maculis sparsis vel paucis aggregatis, ca. 1 mm. diam., rotundatis, pulverulentis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, echinulatis, brunneis, 30-35 μ . diam; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius leniter attenuatis, subtilissime verruculosus, brunneis, 35-52 \times 24-31, episporio tenui; pedicello hyalino, deciduo.

Hab. in foliis caulibusque *Stephanomeriæ cichoriacæ*, San Gabriel Mts. Californiæ (Mc CLATCHIE).

124. ***Puccinia Barkhausiæ-rhœadifoliæ*** Bubák (Ester. bot. Zeitschr. 1053

1902, n. 2, p. 42, Syd. Mon. Ured. vol. I, p. 65. — Pycnidiis inter æcidia sparsis, minutis, flavis, mox evanescentibus; æcidiis plerumque per totam foliorum superficiem inferiorem æque distri-

butis, rarius etiam paucis in epiphylo evolutis, minutis, humilibus, albido-flavis, margine leniter recurvato, subtiliter inciso; æcidiosporis angulato-globosis, ovatis v. ellipsoideis, subtiliter verruculosus, flavescentibus, 18-30 \approx 14-20; soris uredosporiferis amphigenis, maculis nullis vix distinctis insidentibus, sparsis rotundatis, mox nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, brunneis, 17-25 \approx 16-22; soris teleutosporiferis amphigenis, maculis plerumque nullis insidentibus, sparsis, minutis, punctiformibus, rotundatis, atro-brunneis v. atris, pulverulentis; teleutosporis ovatis, ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non v. leniter constrictis, basi rotundatis, punctatis, brunneis 26-42 \approx 20-30, episporio tenui; pedicello hyalino, tenui sporam æquante sed valde deciduo.

Hab. in foliis vivis *Crepidis* (*Barkhausiæ*) *rhœadifoliæ* ad Pragam Bohemiæ (BUBÁK).

125. **Puccinia canariensis** Syd. Mon. Ured. vol. I, p. 166. — Soris ¹⁰⁵⁴ uredosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, rotundatis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis globosis vel subglobosis, raro ellipsoideis, aculeatis, brunneis, 26-32 μ . diam.; soris teleutosporiferis conformibus, minutis v. mediocribus, ca. 0,5-1 mm. diam., atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, subtiliter verruculosus, obscure brunneis, 35-42 \approx 26-32, episporio ca. 2 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis *Thriniciæ nudicaulis*, pr. Funchal, ins. Madeira (BORNMÜLLER).

126. **Puccinia Cichorii** (D. C.) Bell. in Kickx. Fl. Fland. II, p. 65, ¹⁰⁵⁵ Syd. Mon. Ured. vol. I, 49. — Soris uredosporiferis amphigenis v. cauliculis, sparsis, interdum confluentibus, minutis, pulverulentis, epidermide lacerata cinctis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ . diam.; soris teleutosporiferis amphigenis v. cauliculis, conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, brunneis, 27-38 \approx 19-25, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis caulibusque *Cichorii Intybi*, *C. Endiviæ* (?) in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Britannia, Suecia

127. **Puccinia chondrillina** Bubák et Syd. in *Est. bot. Zeitschr.* 1901, 1056
n. 1, p. 7 et 1902, n. 2, p. 94, Syd. *Mon. Ured.* vol. I, p. 44:
cfr. Sacc. *Syll.* VII, p. 606, *P. Prenanthis* (Pers.) Fuck. p. p. —
Soridis uredosporiferis amphigenis, v. sæpe cauliculis, maculis mi-
nutis v. subnullis insidentibus, in folio sparsis, minutis, non con-
fluentibus, in caule sparsis v. sæpe aggregatis majoribus interdum
confluentibus et epidermide fissa cinctis, pulverulentis, cinnamo-
meis; uredosporis globosis, subglobosis v. ovatis, subtiliter echi-
nulatis, brunneis, 20-27 μ . diam. vel 24-30 \approx 16-24; soridis teleuto-
sporiferis plerumque cauliculis, rarius paucis etiam foliiculis, in
caule sæpe confluentibus, epidermide tectis vel ea fissa cinctis,
obscurioribus, minus pulverulentis; teleutosporis ellipsoideis vel
ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio
non v. parum constrictis subtilissime verruculosus, castaneis, 32-
42 \approx 19-27, episporio tenui, pedicello hyalino, tenui usque 40 μ .
longo, facile deciduo.

Hab. in foliis, petiolis caulibusque vivis *Chondrillæ jun-
cæ* in Germania, Bohemia, Italia, Gallia, Lusitania.

128. **Puccinia Cymboseridis** Syd. *Mon. Ured.* vol. I, p. 73, t. IV, f. 57 1057
— Soridis uredosporiferis amphigenis, sine maculis, sparsis v. ag-
gregatis, minutis, rotundatis v. irregularibus, epidermide fissa cin-
ctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis
v. ellipsoideis, echinulatis, dilute brunneis, 21-24 μ . diam. vel 24-
27 \approx 18-24; soridis teleutosporiferis conformibus, obscure castaneis;
teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis,
apice non incrassatis, medio non constrictis, punctatis, brunneis,
31-39 \approx 20-24, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis vivis *Cymboseridis palæstinæ* in monte
Carmel Palæstinæ (BORNMÜLLER).

129. **Puccinia aurata** Syd. in *Ann. Mycol.* 1904, pag. 349. — Soridis 1058
teleutosporiferis, hypophyllis, maculis depressis, obscuris, minutis
circ. 1-2 mm. diam. insidentibus, plerumque omnino in acervulum
1-2 mm. latum confluentibus et maculam totam explentibus, com-
pactis, ochraceo-flavis; teleutosporis oblongo-clavatis, apice rotun-
datis non vel vix incrassatis, medio non vel parum constrictis,
deorsum attenuatis, levibus, aureo-flavis, 45-60 \approx 14-21; pedicello
hyalino usque 40 μ . longo.

Hab. in foliis vivis *Compositæ* cujusdam indeterminatæ,
Derema Africae orient. trop. (A. KARASEK).

130. **Puccinia nervincola** Lagh. in Syd. *Mon. Ured.* vol. I, p. 190, 1059

tab. XI, fig. 172. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sparsis v. sæpius nervos sequentibus et tunc paucis aggregatis, plerumque rotundatis, ca. 1 mm. diam., compactiusculis, alutaceo-brunneolis; teleutosporis cylindricis vel cylindrico-clavatis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 19 μ ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, pallide flavis, 135-162 \times 14-22; pedicello subhyalino v. concolori, persistenti, curvulo, longissimo, usque 190 μ . longo, crasso, sæpe sporæ latitudine.

Hab. in foliis vivis Compositæ cujusdam, Panatanga Æquatoriæ (LAGERHEIM).

131. **Puccinia leuceriicola** Syd. Mon. Ured. vol. I, p. 118, tab. VI, 1060
f. 97. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 350-500 μ . diam., punctiformibus, compactiusculis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter verruculosus, flavis, 24-29 μ . diam.; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice obscurioribus, 32-50 \times 17-28; pedicello hyalino, crasso, persistenti, usque 60 μ . longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Leuceriæ oligocephalæ pr. Conception in Chile (NEGER).

132. **Puccinia Calyceræ-Cavanillesii** (Speg.) Sacc. et D. Sacc. *P. Calyceræ* Speg. Myc. arg. ser. II, 1902, p. 61, nec Sydow. — 1061
Acervulis cauli-foliicolis amphigenis, subrotundis, erumpenti-superficialibus, nudis, cinnamomeis, compactiusculis 0,3-1 mm. diam.; uredosporis ellipticis v. obovatis rufis, levibus, grosse 1-guttulatis, 24-30 \times 24-26; teleutosporis ellipticis vel obovatis apice obtusissimis, tunica ubique subtenui vestitis, ferrugineis, levibus, 28-40 \times 26-30, loculis grosse 1-guttulatis; pedicello hyalino fragilissimo 25-30 \times 5-7, paraphysibus præcipue marginalibus, linearibus 50-60 \times 5-6 donatis.

Hab. ad caules et folia Calyceræ Cavanillesii var. sinuatæ, Puente del Juca in Argentina.

133. **Puccinia Calyceræ** Syd. Mon. Ured. vol. I, p. 192, tab. XII, 1062
f. 174. — Soris uredosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, rotundatis v. ellipticis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneolis, 22-27 μ . diam.; soris te-

leutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosus, castaneis, 35-43 \times 24-30, episporio ca. 3 μ . crasso; pedicello hyalino, brevissimo.

Hab. in foliis petiolisque vivis Calyceræ sessilifloræ in Argentina (K. REICHE) et Chile (PHILIPPI).

134. **Puccinia melanosora** Speg. — Syll. VII, p. 710. — var **tigrensis** 1063

M. Pennington Ured. Paran. p. 4 (Anales Soc. Cien. Arg. 1902). — Maculis nullis vel indeterminatis; soris hypophyllis pulverulentis; uredosporis globosis, tunicatis, non echinulatis, 23-25 μ . diam.; teleutosporis cylindræis, leviter constrictis, fulvis, crasse tunicatis, 30-35 \times 20-25; pedicello brevissimo hyalino, 4 \times 2.

Hab. ad folia viva Acicarphæ tribuloidis in pratis pr. San Fernando et Tigre Brasiliæ. — Dimensionibus conspicue minoribus teleutosporarum et pedicellorum a typo recedere videtur.

135. **Puccinia Nastanthi** Speg. Mycet. argent. ser. II, 1902, p. 64. 1064

— Maculis nullis v. folio toto pallescenti-flavescente; acervulis amphigenis, majusculis, erumpentibus, subpulverulentis, atro-fulgineis; soris 0,5-1 mm. diam., applanatulis, sæpe confluentibus, epidermide disrupta cinctis; teleutosporis obovatis v. ellipticis obtusis, ubique subtenuiter tunicatis, intense fulvo-ferrugineis, levibus, ad septum non v. vix constrictis, 40-50 \times 22, loculis subæquilongis, rarius apice subcuneatis, pedicello hyalino, 10-25 \times 5-8 suffultis.

Hab. ad folia viva Nastanthi agglomerati, in summis andibus Las Cuevas, in Argentina. — Species *P. Gamocarpha* (Klotz.) Henn., nec non *P. Boopidis* Neg. affinis, sed ut videtur satis distincta.

136. **Puccinia Gilgiana** P. Henn. in Hedw. 1901, p. 95, Syd. Mon. 1065

Ured. vol. I, p. 194, tab. XII, f. 179. — Æcidiis petiolicolis v. calycicolis, partibus incrassatis leniterque deformatis insidentibus, hemisphærico-cupulatis, flavidis; æcidiosporis angulato-globosis, subtiliter verruculosus, flavidis, 15-20 μ . diam.; soris uredosporiferis cauliculis, gregariis, oblongis, epidermide fissa brunnea cinctis v. subtectis, subpulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, verruculosus, flavo-brunneis, 14-21 \times 12-18; soris teleutosporiferis conformibus, atris; teleutosporis clavatis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5 μ ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 32-46 \times 17-24; pedicello brunneolo, crassiusculo,

persistenti, 30-50 μ . longo; mesosporis oblongis v. oblongo-clavatis, 26-35 \times 16-22, apice magis incrassatis.

Hab. in petiolis, caulibus calycibusque vivis *Leschenaultiæ linarioidis* pr. Perth Australiæ occid. (PRITZEL).

137. **Puccinia Dampieræ** Syd. Mon. Ured. vol. I, p. 193, tab. XII, 1066 f. 178. — Soris teleutosporiferis in alis caulium evolutis sine maculis, sparsis vel aggregatis, rotundatis vel oblongis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis vel acutiusculis, valde incrassatis, 8-11 μ ., medio constrictis, deorsum attenuatis, rarius rotundatis, levibus, brunneis, 48-66 \times 16-26; pedicello flavido, persistenti, usque 80 μ . longo; mesosporis immixtis clavatis, 40-55 \times 14-22.

Hab. in alis caulium *Dampieræ alatae* in Australia (L. PREISS).

138. **Puccinia Ipomœæ-panduratae** (Schw.) Syd. Mon. Ured. vol. I, 1067 pag. 323, tab. XXII, fig. 312, *Æcid. Ipomœæ-panduratae* Schw. Syn. Fg. Carol. 1822, p. 69: cfr. Sacc. Syll. VII, p. 619, n. 2186, p. 671, n. 2322, p. 716, n. 2503. — *Æcidiis* hypophyllis, maculis flavidis v. flavo-brunneis orbicularibus v. irregularibus insidentibus, rarius epiphyllis, in greges rotundatos vel irregulares 1-3 mm. latos confertis, rarius solitariis, primo tectis, globulosis, subglobosis v. ellipsoideis, minutissime asperulis, flavidis, 20-24 μ . diam. vel usque 26 μ . longis, 14-16 μ . latis; soris teleutosporiferis amphigenis, *æcidiis* sæpe contraposis, suborbicularibus vel irregularibus, mediocribus vel majusculis, confluentibus et tunc usque 4 mm. latis, pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis apice in papillam obtusam pellucidam productis, medio vix vel leniter constrictis, basi rotundatis, grosse verrucosis, castaneo-brunneis, 42-62 \times 22-32; pedicello hyalino, apice infuscato, persistenti, crasso usque 170 μ . longo.

Hab. in foliis vivis *Ipomœæ acuminatae*, *commutatae*, *lacunosæ*, *megapotamiæ*, *panduratae*, *purpureæ*, *trichocarpæ*, *trilobæ* in America bor. et austr.

139. **Puccinia commutata** Syd. Mon. Ured. vol. I, p. 201: cfr. Sacc. 1068 Syll. vol. VII, p. 669, *P. Valerianæ* Carest. p. p. — *Æcidiis* hypophyllis, petiolicolis v. cauliculis, in foliis greges orbiculares v. irregulares efformantibus, in petiolis caulibusque secus series plus minusve longas dispositis, maculis pallidis insidentibus, dense confertis, cupulatis, margine albo lacerato revoluto; *æcidiosporis* polygonis, subtiliter verrucosis, aurantiacis, 14-19 μ . diam.; soris te-

leutosporiferis hypophyllis, petiolicolis v. cauliculis, in foliis sparsis v. aggregatis, subinde confluentibus, minutis, in petiolis caulibusque plerumque dense confertis confluentibusque et pustulas plus minusve longas efformantibus pulverulentis, fusco-brunneis; teleutosporis difformibus, oblongis, subfusoides v. subclavatis, apice modice incrassatis, rotundatis v. subconoideo-attenuatis, medio non v. parum constrictis, basi attenuatis, raro rotundatis, levibus, castaneo-brunneis, 40-60 \times 20-35; pedicello hyalino, deciduo, longiusculo.

Hab. in foliis, petiolis caulibusque vivis Valerianæ officinalis, tripteris, sambucifoliæ in Germania, Austria, Italia, Helvetia, Belgio, Rossia.

140. **Puccinia Anthospermi** Syd. Mon. Ured. vol. I, p. 206. — Soris 1069 teleutosporiferis hypophyllis, maculis minutis ca. 2 mm. diam, griseo-brunneis insidentibus, minutis, rotundatis, paucis aggregatis v. in unum omnino confluentibus, compactiusculis, cinnamomeo-brunneis; teleutosporis oblongis, apice rotundatis et non v. vix incrassatis vel conico-attenuatis et tunc usque 9 μ . incrassatis, medio valde constrictis, basi plerumque attenuatis, rarius rotundatis, levibus, flavis, 35-46 \times 16-21, episporio tenui; pedicello hyalino, usque 30 μ . longo.

Hab. in foliis vivis Anthospermi hirti in Capite Bonæ Spei Africæ austr. (SIEBER).

141. **Puccinia Bouwardiæ** Griffiths in Bull. of the Torr. Bot. Club. 1070 1902, p. 297, cum icone. — Soris teleutosporiferis epiphyllis, interdum sæpe hypophyllis, circularibus, sparsis, prominentibus, nigris, erumpentibus dein evanidis; teleutosporis subellipticis inferne rotundatis, superne luteo-umbonato-apiculatis, ad septum subconstrictis, 36-46 \times 23-28, episporio crasso, tuberculato, brunneo donatis; pedicello persistenti crassiusculo 80-100 μ . longo, superne incrassatulo.

Hab. in foliis Bouwardiæ triphyllæ, in montibus Santa Catalina, Arizona, Amer. bor. — Probabiliter stat. teleut. *Æcidii Bouwardiæ* Diet.

142. **Puccinia Borreriæ** Syd. Mon. Ured. vol. I, pag. 209. — Soris 1071 teleutosporiferis hypophyllis, maculis indeterminatis brunneolis insidentibus, sparsis v. laxè aggregatis, minutis, rotundatis, compactis, atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongo-ovatis, apice rotundatis, minoribus vix vel leniter incrassatis, majoribus plerumque magis incrassatis, usque 11 μ ., me-

dio non v. vix constrictis, basi rotundatis, levibus, brunneis, 24-41 \approx 16-24, episporio subtenui, ca. 2 μ . crasso; pedicello apice brunneolo, tenui, persistenti, usque 100 μ . longo, vix oblique inserto.

Hab. in foliis vivis *Borreriæ angustifoliæ* ad fluv. Longa Africæ aust. (BAUM).

143. **Puccinia Houstoniæ** Syd. in Hedw. 1901, p. 26, Mon. Ured. 1072 vol. I, p. 222, tab. XIII, f. 200. — Soris teleutosporiferis hypophyllis, maculis flavidis v. brunneolis determinatis v. indeterminatis insidentibus, minutis, sparsis v. plerumque dense aggregatis et subinde confluentibus, rotundatis, pulvinatis, primo flavidis, dein flavo-brunneis, tandem brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, incrassatis 4-7 μ ., medio non vel vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 32-45 \approx 16-24, episporio tenui; pedicello hyalino, crasso, persistenti, usque 75 μ . longo.

Hab. in foliis vivis *Houstoniæ angustifoliæ*, Austin, Texas Americæ bor. (LONG).

144. **Puccinia Operculariæ** Syd. Mon. Ured. vol. I, p. 224, tab. XIV, 1073 f. 203. — Soris teleutosporiferis hypophyllis, maculis orbicularibus fusco-griseis usque 5 mm. diam., insidentibus, solitariis v. paucis in quaque macula aggregatis, minutis, rotundatis, compactis, rufo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, rarius truncatis v. leniter acutiusculis, incrassatis, usque 8 μ ., medio constrictis, basi rotundatis v. attenuatis, levibus, flavis 35-54 \approx 14-20; pedicello hyalino, firmo, usque 100 μ . longo.

Hab. in foliis vivis *Operculariæ asperæ*, Genoa River Australiæ (F. v. MÜLLER).

145. **Puccinia Otiophoræ** Syd. Mon. Ured. vol. I, p. 224, tab. XIV, 1074 f. 204. — Soris teleutosporiferis hypophyllis, maculis minutis 1-2 mm. diam. rotundatis, depressulis brunneis insidentibus, sparsis, non confluentibus, rotundatis $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., compactis, cinnamomeis; teleutosporis clavulatis, apice rotundatis, non incrassatis, medio constrictis, basi attenuatis, levibus, hyalino-flavescentibus 35-43 \approx 10-16, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante.

Hab. in foliis vivis *Otiophoræ subcapitatae*, Andrango-loaka ins. Madagascar cent. (J. M. HILDEBRANDT).

146. **Puccinia Pentanisiæ** Cooke — Syll. VII, p. 645. — var. **Pentagynæ** P. Henn. in Bot. Ergebn. der Kunene-Sambesi Expedit. 1075

pag. 3 (1902), Syd. Mon. Ured. Mon. Ured. vol. I, p. 225. — Teleutosporis longe pedicellatis, pedicello usque 90 μ . longo. Cetera typi.

Hab. in foliis vivis Pentanisiæ pentagynæ, ad flum. Kubango Africae austr. (BAUM).

147. **Puccinia rubiivora** P. Magn. in Ber. Deuts. Bot. Ges. 1901, 1076 p. 297, tab. XIV, fig. 4-16, Syd. Mon. Ured. vol. I, p. 227. — Æcidiis hypophyllis, maculis rufo-brunneis insidentibus, in greges minutos paucis laxè dispositis, cupulatis, margine inciso albido; æcidiosporis globoso-angulatis, verruculosis, flavidis, 22-29 \times 16-25; soris teleutosporiferis epiphyllis, sine maculis, sparsis v. subinde binis trinis dispositis, ca. 1 mm. diam., pulverulentis, atris; teleutosporis variabilibus, plerumque ovato-oblongis v. oblongis, apice rotundatis, truncatis v. obtuse et oblique acuminatis, non v. vix incrassatis, medio non vel parum constrictis, basi rotundatis vel attenuatis, punctulatis, brunneis, 30-60 \times 20-32; pedicello hyalino, persistenti, crasso, usque 70 μ . longo.

Hab. in foliis vivis Rubiæ fruticosæ pr. Tafira, Gran Canaria ins. Canar. (BORNMÜLLER).

148. **Puccinia rubiicola** Syd. Mon. Ured. vol. I, p. 226, tab. XIV, 1077 f. 207. — Soris uredosporiferis epiphyllis, maculis indeterminatis flavo-brunneolis insidentibus, sparsis, minutis, epidermide fissa cinctis, subpulverulentis, cinnamomeis; uredosporis globosis vel ovatis, echinulatis, flavo-brunneis, 26-30 μ . diam. vel 30-36 \times 22-25, episporio ca. 3 μ . crasso; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis oblongis v. clavatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ ., medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneis, 35-54 \times 12-19; pedicello hyalino, tenui, fragili, usque 60 μ . longo.

Hab. in foliis Rubiæ discoloris in Abyssinia (SCHIMPER).

149. **Puccinia Galii-elliptici** R. Maire in Bull. Soc. Bot. de France 1078 année 1904, pag. 215. — Soris amphigenis, præcipue hypophyllis, in maculis purpureis arescentibus insidentibus, minutis, rotundatis, pulvinatis, cinnamomeo-brunneis; uredosporis globosis v. ovoideis; episporio aculeato, brunneo, duobus, rarius tribus, poris prædito, 20-30 \times 20-26; teleutosporis in soris uredosporiferis mox evolutis, clavatis vel clavato-oblongis, medio constrictis, loculo superiore apice rotundato vel retuso, 7-8 μ . incrassato, poro germinationis subapicali prædito, brunneis, 37-60 \times 20-28; pedicello hyalino spora sæpius brevior, circiter 40-50 \times 6-9.

Hab. in foliis vivis Galii-elliptici, prope Sartena Corsicæ.

150. **Puccinia syriaca** Syd. Mon. Ured. vol. I, pag. 211, tab. XIII, 1079
f. 194 (Rov. 1902), *Pucc. ansata* Lindr. in Act. Soc. Faun. et Fl. fenn. 1902 Dec., pag. 17. — Soris hypophyllis v. cauliculis, sine maculis, sparsis, solitariis, rotundatis v. oblongis, ca. 1 mm. longis, epidermide cinerea diu tectis, pulverulentis, atro-brunneis; uredosporis subglobosis, tenuiter spinulosis, 18-23 \times 16-22, poris 3-5; teleutosporis difformibus, ellipsoideis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5 μ . medio parum constrictis, basi plerumque rotundatis, levibus, brunneis, 30-40 \times 20-30; pedicello tenui hyalino, brevi, subdeciduo.

Hab. in foliis caulibusque Crucianellæ syriacæ, macrostachyæ in Syria (HAUSSKNECHT), Crucianellæ græcæ, distichæ in Græcia et Phrygia (HELDREICH, BALANSA).

151. **Puccinia asperulina** (Juel) Lagh. apud Vestergr. Microm. rar. 1080
selecti n. 258 (1901), Syd. Mon. Ured. vol. I, p. 207: cfr. Sacc. Syll. XIV, p. 381, *Æcidium asperulinum* Juel. — Æcidiis præcipue hypophyllis, sæpe per totam superficiem foliorum æque sparsis, folia infecta flavida reddentibus, cupulato-cylindræis, margine profunde lacerato, albido, recurvato; æcidiosporis globosopolygoniis, verruculosis, hyalino-flavescentibus, 15-20 μ . diam.; soris uredosporiferis hypophyllis, paucis, sparsis, minutissimis, dilute brunneis; uredosporis globosis, subglobosis v. ovato-ellipsoideis, subtilissime echinulatis, flavis, 22-28 \times 18-24; soris teleutosporiferis hypophyllis, paucis, sparsis, minutissimis, pulverulentis, diutius epidermide tectis, brunneis; teleutosporis subcutaneis, oblongo-clavatis v. clavatis, apice rotundatis v. interdum truncatulis, non v. lenissime incrassatis, medio vix v. leniter constrictis, basi attenuatis, levibus, flavo-brunneolis, 40-50 \times 15-26, episporio tenuissimo; pedicello flavido brevi.

Hab. in foliis vivis Asperulæ tinctoriæ in Suecia et Rossia.

152. **Puccinia dimorpha** Syd. Mon. Ured. vol. I, p. 227, tab. XIV, 1081
f. 208. — Soris teleutosporiferis hypophyllis v. rarius amphigenis, sparsis v. circinatim dispositis, 1-2 mm. diam, mox nudis, obscure castaneo-brunneis, in caule pulviniformibus oblongis v. elongatis crassioribus; teleutosporis clavatis, apice rotundatis vel raro acutiusculis, valde incrassatis, usque 13 μ . et obscurioribus, medio constrictis, basim versus in pedicellum attenuatis, levibus, brunneolis 45-75 μ . longis, loculo superiore subgloboso vel raro ellipsoideo

20-34 μ . lato, inferiore 19-24 μ . lato; pedicello hyalino, firmo, crasso, usque 68 μ . longo.

Hab. in foliis caulibusque vivis Rubiæ petiolaris pr. Boschberg Africæ australis (MAC OWAN).

153. **Puccinia Blepharidis** P. Henn. Bot. Ergeb. der Kunene-Sambesi 1082
Exped. p. 2 (1902), Syd. Mon. Ured. vol. I, p. 231. — *Æcidiis* plerumque hypophyllis, maculis indeterminatis flavidis v. fuscidulis insidentibus, sparsis v. sæpius paucis laxè orbiculariter dispositis, cupulatis, margine fimbriato; *æcidiosporis* angulato-globosis, punctatis, flavidis, 15-22 \approx 12-19; *soris* teleutosporiferis amphigenis, sæpius epiphyllis, interdum *æcidiis* intermixtis, sparsis v. paucis irregulariter laxèque aggregatis v. suborbiculariter dispositis, minutis, epidermide bullata diutius tectis, compactis, atro-brunneis; teleutosporis variabilibus, ovato-oblongis v. oblongo-clavatis, apice rotundatis v. rarius acutiusculis, plus minusve incrassatis 5-11 μ ., medio non v. leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 35-58 \approx 18-28; pedicello brunneo persistenti, crassiusculo, sporam æquante; mesosporis subinde paucis immixtis.

Hab. in foliis vivis Blepharidis Buchneri pr. Manouge Africæ austr. (BAUM).

154. **Puccinia Anisacanthi** Diet. et Holw. in Bot. Gaz. XXXI, p. 329, 1083
1901, Syd. Mon. Ured. vol. I, p. 230, tab. XIV, f. 211. — *Soris* uredosporiferis amphigenis, sparsis, minutis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, remote echinulatis, flavo-brunneis, 22-28 \approx 16-24, poris germinationis binis instructis; *soris* teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, sæpe apice papillato-incrassatis, medio vix vel leniter constrictis, verrucosis, obscure castaneo-brunneis, 36-48 \approx 24-32, episporio ca. 2,5 μ . crasso, cellula inferiore interdum sub septo etiam papillula lata instructa; pedicello hyalino, crasso flexuoso, subinde laterali, usque 110 μ . long.

Hab. in foliis Anisacanthi (Wrightii?) pr. Acamboro, Mexico (HOLWAY).

155. **Puccinia Ruelliæ-Bourgæi** Diet. et Holw. in Bot. Gaz. XXXI, 1084
p. 329, 1901, Syd. Mon. Ured. vol. I, p. 235, t. XV, f. 216. — *Æcidiis* in greges irregulares secus venas dispositis; *æcidiosporis* globosis v. ellipsoideis, sæpe angulosis, verrucosis, apice valde incrassatis, flavescens, 25-38 \approx 20-26; *soris* uredosporiferis punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis; 21-26 μ diam.; *soris* teleuto-

sporiferis conformibus, atro-brunneis, teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, verrucosis, atro-brunneis, 32-40 \times 24-31; pedicello hyalino, flexuoso, persistenti, firmo, crasso, usque 95 μ . longo, sæpe oblique inserto.

Hab. in foliis vivis *Ruellia* *Bourgæi*, Chapala, Mexico (HOLWAY).

156. **Puccinia Longiana** Syd. in Hedw. 1901, p. 126 et Mon. Ured. 1085 vol. I, p. 234. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, minutis punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, flavo-brunneis, 22-28 μ . diam.; soris teleutosporiferis conformibus, epidermide fissa cinctis, atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, plerumque leniter incrassatis, usque 5 μ ., medio non v. lenissime constrictis, basi rotundatis, subtilissime verrucosis v. tantum punctatis, obscure castaneo-brunneis, 33-48 \times 24-32; pedicello hyalino, crasso, sæpe oblique inserto, usque 40 μ . longo.

Hab. in foliis vivis *Ruellia* *tuberosæ* (?) Austin, Texas (LONG).

157. **Puccinia exitiosa** Syd. et Holw. in Syd. Mon. Ured. vol. I, 1086 p. 245. — Soris teleutosporiferis hypophyllis vel sæpe gemmas et calyces ex toto tegentibus, in folio (ut videtur) rotundatis v. ovatis, ca. 2-4 mm. longis, in gemmis calycibusque plerumque late extensis et confluentibus pulverulentis, cinnamomeo-brunneis; teleutosporis valde regularibus, ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, usque 3 μ ., medio non v. parum constrictis, verrucosis, brunneis, 28-33 \times 16-21; pedicello hyalino, brevissimo.

Hab. in foliis, gemmis calycibusque *Tecomæ mollis*, Patzcuaro, Mexico (HOLWAY).

158. **Puccinia appendiculatoides** P. Henn. Fungi Amaz. I, p. 186, 1087 Hedw. 1904. — Maculis rotundatis vel effusis, brunneolis; uredosporis minutis, flavidulis; uredosporis subglobosis vel ellipsoideis, subcastaneis, verrucosis 30 \times 20 μ .; teleutosporis hypophyllis aggregatis, pulverulentis, ferrugineis; teleutosporis late ellipsoideis vel subcuboideis, utrinque rotundatis vel applanatis, apice vix incrassatis, papilla hyalina subhemisphærica ca. 3 μ . ornatis, dense grosse verrucosis, medio 1-septatis constrictis, castaneis, 30-38 \times 22-26 μ .; pedicello hyalino vel flavido, tereti, ca. 40-60 \times 4-4 $\frac{1}{2}$ μ ., ad

basin appendiculis hyalinis versiformibus, repetito lobatis vel subpalmatifidis.

Hab. in foliis *Bignoniæ* cujusdam, Rio Juruá, Miry Amer. merid. — Affinis *P. appendiculatæ* sed teleutosporis minoribus hyalino-apiculatis recedit.

159. **Puccinia Memoræ** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904) 1083

— Maculis flavidulis vel fuscidulis, parvis vel indeterminatis; soris hypophyllis sparsis vel subgregariis, minutis, hemisphæricis, diutius tectis, flavidulis; uredosporis subglobosis, brunneis, aculeatis, 18-24 μ .; teleutosporis subellipsoideis, articulis globosis, facile secedentibus, apice rotundatis haud incrassatis, brunneis, episporio castaneo levi, tenui; pedicello ca. 12 \times 4, hyalino.

Hab. in foliis *Memoræ* (*Bignoniaceæ*) spec., Perù, Rio Hualaga, Tarapoto, Amer. merid.

160. **Puccinia Gerardiæ** Syd. Ann. Mycol. 1903, p. 18. — Soris teleu- 1089

tosporiferis foliicolis v. cauliculis, minutis, in foliis aggregatis et ea plerumque incurva reddentibus, ut videtur, in caulibus, in greges irregulares v. elongatos usque 6 mm. longos dispositis, compactiusculis, atro-brunneis; teleutosporis ellipsoideis, ovatis v. oblongis, apice plerumque rotundatis, incrassatis, usque 8 μ ., medio constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 28-42 \times 15-20; pedicello subhyalino, persistenti, crassiusculo, usque 80 μ . longo.

Hab. in foliis caulibusque *Gerardiæ tenuifoliæ*, Mount Carmel, Illinois Americæ bor. (M. B. WAITE).

161. **Puccinia Adenostegiæ** Arthur in Bull. of the Torr. Bot. Club 1090

1902, pag. 231. — Soris teleutosporiferis caulinis, in circulum dispositis, erumpentibus, subnudis; teleutosporis oblongis, 15-22 \times 45-67, ad septum paullo constrictis, apice obtusis, acutis v. acuminatis, crasse tunicatis, basi parce constrictis, pedicello exili, interdum colorato, sporæ æquilongo vel breviori donatis.

Hab. in foliis *Adenostegiæ pilosæ* (= *Cordylanthus*) prope Stanford, Cal., Amer. bor.

162. **Puccinia Ederi** Blytt in Christiani Vidensk Selsk. Forhand. 1091

1896, n. 6, p. 54, Syd. Mon. Ured. vol. I, p. 250, tab. XVI, f. 237.

— Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis v. mediocribus, ca. 1-1 $\frac{1}{2}$ mm. diam., sed ægre conspicuis, epidermide diutius tectis, rotundatis, tandem liberis vel subliberis, pulverulentis, castaneis; teleutosporis oblongis v. subfusoides, apice rotundatis v. attenuatis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, subtiliter verruculosus, flavo-brun-

neis, 30-38 \times 11-15; pedicello hyalino, gracili, deciduo, usque 25 μ . longo.

Hab. in foliis vivis *Pedicularis Œderi* in Norvegia (BLYTT, C. BOCK).

163. **Puccinia Veronicæ** Schroet. Pilze Schles. 1889, p. 347, Syd. Mon. 1092
Ured. vol. I, p. 256. — Soris teleutosporiferis hypophyllis, maculis orbicularibus brunneis insidentibus, minutis, sparsis v. orbiculatim dispositis, rotundatis, initio flavo-brunneis, dein brunneis; teleutosporis fusoides, apice plerumque rotundatis, incrassatis, usque 5 μ ., medio non v. vix constrictis, basi attenuatis, levibus, flavescentibus v. dilutissime brunneolis, 28-36 \times 10-12; pedicello hyalino, persistenti, teleutosporam æquante vel ea brevior.

Hab. in foliis vivis *Veronicæ montanæ* in Germania, Austria, Britannia, Belgio, Dania.

164. **Puccinia Cestri** Diet. et P. Henn. in Hedw. 1902, p. 295, Syd. 1093
Mon. Ured. vol. I, p. 262. — Soris teleutosporiferis hypophyllis, maculis fuscidulis rotundatis insidentibus, sparsis, primo tectis, brunneolis, dein nudis, citrinis, rotundato-discoideis, majusculis, ca. 1-2,5 mm. diam., ceraceis; teleutosporis subfusoides v. fusoides-clavatis, apice subrotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi attenuatis, levibus, hyalino-flavescentibus, 60-100 \times 11-16, episporio tenuissimo; pedicello primo brevi, dein plus minusve elongato et usque 200 μ . longo, crasso, hyalino, fistuloso, persistenti.

Hab. in foliis vivis *Cestri spec.*, Serra da Cantareira, San Paulo Brasiliæ et in Æquatoria.

165. **Puccinia turgida** Syd. Mon. Ured. vol. I, p. 266, tab. XVII, 1094
f. 250. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, ca. $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., orbicularibus, punctiformibus, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis ovatis v. ellipsoideis, aculeatis, flavis, 35-43 \times 14-27; soris teleutosporiferis conformibus, atro-brunneis, teleutosporis ellipsoideis, apice rotundatis, rarissime leniter acutiusculis, non incrassatis, medio vix constrictis, basi rotundatis, dense verrucosis, opacis, atro-brunneis, 40-55 \times 28-37, episporio 4-5 μ . crasso; pedicello hyalino, crasso, cylindrico, medio subito usque ad basim valde inflato, hinc parte inferiori omnino globosa, toto 50-60 μ . longo interdum oblique inserto.

Hab. in foliis vivis *Lycii europæi*, Jericho Palæstinæ (BORN-MÜLLER).

166. **Puccinia imitans** Syd. Mon. Ured. vol. I, p. 273, tab. XVIII, 1095
f. 261. — Soris teleutosporiferis hypophyllis, per totam superficiem æque distributis v. in greges rotundatos v. irregulares confertis et tunc sæpe maculis flavis insidentibus, minutis, nudis, compactis, pulvinatis, atro-brunneis; teleutosporis variis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ ., medio plerumque leniter constrictis, basi rotundatis v. attenuatis, levibus, dilute flavo-brunneis, 30-48 \approx 15-24; pedicello hyalino, persistenti, crassiusculo, usque 100 μ . longo.
Hab. in foliis vivis Solani spec. prope Quito Æquatoriae (LAGERHEIM).
167. **Puccinia huallagensis** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1096
1904). — Maculis atroferrugineis rotundatis; soris hypophyllis, aggregato-compactis, cinnamomeis vel fuscis; teleutosporis clavatis, apice rotundatis, paulo usque ad 4 μ . incrassatis, medio 1-septatis, constrictis, 30-40 \approx 15-23, episporio subtenui, levi, brunneo; pedicello brevi vel elongato, hyalino-fuscidulo, 4-5 μ . crasso.
Hab. in foliis Solani spec., Perù, Cerro de Ponasa, Amer. merid. — Affinis *P. claviformi* sed soris compactis, sporis, proportionem angustioribus diversa.
168. **Puccinia Pittieriana** P. Henn. F. Costaric. und Par. p. 147 (Hedw. 1097
1904). — Maculis fuscidulis sparsis, soris hypophyllis pulvinatis, aggregatis, ferrugineis; teleutosporis ellipsoideis, ovoideis vel subcuboideis, apice rotundatis vel applanatis, paulo, interdum usque ad 5 μ ., incrassatis, medio 1-septatis haud vel paulo constrictis, 20-30 \approx 16-22 μ ., episporio flavobrunneo, levi, pedicello usque ad 60 \approx 6 μ ., hyalino-flavido; mesosporis ovoideis vel subclavatis 20-25 \approx 13-18 μ . intermixtis.
Hab. in foliis Solani tuberosi, Vulkan Irazu, Costarica Amer. centr. (PITTIER). — *P. Negerianæ* affinis, sed sori aliter efformati, mesosporæ præsentibus etc.
169. **Puccinia Chamæsarachæ** Syd. Mon. Ured. vol. I, p. 263, t. XVII, 1098
f. 247. — Æcidiis hypophyllis, rarius paucis etiam epiphyllis, irregulariter sparsis vel sæpe totam paginam folii occupantibus, sed in greges haud dispositis, cupulatis, albidis, margine lacerato; æcidiosporis subglobosis v. angulatis, verruculosus, hyalino-flavescentibus, 18-22 μ . diam.; soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sine maculis, plerumque totam superficiem foliorum occupantibus, minutis, valde pulverulentis, viola-

ceo-brunneis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, levibus, brunneis, 27-40 \times 16-22; pedicello hyalino, tenui, fragili, usque 55 μ . longo.

Hab. in foliis petiolisque vivis *Chamæsarachæ nanæ* in Nevada et California Americæ bor.

170. **Puccinia ballotæflora** Long in Bull. Torr. Bot. Cl. 1902, p. 116, 1099
f. 7, Syd. Mon. Ured. vol. I, p. 294. — Soris teleutosporiferis plerumque hypophyllis, sparsis, minutis, usque 1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis vel ovatis, echinulatis, dilute brunneis, 20-28 μ . diam.; teleutosporis ovato-ellipsoideis v. ellipsoideis, apice papilliformiter incrassatis, medio leniter constrictis, verrucosis, castaneo-brunneis, 37-50 \times 24-30; pedicello hyalino, apice fulvo, usque 90 μ . longo, sæpe oblique inserto.

Hab. in foliis vivis *Salviæ ballotæfloræ*, San Marcos, Texas Americæ bor. (LONG). — Affinis *P. farinaceæ*. Septum sæpe obliquum; mesosporæ rariores.

171. **Puccinia bithynica** P. Magn. in Syd. Mon. Ured. vol. I, p. 295, 1100
tab. XIX, f. 281. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, maculis indeterminatis flavis insidentibus, subinde petiolicolis, minutis, rotundatis, aliis sparsis v. solitariis, aliis in greges rotundatos v. irregulares 2-5 mm. latos aggregatis et subinde subconfluentibus, compactis, atris; teleutosporis oblongis, forma et præcipue magnitudine variabilibus, plerumque utrinque rotundatis, apice valde incrassatis, usque 14 μ ., medio constrictis, levibus, brunneis, apice obscurioribus, 38-62 \times 16-28, rarius usque 32 μ . latis; pedicello hyalino, crasso persistenti, usque 130 μ . longo.

Hab. in foliis vivis *Salviæ pomiferæ* pr. Kissamos ins. Cretæ (REVERCHON), *S. bithynicæ* pr. Brussa Bithyniæ (BORN-MÜLLER), *S. grandifloræ* in Rossia.

172. **Puccinia farinacea** Long in Bull. Torr. Bot. Cl. 1902, p. 115, 1101
f. 6, Syd. Mon. Ured. vol. I, p. 293, tab. XX, f. 277. — Soris uredosporiferis amphigenis, maculis nullis v. vix manifestis insidentibus, sparsis, minutis, ca. $\frac{1}{2}$ - $\frac{3}{4}$ mm. diam., rotundatis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, dilute brunneis, 19-27 μ . diam.; soris teleutosporiferis conformibus, ca. $\frac{3}{4}$ -1 mm. diam., atris; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice leniter incras-

satis, usque 3 μ ., medio non constrictis, subtiliter, præcipue apicem versus, verrucosis, obscure brunneis, 24-35 \times 22-30; pedicello hyalino, firmo crassiusculo, usque 70 μ . long.

Hab. in foliis vivis *Salviæ farinacææ*, Austin, Texas Americæ bor. (LONG).

173. **Puccinia Gillesii** Speg. Myc. Arg. Ser. I, in Ann. Soc. Cient. 1102 Arg. 1899, p. 265. — Maculis nullis; acervulis amphigenis, sparsis, rarius pauci-gregariis sed non confluentibus, difformibus, 0,5-1,5 mm. diam., erumpenti-prominulis, aterrimis, subpulverulentis; teleutosporis ellipticis vel subovatis, 40-45 \times 30, medio 1-septatis non v. vix constrictis, episporio crassiusculo apice leniter umbo-nato et sublevi, ceterum dense majusculeque papilloso vestitis, subopace atro fuligineis, pedicello hyalino crassiusculo, 50-75 \times 6-8 subpersistente fultis.

Hab. in foliis vivis *Salviæ Gillesii* pr. Córdoba Argentinae.

174. **Puccinia griseola** Lagh. in Syd. Mon. Ured. vol. I, pag. 296, 1103 tab. XX, fig. 283. — Soris teleutosporiferis hypophyllis, maculis nullis vel vix distinctis insidentibus, sparsis, solitariis, minutis, rotundatis, compactis, pallidis, griseo-flavidis; teleutosporis oblongo-clavatis vel clavatis, apice plerumque rotundatis, incrassatis, 2-6 μ ., medio constrictis, basim versus attenuatis, levibus, hyalinis v. subhyalinis 40-68 \times 12-19; pedicello hyalino brevi.

Hab. in foliis vivis *Salviæ spec*, San Jorge Æquatoriae (LAGERHEIM).

175. **Puccinia mitrata** Syd. Mon. Ured, vol. I, p. 294, tab. XIX, 1104 f. 279. — Soris teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis v. interdum subgregariis, minutis, $\frac{1}{2}$ -1 mm. diam., pulverulentis, atro-brunneis; uredosporis immixtis, plerumque globosis, dense valideque aculeatis, brunneis 18-22 μ . diam.; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice papilla lata humili dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, 30-42 \times 26-32, episporio ca. 5 μ . crasso; pedicello hyalino, persistenti, crasso, deorsum tenuiore, usque 90 μ . longo, flexuoso.

Hab. in foliis vivis *Salviæ mexicanæ*, Patzcuaro, Mexico (SELER).

176. **Puccinia obesa** Syd. Mon. Ured. vol. I, pag. 289, tab. XIX, 1105 fig. 272. — Æcidiis hypophyllis v. petiolicolis, in folio maculis minutis brunneolis insidentibus solitariis v. paucis tantum aggregatis, in petiolo sæpe deformato et incrassato curvatoque compluribus

laxe aggregatis, cylindræis, aliis margine revoluto profunde inciso; æcidiosporis globosis v. subglobosis, verrucosis, subhyalinis 24-32 μ . diam., episporio crasso ca. 3 μ .; soris uredosporiferis epiphyllis, singulis interdum hypophyllis, sine maculis, sparsis, rotundatis $\frac{1}{2}$ -1 $\frac{1}{2}$ mm. diam., ferrugineis; uredosporis globosis vel subglobosis, remote aculeatis, flavis, 28-36 μ . diam., episporio cr. 6-7 μ .; soris teleutosporiferis, rufo-ferrugineis; teleutosporis subglobosis v. late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, castaneo-brunneis, verrucis planis instructis, 40-46 \approx 31-36, episporio crasso, ca. 9 μ .; pedicello hyalino, persistenti, crassiusculo, usque 80 μ . longo.

Hab. in foliis petiolisque vivis *Salviæ Gillesii* in prov. Córdoba Argentinæ (HIERONYMUS): = *Puccinia Gillesii* Lagh.

177. **Puccinia rœsteliiformis** Lagh. in Syd. Mon. Ured. vol. I, p. 292, 1106
tab. XIX, fig. 275. — Æcidiis hypophyllis, maculis indeterminatis brunneolis insidentibus, solitariis, longe cylindræis, usque 2,5 mm. long., albis, margine lacerato; æcidiosporis globosis, subglobosis v. ellipsoideis, grosse verrucosis, subhyalinis, 27-38 μ . diam.; soris teleutosporiferis hypophyllis, eisdem maculis insidentibus, sparsis, vix confluentibus, minutis, rotundatis, compactiusculis, subtremelloideis, cinnamomeis; teleutosporis longe cylindræis, apice rotundatis, incrassatis, 2,5-6 μ ., medio leniter constrictis, basi plerumque truncato-rotundatis, levibus, flavescentibus, 100-162 \approx 16-25; pedicello hyalino, persistenti, sporæ crassitudine, longissimo. usque 200 μ . longo.

Hab. in foliis vivis *Salviæ spec.*, Guayrascaja Æquatoris (LAGERHEIM).

178. **Puccinia Salviæ** Ung. Einfl. des Bodens etc. 1836, p. 218, Syd. 1107
Mon. Ured. vol. I, p. 296, *Pucc. Salviæ-glutinosa* Ces. in Sacc. Myc. ven. n. 130: cfr. Sacc. Syll. VII, p. 688, n. 2374, p. p. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus indeterminatis, centro brunneis sæpe flavo-cinctis insidentibus, sparsis, solitariis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula subinde laterali auctis, medio non v. vix constrictis, basi rotundatis, levibus, brunneis 30-52 \approx 15-24; pedicello hyalino, persistenti, usque 75 μ . longo.

Hab. in foliis vivis *Salviæ glutinosæ* in Germania, Austria, Helvetia, Italia, Romania, Rossia.

179. **Puccinia Rübsaameni** P. Magn. in Berichte Deut. Bot. Gesell. 1108

1904, p. 344, t. XX (absque diagnosi). — Matricem microphyllam et cladomaniacam (*scopazzi*) reddens; teleutosoris tantum notis, absque paraphysibus (colore et magnitudine non indicatis); teleutosporis (ex icone) ellipsoideis medio constrictis, utrinque rotundatis, $30,7 \approx 19,7$, tunica æqualiter modice incrassata levi; poris germinativis in quaque cellula singulis, lateralibus; pedicello longo deciduo (subnullo ex icone).

Hab. in Origano vulgari (in caulibus tantum?) Remagen Germaniæ (Ew. H. RÜBSAAMEN).

180. **Puccinia caulicola** Schneid. in 48 Jahr. der Schl. Ges. für 1109
valterl. Cultur, 1870, p. 120, Syd. Mon. Ured. vol. I, p. 301, *Pucc. Schneideri* Schroet. (1879) — Sacc. Syll. VII, p. 677.

Hab. in foliis, petiolis caulibusque Thymi angustifolii, Chamædryos, pannonici, Serpylli, Origani vulgaris (?) in Germania, Austria, Hungaria, Helvetia, Gallia, Britannia, Suecia, Dania.

181. **Puccinia lenotidicola** P. Henn. in Bot. Ergebn. der Kunene 1110
Sambesi Exped. 1902, p. 3, Syd. Mon. Ured. vol. I, p. 280. — Soris uredosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis v. subaggregatis, minutis, ca. 1 mm. diam., pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 21-25 μ . diam.; soris teleutosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis, minutis, ca. $\frac{1}{2}$ mm. diam., subpulverulentis, brunneis; teleutosporis ellipsoideis, apice rotundatis, late papilliformiter incrassatis, usque 5 μ ., medio non vel vix constrictis, basi rotundatis, levibus, flavo-brunneolis, $25-32 \approx 18-23$; pedicello hyalino, crassiusculo, sporam æquante.

Hab. in foliis vivis Leonotidis nepetifoliæ ad fluv. Longa Africæ austr. (BAUM).

182. **Puccinia Micromeriæ** Dudley et Thomps. in Journ. of Mycol. 1111
1904, p. 54. — Æcidiis hypophyllis in soros dense sparsos v. caulogenos 6-10 \approx 3-4,5 mm. dispositis, basi hemisphæricis, superne longe cylindræis, margine irregulariter denticulatis, non revolutis; æcidiosporis anguloso-ovoideis, oblongis v. globosis, hyalinis, minute denseque verrucosis, $25-32,5 \approx 16-21$; soris uredosporiferis sparsis vel congestis hypophyllis, in maculis pallide luteis insidentibus, parvulis, rotundatis, pallide luteis; uredosporis elliptico-oblongis vel ovoideis, minute echinulatis, $25-30 \approx 18,7-21$, granulosis; soris teleutosporiferis caulogenis, raro in pag. inf. insidentibus, $3-3,7 \approx$

1-1,9 mm. diam. intense brunneis, suberumpentibus; teleutosporis rufo-brunneis, oblongis ad septum paullo constrictis, superne verrucosis, utrinque rotundatis, papilla apicali subinconspicua donatis, 29-34 \times 24-27,5; pedicello hyalino, fragili 37,5-44 μ . longo.

Hab. in foliis caulibusque Micromeriæ Chamissonis, Santa Cruz et Big River, Mendacino County Californiæ.

183. **Puccinia Vossii** Koern. in Rabh. Fg. eur. n. 1294, Syd. Mon. 1112

Ured. vol. I, p. 298: cfr. Sacc. Syll. VII, p. 677, n. 2339, p.p.

— Soris teleutosporiferis hypophyllis, interdum paucis etiam epiphyllis, numerosis, aggregatis, confluentibus, plerumque magnam superficiem foliorum occupantibus, sæpe ad nervos constipatis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis v. ovoideo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, medio constrictis, levibus, flavo-brunneis, 20-36 \times 14-24; pedicello brevi, hyalino, deciduo.

Hab. in foliis caulibusque vivis Stachydis rectæ in Germania, Austria, Hungaria, Helvetia, Rossia.

184. **Puccinia hyptidicola** Syd. Mon. Ured. vol. I, p. 280, t. XVIII, 1113

f. 267. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis v. subglobosis, echinulatis, flavis, 20-25 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, subtiliter verruculosus, brunneis, 26-32 \times 19-25; pedicello hyalino, tenui, brevi.

Hab. in foliis Hyptidis fasciculatæ, Concepcion Uruguay (G. P. LORENTZ).

185. **Puccinia Hyssopi** Schw. N. Amer. Fg. p. 296 (1834), Syd. Mon. 1114

Ured. vol. I, p. 281: cfr. Sacc. Syll. VII, p. 688, n. 2374, p. p.

— Soris teleutosporiferis hypophyllis, maculis orbicularibus, 2-3 mm. diam., brunneis depressulis insidentibus, rotundatis, ca. 1 mm. diam., sparsis v. in greges minutos usque 3 mm. latos dense aggregatis confluentibusque, compactis, brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula auctis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 35-50 \times 16-24; pedicello hyalino, persistenti, usque 75 μ . longo.

Hab. in foliis vivis Lophanti nepetoidis (Hyssopi nepetoidis), H. scrophulariifolii in Germania (hort. bot. Berl.) et America bor.

186. **Puccinia Leucadis** Syd. Mon. Ured. vol. I, p. 281, tab. XVIII, 1115

f. 268, *Uredo Leucadis* Syd. et Sacc. Syll. XVI, p. 361. — Soris uredosporiferis amphigenis, plerumque hypophyllis, numerosis, maculis nullis v. obsoletis insidentibus, sparsis v. aggregatis, sæpe confluentibus, nudis, pulverulentis, $\frac{1}{2}$ -1 mm. diam., ferrugineis; uredosporis plerumque perfecte globosis, subtiliter aculeatis, brunneis, 20-28 μ . diam.; teleutosporis paucis immixtis tantum visis, ellipsoideis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. parum constrictis, subhyalinis, levibus, 30-38 \approx 16-22; pedicello hyalino, gracili, usque 50 μ . longo.

Hab. in foliis vivis *Leucadis martinicensis* pr. Durban, Natal Africae austr. (WOOD).

187. **Puccinia luandensis** Syd. Mon. Ured. vol. I, p. 287, tab. XIX, 1116
p. 271. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, pulverulentis, ferrugineis; uredosporis globosis vel subglobosis, subtiliter verruculosis, dilute brunneis, 20-30 μ . diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, epidermide elevata cinereo-plumbea fere semper tectis; teleutosporis ellipsoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque 4 μ ., medio plerumque leniter constrictis, levibus, brunneis, 40-52 \approx 24-30; pedicello hyalino, persistenti, sæpe curvato, crasso, usque 55 μ . longo.

Hab. in foliis vivis *Plectranthi spec.*, Luanda prope Port Natal Africae austr. (WOOD).

188. **Puccinia pallida** Masee in Kew Bull. 1901, p. 168. — Maculis 1117
amphigenis, determinatis, pallescentibus; soris hypophyllis, centro macularum insidentibus 6-10-aggregatis, erumpentibus, intense fusco-ferrugineis; teleutosporis anguste lanceolatis, levissimis, apice incrassatis, stramineis, 50 \approx 15-16; stipite crassiusculo, basi subattenuato hyalino.

Hab. in foliis *Orthosiphonis* cujusdam, Deakensberg, Natal Africae merid.

189. **Puccinia Ziziphoræ** Syd. Mon. Ured. vol. I, p. 304, tab. XX, 1118
f. 288. — *Æcidiis* hypophyllis, sine maculis, solitariis, sparsis v. interdum partim per superficiem foliorum æque dispositis, cupulatis, margine vix lacerato v. integro, intus curvato, flavido; *æcidiosporis* globosis, subglobosis v. angulatis, minute verruculosis, flavidis, 19-25 μ . diam. soris uredosporiferis amphigenis, sine maculis, sparsis v. vix aggregatis, rotundatis v. ellipticis, minutis, epidermide rupta cinctis, mox nudis, cinnamomeis; uredosporis plerumque ellipsoideis v. piriformibus, subtiliter echinulatis, pal-

lide flavo-brunneis, 22-32 \approx 14-24; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis apice papilla pallida lata præditis, medio leniter constrictis, verrucosis, 24-35 \approx 20-27; pedicello hyalino, sporam superante.

Hab. in foliis vivis Ziziphoræ canescentis, clinopodioidis in Syria, Kurdistania, Turkestan, Songaria.

190. **Puccinia Monardellæ** Dudley et Thomp. in Journ. of Mycol 1119
1904, p. 53. — Folia ramulosque juveniles contorquens; æcidiis epiphyllis sparsis, longe tenuiterque cylindræis, margine irregulariter laceratis; æcidiosporis irregulariter angulosis, globosis vel oblongis, minute denseque verrucosis, granulosis, 23-38,7 \approx 16-25; soris uredosporiferis hypophyllis, rotundatis, sparsis brunneo-luteis, parvulis; uredosporis globosis vel subangulosis, fere hyalinis, minute sparseque echinulatis, granulosis, 22,5-25 μ . diam.; soris teleutosporiferis hypophyllis, rotundatis, parvis, sparsis, raro in circulo dispositis, nigris, pulverulentis; teleutosporis intense rufo-brunneis, brevi ellipticis, plus minusve ad septum constrictis, utrinque rotundatis, papillatis, 25-31 \approx 22-25; pedicello brevi hyalino, superne leviter colorato, basi spathulato-incrassato, circ. 5 μ . diam., 50-62 μ . longo.

Hab. in foliis caulibusque Monardellæ et M. undulatæ in California.

191. **Puccinia istriaca** Syd. Mon. Ured. vol. I, p. 301. — Soris teleu- 1120
tosporiferis hypophyllis v. subinde cauliculis, sine maculis, sparsis v. sæpius in greges orbiculares elongatos v. indeterminatos dispositis, minutis, vix confluentibus subpulverulentis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, levibus, dilute castaneo-brunneis, 33-43 \approx 17-24, episporio tenui; pedicello hyalino, tenui, brevi, ca-
duco.

Hab. in foliis caulibusque vivis Teucrii Polii, ins. Due Sorelle pr. Rovigno, Istria (P. SYDOW).

192. **Puccinia heliotropicola** Speg. Myc. argent. ser. II, 1902, p. 64. 1121
— Maculis nullis; acervulis sæpius hypophyllis, confluentibus, subpulverulentis, obscure fulvis; soris erumpentibus fere totum hypophyllum obtegentibus, crassiusculis e compactiusculo pulverulentis; teleutosporis subellipsoideis 30-32 \approx 18-20 medio leniter constrictis, loculo supero subgloboso apice obtuso et tenuiter tunicato, infero obovato donatis; pedicello hyalino mox fluxili sub-
æquilongu.

Hab. ad folia viva *Heliotropii campestris* prope Cordoba in Argentina (T. STUCKERT). (1902-4)

193. **Puccinia accedens** Syd. Mon. Ured. [vol. I, p. 309, tab. XXI, 1122
fig. 297. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus insidentibus, sparsis, mediocribus, 1-3 mm. diam., pulvinatis, umbrinis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, medio non vel vix constrictis, levibus, flavo-brunneolis, 22-32 \times 10-20; pedicello brunneolo, persistenti, usque 50 μ . longo; mesosporis numerosissimis, ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, flavo-brunneolis, eadem magnitudine.

= *Uromyces*
ccis Lippia
Spez. 7. Aug.
v. v. can. 313.
(1909)

Hab. in foliis vivis *Lippia aristata*, Matto Grosso Brasiliæ.

194. **Puccinia conjuncta** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 335, 1123
Syd. Mon. Ured. vol. I, p. 308, tab. XXI, fig. 296. — Soris teleutosporiferis epiphyllis, rarius paucis hypophyllis v. cauliculis, sparsis v. in caulibus aggregatis et tunc confluentibus, pulverulentis, obscure brunneis; teleutosporis e cellulis globosis v. subglobosis formatis, medio valde constrictis, apice papilla humili dilutiore auctis, echinulatis, brunneis, 34-45 \times 22-28; pedicello hyalino, brevi, deciduo.

Hab. in foliis, petiolis caulibusque vivis *Lippia Pringlei*, Oaxaca Mexico (HOLWAY).

195. **Puccinia peruviana** Syd. Mon. Ured. vol. I, p. 308, tab. XXI, 1124
f. 295. — Soris teleutosporiferis hypophyllis, sine maculis, minutis, punctiformibus, sparsis, pulverulentis, atro-brunneis; uredosporis immixtis globosis v. subglobosis, valde echinulatis, flavis, 19-22 μ . diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis nec papillatis, medio semper constrictis, grosse verrucosis, brunneis, 27-38 \times 19-26; pedicello hyalino, crasso, persistenti, sporam æquante, basi leniter asperulo.

Hab. in foliis vivis *Lippia urticoidis* pr. Tarapoto Peruviae (R. SPRUCE).

196. **Puccinia Premnæ** P. Henn. in Hedw. 1902, p. 62, Syd. Mon. 1125
Ured. vol. I, p. 309. — Soris teleutosporiferis amphigenis, plerumque epiphyllis, maculis rotundatis, 2-6 mm. diam., flavidis dein fuscescentibus insidentibus, in macula laxè aggregatis, minutis, punctiformibus, rotundatis, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis apice rotundatis, non v. vix incrassatis, subinde papilla hyalina minuta auctis, medio non v. parum constrictis, basi rotundatis, verruculosis, brun-

neis, 25-46 \approx 16-26; pedicello hyalino, apice leniter brunneolo, tenui, usque 35 μ . longo.

Hab. in foliis vivis *Premnæ macrophyllæ* pr. Sakawa in prov. Tosa Japoniæ (JOSHINAGA).

197. **Puccinia Phaceliæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, 1126
p. 314, tab. XXI, fig. 303. — Soris teleutosporiferis amphigenis, maculis flavescentibus sæpe insidentibus, in greges rotundatos 2-4 mm. diam. plerumque dense confertis et sæpe omnino confluentibus, compactis, atris; teleutosporis clavatis v. subclavatis, apice rotundatis v. subtruncatis, leniter incrassatis, usque 6 μ ., medio vix leniter constrictis, basi attenuatis, levibus, intus granulosis, brunneis, apice obscurioribus, 32-54 \approx 11-24; pedicello brunneolo, brevi, persistenti, usque 15 μ . longo; mesosporis subinde immixtis; paraphysibus brunneis sæpe numerosis.

Hab. in foliis vivis *Phaceliæ circinatæ* in Monte Tacoma, Washington Americæ bor. (HOLWAY).

198. **Puccinia Richardsoni** Syd. Mon. Ured. vol. I, p. 317, t. XXII, 1127
f. 307. — Soris teleutosporiferis hypophyllis, minutis, ca. $\frac{1}{2}$ mm. diam., rotundatis, sparsis v. paucis seriatim dispositis, nudis, compactis, atro-brunneis; teleutosporis clavatis v. cylindraneo-clavatis, apice rotundatis v. leniter attenuatis, valde incrassatis, usque 16 μ ., medio leniter constrictis, deorsum attenuatis, levibus, brunneis, 40-75 \approx 11-19; pedicello hyalino, apice brunneolo, persistenti, usque 55 μ . longo.

Hab. in foliis vivis *Phlogis Richardsonii*, Helena, Montana Americæ bor. (KELSEY).

199. **Puccinia enecta** Speg. Mycet. argent. ser. II, 1902, p. 62. — 1128
Maculis nullis; acervulis plus minus velatis, atro-ferrugineis, 0,3-0,6 mm. diam., foliicolis, amphigenis; soris minutis subsparsis subpulverulentis; teleutosporis subcylindracois apice sæpius mucronato-umbonatis semperque crassissime tunicatis, intense ferrugineo-fulvis levibus 50-60 \approx 20-25, ad medium leniter constrictis, pedicello chlorino sat crasso deorsum sensim leniterque attenuato, 20-30 \approx 5-7, fultis.

Hab. ad foia viva *Evolvuli* ejusdam prope Cordoba, in Argentina (T. STUCKERT).

200. **Puccinia Batatæ** Syd. Mon. Ured. vol. I, p. 323, tab. XXII, 1129
fig. 311. — *Æcidiis* hypophyllis, maculis irregularibus brunneis v. atro-brunneis insidentibus, solitariis v. in greges minutos sine ordine dispositis, cupulatis, albis, margine elevato subintegro; æci-

diosporis globosis, subglobosis v. raro late ovatis, punctatis, flavescentibus, 24-33 μ . diam.; soris teleutosporiferis epiphyllis, secus circulos supra æcidia efformatos dispositis v. rarius hypophyllis cum æcidiis vetustis immixtis, planiusculis, rotundatis v. irregularibus, epidermide rupta cinctis, pulverulentis, atro-fuscis; teleutosporis ellipsoideo-oblongis, utrinque rotundatis, apice non v. leniter incrassatis, medio vix constrictis, atro-brunneis verrucosis 54-75 \approx 30-40; pedicello crasso, hyalino, apice brunneolo sæpe flexuoso, usque 140 μ . longo, circiter 10 μ . crasso.

Hab. in foliis vivis Ipomœæ (Batatæ) paniculatæ pr. Durban, Natal Africæ austr. (WOOD).

201. **Puccinia Marsdeniæ** Diet. et Holw. in Bot. Gaz. XXXI, p. 330, 1130
1901 et Syd. Mon. Ured. vol. I, p. 331, tab. XXIII, fig. 321. — Soris uredosporiferis amphigenis, maculis flavidis vel brunneolis insidentibus, plerumque sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, remote echinulatis, flavo-brunneis, 28-33 \approx 25-30, poris germinationis numerosis præditis; soris teleutosporiferis epiphyllis, conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. lenissime constrictis, dense verrucosis, demum atro-brunneis, opacis, 33-45 \approx 27-32, episporio 5-6 μ . crasso; pedicello hyalino, usque 75 μ . longo, crasso, flexuoso, sæpe oblique inserto.

Hab. in foliis vivis Marsdeniæ mexicanæ, Cuernavaca in Mexico (HOLWAY).

202. **Puccinia Tassadiæ** Syd. in Ann. Mycol. 1903, vol. I, p. 328. — 1131
Soribus teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus brunneolis sæpe indeterminatis insidentibus, minutis, in greges rotundatos v. subrotundatos ca. 2-5 mm. diam., dense gregariis, sed non v. vix confluentibus, subcompactis, brunneis; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, vix vel parum incrassatis, usque 2 μ . medio non constrictis, basi rotundatis, levibus, flavidis v. flavo-brunneolis, 22-28 \approx 14-22, episporio ca. 1 $\frac{1}{2}$ μ . crasso; pedicello hyalino v. subhyalino, subtenui, persistenti, usque 60 μ . longo, interdum oblique inserto; mesosporis paucis immixtis.

Hab. in foliis vivis Tassadiæ comosæ, in Brasilia (GLAZIOU).

203. **Puccinia sphærospora** Syd. et P. Henn. in Ann. Mycol. 1903, 1132
vol. I, p. 327. — Soribus teleutosporiferis hypophyllis, maculis rotundatis vel indeterminatis ca. 2-5 mm. diam. flavidis insidentibus,

sparsis vel sæpius paucis vel compluribus circinatim dispositis, vix confluentibus, 0,5-1 mm. diam., compactis, atris ovato-brunneis; teleutosporis globosis, subglobosis v. ovatis, utrinque rotundatis, apice plerumque leniter incrassatis, usque 5 μ ., medio non constrictis, levibus, flavo-brunneolis, 19-27 \times 16-26, episporio ca. 3 μ . cr.; pedicello sæpiissime lateraliter inserto, persistente, flavido, usque 80 μ . longo; mesosporis numerosis, globosis vel subglobosis, apice magis incrassatis.

Hab. in foliis vivis *Metastelmatis Schlechtendalii*, in insula St. Croix Americæ bor. (A. E. FRICKSECKER).

204. **Puccinia Rhyssostelmatis** Speg. Myc. argent. ser. II, 1902, p. 64. 1133

— Maculis nullis v. diffusis, indeterminatis, pallescentibus; acervulis sæpius hypophyllis ac totum folium obtegentibus, 0,3-0,7 mm. diam., innato-subsuperficialibus, duriusculis, non rarius confluentibus; soris amphigenis, hemisphæricis umbrinis, compactis, nudis; teleutosporis obovatis, pallide fulvis, levibus, medio non v. vix constrictis, 25-28 \times 18-20, loculis subæquilongis non vel 1-guttulatis, pedicello subhyalino, flexili, 50-100 \times 5-7 donatis.

Hab. ad folia caulesque *Rhyssostelmatis nigricantis*, prope Cordoba in Argentina (F. STUCKERT).

205. **Puccinia æquatoriensis** Syd. in Ann Mycol. 1903, vol. I, n. 325. 1134

— Soris teleutosporiferis hypophyllis, maculis indeterminatis insidentibus, plus minusve sparsis vel hinc inde aggregatis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ovato-oblongis vel oblongis, variabilibus, apice plerumque rotundatis non v. parum incrassatis, medio plus minusve constrictis, basi rotundatis, rarius leniter attenuatis, levibus, flavidis, 16-30 \times 11-17; pedicello hyalino-flavidulo, persistenti, usque 60 μ . longo, 10 μ . cr.; mesosporis interdum paucis immixtis.

Hab. in foliis vivis *Marsdeniæ spec. pr.* Palmira in Æquatoria (A. SODIRO).

206. **Puccinia Cynoctoni** Speg. Myc. argent. ser. II, 1902, p. 62. — 1135

Maculis subnullis; acervulis hypophyllis plus minusve gregariis innato-subsuperficialibus, 0,3-0,7 mm. diam., pallide sordideque ex incarnato testaceis compactis duris; teleutosporis pallidissimis subclavulatis obtusis levibus ubique tenuiter tunicatis, medio non v. vix constrictis, 30-35 \times 15-18, loculis subæquilongis, pedicello hyalino 60-70 \times 5-7 persistente suffultis.

Hab. ad folia viva *Cynoctoni bulligeri* secus Carreuleofü in Argentina.

207. **Puccinia Engleriana** P. Henn. Engl. Bot. Jahrb. 1903, p. 40. — 1136

Maculis flavidulis vel fuscidulis, rotundatis vel explanatis; uredosporis hypophyllis sparsis, minutis, epidermide pallide tectis, dein pulverulentis, flavo-brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis $25-35 \approx 20-28$, episporio flavo-fuscidulo, asperato, aculeis hyalinis vel flavidulis ca. 2 μ . longis; teleutosporis amphigenis, plerumque epiphyllis sparsis vel aggregatis, epidermide pallide velatis, atro-fuscis, pulverulentis, 0,2-1 mm. diam.; teleutosporis ellipsoideis, interdum oblonge ovoideis, apice rotundatis, haud incrassatis, medio 1-septatis, vix constrictis, $30-48 \approx 22-23$, episporio amœne cinnamomeo, dense aculeato asperato, aculeis subconicis, hyalinis vel flavidulis; pedicello hyalino $30-50 \approx 5-6$, ad basim vesiculoso inflato, interdum subappendiculato, sicco 5-7 μ ., humido usque ad 15 μ . incrassato.

Hab. in foliis *Carvalhoæ macrophyllæ*, Ost-Usambara Africæ orient. (ENGLER).

208. **Puccinia Zimmermanniana** P. Henn. Engl. Bot. Jahrb. 1903, 1137

p. 40. — Maculis rotundatis, fuscidulis; teleutosporis hypophyllis dense gregariis versiformibus, subgyrosis, pallide brunneis, epidermide fissa pallida velatis; teleutosporis ellipsoideis, ovoideis v. clavatis, apice plus minus paullo incrassatis, medio 1-septatis, constrictis, $20-40 \approx 13-22$, episporio fusco brunneo, levi; pedicello subhyalino, usque ad $20 \approx 3-4$.

Hab. in foliis *Jasmini mauritiani*, Usambara Africæ orient. (ZIMMERMANN).

209. **Puccinia abyssinica** (P. Henn.) Syd. Mon. Ured. vol. I, p. 345, 1138

tab. XXIV, fig. 329, *Pucc. exhaustiens* Thuem. var. *abyssinica* P. Henn. in Hedw. 1895, pag. 329. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, pallidis, brunneo-marginatis insidentibus, minutis, compactis, in greges usque $\frac{1}{2}$ cm. diam. dense confertis v. subconfluentibus, compactis, pulvinatis, atris; teleutosporis oblongis v. clavatis, apice rotundatis vel vix acutiusculis, non v. vix incrassatis, medio vix vel leniter constrictis, deorsum plerumque attenuatis, levibus, flavo-fuscis, $30-54 \approx 11-19$; pedicello subhyalino 15-40 μ . longo.

Hab. in foliis vivis *Jasmini abyssinici*, Ambuscha Abyssiniæ (SCHIMPER).

210. **Puccinia aphanicondra** Lindr. in Acta pro Fauna et Fl. fenn. 1139

XXII, n. 1, pag. 86 (1902), Syd. Mon. Ured. vol. I, fasc. III, pag. 394. — Soris teleutosporiferis, amphigenis, sparsis, minutis,

punctiformibus, mox nudis, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, apice incrassatis (usque 8 μ .), flavo-brunneolis, 25-36 \times 22-28, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non v. vix incrassatis, ad medium non v. parum constrictis, basi plerumque rotundatis, rarius leniter attenuatis, levibus v. sublevibus, brunneis, 32-54 \times 23-27; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Ligustici alati, Sipikor in Armenia turcica (P. SINTENIS).

211. **Puccinia arctica** Lagh. in Syd. Mon. Ured. vol. I, p. 349. — 1140

Æcidiis hypophyllis, maculis orbicularibus pallidis insidentibus, solitariis v. in greges rotundatos 2-4 mm. latos laxè dispositis, minutis, flavidis, cupulatis, margine lacerato, recurvato; æcidiosporis angulato-globosis v. ovoideis, punctatis, hyalino-flavescentibus, 14-20 μ . diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis, ca. $\frac{1}{2}$ mm. diam., punctiformibus, pulverulentis, atro-brunneis; uredosporis immixtis subglobosis, oblongis v. ovoideis, echinulatis, flavo-brunneis, 22-27 \times 19-22; teleutosporis oblongis, apice papilla subhyalina obtusa usque 4 μ . alta instructis, medio non v. vix constrictis, basi rotundatis raro attenuatis, levibus, dilute brunneis, 35-43 \times 16-24; pedicello hyalino, teleutosporam æquante, deciduo.

Hab. in foliis vivis Primulæ sibiricæ in Norvegia arctica et Lapponia rossica.

212. **Puccinia oregonensis** Earle in New York Bot. Gard. 1902, 1141

pag. 349. — Caulicola vel foliicola; pycnidiis minutis, brunneolis, fere semper epiphyllis; pseudoperidiis dense congestis sæpe amphigenis brevibus et latis 750 \times 250, interdum laceratis e cellulis prismaticis 30 \times 20-25 compositis; æcidiosporis subovalibus 20 \times 16 paullulo reticulatis, membrana tenui, 1,5 μ . cinctis; uredosporis non visis; soris teleutosporiferis hypophyllis, in maculis luteolis indefinitis, sparsis v. confluentibus, ovalibus 1 \times 0,75 mm., subcutaneis, fere nigris; teleutosporis brunneo-nigris, ovalibus, apice rotundatis, leviter constrictis, episporio tenui, opaco, rugoso-tuberculato donatis; stipite fragili, hyalino.

Hab. in caulibus foliisque Saniculæ bipinnatæ, Corvallis, Oregon. — A *Pucc. Saniculæ* Grev. vere distincta; *P. Pimpinellæ* (Strauss) Link affinis.

213. **Puccinia microsphincta** Lindr. in Acta Soc. pro Fauna et Flora 1142

fennica XXII, n. 1, p. 74 (1902), Syd. Mon. Ured. vol. I, p. 366. — Soris teleutosporiferis amphigenis v. petiolicolis, sparsis, rotundatis v. oblongis, mediocribus 1-2 mm. longis, sæpe nervos sequentibus, mox nudis, compactiusculis atris; teleutosporis oblongo-ellipsoideis v. oblongo-clavulatis, apice rotundatis, vix incrassatis, medio vix v. leniter constrictis, basi plerumque leniter attenuatis, indistincte undulato-tuberculatis, brunneis, 35-54 \approx 20-27, episporio usque 4 μ . cr.; pedicello hyalino, crassiusculo, subpersistenti, sporam æquante v. ea brevior.

Hab. in foliis petiolisque vivis Cari atrosanguinei in Turkestanian (TRANZSCHEL).

214. **Puccinia dolomitica** Kabát et Bubák, in *Æsterr., bot. Z.* 1904, n. 4-5. 1143

— Teleutosoris hypophyllis in greges plus minusve latos aggregatis, ad nervos et petiolos hypertrophias et torsiones efficientibus, semiglobosis, diu epidermide tectis denique rimose erumpentibus, cinnamomeis, subinde confluentibus; teleutosporis ovato-ellipsoideis v. oblongis, sæpe irregularibus, 26-44 \approx 15-26 rarius usque 30-40 μ . latis, utrinque rotundatis v. leviter attenuatis, medio non v. vix constrictis, poris germinationis binis, papilla hyalina vix 1,5-2 μ . alta tectis, tunica tenui 1-2 μ . crassa, pallide brunnea, levi v. indistincte punctata; pedicello hyalino, tenui, deciduo, usque 40 μ . longo.

Hab. in foliis Cerefolii silvestris, Campitello Val di Fassa Italiæ bor. — Teleutosp. tricellulares non raro occurrunt.

215. **Puccinia aromatica** Bubák apud Lindroth in *Acta Soc. pro* 1144

Fauna et Flora fennica XXII, n. 1, p. 22 (1902), Syd. Mon. Ured. vol. I, p. 369. — *Æcidiis* hypophyllis v. petiolicolis, sæpe nervos sequentibus, cupulato-pustuliformibus, verruculosus, hyalino-flavescentibus, 19-24 \approx 15-22; soris uredosporiferis hypophyllis, sparsis, minutis v. majusculis, usque 2 mm. diam., cinnamomeis, pulverulentis; uredosporis subglobosis, ellipsoideis v. ovatis, echinulatis, flavo-brunneolis, 21-28 \approx 17-23, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis, sparsis, in folio minutis rotundatis, in petiolis oblongis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix constrictis, reticulatis, brunneis, 26-34 \approx 19-24; pedicello hyalino, tenui.

Hab. in foliis petiolisque vivis Chærophylli aromatici in Germania, Austria, Hungaria, Rossia.

216. **Puccinia retifera** Lindr. in *Acta Soc. pro Fauna et Flora fen-* 1145

nica XXII, n. 1, p. 20 (1902), Syd. Mon. Ured. vol. I, p. 368, tab. XXIV, fig. 334. -- Æcidiis hypophyllis, plerumque nervos foliorum sequentibus vel petiolicolis, pustuliformibus, cæomatiformibus, flavidis, pariete vix evoluto; æcidiosporis angulato-globosis v. ovatis, subtiliter verruculosus, flavescens, 19-30 \times 17-22; soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis, echinulatis, flavo-brunneolis, 18-27 \times 17-21, poris germinationis ternis præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, brunneis, 26-36 \times 19-24; pedicello hyalino, tenui, sporam æquante, deciduo.

Hab. in foliis petiolisque vivis Chærophylli bulbosi in Germania, Hungaria et Rossia.

217. **Puccinia Myrrhis** Schw. Syn. N. Am. Fg. 1831, p. 296, Lindr. 1146
in Acta Soc. pro Fauna et Fl. fennica XXII, n. 1, p. 28 (1902), Syd. Mon. Ured. vol. I, p. 371. — Soris uredosporiferis amphigenis, minutis, rotundatis, punctiformibus; uredosporis globosis, subglobosis v. ellipsoideis, præcipue ad apicem dense subtiliterque echinulatis, basim versus levibus, flavis, 20-25 \times 18-23, poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis v. attenuatis, reticulatis, brunneis, 26-32 \times 16-21; pedicello hyalino, deciduo.

Hab. in foliis vivis Chærophylli præcumbentis, prope Lexington, Kentucky et Washington Americæ bor.

218. **Puccinia Apii** Desm. Cat. des plantes omis. 1823, p. 25, Syd. 1147
Mon. Ured. vol. I, p. 359: cfr. Sacc. Syll. VII, p. 634, n. 2211, p. p. — Æcidiis hypophyllis v. petiolicolis, maculis orbicularibus v. irregularibus minutis flavidis insidentibus, in greges rotundatos v. in caule elongatos dispositis, brevissime cylindræis, margine albo, lacerato; æcidiosporis globosis v. angulato-globosis, subtiliter verruculosus, aurantiacis, 17-24 μ . diam.; soris uredosporiferis hypophyllis, sparsis, hinc inde confluentibus, pulverulentis, cinnamomeo-brunneis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, apice leniter incrassatis, 3-5 μ , flavo-brunneolis, 24-35 \times 20-26, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis subinde etiam epiphyllis v. petiolicolis, sparsis v. hinc inde confluentibus rotundatis v. irregularibus, pulverulentis, atro-

brunneis; teleutosporis oblongis v. ovato-oblongis, apice rotundatis, non incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 \times 15-23; pedicello hyalino, tenui, deciduo.

Hab. in foliis petiolisque vivis Apii graveolentis, prostrati, Selini japonici in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Hollandia, Britannia, Dania, Suecia, Fennia, India or., Japonia et Tasmania.

219. **Puccinia Petroselini** (D. C.) Lindr. in Acta Soc. pro Fauna et Fl. fenn. XXII, n. 1, pag. 84 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 399, *Uredo Petroselini* D. C. — Soris uredosporiferis plerumque hypophyllis, sparsis vel hinc inde paucis aggregatis, minutissimis v. confluendo majoribus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, omnino echinulatis v. ad medium subinde sublevibus, apice incrassatis (5-6 μ .), flavidis v. flavo-brunneolis, 22-29 \times 21-25, poris germinationis ternis rarius binis instructis; soris teleutosporiferis conformibus, obscure brunneis, in petiolis caulibusque sæpe majoribus elongatis et confluentibus; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio parum constrictis, basi rotundatis v. leniter attenuatis, levibus v. sublevibus, brunneis, 28-48 \times 18-25; pedicello hyalino, tenui, brevi, deciduo.

Hab. in foliis, petiolis caulibusque Æthusæ Cynapii, cynapioidis, Anethi graveolentis, Petroselini sativi in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Britannia, Dania, Suecia, Norvegia.

220. **Puccinia phymatospora** Lindr. in Acta Soc. pro Fauna et Flora fennica XXII, n. 1, p. 68 (1902), D. Sacc. Myc. ital. 247, Syd. Mon. Ured. vol. I, fasc. III, pag. 415. — Soris teleutosporiferis hypophyllis, maculis flavidis insidentibus, sparsis, minutis, rotundatis, subpulverulentis, atris; uredosporis immixtis, ellipsoideis v. ovato-ellipsoideis, echinulatis, apice valde incrassatis, usque 9 μ ., flavescens, 28-34 \times 20-25, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. vix constrictis, subtilissime punctatis, ad marginem undulatis, brunneis, 32-40 \times 24-32; pedicello hyalino, deciduo.

Hab. in foliis vivis Seseleos spec., in monte S. Angelo Gargano Italiæ austr. (A. FIORI).

221. **Puccinia Sileris** Voss in Verhandl. Zool. bot. Gesellsch. Wien 1150

XXVI, p. 120 (1876), Syd. Mon. Ured. vol. I, fasc. III, p. 415. — *Æcidiis* hypophyllis, maculis flavo-brunneolis insidentibus, cupulato-pustuliformibus, pariete parce evoluto; *æcidiosporis* globosis v. subglobosis, subtiliter verruculosus, hyalino-flavescentibus, 18-25 μ . diam.; *soris* uredosporiferis hypophyllis, maculis minutissimis flavis v. flavo-brunneolis insidentibus, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, dense aculeatis, flavis v. dilute flavo-brunneolis, 24-27 \times 22-26, episporio ca. 5 μ . crasso, poris germinationis ternis, ut videtur, præditis; *soris* teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, 30-40 \times 22-30; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis *Sileris trilobi* in Germania, Austria, Hungaria, Rossia, Asia minori.

222. **Puccinia Bonanniæ** Syd. Mon. Ured. vol. I, pag. 363. — *Soris* 1151 teleutosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, $\frac{1}{2}$ -1 mm. diam., epidermide plumbea nitida diu vel fere semper tectis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, sæpe angulatis, plerumque utrinque rotundatis, apice non v. raro lenissime incrassatis, medio non v. vix constrictis, levibus, brunneis, 35-50 \times 24-30, episporio crassiusculo, usque 3 μ .; pedicello hyalino, brevi.

Hab. in foliis vivis *Bonanniæ resiniferæ*, in mont. *Nebrodis* Siciliæ austr. (G. STROBL).

223. **Puccinia corvarensis** Bubák. *Æsterr. bot. Zeitschr.* 1900, n. 8. — 1152 *Teleutosporis* hypophyllis, plerumque nerviculis et interdum petioliculis, magnitudine varia, subscutellatis poro rotundo dehiscentibus, cinnamomeo-brunneis, pulvereis, matricem deformantibus; teleutosporis ovoideis ellipsoideis v. oblongis, medio constrictis, utrinque tenuatis v. rotundatis, 22-42 \times 15-24, plerumque 32 \times 20-22, brunneis, levibus; pedicello sporam dimidiam æquante; poro germinativo amplo in quoque loculo unico, verrucula 2-4 μ . alta, initio tectis.

Hab. in foliis *Pimpinellæ magnæ*, in valle *Corvara* agri *Tridentini*.

224. **Puccinia lejoderma** Lindr. *Acta Soc. pro Fauna et Flora fennica* XXII, n. 1, p. 110 (1902) et Syd. Mon. Ured. vol. I, p. 354. — 1153 *Æcidiis* hypophyllis, maculis brunneolis insidentibus, solitariis v. in greges minutos 2-3 mm. diam. dispositis, cupulatis, albis, mar-

gine leniter recurvato, minutissime denticulato; æcidiosporis angulato-globosis, subtilissime verruculosis, subhyalinis, 15-22 μ . diam.; soris teleutosporiferis hypophyllis, maculis minutis indeterminatis brunneolis insidentibus, minutis, vix $\frac{1}{2}$ mm. diam., epidermide tectis, dein nudis et in acervulos 1-3 mm. latos obscure brunneos confluentibus, pulverulentis; teleutosporis ovatis vel ellipsoideis, apice rotundatis, medio non vel vix constrictis, basi plerumque rotundatis, levibus, brunneis, 25-33 \times 13-22; pedicello hyalino, brevi tenui, deciduo.

Hab. in foliis *Ægopodii alpestris*, in Turkestan, Sibiria.

225. **Puccinia *Ægopodii*** Syd. Mon. Ured. vol. I, p. 6, tab. I, f. 5 ¹¹⁵⁴ (1902). — Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, 1-1,5 mm. diam., orbicularibus v. suborbicularibus, epidermide lacerata cinctis v. semitectis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, echinulatis, flavo-brunneis, 23-27 μ . diam.; teleutosporis late ellipsoideis, valde regularibus, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, castaneo-brunneis, 37-46 \times 27-35, episporio crasso, usque 4 μ .; pedicello brevissimo hyalino.

Hab. in foliis vivis *Ægopodi berardioidis*, prope Kerman Persiæ australis (BORNMÜLLER).

226. **Puccinia *Laserpitii*** Lindr. in Acta Soc. pro Fauna et Fl. fennica XXII, n. 1, pag. 35 (1902) Syd. Mon. Ured. vol. I, f. III, p. 391. — *Æcidiis* hypophyllis, petiolicolis v. cauliculis, pustulato-cupuliformibus, margine albido, irregulariter lacerato; æcidiosporis globosis, subglobosis v. ellipsoideis, verruculosis, subhyalinis, 25-36 \times 20-26; soris uredosporiferis hypophyllis, sparsis, minutissimis, punctiformibus, pulverulentis, cinnamomeis; uredosporis subglobosis v. ellipsoideis, echinulatis, brunneis, 26-33 \times 22-26, poris germinationis binis, rarius ternis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix constrictis, reticulatis, brunneis, 28-36 \times 19-25; pedicello hyalino, deciduo.

Hab. in foliis caulibusque vivis *Laserpitii Archangelicæ* in Moravia (BUBAK).

227. **Puccinia *Heraclei*** Grev. in Scott. Crypt. Fl. I, tab. 42 (1823), ¹¹⁵⁶ Syd. Mon. Ured. vol. I, fasc. III, p. 387. — *Æcidiis* hypophyllis v. sæpissime petiolicolis, præcipue nervos foliorum sequentibus et maculis leniter incrassatulis flavis v. flavobrunneolis insidentibus,

in greges irregulares v. elongatos dense dispositis, cupulato-pustuliformibus, pariete parce evoluto; æcidiosporis globoso-angulatis, subtiliter verruculosus, flavescentibus, 21-32 \approx 18-28; soris uredosporiferis amphigenis, sparsis, minutis, castaneo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, dense echinulatis, dilute brunneis, 25-32 \approx 19-27, poris germinationis ternis vel quaternis instructis; soris teleutosporiferis amphigenis, minutis, sparsis vel ad nervos subinde plus minusve confluentibus, pulverulentis, atro-brunneis v. atris; teleutosporiferis ellipsoideis, utrinque rotundatis, medio vix v. parum constrictis, reticulatis, brunneis, 26-37 \approx 18-27; pedicello hyalino, brevi, deciduo.

Hab. in foliis petiolisque Heraclei sibirici, Sphondylii in Germania, Italia, Gallia, Hollandia, Belgio, Britannia, Suecia, Norvegia, Fennia.

228. **Puccinia Bakeriana** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1157

Soris uredosporiferis hypophyllis, rotundatis, subimmersis, pulverulentis, cinnamomeo-brunneis; uredosporis latis, globosis vel obovoideis, 39-45 \approx 34-42; episporio aurantiaco-luteo 4-6 μ . crasso, superne usque 12 μ . dense tuberculato; poris 3 latis, æquatorialibus; soris teleutosporiferis, sparsis, hypophyllis, subimmersis, rotundatis, pulverulentis, intense brunneis; teleutosporis ellipsoideis, interdum obovato-oblongis, irregularibus, 40-55 \approx 24-32, utrinque rotundatis, ad septum non vel vix constrictis; episporio 2,5-3 μ . crasso, dense tuberculato, intense brunneo; pedicello brevi, hyalino, subdeciduo.

Hab. in foliis Heraclei lanati, Pillar Point, San Mateo County Californiæ (C. F. BAKER).

229. **Puccinia athamanthina** Syd. Mon. Ured. vol. I, p. 362. — Æci- 1158

diis laxè et irregulariter aggregatis, cupulato-pustuliformibus, pariete parce verruculosus, 19-30 \approx 13-21; soris uredosporiferis sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter denseque echinulatis, flavo-brunneolis, 23-30 \approx 19-25, poris germinationis ternis instructis; soris teleutosporiferis sparsis, minutis, punctiformibus, rotundatis, in caule oblongis v. elongatis et sæpe subconfluentibus, pulverulentis, atris vel atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel parum constrictis, reticulatis, obscure brunneis, 30-36 \approx 24-30; pedicello hyalino, tenui.

Hab. in foliis caulibusque vivis Athamanthæ cretensis,

Matthioli, vestinæ, verticillatæ (?) in Germania, Austria, Italia et Græcia.

230. **Puccinia angelicicola** P. Henn. in Hedw. 1903, pag. (107). — 1159

Maculis flavidulis; uredosoris plerumque epiphyllis, minutis, subochraceis; uredosporis subglobosis, ovoideis v. ellipsoideis, hyalino-brunneis, 18-24 \times 17-20, episporio aculeato-verrucoso; teleutosoris amphigenis sparsis vel gregariis, atris, epidermide fissa, pallida, basi velatis; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, interdum applanatis, haud incrassatis, flavo-brunneis, medio 1-septatis, leniter constrictis; episporio castaneo, reticulato, 22-34 \times 18-23; pedicello ca. 10 \times 3,5-4 hyalino.

Hab. in foliis Angelicæ Miquelianæ, Mt. Takao, Musashi Japoniæ (N. NAMBU).

231. **Puccinia Angelicæ** (Schum.) Fuck. Symb. Myc. p. 52 (1869). — 1160

Sacc. Syll. VII, p. 703 (descriptio incompleta), Syd. Mon. Ured. vol. I, p. 357. — Soris uredosporiferis primariis præcipue secus nervos evolutis v. petiolicolis, in foliis in greges minutos dispositis, primitus intense obscureque flavis, dein obscurioribus, tandem atro-brunneis; secundariis hypophyllis, subinde etiam epiphyllis, maculis minutissimis dilutioribus sæpe insidentibus, sparsis, minutis, pulverulentis, flavo-cinnamomeis; uredosporis ovatis, ellipsoideis v. ovato-oblongis, echinulatis, apice valde incrassatis, 5-10 μ ., basi minus incrassatis, ca. 4 μ ., dilute brunneis, 25-40 \times 22-28, poris germinationis ternis instructis; soris teleutosporiferis plerumque amphigenis, sparsis, minutis, rotundatis, pulverulentis, atro-brunneis v. atris; teleutosporis ellipsoideo-oblongis v. oblongis, apice rotundatis, non v. vix incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 \times 16-24; pedicello hyalino, brevi, deciduo.

Hab. in foliis petiolisque vivis Angelicæ decurrentis, silvestris, Archangelicæ littoralis, officinalis in Germania, Hollandia, Dania, Britannia, Suecia, Norvegia, Fennia, Rossia, Turkestan.

232. **Puccinia Ferrarisii** Lindr. in Acta pro Fauna et Fl. fenn. XXII, 1161

n. 1, p. 94 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 405. — Soris uredosporiferis plerumque amphigenis, minutissimis, rotundatis, brunneis; uredosporis ovato-ellipsoideis v. subglobosis, echinulatis, apice incrassatis (usque 6,5 μ .), 25-34 \times 21-27, episporio crassiusculo, poris germinationis plerumque ternis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovato-

ellipsoideis vel ovato-clavulatis, apice rotundatis, vix incrassatis, medio parum constrictis, basi sæpe leniter attenuatis, levibus, brunneis, 27-38 \times 19-24; pedicello hyalino, tenui, deciduo.

Hab in foliis vivis Peucedani Oreoselini (?), Crescentino Ital. bor. (T. FERRARIS).

233. **Puccinia tokyensis** Syd. Mon. Ured. I, 1902, p. 377, *Æcidium* 1162
Cryptotæniæ Diet. — Syll. XVI, p. 335, *Uredo Cryptotæniæ* Syd.
— Syll. XVI, p. 355. — *Æcidiosporis* et *uredosporis* at ll. cc.
soris teleutosporiferis epidermide fissa cinctis v. semitectis, atro-brunneis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 22-35 \times 16-22; episporio tenuissimo; pedicello hyalino tenuissimo, deciduo.

Hab. in foliis petiolisque vivis *Cryptotæniæ japonicæ*, Tokyo Japoniæ.

234. **Puccinia Araliæ-cordatæ** P. Henn. Fungi Pilze Japan. II, p. 151 1163
(Hedw. 1904). — Maculis fuscis vel centro pallidis, rotundatis vel explanatis; soris hypophyllis sparsis vel aggregatis, atris pulverulentis; uredosporis subglobosis, ellipsoideis v. ovoideis, 25-40 \times 20-28 μ ., episporio brunneo, aculeato-echinato; teleutosporis oblonge ellipsoideis vel clavatis, apice hemisphærico-papillatis, 35-45 \times 22-30 μ ., medio 1-septatis, constrictis, brunneis, levibus; pedicello 30-40 \times 4-5 μ . hyalino-fuscidulo.

Hab. in foliis *Araliæ cordatæ*, Yamato, Mt. Yoshina Japoniæ (T. YOSHINAHARA). — A *P. Araliæ* Ell. et Ev. tam uredosporis quam teleutosporis papillatis omnino diversa. Non raro occurrunt teleutospore ob compressionem cuboideæ et subinde in eodem pedicello binæ.

- 235 **Puccinia imperspicua** Syd. Mon. Ured. vol. I, p. 361. — Soris 1164
teleutosporiferis amphigenis, sparsis, minutissimis, vix perspicuis, pulverulentis, atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, incrassatis, usque 8 μ ., medio vix v. leniter constrictis, basi plerumque rotundatis, levibus, castaneo-brunneis, 38-52 \times 25-35, episporio crasso ca. 4 μ .; pedicello hyalino, crassiusculo, usque 70 μ . longo, sed deciduo.

Hab. in foliis vivis *Arracachæ multifidæ*, Rio Hondo in Mexico (PRINGLE).

236. **Puccinia Phellopteri** Syd. Mon. Ured. vol. I, fasc. III, p. 406. — 1165
Soribus uredosporiferis amphigenis, sparsis, minutis, pulverulentis, cinnamomeis; uredosporis subglobosis vel ellipsoideis, valide acu-

leatis, episporio crasso 5-7, apice usque 11 μ . icrassatis, flavis 27-38 \times 26-30, soris germinationis tenuis instructis; soris teleutosporiferis, conformibus, obscurioribus; teleutosporis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis vel attenuatis, levibus, brunneis, 32-46 \times 19-27; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis *Phellopteri littoralis*, Port Chusan Koreæ (C. WILFORD).

237. **Puccinia sphaerocondra** Lindr. in Acta pro Fauna et Fl. fenn. 1166
XXII, n. 1, pag. 63, (1902). Syd. Mon. Ured. vol. I, fasc. III,
p. 419. — *Æcidiiis* hypophyllis v. petiolicolis, maculis rotundatis,
usque 1 cm. diam. insidentibus, in greges majusculos laxè dispo-
sitis vel solitariis, cylindræis, margine irregulariter lacerato, fla-
vido; *æcidiosporis* angulato-globosis, subtiliter punctatis, flavidis
25-32 \times 19-24; soris teleutosporiferis plerunque hypophyllis vel
petiolicolis, sparsis 0,5-1,5 mm. diam., rotundatis vel in petiolis
ellipticis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongis,
apice rotundatis, non incrassatis, medio vix v. parum constrictis,
basi rotundatis, vel leniter attenuatis, subtilissime verrucosis,
brunneis 30-42 \times 19-23, episporio 2-3 μ . crasso; pedicello hyalino
tenui, deciduo.

Hab. in foliis petiolisque vivis *Velææ argutæ*, Pasadena,
California (Mc CLATCHIE).

238. **Puccinia Doremæ** Speschn. in Fungi paras. Transcapici et tur- 1167
kestanici 1901, p. 11, Syd. Mon. Ured. vol. I, p. 378. — Soris
teleutosporiferis hypophyllis, maculis nullis v. flavescensibus insi-
dentibus, valde inflatis, sæpissime in caule confluentibus, primo
epidermide tectis, atro-brunneis; uredosporis immixtis subglobosis
v. ovatis, echinulatis, brunneis, 20-24 \times 16-20, poris germinationis
binis rarius ternis instructis; teleutosporis oblongis v. ellipsoideis,
apice modice incrassatis, medio lenissime constrictis, flavo-brunneis
32-34 \times 15-19; pedicello hyalino, usque 16 μ . longo.

Hab. in foliis caulibusque *Doremæ* spec. in Turkestanica.

239. **Puccinia Coulterophyti** Diet. et Holw. in Bot. Gaz. 1901, p. 335. 1168
— Maculis luteis vel nullis; soris hypophyllis minutis, sparsis;
uredosporiferis pallide ochraceis; uredosporis obvatis 29-36 \times 22-29
episporio hyalino apice valde incrassato, verrucis sparsis, globosis
donato; soris teleutosporiferis nigro-brunneis, immersis, pulveru-
lentis; teleutosporis oblongo-ellipsoideis vel irregularibus, utrin-
que rotundatis parce constrictis, 33-50 \times 23-30, episporio pallide

brunneo, verrucoso, interdum irregulariter rugoso; pedicello deciduo.

Hab. in foliis *Coulterophyti laxi*, Chapala et Urnapam in Mexico.

240. **Puccinia Kundmanniæ** Lindr. Act. Soc. pr. Fauna et Fl. fenn. 1169
1902, XXII, p. 136, Syd. Mon. Ured. I, pag. 390, f. 340, Stat. æcidiosporus: *Æcidium Helosciadii* Har. — Syll. XVI, p. 335. — Pycnidiis amphigenis numerosis æque sparsis, melleis; æcidiis plerumque hypophyllis, sparsis, solitariis, cupulatis, flavidis, margine crasso integro, vix revolutis; teleutosoris, hypophyllis, sine maculis, sparsis, minutissimis, ægre conspicuis, epidermide primitus tectis, brunneis; teleutosporis ovato-oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque attenuatis, levibus, flavo-brunneis, 32-48 × 16-25; pedicello hyalino, deciduo.

Hab. in foliis *Kundmanniæ siculæ* in insula Melita (Malta) et Algeria.

241. **Puccinia dictyospora** Tranzsch. in Act. pro Fauna et Fl. fen- 1170
nica XXII, n. 1, p. 48 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 420. — Æcidiis secus folii nervos in greges magnos elongatos densiuscule dispositis, cupulatis v. breviter cylindræis, margine albido irregulariter lobato; æcidiosporis angulato-globosis vel ellipsoideis, subtilissime verruculosus, hyalinis, 17-26 μ . diam.; soris teleutosporiferis amphigenis, sparsis, vix confluentibus, minutis, rotundatis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio vix v. parum constrictis, basi rotundatis v. attenuatis, reticulatis, dilute brunneis, 28-42 × 20-24; pedicello deorsum hyalino, apicem versus flavido et incrassato.

Hab. in foliis *Umbelliferæ* cujusdam indeterminatæ et *Cari spec.*, in Turkestan (KOMAROV).

242. **Puccinia Gayophyti** Speg. Myc. Argent. ser. II, 1902, p. 63. 1171
— Maculis nullis; acervulis cauli-follicolis, innato-prominulis, sæpe confluentibus, compactis, atro-ferrugineis, 0,3-0,5 mm. diam.; teleutosporis obovatis, apice præcipue crasse tunicatis, parum infra medium septatis, vix constrictis levibus, intense fulvis, loculis 1-guttulatis, supero sæpius sublongiore crassioreque, 30-32 × 18-20; pedicello hyalino fragili subbrevisiore 15-20 × 5-7 suffultis.

Hab. ad caules foliaque *Gayophyti humilis* prope Puente

del Juca, Mendoza in Argentina. — Species *P. sphærostigmati* Diet. et Neg. valde affinis sed certe distincta.

243. **Puccinia sphæroidea** P. Henn. in Hedw. 1903, p. (107). — Soris ¹¹⁷² cauliculis, gregariis, interdum foliiculis, sphæroideis, hemisphæricis v. pulvinatis, castaneis, v. rufo-brunneis, ca. 350 μ . diam.; teleutosporis ellipsoideis v. ovoideis, apice obtuso rotundatis v. applanatis, vix paullo incrassatis, medio septatis, leniter v. haud constrictis v. oblique verticaliter septatis, interdum continuis, 20-30 \approx 13-20, episporio flavo-brunneo, levi; pedicello usque ad 80 μ . elongato, hyalino fuscidulo, 3-4 μ . cr.

Hab. in caulibus folisque *Jussiaë* spec. prope Baia Californiæ (C. A. PURPUS).

244. **Puccinia Zauschneriæ** Syd. Mon. Ured. vol. I, fasc. III, p. 435, ¹¹⁷³ tab. XXV, fig. 361. — *Æcidiiis* hypophyllis, copiosis, plerumque totam folii superficiem obtegentibus, cupulatis, flavidis, margine leniter inciso; *æcidiosporis* globosis, subglobosis v. angulatis, punctatis, hyalino-flavescentibus, 16-22 μ . diam. vel 19-25 \approx 14-18; soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, epidermide lacerata cinctis, brunneis; uredosporis globosis v. subglobosis, aculeatis castaneis 24-30 μ . diam.; soris teleutosporiferis hypophyllis, conformibus, subpulverulentis obscure brunneis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice incrassatis 5-8 μ . medio non vel vix constrictis, levibus, obscure brunneis, 32-40 \approx 18-25, rarius usque 43 μ . long.; pedicello hyalino brevissimo.

Hab. in foliis vivis *Zauschneriæ californicæ* in California, Amer. bor.

245. **Puccinia Epilobii** DC. Fl. franç. II, p. 221 (1805) et VI, p. 61 ¹¹⁷⁴ (1815) nec *P. Epilobii* Schröt. et Sacc. Syll. VII, pag. 608, quæ = *P. Epilobii-tetragoni* (DC.) Wint. — Teleutosoris hypophyllis sparsis v. plerumque confertis, sæpe per totam folii superficiem æque distributis, rarius confluentibus, rotundatis, epidermide lacerata cinctis, pulverulentis, rufo-brunneis v. atro-brunneis; teleutosporis oblongis v. ellipsoideis, utrinque rotundatis, raro basim versus leniter tenuatis, apice non v. lenissime incrassatis, medio valde constrictis, levissime verrucosis, brunneo-fuscidulis, 27-48 \approx 16-25, pedicello hyalino 10-16 μ . long.

Hab. in foliis vivis *Epilobii alpini*, *alsinefolii*, *anagallidifolii*, *davurici*, *organifolii*, *palustris*, *rosei* in Germania, Helvetia, Hungaria, Italia, Gallia, Britannia, Dania,

Suecia, Rossia et Groenlandia. — Huc ducenda *Pucc. Veronicae Anagallidis* Oud., quæ revera in *Epilobii* specie, nec *Veronica* provenit.

- 246 **Puccinia Jambosæ** P. Henn. Fungi S. Paulenses I, in Hedw. 1175
1902, pag. 105. — Maculis fuscis, rotundato-explanatis, exaridis; poris amphigenis, aggregatis, applanatis, diutius epidermide brunnea tectis; uredosporis ellipsoideis v. ovoideis, flavis v. subhyalinis, 15-20 \times 13-18, episporio asperatis; teleutosporis clavatis, apice paullo incrassatis, obtuso-rotundatis, 1-septatis, paullo v. haud constrictis, 28-40 \times 15-10, flavo-brunneis, levibus; pedicello subhyalino, 15-18 \times 2,5-3.

Hab. in foliis *Jambosæ vulgaris* pr. S. Paulo Brasiliæ.

247. **Puccinia canadensis** Arthur Bull. Torr. Bot. Cl. 1904, p. 2. — 1176
Soris teleutosporiferis amphigenis, sæpe gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, pallide brunneis; teleutosporis subellipsoideis vel lineari-oblongis, 37-58 \times 10-15, utrinque obtusis, episporio 1-2 μ . crasso, cinnamomeo-brunneo, minute rugoso, apice hyalino et incrassatulo, 3-5 μ .; pedicello exili, brevi, hyalino, deciduo.

Hab. in foliis *Violæ orbiculatæ*, Laggan, Alberta, Amer. bor. et Glacier in Columbia Britannica.

248. **Puccinia Heliocarpi** Syd. Mon. Ured. vol. I, fasc. III, p. 447, 1177
tab. XXVI, fig. 370. — Soris teleutosporiferis hypophyllis, maculis rotundatis 2-4 mm. diam. fuscis v. flavo-fuscis insidentibus, minutis, sed plerumque in greges irregulariter confluentibus, pulvinatis, obscure brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. attenuatis, non vel lenissime incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneolis, 30-54 \times 11-18, episporio tenuissimo; pedicello hyalino. persistenti, usque 80 μ . longo.

Hab. in foliis vivis *Heliocarpi americani*, Puente de Chimbo Æquatoriæ (LAGERHEIM).

249. **Puccinia conglobata** Syd. Mon. Ured. vol. I, fasc. III, fig. 448, 1178
tab. XXVI, fig. 372. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, 2-5 mm. diam, flavis centro fuscis insidentibus, plerumque paucis in globulum 1-2 mm. diam., omnino confluentibus, compactis obscure brunneis; teleutosporis ellipsoideis v. ovatis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. lenissime constrictis levibus, pallide flavo-

brunneolis, 24-32 \approx 19-25, episporio crasso; pedicello hyalino, crasso, persistenti, usque 80 μ . longo, sæpius e latere inserto.

Hab. in foliis vivis *Trumfettæ* spec, prope *Pesqueria* *Æquatoria* (LAGERHEIM).

250. **Puccinia Komarovi** Tranzsch. in Syd. Mon. Ured. vol. I, fasc. III, 1179
p. 451. — *Æcidiis* cauliculis et petioliculis totam superficiem partis infectæ caulis occupantibus, aggregatis, immersis, demum apertis, breviter cupulatis, margine primum integro incurvato, dein lacerato, parum e matrice emergente; *æcidiosporis* angulato-globosis v. angulato-ellipsoideis, subtilissime echinulatis, intus aurantiacis 16-20 \approx 14-18; soris uredosporiferis hypophyllis, maculis minutis flavescens v. subnullis insidentibus, sparsis v. circa majorem centralem circinatim dispositis, rotundatis, pulverulentis, cinnamomeis; uredosporis subglobosis v. ellipsoideis, echinulatis, dilute brunneolis, 22-29 \approx 17-24, poro germinationis singulo apicali sæpe papillula lata humili tecto instructis; soris teleutosporiferis hypophyllis maculis minutis flavidis plerumque insidentibus, sparsis v. circinatim dispositis, minutis, rotundatis, mox nudis, castaneo-brunneis; teleutosporis ellipsoideis, ovatis v. subclavulatis, apice papilla hyalina præditis, interdum etiam sub septo apiculo minuto instructis, medio non v. lenissime constrictis, sublevibus, castaneo-brunneis, 27-40 \approx 16-25; pedicello hyalino, brevi, fragili.

Hab. in foliis caulibusque *Impatientis amphoratæ*, parvifloræ in Turkestan, India or. etc.

251. **Puccinia Pritzeliana** P. Henn. F. *Australiæ* occid. I, in Hedw. 1180
1901, p. 95. — Syll. XVI, p. 1119 (nomen). — Maculis rotundatis, fuscis; soris hypophyllis, sparsis, cinnamomeis, pulvinatis, ca. 0, 5-1 mm. diam.; teleutosporis oblongis v. oblonge clavatis, apice obtuse rotundatis, incrassatis v. lateraliter 2-papillatis, interdum subcristatis, 1-septatis, paullo constrictis, flavidis, levibus, 30-50 \approx 13-23, stipite hyalino, consistenti, usque ad 150 μ . longo, 7-11 μ . cr., interdum inflato.

Hab. in foliis vivis *Tremandræ stelligeræ*, Perth *Australiæ* occid.

252. **Puccinia rubricans** Holway, Journ. of Mycol. 1904, p. 165. — 1181
Maculis purpureis, plerumque circularibus, 1-6 mm. diam.; soris amphigenis, sæpius hypophyllis, solitariis, sparsis v. circinantibus in maculis latioribus; uredosoris læte brunneis; uredosporis pallide brunneis, globosis, rarius ovoideis, 36-44 \approx 32-46 fortiter echinulatis, spinulis 3-4 μ . long.; tunica 4-6 μ . crassa; teleutosoris uredosoros

subsequentibus, nigris; teleutosporis ellipsoideis, ferrugineis, fortiter verrucosis, 60-80 \approx 40-44, apice breviter acutato v. rotundato, leviter incrassato; pedicello hyalino, usque 80 μ . longo.

Hab. in foliis Heteropteridis Portillanæ, Guadalajara, Mexico.

253. **Puccinia Echinopteridis** Holway Journ. of Mycol. 1904, p. 164. 1182

— Uredosoris amphigenis et cauliculis, brunneis, circumscriptis, globoso-oblongis, subinde confluentibus; maculis pallide flavis; uredosporis late brunneis, globoso-ovoideis, grosse echinulatis, 26-33 \approx 22-26; teleutosoris amphigenis, nigris, pulverulentis, minutis, dein confluentibus; teleutosporis globosis v. late ellipsoideis, non constrictis, subæqualiter tunicatis, fortiter verrucoso-reticulatis, atro-brunneis, 30-40 \approx 22-37; stipite varie inserto, sæpe lateraliter et prope sporam inflato eamque subæquante.

Hab. in foliis Echinopteridis Lappulæ, Guadalajara et Puebla, Mexico. — Proxime affinis *Puccinia insuetæ*, a qua differt uredosporis omnino diversis et teleutosporis profundius reticulatis.

254. **Puccinia Ribis-japonici** P. Henn. Einige neue japan. Ured. III, 1183

in Hedw. 1902, p. 19. — Maculis rotundatis subvesiculosis, fuscis; soris teleutosporiferis hypophyllis, gregarie pulvinatis, atro-fuscis, ca. 1-2 mm. diam.; teleutosporis clavatis vel oblonge fusoides, apice incrassatis obtuse apiculatis, 1-septatis, paullo constrictis, 25-40 \approx 10-13, pallide brunneis; stipite persistente, flavidulo, 20-40 \approx 3,5-4,5.

Hab. in foliis Ribis japonici, Jyo Japoniæ.

255. **Puccinia Boroniæ** P. Henn. in Hedw. 1903, p. (73). — Soris ra- 1184

miculis, crasse erumpentibus, longe effusis, pulvinato-tuberculatis, atro-cinnamomeis, duris, usque ad 2 cm. longis, basi epidermide fissa pallida velatis; teleutosporis oblonge ellipsoideis, subclavatis vel subfusoides, apice incrassatis, rotundatis v. obtuse gibbosis, brunneis, levibus, ca. 20-32 \approx 15-18; pedicello hyalino-flavidulo usque ad 150 \approx 3,5-4.

Hab. in ramulis Boroniæ spinoscentis, W. Australia (L. DIELS).

256. **Puccinia præclara** Syd. Mon. Ured. vol. I, fasc. III, p. 452. — 1185

Soris uredosporiferis plerumque hypophyllis, maculis nullis v. minutis obsoletis insidentibus, sparsis, punctiformibus, subpulverulentis, flavo-cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, dense valideque aculeatis, flavo-brunneis, 24-33 \approx 22-30,

episporio crassiusculo; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, grosse verrucosis, obscure brunneis, septo plerumque verticali, 35-42 \approx 30-38; pedicello hyalino, persistenti, crasso, usque 50 μ . longo.

Hab. in foliis vivis Sapindaceæ cujusdam, prov. Chimbo-razo, Puente de Chimbo Æquatoriæ (LAGERHEIM).

257. **Puccinia Modiolæ** Syd. Mon. Ured. vol. I, fasc. III, p. 478, 1186
tab. XXVIII, fig. 392, Speg. Dec. Myc. Argent. 10. — Soris teleutosporiferis hypophyllis, maculis minutis, rotundatis, 2-3 mm. diam., depressulis, flavidis insidentibus, sparsis v. hinc inde aggregatis, mediocribus, 1-2 mm. diam., rotundatis, compactis, primitus rufis vel flavo-rufis, dein rufo-brunneis; teleutosporis anguste fusoides v. linearibus, utrinque attenuatis, apice incrassatis sæpeque inciso-fissis, medio non v. vix constrictis, levibus, flavescens, 54-85 \approx 10-16; pedicello hyalino persistenti, usque 150 μ . longo, crasso.

Hab. in foliis vivis Modiolæ prostratæ in Argentina et Uruguay.

258. **Puccinia exilis** Syd. Mon. Ured. vol. I, fasc. III, pag. 481, 1187
tab. XXIX, fig. 396. — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus ca. 2 mm. diam., arescendo albidis insidentibus, solitariis in quaque macula, mediocribus 1-3 mm. diam., rotundatis v. subrotundatis, compactis, flavo-brunneis; teleutosporis oblongis v. oblongo-clavulatis, apice rotundatis v. leniter acutiusculis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, levibus, subhyalinis, 27-40 \approx 10-14, episporio tenuissimo; pedicello hyalino, tenui, subpersistenti, sporam æquante vel ea longiore.

Hab. in foliis vivis Pavoniæ leucanthæ, P. roseæ, in Brasilia (POEPPIG, REGNELL).

259. **Puccinia Anodæ** Syd. Mon. Ured. vol. I, fasc. III, pag. 475, 1188
tab. XXVIII, fig. 391. — Soris teleutosporiferis hypophyllis, maculis minutis rotundatis, flavidis v. brunneolis, ca. 2-3 mm. diam. insidentibus, minutis, sparsis vel sæpe in circulos usque 3 mm. latos dispositis et omnino confluentibus, compactis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis non vel vix incrassatis, medio non vel lenissime constrictis, basi plerumque rotundatis, levibus, flavis, 27-35 \approx 16-24; pedicello hyalino, crassiusculo, persistenti, usque 90 μ . longo.

Hab. in foliis vivis *Anodæ hastatæ*, San Miguel Uspantan Guatemala (HEYDE et LUX).

260. **Puccinia Sieversiae** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1189

Soris teleutosporiferis amphigenis, sparsis, rotundatis vel ovalibus, epidermide bullata tectis, immersis, pulverulentis, brunneis; teleutosporis ellipticis vel ovato-oblongis, 32-40 \times 20-26, utrinque rotundatis vel interdum inferne conicis, ad septum non vel vix constrictis; episporio rugulosulo, sublevi, cinnamomeo-brunneo 1, 5-2,5 μ . crasso; superne 4-6 μ . crasso, sæpe subhyalino-umbonato; pedicello brevi, sporâ brevior, exili, subhyalino.

Hab. in foliis *Sieversiae turbinatæ*, Fish Lake, in montibus Uintah, Amer. bor.

261. **Puccinia turrita** Arth. in Bull. Torr. Bot. Club XXIX, 1902, 1190

p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 504. — Soris teleutosporiferis amphigenis, sparsis, rotundatis, minutis, 0,5-1 mm. diam., mox nudis, subpulverulentis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis v. attenuatis, incrassatis, usque 6 μ . medio leniter constrictis, basi rotundatis rarius leniter attenuatis, verrucosis, flavo-brunneis, 27-40 \times 16-22, rarius usque 24 μ . latis; pedicello hyalino, tenui, brevi, caduco.

Hab. in foliis vivis *Saxifragæ bronchialis*, Maniton, Colorado Amer. bor. (HOLWAY).

262. **Puccinia Parnassiae** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1191

— Soris teleutosporiferis amphigenis, interdum gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, intense brunneis; teleutosporis ellipticis, 30-37 \times 16-20, utrinque rotundatis vel obtusis; episporio 1-2 μ . crasso, brunneolo, levi vel superne obscure punctato sæpe apice hyalino-umbonato; pedicello hyalino, sporâ brevior, deciduo.

Hab. in foliis *Parnassiae fimbriatæ*, Bauff, Alberta Americæ bor. (E. W. D. HOLWAY).

263. **Puccinia Laurentiana** Trelease, Harrim. Alaska Exped. Crypt. 1192

p. 38. — Soris hypophyllis, castaneis, rotundis, circ. 1 mm. diam.; teleutosporis brunneis, subconstrictis, 50 \times 20, vertice incrassatis et pallide apiculatis; tunica crassiuscula nec striata nec verrucosa; pedicellis hyalinis, brevibus, fragilibus.

Hab. in foliis *Saxifragæ neglectæ* var. *stoloniferæ*, St. Lawrence Island, Behring Sea, Alaska (MACOUN). — Affinis *Pucc. Saxifragæ-ciliatæ*.

264. **Puccinia aspera** Diet. et Holw. in Bull. Torr. Bot. Club XXIX, 1193

1902, p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 503. — Soris teleutosporiferis amphigenis vel petiolicolis, magnis, 1,5-4 mm. diam., rotundatis, pulverulentis, nudis, castaneo-brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, rarius leniter attenuatis, verrucis majusculis planis irregularibus obsitis, flavo-brunneis, 30-42 \times 16-24; pedicello hyalino, brevi, caduco.

Hab. in foliis vivis Saxifragæ Mertensianæ, Mt. Paddo, in Washington Americæ bor. (W. N. SUKSDORF).

265. **Puccinia Lindrothii** Syd. in Acta pro Fauna et Fl. fenn. XXII, 1194
n. 1, p. 62 (1902), Syd. Mon. Ured. vol. I, fasc. III. pag. 418,
tab. XXV, f. 348. — Æcidiis hypophyllis v. petiolicolis v. cau-
licolis, maculis indeterminatis pallidis insidentibus, in foliis greges
rotundatos vel irregulares, usque 5 mm. diam. formantibus, in
petiolis caulibusque in greges elongatos et sæpe longe confluentes
confertim dispositis, cupulatis, albidis, margine irregulariter lace-
rato; æcidiosporis globosis, subglobosis, angulatis v. ovatis, tenuis-
sime verruculosis, flavidis, 22-32 \times 19-25; soris teleutosporiferis am-
phigenis v. caulicolis, plerumque hypophyllis, sine maculis, sparsis
v. hinc inde subgregariis, rotundatis, 0,5-1 mm. diam., epidermide
lacerata cinctis, in caule oblongis et diutius tectis, pulverulentis,
atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque ro-
tundatis, apice non incrassatis, medio non v. vix constrictis, ver-
ruculosis, intense castaneo-brunneis, 30-42 \times 18-26, episporio 3-4 μ .
cr.; pedicello hyalino, tenui, deciduo.

Hab. in foliis, petiolis caulibusque vivis Velææ (Arraca-
ciæ) Hartwegii, in California (BLASDALE). *P. junci* Peck.

266. **Puccinia Alyssi** Lindr. Acta Soc. Fauna et Fl. fennica 1902, 1195
XXII, n. 3, p. 11, *P. Alyssi* Syd. in Ann. Mycol. 1903, p. 18. —
Soris teleutosporiferis hypophyllis v. sæpe caulicolis, in folio spar-
sis, rotundatis minoribusque, in caule majusculis crassis sæpe con-
fluentibus et tunc confluenso usque 1 cm. long., epidermide fissa
cinctis v. semivelatis, pulvinatis, atro-brunneis; teleutosporis elli-
psoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque
8 μ ., medio non v. parum constrictis, levibus, castaneo-brunneis,
38-52 \times 22-32, episporio 5-6 μ . cr.; pedicello subhyalino, persi-
stenti, usque 60 μ . longo; mesosporis interdum immixtis, subglo-
bosis v. ovatis, 30-35 \times 23-27.

Hab. in caulibus et petiolis Alyssi spinosi in Hispania et
Alyssi halimifolii pr. Porto Maurizio Italiae bor.

267. **Puccinia Cochleariæ** Lindr. Acta Soc. Fauna et Fl. fennica 1196
1902, XXII, n. 3, p. 10. — Teleutosoris minutis rotundatis vel
ellipticis, subsparsis, diu epidermide cinctis, nigricantibus, denique
nudis, pulverulentis; teleutosporis vulgo anguste ellipsoideis, ob-
longis, sæpe subirregularibus, medio distincte constrictis, 32-40 \times
13-18; membrana flavido-brunneola, longitrorsum striolata, supra
porum germ. subhyalino-papillatis; pedicellis 40-60 \times 4-5, tenuibus,
labilibus.

Hab. in foliis Cochleariæ fenestratæ, groenlandicæ,
pyrenaicæ in Grœnlandia et Gallia..

268. **Puccinia Eutremæ** Lindr. Acta Soc. Fauna et Fl. fenn. 1197
1902, XXII, n. 3, p. 9. — Soris foliicolis, petiolicolis et caulicolis, sub-
orbiculari-oblongis, 0,5-1,5 mm. diam., epidermide vesiculosa gri-
sea tectis, demum nudatis, pulvereis, subnigris; teleutosporis ob-
longis, utrinque sæpius rotundatis, medio fortiter constrictis, 30-
38 \times 12-14; membrana tenui, intense brunnea, æquicrassa, tenuiter
crebre striolata; poro germin. cellulæ superioris laterali, inferioris
prope septum sito; pedicellis 40-60 \times 4-5, tenuibus, labilibus.

Hab. in foliis Eutremæ Edwardsii in Lapponia (BRO-
THERUS). — Adsunt interdum mesosporæ 26-29 \times 11-13.

269. **Puccinia Litseæ** (Pat.) Diet. et Henn. Einige neue japan. Ured. 1198
III, in Hedw. 1902, p. (19), *Æcidium Litseæ* Pat. Champ. Asiat.
p. 3: cfr. Syll. XI, pag. 221. — Maculis vesiculoso-subcupulatis,
pallide cinctis; tuberculis hypophyllis oppositis, hemisphærico-pul-
vinatis, lignosis, botryose verrucosis, ca. 1,5-3 mm. diam.; pseu-
doperidiis immersis, tectis dein erumpentibus, cupulatis, flavidis e
cellulis tabulari-polyhedricis flavido-hyalinis, 20-35 μ . compositis,
intus cellulis sterilibus oblongis, subquadrangulis, hyalinis, verru-
culosis 40-70 \times 15-25, impletis, æcidiosporis haud conspicuis; soris
teleutosporiferis deinde ad basim in loculis æcidiorum generatis;
teleutosporis oblonge ellipsoideis v. subfusoides, utrinque attenua-
tis, apice paullo incrassatis, obtusiusculis, 40-50 \times 20-28, medio 1-
septatis, haud vel paullo constrictis, mox in cellulis subconoideis
dehiscentibus, episporio castaneo, granuloso-verrucoso; pedicello
plus minus elongato, fuscidulo, fragili.

Hab. in foliis Litseæ glaucæ, Tosa Japoniæ.

270. **Puccinia texana** Holway et Long in Bull. Torr. Bot. Club 1199
p. 113, fig. 3, Syd. Mon. Ured. vol, I, fasc. III, p. 325. — Soris
teleutosporiferis hypophyllis, maculis minutis irregularibus, brun-
neis vel atro-purpureis insidentibus, sparsis v. paucis aggregatis,

Puccinia texana

minutis, ca. 0,5 mm. diam., epidermide lacerata cinctis, subpulverulentis, atro-brunneis; uredosporis immixtis, globosis, subglobosis v. ellipsoideis, minute echinulatis, flavo-brunneolis, 18-23 μ . diam. v. 22-30 \times 15-24; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel vix, ca. 4 μ . cr., medio constrictis, levibus, castaneo-brunneis, 27-38 \times 18-27; pedicello hyalino, crassiusculo, persistenti, usque 50 μ . longo, non inflato.

Hab. in foliis vivis *Berberidis trifoliolatæ*, Austin in Texas Americæ bor. (LONG).

271. **Puccinia Berberidis-trifoliæ** Diet. et Holw. in Bot. Gaz. XXXI, 1200
1901, p. 328, Syd. Mon. Ured. vol. I, fasc. III, p. 524, tab. XXXI,
f. 423. — Soris teleutosporiferis hypophyllis, maculis brunneis v.
atro-purpureis insidentibus, sparsis vel aggregatis, confluentibus-
que, mediocribus, 1-3 mm. diam., in petiolis linearibus, pulvinatis,
atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis
v. sæpius conico-attenuatis, varie incrassatis, 4-8 μ . v. etiam usque
16 μ ., medio constrictis, basi plerumque rotundatis, levibus, dilute
brunneis, 26-50 \times 14-24; pedicello brunneolo, persistenti, usque
75 μ . longo, non inflato; mesosporis interdum intermixtis.

Hab. in foliis vivis *Berberidis trifoliæ*, Rio Hondo, Mexico (HOLWAY).

272. **Puccinia atragenicola** (Bubák) Syd. Mon. Ured. vol. I, fasc. III, 1201
p. 538, *P. De-Baryana* Thuem. f. *atragenicola* Bubák. *P. Atragenes*
Fuck. (1869) nec Hausm. (1861). — Soris teleutosporiferis hypo-
phyllis, minoribus interdum paucis, etiam epiphyllis, maculis orbi-
cularibus, 2-5 mm. diam. flavis v. brunneis insidentibus, subinde
petiolicolis, magnis, sparsis vel confluentibus, 1-5 mm. longis,
compactis, duris, tectis, atris; teleutosporis clavatis, apice rotun-
datis, truncatis vel acutiusculis, valde incrassatis, usque 12 μ .,
medio leniter constrictis, deorsum attenuatis, flavo-brunneis, apice
obscurioribus, levibus, 44-82 \times 15-24; pedicello brunneolo, brevi,
crasso.

Hab. in foliis petiolisque vivis *Atragenes alpinæ* in Austria, Helvetia, Italia.

273. **Puccinia clavata** Syd. Mon. Ured. vol. I, fasc. III, pag. 545, 1202
tab. XXXI, fig. 428. — Soris teleutosporiferis plerumque hypo-
phyllis, maculis minutis orbicularibus ca. 2 mm. diam., brunneis
insidentibus, sparsis, minutis, epidermide diutius tectis, dein ea
fissa cinctis, compactis, atris; teleutosporis clavatis, apice rotunda-
tis, truncatis v. leniter acutiusculis, valde incrassatis, usque 10 μ .,

medio constrictis, levibus, pallide brunneis, apice obscure brunneis, 42-62 μ . longis, loculo superiore 14-22 μ . lato, inferiore 11-16 μ . lato; pedicello brevi, brunneolo.

Hab. in foliis vivis Clematidis hexapetalæ, in Nova Ze-landia (BASTIAN).

274. **Puccinia Castagnei** Schrœt. in Cohn Beiträge III, p. 62 (1879), 1203
 Syd. Mon. Ured. vol. I, fasc. III, p. 551. — Soris teleutosporiferis amphigenis, maculis vix distinctis, sparsis, raro paucis aggregatis, minutis, diutius epidermide tectis, rotundatis subpulverulentis, ferrugineis; uredosporis immixtis subglobosis, sæpius ellipsoideis vel plerumque piriformibus, primo flavis, dein brunneolis verrucosis, apice valde (usque 8 μ .) incrassatis, 27-33 \times 21-25; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, subinde truncatulis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, sublevibus, brunneis, 28-40 \times 16-22; pedicello hyalino, brevissimo.

Hab. in foliis vivis Thalictri angustifolii, Istres Galliæ (CASTAGNE).

275. **Puccinia Trautvetteriæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, 1204
 fasc. III, p. 552, tab. XXXII, fig. 432. -- Soris teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus 2-3 mm. latis, griseo-brunneis insidentibus, sparsis, mediocribus, 1-2 mm. diam., rotundatis v. subrotundatis, compactis, atris; teleutosporis clavatis, apice rotundatis, truncatis v. rarius leniter acutiusculis, parum incrassatis, usque 3 μ ., medio non v. vix constrictis, basi attenuatis, levibus, dilute brunneolis, 40-56 \times 11-16; pedicello brevi, brunneolo.

Hab. in foliis vivis Trautvetteriæ in monte Tacoma, Washington, Amer. bor. (HOLWAY).

276. **Puccinia melasmiioides** Tranzsch. in Syd. Mon. Ured. vol. I, 1205
 fasc. III, p. 538. — Soris teleutosporiferis hypophyllis v. petiolicolis, tandem etiam epiphyllis, maculis indeterminatis flavescen-
 tibus, insidentibus, in foliis in acervulum rotundatum subrotunda-
 tum v. rarius irregularem usque 1 cm. diam. plerumque omnino
 confluentibus, in petiolis acervos irregulares elongatos sæpe for-
 mantibus; teleutosporis lineari-clavatis, apice truncatis vel acutiu-
 sculis, incrassatis, 2-6 μ ., medio non vel parum constrictis, basi in
 pedicellum attenuatis, levibus, dilute brunneis, apice obscurioribus
 45-75 \times 12-16; pedicello brevi, persistenti, brunneolo, usque 15 μ .
 longo; paraphysibus numerosis, brunneis.

Hab. in foliis petiolisque vivis *Aquilegiæ vulgaris* var., in jugo transalaico, ad fines Sinæ, ad fluv. Irkeschtam Turkestanæ (W. TRANZSCHEL). — Var. ***Aquilegiæ viridifloræ*** Karst. Fung. nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.): teleutosporis in soros epiphyllis, erumpentibus, plano-convexos, nudos, confluentes, raro sparsos atrofuscos congestis, elongato-clavatis, medio haud v. paululum constrictis, flavescentibus, 40-60 \times 8-12. In foliis *Aquilegiæ viridifloræ* in regione Baicalensi, Listvinitschnoje Septembri 1902 (O. A. F. LÖNNBOHM).

277. ***Puccinia Lycoctoni*** Fuk. Symb. Nachtr. III, p. 11 (1875), Syd. 1206
 Mon. Ured. vol. I, fasc. III, p. 527, *Æcidium Lycoctoni* Kalchbr. in herb., *Uredo Lycoctoni* Kalchbr. in herb. — *Æcidiis* hypophyllis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. ellipticos dense confertis, sæpe etiam petiolicolis, cupulatis, margine denticulato, albido; *æcidiosporis* irregulariter globosis v. ellipsoideis, subtiliter verruculosis, aurantiaco-flavis, 16-24 μ . diam. v. usque 26 μ . longis, 14-20 μ . latis; soris teleutosporiferis hypophyllis, raro amphigenis, solitariis v. per paucos aggregatis, magnis, usque 1,5 cm. diam., in petiolis caulibusque elongatis variæque magnitudinis, plerumque, diu epidermide plumbea dein irregulariter fissa tectis, pulverulentis, atro-brunneis; teleutosporis oblongis v. ellipsoideis apice papilla late conica v. hemisphærica dilutiore v. subhyalina donatis, medio non v. parum constrictis, basi rotundatis v. vix attenuatis, flavis v. flavo-brunneis, levibus 25-45 \times 20-28; pedicello hyalino, brevi, caduco.

Hab. in foliis, petiolis caulibusque vivis *Aconiti Lycoctoni* in Germania, Austria, Hungaria, Italia, Helvetia, Norvegia. — A *P. Trollii* Karst., quacum conjungitur a cl. Winter et in Sylloge VII, p. 670, teste Ed. Fischer, certe distincta.

278. ***Puccinia gemella*** Diet. et Holw. in Syd. Mon. Ured. vol. I, 1207
 fasc. III, p. 541. — Soris teleutosporiferis amphigenis v. petiolicolis, in epiphyllis sæpe magis evolutis, maculis nullis vel vix distinctis insidentibus, irregulariter sparsis v. hinc inde confluentibus, mediocribus, 750-1500 μ . diam., pulverulentis, atro-brunneis; teleutosporis fusosideo-oblongis, apice modo rotundatis, modo attenuatis, papilla valida conica dilutiore instructis, medio non constrictis, basi sæpius attenuatis, levibus, brunneis, 36-50 \times 22-26; pedicello hyalino, brevi.

Hab. in foliis *Calthæ leptosepalæ*, in monte Tacoma, Washington Amer. bor. (HOLWAY).

279. **Puccinia cohæsa** Long in Bull. Torr. Bot. Club. 1902, p. 112, 1208
fig. 2, Syd. Mon. Ured. vol. I, fasc. III, p. 529. — Æcidiis hypophyllis, maculis indeterminatis flavescensibus insidentibus, æque v. irregulariter per folium distributis, cupulatis, margine in lobos quatuor recurvatos plerumque fissis; æcidiosporis polygoniis, subtiliter verruculosis, flavescensibus, 16-22 μ . diam.; soris uredosporiferis hypophyllis, maculis flavidis insidentibus, sparsis, rotundatis, 0,8-1 mm. diam., pulverulentis, cinnamomeis; uredosporis plerumque ellipsoideis vel oblongis, apice incrassatis, usque 6 μ ., echinulato-verruculosis, flavidis, 25-35 \times 14-22, paraphysibus usque 70 μ . long. capitato-incrassatis, usque 14 μ . immixtis; soris teleutosporiferis plerumque hypophyllis, sparsis v. annulatim dispositis v. in greges usque 3 mm. diam. confluentibus, sæpe intra æcidia ortis, pulverulentis, epidermide diutius tectis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice nonincrassatis, medio valde constrictis, verrucis magnis dense obsitis, castaneo-brunneis, 30-40 \times 18-24; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis *Anemones carolinianæ*, Austin, Texas, Amer. bor. (LONG).

280. **Puccinia suffusca** Holw. Journ. of Mycol. 1902, p. 171, Syd. 1209
Mon. Ured. p. 532, *P. Pulsatillæ* Rostr. nec Kalchbr. — A *P. fusca* differt teleutosporis sæpe 1-cellularibus, saturatius coloratis et inæqualiter longiusque tuberculatis.

Hab. in foliis petiolisque vivis *Pulsatillæ pratensis*, *P. patentis*, *P. vulgaris*, *P. grandis*, *P. hirsutissimæ* in Europa et America. — De Pucciniis anemonicis cfr. Bubák in Hedw. 1903, p. (28).

281. **Puccinia gigantispora** Bubák in Sitzungster. Königl. Ges. Wis- 1210
sensch. Prag 1901, n. II, p. 9, fig. 51-61, Syd. Mon. Ured. vol. I, fasc. III, p. 537. — Æcidiis hypophyllis, maculis rotundatis vel subrotundatis purpurascensibus, 2-4 mm. diam. insidentibus, gregariis, subinde soris teleutosporiferis circumdati, breviter cylindraceis, margine reflexo, inciso, albido; æcidiosporis polyhedricis, verruculosis, flavidis, 24-29 \times 20-22; soris teleutosporiferis amphigenis, maculis purpurascensibus insidentibus, sparsis v. circa æcidia aggregatis confluentibusque, minutis v. majoribus, 1-3 mm. diam., rotundatis v. irregularibus, compactis, atris; teleutosporis clavatis v. linearibus, apice rotundatis, truncatis vel acutiusculis, valde incrassatis, usque 10 μ ., medio non vel vix constrictis, deorsum attenuatis, levibus, pallide brunneis, sursum, præcipue ad apicem,

obscure brunneis, 50-104 μ . longis, loculo superiore 10-22 μ ., inferiore 7-15 μ . lato; pedicello hyalino, brevi; paraphysibus paucis, flavo-brunneis.

Hab. in foliis vivis *Anemones* patentis var. *Nuttallianæ* pr. Livingston in Montana (SEYMOUR), *A. multifidæ* in Wyoming (MERRILL et WILCOX) et in Canada (HOLWAY).

282. **Puccinia Pulsatillæ** Kalchbr. in Mathem. es termessett. Kőzlemenyek III, pag. 307 (1865), Syd. Mon. Ured. vol. I, fasc. III, pag. 536. — Soris teleutosporiferis amphigenis, maculis plus minusve bullatis rufo-vel purpureo-cintis insidentibus, magnis, usque $\frac{1}{2}$ cm. diam., duris, crassis, compactis, tectis, atris; teleutosporis oblongo-clavatis, clavatis v. linearibus, apice rotundatis, truncatis v. leniter acutiusculis, valde incrassatis (6-12 μ .), medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, apice obscure brunneis, 42-92 \approx 12-24; pedicello brevi, brunneolo; paraphysibus brunneis, tremellosis intermixtis. 1211

Hab. in foliis petiolisque vivis *Anemones* (*Pulsatillæ*) alpinæ, montanæ, nigricantis, patentis, var. *Nuttallianæ*, pratensis, *Pulsatillæ*, silvestris, sulphuræ in Germania, Austria, Hungaria, Helvetia, Italia, America bor.

283. **Puccinia resecta** Syd. in Ann. Mycol. 1903, p. 34, et Mon. Ured. vol. I, fasc. III, p. 535. — Soris teleutosporiferis amphigenis v. petiolicolis, maculis flavidis usque 5 mm. latis insidentibus, minutis, sed in greges rotundatos usque 4 mm. latos, dense dispositis, epidermide lacerata cinctis, pulverulentis, obscure brunneis vel cinnamomeo-brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassatis, medio leniter constrictis, basi sæpius rotundatis, dense et distincte verruculosi, brunneis, 32-40 \approx 21-27; pedicello hyalino, brevi, caduco. 1212

Hab. in foliis petiolisque *Anemones narcissifloræ*, Buffalo Pass, Park Range, Colorado Americæ bor. (C. L. SHEAR).

284. **Puccinia leptosperma** Syd. Mon. Ured. vol. I, fasc. III, p. 557, tab. XXXII, fig. 434. — Soris teleutosporiferis hypophyllis, maculis irregularibus indeterminatis flavis vel flavo-brunneolis insidentibus, sparsis v. paucis in greges minutos aggregatis, minutis, compactis, flavo-brunneis v. brunneis; teleutosporis oblongis vel clavatis, apice rotundatis v. leniter acutiusculis, non v. rarius vix incrassatis, ca. 5 μ ., medio constrictis, basi plerumque attenuatis, levibus, subhyalinis, 27-45 \approx 10-15, episporio tenuissimo; pedicello hyalino tenui, ca. 60 μ . longo. 1213

Hab. in foliis *Drymariaæ cordatæ*, Kamerun (PREUSS) et in ins. Madagascar (HILDEBRANDT).

285. **Puccinia modica** Holway in Journ. of Mycol. 1904, p. 164. — 1214

Soris amphigenis, rotundis v. elongatis, $\frac{1}{2}$ 1 mm. diam.; uredosoris brunneis; uredosporis globosis, crebre plano-tuberculatis, flavido-brunneis, 20-24 μ . diam.; poris germinativis 4-5 sparsis; teleutosoris nigris, pulverulentis; teleutosporis late ellipsoideis, brunneis, levibus, 36-40 \approx 24-32, crasse tunicatis, apice rotundato 4-8 μ . cr.; pedicellis persistentibus, hyalinis, usque 120 μ . long.; mesosporis intermixtis.

Hab. in foliis *Arenariæ Peyritschii*, *A. reptantis* etc. pluribus locis in Mexico.

286. **Puccinia Galeniæ** Diet. in Syd. Mon. Ured. vol. I, fasc. III. 1215

p. 562. — Soris uredosporiferis amphigenis, sparsis, minutis vel mediocribus, obscure brunneis; uredosporis globosis, subglobosis vel sæpius ellipsoideis, breviter echinulatis, flavo-fuscis, 18-29 \approx 18-22, episporio crasso, poris germinationis quatuor instructis; teleutosporis immixtis, ovatis, apice rotundatis, modice incrassatis, medio paullo constrictis, levibus, brunneis, ca. 30 \approx 22; pedicello sporam subæquante.

Hab. in foliis vivis *Galeniaæ africanæ*, *sarcophyllæ*, Swakopmund Africae austr. (STAPF, C. KLUGKIST).

287. **Puccinia Stuckerti** Speg Myc. Arg. ser. I, in An. Soc. Cient. 1216

Arg. 1899, p. 266. — Maculis plane nullis; soris quandoque minutis 0,5-1 mm. diam., quandoque ob confluentiam majusculis 2-5 mm. diam., lenticulari-prominulis, amphigenis e pulverulento compactiusculis, atris; teleutosporis ellipticis vel subovatis, utrinque obtusissimis, levibus, 34 \approx 25-26, episporio crassiusculo ubique æquali vestitis, medio 1-septatis sed non constrictis, loculis sæpius 1-guttulatis, intense ferrugineis, pedicello mox fluxili crassiusculo 30-40 \approx 5-7 hyalino fultis.

Hab. in foliis vivis *Gomphrenæ*, prope Cordoba Argentinae.

288. **Puccinia Dielsiana** P. Henn. F. Australiae occid. I, in Hedw. 1217

1901, p. 95, Sacc. — Syll. XVI, p. 1119 (nomen). — Soris cauliculis, epidermide erumpentibus, oblonge pulvinatis, firmis, atris, ca. 5 mm. longis; teleutosporis ellipsoideis v. ellipsoideo-ovoideis, apice rotundato-obtusis, paullo incrassatis, 1-septatis, minus constrictis 35-42 \approx 23-25, episporio castaneo, levi; pedicello subhyalino 60-80 \approx 5-6, consistenti.

Hab. in caulibus *Chenopodiaceæ*, Perth Australiae occid.

289. **Puccinia pachyplœa** Syd. Mon. Ured. vol. I, fasc. III, p. 581, 1218
tab. XXXII, fig. 445. — Soris teleutosporiferis amphigenis vel petiolicolis, maculis nullis vel indistinctis, sparsis, rotundatis, in petiolis oblongis, mox nudis, usque 1 mm. diam., atris; teleutosporis ellipsoideis v. subgloboso-ellipsoideis, utrinque late rotundatis, apice non incrassatis, medio non vel lenissime constrictis, grosse verrucosis, amœne obscureque castaneo-brunneis, $35-46 \approx 24-32$, episporio crassissimo $4,5-5,5 \mu$. lato; pedicello brevi, hyalino; mesosporis globosis vel subglobosis, verrucosis, obscure castaneo-brunneis, ca. 27μ . diam.

Hab. in foliis petiolisque vivis Rumicis tuberosi, pr. Riwandous Kurdistaniaë assyriacæ (BORNMÜLLER).

290. **Puccinia Aristolochiæ** (D. C.) Wint. — Syll. VII, p. 614 — var. 1219
crassior Syd. Mon. Ured. vol. I, fasc. III, p. 583. — Soris teleutosporiferis hypophyllis, solitariis, paucis (1-8) in quoque folio, multo majoribus, 2-5 mm. diam., subcompactis, epidermide tectis vel, ea stellatim v. irregulariter fissa, semivelatis, rotundatis, obscure atro-brunneis; teleutosporis ut in typo.

Hab. in foliis Aristolochiæ maurorum, inter Damascum et Beirut, Syriaë.

291. **Puccinia achroa** Syd. Mon. Ured. vol. I, fasc. III, pag. 438, 1220
tab. XXVI, fig. 365. — Soris teleutosporiferis hypophyllis, maculis epiphyllis minutissimis sæpe ægre conspicuis orbicularibus insidentibus, sparsis, rotundatis, minutis vel mediocribus, $0,8-1,5$ mm. diam., compactis, primitus cinnamomeis, dein atris; teleutosporis oblongis v. oblongo-fusoideis, apice rotundatis v. obtuse attenuatis, incrassatis usque 8μ .; medio leniter constrictis, basi sæpius attenuatis, levibus, hyalino-flavescentibus, $50-58 \approx 16-24$; pedicello hyalino, crasso, persistenti, usque 70μ . longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Elæagni macrophylli, Kamakura Japoniæ (S. HORI).

292. **Puccinia fusispora** Syd. Mon. Ured. vol. I, fasc. III, p. 590, 1221
tab. XXXIII, fig. 448. — Soris teleutosporiferis hypophyllis, maculis minutis 1 mm. diam., brunneolis insidentibus, sparsis, minutis, solitariis, nunquam confluentibus, rotundatis, compactis, obscure brunneis; teleutosporis fusoideis, apice acutiusculis, incrassatis, $5-8 \mu$., medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneis, $40-55 \approx 8-11$; pedicello hyalino, persistenti, sporam æquante.

Hab. in foliis vivis *Urticæ angustifoliæ* in prov. Mukdenensi Mandschuriæ (KOMAROW).

293. **Puccinia Satyrii** Syd. Monogr. Ured. vol. I (1903), pag. 594, 1222
tab. XXXIII, f. 453. — Soris teleutosporiferis hypophyllis, sine maculis, plerumque per totum folium æque gregariis, minutis, punctiformibus, rotundatis, compactiusculis, luteo-fulvis; uredosporis immixtis globosis v. subglobosis, echinulatis, flavescentibus, 16-24 μ . diam; teleutosporis oblongis vel fusiformibus, utrinque attenuatis, apice valde incrassatis, usque 11 μ ., medio non vel vix constrictis, levibus, dilute flavidis, 32-52 \times 13-19; pedicello hyalino. persistenti, sporam subæquante.

Hab. in foliis languescentibus *Satyrii carnei*, prope False Bay Africæ austr. (MAC OWAN).

294. **Puccinia Megatherium** Syd. Monogr. Ured. I (1903), pag. 624, 1223
tab. XXXV, fig. 475. — Soris teleutosporiferis amphigenis, sine maculis, minutis vel mediocribus, oblongis vel elongatis confluentibusque, pulverulentis, epidermide fissa cinctis, cinnamomeis; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, levibus, 40-72 \times 40-68, episporio usque 20 μ . crasso; pedicello hyalino, tenui, brevissimo vel subnullo.

Hab. in foliis vivis *Gageæ reticulatæ* in Caucaso.

295. **Puccinia Allii-japonici** Diet. in Bot. Jahrb. 1902, p. 47. — Soris 1224
oblongis, epidermide primo tectis, deinde ea fissa cinctis, castaneis; uredosporis obovatis vel ellipsoideis, 30-34 \times 23-26, episporio hyalino, verruculoso, poris numerosis instructo, vestitis; teleutosporis forma valde varia, oblongis v. cuneatis, ad septum plus minusve profunde constrictis, cellula superiore plerumque rotundata, inferiore cuneata vel oblonga, episporio levi, brunneo, apice haud incrassato vestitis, 35-62 \times 18-27; pedicello brevi, caduco instructis.

Hab. in foliis et caulibus *Allii japonici* in prov. Kosuké Japoniæ (KUSANO).

296. **Puccinia Moreniana** Dudley et Thomp. in Journ. of Mycol. 1904, 1225
p. 53. — Soris teleutosporiferis hypophyllis, sparsis, pustulatis, rotundato-oblongis, 1-3 \times 1-12 mm., epidermide velatis, dein erumpentibus, pulverulentis, castaneo-brunneis; teleutosporis forma magnitudineque difformibus, superne rotundatis v. oblique conicis, inferne subrotundis vel conicis, ad septum paullo constrictis, 16-21 \times 30-40, medio 19 \times 35; pedicello ruguloso, conico, fragili, 30-60 μ . longo.

Hab. in foliis Brodiææ capitatae, Sierra Morena, San Matteo County Californiæ (THOMPSON).

297. **Puccinia grumosa** Syd. et Holw. in Syd. Mon. Ured. I (1903), 1226 p. 641, tab. XXXV, fig. 479. — Æcidiis plerumque hypophyllis, maculis pallidis irregularibus sæpe obsoletis insidentibus, plerumque paucis in greges irregulares dispositis, subinde solitariis, cupulatis, margine albido, inciso; æcidiosporis globosis, subglobosis v. angulatis, verruculosis, hyalino-flavescentibus, 19-27 μ . diam.; soris uredosporiferis amphigenis, sine maculis, sparsis, rotundatis v. oblongis, minutis, epidermide diutius tectis, dein ea medio fissa, cinctis, dilute brunneis; uredosporis globosis vel subglobosis, subtilissime verruculosis, brunneolis, 20-30 μ . diam., episporio tenui; soris teleutosporiferis amphigenis, maculis nullis vel vix distinctis insidentibus, sparsis, minutis, rotundatis v. oblongis, ca. 0,5 mm. diam., epidermide cinerea, diutius tectis, dein, ea medio fissa, cinctis vel semitectis, pulverulentis, atris; teleutosporis ellipsoideo-oblongis v. ovato-oblongis vel subinde subclavatis, apice rotundatis, rarius leniter truncatis, non incrassatis, medio valde constrictis, basi plerumque rotundatis, rarius attenuatis, subtiliter punctato-verruculosis, intus grumosis, castaneo-brunneis, 33-48 \times 20-30; pedicello subhyalino, crassiusculo, fragili, usque 55 μ . longo.

Hab. in foliis Zygodeni elegantis, Bauff in Alberta, Canada, Amer. bor. (HOLWAY).

298. **Puccinia melanopsis** Syd. Mon. Ured. (1903) p. 600, tab. XXXIV 1227 fig. 459. — Soris teleutosporiferis amphigenis, elongatis, 2-5 mm. longis, 1-2 mm. latis, compactis, nitidis, atris; teleutosporis oblongo-clavatis, apice plerumque acutiusculis, 6-8 μ . incrassatis, medio vix vel leniter constrictis, deorsum attenuatis, levibus, flavo-brunneis, 43-70 \times 13-16, raro usque 21 μ . latis; pedicello apice leniter flavescente, tenui, persistenti, usque 95 μ . longo; paraphysibus brunneis.

Hab. in foliis vivis Iridis Sisyrynchii, in desertis ad Erbil Assyriæ (BORMÜLLER).

299. **Puccinia dehiscens** Syd. Mon. Ured. I (1903) p. 597, tab. XXXIII, 1228 fig. 457. — Soris uredosporiferis amphigenis, sparsis vel hinc inde irregulariter aggregatis, minutis, oblongis vel sublinearibus, epidermide diu tectis, tandem, ea medio longitudinaliter fissa, cinctis v. semitectis, flavo-brunneis; uredosporis globosis, subglobosis vel late ellipsoideis, verruculosis, flavo-brunneolis, 19-27 μ . diam.; soris teleutosporiferis amphigenis, sparsis vel hinc inde ir-

regulariter aggregatis, oblongis v. sublinearibus, ca. 0,5-1,5 mm. longis, epidermide longitudinaliter v. rimose dehiscente diu tectis v. semivelatis, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis v. clavatis, apice rotundatis, truncatis v. longe conico-attenuatis, valde incrassatis, 8-16 μ ., medio constrictis, basi attenuatis, levibus, dilute brunneis, 40-65 \approx 14-21; pedicello flavido, persistenti, crasso, dimidium sporæ æquante.

Hab. in foliis vivis *Aristeæ* spec. in monte Muizenberg Africæ austr. (H. BOLUS).

300. **Puccinia Dieramæ** Syd. Mon. Ured. I (1903), p. 597, tab. XXXIV, 1229
fig. 458. — Soris uredosporiferis amphigenis, sparsis vel hinc inde paucis aggregatis, minutis, oblongis vel oblongo-linearibus, epidermide diu tectis, flavo-ochraceis; uredosporis globosis, subglobosis v. sæpius ellipsoideis, subtiliter echinulato-verruculosis, flavo-brunneis, 24-32 \approx 16-25; soris teleutosporiferis amphigenis, sparsis v. hinc inde paucis irregulariter v. subseriatim aggregatis, oblongis vel oblongo-linearibus, 0,5-1 mm. long., epidermide tandem longitudinaliter fissa diu tectis, atro-brunneis vel atris; teleutosporis oblongo-clavatis v. clavatis, apice plerumque conico-angustatis, sæpe oblique attenuatis, levibus, brunneis, 42-72 \approx 14-21; pedicello flavo-brunneolo, peristenti, crassiusculo, sporam æquante.

Hab. in foliis vivis *Dieramæ ensifoliæ* in Capite Bonæ Spei Africæ austr. (ECKLON et ZEYHER).

301. **Puccinia Asparagi-lucidi** Diet. in Bot. Jahrb. 1903, pag. 625. 1230
— Soris amphigenis et cauliculis, minutis, sparsis; uredosporiferis epidermide castanea diu tectis; uredosporis ellipsoideis, 22-28 \approx 19-23, flavo-brunneis, echinulatis; soris teleutosporiferis epidermide tectis, nigris, paraphysibus arcuatis pallidis clausis; teleutosporis fusiformibus plerumque curvatis, apice attenuatis et sæpe in rostrum dilutius protractis, truncatis vel rotundatis, ad septum modice constrictis, basi plerumque attenuatis, episporio levi castaneo, apice incrassato indutis, 43-62 \approx 11-16, pedicello mediocri, usque 25 μ . longo suffultis.

Hab. in foliis caulibusque *Asparagi lucidi*, Tokyo Japoniæ (KUSANO).

302. **Puccinia Cooperiæ** Long in Bull. Torr. Bot. Club. 1902, p. 110, 1231
fig. 1, Syd. Mon. Ured. I, 1903, p. 604. — *Ætidiis* amphigenis, in greges ca. 3-6 mm. longos et 1-3 mm. latos aggregatis, margine leniter reflexo, lacerato, albido; *æcidiosporis* angulato-globosis, subtilissime verruculosis v. sublevibus, flavidis, 20-30 μ . diam.;

soris uredosporiferis amphigenis, sine maculis, sparsis, rotundatis vel oblongis, 1-3 mm. longis, epidermide demum longitudinaliter fissa tectis, pulverulentis, flavis; uredosporis globosis, subglobosis v. ellipsoideis, echinulato-verruculosis, aureo-flavis, 16-24 μ . diam. vel 24-30 \times 16-24; soris teleutosporiferis amphigenis, sine maculis, rotundatis vel oblongis 0,5-2 mm. longis, epidermide cinerea diu tectis; teleutosporis variabilibus, oblongis, oblongo-clavatis vel cuneatis, apice rotundatis vel truncatis, non incrassatis, medio leniter constrictis, basi rotundatis v. cuneato-attenuatis, striis paucis longitudinalibus percursis, brunneis, 32-46 \times 18-25; pedicello subhyalino, brevi, crasso.

Hab. in foliis vivis Cooperiæ Drummondii, pedunculatæ, Austin, Texas, Amer. bor. (LONG).

303. **Puccinia Alstroemeriae** Syd. Monogr. Ured. I (1903), p. 603. — 1232

Soris teleutosporiferis amphigenis, irregularibus, confluentibus magnis, usque 1 cm. longis, epidermide plumbea semper tectis, compactis; uredosporis immixtis globosis vel subglobosis, subtiliter echinulatis, flavidis 21-27 μ . diam.; teleutosporis cuneato-clavatis, apice plerumque truncatis, rarius rotundatis, parum incrassatis, ca. 4 μ . medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, apice obscurioribus, 38-48 \times 16-24; pedicello brunneo, crassiusculo dimidium sporæ æquante.

Hab. in foliis vivis Alstroemeriae revolutæ, Cordillera de St. Fernando, Chile (MEYEN).

304. **Puccinia Hæmodori** P. Henn. F. Australiæ occid. I in Hedw. 1233

1901, p. (96). — Syll. XVI, p. 1119 (nomen). — Soris amphigenis, oblonge pulvinatis, erumpentibus, epidermide fissa velatis, atris 1-2 mm. longis; uredosporis subglobosis v. ellipsoideis, castaneis, levibus 18-22 \times 16-19; mesosporis subfusoideis v. ovoideis, subclavatis, apice gibboso-apiculatis, subobtusis vel 2-cornutis, brunneis, 20-35 \times 15-18, pedicello ca. 30 \times 5-7 hyalino fuscidulo; teleutosporis oblonge clavatis v. fusoideis, apice incrassatis, obtuse rotundatis vel apiculatis, 1-septatis, paullo constrictis, 36-42 \times 18-20, episporio castaneo, levi; pedicello hyalino-fuscidulo ca. 40 \times 5-7.

Hab. in foliis vivis Hæmodori, Perth Australiæ occid. (DIELS).

305. **Puccinia Cannæ** P. Henn. Fungi S. Paulenses I, in Hedw. 1234

1902, p. 105. — Maculis fuscidulis, minutis; soris uredosporiferis (*Uredo Cannæ* Wint. — Syll. VII, p. 843) amphigenis, plerumque hypophyllis, gregarie sparsis, totam superficiem occupantibus, minutis, rotundatis, 0,3 mm. diam., pallide flavis; uredosporis sub-

globosis, ellipsoideis v. oblonge ovoideis, subhyalinis, 20-35 \approx 16-22, echinulatis; soris teleutosporiferis amphigenis sparsis, diutius tectis, dein erumpentibus, atro-brunneis, subpulverulentis, 0,3 μ . diam.; teleutosporis longe clavatis, apice plus minus incrassatis, obtuse rotundatis, applanatis vel varie apiculatis, flavo-brunneis, medio 1-septatis vix constrictis, 35-60 \approx 13-18; pedicello cuneato, fuscescente, 10-20 \approx 4-6.

Hab. in foliis Cannæ spec., in horto botanico, S. Paulo Brasiliæ.

306. **Puccinia citrina** Syd. Mon. Ur. I (1903) p. 634, t. XXXVI, f. 483. 1235

— Soris uredosporiferis amphigenis, maculis nullis v. vix distinctis insidentibus, sæpius dense sparsis, subinde foliorum superficiem æque obtegentibus vel in greges dispositis vel circinatis, minutis, punctiformibus, flavo-brunneis; uredosporis ellipsoideis, remote et valide aculeatis, citrinis, 35-60 \approx 27-35, episporio usque 5 μ . crasso, apice non vel vix incrassato; soris teleutosporiferis hypophyllis, æque sparsis vel gregariis vel circinatim dispositis, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis oblongis, apice rotundatis, incrassatis, usque 8 μ ., medio leniter constrictis, basi rotundatis, levibus, obscure citrinis, 40-58 \approx 19-25; pedicello concolori, persistenti, usque 95 μ . longo, 18 μ . crasso.

Hab. in foliis vivis Smilacis Gaudichaudianæ in regione Sinarum (HILLEBRAND).

307. **Puccinia Henryana** Syd. Mon. Ured. I (1903) p. 633, tab. XXXV, 1236

fig. 482. — Soris teleutosporiferis hypophyllis, maculis indeterminatis rufo- vel obscuro-brunneis insidentibus, sparsis vel paucis aggregatis vel interdum circinatis, rotundatis, hemisphæricis, ca. 1 mm. diam., compactiusculis, epidermide rupta subinde cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis vel acutiusculis, valde incrassatis, 10-16 μ ., medio constrictis, basi plerumque attenuatis, levibus, dilute brunneis, 38-56 \approx 14-19; pedicello hyalino persistenti, sporam æquante.

Hab. in foliis vivis Smilacis menispermoidis pr. Huphe Sinarum (A. HENRY).

308. **Puccinia Smilacis-Chinæ** P. Henn. in Hedw. 1901, p. (125). — 1237

Maculis fuscidulis; soris hypophyllis, sparsis, pulvinato-applanatis, subceraceis, firmis, ochraceis, dein cinnamomeis usque ad 1 mm. diam.; uredosporis interdum intermixtis, ellipsoideis v. subglobosis, subcastaneis, 20-24 \approx 20-22, subverrucosis; teleutosporis oblonge el-

lipsoideis v. subclavatis, apice obtuse rotundatis haud incrassatis, medio septatis plus minus constrictis, primo flavidis, dein brunneis, intus granulatis, 30-60 \approx 18-30; pedicello clavato v. subfusoides, gelatinoso-inflato, longitudinaliter sulcato, hyalino, usque ad 100 μ . longo, 15-30 μ . crasso.

Hab. in foliis *Smilacis Chinæ*, prope Kamomura in prov. Tosa Japoniæ.

309. **Puccinia Beschiana** R. Maire in Bull. Soc. bot. de France 1901, 1238
tom. XLVIII, p. CCXVII, tab. 13, f. IV (Etym. a mycophilananceiensi Besch). — Soris uredosporiferis in foliorum vivorum maculis atro-purpureis insidentibus, oblongis vel ellipticis, ochraceo-fulvis, minutis, diu epidermide tectis, sparsis v. irregulariter congregatis, aparaphysatis; uredosporis subglobosis vel ovoideis, 18-26 \approx 15-24, episporio tenui, dilute brunneo, aculeato, duobus, rarius tribus poris prædito, contentu hyalino; soris teleutosporiferis in foliis emortuis sparsis, atro-brunneis, ovatis vel ellipticis, 0,5-1 mm. long., mox nudis, firmulis, aparaphysatis; mesosporis nullis; teleutosporis ad septum constrictulis, clavatis v. oblongo-clavatis, 40-53 \approx 13-19, episporio undique crassiusculo, apice autem 11-15 μ incrassato nec non concentrice striato, dilute ochraceo-brunneo, levissimo; cellulæ superioris poro apicali, cellulæ autem inferioris juxta septum posito; pedicello plus minusve deciduo brunneolo, usque 30 μ . longo.

Hab. in foliis *Luzulæ Forsteri*, in pinetis Valdoniello Corsicæ.

310. **Puccinia cyrnæa** R. Main. in Bull. Soc. Bot. de France 1901, 1239
tom. XLVII, p. CCXVI cum icone (Etym. *Cyrnos* nomen græcum Corsicæ), — Soris teleutosporiferis subcutaneis, rimis plurimis dehiscentibus, illis *P. cancellatæ* fere similibus, sed minus elongatis, minus bullatis, firmulis, atro-brunneis; uredosporis nullis intermixtis; teleutosporis clavatis, oblongis v. fusoides, 37-72 \approx 19-26, brunneis, levibus, apice valde incrassatis, usque 11 μ ., rotundatis acuminatisve, basi in pedicellum validum, usque ad 80 μ . longum, brunneolum, persistentem, 6-11 μ . cr., attenuatis; mesosporis nonnullis intermixtis, forma et dimensione variis, plerumque ovoideis, clavatis vel rhomboideis, apice valde incrassatis.

Hab. in culmis foliisque vivis *Junci maritimi*, in paludosis maritimis, in sinu Figari Corsicæ.

311. **Puccinia riparia** Holway, Journ. of Mycol. 1904, pag. 163. — 1240
Pycnidiis epiphyllis, paucissimis, e flavo fusciscentibus; maculis

flavis non incrassatis; æcidiis hypophyllis sparsis, 1-6 in quoque soro (v. in cultura late confluentibus), margine recurvo in 2-8-lacinias fisso; æcidiosporis globosis, hyalinis, minute asperulis, 22-26 plerumque 22 μ . diam., tenue tunicatis; uredosoris hypophyllis, oblongis, brunneis; uredosporis globoso-ellipsoideis, 26-33 \approx 22-26, spinulis 3 μ . alt. conspersis, brunneis, minute rugulosis; pedicellis hyalinis 35-40 μ . long.; teleutosoris hypophyllis oblongis, mox erumpentibus; teleutosporis oblongis v. oblongo-clavatis, medio constricto-septatis, 30-40 \approx 13-15, apice 7-11 μ . incrassato; pedicello colorato, sporam æquante; cellula super. rotundata rarius acutata v. truncata, tunica tenui.

Hab. st. teleut. et uredosp. in foliis Caricis ripariæ, pycnid. et æcid. in fol. Ribis floridi, Decorah Jowa Amer. bor.

312. **Puccinia Æcidii-Leucanthemi** Ed. Fisch. in Bull. de l'Herb. 1241

Boiss. VI, 1898, pag. 11, Syd. Mon. Ured. I, 1903, p. 663, *Æcidium Leucanthemi* D. C. — Syll. VII, p. 803 — *Cæoma Leucanthematum* Link Spec. II, p. 51. — Æcidiis hypophyllis, maculis orbicularibus v. irregularibus flavidis v. purpureis v. rufo-purpureis 3-12 mm. diam. insidentibus, in greges orbiculares v. irregulares dispositis v. sine ordine distributis, cupulatis, margine late recurvato, flavido, inciso; æcidiosporis angulato-globosis, verruculosis, aurantiacis, 14-20 μ . diam.; soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 250 μ . longis, brunneis; uredosporis globosis, subglobosis vel ovatis, echinulatis dilute brunneis, 20-26 \approx 18-22; soris teleutosporiferis hypophyllis, sparsis, minutissimis, 250 μ . diam., epidermide diutius tectis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. sæpius conico-attenuatis, valde incrassatis, 14-17 μ ., medio leniter constrictis, basi attenuatis, levibus, brunneis, apice saturatoribus, 44-50 \approx 18-21; pedicello subhyalino, dimidium sporæ æquante, persistenti.

Hab. æcidia in foliis vivis Chrysanthemi Leucanthemi, uredo et teleutosporæ in foliis vivis Caricis montanæ, in Germania, Austria, Hungaria, Helvetia, Italia, Fennia, Rossia.

313. **Puccinia nonensis** P. Henn. Pilze Japon. II, p. 151, Hedw. 1904. 1212

— Maculis fuscis vel atris, rotundatis; soris rotundatis planis, amphigenis gregariis, atris; teleutosporis elongato-clavatis, apice valde incrassatis usque ad 15 μ ., applanatis v. rotundatis, interdum crenatis v. conicis, brunneo-castaneis, medio 1-septatis constrictis, intus granulatis, episporio tenui vix 1 μ . crasso, brunneo. 35-48 \approx 14-18 μ .; pedicello ca. 20 \approx 4-6 μ . hyalino-flavidulo.

Hab. in foliis Caricis spec. in mt. None, Tosa Japoniæ, (T. YOSHINAGA). — Ab affini *P. ludibunda* teleutosporis apice valide incrassatis præcipue dignoscitur.

314. **Puccinia albi-peridia** Arth. Journ. Mycol. 1902, p. 53, Syd. Mon. 1243

Ured. I, p. 652. — Pycnidiis amphigenis; æcidiis hypophyllis, maculis orbicularibus vel suborbicularibus, flavescens insidentibus, in greges rotundatos circinatim dispositis, cupulatis, margine albo reflexo inciso. æcidiosporis angulato-globosis, levibus, flavescens, 15-20 μ . diam. episporio tenui; soris uredosporiferis hypophyllis, minutis, rotundatis vel oblongis, mox nudis; uredosporis oblongis, minutis, echinulatis; soris teleutosporiferis hypophyllis, rotundatis v. oblongis, pulvinatis, obscure brunneis; teleutosporis oblongo-cuneatis, apice rotundatis, valde incrassatis, medio non v. vix constrictis, 32-45 \times 17-24; pedicello colorato, sporam æquante vel ea brevior.

Hab. æcidia in foliis Caricis Cynosbati, gracilis, uredosporæ et teleutosporæ in foliis vivis Caricis pubescentis, in Amer. bor.

315. **Puccinia Peckii** (De Toni) Kellerm. in Journ. of Mycol. 1902, 1244

pag. 20 et p. 52 et 1903, f. 11, Sydow. Mon. Ured. I, 1903, pag. 671, *Æcidium Enotheræ* Peck et *Æcid. Peckii* De Toni. — Syll. VII, p. 790. — Æcidiis hypophyllis, maculis subrotundatis plerumque purpureis v. flavo-purpureis, usque $\frac{3}{4}$ cm. diam., insidentibus, in greges maculam explentes laxè dispositis, cupulatis, margine erecto vel vix recurvato, inciso, flavidis; æcidiosporis subglobosis vel angulato-globosis, punctatis, dilute flavidis, 14-18 μ . diam.; soris uredosporiferis hypophyllis, maculis indeterminatis, flavo-brunneis insidentibus, sparsis vel seriatim dispositis, oblongis, hinc inde confluentibus et usque 3 mm. longis, epidermide diutius tectis, ferrugineo-fuscis; uredosporis globosis subglobosis v. ellipsoideis, echinulatis, dilute brunneis, 24-32 \times 19-26; soris teleutosporiferis hypophyllis, maculis indeterminatis, brunneis insidentibus, sparsis, subinde confluentibus, plerumque rotundatis vel ellipticis, usque $\frac{3}{4}$ mm. diam., compactis, epidermide fissa cinctis, atris; teleutosporis clavatis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 14 μ . et obscurioribus, medio non vel vix constrictis, basi attenuatis, levibus, dilute brunneis, 38-56 \times 11-16; pedicello flavido, persistenti, usque 55 μ . longo.

Hab. æcidia in foliis vivis *Enotheræ* biennis, uredosporæ

et teleutosporæ in foliis Caricis trichocarpæ, stipatæ, in Amer. bor.

316. **Puccinia Opizii** Bubák in Centralbl. f. Bakter. u. Parass. 1902, 1245 IX, p. 925, *Æcidium lactucinum* Lagh. et Lindr. Act. pro Fauna et Fl. Fenn. 1901, XX, n. 9, p. 19, cum icone, *Æcid. Opizii* Bubák l. c.: cfr. Syd. Mon. Ured. vol. I, pag. 659. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis purpurascensibus vel roseolis, zona flavescenti plus minusve expansa circumdatis, 0,5-1,5 cm. latis insidentibus, in greges maculam explentes dispositis, cupulatis vel breviter cylindræis, margine revoluto lacerato albo; æcidiosporis globosis, subglobosis vel ellipsoideis, verruculosus, aurantiacis, 16-25 \approx 14-22; soris uredosporiferis hypophyllis, maculis minutis flavescentibus insidentibus, sparsis, minutis, ovatis vel oblongis, epidermide primitus tectis, demum nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis, ellipsoideis vel oblongo-ellipsoideis, remote echinulatis, brunneis, 18-33 \approx 17-22, poris germinationis duobus præditis; soris teleutosporiferis hypophyllis v. culmicolis, sparsis v. hinc inde aggregatis, folia sæpeque omnino tegentibus, minutis, ovatis v. oblongis, diu tectis, pulvinatis atris; teleutosporis clavatis vel oblongo-clavatis apice rotundatis, truncatis vel conico-attenuatis, valde incrassatis, 10-18 μ . obscurioribusque, medio leniter constrictis, basi in pedicellum attenuatis, levibus, flavo-brunneis, 35-60 \approx 13-24; pedicello hyalino, persistenti, sporam æquante.

Hab. æcidia in foliis vivis Lactucæ muralis, Scariolæ, uredo et teleutosporæ in foliis caulibusque vivis Caricis muricatæ, in Germania, Austria, Suecia, Fennia.

317. **Puccinia Caricis** (Schum.) Rab. — Syll. VII, p. 626. — Quoad formas heterœciâ distinguendas cfr. Klebahn ap. Syd. Monogr. Ured. I (1903), p. 652.
318. **Puccinia Caricis-Asteris** Arthur, Journ. of Mycol. 1902, p. 54, 1246 Syd. Mon. Ured. I, 1903, p. 665, *Æcidium Asterum* Schw. — Syll. VII, pag. 802, p. p. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis vel subrotundatis flavis vel flavo-purpureis insidentibus, in greges circinatim dispositis vel irregulariter consociatis, cupulatis v. breviter cylindræis, margine recurvato profunde lacerato; æcidiosporis angulato-globosis, minute verruculosus, flavescentibus, 12-18 μ . diam., episporio tenui; soris uredosporiferis, hypophyllis, oblongis; uredosporis ovatis v. oblongis, echinulatis 18-22 \approx 12-16, episporio tenui, poris germinationis pau-

cis sparsis instructis; soris teleutosporiferis hypophyllis, oblongis v. oblongo-linearibus, mox nudis, epidermide rupta cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, $58-56 \approx 16-22$; pedicello colorato dimidium sporæ æquante.

Hab. æcidia in foliis vivis *Asteris cordifolii*, paniculati, *salicifolii*, *spathulati*, uredo- et teleutosporæ in foliis vivis *Caricis fœneæ*, Amer bor.

319. **Puccinia Caricis-Erigerontis** Arth. Journ. of Myc. 1902 p. 53, Syd. 1247

Mon. Ured. I, 1903, p. 664, tab. XXXVII, fig. 489, *Æcidium erigeronatum* Schw. — Syll. VII, p. 801. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis vel irregularibus, magnis ca. 0,5-2 cm. latis vel subinde totum folium occupantibus, flavis v. purpureo-flavidis insidentibus, in greges rotundatos usque 1,5 cm. diam. dispositis, minutis, cupulatis, margine albo inciso reflexo; æcidiosporis angulato-globosis, subtiliter verruculosis, flavescentibus, 13-20 μ . diam.; soris uredosporiferis hypophyllis, sparsis, minutis, oblongis, demum nudis dilute brunneis; uredosporis subglobosis v. ovatis, echinulatis, dilute brunneis, $16-22 \approx 13-20$, poris germinationis 3-4-instructis; soris teleutosporiferis hypophyllis, sparsis, minutis, rotundatis v. oblongis, pulvinatis, epidermide fissa cinctis, atro-brunneis; teleutosporis clavatis, apice rotundatis vel truncatis, incrassatis usque 8 μ . et obscurioribus, medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, $35-50 \approx 12-20$; pedicello flavido, persistenti, usque 35 μ . longo.

Hab. æcidia in foliis vivis *Erigerontis annui*, *bellidifolii*, *canadensis*, *philadelphici*, *strigosi*, uredo- et teleutosporæ in foliis vivis *Caricis festucaceæ*, Amer. bor.

320. **Puccinia Caricis-montanæ** Ed. Fischer in Hedw. 1903, p. (136), 1248

Æcidium Centaureæ-Scabiosæ P. Magn. — Syll. IX, p. 324: cfr. Sydow Mon. Ured. I, p. 662. — Soris longitudinaliter dispositis, elongatis 1 mm. long. 250-350 μ . cr., mox nudis; uredosporis globosis v. ellipsoideis, 18-21 μ . diam., membrana brunnea, minutissime hyalino-verruculosa; poris germinationis duobus; teleutosporis piriformibus apice rotundatis, interdum inæquilateris, rarius papillatis, deorsum sensim in stipitem attenuatis, leviter constrictis, $42-52 \approx 18-24$; membrana levi, brunnea, apice valde incrassata usque 10-14 μ ., poro germinativo in cellula superiori subapicali, in inferiori prope septum sito; stipite hyalino, teleutosporam subæquante.

Hab. in foliis *Centaureæ montanæ* in Helvetia.

321. **Puccinia Caricis-Solidaginis** Arth. in Bot. Gaz. XXXV, 1903, 1249 p. 21, Syd. Mon. Ured. I, 1903, pag. 666, *Æcidium Solidaginis* Schw. — Pycnidiis amphigenis; æcidiis hypophyllis, maculis orbicularibus v. suborbicularibus flavis, 0,5-1 cm. diam., insidentibus, in greges maculam sæpe explentes dispositis, cupulatis vel breviter cylindræis, margine recurvato, profundo lacerato; æcidiosporis angulato-globosis, minute verrucosis, flavescentibus, 14-20 μ . diam.; soris uredosporis et teleutosporis iis *Pucc. Caricis-Asteris* et *Pucc. Caricis-Erigerontis* affinis.

Hab. æcidia in foliis vivis *Solidaginis bicoloris*, cæsiæ, canadensis, lanceolatæ, latifoliæ, rigidæ, serotinæ, ulmifoliæ, uredo- et teleutosporæ in foliis vivis *Caricis Jamesii*, stipatæ in Amer bor.

322. **Puccinia Yokoguræ** P. Henn. in Hedw. 1903, p. (107). — Ma- 1250 culis flavidulis v. fuscidulis explanatis; uredosporis sparsis, hypophyllis, minutis, ferrugineis; uredosporis subglobosis, ovoideis vel ellipsoideis, brunneis, verrucosis, 20-22 \times 16-18; teleutosporis hypophyllis, sparsis v. gregariis, minutis, rotundato-pulvinatis, atrocastaneis; teleutosporis clavatis vel subfusoides, apice obtuse rotundatis v. apiculatis, usque ad 10 μ . incrassatis, medio 1-septatis, leniter constrictis, episporio castaneo, levi, 20-40 \times 15-20; pedicello persistente, hyalino-fuscidulo ca. 6 μ . crasso.

Hab. in foliis *Caricis spec.*, Mt. Yokogura, Tosa Japoniæ (YOSHINAGA).

323. **Puccinia karelica** Tranzsch. Centralbl. fr. Bakter. u. Parass. 1251 1903, II, Abt., Bd. XI, p. 106. — (Absque diagnosi).

Hab. æcidium in foliis *Trientalis europææ*, II et III in fol. *Caricis limosæ*, in Rossia.

324. **Puccinia Dulichii** Syd. Monogr. Ured. I, p. 684, t. XXXVIII, 1252 fig. 507. — Soris uredosporiferis hypophyllis, sine maculis, sparsis vel interdum aggregatis, minutis, rotundatis v. oblongis, brunneis; uredosporis subglobosis vel ellipsoideis, remote echinulatis, dilute brunneis, 16-19 \times 11-16; soris teleutosporiferis hypophyllis, sine maculis, sparsis vel seriatim dispositis, oblongis v. linearibus, 0,5-1,5 mm. longis, epidermide fissa cinctis, pulvinatis, atris; teleutosporis clavatis, apice rotundatis, valde incrassatis, 8-14 μ ., medio constrictis, basi cuneato-attenuatis, levibus, dilute brunneis, apice saturatius coloratis, 38-60 \times 15-19; pedicello brunneolo, persistenti, breviusculo.

Hab. in foliis vivis *Dulichii* spathacei in America bor.
(FARLOW, SEYMOUR).

325. **Puccinia Romagnoliana** Maire et Sacc. in Ann. Mycol. 1903, 1253
n. 3. — Soris utriusque formæ foliicolis vel culmicolis, semper epidermide tectis, ellipticis vel linearibus, sparsis vel gregariis, sæpius confluentibus, longitudine rarissime 3 mm. superantibus; soris uredosporiferis bullatis, pallide cinnamomeis, aparaphysatis; uredosporis ovoideis vel interdum subglobosis, 21-28 \times 16-21; episporio brunneo, aculeolato, duobus poris germinationis prædito; soris teleutosporiferis bullatis, fusco-atris, paraphysatis; teleutosporis inter paraphyses nidulantibus, breviter pedicellatis v. subsessilibus, plerumque oblongis vel subclavatis, medio haud vel parum constrictis, episporio subtenui, levi, dilute brunneo, nec poris germinationis præditis, juvenilibus apice apiculo incrassato sæpe e pressione lateraliter evoluto auctis, adultis autem plus minusve rotundatis, paullo incrassatis, 40-60 \times 13-20.

Hab. in foliis culmisque *Cyperi longi*, Liamone et prope Ajaccio in paludosis Corsicæ.

326. **Puccinia hydnoidea** (B. et C.) Arthur, Journ. of Mycol. 1904, 1254
vol. X, p. 19, *Æcidium hydnoideum* B. et C. — Syll. VII, p. 790.
— Pycnidiis amphigenis in parvulos greges in maculis latis luteis insidentibus, punctiformibus; æcidiis hypophyllis; pseudoperidiis brevibus, cylindricis, pallidis, margine paullo recurvatis, minute laceratis; æcidiosporis globosis vel oblongo-globosis, 14-19 \times 11-15; episporio 1 μ . crasso, luteolo minute verrucoso; soris uredosporiferis præcipue epiphyllis, oblongis, subimmersis, pulverulentis, fuscis; uredosporis globosis vel obovato-globosis, 20-28 \times 18-21; episporio 1 μ . crasso, brunneo, valde echinulato; poris germinationis 4 vel ultra; soris teleutosporiferis, præcipue hypophyllis et cauliculis, minimis, numerosis, oblongis, epidermide tectis; teleutosporis lineari-oblongis, 30-50 \times 13-18 superne truncatis, inferne obtusis vel subconicis, ad septum non constrictis; episporio levi, pallide brunneo, 1-1,5 μ . cr., apice 4-7 μ . cr.; pedicello brevissimo, pallide colorato; paraphysibus paucis vel nullis.

Hab. in foliis *Dircæ palustris* (*Æcidium*); in foliis *Bromi ciliati* (*Puccinia*) in America bor.

327. **Puccinia Mühlenbergiæ** Arth. et Holw. Bull. Nat. Hist. Univ. 1255
Jowa, 1902, p. 317, Syd. Monogr. Ured. p. 765, *Æcidium hibisciatum* Schw. — Syll. VII, p. 781, *Pucc. hibisciatum* Kellerm. in Journ. of Mycol. 1903, vol. 9, p. 110. — *Æcidiis* hypophyllis,

= *P. schenckii*

maculis orbicularibus brunneis, margine flavis, magnis, 0,5-1,5 cm. diam., insidentibus, in greges totam maculam explentes, plerumque dense confertis, subinde irregulariter circinatis, breviter cylindraceis, margine recurvato, lacerato; æcidiosporis globosis, angulato-globosis v. late ellipsoideis, punctatis flavidis, 20-26 μ . diam.; soris uredosporiferis hypophyllis vel hinc inde amphigenis, minutis, oblongis, mox nudis, pulverulentis, dilute brunneis; uredosporis globosis v. subglobosis, dense et distincte echinulatis, flavo-brunneis, 22-30 μ . diam., episporio tenui, poris germinationis circ. 5 sparsis instructis; soris teleutosporiferis plerumque hypophyllis, dein sparsis, subrotundatis, oblongis vel lineari-oblongis, 0,5-1,5 mm. longis, subinde confluentibus, atro-brunneis; teleutosporis ellipsoideis v. ellipsoideo-oblongis, apice rotundatis, leniter 4-6 μ . incrassatis, medio non vel parum constrictis, basi rotundatis vel leniter attenuatis, levibus, brunneis, 30-40 \approx 18-27, episporio mediocri; pedicello brunneolo, firmo crassiusculo, sporam æquante vel ea paullo longiore, subinde oblique inserto.

Hab. æcidia in foliis vivis Hibisci moschati, uredo- et teleutosporæ in foliis vivis Mühlenbergiæ diffusæ, mexicana, racemosæ (=glomeratæ) in Amer. bor.

328. **Puccinia Zoysiæ** Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1256
hypophyllis, mediocribus, oblongis; uredosporis ellipsoideis v. obovatis 17-21 \approx 15-17, episporio hyalino vel flavescenti subcrasso verruculoso donatis; soris teleutosporiferis atro-fuscis, firmis, nudis, pulvinatis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, rarius apice conoideis vel truncatis, ad septum leniter vel non constrictis, 28-40 \approx 16-25; episporio levi, castaneo, apice modice incrassato vestitis, pedicello hyalino, usque 80 μ . longo suffultis.

Hab. in foliis Zoysiæ pungentis, Tokyo Japoniæ (KUSANO).

329. **Puccinia vilis** Arthur in Bull. Torr. Bot. Cl. 1901, p. 663. — 1257
Soris amphigenis, oblongis vel linearibus, in maculis brunneis insidentibus, subepidermicis, brunneis (ured.) et brunneo-nigris (teleut.); uredosporis ellipticis, ovatis v. globosis, 18-26 \approx 22-30, brunneo-luteolis, episporio 3-4 μ . cr., echinulato-verruculoso donatis; teleutosporis ellipticis vel obovatis, 19-23 \approx 33-45, apice obtusis, brunneis, basi rotundatis v. angustatis; pedicello concolori, firmo sporæ subæquilongo.

Hab. in foliis Panici Crus-Galli prov. Jowa, Amer. bor.

330. **Puccinia Triticorum** Speg. Myc. argent. ser. II, 1902, p. 65. — 1258

Maculis nullis; acervulis epidermide semper tectis, linearibus, duris, fuscis; soris depressis, subsclerotiaceis, sæpe confluentibus 0,4-1,2-5 mm. long. 0,4-0,5 mm. lat., extus fuscis, intus atris; teleutosporis e clavulato bacillaribus, pallide ferrugineis, 40-50 \times 11-18, loculo supero ovato v. subcuboideo, 15-20 \times 16-18, subdenticulato crasseque tunicato, infero elongato cuneato, 25-30 \times 11-15, pedicello persistente 10-15 \times 6-8 subhyalino ornatis.

Hab. ad folia Triticorum cultorum, prope S. Juan in Argentina. — Species habitu externo *P. coronatæ* Corda et *Pucc. Brachypodii* Otth simillima, sed notis internis longè recedens.

331. **Puccinia triticina** Erikss. in Ann. Sc. Nat. 1899, p. 270, Syd. 1259
 Monogr. Uredin. I, p. 716, *Uredo triticina* Erikss. l. c. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, oblongis, mediocribus, ferrugineis; uredosporis globosis v. subglobosis, echinulatis, flavis, 20-27 μ . diam.; soris teleutosporiferis hypophyllis v. culmicolis, sparsis, in culmo sæpe seriatim dispositis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis, sæpe obtuse et oblique angustatis, vix v. parum incrassatis, medio leniter constrictis, basi attenuatis, levibus, brunneis, 30-45 \times 12-20; pedicello brevi; paraphysibus brunneolis numerosis.

Hab. in foliis culmisque Tritici compacti, dicocci, Speltæ, vulgaris in tota Europa et Amer. bor.

332. **Puccinia Triseti** Erikss. in Ann. Sc. Nat. 1899, p. 277, Syd. 1260
 Monogr. Ured. I, p. 716, *Uredo Triseti* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, flavo-brunneolis v. flavidis; uredosporis globosis vel subglobosis, echinulatis, flavis, 18-29 μ . diam.; soris teleutosporiferis hypophyllis, rarius evolutis, minutis, punctiformibus, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel obtuse et oblique angustatis, leniter incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brunneis, 32-48 \times 16-23; pedicello brevi; paraphysibus brunneolis.

Hab. in foliis Triseti flavescentis in Germania, Italia, Gallia et Suecia.

333. **Puccinia tosta** Arthur in Bull. of the Torr. Bot. Club 1902, 1261
 pag. 228. — Soris uredosporiferis amphigenis, minutis, brunneo-luteis, cito nudis; uredosporis globosis 20-30 μ . diam.; episporio brunneo-luteolo, exili 1,5 μ . crasso, dense minuteque tuberculatis, poris 6 vel pluribus, sparsis; soris teleutosporiferis amphigenis,

prominentibus, rotundatis vel oblongis, nigro-brunneis, erumpentibus, nudis; teleutosporis globosis vel oblongis, 20-30 \times 30-40, utrinque rotundatis, parce constrictis, apice paullo acuminatis 5-10 μ ., pedicello crasso, firmo, colorato, sporâ duplo vel triplo longiore donatis.

Hab. in foliis *Sporoboli cuspidati*, utilis, asperifolii in Amer. bor. — Var. **luxurians** Arthur l. c.: uredosporis paullo latioribus quam in typo, valde tuberculatis fere echinulatis, episorio fere 2 μ . crasso; soris teleutosporiferis elongatis; teleutosporis latioribus, 43-55 \times 27-32. In foliis *Sporolobi airoidis*, Andrews, Oreg., Amer. bor.

334. **Puccinia subandina** Speg. Myc. argent. ser. II, 1902, p. 65. — 1262

Maculis nullis; acervulis orbicularibus 0,5 mm. diam, depressis, subnudis, duriusculis; soris innato-erumpentibus, obscure ferrugineis, sparsis; teleutosporis clavulatis, apice subtruncatis v. obtusissime rotundatis ibique crasse tunicatis, 60 \times 14-20, loculo supero obovato 20-25 \times 18-20, infero cuneato, 30-35 \times 14-16, pallide fulvis, levibus, ad septum leniter constrictis, stipitibus flexuosis, 20-30 \times 5-8 hyalinis præditis.

Hab. in foliis vivis *Poæ chorizanthæ*, secus Carrenleofu in Argentina.

335. **Puccinia simplex** (Koern.) Erikss. et Henn. in *Getreideroste* 1263

1896, pag. 238, Sydow Mon. Ured. I, pag. 756, *P. graminis* Fuck. var. *simplex* Koern. *P. rubigo-vera* (D. C.) var. *simplex* Auct. — Syll. VII, p. 625. — *P. anomala* Rostr. — Soris uredosporiferis, amphigenis, sparsis, minutis, punctiformibus, flavis; uredosporis subglobosis v. ellipsoideis, echinulatis, flavis, 19-22 μ . diam. v. 22-27 \times 15-20; soris teleutosporiferis amphigenis v. sæpe culmicolis, in folio sparsis, minutis, punctiformibus, in culmo majoribus, plerumque oblongis confluentibusque, epidermide tectis, atris; teleutosporis septatis plus minusve evolutis, oblongo-clavatis, apice rotundatis v. oblique conico-attenuatis, 4-8 μ . incrassatis, levibus, brunneis, 40-54 \times 15-24; pedicello brunneolo, brevi; mesosporis plerumque numerosissimis, asymmetricis, oblongis vel clavulatis, variabilibus, apice 4-10 μ . incrassatis, 25-45 \times 16-24; paraphysibus brunneis, apice incrassatis.

Hab. in foliis culmisque *Hordei distichi*, secalini, vulgaris, zeocriti, in tota Europa et Asia minori.

336. **Puccinia rufipes** Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1264

oblongis vel linearibus, hypophyllis, minus copiose etiam epiphyll-

lis, uredosporiferis ochraceis; uredosporis obovatis vel ellipsoideis, echinulatis, obscure castaneis vel rufis, 25-35 \approx 18-26, poris 4 æquatorialibus instructis, paraphysibus capitatis pallidis intermixtis; soris teleutosporiferis atris; teleutosporis ellipsoideis, utrinque rotundatis ad septum leniter constrictis, levibus, apice vix incrassatis, 28-33 \approx 20-23. pedicello longissimo usque 90 μ ., intense rufo-brunneo interdum oblique vel lateraliter inserto, firmo suffultis.

Hab. in foliis Imperatæ arundinaceæ var. Koenigii, Tokyo Japoniæ (KUSANO).

337. **Puccinia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1265
1902, p. 105. — Maculis pallidis v. obsoletis; soris uredosporiferis hypophyllis v. amphigenis, sparse gregariis, punctiformibus, rotundatis diutius tectis, flavidulis; uredosporis subglobosis, ellipsoideis v. ovoideis, 20-30 \approx 20-24, flavidis, aculeatis; soris teleutosporiferis amphigenis, rotundatis v. oblongis, diutius tectis, fuscis; teleutosporis oblonge ovoideis v. clavatis, apice valde incrassatis, rotundatis, interdum oblique papillatis, medio 1-septatis, haud v. paulo constrictis, flavidis, 30-40 \approx 15-20, episporio brunneo, levi; pedicello persistente, flavido, usque ad 30 \approx 4-6.

Hab. in foliis Panicis prope S. Paulo Brasiliæ.

338. **Puccinia Paniculariæ** Arth. in Bull. Torr. Bot. Cl. 1901, p. 663. 1266
— Soris amphigenis, oblongis, parvulis, subepidermicis; uredosporis subglobosis vel oblongis, pallide luteis, 18-26 \approx 15-21; episporio minute verruculoso; teleutosporis oblongis, clavatis vel lineariformibus, brunneis, ad septa parce constrictis, 43-70 \approx 15-19, apice rotundato-obtusis, papillatis, basi angustatis; pedicello brevissimo brunneolo; paraphysibus nullis.

Hab. in foliis Paniculariæ americanæ (= *Glyceria grandis*), Spirit Lake, Iowa Amer. bor. (J. C. ARTHUR).

339. **Puccinia Micranthæ** Griff. Bull. Torr. Cl. 1902, pag. 299, Syd. 1267
Mon. Ured. I, p. 768, tab. XLI, fig. 536. — Soris teleutosporiferis epiphyllis, sparsis, minutis, rotundatis vel oblongis, atris; uredosporis immixtis globosis v. subglobosis v. ellipsoideis, subtiliter echinulatis, flavis, 15-18 μ . diam; teleutosporis variabilibus, ovato-ellipsoideis, oblongis vel oblongo-clavulatis, apice sive rotundatis sive longe attenuatis, valde incrassatis, usque 17 μ ., medio constrictis, basi rotundatis, rarius attenuatis, levibus, brunneis, 30-50 \approx 14-25; pedicello hyalino persistenti, usque 90 μ . longo.

Hab. in foliis vivis Oryzopsidis micranthæ, Billings in Montana Amer. bor. (WILLIAMS et GRIFFITS).

340. **Puccinia Melicæ** (Erikss.) Syd. Monogr. Ured. I, p. 760, *Pucc.* 1268
coronata f. *Melicæ* Erikss. in Ber. Deutsch. Bot. Gesell. 1894,
 p. 322. — Soris uredosporiferis hypophyllis, sparsis, minutissimis,
 rotundatis vel oblongis, pulverulentis, aurantiacis; uredosporis glo-
 bosis, subglobosis, ellipsoideis v. angulatis, subtilissime echinulatis,
 flavescentibus, 15-18 \approx 11-16, paraphysibus nullis; soris teleutospori-
 feris raro evolutis, hypophyllis, minutissimis, atris; teleutosporis
 clavatis, apice applanatis, dentibusque acutis instructis, medio non
 vel parum constrictis, basi attenuatis, levibus, brunneis, 9,5-11 μ .
 latis, loculo superiore 24-37 μ . longo, inferiore 32-37 μ . longo
 (sec. Eriksson); pedicello brevi.

Hab. in foliis *Melicæ nutantis* in Germania, Suecia, Nor-
 vegia.

341. **Puccinia kozukensis** Diet. in Bot. Jahrb. 1902, p. 48. — Soris 1269
 hypophyllis oblongis vel rotundatis; uredosporis late ellipsoideis,
 flavescentibus, verruculosis, ca. 24 \approx 21; soris teleutosporiferis pul-
 vinatis, nudis, atris; teleutosporis obovatis vel oblongis, utrinque
 rotundatis, rarius basi attenuatis, ad septum leniter constrictis
 33-45 \approx 18-25, episporio levi, castaneo, apice usque 8 μ . incre-
 sato vestitis, pedicello longo, hyalino, firmo instructis.

Hab. in foliis *Andropogonis spec.* in prov. Kozuké Japo-
 niæ (KUSANO).

342. **Puccinia Hookeri** Syd. Monogr. Ured. I, p. 723, tab. XXXIX, 1270
 fig. 515. — Soris teleutosporiferis amphigenis, sparsis, rotundatis
 v. oblongis 0,5-1,5 mm. longis, mox nudis, compactis, obscure
 brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis,
 verruculosis, flavis, 24-30 \approx 20-26; episporio crasso, 5-6 μ .; teleu-
 tosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis vel
 rarius obtuse conico-attenuatis, valde incrassatis usque 10 μ ., me-
 dio non v. leniter constrictis, basi rotundatis, levibus, flavo-brun-
 neis, 38-54 \approx 26-35; pedicello hyalino persistenti, crasso, usque
 100 μ . longo.

Hab. in foliis *Andropogonis echinulati*, Himalaya In-
 diæ or. (HOOKER FIL. et THOMSON).

343. **Puccinia holcina** Erikss. in Ann. Sc. Nat. 1899, p. 274, Syd. 1271
 Monogr. Ured. I, p. 715, *Uredo holcina* Erikss. l. c. — Soris ure-
 dosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde
 aggregatis, minutis, oblongis, flavo-brunneis; uredosporis globosis
 v. subglobosis, echinulatis, flavis, 20-28 μ . diam.; soris teleuto-
 sporiferis amphigenis, sparsis vel in vaginis lineariter aggregatis,

minutis, epidermide tectis, atris; teleutosporis ellipsoideo-clavatis v. clavatis, apice rotundatis v. obtuse et oblique angustatis, non v. parum incrassatis, medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, 34-54 \approx 16-24; pedicello brevi; paraphysibus brunneis, numerosis.

Hab. in foliis culmisque Holci lanati, mollis, in Germania, Austria, Hungaria, Italia, Norvegia, Suecia, ins. Madera.

344. **Puccinia Gymnopogonis** Syd. Monogr. Ured. I, p. 755, tab. XLI, 1272
fig. 531. — Soris teleutosporiferis hypophyllis, subinde culmicolis, sine maculis, sparsis, rotundatis, compactis, pulvinatis, 0,8-1 mm. diam., atris; teleutosporis ovato-ellipsoideis vel late ellipsoideis, apice rotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi rotundatis, levibus, castaneo-brunneis, 24-30 \approx 18-21, episporio ca. 2,5 μ . crasso; pedicello brunneo, persistenti, usque 60 μ . longo, sæpissime e latere inserto; mesosporis globosis vel subglobosis 18-24 μ . diam.

Hab. in foliis culmisque Gymnopogonis (Chloridis) foliosi, Santarem in prov. Parà Brasiliæ (R. SPRUCE).

345. **Puccinia glumarum** (Schum.) Erikss. et Henn. Die Getreideroste 1273
p. 141 (1896), Syd. Mon. Ured. I, p. 706, *Uredo glumarum* Schum. Allgem. ök. techn. Fl. I, p. 27 (1827). — Soris uredosporiferis hypophyllis, minutis, oblongis, usque 1 mm. longis, seriatim in lineas usque 7 cm. longas dispositis et interdum confluentibus, flavo-citrinis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, flavis, 25-30 \approx 18-26; soris teleutosporiferis hypophyllis v. culmicolis, in lineas longas dispositis, in spicis sæpe sparsis, oblongis, obscure brunneis v. atris, epidermide tectis; teleutosporis clavatis, apice rotundatis, truncatis v. conico-angustatis, incrassatis, 4-6 μ . interdum usque 10, medio leniter constrictis, basi attenuatis, levibus, brunneis, 30-70 \approx 12-24; pedicello brevissimo, subnullo; paraphysibus brunneis, numerosis.

Hab. in foliis, culmis vel spicis Brachypodii silvatici, Bromi mollis, Calamagrostidis Epigei, Elymi arenarii, Hordei hexastici, jubati, vulgaris, Secalis Cerealidis, Tritici canini, compacti, dicocci, desertorum, distichi, duri, gigantei, polonici, repentis, Speltæ, turgidi, vulgaris in tota Europa, Ægypto, America boreali, Japonia.

346. **Puccinia flavescens** Mc. Alp. Proc. Linn. Soc. N. S. Wales 1274
1903, p. 558. — Soris uredosporiferis epiphyllis, minutis, lineari-

bus, interdum confluentibus, immersis, pulverulentis, rufo-brunneis; uredosporis globosis vel breve-ellipsoideis, minute echinulatis, aureo-brunneis, 21-24 μ . diam. vel 25-28 \approx 21-24; poris germinationis 5, irregulariter sparsis; soris teleutosporiferis minutis, ellipsoideis, nigris, sæpe confluentibus; teleutosporis intense brunneis, oblongis, ad septum constrictis, apice rotundatis, levibus, 33-48 \approx 18-24; pedicello persistenti, colorato, usque 72 μ . longo.

Hab. in foliis *Stipæ flavescens*, Hampton in Victoria Australiæ.

347. **Puccinia Epicampis** Arthur, New spec. of Ured. in Bull. Torr. 1275 Bot. Cl. 1901, p. 662. — Soris amphigenis, oblongis vel linearibus; soris uredosporiferis brunneo-luteis, epidermide lacerata, liberis, prominentibus; uredosporis oblongis vel subglobosis 22-24 \approx 26-30, episporio brunneo echinulato vel papillato; soris teleutosporiferis intense brunneis; teleutosporis oblongis vel ellipticis, ad septa paullo vel non constrictis utrinque rotundatis, 30-40 \approx 22-26; pedicello firmo hyalino, basi colorato 40-90 μ . longo.

Hab. in foliis *Epicampis ringentis*, Hot Springs, N. Mex. Amer. bor.

348. **Puccinia Enteropogonis** Syd. Monogr. Ured. I, p. 751, t. XL, 1276 fig. 528. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis, minutis, rotundatis vel oblongis, 350-500 μ . longis, nudis, subpulvinatis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis, subtiliter verruculoso-aculeatis, dilute brunneis, 19-24 μ . diam.; teleutosporis ellipsoideis vel ovatis, utrinque rotundatis, apice non vel rarius lenissime incrassatis, medio non vel vix constrictis, levibus, castaneo-brunneis, 21-31 \approx 16-26, episporio ca. 2-2,5 μ . lato; pedicello crassiusculo, persistenti, hyalino, apice brunneolo, interdum laterali, usque 85 μ . longo.

Hab. in foliis vivis *Enteropogonis monostachyi*, Usambara, Africæ orient. (C. HOLST).

349. **Puccinia dispersa** Erikss. et Henn. Die Getreideroste pag. 110 1277 (1894) Syd. Monogr. Ured. I, p. 709, *Uredo dispersa* Erikss. et Henn., *Æcidium Anchusæ* Erikss. et Henn. etc. — Æcidiis hypophyllis, sæpe etiam calyces fructusque occupantibus, maculis orbicularibus v. suborbicularibus flavidis v. rufo-flavidis insidentibus, cupulatis, margine revolutis, inciso; æcidiosporis globosis, verruculosis, aurantiacis, 20-26 μ . diam.; soris uredosporiferis præcipue epiphyllis, oblongis, ferrugineis, minutis vel mediocribus; uredosporis subglobosis, echinulatis, flavis, 22-28 μ . diam.; soris teleu-

tosporiferis hypophyllis vel sæpe in vaginis evolutis, sparsis vel subinde aggregatis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et oblique angustatis, parum incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, 40-50 \times 12-20; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis calycibus fructibusque *Anchusæ angustissimæ arvensis*, *Barrelieri*, *hybridæ*, *italicæ*, *ochroleucæ*, *officinalis*, *undulatæ*, uredo- et teleutosporæ in foliis vaginisque vivis *Secales cerealis*, *montani*, in tota Europa, Asia minori, America bor.

350. **Puccinia Burnettii** Griffiths in Bull. of the Torr. Bot. Club. 1278 1902, p. 298. — Epiphylla; soris uredo- et teleutosporiferis latis, sparsis, 2 cm. diam. marginem foliorum recurvantibus, erumpentibus, in macula epiphylla brunnea insidentibus; uredosporis subglobosis vel ellipticis v. ovatis 20-26 μ . diam., episporio crasso, tuberculato donatis; teleutosporis utrinque rotundatis v. utrinque conico-obtusis, ad septum constrictis, 28-31 \times 18-23, episporio superne crasso, inferne tenui; pedicello hyalino, 60-120 μ . longo.

Hab. in foliis *Stipæ comatæ* pr. Buffalo, Wyo (WILLIAMS et GRIFFITHS) et Billings, Montana Amer. bor. (BURNETT).

351. **Puccinia bromina** Erikss. in Ann. Sc. Nat. 1899, p. 271, Syd. 1279 Monogr. Ured. I, p. 712, *Pucc. Symphyti-Bromorum* Müll. Bot. Centr. Beih. 1901, p. 201, *Uredo bromina* Erikss. l. c. *Puccinia dispersa* f. *Bromi* Erikss, *Æcidium Asperifolii* Pers. *Æcid. Symphyti* Thüm., *Æcid. Pulmonariæ* Thüm. — Pycnidiis melleis; æcidiis hypophyllis v. petiolicolis, subinde etiam in calycibus evolutis; maculis orbicularibus v. irregularibus 1 cm. vel ultra longis brunneis vel purpureo-brunneis, zona flavida sæpe circundatis, insidentibus, in greges variæ magnitudinis circulariter vel plus minusve irregulariter dispositis, cupulatis, margine revoluto inciso; æcidiosporis angulato-globosis, verruculosis, aurantiacis, 18-27 μ . diam.; soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde aggregatis, minutis v. mediocribus, oblongis, interdum confluentibus, ferrugineis; uredosporis subglobosis v. late ellipsoideis, echinulatis, flavis, 20-26 μ . diam.; soris teleutosporiferis hypophyllis, sparsis, minutis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. interdum obtuse et oblique angustatis, non v. parum incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brun-

neis, 36-50 \approx 14-18; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis petiolisque vivis Pulmonariæ montanæ, Symphyti officinalis, uredo- et teleutosporæ in foliis Bromi specierum omnium in tota Europa et in Asia minore.

352. **Puccinia brachysora** Diet. in Bot. Jahrb. 1902, p. 49. — Soris 1280
minutis, oblongis, uredosporiferis, hypophyllis, ochraceis, teleutosporiferis epiphyllis, griseis vel nigris, epidermide tectis; uredosporis late ellipsoideis, ovoideis vel subglobosis, 25-31 \approx 20-24, dilute fuscis, echinulatis, poris numerosis instructis, paraphysibus haud intermixtis; teleutosporis oblongis vel cuneatis vel irregularibus, apice truncatis vel obliquis, paullo incrassatis, ad septum vix vel non constrictis, basi rotundatis vel attenuatis, fuscis, 33-45 \approx 15-20; pedicello brevissimo suffultis.

Hab. in foliis Brachypodii japonici, Tokyo Japoniæ (KUSANO).

353. **Puccinia Diplachnes** Arthur, Bull. Torr. Bot. Cl. 1904, p. 4. — 1281
Uredosporis, in soris teleutosporiferis, subellipsoideis vel fere globosis 24-26 \approx 19-21; episporio hyalino 3 μ . crasso, minute verrucoso, poris 4 æquatorialibus; soris teleutosporiferis fere semper hypophyllis oblongo-linearibus, immersis, pulvinatis, prominentibus, compactis, nigro-brunneis; teleutosporis ellipsoideis, 32-39 \approx 20-24, ad septum non vel vix constrictis, utrinque obtusis vel rotundatis; episporio levi, 1,5-2,5 μ . crasso, superne usque 7 μ . cr. pallide brunneo; pedicello spora concolori, 40-100 μ . longo.

Hab. in foliis Diplachnes dubiæ, Big Springs, Texas, Amer. bor. (S. M. TRACY).

354. **Puccinia brachypus** Speg. Myc. argent. ser. II, 1902, p. 61. — 1282
Maculis nullis; acervulis minutis, confluendo linearibus compactis, duriusculis epidermide tectis, fuscis, 0,25-3 mm. long., 0,15-0,30 mm. latis, subsclerotiaceis; teleutosporis obconicis levibus pallide ochraceis, medio non v. vix constrictis, 35-45 \approx 15-20, loculis subæquilongis, apice sæpius truncatis crassiusculequo tunicatis, intus minute et dense granulosi, pedicello subnullo 3-7 \approx 4-6 pallidiore suffultis.

Hab. ad folia et culmos Bromi auleatici prope Rufino Nov. et in Tritico sativo prope S. Juan in Argentina. Species habitu externo et notis nonnullis ad *P. coronatam* Corda vergens, *P. sessili* Schr. etiam cognata.

355. **Puccinia Arrhenatheri** (Kleb.) Erikss. in Cohn Beitr. 1898, I, 1283

p. 1 et 1901, II, p. 111, Sydow Monogr. Ured. I, p. 729, *Puccinia perplexans* Plow. f. *Arrhenotheri* Kleb., *P. Magelhænica* Peyr. — Syll. XI, p. 202, *Æcidium graveolens* Shuttl. — Syll. VII, p. 778. — Pycnidiis minutis, numerosissimis, magnam folii partem vel folium totum æque obtegentibus; æcidiis hypophyllis, subinde etiam in floribus evolutis, ramulos infectos deformantibus, plerumque per folium totum æque denseque distributis, cylindræo-cupulatis, margine revolutis, albido, lacerato; æcidiosporis subglobosis vel ellipsoideis, verruculosis, flavidis, $19-32 \approx 16-24$; soris uredosporiferis præcipue epiphyllis, rarissime hypophyllis, maculis minutis flavis insidentibus, ellipticis v. oblongis, minutis, dilute ferrugineis; uredosporis globosis v. ovatis, echinulatis, flavis $19-30 \approx 19-26$, poris germinationis numerosis præditis; paraphysibus numerosis, usque 80μ . longis, apice $10-14 \mu$. latis immixtis; soris teleutosporiferis hypophyllis, sparsis, minutis, punctiformibus v. breviter linearibus, epidermide tectis, atris; teleutosporis ellipsoideo-oblongis v. oblongo-clavatis, apice rotundatis truncatis vel rarius leniter attenuatis, incrassatis, $5-10 \mu$., et obscurioribus, medio non v. vix constrictis, basi plerumque attenuatis, levibus, dilute brunneis, $30-45 \approx 18-24$; pedicello tenui, brunneolo; paraphysibus brunneolis immixtis.

Hab. æcidia in foliis floribusque *Berberidis vulgaris*, heteropodæ, uredo- et teleutosporæ in foliis vivis *Arrhenatheri elatioris*, in Germania, Austria, Hungaria, Helvetia, Suecia, Fennia, Turkestan.

356. ***Puccinia agropyrina*** Erikss. in Ann. Sc. Nat. 1899, pag. 273, 1284 Syd. Monogr. Uredin. pag. 712, *Uredo agropyrina* Erikss. l. c., *Puccinia dispersa* f. *Agropyri* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, ferrugineis; uredosporis globosis, subglobosis vel late ellipsoideis echinulatis, flavis, $16-26 \mu$. diam.; soris teleutosporiferis hypophyllis, sparsis, interdum seriatim dispositis, minutis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et oblique angustatis, vix vel leniter incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, $36-56 \approx 13-18$; paraphysibus brunneolis, numerosis.

Hab. in foliis *Agropyri repentis*, in Germania, Austria, Hungaria, Italia et Suecia.

357. ***Puccinia negrensis*** P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1285 1904). — Maculis minutis vel confluyente-effusis, ferrugineis; ure-

dosoris amphigenis, pulvinatis, diutius tectis, ferrugineis; uredosporis ovoideis, interdum subglobosis vel ellipsoideis flavido-brunneis, aculeato-verrucosis, 15-24 \times 13-18; teleutosporis hypophyllis gregarie sparsis, rotundato-pulvinatis firmis, cinnamomeis, ca. 0,3-0,4 μ . diam.; teleutosporis ovoideis interdum ellipsoideis, apice vix incrassatis, rotundatis, medio 1-septatis constrictis, flavo-brunneis, levibus, 15-25 \times 10-16; stipite plus minus elongato, hyalino subflavidulo, 10-30 \times 2-3.

Hab. in foliis *Panici* sp., Rio Negro, Moura, Amer. merid. —

Soris firmis, pulvinatis, teleutosporarum notis sat distincta species.

358. **Puccinia simillima** Arth. in Bot. Gaz. 1902, XXXIV, p. 17, II, 1286

III. — Soris amphigenis minusculis, oblongis, epidermide fissa; uredosoris late flavis pulverulentis, paraphysibus clavatis intermixtis; uredosporis obovato-oblongis clavatisque, 26-44 \times 18-22, modice tunicatis, aureo-flavis, minute tuberculatis et interdum leviter echinulatis, poris germinat. sparsis, obsoletis; teleutosoris minutis, copiosissimis, subnigris; teleutosporis, subinde ex uredosoris convenientibus, lineari-oblongis v. oblongo-lanceolatis, septo leniter constrictis, 42-56 \times 15-20, basi tenuatis, apice acutiusculis v. plus minus obtusis, ad 15 μ . incrassatis; pedicello firmo, crasso, sporam plus minus æquante.

Hab. in foliis et vaginis *Phragmitis communis* in Americæ borealis pluribus locis. — Pycnidia et æcidia incerta.

359. **Puccinia peridermiospora** Arthur, Science I, p. 565 (1899), *Puc-* 1287

cinia fraxinata (Link) Arth. in Bot. Gaz. 1902, p. 6. — I *Cæoma fraxinatum* Link in Willd. sp. pl. 62, p. 62, *Æcidium Fraxini* Schw. — Syll. VII, p. 806. — II *Uredo peridermiospora* Ell. et Tr. — Syll. IX, p. 333. — *Puccinia sparganioides* E. et Tr. III. — Teleutosoris pulvinatis, atro-brunneis, hypophyllis; teleutosporis ellipsoideo-oblongis, 35-62 \times 16-22, septo leniter constrictis, apice obtusis incrassatisque; pedicello firmo, angusto, sporam æquante v. duplo longiore.

Hab. II-III in foliis *Spartinæ cynosuroidis* in Amer. boreali pluribus locis. — In foliis *Fraxini lanceolatae* et *F. pennsylvanicæ*, socio *Æcidiolo* pycnidiis epiphyllis, flavidis, exiguis; sporulis obovato-oblongis 5 \times 3.

360. **Puccinia Seymouriana** Arth. in Bot. Gaz. 1902, XXXIV, p. 11. 1288

— Soris epiphyllis, internerviis, prominulis, oblongis, epidermide rupta obsolete cinctis; uredosporis globosis v. late ellipsoideis, 30-45 \times 26-39, tuberculatis, contentu aurantiaco globuloso, dein flavo

angulosoque; tunica hyalina, poris germinativis obsoletis; teleutosoris pulvinatis, cinnamomeo-brunneis; teleutosporis ellipsoideo-oblongis, $37-52 \approx 20-26$, ad septum leviter constrictis apice obtuso incrassato; pedicello firmo, tenui, colorato, teleutosporam æquante v. triplo longiore.

Hab. in foliis *Spartinæ cynosuroidis* Massachusetts, Wisconsin, Illinois, Iowa, Ontario etc. Amer. bor.

361. **Puccinia himalensis** (Barcl.) Diet. in Engl. Prantl, Pflanzenfam. 1289
 Pilze II, p. 63 (1900), Syd. Monogr. Ured. I, p. 738, *P. coronata* var. *himalensis* Barcl. Trans. Linn. 1891, pag. 227, t. LVI. —
 Æcidiis hypophyllis, maculis rotundatis flavo-brunneis v. rufo-brunneis insidentibus, laxe fasciculatis, longe cylindraceis, usque 2 mm. longis, albis; æcidiosporis globosis vel angulatis, verruculosus, flavis, $19-25 \approx 19-22$; soris uredosporiferis præcipue epiphyllis, sparsis, minutis v. mediocribus, flavo-brunneis; uredosporis globosis, subtiliter echinulatis, pallide flavo-brunneis, $20-24 \mu$. diam., poris germinationis tribus vel quatuor instructis; soris teleutosporiferis epiphyllis, sæpe etiam in vaginis evolutis, sparsis, minutissimis, plerumque rotundatis, compactiusculis, nudis, atris; teleutosporis clavatis, apice usque 5μ . incrassatis et dentibus 2 vel pluribus, $2-11 \mu$. longis coronatis, medio non v. parum constrictis, basi attenuatis, levibus, $38-52 \mu$. longis, cellula superiore $16-22 \mu$. lata et brunnea, inferiore $9-16 \mu$. lata et pallidior; pedicello brunneolo, crassiusculo, usque 30μ . longo.

Hab. æcidia in foliis ramulisque vivis *Rhamni dahuricæ*, uredo- et teleutosporæ in foliis vaginisque *Brachypodii silvatici* in Simla Indiæ orient. (BARCLAY).

362. **Puccinia Oudemansii** Tranzsch. in Sydow, Mon. Ured. I, p. 894. 1290
 — Teleutosoris hypophyllis v. amphigenis v. etiam petiolicolis, 1-4 mm. diam., rotundatis v. irregularibus, epidermide diu tectis, pulverulentis, castaneo-brunneis; teleutosporis, oblongis v. oblongo-clavatis apice sæpius rotundatis, leniter incrassatis, usque 7μ ., medio constrictis, basi rotundatis v. attenuatis flavo-brunneis, verruculosus, verruculis haud raro in strias dispositis, $30-44 \approx 14-20$; pedicello hyalino deciduo.

Hab. in foliis pedicellis petiolisque *Parryæ* (Matthiolæ) monocarpæ et *P. pinnatifoliæ*, Nowaja-Semlja, Bering et in Turkestan.

363. **Puccinia Cortusæ** Tranzsch. in Sydow, Mon. Ured. I, p. 886. 1291

— Maculis inferne nullis superne lutescenti-brunneolis, rotundatis 1-2 mm. diam., teleutosoris hypophyllis rarius epiphyllis pulverulentis atro-fuscis, teleutosporis ellipsoideis utrinque rotundatis non incrassatis, medio vix constrictis, brunneis, levibus, 22-36 \times 15-21, poris germinativis papillulis hyalinis tectis, superiori vulgo apicali, inferiori ad septum posito; pedicello hyalino fragili caduco.

Hab. in foliis Cortusæ Matthioli in jugo Alaico Turkestanicæ (W. TRANZSCHEL).

364. **Puccinia Myosotidis** Tranzsch. in Sydow, Mon. Ured. I, p. 880. 1292

— Teleutosoris hypophyllis v. etiam amphigenis et cauliculis, maculis flavidis insidentibus, minutis, sed in greges magnos rotundatos v. elongatos usque 1 cm. longos dense dispositis et demum in crustam omnino confluentibus, epidermide tectis, atris, compactis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. truncatis, rarius acutiusculis, vix v. leniter incrassatis (usque 4 μ .), medio vix leniter constrictis, basi attenuatis, levibus, brunneis, apice castaneo-brunneis, 40-64 \times 14-22; pedicello brunneolo, persistenti, brevissimo; mesosporis solitariis minutis.

Hab. in foliis caulibusque Myosotidis silvaticæ Inkeschtam Turkestanicæ (TRANZSCHEL).

365. **Puccinia Penningtonii** Syd. Monogr. Ured. I, p. 875. — Teleu- 1293

tosoris amphigenis, maculis nullis, sparsis; punctiformibus, 0,2-0,5 mm. diam., pulverulentis, atris; uredosporis immixtis subglobosis v. oblongo-ellipsoideis, aculeatis, flavis, 27-42 \times 24-31; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. vix constrictis, verrucosis, læte castaneo-brunneis, 38-56 \times 25-30; pedicello hyalino, crasse inflato, usque 40 μ . deorsum sæpe napiformi, toto usque 85 μ . longo.

Hab. in foliis Grabowskiæ duplicatæ, San Fernando Argentinæ (M. Sc. PENNINGTON).

366. **Puccinia nocticolor** Holw. Ann. Mycol. 1904, p. 391. — Æci- 1294

diis in maculis flavis sæpius hypophyllis, circinantibus v. nervisequis; pseudoperidiis haud reflexis, 1-2 mm. long.; æcidiosporis globoso-angulosis, raro oblongis, 24-34 \times 16-24, minute tuberculatis; cellulis pseudoperidii 40-56 \times 24-40, membrana 8-12 μ . cr., fortiter tuberculata; teleutosoris nigris, pulvereis, vulgo epiphyllis, æcidiis contraposis, epidermide rupta cinctis, sæpe confluentibus; teleutosporis oblongis, atro-brunneis, opacis, leviter constrictis, papilla apicali 12 μ . longa terminatis, 60-80 \times 28-40, grosse verrucosis; pedicello sursum colorato, 160 μ . longo.

Hab. in foliis *Ipomœæ intropilosæ*, *I. murucoidis* et *I. sp.* in pluribus locis Mexici.

367. **Puccinia rubicunda** Holw. Ann. Mycol. 1904, p. 392. — *Æcidiis* 1295
amphigenis, minutissimis, sparsis, pseudoperidio non reflexo; *æcidiosporis* globosis, globoso-angulosis, rarius ellipsoideis, plano-tuberculatis 22-28 \times 20-24; *cellulis* pseudoperidii 28-40 \times 12-16 membrana 2-4 μ . cr.; *teleutosoris* epiphyllis, minutis, nigris, pulverulentis, vulgo circinantibus circa *æcidia*, subinde sparsis; *teleutosporis* tuberculatis, atro-rufo-brunneis, ellipsoideo-oblongis, apice rotundatis, non incrassatis, 44-56 \times 24-28; pedicello sursum dilute colorato, usque 70 μ . longo.

Hab. in foliis *Ipomœæ sp.* (an *I. intropilosæ*?) pr. Vera Cruz, Mexico.

368. **Puccinia insignis** Holw. Ann. Mycol. 1904, p. 392. — *Teleu-* 1296
tosoris in maculis flavis epiphyllis, in soros 3-4 mm. diam. aggregatis, non confluentibus, epidermide cinctis; *teleutosporis* cinnamomeo-brunneis ellipsoideo-oblongis, apice papilla conica flavo-brunnea usque 16 μ . longa terminatis, minute striato tuberculatis 68-80 \times 32-40; pedicello hyalino crasso usque 80 μ . longo.

Hab. in foliis *Ipomœæ sp.* Cuernavaca, Mexico.

369. **Puccinia superflua** Holw. Ann. Mycol. 1904, p. 392. — *Teleu-* 1297
tosoris amphigenis, minutis, in maculis flavis, parvis insertis, nigris, pulverulentis; *teleutosporis* rufo-brunneis, plano-tuberculatis, late ellipsoideis, rarius oblongis, 44-68 \times 28-36, cellula superiore rotundata, apice breviter conico-papillata; pedicello sursum colorato, subinde lateraliter inserto, usque 80 μ . longo.

Hab. in foliis *Ipomœæ murucoidis*, Iguata, Guerrero, Mexico.

370. **Puccinia Cupheæ** Holw. Ann. Mycol. 1904, pag. 393. — *Te-* 1298
leutosoris atro-brunneis, in maculis rubris vel flavis, plerumque hypophyllis, sparsis, vel circinatis, in soros minutos sæpe confluentes dispositis; *teleutosporis* ellipsoideo-clavatis levibus flavo-brunneis, 37-48 \times 15-19, ad septum constrictis, cellula superiori vulgo rotundata, rarius acuta, inferiori in pedicellum tenuata; pedicello hyalino, vel leviter colorato, sporam dimidiam subæquante.

Hab. in foliis *Cupheæ procumbentis* et *Cuph. sp.* in Valle Mexici.

371. **Puccinia jaliscensis** Holw. Ann. Mycol. 1904, p. 393. — *Soris* 1299
perexiguus, in maculis rubris vel flavis, vulgo hypophyllis, in

greges 5 mm. diam. dispositis, subinde confluentibus, singulis 1 mm. diam. epidermide rupta cinctis; teleutosporis oblongo-clavatis vel linearibus, apice acutis v. rotundatis, ochroleucis, levibus, 44-74 \approx 15-19, cellula inferiori in pedicellum tenuata; membrana 4-8 μ . crassa; pedicello colorato 45 μ . longo.

Hab. in foliis Cupheæ Hookerianæ, C. cyanæ, C. squamuliferæ, C. nitidulæ, Jalisco, Oaxaca, Jalapa, Cuernavaca Mexici.

372. **Puccinia Asperulæ-cynanchicæ** Wurth, Centralbl. f. Bakt. II, 1300
Abt. XII, 1904, p. 814 (absque diagnosi), *P. Asperulæ* Fuck. p. p.

Hab. in foliis Asperulæ cynanchicæ, Bern Helvetia. —
Forma biologica.

373. **Puccinia Galii-silvatici** (Otth in herb.) Wurth, Centralbl. f. Bakt. 1301
II, Abt., XII, 1904, p. 714 (absque diagnosi).

Hab. in foliis Galii silvatici, Bern Helvetiæ. — Forma
biologica.

374. **Puccinia Asperulæ-odoratæ** Wurth, Centralbl. f. Bakt. II, Abt. 1302
XII, 1904, p. 714 (absque diagnosi), *P. Asperulæ* Fuck. p. p.

Hab. in foliis Asperulæ odoratæ, Bern Helvetiæ. — Forma
biologica.

375. **Puccinia orbiculata** Sydow, Mon. Ured. I, p. 896. — Teleuto- 1303
soris hypophyllis, maculiculis, exacte in circulum 4-7 mm. dispositis confluentibusque, compactis, obscure brunneis; teleutosporis ellipsoideis utrinque rotundatis apice non incrassatis, medio non v. vix constrictis, brevibus, brunneis, 22-32 \approx 17-22, episporio 4 μ . cr.; pedicello hyalino tenui subinde oblique inserto sporam subæquante; mesosporis interdum paucis immixtis.

Hab. in follis Trymatococci africani in M. Bomole
Africæ trop. or. (A. KARASEK).

376. **Puccinia Commelinæ** Holw. Ann. Mycol. 1904, p. 393. — Ma- 1304
culis flavis vel demum brunneis, irregularibus; uredosoris hypophyllis, sparsis, brunneis, epidermide rupta cinctis; uredosporis globoso-ovoideis, pallide brunneis, echinulatis 24-32 \approx 24-28, poris germinativis 2; teleutosoris hypophyllis compactis, punctiformibus, sparsis, vulgo in parvos greges dispositis, brunneis; teleutosporis paraphysibus brunneis cinctis, constrictis, levibus, oblongo-clavatis, linearibus, arcuatis, sursum acutis vel truncatis vel rotundatis 44-68 \approx 16-24, brunneis, apice quandoque, lateraliter acute apiculatis; pedicello brevi, brunneo, rarius hyalino.

Hab. in foliis *Commelinæ* sp. Guadalajara, Oaxaca, Chapala, Cuernavaca, Morelos, Jalapa Mexici.

377. **Puccinia Penniseti** Zimm. Berichte üb. Land und Forstwirth. 1305
Deutsch. Ostafrika, 1904, I, p. 16, t. I, f. 5. — Maculis longitudinalibus, flavis, demum atro-brunneis; teleutosoris atris in centro macularum; uredosporis versiformibus ovato-piriformibus, verrucosis, 33-38 \times 23-30; pedicello hyalino 25 \times 5; poris germinativis quaternis æquatorialibus; teleutosporis oblongo-clavatis, apice rotundatis, constricto-1-septatis, 40-60 \times 16-20; pedicello hyalino, brevissimo 6-9 μ . cr.; paraphysibus nullis; poris germinativis nullis visis.

Hab. in foliis et culmis *Penniseti* spicati, Amani in Africa orient. — A *Pucc. purpurea* et *P. Maydis* præsertim pedicello brevissimo dignoscenda. Quoad *P. Penniseti* Barcl. Journ. Asiat. Soc. Beng. 1891, pag. 215, cfr. Syd. Monogr. Ured. I, p. 804.

378. **Puccinia Arthuri** Sydow Mon. Ured. I, 775. — Uredosoris am- 1306
phigenis minutis subrotundis, tectis flavo-ferrugineis; uredosporis subglobosis echinulatis, flavo-brunneis 22-32 \times 20-25, soris germin. 4 æquatorialibus; teleutosoris vulgo oblongis, 1 mm. long., tectis tandem erumpentibus, atris; teleutosporis ovato-oblongis vel oblongo-clavatis apice rotundatis leniterque incrassatis 3-6 μ ., medio subconstrictis, basi rotundatis v. tenuatis, levibus, brunneis, 28-45 \times 16-24; pedicello hyalino v. flavidulo persistenti, crasso, usque 100 μ . longo.

Hab. in foliis *Penniseti* mexicani, Mexico (HOLWAY).

379. **Puccinia Rottboelliae** Sydow, Mon. Ured. I, p. 800, tab. XLII, 1307
fig. 545. — Teleutosoris subsparsis oblongis vel linearibus 0,5-3 mm. long., epidermide fissa cinctis, atris; teleutosporis ellipsoideo-oblongis, apice rotundatis subincrassatis usque 10 μ ., medio vix constrictis basi rotundatis, levibus, brunneis, 34-54 \times 22-27; pedicello hyalino persistenti crassiusculo, usque 120 μ . longo, sæpe lateraliter inserto.

Hab. in foliis *Rottboelliae* arundinaceæ in valle Mai Mezzannæ Abyssiniæ (SCHIMPER).

380. **Puccinia luxuriosa** Sydow, Mon. Ured. I, p. 812, tab. XLII, 1308
fig. 548, *P. tosta* v. *luxurians* Arth. Bull. Torr. Cl. 1902, p. 229. — Teleutosoris amphigenis, subsparsis sæpe striiformibus, usque 6 mm. long., atris; uredosporis immixtis subglobosis, verrucoso-echinulatis, flavo-brunneis, 22-30 μ . diam., poris germin. 6 instru-

ctis, ca. 2 μ . cr.; teleutosporis ellipsoideo-oblongis, apice rotundatis, incrassatis usque 10 μ ., medio subconstrictis, basi sæpius rotundatis, levibus, brunneis, 36-56 \times 20-28; pedicello apice brunneolo, persistenti, crasso, usque 110 μ . longo.

Hab. in foliis Sporoboli airoidis, Oregon et Montana Amer. bor.

381. **Puccinia Actinellæ** (Webb.) Syd. Mon. Ured. vol. I, p. 4, 1902. Ita vocanda *Puccinia Tanacetii* D. C. var. *Actinellæ* Webb. Rep. Nebraska 1889 et Sacc. Syll. IX, p. 302.
382. **Puccinia Gnaphalii** (Speg.) Henn. in Hedw. 1902, p. (66), *Uredo Gnaphalii* Speg. — Syll. VII, pag. 849. — Huc ducenda est *P. gnaphalicola* Henn. — Syll. XVI, p. 295.
383. **Puccinia Mac-Alpini** Syd. Mon. Ured. vol. I, p. 100. Ita dicenda *P. Hypochaeridis* Mc. Alp. in Roy. Soc. Victoria 1894, p. 217 et Sacc. — Syll. XIV, p. 310, nec Oud.
384. **Puccinia nigrescens** Kirchn. in Lotos 1856, p. 182, Syd. Mon. Ured. vol. I, p. 288. Ita vocanda *Pucc. obtusa* Schroet. in Abh. Schl. Ges. 1869, p. 13. — Sacc. Syll. VII, p. 604.
385. **Puccinia Giberti** Speg., Sacc. Syll. VII, p. 653, *Puccinia Hyptidis* (Curt.) Tracy et Earle in Bull. Missip. Agr. Exper. Stat. XXXIV, 1895, p. 86. Status æcidialis est *Æcidium tucumanense* Speg. — Sacc. Syll. VII, p. 816, *Æcidium Hyptidis* P. Henn. — Sacc. Syll. XIV, p. 385.
386. **Puccinia Salviæ-lanceolatæ** Bubák in Syd. Mon. Ured. vol. I, p. 294, tab. XX, f. 280, *Puccinia nigrescens* Peck in Bot. Gaz. 1878, p. 35, Sacc. — Syll. VII, p. 720, nec Kirchn.
387. **Puccinia constricta** (Lag.) Bubák in Centralbl. f. Bakter. 1902, IX, p. 919. Ita vocanda *P. Schneideri* var. *constricta* Lagh. — Syll. IX, p. 302.
388. **Puccinia Porteri** Peck in Th. C. Porter and John M. Coulter Synop. of the Fl. of Colorado 1874, p. 164, Syd. Mon. Ured. vol. I, p. 258. Huc ducenda *Pucc. albulensis* P. Magn. in Ber. Deuts. Bot. Ges. 1890, p. 169, Sacc. Syll. IX, p. 300.
389. **Puccinia Veronicæ** Schröt., Syd. Monogr. Ured. I, p. 256. Ita vocanda est *Pucc. Veronicæ* (Schum.) Wint., nam exempl. orig. Schumacheri *Uredinis Veronicæ* nullam Uredineam præbent.
390. **Puccinia Lobeliæ** Grev. Bull. Buff. Soc. Nat. Sc. I. p. 66 (1873) Syd. Mon. Ured. vol. I, p. 195. Huc spectat *Puccinia microsperma* B. et C. in Grev. III, p. 55 et Sacc. Syll. VII, p. 713.
391. **Puccinia phlyctopus** Syd. Mon. Ured. vol. I, p. 242, tab. XVI,

- fig. 225, *Pucc. Amphilophii* Diet. et Holw. in Bot. Gaz. XXV, 1897, p. 30, Sacc. Syll. XIV, p. 326. — Matrix est *Pithecoctenium hexagonum*, nec *Amphilophium*; nomen specificum ergo corrigendum erat.
392. **Puccinia Toumeyi** Sacc. et Syd. (= *P. circinans* Ell. et Ev. nec Diet.). — Syll. XVI, pag. 299, 1902 (Febr.). Huc ducenda est *P. Chasmatis* Ell. et Ev. in Journ. of Mycol. vol. 8, p. 15, 1902 (Majo).
393. **Puccinia novo-zelandica** Bubák in Sitz. Kgl. böhm. Ges. Wiss. Prag 1901, p. 5 (extr.). Ita vocanda *Pucc. compacta* Berk. in Fl. Nov. Zeal. II, p. 195 et Sacc. Syll. IX, p. 309, non Kunze.
394. **Puccinia Schweinfurthii** (P. Henn.) Magn. in Ber. Deutsch. Bot. Ges. 1892, p. 44, Syd. Mon. Ured. vol. I, fasc. III, p. 449. Huc ducenda, teste Magn. *Rostrupia Schweinfurthii* P. Henn., Sacc. Syll. XI, p. 208.
395. **Puccinia gregaria** Kunze in Weigelt exsicc. 1827, Syd. Mon. Ured. vol. I, fasc. III, pag. 520. Huc ducendæ sunt *Dasyscypha foveolata* Berk. et Curt. — Syll. IX, p. 314 et XI, pag. 205 et *Pucc. Winteri* Pazschke — Syll. IX, p. 300.
396. **Puccinia acuminata** Peck in 23 Rep. State Bot. Mus. New York 1872, p. 57, nec Fuck. Ita vocanda *Pucc. porphyrogenita* Curt. in Thuem. Myc. un. n. 545, Sacc. Syll. VII, p. 703.
397. **Puccinia Ribis** DC. — Syll. VII, pag. 679. — Huc ducenda *Pucc. Acerum* Link ex errore matricis orta.
398. **Puccinia Mariæ-Wilsoni** Clint. — Syll. VII, p. 673. — *Pucc. claytoniata* Syd. Monogr. Ured. I, p. 561. Huc spectat *Æcidium claytoniatum* Schw. 1834.
399. **Puccinia Thuemeniana** Voss. — Sacc. Syll. VII, p. 618. — Status æcidiosp. est *Æcidium involvens* Voss.
400. **Puccinia Arenariæ** (Schum.) Schröt. — Syll. VII, p. 683. Huc spectat *Pucc. circinans* Fuck. *Campanulæ Trachelio* falso attributa.
401. **Puccinia solitaria** Syd. Mon. Ured. vol. I, fasc. III, pag. 483. Sic denominanda *P. simplex* Peck — Syll. VII, p. 698, nec Körn.
402. **Puccinia ægra** Grove — Sacc. Syll. VII, p. 614. — Status æcidiosporus est *Æcidium depauperans* Vize.
403. **Puccinia asiatica** (Kom.) Syd. Mon. Ured. vol. I, fasc. III, pag. 499. Ita vocanda *P. Heucheræ* (Schw.) Diet. var. *asiatica* Kom. — Sacc. Syll. XVI, p. 286.
404. **Puccinia curtipes** Howe in Bull. Torr. Bot. Club. 1874, p. 3. — Syll. VII, p. 619. Huc ducenda sunt, teste Sydow Mon. Ured.

- vol. I, fasc. III, pag. 501, *P. Saxifragæ* Schlecht. var. *curtipes* Diet. et *P. striata* Cooke. — Syll. VII, p. 734.
405. **Puccinia Heucheræ** (Schw.) Diet. in Ber. Deutsch. Bot. Ges. 1891, p. 42, Syd. Mon. Ured. vol. I, pag. 497, *Uredo Heucheræ* Schw. Syn. Fg. Carol. p. 71 (1822). — Huc ducendæ *P. Tiarellæ* B. et C. — Sacc. Syll. VII, p. 701 —, *P. spreata* Peck — Syll. VII, p. 701, *P. congregata* Harkn. — Syll. VII, p. 702.
406. **Puccinia Astrantiæ** Kalchbr. Verz. Zipser Schwämme in Mitt. d. Ung. Akad. du Wissensch. Pest. Bd. III, 1865, p. 309, Syd. Mon. Ured. vol. I, p. 361. Huc ducendæ *Pucc. astrantiicola* Bubák in Sity. Kgl. böhm. Ges. Wiss. 1900, n. XXVI, Sacc. Syll. XVI, p. 285.
407. **Puccinia Falcarisë** (Pers.) Fuck. Symb. Myc. 1869, p. 52, Syd. Mon. Ured. vol. I, p. 380. Ita vocanda *Pucc. Sii-Falcarisë* (Pers.) Schroet. Sacc. Syll. VII, p. 666.
408. **Puccinia bullata** (Pers.) Schröt. — Syll. VII, pag. 634. Huc spectat *P. Castagnei* Schröt., quæ non in *Thalictro* sed in *Silao pratensi* provenit, teste cl. Tranzs. Ann. mycol. 1904, p. 158.
409. **Puccinia Eryngii** DC. Encyl. VIII, p. 249 (1808) et Fl. franc. VI, p. 58, Syd. Mon. Ured. vol. I, pag. 379. Ita vocanda *Puccinia Pimpinellæ* (Str.) Lk. var. *Eryngii* Wint. — Sacc. Syll. VII, p. 616-17.
410. **Puccinia tumida** Grev. Fl. Edinb. p. 430 (1824). Ita vocanda *Puccinia isoderma* Lindr. — Sacc. Syll. XVI, p. 284.
411. **Puccinia Peucedani-parisiensis** (DC.) Lindr. in Acta Soc. pro Fauna et Fl. fenn. XXII, I, pag. 79 (1902), *P. Umbelliferarum* var. *Peucedani-parisiensis* DC. Huc ducendæ sunt *Pucc. rugulosa* Tranzsch. — Sacc. Syll. XI, p. 187 — et *P. auloderma* Lindr. — Syll. XVI, p. 282.
412. **Puccinia Bupleuri-falcati** (DC.) Wint. Pilze 1884, p. 212. Huc spectant *Puccinia Bupleuri* Rud. in Linnæa IV, pag. 514. Sacc. Syll. VII, pag. 610, *Uredo Bupleuri* Barcl. Descript. List of the Ured. of Simla III, pag. 98, Sacc. Syll. IX, p. 332.
413. **Puccinia Bulbocastani** (Cum.) Fuck. Symb. Myc. p. 52 (1869). Ita vocanda *Puccinia Bunii* Wint. Pilze p. 197, Sacc. Syll. VII, p. 667.
414. **Puccinia punctata** Link Obs. Myc. II, p. 30, in Mag. naturf. Feunde Berlin 1816, Syd. Mon. Ured. vol. I, p. 213. Ita vocanda *Puccinia Galii* (Pers.) Schwein Syn. Carol. p. 73 et Sacc. Syll. VII, p. 600.

415. **Puccinia Morreniæ** (Speg.) Syd. Mon. Ured. vol. I, p. 332. Ita vocanda *Pucc. Araujæ* Lv. var. *Morreniæ* Speg. in Fung. Argent. novi v. crit. 1899, p. 226. — Sacc. Syll. XVI, pag. 305.
416. **Puccinia Mühlenbeckiæ** (Cooke) Syd. Mon. Ured. vol. I, fasc. III, p. 566. Ita vocanda *P. Rumicis scutati* (DC.) Wint. var. *Mühlenbeckiæ* Cooke — Syll. IX, p. 299.
417. **Puccinia Polygoni-amphibii** Pers. — Syll. VII, p. 636. Hujus est synonymon *Puccinia Lysimachiæ* Karst. ex errore matricis orta.
418. **Puccinia pallens** Syd. Ann. Mycol. 1903, pag. 19. Ita denominanda *P. pallida* Masee, Kew Bull. 1901, p. 168, cum exstet homonyma Tracyii (1893).
419. **Puccinia Asphodeli** Duby — Sacc. Syll. VII, p. 666. — Huc ducenda est *P. maculicola* D'Alm. et Da Cam. in Rev. agr. de Port. 1903, n. 7, p. 226, in foliis Asphodeli nec in foliis Urigineæ Scillæ ut creditur l. c. — Confer *errata-corrige* in Revista agronomica de Portugal, 1903, n. 12, pag. 393.
420. **Puccinia Rossiana** (Sacc.) Lagh. in Bol. Soc. Brot. 1890, VIII, p. 137. Ita nominanda *P. Liliacearum* Duby var. *Rossiana* Sacc. Syll. VII, p. 668, *P. Scillæ* Linh. — Syll. VII, pag. 733: cfr. Syd. Mon. Ured. I, 1903, p. 631, tab. XXXV, fig. 470.
421. **Puccinia Buchloës** (Webb.) Syd. Mon. Ured. I, 1903, p. 740. Huc ducenda est *P. vexans* Farl. var. *Buchloës* Webb. — Syll. IX, p. 308.
422. **Puccinia purpurea** Cooke — Syll. VII, p. 657. — Quoad illustrationem et synonymiam cfr. W. Busse in Berichte Deutsch. Bot. Gesell. 1982, p. 283, c. tabula.
423. **Puccinia tatarica** Tranzsch. ap. Syd. Monogr. Ured. I, p. 864. Ita vocandus, test. Tranzsch. et Syd. l. c., *Uromyces Mulgedii* Lindr. (vide supra pag. 244), nam typus teleutosporas biloculares numerosissimas, ellipsoideas, non v. vix constrictas, læte brunneas, 30-40 × 18-26, intermixtis mesosporis, gignit.
Hab. in foliis caulibusque Mulgedii tatarici, Tibet.

DIORCHIDIUM Kalchbr. — Syll. VII p. 736, IX p. 314, XIV p. 359, XVI p. 313.

1. **Diorchidium manaosense** P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1309 1904). — Maculis fusco-ferrugineis, bullatis, rotundatis vel confluentibus; soris rotundato-congestis, fusco-cinnamomeis, plerumque zona incrassata atra circumdatis, hypophyllis vel pedunculiculis effusis; teleutosporis plerumque diorchidiis, verticale 1-septatis, 25-

30 μ . longis, 30-40 μ . latis, interdum horizontaliter septatis, cellulis subglobosis valde constrictis, episporio crasso, castaneo verrucoso, verrucis papilliformibus, hyalino-fuscidulis, 3-4 μ . diam.; stipite ca. 10-15 \times 6-8, hyalino, fuscidulo.

Hab. in foliis caulibusque *Lonchocarpi rariflori*, Rio Negro, Manaos, Amer. merid. — Affine *D. Piptadeniæ* Diet.

2. **Diorchidium leve** Sacc. et Bizz. — Syll. VII, p. 437. — *Puccinia levis* (Sacc. et Bizz.) P. Magn. in Ber. Deutsch. Bot. Ges. 1891, Bd. IX, p. 190, Syd. Mon. Ured. I, p. 759, — Soris uredosporiferis amphigenis, maculis flavidis v. rufo-flavis, indeterminatis, insidentibus, sparsis, minutis, punctiformibus, rotundatis v. oblongis, epidermide diu tectis, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis 24-30 μ . diam. v. 24-30 \times 17-24, poris germinationis binis instructis; soris teleutosporiferis amphigenis, sparsis, rotundatis v. ovatis 0,5-1 mm. diam., epidermide fissa cinctis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, episporio superne valde incrassato, usque 10 μ ., ad septum constrictis, septo plerumque verticali vel obliquo, raro horizontali instructis, levibus, brunneis, 32-40 \times 24-38; pedicello hyalino, persistenti, crasso, usque 150 μ . longo.

Hab. in foliis vivis *Manisuris granularis* in Brasilia, Columbia, Portorico, Martinica, Guadalupa. — Teleutosporæ præque longitrorsum septatæ hinc species in gen. *Diorchidio* servanda est.

STICHOPSORA Diet. — Syll. XVI p. 318.

1. **Stichopsora Mentzeliae** Diet. et Holw. in Bot. Gaz. 1901, n. 5, 1310 p. 337, et Hedw. 1901, p. (61). — Soris hypophyllis, sparsis, parvis, uredosporiferis luteo-aurantiacis, in sicco albis; uredosporis breve catenulatis 20-28 \times 20-24, episporio verrucoso hyalino præditis; soris teleutosporiferis viscidis, sanguineo-rubris 100-120 μ . diam.; teleutosporis seriatis, cylindrico-clavatis vel ellipsoideis 24-45 \times 14-20 initio 1-cellularibus, dein 1-septatis; episporio usque 8 μ . crasso; sporidiolis ellipticis utrinque subconicis, 15 \times 10-13.

Hab. in foliis *Mentzeliae hispidae*, Chapala Mexico.

2. **Stichopsora Madiæ** (Cke.) Syd. Ann. Mycol. 1904, p. 30. Huc ducendum *Coleosporium Madiæ* Cooke — Syll. VII, p. 758.

GYMNOCONIA Lagerh. — Syll. XIV p. 360, XVI p. 314.

1. **Gymnoconia Riddelliae** Griffiths in Bull. of the Torr. Bot. Club. 1902, 1311 pag. 296, fig. 6. — Pycnidiis hypophyllis, sparsis, prominenti-

bus, aurantiaco-luteis; sporidiis globulosis, hyalinis, 2-3 μ . diam.; æcidiis amphigenis, sparsis, circularibus, ovalibus, irregularibus v. confluentibus, in areis latis lilacino-purpureis, in sicco brunneo-marginatis; æcidiosporis globosis vel subovatis 7-8 μ . diam., episporio levi, tenui; soris uredosporiferis amphigenis, circularibus, 0,5 mm. diam., subepidermicis, maculas minutas albas formantibus; uredosporis subglobosis vel angulosis, 26-29 \times 20-24, pallide brunneis, episporio tenui, minute tuberculato donatis; soris teleutosporiferis amphigenis, nigris, erumpentibus; teleutosporis cuneato-ellipticis, 38-50 \times 20-24 superne rotundatis vel obtusis, ad septum constrictis, episporio levi superne crassiusculo; pedicello hyalino, persistenti, sporâ duplo triplove longiore.

Hab. in foliis caulibusque *Riddelliae Cooperi*, Tucson, Arizona, Amer. bor.

SCHIZOSPORA P. Diet. — Syll. XIV p. 361.

1. **Schizospora Anthocleistæ** P. Henn. Engl. Bot. Jahrb. 1903, p. 41.

— Maculis rotundatis, fuscis dein exaridis; pycnidiis lageniformibus, ca. 250 μ . longis; pseudoperidiis rotundato-dispositis, epiphyllis, utrinque primo subhemisphæricis, clausis, flavo-fuscidulis, dein cupulato-apertis, contextu pseudoperidii cellulis oblongis, subclavatis v. subfusoides, ca. 60 \times 20, hyalino-fuscidulis, reticulatis; teleutosporis ellipsoideis vel ovoideis, 15-22 \times 13-18, continuis, sed plerumque oblongis, subfusoides, utrinque attenuatis obtusis, medio 1-septatis, constrictis, mox secedentibus, 40-60 \times 16-20, episporio hyalino, subfuscidulo, granulato, haud pedicellatis catenulatisque.

1312

Hab. in foliis *Anthocleistæ orientalis*, Ost-Usambara Africae orient. (ZIMMERMANN).

Sect. 3. Phragmosporæ.

CHRYSOMYXA Ung. — Syll. VII p. 759, IX p. 317, XI p. 209, XII p. 319.

1. **Chrysomyxa Menziesiæ** Diet. in Bot. Jahrb. 1903, p. 627. — Soris 1313

in maculis fuscis hypophyllis, gregariis, irregulariter confluentibus et haud raro magnam partem paginae inferioris tegentibus, exsiccatis albidis, pulvinatis, cellulis teleutosporarum 18-35 \times 12-19.

Hab. in foliis *Menziesiæ pentandræ*, Nikko Japoniae (KUSANO).

2. **Chrysomyxa albida** Kühn — Sacc. Syll. VII, pag. 461 et Notæ Mycol. in Syd. Ann. mycologic. 1903, n. 1, p. 24. *Torula Ure-*

dinis (Link?) Fr., Sacc. Mycoth. Ven. n. 359! (1874), *Oidium Uredinis* Link Sp. pl. Fungi p. 123 [?], *Oospora Uredinis* (Link?) Sacc. — Syll. IV, p. 16!

Hab. quoque in pag. inf. foliorum Rubi fruticosi var., Montello Italiæ borealis, ubi jam legeram anno 1874! et 1903 (D. Sacc. Myc. ital. n. 1105). — Adsunt uredosporæ et teleutosporæ. Incertum, an species Linkiana huc spectet, quod tamen maxime probabile. Præter Germaniam, Italia tantum videtur hucusque speciem alere.

3. **Chrysoomyxa Cassandræ** (Gobi) Tranz. ap. Lindr. Mycol. Mitteil. V-X, p. 3, 1902 (Act. Soc. Fenn.), *Uredo Cassandræ* Gobi. — Syll. VII, p. 844. — Teleutosoris perexiguus, 130-160 μ . diam., subaurantiis, hypophyllis; mycelio hyalino; teleutosporis hyalinis, initio 1-cellularibus, tandem 3-4-cellularibus, 60-70 μ . long., cellulis globoso-quadrangularibus 15-25 \times 11-16; sporidiolis subglobosis, 4,5 μ . diam., sterigmatibus clavatis, 22 \times 4-5 (Lindroth l. c.).

Hab. in foliis Cassandræ calyculatæ, Karelia Rossia.

4. **Chrysoomyxa Woronini** Tranzsch. in Centralbl. f. Bakter. n. Pa- 1314 rass. 1903, II Abt., Bd. XI, p. 106. (Absque diagnosi).

Hab. in foliis Ledi palustris in Rossia.

COLEOSPORIUM Lév. Syll. VII p. 751, IX p. 317, XI p. 208, XIV p. 362, XVI p. 316.

1. **Coleosporium thomeense** P. Henn. in Bot. Ergebn. der Kunene 1315 Sambesi Expedit. p. 158 (1902). — Maculis flavo-fuscidulis; soris uredosporiferis hypophyllis sparsis, pulvinatis, epidermide pallida fissa tectis; uredosporis ovoideis vel ellipsoideis, intus flavo-fuscidulis, 30-35 \times 16-19, episporio aculeato-verrucoso; soris teleutosporiferis sparsis vel gregariis hypophyllis, ceraceis flavo-aurantiacis, discoideo-applanatis, rotundato-angulatis, ca. 0,6 mm. diam.; teleutosporis clavatis, curvulis, primo continuis, intus flavo-brunneis, dein 3-septatis, 60-75 \times 17-20, apice rotundato-incrassatis; promycelio filiformi, sporidiolis ellipsoideis hyalinis.

Hab. in foliis Vernoniæ spec. in insula S. Thomè Africae Austr.

2. **Coleosporium Verbesinæ** Diet. et Holw. in Bot. Gaz. 1901, p. 337. 1316 — Soris sparsis v. in greges irregulares congestis, hypophyllis; uredosporiferis luteo-aurantiacis, teleutosporiferis pallide rubris; uredosporis elliptico-globosis, 26-33 \times 23-26, episporio verrucoso hyalino donatis; teleutosporis cylindræis, 130 \times 12-18, apice conicis,

Hab. in foliis *Verbesinæ virgatæ*, Rio Hondo cañon, pr. urbem Mexico et Cuernavaca in Mexico.

3. **Coleosporium anceps** Diet. et Holw. in Bot. Gaz. 1901, p. 337. 1317

— Soris uredosporiferis punctatis, sparsis vel in greges circulares dispositis, hypophyllis, in sicco albidis; uredosporis ellipsoideis, oblongis vel globosis, 17-25 \times 15-20, tuberculis longe cylindraceutis donatis; soris teleutosporiferis hypophyllis in maculis luteo-brunneis, in greges irregulares v. circulares dispositis, melleis, viscosis; teleutosporis cylindraceuto-clavatis, 90 \times 18-25 4-cellularibus; pedicello 60-70 μ . longo; sporidiolis subcylindraceutis, 24-30 \times 12-15.

Hab. in foliis *Verbesinæ sphærocephalæ*, Chapala, Mexico. 1318

4. **Coleosporium paraphysatum** Diet. et Holw. in Bot. Gaz. 1901, p. 337. — Soris hypophyllis in maculis luteis vel pallide brunneis, parvulis, sparsis; uredosporis oblongo-ellipsoideis v. clavatis, sparse verrucosis, 26-43 \times 17-24; teleutosporis diu ellipsoideis continuis, dein cylindraceuto-clavatis, 1-septatis, 45-65 \times 17-22; paraphysibus filiformibus.

Hab. in foliis *Liabi discoloris*, Chapala, Mexico.

5. **Coleosporium Plumieræ** Pat. Champ. de la Guadeloupe ser. III, in 1319

Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Maculis amphigenis, sparsis vel confluentibus, subrotundis vel angulosis, rubris, 1-3 mm. diam.; soris uredosporiferis hypophyllis, convexis, luteis, 350-500 μ . diam., initio velatis dein erumpentibus, pulverulentis; uredosporis breve catenulatis, rotundatis, ovoideis, angulosis, minute verrucosis, 30-40 \times 20-30, episporio hyalino, luteolis; soris teleutosporiferis luteo-aurantiacis, minoribus; teleutosporis aurantiacis, superne obtusis, inferne attenuatis transverse 3-septatis 60-85 \times 20.

Hab. in pag. inf. foliorum *Plumieræ albæ*, Guadalupa Americæ sept.

6. **Coleosporium Actææ** Karst. Fungi nov. Loennb. 1904, p. 6 (Fin- 1320

ska Vetensk. Soc.). — Soris uredosporiferis hypophyllis, minutis, rotundatis vel irregularibus, sparsis vel sæpius in parvos greges congestis, haud raro confluentibus, flavo-rufis; uredosporis in eodem soro difformibus, breviter catenulatis, mox secedentibus rotundatis vel oblongato-clavatis, subinde angulatis, aurantio-flavis.

Hab. in foliis *Actææ rubræ* in regione Baicalensi (O. A. F. LÖNNBOHM).

7. **Coleosporium Campanulæ** (Pers.) Lév. — Syll. VII, p. 753. Huc

spectat *Cavoma Moroti* Poir. et Har. in *Campanula rotundifolia* nec *Cardamine* lectum. Cfr. Tranzs. Ann. Mycol. 1904, p. 157.

PHRAGMIDIUM Link — Syll. VII p. 742, IF p. 315, XI pag. 206, XIV p. 809, XVI p. 779, 1150.

1. **Phragmidium occidentale** Arthur, Plantæ Bakerianæ, fasc. II fungi 1321 p. 3. — Maculis pallide luteolis; æcidiis hypophyllis, rotundatis 1 mm. diam.; æcidiosporis concatenatis, aurantiacis, rotundato-ellipticis, 24-30 \approx 19-24; paraphysibus curvulis, hyalinis; soris uredosporiferis et teleutosporiferis gregariis; uredosporis obovatis, echinulatis, superne minime papillatis, 18-22 \approx 26-28; teleutosporis cylindræis, fere nigris, 5-7-septatis, tuberculatis, 85-110 μ . longis, apice rotundatis, superne papilla conica subhyalina donatis; pedicello teleutospora longiore inferne incrassato subhyalino.

Hab. in foliis Rubi Nutkani prope Pagosa Peak, South Colorado Amer. bor.

2. **Phragmidium heterosporum** Diet. in Bot. Jahrb. 1903, p. 626. — 1322 Soris hypophyllis, sparsis, minutis; uredosporiferis aureis, teleutosporiferis nigris vel griseis; uredosporis clavatis vel piriformibus, 25-44 \approx 11-17, episporio incolorato asperulo indutis, paraphysibus arcuatis circumdatis; teleutosporis plerumque bi-usque quadrilocularibus, ad septa constrictis 57-90 \approx 21-25, episporio levi, sordide brunneo indutis, maturis statim germinantibus; pedicello usque 60 μ . longo, interdum inflato suffultis vel sine pedicello.

Hab. in foliis Rubi trifidi, Ito in prov. Izu Japoniæ (KUSANO).

3. **Phragmidium griseum** Diet. in Bot. Jahrb. 1902, p. 49. — Soris 1323 in maculis violaceis hypophyllis, mediocribus, sparsis vel irregulariter congestis, uredosporiferis aurantiacis, teleutosporiferis atris, mox griseis, pulvinatis; uredosporis obovatis vel rarius subglobo-sis, 21-29 \approx 17-20, verruculosis, poris germinationis numerosis, magnis instructis; teleutosporis 1-4-locularibus, ad septa interdum constrictis, episporio levi, sordide brunneo, apice modice incrassato indutis, 75 \approx 20-28, vertice rotundatis vel in papillam conoideam hyalinam protractis, pedicello longo crasso, firmo suffultis.

Hab. in foliis Rubi incisi, in prov. Kozuké Japoniæ (KUSANO).

4. **Phragmidium Barnardi** Plowr. et Wint. — Syll. VII, p. 746. — 1324 var. **pauciloculare** Diet. in Bot. Jahrb. 1902, p. 49. — Teleutosporis 3-6 plerumque 4-locularibus; cetera ut in forma typica.

Hab. In foliis Rubi parvifolii, in prov. Kozuké Japoniæ (KUSANO).

5. **Phragmidium affine** Syd. Ann. Mycol. 1904, p. 29. — Soris ure- 1325
 dosporiferis hypophyllis, maculis minutis flavis 1-2 mm. diam. insidentibus, sparsis, minutis, flavis; uredosporis globosis, subglobosis vel ellipsoideis, verruculoso-echinulatis, hyalino-flavidis, 22-27 \approx 18-24; soris teleutosporiferis hypophyllis, singulis interdum etiam epiphyllis, sparsis, minutis, ca. 0,8-1 mm. diam. pulverulentis, atro-brunneis; teleutosporis oblongis, typice 2-septatis, rarissime 1- vel 3-septatis, ad septa ut plurimum non constrictis, utrinque rotundatis, apice verruculoso-tuberculatis, dilute brunneis 35-50 \approx 20-25, rarius 3-septatis, usque 56 μ . longis, episporio usque 3 μ . crasso; pedicello hyalino, usque 50 μ . longo, crasso, basim versus leniter attenuato.

Hab. in foliis vivis Potentillæ Blaschkeanæ, Lisson in California, Bauf in Canada, Amer. bor.

6. **Phragmidium Potentillæ-canadensis** Dietel in Hedw. 1903, p. (179). 1326
 — Soris hypophyllis minutis in maculis purpureis, brunneis vel flavis; uredosporis ellipsoideis, 18-22 \approx 15-17, episporio tenui verruculoso incolorato vestitis, contextu aureo; soris teleutosporiferis cinnamomeis; teleutosporis 2-4-cellularibus, clavatis v. elongato-ellipsoideis, interdum curvatis, usque 100 μ . longis, 23-34 μ . latis, superne rotundatis vel rarius conoideis, episporio flavo-brunneo vel dilute castaneo, apice plerumque modice incrassato indutis, pedicello usque 70 μ . longo suffultis.

Hab. in foliis Potentillæ canadensis in America bor.

7. **Phragmidium Andersoni** Shear in Bull. of the Torr. Bot. Club. 1327
 1902, pag. 453. — Soris amphigenis, leniter pulvinatis, luteolis, sparsis abundantibusque, 200-400 μ . diam.; teleutosporis oblongo-cylindratis, dense tuberculato-rugosis, fere nigris, 60-75 \approx 32-34, bi-quadri-septatis, papilla apicali subhyalina, raro obscura, donatis; pedicello hyalino 60-105 μ . longo, fistuloso, ruguloso incrassato, 15-20 μ . crasso.

Hab. in foliis Potentillæ fruticosæ, Amer. bor.

8. **Phragmidium Ivesiæ** Syd. in Ann. Mycol. I, 1903, p. 329. — Soris 1328
 uredosporiferis amphigenis, plerumque hypophyllis, maculis nullis vel indeterminatis pallescentibus insidentibus, sparsis, minutis, punctiformibus, pulverulentis, dilute brunneis; uredosporis globosis vel subglobosis, rarius ellipsoideis, echinulato-verruculosis, hyalino-flavidis, 22-27 \approx 20-25, episporio ca. 2,5 μ . crasso; soris

teleutosporiferis amphigenis, eisdem maculis insidentibus, sparsis, minutis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, basi rotundatis, typice 2-septatis, rarissime 3-septatis, ad septa ut plurimum non constrictis, apice parce et minutissime tuberculatis alibi levibus, melleis, tandem flavo-brunneis, 40-50 \approx 22-34 rarius usque 54 μ . longis, episporio ca. 3 μ . crasso; pedicello hyalino, usque 45 μ . longo, crasso, basim versus attenuato, in aqua tandem intumescente.

Hab. in foliis vivis Ivesiæ unguiculatæ in California (G. ENGELMANN).

PUCINIASTRUM Otth — Syll. p. 762, IX p. 318, XIV p. 363, XVI p. 319.

1. **Pucciniastrum Castaneæ** Diet. in Hedw. 1902, p. (178). — Soris 1329 uredosporiferis hypophyllis sparsis, minimis, epidermide circumvallatis v. semitectis; uredosporis obovatis, 15-20 \approx 10-14, episporio hyalino echinulato donatis, paraphysibus clavatis circumvallatis; soris teleutosporiferis amphigenis subepidermicis, melleis v. cinnamomeis, parvis, sparsis vel confertis; teleutosporis 1-4 vel plurilocularibus, 21-37 μ . long., singulis cellulis 5-12 μ . latis, flavidulis, apice non incrassatis.

Hab. in foliis Castaneæ vulgaris var. japonicæ, Nikko Japoniæ (NISHIDA).

2. **Pucciniastrum Boehmeriæ** (Diet.) Syd. Ann. Mycol. 1903, p. 19, 1330 *Uredo Boehmeriæ* Diet. in Engl. Jahrb. XXVIII, p. 290 (1900). — Soris uredosporiferis hypophyllis, minutis, pallide ochraceis, pseudoperidio hemisphærico inclusis; uredosporis ovatis v. ellipsoideis, echinulatis, subhyalinis, 18-24 \approx 13-18; soris teleutosporiferis hypophyllis, maculis indeterminatis brunneis insidentibus, sparsis vel laxe aggregatis, subepidermicis, minutissimis, ochraceis vel ochraceo-fuscis; teleutosporis plerumque 1-4-ocularibus, vario modo in cellulas divisus, 18-36 \approx 14-20, hyalino-flavescentibus, levibus non incrassatis.

Hab. in foliis vivis Boehmeriæ bilobæ, japonicæ, spicatæ multis locis, in Japonia.

3. **Pucciniastrum Kusanoi** Diet. in Bot. Jahrb. 1903, p. 629. — Soris 1331 uredosporiferis hypophyllis sparsis, minimis, 8-9 μ . diam., pseudoperidio hemisphærico inclusis; uredosporis obovatis v. ellipsoideis, 18-25 \approx 13-17, episporio incolorato, echinulato præditis; soris

teleutosporiferis indeterminatis, cinnamomeis; teleutosporis unusque quadrilocularibus, confertis, globosis vel mutua pressione angularibus irregularibusve, 20-25 μ . diam., episporio levi dilute brunneo indutis.

Hab. in foliis *Clethrae barbinervis*, Swaki Japoniæ (KUSANO).

TRIPHFRAGMIUM Link. — Syll. VII p. 768, IX p. 318, XI p. 209, XVI p. 322 *).

1. **Triphragmium Ulmariae** (Schum.) Link. — Syll. VII, p. 768. — var. ¹³³²**alpinum** Lagerh. in Vestergr. Myc. rar. selecti Bot. Not. 1902, p. 175. — A typo differt absentia status secundarii Uredinis et soris teleutosporarum maximis, nervincolis (eadem forma ut in statu primario Uredinis).

Hab. in foliis *Ulmariae pentapetalae* in regione alpina ad Strömsmo, Tromsøe, Norvegia.

2. **Triphragmium Nishidanum** Diet. in Hedw. 1902, p. (177). — Soris ¹³³³minutis sparsis castaneis hypophyllis, primo tectis, deinde nudis, pulverulentis; teleutosporis subglobosis, 40-50 μ . latis, ad septa non vel vix constrictis, poro solitario laterali in quaque cellula instructis, castaneis, grosse tuberculatis, breviter pedicellatis.

Hab. in foliis *Astilbes sinensis*, var. *albiflorae*, Nikko Japoniæ (NISHIDA).

HAPALOPHRAGMIUM Syd. in Hedw. 1901, p. (64). — Syll. XVI p. 1121.

1. **Hapalophragmium Derridis** H. et P. Syd. in Hedw. 1901, p. (64). ¹³³⁴ — Soris uredosporiferis amphigenis, plerumque hypophyllis, minutis, punctiformibus, sparsis vel compluribus dense aggregatis confluentibusque et tunc 1-2 mm. diam., cinnamomeis compactiusculis, maculis purpureo-brunneis v. obscure brunneis plerumque insidentibus; uredosporis globosis, subglobosis, ovatis vel piriformibus, membrana in sporis globosis æquabili crassitudine, in sporis piriformibus apice incrassata, grosse aculeata, flavo-brunnea, poris germinationis binis (ut videtur), 25-30 μ . diam. v. 27-36 μ . 19-25; soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis minutis minusque manifestis insidentibus, sparsis, minutis,

*) Cfr. *Milesi e Traverso*, Saggio di una monografia del genere *Triphragmium* in Ann. Mycol. 1904, p. 143-156, tab. V, ubi species hucusque cognitæ describuntur et figuris col. illustrantur.

punctiformibus, non confluentibus, e compactiusculo demum subpulverulentis, flavo-brunneis; teleutosporis radiatim 3-cellularibus, levibus, pallide flavo-brunneis, totis 38-58 \times 27-38, quaque cellula ca. 28-38 \times 14-22, membrana tenui, apice non incrassata, cellula apicali epedicellata, duabus basalibus pedicello communi hyalino, apice crassiusculo deorsum attenuato 30-50 μ . longo suffultis; poris germinationis ad apicem v. juxta apicem cujusque cellulæ sitis.

Hab. in foliis vivis Derridis uliginosæ, Tanga in Africa trop. (HEINSEN) et in insula Nossi-Bé (HILDEBRANDT).

2. **Hapalopragmium setulosum** (Pat.) Syd. in Ann. mycol. 1904, p. 350. Ita vocandum, teste cl. Sydow l. c., *Triphragmium setulosum* Pat. — Syll. IX, p. 318 — ex eo quod articuli basales teleutosporarum sint bini nec singulus et sori valde compacti.

Sect. 4. Dictyosporæ.

RAVENELIA Berk. — Syll. VII p. 770, IX p. 318, XI p. 210, XIV p. 363, XVI p. 323 *).

1. **Ravenelia siliquæ** Long, Bot. Gaz. 1903, p. 118, fig. 7. — Soris 1335 subcutaneo-erumpentibus; uredosoris orbicularibus, amplis, 1-4 mm., diam., cinnamomeo-brunneis, epidermide rupta elevata cinctis, sparsis vel plus minus confluentibus; uredosporis fulvis, episporio dense verrucoso, oblongo-ovoideis v. ovato-fusoideis, 20-33 \times 13-17, sæpius 30 \times 16, poris germ. 8, in binas series juxta æquatorem quaternatis; paraphysibus rarissimis, clavatis, 43 \times 7, hyalinis, apice fulvellis.

Hab. in leguminibus Acaciæ Farnesianæ, Etna, Oaxaca Mexico (HOLWAY). — Teleutosporæ nullæ visæ. Cl. Long legumen Acaciæ pro siliqua habet!

2. **Ravenelia fragrans** Long, Bot. Gaz. 1903, p. 123, fig. 14. — Ure- 1336 dosoris subcutaneo-erumpentibus, primariis typice dense confluentibus foliaque ramulosque inflantibus, secundariis subsparsis vel confluentibus, fulvis; uredosporis crasse tunicatis, sporis primariis angulosis, ultimis ovoideo-globosis, dense spinulosis, 17-23 \times 13-17,

*) Cfr. illustrationem hujus generis iconibus dilucidatam, cl. W. H. Long, in Bot. Gaz. 1903, p. 111-133 (ad species boreali-americanas).

poris germ. pluribus; paraphysibus copiosissimis clavatis, 40-50 \approx 5-12, hyalinis, fulvo-capitatis; teleutosoris amphigenis et petioliculis, minutis, vix 1 mm. diam., atro-brunneis; teleutosporarum capitulis castaneo-brunneis, globulosis, 70-85 \approx 30-35, papillatis; teleutosporis 5-6 in sectione diam., papillis hyalinis brevibus 3-4 supra præditis, 33-38 \approx 17-20; cellulis cystoideis ovoideo-oblongis, hyalinis, infra totum capitulum pendulis; pedicello hyalino, composito, brevi, deciduo.

Hab. in foliis, petiolis ramulisque *Mimosæ fragrantis*, Texas Amer. bor. (AUSSIN). — Affinis *R. expansæ*.

3. **Ravenelia Longiana** Syd. in Hedw. 1901 p. (128). — Soris ure- 1337
 dosporiferis amphigenis, maculis nullis v. obsoletis, pallidis insidentibus, minutis, sparsis v. aggregatis confluentibusque, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneis, 20-27 μ . diam.; soris teleutosporiferis amphigenis, minutis, sparsis vel plerumque in greges ca. 2 mm. latos aggregatis et confluentibus, pulverulentis, atris; capitulis teleutosporarum irregulariter rotundatis, hemisphæricis, levibus e sporis unicellularibus 5-7 in omni directione compositis, castaneo-brunneis, 55-90 μ . diam.; sporis unicellularibus 14-19 μ . diam.; cellulis cystoideis numerosis, globosis v. subglobosis, hyalinis 14-19 \approx 14-16, vix persistentibus; hyphis pedicellum constituentibus discretis haud conjunctis.

Hab. in foliis vivis *Cassiæ Rœmerianæ*, Austin, Texas. 1338

4. **Ravenelia spinulosa** Diet. et Holw. in Bot. Gaz. 1901, pag. 336. — Soris amphigenis, erumpentibus, uredosporiferis, ochraceis; uredosporis ellipsoideis vel fere globosis, 18-23 \approx 16-19, pallide brunneis, spinulis brevissimis vestitis, paraphysibus intermixtis; soris ex capitulis teleutosporarum nigris, hemisphæricis, 75-110 μ . diam., 7-9 sporis, pallide brunneis formatis; sporis 11-17 μ . latis, 1-cellularibus, apiculo usque 8 μ . long.

Hab. in foliis *Cassiæ multifloræ*, Oaxaca in Mexico.

5. **Ravenelia Usambaræ** Syd. in Ann. Mycol. I, 1903, p. 331. — Soris 1339
 teleutosporiferis epiphyllis, in greges rotundatos ca. 3-5 mm. diam. concentricè dispositis, minutis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis immixtis subglobosis vel late ellipsoideis, echinulatis, brunneolis, ca. 19-22 \approx 14-18; capitulis teleutosporarum rotundatis, 75-120 μ . diam., dilute brunneis e 6-9-sporis in omni directione compositis, tuberculis minutis vix prominulis præditis, facile in sporas secedentibus; sporis unicellula-

ribus, apice incrassatis usque 6 μ ., 27-33 \approx 13-19; pedicello polyhyphoideo, hyalino; cystidiis globosis, hyalinis, 12-20 μ . diam.

Hab. in foliis vivis Cassiæ goratensis in Usambara Afr. or. (C. HOLST).

6. **Ravenelia portoricensis** Arthur Bull. Torr. Bot. Cl. 1904, p. 5. 1310

— Soris uredosporiferis amphigenis, circinantibus in greges circ. 3 mm. latos, subepidermicis, pulverulentis, fulvis; uredosporis ellipsoideis, 24-29 \approx 16-18, episporio 2,5 μ . lato, luteo-aurantiaco, dense echinulato, poris 8, sparsis; paraphysibus nullis, teleutosporis non visis.

Hab. in foliis Cassiæ emarginatæ, Ponce, Porto Rico (A. A. HELLER) Amer.

7. **Ravenelia papillifera** Syd. in Ann. Mycol. I, 1903, p. 330. — Soris 1341

uredosporiferis amphigenis, sparsis v. irregulariter confluentibus, 0,5-1 mm. diam., pulverulentis, ochraceo-cinnamomeis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, 18-30 \approx 16-22, episporio ca. 2-2,5 μ . crasso, poris germinationis numerosis sparsis instructis; paraphysibus paucis, capitato-clavatis v. clavatis, hyalinis ca. 40 μ . longis, 8-14 μ . crassis; soris teleutosporiferis amphigenis, sparsis, minutis, pulverulentis, atris; capitulis teleutosporiarum rotundatis, castaneo-brunneis, 75-110 μ . diam. e 5-7-sporis in omni directione compositis; sporis singulis papilla hyalina 2-3 μ . alta præditis, 14-22 μ . diam., apice usque 5 μ . incrassatis; cystidiis hyalinis, globosis, pendulis, eodem numero quo sporis; pedicello brevi, hyalino, deciduo composito.

Hab. in foliis vivis Cassiæ Lindheimerianæ prope Austin in Texas Americæ bor.

8. **Ravenelia Baumiana** P. Henn. in Bot. Ergebn. der Kunene Sam- 1342

besi Exposit. pag. 157 (1902). — Maculis flavis vel ferrugineis; soris uredosporiferis amphigenis sparsis v. aggregatis, epidermide fissa tectis, ferrugineis; uredosporis subglobosis, ellipsoideis vel ovoideis, flavo-brunneis, 18-22 \approx 14-18, episporio minute verrucoso; soris teleutosporiferis plerumque epiphyllis orbiculariter dispositis, minutis castaneis, subpulverulentis; capitulis subglobosis, 90-120 μ . diam., castaneis, echinatis e 16-20 sporis compositis; sporis polyhedricis subcutaneis, 14-20 \approx 14-18, aculeis capitulatis, rectis vel curvulis, hyalino-fuscidulis, 7-9 \approx 5-6; pedicello nullo; cellulis appendicularibus paucis, subglobosis vel ovoideis, hyalinis 18 μ . diam.

Hab. in foliis Cassiæ goratensis, Humbe Afr. austr.

9. **Ravenelia macrocarpa** Syd. in Ann. Mycol. I, 1903, p. 329. — Soris 1343
 uredosporiferis amphigenis, plerumque hypophyllis, maculis obsole-
 tis flavescentibus vel brunneolis insidentibus, sparsis vel paucis
 associatis, minutis, punctiformibus, flavo-brunneolis, 16-30 \times 14-22;
 soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis,
 raro tantum paucis associatis, minutis, punctiformibus, atro-brun-
 neis; capitulis teleutosporarum globosis vel subglobosis, læte casta-
 neis, levibus, 80-140 μ . diam. e sporis 8-10 in omni directione com-
 positis; sporis omnibus unicellularibus 20-27 μ . latis, apice usque
 5 μ . incrassatis; cystidiis appendicularibus non conspicuis; pedi-
 cello hyalino brevi.

Hab. in follis Cassiæ bicapsularis in Brasilia (SELLO).

10. **Ravenelia atro-crustacea** P. Henn. Fungi Amaz. I, pag. 159, 1344
 Hedw. 1904. — Maculis flavo-brunneis, rotundatis; teleutosporis
 epiphyllis erumpentibus pulvinatis, primo epidermide fissa velatis,
 brunneis, dein subcrustiforme confluentibus, aterrimis versiformi-
 bus; capitulis subhemisphæricis vel irregulariter rotundatis, cinna-
 momeis, dein atris, levibus, plerumque 4-6-cellularibus, 45-70 μ . d.;
 cellulis continuis ovoideis v. subtriquetris ca. 20-28 \times 18-25, cysti-
 diis ca. 4 subglobosis, inflatis, ca. 25-30 μ . diam.; pedicello hyphis
 plurimis composito, hyalino fuscido usque ad 50 \times 6-7.

Hab. in foliis Swartziæ spec., Rio Juruá, Miry, Amer. merid.
 — Habitus quasi *Fumaginis*.

11. **Ravenelia Schweinfurthii** Syd. in Ann. Mycol. I, 1903, p. 330. 1345
 — Soris uredosporiferis amphigenis, maculis irregularibus insiden-
 tibus, sparsis vel paucis laxè aggregatis, minutissimis, punctifor-
 mibus, flavo-brunneis; uredosporis subglobosis v. ellipsoideis, bre-
 viter echinulatis, flavo-brunneis, 16-20 \times 11-16; soris teleospo-
 riferis conformibus, obscurioribus; capitulis teleutosporarum ro-
 tundatis, 55-105 μ . diam., castaneo-brunneis, levibus e 4-6 sporis
 in omni directione compositis; sporis unicellularibus apice circ.
 4 μ . incrassatis, 18-28 μ . latis; pedicello deciduo, hyalino; cysti-
 diis numerosis, hyalinis, globosis, 22-30 μ . diam.

Hab. in foliis vivis Entadæ sudanicæ, Duggu et Doggudu
 Africa centr. int. (G. SCHWEINFURTH).

12. **Ravenelia Cæsalpinia** Arthur Bull. Torr. Bot. Cl. 1904, pag. 5. 1346
 — Pycnidiis sæpe epiphyllis, subepidermicis, in greges conge-
 stis, depressis, 60-100 \times 15-18, luteo-aurantiacis, dein brunneis;
 soris uredosporiferis sæpe hypophyllis subcuticularibus congestis
 dein irregulariter sparsis, subrotundis vel oblongis, diu luteolis

dein ochraceis; uredosporis obvato-cuneatis, 28-35 \times 16-23; episporio tenui, 1,5-2 μ . lato, echinulato; poris germinationis 4; paraphysibus superne clavatis, fere hyalinis, membrana 1-1,5 μ . crassa; teleutosporis non visis.

Hab. in foliis Cæsalpiniaë spec. prope Bayamon, Porto Rico, Amer.

13. **Ravenelia Leucænæ** Long, Bot. Gaz. 1903, p. 126, fig. 23. — 1347

Soris subcutaneis plerumque epiphyllis, parce quoque petiolicolis; uredosoris cinnamomeo-brunneis, exiguis, 0,2-0,6 mm., ellipticis, epidermide rupta cinctis; uredosporis pallide brunneis, deorsum sæpe subhyalinis, oblongo-cylindræis, rarius oblongis, sparse spinulosis, 35-50 \times 15-18; poris germ. 4, æquatorialibus vel infra-æquatorialibus; paraphysibus copiosis, subhyalinis, apice fulvis subclavato-capitatis, tenui-tunicatis, sæpe collapsis, 40-50 \times 18; teleutosoris castaneis, minutis, 0,4-0,6 mm. diam., epidermide fissa cinctis; teleutosporarum capitulis castaneis, orbicularibus, 65-90 \times 35-40, papillatis, teleutosporis in sect. diametr. 5-6, papillis hyalinis 4-7 \times 2-3 coronatis; cellulis cystoideis oblongo-ovoideis basi compressis, periphericis, hyalinis; pedicellis brevibus hyalinis, deciduis.

Hab. in foliis Leucænæ diversifoliaë et sp. ind. Etna, Oaxaca, Iguala Mexici. — Affinis *R. goyazensi* sed papillis brevibus, hyalinis, soris minutis etc. diversa.

PLEORAVENELIA Long, Bot. Gaz. 1903, p. 127 (Etym. *pleos* plenus et *Ravenelia* ob teleutosporas interiores septatas). — A gen. affini *Ravenelia* differt teleutosporis capituli interioribus bicellularibus (nec unicellularibus). *Æcidia* adsunt ut in *Ravenelia*, seu pseudoperidio instructa *).

1. **Pleoravenelia similis** Long, Bot. Gaz. 1903, p. 128, fig. 21. — 1348

Soris in maculis effusis flavicantibus amphigenis, punctiformibus usque 0,5 mm., diam., subcutaneis, in epiphyllis copiosioribus et sæpe late confluentibus; uredosoris paucis, ochraceis, minutis; ure-

*) Ad hoc novum genus pertinent quoque, præter sp. supra de criptas: *P. levis* (Diet. et Holw.) Long l. c. p. 127, fig. 17; *P. epiphylla* (Schw.) Long l. c. pag. 128, f. 18; *P. Indigoferæ* (Transz.) Long l. c. pag. 129, fig. 19; *P. Brongniartiaë* (Diet. et Holw.) Long l. c. p. 120, f. 20, nec non *P. Hieronymi* (Speg.) Long; *P. Mac-Owaniana* (Pazschke) Long.; *P. glabra* (Kalehbr. et Cooke) Long et *P. Tephrosiaë* (Kalehbr.) Long l. c. p. 127.

dosporis brunneis, tunica crassa atro-brunnea spinulosa, globoso-ovoideis, 20-28 \times 17-23; poris germ. 8-12 prope æquatorem; paraphysibus nullis; teleutosoris atro-brunneis; teleutosporarum capitulis levibus inæqualiter globulosis, ovoideis, castaneis, 68-135 μ ., sæpius 100 μ . diam.; teleutosporis in sect. diam. 6-8; cellulis cystoideis hyalinis periphericis in pedicellum decurrentibus; pedicello hyalino, composito, brevi.

Hab. in foliis *Brongniartiae*, Guadalajara Mexici (HOLWAY). — A *P. epiphylla* recedit numero pororum germ. et uredosporis brunneis.

2. **Pleoravenelia Talpæ** Long, Bot. Gaz. 1903, pag. 130, fig. 22. — 1349

Soris subcutaneis, amphigenis, confertis; uredosoris parcis, ochraceis, epidermide fissa cinctis, minutis; uredosporis brunneis, tenuitunicatis, verrucosis ovoideo-subglobosis, solite inæquilateris, 25-32 \times 18-22, sæpius 30 \times 20; poris germ. æquatorialibus, 4-6, vix manifestis; paraphysibus nullis; teleutosoris minutis, atro-brunneis, numerosis, epidermide rupta cinctis; teleutosporarum capitulis atro-brunneis, irregulariter globosis v. ovoideis, minute sed distincte verrucosis, 65-115 \times 35-40, typice 85 μ . diam., teleutosporis in sect. diam. 4-8, verrucis irregulariter sparsis, semihyalinis coronatis; cellulis cystoideis periphericis, hyalinis, in pedicellum compositum brevem hyalinum decurrentibus.

Hab. in foliis *Tephrosiæ Talpæ*, Oaxaca Mexico (HOLWAY). — A *P. epiphylla* recedit capitulis verrucosis, uredosporis brunneis; a *P. Tephrosiæ* verrucis minoribus, uredosporis majoribus etc.

NEORAVENELIA Long, Bot. Gaz. 1903, p. 131 (Etym. *neos* novus et *Ravenelia*). — Ab affini gen. *Ravenelia* differt æcidiis pseudoperidio carentibus. Teleutosporæ omnes 1-cellulares ut in *Ravenelia*, qua nota differt quoque a *Pleoravenelia*.

1. **Neoravenelia Holwayi** (Diet.) Long l. c. p. 131, fig. 24, *Ravenelia Holwayi* Diet. — Syll. XI, p. 216. — Hucusque, ut videtur, unica species novi generis.

UREDINACEÆ INFERIORES

PERIDERMIIUM Lév. — Syll. VII p. 835, IX p. 326, XI pag. 222, XVI p. 349.

1. **Peridermium Holwayi** Syd. Ann. Mycol. 1903, p. 19. — Pseudo- 1350

peridiis hypophyllis, biseriatis, sine maculis, primitus subrotundatis clausis, demum vertice irregulariter disrumpentibus, apice lacera-
tis, albis; cellulis pseudoperidii forma et magnitudine variis; æci-
diosporis plerumque globosis v. subglobosis, rarius ovato-ellipsoi-
deis, confertim verrucosis, hyalino-flavescentibus, 19-24 μ . diam.

Hab. in acubus vivis *Pseudotsugæ Douglasii*, Glacier, Columbia britannica (HOLWAY).

2. **Peridermium ornamentale** Arthur in Bull. Torr. Bot. Cl. 1901, 1351
pag. 665. — Pseudoperidiis foliicolis biseriatis hypophyllis, cylin-
draceis, 1-2 mm. longis, initio luteo-pallidis; æcidiosporis obovatis,
ellipticis vel globulosis, 13-17 \approx 20-26, episporio tenui verruculoso.

Hab. in foliis *Abietis lasiocarpæ*, Mount Paddo, Washin-
gton Amer. bor.

3. **Peridermium conorum** Thüm. — Syll. VII, pag. 836. — Obser-
vante cl. Oud. in Revue Myc. 1902, species nascitur in *Abiete*
excelsa, nec *A. pectinata*.

RÆSTELIA Rebent. — Syll. VII p. 833, XI p. 222, XVI p. 348.

1. **Ræstelia fimbriata** Arthur in Bull. Torr. Bot. Cl. 1901, p. 666. — 1352
Pycnidiis epiphyllis, in maculis luteis insidentibus, prominentibus,
nigrescentibus; æcidiosporis hypophyllis gregariis vel plerumque
confluentibus; pseudoperidiis dehiscentibus, in longas lacinias de-
sinentibus; sporidiis subglobosis 32-45 μ . diam., castaneo-brunneis,
medio incrassatis, verrucosis.

Hab. in foliis *Sorbi* cujusdam, in montibus Elk, Wyoming
Amer. bor.

2. **Ræstelia Nelsonii** Arthur in Bull. Torr. Bot. Cl. 1901, p. 665. — 1353
Pycnidiis epiphyllis, in maculis luteis insidentibus, congestis, pro-
minentibus, nigrescentibus, numerosis; æcidiosporis hypophyllis con-
gestis; pseudoperidiis 2-4 mm. long., rectis v. curvulis, dehiscenti-
bus, apice subacutis, clausis; æcidiosporis globosis, 24-30 μ .
diam., castaneo-brunneis, minute verrucosis v. levibus.

Hab. in foliis *Amelanchieris alnifoliæ*, Laramie Hills,
Wyoming Amer. bor. — Stat. æcid. *Gymnosporangii Nelsoni* Arth.

3. **Ræstelia solenoides** Diet. in Bot. Jahrb. 1903, p. 631. — Pseu- 1354
doperidiis hypophyllis, in maculis flavo-brunneis perpauca consocio-
ciatis, tubiformibus, flavo-brunneis, ore angustato præditis, usque
3 mm. longis; æcidiosporis irregulariter globosis v. late ellipsoideis
18-21 μ . diam., usque 24 μ . longis, episporio flavo-brunneo, dense
verrucoso tenui indutis.

Hab. in foliis Piri Ariæ Ehrb. var. *kamaonensis*, in prov. Iwaki Japoniæ (KUSANO).

ÆCIDIDIUM Pers. — Syll. VII p. 774, IX p. 319, XI p. 213, XIV p. 369, XVI p. 325.

1. **Æcidium Wedeliæ** Earle in *Muhlenbergia* 1901, p. 16. — Hypo- 1355
phyllum; maculis luteis 2-5 mm. diam.; pseudoperidiis dense congestis, luteis, brevibus, parce emergentibus, paullum laceratis, circ. 350 μ . diam., contextu cellulis polyhedricis, minute aculeatis, 30 \approx 20; æcidiosporis minutis, subpolygonalibus, luteis, episporio levi, circ. 16 \approx 12.

Hab. in foliis vivis *Wedeliæ carnosæ*, Mayagnez in insula Porto Rico Amer. centr.

2. **Æcidium recedens** Arthur Bull. Torr. Bot. Cl. 1904, pag. 7. — 1356
Pycnidiis amphigenis, in greges circulares dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermidicis, globosis, 90-100 μ . diam., ostioli periphysibus 45 μ . longis; æcidiis amphigenis pustuliformibus, in circulum dispositis; pseudoperidiis evanescentibus; æcidiosporis globosis, 16-23 vel 22-29, episporio 3 μ . diam., luteo-aurantiaco, dense minuteque verrucoso.

Hab. in foliis *Solidaginis mollis*, Callaway, Nebraska (J. M. BATES), Cypres Hills, Assiniboia Amer. bor. (J. MACOUN).

3. **Æcidium incurvum** Tracy et Earle in *Plantæ Bakerianæ fasc. I*, 1357
fungi p. 18. — Amphigenum; maculis nullis; pseudoperidiis irregulariter congestis profunde immersis incurvis, paullulo emergentibus; cellulis striatis 40-50 \approx 20-25; sporis globosis vel late ovalibus, intense coloratis, episporio crasso, leviter echinulato, 40-50 \approx 20-25; pycnidiis non visis.

Hab. in foliis *Erigerontis flagellaris*, Chicken Creek, Colorado Amer. bor.

4. **Æcidium dubiosum** Syd. in *Hedw.* 1901 p. (1). — *Æcidiis* hypo- 1358
phyllis, raro paucis etiam epiphyllis, maculis orbicularibus flavo-brunneis, 0,5-1,5 cm. diam., insidentibus, in greges orbiculares usque 1 cm. diam. laxè dispositis, flavidis, cupulatis, margine lacerato; æcidiosporis polygoniis, subhyalinis, tenuissime aculeolatis, 18-27 μ . diam.

Hab. in foliis vivis *Senecionis mikanioidis* prope Durban, Natal (WOOD) et *Senecionis quinquelobi*, ad pedem montis Boschberg Africae austr. (MAC OWAN).

5. *Æcidium anceps* Syd. in Hedw. 1901, pag. (1). — *Æcidiis* hypo- 1359
phyllis, maculis flavescentibus v. flavo-brunneolis 1 cm. diam. v.
confluendo irregularibus insidentibus, in greges orbiculares usque
1 cm. latos latiuscule dispositis, flavidis, cupulatis, margine lace-
rato; æcidiosporis globosis vel globoso-angulatis, hyalino-flave-
scentibus, punctatis, 13-17 μ . diam.

Hab. in foliis vivis Senecionis deltoidis ad pedem mon-
tis Boschberg Africae austr. (MAC OWAN).

6. *Æcidium incertum* Syd. in Hedw. 1901, p. (1). — *Æcidiis* hypo- 1360
phyllis, maculis flavo-brunneis orbicularibus subinde confluenti-
bus 0,5-2 cm. diam. insidentibus, in greges orbiculares vel con-
fluendo irregulares 0,5-2 cm. diam. confertim dispositis, cupulatis,
flavis, margine lacerato; æcidiosporis globosis v. globoso-angulatis,
hyalino-flavescentibus, punctatis, 14-18 μ . diam.

Hab. in foliis vivis Senecionis spec. ad pedem montis Bosch-
berg Africae austr. (MAC OWAN).

7. *Æcidium Inulæ-Heleni* Constantineanu, Ann. Mycol. 1904, p. 251. 1361
— Pycnidiis in parvos greges dispositis, melleis; æcidiis hypo-
phyllis, maculas flavas, distinctas, irregulares 1-3 mm. latas ef-
formantibus; pseudoperidiis cupuliformibus, margine albido, revo-
luto, tenuissime denticulato; æcidiosporis polygoniis, isodiametricis
16,2-18,9 vel parum elongatis 17-21 \approx 16-18, flavescentibus, sub-
tilissime punctatis.

Hab. ad folia Inulæ Helenii, in pratis humidis secus viam
ferream prope pag. Grajduri in districtu Vaslui Romaniae.

8. *Æcidium Helianthellæ* Arthur in New York Bot. Gard. 1902, 1362
p. 348. — Pycnidiis epiphyllis, parvulis paucisque; æcidiis hy-
pophyllis in maculis pallidis insertis, in circulum dispositis; æci-
diosporis globulosis 14-22 μ . diam., minute rugosis vel non, mem-
brana tenui, fere hyalinis.

Hab. in foliis Helianthellæ cujusdam, Alcove, Wyoming
Amer. bor.

9. *Æcidium Grindeliæ* Syd. in Hedw. 1901 p. (1) non Griffiths, quia 1363
posterius (1902). — *Æcidiis* amphigenis, maculis flavidis insiden-
tibus, in greges rotundatos 3-5 mm. diam. dispositis, minutis,
flavis, margine inciso; æcidiosporis globosis v. angulato-globosis,
punctatis, subhyalinis, 10-15 μ . diam.

Hab. in foliis vivis Grindeliæ squarrosæ, Manhattan,
Kansas Americae bor. (KELLERMAN). — Sec.]cl. Griffiths in Bull.
of the Torr. Bot. Club. 1902, p. 299, æcidiosporæ sunt leviter brun-

neæ 20-24 μ . diam., episporio crasso, minute rugoso donatæ. Hæc in *Grindelia squarrosa*, Columbia Amer. bor.

10. ***Æcidium Galasiæ*** Syd. Ann. Mycol. 1903, pag. 252. — *Æcidiis* hypophyllis, per totam folii superficiem æque sparsis, longe cylindræis, margine profunde inciso, albis; *æcidiosporis* angulato-globosis, punctatis, pallide aurantiacis, 22-30 \approx 18-25.

Hab. in foliis *Galasiæ villosæ*, prope Pirano Istriæ (L. GÖRZ).

11. ***Æcidium Clibadii*** Syd. in Ann. Mycol. 1903, I, p. 333. — *Æcidiis* hypophyllis, maculis rotundatis brunneis 2-5 mm. diam., insidentibus, in greges rotundatos maculam explentes dispositis, primo clausis, dein breviter cylindræis, margine inciso; *æcidiosporis* angulato-globosis, hyalino-flavescentibus, subtilissime verruculosis, 11-18 μ . diam.

Hab. in foliis vivis *Clibadii Donnell-Smithii*, in Departm. Guatemala (DONNEL-SMITH) et *Clib. asperi* in Guiana gallica (POITEAU).

12. ***Æcidium Carphochætæ*** Syd. Ann. Mycol. 1903, p. 20. — *Æcidiis* amphigenis, maculis irregularibus flavis plerumque insidentibus, irregulariter sparsis v. paucis aggregatis, diu globoso-clausis, tandem medio dehiscens, albis, pariete indistincto; *æcidiosporis* angulatis, verruculosis, flavescentibus, 22-30 \approx 16-23.

Hab. in foliis *Carphochætæ Grahami*, San Luis Potosi in Mexico (J. G. SCHAFFNER).

13. ***Æcidium Borrichiæ*** Syd. in Hedw. 1901, pag. (129). — *Æcidiis* hypophyllis, in maculis irregularibus interdum insidentibus, sparsis, laxe gregariis vel sæpe totam foliorum superficiem obtegentibus, cupulato-cylindræis, margine albido, recurvato, laciniato; *æcidiosporis* angulato-globosis, subtiliter verruculosis, subhyalinis, membrana tenui 24-30 μ . diam.

Hab. in foliis vivis *Borrichiæ frutescentis*, Fort Morgan, Florida Amer. bor. (S. M. TRACY).

14. ***Æcidium Boltoniæ*** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — Maculis pallide luteis; pycnidiis amphigenis ceraceis, luteis; sporulis oblongo-ovatis 3-5; pseudoperidiis generaliter hypophyllis, immersis, margine irregulari; *æcidiosporis* pallide luteolis, subglobosis, 13-17 μ . cr., episporio tenui parce verruculoso.

Hab. in foliis *Boltoniæ asteroidis*, Spirit Lake, Jowa Amer. bor.

15. ***Æcidium Wulffiæ*** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1904.

— Maculis fuscidulis, obscurius zonatis, rotundatis, sparsis; æcidiis hypophyllis; pseudoperidiis aggregatis orbiculariter dispositis, minutis, alutaceis, cupulatis, contextu cellulis oblonge polyhedricis, hyalinis, ca. $30 \approx 15$; æcidiosporis subgloboso-angulatis, $15-20 \mu$. hyalino-fuscidulis, levibus.

Hab. in foliis *Wulffiæ* spec. Rio Juruá, Juruá-Miry Amer. merid. — Forte ad *Urom. Wulffiæ* spectat.

16. ***Æcidium tarapotense*** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1370
1904. — Maculis rotundatis vel effusis, fuscis; æcidiis gregarie sparsis, amphigenis; pseudoperidiis concentricè dispositis, minutis, rotundatis dein cupulatis, flavidis vel brunneis, contextu cellulis oblonge polyhedricis, subhyalinis, reticulatis; sporis ovoideis vel ellipsoideo-angulatis, brunneo-fuscidulis, verrucosis, $30-40 \approx 20-30$; pycnidiis sæpe oppositis, punctiformibus, fuscis.

Hab. in foliis *Vernoniæ*, Tarapoto, Perù, Amer. merid. — Ab *Æcid. Vernoniæ* diversum.

17. ***Æcidium Patriniaë*** P. Henn. Einige neue japan. Ured. III, in 1371
Hedw. 1902, pag. 21. — Maculis rotundatis, fuscidulis, brunneo-
cingulatis; æcidiis hypophyllis, pseudoperidiis aggregatis, cupu-
latis, pallide fuscidulis, contextu cellulis subgloboso-polyhedricis,
hyalino-flavidulis, reticulatis, $20-30 \mu$. diam.; sporis subglobosis
v. ellipsoideis, angulatis, $12-15 \approx 10-13$, flavidis, levibus.

Hab. in foliis *Patriniaë scabiosifoliaë*, Tosa Japoniæ.

18. ***Æcidium Perkinsiæ*** P. Henn. F. Australiaë occid. I, in Hedw. 1372
1901, p. 96. — Syll. XVI, p. 1121 (nomen). — *Æcidiis* petiolico-
lis v. calyciculis, incrassatis curvatisque; pseudoperidiis gregariis
vel sparsis, hemisphærico-cupulatis, semiimmersis, flavido-rufis,
contextu cellulis rotundato- v. oblongo-polyhedricis, subhyalinis,
reticulatis, $18-24 \approx 16-20$; æcidiosporis subglobosis v. ellipsoideis,
angulatis, flavidis, intus granulatis, $15-20 \mu$. diam.

Hab. in petiolis calycibusque *Leschenaultiæ linarioidis*
Perth Australiaë occid.

19. ***Æcidium plectroniicola*** P. Henn. in Ergebn. der Kunene-Sambesi 1373
Expedit. p. 162 (1902). — Maculis fuscis, rotundatis; æcidiis hy-
pophyllis; pseudoperidiis aggregatis cupulatis v. breve cylindra-
ceis, margine fimbriatis ex pallido fuscidulis, contextu cellulis po-
lyhedricis, reticulatis, hyalino-fuscidulis, $20-30 \mu$. diam.; æcidio-
sporibus subgloboso-angulatis, flavido-fuscidulis, levibus, $18-20 \mu$. d.

Hab. in foliis *Plectroniæ huillensis*, Longa prope Na-
palanka Afr. austr.

20. *Æcidium Busseanum* P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. 1374

— Maculis incrassatis, explanatis, rufo-brunneis; pycnidiis epiphyllis, subdiscoideis, flavo-brunneis, nitentibus; æcidiis oppositis, effusis; pseudoperidiis subimmersis, cupulatis, pallidis, contextu cellulis oblongo-polyhedricis, reticulatis, hyalino-fuscidulis; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, 20-24 \approx 18-22.

Hab. in foliis *Plectroniæ hispidæ*, Usambara Africae orient. (W. BUSSE).

21. *Æcidium Baumianum* P. Henn. in Ergebn. der Kunene-Sambesi 1375

Expedit. p. 163 (1902). — Maculis rotundatis, gregariis flavis v. fuscis exaridis; æcidiis hypophyllis circulariter dispositis v. epiphyllis sparsis singularibus; pseudoperidiis breve cylindræis ca. 600-700 μ . altis, 250-300 μ . latis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, flavidulis v. hyalinis, reticulatis; æcidiosporis subglobosis v. ellipsoideis angulatis, levibus, intus flavidulis hyalinescentibus.

Hab. in foliis *Plectroniæ abbreviatæ*, Habungu, Afr. austr.

22. *Æcidium Borreriæ* Pat. in Duss. Enum. champ. Guadel. 1903, 1376

p. 7. — Pseudoperidiis solitariis inæqualiter sparsis, hypophyllis, parenchymate immersis, dein emergentibus, pallidissime flavidis, 300 μ . diam., brevissimis, initio clausis dein apertis; cellulis pseudoperidii angulosis, fere achromis, verrucosis, 25 \approx 15; æcidiosporis globulosis v. ovoideis, pallide flavis, minute granulosis, 20 \approx 18, membrana tenuissima.

Hab. in foliis *Borreriæ* sp. herbacæe cujusdam Basse-Terre Guadalupa (Duss). — Folia normaliter elliptica parasiti ope anguste linearia et deformia evadunt.

23. *Æcidium Ancylanthi* P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1377

Expedit. p. 161 (1902). — Maculis rotundatis, flavis v. fuscidulis; æcidiis hypophyllis; pseudoperidiis sparsis v. aggregatis, sæpe nervos sequentibus, cylindræis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30 μ . diam.; æcidiosporis subgloboso- v. ovoideo-angulatis, levibus, intus flavidis, 16-24 \approx 15-22.

Hab. in foliis *Ancylanthi fulgidi*, Habungu, Afr. austr.

24. *Æcidium Cephalanthi-peruviani* P. Henn. Fungi Amaz. I, p. 167 1378

(Hedw. 1904). — Maculis rotundatis, rufo-brunneis ca. 1 cm. d., pycnidiis pulvinato-hemisphæricis, castaneis, gregariis; æcidiis hypophyllis oppositis; pseudoperidiis subcirculariter dispositis, cu-

pulatis, margine albidis fimbriatis, contextu cellulis oblonge polyhedricis, reticulatis, 50-60 \times 20-30; æcidiosporis subgloboso-angulatis, intus fuscidulis, 10-15 μ ., episporio levi hyalino.

Hab. in foliis *Cephalanthi peruviani*, Tarapoto in Perù Amer. merid.

25. ***Æcidium Psychotriæ*** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1379 1904. — Maculis subaurantiacis vel flavo-brunneis, effusis; æcidiis hypophyllis sparsis; pseudoperidiis primo semiimmersis, dein cupulatis, margine pallido, subfimbriato, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis; sporis subgloboso-angulatis, 20-30 μ ., intus flavido-fuscidulis, episporio usque ad 8 μ . incrassato, reticulato.

Hab. in foliis *Psychotriæ* spec. Cerro de Isco, Perù Americæ merid.

26. ***Æcidium iquitosense*** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1380 1904. — Maculis nigris effusis, pycnidiis gregariis, atris punctiformibus; æcidiis foliicolis caulicisque deformantibus effusis; pseudoperidiis semiimmersis, cupulatis, fuscidulis, margine pallidis, fimbriatis, contextu cellulis oblonge polyhedricis, tessellatis, 30-40 \times 20-30; æcidiosporis subgloboso-angulatis, verrucosis, hyalino-fuscidulis, 18-23.

Hab. in caulibus foliisque *Psychotriæ* spec., Iquitos Perù Amer. merid. — Ab *Æc. Psychotriæ* aliisque bene diversum.

27. ***Æcidium Tracyanum*** Syd. in Hedw. 1901, p. (129). — *Æcidiis* 1381 hypophyllis, in maculis irregularibus, indeterminatis, flavidis insidentibus, in greges irregulares v. rotundatos laxè dispositis, interdum paucis, etiam caulicis, breviter cylindræis, albidis, margine lacerato; pycnidiis in epiphylo æcidiis contrapositis; æcidiosporis globosis v. angulato-globosis, hyalino-flavidis, subtiliter verrucosis, 20-26 μ . diam.

Hab. in foliis caulibusque vivis *Ruellia* spec., Braidentown, Florida Americæ bor. (S. M. TRACY).

28. ***Æcidium Tuberosæ*** P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1382 1904). — Maculis rotundatis, sparsis, ferrugineis; æcidiis plerumque epiphyllis interdum hypophyllis; pseudoperidiis aggregatis v. orbiculariter dispositis, ferrugineis, cupulatis, contextu cellulis oblonge polyhedricis vel fusoides, reticulatis, fuscidulis; æcidiosporis subgloboso-angulatis, fusco-brunneis, 20-25 μ .

Hab. in foliis *Ruellia* *tuberosæ*, Perù, Salinas de Pilluana Amer. merid.

29. ***Æcidium Isoglossæ*** Syd. in Ann. Mycol. I, 1903, pag. 333. — 1383

Æcidii amphigenis, maculis nullis vel vix distinctis pallescentibus insidentibus, tubercula elevata verruciformia ca. 1-3 mm. diam. formantibus et in eis paucis profunde immersis, interdum etiam solitariis vel 2-3 associatis et tubercula nulla vel vix evoluta formantibus, cupulatis, tandem late apertis et margine recurvato; *æcidiosporis* angulato-globosis vel late ellipsoideis, hyalino-flavescentibus, verruculosis, 20-28 \approx 18-25.

Hab. in foliis vivis *Isoglossæ lacteæ*, Bulagwa Berg, Deutsch Ostafrika (W. GOETZE).

30. ***Æcidium cyattarioides*** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1384

1904). — *Æcidii* ramicolis, cortice erumpentibus; gallis ovoideis vel varie tuberculiformibus, duris, usque ad 1-2 cm. diam., rugosis; pseudoperidiis immersis, cupulatis vel subfavosis, ferrugineis, contextu cellulis rotundato-polyhedricis ca. 30 μ ., reticulatis; *æcidiosporis* subgloboso-angulatis, hyalino-flavidulis vel fuscidulis, levibus, 10-14 \approx 8-12.

Hab. in trunco ramisque *Acanthaceæ* cujusdam scandentis Rio Juruá, Marary Amazoniæ. — Gallas generat *Cyttariæ* habitu.

31. ***Æcidium Melananthi*** Henn. in Hedw. 1902, p. (62). — *Æcidii* 1385

ramulos circumdantibus eos incrassantibus curvantibusque, gregariis v. sparsis, semiimmersis, subhemisphærico-pulvinatis, pallide flavidulis, contextu cellulis polyhedricis, reticulatis, fuscidulis; *æcidiosporis* subgloboso-angulatis, hyalino-fuscidulis, 18-21 μ . diam.

Hab. in ramulis *Melananthi dipyrrenoidis*, Pico de Gavea Brasiliæ (E. ULE).

32. ***Æcidium Aphelandræ*** P. Henn. Fungi Amaz. IV, in Hedw. 1904, 1386

p. 58. — Maculis rotundatis fuscidulis vel pallidulis, atrobrunneo zonatis; pycnidiis epiphyllis gregariis, rotundato-pulvinatis, atrocastaneis; *æcidii* hypophyllis oppositis vel sparsis, cupulatis, margine albido-fimbriatis, contextu cellulis polyhedricis ca. 20-30 μ . diam.; *æcidiosporis* subgloboso- v. ellipsoideo-angulatis, fuscidulis, levibus, 10-18 \approx 10-15.

Hab. in foliis *Aphelandræ*, Tarapoto, Rio Amazonas Brasiliæ.

33. ***Æcidium habunguense*** P. Henn. in Bot. Ergebn. der Kunene- 1387

Sambesi Expedit. pag. 160 (1902). — Maculis fuscis rotundatis, *æcidii* hypophyllis orbiculariter dispositis, cupulatis v. breve cylindræis, pallidis, dein subfuscidulis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30; *æcidiosporis* subglobosis angulatis, flavo-fuscidulis, levibus, 18-22 \approx 17-21.

Hab. in foliis Solani Baumii, Habungu Afr. austr.

34. **Æcidium alapense** Holw. Ann. Mycol. 1904, p. 392. — Maculis 138
brunneis; æcidiis hypophyllis sparsis, in quoque grege 1-6, leviter
immersis; æcidiosporis globosis vel angulosis, tuberculatis 24-
36 \approx 24-28, membrana 4-6 μ . cr.; cellulis pseudoperidii fortiter
verrucosis 28-40 \approx 24-28, membrana æqualiter 6 μ . crassa.

Hab. in foliis Ipomœæ (an I. Jalapæ?), Jalapa Mexici. —
Simul adest *Uredo* quædam: soris brunneis, minutis, uredosporis
globoso-ellipsoideis, laxè spinulosis 28-36 \approx 24-28.

35. **Æcidium Mayori** Ed. Fisch. Bull. herb. Boiss. 1902, pag. 957 1388
(absque diagnosi). — Pseudoperidiis in toto hypophyllo æqualiter
gregariis, rarius in epiphylo, folium leviter deformantibus, scu-
tellatis, albido-flavidis, maturis margine extus flexo apertis; cel-
lulis pseudoperidii superimpositis, tunica interiore paulo tenuiore
verrucosa, exteriorè paulo crassiore; æcidiosporis obtuse polyhe-
dricis usque ellipsoideis, 24-32 \approx 12-21, tunica tenui extus crebre
minute verruculosa.

Hab. in foliis Sideritis hyssopifoliæ in Vallon d'Ardran
Helvetiæ (E. MAYOR). — Intermixta et amphigena adsunt pycnidia
(*Æcidiola*) ostiolis conspicue emergentibus.

36. **Æcidium caulicolum** Kellerm. Journ. of Myc. 1903, p. 227, St. 1390
æcidialis *Pucciniæ caulicolæ* Tr. et Gall.: cfr. Syll. VII, p. 641. —
Soris sæpe epiphyllis, paucis, sparsis, maculas sordide luteas for-
mantibus, 0,5-1 mm. diam., raro hypophyllis; æcidiis in singulo
soro paucis, interdum 10-12, erumpentibus 210-350 μ . diam., e
cellulis latis compositis; æcidiosporis pallide aureo-luteis, echinu-
latis, globosis vel oblongo subovatis 10-25 \approx 17-20.

Hab. ex cultura *Pucciniæ caulicolæ* in foliis *Salviæ lanceo-*
latæ in Amer. bor. — Pseudoperidii margo laciniatus, vix reflexus.

37. **Æcidium Tinneæ** P. Henn. in Ergebn. der Kunene-Sambesi Ex- 1391
pedit. p. 162 (1902). — Maculis flavidis v. fuscidulis, rotundatis
vel effusis interdum bullatis; æcidiis hypophyllis interdum epi-
phyllis, pseudoperidiis circulariter dispositis, sparsis v. aggregatis,
cupulatis, pallidis, margine fimbriatis, contextu cellulis rotundato-
polyhedricis flavidulis v. subhyalinis, reticulatis; æcidiosporis sub-
globosis angulatis, levibus, hyalino-fuscidulis, 18-22 \approx 15-18.

Hab. in foliis Tinneæ eriocalycis, Longa prope Napa-
lanka Africæ austr.

38. **Æcidium Moschosmatis** P. Henn. in Engl. Bot. Jahrb. 1901, 1392
p. 254, Sacc. — Syll. XVI, p. 1122 (nomen). — Æcidiis petioli-

colis v. cauliculis, incrassatis curvatisque; pseudoperidiis gregariis cupulatis v. cylindræis, fissis, ochraceis, contextu cellulis oblongo-polyhedricis reticulatis, 35-60 \times 25-35; æcidiosporis subglobosis, ovoideis v. ellipsoideis, angulatis, ochraceis, 26-50 \times 20-30, episporio verrucoso.

Hab. in foliis *Moschosmatis multiflori*, Kondeland sup. Afr. orient.

39. ***Æcidium clerodendricola*** P. Henn. in *Ergebn. der Kunene-Sambesi Exedit.* p. 163 (1902). — Maculis fuscis rotundatis interdum confluenti-effusis; æcidiis orbiculariter dispositis, hypophyllis, aggregatis; pseudoperidiis cupulatis, pallidis vel fuscidulis, margine fimbriatis; contextu cellulis polyhedricis, reticulatis, 20-30 μ . d., subhyalinis; æcidiosporis subglobosis v. ellipsoideis angulatis, intus flavo-brunneis, levibus, 18-21 \times 15-20. 1393

Hab. in foliis *Clerodendri Buchneri*, Knito Afr. austr.

40. ***Æcidium Lippiæ-sidoidis*** Syd. in *Æsterr. bot. Zeitschr.* 1902, n. 5. 1394
— *Æcidiis* hypophyllis, maculis orbicularibus, 2-4 mm. d., fuscis insidentibus, in greges maculam subexplentes rotundatos dispositis, primo globoso-clausis, dein cupulatis, flavis; æcidiosporis angulatis, verrucosis, flavidis, 16-25 \times 15-22.

Hab. in foliis vivis *Lippiæ sidoidis*, Brasilia (SELLO).

41. ***Æcidium Eritrichii*** P. Henn. *Einige neue japan. Ured.* III, in Hedw. 1902, p. 21. — Maculis fuscis, rotundatis v. effusis; æcidiis cauliculis v. hypophyllis; pseudoperidiis aggregatis, cupulatis, flavidulis, cellulis contextu polyhedricis ca. 20 μ . diam., hyalinis; æcidiosporis subglobosis, flavo-aurantiis, 13-17 μ . diam. levibus. 1395

Hab. in caulibus foliisque *Eritrichii peduncularis*, Tosa Japoniæ.

42. ***Æcidium Williamsii*** Ricker, *Journ. of Mycol.* 1904, pag. 165. — 1396
Maculis flavidis, leviter incrassatis; pseudoperidiis dense aggregatis, sæpius hypophyllis, cylindræis v. ellipsoideis; sporis pallide flavis subglobosis, 19-26 μ . diam., minute verrucosis, tunica 2 μ . cr.

Hab. in foliis et caulibus *Lithospermi angustifolii*, Brooking S. D. Amer. bor. (T. A. WILLIAMS). — Cum *P. Lithospermi* E. et K. (quæ potius vocanda *P. Evolvuli*, nam in *Evolvulo* piloso nascitur, nec in *Lithospermo*) nil commune habet.

43. ***Æcidium Onosmodii*** Arthur, *Bull. Torr. Bot. Cl.* 1904, pag. 6. 1397
— Pycnidiis amphigenis, in circulum parvulum dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermicis, in sectione verticali globosis, 90-120 μ . diam., ostioli periphysibus 60-

80 μ . longis; æcidiis hypophyllis minutis in circulum parvulum dispositis vel solitariis, pustuliformibus; pseudoperidiis erectis vel interdum curvulis, margine crasse laceratis; æcidiosporis globosis 20-29 vel 19-23, episporio hyalino 2-2,5 μ . lato, dense minuteque verrucoso.

Hab. in foliis *Onosmodii mollis*, Callaway, Nebraska, North Dakota et Kansas, Amer. bor.

44. ***Æcidium Mertensiae*** Arthur, Bull. Torr. Bot. Cl. 1904, p. 6. — 1398

Pycnidiis epiphyllis, in circulos parvulos dispositis, stipatis, punctiformibus, immersis, subepidermicis, globosis, 65-120 μ . diam. ostiolis periphysibus 60-90 μ . longis; æcidiis hypophyllis in circulum dispositis, stipatis, latis immersis; pseudoperidiis crasse laceratis recurvatisque; æcidiosporis luteo-aurantiacis globosis 19-26 vel 22-28, episporio hyalino tenuissimo 1-2 μ . lato, dense minuteque verruculoso v. sublevi.

Hab. in foliis *Mertensiae paniculatæ* prope Lolo Creek in montibus Bitter Root, Idaho, Amer. bor.

45. ***Æcidium Guadalajaræ*** Syd. in *Æst. bot. Zeitschr.* 1902, n. 5. — 1399

Æcidiis hypophyllis, maculis orbicularibus brunneolis insidentibus, solitariis v. sæpius paucis tantum in quaque macula, cylindræis, albidis; æcidiosporis angulatis, subtiliter verruculosis, flavescentibus, 16-23 μ . diam.

Hab. in foliis vivis *Brickelliae hebecarpæ*, in collibus pr. Guadalajara Mexico (PRINGLE).

46. ***Æcidium patagonicum*** Speg. *Myc. argent. ser. II*, 1902, p. 66. — 1400

Pseudoperidiis apertis 0,4-0,8 mm. diam., confertis, matrice flavescente, incrassatula insidentibus; æcidiis amphigenis, primo hemisphærico-prominulis dein patellari-apertis, flavidulis, vix exsertis, margine denticulatis; cellulis pseudoperidii tessellatis polygonis crasse tunicatis, radiatim rugulosis; æcidiosporis e globoso polygonis levibus subhyalinis; uredosporis tenuiter tunicatis 14-16 μ . diam., densissime constipatis.

Hab. ad folia viva *Collomiæ gracilis*, prope Carren-leofü, in Argentina. — Stat. æcidiosporicus *Pucciniæ Patagonicæ* Speg., cum qua vegetat.

47. ***Æcidium Jacquemontiae*** Ell. et Ev. in *Journ. of Mycol.* 1902, 1401

vol. 8, p. 11. — Æcidiis amphigenis, sparsis, hemisphærico-erumpentibus, dein apice applanatis, circa 250 μ . diam., in sicco fere plumbeis (colore ignoto in planta viva); cellulis pseudoperidii subellipticis, circ. 15 μ . diam.; æcidiosporis e globoso-angulari-

bus, circ. 12 μ . diam. v. ovato-ellipticis, 12-15 \approx 10-12, episporio exili præditis.

Hab. in foliis *Jacquemontia pentanthæ*, Yucatan Mexico.

48. *Æcidium Fraseræ* Trelease, Harrim. Alaska Exped. Crypt. p. 36. 1402

— Maculis flavidis, circularibus v. in petiolis subelongatis, 2-5 mm. long.; pycnidiis et æcidiis amphigenis sed inferne copiosioribus prioribus denique brunneis; pseudoperidiis non confertis irregulariter v. circinatim dispositis, 0,25 mm. diam., cylindræis, margine non excedente; æcidiosporis polygono-subglobosis v. ellipsoideis, sublevibus, 16-22 μ . diam.

Hab. in foliis *Fraseræ*, Kadiak Alaska (TRELEASE). — Ab *Æcidio Gentianæ* Jacz. dispositione pycnidiorum et forma pseudoperidiorum sat diversum.

49. *Æcidium longaense* P. Henn. in Bot. Ergebn. der Kunene Sam- 1403

besi Expedit. pag. 161 (1902). — Maculis flavo-fuscidulis, rotundatis, pycnidiis sparsis, rufo-brunneis, ceraceis, punctiformibus; æcidiis oppositis hypophyllis, rotundato-dispositis; pseudoperidiis aggregatis v. sparsis, cupulatis, margine fimbriatis, albidis v. flavidulis, contextu cellulis polyhedricis, reticulatis, hyalinis vel fuscidulis; æcidiosporis subgloboso-angulatis, flavidis, 15-18 \approx 13-17 levibus.

Hab. in foliis *Jasmini microphylli*, Longamundung Afr. austr.

50. *Æcidium Fraxini-Bungeoanæ* Diet. in Bot. Jahrb. 1903, p. 630. — 1404

Hypophyllum; soris in maculis flavescentibus v. sordide brunneis, magnis præsertim secus nervos late, usque 4 cm., expansis, haud raro veseiculoso-inflatis et in petiolis nervisque foliorum tumores pulvinatos, convexos generantibus; pseudoperidiis cylindræis rectis, margine irregulari; æcidiosporis irregulariter polyhedricis, oblongis vel isodiametricis, 20-28 \approx 17-23, episporio tenui irregulariter verrucoso præditis; pycnidiis in pagina superiore foliorum numerosis.

Hab. in foliis petiolisque *Fraxini Bungeoanæ* var. *pubi-nervis*, Tokyo Japoniæ (KUSANO).

51. *Æcidium Tellinianum* Sacc. Ann. Mycol. 1904, p. 174. — Pseu- 1405

peridiis amphigenis, hinc inde late et creberrime gregariis et magnam folii partem obtegentibus sæpeque contorquentibus, initio cupulatis, dein in tubulum album, subintegrum, sed facile lacertum, vix 1 mm. altum, 0,5 mm. latum productis; cellulis pseudoperidii oblongo-angulosis, 20-28 \approx 14-20, hyalinis, episporio cre-

bre minutissime transverse foveolato simulateque muriculato; æcidiosporis ovoideis v. ellipsoideis, sæpe obtuse angulosis, 25-28 × 16-20, levibus, varie guttulis, dilute umbrinis.

Hab. in foliis vivis, rarius in ramulis tenellis *Salvadoræ persicæ*, *Keren Erythrææ*, 10 XI, 1902 (Prof. ACH. TELLINI). — Matricem determinavit prof. R. Pirotta.

52. ***Æcidium Ulei*** P. Henn. *Fungi Amaz.* I, p. 167 (Hedw. 1904). — 1406

Maculis rotundatis vel effusis, fuscis vel nigricantibus; pycnidiis epiphyllis gregariis, hemisphæricis, atris, ca. 0,3 μ . diam.; æcidiis hypophyllis, circulariter dispositis vel sparsis; pseudoperidiis primo hemisphærico-clausis, atris, dein cupulatis, pallidis, margine fimbriatis, ca. 0,3-0,4 μ . diam., contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, ca. 30 × 20; æcidiosporis subgloboso-angulatis, levibus, hyalino- vel flavido-fuscidulis, 14-20 μ .

Hab. in foliis *Diospyri spec.*, Rio Juruá, Marary et St. Clara, Amer. merid.

53. ***Æcidium atro-album*** P. Henn. in *Bot. Ergebn. der Kunene-* 1407

Sambesi Expedit. p. 162 (1902). — Maculis flavidis v. fuscidulis; æcidiis hypophyllis raro epiphyllis; pseudoperidiis stromatoideis, atris primo clausis, dein apertis subcupulatis, intus albidis, margine sublacinatis; æcidiosporis subglobosis angulatis, subhyalino-flavidulis, 17-21.

Hab. in foliis *Diospyri mespiliformis*, Kunene Africae austr.

54. ***Æcidium Encianthi*** Diet. in *Bot. Jahrb.* 1903, p. 631. — Pseu- 1408

doperidiis hypophyllis in maculis parvis brunneis vel rubiginosis, flavo-areolatis, cupuliformibus, margine irregulariter lacerato præditis; sporis subglobosis, polyhedricis vel oblongis, 22-28 × 17-24, episporio æquali, minute verrucoso vestitis.

Hab. in foliis *Encianthi japonici* in monte Shirane Japoniæ (KUSANO).

55. ***Æcidium virgatum*** Lindroth, *Die Umbellif. Ured.* 1902, p. 164. 1409

— Pycnidiis flavidis vel brunneolis, subepidermicis, subrotundis, 100-120 μ . diam., ostiolis prominulis, hyalinis; æcidiis hypophyllis in maculis subcircularibus brunneis, subpoculiformibus, pseudoperidio brevissimo, minute denticulato, flavido; cellulis regulariter dispositis, subimbricatis, plerumque inæqualiter rectangularibus, 20-30 × 15-22, tunica æquali 3-4 μ . cr., latere externe transverse striata, interne crebre punctata; æcidiosporis regulariter

ter seriatis, globoso-polygoniis, tunica tenui, hyalina, minute verruculosa, 17-24 μ . diam.

Hab. in foliis *Eryngii plani* in prov. Saratow Rossiaë (TRANZSCHEL).

56. *Æcidium salinum* Lindr. Die Umbellif. Ured. 1902, pag. 163. 1410

— Pycnidiis subepidermicis, ab æcidiis circumdatis, flavidis, 90-110 μ . albis, 180 μ . lat., ostiolis subhyalinis usque 60 μ . emergentibus; æcidiis pustuliformibus, flavidis; pseudoperidiis non emergentibus, cellulis irregulariter dispositis, inæqualiter rotundatis, laxiusculis, extus tunicâ 4-5 μ . cr., transverse striata, intus tunicâ tenuiori punctata formatis, 18-30 μ . diam.; æcidiosporis ellipsoideo-globosis, 18-27 \approx 15-24, membrana tenui, hyalina, crebre minute punctata.

Hab. in *Peucedano salino*, inter Jenisei et Tomsk Sibiriaë (A. K. CYONDER).

57. *Æcidium sarcinatum* Lindroth, Die Umbellif. Ured. 1902, p. 165. 1411

— Pycnidiis subepidermicis, 120-140 μ . diam., rarissimis; æcidiis poculiformibus in areis limitatis foliorum petiolorumque dense confertis; pseudoperidiis breve cylindræis, margine brevi, flavido, minute inciso et revoluto; cellulis polygoniis, subinæqualiter dispositis, tunica latere exteriori 10 μ . cr., striis transversis vix emergentibus, e latere interiore 5-5,5 μ . cr., aculeolato-verrucosa 20-30 μ . diam.; æcidiosporis regulariter seriatis, globoso-ellipsoideis, tunica tenui, minute crebre verruculosa, 20-25 \approx 16-23.

Hab. in foliis *Ferulæ fœtidissimæ*, Turkestan (KOMAROV).

58. *Æcidium Berulæ* Bubák, Centralbl. f. Bakteriolog. 1902, IX, p. 126.

Hab. in foliis *Berulæ angustifoliæ* in Bohemia. — Teste auctore in litt. æque ac *Æc. carotinum*, est status æcidialis *Uromyctis Scirpi* (Cast.) Lagerh. et ab illo morphologicè non differt.

59. *Æcidium carotinum* Bubák, Centralbl. f. Bakteriolog. 1902, IX, p. 126.

Hab. in foliis *Dauci Carotæ* in Bohemia. — Teste auctore in litt., est status æcidialis *Uromyctis Scirpi* (Cast.) Lagerh. et ab *Æcidiis pastinacicolis* nullâ notâ morphologicâ differt.

60. *Æcidium Ferulæ* Rouss. et Dur. — Syll. VII, p. 793. — Sec. cl. Juel in Bull. Soc. Mycol. Fr. 1901, p. 268, species provenit in *Thapsia* non in *Ferula*; hinc potius vocanda *Æc. punicum* Juel. Tamen in Sicilia species revera nascitur etiam in *Ferula*, propterea nomen Rousselianum manere debet.

61. *Æcidium Hamamelidis* P. Magn. Ber. D. B. G. 1901, p. 297. 1412

t. XIII, f. 23-26 (absque diagnosi). — Maculis minutis epiphyllis, rubellis; pycnidiis epiphyllis; æcidiis hypophyllis pseudoperidiis longis præditis; æcidiosporis 25×20 , membrana hinc inde bullato-inflata, bullis demum deciduis.

Hab. in foliis *Hamamelidis* sp. in montanis Nikko Japoniæ (MANABU MIYOSHI).

62. ***Æcidium Anogræ*** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — 1413

Pseudoperidiis dense congestis, in maculis rubescentibus, densis, generaliter hypophyllis, elongatis, cylindræis, margine laceratis, in longitudine revolutis; æcidiosporis subglobosis, 22-26, luteis, episporio 3 μ . cr., verruculoso donatis.

Hab. in foliis *Anogræ pallidæ*, Long Pine, Nebr. Americæ borealis.

63. ***Æcidium Cardiospermi*** Cooke: cfr. Syll. VII, p. 785. — Syd. in

Ann. Mycol. 1903, I, p. 333. — *Æcidiis* hypophyllis, maculis flavidis v. flavo-brunneis, 2-5 mm. diam. insidentibus, in greges maculam explentes dense gregariis, minutissimis, diu hemisphæricis, tandem breviter cupulatis, margine subintegro; æcidiosporis angulato-globosis, hyalino-flavescentibus, minutissime verruculosus 16-24 μ . diam.

Hab. in foliis *Cardiospermi microcarpi*, Zanzibar Afr. merid.

64. ***Æcidium Maprouneæ*** P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1414

1904). — Maculis fuscis, irregulariter effusis, pycnidiis cinnamomeis punctiformibus; æcidiis hypophyllis interdum nervos sequentibus; pseudoperidiis sparsis vel gregariis, cupulatis albidis margine fimbriatis, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis, 20-30 \times 20; æcidiosporis oblonge vel subgloboso-angulatis, hyalinis, 12-20 \times 10-16.

Hab. in foliis *Maprouneæ* spec., Perù, Rio Amazonas, Quitos, Amer. bor.

65. ***Æcidium kakelense*** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1415

besi Expedit. p. 161 (1902). — Maculis sanguineis, effusis; æcidiis gregariis paginam inferiorem totam foliorum tegentibus; pseudoperidiis cylindræis plus minus elongatis, cretaceis, contextu cellulis rotundato-polyhedricis, reticulatis, hyalinis, 22-30; æcidiosporis subglobosis v. ellipsoideis, angulatis, levibus, intus flavidis 18-23 \times 15-21.

Hab. in *Euphorbia* spec., Gondkopje et Kakele Africae austr.

66. *Æcidium Marci* Bubák, Ber. Deutsch. bot. Gesell. 1903, p. 275. 1416

— Caules et petiolos deformans et tumefaciens, foliaque occupans; pseudoperidiis initio immersis, dein emergentibus et margine albo, inflexo, laciniato, 100-200 μ . latjs; cellulis irregulariter seriatis, globoso-polygoniis, 25-30 \times 16-28, irregulariter crebre verrucosis, crasse tunicatis; pariete externe valde incrassato, contextu aurantio; æcidiosporis globosis v. oblongis, semper polygoniis, 20-28 \times 17-24, membrana tenui, levi, flavida guttulisque majusculis aureis præditis.

Hab. in caulibus foliisque *Mercurialis annuæ*, Dulcigno, Montenegro. — Pycnidia adsunt hemisphærica, mellea, dein brunneola, 100-150 μ . diam.

67. *Æcidium dalechampiicola* P. Henn. in Hedw. 1904, p. 80. — Ma- 1417

culis fuscidulis; æcidiis hypophyllis sparsis vel gregariis, nervos sequentibus, pallide fuscidulis; pseudoperidiis cupulatis, margine fimbriatis, contextu cellulis polyhedricis, granulato-subreticulatis 20-30 μ .; sporis subglobosis, ellipsoideis vel ovoideis, flavido-fuscidulis, 11-20 \times 10-16.

Hab. in foliis *Dalechampiæ*, in viridario Musei, Rio de Janeiro, Brasiliæ (C. ULE).

68. *Æcidium cornu-Cervi* P. Henn. Fungi Amaz. I, p. 168, fig. III 1418

(Hedw. 1904). — *Æcidiis* ramicolis eos varie deformantibus; gallis cornutis xylariiformibus vel ramossimis usque ad 10 cm. diam., ferrugineo-cinereis; pseudoperidiis semiimmersis dense gregariis cupulatis, alutaceis margine pallidis, fimbriatis v. laceratis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; sporis subgloboso-angulatis, levibus, 15-18 \times 12-16.

Hab. in caulibus *Dalechampiæ* sp., Rio Juruá Amer. merid. — Notabilissima species, ramos omnino deformans, ab *Æc. Dalechampiæ* et *Æc. dalechampiicola* omnino diversa.

69. *Æcidium tragiicola* P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1419

1904). — Maculis rotundato-angulatis, flavo-fuscidulis; pycnidiis punctiformibus atris; æcidiis hypophyllis interdum epiphyllis, pseudoperidiis suborbiculariter aggregatis, cupulatis, ferrugineo-pallescentibus, contextu cellulis oblonge vel rotundato-angulatis reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, flavo-fuscidulis, 12-18 μ .

Hab. in foliis *Tragiæ fallacis*, Perù, Cerro de Cumbasso, Amer. merid.

70. *Æcidium Turneræ* P. Henn. Fungi Amaz. I, p. 171 (Hedw. 1904). 1420

— Maculis ferrugineis effusis; æcidiis hypophyllis; pseudoperidiis aggregatis, semiimmersis, cupulatis, fuscidulis, margine albido fimbriato, contextu cellulis subrotundato-polyhedricis, hyalino reticulatis ca. 20-30 μ . diam.; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, levibus, 20-25 μ .

Hab. in foliis *Turneræ ulmifoliæ*, Tarapoto, Perù Amer. merid.

71. ***Æcidium violascens*** Trelease, Harrim. Alaska Exped. Crypt. 1421 pag. 37. — Maculis latis, irregularibus, effusis, præsertim in epiphylo violaceis, sæpe nervisequis; soris hypophyllis, vix 0,5 mm. diam., hemisphæricis, irregulariter confertis juxta nervos; pseudoperidiis inclusis, non marginatis, cellulis irregulariter oblongis, 30-40 \times 20, ruguloso-asperulis; æcidiosporis e polygonio globosis v. ellipsoideis, minute verruculosis, 22-35 \times 22-28.

Hab. in foliis *Geranii erianthi*, Kadiak (TRELEASE), Kukak Bay, Alaska (SAUNDERS). — Ab *Æc. Geranii* præcipue macularum colore, sporis majoribus præ ceteris diversa. Nervi foliorum fungo invasi leviter incrassantur.

72. ***Æcidium subincarnatum*** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1422 1904). — Maculis rufobrunneis rotundatis vel effusis interdum bullato incrassatis; æcidiis plerumque hypophyllis, interdum epiphyllis roseolo-flavidis; pseudoperidiis dense aggregatis, primo hemisphærico-clausis, dein cupulatis, flavido-carneis, fuscidulis, contextu cellulis oblonge v. rotundato-polyhedricis, incarnatis, 20-40 μ . diam.; æcidiis subgloboso-angulatis, 15-20 \times 13-17 hyalino vel flavo-incarnescentibus.

Hab. in foliis *Sterculiaceæ* cujusdam, St. Claras Rio Juruá Amer. merid.

73. ***Æcidium cerrense*** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1904). 1423 — Maculis rotundatis vel effusis incrassatis, fusco-nigricantibus; pycnidiis punctiformibus, subhemisphæricis atris, dein vertice niveis; æcidiis hypophyllis, oppositis, subimmersis, cupulatis, ferrugineis, contextu cellulis rotundato- vel oblongo-polyhedricis, reticulatis, ca. 20. μ . diam.; æcidiosporis subgloboso-angulatis, fuscidulis, levibus, 10-15 \times 10-13.

Hab. in foliis *Burseraceæ*? Perù Cerro do Escaler, Amer. merid.

74. ***Æcidium uredinoidis*** P. Henn. Fungi Amaz. IV, in Hedw. 1904, 1424 p. 58. — Maculis subrotundatis vel late effusis folium pro parte destruentibus, atrofuscis, rugulosis; æcidiis hypophyllis late effusis,

pseudoperidiis cupulatis, pulvinatis, margine pallido fimbriatis, confluentibus, dein flavido- vel ferrugineo-farinosus, contextu cellulis polyhedricis reticulatis; æcidiosporis subglobosis vel ellipsoideis, angulatis, hyalino-fuscidulis, 16-22 \times 14-20.

Hab. in foliis Sapindaceæ cujusdam, Rio Juruá Brasilæ.

75. *Æcidium malvicolum* Arthur Bull. Torr. Bot. Cl. 1904, pag. 6. 1425

— Pycnidiis epiphyllis, congestis, punctiformibus melleo-aurantiacis, immersis, subepidermicis, globosis, 100-125 μ . diam.; ostioli periphysibus numerosis, 38-80 μ . longis; æcidiis hypophyllis, in circulos, usque 10 mm. diam., dispositis; pseudoperidiis brevibus, cylindræis, margine erectis vel sæpe revolutis, erosis; æcidiosporis globosis 14-22 v. 16-24 μ . diam., episporio hyalino, tenui, 1,5 μ . lato, minute et æqualiter verrucosulo.

Hab. in foliis Althææ roseæ, Callaway, Nebraska, Malvastricoccinei, Wakeeney, Kansas et Callirrhoes involucratae Rooks County, Kansas, Amer. bor.

76. *Æcidium bomolense* Sydow in Ann. Mycol. 1904, p. 351. — Pycni- 1426

diis numerosis, epiphyllis; æcidiis hypophyllis maculis orbicularibus flavis v. flavo-brunneis usque 1 cm. diam. insidentibus, laxe et irregulariter in greges maculam explentes dispositis, cupulatis, margine lacero, revolutis, albido; æcidiosporis angulato-globosis, hyalino-flavescentibus, subtiliter verrucosis, 17-25 μ . diam.

Hab. in foliis vivis Adeniæ (sec. Ophiocauli) spec. in M. Bomole Africæ orient. germanicæ (A. KARASEK).

77. *Æcidium passifloricolum* P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1427

1904). — Maculis rotundato-angulatis, flavo-brunneolis; æcidiis hypophyllis concoloribus, pseudoperidiis pulvinato-discoideis, dein cupulatis, pallidis, cellulis rotundato-polyhedricis, hyalino-reticulatis, ca. 20-30 μ .; æcidiosporis subgloboso-angulatis, flavidulis, 15-20 μ . episporio levi, hyalino.

Hab. in foliis Passifloræ spec. Perù, Tarapoto, Amer. merid. — Ab *Æcidio Passifloræ* sporis duplo crassioribus mox dignoscitur.

78. *Æcidium Passifloræ* P. Henn. in Engl. Bot. Jahrb. 1903, p. 43. 1428

— Maculis flavidis, rotundatis, pycnidiis epiphyllis, punctiformibus, flavo-brunneis; æcidiis oppositis sparsis, pseudoperidiis sparsis vel rotundato-dispositis, plano-cupulatis, flavidis, margine albido fimbriatis; contextu cellulis oblongo-angulatis, flavidulo-hyalinis, reticulatis, 20-30 μ . diam.; æcidiosporis subglobosis, hyalino fuscidulis, levibus, 7-10 μ . diam.

Hab. in foliis *Passifloræ* spec., Ost-Usambara Africæ orient.
(ZIMMERMANN).

79. ***Æcidium miryense*** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). 1429

— Maculis rotundatis vel effusis, ochraceo- vel rufo-fuscidulis vix incrassatis; pycnidiis punctiformibus, fusco-atris; æcidiis oppositis hypophyllis, pseudoperidiis gregariis cupulatis, alutaceis, margine pallidis subfimbriatis; contextu cellulis rotundato-polyhedricis, 20-30 μ ., reticulatis, hyalinis; æcidiosporis subgloboso-angulatis, intus hyalino-flavidulis, 10-16 μ ., levibus.

Hab. in foliis *Guareæ* spec. Rio Juruá, Juruá-Miry, Amer. merid. — Ab *Æc. Guareæ* præcipue diversum, quia non galligenum.

80. ***Æcidium Guareæ*** P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1904). 1430

— *Æcidiis* cauliculis flori- vel foliiculis et bullato-deformantibus, incrassatis, effusis, alutaceo-cinereis; pseudoperidiis semiimmersis, cupulatis, pallide alutaceis, dense gregariis; contextu cellulis rotundato- vel oblongo-polyhedricis, reticulatis, hyalino-fuscidulis, ca. 20-30 μ . d.; æcidiosporis subgloboso-angulatis, 15-23 μ ., episporio brunneo, levi.

Hab. in ramulis, foliis etc. *Guareæ* sp., Rio Juruá, Bom Fim, Belem, Marary, Amer. merid.

81. ***Æcidium porosum*** Peck — Syll. VII, p. 787. — var. ***anodonta*** 1431
Speg. in Ann. Soc. Cient. Argent. 1899, p. 276.

Hab. ad folia viva *Viciæ Patagonicæ*, prope Laco Muster, Amer. occid. (N. ILLIN). — Specimina patagonica a typo recedunt pseudoperidiis ore integro donatis et sporis paullulo minoribus. Cellulæ exoperidiis loricate subhexagonæ 20-30 \times 20-25, crasse tunicatæ et grosse radiatim rugulosæ subhyalinæ; uredosporæ globosæ vel e mutua pressione plus minusve angulosæ vel deformatæ, 18-22 \times 18-20, episporio hyalino, endoplasmate aurantiaco.

82. ***Æcidium Toræ*** P. Henn. Engl. Bot. Jahrb. 1903, p. 42. — Maculis 1432

rotundatis, flavidis vel fuscidulis; æcidiis hypophyllis; pseudoperidiis dense gregariis, cupulatis, aureis, margine albido fimbriatis; contextu cellulis oblonge polyhedricis, reticulatis, flavo-hyalinis 25-40 \times 15-20; æcidiosporis subglobosis, angulatis, intus aurantiis 10-15, episporio hyalino levi.

Hab. in foliis *Cassiæ Toræ*, Ost-Usambara Africæ orient.
(ZIMMERMANN).

83. ***Æcidium Dielsii*** P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. 1433
XXVIII, pag. 34. — Maculis fuscidulis; æcidiis amphigenis, in-

crassatis galliformibus, ochraceis; pseudoperidiis aggregatis, cupulatis v. subcylindræis, margine albido-subfimbriatis; contextu cellulis polyhedricis, reticulatis, 30-50 μ . diam. hyalinis æcidiosporis subglobosis vel ovoideo-ellipsoideis, angulatis, 23-30 \approx 22-27, episporio crasso granulato.

Hab. in foliis *Crotalariae* spec., Capland (DIELS).

84. ***Æcidium Cytisi*** Voss — Syll. XI, p. 114. — forma ***ramulicola*** 1434
Sacc. Notæ Mycol. in Syd. Ann. Mycologici 1903, n. 1, p. 24.

Hab. in ramulis vivis *Cytisi hirsuti* in collibus Montello, Volpago (Treviso) Italiæ borealis. — Ramulorum partes *Æcidio* correptæ leviter et æqualiter tumescunt.

85. ***Æcidium Bossiææ*** P. Henn. Fungi Austral. occ. II, in Hedw. 1435
1901, p. 352. — Maculis brunneolis; æcidiis hypophyllis sparsis; pseudoperidiis subaggregatis, cupulatis, brunneolis, ca. 0,2-0,3 mm. diam., margine pallido subfimbriatis; contextu cellulis polyhedricis, reticulatis, ca. 20-30 μ . diam.; æcidiosporis ellipsoideis, levibus, 12-22 \approx 12-18, hyalinis.

Hab. in foliis *Bossiææ linophyllæ*, King Georges Sound, Austral. occid.

86. ***Æcidium Inouyei*** P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. — 1436
Pseudoperidiis paginam foliorum totam occupantibus, immersis primo clausis, dein cupulatis, ca. 0,5 mm. diametro; æcidiosporis subglobosis vel ellipsoideis, polyhedricis, flavidulis hyalinescentibus, intus granulatis, 18-26 \approx 18-20, episporio levi, flavo.

Hab. in foliis *Amphicarpææ* sp. Sakawa, Tosa Japoniæ. — Probabiliter st. æcidialis *Uromycetis* sp.

87. ***Æcidium Sophoræ*** Kus. Bot. Mag. Tokyo 1904, VIII, p. 203, 1437
f. 1. — Pycnidiis amphigenis, sæpius epiphyllis, punctatis, ostioli periphysibus capillaribus; sporulis ellipsoideis vel globosis, hyalinis; æcidiis amphigenis, sæpius hypophyllis, petiolicolis ramicolisque, irregulariter congregatis, sæpe folii magnam partem occupantibus; pseudoperidiis aggregatis, subcircinantibus, minutis, tubulosis, margine angusto lacerato et reflexo; cellulis rectangularibus, unistratosis, 40-50 \approx 20-25, pariete tenui; æcidiosporis subinde compressione angulosis, 25-35 μ . diam., episporio tenui minute verrucoso.

Hab. in foliis *Sophoræ platycarpæ*, Hakone in prov. Sagami Japoniæ (Prof. J. MATSUMURA).

88. ***Æcidium Purpusiorum*** P. Henn. in Hedw. 1903, p. (189). — *Æci-* 1438
diis fructicolis et deformantibus; pseudoperidiis densis plus mi-

nus elongato-cylindræis, usque ad 12 μ . longis, ca. 0,8 μ . cr., roseis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; æcidiosporis subglobosis, ovoideis vel ellipsoideis, intus aurantio-oleosis, episporio hyalino, radiato-striato, 25-38 \approx 18-30.

Hab. in fructibus *Cratægi*, Ixtacihuatle, Mexico (C. A. PURPUS).

89. ***Æcidium Cardiandræ*** Diet. in Bot. Jahrb. 1903, p. 630. — Pseu- 1439
doperidiis hypophyllis in maculis flavis vel brunneolis, minutis vel usque 4 mm. latis, interdum confluentibus, cylindræis, margine recto vel modice recurvato denticulato, ca. 180 μ . diam.; cellulis pseudoperidii valde regularibus, sexangularibus, 21 μ . latis, verrucosis; æcidiosporis polyhedricis, globosis vel ellipsoideis, 22-26 \approx 18-25, subtiliter verrucosis.

Hab. in foliis *Cardiandræ alternifoliæ*, Nikko Japoniæ (KUSANO).

90. ***Æcidium Hydrangææ-paniculatæ*** Diet. in Bot. Jahrb. 1903, p. 630. 1440
— Pseudoperidiis in maculis magnis irregularibus flavis vel rubiginosis, medio sæpe arescentibus, hypophyllis, in acervulos circulares usque 8 mm. latos congestis, cupuliformibus, margine recurvato denticulato præditis; sporis oblongis 21-27 \approx 13-18, episporio subtilissime verrucoso tenui vestitis.

Hab. in foliis *Hydrangææ paniculatæ*, Nikko Japoniæ (KUSANO).

91. ***Æcidium ribesicola*** Speg. Myc. Arg. ser. I, in Ann. Soc. Cient. 1441
Arz. 1899, p. 267. — Maculis fere nullis pallescentibus, foliicolis, raro petioli- vel floricolis; pseudoperidiis 0,5-0,7 mm. alt., 0,20-0,25 mm. diam., densissime constipatis atque pulvinulum sat prominulum superne applanatum ostiolato-alveolatum, margine obtusum repando-orbiculatum 2-6 mm. diam., efficientibus, pallide flavescentibus; tunica pseudoperidii tenui alba e cellulis hexagonis 25-30 μ . diam. crasse tunicatis, dense minuteque verrucosis efformata; æcidiosporis globosis, levibus, 22-25 μ . diam. aurantiacis.

Hab. in foliis vivis *Ribis magellanici* pr. Lago Nahuelhuapi Argentinæ.

92. ***Æcidium thlaspianum*** Syd. in Ester. bot. Zeitschr. 1902, n. 5. — 1442
Æcidiis hypophyllis, maculis flavidis insidentibus, irregulariter distributis vel paucis laxè aggregatis, cupulatis, margine inciso, recurvato, albido; æcidiosporis angulatis, subtilissime verrucosis, flavescentibus, 14-18 μ . diam. vel 16-23 \approx 14-18.

Hab. in foliis *Thlaspeos ceratocarpi* in Songaria (SCHRENK).

93. ***Æcidium Biscutellæ*** Noelli, Malpighia 1902, vol. XVI. — *Æcidiis* 1443
 amphigenis in maculis minutis circularibus vel ellipticis luteis,
 1,6-2,5 mm. diam. insidentibus; pycnidiis sparsis, 2-3 congestis,
 aurantiacis, 210-240 \times 145-220; sporis subrotundis 1,2 μ . diam.;
 pseudoperidiis aurantiacis in circulum dispositis, in singula macula
 4-14 dense congestis, erumpentibus e cellulis fere ovalibus, hyalinis
 transverse sulcatis, rugosulis polygonalibus, 15-30 \times 12-16, compo-
 sitis; acidiosporis congestis, irregularibus, angulosis, fere circula-
 ribus vel polygonalibus, hyalino-marginatis, intus luteo-aurantiacis,
 12-21 μ . long. et 12-18 μ . latis.

Hab. in foliis *Biscutellæ levigatæ*, in Monte Musiné prope
 Susa Italiæ bor.

94. ***Æcidium melanotes*** Syd. Ann. Mycol. 1903, p. 20. — *Æcidiis* 1444
 amphigenis, in hypophyllo magis prominentibus, in acervos ro-
 tundatos, 2-10 mm. diam., bullatos, stromatiformes compactos in
 sicco (an etiam in vivo?) atros, superficie asperulos rhytismoideos
 dispositis, profundeque immersis; contextu cellulis tabulari-polyhe-
 dricis flavido-hyalinis deorsum cuneato-attenuatis parte superiore
 verrucosis, basim versus levibus, 24-48 \times 19-30 composito; acidio-
 sporis globosis, subglobosis vel angulatis, subtiliter verrucosis,
 flavescens, apice usque 7 μ . incrassatis, 21-28 μ . diam., epi-
 sporio tenui.

Hab. in foliis vivis *Tetrantheræ amaræ* in Monte Salak
 ins. Javæ (PENZIG).

95. ***Æcidium Machili*** P. Henn. Einige neue japan. Ured. III, in Hedw. 1445
 1902, p. 21. — Maculis rotundato-explanatis, fuscis, subincrassatis;
æcidiis hypophyllis, pseudoperidiis sparsis v. aggregatis, semiim-
 mersis, cupulatis, fusco-brunneis, margine subintegris; acidiosporis
 subgloboso-angulatis, 20-30 μ . diam., hyalino-fuscidulis.

Hab. in foliis *Machili Thumbergii*, Tosa Japoniæ.

96. ***Æcidium rionegrense*** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1446
 1904. — Maculis valde incrassatis, rufo-brunneis nigricantibus,
 rotundatis; *æcidiis* hypophyllis sparsis v. gregariis; pseudoperidiis
 subimmersis, aggregatis, dein cupulatis, ochraceis, margine fimbria-
 tis; contextu cellulis rotundato-polyhedricis, reticulatis, 30 \times 20;
 sporis subgloboso-angulatis, flavido-fuscidulis, 17-24 μ .

Hab. in foliis *Guatteria Schomburgkianæ*, Rio Negro,
 Manaos, Amer. merid. — Format in foliis gallas pulvinatas rufas
 usque 3 cm. cr.

97. ***Æcidium amazonense*** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1447

1904). — Maculis rotundatis v. effusis, atroferrugineis, subincrassatis; æcidiis hypophyllis; pseudoperidiis aggregatis in maculis dispositis, subimmersis, cupulatis, ferrugineis, margine fimbriatis; contextu cellulis rotundato-polyhedricis, hyalinis, reticulatis, ca. 30 μ . diam.; æcidiosporis subgloboso-angulatis, subhyalino-fuscidulis, 20-25 μ .

Hab. in foliis coriaceis et tomentosis *Guatteria* spec. Perù, Rio Amazonas, Amer. Merid. — Ab *Æc. Guatteria* Diet. præcipue sporis levibus distinctum.

98. ***Æcidium mararyense*** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1448 1904). — Maculis rotundatis v. effusis atrofuscis; pycnidiis punctiformibus atris; æcidiis hypophyllis oppositis gregariis, semiimmerso-cupulatis, mox pulverulentis, ferrugineis; contextu cellulis rotundato- v. oblonge polyhedricis, reticulatis, hyalino-fuscidulis, plerumque 20-30 μ . diam; æcidiosporis subgloboso- v. ellipsoideo-angulatis, olivaceo-fuscis, 18-26 μ .

Hab. in foliis *Guatteria* spec., Rio Juruá, Marary Amer. merid.

99. ***Æcidium huallagense*** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1449 1904). — Maculis subincrassatis rotundato-angulatis, ochraceo-luteis vel fuscidulis, sparsis; pycnidiis punctiformibus atris; æcidiis hypophyllo-oppositis in maculis cinereis, semiimmersis, cupulatis, pallido-fuscidulis; contextu cellulis rotundato-vel oblonge polyhedricis, reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, hyalino-flavidis vel fuscidulis, 15-20 μ .

Hab. in foliis *Guatteria* alutaceæ et alius *Anonaceæ* cujusdam, Perù Tarapoto, Amer. merid. — Maculæ superne ochraceæ, inferne griseæ. Ab *Æc. Xylopiæ* diversum.

100. ***Æcidium juruense*** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). 1450 — Maculis rotundatis fusco-atris, inflato-incrassatis; pycnidiis punctiformibus, atris; æcidiis hypophyllis bullatis, aggregatis immersis, flavidis, cupulatis, 0,2-0,3 mm diam.; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, plerumque 30 \approx 20; æcidiosporis subgloboso-angulatis, hyalino-brunneolis, levibus, 13-20 μ .

Hab. in foliis *Monopsidis polyphlebæ*, Rio Juruá, Juruá-Miry, Amer. bor.

101. ***Æcidium Popowia*** P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. 1451 — Maculis valde incrassatis, rufobrunneis, nigricantibus, rotundatis vel explanatis; pycnidiis epiphyllis punctiformibus, subhemisphæricis, atro-brunneis; æcidiis oppositis, galliformibus in-

crassatis; pseudoperidiis cylindræis usque ad 1 mm. elongatis, aurantiis; contextu cellulis oblongis, angulatis, reticulatis, intus flavido-oleosis 18-30 \times 13-18; æcidiosporis, subglobosis vel ellipsoideis, intus aurantio-oleoso-guttulatis, 14-17 \times 13-16; sporulis ellipsoideis, hyalinis, 2,5 \times 1,5.

Hab. in foliis *Popowiaë gracilis*, Dar-es-Salam, Zanzibar, Afr. orient. (ENGLER).

102. ***Æcidium Maublancii*** Sydow Ann. Mycol. 1904, p. 351, *Æcidium* ¹⁴⁵²
mexicanum Maubl. Bull. Soc. Myc. Fr. 1904, p. 73, t. VII, f. 9, nec *Æc. mexicanum* D. et H. (in *Cisso*). — Maculis parvis angulatis, flavis vel melleis; pycnidiis epiphyllis, brunneis, ovoideis 200-260 \times 115-130; æcidiis hypophyllis, gregariis; pseudoperidiis elongatis, longe cylindræis, 1,2-2 mm. longis, aurantiis; cellulis pseudoperidii angulatis, difformibus, hyalinis, intus aurantiacis, 14-28 μ . diam.; æcidiosporis subglobosis, rarius oblongis, angulatis, 13-20 \times 11-15, episporio hyalino, levi, endoplasmate guttulato-aurantiaco.

Hab. in foliis *Mahoniaë* in Mexico (BONANSEA).

103. ***Æcidium Fendleri*** Tracy et Earle in *Plantæ Backerianæ* fasc. I, ¹⁴⁵³
fungi p. 17. — Fere semper hypophyllum; maculis magnis, 1 cm. latis, rubris, luteo-marginatis; pseudoperidiis sparsis, lucentibus, luteis, 400 μ . diam., margine irregulariter laceratis, recurvatis; cellulis irregulari-polygonalibus, conspicue rugulosis, 20-30 μ , diam.; sporis subglobosis, lucentibus, luteis, minute rugulosis, 20 μ . diam.; pycnidiis luteo-melleis, inconspicuis, 200 μ . diam.

Hab. in foliis *Berberidis Fendleri*, Manaos, Colorado, Amer. bor. — *Æc. Berberidis* affine.

104. ***Æcidium Berberidis-ruscifoliaë*** Henn. in Hedw. 1902, p. (62). — ¹⁴⁵⁴
Æcidiis hypophyllis totam paginam occupantibus; pseudoperidiis gregariis, hemisphæricis clausis, subbrunneolis, dein vertice apertis, vix fimbriatis, pallide flavidis, 0,3 mm. diam.; contextu cellulis rotundato-angulatis, reticulis hyalino-flavidulis, ca. 20-24 μ . diam.; æcidiosporis subglobosis, angulatis flavido-pallidis, 10-15 μ . diam.

Hab. in foliis vivis *Berberidis ruscifoliaë*, Cordoba Argentinæ.

105. ***Æcidium Leontices*** Tranzschel in Acta Hort. Botan. Univers. ¹⁴⁵⁵
Imperial. Jurgevensis, vol. II, fasc. II, p. 91, 1901. — Maculas flavas in pagina superiore foliorum crassas efformans; pseudoperidiis hypophyllis, rarius nonnullis epiphyllis, dense gregariis,

sæpe totos lobulos foliorum occupantibus, poculatis, margine vix exserto (saltem in exemplaribus junioribus tantum visis); cellularum pseudoperidii membranæ hyalinæ parte exteriori valde incrassata (usque ad 9 μ .), parte interiori verrucosa, contentu aurantiaco; æcidiosporis angulato-rotundatis v. ellipsoideis, 20-26 \times 16-20, membrana hyalina, subtiliter verrucosa, contentu aurantiaco. Pycnidia non visa.

Hab. in fol. *Leontices Leontopetali*, prope As'chabad Turcomaniæ.

106. ***Æcidium punctatum*** Pers. — Syll. VII, p. 775. — *Æcidium* 1456
punctatum D. Sacc. — Pycnidiis hypophyllis dense gregariis, hemisphæricis, prominulis, $\frac{1}{6}$ mm. diam. e hyalino rubescentibus, nitidulis, tenui-membranaceis, contextu distincte laxe parenchymatico, radiante, poro pertusis; basidiis fasciculatis bacillaribus 16 \times 2; sporulis ovoideis, 3 \times 1,5, hyalinis.

Hab. in foliis vivis *Anemones coronariæ*, Firenze (Prof. ADR. FIORI). — Ob *Æcidium* *deficiens* et pycnidia exclusive hypophylla forma distinguenda videtur.

107. ***Æcidium Ranunculacearum*** DC. — Syll. Fung. VII, p. 776. — 1457
var. *Aleæ* Trav. in D. Sacc. Myc. ital. n. 1264. — A typo mox differt habitatione numquam in laminis foliorum et quia matricem maxime deformat.

Hab. in caulibus, petiolis pedunculisque *Ranunculi bulbosi* subsp. *Aleæ*, in horto botanico Patavino, Majo 1903. — Inter adest socia *Urocystis Anemones*.

108. ***Æcidium occidentale*** Arthur, Bull. Torr. Bot. Cl. 1904, pag. 7. 1458
— Pycnidiis amphigenis, in parvulos greges dispositis, stipatis, prominulis, melleo-aurantiacis, punctiformibus, immersis, subepidermicis, globosis, sæpe depressis, 110-150 μ . diam.; ostioli periphysibus liberis sæpe agglutinatis, 30-75 μ . longis; æcidiis hypophyllis in greges circulares v. oblongatos dispositis, subcongestis, latis; pseudoperidiis pallidis, margine erectis, erosis; æcidiosporis globosis, 24 \times 18 v. 29 \times 23; episporio 2,5-3 μ . lato, hyalino, dense minuteque verruculoso.

Hab. in foliis *Clematidis Douglasii*, Pullman, Washington, Moscow Idaho, Helena Montana, Amer. bor. — *Æc. Clematidis* affinis species.

109. ***Æcidium Delphinii*** Barthol. in Journ. of Mycol. 1902, p. 173. 1459
— Hypophyllum; maculis epiphyllis, luteo-brunneis, pallide marginatis; pseudoperidiis circinato-congestis, 3-5 mm. diam., intense

aurantiacis, in pag. sup. irregulariter sparsis; æcidiis 250-350 μ . diam., margine lacerato-frangiatis, dein levibus, expansis; pycnidiis paucis vel indistinctis; æcidiosporis irregularibus, subglobosis vel angularibus, episporio rugoso, pluri-nucleatis, aurantiacis, 20-25 μ . diam.

Hab. in foliis *Delphinii scopulorum*, Steamboat Springs, Colorado, Amer. bor. (E. BETHEL). — Species valde noxia.

110. ***Æcidium dakotense*** Griffiths, Bull. of the Torrey Bot. Club. 1460
1902, p. 300. — Pycnidiis brunneis vel brunneo-nigris, sub lente luteis, hypophyllis, æqualiter sparsis, prominentibus; æcidiis hypophyllis sparsis, sæpe totum folium bullatum occupantibus, margine laceratis recurvatisque; æcidiosporis globosis vel pro mutua pressione angulosis, 15-18 μ . diam., episporio levi, tenui, in angulis incrassato.

Hab. in foliis *Aquilegiæ canadensis*, Big Stone Lake, Dakota, Amer. bor.

111. ***Æcidium Aikeni*** Syd. in Ann. Myc. I, 1903, p. 334. — Pycnidiis 1461
amphigenis, sæpius hypophyllis, sparsis, solitariis, numerosis, æque per folium distributis, in sicco brunneis (in vivo melleis?): æcidiis eadem distributione qua pycnidiis, sine maculis, plerumque per totum folium vel per magnam folii partem æque distributis, solitariis numquam in greges dispositis, primitus hemisphæricis, dein cupulatis, margine recurvato, inciso, albido; æcidiosporis globosis, subglobosis v. angulatis, rarius ellipsoideis, plerumque apice leniter incrassatis, subtiliter verrucosis, flavescentibus, 19-25 μ . diam.; contextu cellulis valde irregularibus 26-35 \approx 24-32 formato.

Hab. in foliis vivis *Thalictri purpurascens*, College Hill pr. Cincinnati in Ohio Americæ bor. (W. H. AIKEN).

112. ***Æcidium Polygoni cuspidati*** Diet. in Bot. Jahrb. 1903, p. 629. 1462
— Pseudoperidiis hypophyllis in acervulos circulares 3-4 mm. latos vel secundum nervos elongatos congestis, margine albo denticulato præditis; sporis globosis vel polyhedricis v. oblongis, 16-23 \approx 15-20, subtiliter verrucosis.

Hab. in foliis *Polygoni cuspidati*, Nikko Japoniæ (KUSANO).

113. ***Æcidium Atriplicis*** Shear in Bull. of the Torr. Bot. Cl. 1902, 1463
p. 453. — Pseudoperidiis hypophyllis, plus minusve sparsis, 0.5-1 mm. longis, 240-320 μ . diam., erumpentibus, margine crenato-denticulatis; cellulis irregulariter pentagonis, 20-30 μ . d., dense reticulatis; sporis levibus, luteolis, irregulariter globosis, 20-24 μ . diam.

Hab. in foliis *Atriplicis Nuttallii*, Montrose, Colorado Amer. bor.

114. ***Æcidium moricola*** P. Henn. F. javanici novi, in Hedw. 1902, 1464 p. 140. — Maculis fuscidulis; æcidiis hypophyllis, rare epiphyllis, sparsis; pseudoperidiis singularibus v. subaggregatis, primo tectis, dein cupulatis, ochraceo-fuscidulis; contextu cellulis oblonge v. rotundato-angulatis, flavo-brunneis, 14-20 \approx 12-15; æcidiosporis subglobosis v. ellipsoideis, flavo-brunneolis, 16-23 \approx 13-17.

Hab. in foliis *Mori indicæ* Javæ orient.

115. ***Æcidium alaskanum*** Trel., Harrim Alaska Exped. Crypt. p. 37. 1465 — Maculis pallidis, plerumque ellipticis, 5 \approx 5-10 mm.; pycnidiis nullis; æcidiis amphigenis, sed infra copiosioribus, 0,25 mm. lat., margine multifido, reflexo; cellulis pseudoperidii circ. 28 μ . diam.; æcidiosporis sublevibus, 16-20 μ . long., ellipsoideis.

Hab. in foliis *Habenariæ* et *Orchidis* variarum spp. in Alaskæ pluribus locis (TRELEASE, SAUNDERS, MACOUN, TWASTON). — Ab *Æcid. Orchidearum* (ad *Pucc. Moliniæ* spectante) pycnidiis nullis, cellulis pseudoperidii amplioribus, sporis minoribus etc. distinguendum.

116. ***Æcidium Lillii-cordifolii*** Diet. in Bot. Jahrb. 1903, pag. 629. 1466 — Pseudoperidiis hypophyllis in maculis rotundatis vel irregularibus usque 1 cm. latis, laxe gregariis, margine recurvato irregulariter lacerato vel denticulato præditis, flavidulis; æcidiosporis globosis vel late ellipsoideis, 20-23 \approx 17-20, subtiliter verrucosis.

Hab. in foliis *Lillii cordifolii*, in prov. Hitachi Japoniæ (KUSANO),

117. ***Æcidium magnatum*** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. 1467 — Maculis pallidis, circularibus; pseudoperidiis hypophyllis, cylindraceis, elongatis, margine laceratis; æcidiosporis luteis, subcylindraceis, 26-37, episporio verrucoso donatis.

Hab. in foliis *Vagueræ stellatæ* (= *Smilacina dentata*) Valley of the Teton, Montana, Amer. bor.

118. ***Æcidium Zephyranthis*** Shear in Bull. of the Torr. Bot. Club. 1468 1902, p. 454. — Maculis circularibus, luteolis, 1-2 mm. diam.; sporulis globosis v. subglobosis, 2-3 μ . diam.; pseudoperidiis amphigenis, orbiculariter in greges 1-4 dispositis, 200-300 μ . diam.; cellulis irregulariter polygonalibus, 21-35 μ . diam., dense reticulatis; sporis luteolis levibus, irregulariter globosis, 18-25 μ . diam.

Hab. in foliis *Zephyranthis*, prope Tlalpam, Mexico Amer. borealis.

119. **Æcidium Mangaranga** P. Henn. in *Ergebn. der Kunene-Sambesi-Expedit.* pag. 163 (1902). — Maculis flavis effusis totum folium tegentibus; pycnidiis epiphyllis, dense gregariis, minutis punctulatis, ceraceis, rufo-brunneis; æcidiis hypophyllis oppositis, circulariter dispositis aggregatis, minutis, cupulatis, flavo-pallentibus, contextu cellulis polyhedricis, reticulatis, 20-26 μ . flavidis; æcidiosporis subgloboso-angulatis, 16-22 \approx 15-20, levibus.
- Hab.* in foliis Crini spec. Kubango pr. Kneio, Afr. austr.
120. **Æcidium pallidum** Schneid. — *Syll.* VII, pag. 789. — Teste Tranzschel *Ann. Mycol.* 1904, p. 157, non in *Lythro Salicaria*, sed in *Epilobio tetragono* provenit.
121. **Æcidium Basanacanthæ** P. Henn. *Fungi Amaz.* I, p. 166, Hedw. 1904 et in Hedw. 1896, p. 259, sub *Æc. Randiæ*.
- Hab.* in foliis *Basanacanthæ* sp. Rio Juruá, Marary, Amer. merid. — Nomen mutatum ex eo quod non in *Randia* sed in *Basanacantha* nascitur. Gallas firmas nigras format.
122. **Æcidium baccharidophilum** Speg. *Not. synonym.* pag. 9 in *Ann. Mus. Nac. Buenos Ayres* 1903, tom IX. Ita nominandum *Æcid. baccharidicolum* Speg. 1898, nec P. Henn. (1896).
123. **Æcidium pseudo-columnare** J. Kühn. — *Syll.* VII, pag. 826. — Observante cl. Oud. in *Rev. Mycol.* 1902, ejus habitatio sic emendanda: a pede ad cacumen M. Blauen pr. Badenweiler.

UREDIO Pers. — *Syll.* VII p. 838, IX p. 327, XI p. 222, XIV p. 389, XVI p. 349.

1. **Uredo Verbesianæ-dentatæ** Syd. in *Æster bot. Zeitschr.* 1902, n. 5. 1470
— Soris uredosporiferis hypophyllis, maculis orbicularibus ca. 2 mm. latis, fuscis v. nullis insidentibus, mediocribus, 1-2 mm. diam. lana foliorum obtectis, obscure brunneis, pulverulentis; uredosporis globosis, subglobosis v. rarius late ellipsoideis, aculeatis, brunneis, 22-31 μ . diam., episporio ca. 4-6 μ . crasso.
- Hab.* in foliis vivis *Verbesinæ dentatæ*, pr. Quero et Ambato *Æquatoriæ* (F. G. LEHMANN).
2. **Uredo Pluchææ** Syd. in *Ann. Mycol.* I, 1903, p. 333. — Soris 1471
uredosporiferis amphigenis, sine maculis, sparsis vel rarius hinc inde paucis aggregatis, punctiformibus, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis, ovatis v. ellipsoideis, valide denseque aculeatis, brunneis 26-32 μ . diam. v. 30-40 \approx 23-28, episporio crassiusculo.

Hab. in foliis vivis *Pluchææ camphoratæ*, Eustis, Lake Co., Florida Americæ bor. (G. V. NASH).

3. **Uredo Jasoniæ** Henn. in Hedw. 1902, p. (66). — Maculis fuscidu- 1472
lis; soris hypophyllis interdum epiphyllis sparsis, rotundatis, ap-
planato-pulvinatis, flavidis, ca. 1 mm. diam.; sporis ovoideis vel
ellipsoideis, hyalino-flavidulis, 22-30 \approx 18-22, episporio striato-ver-
rucoso.

Hab. in foliis vivis *Jasoniæ glutinosæ*, Lasnaca, in insula
Cypro (O. WARBURG).

4. **Uredo Gaudichaudii** Syd. Ann. Mycol. 1903, p. 21. — Soris ure- 1473
dosporiferis hypophyllis, irregulariter sparsis, minutissimis, pul-
verulentis, ferrugineis; uredosporis globosis, subglobosis v. ovatis,
aculeatis, brunneis, 20-30 \approx 19-25.

Hab. in foliis *Blainvilleæ rhomboideæ*, Rio de Janeiro,
Brasiliæ (GAUDICHAUD).

5. **Uredo banisteriicola** P. Henn. in Hedw. 1904, p. 80. — Maculis 1474
fuscidulis, rotundatis vel obsolete; soris amphigenis sparsis, ro-
tundato-pulvinatis, cinnamomeis; uredosporis subglobosis, 20-25 \approx
18-23, brunneis, verrucoso-echinatis.

Hab. in foliis *Polymniæ sylphioidis*, Nova Friburgo, pr.
Rio de Janeiro Brasiliæ (C. ULE).

6. **Uredo Asteromææ** P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. 1475
— Soris hypophyllis sparsis, pustulatis diutius epidermide flava
tectis; uredosporis subglobosis vel ellipsoideis polyhedricis, intus
granulato-punctatis, 20-28 \approx 18-24, episporio flavido.

Hab. in foliis *Asteromææ indicæ*, Urawa Japoniæ (N.
NAUBU).

7. **Uredo Garcilassæ** P. Henn. Fungi Amaz. I, p. 160, Hedw. 1904. 1476
— Maculis indeterminatis, fuscidulis; soris hypophyllis gregariis,
minutis, pulvinatis, pulverulentis, ferrugineis; uredosporis subglo-
bosis v. ellipsoideis, fusco-brunneis, aculeato-asperatis, 15-20 \approx 13-18.

Hab. in foliis *Garcilassæ rivularis*, Tarapoto Perù, Amer.
merid.

8. **Uredo scopigena** P. Henn. Fungi Amaz. I, p. 160 (Hedw. 1904). 1477
— Maculis fuscis explanatis, soris amphigenis caulibusque ple-
rumque dense gregariis confluentibus, folia utrinque omnino te-
gentibus, ferrugineis, ramis scopiforme deformantibus; sporis ovoi-
deis, ellipsoideis, subglobosis, brunneis, 18-35 \approx 14-24, aculeatis.

Hab. in foliis caulibusque *Eupatorii spec.* Rio Juruá, Ju-
ruá-Miry, Amer. merid.

9. **Uredo Crepidis-integræ** Lindr. Acta Soc. Fauna et Fl. fennica 1902, 1478
XXII, n. 3, p. 11. — Soris minutis, punctiformibus, zona peregua pallida circumdatis, epidermide cinctis, sparsis, brunneis; uredosporis subglobosis v. breve late ellipsoideis, 18-28 μ . diam.; membrana flavida, æquali, 2,2 μ . cr; poris germinantibus 4-6, episporio supra eos non protuberante.

Hab. in foliis (caulibusque?) *Crepidis integræ*, Nagasaki alibique in Japonia.

10. **Uredo Crepidis-japonicæ** Lindr. Acta Soc. Fauna et Fl. fennica 1479
1902, XXII, n. 3, p. 11. — Soris amphigenis, sed sæpius hypophyllis, cinnamomeis, rotundatis, minutis, maculas non generantibus, epidermide initio cinctis; uredosporis subglobosis v. breve late ellipsoideis, 14-18 μ . diam., membrana flavida, crebre tenuiter spinulosa, tenui, æquali, 1 μ . cr.; poris germinat. ternis, inordinatis, episporio supra eos non protuberante.

Hab. in foliis *Crepidis japonicæ*, Queensland Australiae. — Sporibus minoribus, subglobosis etc. a ceteris speciebus crepidicolis dignoscitur.

11. **Uredo Andryalæ** Syd. in *Æster. bot. Zeitschr.* 1902, n. 5. — Soris 1480
uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, epidermide fissa cinctis, brunneis, pulverulentis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 22-27 \approx 16-23, poris germinationis binis instructis.

Hab. in foliis vivis *Andryalæ integrifoliæ*, Limoges Galliae (E. LAMY).

12. **Uredo boopidicola** Speg. Myc. Arg. Ser. I, in An. Soc. Cient. Arg. 1481
1899, p. 267. — Maculis quandoque nullis, quandoque pallescenti-flavescentibus, indeterminatis, foliicolis, rarius cauliculis; soris erumpentibus, hemisphæricis, 0,5-1 mm. diam., subcompactiusculis, e ferrugineo-atris; uredosporis subglobosis, e mutua pressione obtuse irregulariterque angulosis, 25-30 \approx 20-30, levibus tenuiter tunicatis, nubiloso-farctis, ferrugineis.

Hab. in foliis vivis *Boopidis squarrosæ*, prope Rio Chico Argentiniae.

13. **Uredo Palicureæ** Fungi Amaz. I, p. 160, Hedw. 1904. — Maculis 1482
roseolis vel flavide pallidis, sparsis vel gregariis confluentibusque versiformibus; soris plerumque epiphyllis vel hypophyllis cauliculisque, sparsis vel gregariis, rotundato-pulvinatis, pallidis v. roseolis; sporibus subglobosis, ovoideis v. ellipsoideis, hyalinis interdum roseolis v. fuscidulis, 12-20 \approx 10-18, minute aculeato-subechinatis.

Hab. in foliis caulibusque *Palicourea* spec. Huallaga, Yurimaguas, Perù Amer. merid.

14. **Uredo geophilicola** P. Henn. Fungi Amaz. I, p. 161, Hedw. 1904. 1483
— Maculis rotundatis vel effusis, fuscis; soris epiphyllis, circulariter dispositis vel gregarie effusis, pulvinatis, flavo-ferrugineis, dein pulverulentis; sporis ovoideis, hyalino-fuscidulis, asperatis, 15-23 \approx 12-18 μ .

Hab. in foliis *Geophilæ trichoginis*, Huallaga, Yurimaguas, Perù Amer. merid. — Ab affini *U. Geophilæ* sporis distincte spinulosus differt.

15. **Uredo Ancylothi** P. Henn. in Bot. Ergebn. der Kunene-Exped. 1484
dit. p. 158 (1902). — Maculis fuscidulis v. obsoletis; soris hypophyllis sparsis v. aggregatis confluentibusque flavidis v. sulphureis, pulverulentis; sporis ovoideis vel ellipsoideis, 22-32 \approx 18-23, episporio asperato, flavo.

Hab. in foliis *Ancylothi fulgidi*, Quiriri Africæ austr.

16. **Uredo Cephalanthi** Arthur in Bull. of the Torr. Bot. Club. 1902, 1485
pag. 231. — Soris generaliter hypophyllis, parvulis, irregulariter bullatis, sine ordine sparsis, pallidis, diu epidermide velatis; sporis initio pedicellatis, obovato-globosis, 16-20 \approx 20-26, episporio 1 μ . crasso donatis, minute echinulatis, poris 4 æquatorialibus.

Hab. in foliis *Cephalanthi occidentalis*, Palmetto, Fla. Amer. bor.

17. **Uredo Cinchonæ** P. Henn. F. javanici novi, in Hedw. 1902, p. 140. 1486
— Maculis fuscidulis v. obsoletis; soris epiphyllis, sparsis, minutissimis, pulvinatis, diutius tectis, brunneolis, ca. 0,3 mm. diam.; poris ovoideis v. ellipsoideis, intus flavidis, 13-18 \approx 10-15, episporio hyalino, granulato-verrucoso.

Hab. in foliis *Cinchonæ* spec. Java.

18. **Uredo Pæderiæ** Syd. in Österr. bot. Zeitschr. 1902, n. 5. — Soris 1487
uredosporiferis hypophyllis, sine maculis, minutissimis, sparsis v. irregulariter distributis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, brunneolis, echinulatis, 20-26 μ . diam.

Hab. in foliis *Pæderiæ foetidæ* in ins. Comorens. (SCHMIDT).

19. **Uredo detergibilis** (Thüm.) P. Henn. in Bot. Ergebn. der Kunene 1488
Sambesi Expedit. p. 160 (1902). — *Coleosporium detergibile* Thüm. — Syll. VII, p. 756.

Hab. in foliis vivis *Plectroniæ huillensis*, Longa pr. Napalanka Africæ austr. — Ad *Hemilejam* nec ad *Coleosporium* spectat.

20. **Uredo mkusiensis** P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1489
 — Maculis pallidis vel obsoletis; soris hypophyllis sparsis v. gregariis, minutis, flavidulis vel pallidis, dein farinaceis; uredosporis ellipsoideis vel ovoideis sæpe inæquilateralibus, intus flavidis, 15-22 \approx 10-16, episporio subhyalino crasso, aculeato verrucoso, unilateraliter levi.
Hab. in foliis *Psychotriæ* spec., Mkusi, Usambara Africae orient. (ZIMMERMANN). — Ad *Hemilejam* spectat.
21. **Uredo Gardeniæ-Thunbergiæ** P. Henn. in Bot. Ergebn. der Kune-Sambesi Exped. p. 160 (1902). — Maculis flavescensibus v. fuscidulis, effusis; soris hypophyllis, minutis, dein confluentibus, farinaceis, pallide flavis; uredosporis ovoideis reniformibus v. cordiformibus, lunulatis, 18-28 \approx 16-22 flavidis, episporio unilateraliter aculeato-asperatis.
Hab. in foliis *Gardeniæ Thunbergiæ* prope Kitive Afr. austr. — Ad *Hemilejam* spectat.
22. **Uredo huallagensis** P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1491 1904. — Maculis rotundatis fuscidulis, subbullatis; soris amphigenis, oppositis dense gregarie congestis in pulvinis ca. 5 mm. subferrugineis rotundato-applanatis confluentibus; sporis ovoideis vel ellipsoideis, flavo-brunneis, 20-40 \approx 14-28, episporio flavo-brunneo, aculeato asperato; pedicello interdum usque ad 40 \approx 3-4, hyalino.
Hab. in foliis *Memoræ* spec. (Bignoniaceæ,) Tarapoto, Perù. — Forte ad *Uromyctem* spectat; ab *Uredine Memoræ* omnino diversa.
23. **Uredo Nicotianæ** Anastasia, Sacc. et Splend. sp. nov. — Uredo-1492 soris amphigenis, aureis, subcircularibus, 1-2 mm. diam., erumpentibus et mox nudis, pulvereis, gregariis; uredosporis e globoso ellipsoideis, rarius oblongis, obtusis, 24-32 μ . diam., contextu granuloso amœne aureo; episporio crassiusculo, hyalino verruculoso; pedicellis subnullis.
Hab. in foliis adhuc vivis *Nicotianæ* quadrivalvis et *N. silvestris* cultarum in horto experimentalis Instituti tabacologici Scafati pr. Neapolim. — Status teleutosporicus hucusque ignotus. In *Nicot. silvestri* fungillus est plerumque epiphyllus, in *N. quadrivalvi* vero est plerumque hypophyllus.
24. **Uredo Hammari** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 1493 p. 107. — Caulicola tumefaciens vel foliicola, amphigena; soris sparsis v. aggregatis, primo epidermide brunneola, bullata tectis, dein farinaceis, pallidis; sporis ovoideis v. ellipsoideis, olivaceo-fu-

scis, 20-30 \approx 17-21, episporio verrucoso, verrucis subbacillaribus, hyalinis ca. 2 μ . longis, 1 μ . crassis vestito.

Hab. in foliis Hyptidis prope S. Paulo Brasilæ.

25. **Uredo Lippiæ** Diet. et Holw. in Bot. Gaz. 1901, p. 335. — Soris 1494 hypophyllis, sparsis, intense brunneis, pulverulentis; uredosporis globosis vel subellipsoideis, 25-32 \approx 25-28, episporio intense brunneo, dense echinulato, usque 3 μ . crasso, poris germinationis 2; paraphysibus hyalinis ampulliformibus.

Hab. in foliis Lippiæ Pringlei, Oaxaca in Mexico.

26. **Uredo clerodendricola** P. Henn. F. javanici novi, in Hedw. 1902, 1495 p. 140. — Maculis nullis; soris epiphyllis sparsis, minutis, pulvinatis, epidermide brunnea diutius tectis, 0,2-0,3 mm. diam.; uredosporis ovoideis, ellipsoideis, interdum subglobosis, intus flavis, 30-40 \approx 25-35, episporio subhyalino, aculeato; aculeis ca. 2 μ . longis.

Hab. in foliis Clerodendri inermis, Buitenzorg Javæ.

27. **Uredo Scholzii** P. Henn. Afr. orient. II, in Bot. Jahrb. XXVIII, 1496 p. 34. — Soris minutis, gregarie hypophyllis, flavo-aureis, pallidulentibus, farinosis; uredosporis ovoideis vel ellipsoideis, intus aureis dein hyalinescentibus 20-35 \approx 16-24, episporio aculeato-asperato, aculeis hyalinis, ca. 2 μ . long.

Hab. in foliis Clerodendri, Usambara Afr. or. (SCHOLZ).

28. **Uredo Viticis-polygamæ** P. Henn. Fungi paraenses II, in Hedw. 1497 1902, pag. 15. — Maculis rotundatis, epiphyllis albidis, oppositis ferrugineis; soris hypophyllis in villo nidulantibus, fuscis; uredosporis subglobosis v. ellipsoideis, 20-30 \approx 18-24, episporio brunneo, aculeato-asperato.

Hab. in foliis Viticis polygamæ in horto botanico, Pará Amer. austr.

29. **Uredo Cordiæ** P. Henn. Fungi Amaz. I, p. 163, Hedw. 1904. 1498 — Soris folii- vel ramicolis et hæc organa omnino deformantibus, valde incrassatis confluentibus, ferrugineis pulverulentis; sporis ovoideis, ellipsoideis vel subglobosis, fuscis, 20-30 \approx 15-24, episporio ferrugineo verrucoso.

Hab. in caulibus foliisque Cordiæ spec. Tarapoto, Perù Amer. merid. — Ad *Uromycetem Cordiæ* non referenda.

30. **Uredo Peckoltia** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1499 uredosporiferis amphigenis, præsertim epiphyllis, maculis vix distinctis insidentibus, minutis, plerumque in greges rotundatos ca. 2-4 mm. diam. concentrice dispositis, epidermide diu tectis, tandem poro minuto apertis, obscure brunneis; uredosporis subglobosis

v. ovatis, aculeatis, brunneolis, 22-32 \approx 16-26; paraphysibus copiosis, cylindraceo-clavatis, dilute brunneolis, plus minusve curvatis, usque 70 μ . longis.

Hab. in foliis vivis *Peckoltia* pedalis, Goyaz Brasiliæ (GARDNER).

31. **Uredo juruensis** P. Henn. Fungi Amaz. I, p. 167, Hedw. 1904. 1500
— Maculis flavido-fuscidulis effusis; soris hypophyllis effusis, minutis, flavidis, farinaceo-pulverulentis; uredosporis ovoideis, ellipsoideis vel subtriangularibus, intus flavidis, 13-20 \approx 10-17, episporio hyalino, verrucoso.

Hab. in foliis *Tabernæmontanæ* spec. Fortaleza, Rio Juruá. Amer. merid.

32. **Uredo plumeriicola** P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1501
1904. — Maculis rotundatis, plus v. minus gregariis; soris hypophyllis, gregariis, interdum confluentibus, rotundato-angulatis, epidermide flavo-brunneola tectis v. circumdatis, 0,5-1 mm. diam.; uredosporis oblonge ellipsoideis vel ovoideis, 20-30 \approx 16-20, intus fuscidulis, episporio subhyalino tessellato-verrucoso.

Hab. in foliis *Plumeriæ* spec., Huallaga, Perù Amer. merid.
— Forte ad *Coelosporium Plumeriæ* spectat.

33. **Uredo Carpodini** P. Henn. in Bot. Ergbn. du Kunene-Expedit. 1502
p. 158 (1902). — Maculis flavis irregularibus; soris hypophyllis sparsis, minutis, rufo-brunneis, diutius tectis; uredosporis ellipsoideis v. ovoideis, fuscis, 18-24 \approx 17-22, episporio echinato-asperato, aculeis hyalinis, ca. 3 μ . long.

Hab. in foliis *Carpodini leucanthi*, Kuito prope Kutue et Sobi Africæ austr.

34. **Uredo Clitandræ** P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1503
— Maculis flavidulis subrotundatis; soris hypophyllis sparsis vel subgregariis, subcastaneis, minutis; uredosporis subglobosis, ellipsoideis v. ovoideis, 26-32 \approx 22-28, episporio 4-6 μ . incrassato, brunneo vel subhyalino aculeato

Hab. in foliis *Clitandræ Watsonianæ*, Ost-Usambara Afr. orient. (ZIMMERMANN).

35. **Uredo Symbolanthi** P. Henn. Fungi Amaz. I, p. 161, Hedw. 1904. 1504
— Maculis flavobrunneis, rotundatis vel irregulariter confluentibus; soris sparse gregariis, plerumque epiphyllis vel amphigenis, diutius epidermide alutacea tectis, pulvinatis, 0,3 mm. diam.; uredosporis oblonge ovoideis vel ellipsoideis, flavide brunneolis, acu-

leato-asperatis, 30-45 \times 20-30; paraphysibus obvallatis, subcylindraceis, obtusis, hyalinis vel flavido-brunneis, 30-80 \times 6-10.

Hab. in foliis *Symbolanthi* spec. (*Gentianaceæ*) Cerro de Escaler, Perù, Amer. merid. — Verisimiliter ad *Uromycetis* speciem spectat.

- 36 **Uredo Opheliæ** Syd. Ann. Mycol. 1903, pag. 21. — Soris uredo- 1505
sporiferis hypophyllis v. cauliculis, in folio sparsis vel subgregariis, hemisphæricis, minutissimis, punctiformibus cinnamomeis; uredosporis subglobosis v. sæpius ovatis v. ellipsoideis, aculeato-verrucosis, flavescentibus, 16-27 \times 14-20.

Hab. in foliis caulibusque *Swertiæ* (*Opheliæ*) angustifoliæ in India orient.

37. **Uredo Copelandi** Syd. Ann. Mycol. 1904, p. 31. — Soris uredo- 1506
sporiferis amphigenis, sparsis v. paucis aggregatis, non confluentibus, hemisphæricis, pseudoperidio inclusis, flavis; uredosporis subglobosis, ellipsoideis v. piriformibus, verrucoso-echinulatis, membrana hyalina, protoplasmate aurantiaco repletis, 18-35 \times 12-20.

Hab. in foliis vivis *Arctostaphyli patulæ*, Sisson California, A. nevadensis, Mt. Edly, Siskiyou Co. Amer. bor.

38. **Uredo chrysophyllicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1507
1902, p. 106. — Maculis atrorufis, plerumque rotundatis; soris amphigenis sparsis v. aggregatis, primo epidermide flavida tectis, dein erumpentibus, pallidis, applanato-rotundatis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus flavidis, 14-24 \times 12-16, episporio crasso, hyalino, minute aculeato.

Hab. in foliis *Chrysophylli* spec. in horto botanico S. Paulo Brasiliæ.

39. **Uredo Gliæ** Lindroth, Die Umbellif. Ured. 1902, p. 175. — Ure- 1508
dosoris minutis, rotundatis v. ellipsoideis, hypophyllis, in maculis irregularibus, flavidis vel brunneolis, epidermide initio elevata cinctis; uredosporis ellipsoideis, 33-48 \times 18-28, tunica æquali, 2-2,5 μ . cr., flavida vel hyalina, minute sparse aculeolata; poris germinativis vix manifestis.

Hab. in foliis *Annesorrhizæ* (*Gliæ*) gummiferæ, Constantieberg Afric. austr. (MAC OWAN).

40. **Uredo Panacis** Syd. Ann. Mycol. 1903, p. 22. — Soris uredo- 1509
sporiferis amphigenis, præsertim hypophyllis, irregulariter sparsis v. aggregatis, rotundatis v. irregularibus, subochraceis; uredosporis globosis, subglobosis v. ellipsoideis, aculeato-verruculosis, subhyalinis, 17-22 μ . diam.

Hab. in foliis vivis *Panacis Pseudo-ginseng*, Sikkim India orient. (I. D. HOOKER fil. et THOMSON).

41. **Uredo Helini** Syd. in *Æsterr. bot. Zeitschr.* 1902, n. 5. — Soris 1510
 uredosporiferis hypophyllis, maculis minutis 1-3 mm. latis, orbicularibus, fuscis insidentibus, solitariis vel paucis in quaque macula aggregatis, minutis, dilute flavo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtilissime echinulatis v. sublevibus, flavescentibus, 16-23 \approx 14-19.

Hab. in foliis vivis *Helini lanceolati*, India orient. (HOOKER fil. et THOMSON).

42. **Uredo Zizyphi-vulgaris** P. Henn. *Einige neue japan. Ured.* III, 1511
 in *Hedw.* 1902, p. 21. — Maculis subpallescentibus; soris hypophyllis sparsis v. gregariis, interdum nervos sequentibus, minutis, pallide ferrugineis, vix 0,5 mm. diam.; uredosporis ovoideis v. ellipsoideis, hyalino-brunneolis, granulatis, 16-24 \approx 12-16.

Hab. in foliis *Zizyphi vulgaris* var. *inermis*, Tosa Japoniæ.

43. **Uredo Allophili** P. Henn. in *Engl. Bot. Jahrb.* 1903, p. 41. — Ma- 1512
 culis fuscidulis, plus v. minus parvis vel indeterminato-explanatis; soris hypophyllis sparsis, minutis, pallidis vel stramineis, pulvinato-applanatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 13-20 \approx 12-17, episporio flavido aculeato; paraphysibus clavatis, obtusis hyalinis, 20-30 \approx 8-10.

Hab. in foliis *Allophili* sp. (*Sapindaceæ*) Ost-Usambara Africæ orient. (ENGLER).

44. **Uredo Maprouneæ** P. Henn. *Fungi Amaz.* I, p. 163, *Hedw.* 1904. 1513
 — Maculis violaceis, sanguineis vel fuscidulis, rotundatis vel irregularibus; soris hypophyllis sparsis vel aggregatis, pulvinatis, epidermide alutacea fissa velatis; sporis variiformibus, oblonge ovoideis, ellipsoideis, clavatis vel subtriangularibus rectis vel curvulis, primo hyalinis dein flavo-brunneis, aculeatis, interdum subpedicellatis, 20-30 \approx 15-20, paraphysibus subclavatis, brunneis, ca. 20 \approx 10.

Hab. in foliis *Maprouneæ guianensis*, Tarapoto et Yurimaguas, Perù Amer. merid. — Probabiliter ad *Uromyctem* spectat.

45. **Uredo maceiensis** P. Henn. *Fungi Amaz.* I, p. 163, *Hedw.* 1904. 1514
 — Maculis fuscis, irregulariter effusis; soris sparsis hypophyllis vel cauliculis, plerumque gregariis tuberculatis ferrugineis; uredosporis ovoideis, subglobosis vel ellipsoideis interdum inæquilateralibus, ca. 20-30 \approx 15-25, episporio castaneo v. brunneo asperato; paraphysibus sparsis clavatis, brunneis, ca. 30-40 \approx 15-18.

Hab. in foliis caulibusque *Johannesia* principis, Alagoas, Maceio, Amer. merid.

46. **Uredo Hibisci** H. et P. Sydow, in Hedw. 1901, p. (128). — Soris 1515
 uredosporiferis hypophyllis, per totam foliorum superficiem distributis, minutis, rotundatis v. oblongis, diutius tectis, demum epidermide cinctis v. semivelatis, pulverulentis, dilute ochraceis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavis, 16-22 μ . diam. vel 21-27 \times 14-20.

Hab. in foliis vivis *Hibisci syriaci*, St. Martinsville, Louisiana Americæ bor. (A. B. LANGLOIS).

47. **Uredo Haplophylli** P. Henn. Fungi Amaz. IV in Hedw. 1904. — 1516
 Maculis rotundatis vel effusis, fuscis; soris hypophyllis sparsis, pulvinatis, primo tectis dein castaneis; sporis subglobosis vel ellipsoideis, fuscis, verrucosis, 18-23 \times 14-17.

Hab. in foliis *Haplophylli* sp., Iquitos, Rio Amazonas Perù.

48. **Uredo Medicaginis** Speg. Myc. argent. ser. II, 1902, p. 66. — Ma- 1517
 culis diffusis, pallescentibus; acervulis sparsis v. gregariis rarius confluentibus, 0,5-1 mm. diam. applanatis, epidermide disrupta cinctis; soris sæpius hypophyllis, erumpentibus, ferrugineis; uredosporis aparaphysatis, 18-20 μ . diam. globosis, grosse 1-guttulatis, laxe papilloso-aculeolatis, fulvis.

Hab. ad folia viva *Medicaginis denticulatæ*, in pratis prope La Plata Argentinae.

49. **Uredo mararyensis** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1518
 — Maculis rotundatis concavis; soris hypophyllis in pustulis, pulvinatis, ferrugineis tuberculatis, 2-3 mm. diam. aggregatis v. sparsis pulverulentis; sporis ovoideis vel ellipsoideis, fusco-cinnamomeis, asperatis, 15-20 \times 12-15.

Hab. in foliis *Dalbergiæ* spec., Marary, Rio Juruá Amer. merid. — Ab *U. Dalbergiæ* soris rubiginosis firmulis sporisque aculeolatis obscurioribus distinguenda.

50. **Uredo nidulans** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1519
 uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, perexiguis, in greges usque 4 mm. latos laxè dispositis vel subinde subsparsis, pulverulentis, ochraceis v. fulvo-ochraceis; uredosporis subglobosis v. piriformibus, breviter echinulatis, flavescentibus, 16-25 \times 14-19; paraphysibus copiosis, fasciculatim soros uredosporiferos circumdantibus, plus minusve curvulis, cylindraceis, sursum non incrassatis sed leniter attenuatis, flavo-brunneis, usque 100 μ . longis, 5-8 μ . latis.

Hab. in foliis *Dalbergiæ foliolosæ*, Guanai-Tismani Boliviae (MIQUEL BANG).

51. **Uredo Sojæ** P. Henn. in Hedw. 1903, p. (108). — Maculis fuscis, 1520
minutis; soris hypophyllis, raro epiphyllis, sparsis, interdum aggregatis rotundato-pulvinatis, ferrugineis, epidermide fuscidula diutius tectis; uredosporis subglobosis, ovoideis v. ellipsoideis, 18-25 \times 15-18, episporio brunneo, verrucoso; paraphysibus sparsis clavatis, interdum curvulis, 20-30 \times 10-15 hyalinis.

Hab. in foliis *Glycinis Sojæ*, Shimoda, Tosa Japoniæ (YOSHINAGA).

52. **Uredo margine-incrassata** P. Henn. Fungi paraenses II, in Hedw. 1521
1902, p. 15. — Maculis gregariis vel sparsis, rotundatis, fuscis, incrassato-obscuriorique cingulatis, 2-3 cm. diam.; soris amphigenis, minutis; sporis subglobosis, ellipsoideis v. ovoideis, angulatis, castaneis, 30-40 \times 25-35, episporio aculeato-asperato, aculeis hyalinis, ca. 2 μ . longis.

Hab. in foliis *Lonchocarpi spec.* Pará, Amer. austr.

53. **Uredo Desmodii-pulchelli** Syd. in Oesterr. bot. Zeitschr. 1902, n. 5. 1522
— Soris uredosporiferis hypophyllis, in hypophyllo maculas minutas 1-2 mm. diam. orbiculares fuscas generantibus, in epiphyllis sine maculis, sparsis, plerumque solitariis in quaque macula, minutissimis, perexiguis, flavo-brunneis, pulverulentis; uredosporis ellipsoideis, ovatis v. subglobosis, subtiliter verruculosis, flavidis, 18-25 \times 14-19.

Hab. in foliis vivis *Desmodii pulchelli*, Hongkong Sinarum (Dr. NAUMANN).

54. **Uredo Desmodii-leiocarpi** P. Henn. Fungi S. Paulenses I, in 1523
Hedw. 1902, p. 107. — Maculis rufis, minutis; soris sparsis amphigenis, minutis, pallide flavidis; uredosporis subglobosis v. ovoideis, flavidis, 16-21 \times 15-19, episporio echinulato.

Hab. in foliis *Desmodii leiocarpi*, in horto botanico, S. Paulo Brasiliæ.

55. **Uredo tephrosiicola** P. Henn. Fungi Amaz. I, pag. 163, Hedw. 1524
1904. — Maculis brunneolis, effusis; soris amphigenis sparsis, oblonge vel rotundato-pulvinatis, epidermide fissa subferruginea velatis; sporis ovoideis, ellipsoideis vel subglobosis, brunneis, minute verrucosis, 18-28 \times 15-24.

Hab. in foliis *Tephrosiæ spec.*, Pompas prope Tarapoto in Perù, Amer. merid. — Verisimiliter ad *Uromyctis* speciem referenda; ab *U. Tephrosiæ* diversa.

56. **Uredo bomfimensis** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1525

— Maculis flavidis rotundatis vel effusis; soris hypophyllis gregarie sparsis, depresso-pulvinatis, epidermide alutacea fissa cingulatis vel tectis; sporis ovoideis vel ellipsoideis, interdum subtriquetris, flavobrunneis, verrucosis, $13-20 \approx 10-14$.

Hab. in foliis *Pithecolobii* spec., Bom Fim, Rio Juruá, Amer. merid. — Ad *Uromyctis* speciem probabiliter referenda; ab *U. Pithecolobii* omnino diversa.

57. **Uredo Bauhiniae** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1526

— Maculis fuscidulis rotundatis; soris amphigenis, sparsis v. aggregato-confluentibus, applanato-pulvinatis, pallide flavis; sporis ellipsoideis ovoideis, hyalino-flavidulis vel brunneis, aculeatis, $15-22 \approx 10-15$; paraphysibus subclavatis, hyalino-fuscidulis, ca. $10-15 \approx 4-5$.

Hab. in foliis *Bauhiniae* spec. Juruá-Miry, Rio Juruá et Yurimaguas in Perù, Amer. merid. — Ab *Ured. bauhinicola* distincta.

58. **Uredo amazonensis** P. Henn. Fungi Amaz. IV in Hedw. 1904, 1527

p. 58. — Maculis rotundatis vel effusis, flavidis; soris hypophyllis, sparsis vel gregariis, pulvinatis, flavidis; sporis ellipsoideis, subglobosis vel ovoideis, flavido-hyalinis, $20-35 \approx 18-20$, aculeato-echinatis.

Hab. in foliis *Bauhiniae* spec., Rio Juruá Brasiliæ.

59. **Uredo excipulata** Syd. in Ann. Mycol. 1904, p. 350. — Pycnidiis 1528

amphigenis, minutis, numerosis in greges rotundatos 1-3 mm. d. dense dispositis; soris uredosporiferis circulo non interrupto circ. 1 mm. lato pycnidia cingentibus, epidermide rufo-brunneo-tincta primo tectis, dein eam disrumpentibus et ab ea ad marginem conspicue cinctis vel partim velatis, subceraceis, ferrugineo-brunneis; uredosporis ovato-piriformibus, apice subinde incrassatis, aculeato-verrucosis, ex hyalino flavo-brunneolis, $20-27 \approx 11-17$.

Hab. in foliis vivis *Ingæ Iniquil*, Mexico (PRINGLE ex F. NEGER).

60. **Uredo crotalariicola** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1529

besi Expedit. pag. 158 (1902). — Maculis fuscidulis; soris hypophyllis, circulariter dispositis, minutis, ferrugineis; uredosporis subglobosis, ovoideis v. late ellipsoideis, brunneis, $22-30 \approx 20-29$, episporio fusco v. castaneo, $5-7 \mu$. cr., minute verrucoso.

Hab. in foliis *Crotalariae lachnocladæ* in Africa. — Probabiliter ad *Uromyctem* spectat.

61. **Uredo Theresiæ** Neger in Beihefte Bot. Centralbl. XIII, an. 1902, 1530
p. 78, fig *a-b*. — Soris hypophyllis minutissimis vix conspicuis, maculis indeterminatis, flavescens insidentibus, paucis in acervulum irregularem congestis, hemisphæricis, 0,5 mm. diam., epidermide diu tectis; uredosporis ovoideis obovatis v. globosis 18-22 \approx 16-20, episporio tenui, breviter echinulato, achroo præditis; poris germinativis numerosis (5-7) sed vix conspicuis instructis, paraphysibus mixtis.

Hab. in foliis *Crotalariae anagyroidis* inter Il Moral et Machin in Columbia Americæ austr. — Ab *U. Crotalariae* magnitudine et colore sporarum nec non numero pororum recedens.

62. **Uredo Cassiæ-glaucæ** Syd. in Ann. Mycol. 1903, I, p. 331. — 1531
Soris uredosporiferis amphigenis, sparsis v. subinde paucis, 2-3-associatis, sæpe ad nervos evolutis, minutis, subpulverulentis, ochraceo-brunneis; paraphysibus nullis; uredosporis subglobosis, ellipsoideis v. oblongis, breviter echinulatis, flavis, 12-18 \approx 10-14.

Hab. in foliis vivis *Cassiæ glaucæ*, Hohefeldthafen Novæ Guineæ (O. WARBURG).

63. **Uredo Socotræ** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1532
uredosporiferis amphigenis, sine maculis, plerumque in greges irregulares dispositis irregulariterque confluentibus, epidermide fissa cinctis vel semitectis, ochraceis; paraphysibus non visis; uredosporis subglobosis, ellipsoideis v. oblongis, aculeato-verruculosis, flavescens, 12-19 \approx 10-14.

Hab. in foliis vivis *Cassiæ Sophoræ*, Kischen, in insula Socotra (G. SCHWEINFURTH).

64. **Uredo Cassiæ-stipularis** Syd. in Ann. Mycol. I, 1903, p. 331. — 1533
Soris uredosporiferis amphigenis, maculis minutis fuscis, ca. 2-3 mm. diam. insidentibus, sparsis, solitariis vel in greges minutos concentricè dispositis, minutis, epidermide fissa cinctis, ochraceis v. ochraceo-fuscis; paraphysibus non visis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 22-27 μ . d. vel 22-30 \approx 16-25, episporio ca. 2,5-3 μ . crasso.

Hab. in foliis vivis *Cassiæ stipularis*, Quillota in Chile (BERTERO).

65. **Uredo ngamboensis** P. Henn. in Engl. Bot. 1903, p. 42. — Ma- 1534
culis fuscidulis vel obsolete; soris hypophyllis interdum epiphyllis, sparsis vel aggregatis, ferrugineis, epidermide rupta, pallida cinctis; uredosporis subglobosis vel ellipsoideis, interdum inæquilateralibus, 16-22 \approx 12-20, episporio brunneo, aculeato-verrucoso.

Hab. in foliis *Albizziaë* Lebbek, Ngambo, Ost-Usambara Africae orient. (ZIMMERMANN).

66. **Uredo Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1535
1902, p. 106. — Maculis fuscis; soris ramicolis v. phyllodiicolis amphigenis gregariis, angulari-pulvinatis, diutius epidermide pallida tectis, dein subpulverulentis; uredosporis ellipsoideis v. ovoideis, intus flavido-aurantiis, 12-18 \approx 10-13, episporio hyalino, granulato-verrucoso.

Hab. in foliis et petiolis *Acaciaë* sp., in horto bot. S. Paulo Brasiliæ.

67. **Uredo ochraceo-flava** P. Henn. Fungi costaricensis, I, in Hedw. 1536
1902, p. 101. — Soris epiphyllis in maculis rotundatis dispositis, aggregatis, pulvinato-hemisphæricis, minutis, epidermide ochracea tectis, dein pulverulentis, flavis; sporis ovoideis vel ellipsoideis, clavatis, flavidis, 22-35 \approx 20-28, episporio verrucoso, verrucis conoideis vel hemisphæricis, 2,5-4 \approx 2-3 hyalinis.

Hab. in foliis *Rubi* pr. Santa Maria De Dota, Amer. centr.

68. **Uredo imperialis** Speg. — Syll. XVI, p. 354. — f. **ramulicola** 1537
Speg. in An. Soc. Cient. Argent. 1899, p. 276.

Hab. ad ramos *Rubi* imperialis, in silvis, prope Tucuman Amer. occid. (F. SIVORI). — Forma insignis, tumores lignosos majusculos v. maximos (nucis v. pugni magnitudine) efficiens; uredosporæ crustaceæ, superficiem matricis obtegentes, aurantiacæ ut in typo.

69. **Uredo Pruni** Cast. — Syll. VII, p. 858 et Speg. in Ann. Soc. Cient. Arg. 1899, p. 268. — Cfr. Mac Alp. in Ann. mycol. 1904, p. 344.

Hab. ad folia languida *Persicæ* vulgaris prope Cordoba Argentinae (T. STUCKERT). — Status teleutosporicus adhuc ignotus est. In speciminibus cordubensibus adsunt sporæ dimorphæ; sporæ alteræ (teleutosporæ v. mesosporæ?) obovatæ, in parte antica v. supera crasse acuteque umbonatæ leves obscureque fuliginæ, ceterum laxè majusculeque papillosæ, pallidiores 1-guttulatæ 30-40 \approx 16-20, pedicello hyalino brevi 10-20 \approx 5-7, mox fluxili fultæ; alteræ, uredosporæ veræ! globosæ 18-20 μ . diam., dense grosseque papillosæ, tenuiter tunicatæ, uniguttulatæ, pallidæ fulvæ.

70. **Uredo Pruni-Maximowiczii** P. Henn. Engl. Jahrb. 1902, XXXII, 1538
pag. 37. — Soris in ramulis junioribus petiolisque, incrassatis et curvatis, epidermide fusca tectis; sporis subglobosis ovoideis vel ellipsoideis, angulatis, pallide flavis, levibus, 9-15 \approx 7-12.

Hab. in ramis junioribus *Pruni Maximowiczii*, Nikko Japoniæ (M. SHIRAI).

71. **Uredo Goeldiana** P. Henn. in Hedw. 1903, pag. (188). — Soris 1539
gregariis, plane pulvinatis, cinereo-flavis, dein aurantio-farinosis;
uredosporis ellipsoideis v. ovoideis, intus aurantio-guttulatis, 15-
25 \approx 13-18, episporio hyalino verrucoso.

Hab. in fructibus *Eugeniæ* spec. Cambucò, Pará Brasilæ (GÖLDI).

72. **Uredo kampuluvensis** P. Henn. in Bot. Ergebn. der Kunene- 1540
Sambesi Expedit. p. 159 (1902). — Maculis ferrugineis minutis;
soris hypophyllis gregariis, confluentibus, minutis, ferrugineis, pul-
verulentis; paraphysibus oblonge clavatis, curvulis, hyalino-fusci-
dulis, 20-40 \approx 6-10 circumdatis; uredosporis ovoideis, ellipsoideis v.
reniformibus, unilateraliter curvulis, aurantiacis, ochraceis, aculea-
to-asperatis, 18-23 \approx 15-21.

Hab. in foliis *Combreti Baumii* et *Baphiæ cornifoliæ*, Kampoluve Africae austr. — Licet in matricibus tam diver-
sis, species omnino eadem est.

73. **Uredo longaensis** P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1541
Expedit. p. 159 (1902). — Maculis flavis v. fuscis effusis; soris
hypophyllis, epidermide bullata, brunnea diutius tectis, dein erum-
pentibus; uredosporis subglobosis, ovoideis vel ellipsoideis, sæpe
angulatis, fuscidulis 18-23 \approx 15-21, episporio sublevi, fuscidulo.

Hab. in foliis *Combreti Baumii*, Longa Africae austr.

74. **Uredo Dissotidis-longicaudæ** P. Henn. in Bot. Ergebn. der Ku- 1542
nene-Sambesi Expedit. p. 159 (1902). — Soris epiphyllis, strii-
formibus, pustulatis, epidermide fissa brunneola velatis; uredospo-
ris subglobosis v. ellipsoideis, angulatis, hyalino-subfuscidulis vel
brunneolis, 16-22 \approx 15-20, punctulatis.

Hab. in foliis *Dissotidis longicaudæ*, Kampoluve Afr.
austr.

75. **Uredo Cedrelæ** P. Henn. F. javanici novi in Hedw. 1902, p. 140. 1543
— Maculis rotundatis, fuscis, dein exaridis; soris hypophyllis sub-
orbiculariter dispositis v. nervos sequentibus, pulvinatis, epider-
mide fusca tectis dein nudis; uredosporis subglobosis, ovoideis v.
ellipsoideis, hyalino-fuscidulis v. brunneis, 14-18 \approx 12-15, episporio
aculeato-asperato.

Hab. in foliis *Cedrelæ* spec. in Java orient.

76. **Uredo floridana** H. et P. Sydow, in Hedw. 1901, pag. (129). — 1544
Soribus uredosporiferis hypophyllis, maculis indeterminatis flavidis

insidentibus, sparsis vel confluentibus, flavo-aurantiacis, pulverulentis; uredosporis ellipsoideis vel ovoideis, verrucosis, flavidis, 20-30 \times 14-20, episporio hyalino-flavido, 1,5-2 μ . crasso.

Hab. in foliis *Mentzeliae floridanæ* in Florida Americæ bor. (S. M. TRACY).

77. **Uredo Lindsææ** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. 1545

— *Melampsorella*; maculis atro-fuscis vel ferrugineis, rotundatis vel confluentibus subinflatis; soris hypophyllis sparse gregariis punctiformibus, flavidis vel atrobrunneis, paraphysibus obvallatis, fasciculato-connexis, clavatis, curvulis vel hamatis, brunneis, ca. 30-40 \times 10-16, circumdatis; sporis ovoideis, ellipsoideis vel subglobosis, primo hyalinis dein castaneis, verrucosis, 18-30 \times 15-23.

Hab. in foliis *Lindsææ Ulei*, Rio Juruá, Juruá-Miry, Amer. merid. — Verisimiliter matrix est *Litsæa* nec *Lindsæa*.

78. **Uredo paranensis** Penningt. Anal. Soc. Cientif. Argent. 1902, 1546

LIII, p. 269 (extr. p. 9). — Maculis pallescentibus, circularibus; soris erumpentibus, fulvo-aurantiis, hypophyllis nec confluentibus; uredosporis globosis, fulvo-aurantiis intus granulosis, crasse tunicatis, 30-33 μ . diam., episporio leviter echinulato.

Hab. in foliis *Mogiphanis glaucæ* in silvis prope Paraná Mini et Paraná Guazu Brasiliæ. — An status uredosporicus *Uromycetis platensis*?

79. **Uredo Thesii-decurrentis** P. Henn. in Hedw. 1901 p. (125). — 1547

Soris amphigenis v. cauliculis, oblongis v. rotundatis, subceraceis, pallide ferrugineis; uredosporis subglobosis pallide brunneis, punctato-granulatis, 16-18 μ .

Hab. in foliis caulibusque *Thesii decurrentis* prope Sakawa in prov. Tosa Japoniæ (T. YOSHINAGA).

80. **Uredo Kriegeriana** Syd. in Œster. bot. Zeitschr. 1902, n. 5. — 1548

Soris uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, sparsis v. laxè gregatim dispositis, minutissimis, perexiguis, flavidis, pulverulentis; uredosporis subglobosis v. ellipsoideis, tenuiter echinulatis, aurantiacis, 21-27 \times 15-22, poris germinationis pluribus præditis.

Hab. in foliis vivis *Cannabidis sativæ*, in horto prope Schandau Saxonie (W. KRIEGER).

81. **Uredo moricola** P. Henn. F. javanici novi, in Hedw. 1902, p. 140. 1549

— Maculis fuscidulis, indeterminatis; soris hypophyllis sparse gregariis, paginam totam interdum omnino occupantibus, sæpe confluentibus, ferrugineis, primo tectis, dein nudis; uredosporis ovoi-

deis, ellipsoideis v. subglobosis, hyalino-fuscidulis, 16-23 × 13-20, episporio aculeato-asperato.

Hab. in foliis *Mori indicæ*, Java orient.

82. **Uredo consanguinea** Syd. in *Æsterr. bot. Zeitschr.* 1902, n. 5. — 1550

Soris uredosporiferis hypophyllis, in epiphylo maculas fuscas rotundatas brunneo-limitatas, 2-4 mm. latas generantibus, in greges rotundatos v. irregulares dispositis vel hinc inde sine ordine distributis, minutis, convexis, compactiusculis, sanguineis; uredosporis globosis, subglobosis, v. late ellipsoideis, aculeatis, ex flavido demum rufo-brunneis, 22-30 μ . diam.

Hab. in foliis vivis *Dorsteniæ multiformis*, Rio de Janeiro Brasiliæ (RUDIO).

83. **Uredo Trabutii** Pat. in *Bull. Soc. Myc. France* 1901, p. 187. — 1551

Maculis amphigenis, sparsis, orbicularibus, 2-4 mm. latis, brunneis; soris hypophyllis, minutis, 130-150 μ . diam., solitariis vel 2-5 ad centrum macularum dispositis, diu tectis, dein erumpentibus, obscure fuscis; uredosporis globosis vel obovatis, 20-23 × 16-18, episporio tenui, hyalino, minutissime asperulo, contentu achroo.

Hab. in foliis *Fici levigatæ* prope Alger Africae sept.

84. **Uredo nootkatensis** Trelease, *Harrim. Alaska Exped. Crypt.* p. 36. 1552

— Soris subhemisphæricis, circ. 0,5 mm. diam., saturate aurantiis; sporis globosis v. breviter ovoideis, membrana tenui, hyalina, radiatim striata et leviter asperula, 28-31 μ . diam.; pedicellis hyalinis, gracilibus, paullo infra sporam secedentibus.

Hab. in foliis *Chamæcyparis nootkatensis*, Hot Spring, Baranof Island Alaska (TRELEASE).

85. **Uredo aurantiaca** Montem. Una nuova uredinea parassita delle 1553

Orchidee in *Atti R. Ist. Bot. di Pavia* vol. VIII, 1902, tab. IV, fig. 1-7. — Maculis nullis; soris epi- vel hypophyllis, in stromate myceliari insitis sparsis, hinc inde 3-6-aggregatis, primo epidermide et pseudoperidio tenui tectis, demum erumpentibus et epidermide rupta cinctis, pulverulentis, interdum setulis sterilibus præditis, aurantiacis; uredosporis polymorphis, rotundatis v. ovatis vel oblongis et irregulariter angulatis, dilute flavis, 20-25 × 16-20 episporio crassiusculo et minute verruculoso vel levi instructis, pedicello hyalino 15-20 μ . long. fultis.

Hab. in foliis *Oncidii Cavendishiani*, in calidariis horti botanici Pavia, Italia bor.

86. **Uredo Oncidii** P. Henn. *Fungi paraenses II*, in *Hedw.* 1902, 1554

p. 15. — Maculis epiphyllis v. amphigenis, rotundato-angulatis, sæpe confluentibus, incrassatis, atro-fuscis; soris gregariis v. sparsis, pustulatis, diutius epidermide pallida, fissa tectis, fuscidulis; uredosporis oblonge ovoideis v. ellipsoideis, utrinque obtusis, 20-30 \approx 13-18, episporio fusco, granulato vel subaculeato-verrucoso.

Hab. in foliis *Oncidii Lanceani*, Pará, Amer. austr.

87. **Uredo Wittmackiana** P. Henn. et Klitzing, Ein neuer schädli. 1555

Rostpilz aus Mexico, 1904. — Maculis rotundatis flavidis v. fuscidulis; soris epiphyllis pulvinatis, subconcentrice dispositis, ca. 0,5-1 mm. diam., primo epidermide flavida basi obscuriore zonata tectis, dein sublongitudinaliter erumpentibus, aurantio-flavis; uredosporis ovoideis, ellipsoideis v. oblongis, vertice rotundatis, basi interdum apiculatis, intus oleoso-aurantiaco-guttulatis 30-40 vel 20-25 μ . diam., episporio usque ad 5 μ . cr., echinato-aculeato, hyalino.

Hab. ad folia viva *Epidendri* sp. Orizaba Mexico (prof. L. WITTMACK). — Ab *Uredine Epidendri* differt maculis flavo-fuscis, nec sanguineo-marginatis, soris brunneis etc.

88. **Uredo Floscopæ** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1556

— Maculis ferrugineis, rotundatis; soris amphigenis, sparsis vel aggregatis, cinnamomeis; sporis ovoideis, ellipsoideis vel subglobosis, fusco-brunneis, 16-26 \approx 13-20, episporio cinnamomeo, aculeato.

Hab. in foliis *Floscopæ peruvianæ*, Rio Juruá, Cachoeira et Yurimaguas Perú, Amer. merid.

89. **Uredo Ophiopogonis** Syd. in Ann. Mycol. 1903, I, pag. 332. — 1557

Soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 300-350 μ . diam., epidermide diutius tectis, dilute cinnamomeo-brunneis; uredosporis globosis, subglobosis v. rarius ellipsoideis, breviter aculeatis, flavidis, 22-28 \approx 16-25, episporio crassiusculo, usque 3 μ .

Hab. in foliis *Ophiopogonis Jaburan*, Linkiu ins. (O. WARBURG).

90. **Uredo Ischnosiphonis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1558

1904. — Maculis gregariis, minutis, rotundatis fuscis; soris hypophyllis sparse gregariis, pulvinatis, minutis, flavidis dein fuscidulis; sporis ellipsoideis vel ovoideis, 18-26 \approx 17-20, hyalino-flavidulis, echinato-aculeatis,

Hab. in foliis *Ischnosiphonis leucophæi* (Marantaceæ), Rio Juruá, Miry, Amer. merid. — A *Darlucæ* sæpe infecta et obscurata.

91. **Uredo Eucharidis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1559
 — Maculis gregariis, rotundatis, minutis, fuscis; soris hypophyllis, gregarie sparsis, pulvinato-discoideis, roseis, 0,5-1 mm. diam.; sporis subglobosis, ovoideis vel ellipsoideis, intus roseis vel hyalinis, 15-20 \approx 13-17, episporio hyalino asperato.
Hab. in foliis Eucharidis spec. Cerro de Ponasa in Perù, Amer. merid.
92. **Uredo yurimaguasensis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1560
 — Maculis rotundatis, fuscis exaridis; soris hypophyllis cinnamomeis concentrice dispositis, epidermide fissa velatis; sporis ovoideis vel ellipsoideis interdum subglobosis, brunneo-fuscis, echinatis, 20-34 \approx 18-24.
Hab. in foliis Smilacis, Yurimaguas, Perù, Amer. merid.
93. **Uredo Dioscoreæ-quinquelobæ** P. Henn. in Hedw. 1903, p. (108). 1561
 — Maculis fuscidulis; uredosporis epiphyllis, gregariis, sæpe nervos sequentibus confluentibusque, interdum hypophyllis sparsis, ochraceo-ferrugineis, pulvinatis; uredosporis subglobosis vel ellipsoideis, 13-20 \approx 13-17, episporio brunneo, minute verrucoso.
Hab. in foliis Dioscoreæ quinquelobæ, Konai-Zaka, Tosa Japoniæ (YOSHINAGA).
94. **Uredo Sparganophori** P. Henn. Fungi Amaz. I, p. 160, Hedw. 1904. 1562
 — Maculis rotundatis, dein effusis flavo-fuscidulis; soris amphigenis gregariis, pulvinatis cæspitosis, fuscidulis, diutius tectis, dein epidermide fissa velatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 20-30 \approx 18-25, episporio flavo-fuscidulo asperato.
Hab. in foliis Sparganophori Vaillantii, St. Clara, Rio Juruá, Amer. merid.
95. **Uredo juncina** (Thüm.) P. Dumée et R. Maire, in Bull. Soc. bot. de France 1901, tom. 48, p. 221, *Uromyces juncinus* Thüm. — Sacc. Syll. VII, pag. 569. — Soris subepidermicis, gregariis, ellipticis vel linearibus, postremo epidermidem longitudinaliter disrumpentibus inter costarum sclerenchymatis funiculos, sed non vere liberis, umbrino-ferrugineis; uredosporis globosis, ovoideis vel interdum clavatis, plerumque utrinque rotundatis v. truncatis, umbrinis, episporio subtenui, duobus poris germinationis æquatorialibus prædito, aculeolis hyalinis parce nec non evidenter ornato, 23-35 \approx 13-22; pedicello deciduo hyalino, arcuato, sursum sæpe dilatato longitudine sporam æquante vel superante.
Hab. in culmis vivis Junci (acutiflori?) Licata Siciliae

(V. BELTRANI) nec non in foliis culmisque vivis Junci maritimi, in paludosis maritimis, prope Golfe de Figari Corsicæ (R. MAIRE).

96. **Uredo Fuirenæ** Rostr. in Bot. Tidsskrift Copenhagen 1902, vol. 24, 1564 p. 205. — Soris hypophyllis, fuscidulis, lanceolatis, usque 1 mm. longis; uredosporis variis, subsphæroideis, obovatis vel oblongo-polyhedricis, subtiliter aculeatis, 20-30 \times 14-20.

Hab. in foliis Fuirenæ glomeratæ, Siam Asiæ merid.

97. **Uredo breviculmis** P. Henn. in Hedw. 1901, p. (125). — Soris 1565 hypophyllis sparsis v. gregariis, epidermide tectis, minutis, rotundatis v. oblongis, pallide brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus oleoso-aureis, 22-32 \times 20-25, episporio crasso, aculeato, hyalino.

Hab. in foliis Caricis breviculmis var. leucochloræ prope Sakawa in prov. Tosa Japoniæ.

98. **Uredo Torulini** P. Henn. Fungi Amaz. IV in Hedw. 1904, 1566 p. 57. — Maculis effusis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, sæpe confluentibus, primo epidermide pallida tectis, dein ferrugineis; sporis subglobosis, ellipsoideis vel ovoideis, fusco-brunneis, verrucosis, 16-22 \times 11-18.

Hab. in foliis Torulini (Cyper) conferti, Bom Fim, Rio Juruá Brasilæ.

99. **Uredo paspalicola** P. Henn. Fungi Amaz. IV in Hedw. 1904, 1567 p. 57. — Maculis oblongis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, sæpe confluentibus, epidermide flavida tectis; uredosporis ovoideis, clavatis vel ellipsoideis, hyalino brunneolis, aculeato-echinatis 18-28 \times 13-18.

Hab. in foliis Paspali conjugati Yurimaguas, Rio Hualaga Brasilæ.

100. **Uredo hyalina** Diet. in Bot. Jahrb. 1903, p. 632. — Soris minu- 1568 tis hypophyllis, in maculis atropurpureis vel brunneis, diu tectis, paraphysibus clavatis arcuatis, circumdatis; uredosporis subglobosis vel obovatis 33-38 \times 30-33, episporio 5-7 μ . crasso, hyalino v. dilute flavescenti, echinulato indutis.

Hab. in foliis Caricis stenanthæ, in prov. Iwaki Japoniæ (KUSANO).

101. **Uredo superior** Arthur Bull. Torr. Bot. Cl. 1904, p. 5. — Soris 1569 uredosporiferis amphigenis, elongatis, tectis, dein epidermidem lacerantibus; uredosporis globosis 28-34 vel 32-34, episporio 3-4 μ . cr., pallide brunneo, dense echinulato, poris germinationis 2.

Hab. in foliis *Fimbristylis spadiceæ*, Ponce, Porto Rico, Amer. (A. A. HELLER).

102. **Uredo Acriuli** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis sparsis, minutis, rotundatis v. oblongis, epidermide diu tectis, flavo-brunneis; uredosporis subglobosis, ellipsoideis, ovatis v. piriformibus, grosse verrucoso-aculeatis, flavo-brunneolis, 26-40 \times 21-28. 1570

Hab. in foliis *Acriuli madagascariensis*, Andrangoloaka, in insula Madagascar (I. M. HILDEBRAND).

103. **Uredo Courtoisiæ** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis hypophyllis, maculis minutis 1-2 mm. longis, brunneolis insidentibus, sparsis, minutis, oblongis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavescentibus, 19-24 μ . diam. vel 22-27 \times 14-20. 1571

Hab. in foliis *Courtoisiæ cyperoidis*, Khasia Indiæ orient. (HOOKER fil. et THOMSON).

104. **Uredo Anthephoræ** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis amphigenis, præsertim hypophyllis, sparsis, linearibus v. oblongis, diu epidermide tectis, pulverulentis, flavo-ferrugineis; uredosporis globosis v. subglobosis, verruculosis, brunneolis 22-30 μ . diam. episporio ca. 4-5,5 μ . cr.; paraphysibus nullis. 1572

Hab. in foliis *Anthephoræ elegantis*, in insula Cuba (RAMOND DE LA SAGRA).

105. **Uredo Olyræ** P. Henn. Fungi Amaz. I, pag. 164, Hedw. 1904. 1573
— Maculis ferrugineis, rotundatis vel effusis; soris amphigenis sparsis vel subgregariis, cinnamomeis, epidermide rupta cinctis; sporis ellipsoideis, ovoideis, brunneo-fuscis, verrucosis, 20-30 \times 16-24.

Hab. in foliis *Olyræ spec.*, Iquitos, Rio Amazonas, Perù, Amer. merid. — A *Darlucæ* et *Fusarii* speciebus sæpe infecta.

106. **Uredo Panici** Arthurin Bull. of the Torr. Bot. Club. 1902, p. 231. 1574
— Fere semper hypophylla; soris oblongis, brunneo-luteolis, cito, epidermide lacerata, erumpentibus; sporis ovalibus vel globosis, 24-28 \times 26-37, membrana exili, aurantiaco-luteis, dense echinulatis, poris germin. 4 sparsis.

Hab. in foliis *Panici amari*, Longboat Key, Fla. et Hog Island Fla. Amer. bor.

107. **Uredo Henningsii** Sacc. et D. Sacc. *Uredo Panici* P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904, nec Arthur (1902). — Maculis effusis fuscidulis vel obsoletis; soris amphigenis gregariis, oblongis interdum striiformibus, cinnamomeis, pulverulentis, epidermide alu- 1575

tacea velatis; sporis subglobosis, ovoideis v. ellipsoideis, læte brunneis, 20-32 \approx 18-28, minute verrucosis.

Hab. in foliis Panici spec., Rio Juruá, Juruá Miry, Amer. merid. — Ad *Puccinia* speciem verisimiliter spectat.

108. **Uredo auletica** Speg. Myc. argent. ser. II, 1902, p. 65. — Maculis 1576 nullis; soris numerosissimis sæpe confluentibus ac vaginas totas obtegentibus, epidermide persistenti sed relaxata velatis, linearibus, ferrugineis; uredosporis majusculis 24-30 \approx 12-15, sessilibus, episporio tenui subimperspicue papilloso hyalino, endoplasmate pallide fulvo, obovatis, superne rotundatis deorsum cuneatis basi que sæpius truncatis.

Hab. ad vaginas Bromi aulectici, Rufino, in Argentina.

109. **Uredo Danthoniæ** Henn. in Hedw. 1902, p. (211). — Soris am- 1577 phigenis, gregariis, striiformibus, ferrugineis; uredosporis subglobosis vel late ellipsoideis, læte brunneis, 17-22 \approx 14-20, episporio castaneo, minute verrucoso.

Hab. in foliis Danthoniæ Forskalii pr. Planteos House in Stat. Quattah Ægypti.

110. **Uredo paulensis** Henn. in Hedw. 1902, p. 297. — Maculis fu- 1578 scidulis striiformibus; soris amphigenis linearibus, epidermide rupta velatis, ferrugineis; uredosporis ovoideis v. subglobosis, fuscis, 20-28 \approx 18-22, episporio granulato-verrucoso, fusco; paraphysibus oblonge clavatis, apice incrassatis, rotundatis, 30-50 \approx 10-20, flavo-brunneis.

Hab. in foliis Calamagrostidis spec., in horto botanico S. Paulo Brasilæ.

111. **Uredo Rottboelliæ** Diet. in Bot. Jahrb. 1902, pag. 52. — Soris 1579 amphigenis, minutis, ochraceis; uredosporis ellipsoideis vel subglobosis, 30-37 \approx 25-28, castaneis, echinulatis, poris germ. 4 instructis.

Hab. in foliis Rottboelliæ compressæ var. japonicæ, in horto botanico Tokyo Japoniæ. (KUSANO). — Cfr. *Uromyces Rottboelliae*.

112. **Uredo Setariæ-italicæ** Diet. in Bot. Jahrb. 1903, p. 632. — Soris 1580 amphigenis, minutis, oblongis, cinnamomeis; uredosporis obvatis 27-35 \approx 20-27, episporio tenui flavo-brunneo echinulato, poris germ. 3 perforato indutis.

Hab. in foliis Setariæ italicæ var. germanicæ et Setariæ viridis in horto botanico Tokyo Japoniæ (KUSANO).

113. **Uredo Sorghi-halepensis** Patouill. in Bull. Soc. Myc. de France 1581 1903, fasc. 3, p. 253. — Maculis amphigenis, sparsis vel confluen-

tibus, elongatis, brunneis aut rufulis; soris hypophyllis, linearibus, tectis dein erumpentibus, 250-500 μ . long.; uredosporis subglobosis, ovoideis vel attenuatis, ochraceo-brunneis, 30-35 \approx 22-25, asperulis, breviter stipitatis; paraphysibus elongatis, 50-60 μ ., apice incrassatis, crasse tunicatis, rufescentibus.

Hab. in pag. inf. fol. Sorghi halepensis, Alger Algeriae. — Ab *Uredine Sorghi* Fuck. differt præsertim paraphysibus.

114. **Uredo Pasadenæ** Syd. Ann. Mycol. 1904, p. 31. — Soris ure- 1582
dosporiferis epiphyllis, maculis nullis vel indeterminatis pallidis et obsoletis insidentibus, sparsis vel hinc inde irregulariter aggregatis, minutis, punctiformibus, diu clausis, tandem poro minuto medio apertis, flavo-aurantiacis; uredosporis globosis, subglobosis, ovatis vel piriformibus, subtiliter echinulatis, subhyalinis, 13-18 μ . diam. vel 13-24 \approx 11-16.

Hab. in frondibus vivis *Gymnogrammes triangularis*, Pasadena Californiae (A. J. Mc CLATCHIE).

115. **Uredo blechnicola** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. 1583
— Soris minutis, pulvinatis hypophyllis sparsis nervos sequentibus, flavidis vel fuscidulis, pulverulentis; uredosporis globosis vel lunulatis, flavidulis fuscescentibus vel violascentibus, 20-25 \approx 18-25, verrucosis.

Hab. in foliis *Blechni volubilis*, Rio Juruá, Juruá,-Miry, Amer. merid. — Ab *Ured. Blechni* omnino diversa.

116. **Uredo balaensis** Syd. Ann. Mycol. 1903, p. 21. — Soris uredo- 1584
sporiferis amphigenis, plerumque hypophyllis, maculis minutis vix distinctis insidentibus, irregulariter sparsis, minutissimis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, aculeatis, brunneis, 22-27 μ . diam. vel 24-30 \approx 18-24.

Hab. in foliis vivis *Blechi Brownii*, Balao in prov. Guayas Æquatoriae (G. LAGERHEIM).

CÆOMA Link — Syll. VII p. 863, XI p. 227, XIV p. 407, XVI p. 365.

1. **Cæoma exitiosum** Syd. Ann. Mycol. 1903, pag. 252. — Soris per 1585
ramulos juniores late expansis, confluentibus et ramulos plerumque valde deformantibus, sæpe etiam folia juniora apicalia obtegentibus, aurantiacis, pulverulentis; cæomosporis subglobosis, ellipsoideis v. oblongis, punctatis, aurantiacis, 16-30 \approx 12-20; paraphysibus clavatis, hyalinis, apice usque 20 μ . latis.

Hab. in ramulis Rosæ pimpinellifoliæ, in Istria.

2. **Cæoma pulcherrimum** Bubák, Berichte Deut. Bot. Gesell. 1903, 1586 p. 273, *C. Mercurialis* Auctor. p. p. — Soris rotundatis, oblongis, confluentibus, caulem per 2-10 cm. ambientibus, pulvereis, aurantiis; cæomosporis vulgo globosis vel ellipsoideis, rarius oblongis (immaturis polygoniis) 15-28 \times 15-22, membrana tenui, flavida, crebre minuteque verruculosis (sporarum immaturarum 2-2,5 μ . crassa, hyalina), contentu aurantiaco.

Hab. ad caules (qui deformantur et tumescunt) Mercurialis annuæ, in Italia merid., Sicilia, Lusitania, Montenegro. — Pycnidia (*Æcidium pulcherrimum*) inter soros sparsa, globulosa, 140-200 μ . diam. mellea, dein brunneola; sporulis globoso-ellipsoideis, 4-5 \times 2,5-3.

3. **Cæoma Makinoi** Kusano in Bot. Mag. Tokio 1903, p. 15-22 (japonice et absque diagnosi).

Hab. in foliis Pruni Mume, cui valde nocet, in Japonia. — Status spermogonicus in gemmis calycibusque Pruni primitus evolvitur. Cæomosporæ amœne flavo-aurantiacæ.

Conspectus alphabeticus

Uredinacearum heteroicarum earumque matricum.

Cl.mi et percomis Doct. H. KLEBAHN permissu, Conspectum hunc ab ejus opere vere eximio *Die wirtswechselnden Rostpilze*, Berlin 1904, ad studiosorum utilitatem excerpimus, additis paucis speciebus nuperius illustratis. Ut notissimum est, signum I indicat statum æcidialem, II statum uredosporicum, III statum teleutosporicum. Matrices, quoad contagionis effectus, non plene confirmatæ, inter parentheses inscriptæ sunt.

CHRYSOMYXA Unger.

Ledi (Alb. et Schwein.) de Bary: I *Abies excelsa* Lk.; II III *Ledum palustre* L.

Pirolæ (DC.) Rostr.: I [*Abies excelsa* Poir. (*Æcidium conorum-Piceæ* Reess)?]; II III *Pirola rotundifolia* L. etc.

Rhododendri (DC.) de Bary: I *Abies excelsa* Lk.; II III *Rhododendron ferrugineum* L., *hirsutum* L.

Woronini Tranzschel: I [*Picea excelsa* Lk. (*Æcidium coruscans* Fr.)?]; II III *Ledum palustre* L.

Calyptospora v. *Pucciniastrum*.

COLEOSPORIUM Lév.

Cacaliæ (DC.) Wagner: I *Pinus montana* Mill. [*P. silvestris* L.?]; II III *Adenostyles alpina* Bluff. et Fing. (*viridis* Cass.)

Campanulæ-macranthæ Wagner (?): I *Pinus silvestris* L.; II III *Campanula macrantha* Fisch.

Campanulæ-rapunculoidis Kleb.: I [*Pinus silvestris* L.?, *montana* Mill.?]; II III *Campanula rapunculoides* L. [*C. glomerata* L., *glomerata dahurica* hort., *Phyteuma orbiculare* L.].

Campanulæ-rotundifoliæ Kleb.: I [*Pinus silvestris* L.?]; II III *Campanula rotundifolia* L., *pusilla* Haenke, *turbinata* Shott, *Phyteuma spicatum* L., [*Wahlenbergia hederacea* Reichenb., *Phyteuma orbiculare* L. *Campanula bononiensis* L., *glomerata dahurica* hort.].

Campanulæ-Trachelii Kleb.: I *Pinus silvestris* L.; II III *Campanula Trachelium* L., *latifolia* L. var. *macrantha* Fisch., «nobilis», [*bononiensis* L., *glomerata* L., *glomerata dahurica* hort., (*rapunculoides* L.)]. *Wahlenbergia hederacea* Reichenb.?).

COLEOSPORIUM Lév.

Euphrasiæ (Schum.) Wint: I *Pinus silvestris* L., *montana* Mill.; II III *Alectorolophus major* Reichenb., *minor* Wimm et Grab., *Euphrasia officinalis* L.

Inulæ (Lze.) Fisch.: I *Pinus silvestris* L.: II III *Inula Vaillantii* Vill., *Helenium* L., *salicina* L.

Melampyri (Rebent.) Kleb.: I *Pinus silvestris* L., *montana* Mill.; II III *Melampyrum pratense* L.

Petasitis de Bary: I *Pinus silvestris* L.; II III *Petasites officinalis* Mœnch.

Phyteumatis Wagner (?): I *Pinus silvestris* L.; II III *Phyteuma spicatum* L.

Pulsatillæ (Strauss) Lév.: I *Pinus silvestris* L.; II III *Pulsatilla vulgaris* Mill., *pratensis* Mill.

Senecionis (Pers.) Fr.: I *Pinus silvestris* L., *austriaca* Höss; II III *Senecio vulgaris* L., *silvaticus* L., *viscosus* L., *vernalis* Waldst. et Kit., [*Jacobaea* Huds.?].

[I *Pinus montana* Mill.?]; II III *Senecio Doronicum* L.

Sonchi (Pers.) Lév.: I *Pinus silvestris* L.; II III *Sonchus asper* All., *arvensis* L., *oleraceus* L.

subalpinum Wagner: I *Pinus montana* Mill.; II III *Senecio subalpinus* Koch.

Tussilaginis (Pers.) Kleb.: I *Pinus silvestris* L.; II III *Tussilago Farfara* L.

CRONARTIUM Fr.

asclepiadeum (Willd.) Fr : I *Pinus silvestris* L.; II III *Vincentoxicum officinale* Mœnch, *Pæonia tenuifolia* L., *officinalis* L., *peregrina* Mill., *Nemesia versicolor* E. Mey., *Verbena teucrioides* Gill. et Hook.

flaccidum v. *asclepiadeum*.

gentianeum Thüm.: I [*Pinus*?]; II III *Gentiana asclepiadea* L.

Nemesiæ v. *asclepiadeum*.

Quercuum (Cooke) Myabe: I *Pinus densiflora* Sieb. et Zucc., *Thunbergi* Parl., *parviflora* Sieb. et Zucc., *liuckuensis* Mayr.; II III *Quercus serratus* Thunb., *variabilis* Blume, *glandulifera* Blume.

ribicola Dietr.: I *Pinus Strobus* L., *Lambertiana* Dougl., *embra* L.; II III *Ribes nigrum* L., *aureum* Pursh, *alpinum* L., *americanum* Mill., *aureum* Pursh, *Cynosbati* L., *divaricatum* Dougl., *oxyacanthoides* L., *rotundifolium* Michx., *rubrum* L., *sanguineum* Pursh, *setosum* Lindl., [*Grossularia* L.]

Verbencæ v. *asclepiadeum*

GYMNOSPORANGIUM Hedw.

biseptatum Ellis: I *Amelanchier canadensis* Medic., [*Cratægus tomentosa* L.?]; III *Cupressus thuyoides* L. (= *Chamæcyparis sphaeroidea* Spach).

clavariiforme (Jacq.) Reess: I *Cratægus Oxyacantha* L., *monogyna* Jacq., *nigra* Waldst. et Kit., *tomentosa* L., *Douglasii* Lindl., *Pirus communis* L., *Amelanchier vulgaris* Mœnch, [*Cydonia vulgaris* Pers,

Cratægus grandiflora C. Koch, *sanguinea* Pall., *tanacetifolia* Pers.,
Sorbus latifolia Pers., *torminalis* Crantz?, (*aucuparia* L.?)] — *Ame-*
lanchier canadensis Medic.; III *Juniperus communis* L., *communis*
var. *hibernica* Gordon, *Oxycedrus* L.

GYMNOSPORAGIUM Hedw.

clavipes Cooke et Pek: I *Amelanchier canadensis* Medic. [*Pirus Malus* L.?,
arbutifolia L.?]; III *Juniperus virginiana* L., [*communis* L.?].

confusum Plowr.: I *Cratægus Oxyacantha* L., *Mespilus germanica* L., *Cy-*
donia vulgaris Pers., [*Pirus communis* L.]; III *Juniperus Sabina* L.;
virginiana L.

Cunninghamianum Barcl.: I *Pirus Pashia* Ham.; III *Cupressus torulosa* Don.

Ellisii Berk.: I [*Pirus Malus* L.?, *Pirus arbutifolia* L.?]; III *Cupressus*
thuyoides L. (= *Chamæcyparis sphæroidea* Spach).

globosum Farlow: I *Pirus Malus* L., *Sorbus americana* Marsh., *Cratægus*
coccinea L., *Crus-galli* L., [*tomentosa* L.?, *Douglasii* Lindl.?, *Oxy-*
acantha L.?]; III *Juniperus virginiana* L.

japonicum Sydow: I *Pirus* «*sinensis*»; III *Juniperus sinensis* L.

juniperinum (L) Fr.: I *Sorbus aucuparia* L., *Amelanchier vulgaris* Mœnch;
III *Juniperus communis* L.

macropus Lk.: I *Pirus Malus* L., *coronaria* L., [*Pirus arbutifolia* L.?, *Ame-*
lanchier canadensis Medic.?, *Cratægus tomentosa* L.?, *Douglasii*
Lindl.?]; III *Juniperus virginiana* L.

Nelsoni Arthur: [I *Amelanchier alnifolia* Nutt.?]; III *Juniperus scopulo-*
rum Sargent.

nidus-avis Thaxter: I *Amelanchier canadensis* Medic., [*Cydonia vulgaris*
Pers.? *Pirus Malus* L.?]; III *Juniperus virginiana* L.

Sabinæ (Dicks.) Wint.: I *Pirus communis* L.; III *Juniperus Sabina* L.,
[*virginiana* L.].

tremelloides R. Hartig: I *Pirus Malus* L., *Sorbus Aria* Crantz, [*Chamæ-*
mespilus Crantz?]; III *Juniperus communis* L.

MELAMPSORA Cast.

Abietis-Capræarum Tub.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II
III *Salix Capræa* M.

æcidioides (DC.) Schrœt. v. *Rostrupii*.

Allii-Fragilis Kleb.: I *Allium ascalonicum* L., *Cepa* L., *sativum* L., *Schœ-*
noprasum L., *vineale* L., *ursinum* L., [*Porrum* L.], II III *Salix*
fragilis L., *pentandra* L., *fragilis* × *pentandra*.

Allii-populina Kleb.: I *Allium ascalonicum* L., *Cepa* L., *Schænoprasum* L.,
sativum L., *ursinum* L., *vineale* L.; II III *Populus nigra* L., *balsa-*
mifera L., *canadensis* Mœnch.

Allii-Salicis albæ Kleb.: I *Allium Cepa* L., *Schænoprasum* L., *ursinum* L.,
vineale L., [*Porrum* L.]; II III *Salix alba* L.

alpina Juel: I *Saxifraga oppositifolia* L.; II III *Salix herbacea* L.

MELAMPSORA Cast.

- [Amygdalinæ Kleb.]: I II III *Salix amygdalina* L., [*S. pentandra* L.]
- Evonymi-Capræarum Kleb.: I *Evonymus europæa* L.; II III *Salix cinerea* L., *aurita* L., *Capræa* L., [*cinerea* × *viminalis*].
- Evonymi-Incanæ Schneid. 1904., I *Evonymus europæa* II III *Salix incana*.
- Galanthi-Fragilis Kleb.: I *Galanthus nivalis* L.; II III *Salix fragilis* L., *pentandra* L., *fragilis* × *pentandra*.
- Klebahni Bub.: I *Corydalis cava* Schw., *solida* Sm.; II III *Populus tremula* L. (v. *M. Magnusiana*!).
- Laricis-Capræarum Kleb.: I *Larix decidua* Mill., *occidentalis* Nutt.; II III *Salix Capræa* L., [*aurita* L.].
- Laricis-Daphnoidis Kleb.: I *Larix decidua* Mill.; II III *Salix acutifolia* Willd., *daphnoides* Vill., [*aurita* L., *cinerea* L., *viminalis* L.?].
- Laricis-epitea Kleb.: I *Larix decidua* Mill.; II III *Salix aurita* L., *cinerea* L., *viminalis* L., × *hippophæifolia* Thuill., *Capræa* L. [*acutifolia* Willd., *daphnoides* Vill., *fragilis* L.?, *purpurea* L.?, *aurita* × *viminalis*, *Capræa* × *viminalis*, *purpurea* × *viminalis*, × *Smithiana* Willd., × *dasyclados* Wimm.].
- Laricis-Nigricantis Schneid. 1904., I *Larix decidua*. II II *Salix nigricans*.
- Laricis-Purpureæ Schneid. 1904., I *Larix decidua*. II III *Salix purpurea*.
- Laricis-Pentandræ Kleb.: I *Larix decidua* Mill., *sibirica* Ledeb.; II III *Salix pentandra* L., *fragilis* × *pentandra*, [*fragilis* L.].
- Laricis-populina Kleb.: I *Larix decidua* Mill.; II III *Populus nigra* L., *balsamifera* L., *canadensis* Mœnch, [*italica* Ludw.].
- Laricis* Hartig v. *Laricis-Tremulæ*.
- Laricis-Tremulæ Kleb.: I *Larix decidua* Mill.; II III *Populus tremula* L., *alba* L., *alba* × *tremula*, [*balsamifera* L.].
- Magnusiana Wagner: I *Chelidonium majus* L., *Corydalis solida*; II III *Populus tremula* L., *alba* L., *alba* × *tremula*, [*nigra* L.?].
- Orchidis-Repentis (Plowr.): I *Orchis maculata* L., *latifolia* L., II III *Salix repens* L., [*aurita* L.].
- pinitorqua Rostr.: I *Pinus silvestris* L., *montana* Mill.; II III *Populus tremula* L., *alba* L., *alba* × *tremula* (*canescens* Sm.).
- Ribesii-Auritæ Kleb.: I *Ribes alpinum* L., *Grossularia* L., *nigrum* L.; II III *Salix aurita* L., *cinerea* L., [*Capræa* L.].
- Ribesii-Purpureæ Kleb.: I *Ribes alpinum* L., *Grossularia* L., *aureum* Pursh [*sanguineum* Pursh]; II III *Salix purpurea* L., *purpurea* × *viminalis* (= *rubra* Huds.).
- Ribesii-Viminalis Kleb.: I *Ribes Grossularia* L., *rubrum* L., *alpinum* L., [*aureum* Pursh, *nigrum* L., *sanguineum* Pursh]; II III *Salix viminalis* L.
- Rostrupii Wagner: I *Mercurialis perennis* L.; II III *Populus tremula* L., *alba* L., [*nigra* L., *balsamifera* L., *canadensis* Mœnch, *italica* Ludw.

MELAMPSORELLA Schrœt.

Caryophyllacearum (DC.) Schrœt.: I *Abies pectinata* Lam. et DC. = *alba* Mill. (*Æcidium elatinum* Alb. et Schw.); II III *Stellaria media* Cyr., *nemorum* L., *Holostea* L., *graminea* L., *uliginosa* Murr., *Arenaria serpyllifolia* L., *Cerastium triviale* Lk., *semidecandrum* L., *Mœhringia trinervia* Clairv., [*Malachium aquaticum* Fr.?].

Symphyti (DC.) Bub.: I *Abies pectinata* Lam. et DC. *alba* Mill.; II III *Symphytum officinale* L.

MELAMPSORIDIUM Kleb.

betulinum (Pers.) Kleb.: I *Larix decidua* Mill.; II III *Betula verrucosa* Ehrh., *pubescens* Ehrh., *nana* L.

OCHROPSORA Diet.

Sorbi (Oud.) Diet: [I *Anemone nemorosa* L.?]; II III *Sorbus aucuparia* L., *torminalis* Crantz.

[*Peridermium Pini* (Willd.) Kleb.]: I *Pinus silvestris* L. [II III?].

PUCCINIA Pers.

Actææ-Agropyri E. Fischer: I *Actæa spicata* L.; II III *Agropyrum caninum* Rœm. et Schult.

Acidii-Leucanthemi E. Fischer; I *Chrysanthemum Leucanthemum* L.; II III *Carex montana* L.

ad **Æcidium-Trientalis** Tranzschel.: I *Trientalis europæa* L.; II III *Carex limosa* L.

[**agropyrina** Erikss.]: [I?]; II III *Agropyrum repens* Beauv. [*Sécale cereale* L., *Bromus arvensis* L.?].

Agropyri Ell. et Ev. v. **Clematidis-Agropyri**.

Agrostis Plow.: I *Aquilegia vulgaris* L., *alpina* L.; II III *Agrostis alba* L., *vulgaris* Vill.

albiperidia Arth.: I *Ribes Cynosbati* L.; II III *Carex pubescens* Mühl.

Allii-Phalaridis; I *Allium ursinum* L.; II III *Phalaris arundinacea* L.

americana Lagerh.: I *Pentastemon pubescens* Sol. (*P. hirsutus* Willd.); II III *Andropogon scoparius* Michx

amphigena Dietel: I *Smilax herbacea* L., *hispida* Mühl.; II III *Calamovilfa longifolia* Hack.

Andropogonis Schw. v. **americana**.

Angelicæ-Bistortæ (Strauss) Kleb.: I *Angelica silvestris* L., *Carum Carvi* L.; II III *Polygonum Bistorta* L., [*P. viviparum* L.].

(**Angelicæ-**) **mamillata** Semadeni: [I *Angelica silvestris* L. (*Æcid. Tubakianum* Juel)?]; II III *Polygonum Bistorta* L.

angustata Peck: I *Lycopus americanus* Mühl.; II III *Scirpus atrovirens* Mühl.

arenariicola Plowr.: I *Centaurea nigra* L.; II III *Carex arenaria* L.

argentata (Schultz) Wint.: I *Adoxa Moschatellina* L.; II III *Impatiens nolitangere* L.

PUCCINIA Pers.

- Ari-Phalaridis** (Plowr.): I *Arum maculatum* L.; II III *Phalaris arundinacea* L.
- Arrhenatheri** (Kleb.) Erikss.: I *Berberis vulgaris* L.; II III *Arrhenatherum elatius* Mert. et Koch.
- Asteris-Caricis** Arthur: I *Aster paniculatus* Lam., *cordifolius* L.; II III *Carex fœnea* Willd.
- Atkinsoniana* Diet. v. *Bolleyana*.
- australis** Körn: I *Sedum reflexum* L., *acre* L., *boloniense* Lois.; II III *Diplachne serotina* Lk.
- Bartholomæi* v. *Bartolomewii*.
- Bartolomewii** Dietel: I *Asclepias incarnata* L., *syriaca* L.; II III *Bouteloua curtispindula* Torr. (*Atheropogon curtispindulus* Fourn.).
- Bistortæ* (Strauss) v. *Angelicæ-Bistortæ* et *Conopodii-Bistortæ*.
- Bolleyana** Sacc.: I *Sambucus canadensis* L.; II III *Carex trichocarpa* Mühl., *lurida* Wahl.
- borealis** Juel: I *Thalictrum alpinum* L.; II III *Agrostis borealis* Hartm.
- bromina* Erikss. v. *Symphyti-Bromorum*.
- Brunellarum-Moliniaë** Cruchet 1904: I *Brunella vulgaris* (Æcid. *Brunellæ* Wint.); III *Molinia cœrulea*.
- Calamagrostis** Sydow: I *Ranunculus Lingua* L.; II III *Calamagrostis neglecta* Fr.
- Cari-Bistortæ* Kleb. v. *Angelicæ-Bistortæ*.
- Caricis** (Schum.) Rebent.: I *Urtica dioica* L., *urens* L., *gracilis* Ait.; II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *Carex hirta* L., *riparia* Curt., *acutiformis* Ehrh., *ferruginea* Scop., [*Pseudocyperus* L., *pendula* Huds.].
- Caricis-Asteris*, *Caricis-Erigerontis*, *Caricis-Solidaginis* vide: *Asteris-Caricis*, *Erigerontis-Caricis*, *Solidaginis-Caricis*.
- Caricis var. himalensis** Barcl.: I *Urtica parviflora* Roxb.; II III *Carex setigera* Don.
- Caricis-frigidæ** E. Fischer: I *Cirsium heterophyllum* All., *spinosissimum* Scop., *Eriophorum* Scop., *rivulare* Lk?; II III *Carex frigida* All.
- Caricis-montanæ** E. Fischer: I *Centaurea Scabiosa* L., *Cent. montana* L., [*C. Iacea* L., *nigra* L., *amara* L., *axillaris* Willd., *melitensis* L., *nigrescens* Willd.]; II III *Carex montana* L., [*alba* Scop., *leporina* L.?].
- (Clematidis-) Agropyri** Ell. et Everh.: I *Clematis Vitalba* L.; II III *Agropyrum glaucum* Rœm. et Schult.
- Conopodii-Bistortæ** Kleb.: I *Conopodium denudatum* Koch; II III *Polygonum Bistorta* L.
- Convallariæ-Digraphidis** (Sopp.) Kleb.: I *Convallaria majalis* L.; II III *Phalaris arundinacea* L.
- coronata** Corda: I *Frangula Alnus* Mill.; II III *Calamagrostis lanceolata*

PUCCINIA Pers.

Roth, *arundinacea* Roth, *Phalaris arundinacea* L., *Holcus mollis* L., *lanatus* L., *Agrostis vulgaris* With., *stolonifera* L., *Agropyrum repens* Beauv., *Dactylis glomerata* L., *Festuca silvatica* Vill.

[*coronata* f. *Epigæi* Erikss.]: [I?]; II III *Calamagrostis Epigeios* Roth

[*coronata* f. *Melicæ* Erikss.]: [I?]; II III *Melica nutans* L.

coronata var. *himalensis* Barclay: I *Rhamnus dahurica* Pall.; II III *Brachypodium silvaticum* Beauv., *Piptatherum holciforme* Rœm. et Schult., *Festuca gigantea* Vill.

coronifera Kleb.: I *Rhamnus cathartica* L., [*oleoides* L., *tinctoria* W. K.?. *utilis* Decne. (*dahurica* Pall.)?, *infectoria* L., *lanceolata* Pursh?]; II III *Avena sativa* L., *Lolium perenne* L., *Festuca elatior* L., *Holcus mollis* L., *lanatus* L., *Alopecurus pratensis* L., *nigricans* Horn.?, *Glyceria aquatica* Wahlenb.?, *Arrhenatherum elatius* M. et K. (stirpes).

Digraphidis v. *Convallariæ-Digraphidis*.

Dioicæ Magnus: I *Cirsium oleraceum* Scop., *palustre* Scop., *heterophyllum* All., *spinosissimum* Scop.,? *rivulare* Lk.; II III *Carex dioica* L., *Davalliana* Sm. [*alba* Scop.].

dispersa Erikss.: I *Anchusa arvensis* Marsch. v. Bieb., *officinalis* L. [*Nonnea rosea* F. M.?]; II III *Secale cereale* L., *montanum* Guss.

Elymi v. *Thalictri-Elymi* et *Impatientis-Elymi*.

Elymi-Impatientis v. *Impatientis-Elymi*.

Erigerontis-Caricis Arthur: I *Erigeron annuus* Pers., *philadelphicus* L., *canadensis* L. (*Leptilon canadense* Britt.); II III *Carex festucacea* Wille.

Eriophori Thüm.: [I *Cineraria palustris* L.?]; II III *Eriophorum angustifolium* Roth.

extensicola Plowr.: I *Aster Tripolium* L.; II III *Carex extensa* Good..

Festucæ Plowr.: I *Lonicera Periclymenum* L.; II III *Festuca ovina* L., *duriuscula* L. — I *Lonicera nigra* L.; II III *Festuca rubra* L. var. *fallax* Hack.

firma Dietel: I *Bellidiastrum Michellii* Cass ; II III *Carex firma* Host. *fraxinata* Lk. v. *peridermiospora*.

[*glumarum* (Schmidt) Erikss. et Henn.]: [I?]; II III *Triticum vulgare* Vill., *Hordeum vulgare*, *Secale cereale* L., *Elymus arenarius* L., *Agropyrum repens* Beauv.

graminis Pers. I *Berberis* et *Mahonia* spp. *Æcidium Berberidis* Gm. II III *Triticum*, *Secale*, *Avena*, *Agrostis*, *Aira*, *Poa* etc.

holcina Erikss.: [I?]; II II *Holcus lanatus* L., *mollis* L.

Jamesiana v. *Pucc. Bartholomewii*.

Jasmini-Chrysopogonis Barcl.: *Jasminum humile* L.; II III *Chrysopogon Gryllus* L.

PUCCINIA Pers.

- Impatientis-Elymi** Arth.: I *Impatiens aurea* Mühl.; II III *Elymus virginicus* L.
- Ligericæ** Sydow: I *Senecio silvaticus* L.; II III *Carex ligerica* Gay.
- Limosæ** Magnus: I *Lysimachia vulgaris* L., *thyrsiflora*; II III *Carex limosa* L.
- linearis** Roberge v. *Alii-Phalaridis*.
- Lolii** Nielsen v. *coronifera*.
- longissima** Schrøet.: I *Sedum acre* L., *bolonienses* Lois.; II III *Kæleria gracilis* Pers.
- Magnusiana** Körn.: I *Ranunculus repens* L. *bulbosus* L.; II III *Phragmites communis* Trin.
- Magnusii** Kleb.: I *Ribes nigrum* L., *alpinum* L., *aureum* Pursh, *sanguineum* Pursh; II III *Carex riparia* Curt., *acutiformis* Ehrh.
- mamillata** v. *Angelicæ-mamillata* u. *Mei-mamillata*.
- Maydis** Béreng. I *Oxalis cymosa* (*Æcidium Oxalidis* Thüm.?), II III *Zea Mays* L. (Arthur 1904).
- Mei-mamillata** Semadeni: I *Meum Mutellina* Gært. (*Ligusticum Mutellina* Crantz); II III *Polygonum Bistorta* L.
- Molinia** Tul.: I *Orchis latifolia* L., *mascula* L.; II III *Molinia cærulea* Mœnch
- nemoralis** Juel: I *Melampyrum pratense* L.; II III *Molinia cærulea* Mœnch.
- obscura** Schrøet.: I *Bellis perennis* L.; II III *Luzula campestris* DC.
- obtusata** Otth: I *Ligustrum vulgare* L.; II III *Phragmites communis* Trin.
- Opizii** Bubák: I *Lactuca muralis* Less., *Scariola* L.; II III *Carex muricata* L.
- Orchidearum-Phalaridis** Kleb.: I *Orchis maculata* L., *latifolia* L., *Morio* L., *Platanthera bifolia* Reichenb., *chlorantha* Cust., *Listera ovata* R. Br.; II III *Phalaris arundinacea* L.
- paludosa** Plowr.: I *Pedicularis palustris* L.; II III *Carex Goodenoughii* Gay.
- Paridis-Digraphidis** (Plowr.): I *Paris quadrifolia* L.; II III *Phalaris arundinacea* L.
- Pekii** (de Toni) Kellerm.: I *Oenothera biennis* L.; II III *Carex trichocarpa* Mühl., *stipata* Mühl.
- peridermiospora** (Ellis et Tracy) Arth.: I *Fraxinus viridis* Michx. (*lan- ceolata* Borckh.); II III *Spartina cynosuroides* Willd.
- perplexans** Plowr.: I *Ranunculus acer* L.; II III *Alopecurus pratensis*
- persistens** Plowr.: I *Thalictrum flavum* L., II III *Agropyrum repens* Beauv. — I *Thalictrum aquilegifolium* L., *minus* L., *fœtidum* L.; II III *Poa nemoralis* L. var. *firmula* Gaud.
- Phalaridis** v. *Ari-Phalaridis*.
- [**Phlei-pratensis** Erikss. et Henn.]: [I?]; II III *Phleum pratense* L., *Fe-*

stuca elatior L., [*Phleum Michellii* All., *Avena sativa* L., *Secale cereale* L.].

PUCCINIA Pers.

Phragmitis (Schum.) Körn.: I *Rumex conglomeratus* Murr., *obtusifolius* L., *crispus* L., *hybridus* Murr., *Hydrolapathum* Huds., *Rheum officinale* Baill.; II III *Phragmites communis* Trin.

Poarum Nielsen: I *Tussilago Farfara* L.; II III *Poa annua* L., *fertilis* Host., *nemoralis* L., *pratensis* L., *trivialis* L., [*Secale cereale* L.?].

Polliniæ Barcl.: I *Strobilanthes Dalhousianus* Clarke; II III *Pollinia nuda* Trin.

Polygoni-amphibii Pers.: I *Geranium silvaticum* L., [*Geranium palustre* L.?, *pratense* L.?]; II III *Polygonum amphibium* L.

Polygoni-vivipari Karsten: I *Angelica silvestris*; II III *Polygonum viviparum* L., [*Bistorta* L.].

Pringsheimiana Kleb.: I *Ribes Grossularia* L., *alpinum* L., *aureum* Pursh, [*rubrum* L., *sanguineum* Pursh, (*nigrum* L.)]; II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *cæspitosa* L.

Ribesii-Caricis v. *P. Pringsheimiana*, *Ribis-nigri-Acutæ*, *Ribesii-Pseudocyperii*, *Magnusii*, *Ribis-nigri-Paniculatæ*.

Ribesii-Pseudocyperii Kleb.: I *Ribes nigrum* L., *Grossularia* L., *alpinum* L., *aureum* Pursh, *sanguineum* Pursh; II III *Carex Pseudocyperus* L.

Ribis-nigri-Acutæ Kleb.: I *Ribes nigrum* L., *alpinum* L., [*aureum* Pursh, *sanguineum* Pursh, (*Grossularia* L.)]; II III *Carex acuta* L., *stricta* Good.

Ribis-nigri-Paniculatæ Kleb.: I *Ribes nigrum* L., *alpinum* L., (*aureum* Pursh, *sanguineum* Pursh, *rubrum* L., (*Grossularia* L.)); II III *Carex paniculata* L., *paradoxa* Willd.

rupestris Juel I: *Saussurea alpina* DC.; II III *Carex rupestris* L.

(**Salviæ-**)**Stipæ**: *Salvia silvestris* L., *pratensis* L., [*Thymus Serpyllum* L.?], II III *Stipa capillata* L.,

Sambuci (Schw.) Arth. v. *Bolleyana*.

Schmidtiana Dietel: I *Leucorum vernum* L., *æstivum* L.; II III *Phalaris arundinacea* L.

Schœleriana Plowr. et Magn.: I *Senecio Jacobæa* L.; II III *Carex arenaria* L.

Schræteriana Kleb. v. *Serratulæ-Caricis*.

Scirpi DC.: I *Limnanthemum nymphæoides* Lk.; II III *Scirpus lacuster* L.

septentrionalis Juel: I *Thalictrum alpinum* L.; II III *Polygonum viviparum* L. *Bistorta* L.

Serratulæ-Caricis Kleb.: I *Serratula tinctoria* L.; II III *Carex flava* L.

Sesleriæ Reichardt: I *Rhamnus saxatilis* Jacq.; II III *Sesleria cærulea* Ard.

sessilis Schneid. v. *Allii-Phalaridis*.

PUCCINIA Pers.

- silvatica** Schrœt.: I *Taraxacum officinale* Web., *Senecio Fuchsii* Gmel., *nemorensis* L., *Lappa officinalis* All., *Crepis biennis* L.; II III *Carex brizoides* L., *præcox* Schreb. (*Schreberi* Schrank.), *arenaria* L., *silvatica* Huds? *pallescens* L.
- simillima** Arthur: I *Anemone canadensis* L.; II III *Phragmites communis* Trin.
- [**simplex** (Körn.) Erikss. et Henn.]: [I?]; II III *Hordeum vulgare* L., *distichum* L., *hexastichum* L., *Zeocriton* L. u. a.
- Similacearum-Digraphidis** Kleb.: I *Polygonatum multiflorum* All., *officinale* All., *verticillatum* All., *Convallaria majalis* L., *Majanthemum bifolium* Schmidt, *Paris quadrifolia* L.: II III *Phalaris arundinacea* L.
- Solidaginis-Caricis** Arth.: I *Solidago canadensis* L., *serotina* Ait., [*cæsia* L., *ulmifolia* Mühl., *rigida* L.]; *Carex Jamesii* Schw., *stipata* Mühl. *Stipæ* (Opiz) Hora v. (*Tymi-*) *Stipæ* et (*Salviæ-*) *Stipæ*.
- Symphyti-Bromorum** F. Müller: I *Symphytum officinale* L., *Pulmonaria montana* Lej., [*Anchusa officinalis* L.?, *Nonnea rosea* F. M.?]; II III *Bromus arvensis* L., *brachystachys* Horn., *erectus* Huds, *inermis* Leyss, *mollis* L., *secalinus* L., [*Arrhenatherum elatius* Mert. et Koch?]. *Sydowiana* Dietel v. *Vilfæ*.
- subnitens** Dietel: I *Chenopodium album* L.; II III *Distichlis spicata* Greene. XIV. *Dist.*
- tenuistipes** Rostr.: I *Centaurea Iucea* L.; II III *Carex muricata* L.
- (**Thalictri-**)**Elymi** Westend.: I *Thalictrum minus* L.; II III *Elymus arenarius* L.
- (**Thymi-**)**Stipæ** (Opiz): I *Thymus pannonicus* Willd., *ovatus* Mill., *præcox* Opiz, *angustifolius* Pers; II III *Stipa capillata* L.
- Trailii** Plowr.: I *Rumex Acetosa* L.; II III *Phragmites communis* Trin. *triarticulata* Berk et Curt. v. (**Thalictri-**)**Elymi**.
- [**Triseti** Erikss.]: [I?]; II III *Trisetum flavescens* Beauv.
- [**triticina** Erikss.]: [I?]; II III *Triticum vulgare* Vill., [*Secale cereale* L.?].
- uliginosa** Juel: I *Parnassia palustris* L.; II III *Carex Goodenoughii* Gay
- Vaginatæ** Juel: I *Saussurea alpina* DC.: II III *Carex vaginata* Tausch. *verbenicola* Arth. v. *Vilfæ*.
- Vilfæ** Arth. et Holw. I *Verbena stricta* Vent., *urticifolia* L.; II III *Sporobolus longifolius* Wood.
- Vulpinæ** Schrœt.: I *Tanacetum vulgare* L., *Achillea Ptarmica* L.?; II III *Carex vulpina* L.
- Windsoriæ** Schw.: I *Ptelea trifoliata* L.; II III *Sieglingia seslerioides* Scrib. (*Triodia cuprea* Jacq., *Tricuspis seslerioides* Torr.).
- Winteriana* Magnus v. *Allii-Phalaridis*.

PUCCINIASTRUM Otth.

- Abietis-Chamænerii** Kleb.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II

III *Epilobium angustifolium* L. (*Chamænerion angustifolium* Schnr.),
Dodonæi Will.

PUCCINIASTRUM Otth.

[*Epilobii* (Pers.) Otth]: [I?]; II III *Epilobium roseum* Retz., *hirsutum* L.
Gœppertianum (J. Kühn): I *Abies pectinata* Lam. et DC. *alba* Mill.; I
II III *Vaccinium Vitis Idæa* L.

Padi (Kunze et Schm.) Diet.: I *Abies excelsa* Poir. (*Æcidium strobilinum*
(Alb. et Schw.) Reess; II III *Prunus Padus* L., *virginiana* L.

Rostrupia Lagerh. v. *Puccinia (Thalictri)-Elymi*.

Thecopsora Magn. v. *Pucciniastrum*.

UROMYCES Lk.

ad *Æcidium carotinum* Bub.: I *Daucus Carota* L., [II III *Scirpus mari-*
timus L.?].

Aristidæ Ell. et Ev.: I *Plantago Rugelii* Dec.; II III *Aristida oligantha*
Michx.

Berulæ-Scirpi Kleb.: I *Berula angustifolia* Koch; II III *Scirpus mari-*
timus L.

Dactylidis Otth: I *Ranunculus bulbosus* L., *repens* L., [*acer* L.?, *polyan-*
themos L.?]; II III *Dactylis glomerata* L.

Euphorbiæ-Astragali Jordi (1904): I *Euphorbia Cyparissias*, I II *Astra-*
galus Glycyphyllos, *Oxytropis montana*, *campestris*, *glabra*, *lap-*
ponica *).

Euphorbiæ-Corniculati Jordi (1904): I *Euphorbia Cyparissias*, II III *Lo-*
tus corniculatus.

Graminis (Niessl): Bub. 1904; I *Seseli glaucum* L. (*Æcidium Seselis* Niessl)
III *Arrhenatherum*, *Poa*?

Junci (Desm.) Tul.: I *Pulicaria dysenterica* Gærtn. (*Inula disenterica* L.);
II III *Juncus obtusiflorus* Ehrh.

lineolatus v. *Scirpi*, *Berulæ-Scirpi*, *Pastinacæ-Scirpi*, *Maritimæ* ad *Æci-*
dium carotinum.

Maritimæ Plowr.: I *Glaux maritima* L.; II III *Scirpus maritimus* L.

Pastinacæ-Scirpi Kleb.: I *Pastinaca sativa* L., [*Berula angustifolia* Koch];
II III *Scirpus maritimus* L.

Pisi (Pers.) De Bary: I *Euphorbia Cyparissias* L., *Esula* L.; II III
Pisum sativum L., *arvense* L., *Lathyrus pratensis* L., *Vicia Crac-*
ca L.

*) *Uromyces Astragali* (Opiz) Jordi (1904), cujus st. æcidialis nondum est
notus, tantum in Astragalo exscapo viget. Cfr. Syll. VII, pag. 550 (species
collecticia).

UROMYCES Lk.

Poæ Rabenh.: I *Ranunculus auricomus* L. *Ficaria* L., *repens* L., *bulbosus* L.; II III *Poa annua* L., *nemoralis* L., *trivialis* L., *pratensis* L. (stirpes?).

Scirpi (Cast.) Lagerh.: I *Hippuris vulgaris* L.; II III *Scirpus maritimus* L. — I *Sium latifolium* L.; II III *Scirpus maritimus* L.

striatus Schröeter: I *Euphorbia Cyparissias* L.; II III *Trifolium agrarium* L.

USTILAGINACEÆ Tul.

Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367 *).

USTILAGO Pers. — Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367.

1. **Ustilago Scolymi** Roum. Exsicc. n. 5129 (nomen), Juel in Bull. de la Soc. Myc. de France, Tome XVII, 4^o fasc. 1901, p. 257, cum ic. 1587
— Pulvere brunneo-nigra flores et receptacula ex toto destruyente et involucra obducente; sporis pallidis globulosis, 14-16 μ . diam. vel ellipticis 14 \times 19, reticulatis.

Hab. in floribus *Scolymi grandiflori*, Costantine Afr. bor.

2. **Ustilago violacea** (Pers.) Fuck. — Syll. VII, p. 474. — var. **major** 1588
Clinton in Journ. of Mycol. 1902, p. 139. — Soris inconspicuis in antheris inflatis nidulantibus, in pulverem violaceam solventibus; sporis pallide lilacino-violaceis, ovoideo-globosis, raro irregularibus, episporio paullo incrassato minuteque reticulato, 1 μ . vel ultra crasso 7-12 μ . longis.

Hab. in antheris *Silenes Watsonii*, Washington Amer. bor. 1589

3. **Ustilago Androsaces** Karst. Fungi nov. Lœnnb. 1904, p. 7 (Finska Vetensk. Soc.) — Soris fuscis pulverulentis; sporis sphaeroideis, levibus, 35-50 μ . diam.

Hab. in ovariis *Androsaces (filiformis?)* prope Baical Sibiriae, Augusto 1902 (O. A. F. LÖNNBOHM).

4. **Ustilago Calandriniae** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 378. — Soris floricolis, involucris floralibus inclusis, 3-4 mm. diam., massam purpureo-atram formantibus; sporis atro-purpureis, ovoideis v. sphaeroideis, 13,5-17 μ . long., aequaliter et minute reticulatis areolis 1,5-2 μ . latis, 1-2 μ . alt. 1590

Hab. in floribus *Calandriniae Brewerii* et *C. Menziesii* in California Amer. bor.

*) Conferenda absoluta monographia « North American Ustilaginaceæ », a cl. G. P. Clinton elaborata et in « Proceedings of the Boston Soc. of Natur History » 1904, vol. 31, p. 329-529 inserta.

5. **Ustilago Triplasidis** Ell. et Ev. in Clinton. North Amer. Ustil. 1591
 Proceed. Boston Soc. 1904, p. 355. — Soris ovaria occupantibus ellipsoideis 3-4 mm. long., membrana obductis, inter glumas nidulantibus; sporis læte rufo-brunneis, vulgo uno latere dilutioribus, ovoideo-sphæroideis 5-9 μ . long. plerumque copiose minutissime echinulatis.
Hab. in ovariis Triplasidis americanæ, Mississipi Americæ bor.
6. **Ustilago Piperii** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1592
 1904, p. 382. — Soris hypophyllis, pustulas formantibus, plus minus confluentibus, sæpe marginalibus, tectis, dein erumpentibus et massam atro-purpuream ostendentibus; sporis rufo-purpureis ovoideis vel sphæroideis, rarius irregularibus, minute et plerumque oblique striatis, 7-10 μ . diam. vel usque 12 μ . long.
Hab. in foliis Polygoni Davitiæ, in California et Polygoni phytolaccæfolii, Idaho Amer. bor. (C. V. PIPER). — *Ustil. Kœnigiæ* et *Ust. Bistortarum* affinis.
7. **Ustilago Rumicis** (Beck.) Clint. North Amer. Ustil. in Proceed. 1593
 Boston Soc. 1904, p. 380, *Ustilago utriculosa* Tul. var. *Rumicis* Berk. Grevill. 1874, III, p. 39. — Soris floricolis, axes florum obducentibus et massas sordide purpureas formantibus; sporis ovoideo-sphæroideis plerumque 11-16 μ . long., atro-purpureis; episporio reticulato, areolis 1 μ . alt. et 1-3 μ . diam. .
Hab. in floribus Rumicis Acetosellæ in Carolina infer. et Rum. hastatuli, in Alabama, Amer. bor. — *U. Kühneanæ* affinis.
8. **Ustilago Bistortarum** (D C) Körn. — Syll. VII, p. 469. — var. 1594
inflorescentiæ Trelease, Harrim. Alaska Exped. Crypt. p. 35. — Sporis copiosissimis, brunneo-purpureis, subglobosis v. subelongatis, 9-14, plerumque 11-13 μ . diam., sæpius perfecte levibus.
Hab. in inflorescentia Polygoni vivipari, Kadiak, Yakutat, Unalaska (TRELEASE). — Sporis levibus et situ in inflorescentia a typo dignoscitur.
9. **Ustilago utriculosa** (Nees) Tul. — Syll. VII, p. 476. — var. **micro-** 1595
spora Speg. Myc. argent. ser. II, 1902, p. 58.
Hab. ad flores Polygoni acris, in uliginosis prope Cordoba Argentinae. — Varietas a typo sporis conspicue minoribus (6-8 μ . diam.) angustius areolatis, membrana 1 μ . alt., recedens.
10. **Ustilago tuberculiformis** Syd. Ann. Mycol. 1903, p. 22. — Soris 1596
 hypophyllis, maculis fuscis purpureo marginatis insidentibus, tu-

berculiformibus 1-3 mm. diam., rotundatis v. subrotundatis, membrana tenui diutius tectis, dein liberis, pulverulentis, flavo-brunneis; sporis globosis v. subglobosis, rarius ellipsoideis, dilute flavidis, distincte areolato-verrucosis, 10-13 \approx 9-11.

Hab. in foliis Polygoni runcinati, prov. Huphe Sinarum (A. HENRY).

11. **Ustilago Tillandsiæ** Patters. apud Clinton in Journ. of Mycol. 1902, 1597
p. 135. — Soris perianthium florum destruentibus, pulverulentis, nigris, 1-3 cm. longis; sporis olivaceo-brunneis ovoideis vel sphaericis, plus minusve collapsis, levibus vel episporio minutissime asperulo donatis, 7-13 μ . diam.

Hab. in inflorescentia Tillandsiæ Leiboldianæ in Mexico et in Tillandsiæ spec. in Costa-Rica Amer. centr.

12. **Ustilago Dracænæ** S. da Cam. in J. Veriss. De Almeida, Contrib. 1598
à la Mycoflora de Portugal, 1903, p. 22. — Soris fuligineo-nigricantibus, effusis; sporis fuligineis, globosis vel subglobosis, episporio crassiusculo echinulatoque, initio in glomerulos laxè connexis, mox liberis, 6-8 \approx 6.

Hab. in foliis Dracænæ Draconis, pr. Barreiro Lusitaniæ (O. VECCHI).

13. **Ustilago Dichromenæ** P. Henn. in Hedw. 1904, pag. 78. — Soris 1599
inclusis, flores destruentibus, atris; sporis subglobosis, angulatis, fusco-brunneis, 8-15 μ . diam., episporio minute granuloso.

Hab. in floribus Dichromenæ minarum, Rio de Janeiro Brasiliæ (E. ULE).

14. **Ustilago Nakanishikii** P. Henn. Pilze Japan. II, p. 150, (Hedw. 1600
1904). — Soris olivaceo-atris, pulverulentis in floribus, eos omnino destruentibus; sporis subglobosis vel ellipsoideo-angulatis, 4-8 \approx 4-5 μ ., episporio fusco-olivaceo vel flavo-fusco levi, filis hyalino-fuscidulis, ca. 4 μ . crassis intermixtis.

Hab. in inflorescentia Caricis brunneæ, Tosa, Uchinotani Japoniæ (K. NAKANISHIKI). — *Ust. olivaceæ* affinis.

15. **Ustilago Diplasiæ** P. Henn, Fungi Amaz. I, p. 155 (Hedw. 1904). 1601
— Soris aterrimis, flores omnino destruentibus, inflorescentias crasse deformantibus, inclusis, dein subcrustaceo-pulverulentis; sporis oblongo-ovoideo vel subgloboso-polyhedricis, aterrimis, 20-40 \approx 15-30, episporio obtuse verrucoso.

Hab. in inflorescentiis Diplasiæ karatifoliæ, Rio Negro, Sao Jaquim Amazoniæ Amer. mer. — Sororum fabrica sporisque magnis et grosse verrucosis distincta species.

16. **Ustilago exigua** Syd. Ann. Mycol. 1903, p. 177, *Ustil. microspora* 1602
 Masee et Rodway in Kew Bull. 1901, p. 160, nec Schrœt. et Henn. — Soris, paniculas totas implectentibus easque in massam pulveraceam transformantibus, obscure fulvis; sporis globosis 3-3,5 μ . diam. vel subglobosis 3-4 \times 2-2,5, glabris, dilute olivaceis.
Hab. in inflorescentia *Danthoniæ penicillatæ* in Tasmania (RODWAY).
17. **Ustilago residua** Clinton in Journ. of Mycol. 1902, p. 133. — 1603
 Soris prominentibus, ovaria destruentibus interdumque vaginas foliorum occupantibus, erumpentibus in massam olivaceo-nigram; sporis olivaceo-brunneis, ovoideis vel ovato-globosis vel irregularibus, episporio tenui donatis, reticulatis verisimiliter e granulis contentis, 5,5-8,5 μ . diam., interdum usque 11 μ . longis.
Hab. in inflorescentia *Danthoniæ compressæ* N. Y., *Dant. spicata* N. Hamps., *Danthoniæ spec.*, Colorado Amer. bor.
18. **Ustilago Tricuspidis** Ell. et Gall. apud Clinton in Journ. of Mycol. 1604
 col. 1902, p. 135. — Soris ovaria destruentibus, ellipsoideis, circ. 4 mm. longis; sporis rufo-brunneis, subsphæricis v. globosis, raro ovoideis, subverruculoso-echinulatis, 8-11 μ . longis.
Hab. in ovariiis *Triodiæ cupreæ* (*Tricuspis seslerioides*) Montana Amer. bor.
19. **Ustilago heterogena** P. Henn. Fungi Amaz. I, pag. 155 (Hedw. 1605
 1904). — Soris versiformibus, culmos inflorescentiasque implentibus et deformantibus, atris, in culmis foliisque pustuliformibus vel pulvinatis oblongis usque ad 12 cm. longis, ca. 2 cm. crassis, epidermide alutacea vel ferruginea vestitis, in floribus ca. 1-2 mm. diam.; sporis (diagnosis incompleta).
Hab. in culmis, inflorescentia et floribus *Leptochloæ virgatæ*, Rio Juruá, Bom Fim Amazoniæ — Habitu *Ustilaginis Maydis* fere æmula.
20. **Ustilago digitariicola** Speg. Mycet. argent. ser. II, 1902, p. 57. 1606
 — Gemmas foliares infectas, vaginis foliorum adultorum arcte vestitas, in massam pulveraceam nigram fibris longitudinalibus percursas, omnino transformans; sporis ab initio liberis globosis v. e mutua pressione leniter obtuseque angulosis, subopacis, atro-fuligineis, intus dense granulosis, 8-12 μ . diam., tenuiter tunicatis.
Hab. in *Panico* (*Digitaria*) *sanguinali*, La Plata Argentinæ. — Species difficillime in vivo perspicienda, post mortem plantæ hospitantis facilius invenienda.
21. **Ustilago diplospora** E. et E. Journ. Myc. 1890 p. 119. — Massa 1607

sporarum atro-brunnea; sporis dimorphis, minoribus globosis, rugosis, brunneis, 7-8 μ . diam., majoribus 12-15 μ . diam. globosis, levibus, pallidioribus, fere hyalinis.

Hab. in ovariiis Panici sanguinalis, Holly Springs Miss. Am. bor. (TRACY).

22. **Ustilago stipicola** Speg. Myc. Argent. ser. II, 1902, p. 59. — 1603

Soris, paniculas infectantibus ac illas in pulverem atram totam transformantibus, pulverulentis; sporis subglobosis levibus ab initio liberis, tenuiter tunicatis 4-5 μ . diam., ferrugineis.

Hab. in paniculis nondum evolutis Stipæ setigeræ et St. filiculmis in Argentina.

23. **Ustilago nummularia** Speg. Mycet. argent. ser. II, 1902, p. 59. 1609

— Partes infectæ subimmutatæ, vaginis parum ampliatis involutæ; soris compactiusculis, aterrimis, epidermidem parum tumefactam incolentibus; sporis e fronte visis orbicularibus 4-5 μ . diam., latere breviter linearibus 1,5-2 μ . cr., levibus, obscure atro-olivaceis.

Hab. in culmis et inflorescentiis nondum evolutis Stipæ? cujsdam La Plata Argentinæ.

24. **Ustilago calcarea** Griffiths in Bull. of the Torr. Bot. Club, 1904. 1610

p. 85, fig. 8. — Pustulis nullis; soris orbicularibus 5 mm. diam. vel elongato-confluentibus, erumpentibus, culmicolis foliicolisque; sporis fuligineis, coacervatis nigris, irregularibus, globosis v. ova-tis, sæpe acuminatis, 7-10 μ . diam., guttula magna præditis, episporio minuto, levi donatis.

Hab. in culmis foliisque Bouletouæ brevisetæ in solo gypso-calcareo pr. Roswell, in Amer. bor.

25. **Ustilago elegans** Griffiths in Bull. of the Torr. Bot. Club, 1902, 1611

p. 292, fig. 3. — Soris immersis, maturitate folium totum occupantibus; sporis subglobosis, subangulosis vel suboblongis, 10-13 μ . diam.; episporio circ. 1 μ . crasso, minute echinulato.

Hab. in foliis Chloridis elegantis, Cochize, Arizona Amer. borealis.

26. **Ustilago Eriocauli** (Mass.) Clinton, in Journ. of Mycol. 1902, p. 137.

Huc ducenda *Cintractia Eriocauli* Masee — Syll. XI, p. 233: cfr. *Ust. Eriocauli* Clint. in Rhodora 1901, III, p. 82.

Hab. in ovariiis subimmutatis Eriocauli septangularis, South Billerica Mass. Amer. bor. — Sori nigri, ovoidei, distincte bilobi, 0,7-1 mm., firmi non facile rupti; sporæ in massam atro-olivaceam dense compactæ, irregulariter polygoniæ vel sub-

globosæ, subinde suboblongæ, prominulo-verruculosæ, 9-15 μ . diam.

27. **Ustilago Festucæ-tenellæ** Henn. in Hedw. 1902, p. (61). — Soris 1612
in rachidibus floribusque eos paulo deformantibus contortosque
reddentibus, olivaceo-atris, pulverulentis; sporis subgloboso-angu-
latis, intus granuloso-punctoideis, 13-15 μ ., episporio atro, levi.

Hab. in paniculis *Festucæ tenellæ*, Mexico (HOLWAY).

28. **Ustilago filiformis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 254, 1613
— Sacc. Syll. XVI, p. 1122 (nomen). — Soris ovaria destruentibus,
tubiformibus, flexuosis, usque ad 4 cm. longis, epidermide tenui
papyracea, pallescente tectis; sporis subgloboso- v. ellipsoideo-angu-
latis, primo hyalinis dein brunneis vel atris, ca. 10-12 μ . diam.,
episporio tenui, levi vel punctulato.

Hab. in foliis *Andropogonis contorti*, Usafua Afr. orient.

29. **Ustilago halophila** Speg. Mycet. argent. ser. II, 1902, p. 58. — 1614
Plantæ infectæ fere immutatæ; vaginis infirmis sæpius terra abs-
conditis in parte basali v. parum supra fuscescentibus transverse
rugosis incrassatulis, primo integris dein irregulariter disruptis
ac sporas liberantibus; sporis ellipticis v. subglobosis, primo 12-
20-conglomeratis, serius omnibus liberis 6-8 \approx 5-6, tenuiter tunica-
tis, olivaceo-fuligineis.

Hab. ad folia radicalia *Distichlidis scopariæ*, prope Ru-
fino Argentinae.

30. **Ustilago Kusanoana** P. Henn. in Hedw. 1904, p. 140. — Soris 1615
in spicis globosis ca. 1,5-2 mm. diam., cuticula firma, vividula
inclusis; sporis rotundato- vel oblongo-angulatis flavo-fuscidulis,
dense verrucosis, 6-9 \approx 5-7.

Hab. in floribus *Eragrostidis ferruginæ*, Tokyo Japoniæ
(KUSANO).

31. **Ustilago lycuroides** Griffiths in Bull. of. the Torr. Bot. Club 1616
1904, p. 84, fig. 11-12. — Soris olivaceo-griseis ovarium implen-
tibus et tumefacientibus, 1-1,5 mm. diam.; glomerulis sporarum
facile secedentibus; sporis brunneis, subglobosis vel subovalibus
angularibusque 9,5-13 μ . diam.; episporio minuto, levi donatis,
granulosis, 1-nucleatis.

Hab. in ovariis *Lycuri phleoidis*, Santa Rita Mountains,
Arizona Amer. bor. (GRIFFITHS et THORNER).

32. **Ustilago Mitchellii** Syd. Ann. Mycol. 1903, p. 23. — Soris ovaria 1617
destruentibus, atro-brunneis; sporis globosis v. subglobosis, rarius
oblongis, obscure fusco-olivaceis, levibus, 8-12 \approx 7-10.

Hab. in ovariis *Iseilematis Mitchellii*, Mt. Lyndhurst Australiae (M. KOCH).

33. **Ustilago Mühlenbergiæ** Henn. in Hedw. 1902, p. (61) nec. Clinton, 1618
in Journ. of Mycol. 1902 (Oct.), quia posterior. — Soris paniculas destruentibus tumefacientibusque, oblonge ovoideis, 3-6 mm. longis 2-3 mm. latis, diutius epidermide flavo-cinerecente tectis, duris, dein atris pulverulentis; sporis globosis vix acutangulis, fuscis, 4-4,5 μ . diam, episporio atro-fusco, levi.

Hab. in paniculis *Mühlenbergiæ Pringlei* in Mexico, (HOLWAY) et in Mühl. texanæ in Arizona Amer. bor. (FARLOW).

34. **Ustilago montaniensis** E. et E. Journ. Myc. 1890, p. 119. — Massa 1619
sporarum atro-brunnea, subnigricante; sporis subglobosis, 10-14 μ . diam. v. ovato-oblongis, 12-16 \approx 10-12, episporio subtuberculo-reticulato, pallide brunneo.

Hab. in inflorescentia *Mühlenbergiæ glomeratæ*, quæ abortiva manet intra vaginas, Sand Coulee, Mont. Amer. bor. (ANDERSON).

35. **Ustilago Paspali-Thunbergii** P. Henn. in Hedw. 1904, pag. 140. 1620
— Soris atris, pulverulentis in floribus, eos omnino destruentibus; sporis subgloboso-vel oblongo-angulatis, atro-violaceis, punctatis.

Hab. in floribus *Paspali Thunbergii*, Nikko Japoniæ (KUSANO). — Dimensiones sporarum non indicatæ.

36. **Ustilago Penniseti-japonici** P. Henn. in Hedw. 1904, p. 140. — 1621
Soris cuticula alutacea, corniformi fissa inclusis, flores omnino destruentibus; sporis subgloboso-angulatis, atro-fuscis, 10-14 μ . granulatis.

Hab. in floribus *Penniseti japonici*, Tokyo Japoniæ (KUSANO).

37. **Ustilago phrygica** Magn. in Bull. Herb. Boissier 1903, n. 7, p. 574, 1622
tab. IV, fig. 1-7. — Soris axim spiculasque *Elymi* occupantibus et solide includentibus, globoso-ellipsoideis, 8-10 \approx 6,5-7,5, levibus brunneis, tenuissime reticulatis.

Hab. in spicis *Elymi criniti*, in regione subalpina Phrygiæ.

38. **Ustilago Scolochloæ** Griffiths in Bull. of the Torr. Bot. Club. 1623
1904, p. 86, fig. 4. — Soris epiphyllis, sæpe hypophyllis, matricem irregulariter contortam efficientibus, nigris, oblongo-linearibus, interdum confluentibus; sporis subglobosis, 10-13 μ . diam., intense fuscis, uniformiter denseque obtuse tuberculatis.

Hab. in foliis *Scolochloæ festucaceæ*, Harnery Valley

Oregon Amer. bor. (GRIFFITHS et HUNTER). — *Ustil. echinata*
Schroet. peraffinis.

39. **Ustilago sorghicola** Speg. Myc. argent. ser. II, 1902, p. 58. — 1624

Ovariis infectis subcylindræis, fusco-albidis, longe e glumellis exsertis, utriculiformibus diu persistentibus, 4-8 mm. long., 2 mm. diam., per ætatem irregulariter disruptis, pulvere atro repletis; sporis tenuiter tunicatis, 5-8 μ . diam., obscure fuliginæis, levissime eguttulatis v. guttula plus minusve magna ornatis.

Hab. in paniculis vivis Sorghi vulgaris prope La Plata, Argentina.

40. **Ustilago Andropogonis-saccharoidis** P. Henn. in Syd. Ustilag. exs. n. 251 (1901) = *Ustilago Andropogonis-hirtifolii* P. Henn. (ex ipso auctore).

BURRILLIA Setchell — Syll. XI p. 236, XIV p. 428.

1. **Burrillia Echinodori** Clint. in Journ. of Mycol. 1902, p. 154, *Doas-* 1625

sansia Alismatis (Nees) Cornu, Hark. in Proc. Calif. Acad. Ser. II, 1889, p. 231. — Soris foliicolis, areas subcirculares v. irregulares formantibus, prominulis, amphigenis, oblongis vel subsphæricis, ad centrum brunneo-parenchymaticis; sporis pallidis ovoideo-sphæroideis, raro e latere applanatis, crasse tunicatis, 12-18 μ . longis.

Hab. in foliis Echinodori rostrati in California America bor.

2. **Burrillia decipiens** (Wint.) Clint. in Journ. of Mycol. 1902, p. 154.

Huc ducenda *Doassansia decipiens* Wint. — Syll. VII, p. 505.

CINTRACTIA Cornu — Syll. VII p. 480, IX p. 285, XI pag. 233, XIV p. 420, XVI p. 373.

1. **Cintractia algeriensis** Pat. Champ. Algero-Tunis., in Bull. Soc. 1626

Myc. de France T. XVIII, 1902, fasc. I. — Soris nigris, firmis, calcaratis, intra inflorescentiam ortis eamque complentibus, $\frac{1}{2}$ -2 cm. longis, initio pellicula albida et fugaci circumdatis dein denudatis; cellulis pelliculæ 10-15 μ . diam.; sporis globosis vel ellipsoideis, levibus, 5-7 μ . diam., brunneis, radiatim dispositis.

Hab. in floribus *Danthoniæ Forskahlii*, Biskra Tunisia. — Valde noxia.

2. **Cintractia utriculicola** (Henn.) Clint. in Journ. of Myc. 1902, 1627

p. 143, *Cintractia leucoderma* (Berk.) Henn. f. *utriculicola* Henn. Hedw. 1895, p. 336 et *Cintr. axicola* (Berk.) Cornu f. *spicularum* Juel — Syll. XIV, p. 421. — Soris in ovariis evolutis, ovoideis

vel subsphæricis, 3-6 mm. diam., epidermide velatis dein apice erumpentibus; sporis intense rubro-brunneis, sæpe subopacis, interdum lateraliter compressis, oblongo-circularibus, levibus, 11-16 μ . longis.

Hab. in ovariis *Rhynchosporæ* spec. in Mexico.

3. **Cintractia affinis** Peck in Rep. of the State botanist. 1902, p. 28. 1628

— Soris elongatis continuis 12-48 mm. long., crusta alba velatis, dein erumpentibus, subpulverulentis, nigris; sporis globosis vel subglobosis, minute denseque papillatis, indistincte gelatinoso-hyalino-tunicatis, nigris, 15-20 μ . diam.

Hab. in caulibus vivis *Rhynchosporæ macrostachyæ* Smithtown, Amer. bor. — *C. leucodermæ*, affinis.

4. **Cintractia externa** (Griff.) Clint. in Journ. of Myc. 1902, p. 142, 1629

Tilletia externa Griffiths in Torr. Bot. Club. 1902, p. 290, f. 12. — Soris atris, intra ovaria pulverulentis; sporis in massa nigris, forma magnitudineque variabilibus, subgloboso-ellipsoideis v. irregularibus vel angulosis, intense fuscis 18-23 \approx 10-13 vel subglobosis 17-21 μ . diam., granulosis; episporio crassiusculo, levi, subhyalino, 2-2,5 μ . crasso.

Hab. in ovariis *Caricis filifoliæ* pr. Buffalo, Wyo (WILLIAMS et GRIFFITHS), in Montana (F. W. ANDERSON) in Nebraska (T. A. WILLIAMS) Amer. bor.

5. **Cintractia axicola** (Berk.) Cornu — Syll. VII, p. 480. — var. 1630

minor Clint. in Journ. of Mycol. 1902, p. 143. — Soris minoribus; sporis quoque minoribus 10-13 μ . long.

Hab. in paniculis *Cyperii Grayii*, New York, Amer. bor.

6. **Cintractia Cyperi** Clinton, North Amer. Ustil. in Proceed. Boston 1631

Soc. 1904, p. 400. — Soris in spicularum interiore nidulantibus demum totas glumas inficientibus, sed non deformantibus; sporis rufo-brunneis, plus minus agglutinatis sed facile secedentibus, oblongo-polyhedricis, levibus, sed ob compressionem minute atrolineatis 12-18 μ . diam. vel usque 22 μ . long.

Hab. in inflorescentia *Cyperii filiculmis*, Connecticut Americæ borealis. — Subaffinis *Cintractiæ Montagnei*.

7. **Cintractia limitata** Clint. North Amer. Ustil. in Proceed. Boston 1632

Soc. 1904, p. 399. — Soris in spiculis nidulantibus initio inclusis et sporis semi-agglutinatis demum pulverulentis et spiculas purpureo-nigro inquinantibus; sporis vulgo atro-rufo-brunneis, ex ovoideo sphæroideis subinde leviter polyhedricis, levibus, 9,5-14 μ . long., contentu sæpe cavernoso.

Hab. in inflorescentia *Cyperi filiculmis*, Connecticut Americæ borealis.

8. **Cintractia Taubertiana** (Henn.) Clint. in Journ. of Myc. 1902, p. 142. — Huc ducenda *Ustilago Taubertiana* Henn. — Syll. XI, p. 231.

Hab. in fructibus *Rhynchosporæ tenuis* in Brasilia et *Rhync. albæ*, *cephalanthæ*, *fascicularis*, *inexpansæ* in Amer. bor.

9. **Cintractia Psilocaryæ** (Tr. et Earle) Clint. l. c. — Huc ducenda *Ustilago Psilocaryæ* Tr. et Earle — Syll. XVI, p. 368.

Hab. in ovariis *Psilocaryæ nitentis*, *scirpoidis* et *rhynchosporoidis* in Amer. bor.

10. **Cintractia Luzulæ** (Sacc.) Clint. l. c. — Huc ducenda *Ustilago Luzulæ* Sacc. — Syll. VII, p. 463.

Hab. quoque in ovariis *Luzulæ campestris*, Amer. bor.

DOASSANSIA Cornu — Syll. VII p. 502, IX p. 288, XI p. 235, XIV p. 427, XVI p. 378.

1. **Doassansia Peplidis** Bubák, Œsterr. Bot. Zeitschr. 1903, p. 51. — 1633

Soris minutis, amphigenis, hemisphæricis, flavo-brunneolis, diaphanis, fusco-marginatis, demum nigricantibus, sæpe totas folii paginas occupantibus, 150-250 μ . diam.; cellulis periphericis sterilibus, læte castaneis, inæqualiter oblongis, 20-22 μ . long.; sporis plus minus regulariter globosis, 11-13,2 μ . diam. vel piriformibus 13-17 \approx 11-13, membrana tenui flavida, contentu hyalino.

Hab. in foliis *Peplidis alternifoliæ* prope Haskoro Bulgariæ (PH. C. J. PODPERA).

2. **Doassansia Reukaufii** P. Henn. Hedw. 1904, p. 434. — Soris hy- 1634

pophyllis gregariis, subglobosis, primo epidermide subpallida tectis, dein liberis rufo-brunneis, ca. 140-200 μ . diam.; sporis subglobosis vel ellipsoideis angulatis ca. 6-10 μ . diam., intus granulatis, episporio rufo-brunneo, levi.

Hab. in foliis vivis *Hydrocharitis morsus-ranæ*, Weimar Germaniæ Julio 1904 (E. REUKAUF). — Sori subglobosi, compactiusculi perfecta maturitate ab epidermide omnino solvuntur.

3. **Doassansia Utriculariæ** P. Henn. in Hedw. 1904, p. 78. — Ma- 1635

culis amphigenis, atris, irregulariter rotundatis vel confluentibus; soris gregariis punctiformibus, elevatis, atris; sporis subgloboso-angulatis, 12-14, episporio levi, atro-fusco.

Hab. in foliis *Utriculariæ reniformis*, Serra de Itatiaia, Rio de Janeiro Brasiliæ (C. ULE).

ENTYLOMA De Bary — Syll. VII p. 487, IX p. 286, XI p. 233, XIV p. 423, XVI p. 375.

1. **Entyloma Leucanthemi** Syd. Ann. Mycol. 1903, pag. 237. — Ma- 1636
culis sparsis vel aggregatis, rotundatis 1-3 mm. diam., in vivo dilute flavidis, in sicco virescentibus, planis; sporis globosis, subglobosis v. rarius late ellipsoideis, levibus, dilute flavo-brunneolis, 35-56 \approx 30-48, membrana crassa, usque 8 μ .

Hab. in foliis *Chrysanthemi Leucanthemi* in Istria (L. GÖRZ).

2. **Entyloma Holwayi** Syd. Ustilag. exs. n. 282. — Soris maculas 1637
utrinque conspicuas sparsas rotundatas v. irregulares initio flavo-brunneas dein brunneas 3-6 mm. latas, planas efformantibus; sporis globosis v. subglobosis, levibus, pallide flavo-brunneis, 11-13,5 μ . diam., episporio 1,5-2 μ . cr., hinc illinc irregulariter incrassato-angulato.

Hab. in foliis *Cosmi sulphurei*, Chapala Mexici (E. W. D. HOLWAY).

3. **Entyloma Œnanthes** R. Maire in Bull. Soc. Bot. de France 1901, 1638
Tom. 48, pag. 208. — Pustulis albis, amphigenis, 1 mm. diam.; sporis sæpe concatenatis, globosis, hyalinis, episporio levi, 1-1,5 μ . crasso præditis, 8-4 μ . diam., rarius in matrice viva germinantibus; promycelio apice 2-4 sporidiola bacillaria vel fusiformia generante; conidiis nullis visis.

Hab. in foliis vivis *Œnanthes apiifoliæ*, Zerubia Corsicæ.

4. **Entyloma Lini** Oudem. Contr. XX, Mycol. Pays-Bas, 1904, p. 1091 1639
(Ned. Kruidk. Arch.). — Sporibus in foliis, nunc immutatis, nunc flavo-maculis orbicularibus 1-3 mm. diam. innatis et late distributis inter cellulas mesophylli, globulosis subinde oblongis, pallide fulvis 9,3-14 μ . diam., episporio levi, perfecte hyalino, e stratis concentricis pluribus composito.

Hab. in foliis *Lini usitatissimi*, Wageningen Hollandiæ (L. BROEKEMA). — Germinatio nondum observata.

5. **Entyloma Tozziæ** Heinricher, Berichte Deut. bot. Gesell. 1901, 1640
p. 363, c. icon. — Sporibus in parenchymate foliorum intercellularibus, globoso-ellipsoideis, 8-12 μ . diam., membrana crassa duplici.

Hab. in foliis *Tozziæ alpinae*, Hall Tirolia. — Nec bullas nec alias deformationes generat.

6. **Entyloma Ameghinoi** Speg. Mycet. Argent. ser. II, 1902, pag. 57. 1641
 — Maculis vix ullis pallidis, diffusis; acervulis in parenchymate nidulantibus, extus, in sicco, vix prominulis, 100-250 μ . diam., sæpe epiphyllis et confluentibus; sporis 1-4 in quaque cellula e globoso-ellipsoideis 16-24 μ . long. v diam., tunica crassiuscula vestitis, levibus 1-2 guttulatis, ochraceis.
Hab. in foliis vivis Ranunculi Cymbalariae secus Rio Chico, Patagonia austr.
7. **Entyloma Schweinfurthii** Henn. in Hedw. 1902, p. (210). — Maculis 1642
 amphigenis, sparsis vel gregariis, oblongis vel irregulariter rotundato-explanatis, 1-2,5 \approx 1-1,5 mm., atris v. atro-plumbeis; sporis epidermide tectis, subglobosis, ovoideis v. ellipsoideis, intus granulatis, 14-20 \approx 13-18, episporio crasso, levi, atro-brunneo.
Hab. in foliis Polygoni monspeliensis, pr. Pyramidem Giseh, Ægypt. (SCHWEINFURTH).
8. **Entyloma Dietelianum** Bubák, Ann. Mycol. 1903, p. 255, *Urophlyctis* 1643
pulposa Bub. in Æsterr. bot. Zeitschr. 1900, n. 9, nec Auctor. — Pustulis sparsis v. gregariis, 0,5-1 mm. diam., rufo-brunneis, initio subtremelloideis, dein nigricantibus, diu epidermide tectis; sporis versiformibus, globosis v. ovoideis v. ob pressionem mutuam angulosis elongatisque, 9-13 μ . diam. v. 11-15,5 \approx 11-13, e mycelio lateraliter oriundis; exosporio levi, subgelatinoso, hyalino, 1 μ . cr; endosporio flavo-brunneo, 1 μ . cr.
Hab. in foliis Ambrosiniæ Bassii, Sinnai, Punta Corsetta Sardiniae (MARTELLI).
9. **Entyloma hieronense** Har. et Pat. Bull. Soc. Myc. 1904, p. 61. — 1644
 Soris maculas utrinque conspicuas longitudinaliter seriatas, irregulares paululum prominulas, atro-cinereas, emarginatas, $\frac{1}{4}$ - $\frac{1}{2}$ mm. latas efformantibus; sporis numerosis totum folii parenchyma occupantibus, crebre et dense aggregatis, pallide (sub lente) brunneis, valde difformibus et varie angulatis, episporio crassiusculo subfusco et obscuriori præditis, plerumque 8-10 μ . cr.
Hab. in foliis basilaribus Poæ bulbosæ in arenosis pr. Hieronem (Noirmoutier) Galliae occid. (MÉNIER).
10. **Entyloma betiphilum** Bubák, Zeitschr. Landwirth. Versuchsstat. Æsterr. 1901, p. 477. — Species dubia, immo ex ipso cl. auct. in litt. delenda.
Hab. parasitice in perigoniis Betæ vulgaris in Austria.

MELANOPSICHIUM G. Beck. in Ann. Natur hist. Hof-Mus. Wien 1894, n. 9, p. 22. (Etym. *melanos* niger et *psix psychos* mica). — Sporæ muco gelatinoso dein indurato in crustas atras conglutinatæ, in loculis intra matricem excavatis nidulantes, involucro duriusculo cinctæ. Cetera ut in *Ustilagine*.

1. **Melanopsichium austro-americanum** (Speg.) Beck loc. cit. *Ustilago austro-americana* Speg. — Syll. VII, p. 457: cfr. Clint. in Journ. of Mycol. 1902, p. 141.

Hab. in caulibus vivis *Polygoni avicularis*, *P. hydro-piperis*, *P. lapathifolii*, *P. lapath.* var. *incarnati*, *P. pensylvanici*, *P. virginiani*, *P. acris*, in Argentina et in Amer. bor.

MYCOSYRINX Beck von Mannagetta in Ann. Naturhist. Hof-Museum Wien 1894, p. 123 (Etym. *myces* et *syrinx* tubus, fistula). A genere affini *Schröteria* differt hyphis sporigeris intra stroma subtubulare inclusis sporisque potius acrogenis ut in gen. *Ustilagine*.

1. **Mycosyrinx Cissi** (DC.) Beck l. c., Penzig in Malp. 1900, p. 6, tav. XIX-XX, *Schröteria Cissi* (DC.) De Toni — Syll. fung. VII, pag. 501. — Sec. Penz. l. c. nascitur pluribus locis in America tropicali et Africa occid. in pedunculis floralibus *Cissi sicyoidis*, *C. acidæ*, *C. uviferæ*, *C. diffusifloræ*, *C. erosæ* etc.
2. **Mycosyrinx arabica** (Henn.) Penz. l. c. *Schröteria Cissi* var. *arabica* P. Henn. — Syll. fung. XI, pag. 235. — *Schr. arabica* P. Henn. in Bull. Herb. Boiss. 1893, p. 115. — A *M. Cissi* sporis paullo majoribus et intra ramulos vegetativos ramulosque racemorum generatis (nec in pedunculis floralibus).

Hab. in *Cisso quadrangulari* in Arabia.

SOROSPORIUM Rud. — Syll. VII p. 511, IX p. 288, XI p. 237, XIV p. 428, XVI p. 379.

1. **Sorosporium Caricis** Ferraris in Ann. Ist. Bot. Roma 1902, p. 191. — Soris omnino inclusis, aterrimis, pulverulentis; glomerulis subglobosis, atris e sporis numerosis compositis (2-20), 14-36 μ . diam.; sporis rotundato-polygonalibus, subæqualibus, fusco-brunneis, 8-12 μ . diam.

Hab. in floribus masculis *Caricis præcocis* prope Pinerolo Italiæ bor.

2. **Sorosporium Arundinellæ** Syd. in Hedw. 1901, p. (2). — Ovaria ex toto implens, destruens et massas aterrimas formans; glomerulis

sporarum, forma et magnitudine irregularibus, opacis e sporis numerosis compositis; sporis globosis v. subglobosis, opacis, atrobrunneis, verruculis obsitis, 5-6,5 μ . diam.

Hab. in ovariiis *Arundinellæ anomalæ*, Omiya, Saitama Japoniæ (NISHIDA et NAMBU).

3. **Sorosporium provinciale** (Ell. et Gall.) Clinton, Journ. of Mycol. 1648 1902, pag. 142, *Sorosporium Ellisii* Wint. var. *provinciale* Ell. et Gall. — Syll. IX, p. 288. — Soris linearibus, 6 cm. longis, erumpentibus; massa sporarum nigro-brunnea, granulosa, 50-100 μ . diam. vel longiore; sporis ovoideis vel subsphæricis, minute verruculosis, episporio 3 μ . crasso, 14-19 μ . crassis, rufo-brunneis.

Hab. in inflorescentia *Andropogonis furcati*, Saline County Mo. in Nebraska Amer. bor.

4. **Sorosporium contortum** Griffiths in Bull. of the Torr. Bot. Club. 1649 1904, p. 83, fig. 1-3. — Soris 5-30 mm. longis, 0,6-1,5 mm. crassis, immersis vel in columellam cylindricam desinentibus; glomerulis sporarum subglobosis vel ovoideis, sæpe angulosis, 50-62 vel 50-80 μ . diam.; sporis subglobosis vel anguloso-compressis, intense fuscis, 5-8 μ . diam., episporio minuto, levi donatis, 1-nucleatis.

Hab. in floribus *Andropogonis contorti*, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS).

5. **Sorosporium Eriochloæ** Griffiths in Bull. of the Torr. Bot. Club. 1650 1904, p. 84. fig. 13-16. — Soris pulverulentis, nigris, partes florales replentibus et subtumefacientibus; glomerulis subglobosis v. angulosis irregularibusque, 65 \approx 50 vel 50-105 μ . diam.; sporis intense fuscis, subglobosis, 10-13,5 μ . diam., angulosis, episporio minuto levi donatis, granulosis, 1-nucleatis.

Hab. in floribus *Eriochloæ punctatæ*, Empire Rauch, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS et THORNER).

6. **Sorosporium Williamsii** Griffiths in Bull. of the Torr. Bot. Club. 1651 1902, pag. 296, fig. 5. — Soris culmicolis pulverulentis, totam plantam destruentibus; sporis in massam cylindræam erectam vel curvulam, 65-100 \approx 20-30 conglutinatis, maturitate indistinctis, fuscis, subglobosis vel angularibus, 5-7 μ . diam., episporio levi crassiusculo.

Hab. in vaginis et in culmis *Stipæ Richardsonii* in monte Big Horn, Wyo. Amer. bor. (T. A. WILLIAMS et Dr. GRIFFITHS).

SPHACELOTHECA De Bary. — Syll. VII p. 499.

1. **Sphacelotheca Hydropiperis** (Schum.) De Bary — Syll. VII, f. 499. 1652

— var. **borealis** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 395. — A typo differt sororum columella robustiore et pseudomembrana minus prominente, cellulis sterilibus hyalinis vel dilute coloratis, subsphæricis, crassiuscule tunicatis; sporis paullo minoribus quam cellulis sterilibus, violaceo-purpureis, ovoideo-sphæricis vel subirregularibus, vix minutissime granulosis vel fere levibus 8-11 μ . long.

Hab. in ovariis Polygoni bistortoidis, Washington et Wyoming Amer. bor.

2. **Sphacelotheca Chrysopogonis** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, p. 387. — Soris ovaria omnia plerumque occupantibus, lineari-oblongis, 3-5 mm. longis, inter glumas membranas steriles et massas sporarum semi-agglutinatarum, nigras, formatibus; columella minuta sed evidenti; cellulis sterilibus hyalinis, sæpe in glomerulos secedentibus, subsphæricis, sporis paullo latioribus; sporis rufo-brunneis, ovoideo-subsphæricis, subinde angulosis, sæpe intus punctatis, obscure verruculosis, vel sublevibus 8-11 μ . longo.

Hab. in ovariis Chrysopogonis nutantis, Chappala Mexici. — Inter *Sph. Sorghi* et *Sph. moniliferam* media species.

3. **Sphacelotheca Seymouriana** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 387, *Sorosporium Syntherismæ* (S.) Farl. p. p., *Sorosporium Ellisii* Winter p. p. — Soris ovaria occupantibus et massas lineares 4-7 mm. longas formantibus et inter glumas extendentibus, apice erumpentibus et columellam sporasque agglutinatas ostendentibus; cellulis sterilibus hyalinis, vulgo subsphæricis et membranam irregularem formantibus, sporas magnitudine æquantibus; sporis læte brunneis, vulgo subsphæricis vel polyhedricis, rarius ovoideis 7-12 μ . longis, sublevibus, contentu sæpe lacunoso.

Hab. in ovariis Andropogonis virginici, Alabama, et Andropogonis spec. Georgia Amer. bor.

4. **Sphacelotheca Paspali-notati** (Henn.) Clint. in Journ of Mycol. 1902, p. 140, *Ust. Paspali-notati* Henn. sp. n. in herb. Holway. 1655

— Soris linearibus, 4-6 cm. longis; sporis rubro-brunneis, ovoideo-globosis vel subangulosis, minute verruculosis, 7-10 μ . diam.

Hab. in inflorescentia Paspali-notati, in Mexico Amer. bor.

5. **Sphacelotheca pamparum** (Speg.) Clint. in Journ. of Mycol. 1902,

- p. 140. — Huc ducendæ sunt, sec. cl. Auct., *Ustilago pamparum* Speg. — Syll. VII, p. 455 — et *Ust. Kolaczakii* Kühn. — Syll. l. c.
6. **Sphacelotheca diplospora** (Ell. et Ev.) Clint. in Journ. of Mycol. 1902, p. 140. — Huc ducenda *Ustilago diplospora* Ell. et. Ev. — Syll. IX, p. 284.
7. **Sphacelotheca Sorghi** (Link). Clint. l. c. — Huc ducenda *Ustilago Sorghi* (Lk.) Pass. — Syll. VII, p. 456 — seu *Cintractia Sorghi vulgaris* Clint. in Bull. Agr. Exp. Stat. 1897, p. 404.
8. **Sphacelotheca Ischæmi** (Fuck.) Clint. l. c. — Huc ducendæ: *Ustilago Ischæmi* Fuck. — Syll. VII, pag. 454 — *Ustilago cylindrica* Peck. — Syll. VII, p. 468 — *Cintractia Ischæmi* Syd. in Est. Bot. Zeit. 1901, p. 12.
9. **Sphacelotheca monilifera** (Ell. et Ev.) Clint. l. c. — Huc ducendæ: *Ustilago monilifera* Ell. et Ev. — Syll. XIV, p. 420 — *Ustil. Andropogonis-contorti* Henn. n. spec. in herb. Holway. — An *Ustil. filiformis* Henn. — Syll. XVII, p. 477.
10. **Sphacelotheca Andropogonis-hirtifolii** (Henn.) Clint. l. c. — Huc ducendæ: *Ustilago Andropogonis-hirtifolii* Henn. — Syll. XVI, p. 372 — et *Ust. Andropogonis-saccharoidis* Henn. in Syd Ustil. 1901, n. 251.
11. **Sphacelotheca occidentalis** (Seym). Clint. l. c. — Huc ducendum *Sorosporium Ellisii* Wint. — var. *occidentalis* Seym. in Ell. et Ev. M. A. Fr. 2265, fasc. 1889, et *Ustilago Andropogonis* Kell. et Sw. — Syll. IX, p. 284.
12. **Sphacelotheca montaniensis** (Ell. et Holw.) Clinton l. c. — Huc ducenda *Ustilago montaniensis* Ell. et Holw. — Syll. IX, p. 284.
13. **Sphacelotheca Reiliana** (Kühn) Clint. l. c. — Huc ducendæ *Ustilago Reiliana* Kühn — Syll. VII, p. 471 — *Cintractia Reiliana* (Kühn) Clint. in Bull. Ill. Agr. Exp. Stat. 1900, p. 346.

THECAPHORA Fing. — Syll. VII p. 507, IX p. 289, XI p. 237, XIV p. 428.

1. **Thecaphora Thornberi** Griffiths in Bull. of the Torr. Bot. Club. 1656 1904, p. 88, f. 9-10. — Soris ovaria tumefacientibus, sphaericis 4-7 v. ultra mm. diam., maturitate irregulariter erumpentibus; massa sporarum 70-120 μ . diam., rufo-brunnea; sporis episporio minuto donatis, granulosis, 10-13 μ . diam. ovalibus, subsphaericis sæpe compresso-angulosis, semper conglutinatis.

Hab. in ovariis Clathoricis lanuginosæ, Santa Rita Mountains, Arizona Amer. bor. (GRIFFITHS et THORNER).

2. **Thecaphora mexicana** Ell. et Ev. apud Clinton in Journ. of Mycol. 1657
1902, p. 146. — Soris cauliculis, pustulas subglobosas 4 mm. diam., firmas, erumpentes formantibus; massa sporarum rubro-lutea, subglobosa 50-90 μ . diam.; sporis 15-30 in singulis glomerulis, initio angulosis dein irregularibus, oblongo-polyhedricis vel subglobosis, parce papillatis, 16-22 raro 25 μ . diam.
Hab. in caulibus *Guardiolæ platyphyllæ* in Mexico Amer. bor. (Doct. PALMER).
3. **Thecaphora tunicata** Clint. North Amer. Ustil. in Proceed. Boston 1658
Soc. 1904, pag. 422. — Soris floricolis, massas subsphæricas 2-3 mm. formantibus, florum involucris inclusis, initio firmis, dein erumpenti-pulveraceis; glomerulis læte castaneo-brunneis, oblongis vel subsphæricis polygonis 70-100 μ . long.; sporis diu connexis subhyalino-flavidis, omnino irregularibus, vulgo oblongo-sphæroidis, 12-18 μ . long. vel elongato-clavatis usque 27 μ . long., superficie libera episporio prominenti saturate colorato, verrucoso 3-6 μ . crasso prædita.
Hab. in floribus *Boerhaviæ* in Mexico.
4. **Thecaphora piluliformis** B. et C. — Syll. VII, p. 509. — Huc ducenda sunt, sec. cl. Clinton in Journ. of Mycol. 1902, p. 145, *Tolyposporium Davidsonii* Diet. — Syll. XI, p. 235 — *Pæcilosporium Davidsonii* Diet. — Syll. XVI, p. 380 — *Sorosporium Bigeloviæ* Griff. in Bull. Torr. Bot. Club. 1902, p. 380, cum icone.
Hab. in inflorescentiis *Bigeloviæ venetæ*, in California, *Bigeloviæ* spec. in Arizona Amer. bor. — Secundum cl. Clinton l. c. Dietel et Holway per errorem determinaverunt matricem *Tolyposporii*, quæ non est *Atriplex* sed *Bigelovia*.
5. **Thecaphora cuneata** (Shof.) Clint. l. c. — Huc ducenda: *Sorosporium cuneatum* Shofield. — Syll. XIV, pag. 429 — *Sorosporium Solidaginis* Ell. et Ev. — Syll. XI, p. 237.
Hab. in *Grindelia squarrosa*, Nebraska Amer. bor. et in *Solidagine missouriensi*, Kansas Amer. bor.
6. **Thecaphora Trailii** Cooke — Syll. VII, p. 510 — Sec. cl. Clinton in Journ. of Mycol. 1902, pag. 146 huc ducendæ sunt: *Thecaphora Cirsii* Boud. — Syll. VII, p. 510 — *Schizonella subtrifida* Ell. et Ev. — Syll. IX, p. 288 — *Pæcilosporium Trailii* (Cooke) Vesterg. mycet. rar. sel. 1902, p. 152.
7. **Thecaphora californica** (Hark.) Clint. l. c. — Huc ducendum *Sorosporium californicum* Hark. — Syll. VII, p. 514.

TILLETIA Tul. — Syll. VII p. 481, IX p. 286, XI p. 233, XIV p. 421, XVI, p. 373.

1. **Tilletia texana** Long, apud Clint. in Journ. of Mycol. 1902, p. 149. 1659
— Soris ovaria destruentibus, ovoideo-oblongis, 3-5 mm. diam.; massa sporarum rubro-brunnea cellulis parenchymaticis hyalinis obvoluta; sporis aurantiaco-luteis subglobosis, tuberculis 2-3 μ . d. prominentibus donatis, episporio hyalino, 19-25 μ . diam.

Hab. in ovariis Hordei pratensis, Texas Amer. bor.

2. **Tilletia hypsophila** Speg. Myc. arg. ser. II, 1902, p. 59. — Ovariis 1660
infectis, glumellis immutatis sed late apertis, cinctis, late ellipticis, fuscis 1,5-2,5 mm. long., compactiusculis, inter digitos compressis pulverem ferrugineum emittentibus; sporis ab initio liberis 18-24 μ . diam., tunica crassa duplici vestitis, interna ferruginea, dense ruguloso-verruculosa, externa levi hyalina.

Hab. in ovariis Stipæ cæspitosæ et St. tenuissimæ, Tucuman et Salta Argentinae.

3. **Tilletia Wilcoxiana** Griffiths in Bull. of the Torr. Bot. Club. p. 88. 1661
fig. 17. — Soris totum ovarium implentibus et tumefacientibus, olivaceo-griseis, fusiformibus; sporis in cumulo pallide brunneis, subglobosis, 15-19 μ . diam., hyalinis, episporio crassiusculo donatis.

Hab. in ovariis Stipæ eminentis v. Andersonii, Santa Monica Californiae (H. E. HASSE).

4. **Tilletia Earlei** Griffiths in Bull. of the Torrey Bot. Club. 1902, 1662
p. 290, fig. 2. — Soris culmicolis, internodia tumefacientibus, per rimas usque 10 cm. longas erumpentibus, culmos totos contorquentibus; sporis pallide brunneis, globosis, tuberculis validis circ. 2 μ . crassis obvolutis, episporio hyalino, tubercula includente, levi 13-18 μ . diam.

Hab. in culmis deformati Agropyri occidentalis, Aberdeen, S. D. Amer. bor.

5. **Tilletia Velenovskyi** Bubák, Oesterr. Bot. Zeitschr. 1903, p. 51. — 1663
Soris brunneo-violaceis, ovaria implentibus ibique inclusis; sporis globosis v. breve ovoideis, 22-28 μ . diam.; episporio læte violaceo-brunneo, translucido, striato; striis depressis, vix 1 μ ., areolas 4-angulares v. polygonas 2-4 μ . diam. formantibus.

Hab. in ovariis Bromi arvensis pr. Sadovo Bulgariae (VELENOVSKY). — *Till. Lolii* subaffinis.

6. **Tilletia Bornmülleri** Magn. in Bull. Herb. Boissier 1903, n. 7, 1664
p. 574, tab. IV, fig. 8-12. — Sporis in ovariis nidulantibus, vix

pulverulentis, subglobosis, $23 \approx 20$, eleganter reticulatis, areolis in sporæ diametro majori 8-10.

Hab. in ovariis *Elymi criniti* in regione subalpina Phrygiæ.

7. **Tilletia Menieri** Har. et Pat. Bull. Soc. Mycol. 1904, p. 61. — Soris 1665
brunneo-ferrugineis, ovaria complentibus; sporis pallide ferrugineis, globosis, 20-24 μ . diam., areolatis, episporio 4 μ . crasso, tuberculis prædito.

Hab. in ovariis *Phalaridis arundinaceæ* pr. St. Philibert-de-Grand-Lieu Galliae occidentalis (MÉNIER).

8. **Tilletia? Chryso-splenium** v. Höhn. Ann. Myc. 1904, pag. 38. — 1666
Soribus archegonia *Bryi* sp. vesiculoso-deformata, ca. 900 μ . long. et 700 μ . lat. explentibus, aureo-ochraceis, pulverulentis, primum tunica archegoniorum tectis, dein ex illa erumpentibus; sporis non conglobatis, globosis vel subglobosis, 22-28 μ . crassis, subtiliter sed acute et dense spinuloso-verrucosis, aureo-ochraceis.

Hab. in archegoniis *Bryi* (cæspiticii?) adhuc vivis prope Michelet (Fort national) Algeriæ (Kabyliæ), mense Aprili.

9. **Tilletia? abscondita** Syd. Ann. Mycol. 1903, pag. 174. — Sporibus 1667
pulveraceis in capsulis *Anthocerotis* nidulantibus, globosis v. subglobosis, rarius ellipsoideis, pallide brunneis verrucoso-reticulatis, 11-17 μ . diam., rarius usque 20 μ . long., episporio circ. 2,5 μ . cr.

Hab. in capsulis *Anthocerotis dichotomi*, in horto Monrepos, in insula Corfû. — Diu sporæ supra descriptæ ut *Hepaticæ* microsporæ habitæ sunt, tamen ut *Ustilaginea* parasitica aptius, teste Sydow, habendæ.

10. **Tilletia Maclagani** (Berk.) Clint. in Journ. of Mycol. 1902, p. 148.
— Huc ducenda *Ustilago Maclagani* Berk. — Syll. VII, p. 460 —
Ustil. rotundata Arth. VII, pag. 479, *Tilletia rotundata* (Arth.)
Ell. et Ev. N. A. F. 1887, n. 1894, *Tilletia rotundata* Mass. in
Kew. Bull. 1899, p. 145.

11. **Tilletia Cathestechi** (Henn.) Clint. l. c. p. 149. — Huc ducenda
Ustilago Cathestechi P. Henn. — Syll. XIV, p. 417.

TOLYPOSPORIUM Wor. — Syll. VII p. 501, XI p. 235, XIV p. 425,
XVI p. 377.

1. **Tolyposporium Eriocauli** Clint. Rhodora II, 1901, p. 82, f. 1. — 1668
Soribus griseolis, ovoideis, subinde bilobis, 1-2 mm. long. facile ruptis; sporarum glomerulis firmis, nigris, perfecte opacis, irregulariter oblongis v. subsphæricis, sæpe angulosis, 65-275 μ . diam.; sporis subglobosis, læte coloratis, inter se adherentibus, secedendo

vero, ob rupturam, reticulationes spinulasque ostendentibus v. integris remanentibus, 8-11 μ . diam., exclusis rupturæ processibus.

Hab. in ovariis subimmutatis florum ♀ *Eriocauli* septangularis, Ellis Mass. Amer. bor.

2. **Tolyposporium Lepidoboli** Mc Alp. Proc. Linn. Soc. New S. Wales 1669
1904, pag. 127. — Nigrum, pulveraceum intra ovaria evolutam; sporis ex articulis numerosis arcte connexis compositis versiformibus, 80-90 μ . long.; articulis globulosis v. polygoniis 12-14 μ . diam., v. 12-16 \approx 10-11, episporio asperulo.

Hab. in ovariis *Lepidoboli* drapetocolei, Dimboola Victor Australiæ (READER).

TOLYPOSPORELLA Atk. — Syll. XIV p. 427.

1. **Tolyposporella Brunkii** (Ell. et Gall.) Clint. in Journ. of Mycol. 1902, p. 147. — Huc ducendæ *Ustilago* (*Sorosporium?*) *Brunkii* Ell. et Ev. — Syll. IX, p. 284 — et *Ustilago apiculata* Ell. et Gall. in Tex. Agr. Exp. Station Bull. 1890, p. 29 (nomen).

Hab. in ovariis *Andropogonis* argentei, perforati, saccharoidis, in America bor.

2. **Tolyposporella? Nolinæ** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, p. 426. — Soris phyllogenis dense gregariis confluentibusque et stratum formantibus; glomerulis variabilibus e sporis 2-3-4-pluribusve varie connexis et sæpe secedentibus formati; sporis olivaceo-nigris oblongis vel ovoideis globosisve, lateribus adhærentiæ applanatis 11-18 μ . long., episporio crassiusculo, levi.

Hab. in foliis *Nolinæ* microcarpæ Arizona, Amer. bor.

TRACYA Syd. — Syll. XVI p. 378.

1. **Tracya Hydrocharitis** Lagerh. in Vestergr. Myc. rar. selecti, Bot. Not. 1902, p. 175. — Maculis nullis; soris epiphyllis, crebre sparsis v. stratu firmo sporarum constitutis, nudo oculo nigris, punctiformibus, rotundatis, 130-150 μ . diam.; sporis brunneis e vertice visis 7-9 μ . diam., rotundato-angulosis e latere rectangularibus.

Hab. in foliis vivis *Hydrocharitis* morsus-ranæ, Stockholm in Suecia. — Cfr. supra *Doassansia Reukanfi*, p. 481.

UROCYSTIS Rab. — Syll. VII p. 515, IX p. 290, XI p. 237, XIV p. 429, XVI p. 380.

1. **Urocystis Anemones** (Pers) Schroet. — Syll. VII, p. 518. — var. 1672

andina Speg. Myc. argent. ser. II, 1902, p. 59. — Soris bulbosis aterrimis, initio epidermide velatis, compactis dein erumpentibus et pulverulentis; glomerulis ex elliptico difformibus, 20-40 \approx 20-30; sporis centralibus ellipsoideis, 10-18 \approx 8-10, periphericis subglobosis 5-7 \approx 4-5 obscurioribus.

Hab. ad caules, involucra et flores *Barneoudiæ* majoris, in alpinis, prope Mendoza, Argentinæ. — Var. **japonica** P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). A typo differt soris multo amplioribus, usque 20 cm. lat., glomerulis quoque majoribus, 30-60 \approx 30-40, sporis centralibus numerosioribus, globoso-ellipsoideis angulosisque, castaneis, 10-15 μ . diam., periphericis pallidioribus, levibus 6-9 μ . diam. In caulibus et foliis *Anemones japonicæ*, Tosa Japoniæ (K. NAKANO).

2. **Urocystis granulosa** Clint. in Journ. of Mycol. 1902, p. 151. — 1673

Soris paniculas occupantibus, ovoideo-oblongis, 5-10 mm. longis, massam globosam granulosa sporarum rufo-brunneo-nigram suberumpentem 28-50 μ . crassam formantibus; cellulis parenchymaticis rubro-luteis, ovoideis vel subsphæricis, sporis repletis, 8-13 μ . latis; sporis intense rubro-brunneis, ovoideo-sphæricis v. pro mutua pressione polyhedricis, levibus 13-19 μ . diam.

Hab. in ovariis *Stipæ comatæ*, Idaho Amer bor. (HAYDEN).

Genera dubiæ sedis.

USTILAGINOIDEA Bref. — Syll. XIV p. 431, XVI p. 382.

Genus ad interim hic locatum sed, testibus ell. Brefeld et Hennings, statum chlamydosporicum Hypocreacearum spp. sistit. Huc quoque spectat *Ustilaginoidea flavo-nigrescens* (Berk. et C.) Hennings, Hedw. 1904, p. 156, *Ustilago* B. et C. — Syll. VII, p. 467.

1. **Ustilaginoidea Dichronemæ** P. Henn. Fungi Amaz. I, pag. 156 1674

(Hedw. 1094). — Sclerotiis ovaria occupantibus et ea omnino destruentibus, globosis, intus duris, corneis flavidis, pulvere atro crasso chlamydosporarum tectis ca. 2-2½ mm. diam.; chlamydosporis globosis atro-cinnamomeis, dense verrucosis, 5-7 μ .

Hab. in ovariis *Dichronemæ puberæ* Rio Negro, Manaos Amer. merid. — Sclerotia hujus speciei soros *Cinctractiæ Caricis* fere æmulantur.

1. **Ustilaginoidea usambarensis** P. Henn. Fungi Afr. orient. II, in 1675

Bot. Jahrb. XXVIII, p. 38. — Sclerotiis ovaria occupantibus et ea deformantibus, subglobosis, depressis, cinereo-olivaceis, superne

rimosis, ca. 2 mm. diam., intus duris, pallidis; sporulis subglobosis, hyalino-flavescentibus granulato-verrucosis, 4-5 μ . diam.

Hab. in ovariis *Panici* spec., Usambara Afr. orient. (KUMMER).

GRAPHIOLA Poit. — Syll. VII p. 522, XVI p. 381.

1. **Graphiola Phœnicis** (Moug.) Poit. — Syll. VII, p. 522. — var. 1676
Trachycarpi P. Henn. Pilze Japan II, p. 150 (Hedw. 1904). — Sporis globoso-angulatis, 3-4 μ . diam., membrana levi, crassa, flavo-brunneola.

Hab. in foliis *Trachycarpi excelsæ*, Tosa, Yokimura Japoniæ (T. YOSHINAGA).

2. **Graphiola macrospora** Penz. et Sacc. in Malp. 1901, p. 232. — Soris 1677
laxe gregariis, erumpenti-superficialibus, nigricantibus, globulosis, rugosis, basi sæpe coarctatis, dein umbilicatis, 0,7-1 mm. lat., filamentis fasciculatis, filiformibus, subtortuosis, 2,5 μ . cr., ochraceo-guttulatis; sporis globosis, non v. vix angulosis, 11-15 μ . diam., atro-fuligineis, initio non omnino levibus dein levigatis.

Hab. in rhachide foliorum *Calami*, *Plectocomiæ* etc. in horto bot. Bogor., in insula Java. — Exemplaria non perfecta, hinc stirps adhuc dubia et ulterius inquirenda.

3. **Graphiola cocoïna** Pat. Bull. Soc. Mycol. 1904, p. 137. — Pseudo- 1678
peridiis præcipue epiphyllis, sparsis, atris, corneis, elongato-ellipticis, convexis, $\frac{1}{4}$ - $\frac{1}{2}$ mm. longis, rarius solitariis, sæpius 3-5-aggregatis confluentibusque, ex hyphis brunneis gracilibus 2-3 μ . cr. rectis ramosis apice incrassatis subtorulosis compositis; ostiolis linearibus rectis v. flexuosis gleba flavidula ex hyphis erectis parallele stipatis, pellucidis; sporis superpositis ellipsoideis, levibus, 3-5 μ . longis, flavidulis.

Hab. in foliis vivis *Cocoes nuciferæ* in insulis Gambier (SEURAT).

PHYCOMYCETÆ De Bary

Syll. VII p. 181, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383.

Fam. 1. Mucoraceæ DE BARY.

MUCOR Mich. — Syll. VII p. 190, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383 *).

1. **Mucor hiemalis** C. Wehmer in Ann. Mycol. 1903. pag. 39, cum 1679
ic. — Cæspitulis 1 cm. ca. altis, bombycinis, albis, rarius flavido-brunneolis; hyphis myceliaribus variis 7-14 usque 30 μ . diam.; sporangiferis simplicibus, rarius ramosis, erectis, serius collabescentibus; sporangiis globosis, flavidis v. griseis, 52 μ . diam., tunica diaphana, levi; columella globoso-ovoidea, hyalina, 28-48 μ . diam., 25-36 \approx 21-29; sporis numerosis magnitudine et forma ludibundis, 7 \approx 3,2 μ ., ellipsoideis rarius sphaericis, tenue tunicatis; zygosporis non visis.

Hab. in foliis cannabinis udis putrescentibus, hieme in Germania.

2. **Mucor dubius** C. Wehm. in Centralbl. f. Bakteriolog. u. Paras. II, 1680
Abth. VII, p. 318, fig. 15-23. — Cæspitulis 2-3 cm. alt., griseo-flaventibus v. brunneo-griseis; hyphis fertilibus 1 cm. long., initio simplicibus, dein (semper?) sympodialiter ramosis et tunc 2-3 cm. long.; sporangiis globosis, brunneo-flavidis, diaphanis, parvulis, 50 μ . diam., columella globosa, sessili, hyalina, levi, circ. 25 μ . diam.; sporis inæqualibus, ellipsoideis v. fabæformibus, 6 \approx 4, rarius 4 \approx 3, usque 14 \approx 9, membrana tenui; zygosporis ignotis; mycelio interdum in gemmas toruliformes abeunte.

Hab. in crustulis oryzinis javanicis (*Ragi*) in Java, socio *Rhizopode Oryzæ* etc. *Mucori javanico* affinis.

*) Quoad species zymogenas *Mucoris*, *Rhizopodis*, *Chlamidomucoris*, cfr. illustrationes ell. WEHMER, CHRZASZCZ, VUILLEMIN etc. in Centralbl. f. Bakt. II Abt. 1901, Revue mycolog. 1902 etc.

3. **Mucor flavus** Bain. Bull. Soc. Myc. 1903, pag. 157 (absque dia- 1681
gnosi). — Hypha fertili initio hyalina dein ochraceo-flava usque
8 mm. alta; sporangiis globosis griseo-cyanescentibus, membrana
evanescente et collarium angustum relinquente; sporis numerosis-
simis ovoideis, 9-12 \approx 4,2, rarius sphaericis, 4,2 μ . diam. vel reni-
formibus; columella sphaerica dein ovoidea.

Hab. in Agaricis putrescentibus in Gallia. — Zygosporæ
tandem generantur.

4. **Mucor exitiosus** Masee in Kew. Bull. Jun. 1901, p 94-99, 1 pl. — 1682
Mycelio lanoso, niveo; hyphis sporangiferis decumbentibus race-
moso-ramosis, sæpius septatis; sporangiis globosis, atris, 60-100 μ .
diam.; columella globosa v. obovata; sporis hyalinis, ellipsoideis,
5-6 \approx 3,5-4; zygosporis ignotis.

Hab. parasiticus in Locustis (Acridiis?) in Africa australi.
— Locustas enecat.

5. **Mucor locusticola** Lindau, Notizbl. Bot. Gart. u. Mus. Berlin Jul. 1683
1901, n. 26, p. 119, t. 1 (absque diagnosi). — Mycelio irregulariter
ramoso, filiformi, continuo, hyalino, 4-8 μ . cr.; hyphis fertilibus fi-
lifformibus, 250-300 \approx 6-7, continuis; sporangiis solitarie acrogenis
globosis, griseis, 15-23 μ . diam., superficie ob crystallas minutissimas
asperulis; columella nulla; sporis in quoque sporangio nunc nu-
merosis, nunc paucis, ellipsoideis, subhyalinis, 4-6 \approx 2,5.

Hab. in Locustis (Acridiis?), quas necat, parasitice, nec
non cultus in mediis variis saprophytice, ex Africa australi, ubi
ad exterminanda perniciosissima illa insecta adhibetur. — An di-
versus a præcedente?

6. **Mucor fuscus** Bain. Bull. Soc. Mycol. 1903, p. 165 (absque dia- 1684
gnosi). — Pedicellis 1 cm. longis sub apice 1-septatis ibique ite-
rato ramosis; sporangiis sphaericis, membrana aciculis calcareis fa-
cile dilabentibus spinulosa tectis; columella obverse conico-trun-
cata, flavido-brunnea; sporis globosis vel ovoideis, leviter echinu-
latis, 7,5-12,5 μ . diam.

Hab. in excremento canis in Gallia.

7. **Mucor speciosus** Oud. Beih. Bot. Centr. 1902, p. 6. — Hyphis 1685
sterilibus, repentibus, dichotome ramosis, protoplasmate granuloso
farctis, hyalinis continuis; fertilibus erectis vel flexuosis, melleis,
sursum sæpe cernuis v. uncinatis, 12-14 μ . cr., simplicibus v. ra-
cemoso-ramosis; sporangiis erectis v. cernuis, initio hyalinis, ma-
turis atro-cyaneis, 90-140 μ . diam., subtilissime echinulatis, tunica
obtegente hyalina v. dilutissime fuliginea, non diffluente; colu-

mella subglobosa, hyalina v. dilutissime tinctoria, diu superstite; sporis globosis v. brevis ellipticis, singulis, dilutissime fuliginosis, acervatis, obscure chalybeis v. atro-cyaneis, 2-4 μ . diam.

Hab. in gelatina ad culturas instituendas in laboratorio bacteriologico adhibita, Delphi Batavorum Hollandiæ.

8. **Mucor mucilaginosus** Bref. Unters. IV, pag. 58 et 184, tab. II, 1686
fig. 9-12, Fisch. Phyc. pag. 190. — Hyphis sporangiferis rectis, subsparsis, indivisis, continuis, hyalinis, superficie tota guttulis aqueis, zona infra sporangiam tantum dempta, conspersis; sporangiis globosis, majusculis, numquam flavis, tandem brunneo-nigricantibus, minute spinulosis, tunica diu permanente, columella campanulato-convexa, intus hyalina nec flava; sporis majusculis, oblongo-ovoideis, 30-33 \times 15, levibus, albo-flavidis; zygosporis ignotis.

Hab. in fimo equino in Germania. — Affinis *M. Mucedini*, sed notis allatis distinguendus.

9. **Mucor adventitius** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 1687
1902, p. 719. — Maculis orbicularibus; hyphis repentibus ramosis, continuis, erectis 20 mm. alt., simplicibus, continuis, hyalinis; sporangiis globosis. 80-95 μ . diam., initio hyalinis, dein griseolis, subtiliter echinulatis, membrana diffluenta; columella initio globosa, dein ellipsoidea v. campanulata, hyalina, 40-48 \times 48-64, ad basim annulata; sporis ellipsoideis v. oblongis, 8-8,5 \times 4,5-5, levibus singulis hyalinis, acervatis griseis; zygosporis non visis.

Hab. in gelatina in loco silvatico exposita in Hollandia —

A *M. mucilagineo* Bref. sporulis minoribus differt.

10. **Mucor geophilus** Oud. Fl. Myc. obt. par la culture sur gelatine 1688
etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 278.
tab. v. fig. 1-5. — Cæspitibus primo niveis, postea griseolis, denique olivaceis, hyphis repentibus dichotome ramosis, continuis, dilute olivaceis, protoplasmate homogæno fartis; erectis concoloribus, nunc simplicibus, tunc iterum cymoso-racemosis, ramulis vulgo paucis, 2-3, continuis; sporangiis globosis, primo lutescentibus, denique olivaceis, post diffluxum collarium relinquentibus, 50-350 μ . diam., obtusiuscule muricatis; columella exacte spherica, magna, dilutissime fuliginea; sporis pluriformibus, globosis, ellipticis, angulosis, 4,2-6,5 μ . diam., dilutissime olivaceis, levissimis; chlamydosporis in mycelii ramis intercalaribus, globosis, protoplasmate granuloso fartis, 20 μ . diam., nunc solitariis, tunc iterum in series aggregatis; zygosporis, ut videtur, chlamydosporis subsimilibus, has volumine paullo superantibus (ca. 30 μ . diam.).

Hab. in gelatina pulvere terræ humosæ infecta, Bassum Hollandiæ.

11. **Mucor reticulatus** Bain. Bull. Soc. Mycol. 1903, p. 164 (absque 1689
diagnosi). — Pedicellis circ. 1 cm. longis ramosis prope apicem septatis; sporangiis sordide albis; membrana minute granulata fugacissima; columella ovoidea cylindro-conica vel panduriformi; sporis globosis hyalinis sæpe columellæ conglutinatis.

Hab. in excremento canis, felis et muris in Gallia. — Mensuræ omnes desiderantur.

12. **Mucor platensis** Speg. Rev. Arg. de Hist. Nat. p. (4). — Myce- 1690
lio albo v. vix subcinerescente late effuso, laxe gossypino-tomentosulo ex hyphis crebre irregulariterque ramulosis cylindricis, 12-15 μ . crassis, hyalinis, guttulis oleosis farctis efformato; ramulis sporangiferis hinc inde densiuscule adsurgentibus, erectis, rectis vel flexuosulis, teretibus 5-30 mm. longis, 10-12 μ . crassis, simplicibus, continuis hyalinis, levibus, apice non incrassatis, sporangium unicum sistentibus; sporangiis globosis, 80-100 μ . diam., inferne non vel vix depressis, ex olivaceo v. fuligineo cæsiis, membrana tenuissima fusco-violascente intus extusque spiculis crystallinis concoloribus minutissimis acutis dense muriculata, mox evanescente vestitis; columella ex ovato subglobosa basi late subtruncato-rotundata v. subumbilicata, 60 \approx 50 ex hyalino violascente donata; sporis globosis, 8-9 μ . diam, levibus, eguttulatis, hyalinis, dense conglobatis; oosporis non visis.

Hab. in fimo vetusto, putrescente Didelphydis elongati in silva prope La Plata Argentinae.

13. **Mucor hygrophilus** Oud. Beih. Bot. Centr. 1902, p. 6. — Hy- 1691
phis sterilibus repentibus niveis, ramosissimis, continuis; hyphis fertilibus simplicissimis, hyalinis, continuis, ad 8 μ . cr., perfecte cylindræis, summo tantum vix tenuioribus; sporangiis sphaericis 36-42 \approx 28, membrana primo hyalina, postea vix dilutissime olivacea, levissima, non diffuente; columella infera ovoidea, 32 \approx 24, levissima, primo hyalina, postremo vix dilutissime viridescente; sporis ellipticis v. ovoideis, 5-8 \approx 3-6 levissimis, dilutissime virentibus; chlamydosporis numerosissimis, vulgo doliiformibus, dilutissime virescentibus, levibus, membrana minute granulosa farctis.

Hab. in aqua aquæductus urbis Enschede Hollandiæ.

14. **Mucor comatus** Bain. Bull. Soc. Myc. 1903, pag. 156, tab. VI. 1692
fig. 6-9 (absque diagnosi). — Hypha primaria apice sporangifera, ramulis binis ascendentibus prope verticem et prope medium

aucta, $500 \approx 70$; sporangiis globosis membrana tenuiter granulata præditis, columella hemisphærica, 90-100. μ . diam, filamentis hyalinis radiantibus prædita; sporis ovoideis, $6-7 \approx 3-4,5$ ex hyalino flavidis.

Hab. in substantiis organicis? in Gallia.

15. **Mucor limpidus?** Bain. Bull. Soc. Myc. 1903, p. 162 (absque diagnosi) ¹⁶⁹³. — Irregulariter et copiose ramosus; sporangii membrana sublevi; sporis ovoideis perexiguis; columella subsphærica, basi post sporangii dehiscenciam collario prædita; zygosporis majusculis, verrucoso-hirtis, verrucis rufo-ochraceis.

Hab. in substantiis organicis? in Gallia. — Mensuræ omnes desiderantur.

16. **Mucor communis** Bain. Bull. Soc. Myc. 1903, pag. 161 (absque diagnosi) ¹⁶⁹⁴. — Ex albo ochraceus; sporangiis perexiguis, oligosporis, membrana levi, irregulariter dehiscente; sporis versiformibus globosis, ovoideis, polyhedricis, subhyalinis; columella cylindræa, papillata.

Hab. in substantiis organicis? in Gallia. — Zygosporæ copiosæ, scalariformiter dispositæ, ochraceæ, plano-verrucosæ. Mensuræ omnes desiderantur.

17. **Mucor vulgaris** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque diagnosi) ¹⁶⁹⁵. — Minutus, maculiformis ex albo fulvus, valde ramosus; sporangiis ochraceis ob sporas; membrana hyalina; columella ovoidea vel cylindræa, papillata, dilute cyanea; sporis globosis.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ minute, echinulatæ; zygosporæ verrucis applanatis conspersæ, facile evolvuntur. Mensuræ omnes desiderantur.

18. **Mucor vicinus** Bain. Bull. Soc. Myc. 1903, p. 159 (absque diagnosi) ¹⁶⁹⁶. — Mycelio irregulariter ramoso, sporangiis subglobosis, dilute fulvis, tunica levi; sporis e globoso-polyhedricis, subochraceis; columella ovoidea; pedicellis æqualibus, inferne guttulis flavidis oleosis præditis.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ adsunt et azygosporæ facile evolvuntur. Mensuræ omnes desiderantur.

19. **Mucor prolificus** Bain. Bull. Soc. Mycol. 1903, p. 163 (absque diagnosi) ¹⁶⁹⁷. — Sporangii flavo-ochraceis, polysporis, membrana levi hyalina; sporis vulgo ovoideis, majusculis, flavidis; columella cylindræa, papillata, basi abrupte dilatata.

Hab. in substantiis organicis; in Gallia. — Zygosporæ serius

atro verrucoso-echinulatæ. Chlamydosporæ leves, flavidæ. Mensuræ omnes desiderantur.

20. **Mucor neglectus** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque 1698
diagnosi). — Sporangiiis ob sporas ovoideas flavidas ochraceis; columella ovoidea vel medio-subconstricta vel piriformi; membrana sporangii minute granulosa, dein evanescente et collarium relinquente.

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ leves et ochraceæ adsunt et azygosporæ facile evolvuntur. Affinis *M. tenui* et *M. vicino*. Mensuræ omnes desiderantur.

21. **Mucor Ramannianus** A. Möll. Zeitschr. f. Forst u. Jagdwesen 1903, 1699
Heft V-VI. — Mycelio niveo copiose ramoso, extus filiformi gemmifero; gemmis conidiomorphis; hyphis fertilibus rectis, vix 1 mm. longis, sæpius brevioribus, solitariis v. umbellato-fasciculatis, simplicibus, 10-20 μ . infra sporangium septo divisis; sporangiis cupreis, coacervatis læte roseis, globosis, 20-40 μ . diam., columella globosa 7-9 μ . diam., membrana omnino fragili; sporis globoso-oblongis, 2,5 \times 1,7, hyalinis; zygosporis nullis observatis.

Hab. in pane, ubi cæspitulos depressos, roseos radiatim expansos format, ex mycorrhizis Pinorum in Bavaria et Germania. — In fimo non evolvitur.

22. **Mucor Wosnessenskii** Schostak. in Zeitschr. f. angew. Mikro- 1700
skop., 1903, p. 5. — Hyphis simplicibus v. sympodiali-ramosis 1-2 mm. alt., 100 μ . cr.; sporangiis globosis, atro-griseis; membrana fragili et collario basali præditis; columella piriformi 350 μ . longa; sporis ovoideo-oblongis, 6-8 \times 5.

Hab. in caryopsidibus Oryzæ coctis, in Rossia. — Subinde sporangia sterilia manent et tunc lateraliter generant sporangio-phora sporangiis minoribus prædita.

ACTINOMUCOR Schostak. in Zeitschr. f. angew. Mikroskop. 1903, p. 35 (Etym. *actin* radius et Mucor). — Hyphæ stoloniferæ, stolonibus apice inflatis et 4-5 ramos verticillatos edentibus subindeque ramos secundi ordinis proferentibus. Rami conidiophori circiter decem verticillati. Sporangia lateralia minora, altitudine sporangium centrale majus subæquantia et cingentia.

1. **Actinomucor repens** Scholastak. l. c. — Characteres generis. 1701

Hab. in substantiis organicis in Rossia.

ZYGORRHYNCHUS Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *zygon* jugum et *rhynchos* rostrum). — Hyphæ continuæ, ramosæ, inæquales sæpe nodosæ, immersæ, repentæ vel stratum aëreum velutinum formantes. Chlamydosporæ leves, intercalares vel terminales. Pedicelli solitarii vel in systemata sympodica irregularia sporocystas typicas vel abortivas zygosporasque ferentia aggregati, apice non infundibuliformes. Sporocystæ uniformes, membrana cum basi columellæ plus minus concrecente præditæ. Sporæ numerosæ, minutæ, leves. Zygosporæ valde aculeatæ, rostratæ. Tympana insertionis subopposita, inæqualia, minus in apice rostri. Suspensores inæquales et difformes, minor rectus et brevis, major longus, curvus apice piriformi-inflatus. Gameta valde inæqualia; zygosporæ e systemate simili sporocystarum oriuntur.

1. **Zygorrhynchus heterogamus** Vuill. l. c. *Mucor heterogamus* Vuill. — Sacc. Syll. IX, p. 336.
2. **Zygorrhynchus Moelleri** Vuill. Bull. Soc. Mycol. 1903, p. 117. — 1702
A *L. heterogamo* differt sporis ellipsoideis, $4,3 \approx 2,6$, nec globosis zygosporisque duplo triplove majoribus.
Hab. in substantiis organicis, Eberswalde Germaniæ (MOELLER).

PROABSIDIA Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *pro* et *Absidia*, ob affinitatem cum hoc genere). — Hyphæ ramosæ inæquales, sæpe nodosæ. Chlamydosporæ leves intercalares. Pedicelli solitarii ex hyphis directe nascentes, apice infundibuliformes. Sporocystæ uniformes, globulosæ, membrana levi diffluenti præditæ, collarium angustum relinquentes. Columella hemisphærica vel obconica sæpe papillata. Sporæ numerosæ minutæ leves. Zygosporæ verrucosæ. Tympana insertionis æqualia, opposita; suspensores recti infundibuliformes fulcris circinatis, tympana cingentibus præditi.

1. **Proabsidia Saccardo** (Oud.) Vuill. loc. cit. *Mucor Saccardo* Oud. 1703
Fl. Myc. obt. par la culture sur gelatine etc. in Archives Néerlandaises des Sc. exactes et nat. 1902, p. 278, tab. VI, fig. 1-6. — Cæspitibus fructiferis dilutissime violaceis; hyphis repentibus dichotome ramosis, continuis, liquore dilutissime violaceo repletis; erectis indivisis, altis 25 mm., nunc æqualiter, tunc iterum partim tantum coloratis, septo angusto, permanente, immutabili, 12-24 μ . infra apicem expanso præditi, singulis in sporangium unicum abeuntibus; sporangiis apophysatis itaque partem tantum expansionis sphæricæ terminalis occupantibus, columellam superam he-

misphæricam v. paullo voluminosiorem, imo semiellipticam, summo passim mucronatam occultantibus, 36-42 μ . diam., levissimis, primo dilutissime violaceis, postea griseolis, postremo fuscescentibus, tunica fluxili, inermi, hyalina, tandem collare angustum ad columellæ basim relinquentibus; columellæ tunica hyalina, liquore granuloso, vulgo guttulis farcto, repleta; sporis globosis, durante optimo vigore dilutissime violaceis, 4-7 μ . diam.; chlamydo-sporis in mycelii ramis intercalaribus, ellipticis, levibus, protoplasmate granuloso faretis; zygosporis globosis, maturis 60 μ . diam., fuscis, rugoso-verruculosis, suspensoribus p. m. cyathiformibus, pedunculatis, ex margine partis anterioris dilatatæ fila fusca 10-20 numero, longissima 7 μ . maxime lata, sursum clavata vel uncinata, tandemque inter se congregantia et intertexta emittentibus.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ.

PARASITELLA Bain. Bull. Soc. Mycol. Fr. 1903, pag. 153 (Etym. *parasitus*). — Sporangia solitaria perexigua horizontaliter ovoidea, applanata, pleiospora, membrana tenuiter granulosa; columella ovoidea; pedicelli sporangiferi simplices, breves, sursum attenuati, ex hyphis mycelialibus filiformibus, irregulariter ramosis et hinc inde massulis globosis vel subdigitatis præditis oriundi.

1. **Parasitella simplex** Bain. Bull. Soc. Myc. Fr. 1903, p. 153, t. VI, 1704 fig. 4-5 (absque diagnosi). — Perexigua, oculo inermi vix visibilis; mycelii tuberositatibus prædistincta; sporis ovoideis; cetera generis.

Hab. parasitica in Mucoribus quibusdam in Gallia. — Dimensiones nullæ allatæ. — Sub nom. *Mucoris parasitici* exhibuit sed non descripsit olim hanc speciem; hinc novum nomen *Parasitella parasitica* (Bain.) Syd. Ann. myc. I, p. 371 non necessarium videtur.

CIRCINELLA Van Tiegh. — Syll. VII p. 215.

1. **Circinella nigra** Bain. Bull. Soc. Myc. 1903, pag. 170, tab. VII, 1705 f. 6-9 (absque diagnosi). — Sporangii dispositis ut in *Circinella spinosa*, atro-cœruleis, globosis, 45-50 μ . diam., membrana aciculis calcareis hirsuta; sporis globosis, subcæneis, 2-5 μ . diam.; columella azureo-atra, spinulosa; hyphis 7,5 μ . diam., flavo-ochraceis.

Hab. in fimo equino exsiccato, in Gallia. — Zygosporæ leves, atro-violaceæ.

RHIZOPUS Ehrenb. — Syll. VII p. 212, XI p. 240, XIV p. 435, XVI p. 385.

1. **Rhizopus apiculatus** Mc. Alp. Fungus diseas. of Stone-fruit-trees. 1706
Melb. 1902, p. 96, tab. XXII, et XXIII fig. 62-64. — Hyphis sporangiferis erectis, generaliter 3-fasciculatis, simplicibus, castaneis, 2 mm. long. et 26 μ . crassis e stolonibus concoloribus oriundis; sporangiis globosis, tunica levi, fuligineis, 150-160 μ . diam.; sporis pallide fuligineis, subglobosis vel ovalibus, levibus, granulosis, 7-8 μ . diam. vel 8-11 \approx 6,5-7,5.

Hab. in foliis emortuis Pruni domesticæ et Pruni Armeniacæ, Ardmona, Victoria Australiæ.

2. **Rhizopus umbellatus** Annie L. Smith, in Journ. R. Micr. Soc. 1901. 1707
pag. 618, tab. XIII, f. 5. — Hyphis e stolonibus exsurgentibus 8-10 μ . diam., hyalinis, sporangiferis, 500 μ . longis, superne umbellato-ramosis, hyalinis; ramis fere semper quaternis, interdum septatis, in sporangia subglobosa 50-60 μ . diam. terminantibus, hyalinis; columella globosa 30 μ . diam.; sporis oblongis, utrinque attenuatis 5 \approx 2, hyalinis.

Hab. in seminibus Trifolii rubri germinantibus in Britannia. 1708

3. **Rhizopus schizans** Mc. Alp. Fungus diseas. Stone-fruit-trees, Melb. 1902, p. 84, t. XV, f. 1-2. — Hyphis sterilibus repentibus, mycelia intricata efformantibus, tenuibus, hyalinis, septatis, ramosis; hyphis fertilibus fasciculatis, simplicibus, raro ramosis et 1-septatis, luteo-brunneo-pallidis, circ. 1 mm. long. et 17 μ . cr. e stolonibus concoloribus oriundis; sporangiis globosis, nigro-brunneis, tunica levi, 150 μ . diam., columella elliptica, 70 \approx 52; sporis in cumulo nigro-brunneis, separatim pallidis, ellipticis v. ovalibus, 7-7,5 \approx 5-5,5.

Hab. in fructibus ruptis Pruni Persicæ, Ardmona, Victoria Australiæ.

4. **Rhizopus equinus** Cost. et Lucet in Bull. Soc. Myc. de France, 1903, 1709
p. 211, tab. IX et X. — Pedicellis initio subsolitariis, plerumque rhizoidibus carentibus, rectis curvulisve, tandem fasciculatis et rhizoidibus præditis, tunica pallide ochracea; columella pallida, globoso-emisphærica; sporis globosis interdum subangulosis, levibus 4 μ . diam.

Hab. in corpore Equi Caballi in Gallia. — Species Cuniculo pathogena. Adsunt chlamydosporæ. Confer fusiores descriptionem et Conspectum specierum l. c.

5. **Rhizopus tonkinensis** Vuill. Rev. Mycol. 1902, pag. 53, tab. 225 1710
(absque diagnosi). — Hyphis sterilibus repentibus hinc inde rhi-

zoidibus brevibus flexuosis præditis; hyphis fertilibus assurgentibus apice infundibulariter dilatatis et cum columella globosa contiguis; sporangiis globosis, 75-100 μ . diam.; sporis sphæroideo-ellipsoideis, uno apice acutiusculis (avellaniformibus), $8 \approx 5,5-6,5$, exosporio nigro-cyaneo, eximie striato.

Hab. in caryopsidibus *Oryzæ* fermentescentibus (*ragi*) ex Tonkin Indosinarum.

6. **Rhizopus japonicus** Vuillemin. *Revue mycol.* 1902, p. 49, tab. 224, 1711 f. 11-14 (absque diagnosi). — Hyphis sterilibus hinc inde rhizoidibus copiose ramulosis præditis ibique fasciculos hypharum fertilium assurgentium gerentibus; hyphis fertilibus apice infundibulariter dilatatis et cum columella globulosa contiguis; sporangiis sphæroideis 160-215 μ . diam.; sporis sphæroideo-ellipsoideis, uno apice acutioribus (avellaniformibus), $9-12 \approx 6-7$, exosporio nigro-cyaneo distincte striato.

Hab. in caryopsidibus *Oryzæ* fermentescentibus (*ragi*) e Japonia.

7. **Rhizopus Cambodja** (Chrzaszcz) Vuill. *Rev. Myc.* 1902, p. 48, *Mucor* 1712 *Cambodja* Chrzaszcz in *Centralbl. f. Bakter.* II Abt. 1901, p. 326-338, 2 tab. — Mycelio albo dein griseo-cærulescente, 10-20 mm. longo, stolonibus e mycelio surgentibus, 3-14 μ . diam. et 120 μ . usque ad 8 mm. long., contentu subflavido; rhizinis vulgo parce ramosis hyalinis dein brunneis, 3-7 μ . crass. subinde septatis; hyphis fertilibus, 100-1000 $\approx 7,2-14$, rectis vel curvis, brunneis, vulgo simplicibus rarius ramulosis. sporangiis globosis, 50-100 μ . diam. griseis vel brunneolis, maturis cæruleo-nigris, membrana valde fragili, columella 22-44 $\approx 25-44$ hemisphærica vel globosa; membrana levi brunnea; sporis cærulescentibus, levibus, oblongis vel globoso-angulosis, $4,5-7,5 \approx 3,7-5,2$; zygosporis nullis visis.

Hab. in fermento oryzino quodam sinensi e Cambodja Asiae.

8. **Rhizopus sinensis** Saito in *Centralbl. f. Bakt.* II Abth., XIII 1713 (1904), p. 153, t. I. — Hyphis sterilibus repentibus hyalinis hinc inde rhizinas plus minus longas subinde verruciformes fasciculatas v. sparsas emittentibus, superne hyphas sporangiferas 200-250 μ . altas edentibus; hyphis fertilibus filiformibus griseis simplicibus, interdum sursum bifidis subverticillato-ramosis, apice parum dilatatis; sporangiis globosis, 60-80 μ . diam., nigricantibus, columella varia, plerumque ellipsoidea, 30-40 μ . cr.; sporis e sphærico ellipsoideis levibus intus guttulato-granulosis, $10 \approx 8$ v. 5-7 μ . diam., griseo-nigricantibus.

Hab. in pane triticeo ex urbe Shao-Hing in prov. Che-Kiang Sinarum. — Cæspituli griseo-nigricantes subinde 2-3 cm. alt. Zygosporæ nullæ observatæ.

9. **Rhizopus Tritici** Saito in Centralbl. f. Bakt. II Abth. XIII (1904) 1714 p. 157, t. II. — Hyphis sterilibus repentibus, filiformibus, parce ramosis, hinc inde rhizinas fasciculatas, simplices vel apice varie ramulosas emittentibus, superne hyphas fertiles edentibus; hyphis fertilibus, 500-1000 \approx 10, filiformibus, brunneis, rectis vel curvulis, simplicibus vel sursum iterato-ramosis, apice vix dilatatis; sporangiis globosis initio niveis, dein atro-brunneis, 85-200 μ . diam., membrana fragili crystallis perexiguis acicularibus conspersa; columella 9-11 \approx 7-8, sphaerico-ellipsoidea; sporis globoso-ovoideis, æqualibus 5-6 μ . diam., coacervatis nigro-griseis vel atro-brunneis, membrana crassiuscula, longitudinaliter striata; zygosporis nullis visis.

Hab. in pane triticeo ex urbe Shao-Hing, in prov. Che-Kiang Sinarum. — Cæspituli nivei dein griseo-nigricantes, 2-5 cm. alt.

TIEGHEMELLA Berl. et De Toni — Syll. VII p. 215.

1. **Tieghemella Orchidis** Vuill. in Bull. Soc. Mycol. 1903, pag. 122. 1715 tab. 5. — Hypha primaria seu stolone 0,6-10 mm. longo, rhizoidibus basi prædita; ramis fertilibus simplicibus v. ramulo obliquo sursum auctis, 500-700 \approx 7-10, apice 1-septatis, sursum infundibuliformibus, sporocystibus cum infundibulo continuis, 40 \approx 32, membrana granulis perexiguis incrustata, collarium angustum, fimbriatum, basi relincente; sporis sphaericis, 2-5 \approx 3-5 μ . diam. brunneolis; columella conica apice papillata.

Hab. in radicibus Orchidis masculæ diu in vasculo asservatis, ex silvis Nancy Galliæ. — Huic generi adscribenda est *Tieghemella dubia* (Bainier) Vuill. l. c. *Absidia dubia* Bainier — Syll. XI, p. 240 — quam nunc cl. Bainier in gen. nov. *Pseudoabsidiam* erexit. Cfr. Bull. Soc. mycol. 1903, p. 153, t. VII.

ABSIDIA Van Tiegh. -- Syll. VII p. 214, IX p. 337, XI p. 240, XIV p. 435, XVI p. 386.

1. **Absidia scabra** Cocconi, Ricerche int. una nuova Mucorinea, in 1716 Memor. R. Accad. Sc. Bologna ser. V, Tom. VIII, pag. 80 con tav. — Hyphis sterilibus repentibus in arcus fere semicirculares æquales plurimos elevatis, continuis, rhizinis fasciculatis basi au-

ctis; ramis sporangiferis e medio arcuum 3-5 assurgentibus, simplicibus; sporangiis ovoideis v. piriformibus, membrana levi; columella conoidea; sporis globosis, hyalinis, 4,5-6 μ . diam, membrana spinulosa; zygosporis breve ovoideis v. subsphæroideis, 78-86 μ . diam, nigricantibus, filamentis uncinatis obvolutis et germinando hypham sporangiferam simplicem ramosamve generantibus.

Hab. in fimo equino, Bologna Ital. bor. — Azygosporæ notæ.

SPORODINIA Link. — Syll. VII p. 206.

1. **Sporodinia argentinensis** Speg. Myc. argent. ser. II, 1902, p. 67. 1717
— Cæspitulis tenerrimis, fugacissimis subcinerescentibus, 5-10 mm. alt.; ramis erectis, laxè articulatis, cylindræis, internodiis gracilibus, 500-1000 \approx 10-12, hyalinis; sporangiis globosis chlorinis, 30-50 μ . diam., mox diffluentibus, columellam globosam 15-25 μ . d., liberantibus; sporis levibus, utrinque obtusis, 4-6 \approx 3-4, tenuissime tunicatis, eguttulatis, hyalinis.

Hab. in lignis quibusdam diu in receptaculo humido servatis, La Plata, in Argentina.

HELICOSTYLUM Corda — Syll. VII p. 209, XIV p. 434.

1. **Helicostylum intermedium** Morini, Rendic. d. R. Accad. d. Scienze 1718
Bologna, 1902, p. 81-88 c. tabula (absque diagnosi). — Cæspitulosum, albidum; cæspitulis $\frac{1}{3}$ mm. diam. ex hyphis laxis compositis; hypha primaria 0,7-1,3 mm. alta, 22-28 μ . cr., erecta, continua supra medium ramosa, parte suprema hyphæ ramorumque attenuata et sterili; ramis prope medium ramulosis, ramulis arcte spiraliter contortis, apice sporangiophoris; sporangiis globosis, columella destitutis, 26-30 μ . diam., hyalinis, spinulis calcareis per exiguis conspersis; sporis paucis (5-18) ovoideis, levibus, e flavido hyalinis, ex icone circ. 8-9 \approx 6-6,5.

Hab. in fimo bovino, Bologna Ital. bor., socio *Pilobolo*.

PILOBOLUS Tode — Syll. VII p. 184.

1. **Pilobolus Morinii** Sacc. *Piloboli* sp. Mor. in Mem. R. Accad. delle Scienze di Bologna ser. V, tom. VIII, 1899-1900, p. 85. c. tab. 1719
— Videtur affinis *P. nano* van Tiegh., a quo differt hyphis sporangiophoris basi non 2-5 coalitis; sporis globosis minutis 4,5-6 μ . diam., aurantiacis, nec incoloribus.

Hab. in stercore humano sicco, Montese in agro Bononiensi.

— Totus fungillus 0,6-0,8 mm. alt. Sporangia nigra; hypha sporangiophora alba cum vesica sup. alba.

2. **Pilobolus pullus** Masee in Kew Bull. 1901, p. 160. — Sporangiiis ¹⁷²⁰ hemisphærico-depressis, atris, glabris 250-300 μ . latis; columella convexa, sæpe medio constricta; sporis ellipticis, episporio aurantiaco, 10-12 \times 8-9; stipite albido, apice ventricosoinflato, 1 milim. alto.

Hab. in fimo vaccino, in Tasmania (RODWAY). — *P. Kleinii* van Tiegh. affinis.

MORTIERELLA Coemans. — Syll. VII p. 220, IX p. 337, XI p. 240, XVI p. 387.

1. **Mortierella humicola** Oud. Fl. Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sciences exactes et natur. 1902, pag. 276, tab. I, fig. 1-3. — Cæspitibus orbicularibus, non lamellosis, constanter niveis; hyphis repentibus dichotome ramosis, hyalinis, continuis, passim nodulosis, protoplasmate paucigranuloso repletis; erectis perfecte cylindræis, neque deorsum crassioribus, nec sursum attenuatis, protoplasmate grosse vacuoloso farctis, 110-150 μ . altis, singulis in sporangium unicum abeuntibus; sporangiis globosis, 20 μ . diam., levissimis, membrana hyalina; sporis perfecte globosis, levissimis, 3 μ . diam., hyalinis, absque omni nuclei v. guttulæ vestigio. ¹⁷²¹

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ.

2. **Mortierella isabellina** Oud. Fl. Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sc. exactes et natur. 1902, p. 276, tab. II, f. 1-6. — Cæspitibus zonatis, primo niveis, mox autem læte griseis, denique isabellinis tactuque justo durioribus; hyphis repentibus dichotome ramosis, continuis, protoplasmate æquali farctis; erectis cylindræis, sursum vix tenuioribus, continuis, 120-200 μ . altis, hyalinis, in sporangium unicum abeuntibus; sporangiis globosis, 12-25 μ . diam., levissimis, membrana hyalina; sporis globosis, levissimis, singulis fere hyalinis, aggregatis, dilutissime ochroleucis, 2-5 μ . diam.; chlamydosporis in gelatina submersis, sphæricis v. ellipticis, levibus, hyalinis, membrana tenui instructis. ¹⁷²²

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. simplici* Van Tiegh. et Le Mon., colore cæ-

spitum optime vigentium, colore et dimensione minore sporarum differt.

3. **Mortierella pusilla** Oud. Fl. Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sc. exactes et natur. 1902, p. 277, tab. III, fig. 1-2. — Cæspitibus orbicularibus, constanter niveis, lanosis, e laminis paucis superpositis, repandis vel lobatis et quoad amplitudinem sursum diminuentibus compositis; hyphis repentibus, hyalinis, 2,5-10 μ . cr., dichotome ramosis, protoplasmate subtilissime granuloso dense repletis; erectis 4-6 μ . cr., deorsum paullo crassioribus, sursum lenissime attenuatis, 130-170 μ . altis, sporangio unico terminatis; sporangiis globosis, levissimis, 24-28 μ . diam., membrana hyalina; sporis perfecte globosis, levissimis, hyalinis, 2-2,5 μ . diam. absque omni nuclei aut vesiculæ vestigio. 1723

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. isabellina* Oud. differt cæspitum fabrica lamellosa et colore constanter niveo; hyphis repentibus protoplasmate dense et minute granuloso repletis; hyphis erectis sursum attenuatis, deorsum paullo incrassatis; sporis hyalinis.

4. **Mortierella subtilissima** Oud. Fl. Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 277, tab. IV, fig. 1-3. — Cæspitibus *M. pusillæ* simillimis; hyphis repentibus hyalinis, continuis, ramosis, 3-5 μ . crass., protoplasmate homoganeo farctis; erectis strictis, continuis, hyalinis, 130-200 μ . altis, 2,5-3,5 μ . cr., simplicibus, cylindricis, deorsum non incrassatis, sursum vix attenuatis, singulis sporangio unico terminatis; sporangiis globosis, levissimis, 20-26 μ . diam., membrana hyalina; sporis levissimis, hyalinis, globosis, 2,3-4,7 μ . d., cum ellipticis 5-6 \approx 4-5 commixtis. 1724

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. pusilla* Oud. differt hyphis repentibus protoplasmate homoganeo nec granuloso farctis; erectis tenuioribus (2,3-3,5 μ . contra 5), per totam longitudinem fere æque crassis; sporangiis minoribus (20-26 μ . contra 24-28); sporis globosis minoribus cum aliis, ellipticis, majoribus commixtis, neque omnibus æqualibus. An forma *M. pusillæ*?

CHOANOPHORA Cunn. — Syll. IX p. 339, XIV p. 432, XVI p. 383.

1. **Choanophora Cucurbitarum** (B. et R.) Thaxter, Rhodora 1903, p. 99,

tab. XLVI. Ita vocandus est *Rhopalomyces Cucurbitarum* B. et R. — Syll. IV, p. 50 — teste cl. Thaxter.

CUNNINGHAMELLA Matr. in Ann. Mycol. 1903, pag. 46, absque diagnosi (Etym. a cl. botanico britannico-indico D. D. Cunningham). — Mycelium continuum, ceterum genus omnino mucedineum et zygosporis carens. Hyphæ fertiles superne inflatæ in vesiculam ubique sterigmatophoram. Sporæ (conidia?) globulosæ, distincte spinulosæ in apice sterigmatum solitarie acrogenæ. — *Edocephalo* et *Choanophoræ* affinis *).

1. **Cunninghamella africana** Matr. in Ann. Mycol. 1903, pag. 47. — 1725

Omnino alba; mycelio et hyphis continuis; hyphis sporiferis apice capitato-inflatis; capitulis usque 100 μ . diam., globulosis; conidiis globoso-ellipsoideis, 18 \approx 12, pedicellatis, dense muricato-spinulosis.

Hab. in stercore Camelorum in Soudan gallico Africæ, nec non culta in laboratorio. — Diagnosis systematica, more solito biologorum, omnino desideratur. Teste cl. R. Thaxter in Rhodora 1903, p. 98, huc spectat *Edocephalum echinulatum* Thaxter 1891 Syll., quod ergo vocandum est *Cunning. echinulata* Thaxter.

PIPTOCEPHALIS De Bary — Syll. VII p. 225, IX p. 338, XI p. 241, XVI p. 387.

1. **Piptocephalis Le-Monnieriana** Vuill. Les Céphalidées (in Bull. Soc. 1726

Sc. Nancy, 1902), p. 28, pl. IV, f. 57-74 (absque diagnosi). — Filamentis fertilibus rhizoidibus nullis matrici hærentibus, erectis, 500 μ . alt., 9 μ . cr. sursum in corymbum umbellatum desinentibus, continuis; corymbo fructifero ex albo-castaneo, e ramis dichotomicis patulis, apice inflato sporigeris ibique 6,5 μ . cr., tuberculatis; sporocystibus radiato-capitatis, breve cylindræis, 7-8 \approx 1, 7-2; sporis in quaque sporocysti binis, ellipsoideis.

Hab. in cæspitibus Mucoris fragilis pr. Epinal Galliæ.

SYNCEPHALIS Van Tiegh. et Le Monn. — Syll. XIV p. 435.

1. **Syncephalis aurantiaca** Vuill. Les Céphalidées, Nancy 1902 (in 1727

*) Teste Auctore, (*Edocephalum albidum* Sacc. ad hoc genus quoque pertinet (*Cunninghamella alba* (Sacc.) Matr. Et *Gonatobotrys microspora* Riv., sec. eundem Matruchot ad genus affine referenda esset nomine *Plachtflorella microspora* (Riv.) Matr. Sed cum in duobus his fungorum generibus sporangia non distincta sint, res videtur ulterius inquirenda.

Bull. mens. Soc. Scienc. Nancy 1902) p. 17 pl. I, f. 13-21, pl. II, fig. 36-43 (absque diagnosi). — *Amœne aurantiaca*, effusa; filamentis sterilibus, tenuissimis, anastomotico-ramosis, hinc inde subtriangulariter inflatis, continuis; fertilibus erectis basi rhizoidibus inæqualibus cinctis ibique parce septulatis, tereti-obclavatis, 200-270 μ . long. apice inflatulis 30 μ . cr.; sporocystibus fasciculato-capitatis, cylindræis, 60 μ . long., 3-4-articulatis ex articulo sterili versiformi oriundis; sporis tereti-ellipsoideis, utrinque rotundatis, 6-9 \times 3,5-4.

Hab. in excremento Vulpis, Malzéville Galliæ.

2. **Syncephalis adunca** Vuill. Ann. Mycol. 1903, p. 423, tab. VIII, 1728
f. 11-19 (absque diagnosi). — Tota 95-125 μ . alta; hypha verticali, cylindrica, 6-6,5 μ . cr., sursum arcte recurvata et incrassata ibique 8-20 μ . lata; vesicula apicali hemisphærica, 23-27 μ . diam.; baculis sporogenis supra vesiculam parallele stipatis, 4-sporis; sporis oblongo-cylindræis, 3,5 μ . long., supreme cum indusio terminali 7 μ . long.

Hab. in superficie aquæ cum fimo equino, sociis aliis Mucoraceis, culta in laboratorio botanico, Nancy Galliæ. — Affinis *S. curvatæ*.

3. **Syncephalis glabra** Morini, Contr. gen. Synceph. in Mem. R. Acad. Bologna Ser. V, t. IX, pag 233 tab. — 1729
Flavo-aurantiaca; hyphis conidiophoris levissimis simplicibus basi incrassatis et rhizinis fasciculatis præditis, continuis, 60-85 μ . longis, apice in vesiculam globosam inflatis, crystalloidibus carentibus, serius incurvato-nutantibus; basidiis e vesicula orientibus, brevibus, catenulam unicam conidiorum globosorum levium gerentibus; zygosporis globulosis, levibus, membrana crassa, nigricante.

Hab. in Boletto eduli, B. Satana etc. fere putrescentibus pr. Bologna Ital. bor. — Mensuræ sporarum et zygosporarum omnes desiderantur.

GLOMERULA Bainier in Bull. Soc. Mycol. 1903, p. 154 (Etym. *glomerus*). — Hyphæ fertiles vertice sporangiferæ, apicem versus ramulis 3-8-verticillatis breve ramulosis apice quoque sporangiferis præditæ Sporangia sphæroidea, hyalina dein ochracea, membrana spinulis calcareis dense conspersa, maturitate diffluente et collarium angustum relinquente; sporæ globosæ leves; columella varia hemisphærica, cylindro-conica vel ovoidea.

1. **Glomerula repens** Bainier in Bull. Soc. Mycol. 1903, p. 154, t. VI, 1730
fig. 1-3 (absque diagnosi). — Characteres generis.

Hab. in substantiis putrescentibus in Gallia. — Dimensiones nullæ allatæ.

SPINALIA Vuillemin in Bull. Soc. Myc. de France 1904, pag. 26-33 (Etym. ab urbe Epinal, ubi fungus primitus lectus). — Hyphæ continuæ, (subinde hyphæ exhaustæ septatæ ad cicatrices); hypha fertilis longissima, repens v. scandens, in pedicellum erecta; rami laterales rariores et serotini pedicellos secundarios edentes. Vesicula apicalis globosa, basidiis sporomorphis radiantibus obsita. Sporangia (conidia?) solitaria in apice basidiorum, ellipsoidea, continua. — Membrana sporangiis nulla manifesta, hinc technice fungillus videtur potius mucedineus, forte *Ædocephalo* affinis.

1. **Spinalia radians** Vuillemin, l. c. p. 32, tab. II. — Characteres 1731
generis. Fungus totus flavicans, 2-2,5 mm. long.; vesicula sporifera globosa 4-30 μ . diam.; basidiis sporangiisque (?) subisomorphis oblongo-ellipsoideis, utrinque rotundatis, 4,5-6,7 \times 1,7-3, plasmate granuloso farctis.

Hab. in fluxu trunci Betulæ, sociis *Mucore fragili* et *Piptocephali Le-Monnieriana*, Epinal Galliæ.

Fam. 2. Entomophthoraceæ Now.

ENTOMOPHTHORA Fres. — Syll. VII p. 282, IX p. 351, XIV p. 437, XVI p. 388.

1. **Entomophthora Lauxaniæ** Bubák, Hedw. 1903, p. (100). — Sporis 1732
perdurantibus in tota cavitate corporis generatis; mycelio brevi sacciformi, contorto, partim vesiculoso, continuo v. hinc inde septato, 7-20 μ . cr., hyalino, copiose guttulato; sporis perdurantibus (azygosporis) globosis, in mycelio acro-pleurogenis, 25-50 μ . diam., dilute flavidis, exosporio inæqualiter vittato-verruculoso, endosporio hyalino, guttula centrali majuscula, sporæ diametrum dimidium et ultra superante.

Hab. in musca *Lauxania ænea* sub foliis *Crepidis paludosæ* et *Spirææ opulifoliæ* in Bohemia. — Conidia nondum cognita. Exosporium jodo dilute brunneum, endosporium castaneum fit.

2. **Entomophthora Pooreana** A. L. Smith in Trans. Brith. Myc. Soc. 1733 1900, p. 150. — Hyphis copiosis, intertextis, in processus breves partitis, 5 μ . cr. v. amplius, septatis; sporis perdurantibus in hyphis anastomosantibus intercalari modo formatis, subglobosis, 25-40 μ . diam., membrana crassa, contentu granuloso.

Hab. in cuniculo putri exhumato, Isleworth Britannia.

3. **Entomophthora dissolvens** Vosseler, Ueber einige Insectenpilze 1734 (Jahreshefte des Vereins für Vaterländ. Naturkunde in Württemberg, 1902, p. 380-388, tab. VIII, f. 5-7 (absque diagnosi). — Mycelio filiformi, flavo; sporis perdurantibus in latere hypharum septatarum mycelii evolutis, globosis, primo pallidis dein atro-brunneis, 35-40 μ . diam., episporio ca. 2 μ . crasso, subverrucoso; basidiis non visis.

Hab. in chrysalide Cerastis? satellitiæ, Teuerbacher Heide pr. Stuttgart Germaniæ.

Fam. 3. Chytridiaceæ DE BARY et WOR. *).

OLPIDIUM A. Braun. — Syll. VII p. 310, IX p. 361, XI p. 246, XIV p. 438, XVI p. 389.

1. **Olpidium intermedium** Costantineanu, Rev. gén. de Bot. 1901, 1735 f. XIII, p. 71, fig. 1. — Zoosporangiis 5-20 in singulo ovo, congestis, sphaericis vel suboblongis, 20-30 μ . diam. vel 30 \times 33, in column longum 108-114 \times 6-8 desinentibus; zoosporis non visis.

Hab. in ovis Rotiferorum, Jassy in Romania.

OLPIDIOPSIS Cornu — Syll. VII p. 299, IX p. 362, XI pag. 247, XIV p. 439.

1. **Olpidiopsis? irregularis** Costantineanu, Contrib. Mycol. Roumanie, 1736 p. 5, f. 2-3 (in Rev. génér. Bot. 1901). — Zoosporangiis in filamentis parum dilatatis Saprolegniæ ortis, irregulariter oblongis sinuosisque, orificio minuto pertusis; plasmate granuloso dein in zoosporas globulosas, 4,5-5 μ . diam. biciliatas abeunte.

Hab. in filamentis myceliaribus Saprolegniæ sp. Jassy et Cristesti Romania. — Dubia species ex ipso auctore.

*) Cfr. Ludi Rud. Beiträge zur Kennt. der Chytridiaceen. Dresd. 1901 (Hedwigia).

RHIZOPHIDIUM Schenk — Syll. VII p. 298, IX p. 362, XI p. 248, XIV p. 443, XVI p. 390.

1. **Rhizophidium fungicolum** A. Zimm. in Centralbl. f. Bakter. 1902, 1737 VIII, p. 149, fig. 2. — Sporangiiis numerosis in mycelio *Glæosporii* ad fructum *Theobromæ* evolutis, obpiriformibus, $40 \approx 30-40$, apice conspicue papillatis; zoosporis globulosis, 4μ . diam., unilocularibus, 2-3, oleoso-guttulatis ex sporangii papilla exeuntibus.

Hab. in mycelio *Glæosporii* ad fructum *Theobromæ* Cacao in Java.

2. **Rhizophidium Costantineani** Sacc., *R. Vaucherix* Cost. Rev. gén. 1738 Bot. 1901 et Rev. Mycol. 1903, p. 38, nec De Wild. 1900. — Syll. XVI, p. 390. — Mycelio intramatricali, tenui, ramoso; zoosporangiiis sparsis v. aggregatis, sessilibus, sphaericis v. subsphaericis, minutis, $6-8 \mu$. diam.; zoosporis paucis (4-6), globulosis 1-guttulatis, $3,5 \mu$. diam., 1-ciliatis.

Hab. ad filamenta *Vaucheriae*, Jassy in Romania. — Ab homonyma specie (*Rizoph. Vaucherix* De Wild.) zoosporangiiis multo minoribus etc. mox distinguenda.

HARPOCHYTRIUM Lagerh. — Syll. XI p. 249.

1. **Harpochytrium Hedenii** Wille in Petermann's Mitteil. Erg. Heft 1739 p. 131, p. 371, 1900: cfr. Atkinson in Journ. of Mycol. 1904, vol. X, pag. 7, tab. 72, fig. 1-19, *Rhabdium acutum* Dang. Ann. Mycol. 1903, p. 61-64 (1903), *Fulminaria Hedenii* Wille, Nyt Mag. f. Naturvidenskab. 41, p. 175 (1903). — Totum $80-180 \approx 4-10$, fusiforme mox fortiter curvatum, sessile v. subsessile; basi (haustorio) subdilata, teste Dang.; zoosporis plerumque 1-seriatis, in formis majoribus 2-3-seriatis, globosis, majusculis, $4-6 \mu$. diam., plerumque 16, teste Dang.

Hab. in filamentis *Spirogyrae* et *Ædogonii* in Gallia, in *Spirogyris* quibusd., raro in *Zygnemate* in Amer. bor., in *Zygnemate* et *Spirogyra* in Tibet Asiae et in *Zygnemate* in Patagonia Amer. merid.

2. **Harpochytrium Hyalothecæ** Lagh. (1890) — Syll. XI, p. 249 absque 1740 diagnosi: cfr. Atkinson in Journ. of Mycol. 1904, vol. X, pag. 7, tab. 72, fig. 20-26, *Harpochytr. Hyalothecæ* Schroet. in Rabh. Krypt. Fl. 4, p. 114 (1892), *Fulminaria mucophila* Gobi Script. Bot. Fasc. 15, p. 283-292 (1899), *Fulmin. mucophila* Wille, Nyt Mag. f. Naturvidenskab. 41, pag. 175 (1903). — Totum $20-60 \approx 1,5-2$, basi filamentum longissimo matrici insertum, fusiforme curvu-

lum, sursum acutatum, intus granulosum; zoosporis uniseriatis minutis.

Hab. in *Hyalotheca dissilienti* in Finlandia, Suecia et in Amer. boreali et in *Sphæromate vertebrato*, *Cosmo-cladio* spec., *Dictyosphærio* spec. in Finlandia.

3. **Harpochytrium intermedium** Atkinson in Ann. Mycol. 1903, p. 500, 1741
t. X, fig. 22-23 et in Journ. of Mycol. 1904, vol. X, pag. 3. —
Totum 40-70 \times 3-4, anguste fusoidium, rectum v. curvulum, sessile; zoosporis uniseriatis, minutis.

Hab. in *Conferva utriculosa*, Cambridge, Massach. in Amer. bor. (Dr. THAXTER).

SYNCHYTRIUM De Bary — Syll. VII p. 288, IX p. 357, XI p. 247, XIV p. 441, XVI p. 390.

1. **Synchytrium** (*Leucochytrium*) **montanum** Zopf in Zahlbruckn. 1742
Sched. ad Crypt. exsicc. Cent. IX, p. 358, n. 840. — Maculas atro-violaceas usque violaceo-brunneas leviter elevatas formans; sporis perdurantibus singulis v. bi-quaternis in quaque cellula epidermica, ovoideis v. piriformibus, usque 176 \times 154; contentu omnino hyalino, oleoso; membrana crassa, solida, hyalina, exosporio crasso, levi, endosporio quoque crasso, hyalino.

Hab. in foliis, calycibus, rarius caulibus *Brunellæ vulgaris* in Tirolia pluribus locis montanis, in Salzburg et Schwarzwald montibus. — In *Brunella grandiflora* numquam lecta species.

CHYTRIDIUM A. Braun — Syll. VII p. 304, IX p. 358, XI p. 250, XIV p. 446.

1. **Chytridium gibbosum** Scherffel in Hedw. 1902, p. (105). — Zoo- 1743
sporangiiis epiphyticis, utriculiformibus, gibbosis, perpendicularibus vel obliquis vel decumbentibus, operculo convexulo, 4 μ . diam., dehiscentibus; vesicula subsporangiali, endophytica, plerumque globosa, ex qua rhizoides oriuntur; zoosporis uniciliatis, oscillantibus, typice chytridiaceis; sporis perdurantibus ignotis.

Hab. in *Cladophora*, in horto botanico Budapest Hungariae.

PHYSODERMA Wallr. — Syll. VII p. 317, IX p. 363, XI p. 250, XIV p. 447.

1. **Physoderma Crepidis** Rostr. Islands Svampe in Bot. Tidsskrif. 1744
Copenhagen 1903, vol. 25, pag. 286. — Maculis pustuliformibus, rotundatis, granulatis, 0,5-1 mm. diam.; sporis irregulariter glo-

bosis, 40-50 μ . diam.; episporio crasso, dilute flavescente, circ. 5 μ . crasso.

Hab. in foliis *Crepidis paludosæ* in Dania.

2. **Physoderma Debeauxii** Bubák, Ann. Mycol. 1903, p. 255, *Enty-* 1745
loma Debeauxii Bubák olim. — Maculis elliptico-oblongis 1-3 cm. long., 1-2 cm. lat., flavidis, subinde confluendo majoribus; soris in quaque macula 1-4 ellipsoideis, 5-8 \times 3-5 mm. subinde amplioribus; sporis ovoideis, 16-33 μ . cr., paucis (ad summum 5) in cellulis non ampliatis mesophylli nidulantibus, hic convexis, hinc plano-umbilicatis, mycelio nullo observato; exosporio tenui castaneo, minute verruculoso; endosporio duplo-triplove crassiore hyalino; contentu oleoso hyalino-flavidulo.

Hab. in foliis vivis *Scillæ maritimæ* prope Oran Algeriæ 1882 (DEBEAUX).

CLADOCHYTRIUM Now. — Syll. VII p. 295, XI p. 250, XIV p. 448, XVI p. 393.

1. **Cladochytrium Brevierei** Har. et Pat. Bull. Soc. Mycol. 1904, p. 61. 1746
— Sporis perdurantibus hemisphæricis, planis vel concavis, 27-40 \times 24, in tuberculis vix 0,5 mm. diam., subglobosis, sparsis vel dense gregariis nidulantibus; episporio crasso, levi, brunneo.

Hab. in caulibus et foliis *Euphrasiæ* spec., prope Arlanc, in Arvernia Galliæ. — *Clad. Kriegeriano* valde affine, sed sporis angustioribus primo obtutu distinctum.

NOWAKOWSKIELLA Schröt. in Engl. Pflanzenfam. Pilze I, p. 80 et 82, fig. 64 (Etym. a cl. NOWAKOWSKI). — Mycelium pluries ramosum, hinc inde inflatum. Sporangia globosa v. ellipsoidea, operculo dehiscencia. Zoosporæ globosæ v. ellipsoideæ, 1-ciliatæ.

1. **Nowakowskiella** (Now.) Schröt. l. c. *Cladochytrium elegans* Now. — Syll. VII, p. 296.
2. **Nowakowskiella endogena** Costantineanu, Rev. gén. Bot. 1901 p. 384 1747
cum ic. et Rev. Mycol. 1903, p. 38, t. 229, f. 10-20. — Mycelio intermatricali, ramoso; zoosporangiis terminalibus piriformibus, collo brevi opercolato munitis, 1-2 in quaque cellula matricis; zoosporis sphaericis, ratione majusculis 7 μ . cr. 1-ciliatis, excentrice 1-guttatis, in singulo sporangio parum numerosis.

Hab. intra folia putrescentia et aqua immersa *Alismatis Plantaginis*, Jassy in Romania. — Species inter *Nowakowskiellam* et *Cladochytrium* media.

UROPHLYCTIS Schroet. — Syll. VII, p. 303.

1. **Urophlyctis Alfalfæ** (Lagerh.) P. Magnus in Bericht. Deutsch. Bot. Gesell. 1902, p. 291, tab. XV (absque diagnosi!) *Cladochytrium Alfalfæ* Lag. in Bull. Herb. Boiss. vol. III (nomen). — Præcipue structura et forma gallæ, quam generat, a speciebus affinibus diversa.

Hab. in radicibus *Medicaginis sativæ* in Æquatoria Argentina et pr. Colmar i. Els.

2. **Urophlyctis Rübsaameni** P. Magn. Ber. D. B. G. Gener. Heft 1901, p. 150, tab. XXVII (sine diagnosi). — Hypogæa, in radicibus *Rumicis* excrescentias globuloso-tuberoideas usque 2-3 cm. long. generans; sporis perdurantibus excrescentias implentibus et lacunas varias gignentibus, hemisphæricis, levibus, brunneis, infra concaviusculis, 40-45 μ . diam.; mycelio filiformi vage ramoso, cellulas mares generante et inter sporas perdurantes intersperso.

Hab. in radicibus *Rumicis scutati* pr. St. Goar, Coblenz, Germania (Ew. H. RÜBSAAMEN).

3. **Urophlyctis Trifolii** (Pass.) Magnus in Centralbl. f. Bakt. 1902, IX, p. 896, *Synchytrium Trifolii* Pass. in Rabenh. F. Eur. n. 2419 (1877), *Olpidium Trifolii* (Pass.) Schröt. — Syll. VII, pag. 311, *Urophlyctis bohémica* Bubák, Centralbl. Bakt. 1902, pag. 817. — Pustulis vitreis semiglobosis, in petiolis usque 1 mm., in lamina foliorum usque 0,5 mm. latis; sporangiis perdurantibus sæpe ultra 200 in una pustula, parce parenchymatico-cellulosis, cellulis membrana demum clathrato-perforata, bilateralibus, apice altero semiglobosis, altero alte impressis; membrana sporarum levi, duplici, fusca exosporio tenui, endosporio crasso; sporis 40-50 μ . diam.

Hab. in foliis *Trifolii montani* (forma sporangiis perdur.) in pratis Vsetaty Bohemiæ, nec non in foliis *Trif. pratensis* et *repentis* in Italia et Germania.

4. **Urophlyctis hemisphærica** (Speg.) Syd. Ann. myc. 1903, pag. 517. Ita nominanda sunt: *Uromyces hemisphæricus* Speg. (1881), dein *Protomyces vagabundus* Speg. (1891), tandem *Entyloma hemisphæricum* Speg. (192), *Edomyces hemisphæricus* Speg. Not. synonym. p. 9 (1903), *Physoderma leproides* (Trab. et Sacc.) Lagerh. (1898). Cfr. Syll. XIV, p. 448, quæ species vero forte distinguenda est sub nomine *Urophlyctis leproides* (Trab.) Magn. in Ann. of Bot. 1897, p. 92, ubi et aliæ generis species optime illustrantur. Teste cl. Magnus, genus *Urophlyctis* a *Physodermate* est bene distinctum.

PROTASCUS Dang. Compt. rend. de l'Acad. de Sc. 1903, pag. 627 (Etym. *protos* primus et *ascus*). — Mycelium ampulliforme matrici immersum, collo longissimo perforante; sporangium nucleis 8 rarius 16 vel 32 fœtum, sporas longissimas immobiles tot quot nucleos generans. — *Lagenidio* et *Myzocytio* affine genus.

1. **Protascus subuliformis** Dang l. c. char. gen. (dimensiones omnes ab auctore omissæ). 1751

Hab. parasitice in Anguillulis in Gallia.

LAGENIDIUM Schenk — Syll. VII p. 278, IX p. 348, XI p. 248, XIV p. 450.

1. **Lagenidium Œdogonii** Scherffel in Hedw. 1902, p. (105). — Thallo unicellulari, tantum cellulam unicam afficiente, se totaliter in zoosporangium unicum (vel 2?) mutante, hyalino, utriculiformi, irregulari, valido, interdum ramis nonnullis, curtis, obtusis, validis; ductu evacuationis zoosporangii levi, cylindrico, æquali; zoosporis typice ancylistaceis, formam seminis *Vitis viniferæ* imitante, ciliis duobus, lateralibus. Propagatio sexualis (oogonia et antheridia) ignota. 1752

Hab. in cellulis vegetativis Œdogonii, Iglò Hungariæ.

PYRRHOSORUS Juel in Bih. Svenska vet. Akad. 1901, p. 14 (extr.) (Etym. *pyrrhos* igneo-ruber et *sorus*). — Plasmodium e cellulis liberis, nudis liberis, fusiformibus, granulosis formatum. Sorus e sporangiis magnis, globosis et cellulis fusiformibus sterilibus compositus. Sporangia granulis aurantiacis farcta, 8 vesiculas (zoosporas) sphæroideas includentia. Zoosporæ piriformes, nucleo aurantiaco præditæ, biciliatæ.

1. **Pyrrhosorus marinus** Juel. l. c. p. 14 cum icone. — Sporangii globosis 8 μ . diam.; zoosporis piriformibus, 4,5 \approx 2,5. 1753

Hab. in ramis emortuis *Cystoclonii purpurascens* pr. Kristineberg in Suecia. — Saprophyta.

RHIZOCLOSMATIUM H. E. Petersen in Journ. de Bot. 1903, p. 214 (Etym. *rhiza* radix et *clomation* glomus). — Sporangia globosa, crassiuscule tunicata, mycelio sub sporangiis in inflationem fulcriformem dilatato et hinc in filamenta radiatim divergentia partito cincta. Filamenta tenuissima ramosissima, prælonga. Zoosporæ globulosæ v. ovoideæ, flagello longissimo præditæ, per porum circumferentia sporangii exeuntes.

1. **Rhizoclosmatium globosum** Petersen l. c. c. ic. — Sporangii sæ- 1754

pius 17-20 μ . d., subinde multo amplioribus, initio guttulatis et vacuolatis; zoosporis 2-3 μ . diam. rubiginoso-nucleolatis; sporis immobilibus rarioribus, tunica brunnea præditis, granulis refringentibus foëtis.

Hab. frequens in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SIPHONARIA H. E. Petersen Journ. de Bot. 1903, pag. 220 (Etym. *sipho* tubus). — Sporangia subglobosa v. piriformia, mycelio sub sporangiis non dilatato et in filamenta parce ramosa tubulosa divergentia diviso basi prædita. Zoosporæ uniciliatæ (?), per papillam lateralem sporangii exeuntes.

1. **Siphonaria variabilis** H. E. Peters. l. c. cum icon. — Sporangiiis 1755
17-24 \approx 16-21, subinde 12 \approx 11, tenuiter hyalino-tunicata; zoosporis 1-3 μ . diam. globulosis, rubiginoso-nucleolatis.

Hab. non frequens in tegumentis nympharum Phryganearum in aquis dulcibus Seelandiæ.

ASTEROPHLYCTIS H. E. Peters. Journ. de Bot. 1903, p. 218 (Etym. *aster* et *phlyctis* bulla). — Sporangia globulosa, tunicis extus irregulariter cristato-dentata, mycelio sub sporangiis inflato et hinc in filamenta tenuissima, ramosa longa producto unilateraliter aucta. Zoosporæ 1-ciliatæ per porum basilarem sporangii exeuntes.

1. **Asterophlyctis sarcoptoides** H. E. Peters. l. c. c. icone. — Spo- 1756
rangia 21-28 \approx 14-25; zoosporæ 2-3 μ . diam.

Hab. rarius in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SPOROPHLYCTIS Serbinow in Travaux de la Soc. impér. de Naturalistes de St. Pétersbourg, 1899, t. XXX, p. 322 (Etym. *spora* et *phlyctis* pustula, bulla). — Mycelium vesiculiforme ovoideum, rostellulo minuto præditum; vesicula in hyphas sæpe ramulosas sensim transiens. Contentus hujus mycelii e poro effusus et dein membrana vestitus, in sporangium transmutatum. Sporæ intra sporangium germinantes et per hyphulas illud perforantes et intra algarum matricum cellulas penetrantes. Propagatio sexualis quoque evenit: protoplasmatis pars individui unius in individuum alterum effunditur et, membrana induta, in oosporas spinulosas transmutatur. — Ab affinibus generibus reproductione per sporas, non per zoogonidia, dignoscitur.

1. **Sporophlyctis rostrata** Serbinow l. c. — Characteres generis. 1757

Hab. parasitice in filamentis algarum Draparnaldiaë et Chætophoræ in Rossia.

Fam. 4. Saprolegniaceæ DE BARY *).

SAPROLEGNIA Nees — Syll. VII p. 268, IX p. 345, XI p. 244, XIV p. 453.

1. **Saprolegnia retorta** L. Horn in Ann. mycol. 1904, p. 233 (absque 1758
diagnosi). — Mycelio filiformi, tenuissimo, ramoso, hyalino, 15 μ .
cr. continuo; sporangiis breve clavatis paucis; oogoniis copiosis
sphæricis, in ramulis sæpe valde curvatis acrogenis, 1-8-sporis,
30-75 μ . diam., oosporis globosis 20-25 μ . diam., guttulam oleo-
sam foventibus.

Hab. in aqua Pisorum pr. Halle Germaniæ. — Affinis *S. spirali*.

ACHLYA Nees — Syll. VII p. 274, IX p. 346, XI p. 245, 650.

1. **Achlya oidiifera** L. Horn in Ann. mycol. 1904, pag. 230 (absque 1759
diagnosi). — Hyphis cylindræis usque 45 μ . cr., subinde in arti-
culos ellipsoideo-oblongos (oidiiformes!) secedentibus; oogoniis sphæ-
ricis varia magnitudine, minute punctatis, 2-8-sporis; oosporis,
vetustis visis, hinc lateraliter oleoso-guttatis.

Hab. in animalculis variis, Formicis, Verminibus etc. pr. Halle Germaniæ (etiam in aqua Pisorum culta).

PYTHIUM Pringhsh. — Syll. VII p. 270, IX p. 343, XI p. 244, XIV p. 455, XVI p. 395.

1. **Pythium ultimum** Trow, Ann. of Bot. 1901, p. 300, tab. XV et 1760
XVI. — Mycelio saprophytico; hyphis filiformibus 6 cm. longis,
1,7-6,5 μ . diam. ramosissimis, maturitate septatis; conidiis termi-
nalibus, globosis vel oblongis, 27,8 \approx 22,9 vel 17 \approx 14; oogoniis ter-
minalibus, sphæroideis levibus, 19,6-22,9; antheridiis solitariis, in
cultura raro binis in singulo oogonio; oosporis solitariis, sphæri-

*) Quoad Monoblepharidaceas cfr. Thaxter, Not. on Monoblepharis in Rhodora 1903, p. 105 cum optimis iconibus.

cis 14,7-18,3, membrana crassa, duplici, luteola donatis; zoosporis nondum evolutis.

Hab. in plantis juvenilibus Nasturtii, in foliis putridis et in tuberibus coctis Solani (in capsula Petri cultum), Cardiff Britanniaë.

Fam. 5. Peronosporaceæ DE BARY.

Drepanoconis Schröt. et P. Henn. — Syll. XIV p. 457.

1. **Drepanoconis larviformis** Speg. Not. Synonym. pag. 9, 1903, in Ann. Mus. Nac. Buenos Ayres Tomo IX. — Ita nominandus *Helicomyces larvæformis* Speg. — Syll. X p. 568 — qui idem est hac *Drepanoconis brasiliensis* Schröt. et Henn., teste Spegazzinio. Etiam *Uredo farinosa* Henn., forte huc spectat, teste eodem Spegazzinio.

Cystopus Lév. — Syll. VII p. 233, IX p. 340, XI p. 242, XIV p. 458, XVI p. 396.

1. **Cystopus Mikaniæ** Speg. Myc. argent. ser. II, 1902, pag. 67. — 1761
Maculis nullis; soris hypophyllis, numerosis, angulatis, 0,5-2 mm. diam., epidermide disrupta cinctis; conidiis eximie discoideis, numerosissimis, 16-18 \approx 8-10, utrinque concaviusculis; oogoniis desideratis.

Hab. ad folia viva Mikaniæ phyllopodæ, in dumetis prope Cordoba in Argentina (T. STUCKERT).

2. **Cystopus platensis** Speg. Rev. Arg. de Hist. Nat. p. (7). *C. cubicus* Speg. in Fung. Arg. p. I, n. 68, nec Lév. — 1762
Soris hypophyllis, macula primo pallescente dein purpurascente cinctis, irregularibus, 1-2 mm. diam., sparsis v. hinc inde laxe gregariis, vix prominulis, candidis, diu epidermide velatis, dein erumpentibus ac pulverulentis; conidiis globoso-cuboideis, 20-22 \approx 18-20, hyalinis, catenulatis, minute densissimeque punctulatis (an tantum granuloso-faretis?) supremis ovato-obtusis; cellulis basalibus sterilibus, obconico-turbinatis, 40-45 \approx 12-15, crasse tunicatis, per ætatem flavescens; oosporis ignotis.

Hab. in foliis vivis Boerhaviæ hirsutæ, prope Buenos Aires et prope Cordoba Amer merid. — *Cyst. Bliti* (Biv.) de Bary peraffinis sed conidiis punctulatis majoribus satis, ut videtur, recedens.

SCLEROSPORA Schröet. — Syll. VII p. 238, IX p. 341, XIV, 461.

1. **Sclerospora graminicola** (Sacc.) Schroet. — Syll. VII, p. 238. — 1763

var. **Setariæ-italicæ** Traverso in Bull. Soc. botanica ital. 1902, n. 9, p. 168. — A typo differt oosporis majoribus, nempe 39-45 μ . diam. nec 23-38 (sine tunica oogoniali); tunica oogoniali, magis regulariter sphærica, 7-11 μ . cr. nec 4-6; totâ spora denique 53-64 μ . diam. nec 39-55; differt etiam tunicâ oosporarum tenuiori. Status conidiophorus ignotus videtur.

Hab. in foliis et spicis (in virescentiam inductis) *Setariæ italicæ*, Albosaggia, prope Sondrio, Ital. bor. et in America bor.

PLASMOPARA Schroet. — Syll. VII p. 239, IX p. 342, XI p. 243, XIV p. 460.

1. **Plasmopara Vincetoxici** Ell. et Ev. in Journ. of Mycol. 1902, p. 70. 1764

— Cæspitulis hypophyllis, albis, 3-4 mm. diam., in longitudinem subconfluentibus et in pagina inferiore maculas, brunneas efformantibus; conidiosporis brunneis continuis, 8-10 μ . cr., superne 2-3-ramosis; ramis ultimis sterigmata 8-10 μ . long. ferentibus; conidiis globosis vel breve ellipticis circ. 15 \approx 13; oosporis globosis brunneis circ. 20 μ . diam.

Hab. in foliis *Vincetoxici* spec., Alabama Americæ.

2. **Plasmopara cubensis** (B. et C.) Humphrey in Mass. Agric. Stat. 1765

Rep. 1890, p. 210, t. II, f. 11-14, *Peronospora cubensis* B. et C. — Syll. VII, p. 261, ubi diagnosis ex B. et C. imperfecta. — Oogoniis adhuc ignotis; conidiis basi apiculatis, 22-25 \approx 15-17, typice violaceis (ex Humphrey) v. olivaceo-brunneis (a nobis visis).

Hab. in foliis *Cucumeris sativi*, *C. Melonis*, *Cucurbitæ Peponis*, *Cocciniæ*, *Momordicæ*, *Melothriæ*, *Sicyi* aliisque Cucurbitaceis in Java, Amer. bor., Africa orient., Mancuria, Japonia, Britannia, Austria, Italia, Hungaria, Rossia. — var. **tweriensis** Rostowzen. in Flora 1903, p. 405: conidiophoris et conidiis quam in typo paullo crassioribus. In fol. *Cucumeris sativi*, Twer Rossia. — var. **atra** Zimm. in Centralbl f. Bakter. 1902, p. 148: conidiis 24-26 \approx 16-20 griseo-atris. In fol. *Cucurbitæ*, in Java (Verisimiliter utraque var. vix consideranda). Cl. Rostowzen l. c. pro hac specie genus instituit novum (*Pseudo-peronospora*) medium, teste auctore, inter *Peronosporam* (cujus habet conidiophora) et *Plasmoparam* (cujus haberet conidia plasmopara, sed non conidiophora). Sed res ulterius inquirenda.

PERONOSPORA Corda — Syll. VII, p. 244, IX p. 342, XI p. 243, XIV p. 458, XVI p. 397.

1. **Peronospora cristata** Tranzsch. Enum. fung. in Tauria a. 1901, 1766 lecti, 1902 p. 3. Trav. du Musée Bot. An. de l' Acad. Imp. des Sciences de St. Pétersbourg. livr. I, 1902, p. 49 (rossice) et livr. II, 1904 (latine). — Conidiophoris singulis v. pluribus e stomatibus exeuntibus, 300-500 μ . altis, 8-9 μ . crassis; parte ramosa $\frac{1}{4}$ - $\frac{1}{5}$ totius altitudinis conidiophori sistente; ramis rectis vel parum curvis, acutangulo-divaricatis, extimis breviter subulatis, terminalibus rectis, lateralibus brevioribus, parum curvatis, sub angulo recto vel obtuso divergentibus; conidiis ellipsoideis, obtusis, 24-28 \approx 16-26, subhyalinis; oogoniis globosis, tunica achroa, tenui præditis; oosporis globosis, 31-47 μ . diam., fuscis, cristulis et verruculis acutatis ornatis.

Hab. in foliis Papaveris hybridi in Tauria sat vulgaris (non in Pap. Argemone). — *P. Holostei* Casp., cui species proxima, differt cristulis et verrucis oosporarum densius dispositis. Conidiophora dense superficiem inferiorem foliorum obtegunt, oosporæ copiose in foliis occurrunt.

2. **Peronospora Eranthidis** (Pass.) Fisch. Phyc. pag. 475, Berl. Ic. 1767 fung. Phyc. pag. 38, *P. Myosuri* f. *Eranthidis-hiemalis* Pass. in Thüm M. U. n. 1015. — Cæspitulis densis totum folium occupantibus, sordide albescentibus; conidiophoris singulis v. pluribus fasciculatis, circ. 300 \approx 8-10, 5-7-ies ramosis, ramis plus minus curvatis, extimis subulatis, longiusculis, recurvatis; conidiis elongato-ellipsoideis, obtusis, pallide lutescentibus, 38-46 \approx 17; oosporis globoso-angulatis, perinio crasso, obscure luteo-brunneo, 34-42 μ . d.

Hab. in foliis Eranthidis hiemalis in Italia sup. — *A. Peron. Ficaricæ* præcipue conidiis longioribus differre videtur.

3. **Peronospora Nicotianæ** Speg. Rev. Arg. de Hist. Nat. 1891, p. (11). 1768 — Cæspitulis hypophyllis, macula flavescenti-pallescente amphigena insidentibus, araneoso-pulverulentis, laxis, tenerrimis, sordide subcinerescentibus; hyphis conidiferis erectis, molliusculis 250-500 \approx 10-12, deorsum vix incrassatulis, in dimidia parte infera 190-250 μ . longis, simplicibus, in supera corymboso-ramosis, pluries (6-7) dichotomis, ramululis extimis longiusculis 15-18 \approx 2-3, divaricato-patentibus, arcuatis v. subsigmoideis, apice obtusiusculis monocarpicis; conidiis ellipsoideis vel ovoideis non vel vix apiculatis 18-20 \approx 9-11, episporio tenui levi, fumoso tectis, protoplasmate nubiloso hyalino fartis; oogoniis globoso-angulosis 80-

100 μ . diam., tunica crassa hyalina, oosporam unicam globosam 50-80 μ . diam., episporio eleganter denseque areolato fulvo-fuligineo subopaco tectam gerentibus.

Hab. in foliis vivis *Nicotianæ longifloræ* in nemerosis Palermo vocatis, prope Buenos Aires Argentinæ Amer. merid.

4. **Peronospora dubia** Berl. Ic. fung. Phycom. p. 23, t. 28, *Pero-* 1769
nospora Hyoscyami Thüm. Fungi Austr. n. 939, non De Bary. — Cæspitulis densiusculis, griseolis; conidiophoris humilibus, 180-220 \times 9-10, paucis e stomatibus fasciculatim exeuntibus, superne ter quater dichotomo-ramosis, ramis pænultimis et ultimis rectangulo-divaricatis, rectis v. parum curvis, ultimis vero apice obtusiusculis; conidiis majusculis late obovoideis, basi parum attenuatis, superne obtusissimis, 22-27 \times 16-20, pallide griseolis; oosporis ignotis.

Hab. in foliis *Hyoscyami nigri* in Austria. — A *Per. Hyoscyami* videtur diversa et potius *P. effusæ* v. *minor* proxima.

5. **Peronospora Floerkeæ** Kellerm. Journ. of Mycol. 1904, pag. 172, 1770
tab. 74. — Conidiophoris crasse cylindræis, 16-18 μ . cr., elongatis, longo tractu simplicibus, supra copiose ramosis, ramis semel v. bis dichotomice v. irregulariter divisis, ramulis summis tenuibus, angustis, conspicue curvatis; conidiis ovoideis v. subglobosis, 24-32 \times 18-25; oosporis numerosis, subglobosis, 24-36 μ . diam., membrana brunneola, levi v. leviter rugosa.

Hab. in foliis caulibusque *Floerkeæ proserpinacoidis*, Columbus, Ohio Amer. bor. — Affinis *Per. parasiticæ* sed irregularius ramosa, ramulis ultimis longioribus, vix matricem deformans etc.

6. **Peronospora Saxifragæ** Bubák in Hedw. 1903, p. (103). — Cæ- 1771
spitulis laxis, tenuibus, dilute violaceis; conidiophoris quater-sexies dichotomo-ramosis, leviter bulbosis, 400-800 μ . long., infra 11-14 μ . cr.; ramulis, angulo acuto patentibus, ultimis inæqualibus sæpe 11-20 μ . long. angulo recto v. obtuso divergentibus, fortiter incurvatis, sæpius laxis; conidiis dilute violaceis, ellipsoideo-oblongis, 26-33 \times 17-22, apice rotundatis, basi in pedicellum brevem attenuatis indeque sæpe piriformibus; oosporis non visis.

Hab. in foliis *Saxifragæ granulatæ*, prope Pragam Bohemiæ. — A *Per. Chrysosplenii* probe distincta.

7. **Peronospora Polygoni** Halst. Journ. of Myc. 1889, p. 9, Berl. Ic. 1772
fung. Phyc. p. 25, t. XXXI. — Cæspitulis densis sordide violascentibus, effusis; conidiophoris plerumque pluribus e stomatibus

exeuntibus, 320-420 \approx 9-11, superne 5-7-ies ramosis; ramis præcipue secundi et tertii ordinis plerumque curvulis, patulis, extimis sub angulo recto exeuntibus, lateralibus sæpius brevioribus; conidiis elongato-ellipsoideis inferne parum attenuatis, fere obpiriformibus, majusculis, 30-40 \approx 15-20, dilute griseolis; oosporis adhuc ignotis.

Hab. in foliis Polygoni Convolvuli et P. avicularis in Austria, Amer. bor. — Cll. Halsted et Berlese ll. cc. tribuunt Thümenio hanc speciem sed cl. Thümen nullibi nomen *Per. Polygoni* scripsit, hoc observante cl. Oudemans in Rev. Myc. 1902.

CHLOROSPORA Speg. Rev. Arg. de Hist. Nat. 1891, pag. 29, Sacc. Syll. XI p. 243 (nomen) (Etym. *chloros* virens et spora.) — Mycelium hyphoideum dense ramoso-intricatum, hyalinum, endogenum, haustoriis præditum; hyphæ conidiophoræ superficiales pinnatim alterne ramosæ; ramuli spinæformes monocarpici; conidia acrogena simplicia, colorata, plasmopara. — Oosporæ ignotæ.

1. **Chlorospora vastatrix** Speg. l. c. — Mycelio endogeno, per totum 1773 bulbum serpente, præcipue in partem inferam circa radices, maculas primo purpurascens, dein sordide lateritias, postremo sordide olivaceas ac purulento-mucosas efficiente, ex hyalino candido, densissime ramoso, ramis crebre intricatis, tortuoso-intestiniiformibus, 10-12 μ . crassis, hinc inde parce septulatis, protoplasmate hyalino dense grosseque oleoso-guttiformi farcto, haustoriis versiformibus 8-10 \approx 5-7, levibus vel colliculoso-nodulosis plus minusve densis armato; ramulis fertilibus (in cultura tantum evolutis), superficialibus, densiusculis, repentibus teretibus 10-30 mm. long., 8-10 μ . crassis, septulatis, plus minusve intricatis, alterne distichoramulosis; ramululis continuis vel rarius 1-pseudo-septatis rectis, acutis 50-80 \approx 5-6, monacarpicis; conidiis obovatis 24-40 \approx 20-30, superne obtuse rotundatis, inferne subcuneato-rotundatis minuteque papillatis, episporio tenui levissimo, primo hyalino dein chlorino, postremo olivaceo v. subfuligineo vestitis, protoplasmate hyalino nubiloso vel grosse 1-guttulato farctis; oosporis ignotis.

Hab. in bulbis vivis Allii Cœpæ, in hortis prope La Plata Amer. mer. — Species perniciosissima. In germinatione protoplasma ex papilla basali protrudit, ac hypham longiusculam gracilem etiam pinnati-ramulosam emittit.

PYRENOMYCETÆ Fr. Em.

Syll. I p. 1, IX p. 364, XI p. 252, XIV p. 462, XVI p. 398.

Fam. 1. Perisporiaceæ FR.

Trib. 1. Erysiphææ LÉV. *)

SPHÆROTHERCA LÉV. — Syll. I p. 3, IX p. 364, XIV p. 462, XVI p. 402.

1. **Sphærotheca Castagnei** LÉV. — Syll. I, p. 4. — * **Sph. Delphinii** 1774 Karst. Fungi nov. Lœnnb. 1904, p. 5 (Finska Vetensk. Soc.). — Amphigena; mycelio tenui evanescente, arachnoideo, pallescente; peritheciis sparsis sphæroideis, fuscis 50-80 μ . diam., appendiculis paucis (3-6), continuis, subinde ramosis, fuligineis, apicem versus dilutioribus, flexuosis, perithecio duplo vel triplo longioribus; ascis subsphæroideis vel late ellipsoideis magnis, octosporis; sporidiis late ellipsoideis, hyalinis; conidiis non visis.

Hab. in foliis Delphinii grandiflori in territorio Baicalensi (O. A. F. LÖNNBOHM).

PHYLLACTINIA LÉV. — Syll. I p. 5, IX p. 366, XVI p. 398.

1. **Phyllactinia antarctica** Speg. — Syll. IX, p. 366. — Huc ducenda est *Phyll. clavariæformis* Neger. — Syll. XVI, 398. — Cfr. Spægazzini Myc. argent. ser. II, 1902, p. 68.

UNCINULA LÉV. — Syll. I p. 6, IX p. 366, XI p. 252, XIV p. 462, XVI p. 399.

1. **Uncinula septata** E. S. Salm. in Journ. of Bot. 1900, p. 427, c. 1775 icon. et Supplem. Not. Erysiph. 1902, p. 102. — Hypophylla; mycelio evanescente; peritheciis plus minus sparsis, globoso-len-

*) Conferendum imprimis optimum opusculum *Suppl. Notes on the Erysiph.* New York 1902, ed. E. S. SALMON.

ticularibus, majusculis 160-210 μ . diam.; cellulis peritheci exterioribus distinctis, minutis, 5-10 μ . diam., appendicibus crebris 100-170 vel pluribus in eodem perithecio, 30-100 \times 5, simplicibus, levibus, 1-8-(plerumque 5-septatis) deorsum succineis, apicibus plerumque helicoideis; ascis 6-12 in quoque perithecio, immaturis visis.

Hab. in foliis *Quercus glanduliferæ*, Mt. Myogi, Prov. Kozuki (KUSANO) et Mt. Tsukuba (T. NISHIDA). — Præcipue appendicibus septatis dignoscenda species.

2. **Uncinula conidiigena** Cocconi in Mem. R. Accad. sc. Bologna, Ser. V, 1776 t. X, 1904, p. 235 cum tabula. — Peritheciis mycelio (*Oidium*) effuso insidentibus minutis globulosis, flavo-brunneis, appendicibus numerosis apice uncinatis cinctis, ascos nonnullos 3-7 oblongo-ovoideos breviter stipitados continentibus; sporidiis in quoque asco quaternis globosis, intus granulosis, etiam intra ascum germinantibus, dein expulsis, in mycelium conidia Oidii normalia generans abeuntibus; conidiis normalibus interdum germinantibus et conidiola minora ovoidea in apice hypharum gignentibus.

Hab. in foliis vivis *Populi tremulæ* in agro Bononiensi. Fere absque dubio forma quædam *Uncinulæ aduncæ*.

MICROSPHÆRA Lév. — Syll. I p. 10, IX p. 368, XI p. 252, XIV p. 463, XVI p. 402.

1. **Microsphæra ferruginea** Erikss. Fung. paras. scand. n. 145, Salmon 1777 Mon. Erysiph. p. 169, f. 56-58. — Cæspitibus amphigenis, ferrugineis, pulveraceis, demum late effusis confluentibusque; conidiis utrinque rotundatis, pallide fuscis, pellucidis, 28-32 \times 16-18; peritheciis fusco-atris, sparsis, mycelio densissimo arachnoideo persistenti intextis 80-90 μ . diam.; appendicibus 6-10, perithecium æquantibus v. duplo longioribus 4-6-ies dichotomis, hyalinis; ascis 6-8 μ . in quoque perithecio 44-50 \times 26-30; sporidiis 6-8 in quoque asco 16-18 \times 10-12.

Hab. in foliis *Verbenæ hybridæ* cultæ, cui valde noxia, in Suecia.

2. **Microsphæra Betæ** Vahna Zeitschr. f. Zuckerind. in Böhmen 1778 XXVII, p. 180, t. I. — Hyphis conidiophoris repentibus haustoriis lobulatis, præditis; conidiis (*Oidii*) cylindræo-doliiformibus, utrinque obtusis 44 \times 15-20 plerumque solitariis nec catenulatis; peritheciis globosis, brunneis, 75-130 μ . diam. astomis, laxè parenchymaticis, basi appendicibus 8-10 filiformibus continuis, flexuosis adscendentibus, subhyalinis, basi coloratis, sursum furcatis v. in

ramulos subdichotomos laxiusculos, subinde apicibus bilobulatos divisis cinctis; ascis obovatis brevissime stipitatis in quoque perithecio 3-5, subtetrasporis; sporidiis ellipsoideis, levibus, intus granulosis, hyalinis, $28-30 \approx 18$.

Hab. in foliis vivis *Betæ vulgaris*, quam valde vexat in Bohemia. — Teste auctore, species gignit zoosporangia et zoosporas, quod factum vere novum et notabile videtur, tamen novis experimentis confirmandum.

ERYSIPHE Hedw. — Syll. I p. 15, IX p. 870, XI p. 253, XVI p. 404.

1. **Erysiphe Acanthophylli** N. Speschnew, *Fungi transcaspici et turkestanici*, 1901, p. 5, tab. I, fig. 9-15. — Mycelio hypophyllo; hyphis tenuibus, ramosis vel simplicibus, septatis valde undulatis, achrois, granulosis, $1,5-2 \mu$. crassis; hyphopodiis nodosis, bifurcatis; peritheciis epiphyllis, solitariis, sparsis, haud immersis, globosis v. subglobosis, ca. 160μ . diam., atris; setulis rectis, continuis, nucleatis, apice rotundatis, $2-3 \mu$. cr.; ascis late piriformibus, octosporis, $38 \approx 28$; sporidiis subsphæricis, continuis, hyalinis, 8μ . d.; hyphis conidiiferis ab hyphis mycelii non diversis; conidiis elongato-ovoideis, episporio tenuissimo, $38-43 \approx 16-19$. 1779

Hab. in foliis caulibusque *Acanthophylli glandulosi* in Rossia.

2. **Erysiphe Euphorbiæ** N. Speschnew *Fungi transcaspici et turkestanici* 1901, p. 3, tab. I, fig. 1-8. — Mycelio epiphylllo, interdum hypophyllo, constrictè effuso, confluenti, tenui; hyphis repentibus, ramosis, flexilibus, undulatis, septatis, dense intertextis, crassiusculis $4,9-7 \mu$. crass., hyalinis, hyphopodiis biclavatis, alternis, $14,8-22,5 \mu$.; peritheciis gregariis, globosis dein subglobosis, in villo nidulantibus $150-180 \mu$. diam., atro-brunneis; setulis hyalinis, continuis, enucleatis, undulatis, apiculo pedaliformi, $7-9 \mu$. crassis perithecio, duplo longioribus; ascis elongato-piriformibus, apiculo obtusis, operculatis, 3-6-sporis, $90-98 \approx 22-24$ sporidiis ellipsoideis, continuis, $20-24 \approx 11-15$, hyalinis; hyphis conidiiferis mycelio similibus; conidiis elongato-ovoideis, $20-24 \approx 12-16$, episporio $2-3 \mu$. crasso. 1780

Hab. in foliis *Euphorbiæ lanatæ* in Rossia transcapica.

3. **Erysiphe taurica** Lév. — Syll. I, pag. 16. — var. **andina** Speg. *Myc. Arg. ser. II*, 1902, p. 68. — Peritheciis superficialibus, in vivo globosis, in sicco plus minusve cupulato-collapsis, $150-250 \mu$. diam. atris, contextu membranaceo-subcarnosulo, subopaco, appendi-

cibus numerosis radiantibus, simplicibus v. parce ramosis, 100-130 \times 4-6, primo hyalinis dein subchlorinis; ascis aparaphysatis 6-10 in quoque perithecio, subclavulatis, apice sæpius subtruncatis, basi in petiolo crasso brevissimo cuneatis, 70 80 \times 35-40, bisporis; sporidiis ellipticis, utrinque obtusis, 26-30 \times 12-14, obsolete guttulatis, primo tunica mucosa vestitis, hyalinis.

Hab. in foliis vivis *Euphorbiæ* cuiusdam prope Mendoza in Argentina.

4. **Erysiphe Asterisci** P. Magn. in Hedw. XLIV, p. 16, tab. II. — 1782

Conidiis valde elongatis, utrinque rotundatis, 52 \times 16 extus minute granulosis (ex icone levibus et intus minute granulosis) in conidiophoro brevi solitarie acrogenis; peritheciis depresso-globosis, 194 μ . latis, 56 μ . alt., a medio deorsum appendiculis seu hyphis numerosis tortuosis descendentes, hyalinis (?), matrici firmiter affixis; ascis in quoque perithecio numerosis (usque 10) ovoideo-oblongis apice rotundatis, brevissime sensim stipitatis, 2-4-sporis, 80-85 \times 28-30 (ex icone); sporidiis (immaturis visis) ellipsoideis monostichis.

Hab. in foliis *Asterisci* aquatici, Santa Cruz Teneriffæ insulæ (BORNMÜLLER). — Peritheciis contextus ex icone crassiusculus. Matrix sub quoque perithecio leviter impresso-concaviuscula.

5. **Erysiphe Solani** Vanha Zeitschr. f. Zuckerindustrie in Böhmer 1783 XXVII (species ibi nominata, sed nondum descripta).

Hab. in foliis *Solani* tuberosi in Bohemia.

Trib. 2. Eurotiæ Sacc.

EUROTIIUM Link. — Syll. I p. 95, IX p. 371, XI p. 254, XVI p. 1123.

1. **Eurotium microsporum** Mass. et Salm. Coproph. fungi I, p. 333, 1784

fig. 28. -- Peritheciis sparsis circ. 130 μ . diam., globosis, primo flavovirentibus, dein citrinis, superficialibus; contextu parenchymatico e cellulis tenuibus 5-8 μ . latis composito; ascis sphaeroideis v. subsphaeroideis 7-8 μ . diam., citissime diffluentibus, octosporis; sporidiis minutissimis, sphaeroideo-biconvexis, 2 μ . diam. levibus chlorinis.

Hab. in fimo *Capreoli* Capæ, *Haplocerotis* montani, *Capræ* dorcadis, *Capræ* sinaiticæ, *Ovis* Vignei, *Caviæ* Cobayæ, Kew Britannia.

2. **Eurotium rubrum** Bremer, Die fettverzehr. Organism. in Nahr. 1785
u. Futtermitteln. Dissert. Münster 1902 et in Zeitsch. f. Unter-
such. d. Nahrung in Genussmitt. IV, 1901, pag. 72. — Mycelio
primum niveo, dein flavo, tandem rufo-brunneo, 4-8 μ . diam.;
conidiis ovoideis v. sphæroideis, griseo-virescentibus 5-8 μ . diam.
verruculosis; peritheciis globosis, membranaceis, primum flavis,
demum brunneo-rubris, 100-150 μ . diam.; ascis globulosis, octo-
sporis; sporidiis lenticularibus, ambitu plano-sulcatis, levibus, hya-
linis 6 μ . diam. e latere 4-5 μ . cr.

Hab. in seminibus tritis putrescentibus *Gossypii*, socia *Mo-
nilia* spec., Münster in Germania. — Colore rubido dignoscitur
imprimis ab *Eur. repentis* proxime affini specie.

PENICILLIOPSIS Solms Laubach. — Syll. IX p. 945, XI p. 355, XVI
p. 406.

1. **Penicilliopsis palmicola** P. Henn. Fungi Amaz. III, 1904, p. 352, 1786
cum icon. — Stromatibus conidiophoris fasciculatis, filiformibus
subulatis, carnosus, erectis, viridi-flavis usque ad 7 cm. longis,
1-2 mm. crassis, simplicibus, ex hyphis septatis 5-15 μ . crassis con-
flatis, sicco atrofuscis, succo sanguineo, conidiophoris lateraliter
subcapitatis, ramulis clavatis plurimis circumdatis, sterigmatibus
subfusoides apiculatis, 13-16 \times 4-5; conidiis catenulatis ellipsoideis
flavo-fuscidulis, levibus, 6-7 \times 4-5; ex eodem stromate conidiis ca-
tenulatis subcuboideis vel subglobosis, hyalinis, ca. 8-15 μ . diam.
Stromata peritheciigera ignota.

Hab. in fructibus *Palmarum*, Rio Juruá, Juruá-Miry Ama-
zoniae.

2. **Penicilliopsis juruensis** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 1787
1905, p. 59. — Stromatibus conidiophoris fasciculatis, filiformibus
simplicibus, erectis, ca. 10 cm. longis, 1-1 $\frac{1}{2}$ mm. crassis, alutaceis;
ex hyphis septatis conflatis, conidiophoris patentibus subcapitatis,
sterigmatibus subfusoides apiculatis 10-16 \times 3-5; conidiis catenu-
latis ellipsoideis, flavo-brunneolis, levibus, 6-10 \times 5-7.

Hab. in seminibus *Lecythidaceæ* cujusdam, Rio Juruá Bra-
siliæ. — Habitu *P. palmicolæ* P. Henn.

3. **Penicilliopsis? togoensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. 1788
Syll. XVI, p. 1123 (nomen). — Stromate conidiophoro phyllogeno,
sparso, clavariiformi, simplici v. dichotomo-ramoso, fusco-brunneo
5-7 cm. longo, stipite tereti vel compresso 1-2 mm. cr., ramis
subulatis in axillis compressis 0,5-1,5 cm. longis, levibus, sub-

glabris, apice acutis, basidiis late clavatis, 30-35 \times 20, fuscidulis ubique vestitis; conidiis catenulatis subglobosis v. ovoideo-ellipsoideis, fuscis v. brunneo-fuscis, verrucosis 6-9 \times 6-7. Stromata ascophora ignota.

Hab. in foliis putridis, Togo Afr.

HYALODERMA Speg. — Syll. IX, p. 437, XI p. 270, XIV p. 465, XVI p. 406.

1. **Hyaloderma filicolum** Pat. in Duss Enum. Champ. Guadel. 1903, 1789 p. 69. — Sparsum v. aggregatum; peritheciis globulosis, flavido-pallidis, 180-300 μ . diam., mollibus, contextu hyalino, tenui, celluloso, basi pilis fasciculatis, rigidis, 15-30 \times 5-7, radicanibus; ascis cylindraceutis, octosporis, paraphysibus ramulosis; sporidiis linearibus, flexuosis, 65-90 \times 3-4, obscure septulatis.

Hab. sub foliis languidis filicum (*Meniscii* sp.) ubi in mycelio hyphomycetis cujusdam vivit, Gourbeyre Guadalupæ (Duss).

Trib. 3. Engleruleæ P. Hennings.

Perithecia tenui-membranacea, pallida, contextu subanhisto.

ENGLERULA P. Henn. in Engl. Bot. Jahrb. 1903, p. 49 (Etym. ab illustri botanico ENGLER berolinensi). — Perithecia hyphicola, superficialia, sicco subcornea, mellea, madore subgelatinosa, tenui-membranacea, sine structura cellulosa distincta, vix ostiolata. Asci ovoidei, octospori, aparamphysati; sporidia atro-fusca 1-septata.

1. **Englerula Macarangæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 1790 Peritheciis hypophyllis, sparse gregariis, superficialibus, in hyphis fuscis, septatis, ramosis 3,5-4 μ . cr. parasiticis?, basi hyphis hyalinis, septatis, ramosis, ca. 3-4 μ . cr., circumdatis; conidiis substelatis, fusoides 1-3-septatis, intus 1-4-guttulatis, hyalinis, 10-20 \times 3-4; peritheciis ovoideis, ca. 80-150 μ . diam. sicco subcorneis, submelleis fuscidulis, rugulosis, humido-gelatinosis, hyalinis, haud cellulosis, apice subostiolatis; ascis ovoideis, vertice crasse tunicatis, basi apiculato-curvulis, octosporis, 40-60 \times 35-45, paraphysibus haud conspicuis; sporidiis conglobatis, ovoideis vel ellipsoideis, utrinque rotundato-obtusis, medio-septatis, paullo constrictis, biguttulatis, primo hyalinis, dein atris, 20-30 \times 12-18.

Hab. in foliis *Macarangæ*, Ost-Usambara Africae orient. (ENGLER).

SACCARDOMYCES P. Henn. Fungi Amaz. III, Hedw. 1904, p. 353 (Etym. genus Syllogis auctori humanissime dicatum). — Perithecia superficialia, minutissima, subovoidea, contextu tenui membranaceo, subanhysto, ex hyphis radiatis, pallido-fuscidulo, poro exiguo periphysibus tenuissime filiformibus instructo. Asci subfusoidei, 8-spori, paraphysati. Sporidia aciculari-filiformia, hyalina, continua. — *Hyalodermati*, *Globulinæ* et *Englerulæ* affinis.

1. **Saccardomyces bactridicola** P. Henn. l. c. — Maculis fuscis, rotundatis; peritheciis cæspitosis vel singularibus, subglobosis vel ovoideis fuscis, ca. 140-150 × 110-120, contextu radiatim fibroso, subanhysto, subhyalino vel fusco, apice obtusis, dein apertis, poro periphysibus tenuissimis hyalinis prædito, basi hyphis repentibus, sparsis septatis, ramosis, flavo-brunneis, 2-3 µ. crassis; ascis fusoidis, apice tunicatis, acutiusculis, basi fasciculatis, 30-40 × 6-10, 8-sporis; paraphysibus fasciculatis v. basi ramosis, filiformibus, flexuosis, superantibus, ca. 1-1 1/2 µ. crassis; sporidiis parallelis filiformi-acicularibus, utrinque acutis, pluriguttulatis, 25-35 × 2-2 1/2 µ. hyalinis. 1791

Hab. in foliis Bactridis spec., socia *Meliola*, Iquitos Rio Amazonas, Perù.

2. **Saccardomyces socius** P. Henn. l. c. t. V, f. 6. — Peritheciis superficialibus gregariis vel sparsis in mycelio Dimerii vel Asterinæ parasitantibus, ovoideis vel subglobosis, ca. 70-100 × 60-80 diam., contextu subanhysto, ex hyphis radiantibus, pallide fuscidulis, subpellucidis, vertice obtuse rotundatis, dein apertis, poro paraphysibus tenuissime filiformibus, basi hyphis repentibus, septatis ramosis, pallide fuscis 2-4 µ. crassis; ascis fasciculatis fusoidis vel subclavatis, 8-sporis, 18-30 × 6-8; paraphysibus filiformibus, flexuosis, hyalinis, ca. 1 µ. crassis; sporidiis parallelis, aciculari-filiformibus, curvulis, utrinque acutis, pluriguttulatis, 17-22 × 2-2 1/2 µ. hyalinis. 1792

Hab. in foliis Solani, socio *Dimerio Saccardoano*, *Asterina* etc., Leticia, Rio Amazonas, Perù.

Trib 4. **Perisporiæ** Sacc.

Sect. 1. **Hyalosporæ.**

ANIXIA Fr. — Syll. I, p. 34.

1. **Anixia Bresadolæ** v. Höhnelt, Fragmente zur Mycologie 1903, p. 3. 1793
— Peritheciis sparsis, superficialibus, globosis, levibus, nitentibus,

atro-brunneis, demum fere nigris, 120-200 μ . latis, in basi filamentis longissimis, repentibus, laxis, fuscescentibus instructis; ascis cylindræis, valde tenuibus, 140 \times 7-8; paraphysibus tenerrimis 3 μ . latis, ascos sæpe superantibus, septatis e cellulis 16 μ . long. formatis; sporidiis octonis, monostichis, continuis, hyalinis, 12-20 \times 5-7, ellipsoideis uno latere subcompressis.

Hab. in ligno putri quercino, Frauenwart-Berg, prope Purkersdorf Australiæ inf. — Stat. ascoph. *Acrothecii Anixiæ* Höhnel.

2. **Anixia myriasca** v. Höhnel, Fragm. zur Mycologie 1903, p. 4. — 1794
Peritheciis sparsis, fimiculis, superficialibus, carbonaceis, fragilibus, contextu parenchymatico, ovoideis, conico-papillatis, astomis, levibus, c. 200 μ . crassis, atro-brunneis; ascis aparaphysatis, numerosissimis, hyalinis, tenerremis, octosporis, cylindræis, supra obtusis, 50-60 \times 4-5; sporidiis oblique monostichis, hyalinis, enucleatis, ellipticis, 4-4,5 \times 2,5-3.

Hab. in fimo vaccino, ad montem Schneeberg loco Ochsenboden dicto Austriæ infer. — An *Anixiella*, nov. gen.? — Peritheciis conico-papillatis et ascis aparaphysatis a typo differt.

APIOSPORIUM Kunze — Syll. I p. 30, IX p. 375, XVI p. 408.

1. **Apiosporium sibiricum** Karst. Fung. nov. Loennb. 1904, pag. 5 1795
(Finska Vetensk. Soc.) — Mycelio præprimis in foliorum vivorum pagina inferiore petiolisque nascente acervulos effusos confluentes fuscis exhibente; peritheciis sphæroideis, 80-90 μ . diam.; sporidiis non visis.

Hab. in *Spiræa palmata* et *Sanguisorba officinali* in regione Baicalensi Listvinitchnoje, nec non prope Omsk Sibiræ (O. A. F. LÖNNBOHM). — Hyphæ continuæ, simplices, 4-6 μ . crassæ. Perithecia immatura, ascis sporisque carentia.

Sect. 2. Phæosporæ.

MAGNUSIA Sacc. — Syll. I p. 38, XVI p. 1123.

1. **Magnusia Bartlettii** Mass. et Salm. Coproph. fungi, I, pag. 333, 1796
fig. 26. — Peritheciis sparsis superficialibus, globosis, nigris, 250-500 μ . diam., contextu parenchymatico e cellulis minutis polygonis distinctis, ca. 4 μ . latis composito, apice coma pilorum ornatis, pilis 8-12 rigidis simplicibus plus minus divergentibus, atro-fuscis levibus, sparse septatis, apice interdum flexuosis, basin versus circ. 6 μ . latis, peritheciis diametro duplo vel triplo longioribus,

ceterum glabris; ascis numerosis, globosis, 18-20 μ . diam. v. oblongo-piriformibus 20-25 \approx 14-17, cito diffluentibus, 6-8-sporis; sporidiis ellipticis utrinque acutis, 8-10 \approx 5, primum hyalinis demum distincte dilute fuliginis.

Hab. in fimo Capreoli caprææ, Caviæ Cobayæ, Ovis Burrhel, O. Vignei, Kew Britannia.

ARACHNOMYCES Masee et Salmon, Coproph. fungi II p. 68 (1902) (Etym. ab *arachne* et *myces*). — Perithecia globosa, simplicia, astoma, membranacea, parenchymatica, appendicibus fuscis eumorphis instructa. Asci minuti, numerosi, globosi; sporidia primum conglobata, continua, fusca. — A *Pleuroasco* Mass. et Salm. subiculi defectu et appendicibus fuscis, a *Magnusia* Sacc. ascis globosis et sporidis conglobatis differt.

1. **Arachnomyces nitidus** Mass. et Salm. l. c. fig. 127-131. — Peri- 1797
theeciis globosis 100-350 μ . diam., nigris, nudis, nitidis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus 5-10 μ . latis composito; appendicibus e parte perithecii inferiore orientibus, paucis, flexuoso-contortis, atro-fuscis 5-6 μ . latis nitentibus, semiopacis, septatis, perithecii diametro 5-7-longioribus, apice rectis v. simpliciter circinatis; ascis numerosissimis, subglobosis circ. 10 μ . diam., mox evanescentibus; sporidiis octonis primum conglobatis, sphæroideo-compressis, 3-4 \approx 2,5, fuscis.

Hab. in plantis putridis, Kew (C. CROSSLAND), et in fimo murino, Thornton Hough, Cheshire Britannia.

2. **Arachnomyces sulphureus** Mass. et Salm. l. c. fig. 55-60. — Pe- 1798
ritheciis globosis 500-730 μ . diam., superficialibus, indumento sulphureo arcte adhærente obtectis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus, 5-10 μ . latis composito, basim versus appendicibus paucis flexuosis 5-6 μ . latis, perithecii diametro 3-4 longioribus, divergentibus, atro-fuscis, nitentibus, semiopacis, septatis, apice circinatis v. circinato-contortis, cinctis; ascis numerosissimis, minutis, globosis 7-8 μ . diam., mox evanescentibus; sporidiis sphæroideo-compressis 3-4 \approx 2,5, fuscis, octonis, conglobatis.

Hab. in nido vetusto Bombi spec. Kew Britannia.

PLEUROASCUS Mass. et Salm. — Syll. XVI p. 1123.

1. **Pleuroascus Nicholsoni** Mass. et Salm. Coproph. fungi I, p. 330, f. 25. 1799

— Peritheciis in subiculo pannoso distincto v. confluyente, primum albo, deinde fuscescente ex hyphis delicatulis ramosis, intertextis, composito, plus minus immersis, dense gregariis parvis, 130-200 μ . diam., atris, fragilibus; contextu parenchymatico e cellulis distinctis 6-10 μ . latis composito; appendicibus pluribus e parte perithecii inferiore orientibus, hyalinis, arcte spiraliter convolutis, compressis, septatis; ascis numerosissimis, minutis globosis, 8 μ . diam., mox diffluentibus, in hyphis ramosis, dense glomerulatis; sporidiis octonis, conglobatis, globosis, minutis, circ. 3 μ . diam. fuliginis.

Hab. in fimo Caviæ Cobayæ, Kew Britanniae (G. NICHOLSON).

ORBICULA Cooke — Syll. I p. 38, IX p. 378.

1. **Orbicula Richenii** Rick in Ann. Mycol. 1904, p. 245. — Stromate effuso, nigro, spongioso, usque 5 mm. crasso, hyphis fuliginis multiseptatis ramificantibus, laxe intertextis formato, ramulis 10 \times 4 bifidis; peritheciis 350 μ . diam., rotundatis vel applanatis, atris, ad superficiem stromatis seriatim aggregatis, sæpe tectis; ascis cylindræis, pedicellatis, p. spor. 16 μ . longis, 18 μ . latis, octosporis; sporidiis distichis, unilocularibus, ovoideis, hyalinis, dein obscurioribus, biguttulatis, 6 \times 3. 1800

Hab. parasitica in lignis a Nummularia spec. tectis et, ut videtur, eiusdem stromata occupans, S. Leopoldo Amer. Merid.

Sect. 3. Hyalodidymæ.

DIMEROSPORIUM Fuck. — Syll. I p. 51, IX p. 401, XI p. 257, XIV p. 466, XVI p. 408.

1. **Dimerosporium Andiræ** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 107 (nec *D. meliolicola* Speg.). — Peritheciis sparsis in mycelio *Meliolæ* superficialibus, minutis, subglobosis, atris, basi hyphis repentibus, fuscis circumdati, contextu membranaceo, astomis, 60-70 μ . diam.; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, 20-30 \times 8-12, octosporis; sporidiis subdistichis, oblonge ovoideis v. fusoideis, 1-septatis, constrictis, 6-8 \times 3,5-4,5, hyalinis. 1801

Hab. in foliis Andiræ spec., prope S. Paulo Brasiliæ.

2. **Dimerosporium Litseæ** P. Henn. in Engl. Jahrb. 1902, p. XXXII, 1802

p. 42. — Mycelio epiphylo, crustaceo-effuso, atro; hyphis repentibus, ramosis, septatis; peritheciis sparsis, hemisphæricis, astomis, membranaceo-carbonaceis, 200-300 μ . diametro; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 45-65 \times 26-35; sporidiis subdistichis oblongis, medio 1-septatis, paulo constrictis, utrinque obtusis, 30-35 \times 11-14, hyalinis.

Hab. in foliis *Litseæ glaucæ* in prov. Awa Japoniæ (S. KUSANO).

3. **Dimerosporium cantareirens** Henn. in Hedw. 1902, pag. 298. — 1803

Peritheciis hypophyllis, gregariis vel epiphyllis sparsis, lenticulari-hemisphæricis, medio depressis, membranaceo-cellulosis, atris, hyphis repentibus, subsimplicibus septatis, 3-4 μ . cr., atro-fuscis circumdatis; conidiis ellipsoideis, utrinque obtuse rotundatis, atro-fuscis, medio 1-septatis, valde constrictis, granulosis, 12-16 \times 6-8, cellulis subglobosis; ascis oblonge ovoideis, apice rotundatis, tunicatis, basi curvulis, octosporis 1-septatis, paulo constrictis, hyalino-fuscidulis, 13-16 \times 4 5,5.

Hab. in foliis *Myrsines* cujusdam, S. Paulo Brasiliæ.

4. **Dimerosporium vestitum** Earle in New York Bot. Gard. 1902, 1804

p. 338. — Cæspitulis epiphyllis, nigris, effusis, sæpe confluentibus ex hyphis tenuibus, pallide brunneis, 3-4 μ . cr., compositis; conidiis subglobosis, sarciniformibus, 4-cellularibus, opacis, nigris, breve stipitatis, circ. 20 μ .; peritheciis nigro-brunneis, 85-100 μ . diam, contextu celluloso, ex hyphis brunneis, continuis vel parce septatis, 100-200 \times 4-5 oriundis; ascis late clavatis, 35-40 \times 8-10, paraphysibus filiformibus; sporidiis distichis vel irregulariter dispositis, constricto-ovatis, inæqualiter septatis, hyalinis, 3-guttulatis, 8 \times 3-4.

Hab. in foliis vivis *Baccharidis glomerulifloræ*, Manatee Florida, Amer. bor. — Stat. conid. videtur affinis *Sarcinellæ heterosporæ*.

5. **Dimerosporium Gnaphalii** Henn. in Hedw. 1902, p. 297. — Ma- 1805

culis fuscidulis, rotundatis vel effusis; peritheciis sparsis vel gregariis epiphyllis, aterrimis, membranaceis, subhemisphæricis, rugulosis, pertusis, 70-100 μ . diam.; hyphis atro-fuscis ramosis, septatis, 3-4 μ . crassis, circumdatis; ascis clavatis, apice obtusis tunicatis, basi attenuatis-curvatis, 25-33 \times 6-8, octosporis; paraphysibus filiformibus, hyalinis 2 μ . crassis; sporidiis subdistichis, fusoideis vel subclavatis, apicæ vel utrinque subacutiusculis, rectis, medio 1-septatis hyalinis, 7-8 \times 2,5-3.

Hab. in foliis *Gnaphalii* spec., in horto botanico et Pedra Branca, S. Paulo Brasiliæ.

6. **Dimerosporium Clidemniæ** P. Henn. Fungi Amaz. IV, in Hedw. 1806
1905, p. 59. — Maculis mycelii stellato-radiatis vel rotundatis subcrustaceis, atris; hyphis variis usque ad 10 μ . crassis repentibus, atro-brunneis, pseudopodiis alternis ovoideis, atro-fuscis, ca. 20-25 \times 10-14; peritheciis sparsis v. gregariis, ovoideis, membranaceo-cellulosis, atro-brunneis perforatis, ca. 80-100 μ .; ascis fasciculatis, paraphysatis, clavatis, apice tunicatis, rotundatis, 25-40 \times 6-8; sporidiis subdistichis, clavatis, rectis vel curvulis, medio 1-septatis paulo constrictis, hyalinis, 8-10 \times 3-3 $\frac{1}{2}$.

Hab. in foliis *Clidemniæ* tibiifoliæ, Manáos Rio, Negro Brasiliæ.

7. **Dimerosporium cordicolum** P. Henn. Fungi Amaz. III, 1904, p. 355. 1807
— Peritheciis epiphyllis, gregariis vel subsparis, subglobosis vel ovoideis, membranaceo-cellulosis, atris ca. 50-80 μ .; hyphis repentibus, fuscis, ramosis, septatis, 3-3 $\frac{1}{2}$ μ . crassis; ascis clavatis, rotundatis, 8-sporis, 25-35 \times 14-17; sporidiis conglobatis v. subdistichis, ovoideis vel ellipsoideis, utrinque obtusis, medio 1-septatis valde constrictis, hyalinis, 12-15 \times 7-8.

Hab. in foliis *Cordiæ*, Rio Juruá, Juruá-Miry Amazoniæ.

8. **Dimerosporium amazonicum** P. Henn. Fungi Amaz. III, 1904, 1808
p. 355, cum icon. — Maculis mycelii epiphyllis rotundatis, atris, subcrustaceis; hyphis repentibus fuscis-ramosis, sæpe confluentibus, conidiis fusoides vel clavatis, stipitatis, 2-5-septatis, fuscidulis, 30-40 \times 8-10; peritheciis sparsis vel aggregatis, ovoideis vel subellipsoideis, atris, poro pertusis, contextu membranaceo-celluloso fusco-brunneo, ca. 80-100 μ . diam.; ascis fasciculatis, clavatis, apice obtusis, 8-sporis, 30-40 \times 8-10; paraphysibus filiformibus, hyalinis ca. 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis oblique monostichis v. distichis, clavatis, 3-guttulatis, medio 1-septatis, subconstrictis, hyalino-cyanescenscentibus, 8-10 \times 3-4.

Hab. in foliis *Bignoniaceæ* cuiusd., Iquitos, Rio Amazonas Perù.

9. **Dimerosporium Synapheæ** P. Henn. F. Australiæ occid. I, in Hedw. 1809
1901, p. 96. — Syll. XVI, p. 1124 (nomen). — Mycelio crustaceo, subpulvinate, atro; hyphis septatis, castaneis, brevibus; conidiis subovoideis, 1-septatis, atro-castaneis, 10-13 \times 10; peritheciis lenticularibus, depressis, atris; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, curvulis, octosporis, 40-50 \times 14-20; spori-

diis distichis vel conglobatis, oblonge ovoideis 1-septatis, haud constrictis, hyalino-fuscidulis, 10-15 \approx 6-7.

Hab. in foliis vivis *Synapheæ polymorphæ*, Perth Australiæ occid.

10. **Dimerosporium Manihotis** P. Henn. Fungi Amaz. III, 1904, p. 354. 1810

(Hedwigia). — Maculis epiphyllis, gregariis, angulatis, flavidis; peritheciis hypophyllis in cæspitulis gregariis rotundato angulatis v. confluentibus, ovoideis, atris, apice subpapillatis, 60-80 μ , contextu celluloso, brunneo-fusco, basi hyphis ramosis, brunneolis, 3-5 μ .; ascis subclavatis, apice tunicatis, rotundatis vel subacutiusculis, curvulis, 8-sporis, 28-35 \approx 8-10; sporidiis subdistichis v. conglobatis, oblonge ovoideis vel clavatis, obtusis, medio 1-septatis, vix constrictis, hyalino-cyanescentibus, 9-13 \approx 3-3 $\frac{1}{2}$.

Hab. in foliis *Manihot*, Rio Juruá Forteleza Amazoniæ.

11. **Dimerosporium hyptidicolum** P. Henn. Fungi Amaz. III, 1904, 1811

p. 354. — Maculis mycelii epiphyllis atris, effusis; peritheciis sparsis vel aggregatis, subglobosis, obtusis, atro-fuscis, ca. 80-100 μ . diam., basis hyphis repentibus, septatis, fuscis; ascis oblonge clavatis, obtusis, tunicatis, 8-sporis, ca. 25-35 \approx 6-10; sporidiis oblique monostichis vel subdistichis, ovoideis v. clavatis, obtusis, medio 1-septatis vix constrictis, hyalino-cyanescentibus, 7-10 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Hyptidis*, Rio Negro, Manáos Amazoniæ.

12. **Dimerosporium? bauhnicolum** P. Henn. Fungi Amaz. III, 1904, 1812

p. 355. — Mycelio radiato effuso hypophyllo arachnoideo, atro-fusco; hyphis repentibus, ramosis, fusco-brunneis, 3-5 μ . crassis; conidiis variiformibus, ellipsoideis, ovoideis vel oblongis, 2-4-septatis, 15-30 \approx 6-10; peritheciis sparsis v. aggregatis, ovoideis v. subglobosis celluloso-membranaceis, fusco-brunneis, ca. 100-120 \approx 80-100 μ .; ascis clavatis, apice tunicatis, rotundatis, basi sæpe curvulo-substipitatis, 8-sporis, 50-60 \approx 20-25; sporidiis subdistichis v. conglobatis oblonge ovoideis vel ellipsoideis, obtusis, medio 1-septatis, constrictis, hyalinis, 20-26 \approx 7-10.

Hab. in foliis *Bauhinia*, Rio Juruá Juruá-Miry Amazoniæ

NEOREHMIA v. Höhnel, Fragmente zur Mycologie 1903, p. 1 (Etym. ab insigni mycologo et lichenologo doctore HENRICO REHM). — Perithecia sessilia, libera, globosa, subcarnosa, ex olivaceo nigrescentia, pilis rigidis ornata, ostiolo nullo v. obsoleto. Paraphyses parvæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, globosis, facile jamque ipso in asco se separantibus formata.

1. **Neorehmia ceratophora** v. Höhnelt l. c. — Peritheciis sparsis, globosis, minutis, 120–160 μ . latis, ex olivaceo nigrescentibus, subcarnosis, tenuibus, ubique pilis non septatis, rigidis, brevibus, 20–25 \times 2–3, vel simplicibus vel apice magis minusve denticulatis vel ramosis obtectis; ostiolo nullo v. obsoleto; paraphysibus parvis, filiformibus; ascis tenuissimis, clavatis, 40–45 \times 4–6 octosporis; sporidiis subdistichis vel oblique monostichis, oblongis, 4 \times 2, hyalinis, e cellulis binis, globosis, facile jamque ipso in asco se separantibus formatis.
Hab. in ligno putrido Carpini?, Viehöferin Austriæ inferioris.

Sect. 4. Phæodidymæ.

DIMERIUM Sacc. et Syd. — Syll. XVI p. 410 (ut subgenus) (Etym. *dis* bis et *meros* pars, ob sporidia bilocularia). — A *Dimerosporio* differt sporidiis coloratis nec hyalinis. — Huc spectant plures species jam huic postremo generi relatæ, nempe: *Dimerium Fumago* (Niessl), *D. Psilostomatis* (Thüm.), *D. oligotrichum* (Mont.), *D. Langloisii* (E. et M.), *D. Ulei* (Wint.), *D. imperspicuum* (Speg.), *D. latericum* (Speg.), *D. Passifloræ* (Pat.), *D. Monninæ* (Pat.), *D. Richardii* (Thüm.), *D. Barnadesiæ* (Pat.), *D. spectabile* (Pat.), *D. moniliferum* (Pat.), *D. Labiatarum* (Pat.), *D. Gilgianum* (P. Henn.), *D. secedens* Sacc., *D. minutum* (Pat.), *D. Magnoliæ* (T. et E.), *D. baccharidicolum* (P. Henn.), *D. Englerianum* (P. Henn.), *D. Forsteroniæ* (P. Henn.), *D. hamatum* P. et Sacc., *D. pangerangense* (P. Henn.), *D. tasmanicum* (Masse), *D. occultum* (Rac.).

1. **Dimerium orbiculatum** (Mc Alp.) Sacc. et D. Sacc. *Dimerosporium orbiculatum* M. Alp. in The Linn. Soc. of N. S. Wales, 1903, pag. 97. — Maculis numerosis, orbicularibus, fuligineo-nigris, epiphyllis, interdum confluentibus, 2–3 mm. diam; hyphis pallide olivaceis, circ. 7 μ . cr., ramulosis; conidiis concoloribus, 1-septatis, paullo constrictis, 15–17 \times 8–9, pucciniæformibus; ascis clavatis, sessilibus, superne rotundatis, octosporis, 95–105 \times 24–28; paraphysibus hyalinis, filiformibus, superne ramosis, asco subæquilongis; sporidiis distichis ad basim monostichis, olivaceis, subovalibus, 1-septatis, superne rotundatis, 30–35 \times 10–11, cellula superiori crassiori.
Hab. in foliis vivis Grevilleæ Victoriæ in Victoria Australiæ.

2. **Dimerium erysiphinum** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium erysiphinum* P. Henn. in Ergebn. der Kunene Sambesi Expedition. p. 164 (1902). — Mycelio hypophyllo effuso, radiante albo,

subsericeo, submembranaceo, dein flavo-ferrugineo, e filis septatis, ramosis, primo hyalinis dein fuscescentibus, ca. 5-18 μ . cr.; peritheciis aggregatis, subglobosis, astomis, atro-brunneis, ca. 150-180 μ . diam.; ascis ovoideis v. subclavatis, vertice crasse tunicatis, basi curvatis, 65-75 \times 30-45, 4-8-sporis, subdistichis v. conglobatis oblongis v. ovoideis subclavatis, rectis v. curvulis, utrinque rotundatis, medio 1-septatis vix constrictis, flavo-fuscidulis, 30-45 \times 14-18.

Hab. in foliis Copaiferæ Baumianæ, Kuisi prope Likise Afr. austr.

3. **Dimerium parasiticum** (Starb.) Sacc. et D. Sacc. *Dimerosporium* 1816
parasiticum Starb. in Arkiv. för Botan. 1904, Band 2, p. 11. — Mycelio in hyphis hyphopodiis præditis melioloideis. partim parasitante, subiculum membranaceum, orbiculariter expansum, vage determinatum, griseo-fuscum formante, hyphis ramulosis, septatis, fere hyalinis 2,5-3 μ . latis composito; peritheciis hinc inde sparsis, paullum aggregatis, appendicibus longe repentibus, fuscis, ramosis, septatis, circa 5 μ . cr. ornatis, globulosis v. ovato-globulosis, textura membranacea nigricantibus, 65-75 μ . diam. vel 70 \times 44; ascis paucis, sessilibus, ovoideis vel ovoideo-oblongatis, sursum incrassatis, 32-40 \times 15-18; sporidiis octonis, conglobatis, clavulatis, medio septatis, non constrictis, sursum obtusatis, deorsum acutiuscule attenuatis, primo hyalinis, denique fuscescentibus, 17-21 \times 4-5; conidiis ex hyphis mycelii orientibus, clavulato-oblongis, 1-3-septatis, plerumque longe et hyaline pedicellatis, fuscis, usque ad 19 \times 6,5 (25 μ . long. cum append.).

Hab. in silva primæva Poaia, Matto-Grosso Brasiliæ (LINDMAN). — *D. imperspicuum* Speg. sporidiis elliptico-subovatis aliis notis exceptis differt.

4. **Dimerium paulense** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1817
paulense Henn. in Hedw. 1902, pag. 297. — Maculis fuscidulis indeterminatis vel obsolete; peritheciis amphigenis, sparse gregariis, lenticularibus, atro-membranaceis, cellulosis, medio depressis perforatis, 160-200 μ . diam.; hyphis fasciculatis, 3-4 μ . cr., septatis, fusco-atris, radiantibus circumdati; conidiis subclavatis, rectis v. curvulis, ca. 4-5-septatis v. ovoideo-incurvatis, 12-15 \times 10-12, 5-6-septatis, fusco-atris; ascis clavatis, apice obtusis, crasse tunicatis, brevissime stipitatis, octosporis, 35-45 \times 10-14; sporidiis fusoides vel subclavatis, apice acutiusculis, medio 1-septatis, constrictis, chlorino-olivaceis, 15-20 \times 3-4.

Hab. in foliis *Baccharidis* spec., Serra da Cantareira, pr. S. Paulo Brasilæ.

5. **Dimerium gardeniicolum** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1818
gardeniicola P. Henn. F. japon. IV, in Bot. Jahrbücher v. XXXI, 1902, p. 739. — Amphigenum; mycelio atro-brunneo ex hyphis repentibus, ramosis, 3,5-5 μ . cr., pseudopodiis subalternis, ovoideis vel subglobosis, atro-fuscis, 8-12 \times 7-10; peritheciis ovoideis, membranaceis, apice papillatis, pertusis, levibus, viridulo-atris, 1-2 ascigeris, 45-60 \times 40-50, basi setulis simplicibus, atris, 60-120 \times 4-6 circumdatis; ascis ovoideis, obtusis, 20-35 \times 20-30, aparaphysatis, octosporis; sporidiis conglobatis, ellipsoideis 1-septatis valde constrictis, 14-18 \times 7-9, olivaceis v. viridulo-atris, cellulis subglobosis.

Hab. in foliis *Gardeniæ* floridæ, Tosa Japoniæ.

6. **Dimerium Macarangæ** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1819
Macarangæ P. Henn. in Engl. Bot. Jahrb. 1903, pag. 45. — Mycelio hypophyllo, effuso, atro; hyphis repentibus, fuscis, ramosis, septatis, 3-4 μ . cr.; conidiis oblonge fusoides, flavofuscis, continuis, 2-3-guttulatis, 8-12 \times 2,5-3; peritheciis sparsis vel gregariis, ovoideis, ca. 60-80 μ . diam., fusco-membranaceis, pertusis; ascis clavatis, apice rotundatis, tunicatis, basi attenuato-subpedicellatis, octosporis, aparaphysatis, 45-55 \times 13-17; sporidiis subdistichis, clavatis vel subfusoides, utrinque obtusis, medio 1-septatis, constrictis, 2-4-guttulatis, læte brunneis, 10-15 \times 3,5-4.

Hab. in foliis *Macarangæ* spec., Ost Usambara Africae orient. (ENGLER).

7. **Dimerium Saccardoanum** P. Henn. Fungi Amaz. III, 1904, p. 356, 1820
cum icon. — Maculis mycelii plerumque epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam. interdum confluentibus; peritheciis aggregatis vel subsparis, subglobosis, sicco collapsis, atris, rugulosis, membranaceo-cellulosis, ca. 70-110 μ . diam., basi hyphis ramosis, fuscis, 3-5 μ . crassis; ascis clavatis, apice rotundatis, subtunicatis, 8-sporis, 40-50 \times 7-10, paraphysatis; sporidiis subdistichis v. oblique monostichis, clavatis, rectis v. subcurvulis, medio 1-septatis, constrictis, brunneo-fuscis, 10-14 \times 3 1/2-4.

Hab. in foliis *Solani*, Leticia, Rio Amazonas Perù.

8. **Dimerium olivaceum** Syd. Ann. Mycol. 1904, p. 169. — Mycelio 1821
amphigeno, repente, ex hyphis brunneis septatis simplicibus usque 200 μ . longis et ca. 5 μ . crassis composito; peritheciis globosis, gregariis, atris, 100-210 μ . diam., astomis, parte inferiore hyphis mycelii obsessis; conidiis 1-4-septatis, brunneis, variabilibus; ascis

cylindraceo-clavatis, apice rotundatis, $48-62 \approx 9-16 \mu$., breviter stipitatis, octosporis; sporidiis distichis vel oblique monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio 1-septatis, non constrictis, initio hyalinis, mox olivaceo-virescentibus, tandem olivaceo-brunnescentibus, $11-18 \approx 5\frac{1}{2}-9$.

Hab. in foliis vivis *Cynoctoni nummulariifolii* in Andibus Valdivianis (T. W. NEGER).

9. **Dimerium Lepidagathis** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1822

Lepidagathis P. Henn. in *Ergebn. der Kunene Sambesi Expedit.* p. 164 (1902). — Peritheciis gregariis superficialibus minutis, lenticularibus v. subglobosis membranaceis, atris, ca. $60-100 \mu$. diam., basi hyphis atris setulosis repentibus $3,5-5 \mu$. cr. conidiophoris cinctis; conidiis ovoideis, fuscis, 1-septatis; ascis clavatis, apice obtusis, $30-40 \approx 12-15$, octosporis, paraphysatis; sporidiis oblonge ovoideis, medio 1-septatis, vix constrictis, $12-15 \approx 3,5-4$, olivaceofuscis.

Hab. in foliis *Lepidagathis macrochilæ* inter Longa et Lazingua Afr. austr.

10. **Dimerium Scheffleri** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1823

Scheffleri P. Henn. *Fungi Afr. orient.* II, in *Bot. Jahrb.* XXVIII, p. 37. — Epiphyllum, gregarium, atrum, pulvinatum; hyphis repentibus, effusis, $3-5 \mu$. cr., atro-brunneis; peritheciis subglobosis dein collabentibus, atris, astomis, $120-160 \mu$. diam.; ascis clavatis, obtusis, octosporis, $50-70 \approx 9-12$; sporidiis subdistichis vel monostichis, ellipsoideo-ovoides, medio 1-septatis vix constrictis, atro-brunneis, $11-15 \approx 4-4,5$.

Hab. in foliis *Loranthi Schelei*, Usambara Afr. orient. (SCHEFFLER).

11. **Dimerium microcarpum** (Starb.) Sacc. et D. Sacc. *Dimerosporium* 1824

microcarpum Starb. in *Arkiv. för Botan.* 1904, Band 2, pag. 11, fig. 22-23. — Peritheciis mycelio hyalino v. interdum obscuriore in *Meliola* parasitante passim insidentibus, sphæroideis, astomis, tenuiter membranaceis, cellulis polygonis, minutis, $75-100 \mu$. diam.; ascis oblongatis vel cylindraceo-oblongatis, nodulosim stipitatis, sursum rotundatis, $26-28 \approx 8-11,5$; sporidiis octonis, conglobatis vel fere distichis, oblongato-ovoides, medio septatis, constrictis, utrinque rotundatis, loculo superiore cylindraceo-rhomboideo, brevior et latior, inferiore cylindrico, primo hyalinis, deinde olivaceis, plerumque bi-guttulatis, $9-10 \approx 4-5$; paraphysibus nullis.

Hab. in silva primæva parasitice in *Meliola mattogrossensi*, Poaia, Matto-Grosso Brasiliæ (LINDMAN).

12. **Dimerium bactridicolum** P. Henn. Fungi Amaz. IV, in Hedw. 1825
1903, p. 59. — Peritheciis hypophyllis in mycelio atrofusco Meliolæ, subglobosis, basi hyphis repentibus atrofusis circumdatis, ca. 80-100 μ . diam., contextu membranaceo-celluloso, brunneo-fusco; ascis clavatis, apice rotundatis subtunicatis, 8-sporis, 30-40 \approx 7-10; paraphysibus basi fasciculatis vel ramosis, filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, ovoideo-clavatis, utrinque obtusis, medio 1-septatis, paulo constrictis, 2-guttulatis, primo hyalinis, dein brunneis, 8-11 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Bactridis* in *Meliola iquitosensi* parasitica, Iquitos, Perù.

PARODIELLA Speg. — Syll. I p. 717, IX p. 409, XI p. 260, XIV p. 469, XVI p. 412.

1. **Parodiella baccharidicola** P. Henn. Fungi Amaz. III, Hedw. 1826
1904, pag. 359. — Peritheciis epiphyllis gregariis, plerumque paginam totam occupantibus, subglobosis vel ovoideis, obtusis, sicco collabentibus, atris, subrugulosis, ca. 150-180 μ . diam., basi hyphis paucis, fuscidulis; ascis clavatis, apice rotundatis, 8-sporis, 80-100 \approx 17-19; paraphysibus hyalinis, mycelioideis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, oblonge fusoides vel ellipsoideis, curvulis vel rectis, utrinque obtusis, plerumque 2-guttulatis, medio 1-septatis paulo constrictis, 18-25 \approx 7-9, olivaceo-fuscis.

Hab. in foliis *Baccharidis* spec. Tarapoto, Perù.

2. **Parodiella Bauhinarum** P. Henn. Fungi Amaz. III, Hedw. 1827
1904, p. 359, c. ic. — Maculis mycelii subrotundatis angulatis v. effusis, atris, hypophyllis; peritheciis dense gregariis subovoideis, apice obtusis, sicco collabentibus, atris, subcoriaceo-membranaceis, subrugulosis, 80-110 μ . diam., basi hyphis sparsis, flavo-fuscidulis, ca. 3-4 μ . crassis circumdatis; ascis late clavatis, apice tunicatis, rotundatis, 8-sporis, 35-50 \approx 16-20; paraphysibus hyalinis, filiformibus, 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis conglobatis vel subdistichis, ovoideis vel clavatis, rectis vel subcurvulis, obtusis, medio 1-septatis, constrictis, primo hyalinis dein olivaceo-atris, 15-22 \approx 5-6.

Hab. in foliis *Bauhinia* longipetalæ et *Bauhinia* spec. Rio Juruá, Juruá-Miry Amazoniæ.

3. **Parodiella Negeriana** Syd. Ann. Myc. 1904, p. 169. — Peritheciis 1828

hypophyllis, sine maculis, gregariis, subinde magnam folii partem v. totam ejus superficiem æqualiter tegentibus, minutissimis, punctiformibus, atris; ascis globoso-ovatis, brevissime stipitatis, octosporis, 28-39 \times 19-31; sporidiis tristichis, constricto-didymis, utrinque rotundatis, ex hyalino fuscis, 15-20 \times 6 $\frac{1}{2}$ -9.

Hab. in foliis vivis Berberidis linearis, Chile (F. W. NEGER).

4. **Parodiella tarapotensis** P. Henn. Fungi Amaz. III, Hedw. 1904, 1829 p. 360. — Maculis mycelii hypophyllis, effusis, atris villosio-archnoideis; hyphis erectis v. repentibus, atro-fuscis, 3-5 μ . crassis, ramosis, septatis, pseudopodiis alternis v. oppositis, subovoideis v. clavulatis, ca. 10-20 \times 10; conidiis clavatis v. fusoides 3-4-septatis, flavo-brunneis, ca. 30 \times 5; peritheciis gregariis, minutis, subovoideis, apice subpapillatis, atris, parenchymatico-cellulosis, ca. 70-110 μ .; ascis clavatis, apice crasse tunicatis, rotundatis, basi subpedicellatis, curvulis, 8-sporis, 60-80 \times 18-20; sporidiis conglobatis v. subdistichis, hyalino- vel flavido-fuscidulis, clavatis, 2-guttulatis, medio deinde 1-septatis, an constrictis?, 20-26 \times 8-9.

Hab. in foliis Pithecolobii Saman, Tarapoto Rio Huallaga Perù. — « An hæc et sequens potius *Dimerii* species? ».

5. **Parodiella setulosa** P. Henn. Fungi Amaz. III, Hedw. 1904, p. 357 1830 cum icon. — Maculis mycelii epiphyllis gregarie sparsis vel confluentibus, minutis, aterrimis crustaceis; setulis rigidis erectis; hyphis ramosis, torulosis, confluentibus, olivaceo-fuscis, interdum subviridulis, ca. 4-7 μ . crassis; setulis atro-fuscis, acutis v. obtusis usque ad 300 \times 10; peritheciis aggregatis vel sparsis, ovoideis, fusco-olivaceis, membranaceo-cellulosis, obtusis, 70-100 \times 60-80; ascis oblonge ovoideis vel subellipsoideis, vertice crasse tunicatis, rotundatis, 8-sporis, 50-60 \times 20-25; sporidiis conglobatis oblonge ovoideis vel ellipsoideis, primo hyalinis, 2-guttulatis, dein medio 1-septatis, constrictiusculis, fusco-brunneolis, 20-25 \times 8-11.

Hab. in foliis Olyræ, Tarapoto, Rio Huallaga Perù.

6. **Parodiella? manaosensis** P. Henn. Fungi Amaz. III, Hedw. 1904, 1831 p. 358 c. ic. — Maculis fuscis rotundatis vel confluentibus; peritheciis hypophyllis gregariis, ovoideis, rugulosis; atris, subcarbonaceo-coriaceis, ca. 180-220 μ .; hyphis repentibus, ramosis, fusco-brunneis, 5-9 μ . crassis; conidiis oblonge clavatis vel fusoides, primo flavidis, 1-septatis, dein læte brunneis, 3-septatis 40-60 \times 15-20; ascis clavatis, crasse tunicatis rotundatis, 8-sporis, 120-150 \times 35-45; sporidiis conglobatis vel subdistichis, oblonge clava-

tis utrinque rotundatis, primo flavis dein læte brunneis, continuis (an semper?) 40-50 \approx 13-15.

Hab. in foliis Solanaceæ? cujusdam, Rio Negro, Manáos Amazoniæ.

Sect. 5. Hyalophragmiæ.

ZUKALIA Sacc. — Syll. IX p. 431, XI p. 268, XVI p. 416.

1. **Zukalia Stuhlmanniana** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. 1832

— Mycelio crustaceo effuso, atro, paginam foliorum omnino obducente; hyphis repentibus, fuscis, ramosis, septatis, 3-6 μ . cr.; conidiis oblonge ellipsoideis, bi-guttulatis, continuis, 10-17 \approx 4-5; peritheciis sparsis vel gregariis subhemisphæricis vel subglobosis 80-100 μ . diam., setulis 5-8, rigidis, suberectis, atris, acutis, 80-250 \approx 3-5 vestitis, contextu atro-celluloso; ascis clavatis, apice rotundatis, crasse tunicatis, 35-45 \approx 10-13, octosporis, aparaphysatis; sporidiis subdistichis vel conglobatis, oblonge cylindræis, utrinque obtuse rotundatis, crasse 3-septatis, 13-16 \approx 3,5-7, hyalinis.

Hab. in foliis Cocoës nuciferæ, Phœnicis dactyliferæ, Revenalæ madagascariensis, Dar-es-Salam, Zanzibar Africae orient. (STUHLMANN).

2. **Zukalia juruana** P. Henn. Fungi Amaz. III, 1904, p. 367 cum 1833

icone (Hedwigia). — Peritheciis epiphyllis membranaceis, globosis, obtusis, atro-cellulosis, ca. 80-120 μ ., basi mycelio fusco septato, effuso; ascis fasciculatis, clavatis, apice tunicatis, rotundato-obtusis, basi attenuatis, 8-sporis; paraphysibus filiformibus, flexuosis, hyalinis, guttulatis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, tunicatis, 2-septatis, grosse 3-guttulatis, hyalinis, 9-10 \approx 3.

Hab. in foliis Hyptidis, Humaytha, Rio Juruá Amazoniæ. 1834

3. **Zukalia sesxpora** Starb. in Arkiv. för Botan. 1904, Band 2, p. 10.

— Peritheciis minutis, mycelio evanido hyphopodiophoro insidentibus, membranaceis, astomis, atratis, circ. 100 μ . diam.; setis nullis; ascis obovatis vel late cylindræis, nodoso-stipitatis, sursum rotundato-tunicatis, 28-38 \approx 6,5-9; sporidiis senis, conglobatis v. fere distichis, oblongatis vel clavulato-oblongatis, utrinque obtusatis, primo 4-guttatis, medio constrictulis, denique spurie 3-septatis, hyalinis, 11,5-12,5 \approx 4-5; paraphysibus latiusculis, hyalinis, guttulatis.

Hab. in foliis in silva primæva Poaia, Matto Grosso Brasilæ (LINDMAN).

PERISPORIOPSIS P. Henn. in Hedw. 1904, p. 83 (Etym. a *Perisporio*, cui affinis). — Perithecia ovoidea, perforata, membranacea, subatra, in mycelio fibroso, subcrustaceo, maculiformi, fusco. Asci clavati, octospori aparaphysati. Sporidia oblonge fuscoidea 3-7-septata, subhyalino-flavescentia. — *Perisporio* affinis, sed sporidiis subpallidis haud fatiscentibus. Forte ad hoc genus spectat *Apio-sporium brasiliense* Noack — Syll. XVI, p. 408.

1. **Perisporiopsis Struthanthi** P. Henn l. c. — Mycelio effuso, fusco 1835 maculiformi; hyphis septatis, ramosis, fusco-brunneis, 4-8 μ . crassis; peritheciis superficialibus submembranaceis sparsis vel gregariis, ovoideis, vertice obtusis, pertusis, subviolascentibus, subpilosis 250-300 \times 200-250, contextu parenchymatico, atro-fusco; ascis late clavatis, apice crasse tunicatis, vix pedicellatis, octosporis, 80-140 \times 25-40; sporidiis subdistichis v. oblique monostichis, oblonge fuscoideis, utrinque obtusiusculis, primo 1-3 deinde 7-septatis, haud constrictis, hyalinis vel subflavidulis, 60-65 \times 12-15.

Hab. in foliis *Struthanthi* spec. Serra dos Orgaos, Rio de Janeiro Brasilæ (C. ULE).

Sect. 6. Phæophragmiæ.

PERISPORIUM Fr. — Syll. I p. 55, IX p. 412, XI p. 260.

1. **Perisporium mendozanum** Speg. in An. Soc. Cient. Arg. 1899, 1836 p. 227. — Peritheciis superficialibus, subiculo cinerescente pulverulento araneosulo cinctis, semiglobosis, atris, 500-750 μ . diam., 300-500 μ . alt., astomis, levibus, glabris, fragilibus, contextu imperspicuo; ascis cylindræis 140-150 \times 9-10, apice obtuse rotundatis, basi breviter attenuato-pedicellatis, aparaphysatis, octosporis; sporidiis monostichis, cylindræis, rectis vel curvulis, 18-20 \times 5-8, utrinque obtusis, 3-septatis, ad septa valide constrictis, loculis demum secedentibus, obscure fuliginæis.

Hab. ad spinas *Opuntia* aoracanthæ, in deserto circa Mendozam Argentinæ. — Species eximia a genere ascis cylindræis nonnihil recedens.

2. **Perisporium Myristicæ** P. Henn. F. javanici novi, in Hedw. 1902, 1837 p. 141. — Cæspitulis pulvinato-subhemisphæricis v. sublenticula-

ribus, rugoso-verrucosis, atris, ca. 1-2 mm. diam., ex hyphis peritheciisque aggregatis constantibus; hyphis fuscis septatis 3-5 μ . cr. v. moniliformi-torulosis, atro-fuscis, 4-5 μ . diam.; peritheciis membranaceis, subglobosis, pertusis 50-80 μ . diam.; ascis ovoideis v. oblonge ellipsoideis, haud stipitatis, apice rotundatis, octosporis, 20-30 \times 9-13; sporidiis conglobatis, subclavatis vel subfusoideis, castaneis, 3-septatis, constrictis, utrinque obtusis, 10-15 \times 3,5-4.

Hab. in foliis vivis *Myristicæ* spec., Buitenzorg Javæ. — Vita parasitica ascisque sessilibus a generis typo recedit, hinc in subgenus proprium (*Perisporiella* P. Henn.) potius locanda species.

PERISPORINA P. Henn. Fungi Amaz. III, 1904, pag. 357 (Etym. a *Perisporio*, cui affinis). — Mycelium arachnoideo-floccosum, hyalino-fuscum. Perithecia subglobosa, membranacea, astoma. Asci ovoideo-clavati, 8-spori. Sporidia cylindraceo-clavata, 3-septata fusca. — *Meliolæ* et *Perisporio* affinis.

1. **Perisporina manaosensis** P. Henn. l. c. — Mycelio hypophyllo 1838 effuso, hyalino dein fusco, arachnoideo-floccoso; hyphis ramosis, septatis, hyalinis vel fuscis, 3-6 μ . crassis; conidiis fusoides, curvatis, utrinque acutis, 4-guttulatis vel 3-septatis, sparsis vel aggregatis, hyalinis 18-22 \times 5-6; peritheciis gregarie sparsis, subglobosis vel subovoideis, apice pertusis, membranaceo-cellulosis, atris, 150-180 μ .; ascis late clavatis, apice tunicatis rotundatis, 8-sporis, 80-110 \times 30-40; sporidiis conglobatis, oblonge clavatis, apice applanatis vel subrotundatis, 2-septatis, vix constrictis, 60-80 \times 10-12 μ ., fuscidulis.

Hab. in foliis Leguminosæ, Manãos Rio Negro Amazoniæ. 1839

2. **Perisporina Rehmii** (Syd.) Sacc. et D. Sacc. *Apiosporium Rehmii* Sydow in Rehm Ascom. exs. n. 1573, Ann mycol. 1904, p. 520. — Peritheciis tenuiter parenchymaticis, brunneolis, 150 μ . alt., 120 μ . lat., levibus, mycelio brunneo insidentibus; mycelii hyphis ramosis, septatis, breve articulatis, 5-7 rarius usque 20 μ . cr., apicibus sæpe ascendentibus, obtusis conidiophoris; conidiis oblongis 4-6-cellularibus, obtusis, rectis 20-25 \times 6; ascis ramoso-paraphysatis, ovato-clavatis, apice acutatis incrassatisque, breve stipitatis, 8-sporis, 70-80 \times 20-25; sporidiis oblongo-clavatis, apice rotundatis, 2-3-stichis, 2-4- dein 6-cellularibus, medio constrictulis, brunneis, 27-30 \times 10-12, strato mucoso 3 μ . cr. obductis.

Hab. in foliis (aliisque partibus?) *Baccharidis discoloris*, Serra do Itatiaia Rio de Janeiro, c. 1200 m. alt., Brasiliæ.

MELIOLA Fr. emend. — Syll. I p. 60, IX p. 413, XI p. 260, XIV p. 470, XVI p. 413.

1. **Meliola Cookeana** Speg. — Syll. I, p. 65. — var. **Saccardoï** Syd. 1840
Ann. Mycol. 1904, p. 170. — Forma setis apice acutiusculis; sporidiis paulo majoribus, 40-48 \approx 14-18. Adsunt hyphopodia copiosa tam mucronata quam capitata.

Hab. in foliis Litseæ mollis, in Andibus pr. Villarica, Chile (F. W. NEGER). — forma **Duvauæ** Sacc. et Syd. l. c. — A præcedente var. differt subiculis parcioribus et præcipue hyphopodiis mucronatis rarioribus. In foliis vivis Duvauæ dependentis, Concepcion in Chile (F. W. NEGER).

2. **Meliola fusco-pulveracea** Rehm, Hedw. 1901, p. 162. — Maculis 1841
hypophyllis, dilutissime nigrescentibus, arachnoideis, circ. 5 mm. diam.; peritheciis gregariis, sessilibus, globosis, astomis, verruculosis, 60-90 μ . diam., ad basim hyphis radiantibus permultis, simplicibus, rectis, interdum undulatis, obtusis, fuscis, septatis, raro breviter conjugatis, 300-600 \approx 5, obsessis; hyphopodiis et setis plane deficientibus; ascis evanidis; sporidiis oblongis vel clavulatis, obtusis (2)-3-septatis, cellula suprema interdum majore, fusca, episporio crasse verruculoso, ad septa subconstrictis, 21-30 \approx 9.

Hab. ad folia fruticis, Ouro Preto in Brasilia (ULE).

3. **Meliola buddleyicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 1842
p. 61. — Maculis mycelii epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam.; hyphis repentibus, atro-fuscis, septatis, ramosis, pseudopodiis alternis, ovoideis, 1-septatis, 12-18 \approx 7-8 v. corniformibus, 15-22 \approx 4-6, atrofuscis; peritheciis sparsis vel cæspitosis, inermibus, subglobosis, sicco collabentibus, atrofuscis, membranaceo-cellulosis, pertusis, 100-160; ascis ellipsoideis vel ovoideis 2-4-sporis; sporidiis cylindræis, utrinque obtusis, 4-septatis, constrictis, atrofuscis 25-32 \approx 7-10.

Hab. in foliis Buddleyæ spec. Tarapoto, Rio Huallaga Brasiliæ.

4. **Meliola Lippiæ** Maublanc in Bull. Soc. Myc. de France 1903, fasc. 3, 1843
p. 291. — Mycelio maculas orbiculares, nigras, tomentosas efficiente, ex hyphis atrofuscis 8-9 μ . crassis composito; hyphopodiis capitatis alternantibus, 26-30 \approx 10-12, cellula superiore ovoidea; setis in mycelio numerosis, nigris, opacis, uncinatis, obtusis, 10 μ . crassis; peritheciis aggregatis, globosis, nigris, verruculosis, 125-220 μ . diam.; ascis obovatis bisporis; sporidiis ellipticis 4-septatis, ad septa constrictis, obtusis, atro-fuliginæis, 26-30 \approx 12-14.

Hab. in pag. superiore foliorum *Lippia* sp. Dahomey Guineæ inf. (LE TESTU).

5. **Meliola iquitosensis** P. Henn. Fungi Amaz. III, 1904, p. 361 (Hedw.). 1844

— Maculis mycelii epiphyllis, rotundato-angulatis v. effuso-confluentibus, atris, subcrustaceis, setulosis; hyphis repentibus, ramosissimis, brunneo-fuscis; conidiis fusoides, 3-septatis, fuscis, 30-40 \times 5-7, setulis erectis apice obtuse rotundatis, fusco-atris usque 180 \times 4-5 μ ., septatis; peritheciis sparsis vel gregariis ovoideis apice rotundato-obtusis, fuscis, atro-cellulosis, 150-180, μ . ad basim setulis erectis, rigidis, obtusis, atris, septatis, 4-5 μ . crassis; ascis clavatis, tunicatis, subrotundatis, 8-sporis, 60-80 \times 18-25; sporidiis conglobatis cylindræo-fusoides, 3-septatis, fuscis, utrinque rotundatis, cellulis externis subpapillatis, pallidioribus, 25-35 \times 6-8.

Hab. in foliis *Palmæ* cujusdam, Iquitos, Rio Amazonas Bras.

6. **Meliola Lagunculariæ** Earle in *Muhlenbergia* 1901, p. 11. — Am- 1845

phigena, maculas nigras, orbiculares 3,5 mm. diam. sæpe quoque ampliores formans; mycelii hyphis 4-6 μ . cr., obscure et remotiuscule septatis, laxis, pelliculam arcte adhærentem, tenuem formantibus; hyphopodiis capitatis, distantibus alternatis, divaricatis, tenuibus 12-16 μ . longis, capitulo oblongo, ovoideo, subinde subirregulari, 8-12 \times 6-7; hyphopodiis mucronatis, rarioribus, alternis vel oppositis, 16 \times 4, sursum tenuatis, apice obtuso; setis nullis; peritheciis sparsis, globosis, non collabentibus 150 μ . diam., ostiolo indistincto, superficie processibus conicis 12 \times 8-12 asperata; ascis mox evanescentibus (non observatis); sporidiis ovoideis, læte fuscis, æqualiter 4-septatis, utrinque rotundatis, 32 \times 12.

Hab. in foliis vivis *Lagunculariæ* racemosæ, Mayaguez, Portorico. — Affinis *Mel. glabræ*, a qua differt mycelio tenuissimo, hyphopodiis sporidiisque minoribus.

7. **Meliola manaosensis** P. Henn. Fungi Amaz. III, 1904, pag. 366, 1846

cum icone (Hedwigia). — Mycelio hypophyllo, effuso, radiato, crustaceo, aterrimum; hyphis ramosis, septatis, fuscis, 3-6 μ . crassis; hyphopodiis alternantibus, capitatis, ca. 20-30 \times 10-15, fusco-atris; conidiis fusoides v. 5-septatis, atrofuscis, apice hyalino-papillatis 40-50 \times 7-8; peritheciis sparsis ovoideis vel subglobosis, vertice obtusis, ca. 240-280 μ . atris, basi setulis rigidis erectis atris, obtusis 250-300 \times 8 vestitis; ascis clavatis, apice tunicatis, subobtusis vel acutiusculis, basi breve stipitatis, 8-sporis, 80-100 \times 25-35; sporidiis subdistichis v. conglobatis, oblonge cylindræis, 5-septatis, constrictis, 35-40 \times 10-12, fusco-atris.

Hab. in foliis *Mauritiæ Martianæ*, Manáos, Rio Negro Amazoniæ.

8. **Meliola sakawensis** P. Henn. in Hedw. 1904, p. 141. — Mycelio 1847 effuso paginam superiorem tegente, atro, tenui crustaceo; hyphis repentibus, septatis, ramosis, atro-fuscis, hyphopodiis plerumque alternantibus, ovoideis, 15-20 \approx 10-15; peritheciis sparsis vel gregariis, lenticularibus, atris, rugosis, setulis sparsis, septatis, apice obtusis, atro-fuscis usque ad 250 μ . longis, 4-5 μ . crassis; ascis ellipsoideis, plerumque bisporis, 30-40 \approx 20-25; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, atro-fuscis 20-33 \approx 8-13.

Hab. in foliis *Clerodendri trichostomi*, Tosa, Sakawamachi Japoniæ (YOSHINAGA).

9. **Meliola larviformis** P. Henn. Fungi Amaz. III, 1904, p. 362. cum 1848 icon. (Hedwigia). — Maculis interdum hypophyllis, rotundatis gregariis, ca. 1-2 mm. diam., atris; hyphis radiantibus, ramosis usque ad 8 μ . crassis, atro-fuscis, pseudopodiis alternantibus, subovoideis, stipitatis, ca. 20-25 \approx 12-18, atro-fuscis; peritheciis sparsis vel subaggregatis, lenticularibus, atris, 140-170 μ . diam., basi appendiculis subcylindraceis, larviformibus pallide fuscescentibus, concentricè subannulatis, apice curvatis, obscurioribus 60-100 \approx 15-25; ascis 2-sporis, ellipsoideis, ca. 35-55 \approx 20-30; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, 30-45 \approx 10-16, atris.

Hab. in foliis *Lobeliaceæ* cujsd., Rio Juruá et in foliis *Acalyphæ* spec. Tarapoto, Perù.

10. **Meliola Stuhlmanniana** P. Henn. in Engl. Bot. Jahrb. 1903, p. 45. 1849 — Mycelio epiphylo, interdum hypophyllo, atro-violaceo, maculas subcrustaceas, rotundatas, ambitu radiatas efficiente; hyphis repentibus, atro-vinosis vel fuscis 4-8 μ . cr., septatis, ramosis, pseudopodiis alternis subpedicellatis, ovoideis, ca. 15-20 \approx 12-15; peritheciis subglobosis vel hemisphæricis, ca. 200-250 μ . diam., setulis (5-10) rigidis, crassis, atro-vinosis, apice obtusis, haud septatis, ca. 100-150 \approx 4-7, contextu cellulis rotundato-polyhedricis; ascis oblonge ellipsoideis, utrinque obtusis rotundatis, 3-4-septatis, constrictis, atro-fuscis 35-45 \approx 13-18.

Hab. in foliis *Acridocarpi*, Dar-es-Salam, Zanzibar Africae orient. (STUHLMANN).

11. **Meliola juruana** P. Henn. Fungi Amaz. III, 1904, p. 365 cum 1850 icon. (Hedwigia). — Maculis effusis atris, sæpe paginam superiorem omnino tegentibus; hyphis effusis, ramosis, rufo- vel fusco-

atris, pseudopodiis alternantibus vel suboppositis, stipitato-capitatis, ca. 10-12 μ . vel rostratis; peritheciis gregarie sparsis, ovoideis obtuse rotundatis vel collabentibus, rugulosis, atris, ca. 150-180 μ ., basi appendiculis rigidis, apice dichotomis vel repetito dichotomis, atris, ca. 150-200 \approx 8-10 atris, ramis divergentibus apice pellucidis rotundato-incrassatis v. incis; ascis ovoideis v. oblonge ellipsoideis, 2- vel 3-sporis; sporidiis cylindræis, utrinque rotundatis, 4-septatis, constrictis, 32-40 \approx 10-15, atris.

Hab. in foliis *Lonchocarp*i *Ulei*, Marary, Rio Juruá Amazoniæ.

12. **Meliola Ipomœæ** Earle in *Muhlenbergia* 1901, p. 10. — Epiphylla, 1851 maculas minutas 1 mm. diam., irregulariter rotundatas vulgo confluentes, brunneas formans; mycelio parco; hyphis ramosissimis tenuibus, circ. 7 μ . cr., septatis; hyphopodiis capitatis, copiosis 16-20 μ . long., regularibus, capitulo globoso 10-12 μ ., cellula basilari 4-8 \approx 6-7, angulo acuto inserta, setis copiosis, rectis vel abrupte basi curvatis, fuscis, crebre septatis 250-300 \approx 7, apice 4 μ . cr., obtuso integro, subhyalino; peritheciis paucis, 2-4 in singula macula, 120-160 μ . diam. nigris, collabentibus, obscure ostiolatis, contextu parenchymatico cellulis hexagonis 12 μ . diam; ascis late ovoideis vulgo 4-sporis mox evanescentibus; sporidiis compressis, ovoideis e latere cylindræis, utrinque rotundatis, subæqualiter 4-septatis non vel vix constrictis, 35 \approx 14 \approx 8, fusco-olivaceis, subdiaphanis, cellula quarta paullulo latiore.

Hab. in foliis viventibus *Ipomœæ* prope Mayaguez, Portorico. 1852

13. **Meliola asterinoides** Wint. — *Syll.* IX, p. 423. — var. **Psychotriæ** P. Henn. *Fungi Amaz.* III, 1904, p. 361, cum icone (*Hedwigia*). — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, ca. 300-350 μ . diam., radiato-cellulosis, asterinoideis, atris, margine hyphis radiantibus, pseudopodiogenis circumdati, pseudopodiis alternantibus, ovoideis; ascis ellipsoideis, 2-sporis, 35-45 \approx 20-25; sporidiis cylindræis, utrinque rotundatis, 4-septatis, constrictis, 30-38 \approx 10-14.

Hab. in foliis *Psychotriæ*, Manãos Rio Negro Amazoniæ.

14. **Meliola autumnalis** Syd. *Ann. Myc.* 1904, p. 169. — Amphigena, 1853 sæpius epiphylla, immaculans; mycelio tenui, radiato-reticulato, ex hyphis repentibus ramosis anastomosantibusque septatis, fuscis ca. 7 μ . crassis, hyphopodia stipitata 1-septata clavato-capitato 18-30 μ . longa gerentibus composito; peritheciis globosis, rugulosis, atris, 175-200 μ . diam., sparsis vel hinc inde paucis aggregatis;

ascis ovato-clavatis, mox diffluentibus, 2-4-sporis; sporidiis oblongis, rectis v. leniter curvulis, utrinque rotundatis, 3-septatis, non constrictis, ex hyalino tandem brunneis, 35-42 \approx 11-14.

Hab. in foliis vivis *Gei chilensis*, Concepcion in Chile frequens (F. W. NEGER).

15. **Meliola manihotica** P. Henn. Fungi Amaz. III, 1904, p. 364, 1854 cum icone (Hedwigia). — Maculis mycelii epiphyllis, gregarie sparsis, rotundatis, radiatis, atris 1-2 mm. diam., hyphis repentibus, ramosis atro-fuscis ca. 3-6 μ . crassis; pseudopodiis alternantibus v. oppositis, pedicellato-capitatis vel rostratis; peritheciis sparsis vel subaggregatis, subglobosis, atris, cellulosis, ca. 120-170 μ ., basi setulis rigidis pluriseptatis, apice subhamatis, obtuse incrassatis fusco-brunneis, ca. 100-220 \approx 6-8; ascis oblonge ellipsoideis vel ovoideis, 2-3-sporis, 35-45 \approx 20-23; sporidiis cylindræis, obtusis, 4-septatis, constrictis, atro-fuscis, 25-35 \approx 8-11.

Hab. in foliis *Manihot utilissimæ*, Rio Juruá Juruá Miry, Marary et Manãos Amazoniæ.

16. **Meliola Panici** Earle in Muhlenbergia 1901, p. 12. — Maculas 1855 minutas, 1-3 mm. diam., vulgo confluentes formans; mycelii hyphis 6-8 μ . cr., parce ramosis, septatis, hyphopodiis capitatis vulgo alternis et valde divaricatis 16-20 \approx 6-8, capitulo latiore quam longiore, irregulari, vulgo 3-4-lobo; hyphopodiis mucronatis copiosis, oppositis, angulo recto insertis doliiformibus, læte fuliginis, 12 μ . longis; setis numerosis, rectis, apice indiviso, obtuso, obscure septatis, opacis, 400-600 \approx 8-10; peritheciis sparsis, nigris non vel vix collabentibus 150-200 μ . diam., non ostiolatis; ascis ovoideis 3-4-sporis, mox evanescentibus; sporidiis compressis, 4-septatis, leviter constrictis, utrinque rotundatis, 40 \approx 12 \approx 8.

Hab. in foliis *Panici latifolii*, Santurce Portorico. — Ab affinibus *M. amphitricha* et *M. tenui* satis diversa hyphopodiis lobatis et setis indivisis.

17. **Meliola mattogrossensis** Starb. in Arkiv. för Bot 1904, Band 2, 1856 pag. 10. — Mycelio primo maculas orbiculares efficiente demum late repente confluenta, totam paginam superiorem folii fere obtegente, etiam hypophyllo, hyphis ramosis anastomosantibus, hyphopodiis alternantibus v. sæpissime oppositis dense obsessis formato; hyphopodii cellula apicali 10 \approx 6,5 vel 7 μ . diam., pedali 3,8-6,5 μ . alt.; peritheciis adspersis vel gregariis lenticulari-sphæroides demum patellariter collapsis, verruculosus, setis mycelialibus similibus ornatis, membranaceis, atratis, 200 μ . diam.; setis myce-

lialibus numerosis, erectis vel basi arcuato-procumbentibus, parce septatis, fuscis, apice acutatis vel rarissime et brevissime bi-trifurcatis, usque ad 400 μ . longis, ramulis inæquilongis; ascis jam resorptis; sporidiis oblongatis, utrinque rotundatis 4-septatis, constrictulis, fuscis, 34-37 \times 14-15.

Hab. in foliis vivis in silva primæva Poaia, Matto Grosso Brasiliæ.

18. **Meliola Piperis** Earle in Muhlenbergia, 1901, p. 12. — Maculas 1857 densas, nigras 5-10 mm. latas facile secedentes formans; mycelii hyphis densis, rectis v. curvis, 6-8 μ . d. septatis; hyphopodiis capitatis, alternis v. oppositis, minutis, brevibus, divaricatis, capitulo globoso 8 μ . cr., cellula basali 4 μ . diam.; hyphopodiis mucronatis non visis; setis copiosis, cylindricis, non tenuatis, opacis, rarius septatis, 150-200 \times 6-8, semel vel ter dichotome ramosis, ramis primariis divaricatis 20-25 μ . longis, ultimis brevibus, acutis; peritheciis copiosis, non ostiolatis, non vel vix collabentibus 150 μ . diam., contextus cellulis minutis 4-6 μ . diam.; ascis ovoideis, mox evanescentibus, 2-(vel 4?)-sporis; sporidiis cylindricis subæqualiter 4-septatis, leviter constrictis, utrinque obtusis, 35 \times 10.

Hab. in foliis Piperis adunci, prope Mayaguez, Portorico.

19. **Meliola rubicola** P. Henn. in Hedw. 1904, p. 140. — Maculis 1858 sparse gregariis, atris, rotundatis, minutis, plerumque 1-2 mm. diam., radiantibus; hyphis repentibus, ramosis, septatis, fuscis; hyphopodiis alternis, late clavatis, plerumque applanatis, 15-20 \times 10-14 fuscis; peritheciis paucis, hemisphærico-pulvinatis, atro-castaneis ca. 160-200 μ .; ascis ovoideis vel ellipsoideis, 2-3-sporis, 36-48 \times 20-25; sporidiis cylindræis, utrinque rotundatis, 3-septatis, paullo constrictis, olivaceo-atris, 30-43 \times 11-15.

Hab. in foliis Rubi rosifolii, Tosa Japoniæ (YOSHINAGA).

20. **Meliola Anacardii** A. Zimm. in Centr. fr. Bakter. 1902, II Abt. 1859 VIII, pag. 151. — Mycelio epiphylo, maculas orbiculares atras 1-1,5 mm. diam. efficiente; hyphis adpressis 6-7 μ . cr., oppositoramosis; hyphopodiis alternis oblongis, basi septatis, articulo superiori 16 \times 8; setis circa perithecia indivisis, apice cristatis, usque 250 \times 6; peritheciis atris globosis, 100-160 μ . diam.; ascis fugacibus bisporis; sporidiis ovoideo-cylindræis, utrinque rotundatis, constricto-4-septatis, levibus, saturate olivaceo-brunneis, 40-44 \times 18, e latere compressis, 12 μ . cr.

Hab. in foliis Anacardii occidentalis culti in hortis Buitenzorg Javæ.

21. **Meliola anomala** Tracy et Earle in Bull. of the Torr. bot. Club. 1860 1901, p. 184. — Mycelio plagulas rotundatas epiphyllas, sericeas, nigras, 2-5 mm. diam. griseo-cinctas efficiente, ex hyphis brunneis, opacis, septatis 8 μ . diam. composito; conidiophoris? fere hyalinis, tenuibus, ramosis circ. 4 μ . diam.; conidiis non visis; hyphopodiis capitatis, sæpe dense stipatis, subrotundis, levibus 16 \approx 12, raro subangulosus, cellula stipitis 6 \approx 6 μ .; hyphopodiis mucronatis non visis; setis mycelii copiosis, intense brunneis, sæpe septatis 200-300 μ . long., basi 7 μ . cr., apice 4 μ . cr.; peritheciis sparsis 200 μ . diam.; cellulis contextus 8 μ .; ascis clavatis vel obovatis, pedicellatis, fasciculatis, octosporis 100 \approx 20-40; sporidiis valde clavatis, fuliginis 4-septatis, 40-45 μ . long. superne 12 μ . crassis, inferne 4 μ . cr.

Hab. in foliis vivis *Perseæ* spec. Palma Sola, Fla. Amer. bor.

22. **Meliola Willoughbyæ** A. Zimm. in Bull. de l'Inst. bot. de Buitenz. 1861 1901, p. 23. — Maculis amphigenis subrotundis, 10 mm. diam.; mycelio arachnoideo ex hyphis 7-8 μ . cr., opposite ramosis composito; hyphopodiis alternis, nigris, cellula inferiore 5 μ . longa, superiore 15-20 \approx 8-12; peritheciis globosis, rugosis 120-160 μ . diam.; ascis bisporis; sporidiis ovoideis, 4-septatis, brunneo-nigris 40-45 \approx 16-18.

Hab. in foliis *Willoughbyæ firmæ*, Buitenzorg in insula Java.

23. **Meliola exilis** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, 1862 sæpius hypophylla; mycelio tenui, effuso, parce evoluto, ex hyphis repentibus ca. 6-7 μ . crassis ramosis nodulosis brunneis, hyphopodia stipitata alternantia, irregularia, apice capitata, sæpe irregulariter bi-triloba gerentibus composito; peritheciis paucis, sæpius solitariis, globulosis, atris, 175-230 μ . diam.; ascis ovato-ellipsoideis, ca. 70 \approx 28-35, 2-4-sporis; sporidiis subfusoides, 3-septatis, non constrictis, plerumque leniter curvatis, utrinque acutiusculis, ex hyalino brunneis, 46-54 \approx 12-14.

Hab. in foliis vivis *Gaultheriæ* spec. in Andibus ad lacum Quillen ad fines chilenses et argentinis.

24. **Meliola echinus** P. Henn. Fungi Amaz. III, 1904, p. 363 cum 1863 icon. (Hedwigia). — Peritheciis hypophyllis sparsis, subovoideis, rotundatis, collapsis, atro-fuscis, ca. 200 μ . diam., appendicibus cylindratis, rectis v. apice curvulis, pallide fuscidulis ca. 100-200 \approx 10-20 dense squarrosis; hyphis mycelii sparsis, flavo-fuscis vel atrofuscis; hyphopodiis subalternantibus, capitatis, atrobunneis,

15-30 \approx 10-15; ascis oblongis, 2-sporis; sporidiis cylindræis, 4-septatis, atro-fuscis, constrictis, utrinque obtusis, hyalino-subpapillatis, 40-52 \approx 16-20.

Hab. in foliis *Coussapoæ*, Rio Juruá, Juruá-Miry Amazoniæ.

25. **Meliola Cyperi** Pat. in Gaill. Monogr. Gen. Mel. p. 70 cum ic. — 1864

Syll. XI, p. 263. — forma **italica** Sacc. Notæ Mycol. in Syd. Ann. Mycol. 1903, p. 24, D. Sacc. Myc. ital. n. 1022. — A typo vix recedit setulis apice acutissimis; sporidia utrinque obtusula, 4-septata, 40-47 \approx 14-18, atro-fuliginea; hyphopodia oblongo-obovata 30 \approx 11-12, uniseptata, rarius 2-3-septata.

Hab. in foliis languidis v. emortuis *Cladii Marisci*, in paludibus Meolo (Venezia) Italiæ borealis. Detexit ANTONIA SACCARDO-VANZETTI. — Prima typica species *Meliolæ* in Europa reperta!

26. **Meliola atricapilla** Starb. in Arkiv. for botan. 1904, band 2, p. 9, 1865

fig. 19-21. — Plagulis epiphyllis, orbiculariter vel varie, pro ratione distincte, (sub lente dendritice) determinatis, discretis, rarissime confluentibus, ob setulas velutinis, aterrimis; mycelii perithecigeri hyphis 9-10 μ . cr., hyphopodiis 25-31 \approx 12-15, alternantibus obsessis, obscure fuligineis, confluentibus, crustam densissime setigeram efficientibus; hyphopodiis bilocularibus, clavato-oblongis; setis erectis, rigidis, continuis, ad basim arcuatis, apice acutatis 250-300 \approx 8-12; peritheciis inter setas absconditis, gregariis, paucioribus, sphaeroideis, verruculosus vel rugosiusculis, textura membranacea, nigris, 250-300 μ . diam.; ascis ovatis, sessilibus, bisporis 70 \approx 30, trisporis 76-90 \approx 35-40; sporidiis binis vel ternis, ellipsoideis, utrinque rotundatis, 4-septatis, constrictulis, ex hyalino olivascentibus 48-50 \approx 19-21.

Hab. in foliis vivis in silva primæva, Colonia Elisa, Paraguay (LINDMAN).

27. **Meliola cornu-capræ** P. Henn. Fungi Amaz III, 1904, (Hedwi- 1866

gia) p. 362. — Maculis mycelii truncicolis rotundato-pulvinatis vel effusis, atro-crustaceis; hyphis repentibus, ramosis, atris, 5-8 μ . crassis; pseudopodiis ovoideis, clavatis vel rostratis; peritheciis sparsis vel aggregatis, lenticularibus, atris, ca. 300 μ . diam., basi appendiculis cylindræis, corniformibus, apice obtuse involutis, obscurioribus, pallide fuscidulis, concentrice annulatis, ca. 80-150 \approx 25-35 μ .; ascis 2-sporis, oblongis, ca. 70 \approx 35; sporidiis cylindræis, obtuse rotundatis, 4-septatis, constrictis, 50-60 \approx 20-25, atris.

Hab. in caule *Euphorbiaceæ* cujusdam, Rio Juruá, Juruá-Miry Amazoniæ.

28. **Meliola Negeriana** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, 1867
 plerumque epiphylla; maculis orbiculatis, velutinis, atris, crassis, 1-4 mm. diam., margine definite limitatis; peritheciis aggregatis, globulosis, 175-320 μ . diam., atris, inter setas rigidas erectas numerosissimas brunneas apice parum dilutiores ca. 7 μ . crassas nidulantibus; ascis late clavatis, 2-4-sporis, 75-105 \times 24-35; sporidiis cylindrico-oblongis, utrinque rotundatis, rectis, 3-septatis, ex hyalino mox brunneis, ad septa leniter constrictis, 50-63 \times 14-17.

Hab. in foliis Lomatiae obliquæ in Chile, frequens.

Sect. 6. Dictyosporæ.

ZUKALIOPSIS P. Henn. Fungi Amaz. III, 1904, p. 367 (Etym. a *Zukalia*, cui affine genus). — Perithecia superficialia, mycelio effuso, fusco circumdata, submembranacea, atra, subastoma. Asci subovoidei, 8-spori; sporidia cylindræo-oblonga vel clavata, pluriseptata, muralia, hyalina. *Zukaliæ* affinis sed sporidia murali-divisa.

1. **Zukaliopsis amazonica** P. Henn. l. c. — Peritheciis amphigenis, 1868
 gregariis, ovoideis vel subglobosis, submembranaceis vel subcarbonaceis, apice obtusis subastomis, atris, rugulosis, ca. 120-140 μ .; basi hyphis repentibus, fuscis, septatis, ramosis, 3-4 μ . crassis; conidiis sparsis, fusoides, apiculatis, 3-septatis, constrictis, fuscis, ca. 20 \times 4 $\frac{1}{2}$; ascis ovoideis, crasse tunicatis, basi breve curvato-stipitatis, 8-sporis, 20-30 \times 15-25; sporidiis conglobatis oblonge clavatis vel subcylindræis, rectis vel curvulis, 4-5-septatis, interrupte muralibus, hyalinis, 15-20 \times 4-5.

Hab. in foliis Sapindacæe cujusd. (*Paullinia*?) Iquitos, Rio Amazonas Perù.

PLEOMELIOLA Sacc. — Syll. I p. 70 (ut subgenus) et XIV p. 17 (Etym. *Pleo*, breviatio *Pleosporæ* et *Meliola*, ob sporidia muralia). — Est *Meliola* sporidiis septato-muriformibus, fuscis.

1. **Pleomeliola Hyphænes** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. 1869
 — Maculis gregariis, rotundatis, atro-sanguineis vel fuscis, centro pallidulis, exaridis, ca. 5-10 mm. diam., hyphis brevibus, ramosis, septatis, 3-4 μ . cr., brunneis; conidiis oblonge clavatis vel fusoides, erectis, 4-9-septatis, vix constrictis, ferrugineis, apice obtusis vel subacutis, subhyalinis, 40-80 \times 7-10; peritheciis gregariis, subglobosis, rugulosis, apice perforatis, 80-120 μ . diam., membrana-

ceo-cellulosis, ferrugineis; ascis ovoideis, apice rotundatis, truncatis, octosporis $25-36 \approx 17-23$ aparaphysatis; sporidiis conglobatis, oblonge cylindræis vel subclavatis, utrinque obtusis, 4-5-septatis, interrupte muriformibus, hyalinis, dein fuscidulis, $10-15 \approx 3,5-4,5$.

Hab. in foliis *Hyphænes* spec., Dar-es-Salam, Zanzibar Africae orient. (STUHLMANN),

Trib. 5. Capnodiæ Sacc.

CAPNODIOPSIS Henn. in Hedw. 1902, pag. 299 (Etym. a *Capnodio*, cui affinis). — Mycelium fuscum, sparsum. Perithecia subcoriacea, subglobulosa, vertice elongato-cornuta, atra, apice rotundato aperta. Asci ovoidei v. subglobosi, tunicati, octospori. Sporidia subglobosa, continua, hyalina vel dilute fuscidula.

1. **Capnodiopsis mirabilis** Henn. l. c. — Peritheciis hypophyllis, gregarie sparsis, basi hyphis fuscidulis, septatis, sparsis $3-4 \mu$. crassis circumdatis, subglobosis vel depressis, atro-fuscis, rugulosis $60-80 \mu$. diam., vertice vel lateraliter elongato-cornutis, cornu cylindræo, curvato, atro-fusco, $100-160 \mu$. longo, $20-30 \mu$. crasso, apice flavido, pluri-annulato, primo rotundato clauso, dein late aperto; ascis ovoideis vel subglobosis, crasse tunicatis, $25-28 \approx 20-25$, octosporis; sporidiis conglobatis ovoideis vel subglobosis, continuis, intus minute granulatis, hyalinis vel dilute fuscidulis $7-10 \approx 6-8$.

Hab. in foliis vivis *Compositæ* cujusdam, Serra da Cantareira, S. Paulo Brasiliæ.

CAPNODIUM Mont. — Syll. I p. 73, IX p. 438, XI p. 270, XIV p. 476.

1. **Capnodium Anonæ** Pat. Bull. Soc. Mycol. 1904, p. 135. — Epiphyllum, effusum, nigrum, crustaceo-pelliculosum, sæpe totam foliorum superficiem occupans, facillime dilabens; mycelio brunneo, ramoso, toruloso, ex articulis subglobosis vel cylindræis $10-15 \approx 6-10$ formato; conidiis stellatim 3-4-ocularibus, *Triposporio* similibus, pallide brunneis; peritheciis pycnidicis erectis usque ad 400μ . altis, cylindræis, gracilibus 25μ . cr., ramosis, membranceis, sursum obtuse attenuatis, poro pertusis, longe stipitatis; peritheciis ascigeris coriacellis, ovoideo-inflatis apice obtusis pertusisque $150 \approx 100$, longe ramoso-stipitatis; ascis ovoideis $60 \approx 25$, 4-6-sporis; sporidiis ellipsoideo-elongatis, primo hyalinis, medio

- 1-septatis constrictisque, dein fuscis, 5-6-septatis, septis longitudinalibus 1-2.

Hab. in foliis vivis *Anonæ squamosæ* in insulis Gambier Polynesiae Gallicæ.

2. **Capnodium brasiliense** Puttemans, Bull. Soc. Mycol. 1904, p. 153, 1872 t. X, f. 1-10. — Effusum, atrum, totam superficiem paginæ superioris tegens; mycelii hyphis polymorphis, olivaceo-fuligineis, cellulis inæqualibus septo constrictis, 6-10 μ . lat. vel subcylindraceis, regularibus 3 μ . cr.; pycnidiiis 250-300 μ . longis, rectis vel parte superiore paululum inclinatis, parte inferiore 50 μ . lata, dein circa medium subito coarctatis et usque ad apicem cylindricis vel breviter attenuatis, 11-13 μ . diam. sup.; sporulis rectis, cylindricis hyalinis, 4-5 \times 1,5-2; peritheciis gregariis varia magnitudine 35-60 μ . diam., nunc sed rarius pycnidio connexis et ex hujus parte inflata productis plus, minusve sphaericis, sed pedicello cylindrico plus minus longo 30-40 μ . lato suffultis, apice aperto vix prominente 4-5-dentato; ascis forma valde variabili sed semper basi attenuatis, modo obovalibus, modo parte media fortiter incrassatis 30-35 \times 11-26; sporidiis 4-8, inordinatis, primo hyalinis dein olivaceo-fuligineis, 3-septatis, obovalibus, loculo pænultimo incrassato 13-16 \times 5.

Hab. in foliis *Coffeæ arabicæ*, Sao Paulo Brasiliæ. — Status conidici sistunt *Coniothecii*, *Cladosporii*, *Brachysporii*, *Torulæ*, *Triposporii* species.

LIMACINIA Neger — Syll. XIV p. 474, XVI p. 1127.

I. *Eu-Limacinia*. Sporidia transverse septata.

1. **Limacinia Aurantii** P. Henn. in Hedw. 1902, p. 298. — Mycelio atro, 1873 effuso, crustaceo-membranaceo, ex hyphis repentibus, atro-fuscis, septatis, 4-7 μ . cr.; conidiis pleurogenis, singularibus, pluriseptatis, fuscis, subulatis vel quadriradiatis, radiis subulatis vel fusoideis, atro-fuscis, 60-100 \times 10-12, pluriseptatis plus minus constrictis; peritheciis sparsis, subhemisphaericis, membranaceo-cellulosis v. subcoriaceis, atro-fuscis, 180-200; ascis clavatis, apice rotundatis, tunicatis, octosporis 50-60 \times 20-25; sporidiis conglobatis, fusoideis, utrinque obtusiusculis vel subacutis, 3-septatis, vix constrictis, 20-30 \times 5-7, hyalino-fuscidulis.

Hab. in foliis *Citri Aurantii*, S. Paulo Brasiliæ.

2. **Limacinia Castilloæ** (Zimm.) Sacc. et Syd. — Syll. XVI, p. 1128 1874

(nomen). — *Antennaria Castilloæ* A. Zimm. in Bull. Inst. Bot. Buitenz. X, 1901, p. 14. — Mycelio epiphylo, ex hyphis fuliginosis nigris formato; peritheciis rotundis, nigris, setosis 190-230 μ . diam.; ascis octosporis, clavatis, 100 μ . longis; sporidiis 3-septatis, initio hyalinis dein brunneolis, fusiformibus, 45-50 \times 12.

Hab. in foliis *Castilloæ elasticæ*, ab *Iceryæ* specie invasis, in horto culturali, Buitenzorg, in insula Java.

3. **Limacinia setosa** (Zimm.) Sacc. et D. Sacc. *Antennaria setosa* A. 1875
Zimm. Centr. f. Bakter. 1902, VIII, p. 151. — Mycelio epiphylo, crustas atras formante; peritheciis globosis, setis nonnullis sursum versis, atro-brunneis, prope ostiolum pallidioribus vestitis, 70-90 μ . diam.; setis 100 \times 6 (basi); ascis 8-sporis, clavatis, 40 μ . longis; sporidiis 4-cellularibus, oblongis, utrinque obtusis, cellulis binis unius apicis latioribus et brevioribus, hyalinis, tandem forte brunneolis 20-25 \times 4-5; paraphysibus non observatis.

Hab. in foliis *Coffeæ* hybrid. cujusdam, a *Pulvinaria Bidii* vexatis, in hortis Buitenzorg Javæ. — Spectat cum præc. et seq. spec. ad Sect. II generis (peritheciis setosis). Cfr. Syll. XIV, p. 475.

4. **Limacinia coffeicola** Puttemans, Bull. Soc. Mycol. 1904, pag. 153, 1876
tab. X, f. 11-13. — Peritheciis subglobosis fuliginosis, astomis, conoideis, apice subtruncatis, setis atro-fuliginosis simplicibus continuis usque 100 \times 3-4, superne et inferne subhyalinis basisque incrassatis parte superiore præditis; ascis aparaphysatis, versiformibus, plerumque elongatis 50-75 \times 15-20; sporidiis hyalinis subfusoides, initio continuis, triguttatis, dein 4-septatis, in asco inordinatis, 15-18 \times 5-6.

Hab. in foliis *Coffeæ arabicæ*, in horto botanico Sao Paulo Brasilæ.

5. **Limacinia tangaensis** P. Henn. in Engl. Bot. Jahrb. 1903, p. 47. 1877
— Mycelio crustaceo atro, late effuso paginam foliorum obducente; hyphis repentibus, ramosis, septatis, atro-fuscis, sæpe torulosis, usque ad 8 μ . cr.; peritheciis sparsis, ovoideis, subglobosis vel oblongis ca. 80-100 \times 60-80, contextu membranaceo-celluloso; ascis ovoideis vel clavatis, vertice rotundatis, tunicatis, 4-sporis, 25-40 \times 10-20, aparaphysatis; sporidiis conglobatis, oblonge cylindræis vel clavatis, utrinque obtusis, 5-septatis, constrictis, hyalinis, 16-25 \times 4-5.

Hab. in foliis *Mangiferæ indicæ*, Tanga, Zanzibar Africae orient. (STUHLMANN).

II. *Limacinula* Sacc. Sporidia murali-divisa.

6. **Limacinia javanica** (Zimm.) Sacc. et D. Sacc. *Capnodium javanicum* A. Zimm. Centralbl. f. Bakter. 1902, VIII, p. 151. — Mycelio crustam nigram facile secedentem, totam foliorum paginam super. obtegentem formante, e cellulis brunneolis formato; peritheciis liberis sessilibus, globosis, breve papillatis, nigris, nitidis, 100-160 μ . diam.; ascis 8-sporis, sessilibus; sporidiis ovoideis, murali-divisis, hyalinis, 40-50 \times 10-16; paraphysibus nullis.

Hab. in foliis Coffeæ libericæ (a Lecanio viridi vexatis) in horto Buitenzorg Javæ. — Ob perithecia globulosa est *Limacinice* spec., sed ob sporidia hyalodictya potius novum genus (*Limacinula*).

III. Species incertæ sedis.

7. **Limacinia? alaskensis** Saccardo et Scalia, Harrim. Alaska Exped. 1879 Crypt. p. 34, pl. IV, fig. 1. — Effusa, superficialis, densa, opace atra, subpannosa, 2-4 cm. longa, 500-750 μ . cr.; hyphis mycelii hormiscioideis, filiformibus, simplicibus v. furcatis, 400-500 \times 16-18, crebre septatis, ad septa constrictis, articulis globoso-cuboideis, 15-20 \times 13-15, subinde latioribus quam longis, fuligineis, plerumque parietali-1-guttatis; conidiis oblongo-fusoideis, 28-30 \times 10, 3-septatis, vix constrictis, fuligineis; peritheciis in mycelio gregariis et subabsconditis globulosis, obtusis v. depressis, 180-200 μ . lat., hyphis consimilibus laxè vestitis; ascis (immaturis) clavatis, 90-120 \times 15-18, aparaphysatis, subsessilibus; sporidiis non visis.

Hab. in ramis adhuc vivis Alni, Glacier Bay Alaska (TRELEASE). — Mycelium sistit *Hormiscii* v. *Antennariæ* formam; quæ forte ad *Hormiscium altum* Ehrenb. accedit.

SEURATIA Pat. Bull. Soc. Mycol. 1904, p. 136 (Etym. a cl. L. SEURAT, qui fungos insularum Gambier legit). — Biogena; subiculo nullo inserta. Perithecia sicca rigida, humida gelatinoso-mollia, sessilia, varie ramosa, ex hyphis subhyalinis moniliformibus composita, rima laterali-dehiscentia. Asci suboctospori; sporidia 1-septata hyalina. — Contextu subgelatinoso et dehiscentia perithecii genus omnino distinctum. — *Heterobotrys paradoxa* Sacc. videtur v. forma ejus conidiophora vel status infans. (18, 267)

1. **Seuratia coffeicola** Pat. l. c. fig. 1 a-h. — Epiphylla; peritheciis 1880 sparsis, minutis, sessilibus, tremelloso-gelatinosis, brunneolis, pelucidis, applanatis 0,5-1 mm. lat., 3-8-corniculatis, ramis patenti-

bus, simplicibus aut furcatis teretibus vel inflato-nodosus, contextu laxo gelatinoso, filamentoso-toruloso, articulis hyalinis ovoideis vel piriformibus, 6-10 μ . longis, ultimis fuliginosis minoribus subglobosis 5-6 μ . diam; ascis numerosis ovoideis, subsessilibus apice incrassatis 35 \times 22, octosporis, aparaphysatis, ope J. non cærulescentibus; sporidiis hyalinis ovoideis, medio 1-septatis constrictisque 14-17 \times 7-10, loculis subglobosis.

Hab. in foliis Coffeæ arabicæ in insulis Gambier Polyne-siæ gallicæ.

ANTENNARIA Link — Syll. I p. 80, IX p. 442.

1. **Antennaria rectangularis** Saccardo, Harrim Alaska Exped. Crypt. 1881

p. 34, pl. III, fig. 9. — Cæspitulosa v. effusa, superficialis, atro-fuliginea, laxiuscule intricata; hyphis ascendentibus, tortuosis v. subrectis, longissimis, filiformibus, 1,5-2 mm. long., 12-15 μ . cr., parce ramosis, multi-articulatis, articulis 22-28 \times 12-15, ad septa non v. leniter constrictis, sæpe 1-guttatis; ramis simplicibus, subalternis, angulo perfecte recto patentibus, 70-80 raro usque 400 μ . longis, apicibus acutiusculis v. obtusis; peritheciis non visis.

Hab. ad surculos et folia *Phyllodoce* glandulifloræ, Sitka Alaska (HOWELL). — Certe affinis *Antennariæ Robinsonii* B. et M.; differt tamen hyphis omnibus æqualibus, nec partim torulosis, ramis angulo perfecte recto oriundis etc.

2. **Antennaria Unedonis** Maire et Sacc. in Ann. Mycol. 1903, n. 3, 1882

fig. II. — Epiphylla, nec non epiclada; mycelio partim effuso crustoso e cellulis pallidis moniliformi-seriatis vel *Coniothecii* ad instar plus minusve congregatis, filamentis tenuibus intermixtis, partim e floccis erectiusculis vel subeffusis, aterrimis contexto; hyphis floccorum subarticulatis juvenilibus subtiliter verruculosus, adultis sæpe sublevibus, vage ramosis, aliquando anastomosantibus, sub lente fuscis, 5-8 μ . crassis, cellulis plerumque cylindræis, rarius oblongis vel subglobosis, spermogoniis biformibus, aliis minoribus piriformibus, fuscis, hyphis lateraliter adfixis, rarius acrogenis, superficie tuberculosus, spermatia cylindræa, hyalina, 2,5-4 \times 1-1,5 emittentibus, 80-120 μ . longis; aliis autem majoribus cylindræis vel corniformibus usque ad 300 μ . longis, atris, superficie tuberculosus, spermatia ellipsoidea vel oblonga, hyalina, 2,5 \times 1,5 emittentibus; conidiis forma variis, aliis *Cladosporii*, aliis rarissimis *Triposporii* characteres exhibentibus; pycnidiis peritheciisque asco-phoris ignotis.

Hab. ad folia ramulosque Arbuti Unedonis in Corsica.

2. **Antennaria scoriadea** Berk. — Syll. I, p. 82, et Sacc. Fl. Myc. Lus. XII (1903) p. 4.

Hab. in foliis ramisque Correæ ferruginæ, in horto botanico Coimbra Lusitaniæ. — Pulcra species. Perithecia (?) in hyphis acrogena, globosa, 30 μ . diam., rara; hyphæ articulatae in rhabdos fasciculatae; articuli 5-7 μ . cr., guttulati, diametro transverso 2-3-plo longiores. Species probabiliter importata ex Australia, quæ reapse patria *Correæ*.

Fam. 2. Sphæriaceæ FR.

Sect. 1. Allantosporæ.

ENCHNOA Fr. — Syll. I p. 89, IX p. 442, XI p. 271, XIV p. 478, XVI p. 1128.

1. **Enchnoa Friesii** Fuck. — Syll. I, p. 91. — var. **Salicis** Feltgen 1883 Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 135. — Peritheciis sparsis vel subcircinantibus, mycelio brunneo vestitis, globoso-depressis, ostiolo verruciformi, epidermidem perforante; ascis tereti-clavatis 52-75 \times 6,5-8, p. spor. 40-50 μ . long.; sporidiis octonis, inordinatis, cylindraceo-curvis, utrinque obtusis, hyalinis, eguttatis, 12-15 \times 2,5-3.

Hab. in ramis salicinis, Luxemburg.

2. **Enchnoa Syringæ** Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1884 1903, p. 161. — Peritheciis dense et æqualiter sparsis, omnino immersis, ostiolo globoso, subinde rostellato, erumpentibus, hemisphericis; hyphis brunneis vel subhyalinis cinctis, 0,5-1 mm. d.; ascis non visis; sporidiis cylindraceo-ellipsoideis, curvulis, continuis, hyalinis, 11-13 \times 3-4.

Hab. in ramis siccis corticatis Syringæ vulgaris, Luxemburg. — Dubia species, quia asci non visi.

CŒLOSPHÆRIA Sacc. — Syll. I p. 91, IX p. 443.

1. **Cœlosphæria? pusillima** Speg. in Ann. Soc. Cient. Arg. 1899, 1885 p. 269. — Maculis nullis v. tota ligni superficie pallescente; peritheciis densiuscule gregariis sed non constipatis et sæpius late diffusis, ligno semiinsculptis, globosis, 120-150 μ . diam., carbonaceis, glabris; ostiolo sæpius elongato, gracili, obtuso; ascis clavu-

latis, antice obtuse rotundatis, postice cuneato-attenuatis breviterque pedicellatis, p. spor. 15-16 \approx 6, pedicello 5-10 \approx 1-2, octosporis, aparaphysatis; sporidiis botuliformibus leniter curvulis, utrinque obtusis atque minute uniguttulatis, 4-5 \approx 1, hyalinis.

Hab. ad ramos denudatos putrescentes *Erythrinæ* cristagalli, in insula Santiago prope La Plata Argentina. — Species valde singularis a genere ostiolo elongato sat recedens: an melius *Pleurostoma*?

NITSCHKEA Otth — Syll. XI p. 172, XVI p. 417.

1. **Nitschkea subconica** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 1886
II, p. 201. — Peritheciis sparsis v. 4-8 cæspitulosis, ligni superficiem nigificantibus, subsuperficialibus v. basi insculptis, subiculo nullo præditis, globoso-conoideis, ostiolo minuto perforato nitido, opace nigris, 0,5 mm. diam.; ascis octosporis, clavato-piriformibus 20-31 \approx 4,5-6, parte sporif. 13-18 μ . longa, subinde 4-sporis, 15 \approx 3,5; sporidiis distichis v. inordinatis, allantoideis, utrinque 1-guttulatis v. eguttulatis, 5-6 \approx 1-2; paraphysibus ascos multo superantibus, 60-87 \approx 3,5-4,5 sursum 1-2, septulatis.

Hab. in ramis decorticatis *Platani* orientalis, Scheidhof, Luxemburg. — Peritheciis non collabascentibus, ascis minoribus etc. a *N. tristi* et *N. cupulari* distinguitur.

2. **Nitschkea Flageoletiana** Sacc. Atti Congr. bot. di Palermo 1902, p. 48. 1887
— Peritheciis in superficie stromatis *Eutypæ latæ* dense lateque gregariis, minutissimis, basi late leviterque coarctata sessilibus, supra applanato-convexulis, 80-100 μ . diam., opace nigris, ostiolo brevissime papillato, 10-12 μ . diam.; contextu partis superioris perithecii eximie radiato; ascis rosulatis breviter obclavatis, subsessilibus, sæpe inæquilateris utrinque obtusis, 45-50 \approx 14-15, paraphysibus spuriis mucosis obvolutis, 4-6-sporis; sporidiis subdistichis, breviter fusoido-oblongis, utrinque obtusulis sæpe inæquilateris, 17 \approx 5,5-6, quadriguttulatis, guttulis mediis multo crassioribus.

Hab. parasitice in stromatibus *Eutypæ latæ* ad ramos decorticatos *Corni sanguinæ* (?) Rigny sur Arroux Galliæ. — E typo *N. mediæ* et *N. calyculi*, sed bene distincta contextu, ascis sporidiisque.

CALOSPHERIA Tul. — Syll. I p. 95, IX p. 447, XI p. 272, XIV p. 479, XVI p. 419.

1. **Calosphæria Abietis** Krieger ap. Rehm Hedw. 1903, p. (291). — 1888

Peritheciis tectis, cortici interiori adnatis, dein peridermio secedente demum liberis, globosis, 0,5 mm. diam., 5-6 in acervulos valsiformes collectis, interdum solitariis, stromate nullo nec cortice nigrescente circumdatis, glabris; ostiolis cylindræis, 1 mm. long., convergentibus; ascis clavatis, obtusis, in pedicellum tenuissimum elongatis, 35-40 \approx 5-6, octosporis; paraphysibus longissimis, septatis 2,5-3 μ . cr.; sporidiis allantoideis, plerumque semicirculariter curvatis, hyalinis 5-7 \approx 1, distichis.

Hab. in ligno corticato *Abietis albæ*, Schandau Saxonie (KRIEGER).

2. **Calosphæria Cinchonæ** Zimm. Berichte üb. Land-und Forstwirth. 1889
Deutsch Ostafrika, 1904, p. 31, tab. III, fig. 15 *a* et *b*. — Peritheciis subsolitariis vel paucis aggregatis, subliberis, basi tantum insculptis, nigris, sursum pallidioribus, longiuscule rostellatis, 200-250 \approx 80-100; ostiolo piloso; ascis octosporis, apice obtusis; sporidiis leviter curvatis vel subrectis, utrinque obtusis, medio guttulatis, 18-20 \approx 5.

Hab. in ramis emortuis *Cinchonæ succirubræ* et *C. Ledgerianæ* in horto Amani Africae orient.

JATTÆA Berl. — Syll. XVI p. 421.

1. **Jattæa Berlesiana** Sacc. et Trav. in Ann. Mycol. 1903, p. 432, f. II. 1890
— Peritheciis sparsis vel laxè gregariis, peridermio insculptis dein erumpentibus, sphæroideis, erostratis, ostiolo subrotundo vix papillato pertusis, 200 μ . diam.; ascis cylindræo-clavulatis, superne truncatulis, vix pedicellatis, octosporis, 38-42 \approx 6-7, paraphysibus paucis, longioribus, guttulatis, commixtis; sporidiis subdistichis, cylindræo-allantoideis, plerumque biguttulatis, hyalinis, 10-12 \approx 2,5.

Hab. in truncis et ramis emortuis *Cisti salvifolii*, prope Sassari Sardinie (A. N. BERLESE). — Socia adest *Sphæropsidacea* quædam (*Cytospora?*) sporulis allantoideis, minutis, 2,5-3,5 \approx 0,8-1,2. Verisimiliter status spermogonicus.

VALSA Fr. — Syll. I p. 108, IX p. 449, XI p. 273, XIV p. 481, XVI p. 422.

1. **Valsa (Euvalsa) sardoa** Sacc. et Trav. Ann. Myc. 1903, p. 433, f. III. 1891
— Stromatibus gregariis, minutis, 400-600 μ . diam., subcorticalibus dein erumpentibus et prominentibus, ex 4-15 peritheciis sphæroideo-compressis, circinantibus compositis; disco minuto, circulari, nigro; ostiolis brevicollibus, obtusis, a disco vix emergenti-

bus, nigris; ascis minutis, 20-30 \approx 6, fusoido-truncatis, octosporis; sporidiis subdistichis, cylindraceo-allantoideis, biguttulatis, hyalinis, 5-6 \approx 1 $\frac{1}{2}$.

Hab. in ramis corticatis Oleæ europææ, prope Sassari Sardiniae (A. N. BERLESE). — Adest spermogonium peraffine *Cytospora elæinæ*, a qua differt præcipue stromatibus infra non umbilicatis et cirro deficiente. Verum hæ notæ probabiliter ab ætate pendent; cetera conveniunt.

2. **Valsa** (Euvalsa) **Cerasi** Feltg., Vorstud. Pilz. Luxemb. Nachtr. II, 1892 p. 113 (1901). — Stromatibus sparsis, basi elliptica, 1,5-2 mm. latis, nigris, peridermio tumidulo cinctis, disco minuto nigro vix emergente; peritheciis 15-25 in quoque stromate, monostichis, globoso-ovoideis; ostiolis globoso-conicis, atro-nitidulis, stipatis; ascis clavato-fusoides, 31-40 \approx 5-6,5; sporidiis distichis v. inordinatis cylindraceis rectis curvulisve, hyalinis, 9-10 \approx 2, 2-guttulatis.

Hab. in ramis corticatis Pruni Cerasi et] P. avium in Luxemburgia. — *Valsæ decorticatæ* affinis; cum *Valsa Persoonii* ne comparanda quidem.

3. **Valsa** (Euvalsa) **ceratophora** Tul. — Syll. I, pag. 108. — var. 1893 **Deutziae** Feltg. Vorstud. Pilze Luxemb. Nachtr. III, p. 124. — Ostiolis vix supra corticem emergentibus, apice incrassatulis, vix 1 mm. long.; ascis paullo crassioribus; sporidiis 8-12 \approx 2-3 (nec ut in typo 6-8 \approx 1,5-2).

Hab. in ramis corticatis Deutziae scabræ in Luxemburgia. — Var. **Rhois** Feltg. l. c.: peritheciis numerosissimis, brevicollibus, in ostiola minuta globulosa discum griseum vix emergentem formantia terminatis; ascis 33-40 \approx 5,5; sporidiis 7-9 \approx 1,5-2. In ramis corticatis Rhois Cotini, Luxemburg. — Var. **farinosa** Feltg. l. c. (*Valsa farinosa* Feltg. Nachtr. II, pag. 115): Imprimis distincta collis et ostiolis globosis indumento griseo-farinoso copiosiore vestitis; ascis 32-39 \approx 4,5-5; sporidiis 7-8 \approx 1,5-2. In ramis corticatis Rosæ caninæ, Luxemburg, socia *Cytospora farinosa* Feltg. — Var. **Corni** Feltg. l. c. p. 127: ostiolis ovato-ellipsoideis, vix emergentibus collisque griseo-pruinosis; ascis 38-40 \approx 6,5; sporidiis 10-13 \approx 2,5-3. In ramis corticatis Corni stoloniferæ, Fort Olizy Luxemburgiæ.

4. **Valsa** (Euvalsa) **Lepargyreæ** Earle, Plantæ Bakerianæ, fasc. II, 1894 fung. p. 25. — Stromatibus sparsis, pustuliformi-emergentibus; peritheciis in singulo stromate 12-20, immersis, nigris, membranaceis, minute ostiolatis; ascis octosporis, fere sessilibus 40-50 \approx 6; spo-

ridiis continuis hyalinis, leviter curvulis, utrinque obtusis, 12-16 \times 3.

Hab. in ramis emortuis *Lepargyreæ argenteæ*, Hermosa, South Colorado, Amer. bor.

5. **Valsa** (Euvalsa) **salicina** (Pers.) Fr. — Syll. I, p. 131. — Huc ducenda, velut forma tetraspora, *Valsa capistraria* De Not. Sfer. ital. I, p. 36, t. 40, Erb. critt. ital. I, n. 1057.

EUTYPELLA (Nits.) Sacc. — Syll. I p. 145, IX p. 460, XI p. 274, XIV p. 484, XVI p. 423.

1. **Eutypella australis** Karst. apud Berl. Ic. fung. III, p. 61, t. 75, 1895
fig. 1. — Stromate late effuso, epidermide tecto, crustaceo, atro, hinc inde circa perithecia acervulatim collecta elevato, tumidulo; acervulis gregariis, minutis, inflatulis; peritheciis in quoque acervulo paucis (2-4), globoso-ovoideis, 500 μ . diam., mutua pressione parum compressis, collis brevissimis convergentibus præditis; ostiolis parum prominulis, incrassato-subsphæroideis, distincte 4-sulcatis, nigris; ascis clavatis, 35-40 \times 6-8 p. spor.; sporidiis allantoideis 10-12 \times 2,5-3, pallide luteo-viridulis.

Hab. in ramis ignotis, in Nova Caledonia (BALANSA).

2. **Eutypella Cratægi** Berl. Ic. fung. III, p. 74, t. 92, f. 1. — Stro- 1896
mate late effuso, corticali, plus minusve immerso, serpente, crustaceo, circa acervulos elevato, eos ambiente et peridermium attingente, nigro; acervulis gregariis 1,5-2 mm. diam., orbicularibus, tumidis, verruciformibus, intus albo-pruinosis; peritheciis pruinosiss, immersis, ovoideis, 500-700 μ . alt., sæpe mutua pressione compressis, in quoque acervulo 6-10, in collum parum elongatum productis; ostiolis sat exsertis, haud incrassatis, irregulariter 2-4-sulcatis; ascis clavatis 30-40 \times 5-7 p. spor.; sporidiis allantoideis 10-12 \times 2,5-3, luteo-virescentibus.

Hab. in ramis *Cratægi Oxyacanthæ*, in agro Veneto Ital. bor. — Ab *Eutypa ludibunda*, teste auctore, satis distincta et *Eutypellæ leproscæ* proxime affinis.

3. **Eutypella Padi** (Karst.) Sacc. — Syll. I, pag. 147. — * **E. pirina** 1897
Sacc. et Flag. — A typo differt disco ostiolorum semper suborbiculari, vix 0,5-0,7 mm. diam. (nec 1-2 mm.), ostiolis exiguis leviterque sulcatis; ascis ut in typo 40 \times 7, p. sporif. 25 μ . longa; sporidiis botuliformibus 6-7 \times 2, luteolis.

Hab. in ramis corticatis emortuis *Piri communis*, Rigny sur Arroux (Saone-et-Loire) Galliæ.

4. **Eutypella diminuta** Sacc. et Flag. in Atti Congr. bot. di Palermo 1898 1902, p. 49. — Stromatibus laxè gregariis, minutis, e basi orbiculari truncato-conicis, cortice immutato immersis, 1-1,2 mm. diam. nigris; peritheciis globosis, circinatis, paucis (5-8), 200-250 μ . diam., brevicollibus; ostiolis erumpentibus et breviter exstantibus, obtuse rotundatis, integris, poro minutissimo pertusis, discum compactiusculum 500-600 μ . diam. formantibus; ascis fusoides, 22-25 \times 5 (p. sporif.) in stipitem subæquilongum tenuatis, aparaphysatis, octosporis; sporidiis distichis, allantoideis, conspicue curvatis, 6-7 \times 1,5, hyalinis, utrinque rotundatis 1-guttulatisque, coacervatis dilutissime olivaceis.

Hab. in ramis corticatis Pruni spinosæ, Rigny s. A. Galliæ. — Ab *E. Prunastri* mox dignoscitur stromatibus dimidio minoribus, subrotundis, peritheciis paucioribus.

5. **Eutypella exigua** Ell. et Ev. in Berl. Ic. fung. III, p. 58 t. 73. 1899 — Stromate effuso, crustaceo, a matrice bene distincto, peridermio tecto vel etiam cortice immerso, undulato; acervulis minutis, vix prominulis, subsparsis; peritheciis 3-8 in quoque acervulo parenchymate et fibris corticis immersis; collis elongatis, convergentibus, cylindræis vel subclavatis; ostiolis fasciculatim erumpentibus, teretibus, sæpius sat elongatis, nigris, 4-sulcatis, rugosis; ascis clavatis breviuscule stipitatis, 14-18 \times 5-7 p. spor.; sporidiis cylindræis, valde curvatis 3,5 \times 1,5, pallide viridulis.

Hab. ad corticem Ulmi, London, Canada Amer. bor. et Vimercate Ital. bor.

6. **Eutypella tetraspora** Berl. Ic. fung. III, pag. 75, t. 93, f. 1. — 1900 Stromate parco, crustaceo, extus rugoso-scruposo, nigro, peridermio tecto, tantum circa acervulos evoluto, tenui, intus sordide luteo, pruinoso, inferne e cortice denigrato formato; acervulis verruciformibus subsparsis, peridermio transverse rupto arcte cinctis, magnis, ovoideis, usque 5 mm. long.; peritheciis in quoque acervulo 4-6 subinde circa stroma circinantibus, discretis v. sat dense sed irregulariter stipatis, superne pruina, basi cortice denigrata, immersis, globulosis v. oblongis mutua pressione subinde parum compressis, in collum pro situ plus minusve elongatum productis; ostiolis vix exsertis integris; ascis copiosissimis, clavatis, breviter stipitatis, 17-20 \times 4-6, tetrasporis; sporidiis allantoideis, bi-triguttatis, 9-11 \times 2-3,5.

Hab. in ramis Elæagni angustifoliæ prope Berolinum (SYDOW). — Inter *Calosphæriam* et *Eutypellam* fere media.

7. **Eutypella Sheariana** Berl. Ic. fung. III, p. 68, t. 83, f. 1, *Diatrype albo-pruinosa* Shear, New York Fung. exsicc. n. 576, non Schwein. — Stromatibus pulvinatis, extus fusco-fuligineis vel nigricantibus cortice linea nigra serpente circumscriptis, ovoideis v. suborbicularibus, 1-3 mm. longis, gregariis, erumpentibus, peridermio circum circa cinctis; peritheciis in quoque acervulo 3-9 ovoideo-sphæroideis, mutua pressione angulatis, collis brevibus vel subinde satis elongatis præditis, pruina immersis; ostiolis vix exsertis, tri-tetragonis; ascis clavatis, 45-55 \approx 6-8 p. sp.; sporidiis allantoideis, 14-16 \approx 4-5, saturate lutescentibus.
- Hab.* in ramis Salicis, Long Pine, Nebraska Amer. bor.
8. **Eutypella Zelkowæ** P. Henn. in Engl. Jahrb. 1902, XXXII, p. 42. 1902 — Acervulis erumpentibus prominulis, 1-1 1/2 mm. diametro, stromatibus immersis, atris ex 6-15 peritheciis ovato-rotundatis constantibus, collo brevi-cylindræo, ostiolis capitellatis 3-4-sulcatis, atris; ascis clavatis vertice obtusiusculis, basi attenuato-pedicellatis, 24-30 \approx 4; 8-sporis; sporidiis subdistichis allantoideis obtusiusculis, curvulis, hyalino-subfuscescentibus, 4-5 \approx 1-1 1/2.
- Hab.* in trunco emortuo Zelkowæ acuminatæ, Tokio Japoniæ in horto bot. (S. KUSANO).
9. **Eutypella scoparioides** Pat. Bull. Soc. Mycol. 1902, pag. 302. — 1903 Acervulis erumpentibus, prominulis 500 μ . diam.; peritheciis monostichis, stromate albido, absque linea nigra limitato, immersis, globosis, atris, vix 250 μ . latis, 8-12 tantum in singulo stromate, collis erectis brevibus, dense stipatis, circinantibus ac convergentibus, ostiolis obtusiusculis, aterrimis, quadrisulcatis; ascis oblongis, minutis, longe pedicellatis, p. sporif. 13-15 \approx 4-5, octosporis; sporidiis minutis 3-4 \approx 1, cylindræo-curvulis, biguttulatis, in cumulo lutescentibus.
- Hab.* ad cortices, Hakodate, Yeso Japoniæ (FAURIE). — *Eut. scopariæ* (Schw.) Ell. et *Eut. microcarpæ* Ellis affinis.
10. **Eutypella æquilinearis** (Schw.) Starb. Sphær. imp. cogn. p. 15, Berl. Ic. fung. III, p. 77, *Sphæria æquilinearis* Schw. — Syll. fung. II, pag. 376. — Asci anguste cylindræo-clavati vix pedicellati, 25-30 \approx 5-6 p. sp.; sporidia allantoidea, rarissime subrecta, 7-8 \approx 1,5-2, hyalino-flavescentia.
11. **Eutypella cerviculata** (Fr.) Sacc. — Syll. I, p. 239. — Huc ducentæ sunt sec. Ell. et Ev. Journ. of Mycol. 1902, VIII, p. 14: *Diatrype megastoma* Ell. et Ev. — Syll. IX, p. 475 — et *Eutypella alpina* Ell. et Ev. — Syll. XIV, p. 485.

VALSELLA Fuck. — Syll. I p. 158, IX p. 464, XI p. 275.

1. **Valsella Saccardi** Berl. Ic. fung. III, tab. 131, f. 1. — Stromatibus gregariis, cortice innatis, pustulatim elevatis, orbiculato-conicis, disco plano ostioli (18-20) vix emergentibus punctato; peritheciis ovoideis, monostichis, in collum cylindraceum æquilongum productis; ascis crasse clavatis, apice rotundatis brevissime tenuato-stipitatis, 34-38 \times 9-12, polysporis; sporidiis allantoideis, conglobatis, 9-11 \times 2-2,5, vix v. non guttulis, hyalinis. 1904

Hab. in corticibus, Keren Abyssiniæ socia *Cryptovalsa tenella* (PENZIG). -- A *Valsella myriothea* Pass. saltem a diagnosi et icone videtur differre ascis sporidiisque multo majoribus: an tamen mensuræ Passeriniæ exactæ?

CRYPTOVALSA Ces. et De Not. — Syll. I p. 187, IX p. 471, XI p. 276, XIV p. 487, XVI p. 426.

1. **Cryptovalsa macrospora** (Sacc.) Trav. in litt. *C. ampelina* var. *macrospora* Sacc. ap. Abb. Allesch. Cryptov. p. 42 (Malp. 1902) *C. ampelina* Abb. l. c. nec Nits. et Fuck. — Stromate effuso, nigro, subcorticali v. in ligno serpente, circa perithecia acervulatim collecta elevato, corticem inquinante; acervulis prominentibus, rotundatis v. ellipticis, distinctis; peritheciis numerosis mono-distichis, cortice imo immersis vel ligno adnatis, majusculis, mutua pressione angulatis, erectis in collum longiusculum attenuatis; ostioli valde exsertis, integris; ascis clavatis, longe pedicellatis, 45-55 \times 10-13 p. sp.; sporidiis allantoideis, luteo-fuscescentibus, 9-12 \times 3-4. 1905

Hab. in sarmentis *Vitis viniferæ* in Italia bor. — Ab affini *C. Rabenhorstii* differt præcipue acervulis magis distinctis et tumidis, collis longioribus, ostioli non sulcatis.

2. **Cryptovalsa pirina** Ell. et Ev. in Journ. of Mycol. 1903, p. 167. — Stromatibus effusis, in ligno nigrificato insidentibus; peritheciis ovato-globosis, valsoideis, 4-8-congestis, ostioli brevibus, integris vel sulcatis, obtusis vel subconicis, erumpentibus, collapsis donatis; ascis polysporis, longe filiformi-pedicellatis, p. spor. 65-70 \times 10-12; sporidiis allantoideis, luteolis, subcurvulis, 11-13 \times 1,5-2. 1906

Hab. in ramis emortuis Piri coronariæ, River Forest, Illin., Amer. bor.

3. **Cryptovalsa Rabenhorstii** (Nits.) Sacc. — Syll. fung. I, p. 190. — var. **Rosarum** Sacc. apud Abbado, Allescherina e Cryptov. p. 41 (Malp. 1902). — Stromate ligneo; acervulis gregariis; peritheciis 1907

distichis in collum longiusculum productis; ascis 45-55 \times 11-13; sporidiis 11-12 \times 3,5-4.

Hab. in ramis *Rosæ caninæ* in Italia et Germania (SACCARDO et REHM). — Var. **subendoxyla** Sacc. apud Abbado, *Allescherina e Cryptov.* p. 41 (Malp. 1902). — Stromate ligneo. corticem inquinante; peritheciis parvis, acervulatim collectis, pruina alba indutis, ligno immersis vel etiam cortice immersis et ligno adnatis, in collum brevissimum productis; ascis ut in typo; sporidiis 12-14 \times 4. — In ramis *Celtidis australis* in Italia. — var. **eutypelloidea** Sacc. apud Abbado, *Allescherina e Cryptovalsa* p. 41 (Malpighia 1902). — Stromate corticali, circa perithecia acervulatim collecta elevato; acervulis pustuliformibus, distincte rotundatis, peridermio elevato et circa ostiola aggregata laciniatim rupto cinctis; peritheciis cortice immersis v. ligno adnatis, pruina luteo-ferruginea superne indutis, in collum breve crassum productis; ostiolis incrassatis, quadrisulcatis, prominulis; ascis late clavatis, superne rotundatis, p. sp. 48-53 \times 12-14; sporidiis saturate viridi-luteis, allantoideis, 11-13 \times 3-4. — In ramis *Rhamni cathartici*, Selva (Treviso) Italiae borealis.

EUTYPA Tul. — Syll. I p. 162, IX p. 466, XI p. 275, XIV p. 486, XVI p. 424.

1. **Eutypa Tarrietiae** P. Henn. in Hedw. 1903, p. (81). — Stromati- 1908
bus sub epidermide nidulantibus, carbonaceis, atris, ca. 1-3 mm. diam.; peritheciis 5-20 subglobosis, ostiolis erumpentibus, subclavatis, flexuosis, rigidis, atris vertice plus minus incrassatis, obtusis, ca. 200-400 \times 80-100; ascis subclavatis v. fusoideis, octosporis, p. sp. 12-15 \times 2,5-3,5; sporidiis distichis cylindraceo-curvatis, utrinque obtusis, hyalino-fuscidulis, 4-5 \times 0,5-0,8.

Hab. in ramis emortuis *Tarrietiae*, South Queensland Australiae (PRITZEL).

2. **Eutypa Kusanoi** P. Henn. Engl. Jahrb. 1902, XXXII, p. 43. — 1909
Acervulis longitudinaliter dispositis erumpentibus, elongatis, epidermide atrata, fissa cinctis, c. 2-6 mm. longis, 1 mm. latis, stromate immerso, flavo; peritheciis numerosis usque ad 40 vel 60, subglobosis, minutis, atris, ostiolis rotundatis annulato-pertusis atro-nitentibus; ascis clavatis apice obtusis, 8-sporis, 18-24 \times 4 $\frac{1}{2}$ -5 paraphysatis; sporidiis distichis cylindraceis vel subfusoideis, curvatis, utrinque obtusis, continuis, hyalinis, 6-8 \times 1 $\frac{1}{2}$.

Hab. in culmis emortuis *Bambusæ*, Formosa Japoniae (S.

KUSANO). — Affinis *E. bambusincæ* sed stromate flavo, sporidiis non guttulatis etc. diversa.

3. **Eutypa hypoxantha** (Lév.?) Starb. Ascom. Regn. Exped. in Vet. 1910 Akad. Handl. 25, III, p. 63. Ita nuncupanda, probabiliter, *Sphæria hypoxantha* Lév. — Sacc. Syll. II, p. 395 — quæ sec diagn. Lév. differret sporidiis ovoideis curvulis, quod ex imperfecta observat. microscop. pendere potest. Sec. Starb. vero sporidia sunt allantoidea 9-10 \approx 1,5 (ex err. typ. 4,5) fuscidula; asci 30 \approx 6.

Hab. in culmis *Bambusæ* in Brasilia (LINDMAN, BARBOSA). — Ubi species a Leveilleana differret, dicenda est *E. Barbosaæ* v. Höhn. Hedw. 1901, p. (104).

PERONEUTYPA Berl. Ic. fung. III, p. 80 (1902) *Eutypa*, *Diatrype* Auct. p. p. (Etym *perone*, fibula). — Stroma effusum crustaceum, atrum, corticale vel ligneum. Perithecia tecta discreta gregaria vel subsparsa, numquam acervulata, subglobosa, monosticha in colla prælonga, cylindræa, ostiolis integris v. sulcatis coronata producta. Asci clavulati, longe stipitati, octospori. Sporidia allantoidea, minuta, chlorina. — Est *Eutypa* collis prælongis. Huc ducentæ species sequentes: *P. corniculata* (Ehrb.) Berl., *P. bellula* (Desm.) Berl., *P. heteracantha* (Sacc.) Berl. l. c. cum iconibus.

1. **Peroneutypa cylindrica** (K. et C.) Berl. Ic. III, p. 82, *Calosphæria* 1911 K. et C. — Syll, I, 98. — var. **Leopoldina** Rehm, Asc. n. 1537, Hedw. 1904, pag. (32). — Stromate late effuso, peridermio tecto, cortici interiori innato, a corticis substantia heterogeneo, crustaceo, crasso, atro; peritheciis valsiformiter 8-10-monostiche congregatis, in acervulis hemisphæricis vel subglobosis, 3-4 mm. diam. atris, carbonaceis, oblongis, 1 mm. diam., rostris per rimam peridermii erumpentibus, fascicularibus, tereti-cylindræis, apice obtusis, glabris, plerumque parallele erectis, demum divergentibus 1-2,5 mm. longis; ascis clavatis, vix stipitatis, 10-20 \approx 4-5, octosporis; sporidiis bacillaribus, curvatulis, utrinque obtusis et minutissime 1-guttulatis, subhyalinis 4-5 \approx 2; paraphysibus nullis.

Hab. in ramis emortuis, Sao Leopoldo, Rio grande do Sul Brasiliæ (Prof. J. RICK).

PERONEUTYPELLA Berl. Ic. fung. III, p. 82 (1902) (Etym. a *Peroneutypa*, cui affinis). — Stroma effusum, crustaceum, atrum, peridermio v. epidermide tectum. Acervuli plus minus tumidi, subinde erumpentes. Perithecia in quoque acervulo plus minus numerosa,

mono-polysticha, in collum prælongum apice ostiolo integro v. sulcato coronatum producta, subglobosa. Asci clavati longe stipitati. Sporidia allantoidea, chlorina. — Est *Eutypella rostellata* v. *Peroneutypa* acervulata. — Huc ducendæ species sequentes: *P. isariophora* (Nits.) Berl., *P. cylindrica* (K. et Cooke) Berl., *P. corynostoma* (B. et R.) Berl., *P. microcarpa* (E. et Ev.) Berl., *P. clavulata* (Cooke) Berl., *P. aurantiicola* (Speg.) Berl., *P. scoparia* (Schw.) Berl., *P. capillata* (E. et Ev.) Berl., *P. comosa* (Speg.) Berl. l. c. cum iconibus.

1. **Peroneutypella longirostrata** (P. Henn.) Sacc. et D. Sacc. *Valsa* 1912
longirostrata P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 63.
— Stromatibus sub cortice nidulantibus, atro-crustaceis effusis; peritheciis gregarie cæspitosis, globulosis vel ovoideis, 0,5-0,8 mm. diam. atro-carbonaceis, ostiolis (3-15) fasciculato-erumpentibus, teretibus, subulatis, atris, apice obtusiusculis rigidis, erectis, 2-3 mm. longis, 100-120 μ . crassis; ascis subclavatis, longe stipitatis (plerumque evanescentibus) 8-sporis?, aparaphysatis; sporidiis subdistichis, cylindræis, curvulis, obtusis, hyalinis v. dilute fuscidulis, $3\frac{1}{2}$ -4 \approx 0,5-0,7.

Hab. in ramis corticatis arborum, Rio Juruá, Juruá-Miry Amazoniæ.

ENDOXYLA Fuck — Syll. I p. 181, IX p. 469, XI p. 275.

1. **Endoxyla microspora** Ferraris in Malpighia 1903, pag. 9 (extr.). 1913
— Stromate ligno innato, cinerescenti; peritheciis ligno, superficie nigricato, tectis, sparsis, globosis, 350-360 \approx 430-440, ostiolis majusculis prominentibus; ascis anguste clavatis longe pedicellatis, octosporis, 20-24 \approx 5-6 p. sporif.; sporidiis distichis, subfuscis, curvulis, 7-8 \approx 1,5-2.

Hab. in ramo sicco, decorticato Abietis, Valle della Thuile Italiæ bor.

2. **Endoxyla comata** Starb. in Arkiv för Botan. 1904, Band 2, p. 19. 1914
— Stromate nullo; peritheciis monostichis, ligno plane insculptis, sphæroideis, 500 μ . diam. per peridermium ostiolis cylindricis nigris nitidis erectis erumpentibus, hinc inde gregariis, pilis fasciculatis, interdum etiam interpositis plerumque coronatim cinctis, peridermii laciniis (1-8) arcte cinctis; contextu coriaceo-molli olivaceo-nigro minute dense parenchymatico; ascis late clavatis v. cylindræis, longissime pedicellatis p. sporif. 13-20 \approx 3,5-5; sporidiis

octonis, conglobatis, allantoideis, 4-6 \approx 1-1,5; paraphysibus mox confluentibus massa pellucida ascos omnino obvallantibus.

Hab. in ligno corticato, Porto Alegre, Rio Grande do Sul Brasiliæ. — Corona pilorum et minutie ascorum prædistincta species.

DIATRYPE Fr. — Syll. I p. 191, IX p. 472, XI p. 276, XIV p. 487, XVI p. 426.

1. **Diatrype americana** Ell. et Berl. in Berl. Ic. fung. III, pag. 94, 1915 t. 117, f. 2, *D. disciformis* v. *americana* Ell. N. A. F. exs. n. 490.

— Stromatibus sparsis vel subapproximatis, erumpentibus, discoideo-orbicularibus, superne quandoque convexulis, sed vulgò planis, fusco-fuligineis, peridermio laciniatim rupto arcte cinctis, centro rufescenti-fuscis, ob ostiola minuta, parum v. vix exserta, punctiformia, distincte 3-4-gona, atra asperulis, intus albicanti-furfuraceis; peritheciis in quoque stromate 10-20 sat stipatis, monostichis, collo brevi instructis, oblongis, compressis; ascis clavatis 30-35 \approx 6-8 p. sp.; sporidiis allantoideis, 10-12 \approx 2-2,5, lutescentibus.

Hab. in ramis Magnoliæ et Quercus albæ, New Jersey et South Carolina Amer bor. (in herb. Berol. sub nom. «*Diatrype virescens*»).

2. **Diatrype Bonæ-Spei** Berl. Ic. fung. III, p. 87, t. 106, f. 2. — 1916

Stromate effuso, peridermio tecto, hinc inde inflato et acervulos gregarios conoideos pulvinatos, rugulosos, intus albo-pruinosos efformante; peritheciis in quoque acervulo haud nimis numerosis, pruina ceracea immersis, globuloso-ovoideis, in collum longiusculum attenuatis; ostiolis parum exsertis, incrassatulis, integris; ascis clavatis, 35-45 \approx 6-8 p. sporif.; sporidiis allantoideis, 9-11 \approx 2-2,5, subhyalinis.

Hab. in ramis indeterminatis ad Caput Bonæ-Spei Africæ (MAC OWAN) in herb. Berol., sub nomine err. «*Diatrype capensis*»).

3. **Diatrype nigerrima** E. et Ev. Journ. of Mycol. 1904, p. 170. — 1917

Stromate superficiali effuso, tuberculoso-rugoso, extus nigro, intus albo; tuberculis 1-1,5 mm. diam. v. confluendo 0,5-1 cm. diam.; peritheciis monostichis, globosis vel ovoideis, confertis, minutis 250-300 μ . diam., sursum in collum breve tenuatis; ostiolis 8-10, congestis subglobosis conos minutos in superficie stromatis formantibus; ascis lanceolatis, apice demum rotundatis parte spor. 25 \approx 3-4; sporidiis octonis, allantoideis, fumose hyalinis, curvulis 8-10 \approx 1-2.

Hab. in cortice Vitis, Glencoe Illinois Amer. bor. (HARPER).

DIATRYPELLA Ces. et De Not. — Syll. I p. 200, IX p. 477, XI p. 277, XIV p. 488, XVI p. 427.

1. **Diatrypella rimosa** Shear in Bull. of the Torr. bot. Club. 1902, 1918 p. 454. — Stromatibus sparsis vel interdum gregariis, erumpentibus, fere ellipticis vel suborbicularibus, intus albidis, 1-3 mm. long., basi paullo constrictis, zona nigra circumscriptis, erumpentibus, disco plano vel convexulo, levibus, indistincte 4-sulcato-ostiolatis, transverse rimosis; peritheciis 5-15, 1-seriatis, globosis vel mutua pressione angulosis; ascis elongato-clavatis, longe stipitatis, paraphysatis, 90-135 \approx 6-7 (p. spor. 60-70 \approx 6-7); paraphysibus filiformibus, pluriguttulatis; sporidiis luteo-brunneis, parce curvatis, numerosis, 5-7 \approx 1,5.

Hab. in ligno Alni spec. Wallowa Lake, Oregon Amer. bor. — *D. discoideæ* var. *Alni* Cooke affinis.

2. **Diatrypella orgaoensis** P. Henn. in Hedw. 1904, pag. 88. — Stro- 1919 matibus erumpenti-superficialibus, cortice fisso circumdatis, pulvinatis, atris, subnitentibus vel opacis, rugulosis, ostiolis verrucoso-prominulis 1,5-2 mm. diam.; peritheciis subglobosis immersis; ascis longe clavatis vel fusoides, pedicellatis, apice rotundatis, p. spor. 20-28 \approx 3,5 polysporis; sporidiis cylindratis, curvulis, utrinque obtusis, 5-6 \approx 0,6-0,7 μ . fuscidulis.

Hab. in corticibus Leguminosæ? cujusdam, Serra dos Orgaos, Rio de Janeiro Brasiliæ (E. ULE).

3. **Diatrypella vetusta** Ell. et Ev. in Journ. of Mycol. 1903, p. 168. 1920 — Stromatibus dense sparsis, erumpenti-superficialibus 0,8-1,5 mm. diam., nigris, subprominentibus, obtusis, levibus, ostiolatis; ascis clavato-cylindratis, 75-80 \approx 8-10; sporidiis allantoideis, luteis, dense congestis, subcurvulis, utrinque obtusis.

Hab. in ligno decorticato, emortuo, River Forest, Illin. Amer. bor.

4. **Diatrypella xanthostroma** Ell. et Ev. in Journ. of Mycol. 1903, 1921 p. 225. — Stromatibus tuberculari-erumpentibus, 2-4 mm. diam., nigris; peritheciis 4-10 in singulo stromate congestis, globosis v. lateraliter compressis, 500 μ . diam. superne abrupte contractis, ostiolo papilliformi, conico pertuso, brevi donatis; ascis clavato-oblongis 55-65 \approx 8-10, polysporis; sporidiis allantoideis, luteo-hyalinis, subcurvulis, 9-10 raro 9-12 \approx 2.

Hab. in ramis emortuis Piri japonicæ, London, Canada Amer. bor.

Sect. 2 Hyalosporæ.

GLOMERELLA Schrenk et Spauld. Science N. S. XVII, 1903, p. 750, *Gnomoniopsis* Stonem. — Syll. XVI, p. 452 — nec Berl. (1892). Species sunt: *Glom. cingulata* (Ston.) S. et Sp. l. c. — *Gl. piperrata* (Ston.) S. et Sp. l. c. — *Glom. cincta* (Ston.) S. et Sp. l. c. — *Glom. rubicola* (Ston.) S. et Sp. l. c. — *Glom. fructigena* (Clint.) Sacc. (*Gnomoniopsis fructigena* Clint. Bull. of Ill. Exp. St. Urbana, 1902). Cll. Schrenk et Spaulding specierum paternitatem adscribunt auctoribus, qui status conidicos (*Glæosporium* et *Colletotrichum*) tantum descripserunt, st. ascophorum ne quidem suspicantes; quod nobis injustum et falsum videtur. Etiam incorrectum et prope ridiculum videtur scribere *Glomerella cinctum* nec *Gl. cincta* et multa alia similia (ut nonnulli botanici americani) ex eo quod status conidiophorus est *Glæosporium cinctum* e gen. neutro.

LÆSTADIA *) Auersw. — Syll. I p. 420, IX 577, XI p. 289, XIV p. 516, XVI p. 455.

1. **Læstadia Berberidis** Delacr. — Syll. IX, p. 584. — var. **Spirææ** 1922 Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — A typo differt peritheciis nigris nec brunneis, 100-180 μ . diam.; ascis oblongo-ellipsoideis, 55 \approx 13-15, nec clavatis sporidiisque levibus, nec granulosis, 21-18 \approx 5-5,5.

Hab. in ramulis siccis *Spirææ* spec. Luxemburg.

2. **Læstadia Briosiana** Magnaghi, Contrib. Micol. Ligustica pag. 3. 1923 (Atti Ist. Bot. Paris vol. VIII, 1902). — Peritheciis subepidermicis, dein erumpentibus, copiosis, sparsis v. aggregatis, globoso-depressis, nigris, 140-150 μ . diam.; ascis elongatis, breve stipitatis, aparaphysatis 45-46 μ . long., octosporis; sporidiis oblongo-fusoideis, utrinque acutis, 17-19 \approx 8-9, hyalinis, intus granulosis.

Hab. in ramis emortuis *Puerariæ* spec., Cornigliano, Liguria.

3. **Læstadia mirabilis** Fl. Tassi Bull. Lab. Ort. Bot. Siena 1901, IV, 1924 p. 7. — Peritheciis sparsis, nigris, epidermide velatis, nitidis, 80-

*) Quod ad nomen *Læstadiæ* pertinet cfr. Syll. fung. XI pag. 289 (nota). Rationibus ibi datis, etiam nomen *Guigniardia* Viala et Rav. (1892) superfluum evadit.

100 μ . diam.; ascis clavulatis, subsessilibus, 50-60 \times 10-15; sporidiis distichis, ellipsoideis, continuis, utrinque minute pluriguttulatis, 10-12 \times 4 hyalinis.

Hab in caulibus putrescentibus *Mirabilis Jalapæ*, in horto botanico Siena Italiæ centr.

4. **Læstadia rosicola** (Feltgen) Sacc. et D. Sacc. *Guignardia rosicola* 1925
Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — Peritheciis gregariis epidermide immutata, pustulata, tectis, depressoglobosis, siccis infra concavis, ostiolo minuto, acuto erumpentibus 200-300 μ . diam.; ascis oblongo-clavatis, apice rotundatis, tenuatostipitatis, fasciculatis, 4-6-8-sporis, 21-27 \times 5,5-7; sporidiis distichis oblongis vel ellipsoideis, continuis, hyalinis, eguttatis, 4-5 \times 2-2,5.

Hab. in ramis siccis, corticatis *Rosæ caninæ*, Luxemburg.

5. **Læstadia Oxyriæ** Rostr. Islands Svampe in Bot. Tidsskrift, Copenhagen 1903, p. 300. — Peritheciis cauliculis, gregariis, minutissimis, lenticularibus; ascis fusoido-clavatis, aparaphysatis, 35-40 \times 6, octosporis; sporidiis fusoido-oblongis, 9-10 \times 2-3.

Hab. in caulibus *Oxyriæ digynæ*, in Islandia.

6. **Læstadia insidiosa** Masee, Kew. Bull. 1901, p. 157. — Peritheciis epiphyllis, semiimmersis, discoideis, atris, plus minus dense aggregatis, astomis, 300-350 μ . diam.; ascis clavatis sæpe curvatis, apice obtusatis, octosporis 150 \times 20; sporidiis distichis oblongo-ellipticis, hyalinis continuis (an semper?), 21-25 \times 6-7; paraphysibus nullis.

Hab. in foliis *Medicaginis sativæ* in Tasmania.

7. **Læstadia circumscissa** Sacc. Notæ mycol. in Syd. Ann. Mycologici 1903, n. 1, pag. 24. — Maculis subrotundis oblongisque amphigenis fusco-rufescentibus, demum arescendo circumscissis et dilabentibus; peritheciis subcutaneo-erumpentibus, gregariis, plerumque epiphyllis, globoso-lenticularibus, membranaceis, nigricantibus, glabris, 90-120 μ . diam., poro impresso pertusis; ascis terti-clavatis, 50-65 \times 9, apice obtusis, breve stipitatis, octosporis; paraphysibus genuinis nullis; sporidiis distichis, ovato-oblongis, sæpe inæquilateris, utrinque obtusulis, biguttatis granulosisque, 14-15 \times 5-6, hyalinis.

Hab. in foliis adhuc vivis *Pruni spinosæ*, Montello (Treviso) Italiæ bor. — Periphyses circa ostiolum radiantes angustissimæ, hyalinæ. — Nil obstat quominus hanc speciem habeamus tanquam statum ascophorum *Cercosporæ circumscissæ* Sacc. et forte quoque

Phyllostictæ circumscissæ Cooke pariterque morbum *shot-hole* generantem. Analogæ quoque sunt *Ovularia circumscissa* Sorok., *Phyllosticta Mattiroliana* Mc. Alpine (= *Ph. perforans* Sacc. et Mattirollo) et *Gnomonia circumscissa* Mc. Alpine.

8. **Læstadia Veronicæ** Rostr. Islands Svampe in Bot. Tidsskrift, 1903, 1929
vol. 25, p. 300. — Peritheciis biogenis, epiphyllis, dense gregariis, lenticularibus, siccis, cupulæ instar collabentibus 200 μ . diam.; ascis clavatis; sporidiis oblongis, curvulis, fere fabæformibus, 21-25 \times 8-9, granulosis.

Hab. in foliis Veronicæ alpinæ in Islandia.

9. **Læstadia Prenanthis** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 1930
— Maculis ellipticis vel irregularibus 3-5 mm. diam. brunneo-pallidis, linea subtilissima marginatis, peritheciis hypophyllis, sparsis, semierumpentibus, minutis, 50-60 μ . diam.; ascis oblongis, subsessilibus, utrinque abrupte constrictis, 30-35 \times 6-7.; sporidiis distichis, fusoido-oblongis, 3-guttulatis, hyalinis, 10-12 \times 3-3,5.

Hab. in foliis vivis Prenanthis crepidinæ, Alabama Amer.

10. **Læstadia Saxifragæ** Saccardo et Scalia, Harrim Alaska Exped. 1931
Crypt. p. 34, pl. IV, fig. 3. — Peritheciis epiphyllis, punctiformibus, in partibus marginalibus arescentibus foliorum sparsis, globosis, 100-130 μ . diam., poro pertusis; contextu parenchymatico fuscello; ascis cylindræis vel cylindræo-clavulatis, brevissime stipitatis, apice rotundatis, 60-80 \times 10-13, aparaphysatis, octosporis; sporidiis distichis, oblongo-ellipsoideis, utrinque acutulis, 10-13 \times 4,5-5,5, continuis, hyalinis.

Hab. in foliis viventibus Saxifragæ parvifloræ, Unalaska Alaska. — Pluribus affinis, sed videtur satis distincta. Asci tantum e basi peritheciï oriundi.

11. **Læstadia prominens** (Earle) Sacc. et D. Sacc. *Guignardia prominens* Earle in Muhlenbergia, 1901, pag. 15. — Late sparsa et sæpe totum folium denique decoloratum occupans; peritheciis profunde immersis, utrinque prominulis 150-200 μ . diam.; contextu obscure parenchymatico; ostiolo indistincte pertuso sæpe parum manifesto; ascis subfasciculatis, longe tenuato-stipitatis, crasse tunicatis, parte sporifera 50-60 \times 25; paraphysibus nullis; sporidiis octonis inordinatis, hyalinis, continuis, ovoideis, 25 \times 10, crasse tunicatis.

Hab. in foliis vivis *Ægiphilæ martinicensis* ex Verbena-ceis, prope Santurce Portorico.

12. **Læstadia Ari** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. — 1933

Maculis subcircularibus, superne intense griseis, inferne brunneis 1 cm. diam., nigro-marginatis; peritheciis epiphyllis dense sparsis in parte centrali macularum, 100-110 μ . diam. subcuticularibus vel erumpentibus; ascis oblongo-cylindræis, breve stipitatis 40-50 \times 7-8; paraphysibus rudimentalibus; sporidiis distichis, subnavicularibus 2-3-nucleatis, hyalinis, obtusis, 8-10 \times 3,5-4,5.

Hab. in foliis vivis *Ari arifolii* (quid?), Alabama Americæ. — Habitus *Vermiculariæ trichellæ*.

13. **Læstadia Tofieldiæ** Fl. Tassi Bull. Lab. Ort. Bot. Siena, 1901, 1934
IV, p. 7. — Peritheciis dense gregariis, globoso-depressis, pertusis, nigris, epidermide tenuiter velatis 60-70 μ . diam.; ascis clavatis, sessilibus 40-50 \times 8-10; sporidiis distichis, ovato-oblongis, 14-16 \times 5-6, hyalinis.

Hab. in foliis emortuis *Tofieldiæ borealis*, in Groenlandia.

14. **Læstadia seriata** (Bäumler) Sacc. et D. Sacc. *Guignardia seriata* 1935
Bäumler Beitr. z. Cryptog. Fl. des Presburger Com. 1902, p. 27. Peritheciis immersis, tenui-membranaceis applanatis, obsolete ostiolatis 50-70 μ . diam., contextu minute parenchymatico, brunneo; ascis brevissime stipitatis, saccatis, octosporis, 36-45 \times 10-12, basi fasciculatis; sporidiis ovoideis, utrinque rotundatis, deorsum leviter tenuatis, rectis, hyalinis, inordinatis, 10-12 \times 3-3,5.

Hab. in vaginis vetustis *Phragmitis communis* in Com. Presburg Hungariæ.

15. **Læstadia alaskana** (Reed) Sacc. et D. Sacc. *Guignardia alaskana* 1936
Reed, Harrim Alaska Exped. Crypt. pag. 34, t. VII, Univ. Cal. Publ., Bot. I, 154. 161, pl. 15, 16. — Peritheciis laxè gregariis, innatis, globulosis, ostiolo impresso vix erumpentibus, 180-200 μ . diam.; ascis fusoides brevissime obtuse stipitatis, apice obtuse attenuatis, aparaphysatis, octosporis 42-45 \times 15-16; sporidiis subdistichis, ellipsoideis, utrinque rotundatis, continuis, eguttulatis, hyalinis, 10-12 \times 4-4,5.

Hab. parasitica in *Prasiola boreali*, Springs, Baranos Island, Alaska (TRELEASE) et Kadiak, Unalaska. — Vix diversa a *L. Prasiolæ* Wint. — Syll. IX, p. 589.

Paralæstadia Sacc. Species lichenicolæ.

16. **Læstadia verrucicola** (Wedd.) Sacc. et D. Sacc. *Sphæria verrucicola* 1937
Wedd. Nouv. Rev. des Lich. 1873, p. 22. — Peritheciis 50-100 μ . diam., immersis, nigris; ascis octosporis, paraphysibus nullis

obvallatis; sporidiis unicellularibus ellipsoideis, hyalinis, 18-30 \times 10-15.

Hab. in thallo *Aspiciliæ cineræ* v. *albæ*, Agde Galliæ.

17. **Læstadia conductrix** (Norm.) Sacc. et D. Sacc. *Verrucaria conductrix* Norm. Flora 1866, p. 284. — Peritheciis erumpentibus, 120-150 μ . diam. subglobosis, nigris, nitidulis, ostiolo simplici demum pertusis; ascis octosporis jodo rubro-tinctis, aparaphysatis, 50 μ . long.; sporidiis continuis, hyalinis, 10-12 \times 3, elliptico-fusoideis, intus granulosis. 1938

Hab. in thallo *Psoræ luridæ* prope Tromsö Norvegiæ. — Ob reactionem jodi potius lichen, observante auctore.

SPOLVERINIA Mass. in Flora 1856, n. 18 (Etym. a March. J. B. SPOLVERINI (1695-1759) veronensi, qui poëtice scripsit « La coltivatione del riso »). — Perithecia punctiformia, sicca depressa, uda turgescencia subglobulosa, clausa, dein apice irregulariter fatiscentia; contextu tenui, membranaceo-carnosulo. Asci ampli vesiciformes, omnino aparaphysati, 1-2-spori. Sporidia ovoidea, magna, continua, hyalina v. pallide colorata. — In hypothecio adsunt gonidia quædam testib. Mass. et Korb., tamen ob vitam parasiticam in thallis alienis, forte gonidia non sunt propria. Cl. Heufler aliique ad fungos, rectius forte, genus referunt.

1. **Spolverinia punctum** Mass. l. c., Sched. crit. p. 61, Lich. exs. n. 59. 1939
— Peritheciis perexiguis, castaneo-cervinis, parasiticis, udis subsphæricis, solitariis, subsuperficialibus; ascis amplis, breviter stipitatis inflatis, bi-rarius unisporis, aparaphysatis; sporidiis subgloboso-ovoideis, 56-70 \times 24-36 (Beltramini) v. 24-70 \times 18-36 (Masalongo) e hyalino dilute croceis, intus nubilosus.

Hab. in thallis crustosis variis e. g. *Polyblastiæ orbicularis*, ad rupes in agro Veronensi et Bassanensi Ital. super.

PHOMATOSPORA Sacc. — Syll. I p. 432, IX p. 589, XI p. 291, XIV p. 519, XVI p. 456.

1. **Phomatospora Wistaræ** Ell. et Ev. in Journ. of Myc. 1902, p. 68. 1940
— Peritheciis fere semper epiphyllis, parvulis rotundatis, subdepressis, membranaceis 110-120 μ . diam. in maculis 2-4 mm. diam. griseis, margine nigro tenui cinctis, sæpe confluentibus insidentibus; ascis oblongis, sessilibus, 35-45 \times 10-12, aparaphysatis; sporidiis distichis, oblongo-ellipticis, hyalinis, utrinque rotundatis 12 \times 6.

Hab. in foliis *Wistariæ frutescentis*, Alabama Americæ.

2. **Phomatospora Hederæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 1941

II, p. 127. — Peritheciis sparsis v. hinc inde approximatis, basi ligno insculptis, cortice nidulantibus et epidermidem papilla brevi conica erumpentibus, depresso-globosis v. ellipsoideis, minutissimis, nigris; ascis cylindricis, tenuibus, deorsum stipitiformi-tenuatis, octosporis, $65 \approx 2,5-3,5$, aparaphysatis; sporidiis monostichis oblongo-ellipsoideis vel breve cylindræis, rectis, hyalinis, $5-8 \approx 2-2,5$.

Hab. in ramis siccis *Hederæ Helicis*, Luxemburg. — *Ph. Berberidis* proxime affinis.

3. **Phomatospora Elasticæ** Zimm. in Bull. de l'Inst. bot. de Buitenz. 1942

1901, p. 15. — Peritheciis amphigenis, sparsis, immersis, sine stromate, ostiolo conico vix emergentibus, nigris $120 \approx 65$, albo-papillatis; ascis brevibus, breve pedicellatis, obtusis, octosporis $45 \approx 8$; sporidiis hyalinis, elongatis, obtuse rotundatis, 16μ . longis; paraphysibus nullis.

Hab. in foliis putrescentibus *Fici Elasticæ*, Buitenzorg, in insula Java.

4. **Phomatospora secalina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1943

III, 1903, pag. 155. — Peritheciis gregariis vel sparsis, innatis, globosis, ostiolo acuto, minuto erumpentibus, atro-brunneis, membranaceo-carbonaceis $250-350 \mu$. diam.; contextu parenchymatico brunneo; ascis cylindricis apice obtusis, incrassatis, bifoveolatis, jodo vix tinctis, longe stipitato-tenuatis, octosporis, aparaphysatis $95-108 \approx 8-10$; sporidiis recte vel oblique monostichis, raro distichis, tereti-ellipsoideis, utrinque rotundatis, rectis, continuis, biguttatis, $11-15 \approx 5-6$, hyalinis.

Hab. in culmis putridis secalinis, Luxemburg. — Proxime affinis *Phomatosporæ Arenariæ*.

STIGMATULA Sacc. — Syll. I p. 543 (ut subgenus), XVI p. 454.

1. **Stigmatula applanata** Feltgen. Vorstud. Pilz. Luxemb. Nachtr. III, 1944

1903, p. 255. — Peritheciis sparsis, primo epidermide tectis, mox erumpentibus et subliberis, orbicularibus, superne convexo-applanatis, papilla minutissima donatis, basi applanatis, nigris, minute granulosis, carbonaceo-fragilibus, $200-400 \mu$. diam.; ascis teretoclavatis, apice rotundatis, brevissime stipitatis $87-95 \approx 13-16$, 6-8-sporis; sporidiis monostichis vel subdistichis, obtuse ellipsoideis, rectis, continuis, biguttatis, hyalinis, demum flaveolis, $15-17 \approx 5-6$; paraphysibus ascos superantibus, ramulosis, $1-2 \mu$. cr. hyalinis.

Hab. in ramulis et squamulis *Juniperi virginianæ*, Luxemburg.

PHYSALOSPORA Niessl — Syll. I p. 433, IX p. 591, XI p. 291, XIV p. 520, XVI p. 457.

1. **Physalospora borealis** Saccardo, Harrim. Alaska Exped. Crypt. p. 33, 1945 pl. IV, fig. 4. — Peritheciis laxè gregariis, subcutaneis, dein erumpentibus, globulosis, papillatis, nigris, 3-5 mm. diam., contextu parenchymatico, duriusculo, fuligineo; ascis cylindræis, basi tenuatis brevissimeque stipitatis, apice obtusis, 70-75 \approx 5-6, octosporis; paraphysibus parcis, brevibus; sporidiis oblique monostichis, oblongo-ovoideis, lenissime inæquilateris, 9-10 \approx 4-5, utrinque obtusulis, intus granulosus, hyalinis.

Hab. in caulibus emortuis *Anemones*, socia *Stagonospora Pulsatillæ*, Kukak Bay, Alaska (SAUNDERS).

2. **Physalospora macrospora** Feltgen, Vorstud. Pilz. Luxemb. Nachtr. 1946 III, 1903, p. 253. — Peritheciis gregariis, confertis, omnino innatis, globosis, ostiolo papillato erumpentibus, nigris, 200-300 μ . latis; ascis ellipsoideo-clavatis, deorsum tenuato-stipitatis v. subsessilibus 75-100 \approx 25-30, octosporis, paraphysatis; sporidiis distichis, obtuse ellipsoideis, continuis, hyalinis, biguttatis vel eguttatis, 20-32 \approx 10-13.

Hab. in ramis, emortuis corticatis *Aceris campestris*, Luxemburg.

3. **Physalospora Serjanæ** Rehm, Hedw. XLIV (1904) p. 5. — Maculis 1947 plerumque epiphyllis, exsiccatione fuscatis, distincte orbicularibus, dilutissime nigritule cinctis, rubro-fuscis; peritheciis 1-7 innatis, discretis, globulosis, nigris, demum in epiphyllis peridermio subtectis prominentibus, ostiolo minuto papillæformi pertuso, in hypophyllo flavidule conspicuis, subcarbonaceis 0,2 mm. diam.; ascis cylindræis, apice rotundatis, 80-85 \approx 10-12, 8-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, hyalinis, 12-14 \approx 6-7 monostichis; paraphysibus filiformibus, hyalinis, 2-3 μ . cr.

Hab. ad folia *Serjanæ*, Corcovado-Rio Brasilæ (ULE).

4. **Physalospora Trabutiana** P. Henn. in Hedw. 1901, pag. 100. — 1948 Syll. XVI, p. 1132 (nomen). — Caulicola; peritheciis gregariis, innatis epidermide tectis, submembranaceis, globulosis, atris, ca. 0,3-0,5 mm. diam., interdum confluentibus, ostiolo erumpente prominulo, subnitenti vel pertuso; ascis clavatis, apice crasse tunicatis, rotundato-obtusis, interdum basi usque ad 30 \approx 6 μ . pedicellatis,

Hab. in foliis *Wistarïæ frutescentis*, Alabama Americæ.

2. **Phomatospora Hederæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 1941

II, p. 127. — Peritheciis sparsis v. hinc inde approximatis, basi ligno insculptis, cortice nidulantibus et epidermidem papilla brevi conica erumpentibus, depresso-globosis v. ellipsoideis, minutissimis, nigris; ascis cylindricis, tenuibus, deorsum stipitiformi-tenuatis, octosporis, $65 \approx 2,5-3,5$, aparaphysatis; sporidiis monostichis oblongo-ellipsoideis vel breve cylindræis, rectis, hyalinis, $5-8 \approx 2-2,5$.

Hab. in ramis siccis *Hederæ Helicis*, Luxemburg. — *Ph. Berberidis* proxime affinis.

3. **Phomatospora Elasticæ** Zimm. in Bull. de l'Inst. bot. de Buitenz. 1942

1901, p. 15. — Peritheciis amphigenis, sparsis, immersis, sine stromate, ostiolo conico vix emergentibus, nigris $120 \approx 65$, albo-papillatis; ascis brevibus, breve pedicellatis, obtusis, octosporis $45 \approx 8$; sporidiis hyalinis, elongatis, obtuse rotundatis, 16μ . longis; paraphysibus nullis.

Hab. in foliis putrescentibus *Fici Elasticæ*, Buitenzorg, in insula Java.

4. **Phomatospora secalina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1943

III, 1903, pag. 155. — Peritheciis gregariis vel sparsis, innatis, globosis, ostiolo acuto, minuto erumpentibus, atro-brunneis, membranaceo-carbonaceis $250-350 \mu$. diam.; contextu parenchymatico brunneo; ascis cylindricis apice obtusis, incrassatis, bifoveolatis, jodo vix tinctis, longe stipitato-tenuatis, octosporis, aparaphysatis $95-108 \approx 8-10$; sporidiis recte vel oblique monostichis, raro distichis, tereti-ellipsoideis, utrinque rotundatis, rectis, continuis, biguttatis, $11-15 \approx 5-6$, hyalinis.

Hab. in culmis putridis secalinis, Luxemburg. — Proxime affinis *Phomatosporæ Arenariæ*.

STIGMATULA Sacc. — Syll. I p. 543 (ut subgenus), XVI p. 454.

1. **Stigmatula applanata** Feltgen. Vorstud. Pilz. Luxemb. Nachtr. III, 1944

1903, p. 255. — Peritheciis sparsis, primo epidermide tectis, mox erumpentibus et subliberis, orbicularibus, superne convexo-applanatis, papilla minutissima donatis, basi applanatis, nigris, minute granulosis, carbonaceo-fragilibus, $200-400 \mu$. diam.; ascis teretoclavatis, apice rotundatis, brevissime stipitatis $87-95 \approx 13-16$, 6-8-sporis; sporidiis monostichis vel subdistichis, obtuse ellipsoideis, rectis, continuis, biguttatis, hyalinis, demum flaveolis, $15-17 \approx 5-6$; paraphysibus ascos superantibus, ramulosis, $1-2 \mu$. cr. hyalinis.

Hab. in ramulis et squamulis *Juniperi virginianæ*, Luxemburg.

PHYSALOSPORA Niessl — Syll. I p. 433, IX p. 591, XI p. 291, XIV p. 520, XVI p. 457.

1. **Physalospora borealis** Saccardo, Harrim. Alaska Exped. Crypt. p. 33, 1945 pl. IV, fig. 4. — Peritheciis laxè gregariis, subcutaneis, dein erumpentibus, globulosis, papillatis, nigris, 3-5 mm. diam., contextu parenchymatico, duriusculo, fuligineo; ascis cylindraceis, basi tenuatis brevissimeque stipitatis, apice obtusis, 70-75 \approx 5-6, octosporis; paraphysibus parcis, brevibus; sporidiis oblique monostichis, oblongo-ovoideis, lenissime inæquilateris, 9-10 \approx 4-5, utrinque obtusulis, intus granulosis, hyalinis.

Hab. in caulibus emortuis *Anemones*, socia *Stagonospora Pulsatillæ*, Kukak Bay, Alaska (SAUNDERS).

2. **Physalospora macrospora** Feltgen, Vorstud. Pilz. Luxemb. Nachtr. 1946 III, 1903, p. 253. — Peritheciis gregariis, confertis, omnino innatis, globosis, ostiolo papillato erumpentibus, nigris, 200-300 μ . latis; ascis ellipsoideo-clavatis, deorsum tenuato-stipitatis v. subsessilibus 75-100 \approx 25-30, octosporis, paraphysatis; sporidiis distichis, obtuse ellipsoideis, continuis, hyalinis, biguttatis vel eguttatis, 20-32 \approx 10-13.

Hab. in ramis, emortuis corticatis *Aceris campestris*, Luxemburg.

3. **Physalospora Serjanianæ** Rehm, Hedw. XLIV (1904) p. 5. — Maculis 1947 plerumque epiphyllis, exsiccatione fuscatis, distincte orbicularibus, dilutissime nigritule cinctis, rubro-fuscis; peritheciis 1-7 innatis, discretis, globulosis, nigris, demum in epiphyllis peridermio subtectis prominentibus, ostiolo minuto papillæformi pertuso, in hypophyllo flavidule conspicuis, subcarbonaceis 0,2 mm. diam.; ascis cylindraceis, apice rotundatis, 80-85 \approx 10-12, 8-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, hyalinis, 12-14 \approx 6-7 monostichis; paraphysibus filiformibus, hyalinis, 2-3 μ . cr.

Hab. ad folia *Serjanianæ*, Corcovado-Rio Brasilianæ (ULE).

4. **Physalospora Trabutiana** P. Henn. in Hedw. 1901, pag. 100. — 1948 Syll. XVI, p. 1132 (nomen). — Caulicola; peritheciis gregariis, innatis epidermide tectis, submembranaceis, globulosis, atris, ca. 0,3-0,5 mm. diam., interdum confluentibus, ostiolo erumpente prominulo, subnitenti vel pertuso; ascis clavatis, apice crasse tunicatis, rotundato-obtusis, interdum basi usque ad 30 \approx 6 μ . pedicellatis,

octosporis, 100-170 \approx 18-23; paraphysibus copiosis filiformibus, hyalinis 3 μ . cr.; sporidiis oblique monostichis vel subdistichis, ellipsoideis, utrinque obtuse rotundatis, interdum attenuatis v. subacutiusculis, primo nebulosis, dein 1-2 guttulatis, hyalinis v. subtiliter flavescens, 15-20 \approx 7-10, interdum mucosis.

Hab. in caulibus *Cachrydis tomentosæ*, Algeria Afr.

5. **Physalospora Bupleuri** P. Henn. Hedw. 1902, p. 135. — Peritheciis 1949
sparsis sub epidermide nidulantibus, dein ostiolis erumpentibus, membranaceis, subglobosis, atro-brunneis; ascis clavatis, obtusis, basi attenuato-stipitatis, octosporis 50-65 \approx 6-8; paraphysibus filiformibus, hyalinis, septatis 2,5-3,5 μ . crassis; sporidiis oblique monostichis, oblonge ovoideis, interdum subfusoides, hyalinis, bi-guttulatis 5-8 \approx 3-4.

Hab. in caulibus *Bupleuri ranunculoidis*, in horto botanico Berolinensi Germaniæ.

6. **Physalospora mararyensis** P. Henn. Amaz. IV, in Hedw. 1905, 1950
p. 63. — Maculis rotundatis vel effusis sæpe confluentibus explanatis, fuscis; peritheciis sparsis vel subgregariis, punctiformibus, innato-erumpentibus, subglobosis, atro-membranaceis, pertusis; ascis fusoides vel clavatis apice attenuatis, rotundatis vel subacutiusculis, 50-65 \approx 8-10, 8-sporis; paraphysibus filiformibus, hyalinis; sporidiis subdistichis, oblonge fusoides, utrinque rotundatis, hyalinis 18-20 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Papilionaceæ*? cujusdam, Marary, Rio Juruá Amazoniæ.

7. **Physalospora atro-inquinans** Rehm, Hedw. XLIV (1904). — Peri- 1951
theeciis in maculis epiphyllis orbicularibus, vix decoloratis, 1 cm. lat. gregariis sub epidermide denigrata nidulantibus eamque elevantibus, globulosis, demum denudatis, poro vix perspicuo pertusis, atris, membranaceis, 0,1 mm. diam.; ascis cylindratis, apice rotundatis, 60-70 \approx 10-12, 4-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttulis oleosis repletis, hyalinis, 15 \approx 9 monostichis; paraphysibus subramosis, septatis, 2 μ . cr.

Hab. ad folia viva *Papilionaceæ* (*Phaseoli*) Sao Francisco Brasiliæ. — Affinis *Ph. Astragali*, peritheciis mox erumpenti-nudatis dignoscitur.

8. **Physalospora Phaseoli** P. Henn. Fungi Amaz. III, 1904, p. 368. 1952
— Maculis rotundatis vel confluentibus, flavidis; peritheciis epiphyllis gregarie sparsis, sublenticulari-globulosis innatis, papilla atra erumpentibus, subatro-membranaceis, ca. 50-70 μ . diam.; ascis

clavatis, obtusis, 8-sporis, paraphysatis, 40-60 \approx 10-15; sporidiis subdistichis vel oblique monostichis, late ellipsoideis vel subovoideis, hyalinis, 8-10 \approx 8.

Hab. in foliis Phaseoli, Rio Juruá St. Clara Amazoniæ.

9. **Physalospora machaeriicola** P. Henn. Fungi Amaz. II, p. 243. — 1953

— Maculis effusis brunneolis; peritheciis in maculis albidis, rotundato- vel oblongo-angulatis sparse v. gregarie erumpentibus, subhemisphæricis vel lenticularibus, pertusis, atro-membranaceis, ca. 60 μ . diam.; ascis clavatis vel fusoideis, apice obtusis vel apiculatis, stipitatis, 8-sporis, 45-60 \approx 8-12; paraphysibus filiformibus hyalinis; sporidiis subdistichis, ellipsoideis vel subfusoideis, hyalinis, 5-8 \approx 3-4.

Hab. in foliis Machaerii spec. Fortaleza, Rio Juruá Brasiliæ et Tarapoto Perù.

10. **Physalospora vagans** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 1954

— Peritheciis sparsis vel 3-5-congestis, membranaceis parenchymaticis, nigris, erumpentibus, 100-200 μ . diam.; ascis clavato-cylindræis 110-200 \approx 12-20, breve stipitatis et obscure paraphysatis; sporidiis monostichis v. distichis, ellipticis, 12-20 \approx 8-12, hyalinis; conidiis constricto-ellipticis, hyalinis, 15-20 \approx 7-8; basidiis 12-20 \approx 1,5.

Hab. in sarmentis emortuis Rubi strigosi, Alabama, Amer.

11. **Physalospora minima** Ell. et Ev. in Journ. of Mycol. 1902, v. 8, 1955

p. 17. — Peritheciis sparsis, subcutaneis, per ostiolum parvum erumpentibus, 80-90 μ . diam.; ascis oblongo-clavatis, breve stipitatis, paraphysatis, 40-50 \approx 6; sporidiis inordinate dispositis, ellipticis vulgo utrinque acutulis, 9-11 \approx 3-4.

Hab. in sarmentis Rubi strigosi, Tuskegee, Ala, in Amer. bor. (G. W. CARVER).

12. **Physalospora circinans** Pat in Bull. Soc. Mycol. 1902, p. 302. 1956

— Peritheciis epiphyllis, globosis, 150-300 μ . diam., epidermide leniter nigrificata tectis, dein semierumpentibus, atris, macula fusca, orbiculari, 3-4 mm. lata insidentibus; contextu celluloso, coriaceo-membranaceo, pallide brunneo; nucleo albo; ascis cylindræo-clavatis, sursum obtusis deorsum brevissime pedicellatis, octosporis, 60-80 \approx 12-15; paraphysibus filiformibus ramosis; sporidiis monostichis v. irregulariter distichis sæpe transverse positis, ovato-rotundatis, continuis, hyalinis 9 \approx 6.

Hab. in foliis vivis Ardisiæ spec. in Brasilia (GLAZIOU).

13. **Physalospora Escallonæ** P. Henn. in Hedw. 1902, p. 302. — Ma- 1957

culis atris, epiphyllis, sub epidermide gregarie nidulantibus, subglobosis, atris, membranaceis, ca. 200 μ . diam., ostiolis erumpentibus; ascis clavatis, apice rotundatis, tunicatis, octosporis, 50-70 \times 14-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel oblique monostichis, fusoideis, continuis, 12-18 \times 4-5, hyalinis.

Hab. in foliis Escalloniæ chlorophyllæ, S. Paulo Brasiliæ.

14. **Physalospora Lepachydis** Ell. et Ev. in Journ. of Mycol. 1902, 1958 p. 16. — Peritheciis epiphyllis, gregariis, semierumpentibus, 250 μ . circ. diam., ostiolo papilliformi ornatis; ascis cylindratis, breviter stipitatis, paraphysatis, 60-65 \times 8-12; sporidiis monostichis v. distichis, utrinque late obtusis, binucleatis, 10-12 \times 5-6.

Hab. in parenchymate exsiccato foliorum vivorum Lepachydis columnaris, Billings Amer. bor. (WILLIAMS et GRIFFITHS).

15. **Physalospora manaosensis** P. Henn. Fungi Amaz. IV, in Hedw. 1959 1905, p. 63. — Maculis sparsis vel gregariis rotundatis, alutaceis, rugulosis, 1-3 mm. diam.; peritheciis epiphyllis singularibus vel pluribus innatis, ostiolo atris, punctiformibus erumpentibus ca. 60-80 μ ., atro-membranaceis; ascis subfasciculatis, clavatis, apice rotundatis, 8-sporis, 40-45 \times 8-12; paraphysibus filiformibus, superantibus, hyalinis; sporidiis oblique monostichis vel subdistichis, ovoideis vel ellipsoideis, hyalinis, continuis, intus minute granulatis, 8-10 \times 4-5.

Hab. in foliis coriaceis Lauraceæ? frutescentis, Rio Negro, Manáos Amazoniæ. — Maculis alutaceis epiphyllis, omnino peculiaribus mox dignoscenda species.

16. **Physalospora juruana** P. Henn. Fungi Amaz. IV, in Hedw. 1960 1905, p. 63. — Maculis late effusis, flavido-fuscidulis; peritheciis hypophyllis gregariis, innatis, dein apice erumpentibus, atris, ca. 60-80 μ . subglobosis, membranaceis; ascis clavatis apice obtusis, 8-sporis, 30-40 \times 5-6, paraphysibus filiformibus, hyalinis ca. 1 1/2 μ . crassis; sporidiis subdistichis oblongis subfusoideis, hyalinis, 6-8 \times 2-2 1/2.

Hab. in foliis Lauraceæ cujusdam, Rio Juruá Amazoniæ.

17. **Physalospora Pittospori** d'Alm. et da Cam. Revista agron. Lisboa, 1961 1903, n. 4, pag. 138, tab. X, fig. 5-7. — Peritheciis sparsis, ad apicem foliorum in macula arida, epidermide tectis, demum erumpentibus, hypophyllis vel raro epiphyllis, globoso-depressis, atris, ostiolo prominulo, 150-200 \times 180-190; ascis tereti-clavulatis, brevissime stipitatis, 135-140 \times 20-25, octosporis; sporidiis submono-

stichis, ovoideis, granulosis, $20-25 \approx 7,5-12$; paraphysibus sinuosis, septatis.

Hab. in foliis *Pittospori* spec., prope Cruz Quebrada Lusitaniae (CASTRO GUEDES).

18. **Physalospora Xylomeli** P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 96. — Syll. XVI, p. 1132. (nomen). — Maculis effusis, cinereis, exaridis; peritheciis sparsis innatis, erumpentibus, lenticularibus, atris, breve papillatis, epidermide fissa velatis, contextu pseudo-parenchymatico, atro; ascis cylindraceo-clavatis, apice obtusis, basi attenuatis, octosporis, $115-135 \mu$. longis, p. sporif. $110-120 \approx 10-11$; paraphysibus filiformibus, hyalinis ca. 4μ . crassis; sporidiis oblique monostichis, fusoides, utrinque subacutis, 2-3-guttulatis, continuis, $16-20 \approx 7-10$ hyalinis.

Hab. in foliis *Xylomeli occidentalis*, Perth Australiæ occ.

19. **Physalospora Empetri** Rostrup. Fungi in Botany of the Faeröes 1901, part. I, p. 310. — Peritheciis epiphyllis, sparsis; ascis cylindraceis; sporidiis octonis, monostichis, ellipsoideis, simplicibus, $18-20 \approx 10-12$, hyalinis.

Hab. in foliis *Empetri nigri*, Syderö, Frodebö in insulis Feroensibus Daniæ.

20. **Physalospora dissospora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1901, II, p. 180. — Peritheciis solitariis vel 2-pluribus confertis, cortice nidulantibus, basi ligno insculptis, ceterum subliberis, globosis, minute papillatis, membranaceo-carbonaceis, nigris, $150-200 \mu$. lat.; ascis cylindricis, rectis curvulisve, sessilibus, rarius brevissime stipitatis $52 \approx 5$, filiformi-paraphysatis; sporidiis monostichis ellipsoideis, utrinque oblique obtusatis, sæpius longitudinaliter connato-binis, hyalinis, vulgo crasse 1-guttatis minuteque guttulis vel 2-4-guttulatis, $8-9 \approx 4,5-5$.

Hab. in ramis emortuis *Callunæ vulgaris*, Luxemburg. — Cum *Physal. Callunæ* ne comparanda quidem.

21. **Physalospora confinis** Sacc. et D. Sacc. Atti Ist. Ven. Sc. Lett. 1905 ed Arti, tomo LXI, Venetiis 1902, p. 721. — Peritheciis sparsis v. gregariis, minutis $200-250 \mu$. diam., globosis, epidermide tectis, atris, ostiolo papillulato, epidermidem perforante; contextu perithecii celluloso, fuligineo; ascis subcylindraceo-fusiformibus, $80-90 \approx 12-14$; sporidiis distichis v. raro monostichis, ellipticis, utrinque obtusis, $18-21 \approx 7$, granulosis, hyalinis.

Hab. in caule sicco *Amsoniæ latifoliæ*, in horto botanico Bologna Italiæ sept.

22. **Physalospora bifrons** Starb. in Arkiv. för Botan. 1904, Band 2, 1966 p. 17, fig. 40-42. — Peritheciis epiphyllis, sed utrinque manifeste prominulis, in maculis varie, interdum orbiculariter, semper indistincte determinatis, paullum pallescentibus, sine ordine sparsim aggregatis, solitariis v. interdum aliquot confluentibus, sphæroideis, contextu solidiusculo, coriaceo-carbonaceis, nigris, levibus, vix ostiolatis, 150-200 μ . diam.; ascis ovoideis vel ovoideo-fusiformibus, sessilibus, sursum lumine angustiore, membrana incrasata, 50-60 \times 14-19; sporidiis octonis, conglobatis, ovoideis vel fusiformibus, sæpe inæquilateralibus vel curvulis, interdum biguttulatis, annulo mucoso, tenuissimo, utrinque minute et oblique appendiculato præditis, apicibus obtusis, hyalinis, 19-25 \times 5-6,5; paraphysibus filiformibus, hyalinis, mucilaginosi, confluentibus, numerosis. — Spermatia bacillariba vel anguste clavulata, hyalina 10-14 \times 1,5 adsunt.

Hab. ad folia dicotyledonea in silva primæva, Colonia Elisa, Paraguay (LINDMAN). — Forma perithecorum *Ph. quercifoliæ* Ell. et Ev. affinis videtur, sporidiis tamen distincta.

23. **Physalospora varians** Starb. in Arkiv. för Botan. 1904, Band 2, 1967 pag. 18, fig. 43-46. — Maculis primo viridi-luteis vel paullum decoloratis, arescendo fuscis, vage determinatis, rotundatis 0,1-2 cm. diam.; peritheciis in maculis insidentibus, copiosioribus epiphyllis, nonnullis hypophyllis, primo innatis, dein erumpentibus, globulosis vel basi applanato-lenticularibus, dense aggregatis vel peripherice dispersis, in seriebus rectis v. curvatis partitis, pulchre ordinatis, demum confluentibus, contextu coriaceo, atratis, nitide verruculosi 200-300 μ . diam.; ascis cylindræis vel clavato-cylindræis 90 \times 13, p. spor. 55-65 μ . long. v. ovoideis sessilibusque 43 \times 19; sporidiis octonis, distincte monostichis, sæpe conglobatis, medio tristichis, late ellipsoideis, nebulosim guttulatis, 10-11 \times 7, 5-9; paraphysibus mucilaginosi, guttulatis, hyalinis.

Hab. in foliis vivis ignotis, Santa Cruz da Barra, Matto Grosso, Brasiliæ (LINDMAN). — Perithecorum ordine, ascorum varia forma distincta species.

24. **Physalospora Fourcroyæ** P. Henn. in Notizbl. des Königl. bot. 1968 Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis effusis; peritheciis amphigenis gregariis, innatis tectis dein suberumpentibus, globoso-lenticularibus, coriaceo-subcarbonaceis, atris, cellulosis, ostiolatis dein perforatis, ca. 180-240 μ .; ascis oblonge clavatis, apice rotundatis, crasse tunicatis, basi attenuatis,

curvulis, 8-sporis, 150-180 \times 25-30, paraphysibus hyalinis, mycelioides, ca. 3 μ . crassis; sporidiis subdistichis, oblongis, rectis vel curvulis, utrinque obtusis, hyalinis, 3-guttulatis, 20-30 \times 10-15.

Hab. in foliis *Fourcroyæ giganteæ*, Dar-es-Salâm, Afr. orient. germ. (Dr. ZIMMERMANN).

25. **Physalospora Vanillæ** A. Zimmerm. in Centralbl. f. Bakter. Abt. 1969 II, 1902, VIII, pag. 479, fig. 8. — Peritheciis numerosis sed discretis, amphigenis, primo immersis, demum erumpentibus, globosis, atro-brunneis, in ostiolum conicum crassum attenuatis, papilla pallidiore, 250 μ . altis, 120-200 μ . latis; ascis octosporis, obtusis; sporidiis tereti-fusoideis, curvatis, utrinque obtusulis, hyalinis, 24-28 \times 5-6, intus granulosis.

Hab. in foliis putridis *Vanillæ planifoliæ* in horto Buitenzorg Javæ insulæ. — A *Phys. camptospora* forma peritheciorum in primis diversa.

26. **Physalospora Cattleyæ** Maubl. et Lasnier, Bull. Soc. Mycol. 1904, 1970 pag. 171, tab. 12. — Peritheciis sparsis vel gregariis, plerumque simplicibus, sed interdum bilocularibus, hypophyllis, rarius epiphyllis, subglobosis, ostiolo prominulo conico, 300 μ . diam.; ascis subfusoideis, utrinque attenuatis, stipitatis, 100-120 \times 11-13, octosporis; sporidiis distichis v. oblique monostichis, oblongis, plerumque inæquilateralibus et subcurvulis, pallide luteolis, 1-guttulatis granulosisque 20-25 \times 5-7; paraphysibus filiformibus asco longioribus, evanidis 3 μ . cr.

Hab. in foliis emortuis *Cattleyæ Mossiæ* in calidariis prope Parisios Galliæ. — Stat. conid. *Glæosporium Cattleyæ* quod cfr. An generi *Glomerellæ* adscribenda species?

27. **Physalospora Agaves** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. 1971 — Maculis fuscidulis dein centro pallidulis, effusis; peritheciis amphigenis gregariis, globoso-lenticularibus, innatis, epidermide tectis, vix erumpentibus, ostiolo brevissimo dein perforatis, atris, coriaceis; ascis clavatis, apice tunicatis, rotundatis, 8-sporis 80-100 \times 20-25; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, hyalinis, 26-32 \times 10-12.

Hab. in foliis *Agaves sisalanæ*, Dar-es-Salam-Zanzibar Afr. orient. (ZIMMERMANN).

28. **Physalospora Alismatis** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1972 1901, p. 179. — Peritheciis sparsis, innatis, demum vertice erumpentibus, globosis, basi applanatis, siccis leniter collapsis, minute papillatis, nigris, 200 μ . cr.; ascis clavatis, apice obtusis, basi ob-

tuse tenuatis, 40-45 \approx 7-8, octosporis; sporidiis distichis, oblongo-ellipsoideis cylindræis, utrinque obtusis, continuis, hyalinis, biguttulatis 8,5-10 \approx 2,5; paraphysibus filiformibus, apice leviter incrassatis (1,5 μ .), ascos vix superantibus, hyalinis.

Hab. in caulibus siccis *Alismatis Plantaginis*, Luxemburg.

29. **Physalospora microspora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1973 II, 1901, p. 178. *Phomatospora therophila* Feltg. Vorst. Pilz. Lux. Nachtr. I, p. 208, non (Desm.) Sacc. — Peritheciis vulgo seriatis, subsparsis, maculas ustulatas generantibus, sublenticularibus, atrobrunneis, ostiolo punctiformi erumpentibus; ascis tereti-clavulatis, longiuscule stipitatis, 45-57 \approx 4,5-5,5; paraphysibus copiosis, filiformibus, septatis; sporidiis 3,5-5,5 \approx 1,8-2,6, ovoideis, continuis, hyalinis, intus æqualiter fartis.

Hab. in calamis siccis *Luzulæ albidæ*, Luxemburg. — Proxime affinis *Ph. paraguayæ* Speg.

30. **Physalospora necans** Rehm in Hedw. 1901, p. (105). — Peritheciis dispersis, primitus immersis dein emergentibus, globulosis, glabris, minutissime papillulatis, nigris, contextu parenchymatico fusco, 150 μ . diam.; ascis fusoides 60-80 \approx 9, sessilibus, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, haud acutatis, 1-cellularibus, interdum 1-2-guttulatis, hyalinis, 15-18 \approx 3, distichis; paraphysibus filiformibus 2 μ . diam.

Hab. ad rachidem *Lycopodii annotini* prope Eibsee Bavaricæ (Doct. REHM).

Sporophysa Sacc. Species lichenicolæ *).

31. **Physalospora insularis** (Mass). Sacc. et D. Sacc. *Placidium* (Verucaria) *insulare* Mass. Sert. lichen. in Lotos 1856, p. 78. — Peritheciis minutis omnino immersis, atris, tandem protuberantibus thallumque breviter bullatum reddentibus; ascis clavatis, paraphysibus aboletis obvallatis; sporidiis octonis ovoideo-subrotundis, diaphanis, nubilosis, 9 \approx 6.

*) De quæstione ascophyitarum permultarum in Lichenibus parasiticarum, an funginæ v. lichenosæ considerandæ sint contributiones jam numerosas habemus cl. Lindsay, Arnold, Winter, Rehm, Zopf etc., sed multum restat ut opus absolvatur; multæ species a cl. Lindsay et Arnold enumeratæ ut fungi lichenicolæ et hic omissæ, denuo scrutandæ sunt. Ad species plurimas jam in Sylloge receptas, in hoc volumine plures aliæ adduntur et breviter describuntur, quarum elenchum cl. prof. Lindau benevole communicavit. Ad genera fungina propiora ad interim retulimus, sed non absque ambiguitatibus permultis.

Hab. in thallo *Aspiciliæ calcareæ* ad saxa calcarea in agro Veronensi Ital. bor. Maculas insulares efformat.

32. **Physalospora Xanthoriæ** (Wedd.) Sacc. et D. Sacc. *Sphæria Xanthoriæ* Wedd. *Nouv. Rev. des Lich. Agde.* 1873, p. 22. — Peritheciis immersis 300-400 μ . diam.; ascis filiformi-paraphysatis, 6-8-sporis; sporidiis ellipsoideis 10-12 \times 5-6, continuis, hyalinis.

Hab. in thallo *Xanthoriæ parietinæ*, Agde Galliæ.

33. **Physalospora Aspiciliæ** (Wain.) Zopf, Hedw. 1896, p. 317, *Verucaria Aspiciliæ* Wainio *Adjum. Lich. Lapp. II*, p. 179 (1883). — Peritheciis semiimmersis, nigricantibus, 300 μ . diam., poro pertusis; ascis cylindraceo-clavatis, laxè tenuiter paraphysatis, octosporis, jodo cærulescentibus; sporidiis ellipsoideo-oblongis, 10-17 \times 5-7.

Hab. in thallo *Aspiciliæ Myrini* v. *subadunantis* in Karelia rossica.

TRABUTIA Sacc. et Roum. — Syll. I p. 449, IX p. 601, XI p. 293, XVI p. 463.

1. **Trabutia? Mauritæ** (Mart.) Sacc. *Sphæria* (Conferta) *Mauritiæ* Martius, Versuch eines Comment. in Werk. Marcgrav und Piso. München (Akad. Wiss., 1853) p. 225. — Gregaria, longitudinaliter seriata, erumpens, atra; stromate elongato-lineari turgido inæquali, verruculoso, compagine spissa carbonacea; peritheciis sparsis, immersis, globosis, atris, tandem ore amplo hiantibus, ante aperitionem vertice levigato nitidiusculo insignibus; ascis tenuissimis, linearibus, longiuscule pedicellatis, apice obtusis; sporidiis globosis uniseriatis.

Hab. in foliis *Mauritiæ flexuosæ*, strias 5 cm. long. efficiens, Pará Brasilæ.

WALLROTHIELLA Sacc. — Syll. I p. 455, IX p. 605, XI p. 294, XIV p. 524, XVI p. 465.

1. **Wallrothiella Myrtilli** Feltgen *Vorstud. z. Pilz. Fl. Luxemburg*, 1979 Nachtr. III, 1903, p. 285. — Peritheciis sparis v. subpulvinatis, verticaliter ellipsoideis, vertice rotundatis vel acutatis, basi matrice insculptis et epidermide rupta cinctis, atro-brunneis, extus rugulosis, firmis, 300-500 μ . diam.; ascis cylindraceis, rectis, longiuscule stipitatis 95 \times 5-6, octosporis; sporidiis submonostichis oblongo-teretiusculis, utrinque rotundatis, rarius acutiusculis, rectis vel leniter curvatis, hyalinis, utrinque 1-guttulatis, 8,5-11 \times 1,5-1,8; paraphysibus filiformibus ascos paullo superantibus 1-1,5 μ . cr.

Hab. in ramulis corticatis *Vaccinii Myrtilli*, Luxemburg.

2. **Wallrothiella fraxinicola** Feltgen Vorstud. zur Pilz-Flora Luxemb. 1980
Nachtr. III, 1903, p. 286. — Peritheciis gregariis, superficialibus vel leviter adnatis, globoso-depressis, obtuse papillatis, rugulosis, carbonaceo-fragilibus, nigris 400-500 μ . diam.; ascis clavato-cylindraceis deorsum tenuatis, subsessilibus, parte spor. 27-35 \times 7-8, sex-octosporis; sporidiis mono-distichis, tereti-ellipsoideis, continuis, hyalinis, 4-guttulatis, 8-11 \times 2,5-3.

Hab. in cortice et ligno *Fraxini*, Luxemburg.

3. **Wallrothiella silvana** Sacc. et Cav. — Syll. XVI, p. 465. — var. 1981
mejospora Feltgen, Vorst. zur Pilz. Fl. Luxemb. Nachtr. III, 1903, pag. 284. — A typo præcipue differt hyphis basilaribus, ramosis, septatis, brunneis, perithecia cingentibus, sporidiis minoribus 8 \times 2,5-3, teretiusculis.

Hab. in ramis decorticatis *Fagi*, Luxemburg.

4. **Wallrothiella melanostigmoides** Feltgen, Vorstud. z. Pilz. Fl. Lu- 1982
xemb. Nachtr. III, 1903, p. 285. — Peritheciis gregariis, in matrice denigrata et setulis brunneis conspersa superficialibus vel basi adnatis, hyphis brunneis cinctis, globosis v. globoso-conicis, nigris, glabris 100-150 μ . diam., ostiolo conico, anguste pertuso præditis; ascis cylindro-fusoideis, apice subrotundis, deorsum longe tenuato-stipitatis, octosporis, 80-100 \times 8-10, filiformi-paraphysatis; sporidiis mono-distichis, ellipsoideis, obtusis, rectis, subinde inæquilateris, continuis, hyalinis, minute guttulatis, 16-19 \times 4-5.

Hab. in ramis decorticatis putridis *Quercus*, Luxemburg. —
Wallr. melanostigmæ affinis.

TRICHOSPHERIA Fuck. — Syll. I p. 452, IX p. 602, XI p. 293, XIV 523, XVI p. 463.

1. **Trichosphæria dryadea** Rehm, Hedw. 1903, p. (292). — Perithe- 1983
ciis sparsis, superiori foliorum exsiccatorum pagina immersis, demum sessilibus, globulosis, vertice setis numerosis, rectis, acutatis, fuscis c. 100 μ . long. 5 μ . lat., vestitis, atris, membranaceis 150 μ . diam.; ascis clavatis octosporis 80 \times 20; paraphysibus nullis; sporidiis ovoideis 1-cellularibus, primitus gutta oleosa magna singula structis, dein granulis repletis, hyalinis, demum chlorinis 20-22 \times 10-11, distichis.

Hab. ad folia præeuntis anni pendula *Dryadis octopetalæ*, prope Hinterbärenbad Tirolia (Doct. REHM).

2. **Trichosphæria incisa** Morgan, Journ. of Mycol. 1904, p. 161. — 1984

Peritheciis superficialibus, gregariis, ovoideis, setulis longis, rectis pallide brunneis, vestitis, 300-400 μ . diam.; ascis octosporis, paraphysatis, breve stipitatis, 55-65 \times 8-9; sporidiis globosis v. ovoideis, hyalinis, levibus, 8-9 \times 7-8.

Hab. in ligno vetusto Platani, Preston, Ohio, Amer. bor. — Setæ 100-150 μ . long. parce septatæ, fumosæ.

3. **Trichosphæria pulviscula** Feltgen, Vorstud. zur Pilz. Fl. Luxemb. 1985 Nachtr. III, 1903, p. 281. — Peritheciis gregariis vel hinc inde confertis, omnino superficialibus, globosis, minute conico-papillatis; hyphis brunneis, rigidulis, septatis 40 \times 5-6 vestitis, 150-200 μ . diam.; ascis cylindricis, stipitatis, octosporis 36-46 \times 28; sporidiis recte monostichis, obtuse cylindræis, continuis, biguttulatis, 4-5 \times 2,5.

Hab. in ligno putrescente Coniferarum, Luxemburg. — *Trich. fissurarum* proxime affinis.

4. **Trichosphæria tetraspora** Feltgen, Vorstud. zur Pilz. Fl. Luxemb. 198 Nacht. III, 1903, p. 281. — Peritheciis dense gregariis v. hinc inde confertis, superficialibus, hemisphæricis, nitide papillatis, hyphis mycelicis, 30-100 \times 6-8, atro-brunneis breviter expansis conidiophoris basi cinctis; conidiis verruculosus, hyalinis, 20-27 \times 20; peritheciis 200-250 μ . lat.; ascis cylindræo-clavatis, stipitatis 68-70 \times 5,5-7, tetrasporis; sporidiis oblique monostichis, obtuse ellipsoideis hyalinis continuis, biguttulatis, 8 \times 2,8-5; paraphysibus filiformibus ascos paullo superantibus, hyalinis.

Hab. in ligno Quercus vel Fagi putrescenti, Luxemburg.

5. **Trichosphæria culmorum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. I, 1987 1901, p. 204. — Peritheciis gregariis vel dense confertis, omnino superficialibus 0,2-0,3 mm. diam., nigris, setulis atro-brunneis, rectis vel curvulis, obtusis, 52-180 \times 2,5-5, vestitis; ostiolo papillato; asci cylindricis, breve stipitatis, 60-65 \times 4,5-5,5; sporidiis monostichis, elliptico-ovoides, vulgo inæquilateris, continuis, 4-guttulatis, 8,5-10 \times 3,5-5,5 ex hyalino dilutissime flavidis.

Hab. in culmis cerealium putrescentibus, Luxemburg. — Affinis *Trich. exosporioidi*, sed asci cylindrici et multo longiores.

COUTINIA d'Almeida et da Camara in Rivista agron. de Lisboa, 1903, n. 12, p. 293, tab. XIV (Etym. a cl. botanico PEREIRA COUTINHO Floræ lusit. cultore). — Perithecia carbonacea, plerumque conglomerata, haud stromatica, ostiolo pertuso, subtecta. Asci stipitati,

paraphysati, octospori. Sporidia continua, plus minus ellipsoidea, hyalina. — Vix v. non differt a gen. *Botryosphæria!*

1. **Coutinia Agaves** d'Alm. et da Cam. l. c. p. 393, t. XIV, f. 4-6. 1988
— Peritheciis amphigenis, gregariis v. rarissime solitariis, primo tectis, subinde epidermide rupta, ostiolo denudato, subglobosis, aterrimis, 320 μ . diam.; ascis 8-sporis, clavatis, longe stipitatis, paraphysatis, 160-180 \times 40-50; sporidiis distichis, subellipsoideis, unilateraliter gibbosulis, plasmato granuloso-farctis, hyalinis, 40-48 \times 15-18.

Hab. ad folia *Agaves americanæ*, Bemfica, Lisboa, martio 1903, socio *Coniothyrio concentrico* var. *Agaves* Sacc. — Verisimillime *Botryosphæriæ Bèrengerianæ* peraffinis.

BOTRYOSPHERIA Ces. et De Not. — Syll. I p. 456, IX p. 605, XI p. 295, XIV p. 524, XVI p. 467.

1. **Botryosphæria majuscula** Sacc. in Atti Congr. bot. di Palermo 1902. 1989
p. 49. — Stromatibus seu acervulis laxè gregariis innato-erumpentibus, peridermio cinctis, nigris, 1,5-2 mm. diam. convexo-discoideis; peritheciis globoso-depressis, majusculis, in quoque acervulo 8-12 congregatis, 300-500 μ . diam., extus tenuissime rugulosis opaco-nigris, papillatis, intus albis; contextu grosse celluloso, fuligineo; ascis elongato-clavatis, breve stipitatis, apice rotundatis, 150-170 \times 16-26, sæpe gibbosis, bacillari-paraphysatis, 4-8-sporis; sporidiis oblongo-ellipsoideis, basi subinde acutioribus, 30-33 \times 14-15, nubilosis, hyalinis.

Hab. in ramis corticatis quercinis, Rigny s. A. Gallia (FLAGEOLET). — Peritheciis eumorphis, majusculis, sporidiis quoque majoribus ab affini *B. Bèrengeriana* dignoscitur.

2. **Botryosphæria Hoffmanni** v. Höhn. Ann. Mycol. 1904, pag. 275. 1990
— Stromatibus erumpentibus, pulvinatis, nigris, peridermio fisso cinctis, levibus vel rugulosis, subrotundo-angulosis, 0,5-1,5 mm. diam.; peritheciis immersis, plerumque 4-5, globulosis v. compressis, subinde confluentibus, 300-350 μ . diam.; ascis crasse clavatis, 110 \times 28-32, typice octosporis, copiose paraphysatis; sporidiis elliptico-ovoideis, subinde oblongis v. subfusoides, utrinque obtusulis, 28-42 \times 12-16, hyalinis, strato mucoso cinctis.

Hab. in ramis Fagi silvaticæ, in Wiener Wald pr. Vindobonam Austriae, sociis *Asterosporio Hoffmanni* et *Fusicocco macrosporo*, quæ, teste cl. Höhnel, macro- et micropycnidia *Botryosphæriæ* sistunt. — Quod *Fusicoccum* huc pertineat, non excludo;

sed quoad dissimillimum *Asterosporium*, nisi experimenta hoc confirmant, omnino improbabile mihi videtur.

3. **Botryosphæria Pruni** Mc. Alp. Fungus diseases, Melbourne 1902, 1991 pag. 119, fig. 217-220. — Stromatibus dense gregariis, e ligno erumpentibus, nigris 1 mm. diam.; peritheciis 4-5-congestis, globosis vel depresso-globosis, papillatis vel rostratis, subcoriaceis 300-400 μ . diam.; ascis clavatis v. oblongo-cylindræis, paraphysatis, octosporis. 40-80 \approx 13-16; paraphysibus hyalinis, septatis, filiformibus subæquilongis; sporidiis monostichis v. distichis, hyalinis, oblongo-ellipticis vel lanceolato-ellipticis, granulosis, 20-24 \approx 8-9.

Hab. in ramulis emortuis Pruni Armeniacæ, Armadale pr. Melbourne Australiæ.

4. **Botryosphæria muriculata** Ell. et Ev. in Journ. of Mycol. 1902, 1992 p. 68. — Stromatibus corticalibus subcutaneis, epidermide muriculato-fissa cinctis, nigricantibus, hysteriiformibus; peritheciis 2-6 in quoque stromate 250-300 μ . diam., ostiolis papillatis præditis, erumpentibus; ascis clavato-cylindræis, breve stipitatis, paraphysatis, p. sp. 75-80 \approx 18-20; sporidiis distichis, oblongo-ellipticis, subinæquilateralibus, utrinque rotundatis v. obtusulis, 20-25 \approx 10-12.

Hab. in caulibus Smilacis, Alabama Amer. bor.

5. **Botryosphæria hysteroïdes** Ell. et Ev. in Journ. of Mycol. 1902, 1993 vol. 8, pag. 18. — Maculis oblongo-ellipticis, dein confluentibus 10 cm. et ultra, initio rubro-brunneis, dein griseo-albidis, rufo marginatis; peritheciis globosis 200-300 μ . diam., 2-4 aggregatis, in stromate hysteroïdeo 0,5-0,8 mm. longo insidentibus, velatis, dein ostiolo papilliformi, obsoleto erumpentibus; ascis late clavato-oblongis 75-100 \approx 25-30, breve stipitatis, paraphysibus obscurioribus obvallatis; sporidiis oblongis, utrinque acutis, hyalinis, fere luteolis 25-30 \approx 8-12, vacuolatis.

Hab. in foliis Hesperaloes Dayii, Peyotes Mexico (W. TRELEASE).

RINIA Penz. et Sacc. Malpighia 1902 (Etym. a cl. medico et botanico veneto Benedicto Rinio, qui annis 1415-1430 circ. codicem *De simplicibus* conscripsit, plantarum iconibus, suo tempore eximiis, ornatum, in bibliotheca Marciana Venetiis nunc servatum). — Perithecia biophila, phyllogena, membranacea, nigricantia, fasciis mycelicis, innato-prominulis, repentibus, anastomotico-reticulatis semiimmersa, globulosa, ostiolo albido, appendicibus verruciformibus

majusculis, nigris, carbonaceis stellatim cincto. Asci oblongo-fusoidei, paraphysati, octospori. Sporidia ellipsoidea, continua, hyalina. Genus ostiolo maximo stellato prædistinctum, qua nota faciem sumit *Delpinoellæ*, etsi fabricâ omnino diversum et nulli nec affine nec parallelum.

1. **Rinia spectabilis** Penz. et Sacc. l. c. et Icon. fung. Jav. t. III, 1994 f. 3. — Amphigena, dense gregaria; peritheciis intus pallidis, globulosis, matrici semiimmersis, 240-260 μ . diam., ostiolo minuto cristis seu verrucis prominentibus, carbonaceo-fragilibus, nigris, subquinis, rugosis, circulum radiatum 450-500 μ . diam. formantibus coronato; ascis obtuse fusoideis, brevissime stipitatis 70-75 \approx 18-20, copiose filiformi-paraphysatis, octosporis; sporidiis irregulariter distichis, ellipsoideis 10 \approx 6, hyalinis, levibus.

Hab. in foliis omnino viventibus subcoriaceis plantæ indeterminatæ, Tjibodas, Java. — Fasciæ mycelicæ folio innato-prominulæ, fulvo-fuscæ, crassæ, 0,3 mm. cr., natura granulosa dubia nec filamentosæ.

CERATOSTOMELLA Sacc. — Syll. I p. 408, IX p. 573, XI p. 289, XIV p. 515

1. **Ceratostomella pilifera** (Fr.) Wint. Kryptogamenfl. II, pag. 252, *Ceratostoma piliferum* (Fr.) Fuck. — Syll. II, p. 219. — Conferenda pulcherrima illustratio H. v. Schrenk in Bull. U. S. Dep. of Agricult. 1903, p. 17, tab. VII. -- Nascitur quoque in truncis Pini ponderosæ, in America bor., cujus lignum inde cyanescit, unde nomen vulgare « Blue ». Asci piriformes subsessiles; sporidia oblonga, curvula, hyalina, conglobata, 5,5 \approx 2,5.

CRYPTOSPORELLA Sacc. — Syll. I p. 466, IX p. 609, XIV p. 525, XVI p. 468.

1. **Cryptosporella eupatoriicola** Rehm, Hedw. XLIV, p. 6. — Stro- 1995 matibus ramulum hypertrophicum ambientibus, arcte congregatis, hemisphæricis, peridermio demum extus nigritulo tectis, cortici innatis, linea nigra intus non circumscriptis; peritheciis in stromate c. 5 innatis, irregulariter conglomeratis, globulosis, collis in discum suborbicularem convergentibus, papillulis nigris, hemisphæricis, demum scabriusculis, poro vix perspicue pertusis prominentibus; ascis fusiformibus octosporis 50 \approx 15; sporidiis oblongis, utrinque rotundatis, subhyalinis, 1-cellularibus, strato mucoso obductis, 12-15 \approx 5-6; paraphysibus nullis.

Hab. ad ramulos *Eupatorii bupleurifolii*, Tubarao Brasiliæ.

2. **Cryptosporella Macrozamiæ** P. Henn. in Hedw. 1902, p. (64). — 1996

Stromatibus petioli- v. foliicolis, primo epidermide fusca v. cinerea tectis, oblongis, punctoideis vel striiformibus, gregariis, sæpe confluentibus, dein epidermide longitudinaliter rimosis; peritheciis paucis vel pluribus, carbonaceis, atris, hemisphæricis v. subglobosis, ostiolatis; ascis clavatis, apice rotundato-obtusis, 100-200 \times 14-22, octosporis; paraphysibus copiosis filiformibus, septatis, hyalinis, apice paullo incrassatis, obtusis, 3-4 μ . crassis; sporidiis oblongo-ellipsoideis vel ovoideis, interdum subglobosis, intus granulatis, hyalinis, continuis, 15-22 \times 10-15.

Hab. in petiolis foliisque *Macrozamiæ Fraseri*, Darling Range Australiæ occid. — Ob paraphyses copiosissimas, perfecte evolutas, species a typo desciscit et hinc ab auctore in subgen. nov. *Cryptosporina* P. Henn. erigitur.

Sect. 3. Phæosporæ.

MÜLLERELLA Hepp. — Syll. IX p. 495.

1. **Müllerella haplotella** (Nyl.) Arn. ap. Zopf, Hedw. 1896, p. 314, 1997

Endococcus haplotellus Nyl. Fl. 1867, pag. 180. — Peritheciis nigris, minutis, 100 μ . diam. prominulis; ascis polysporis, jodo rubentibus; sporidiis 1-cellularibus, ellipsoideis, atris, 4-7 \times 2,5-3; paraphysibus nullis.

Hab. in thallo *Arthoniæ astroideæ* in Saellandia occid. (BRANTH).

2. **Müllerella thallophila** Arn. Fl. 1888, p. 14, Zopf. in N. Act. Leop. 1998

Carol. t. LXX, pag. 139 c. ic. — Peritheciis minutissimis, atris, immersis, apice applanato pertuso prominentibus; ascis clavatis 24-44-sporis; paraphysibus ascos longe superantibus; sporidiis 1-cellularibus, 7-12,5 \times 4,2-5,3, brunneis.

Hab. in thallo *Aspiciliæ cæσιο-cinereæ* in Paneveggio Trentino.

3. **Müllerella haplospora** (Th. Fr. et Almq.) Arnold, Flora 1874, 1999

p. 155, *Endococcus* Th. Fr. et Almq. Bot. Not. 1867, p. 109. — Peritheciis globosis, immersis, seminudis, atris, diam. 250-300 μ .; paraphysibus sat validis, gelatinoso-conglutinatis; ascis inflato-clavatis, polysporis; sporidiis numerosis, ellipsoideis, simplicibus,

nigricantibus, 8-10 \times 4-6, gelatina hymen. jodo primo cærulescente, dein mox vinose rubente.

Hab. in thallo *Aspiciliæ cinerææ* prope Funnesdalen (Herjedalen) Sueciæ (ALMQUIST).

4. **Müllerella hospitans** Stitzenberg, Fries Th. in Flora 1865, p. 488, ²⁰⁰⁰
Zopf, Hedw. 1896, p. 329. — Ascis polysporis; sporidiis 1-cellularibus, brunneis

Hab. in apotheciis *Lecaniæ fuscellæ*, Lidköping Sueciæ (F. GRAWE).

5. **Müllerella opegraphicola** Zopf, Hedw. 1896, p. 342 (sec. Linds. ²⁰⁰¹
Observ. p. 549 et 555, tab. XXIV, fig. 26). — Peritheciis nigris; ascis piriformibus, polysporis; sporidiis 1-cellularibus pallide brunneis; paraphysibus nullis.

Hab. in thallo *Opegraphæ atræ* in Helvetia.

6. **Müllerella atricola** (Linds.) Sacc. et D. Sacc. *Microthelia atricola* ²⁰⁰²
Linds. Obs. p. 542, t. XXIV, fig. 7. — Peritheciis verrucarioideis, minutis, distinctis, nigris, conico-depressis, subinde irregularibus, subinnatis, poro latiusculo apertis; ascis 50 \times 15-16; sporidiis in quoque asco numerosissimis, sphæroideis, atro-brunneis, 2-2,5 μ . diam.

Hab. in thallo *Lecanoræ atræ* in Britannia.

ANTHOSTOMELLA Sacc. — Syll. I p. 278, IX p. 505, XI p. 281, XIV p. 501, XVI p. 439.

1. **Anthostomella melanoderma** Rehm in Oest. Bot. Zeitschr. 1904, ²⁰⁰³
p. 82. — Maculis cauliculis plus minusve ambientibus, longitudinaliter 1-3 cm. strati externi superficiem fusco-nigricantibus; peritheciis sparsis, interdum seriatis, primitus immersis, dein emergentibus sessilibusque, globulosis, brevissime rostratis, nigris 120-150 μ . diam.; ascis cylindræis, apice rotundatis, 40-45 \times 7-8, octosporis, jodi ope poro interne cæruleo tincto; sporidiis ellipsoideis, interdum curvulatis, 1-cellularibus, guttulis oleosis, interdum gutta unica majore, repletis, fuscidulis 9-10 \times 4-4,5, monostichis; paraphysibus ramosis, septatis, 3 μ . cr.

Hab. in caulibus putrescentibus *Umbelliferæ* sp. (?), in valle infra Monasterium Andechs Bavaricæ sup.

2. **Anthostomella Coffeæ** Delacr. Bull. Soc. Mycol. 1904, pag. 145, ²⁰⁰⁴
tab. 9, fig. B, 1-3. — Peritheciis nigris, sparsis, primo immersis, dein superficialibus, ostiolo non prominente; contextu tenuiter parenchymatico; ascis late clavatis, brevissime pedicellatis, 50-57 \times

15-17; paraphysibus tenuibus, granulosis, asco paullo longioribus, sporidiis subdistichis, continuis, dilute viridi-olivaceis, ovoideis vel subpiriformibus vel uno latere applanatis, crasse bi-guttulatis, 12, 5-13,5 \approx 6-7, strato gelatinoso circumdatis.

Hab. in ramis floriferis Coffeæ arabicæ, verisimiliter parasitans, Mexico (ERRERA).

3. **Anthostomella thyridioides** Ell. et Ev. in Journ. of Mycol. 1903, 2005 p. 167. — Peritheciis gregariis vel 1-2 congestis, globosis, immersis, sub cuticula nigrificata tectis, ostioli papillatis donatis; ascis clavato-cylindraceutis, 70-75 \approx 10-12, paraphysatis; sporidiis oblongo-cylindraceutis, continuis, brunneis, 15-22 \approx 4-6.

Hab. in ramis decorticatis emortuis Populi deltoidis, Rooks Co., Kansas Amer bor. — Habitus *Thyridii*.

4. **Anthostomella pedemontana** Ferr. et Sacc. in Atti Congr. bot. di 2006 Palermo 1902, p. 50. — Peritheciis laxe gregariis, folio immersis epidermideque diu tectis, subglobosis, membranaceis, atris, 300-350 μ . diam, subinde longitudinaliter paullulum compressis, ostiolo brevissime papillato; ascis e fundo perithecii oriundis, cylindraceuto-clavatis breviter crasseque stipitatis, apice rotundatis, 100-110 \approx 9, 5-10, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, breve fusoides utrinque obtusulis, leviter inæquilateris, 14-18 \approx 6,5-7, continuis, intense fuligineis.

Hab. in foliis siccis, dejectis Pini silvestris pr. Crescentino Italiae bor. — Specie prædistincta.

Anthostomaria Sacc. Species lichenicolæ.

5. **Anthostomella apogyra** (Nyl.) Sacc. et D. Sacc. *Melanotheca apo-* 2007 *gyra* Nyl. Flora 1887, pag. 132. — Peritheciis nigris, innatis, confluentibus, 100-150 μ . diam.; sporidiis octonis, oblongo-ovoideis, 16-18 \approx 5-7, fuscis; paraphysibus mediocribus.

Hab. in Gyrophoræ polyphyllæ apotheciis, quæ deformat, in Caucaso (LOJKA).

ROSELLINIA De Not. — Syll. I p. 252, IX p. 495, XI p. 280, XIV p. 494, XVI p. 435.

1. **Rosellinia necatrix** (R. Hart.) Berl. Rapp. fra Dematoph. e Ro- 2008 sellinia in Riv. Pat. veg. I, 1892, pag. 5 et p. 33, cum tabulis, Prill. Malad. pl. agric. II, p. 133 cum ic. et in Bull. Soc. mycol. Fr. 1904, p. 34, pl. III-IV, *Dematophora necatrix* R. Hart. Un-

ters. aus forstbot. Inst. III, 1883, p. 95, tab. VI-VII, Viala, Monogr. du pourridié, Paris 1891. — Peritheciis hinc inde gregariis subinde confertis, globosis, carbonaceis, brunneo-nigris, apice obtusis, basi brevissime stipitatis, ostiolo parum manifesto donatis, 2 mm. diam., fasciculis hypharum conidiophorarum divergentibus, obvallatis; hyphis (*Graphium* sistentibus) fasciculatis septatis, brunneis, sursum ramoso-divaricatis conidiaque ellipsoidea ovoidea 2-3 μ . diam. gerentibus; ascis filiformi-cylindræis, longiuscule pedicellatis, apice rotundatis et obturaculo jodo cærulescente præditis, 280-300 \approx 30, octosporis, paraphysibus filiformibus copiosissimis obvallatis; sporidiis monostichis, fusoides inæquilateris, utrinque acutis 40 \approx 7, brunneis.

Hab. in partibus subterraneis *Vitis*, *Quercus*, *Aceris*, *Fici*, *Mori*, *Persicæ* nec non *Fabæ*, *Pæoniæ* *Hyacinthi* etc. in Germania, Gallia, Italia. — Perithecia ex mycelio floccoso albo demum fuscescente intra et extra corticem serpente oriuntur. Subinde pycnidia adsunt (*Diplodia*) subglobosa 250-500 μ . diam.; sporulis 25 \approx 7,5, typice bilocularibus, brunneis. Morbus gravis, quo plantæ vexantur, vulgo ital. *marciume* audit.

2. **Rosellinia paraguayensis** Starb. in Arkiv för Botan. 1804, Band 2, 2009 pag. 15, fig. 32-35. — Subiculo pannoso-crustaceo late ambiente, setoso, nigro, pilis fasciculatis 3-4 μ . cr., usque 1 mm. alto; peritheciis gregariis interdum subconfertis, subiculo immersis, dein erumpentibus, late conicis, tomento subiculi vestitis, apicem versus levibus opace nigris, papillatis, 1-2 mm. diam.; ascis anguste cylindræis, sursum incrassatis, longe pedicellatis, p. sporif. 200-225 \approx 8-9; sporidiis octonis dense imbricatis v. irregulariter monostichis, anguste fusoides, subcurvulis, vulgo utrinque obtusiuscule tenuatis, mucro angustissimo obvolutis, continuis, 30-38 \approx 7-7,5, ex hyalino demum fuscis; paraphysibus filiformibus, guttullatis, ramosis, ascos superantibus.

Hab. ad truncos dejectos putres, San Tomas Paraguay. — *R. Desmazierii* affinis.

3. **Rosellinia Euterpes** Rhem, Hedw. XLIV (1905). — Peritheciis in 2010 mycelio albo, late effuso gregariis, subglobosis lata basi sessilibus 1-1,5 mm. lat. et alt., glabris, atris, subnitentibus, apice minutissime papillulatis, carbonaceis, fragilibus. Hymenium deest.

Hab. ad Euterpen, Blumenau Brasiliæ (E. ULE). — Videtur affinis, licet diversa, *R. albo-fultæ*, *R. pictæ* et *R. griseo-cinctæ*, tamen ignota fructificatione, omnino dubia.

4. **Rosellinia madeirensis** P. Henn. Fungi Amaz. II, p. 242. — Peritheciis gregariis, superficialibus, subhemisphæricis v. subglobosis, atro-carbonaceis, obtuse ostiolatis, rugulosis, 0,6-0,8 mm. diam., basi hyphis fuscis repentibus, septatis ca. 3-3 $\frac{1}{2}$ μ . circumdatis; ascis oblonge cylindræis, 8-sporis, plerumque evanescentibus; sporidiis oblique monostichis vel subdistichis, oblonge subnavicularibus, utrinque obtusis, 16-25 \approx 8-10, atro-castaneis.

Hab. in ramis emortuis, Rio Madeira, Marmellos Brasiliæ. — A *Rosellinia aquila* præcipue sporidiis crassioribus differt.

5. **Rosellinia echinata** Masee in Kew Bull. 1901, p. 155. — Peritheciis majusculis, 1-1,5 mm. diam., densissime aggregatis, globoso-depressis, superne convexo-applanatis, centro papillatis, atris, fragilibus, echinatis; ascis cylindræis, apice truncatis, incrassatis, octosporis; sporidiis oblique monostichis, fusiformi-navicularibus, utrinque acutissimis, opace brunneis, 1-2-guttulatis, glabris 90-100 \approx 12; paraphysibus, filiformibus, subinde ramosis 2,5 μ . crassis.

Hab. in radicibus Fici dubiæ in horto botanico Singapore, Malacca. — Valde damnosa.

6. **Rosellinia cæspitosa** Starb. in Arkiv för Botan. 1904, Band. 2, p. 15, fig. 29-31. — Peritheciis densissime aggregatis, confluentibus v. superne liberis, stromate basilari conjunctis, cylindræis, apice rotundato-truncatis, fusco-purpureis, deinde nigris nitidis, non ostiolatis sed vertice operculatim dehiscentibus, 2-5 mm. alt., 1-2 mm. lat., contextu dense carbonaceo; ascis non visis; sporidiis oblongato-ellipsoideis v. interdum subsphæroideis, navicularibus olivaceo-fuscis, interdum apice guttulatis, 7-14 \approx 6-9 v. 6-7 μ . diam.

Hab. ad ligna pr. Coxipó Matto Grosso Brasiliæ. — Peritheciis magnis astomis vix hujus generis. Cfr. *Henningsinia*, a qua *Hypox. (Camillea) turbinatum* et forte *Pyrenomyxia* Morg. non differre videntur.

7. **Rosellinia Castaneæ** Oud. in Ned. Kruidk. Arch. 3 Ser., II, 4, p. 872, 1903. — Peritheciis amphigenis, sparsis, 250-300 μ . diam., globoso-depressis, in parenchymate immersis, superne prominentibus, nigro-carbonaceis, glabris; ascis cylindræis, basi attenuatis, octosporis; sporidiis monostichis, oblongis, subinæquilateralibus 11 \approx 3,5, brunneolis, guttula mediana, distincta præditis, superne rotundatis, inferne truncatis; paraphysibus linearibus, continuis, hyalinis, asco brevioribus.

Hab. in foliis *Castaneæ vescæ*, Bussum Hollandiæ (C. J. KONING).

8. **Rosellinia Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis superficialibus, plerumque aggregatis confluentibusque ovoideis vel subglobosis, atro-carbonaceis, primo ferrugineo-pruinosis, dein levibus, atris, subnitentibus, subconico-ostiolatis, 0,3 mm. diam.; ascis cylindraceo-clavatis, apice obtusis, octosporis, 80-100 μ . long., p. spor. 70-80 \approx 4-4,5; paraphysibus filiformibus, hyalinis, ca. 1-1,5 μ .; sporidiis monostichis oblonge ellipsoideis, inæquilateralibus, utrinque obtusis, 2-guttulatis, brunneis v. atris, 7-9 \approx 3,5. 2015
- Hab.* in caudicibus Calami spec., N. Queensland Australiæ (PRITZEL).
9. **Rosellinia Bigeloviæ** Ell. et Ev. — Syll. XIV, pag. 494. — f. **Amorphæ** Ell. et Ev. in Journ. of Mycol. 1902, v. 8, p. 16. — Peritheciis dense stipatis v. subconfluentibus, ovato-globosis 250-350 μ . diam.; ostiolo papilliformi v. conico; sporidiis 8-10 \approx 5-5,5, distincte compressis 3-3,5 μ . cr. — f. **Negundinis** Ell. et Ev. l. c.: sporidiis 8-10 \approx 4-5, 3 μ . cr. 2016
- Hab.* in caulibus emortuis **Amorphæ** fruticosæ et **Negundinis** aceroidis, Rooks Co., Kansas Amer. bor. (BARTHOLOMEW).
10. **Rosellinia biguttulata** Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis dense aggregatis, stromate basilari fere conjunctis v. interdum omnino confluentibus, crustam longe lateque effusam efformantibus, atratis, rugosis, sphæroideis, vertice glabro fere truncato, distincte papillulato, circ. 500 μ . diam.; ascis jam resorptis; sporidiis ellipsoideis, biguttulatis, 6,5-9 \approx 3,5-5. 2017
- Hab.* ad truncum putrem, colon. Sjuhy Rio grande do Sul Brasiliæ.
11. **Rosellinia coffeicola** Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peritheciis carbonaceis, nigris, globulosis, plus minusve compressis, congestis, 700-850 μ . diam., superficialibus, tuberculatis; ostiolo papilliformi, lucenti, centrali, depresso; sporidiis brunneis, ovoideis sæpe inæquilateralibus, 12 \approx 5. 2018
- Hab.* in ligno denudato putri **Coffeæ arabicæ**, Guadalupa.
12. **Rosellinia millegrana** (Schw.) Sacc. — Syll. I, p. 265. — var. **minuta** Feltg. Vorst. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 287. 2019
- A typo, quocum congruit habitu, differre videtur sporidiis multo minoribus, diu hyalinis, demum brunneis, ascis quoque minoribus.
- Hab.* in ramis decorticatis **Alni** vel **Salicis**? Luxemburg.
13. **Rosellinia subcompressa** Ell. et Ev. — Syll. XIV, p. 496. — var. **denigrata** Feltg. Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III,

1903, p. 287. — A typo differt matrice distincte denigrata; peritheciis erumpentibus, 300-600 μ . diam.; ascis 60-80 \times 8-9; sporidiis atro-brunneis 8-9 \times 5-6, e latere 3-4 μ . cr.

Hab. in ramis decorticatis *Sarothamni scoparii*, Luxemburg.

14. **Rosellinia Mölleriana** P. Henn. Fungi blumenavienses II, in Hedw. 2020

1902, p. 13. — Peritheciis carbonaceis, superficialibus, cæspitose confluentibus, subglobosis, atro-brunneis, ferrugineo-pruinosis vel subfurfuraceis, vertice depressis umbilicatis, conico-papillatis, dein perforatis 0,6-0,8 mm. diam.; ascis cylindraceutis, obtusis, octosporis, 50-60 \times 4-5; paraphysibus copiosis, hyphoideis, hyalinis ca. 1 μ .; sporidiis monostichis, ellipsoideo-allantoideis, utrinque obtusis, fusco-castaneis, 6-7 \times 3,5.

Hab. in ligno putri, St. Catharina Brasiliæ austr.

15. **Rosellinia hypoxyloides** (P. Henn.) Sacc. et D. Sacc. *Amphisphæ-* 2021

rella hypoxyloides P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 13 — Peritheciis superficialibus, sparsis, carbonaceis, conico-hemisphæricis, atris, pulverulentis ca. 1-1,5 mm. diam., ostiolo conico-obtuso; ascis clavatis, apice rotundato-obtusis, p. spor. 65-70 \times 10-13, stipite attenuato 30-50 μ . longo, octosporis; paraphysibus filiformibus 2-3 μ . cr., septatis; sporidiis ellipsoideis vel late fusoides, oblique monostichis, utrinque obtusis v. subacutiusculis, 1-guttulatis, atris, 14-18 \times 9-11.

Hab. in lignis, St. Catharina Brasiliæ austr.

16. **Rosellinia Hippophaës** Rehm, *Æster. Bot. Zeitschr.* 1903, p. 9. — 2022

Peritheciis sparsis primitus immersis, dein per epidermidem lacertam emergentibus et sessilibus, globulosis, 300 μ . diam. subcarbonaceis, atris, papillula conoidea brevissima glabra; ascis evanidis; sporidiis oblongis, utrinque rotundatis subfuscis, 1-cellularibus 12-14 \times 7.

Hab. ad folium putridum *Hippophaës rhamnoidis* juxta torrentem in valle Kaiserthal Tirolia. — Affinis *Ros. limonisporeæ* et *Ros. macræ*. — E sect. *Amphisphærellæ*.

17. **Rosellinia sordaria** (Fr.) Rehm. — Syll. I, p. 270, IX, p. 501. 2023

var. **microtricha** Feltgen, *Vorstud. z. Pilz. Fl. Luxemb. Nachtr.* III, 1903, p. 288. — A typo differt ascis majoribus, 70-80 \times 7-8; sporidiis 1-3-guttatis, tandem brunneis 7-10 \times 3-5,5 setisque totum perithecium vestientibus, acutis, brevibus.

Hab. in ramis decorticatis *Fagi*, Luxemburg.

18. **Rosellinia Queenslandiæ** (P. Henn.) Sacc. et D. Sacc. *Coniochaeta* 2024

Queenslandiæ P. Henn. Fungi Austral. in Hedw. 1903, p. (80) Peritheciis superficialibus, sparsis v. aggregatis, carbonaceis, atris, ovoideis, vertice papillatis v. concavis, basi mycelio fusco ramoso circumdatis, ca 300 μ . diam. dense setigeris, setis atris 50-200 \times 10-15; ascis cylindraceutis, p. spor. ca. 50 \times 4; sporidiis monostichis, oblongo-ellipsoideis, utrinque obtusis, fusco-atris 6-8 \times 3,5-4.

Hab. in ligno sicco pr. fl. Barron, N. Queensland Australiæ.

19. **Rosellinia occultata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2025 1901, p. 208. — Peritheciis dense et late cæspitulosis, ligno insertis et peridermio fisso relaxato cinctis, ovoideo-globosis, minute subinde longiuscule papillatis, opace nigris, pulveraceo-asperulis, setulis sparsis, nigris 13-26 \times 2-3,5 vestitis; ascis cylindricis, deorsum stipitato-tenuatis, apice obtusis, incrassatulis, octosporis 78-91 \times 5,5-6; sporidiis recte monostichis, cylindraceuto-ellipsoideis, obtusis, brunneis, vulgo biguttatis, 7-9 \times 4,5-5; paraphysibus filiformibus.

Hab. in ramis siccis, corticatis *Quercus*, Luxemburg. — Accedit ad *Ros. belgicam*.

20. **Rosellinia brassicicola** Feltgen, Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 288. — Peritheciis gregariis, rarius sparsis, 2026 liberis vel basi adnatis, globosis, papillatis 0,5 mm. diam., carbonaceo-coriaceis, fragilibus; ostiolo conoideo vel breve cylindraceuto, nitido præditis; setis nigris, rigidis, acutis, rectis vel flexuosis 50-80 \times 5-6, dense vestitis; ascis cylindricis breve stipitatis, 125-145 \times 11-15, octosporis, paraphysatis; sporidiis monostichis, ellipsoideis, continuis, atro-brunneis, 13-16 \times 9,5-13,5.

Hab. in caulibus putridis *Brassicæ*, Luxemburg. — Mycelium atrum circa perithecia serpit. *Roselliniæ horridæ* affinis.

CHÆTOMIUM Kunze. — Syll. I p. 220, IX p. 484, XI p. 279, XIV p. 490, XVI p. 428.

1. **Chætomium arachnoides** Mass. et Salm. Coproph. fungi II, p. 71, fig. 97-103. — Peritheciis parvulis, globosis, subumbonatis, sparsis v. gregariis, nigris, contextu parenchymatico e cellulis polygonis circ. 8 μ . latis composito, in parte superiore pilis fuscis longissimis flexuosis valde divergentibus, simplicibus, gracilibus 4-5 μ . cr., levibus, septatis apice plus minus uncinatis, undique vestitis; ascis clavatis cr. 36 \times 12 citissime diffluentibus; sporidiis e fronte late ellipsoideis vel subglobosis, utrinque acutatis, leniter compressis 7-9 \times 5-6, fulvidis.

Hab. in fimo ovino et in charta putrescente, Kew Britannia.

2. **Chætomium simile** Mass. et Salm. Coproph. fungi II, p. 71, fig. 8-9. 2028

— Peritheciis gregariis 500-750 μ . alt., subglobosis, undique olivaceo-pilosis, pilis superioribus dense confertis, intricatis, crispis, fuscis, pluries irregulariter spiraliter contortis, apice uncinatis, plerumque non septatis, levibus; ascis cylindraceutis, breviter stipitatis 80 \approx 9-10, octosporis; sporidiis monostichis, late ellipticis v. subglobosis, polo uno minute apiculatis, altero plus minusve rotundatis 8-10 \approx 7,5 leniter compressis, olivaceo-fuscis.

Hab. in fimo canino vetusto, Kew Britanniae.

SORDARIA Ces. et De Not. — Syll. I p. 230, IX p. 487, XIV p. 492, XVI p. 430.1. **Sordaria longicaudata** (Griff.) Sacc. et D. Sacc. *Pleurage longicaudata* 2029

Griff. Mem. Torr. Bot. Cl. 1901, p. 81, tab. 8, fig. 9-11. — Peritheciis sparsis, immersis dein maturitate expositis, 600-900 \approx 450-600, membranaceis, maturitate nigris, globoso-piriformibus, brevi ostiolatis; ascis clavatis, rectis vel curvatis, breve stipitatis 280-300 \approx 32-42; paraphysibus late tubulari-ventricosis, irregularibus, ascis æquilongis; sporidiis ellipsoideis, utrinque rotundatis, saepe superne acutatis 45-53 \approx 23-35, maturitate intense brunneis, longicaudatis.

Hab. in fimo vaccino, Rooks Co. Kansas (BARTHOLOMEW), Auburn, Alab. (EARLE), in fimo equino Austin, Texas (LONG).

2. **Sordaria arizonensis** (Griff.) Sacc. et D. Sacc. *Pleurage arizonensis* 2030

Griff. Amer. Sordar., Mem. Torr. Bot. Cl. 1901, p. 57, tab. VI, fig. 4-6 *). — Peritheciis sparsis v. congestis, initio immersis dein subemergentibus 400-600 μ . diam. membranaceis vel subcoriaceis, nigris v. opacis, globoso-piriformibus, superne albido-tomentosis, ostiolo brevi, papillato nigro, curvulo, setis longis brunneis donatis; ascis 4-sporis, cylindraceutis, subcontractis, apice rotundatis, subpedicellatis, 38-45 \approx 240-325; paraphysibus variabilibus, filiformibus, septatis,asco multo longioribus; sporidiis monostichis, ellipsoideis utrinque subrotundatis 45-52 \approx 21-25 initio hyalinis dein intense brunneis, longissime utrinque appendiculatis.

Hab. in fimo pecorino et vaccino, Tucson, Ariz., Amer. bor.

3. **Sordaria Ellisiana** (Griff.) Sacc. et D. Sacc., *Pleurage Ellisiana* 2031

Griff. Amer. Sord., Mem. Torr. Bot. Cl. 1901, pag. 72, tab. V, fig. 1-3. — Peritheciis sparsis semiimmersis vel superficialibus,

*) Conferenda optima Monogr. de Sordariaceis amer. cl. GRIFFITHSII.

mycelio dense obvolutis 500 \times 300, submembranaceis, piriformibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 160-185 \times 26-32; paraphysibus filiformibus, septatis, inferne subconstrictis; sporidiis distichis ovatis vel late ellipsoideis maturitate, intense brunneis 21-27 \times 11-16, longiuscule appendiculatis.

Hab. in fimo vaccino, Englewood et Newfield N. J. Amer. bor. (ELLIS).

4. **Sordaria globosa** Mass. et Salm. Coproph. fungi I, p. 334, fig. 21. 2032
— Peritheciis subgregariis, primo subimmersis dein plus minus superficialibus, globosis circ. 750 μ . diam., glabris, olivaceis, ostiolo papilliformi atro, subcarnaceo; contextu parenchymatico e cellulis tenuibus composito; ascis numerosis cylindraceutis, deorsum in stipitem longum attenuatis, octosporis, 300-350 \times 35-50; sporidiis ellipticis 35-40 \times 20-22, basi tantum appendicula hyalina cylindracea sæpe attenuata persistente recta vel curvula 25-30 μ . longa auctis.

Hab. in fimo Macropodis gigantei et Cervi Elaphi, Kew Britannia.

5. **Sordaria tænioides** (Griff.) Sacc. et D. Sacc. *Pleurage tænioides* 2033
Griff. Mem. Torr. Bot. Cl. 1901, pag. 58. — Peritheciis sparsis, subimmersis erumpentibusque 500-750 μ . olivaceo-brunneis, coriacellis, globoso-piriformibus, ostiolo longe cylindrico donatis, superne setulis septatis brunneis uniformiter vestitis; ascis 4-sporis, cylindraceutis superne rotundatis, longe pedicellatis 290-360 \times 37-45; paraphysibus filiformibus superne subincrassatis, septatis, asco æquilongis; sporidiis monostichis, ellipsoideo-ovalibus, utrinque subrotundatis initio hyalinis, dein olivaceis, intense brunneis 56-62 \times 29-32, basi minute apiculatis, utrinque longissime appendiculatis.

Hab. in fimo equino et bovino, in Amer. bor.

6. **Sordaria kansensis** (Griff.) Sacc. et D. Sacc. *Pleurage kansensis* 2034
Griffiths Mem. Torr. Bot. Cl. 1901, p. 83, tab. VIII, fig. 6-8. — Peritheciis sparsis v. aggregatis, immersis v. superficialibus, superne pilis septatis olivaceo-brunneis, flexuosis, vestitis, 600-800 \times 375-450, tenui-membranaceis, junioribus virescentibus, maturis vero nigris, ostiolo papillato cylindraceuto, plerumque curvo; ascis octosporis cylindraceutis apice rotundatis breve stipitatis 180-240 \times 26-32; paraphysibus ventricosis, agglutinatis, ascos superantibus; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis 26-35 \times 18-21, ex olivaceo tandem atro-brunneis, utrinque longe ap-

pendiculatis; appendicibus ex filamentis duobus longitudinaliter coalitis formatis.

Hab. in fimo bovino, equino, in Americæ bor. pluribus locis. — Appendices primariæ nullæ.

7. **Sordaria multicaudata** (Griff.) Sacc. et D. Sacc. *Pleurage multicaudata* Griffiths Mem. Torr. Bot. Cl. 1901, p. 85, tab. VI, fig. 7-9. 2035
— Peritheciis sparsis semiimmersis 900 \times 600 subcoriaceis virescentibus tandem opace nigris, piriformibus v. globulosis, pilis longis, rectis, atro-brunneis septatis, superne vestitis, ostiolo papilliformi v. cylindræo, curvulo; ascis octosporis, clavatis, sursum attenuatis et rotundatis, breve stipitatis, 225-260 \times 42-58; paraphysibus latis ascos paullo superantibus; sporidiis distichis, ellipsoideo-oblongis, utrinque rotundatis 40-45 \times 20-25, ex olivaceo-flavido tandem opace brunneis, appendicibus primariis nullis, secundariis brevibus, filiformibus, sporidium totum obtegentibus, polaribus paullo longioribus.

Hab. in fimo bovino, Highmore et Biloxi Amer. bor. — Perithecia inferius pilis longis, flexuosis, septatis vestita.

8. **Sordaria superior** (Griff.) Sacc. et D. Sacc. *Pleurage superior* Griff. 2036
Mem. Torr. Bot. Cl. 1901, p. 68, t. 19, fig. 14-16. — Peritheciis superficialibus, sparsis, membranaceis brunneis, piriformibus 450-600 μ . diam., ostiolo breve donatis setulis brevibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 250-275 \times 30-40; paraphysibus pluriseptatis asco longioribus; sporidiis distichis, ellipsoideis 23-27 \times 12-14, intense brunneis v. olivaceis, longissime appendiculatis.

Hab. in fimo vaccino, Summit in Montana Amer. bor. (GRIFFITHS et LANGE).

9. **Sordaria anomala** (Griff.) Sacc. et D. Sacc. *Pleurage anomala* 2037
Griff. Mem. Torr. Bot. Cl. 1901, p. 56. — Peritheciis subimmersis v. superficialibus v. in mycelio griseo brunneo denso insidentibus, membranaceis, 300-350 μ . diam. nigris vel inferne intense brunneis, piriformibus, ostiolo papillato curvo nigro donatis; ascis 4-sporis, cylindræis apice subrotundatis, filiformi-pedicellatis 165-190 \times 18-21; paraphysibus asco æquilongis, ventricosis; sporidiis monostichis, ellipticis vel subglobosis, superne rotundatis inferne truncatis 13-16 \times 18-21, intense brunneis; primaria appendicula sporidio æquilonga, cylindrica, curvula, secundaria varie longa.

Hab. in fimo vaccino, New York City Amer. bor.

10. **Sordaria erostrata** (Griff.) Sacc. et D. Sacc. *Pleurage erostrata* ²⁰³⁸
Griff. Mem Torr. Bot. Cl. 1901, p. 71, tab. 4, f. 11-13. — Peritheciis sparsis omnino superficialibus 180-225 μ . diam. submembranaceis, maturitate nigris, setulis longis septatis, flexuosis, brunneis vestitis, sphaericis, erostratis; ascis octosporis, clavatis, breve stipitatis 48-54 \approx 16-21; paraphysibus nullis; sporidiis distichis ellipsoideo-ovatis, initio hyalinis, dein olivaceis vel intense brunneis 11-13 \approx 6,5-8, breve appendiculatis.

Hab. in fimo equino, Aberdeen S. D. in fimo vaccino, Tucson, Ariz., Rooks Co., Kansas, Amer. bor. (TYLER, BARTHOLOMEW, LONG etc.).

11. **Sordaria? hyalina** Griff. in Mem. Torr. Bot. Cl. 1901, p. 48. — ²⁰³⁹
Peritheciis sparsis, immersis, subglobosis, circ. 150 μ . diam., membranaceis, brunneis, levibus; ostiolo papillato v. nullo; ascis octosporis, superne rotundatis v. truncatis, apertis, deorsum attenuato-stipitatis 45-55 \approx 5-6; paraphysibus non visis; sporidiis oblique monostichis, ellipticis, utrinque subrotundatis 4,5-5 \approx 2,5-3 hyalinis.

Hab. in fimo vaccino, equino et caprino Amer. bor. — Si sporidia constanter hyalina, certe novi generis typus.

12. **Sordaria tetraspora** Wint. in Hedw. 1871, n. 9, p. 161, Griff. ²⁰⁴⁰
Mem. Torr. Bot. Cl. 1901, p. 62, tab. 4, fig. 1-3, *Sord. minuta* Fuck. — Syll. I, p. 231 — var. *tetraspora* Wint. Die deutschen Sordarien, p. 37. — A typo differt sporidiis in quoqueasco quaternis 16-22 \approx 13-14; ascis 100-110 \approx 18; peritheciis minoribus nempe 350-500 \approx 140-180.

Hab. in fimo murino in Saxonia, in fimo equino et in graminibus putridis in Amer. bor.

13. **Sordaria vestita** (Zopf) Sacc. et D. Sacc. *Eusordaria vestita* Zopf, ²⁰⁴¹
Zeitschrift gesammt. Naturwissenschaften 1883, p. 556, tab. 6, fig. 10-19, *Podospora vestita* (Zopf) Wint. Pilzfl. II, p. 176, *Pleurage vestita* (Zopf) Griff. Mem. Torr. Bot. Club. 1901, p. 76. — Peritheciis vulgo dense gregariis, piriformibus, 700-750 μ . alt., 400-500 μ . cr. pilis longis, olivaceis v. brunneis, simplicibus v. parce ramosis, tenuibus, subinde fasciculatis omnino vestitis, circa ostiolum obscurius coloratis; ascis clavatis, utrinque tenuatis, stipitatis, aparaphysatis 180-210 \approx 40-55; sporidiis ellipsoideis atro-viridibus, 28-35 \approx 18-22, basi truncatis et appendice primaria cylindracea auctis, appendicibus secundariis cylindricis, 3-4, varie curvatis in apice sporidia et infra apicem appendicis primariæ additis.

Hab. in fimo equino, vaccino etc. in Germania et America boreali.

14. **Sordaria coprophila** (Fr.) Ces. et De Not. — Syll. I, p. 230 — Huc ducenda est *Bovilla Caproni* Sacc. — Syll. I, pag. 360, — seu *Sphæria bovilla* Cooke, quæ est illius status infans, testibus Hennings et Salmon: cfr. Hedw. 1903, p. (183).

HYPOCOPRA Fuck. — Syll. I p. 240, IX p. 490, XI p. 279, XVI p. 433.

1. **Hypocopra montanensis** (Griff.) Sacc. et D. Sacc. *Sordaria montanensis* Griff. in Mem. Torr. Bot. Club. 1901, p. 49, tab. III, fig. 1-3 et tab. 19, fig. 13. — Peritheciis sparsis, immersis 750-900 \approx 450-600, membranaceis, brunneo-nigris, subglobosis, in collum longum cylindraceum desinentibus, in parte superiore setis brevibus, densis acuminatis septatis vestitis; ascis octosporis, cylindraceis, apice rotundatis vel truncatis vel apertis, longe stipitatis, 340-400 \approx 29-32; paraphysibus filiformibus, septatis,asco paullo longioribus; sporidiis oblique monostichis, ellipsoideis, utrinque paullo rotundatis 45-51 \approx 24-27, strato hyalino obvolutis.

Hab. in fimo equino et vaccino, Missoula, Summit in Amer. boreali.

2. **Hypocopra kansensis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 15. — Peritheciis ovatis 0,8-1 mm. alt. 0,5-0,8 mm. crass. in stromate immersis, olim erumpentibus, hemisphæricis, poro peritensis; stromatibus nigris subconvexis 1-2 mm. diam. v. confluentibus circ. 1 cm. diam.; ascis cylindraceis, p. sp. 200-230 \approx 25-30 paraphysibus 4-5 μ . diam.; sporidiis oblique monostichis, ellipticis, utrinque acutulis 42,52 \approx 18-22, hyalinis.

Hab. in fimo vaccino, Rooks Co., Kansas, in Amer. bor. — Ab *H. fimeti* Pers. sporidiis multo latioribus differt.

3. **Hypocopra pisana** Baccarini, N. giorn. bot. ital. 1904, p. 416. — Peritheciis gregariis ac sæpe dense confertis, superficialibus 300 μ . latis, in sicco rugulosis, udis levibus, membranaceo-coriaceis, ostiolo minuto, minime prominulo; ascis cylindricis, non vel vix stipitatis aparaphysatis 133 \approx 17, octosporis; sporidiis atris, oblique monostichis, ellipticis, 22,8 \approx 9-5, circulo hyalino tenui obvolutis.

Hab. in ossibus equinis in silva Pisana Italiæ. — Ad gen. *Roselliniam* nutat et tunc vix *Hypocopra*.

4. **Hypocopra alpina** (Griff.) Sacc. et D. Sacc. *Sordaria alpina* Griff. Mem. Torr. Bot. Club. 1901, p. 49, tab. 19, fig. 4-6. — Perithe-

ciis immersis, sparsis vel gregariis, piriformibus, membranaceis, inferne olivaceis, superne nigris, 0,5 \approx 1 mm. diam., ostiolo longo cylindrico donatis, in parte superiore dense vestitis; setulis brevibus, pluriseptatis, brunneis; ascis octosporis, cylindraxis, superne contractis v. rotundatis, longe stipitatis 270-350 \approx 18-20; paraphysibus numerosis, septatis, ad septa subconstrictis, asco subæquilongis; sporidiis monostichis, ellipticis, utrinque rotundatis olivaceo-brunneis 20-37 \approx 12-14, hyalino-apiculatis et muco obvolutis.

Hab. in fimo vaccino et equino, Summit, Mont. Amer. bor.

5. **Hypocopra fimicola** (Rob.) Sacc. — Syll. I, pag. 240. — f. **microspora** Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis 200-300 μ . latis, 350-400 μ . altis; ascis 58-65 \approx 9-10; sporidiis 12-14 \approx 6-7,5. 2046

Hab. in fimo canino, Santo Angelo prope Cachoeira, Brasilie. — Nullo modo nisi ascis sporidiisque minoribus a typo recedit.

6. **Hypocopra seminuda** (Griff.) Sacc. et D. Sacc. *Sordaria seminuda* Griff. in Mem. Torr. Bot. Cl. 1901, p. 50. — Peritheciis immersis, sparsis vel gregariis, piriformibus, membranaceis, basi olivaceis, superne nigris 500-600 \approx 300-400, ostiolo papillatis, superne setulis brevibus pallide brunneis vestitis; ascis octosporis, cylindricis, superne subrotundatis vel apertis, longe stipitatis, 180-200 \approx 12-14; paraphysibus filiformibus, septatis, persistentibus, raro asco longioribus; sporidiis oblique monostichis, ellipsoideis raro ovatis 16-22 \approx 10-12, olivaceo-brunneis, apiculo brevi, hyalino, cylindrico donatis et muco obvolutis. 2047

Hab. in fimo equino, Summit, Mont. Amer. bor.

PHILOCOPRA Speg. — Syll. I p. 249, IX p. 494, XVI p. 434.

1. **Philocopra heterochæta** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths Mem. Torr. Bot. Cl. 1901, pag. 86, tab. XIX, fig. 1-3. — Peritheciis superficialibus vel basi insculptis, sparsis, tenue membranaceis, olivaceo-nigricantibus, subdiaphanis 700 \approx 450, pilis septatis, agglutinatis, brevibus tectis, excluso ostiolo papilliformi; ascis 16-sporis, cylindræo-clavatis, sursum tenuatis rotundatisque, breve crasse stipitatis, 230-240 \approx 34-40; paraphysibus valde ventricosis, agglutinatis, interdum indistinctis; sporidiis biseriatis, ellipsoideis, utrinque rotundatis 27-34 \approx 18-20; appendicibus primariis nullis, secundariis utrinque binis, distinctis filiformibus, inferioribus, longioribus, flexuosis. 2048

Hab. in fimo bovino, Family, Montana Amer. bor.

2. **Philocopra dakotensis** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2049
Mem. Torr. Bot. Cl. 1901, p. 87, tab. VII, fig. 17-19. — Peritheciis sparsis, superficialibus vel basi leviter immersis, piriformibus, $600 \approx 375$, tenue membranaceis, fuscis diaphanis, pilis septatis, fuscis, in fasciculos agglutinatis, superne tectis, ostiolo papillato-conico, curvulo; ascis $220 \approx 30-40$; paraphysibus subventricosis ascos superantibus; sporidiis 2-4-seriatis, ellipsoideis, utrinque rotundatis $18-23 \approx 12-15$ ex olivaceo opace brunneis; appendicibus primariis brevibus cylindraceis, rectis, secundariis longissime subulatis.

Hab in stercore cuniculorum et in fimo bovino, Ft. Lee, New Jersey, Brookings, Austin etc. Amer. bor.

3. **Philocopra collapsa** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2050
Mem. Torr. Bot. Cl. 1901, p. 89, tab. X, fig. 14-18. — Peritheciis sparsis v. aggregatis, semiimmersis, $500-600 \approx 400-450$, tenui-membranaceis, e virescenti brunneis, piriformibus vel subglobosis ubique pilis longis septatis, flexuosis, brunneis vestitis; ostiolo papillato vel cylindraceo, nigro; ascis 64-sporis, fusiformibus, sub apice rotundato-constrictis, breve stipitatis $210 \approx 65$; paraphysibus ventricosis ascos superantibus; sporidiis pluriseriatis, ellipsoideis, utrinque rotundatis $18-21 \approx 10-14$, ex olivaceo opace brunneis; appendicibus primariis longissimis subclavatis, secundariis brevibus cuspidatis.

Hab. in stercore cuniculorum, New York, Auburn etc. Americæ bor.

4. **Philocopra adelura** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2051
Mem. Torr. Bot. Cl. 1901, p. 91, tab. X, fig. 11-13. — Peritheciis immersis, sparsis, $750 \approx 450$, tenui-membranaceis, opace brunneis, piriformibus, ostiolo papillato-cylindraceo glabro; ascis 64-sporis, clavato-fusoideis, sursum tenuatis obtusisque, breve stipitatis $370 \approx 75$; paraphysibus ventricosis agglutinatis ascos superantibus; sporidiis pluriseriatis, ellipsoideis utrinque rotundatis $26-32 \approx 13-19$, ex olivaceo opace brunneis; appendicibus primariis cylindraceis, spora brevioribus et persistentibus, secundariis filiformibus, initio prælongis dein abbreviatis.

Hab. in fimo cuniculorum, Auburn, Amer. bor. — *Phil. pleiosporæ* peraffinis.

5. **Philocopra Griffithsii** Sacc. et D. Sacc. *Sordaria philocoproides* 252
Griff. in Mem. Torr. Bot. Club. 1901, p. 54. — Peritheciis sparsis, immersis, subglobosis, ostiolo papillato vel indistincto donatis,

300-400 μ . diam., membranaceis, nigris, setulis continuis, paucis, intense brunneis, vestitis; ascis 32-sporis cylindraceo-clavatis, superne subrotundatis vel apertis, breve stipitatis, 90-110 \times 13-20; paraphysibus filiformibus, septatis, asco paullo longioribus; sporidiis distichis, subapplanatis, subellipticis vel subcircularibus, utrinque rotundatis, 8 \times 5,5-8.

Hab. in fimo cuniculorum, New Jersey Amer. bor.

COPROLEPA Fuck. — Syll. I p. 248, IX p. 493, XVI p. 434.

1. **Coprolepa dakotensis** (Griff.) Sacc. et D. Sacc. *Hypocopra dakotensis* 2053
Griff. Mem. Torr. Bot. Cl. 1901, pag. 97, tab. XII, f. 6-8.

— Peritheciis immersis, sparsis vel in minutos greges 2-4 congestis, 800 \times 600, piriformibus, basi mycelio albo demum pulviniformi stromatico immersis, ostiolo papillato nigro nitido e stromate emergente; ascis octosporis apice rotundatis obtuse breve stipitatis 225-265 \times 37-40, apice jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis biseriatis ellipsoideis, utrinque rotundatis, 32-38 \times 17-19, e flavido demum atro-brunneis, strato gelatinoso lato obductis.

Hab. in fimo equino, Aberdeen S. D. Amer. bor. (TOURNE). — A *Coprol. merdaria* sporidiis minoribus, biseriatis distinguitur.

2. **Coprolepa rostrata** (Griff.) Sacc. et D. Sacc. *Hypocopra rostrata* 2054
Griff. Mem. Torr. bot. Cl. 1901, p. 99, tab. XII, fig. 15-18. —

Peritheciis immersis in parvos soros congestis et mycelio denso pannoso albo-brunneo immersis, subglobosis vel ovoideis 300-400 μ . diam., inferne albis, ostiolo nigro, nitidulo prominenti-rostellato; ascis octosporis, cylindraceis, apice rotundatis, breve stipitatis 213-286 \times 21, jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis 29-32 \times 13-18 e flavido opace brunneis, strato hyalino obvolutis.

Hab. in fimo equino, Tucson, Arizona, Amer. bor.

3. **Coprolepa parvula** (Griff.) Sacc. et D. Sacc. *Hypocopra parvula* 2055
Griff. Mem. Torr. bot. Cl. 1901, pag. 99, tab. XIX, fig. 7-9. —

Peritheciis immersis et in greges minutos congestis 300-450 μ . diam., tenui-membranaceis, inferne albis et pilis flexuosis cum stromate confluentibus vestitis, ostiolo papillato e stromate crustaceo levi emergente, glabro; ascis octosporis, cylindraceis, apice rotundatis jodoque cæruleo tinctis, longe stipitatis 95-105 \times 9-12; paraphysibus filiformibus obsolete stipitatis; sporidiis oblique mo-

nostichis ellipsoideis, utrinque rotundatis, vulgo basi acutiusculis 10-13 \times 6-7, strato mucoso hyalino obvolutis.

Hab. in fimo bovino, Sumit Mont., Amer. bor. (GRIFFITHS et LANGE).

CERATOSTOMA (Fr.) Sacc. — Syll. I p. 215, IX p. 481, XI p. 278, XIV p. 489, XVI p. 427.

1. **Ceratostoma decipiens** Sacc. et Flag. in Atti Congr. bot. di Palermo 2056 1902, p. 49. — Peritheciis subsparsis, ligno molli initio immersis, demum, pro parte, liberatis, globosis, nigris, glabris, 500-600 μ . diam., carbonaceis, ostiolo cylindraceo-conoideo, 250-300 \times 70 præditi; ascis cylindraceis, apice obtusulis, deorsum breviter tenuatis, 70-80 \times 4-5, octosporis; paraphysibus genuinis nullis; sporidiis recte monostichis, ovato-ellipsoideis, 9-11,5 \times 5-5,5 fuligineo-olivaceis, plerumque biguttatis.

Hab. in ligno carioso salicino, Rigny s. A. Galliæ. — Affine *C. Avocettæ*, differt præcipue ostiolo brevioribus, ascis longioribus etc.

ROSTRELLA A. Zimm. Bull. Inst. bot. Buitenzorg 1900, IV, p. 19 (Etym. *rostrum* ob formam ostioli). — Perithecia immersa, globulosa, ostiolo longe rostrato emergente prædita. Asci maturi evanescentes. Sporidia ellipsoidea, uno latere membranula annuliformi prædita, continua, hyalina. Mycelium endogenum macroconidia brunnea et microconidia quoque generans. — *Microasco* affine genus videtur, sed si sporidia jugiter hyalina maneant, ad *Hyalosporas* transferendum est.

1. **Rostrella Coffeæ** A. Zimm. l. c. — Peritheciis globulosis, 100-160 2057 μ . diam., immersis, in ostiolum rostratum emergens, 200-260 μ . long., 20 μ . cr. productis; sporidiis generis, 6 \times 4, in apice ostioli in cirrum v. globulum eructatis; macroconidiis in ramulis lateralibus acrogenis, globosis, brunneis 10-15 μ . diam.; microconidiis catenulatis, inferioribus longioribus, supremis globulosis crassioribusque, usque 9-10 μ . diam.

Hab. in cortice jam emortuo *Coffeæ arabicæ*, *C. libericæ*, *Erythrinæ lithospermæ*, *Albizzie moluccanæ*, *Cedrelæ serratæ* in insula Java. — Morbum gravem cancerosum plantis matricibus affert.

MICROASCUS Zuk. — Syll. IX p. 483, XI p. 279.

1. **Microascus nidicola** Masee et Salm. *Copr. fungi* I, p. 380, f. 62- 2058
65. — Peritheciis nigris, glabris, carbonaceo-membranaceis, sparsis, matrice subimmersis, subglobosis 350 μ . diam., ostiolo brevi conico, contextu parenchymatico densissimo e cellulis polygonis, nigro-fuscis, plus minus opacis 8-10 μ . latis composito; ascis numerosis subgelatinosis, ellipticis v. globoso-ellipticis, 10-13 \times 6-8, octosporis, citissime diffluentibus; sporidiis minutis anguste sublunulatis, utrinque acutis, levibus, hyalinis v. stramineis 7,5-8 \times 2.

Hab. in nido vetusto Bombi spec., Kew Britanniae.

2. **Microascus variabilis** Mass. et Salm. *Coproph. fungi* I, pag. 349, 2059
fig. 24. — Peritheciis gregariis, matrice subimmersis, parvulis 150-200 μ . diam., subglobosis, ostiolo minuto papilliformi v. plus minus elongato, cylindraceo, interdum flexuoso, nigris, subcarbonaceis, fragilibus, contextu parenchymatico e cellulis densis, opacis, distinctis, minutis, 3-5 μ . latis composito; peritheci parte superiore pilis rigidis, paucis, sparsis fuliginosis, interdum obsoletis instructa; ascis minutis subglobosis, subgelatinosis 7-8 μ . diam., citissime diffluentibus, 8-sporis; sporidiis crasse, interdum irregulariter, lunulatis, minutis 3-3,5 μ . long., utrinque obtusis, levibus, dilutissime brunneis.

Hab. in fimo Dolichotidis patagonicæ, Kew Britanniae.

HYPOXYLON Bull. — Syll. I p. 352, IX p. 543, XI p. 285, XIV p. 509, XVI p. 445.

1. **Hypoxylon neocaledonicum** Har. et Pat. *Journ. de Bot.* 1903, p. 14. 2060
— Stromate turbinato, stipitato, carbonaceo, indurato, atro, apice capitato, minute sinuoso-areolato, vix nitenti, centro leniter depresso ex ostiolis prominulis papillato intus fibroso-lignoso, albido-fuliginoso; peritheciis paucis, erectis, ovoideis, atris, omnino immersis; ascis cylindraceis, octosporis, paraphysibus immixtis; sporidiis monostichis, atro-brunneis, rectis v. leniter curvis, navicularibus, 25-32 \times 6.

Hab. ad lignum mortuum, Coinde, Carrela Novæ Caledoniæ (BERNIER). — Affine *H. turbinato*, a quo differt stromate apice rimoso-areolato, sporidiis longioribus. Stroma 1 cm. long., 8 mm. cr.

2. **Hypoxylon regale** Morgan, *Journ. of Mycol.* 1904, p. 162. — Stro- 2061
mate superficiali in plagulas minutas, irregulares effuso, e peritheciis confluentibus omnino formato; peritheciis amplis, globosis, nigris, ostiolo minute papillato; ascis cylindricis, breve stipitatis,

octosporis, 150-170 \approx 10-12; sporidiis oblique monostichis, elliptico-fusoideis, inæquilateris, brunneis, 20-27 \approx 9-11; paraphysibus tenuissimis.

Hab. in ligno denudato, molli, Aceris, Liriodendri etc. Preston, Ohio Amer. bor. — Perithecia in quaque plagula 2-3 vel numerosiora, 700-1000 μ . diam.

3. **Hypoxylon multiforme** Fr. — Syll. I p. 363. — f. **minor** Starb. 2062
Ascom. Regnell. exped. II, 1901, pag. 9. — A typo differt peritheciis minoribus sporidiisque 7,5-9 \approx 4-5.

Hab. ad truncos, Paraguari, Paraguay.

4. **Hypoxylon cantareirens** P. Henn. Fungi S. Paul. III p. 207 (Hedw.). 2063
— Stromatibus orbiculari-convexis, depressis, gregariis, interdum confluentibus, 2-6 mm. diam., atro-carbonaceis, cinereo vel cretaceo-pruinosis, ostiolis atris, papillatis, pertusis; peritheciis immersis, ovoideis ca. 1 mm. diam.; ascis cylindræo-clavatis, obtusis, 8-sporis, ca. 180 \approx 10-13, paraphysibus hyalinis, filiformibus; sporidiis oblique monostichis, oblonge navicularibus, obtusis vel subacutiusculis, atris 23-30 \approx 9-12.

Hab. in truncis emortuis, Serra da Cantareira S. Paulo Brasiliæ. — Affine *H. multiformi* sed sporidiis crassioribus præcipue distinctum.

5. **Hypoxylon cohærens** (Pers.) Fr. — Syll. I, p. 361. — var. **brasiliense** Starb. Ascom. Regnell. exped. II, 1901, p. 8, fig. 4. — A typo vix differt superficie stromatis gyroso-tuberculata (in typo levigata), sporidiis conspicue minoribus, nempe 9-11 \approx 4-5 (ascis p. sporif. 65 \approx 6-7).

Hab. in cortice crassiore, Hamburgerberg, Rio grande do Sul Brasiliæ.

6. **Hypoxylon Dussianum** Pat. in Duss Enum. Champ. Guadel. 1903, 2065
p. 74. — Globulosum, sessile, sparsum v. aggregatum, brunneo-atrum, ostiolis vix exstantibus punctulatum, fragile, intus album; peritheciis immersis, peripherice ubique dispersis, ovoideo-globosis, $\frac{1}{4}$ mm. diam.; ascis . . . ; sporidiis ovoideis, inæquilateralibus, exiguis, 8-10 \approx 5-6.

Hab. in trunco Tournefortiæ volubilis, Camp Jacob Guadalupa (Duss). — Affine *H. areolato* sed sporidia minora.

7. **Hypoxylon subrutilum** Starb. Ascom. Regnell. exped. II, 1901, p. 10, 2066
fig. 7-8. — Stromatibus cortice nidulantibus, erumpentibus pulvinato-hemisphæricis, acutiuscule subrotundo-determinatis, ex peritheciis tuberculatis, sparsis vel confluentibus primo rubello-um-

brinis vel tabacinis, intus, præsertim basi coccineis, denique fusco-atratis 2-5 × 1-2 mm.; peritheciis sphericis, vertice subapplanatis, nitide prominulo-papillatis, denique ore pertusis, villo furfuraceo vestitis, densissime stipatis, vix 500 μ . diam., contextu coriaceo-carbonaceo; ascis octosporis, cylindræis, breve pedicellatis, 95-125 × 10-12 p. spor. 75-95 μ . long.; sporidiis monostichis, ellipsoideo-oblongatis, inæquilateris, utrinque obtusatis, atro-fuscis.

Hab. in ramulis corticatis, Porto Alegre, Rio Grande do Sul Brasiliæ. — *H. rutilo* maxime affine, sed præcipue sporidiis differt.

8. **Hypoxylon juruense** P. Henn. Fungi Amaz. II, p. 260. — Stro- 2067
matibus rotundato-pulvinatis carbonaceis, ruguloso-subverrucosis vel subfavosis, ochraceo-ferrugineo-pruinosis, intus atris, ostioli punctoideis subelevatis vel subcupulato-immersis, 1 1/2-4 mm. diam.; peritheciis immersis subglobosis; ascis cylindræo-clavatis, apice rotundatis, stipitatis, 8-sporis, ca. 100-130 μ . longis, p. spor. 60-80 × 6-8; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis v. oblongis, sæpe subinæquilateralibus, utrinque obtusis, 1-guttulatis, atro-brunneis, 10-15 × 5-6.

Hab. in ramis siccis, Rio Juruá, Bom Fim Amazoniæ. — Præcipue stromatibus subfavosis species dignoscenda.

9. **Hypoxylon ohiense** Ellis et Everhart — Syll. XI, p. 287. — Cfr. Harrim. Alaska Exped. Crypt. pag. 34, pl. IV, fig. 2. — Ascis clavatis tenuiter stipitatis, 68-80 × 7-8; sporidiis oblique monostichis, oblongo-ellipsoideis, 5,5-7,5 × 2,5-3,5, fuligineis; stromate 2-4 cm. longis et latis; peritheciis 1,5-1,7 mm. longis.

Hab. ad truncos Abietis, Sitka Alaska (TRELEASE).

10. **Hypoxylon tahitense** Baccarini in N. Giorn. bot. it. 1904, p. 417, 2068
tab. IV. — Stromate effuso, crassiusculo nigro, tubercula quamplurima erecta, globosa, breviter pedunculata, pisi magnitudinem æquantia vel superantia, peritheciifera, gerente; tuberculis minute mammosis, ob peritheciolorum ostiola breviter protuberantibus, extus atris, intus carbonaceo-badiis; peritheciis crebris, monostichis, ad 700 μ . latis; ascis confertis cylindricis breviter pedunculatis, paraphysatis 150-170 μ . longis; sporidiis cymbiformibus, monostichis, inæquilateralibus, 22-23 × 7-8.

Hab. ad ligna, Otaiti Polynesia. — Ad subg. *Cænopus* spectat. 2069

11. **Hypoxylon (?) sulcatum** Starb. in Arkiv för Botan. 1904, Band. 2, p. 20, fig. 47-48. — Stromatibus diatrypeoideis, plane a matrice distinctis, immersis, applanatis, lenticulariter prominentibus, varie plerumque rotundatim determinatis, interdum paullum lobulatis,

confluentibus, acute marginatis, fusco-nigris vel nigris, carbonaceis, amœne sulcatis, sulcis e linea media radiantibus, interdum patellaribus, annulo tumidulo cinctis, plerumque longitudinalibus, costis elatiusculis determinatis; peritheciis totum stroma, margine latiusculo excepto occupantibus, plane immersis, monostichis, dense constipatis, mutua depressione angulatis, vix ostiolatis; stromatibus usque ad 1,5 cm. long., 0,5 cm. latis vel circ. 2 cm. diam. 1,5 mm. altis; ascis sporidiisque non visis.

Hab. in cortice prope Rio Grande do Sul Brasiliæ. — Species mirabilis ulterius inquirenda; sec. spec. originale et figuram apud Montagne *H. heterostomum* Mont. affine videtur.

12. **Hypoxylon microsorum** Penz. et Sacc. in *Malpighia* 1901, p. 225, 2070

Ic. fung. Jav. t. XIX, f. 2. — Stromatibus gregariis, depresso-hemisphæricis, minutis vix 1 mm. diam. rubido-fuscis, intus pallidioribus, fere levibus; peritheciis immersis, 8-12 in quoque stromate, globulosis 500 μ . diam., ostiolis punctiformibus obtusiuscule papillatis vix exstantibus, nigris; ascis cylindræis (jam fere resorptis); sporidiis octonis, monostichis, elliptico-citriformibus, 9-10 \times 7, e latere levissime compressis, atro-fuligineis.

Hab. ad ramos arbornm corticatos, putres, Tjibodas, in insula Java. — Spectat ad sect. *Sphæroxyla colorata*, sed ad *Clitoxyla nutat*.

13. **Hypoxylon leucocreas** B. et Rav. — *Syll. I, p. 366* — Rehm

in *Ann. Mycol.* 1904, p. 176. — Stromatibus lentiformibus, plus minusve lobulatis, subplanis, extus atris, vix nitentibus, ostiolis prominentibus plurimis exasperatis, intus albis, 2-4 mm. d. 1-1,5 mm. alt.; peritheciis globulosis, submonostichis 0,3-0,4 mm. diam.; ascis cylindræis tenerrimis, p. sporif. 50 \times 5, octosporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttas oleosas 2 includentibus, fuscidulis 5-6 \times 2-2,5 monostichis.

Hab. in trunco putri Ulmi, Texas Amer. bor. (LONG).

14. **Hypoxylon Acaciæ** P. Henn. *Fungi Afr. or. II, in Bot. Jahrb.*

XXVIII, p. 39. — Stromatibus erumpenti-superficialibus, pulvi- 2071 natis, carbonaceis, atro-brunneis, varia magnitudine, confluentibusque; peritheciis depresso-globosis intus pallidis, ostiolis verruciformibus obtusis; ascis cylindræis, apice obtusis, octosporis; paraphysibus filiformibus hyalinis; sporidiis oblongis obtusiusculis, bi-guttulatis, fuscis 8-11 \times 3-3,5.

Hab. in ramis Acaciæ, Usagara Afr. or. (BUSSE).

15. **Hypoxylon tenue** Starb. *Ascom. Regnell. exped. II, 1901, p. 10, 2072*

fig. 9. — Stromate longe lateque effuso, 9 \approx 3-4, cm., arcte matri adpresso, tenui, vix 400 μ . alto, irregulari, villo coccineofulvo, furfuraceo vestito, intus lateritio rubescenti, margine latiusculo tenuissimo sterili, nigricanti; peritheciis confertissimis globosis vel mutua pressione difformibus, superne inter se liberis, ostiolo sæpius villo carente fere umbilicato præditis, 300-400 μ . diam.; ascis octosporis, cylindræo-clavatis, apice rotundatis, breve pedicellatis 90-100 \approx 8-11,5; sporidiis monostichis, elliptico-ovoideis, fuliginæis 10,5-12 \approx 6-7,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Tomas, Paraguari Paraguay. — *Hyp. crocato* maxime affine.

KRETZSCHMARIA Fr. — Syll. IX p. 565, XI p. 287, XIV p. 512, XVI p. 449, 1130.

1. **Kretzschmaria lichenoides** Rick apud Rehm, Hedw. XLIV, p. 6. — 2073

Stromate late effuso super corticem, placentiforme mycelio ramoso sub cortice extenso, super corticem stratum conidiophrum, ramosum, undulatum, lichenoidem, griseum, multifidum formante, dein in centro stromatis conidiophri stromate ascogeno oriente, stromatibus usque 10 cm. lat., 2 cm. cr. primitus griseis, dein brunneis, mutuo contactu compressis, irregularibus, rugosis, interne primitus niveis, dein atris; peritheciis nigris, difformibus, splendentibus, ostiolis paucis, sed bene distinctis, atris; ascis cylindræis, apice rotundatis et incrassatis 200-270 \approx 12, 8-sporis; sporidiis fusoides, 1-cellularibus, 1-2-guttulatis, uno latere compressis, curvulis, fuscis, strato mucoso tenui obductis, 20-27 \approx 8-10, 1-stichis; paraphysibus filiformibus septatis, 2-4 μ . cr.

Hab. ad lignum, Sao Leopoldo, Rio grande do Sul Brasiliæ (Prof. RICK S. J.).

2. **Kretzschmaria scruposa** Har. et Pat. Journ. de Bot. 1903, p. 14. 2074

— Clavulis erectis obconicis, apice truncatis convexulis, deorsum attenuatis, simplicibus furcatisve undique scabrosis, fusco-atris e crusta stromatica grumosa, fusco-atra, latissime effusa assurgentibus; contextu albo coriavello, fragili; peritheciis paucis, 3-6, erectis ovoideis, ostiolis punctiformibus, vix prominulis, scruposa parte immersis; sporidiis ovoideis, inæquilateris, atris, 10-12 \approx 6; clavulis conidiferis simplicibus sed apice capitato-inflatis, cinereis, levibus; conidiis minutis, ovoideis, levibus, vix 4 μ . longis.

Hab. ad calices Aleuritidis putres, Jahoué Novæ Caledoniæ

(BERNIER). — *Kr. Helisco* affinis præcipue clavulis ubique scabrosis dignoscitur.

3. **Kretzschmaria australiensis** P. Henn. in Hedw. 1903 p. (83). — 2075

Stromatibus placentiformi-confluentibus, depresso-globulosis vel ovoideis, plus minus longe stipitatis, ferrugineis vel atris, ca. 2 mm. diam., ostiolis subconoideis; peritheciis subglobosis v. ovoideis; ascis clavatis, obtusis, p. spor. 200-300 \times 8-10; sporidiis oblonge navicularibus, utrinque obtusis, atris 25-35 \times 7-10.

Hab. in arborum corticibus pr. Kuranda, N. Queensland Australiæ (PRITZEL). —

4. **Kretzschmaria divergens** Starb. Ascom. Regnell. exped. II, 1901, 2076

p. 6, fig. 3. — Stromate communi parco, crustaceo-membranaceo, villosorugoso; stromatibus solitariis, dense cæspitosis, atratis, stipitatis; stipitibus ex eadem areola parvula nonnullis divergentibus, sæpe a basi liberis, interdum confluentibus, rugosiusculis vel sublevibus, deorsum angustioribus, tereti-compressis vel difformibus, sursum latioribus et annulato-incrassatis, 4-10 \times 1-2 mm.; capitulis vulgo confluentibus e compressione difformibus, lenticularibus vel turbinatis, superne applanato-convexiusculis, centro papillulatis, inferne convexis, margine obtusissimis, carbonaceis, 3-8 \times 1-3 mm., semper a stipite discretis; peritheciis verticaliter constipatis, subovoideo-ampullaceis, 500 μ diam., ostiolis curtis vix prominentibus; ascis octosporis cylindræis, longissime pedicellatis, apice rotundatis, p. spor. 140-160 \times 8-10; sporidiis anguste fusoides, rectis vel curvulis, utrinque acutiusculis, 1-2-guttatis, monostichis, 28-35 \times 6-7; paraphysibus copiosissimis, guttulatis, ramosis.

Hab. ad truncos Serra do Chapada, Matto Grosso Brasiliæ. — *Kr. Puiggarii* quam maxime affinis videtur.

5. **Kretzschmaria microspora** P. Henn. Fungi Amaz. II, p. 261. — 2077

Stromatibus cæspitose aggregatis confluentibusque, subovoideis haud stipitatis, atrofuscis, rugulosis, ostiolis papillatis, disco subannulato circumdatis; peritheciis paucis immersis, subglobulosis; ascis cylindræo-clavatis, obtusis, 8-sporis, paraphysatis, 65-75 \times 3 $\frac{1}{2}$; sporidiis oblongis subnavicularibus, utrinque obtusis, atro-castaneis, 7-10 \times 3-3 $\frac{1}{2}$.

Hab. ad lignum emortuum, Rio Juruá, Juruá-Miry Amazoniæ. — Ascis angustissimis sporidiisque minutis dignoscenda species. *K. cænopus* (Fr.) Mont., observante cl. Henn. l. c., est species denuo inquirenda, nam adsunt exempl. Wrightiana cubensia sporidiis 30-

40 \approx 8-10 et alia Berkeleyana brasiliensia sporidiis 10 \approx 12 \approx 5-6, hinc duæ species.

DALDINIA De Not. et Ces. — Syll. I pag. 393, XI pag. 288, XVI p. 449.

1. **Daldinia argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 68. — 2078
Stromatibus 7-8 cm. alt., 1,5-2 mm. cr., intus septis horizontalibus subparallelis 20-25 subtenuibus atris, ornatis, nigris, pulvere deterrenti subumbrina velatis; clava cylindræa, apice obtusissime rotundata, basi eximie determinata, 40-60 mm. longa 25-30 mm. diam. minute, dense, obsoletissimeque papillato-ostiolata; ostiolis confertis minutissimis, vix prominulis; stipite 20-30 mm. longo 15-20 mm. diam., primo fusco-subpulverulento dein nudo, subnitidulo levi, non v. leniter hinc inde longitudinaliter rugoso; peritheciis dense constipatis, cylindræis 1,5 mm. longis 0,5-0,75 mm. diam., non prominulis; ascis cylindræis 6-7 μ . diam. mox evanescentibus; sporidiis monostichis, levibus, utrinque subacutiusculis 9-10 \approx 5, eguttulatis, navicularibus, opacè fuliginæis.

Hab. ad truncos, prope Puerto Pampa in Argentina (E. KERMES). — Species vix *D. angolensi* (Welw. et Curr.) Sacc. affinis.

2. **Daldinia clavata** P. Henn. Fungi blumenavienses II, in Hedw, 1902, p. 14. — 2079
Lignicola; stromatibus carbonaceis, clavatis, substipitatis, late compressis, atris, rufo-pruinosis, usque ad 6 cm. longis, 2 cm. latis, vertice rotundatis, interdum furcato-incisis, intus concentricè discolori-zonatis; peritheciis ovoideo-ellipsoideis ca. 1 mm. longis, 0,5-0,8 mm. latis, ostiolis punctiformibus, subpapillato-prominulis; ascis clavatis, apice obtusis 45-55 μ . longis, p. sporif. 35-45 \approx 7-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, atris, continuis 8-11 \approx 4-5; paraphysibus filiformibus, hyalinis, guttulatis ca. 1-1,5 μ . crassis.

Hab. in truncis, St. Catharina Brasiliæ austr.

3. **Daldinia cognata** Har. et Pat. Journ. de Bot. 1903, pag. 15. — 2080
Stromatibus gregariis, subglobosis in pedicellum brevissimum contractis, primo ferrugineo-pruinosis, dein atris nitentibusque, levibus 6-25 mm. diam., intus stratis concentricis albidis notatis, ostiolis minutis, vix prominulis, punctiformibus; peritheciis ovoideis, stromate immersis; sporidiis oblongis, atris, 8-10 \approx 4.

Hab. ad truncos Acaciæ emortuos, Tendea Nova-Caledonia (BERNIER). — *Dald. vernicosæ* et *Dald. loculatæ* affinis sed sporidiis minoribus aliisque notis diversa.

4. **Daldinia cuprea** Starb. Ascom. Regnell. exped. II, 1901, pag. 5, 2081
fig. 2. — Stromatibus clavatis, teretiusculis v. subcompressis, 3,5-4,5 cm. longis, 1-1,5 cm. latis; contextu laxissimo albo, concentricè nigro-stratoso, cortice duriusculo, coriaceo-carbonaceo, castaneo v. obscure cupreo; stipite basi angustiore longitud. plicatulo, transversim tenuiter tuberculato-annulato, sursum sensim in receptaculum transeunte; receptaculo peritheciis prominentibus verruculoso, apice obtuso; peritheciis densis monostichis, sphæroideis, minute ostiolatis, 250 μ . diam. papillula annulatim truncata prædita; ascis octosporis, linearibus, apice rotundatis, 58-60 \approx 6-7; sporidiis monostichis, ovoideis, inæquilateralibus vel subcurvulis, fuscis, 10-11 \approx 5,5-6; paraphysibus numerosis, flexuosis, ramulosis, diffluentibus.

Hab. ad truncos, Carro Negro, Paraguari Paraguay. — Pulcherrima species *D. angolensi* affinis.

5. **Daldinia Gollani** P. Henn. F. Indiæ orient. I, in Hedw. 1901. 2082
p. 339. — Stromatibus hemisphæricis v. subglobosis, sæpe confluentibus, carbonaceis, 0,5-1 mm. diam., rufo-brunneis, glabris, opacis, massa atra sporarum pulverulenta, intus stratis concentricis albidis v. fuscidulis nitentibus zonatis; peritheciis ovoideis v. oblongis ca. 0,6-0,8 mm. longis, 0,3-0,4 mm. latis, ostiolis haud prominentibus; ascis cylindræis, pedicellatis, apice obtusis, octosporis; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, castaneis 5-9 \approx 3,5-4.

Hab. in ramis emortuis Fici Caricæ, Sivalik Range Indiæ orient.

6. **Daldinia Eschscholzii** (Ehrenb.) Rehm, Ann. Mycol. 1904, p. 173, 2083
Sphæria Ehrenb. F. Chamisso. p. 59, t. 18, fig. 8. — Stromatibus latis, basi sessilibus, subreniformiter orbicularibus, haud stipitatis, usque 6 cm. diam., 2 cm. altis, convexis, nigris, æqualiter tenuissime pruina cuprea obductis et in superficie ostiolis minimis punctulatis, intus pluries zonatis; zonis 1 mm. latis, flavo-fuscidulis, linea tenuissima fusca separatis, spongiosis, haud carbonaceis; peritheciis monostichis, oblongis, arcte congregatis 1-1,2 mm. longis 300-400 μ . latis; ascis cylindræis, subevanidis; sporidiis ellipsoideis, rectis vel subcurvatulis, utrinque obtusis, fuscis, 1-cellularibus, 10-12 \approx 5.

Hab. ad lignum putridum, Texas, Amer. bor. (LONG et LUZON PHILLIPPI, CHAMISSO). — A. *D. concentrica* (Bolt.) imprimis stromate haud carbonaceo sed spongioso, pruina cuprea obducto, non

minus sporidiis minoribus diversa. Sec. hanc insignem pruinam cupream nostra exemplaria ad *D. Eschscholzii* pertinere videntur, quæ secundum descriptionem valde a *D. concentrica* divergit (Rehm).

7. **Daldinia vernicosa** (Schw.) Ces. et De Not. — Syll. I, p. 394. — 2084
f. **microspora** Starb. Ascom. Regnell. exped. II, 1901, pag. 6. —
Recedit sporidiis elliptice v. circulariter disciformibus, angulosis, 8,5-10 \approx 5-6.

Hab. ad truncos mucidos, Guia, Matto Grosso Brasilæ.

NUMMULARIA Tul. — Syll. I p. 395, IX p. 569, XI p. 288, XIV p. 513, XVI p. 1129.

1. **Nummularia pezizoidea** P. Henn. Fungi Amaz. III, p. 260 (Hedw). 2085
— Stromatibus primo tectis dein erumpentibus margine crasso cortice velatis, rotundato-discoideis atro-carbonaceis; ostioli punctiformibus elevatis, ca. 4-8 mm. diam.; peritheciis immersis suboblongis; ascis clavato-cylindræis, obtuse rotundatis, p. sp. 80-90 \approx 8-10; paraphysibus filiformibus guttulatis ca. 1 $\frac{1}{2}$ -2 μ . crassis, hyalinis; sporidiis oblique monostichis, ovoideis v. subfusoides, utrinque subacutis, brunneis 10-13 \approx 5-8.

Hab. in cortice arborum, Rio Juruá, Marary Amazoniæ — Habitu *N. discretæ* æmula, sporidiis fusoides omnino recedit.

2. **Nummularia commixta** Rehm, Hedw. XLIV, p. 6. — Stromatibus 2086
per corticem laceratam emergentibus, in cortice interiore linea atra diffusa late circumscriptis, oblongis, 1-4 cm. long., 0,5-1 cm. lat. 2 mm. cr., convexulis, fusco-atris, nitentibus, carbonaceis, papillis minimis, semiglobosis apice truncatis, et impressis, poro vix perspicuo pertusis, subverruculosis; ascis cylindræis longissimis, octosporis; sporidiis fusiformibus, rectis vel subcurvatis, 1-cellularibus, dilutissime brunneolis, 25-27 \approx 7-8, monostichis.

Hab. ad ramulum, Petropoli, Rio de Janeiro Brasilæ (Doct. v. HÖHNEL). — Ostioli minutis et sporidiis majusculis prædistincta species.

3. **Nummularia fuscella** Rehm, Ann. Mycol. 1904, p. 176. — Stroma- 2087
tibus peridermio albescente lateraliter subconspicuo tectis dein nudis, oblongis vel orbicularibus, mox confluentibus, primitus distincte nigro-marginatis 1-2 cm. longis et latis, planis, subfuscis, ostioli haud protuberantibus nigropunctatis, intus nigris, carbonaceis, corticem interiorem linea tenui nigra percurrentibus; peritheciis arcte congregatis, ovoideis, usque 0,8 mm. latis, monosti-

chis; ascis evanidis; sporidiis ellipsoideis, subfuscis, 1-cellularibus, 12-15 \times 7.

Hab. ad lignum decorticatum Celtidis, Texas Amer. bor. (LONG). — Proximum *Hypoxylon atropunctatum* (Schw.) Cooke (= *Anthostoma atropunctatum* Sacc.) sporidia 25-30 \times 10-12 præbet; nostra sporidiis multo minoribus imprimis diversa, ad *Nummulariam* stromatis causa ponenda species; *Hyp. atropurpureum* Fr. colore atropurpureo, *Anthostoma formosum* Ell. et Ev. in Celtide, sporidiis 7-10 \times 3-4 divergunt (Rehm).

4. **Nummularia flosculosa** Starb. Ascom. Regnell. exped. II, 1901, 2088 p. 11, fig. 10-11. — Stromatibus longe lateque effusis, subdeterminatis, crustæformibus, carbonaceis, intus atratis, extus sordide fusco-nigris 0,5-1 mm. altis; peritheciis monostichis, numerosis, densissime constipatis, cylindrico-obpiriformibus; ostiolis longiusculis hinc inde aggregatim erumpentibus.

Hab. ad truncos, Santo Angelo, Rio Grande do Sul Brasiliæ. — Ad superficiem stromatis in concavitatibus, linea circulari vel subflexuosa determinatis, ostiola aggregata ornamentum effiguratum patellarum 5-30, acutiuscule et verticaliter et annulatim marginatarum instar formant, qua re species mox cognoscenda. Concavitates ostiolorum 100-500 μ . diam.; perithecia 60-100 μ . diam. et 500 μ . alta. Asci et sporidia jam resorpta.

SOLENOPLEA Starb. Ascom. Regnell. exped. II, 1901, p. 13 (Etym. *solen* tubus et *pleos* plenus). — Stroma marginatum, fere totum peritheciis cylindricis altissimis plenum. Asci numerosissimis e parietibus perithecii ubique oriundi. Sporidia continua, fuliginea.

1. **Solenoplea microspora** Starb. l. c. fig. 13-15. — Stromatibus im- 2089 mersis v. erumpentibus, solitariis v. longitudinaliter confluentibus, ellipsoideis, utrinque subacuminatis, applanatis, extus carbonaceis, atris, 2-4 cm. long. 4-15 mm. latis; peritheciis anguste cylindraceis v. subprismaticis, stromatis altitudine, vulgo 8 mm., 1 mm. cr., membranaceis; ascis copiosissimis cylindræis apice rotundatis, breve pedicellatis, p. sporif. 15-30 \times 3-4; sporidiis octonis, monostichis, minutissimis, ovoideis e latere compressiusculis, medio depresso-biconcavis, olivaceis, 2-3 \times 1-1,5; paraphysibus nullis.

Hab. ad truncos San Antonio pr. Asuncion, Paraguay. — *Nummulariæ discoideæ* affinis videtur.

CAMILLEA Fr. — Syll. I p. 346, IX p. 541.

1. **Camillea turbinata** (Berk.) Speg. cfr. Syll. IX, p. 541, n. 2203 ²⁰⁹⁰
 nota — var. **obpatellata** Starb. Ascom. Regnell. exped. II, 1901,
 pag. 4, fig. 1. — Stromatibus turbinatis, apice acutiuscule margi-
 natis, obpatellatis, basi 4-5 mm. lat., superne 8-17 mm. diam., 6-
 12 mm. alt., margine patellæ 1-3 mm. lato; peritheciis 2-3 mm.
 alt.; sporidiis ovoideis curvulis, utrinque rotundatis, fuligineis,
 12-18 \times 6-9.

Hab. ad truncos putres, Santo Angelo pr. Cachoeira, Rio Grande
 do Sul Brasiliæ. — A var. *guaranitica* Speg. parum differt forma
 magnitudineque sporidiorum et stromatum.

PORONIA Will. — Syll. I p. 348, IX p. 542, XI p. 285, XVI
 p. 451.

1. **Poronia hemisphærica** Starb. Ascom. Regnell. exped. II, 1901, ²⁰⁹¹
 p. 12, fig. 12. — Stromate stipitato, e basi sclerotioidea, fusco-
 atra difformi et marcida, primitus verisimiliter claviformi, stipitem
 versus angustiore, subhorizontali 1,5 cm. alto, 5-8 mm. lato;
 stipite glabrescente vel rugosiusculo, longitudinaliter striato, co-
 riaceo 4-5 cm. longo, 1-2 mm. cr., sursum sensim angustiore;
 capitulo hemisphærico infra plano vel fere concaviusculo, radiatim
 striatulo, sursum convexo ochraceo, margine acutiusculo, ostiolis
 prominulis, nigro-punctato, 4-5 mm. lato, 2-3 mm. alto, molliter
 carnosio dein fragili; ascis immaturis visis.

Hab. in fimo equino prope Arecã, Matto Grosso Brasiliæ. —
 Affinis *Por. Doumetii* Pat.

2. **Poronia polyporoides** P. Henn. F. Indiæ or. II in Hedw. 1901. ²⁰⁹²
 p. 340. — Stromatibus carnosis, pileiformibus, stipitatis, convexis,
 cretaceis, margine undulatis, superne atro-punctatis, 4-9 mm. d.,
 extus pallidis, furfuraceis, stipite subtereti longe radicato, albido,
 subfurfuraceo, ca. 5 mm. longo, 1-1,5 mm. cr.; peritheciis im-
 mersis subglobosis, subhemisphærico-prominulis; ascis clavatis,
 obtusis 80-90 μ . longis, p. sporif. 60-65 \times 7-8, octosporis; para-
 physibus filiformibus, hyalinis 1-1,5 μ . cr.; sporidiis oblique mo-
 nostichis, ellipsoideis, obtusis, 9-12 \times 5-6, atris.

Hab. in ramis emortuis et ad terram, Saharanpur-Garden In-
 diæ orient.

SQUAMOTUBERA P. Henn. Hedw. 1903, p. (308) (Etym. *squama* et
tuber). — Stromata subterranea (?) tuberiformia, rotundato-de-

pressa, intus subcarnosa, pallida, extus membranis subpapyraceis squarrosis vestita. Hyphæ fertiles septatæ, ramosæ. Conidia catenulata subglobosa v. ovoidea, hyalina. Perithecia stromate atro ubique immersa, ostiolis subhemisphæricis, punctiformibus, atris. Asci octospori, cylindranei. Sporidia oblongo-fusoidea, fusca. — *Penzigiæ* et *Engleromyzeti* affine genus.

1. **Squamotubera Le-Ratii** P. Henn. l. c. Charact. gen. — Stromatibus 2093 siccis 7 cm. longis, 5 cm. lat., 15 mm. cr. squamis griseis vestitis; hyphis conidiophoris 2-4 μ . cr., conidiis longe catenulatis subgloboso-ovoideis, granulosis v. verrucosis, 6-9 μ . long.; peritheciis periphericis atro-carbonaceis, ellipsoideis v. ovoideis, 0,8-1 mm. long., 0,5-0,8 mm. cr., ostiolis prominulis; ascis cylindraneis, 8-sporis; sporidiis oblique monostichis, oblongo-fusoideis, utrinque obtusiusculis, 1-3-guttulatis, 12-17 \approx 4-6, atro-fuliginis.

Hab. subterranea?, in collibus pr. Nouméa Novo-Caledoniæ (LE RAT).

CAPNODIELLA Sacc. Syll. fung. I (1882) p. 74 (ut subg. *Capnodii*), *Sorica* Giesenh. Berichte Deut. Bot. Gesell. 1904, p. 195, t. XIII, — Stroma filiforme cylindricum apice perithecium singulum longicolle gerens; perithecium firmum, siccum subcorneum. Asci longe stipitati, clavati, octospori, aparaphysati. Sporidia globosa, unicellularia, brunnea. Adsunt adsociata pycnidia globulosa, brevius stipitata et conidiophora filiformia septata, apice capitulum conidorum ferentia. — Videretur, teste cl. Giesenhagen, *Xylaria simplex* nec genus capnodiaceum.

1. **Capnodiella maxima** (B. et C.) Sacc. *Sorica maxima* (B. et C.) Giesenhag. Berichte Deut. Bot. Gesell. 1904, p. 358, *Capnodium maximum* B. et C. — Syll. I, p. 74 — *Sorica Dusenii* Giesenh. Berichte Deut. Bot. Gesell. 1904, p. 192. — Stromatibus vix 2 mm. longis, fasciculatis, ubique conidiophora simplicia piliformia gerentibus; conidiis minutis ovoideis, hyalinis; peritheciis oblongis longicollibus; ascis clavatis 8-11 μ . cr., cum stipite ca. 100 μ . long.; sporidiis subdistichis, 5-7 μ . diam., brunneis 1-guttatis; pycnidiis 150-170 μ . diam.; sporulis fusoideis 8-10 \approx 2, subhyalinis.

Hab. parasitica ad soros Polypodii crassifolii M. Serrat in prov. Rio de Janeiro Brasiliæ (P. DUSEN) et Polypodii sp. in insula Cuba.

An cum Perithecia pseudocidium sp. (J. Guér. I, n. 321) metagenetice connata!

XYLARIA Hill. — Syll. I p. 309, IX pag. 523, XI pag. 283, XIV p. 504, XVI p. 442.

1. *Xyloglossa*.

1. **Xylaria polymorpha** (Pers.) Grev. — Syll. I, p. 309. — var. **acuminata** Starb. Ascom. Regnell. exped. II, 1901, p. 21, fig. 35-36. — Stromatibus subsessilibus basi nigricanti-villosis, sursum dilatatis abrupteque in apicem acuminatum sterilem contractis; peritheciis majusculis protuberantibus; sporidiis 22-25-32 \times 6-8. 2095

Hab. ad truncos Rio Grande do Sul Brasiliæ et pr. Asuncion Paraguay. — Stromata 20-40 \times 8-14 \times 4-6 mm.

2. **Xylaria xanthophæa** Penz. et Sacc. in Malpighia 1901, p. 226, 2096
Ic. fung. Jav. t. XXII, fig. 3. — Stromate tereti-clavato, apice obtuso, carnosulo-molli, flavo-brunneo; parte ascigera superiori, extus ab inferiori sterili seu stipite vix distincta; peritheciis penitus immersis, in 4 v. 5 pluresque series dispositis, perfecte sphericis, 400-500 μ . diam., nigris, sed non carbonaceis; ostiolis perexiguis vix visibilibus; ascis cylindricis, apice obtusulis 50-65 \times 3,5-4; sporidiis oblique monostichis, ellipsoideis, minutis, 4-5 \times 3,5 fuliginis.

Hab. ad truncos, Tjibodas, in insula Java (M. FLEISCHER). — Ad sect. *Xyloglossa* pertinet, sed structura peculiari prædistincta.

3. **Xylaria Weinlandii** P. Henn. F. Indiæ orient. II, in Hedw. 1901, 2097
p. 341. — Stromatibus cylindraceo-clavatis, stipitatis, apice obtuso rotundatis, ferrugineo-corticatis, striatis v. rugulosis, 1-2 cm. longis, 2-3 mm. cr., intus farctis, pallidis; stipite tereti, strato, ferrugineo 1-2 cm. longo, 1-1,5 mm. cr.; peritheciis immersis, subovoideo-globosis, atris, 0,3-0,5 mm. diam., ostiolis subhemisphærico-prominulis, atris; ascis cylindraceo-clavatis, breve attenuato-stipitatis, apice obtusis, 150-160 \times 7-8, octosporis; paraphysibus filiformibus, hyalinis, copiosis; sporidiis fusoido-allantoideis, utrinque subacutiusculis, atris 20-28 \times 5-7.

Hab. in trunco emortuo, Novo-Guinea.

4. **Xylaria peperomioides** P. Henn. F. Indiæ orient. II, in Hedw. 1901, 2098
p. 340. — Stromatibus cylindraceo-clavatis, longe stipitatis, clavula utrinque attenuata, apice conoideo-acuta, pallide umbrinis 1-4 cm. longis, 2 mm. cr., intus farctis pallidis; stipite flexuoso, longe radicato, atro-brunneo corneo, usque ad 4 cm. longo, 1 mm. cr.;

peritheciis immersis subovoideis, ostioliis conoideis acutis prominentibus, atris; ascis cylindræo-clavatis, apice rotundato-obtusis, longe stipitatis, p. sporif. 20-25 \approx 3-3,5; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, atris 3-3,5 \approx 2,5-3.

Hab. ad terram, Saharampur-Garden Indiæ orient.

5. **Xylaria paraensis** P. Henn. Fungi paraenses II, in Hedw. 1902, 2099 p. 17. — Stromatibus clavatis, longe stipitatis, alutaceo-ferrugineis, pruinosis, 4-5 cm. altis; stipite subtereti, basi discoideo 2-3 cm. longo, 1-1,5 mm. cr.; clavula subcylindræo-compressa, obtusa, 2-3 cm. longa, 3-5 mm. lata, alutacea, rimosa, sicca longitudinaliter sulcata, subinvoluta, intus pallida; peritheciis immersis, subglobosis v. ovoideis, atro-carbonaceis, apice obtuse rotundatis, basi attenuato-stipitatis p. sp. 120-140 \approx 8-10; paraphysibus filiformibus 2-3 μ . cr.; sporidiis monostichis oblonge ellipsoideis utrinque obtusis, rectis v. curvulis, atris 18-22 \approx 5-7.

Hab. in ligno putri, Pará Amer. austr.

6. **Xylaria Huberiana** P. Henn. Fungi paraenses II, in Hedw. 1902, 2100 p. 17. — Cæspitosa; stromatibus conidiophoris erectis, simplicibus, subulatis v. ramosis 1-1,5 cm. altis, rugulosis, ramulis compressis, subulatis; stromatibus perithecigeris clavatis, stipite brevi, rugoso levi, usque ad 5 mm. longo, 1-1,5 cm. cr., atro; clavulis oblonge ovoideis, compressis, apice obtusis vel acutiusculis; tuberculato-verrucosis, ca. 5-10 mm. long., 4-5 mm. latis; peritheciis immersis, subglobosis; ascis cylindræis, pedicellatis; octosporis oblique monostichis, oblongis inæquilateralibus, utrinque obtusis v. acutiusculis, 20-30 \approx 6-10, atris.

Hab. in ligno putri, Pará Amer. austr.

7. **Xylaria grammica** Mont. — Syll. I, p. 317. — var. **blumenavica** 2101 P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 15. — Stromatibus usque 20 cm. longis; stipite circa 4 cm. longo; ascis 75-80 \approx 4-5, stipite 15-20 μ . longo; sporidiis 10-12 \approx 4.

Hab. in lignis, St. Catharina Brasiliæ austr.

8. **Xylaria coccinea** P. Henn. Hedw. 1904, p. 89. — Stromatibus 2102 subclavatis, subpedicellatis, apice obtuse rotundatis, interdum longitudinaliter sulcatis, amœne coccineo- vel sanguineo-corticatis, subnitentibus, ostioliis punctiformibus subhemisphærico-prominulis, atris, intus atro-carbonaceis, 2-2,5 cm. longis, 4-7 mm. cr., stipite brevi subatro; peritheciis immersis subglobosis; ascis cylindræis p. spor. ca. 70-100 \approx 5-6, octosporis, paraphysatis; sporidiis

monostichis oblonge fusoides, inæquilateralibus, utrinque obtusis vel subacutis, atris 15-20 \times 4-6.

Hab. in lignis putrescentibus, Macahé, Rio de Janeiro Brasiliæ.

9. **Xylaria brevipes** Starb. Ascom. Regnell. exped. II, 1901, pag. 16, 2103 fig. 22-23. — Stromatibus cæspitosis, simplicibus vel bifurcatis; clavulis cylindræis interdum compressis, longitudinaliter medio plicatis; peritheciis prominentibus sæpe sulcato-torulosis 1-3 cm. long., 1-3 mm. latis; stipite breviusculo tereti vel subcompresso, villosulo, basi bulboso pannoso; columella fragili, pallide brunnea; peritheciis globosis, majusculis 400-500 μ . diam., papillula erumpentibus; ascis fere resorptis; sporidiis octonis, monostichis, inæquilateralibus, utrinque obtusis, fuliginæis, 9-11 \times 5-6.

Hab. ad truncos dejectos, Buriti, Matto Grosso Brasiliæ. — Videtur affinis *Xyl. columniferæ* Mont.

10. **Xylaria reniformis** Starb. Ascom. Regnell. exped. II, 1901, p. 21, 2104 fig. 30. — Stromatibus subglobosis v. inferne applanatis, semiglobosis vel reniformibus, siccis collabentibus, demum rimosis, extus carbonaceis, medulla ochracea, sicca contracta, tabacino-violascenti, 15 mm. diam. vel 22-25 mm. lat., 12-15 mm. cr., 12-22 mm. alt.; stipite a clavula distincto, brevi, oblique fixo v. bifurcato, basi subdilato, vix rugosulo, atrato, 4-6 \times 2-3 mm.; peritheciis perifericis, monostichis, subglobosis, 300-500 μ . diam.; ostioli punctiformibus, centro papillulatis, vix prominentibus, nigris; ascis cylindræis, longiuscule pedicellatis apice rotundatis 140-160 \times 8-12 p. spor.; sporidiis octonis, monostichis, fusoides, utrinque acutiusculis, fuliginæis, 25-30 \times 6-10; paraphysibus filiformibus, ramulis, guttulatis.

Hab. ad truncos, Buriti, Matto Grosso Brasiliæ. — Habitus *Penzigiam cranioidem* in memoriam revocat.

11. **Xylaria corrugata** Har. et Pat. Journ. de Bot. 1903, p. 13. — 2105 Valde polymorpha, sæpius in laminam applanatam superne latiorrem basi cuneiformiter attenuata compressa, 3-5 cm. alta, 4 mm. cr., apice 2-4 cm. lat., nonnullis formis diversis sed semper compressis ludens; stipite recto, carbonaceo, subcylindrico, plus minus sulcato-rugoso, rufo-atro, statu juvenili tenuiter scruposo-villoso, dein glabriusculo, clava a stipite discreta, atra, corrugata, minute rugosa, ostioli vix prominulis conspersa, intus farcta, albida; peritheciis immersis, globosis, atris; sporidiis subfusoides, inæquilateralis, 20 \times 10.

Hab. ad lignum emortuum, Men-Non Novæ-Caledoniæ (BERNIER).

12. **Xylaria hemiglossa** Pat. in Bull. Soc. Mycol. 1902, pag. 301, 2106
t. XIV, fig. 1. — Simplex; stromate indurato, lignoso, brunneo-atro, sublanato, levi, ostiolis minutissimis sub lente punctato, intus albo, supra convexo perithecigeroque, infra marginato, margine obtuso involuto, subtus plano concavo sterili, primitus subhemisphærico dein lanceolato, apice obtuse acutato; stipite brevi, glabro, concolori, laterali, tuberculiformi; peritheciis immersis, confertis, monostichis, ovoideis, ostiolis vix exsertis; sporidiis brunneis $7-8 \approx 5$, simplicibus, ovoideo-inæquilateralibus.

Hab. ad truncos emortuos Novæ-Caledoniæ. — Inter *Xylariam* et *Hypoxylon* intermedia.

13. **Xylaria bertioides** Starb. Ascom. Regnell. exped. II, 1901, p. 16. 2107
fig. 20-21. — Stromatibus dense gregariis, sæpe inter se liberis, raro 2-pluribus connexis; stipite tenui vel robustiore difformi, sæpe compressiusculo 0,2-2 mm. long. 0,2-1, mm. cr., vulgo abrupte in clavulam transeunte, clavula valde versiformi ovoidea vel multangula, utrinque acutata, undique fertili, vix apice excepto, 0,5-4 \approx 0,2-3 mm., rufo-atrata stipiteque tuberculis polygonis, sæpissime sulcatis, 250-350 μ . diam., dense ornatis; peritheciis perpaucis, immersis, sphæroideis vix prominentibus; ascis cylindraceis, longiuscule pedicellatis, apice obtusis, p. spor. 65-75 \approx 6,5, octosporis; sporidiis monostichis discoideo-canaliculatis 9-11,5 \approx 6-1 \approx 1,5; paraphysibus guttulatis.

Hab. ad corticem crassiorem, Buriti, Matto Grosso Brasiliæ. — *Bertiam moriformem* habitu æmulatur; *Xyl. vernicosæ* et *X. humili* proxime affinis.

2. *Xylocoryne*.

14. **Xylaria claviformis** Starb. Ascom. Regnell. exped. II, 1901, p. 17. 2108
— Stromatibus sessilibus vel brevissime stipitatis, clavatis vel ovoideis, primo teretiusculis, integris, dein e latere collabentibus, sæpe longitudinaliter medio rimosis, carbonaceo-fragilibus, extus fusco-nigris, villo fasciculatim tuberculoso, brevissimo, olivaceo fuscescente, præsertim basim versus vestitis, intus excavatis ochraceis 10-12 \approx 4-6 mm.; peritheciis omnino immersis, sphæroideis, lenticulariter emergentibus, 400-600 μ . diam., ostiolo 50-75 μ .

diam., albido-farinoso; ascis jam resorptis; sporidiis ovoideis v. ovali-oblongatis, utrinque rotundatis vel acutulis, plerumque biguttatis, $9 \approx 4$.

Hab. ad truncos, Buriti, Matto Grosso Brasilæ. — *Xyl. cubensi* proxime affinis, sed potius e sect. *Xylocoryne*.

15. **Xylaria barbata** Starb. Ascom. Regnell. exped. II, 1901, p. 14, 2109 fig. 19. — Stromate ovato vel cylindraceo-clavato, utrinque obtuso vel fere applanato, pilis densis subinde fasciculatis, rigidis, parce septatis villosulo-rugosis, atratis; clavula $25 \approx 10$ mm., stipite æquali, atro-velutino $40 \approx 2,5-3$ mm. suffulta, extus carbonacea fragili; medulla ochracea laxissima; peritheciis periphericis, monostichis, sphæroideis, immersis, conico-lenticulari-emergentibus, minute papillatis, maximis 0,5-1,5 mm. diam.; ascis cylindraceis, breviter pedicellatis, apice rotundatis $150-170 \approx 10-12$; sporidiis octonis, monostichis, fusiformibus, rectis vel curvulis, utrinque acutiusculis, sæpe guttulatis, fuligineis $32-37 \approx 7,5-9$; paraphysibus guttulatis, hyalinis, ascos superantibus.

Hab. ad truncos, Colonia Ijui, Rio Grande do Sul Brasilæ. — *Xyl. tigrinæ* affinis videtur.

16. **Xylaria similis** Starb. Ascom. Regnell. exped. II, 1901, pag. 23, 2110 fig. 33-34. — Stromatibus anguste cylindraceis v. basi vix crassioribus, interdum subtortuosis, rectiusculis, rugosiusculis, fusconigris inter areolas fuscescentibus, ex ostioli minute asperulis, nitide nigris, punctulatis, 10-35 mm. long., 2-4 mm. cr.; stipite paullo dilutiore, adpresse fusco-villosulo, 5-17 mm. long., 2-3 mm. cr.; ascis linearibus, longiuscule pedicellatis, apice rotundatis, p. s. $56-70 \approx 6-7,5$; sporidiis octonis oblique monostichis, ovoideo-ellipsoideis, utrinque acutiusculis, fuligineis $9 \approx 5$; paraphysibus guttulatis ascos superantibus.

Hab. ad truncos Coxipó, Mirim, Matto Grosso Brasilæ. — *X. hispidulæ* et *X. Holmbergi* affinis.

17. **Xylaria californica** Earle in New York Bot. Gard. 1902, p. 347. 2111 — Gregaria vel subcæspitosa; stromatibus tenuibus, simplicibus erectis vel curvulis, 7 cm. long. vel plus, ad basim dense hirsutis 1,5 mm. crassis; setulis basalibus intense brunneis fere nigris; clavulis perithecigeris 2-2,5 cm. longis, et 2 mm. crassis; peritheciis 50 vel plus, prominentibus, subhemisphæricis, nigris, ostiolo papilla crassa prædito; ascis cylindraceis $75-85 \approx 7$; sporidiis longitudinaliter monostichis, subinæquilateralibus, nigro-brunneis, $14 \approx 6$; sporidiis fusiformibus, hyalinis, continuis $10-11 \approx 3$.

Hab. in ramis dejectis, terra immersis, Coast Range, S. Mateo Californiae.

18. **Xylaria argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 69. 2112

— Stromatibus sæpius cæspitosis, rarius solitariis 20-40 mm. alt., aterrims; clavulis difformibus, typice ovatis vel elliptico-ovatis 8-20 mm. long., 5-10 mm. diam., sed non raro conoideis, globosis, leniter denseque subgranulato-colliculosis, fere ut fructus rubi, nigris sed sub luce refracta cærulescentibus, sæpe pulvere grumoso albido hinc inde laxè adpersis, apice acutis v. obtusissimis, basi abrupta cuneatis ac in stipitem 10-20 mm. long., 2-2,5 mm. cr. subiculo rigido, atro, pannoso, atro-olivaceo arcte vestitum productis, intus compactissimis, candidis, sublignosis; peritheciis globosis, prominulis, periphericis 0,5-1 mm. diam.; ascis cylindraceutis 10-11 μ . cr., cito diffluentibus; sporidiis monostichis, fusoideo-navicularibus, utrinque acutiusculis, 28-30 \times 7-8, eguttulatis v. grosse 1-3-guttulatis, levibus.

Hab. ad ramos dejectos putrescentes prope Puerto Pampa in Argentina (E. KERMES).

19. **Xylaria violaceo-pannosa** Starb. Ascom. Regnell. exped. II, 1901, 2113

p. 24, fig. 27. — Stromatibus simplicibus, stipite curto ad basin pannoso, bulboso-conico, intus amœne violaceo v. atro-violaceo, extus fusco, cortice membranaceo, toto fragili vestito, 10-15 \times 5-8 mm., clavula clavata, compressa, irregulariter undulato-plicata v. curvata, superne obtusa v. subtruncata, hinc inde verruculoso-rugosa v. villo (an reliquiae st. conidiophori?) hyphis brevibus intricatis composito obsessa, peritheciis punctata, areolato-rimosa, contextu coriaceo-carbonaceo, atro-violaceo, 20-25 \times 6-10 \times 2-5 mm.; peritheciis monostichis, globulosis, 300-400 μ . diam., disculo atro medio papillato; ascis cylindraceutis 80 \times 6, stip. 25 μ . longo; sporidiis octonis monostichis, ellipsoideis, curvulis, utrinque obtusis, 10-11 \times 5-5,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Antonio pr. Asuncion, Paraguay (LINDMAN).

— *Xyl. corniformi* et *X. Holmbergii* affinis, a prima colore, ab altera statura minore etc. dignoscenda.

20. **Xylaria Juniperus** Starb. Ascom. Regnell. exped. II, 1901, p. 19, 2114

fig. 27. — Stromatibus gregariis vel parce cæspitosis, simplicibus, rarius 2-3 fasciculatis sæpissime stipitatis; stipite 6 \times 1-2 mm., rugosiusculo villoso, difformi, parte perithecigera undique fertili plerumque pileiformi a stipite discreta v. cylindraceuto-ovata v. conice cupressiformi, cinereo-atrata, superficie undulata, extus carbonacea,

reticulatim rimosa, cortice pallide tabacino prædita, intus medulla ochraceo-albida, laxa, 1-1,5 mm. diam. v. 2-10 \times 1-2,5; peritheciis monostichis immersis sphæroideis, ostiolis longiusculis per rimas corticis, leviter conico-prominulis, 200-500 μ . diam.; ascis cylindraceis, apice rotundatis, longissime pedicellatis 76-82 \times 6-8 p. sp.; sporidiis monostichis ellipsoideis, inæquilateralibus, vulgo utrinque acutiusculis bi- vel uniguttulatis, fuliginis, 12-15 \times 5-6; paraphysibus confluentibus hyalinis.

Hab. ad truncos putres, Mbopy et S. Antonio prope Asuncion Paraguay. — Affinis videtur *Xyl. cylindricæ*. — Var. **asperula** Starb. l. c. p. 20, fig. 28-29: stromatibus cylindraceis apice acutatis; stipite basin versus subdilatato, patenti-villoso, 10-15 mm. longo, 1,5 mm. cr., parte fertili 15-20 mm. long., 2-3 mm. cr.; peritheciis majoribus, sphæroideis, ostiolis conico-prominentibus; ascis p. sp. 84-100 \times 8-9; sporidiis 15-18 \times 6-7. Ad truncum putrescentem inter Bambusas, Mbopy et Paraguari Paraguay. — Præcipue ostiolis a typo dignoscitur.

3. *Xylodactyla*.

21. **Xylaria Longiana** Rehm, Ann. Mycol. 1904, pag. 175, Ellis et 2115 Everh. F. Columb. n. 1417, sub *X. Hypoxylon*. — Stromatibus solitariis, plerumque gregarie in ligno denigrato nidulantibus, subcylindraceis, rectis, 3-3,5 cm. longis, 2-4 mm. latis, sensim in stipitem cylindraceum, versus basim dilatatum ibique interdum villo fusco vestitum, ca. 5 mm. long., 2-3 mm. latum abeuntibus, ad apicem usque 3 mm. longe acutum sterilibus, longitudinaliter rugosiusculis, fusco-nigris, glabris, peritheciis globosis 0,4 mm. diam., prominentibus exasperatis ibique ostiolis conicis obtusis perspicuis obtusis; ascis cylindraceis, longissimis, pr. sporif. ca. 70 \times 6-7, octosporis; sporidiis ellipsoideis, plus minusve acutiusculis, rectis vel subcurvatis, 1-cellularibus, fuscis 8-9 \times 4, monostichis; paraphysibus filiformibus.

Hab. ad lignum *Quercus*, Texas Amer. bor. (LONG). — Exemplaria secundum formam stromatis et magnitudinem sporarum bene cum *Xylaria simili* Starb. conveniunt, sed Starbäck hanc speciem ad subgenus *Xylocoryne* ponit, dum nostra exemplaria apice sterili stromatis, non minus ostiolis perithecorum valde prominentibus divergunt. Sporidia *X. cupressiformis* (Berk.) Sacc. multo majora sunt (Rehm l. c.).

22. **Xylaria deserticola** Speg. Myc. argent. ser. II, 1902, p. 70. — 2116

Stromatibus atris, 15-50 cm. long., 2-3 mm. cr., profunde terra infossis, dense ramoso-cæspitosis, ramis subgracilibus corrugatis ramulosis ac plus minusve anastomosantibus superficiem soli attingentibus atque clavuligeris, intus candidis; clavulis ad apicem ramulorum sæpius ternatis subcylindræis 5-10 mm. long., 4 mm. diam., varie compressis ac inter se confluentibus, rugulosis, nigris, in acumine albidis, intus subsuberosis albis; peritheciis globosis, dense constipatis immersis 0,50-0,75 mm. diam., atris; ascis cylindræis p. spor. 100-120 \approx 6-10, ped. 60-80 \approx 5-8, sursum subtruncatis, deorsum longe attenuato-pedicellatis, aparaphysatis vel paraphysibus vix ullis ornatis; sporidiis navicularibus sæpius monostichis, utrinque subacutiusculis, 16-18 \approx 5-6, levibus non v. grosse 1-2-guttulatis, olivaceis.

Hab. ex fissuris soli exurgens, e radicibus certe oriunda, in Sierra de los Himanes, S. Juan, in Argentina. — Species *X. fasciculatæ* Speg. et *X. digitatæ* (L.) Gr. certe affinis, habitu tamen longe recedens.

23. **Xylaria subtrachelina** P. Henn. Fungi S. Paulenses III, p. 207. 2117

— Stromatibus fusoides, stipitatis 1 $\frac{1}{2}$ -4 cm. long., 1-2 mm. crass., tuberculoso-rugosis, submoniliformibus, striatulis, atris, apice subacutis; stipite subtereti compresso pruinoso, vix tomentoso, 3-15 mm. longo, $\frac{1}{2}$ mm. crasso; peritheciis globosis immersis, ostiolis punctiformibus; ascis cylindræis, stipitatis, ca. 100-110, p. sp. 60-70 \approx 4-5, paraphysibus copiosis filiformibus; sporidiis oblique monostichis, navicularibus, obtusis, atris 8-10 \approx 3 $\frac{1}{2}$ -4 $\frac{1}{2}$.

Hab. ad truncos putres, Serra da Cantareira Brasiliæ. — *Xyl. trachelinæ* proxime affinis.

24. **Xylaria varians** Penz. et Sacc. in Malpighia 1902, pag. 225 et 2118

Icon. fung. Jav. t. XXII, f. 2. — Stromate cylindræo, modo simplici, modo bifido, aterrino; stipite plus minus longo, villosulo, cylindræo; clava pariter cylindræa, sed paullo crassiore, 4-5 cm. longa, 4-5 mm. crassa, intus fistulosa, glabra, apice rotundata breviterque sed acute mucronata; peritheciis immersis, majusculis, usque 800-900 μ . diam., ostiolis conicis parum exstantibus; ascis cylindræis deorsum sensim tenuatis, 110-130 \approx 5-6, octosporis; sporidiis monostichis, navicularibus, inæquilateris 10-13 \approx 4-5, utrinque obtusulis, fuliginosis, ut plurimum bi-guttulatis.

Hab. ad truncos, Tjibodas, in insula Java (FLEISCHER). — Spectat ad sect. *Xylodactyla* et forte accedit ad *X. dichotomam*.

25. **Xylaria consociata** Starb. Ascom. Regnell. exped. II, 1901, p. 17, 2119
fig. 24. — Stromatibus dense cæspitosis 5-7 basi pannosa conjunctis, raro solitariis, stipitibus simplicibus vel sæpe bipartitis, lineari-compressis, deorsum rugoso-hirtellis, sursum glabrescentibus 1-3 cm. long., 1-2 mm. lat., vix 300-500 μ . crassis, sensim in clavulas transeuntibus; clavulis simplicibus, sæpius vero bifurcatis, hinc vel utrinque medio canaliculatis, 1-2 cm. longis, 1-5 mm. latis, 0,5-1,5 mm. crassis; ramulis divergentibus, apiculatis vel truncatis; receptaculo levi, rimuloso, fusco, deinde peritheciis prominentibus tuberculato, apice sterili; peritheciis sphærico-mammiformibus, papillulatis 750 μ . diam.; ascis cylindraceutis, pedicellatis 55-65 \approx 6-7; sporidiis monostichis elliptico-navicularibus, fuligineis 9-10 \approx 4-5; paraphysibus indistinctis.

Hab. ad truncos Santa Anna da Chapada, Matto Grosso Brasiliæ. 2120

26. **Xylaria æmulans** Starb. Ascom. Regnell. exped. II, 1901, p. 13, fig. 16-18. — Stromatibus gregariis vel 2-pluribus connato-confluentibus, subsessilibus, basi spongioso-velutinis, simplicibus vel furcatis, compresso-cylindricis v. clavulatis v. difformibus, sæpius utrinque acutatis, ubique fertilibus v. apice acuminato sterilibus, rugosissimis, ex ostioliis asperulis, carbonaceo-coriaceis, fusco-atris, intus albidis, 10-20 mm. long. 1,5-4 mm. cr.; peritheciis sphæroideis, late conico-prominentibus, papillulatis, 400-600 μ . diam.; ascis cylindraceutis, longiuscule pedicellatis, apice obtusis, parte sporif. 55-57 \approx 6-6,5, octosporis; sporidiis monostichis, ovoideis vel ellipsoideo-navicularibus, utrinque acutulis 6-7,5 \approx 4-5; paraphysibus ramulosis hyalinis.

Hab. ad truncos mucidos dejectos, Cujabá, Matto Grosso Brasiliæ. — *Xyl. multiplici*, *Xyl. Hypoxylo* et *X. massulæ* affinis videtur.

27. **Xylaria amazonica** P. Henn. Fungi Amaz. II, p. 261, cum icone 2121
(Hedwigia 1904). — Stromatibus erectis, stipitatis 4-7 cm. longis, stipite subtereti, flexuoso, æquali, 3-5 cm. longo, 1-1 $\frac{1}{2}$ mm. crasso, atro-ferrugineo, pruinoso; clavula cylindraceuta obtusa vel rostrata $\frac{1}{2}$ -2 cm. longa, 3-4 mm. crassa, subrugulosa; peritheciis immersis, papillato-ostioliatis, subglobosis vel ovoideis, ca. 0,5-1 mm. diam.; ascis cylindraceuto-clavatis, 8-sporis, paraphysibus filiformibus, hyalinis; sporidiis oblonge navicularibus, utrinque obtusis vel subacutis, atris, 2-guttulatis 20-30 \approx 7-9.

Hab. in ligno putri Cachoeiras des Marmellos Amazoniæ. — *X. trachelinæ* affinis, sed sporidia multo majora.

28. **Xylaria gracillima** (Mont.) Fr. — Syll. I, p. 343. — var. **rhizomor-** 2122
phoidea P. Henn. Fungi S. Paulenses III, p. 207 (Hedw. 1904).
 — Stromate filiformi, rhizomorphoideo, ramoso, nigro, usque 7 cm.
 longo; peritheciis liberis ovoideis, seriatis vel varie congregatis,
 sessilibus, $\frac{1}{2}$ -1 mm. cr. nigris rugulosis, papillatis; ascis 60-70 \times
 4,5-5,5 p. sporif., longe stipitatis; sporidiis monostichis oblongis,
 inæquilateris, obtusis, atro-brunneis 8-12 \times 3,5-4,5.

Hab. ad fructus Lecythidis, Serra da Cantareira Brasiliæ.

29. **Xylaria subgracillima** P. Henn. Fungi Amaz. II, p. 262, cum 2123
 icone. — Stromatibus gregariis, erectis, stipitato-clavatis, 1-2 cm.
 longis, stipite subflexuoso, compresso, sulcato, atro-fusco pruinoso,
 5-10 mm. longo, 0,7-0,9 mm. crasso; clavula spiciformi interrupte
 verrucosa, apice interdum acutiuscula 5-15 mm. longa, 1-1 $\frac{1}{2}$ mm.
 crassa; peritheciis subliberis plus minus aggregatis, ovoideis vel
 subglobosis, atris, pruinosis, papillato-ostiolatis, ca. 1 mm. diam.;
 ascis cylindraceo-clavatis, obtuse rotundatis, 8-sporis, stipitatis,
 60-85 \times 4, paraphysatis; sporidiis oblique monostichis, ellipsoideo-
 navicularibus, atris, 6-8 \times 3-3 $\frac{1}{2}$.

Hab. ad truncos putres, Marmellos, Rio Madeira Amazoniæ. —

X. gracillimæ proxime affinis, sed sporidiis minoribus et peritheciis
 majoribus diversa.

30. **Xylaria juruensis** P. Henn. Fungi Amaz. II, p. 262, cum icone 2124
 (Hedwigia 1904). — Stromatibus subcæspitosis, erectis simplicibus
 v. furcatis, 1 $\frac{1}{2}$ -4 cm. longis, stipite subflexuoso, subtereti vel
 compresso, atro-tomentoso, 1-2 cm. longo, 1-2 mm. crasso; cla-
 vula interrupte perithecigera 1-2 cm. longa; peritheciis sparsis
 vel aggregatis, subliberis, subovoideis v. hemisphæricis, atris sub-
 rugulosis, papillato-ostiolatis, 0,7-0,9 mm. diam.; ascis cylindraceis,
 apice obtusis, plus minus stipitatis, 8-sporis, 100-120 \times 4-6; spo-
 ridiis oblonge navicularibus, utrinque subobtusis, atro-castaneis,
 12-17 \times 4-5.

Hab. ad stipites Palmarum Rio Juruá, Juruá-Miry Amazo-
 niæ. — Affinis *X. Apeibæ* sed sporidiis ceterisque notis diversa.

31. **Xylaria delicatula** Starb. Ascom. Regnell. exped. II, 1901, p. 18, 2125
 fig. 25-26. — Stromatibus primo conidiophoris, filiformibus, levi-
 bus vel basi sparse pilosis, nigris, circum circa basidiis hyalinis
 horizontalibus, conidia hyalina ellipsoidea 5-6 \times 1-1,5 gerentibus,
 obtectis, 10-20 mm. alt., 100 μ . cr., deinde infra apicem incrassatis,
 perithecigeris, clavula ovato-sphæroidea, ostiolis nigris asperulata
 1-2 mm. diam. vel 2-3 \times 1 mm., corneo-carbonacea; peritheciis

sphæroideis monostichis, late conico-prominentibus, acutiuscule papillulatis 200-300 μ . diam.; ascis cylindræis, longiuscule pedicellatis, apice obtusis p. spor. 70-72 \approx 9 octosporis; sporidiis monostichis, ellipsoideo-navicularibus, utrinque acutiusculis, vulgo guttulatis, fuligineis 12-12,5 \approx 7-7,5; paraphysibus filiformibus, hyalinis, ascos superantibus.

Hab. ad folia putrida Cuyaba, Matto Grosso Brasilæ. — *Xyl. aristatæ* proxime affinis. Stipes a basi ad medium patenti-villoso nigricante, a medio ad capitulum albo-villoso, 6-15 mm. long., 200-300 μ . cr.

32. **Xylaria procera** Starb. Ascom. Regnell. exp. II, 1901, p. 24, f. 39. 2126

— Stromatibus e basi villosa-velutina subbulbiformi v. fere scleroticea solitariis v. deorsum subconfluentibus, simplicibus v. partitis, basim versus cylindræis v. angulatis, ceterum complanatis, plicato-rugosis, sursum applanatis, levibus, *Celosia* instar margine arcuato-undulatis, inferius fuscescentibus, superne griseo-albescentibus, marginem versus lutescentibus, contextu coriaceo-corneo, 4 cm. longis, 1,5 cm. latis, 2-5 mm. crassis; conidiis (basidiis?) claviformibus, hyalinis, 10-15 \approx 4-5.

Hab. ad truncos, Porto Alegre Rio Grande do Sul Brasilæ. — Status conidicus tantum notus, hinc species incerta.

33. **Xylaria ramuligera** Starb. Ascom. Regnell. exped. II, 1901, p. 25, 2127

fig. 40. — Stromatibus e basi subincrassata solitariis; stipite simplici, atro, velutino v. patenti-villoso, parte fertili ramulis curtis interdum subuncinatis, solitariis v. fasciculatim conjunctis v. irregulariter multifidis ornata; hymenio columellam obscuram colore griseo-albicante vestiente, 1-2 cm. long., 1-2 mm. cr., contextu coriaceo-fragili; conidiis fusoido-clavatis, hyalinis, 6-9 \approx 2-4.

Hab. ad truncum humi jacentem putrem, Colon. Ijuhy Rio grande do Sul Brasilæ. — Status conidicus tantum notus, ideo species dubia.

34. **Xylaria confusa** Starb. Ascom. Regnell. exped. II, 1901, p. 24, 2128

fig. 38. — Stromatibus e basi scutellato-dilatata solitariis v. nonnullis divergentibus, filiformibus, interdum simplicibus plerumque monopodii modo ramuligeris, ramulis horizontalibus v. eleganter arcuatis acutissimis, interdum uncinatim acuminatis, usque 3 cm. long., 0,3 mm. lat., contextu ex hyphis agglutinatis formato; basidiis claviformibus conidiophoris ex hyphis exeuntibus, 25-35 \approx 10-12; conidiis piriformibus, hyalinis, 12 \approx 6.

Hab. in culmis *Bambusæ*, Colon. Ijuhy Rio Grande do Sul
 Brasiliæ. — Peritheciis deficientibus, species omnino dubia,

4. *Thamnomycetes*.

35. **Xylaria trichopoda** Penz. et Sacc. in Malpighia 1901, p. 226, Ic. 2129
 fung. Jav. t. XXII, f. 4. — Sparsa v. subgregaria; stromate ere-
 cto, anguste cylindraceo, simplici vel parce dichotomo-ramoso, ni-
 gerrimo, 3-5 cm. longo, basi 1-1,5 mm. cr., sursum conspicue
 attenuato, acuto, glabro, basim versus strigoso-hispido, filamentis
 aterrimis, 1 mm. long., ex hyphis conglutinatis compositis; peri-
 theciis liberis, globosis, inæqualiter per totam fere stromatis lon-
 gitudinem insertis, 0,7-1 mm. diam., intermixtis minoribus, minute
 sed distincte papillatis, carbonaceis, nigris; ascis cylindraceis, apice
 obtusulis, octosporis, longe stipitatis 150-160 \approx 5; stipite partem
 sporiferam subæquante; sporidiis oblique monostichis, fusoideo-
 navicularibus, utrinque obtusulis, 12-13,5 \approx 5, fuligineis.

Hab. ad corticem arborum, Tijbodas, in insula Java (M. FLEI-
 SCHER). — Forte affinis *X. hispidissimæ*, sed certe diversa.

36. **Xylaria rostrata** (Mont.) Sacc. — Syll. I p. 344. — var. **tenuior** 2130
 P. Henn. F. Amaz. II, p. 263 (Hedw. 1904). — Stromatibus multo
 tenuioribus, vulgo tantum basi ramosis, ca. 20 cm. long., ramis
 vix 1 mm. cr.; peritheciis minutis breviter rostratis, raro erostra-
 tis; sporidiis oblongo-navicularibus, 6-8 \approx 3-3,5.

Hab. ad truncos putres, typus in Rio Juruá, Juruá-Miry et var.
 in Rio Negro, Manaus Brasiliæ. — Observante cl. Hennings l. c.,
 cui assentior, genus *Thamnomycetes* Ehrenb. cum typica specie *Th.*
Chamissonis et *Th. camerunensis* est servandum. *Thamn. rostratus*
 ob perithecia rostellata et habitum scopiformem ut *Thamnomycetis*
 sectio propria (*Scopimycetes* P. Hennings) considerari potest. Revisio
 critica generis vere exoptata.

37. **Xylaria camerunensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. 2131
 Ita vocandus *Thamnomycetes Chamissonis* Ehr. var. *camerunensis* P.
 Henn. — Syll. XI, p. 285 sub *Xylaria*.

STILBOHYPOXYLON P. Henn. Fungi blumenavienses II, in Hedw.
 1902, p. 16 (Etym. *Stilbum* et *Hypoxylon*). — Stroma subcarbo-
 naceum, atrum, hypoxyloideum, subglobosum. Perithecia pauca,
 immersa, membranacea, pallida. Asci cylindracei immaturi. Stroma
 conidiophorum liberum v. stromate ascophoro insertum, subulatum

apice mucoso-capitatum. Conidia acrogena, subglobosa, fuscidula. Asci ignoti, ergo genus, quoad locum systematicum, dubium.

1. **Stilbohypoxyton Mölleri** P. Henn. l. c. — Lignicola; stromatibus 2132
subcarbonaceo-atris, erumpenti-superficialibus, sparsis v. gregariis, subgloboso-pulvinatis, ruguloso-verrucosis, ca. 1 mm. diam., interdum confluentibus; peritheciis subglobosis, membranaceis pallidis; ascis cylindraceutis subclavatis v. subfusoideis, basi attenuatis; paraphysibus copiosis filiformibus, hyalinis; sporidiis immaturis. — Stromatibus conidiophoris singularibus liberis v. stromatibus ascophoris lateraliter v. apice insertis, subulatis, atris, ex hyphis fuscis compositis, 0,8-1,2 mm. longis, basi incrassatis, 300-400 μ . cr., medio ca. 120 μ . cr., apice subclavatis 150-130 ab hyphis subhyalinis parallelis circumdatis; conidiis acrogenis subellipsoideis $3 \approx 2,5$ fuscidulis, levibus.

Hab. in truncis emortuis, S. Catharina Brasilæ austr.

MÖLLEROCLAVUS P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 15 (Etym. a cl. bot. *Möller* et *clavus*). — Stroma conidiophorum subcarnosum, elongato-fusifforme, lateraliter ramosum, ramuli breves apice capitati, capitulum ex hyphis radiantibus fuscidulis compositum. Conidia acrogena, ellipsoidea, continua. Stroma ascophorum subcarnosum, atro-corticatum, subclavatum. Perithecia immersa, subglobosa, immatura; hinc genus, quoad locum systematicum, dubium, sed certe *Xylariæ* cognatum.

1. **Mölleroclavus Penicilliopsis** P. Henn. Fungi blumenavienses II, in 2133
Hedw. 1902, p. 15. — Lignicola; stromatibus conidiophoris subcarnosis, subulatis usque ad 6 cm. altis, stipitatis; stipite subtereti, atro-pruinoso v. tomentosulo, usque ad 2 cm. longo, 2 mm. crasso, clavulis pallidis, irregulare sulcatis, lateraliter circumdato-ramosis, ca. 5 mm. cr., apice attenuatis, ramulis brevibus, aggregatis vel sparsis, ca. 1-2 mm. longis, 0,5 mm. cr., pallidis, apice pulvinato-capitatis, capitulis atris 3,5-4 mm. latis, ex hyphis radiantibus, septatis, fuscidulis, apice 1-sterigmaticis breve subulatis; conidiis subfusoideo-ellipsoideis, fuscidulis, $6-8 \approx 3,5-4$; stromatibus ascophoris subcarnosis, fusoideo-clavatis, sigmoideis usque ad 11 cm. longis, atro-corticatis, intus pallidis, cavis; stipite subtereti, usque ad 8 mm. cr., pruinoso v. ferrugineo-tomentoso; clavula apice attenuata acutiuscula v. obtusa, medio usque ad 25 mm. diam., compressa, punctato-verrucosa; peritheciis immersis, sparsis, subglobosis, atris, immaturis.

Hab. ad ligna putrescentia, dejecta pr. Blumenau, St. Catharina Brasiliæ (MÖLLER).

ANTHOSTOMA Nits. — Syll. I p. 293, IX p. 514, XI p. 283, XIV p. 503, XVI p. 441.

1. **Anthostoma gallicum** Sacc et Flag. in Atti Congr. bot. di Palermo 2134 1902, p. 50. — Peritheciis modo in acervulos parvos approximatis, modo subsolitariis, ligno infuscato v. atrato immersis, globosis, nigris, 800-900 μ . diam., interdum, matrice dilabente, subliberatis, membranaceo-carbonaceis; ostiolo emergente, rotundato, crassiusculo; ascis cylindræis, apice rotundatis, brevissime crasseque stipitatis, 140-160 \times 16, octosporis, filiformi-paraphysatis; sporidiis oblique vel subrecte monostichis, ellipsoideis, 30-36 \times 14-15, continuis, atro-fuligineis, eguttulatis.

Hab. in ligno carioso quercino, Rigny s. Arroux Galliæ. — Affine *A. veneto* sed omnibus partibus majus.

Sect. 4. Hyalodidymæ.

SPHÆRELLA Ces. et De Not. *) — Syll. I p. 476, IX p. 611, XI p. 295, XIV p. 525, XVI p. 468.

1. **Sphærella Fendleri** (Tr. et Earle) Sacc. et Syd. — Syll. XVI, 2135 p. 1133, *Mycosphærella Fendleri* Tracy et Earle, Plantæ Baker. I, p. 33. — Peritheciis minutis, sparsis, solitariis suberumpentibus; ascis oblongis, breve stipitatis 40-45 \times 10-12; paraphysibus nullis; sporidiis fusiformibus, obtusis, 1-septatis, hyalinis, leviter constrictis 15-17 \times 3,5-4.

Hab. in caulibus *Thalictri Fendleri*, Bob Creek, Colorado Amer. bor.

2. **Sphærella delphiniicola** (Earle) Syd. et Sacc. — Syll. XVI, p. 1133, 2136 *Mycosphærella delphiniicola* Earle, Plantæ Bakerianæ, fasc. II, fung. p. 19. — Maculis irregularibus nigrescentibus; peritheciis gregariis, fere sphericis, nigris, 100-150 μ . diam., in mycelio irregulariter ramoso insidentibus ostiolis inconspicuis; ascis aparaphysatis, clavatis, fasciculatis, 40-60 \times 6-8; sporidiis distichis, fere ovalibus, utrinque acutis, 1-septatis, non constrictis, 12 \times 3, hyalinis.

*) Quoad nomen *Sphærella* loco *Mycosphærellæ*, cfr. Syll. XVI, p. 468, nota.

Hab. in caulibus emortuis Delphinii, Pagosa Peak, South Colorado, Amer. bor.

3. **Sphærella Actææ** E. Rostr. Norske Ascom. 1904, p. 21 (Vidensk. Skrift.) — Peritheciis dense gregariis, minutis, sphæroideis; ascis clavatis, 38-40 \approx 9; sporidiis distichis, subnavicularibus, 15-16 \approx 5. 2137

Hab. in caulibus siccis Actææ spicatæ in Norvegia.

4. **Sphærella Pericopsidis** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Pericopsidis* P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 109. — Maculis fuscis, effusis; peritheciis hypophyllis, erumpenti-superficialibus, hemisphæricis, membranaceis, fuscis, minutis, 50-70 μ . diam., apice pertusis; ascis basi fasciculatis, clavatis, apice rotundatis, rectis vel curvulis, octosporis, aparaphysatis 25-32 \approx 4-5; sporidiis subdistichis, ellipsoideis vel clavatis, medio 1-septatis, haud constrictis, 6-8 \approx 3,5 hyalinis. 2138

Hab. in foliis Pericopsidis Monianæ in horto botanico, S. Paulo Brasiliæ.

5. **Sphærella elatior** Sacc. et Sp. — Syll. fung. I, pag. 495, Fungi ital. t. 386. — var. **apula** Sacc. et D. Sacc. — A typo distinguitur maculis foliorum distinctis, albicantibus, anguste ochraceo-marginatis, amplis irregularibus; peritheciis sæpius gregariis; cetera eadem. 2139

Hab. in foliis subvivis Magnoliæ grandifloræ, Foggia Apuliæ (Prof. STRAGAPEDE).

6. **Sphærella Cœrteliana** Sacc. Ann. Mycol. 1904, p. 528. — Peritheciis hinc inde in greges minutos densiuscule approximatis, punctiformibus, epidermide velatis, nigris, poro pertusis, 80 μ . diam., contextu minute parenchymatico; ascis anguste tereti-clavulatis, breviter noduloso-stipitatis, 32-35 \approx 6, aparaphysatis, octosporis; sporidiis oblique monostichis v. distichis, anguste cylindræo-clavulatis, 7-9 \approx 1,6-2, medio septatis vix constrictis, eguttulatis, hyalinis. 2140

Hab. in caulibus emortuis Coronillæ montanæ pr. Sondershausen Thuringiæ. — Ab affini *Sph. leptasca* Auersw. differt peritheciis hinc inde confertis, sporidiis brevioribus, matrice alia etc.

7. **Sphærella mimosicola** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella mimosicola* P. Henn. Fungi Amaz. IV, in Hedw. XLIV, p. 62. — Maculis fuscis gregariis, rotundatis, minutis, sæpe confluentibus; peritheciis hypophyllis sparsis vel gregariis, primo immer-sis, dein erumpenti-subsuperficialibus, subglobosis, atris, membranaceis ca. 80-120 μ .; ascis fasciculatis, aparaphysatis, clavatis, apice 2141

obtusis subincrassatis, 8-sporis, 30-42 \approx 10-14 μ .; sporidiis subdistichis, oblongis vel subclavatis, rectis v. curvulis, medio 1-septatis haud constrictis, hyalinis 12-18 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Mimosæ asperatæ*, Rio Juruá Brasilæ.

8. **Sphærella Tamarindi** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2142
Tamarindi P. Henn. in Notizbl. des Königl. bot. Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis explanatis; peritheciis epiphyllis sparsis, immersis dein erumpentibus subglobosis, minutis, membranaceis, atris, poro pertusis, 60-90 μ . diametr.; ascis fasciculatis, aparaphysatis, clavatis, vertice rotundatis, crasse tunicatis, 8-sporis, 36-43 \approx 13-16; sporidiis subdistichis oblonge ellipsoideis v. ovoideis, utrinque rotundatis, sæpe 2-guttulatis, hyalinis, deinde medio 1-septatis, 8-13 \approx 3-4 $\frac{1}{2}$.

Hab. in foliis *Tamarindi indicæ*, Dar-es-Salâm in Africa orient. germ. (Dr. STUHLMANN).

9. **Sphærella dryadicola** Rostrup, Fungi in Botany of the Faeröes 2143
1901, part. I, p. 310. — Peritheciis epiphyllis, subgregariis, atris; ascis ovoideo-oblongis 30-40 \approx 7-9; sporidiis cylindræis, 10-14 \approx 3-4 hyalinis, initio guttulatis, dein 1-septatis.

Hab. in foliis *Dryadis octopetalæ*, Fuglö in insulis Faeröes Daniæ.

10. **Sphærella rubicola** Mc. Alp. Proc. Linn. Soc. New South Wales 2144
1904, p. 126. — Maculis argenteo-griseis; peritheciis depressoglobosis, vix erumpentibus, sparsis, 140-190, poro latiusculo papillato pertusis; contextu membranaceo-atro-brunneo; ascis obclavatis, breve stipitatis, apice rotundatis, aparaphysatis, octosporis, 63-70 \approx 18-21; sporidiis vulgo biseriatis, cylindræo-oblongis, hyalinis, intus minute granulosus, medio 1-septatis, non constrictis, utrinque rotundatis, 21 \approx 7, cellula superiori paullo latiori.

Hab. in ramis adhuc viventibus *Rubi parvifolii* Arthur's Creek Vict. Australiæ.

11. **Sphærella Eugeniæ** (Rehm) Sacc. et D. Sacc. *Mycosphærella* *Eugeniæ* 2145
Eugeniæ Rehm, Hedw. XLIV, (1905). — Maculis exsiccatis foliorum suborbicularibus, fuscidulis, fusco-purpureo marginatis, 3-4 mm. lat.; peritheciis gregarie innatis, in hypophyllo demum prominentibus, globosis, nigris, poro pertusis, glabris, 60-80 μ . diam.; ascis elongato-ovoides, apice incrassatis 30-35 \approx 9, octosporis; sporidiis fusiformibus, medio septatis, hyalinis 15-17 \approx 2-2,5, tristichis; paraphysibus nullis.

Hab. in foliis *Eugeniæ Michellii*, Blumenau Brasilæ.

12. **Sphærella Cuboniana** D. Sacc. sp. n. — Peritheciis gregariis, sub- 2146
cutaneo-erumpentibus, globulosis, demum concaviusculis, nigris,
rugulosis, 400-500 μ . diam., ostiolo punctiformi; ascis crasse ob-
clavatis v. subfusoides, breviter crasse stipitatis, apice obtusule
tenuatis, 50-80 \times 15-24, aparaphysatis, octosporis; sporidiis in asci
parte crassiore tristichis, oblongo-clavulatis, 20 \times 7-8, e hyalino
luteolis, utrinque obtusiusculis, 1-septatis, leniter constrictis, loculo
superiore paullo crassiore.

Hab. in ramis languidis junioribus *Vitis viniferæ* in horto
Musei agrarii Romæ, Jan. 1904. — Instituti phytopathologici ro-
mani eximio Directori Jos. CUBONI dicata species.

13. **Sphærella Goodeniæ** F. Tassi in Bull. Lab. Ort. Bot. Siena 1902, 2147
v. pag. 108. — Peritheciis sparsis vel laxe gregariis, epidermide
tenuiter velatis, minutis, nitidulis, nigris, globoso-lenticularibus,
80-100 μ . diam., membranaceis, ostiolo minuto perforatis, hyphu-
lis gracilibus septatis, fusco-olivaceis, sub epidermide repentibus,
præditis; contextu dense fuligineo; ascis copiosis, stipatis, inæ-
quilateralibus, uno latere recto, altero ventricosos, crasse tunicatis,
subsessilibus 8-sporis, 30-32 \times 12-14; sporidiis irregulariter con-
fertis, raro subdistichis, ellipsoideis, medio 1-septatis, eguttatis,
7-8 \times 2-3 hyalinis.

Hab. in ramulis emortuis *Goodeniæ stelligeræ*, Sydney
Australiæ.

14. **Sphærella Parnassiæ** Rostr. Islands Svampe in Bot. Tidsskrift 2148
1903, vol. 25, p. 302. — Peritheciis laxe gregariis, sphæroideis,
minutissimis 60-70 μ . latis; ascis fasciculatis, cylindræo-clavatis,
30-33 \times 5-6; sporidiis oblique distichis, oblongo-clavatis, prope
medium septatis, ad septum vix constrictis, hyalinis, 10-12 \times 3-4.

Hab. in caulibus et sepalis morientibus *Parnassiæ palustris*
in Islandia.

15. **Sphærella Glycosmæ** (Tracy et Earle) Sacc. et D. Sacc. *Mycosphaerella Glycosmæ* Tracy et Earle, Plantæ Bakerianæ I p. 33. — 2149
Maculis nullis; peritheciis dense sparsis, in latis areis, nigris, sphæ-
ricis, 100 μ . diam.; ascis sessilibus, late obovatis, obtusis, aparaphy-
satis, octosporis, 50 \times 10; sporidiis anguste ovatis, 1-septatis, hya-
linis, guttulatis, 16 \times 5.

Hab. in caulibus emortuis *Glycosmæ occidentalis*, South
Colorado Amer. bor.

16. **Sphærella Cassythæ** Mc. Alp. in Proc. Linn. Soc. of N. S. Wales 2150
1903, p. 102. — Peritheciis minutis, punctiformibus, sparsis, ni-

gris, erumpentibus, membranaceis, depresso-globosis, 70-90 μ . diam.; ascis clavatis v. oblongo-clavatis, plus minusve pedicellatis, octosporis 32-37 \approx 9-12; sporidiis distichis, hyalinis, cylindræis, utrinque subconicis, 1-septatis, ad septum non constrictis, guttulatis 9 \approx 3.

Hab. in caulibus et in ramulis *Cassythæ glabellæ* in Australia.

17. **Sphærella Persooniæ** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2151
Persooniæ P. Henn. in Hedw. 1903, p. (81). — Maculis fuscidulis, rotundatis vel irregularibus; peritheciis amphigenis epidermide erumpentibus, aggregatis, subgloboso-depressis, atris, vertice subpapillatis, porosis ca. 80-120 μ . diam.; ascis fasciculatis, clavatis, apice rotundato-tunicatis, 20-30 \approx 8-10, octosporis, aparaphysatis; sporidiis subclavatis, apice obtusis, medio 1-septatis, haud constrictis, hyalinis 8-11 \approx 2-2,5.

Hab. in foliis *Persooniæ salicinæ*, in mt. Victoria, N. S. Wales Australiæ (PRITZEL).

18. **Sphærella Silenis** (v. Höhn.) Sacc. et D. Sacc. *Mycosphærella* 2152
Silenis v. Höhn. in Ann. Mycol. I (1903) p. 523. — Maculicola, epi- et hypophylla; maculis minutis, $\frac{1}{2}$ -1 mm. diam., numerosis, sparsis, ochraceis, late atro-purpureo-marginatis; peritheciis paucis, (usque 12), nigris, minutis, 48-80 μ . latis, sphæroideis, breve papillatis; tunica brunnea, membranacea, e cellulis minutis, 4-8 μ . latis formata; ascis clavatis 8-sporis, aparaphysatis 32-55 \approx 7-12; sporidiis distichis, hyalinis, didymis, oblongis, in medio non v. parum constrictis, plerumque 14 \approx 4, sed etiam longioribus, bacilliformibus, 20-28 \approx 3 $\frac{1}{2}$ -5 $\frac{1}{2}$, utrinque rotundatis.

Hab. in foliis adhuc vivis et in calycibus *Silenis inflatæ* prope Tumpen in valle Oetzthal Tirolæ.

19. **Sphærella Cerei** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Cerei* 2153
P. Henn. in Hedw. 1904, pag. 85. — Maculis cinereo-fuscidulis explanatis, irregularibus; peritheciis sparsis vel gregariis, innato superficialibus, globulosis, submembranaceo-atris, basi hyphis fuscidulis, septatis 2,5 \approx 3-5 μ . crassis circumdatis, 60-70 μ . diam.; ascis clavatis obtusis, octosporis, aparaphysatis, 30-40 \approx 12-15; sporidiis subdistichis vel subconglobatis, oblonge clavatis vel subfusoides, obtusis, medio 1-septatis, constrictis, hyalinis 12-15 \approx 2,5-3.

Hab. in phyllodiis *Cerei macrogoni*, Cabo Frio, Rio de Janeiro Brasilæ (E. ULE).

20. **Sphærella Hertiae** Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. 2154
de France t. XVIII, 1902, fasc. I. — Maculis nullis; peritheciis
sparsis, amphigenis, nigris, initio subepidermicis dein liberis, glo-
bulosis 100 μ . diam., poro pertusis; contextu celluloso viridi-fuli-
gineo; ascis basi incrassatis, breve stipitatis, summo attenuato-
obtusis, octosporis, 2-3-seriatis; paraphysibus nullis; sporidiis ovoi-
deo-elongatis, 1-septatis, ad septa paullo constrictis, pluriguttu-
latis, hyalinis.

Hab. in foliis emortuis Hertiae cheirifoliae, Sgag Algeriæ.

21. **Sphærella Columbariæ** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1133 2155
(nomen) *Mycosphærella Columbariæ* Feltg. Vorst. Pilz. Luxemb.
Nachr. II, p. 182. — Peritheciis gregariis, subcutaneis, nigris;
ascis cylindricis, basi stipitiforimi attenuatis 40 \times 5; sporidiis el-
lipsoideis vel ovato-ellipsoideis, bi-cellularibus, 7-8 \times 2,5.

Hab. in caule Scabiosæ Columbariæ, Luxemburg. — *Sphær.*
leptoascæ Auersw. proxime affinis.

22. **Sphærella Coffeæ** (Noack) Sacc. *Mycosphærella Coffeæ* Noack Pflan- 2156
zenkr. 1901, p. 200, tab. IV (absque diagnosi). — Maculis brunneis
subrotundis, margine obscuriore subelevato; peritheciis gregariis,
sæpius epiphyllis punctiformibus, atris, globulosis circ. 50 μ . diam.,
poro pertusis; ascis tereti-oblongis, breve crasse stipitatis, 22-
25 \times 6-7, apice rotundatis, aparaphysatis, octosporis; sporidiis
irregulariter distichis, fusoideo-oblongis, constricto-1-septatis, 7-
11 \times 2-3, hyalinis, minute 4-6-guttulatis.

Hab. in foliis Coffeæ arabicæ in Brasilia, socia plerumque
Cercospora coffeicola.

23. **Sphærella Puttemansii** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2157
Puttemansii P. Henn. in Hedw. 1902, p. 301. — Maculis rotun-
datis 1,5-2 mm. diam., fuscidulis dein exaridis pallescentibus;
peritheciis gregariis erumpentibus, subglobosis, atro-fuscis, dein
collabentibus, membranaceo-cellulosis; ascis fasciculatis, ovoideis,
apice rotundatis, crasse tunicatis 8-sporis, 25-45 \times 16-20; sporidiis
clavatis v. subfusoideis, obtusis, medio 1-septatis, haud constrictis,
hyalinis, 15-21 \times 5-7.

Hab. in folis vivis Plantaginis, in horto botanico, S. Paulo
Brasiliæ.

24. **Sphærella gaveensis** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella* 2158
gaveensis P. Henn. in Hedw. 1904, p. 84. — Maculis rotundatis,
gregariis, atro-fuscis, ca. 1 mm. diam.; peritheciis innato-super-
ficialibus, gregariis, membranaceis, hemisphæricis, atro-fuscis, ca.

80-100 μ . diam.; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, octosporis, 35-40 \approx 18-23; sporidiis subdistichis vel conglobatis, oblonge clavatis, medio 1-septatis vix constrictis, hyalinis, 18-22 \approx 6-7.

Hab. in foliis Plantaginis, Gavea, pr. Rio de Janeiro Brasiliæ (E. ULE).

25. **Sphærella implexicola** R. Maire in Bull. Soc. bot. de France 1901, 2159 t. I, p. 198, tab. 13, fig. 3. — Maculis fusco-atris, dein pallescens, amphigenis; peritheciis minutis, amphigenis, sparsis, immersis; ascis cylindræo-oblongis v. clavatis, interdum curvulis, basi attenuatis, haud vel parum stipitatis 35-40 \approx 9-10; sporidiis distichis, hyalinis, fusoides vel leguminiformibus 10-11 \approx 2,5 haud procul medio septatis, non constrictis, loculis guttulatis, sæpius inæqualibus; paraphysibus nullis.

Hab. in foliis languidis Loniceræ implexæ, Bonifacio Corsicæ.

26. **Sphærella Pentastemonis** (T. et E.) Sacc. et Syd. — Syll. XVI, 2160 p. 1133 (nomen) *Mycosphærella Pentastemonis* Tracy et Earle in Green Pl. Baker. II, p. 19. — Peritheciis densiuscule aggregatis in areis irregularibus nigrescentibus, nigris, fere sphericis, 150-200 μ . diam. hyphis septatis, brunneis 10-12 μ . crassis circumdatis; ascis aparaphysatis, fasciculatis, clavatis, 60 \approx 12; sporidiis irregulariter distichis, ovatis, sæpe guttulatis, 1-septatis, constrictis, 25 \approx 6, hyalinis.

Hab. in foliis caulibusque emortuis Pentastemonis spec., Pagosa Peak, South Colorado Amer. bor.

27. **Sphærella Passifloræ** Rehm — Syll. XVI, pag. 470. — var. 2161 **Bignoniæ** Rehm, Hedw. XLIV (1905). — Peritheciis 70-90 μ . diam.; ascis piriformibus 25-30 \approx 10-12; sporidiis oblongis, medio septatis, utrinque rotundatis 9-10 \approx 3.

Hab. in foliis Bignoniæ, Sao Francisco Brasiliæ (ULE).

28. **Sphærella lineata** (Clements) Sacc. et D. Sacc. *Mycosphærium lineatum* Clem. in Bull. of the Torr. Bot. Cl. 1903, p. 84. — Peritheciis gregariis, in lineis longis vel maculis elongatis, elevatis, nigris dense dispositis, innatis, epidermide tectis, deinde suberumpentibus, conico-sphericis, vix vel non papillatis, glabris, subiculo sparso brunneo insidentibus, minutis, 100 μ . diam.; ascis octosporis, clavatis, brevibus, aparaphysatis, jodo non cærulescentibus 60 \approx 12-15; sporidiis irregulariter dispositis, ovato-oblongatis, uni-septatis, hyalinis, levibus, intus minute granulosis, 16 \approx 6-8.

Hab. ad caules emortuos *Pedicularis proceræ*, Dark Cañon Amer. bor. — Est quasi *Sph. trichophila* Karst. sed nuda; *Sph. Tassianæ* DNot. quoque affinis.

29. **Sphærella Digitalis** T. Ferraris in *Malpighia* 1902, pag. 451. 2163
— Peritheciis minutis 150 μ . diam., dense gregariis, nigris, globosis, poro pertusis; ascis brevibus, basi brevissime stipitatis, 60 \times 20-21; sporidiis subdistichis vel stipatis, hyalinis, medio uniseptatis, non constrictis, inferne attenuatis, 18-19 \times 5-6.

Hab. in caulibus siccis *Digitalis*, luteæ, Courmayeur Italiae bor.

30. **Sphærella Glechomæ** Sacc. et Flag. sp. nov. — Peritheciis hinc 2164 inde dense gregariis, amphigenis, sed sæpius epiphyllis, punctiformibus, 80-100 μ . diam., nigris, vix pertusis, epidermide diaphana velatis, leniter prominulis; ascis elongato-oblongis, apice attenuatis, aparaphysatis, octosporis, 30-40 \times 7-8; sporidiis distichis, breve fusoideis, 10-12 \times 3, apice obtusulis, 1-septatis, vix constrictis hyalinis.

Hab. in foliis putrescentibus totis decoloratis *Glechomæ hederaceæ*, Rigny sur Arroux (Saone et Loire) Gallia. — Verisimiliter status ascophorus *Phyllostictæ Glechomæ*. Prima ætate forte maculicola.

31. **Sphærella subcongregata** Ell. et Ev. North Am. *Pyrenomyc.* 2165 p. 290. — Peritheciis gregariis v. interdum 3-6 congestis, erumpenti-superficialibus, ovoideo-globosis, 250 μ . diam., ostiolo acuto; ascis oblongis, 40-45 \times 12-15, aparaphysatis; sporidiis biseriatis, oblongo-cylindræis, v. clavato-oblongis, subhyalinis, dilutissime flavidis, 18-23 \times 3-4 vel (in forma subclavata) usque 4-5 μ . cr.

Hab. in pedunculis *Erigerontis* salsuginosi Mt. Paddo, Washington Amer. bor.

32. **Sphærella Sabinæ** (Feltg.) Sacc. et D. Sacc. *Mycosphærella* Feltg. 2166 *Vorstud. Pilz. Luxemb. Nachtr. III*, 1903, p. 258. — Peritheciis gregariis vel subsparsis, erumpenti-subsuperficialibus, globoso-depressis, nigris, 70-150 μ . diam., imperspicue papillatis; ascis cylindræis vel tereti-clavatis, aparaphysatis 40-60 \times 4-5, 4-8-sporis; sporidiis submonostichis tereti-fusoideis, utrinque rotundatis, rectis, curvulisve, medio constricto-1-septatis, ex hyalino flaveolis, 13,5 \times 2-2,5.

Hab. in ramulis *Juniperi Sabinæ*, Luxemburg.

33. **Sphærella Ulmi** (Kleb.) Sacc. et D. Sacc. *Mycosphærella Ulmi* Kleb. 2167 in *Zeitschr. f. Pflanzenkrank.* 1902, XII, pag. 257. — Peritheciis

solitariis subglobosis, circ. 100 μ . diam.; ascis elongato-clavatis 90 \approx 10 octosporis; sporidiis fusoides, rectis curvulisve 28 \approx 2,5-4, medio 1-septatis, loculo altero subinde paullo crassiore.

Hab. in foliis languidis vel emortuis Ulmi montanæ var. pendulæ prope Hamburg Germaniæ sept.

34. **Sphærella salicina** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. 2168

— Peritheciis sparsis vel 3-5-congestis, ovatis, 250-350 μ . diam., immersis, dein superne erumpentibus; ascis oblongis, p. spor. 40-45 \approx 8-10; sporidiis distichis, oblongo-fusoides, hyalinis vel subluteolis, 1-septatis, ad septum subconstrictis, 14-18 \approx 4-6.

Hab. in ramis juvenilibus Salicis cordatæ, Rooks Co. Kansas Amer. bor.

35. **Sphærella Grossulariæ** (Fr.) Auersw. — Syll. I, p. 486. — var. 2169

salicella Sacc. et Scalia Harrim. Alaska Exped. Crypt. pag. 32, pl. IV, fig. 6. — Peritheciis sparsim gregariis, punctiformibus, 100-130 μ . diam.; ascis tereti-oblongis, 52-70 \approx 13-15,5 μ ., brevissime stipitatis, octosporis; sporidiis polystichis, fusoides-bacillaribus, rectis, 32-34 \approx 1,5-2,5, uniseptatis, non constrictis, hyalinis.

Hab. in foliis Salicis spec., socio *Phytismate salicino*, Kadiak Alaska (TRELEASE).

36. **Sphærella Flageoletiana** Sacc. et Trav. Atti Congr. bot. Palermo 2170

1902, p. 51. — Peritheciis epiphyllis, non maculiculis, hinc inde dense et late gregariis, punctiformibus, fere microscopicis, globulosis, immersis 65-80 μ . diam., tenuiter membranaceis, ostiolo obtuso vix prominulo; ascis fasciculatis, oblongo-fusoides, apice obtusis, aparaphysatis, octosporis 45-50 \approx 7; sporidiis distichis cylindraco-fusiformibus, plerumque curvatis, utrinque obtuse tenuatis, medio 1-septatis, non constrictis 22-26 \approx 3-3,5, intus nubilosus, hyalinis.

Hab. in foliis arescentibus Fagi silvaticæ, Rigny sur Arroux Galliæ. — Forma et longitudine sporidiorum mox distincta species.

37. **Sphærella cæspitosa** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. 2171

— Hypophylla; peritheciis 65-75 μ . diam. subconfluenti-cæspitosis, 3-5 vel ultra congestis, cæspitulos 1-3 mm. diam. efformantibus, erumpentibus; ascis subcylindricis 35-40 \approx 5-6; sporidiis subdistichis, oblongo-fusoides, 1-septatis, non constrictis, 8-10 \approx 2,5-3 hyalinis.

Hab. in foliis Quercus virginianæ, Meridan, Texas Amer. borealis.

38. **Sphærella garganica** Sacc., Ann. Mycol. 1903, p. 3, t. III, fig. II. 2172
 — Peritheciis hypophyllis, hinc inde dense gregariis, punctiformibus, leviter prominulis, globulosis, 150-180 μ . diam., contextu duriusculo, parvi-celluloso, atro-fuligineo, poro minuto vix papillato, dein lacerato; ascis rosulatis, crasse clavatis, subsessilibus, apice obtuse rotundatis, 35-40 \times 11-14, octosporis, aparaphysatis; sporidiis subtristichis, oblongis, sursum paullo crassioribus, utrinque obtusulis, 11-12 \times 3-3,5, rarius usque 4 μ . cr., hyalinis, eguttulatis.
Hab. in foliis Smilacis asperæ var. mauritanicæ, pr. S. Nicandro Garganico (Foggia), Majo 1893 (U. MARTELLI).
39. **Sphærella smilacina** Ell. et Ev. Ita nuncupanda *Sphærella subcongregata* in Syll. IX, p. 651, quæ (ut ex errore transpositionis habetur) non est *Sph. subcongregata* Ell. et Ev. Cfr. supra, n. 31.
40. **Sphærella Yuccæ** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 2173
 — Peritheciis æqualiter sparsis, subcuticularibus, suberumpentibus plus minusve collapsis 110-120 μ . diam.; ascis clavato-cylindraceis, breve stipitatis 45-55 \times 10-12; sporidiis distichis, oblongo-fusoideis 12-15 \times 4-5, uniseptatis paullulo constrictis.
Hab. in foliis Yuccæ filamentosæ, Alabama Amer.
41. **Sphærella Schœnoprasi** Auersw. — Syll. fung. I, pag. 522. — 2174
 var. **Romuleæ** Sacc. Ann. Mycol. 1904, p. 3. — Paullo minor; peritheciis conoideis, prominulis, 160-180 μ . diam.; ascis obclavatis, 50-60 \times 14-15 μ .; sporidiis distichis v. oblique monostichis, breve fusoideis, utrinque obtusulis, 18-20 \times 5-5,5 μ ., ad septum non constrictis.
Hab. in foliis morientibus Romuleæ Bulbocodii, in agro Romano (Doct. A. BÉGUINOT).
42. **Sphærella hypostomatica** (v. Höhn) Sacc. et D. Sacc. *Mycosphærella hypostomatica* v. Höhn Fragmente zur Mykologie 1903, p. 7. 2175
 — Foliicola; maculis late linearibus, brunneis, obscurius marginatis, amphigenis; peritheciis parallele seriatis, hypophyllis, sub stomatibus nidulantibus, brunneis, sphæroideis, papillatis, ostiolatis, 60-85 μ . latis, prominulis; ascis oblongis vel clavatis, 22-45 \times 7-11; paraphysibus nullis vel obsoletis; sporidiis lanceolatis utrinque attenuatis, polystichis, didymis, cellulis subæqualibus, hyalinis, 10-13 \times 2,5-3.
Hab. in foliis vivis Luzulæ campestris vel albidæ in silvis vallis « Mauerbachthal » dictæ Wienerwald Austriæ inferioris.
43. **Sphærella leptospora** Sacc. et Scalia, Harrim. Alaska Exped. 2176
 Crypt. p. 31, pl. IV, f. 7. — Peritheciis sparsis, globulosis, primo

immersis dein liberis, 220-275 μ . diam., poro pertusis, contextu parenchymatico, fuligineo; ascis cylindræis, rectis vel curvulis, brevissime stipitatis, 50-60 \times 7,5-9; sporidiis octonis, distichis, fusiformibus, rectis, medio 1-septatis, non constrictis, 13-15,5 \times 2,5-3, hyalinis, sæpe guttulatis.

Hab. in foliis Caricis Mertensianæ, Yes Bay Alaska (HOWELL). — Affinis *S. perexiguæ*, sed perithecia multo ampliora, asci longiores et angustiores.

44. **Sphærella graminum** Sacc. et Scalia, Harrim. Alaska Exped. Crypt. 2177 p. 32, pl. IV, fig. 5. — Peritheciis sparsis, punctiformibus, 150-200 μ . diam., innato-prominulis, epidermide non atrata tectis, brevissime papillato-pertusis, contextu membranaceo-fuligineo, parenchymatico; ascis cylindræis, subsessilibus, apice rotundatis, 65-70 \times 10-12, rectiusculis, 8-sporis; sporidiis distichis, elliptico-fusoideis, rectis, 13-16,5 \times 3,5-4 μ ., uniseptatis, non constrictis, plasmate granuloso v. minute guttulado-farctis, hyalinis.

Hab. in foliis emortuis Poæ stenanthæ, Shumagin Islands Alaska (HARRINGTON). — Affinis *S. cruri-galli*, præcipue distinguenda peritheciis majusculis ratione fructificationis.

45. **Sphærella Anthistiria** Mc. Alp. Proc. Linn. Soc. of N. S. Wales, 2178 1903, p. 102. — Peritheciis minutis, nigris, punctiformibus, erumpentibus, gregariis, globosis, membranaceis, poro pertusis, 100-120 μ . diam., amphigenis; ascis oblongo-cylindræis, subinflatis, basi constrictis, sessilibus, aparaphysatis, 35-45 \times 17-21; sporidiis distichis vel irregulariter dispositis, hyalinis, oblongo-ellipticis, basi subconicis, 1-septatis, ad septum non constrictis 14-15 \times 4-4,5.

Hab. in foliis vivis Anthistiria australis, Brighton et Leongatha Australiae.

46. **Sphærella montellica** Sacc. sp. nova. — Peritheciis hinc inde 2179 gregariis, in pag. sup. magis distinctis, globoso-lenticularibus, punctiformibus, nigris, epidermide velatis leviterque prominulis, 70-80 μ . diam., poro pertusis, minute parenchymaticis; ascis sessilibus, obclavatis, basi rotundatis, sursum tenuatis, 38-40 \times 6-7; sporidiis distichis cuneato-oblongis, minutis, bilocularibus, loculo sup. paullulo crassiore, ad septum non v. vix constrictis, 8 \times 3, hyalinis, eguttulatis.

Hab. in foliis languidis v. emortuis Moliniæ cæruleæ, socio *Cladosporio graminum* var. *Moliniæ*, Montello (Treviso). — Ab affini *Sph. ignobili* differt peritheciis, ascis sporidiisque minoribus, prætereaque peritheciis hinc inde gregariis, nec sparsis.

47. **Sphærella panicicola** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella pa-* 2180
nicicola P. Henn. Fungi S. Paul. I, in Hedw. 1902, p. 1092. — Peritheciis epiphyllis, cæspitose striiformibus, erumpentibus, membranaceis, subglobosis, papillatis, atris, 120-150; ascis clavatis, obtusis, octosporis, aparaphysatis, 60-70 \times 7-8; sporidiis distichis, fusoides, curvulis, utrinque obtusiusculis, medio 1-septatis, haud v. paullo subconstrictis, 17-21 \times 3,5-4, hyalinis.

Hab. in foliis *Panici* spec., in horto botanico S. Paulo Brasiliæ.

48. **Sphærella Triseti** Speg. Myc. Argent. ser. II, 1902, p. 70. — 2181
Maculis nullis; peritheciis epidermide tectis, lenticularibus, glabris 120 μ . diam., minute ostiolato-papillulatis, atris; ascis obovato-saccatis, apice obtusissime rotundatis, basi abrupte cuneatis 70-80 \times 20, crasse tunicatis, octosporis, aparaphysatis; sporidiis utrinque obtusis, medio valide constrictis, distichis 20-22 \times 5-6 levibus, eguttulatis.

Hab. ad folia emortua *Triseti* cujusdam, Rio Deseado, in Patagonia.

49. **Sphærella parasitica** Wint. — Syll. XI, p. 658. — var. **Tapesiæ** 2182
Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 183. — Peritheciis gregariis subimmersis, globosis, papillatis, hyphulis brunneis cinctis, 45-80 μ . lat.; ascis subclavato-ovoideis 15-18 \times 5-8, brevissime stipitatis octosporis, aparaphysatis; sporidiis ovoideo-clavatis, bi-tristichis, 1-septatis, constrictulis, 7-8 \times 2-2,5 quadriguttulatis, ex hyalino-flaveolis.

Hab. in disco *Tapesiæ roseæ*, Luxemburg.

PHARCIDIA Körb. Parerga p. 469 (1865) — Syll. IX, p. 676, XI p. 303 (excl. spp. hyalophragmiis), *Epicymatia* Fuck. (1869) — Syll. I, p. 570, XI, p. 303, XVI, p. 485. — Nostro sensu hoc genus est quasi *Sphærella* lichenicola et huc ducendæ *Pharcidiæ* species hyalodidymæ, jam descriptæ dum species hyalophragmiæ sub nomine *Pharcidiopsis* Sacc. militare poterunt.

1. **Pharcidia cupularis** Pat. in Bull. Soc. Mycol. 1902, p. 303: cfr. 2183
Hue Lichenes extra-europæi in Nov. Arch. du Museum, 4 ser. Mem. t. III, p. 62, tab. V, fig. 4 bis. — Peritheciis sparsis vel sæpius gregariis, nonnullis confluentibus, fere omnino superficialibus, nitentibus, atris, glaberrimis, globosis, sursum applanatis, minute papillato-ostiolatis, dein depresso-cupulatis 200-400 μ . latis, 200 μ . altis; ascis conglobatis, subclavatis, apice obtusis, deorsum

attenuatis, crasse tunicatis, aparaphysatis, octosporis $50 \approx 8$; sporidiis subdistichis, oblongis, utrinque attenuatis, medio 1-septatis, non constrictis, $13-15 \approx 3,4$, hyalinis.

Hab. in apotheciis *Stictæ platyphyllæ* Nyl. in prov. Yun-nam Sinarum (R. P. DELAVAY).

2. **Pharcidia dealbans** (J. Müll.) Sacc. et D. Sacc. *Sphærella dealbans* 2184
J. Müll. Flora 1872, pag. 507, ap. Zopf in N. Act. Leop. Carol. LXX, 1898, p. 268. — Peritheciis innatis, globulosis, 200μ . diam., nigris, thallo stellatim fisso cinctis, demum prominulis et poro apertis; ascis subcylindricis $45-50 \mu$. longis, sursum paullo crassioribus, obtusis, 8-sporis; sporidiis tereti-ovoideis, vulgo curvulis, 1-septatis, constrictulis, $14-18 \mu$. longis, cellula sup. paullo crassiore et brevior, hyalinis.

Hab. in thallo, quem dealbat, *Endocarpi Loscosi* in Aragonia Hispaniæ.

3. **Pharcidia Verrucariarum** (Arnold) Sacc. et D. Sacc. *Arthopyr. Verrucariarum* 2185
Arnold, Tir. XXV, pag. 44 (nomen). — Peritheciis minutis, nigris; ascis cylindræis, octosporis; sporidiis elongato-oblongis $21-23 \approx 3-4$, bicellularibus; paraphysibus obsoletis v. nullis.

Hab. in thallo *Lithoicæ margacæ* in Tirolia.

4. **Pharcidia innata** (Nyl.) Sacc. et D. Sacc. *Verrucaria innata* Nyl. 2186
Flora 1865, p. 358. — Peritheciis immersis, nigris, minutis; ascis octosporis, non v. vix paraphysatis, jodo vix lutescentibus; sporidiis ovoideis, bicellularibus, $18-23 \approx 8-11$.

Hab. in thallo *Dacampiæ Hookeri* in Ben. Lawers Scotiæ (JONES).

5. **Pharcidia lacustris** (Arnold) Zopf in Hedw. 1896, p. 317, *Thelidium lacustre* 2187
Arnold Lich. Ausfl. Tir. XXV, p. 30 (1893). — Peritheciis sparsis, punctiformibus, emersis; ascis 8-sporis, elongatis; sporidiis fusiformibus, distichis, bicellularibus, hyalinis, sæpe 4-guttatis, $27-30 \approx 9-11$.

Hab. in thallo *Aspiciliæ lacustris* in Tirolia.

6. **Pharcidia rhyparella** (Nyl.) Zopf, Hedw. 1896, p. 325, *Verrucaria rhyparella* 2188
Nyl. Flora 1870, p. 38. — Peritheciis nigris, leviter emergentibus 100μ . latis; ascis jodo non tinctis, aparaphysatis; sporidiis ovoideis, bicellularibus, $11-14 \approx 5-6$.

Hab. in thallo *Dacampiæ Hookeri* in Lapponia. — An, observante cl. Zopf l. c., eadem ac *Ph. Schæereri*?

7. **Pharcidia conioides** (Nyl.) Sacc. et D. Sacc. *Verrucaria conioides* 2189
Nyl. Fl. 1875, p. 447, Wainio Adj. II, pag. 194. — Peritheciis

perexiguus, semiimmersis, nigris; ascis aparaphysatis ventricosus, 26-32 \times 11-12, 8-sporis; sporidiis oblongo-ovoideis, bicellularibus, hyalinis, 11-12 \times 3-3,5.

Hab. in thallo *Solorinæ saccatæ* in Fennia. — Perithecia 70 μ . lata.

8. **Pharcidia rivulorum** (Kernst.) Sacc. et D. Sacc. *Arthopyrenia rivulorum* Kernstock ap. Arn. Tir. XXV, pag. 403. — Peritheciis perexiguus, globosis, nigris; ascis in quoque perithecio paucis, aparaphysatis, sessilibus; sporidiis ovoideis v. ellipsoideis, bicellularibus, medio constrictis, 12,5-14 \times 5,5-6.

Hab. in thallo *Verrucarizæ pachydermæ* in Tirolia. — Asci jodo immutati.

9. **Pharcidia Rhexoblepharæ** (Wainio) Sacc. et D. Sacc. *Verrucaria Rhexoblepharæ* Wain. Adj. II, p. 194. — Peritheciis perexiguus 100 μ . diam. nigris, semiimmersis; ascis ellipsoideis 30 \times 15-18, octosporis aparaphysatis; sporidiis bicellularibus, hyalinis, ovoideo-oblongis, 14-16 \times 4-5.

Hab. in thallo *Rhexoblepharæ coronatæ* in Lapponia.

10. **Pharcidia allogena** (Nyl.) Sacc. et D. Sacc. *Verrucaria allogena* Nyl. Fl. 1865, p. 357. — Peritheciis semiimmersis, nigris, 250 μ . diam. parte immersa subincoloribus; ascis 8-sporis; sporidiis hyalinis, bicellularibus, 23-27 \times 8-9.

Hab. in thallo *Rhizocarpi excentrici* in Scotia (CARROLL).

11. **Pharcidia Atryneæ** (Arn.) Sacc. et D. Sacc. *Endococcus Atryneæ* Arnold 1882, p. 410. — Peritheciis punctiformibus, exiguis, sparsis v. subcongestis, nigris; ascis octosporis; sporidiis bilocularibus, oblongis, 12-14 \times 4-4,5; paraphysibus nullis.

Hab. in apotheciis *Lecanoræ cenisiæ* in M. Cavallazzo, pr. Paneveggio, Trentino.

12. **Pharcidia Martinatiana** (Arn.) Sacc. et D. Sacc. *Arthopyr. Martinatiana* Arn. Flora 1871, p. 147, 1872, pag. 572. — Peritheciis nigris minutissimis; ascis octosporis, filiformi-paraphysatis, jodo fulvescentibus; sporidiis bicellularibus, hyalinis, 12-16 \times 3.

Hab. in thallo *Lecidæ crustulatæ* vel *Lec. Martinatianæ* in agro Veneto.

13. **Pharcidia Crombiei** (Mudd) Sacc. et D. Sacc. *Endocarpia Crombiei* Mudd Brit. Clad. p. 36, Linds. Enum. p. 29. — Peritheciis atris punctiformibus; ascis . . . ; sporidiis perexiguus, ellipsoideis, continuis, tandem bilocularibus, hyalinis.

Hab. in thallo *Thamnolizæ vermicularis* in Britannia.

14. **Pharcidia glebarum** (Arn.) Sacc. et D. Sacc. *Arthopyrenia glebarum* Arn. Flora, 1887, p. 152. — Peritheciis punctiformibus, atris, hinc inde confertis; ascis medio subinflatis, aparaphysatis, octosporis, 30-33 \times 12-15; sporidiis elongatis, 1-septatis, vulgo 4-guttatis, 12-15 \times 3, biseriatis, hyalinis.

Hab. in glebis thalli Thalloidimæ cæruleo-nigræ in ins. Corfû.

15. **Pharcidia superposita** (Nyl.) Sacc. et D. Sacc. *Verrucaria superposita* Nyl. Flora 1865, p. 357. — Peritheciis nigris 200-250 μ . diam.; ascis octosporis jodo rubro-tinctis; sporidiis ovoideis, bicellularibus 17-19 \times 7-8, hyalinis; paraphysibus nullis.

Hab. in thallo Polyblastiæ terrestris in cacumine Ben Lawers Scotiæ (JONES et CARROLL).

16. **Pharcidia hygrophila** (Arn.) Wint. — Syll. IX, p. 677. — v. **minor** 2198 Bagl. et Carest. Anacr. 1881, p. 355 (sub nomine *Endococci hygrophili* β . *minoris*). — Ascis ellipsoideis 8-sporis; sporidiis fusiformibus v. subcuneato-elongatis, bilocularibus, hyalinis, 12-16 \times 4.

Hab. in thallo Verrucariæ hydrelæ pr. Riva Valdobbia Ital. bor.

17. **Pharcidia lichenum** Arnold — Syll. IX, p. 677 — var. **Olivaceæ** 2199 Arnold Ausfl. VII, p. 302. — Peritheciis minutis, nigris; ascis octosporis aparaphysatis; sporidiis bicellularibus, hyalinis 15 \times 6-7.

Hab. in thallo Parmeliæ olivaceæ in Tirolia.

MYCOSPHÆRELLA Johans. s. s. — Syll. IX p. 659.

1. **Mycosphærella Cookei** (Linds.) Sacc. et D. Sacc. *Microthelia Cookei* 2200 Linds. Obs. pag. 537, tab. XXIII, fig. 29. — Peritheciis sparsis, papillatis, nigris; ascis saccatis polysporis, irregularibus, 45 \times 11-12; paraphysibus indistinctis conglutinatis; sporidiis perexiguis, oblongo-ellipsoideis, hyalinis, 5,5-6 \times 2,5, 1-septatis, non constrictis, inordinate polystichis.

Hab. in thallo Lecanoræ crenulatæ in Britannia. — Ob paraphyses præsentés etsi coalitas a typo recedit.

STIGMATEA Fr. — Syll. I p. 541, IX p. 660, XIV p. 534, XVI p. 478.

1. **Stigmatea Gnaphalii** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, 2201 p. 255. — Peritheciis gregariis vel subsparis, cuticula pustulatim elevata velatis et foliorum villo cinctis, globosis, minute obtusiuscule papillatis, nigris 100-150 μ . diam.; ascis cylindræis, sursum

obtuse tenuatis, breve et crasse stipitatis 50-55 \times 10-11, octosporis; paraphysibus filiformibus, septulatis; sporidiis inordinatis, 1-2-stichis, elliptico-ovoideis vel elliptico-fusiformibus, utrinque obtusulis, rectis vel curvulis, medio vel submedio 1-septatis et profunde constrictis, hyalinis, 4-guttulatis, 14-19 \times 5 cellula superiori plerumque crassiori.

Hab. in pag. infer. foliorum Gnaphalii silvatici, Luxemburg. — Affinis *Stigm. Rumicis*.

2. **Stigmatea Grewiæ** P. Henn. in *Ergebn. der Kunene-Sambesi Expedition* p. 165 (1902). — Maculis brunneis vel fuscis, rotundatis, exaridis; peritheciis amphigenis, gregariis, innato-prominulis, membranaceis, lentiformibus, levibus, atris, collabentibus, ca. 130-160 μ . diam.; ascis clavatis, apice rotundatis, octosporis 30-40 \times 7-10; sporidiis distichis vel oblique monostichis, oblongis, subfusoides vel clavatis, 1-septatis, 7-8 \times 3-3,5 hyalinis.

Hab. in foliis Grewiæ caffræ, Kuitoufer pr. Kutue et Sobi Africæ austr.

3. **Stigmatea Piperis** Rehm in *Hedw.* 1901, p. (105). — Peritheciis in maculis foliorum orbicularibus, papyraceo exsiccatis, albidis, fusco-purpureo cinctis, 0,5-1 cm. diam., epiphyllis, gregariis, innatis, globosis, vix perspicue ostiolatis, 150-200 μ . diam., contextu e cellulis grandibus fusco; ascis clavatis, crasse tunicatis, apice rotundatis, 50-55 \times 15, octosporis; sporidiis oblongis, obtusis, medio septatis, vix constrictis, demum subflavidulis, 15-17 \times 7-8, distichis; paraphysibus non visis.

Hab. in foliis vivis Piperis cujusdam frutescentis, Petropoli, Rio de Janeiro Amer. austr. (v. HÖHNEL).

4. **Stigmatea Pandani** Pat. *Bull. Soc. Mycol.* 1904, p. 136. — Maculis amphigenis, orbicularibus, fuscis, 2-4 cm. latis; peritheciis præcipue epiphyllis, erumpentibus minutis, atris, conicis; contextu celluloso, olivaceo, molli; ascis sessilibus, late ovoideis, crasse tunicatis, octosporis 60-70 \times 20-30; paraphysibus numerosis, linearibus, ramosis; sporidiis elongatis, medio 1-septatis, vix constrictis, 27-30 \times 10-12, hyalinis.

Hab. in foliis vivis Pandani odoratissimi in insulis Gambier Polynesia.

VENTURIA Ces. et De Not. — *Syll.* I p. 586, IX p. 687, XI p. 305, XIV p. 541, XVI p. 489.

1. **Venturia Deutzia** Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 1903, 2205

p. 245. — Peritheciis atro-brunneis, membranaceis sparsis, epidermide tectis, globosis, basi applanatis, leviter collapsis 150-200 μ . diam., setulis rigidis, atro-brunneis 25-75 \approx 2,5-4, vestitis, ostiolo breviter conico; ascis late clavatis, breve stipitatis vel sessilibus 70 \approx 15-16, octosporis; sporidiis distichis, oblongo- vel obovato-ellipsoideis, sæpius rectiusculis, infra medium septatis, hyalinis, intus granulosis, 21-27 \approx 7-8.

Hab. in ramulis emortuis *Deutzia scabræ*, Luxemburg. — *Vent. Oxyriae* proxime affinis.

2. **Venturia Cratægi** Aderh. Ber. Deutsch. Bot. Ges. 1902, p. 200, 2203 tab. IX, et in Ann. Mycol. 1903, p. 520. — Peritheciis gregariis, hypophyllis, globosis, breve papillatis, 150 μ . diam., setis circ. 30 μ . longis, nigris prope ostiolum vestitis; contextu polygonio, tenui, subdiaphano; ascis saccatis 60-70 \approx 9-11, octosporis; sporidiis superne monostichis, inferne distichis, oblongis, bicellularibus, 13-15 \approx 4,5-6, melleis, septo supra medium divisis.

Hab. in foliis *Cratægi Oxycanthæ*, hieme perdurantibus Erfurth et Kup Germaniæ. — Status conidicus est *Fusicladium Cratægi*, de quo confer infra.

3. **Venturia Kunzei** Sacc. — Syll. I, p. 588. — var. **ramicola** Sacc. et 2207 Scalia, Harrim. Alaska Exped. Crypt. p. 31, pl. IV, fig. 8. — A typo differt peritheciis ramicolis in crusta stromatica (propria?) nascentibus.

Hab. in ramis *Rubi stellati*, Unalaska Alaska (HARRINGTON).

4. **Venturia rubicola** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2208 p. 15. — Peritheciis initio laxè sparsis, subcutaneis, membranaceis v. subparenchymaticis, 80-110 μ . diam., dein erumpentibus, collabentibus setulis continuis, nigris, 20-40 \approx 3, curvulis, annulatim dispositis ornatis; ascis sessilibus, aparaphysatis, oblongis, 50-60 \approx 10-12; sporidiis dense distichis, oblongo-ellipticis, bi-guttulatis (dein 1-septatis?) 12-15 \approx 6-8, hyalinis.

Hab. in sarmentis emortuis *Rubi occidentalis*, Tacoma Park, Amer. bor. (C. L. SHEAR). — A *V. Kunzei* Sacc. ascis et sporidiis majoribus differt.

5. **Venturia Thwaitesii** Mass. et Crossl. in the Natural. 1904, p. 3. — 2209 Peritheciis minutis, 100-125 μ . diam., superficialibus, gregariis, tenui-membranaceis, globulosis collabascentibus, pilis rigidulis acutis, strictis, demum nigro-brunneis 60-70 \approx 3-3,5; ascis fusiformibus 35-40 \approx 6-7; sporidiis hyalinis 1-septatis, subcylindræis, utrinque obtusiusculis, rectis vel leviter curvulis, 10-12 \approx 2.

Hab. in sarmentis emortuis Rubi Idæi, Masham Britanniaë (W. A. THWAITES).

6. **Venturia tirolensis** v. Höhnel in Ann. Mycol. 1903, I, p. 395. — 2210

Peritheciis epiphyllis, in epidermide immersis, tectis, subsphæroidis vel ovoideis, 100-160 μ . latis, tunica molli, pallida, contextu parenchymatico, vertice atro, subclypeato, ostiolo parvo perforato, setis numerosis, usque 30-40, simplicibus, acutis, atris, hinc inde atro-brunneis, apice paullo pallidioribus, usque 200 μ . long. et 7 μ . crassis præditis; ascis late clavatis, octosporis 85-100 \approx 12-24, mox diffluentibus, paraphysatis; sporidiis subdistichis vel conglobatis, ovoideis vel ovoideo-elongatis, prope basim septatis, ad septum non constrictis, hyalinis, demum luteolis, 20-24 \approx 9-10.

Hab. parasitica in pag. sup. foliorum Dryadis octopetalæ, in valle Sulden Tiroliæ.

7. **Venturia Speschnewii** Sacc. et D. Sacc. *Coleroa venturioides* Spe- 2211

schnew Tifl. Bot. 1904, pag. 80, t. III, f. 14-19. — Peritheciis gregariis, subglobosis, ochraceis, primo leviter epidermide tectis, dein epiphyllis, subsuperficialibus 100-130 μ . diam., 50-80 μ . altis, setulis flexuosis, septatis, fuligineis 50-60 \approx 5-6 vestitis; ascis clavatis 30-40 \approx 8-10, aparaphysatis 8-sporis; sporidiis oblongo-ovoidis, dilutissime chlorinis, 14 \approx 8.

Hab. in maculis brunneolis indistinctis amphigenis foliorum Theæ sinensis, Tschakwa pr. Batum Caucasi.

8. **Venturia caulicola** Rostr. Islands Svampe in Bot. Tidsskrift 1903, 2212

vol. 25. pag. 304. — Peritheciis superficialibus, dense setulosis, gregariis, in maculis atris, caulem ambientibus; ascis elongatis, 40-44 \approx 8-9; sporidiis ovoideo-oblongis, hyalinis, 1-septatis 13-14 \approx 5-6, loculis inæqualibus.

Hab. in caule Rumicis Acetosæ, in Islandia.

9. **Venturia euchæta** Penz. et Sacc. in Malpighia 1902, p. 227, Ic. 2213

fung. Jav. t. XI, fig. 1. — Peritheciis sæpius hypophyllis, densiuscule gregariis, subsuperficialibus, punctiformibus, nigris, globulosis 100-115 μ . diam., poro exiguo pertusis, radiatim setosis; setulis remotiusculis, cuspidatis, basi bulbillosis, continuis, opacis, 56-60 \approx 7 (basi), omnibus regularibus; ascis tereti-fusoideis subsessilibus, utrinque obtusulis 30-33 \approx 7, aparaphysatis, octosporis; sporidiis oblique monostichis, oblongis, hyalinis, utrinque obtuse tenuatis, rectis 7 \approx 2,5, medio obsolete 1-septatis, non constrictis.

Hab. in foliis subcoriaceis, subvivis plantæ indet., Depok, in insula Java. — Species setulis eumorphis statim distinguenda.

10. **Venturia nebulosa** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 2214

— Amphigena; maculis ellipticis 2-5 mm. diam. vel confluentibus; peritheciis ovato-globosis 75-100 μ . diam., superne erumpentibus, membranaceis, setulis nigris, continuis 30-40 \approx 3 vestitis; ascis oblongis, abrupte basi contractis et breve stipitatis, aparaphysatis 35-45 \approx 12-15; sporidiis distichis, oblongo-ovatis, hyalinis, 1-septatis, parce constrictis, 12-15 \approx 5.

Hab. in foliis emortuis Eragrostidis spec. Alabama Amer. bor. — *V. erysiphoidi* E. et E. et *V. graminicolæ* Wint. affinis.

DIDYMELLA Sacc. — Syll. I p. 545, IX p. 661, XI p. 301, XIV p. 535, XVI p. 479.1. **Didymella confertissima** Sacc. Atti Congr. bot. di Palermo 1902, p. 50. 2215

— Peritheciis longe lateque effusis, confertissimis, maculas latas atras formantibus, innato-prominulis, globosis, vix papillatis, poro latiusculo pertusis, 180-200 μ . d., nigris, intus albis; contextu parenchymatico, duriusculo, fuligineo, ostioli periphysibus subhyalinis; ascis rosulatis, oblongo-clavatis, apice rotundatis, deorsum sensim tenuatis 85-100 \approx 24-28, octosporis; paraphysibus crassis, articulatis, mox dilabentibus; sporidiis distichis vel subtristichis oblongo-clavulatis 25-35 \approx 8-9, medio 1-septatis, non v. vix constrictis, apice paullulo obtusioribus, hyalinis, eguttatis.

Hab. in cortice Cactææ cujusdam, Rio de Janeiro Brasiliæ (E. ULE). — Socia adest *Exosporii* species imperfecte evoluta.

2. **Didymella fuispora** Mc. Alp. Fung. diseases. Stone-fr. trees, Melb. 2216

1902, p. 124, f. 255-257. — Peritheciis sparsis, minutis, nigris, erumpentibus, globosis, membranaceis, initio subcutaneis, dein superficialibus, poro pertusis 120-150 μ . diam.; ascis oblongis basi constrictis, octosporis 34-37 \approx 13; paraphysibus numerosis, filiformibus; sporidiis conglobatis, fusiformibus, curvulis, 1-septatis, utrinque acutis non constrictis 26-28 \approx 3,5-4.

Hab. in ligno emortuo Pruni Armeniacæ, Armadale Australiæ.

3. **Didymella apiculata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2217

1903, p. 251. — Peritheciis gregariis omnino tectis, globosis, basi subapplanatis 300-400 μ . diam., ostiolo breve cylindræo v. conoideo epidermidem perforante; ascis anguste clavatis, apice subrotundatis, breve stipitatis, filiformi-paraphysatis 6-8-sporis 50-72 \approx 8-10; sporidiis mono-distichis, fusiformibus, utrinque acutato-api-

culatis, constrictulo-1-septatis, 14-17 \times 4-5 ex hyalino dilute fuscellis, cellula superiori subinde paullo incrassata.

Hab. in ramis siccis *Rubicaesii*, Luxemburg. — A *Didymosphæria Idæi* sporidiis subhyalinis, apiculatis mox differt.

4. **Didymella Ricini** Ell. et Ev. — Syll. XIV, p. 535. — f. **Ailanthi** 2218
Ell. et Ev. in Jour. of Mycol. 1902, p. 67. — Ascis 45-50 \times 10-12; sporidiis oblongo-ellipticis, obtusis, luteo-hyalinis, curvulis 12-15 \times 5-6.

Hab. in ramulis emortuis *Ailanthi glandulosæ*, Alabama Amer. bor. — f. **Mucunæ** Ell. et Ev. l. c. — Ascis 40-45 \times 8-10; sporidiis oblongo-fusoideis, curvatis 12-15 \times 4-5,5 uniseptatis. — In caulibus *Mucunæ utilis* l. c. — f. **Hibisci** Ell. et Ev. l. c.: Ascis 50 \times 10; sporidiis curvatis, luteolis 12-15 \times 4-4,5, 2-3-guttulatis. — In *Hibisco esculento* ibidem.

5. **Didymella cladophila** (Niessl) Sacc. — Syll. I, pag. 545. — var. 2219
buxicola Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 251. — A typo differt peritheciis brunneis, nec nigris, sæpe in acervulos confertis erumpentibusque; ascis minoribus, 55-75 \times 6-8, sæpe 6-sporis et sporidiis oblongo-ellipsoideis 12-13,5 \times 4.

Hab. in ramis corticatis, siccis *Buxi sempervirentis*, Luxemburg.

6. **Didymella sambucina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2220
1903, p. 252. — Peritheciis gregariis, epidermide omnino tectis, globosis vel basi subapplanatis, nigris 400-500 μ . diam., verruciformi-papillatis; ascis clavatis, superne rotundatis, deorsum tenuatis, subsessilibus 55-68 \times 10-15, octosporis; sporidiis inordinate distichis vel inferne monostichis, oblongo-ellipsoideis, utrinque acutulis, rectis vel curvulis, continuis, dein 1-septatis, non constrictis, sæpius biguttulatis, hyalinis 10-16 \times 5-6.

Hab. in ramulis corticatis *Sambuci nigræ*, Luxemburg. — Paraphyses non observatæ: an ergo *Didymellæ* species genuina?

7. **Didymella Cymbalariae** Feltg. Vorstud. Pilz. Luxemburg. Nachtr. 2221
III, 1903, p. 250. — Peritheciis sparsis vel gregariis, epidermide velatis, globosis, basi applanatis, nigris, 100-200 μ . diam., ostiolo minuto, conoideo-emergente; ascis cylindræis, breve stipitatis, octosporis 63-72 \times 5,5-7; sporidiis monostichis, ellipsoideis v. ovoideis, medio constrictulo-1-septatis, hyalinis, minute guttulatis, 11-13 \times 4,5 cellula superiore paullo crassiore.

Hab. in caulibus siccis *Linariæ Cymbalariae*, Luxemburg.

8. **Didymella Quercus** Oud. in Ned. Kruidk. Arch. 3 ser. II, 4, p. 869, 2222

1903. — Epiphylla; maculis irregularibus, raro confluentibus, alboluteolis pallidis; peritheciis membranaceis, nigris, initio velatis dein erumpentibus, globoso-depressis 300-400 μ . diam, poro pertusis; ascis cylindraceutis, superne rotundatis $84 \approx 10$, in stipitem brevem desinentibus, octosporis; sporidiis biconoideis, centro constrictis, $20-23 \approx 5-6$, quadri-guttulatis, superne inflatis, inferne curvatis obtusis; paraphysibus linearibus, obtusis, continuis,asco longioribus.

Hab. in foliis *Quercus rubræ*, Naarden Hollandiæ (C. J. KONING).

9. **Didymella pedemontana** Ferr. et Sacc., Atti Congr. bot. Palermo 1902. 2223 p. 50. — Peritheciis laxè gregariis v. sparsis, globulosis, sinuato-erumpentibus, membranaceis, nigris, 240-250 μ . diam., obtuse papillatis; ascis clavatis, breve stipitatis, apice rotundatis, sæpe curvulis $72-85 \approx 12$, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, fusoideis, medio constricto-1-septatis, utrinque obtuse acutatis $21-22 \approx 4,5-5$, grosse 4-guttatis, hyalinis.

Hab. in ramulis corticatis emortuis *Quercus penduculatæ*, prope Crescentino Italiæ bor. — Affinis *D. Cadubricæ*, sed notis datis satis diversa.

10. **Didymella pallida** Starb. in Arkiv. för Bot. 1904, Band 2, p. 17. 2224 — Peritheciis sparsis v. hinc inde laxè gregariis, interdum nonnullis confertis v. confluentibus immersis, vertice paullum emergentibus, discoideis v. depresso lenticularibus, 200-250 μ . diam. circa ostiolum vix papillulatum areola pallide griseo-orbiculari præditis, contextu pulveraceo-carbonaceo, atrato; ascis cylindraceutis sursum obtusis v. rotundatis, incrassatis, subsessilibus, $65 \approx 10$; sporidiis octonis subdistichis, ellipsoideo-oblongis, utrinque obtusis, 1-septatis, non constrictis, hyalinis, $12-14 \approx 4-6$; paraphysibus copiosis, filiformibus gracillimis, flexuosis, ramulosis, 1 μ . cr.

Hab. ad lignum prope Rio Apá, Colonia Risso, Paraguay. — Ob perithecia lignicola subcarbonacea ostiolumque areolatum videtur potius *Melanopsammæ* sp.

11. **Didymella elliptica** Starb. in Arkiv. för Botan. 1904, Band 2, 2225 p. 16, fig. 36-39. — Peritheciis laxè gregariis, interdum 2-3 confluentibus, fibris ligni primum tectis, deinde erumpentibus, ellipticis v. oblongatis, utrinque obtusis, depressis, rarius orbiculari-lenticularibus, rugosis, carbonaceis crassis, immersis, primo clausis deinde papillula, mox collapsa præditis, demum ore latiusculo, lacerato apertis, nigris, 400-500 \approx 150-200; ascis cylindraceutis, apice rotundatis, 1-foveolatis, deorsum paullo crassioribus v. subclavatis,

breve stipitatis 56-75 \times 9-11, 8-sporis; sporidiis monostichis, vulgo inferne subdistichis, elongato-ellipsoideis v. subclavulatis utrinque obtusiusculis, ad medium 1-septatis, hyalinis 12-15 \times 5-6,5; paraphysibus copiosis filiformibus, flexuosis, ramulosis, hyalinis, 1 μ . cr.; jodi ope nulla.

Hab. ad truncum siccum, Corumbá, Matto Grosso Brasilæ. —

Ob perithecia lignicola, carbonacea potius *Melanopsammæ* species.

12. **Didymella goyazensis** Sacc. et Syd. Ann. Mycol. 1904, p. 162. — 2226

Peritheciis in series breves longitudinales digestis, globulosis, innatis, erumpentibus, perexiguis, 80-100 μ . diam., ostiolo breve papillato, facile secedentibus; ascis cylindræis, breviter stipitatis, 45-64 \times 5 $\frac{1}{2}$ -7 octosporis, paraphysatis; sporidiis distichis, fusoidis, utrinque attenuatis, medio 1-septatis, subhyalinis vel flavidis, 11-15 \times 2-2 $\frac{1}{2}$.

Hab. in foliis *Andropogonis hirtiflori*, Goyaz Brasilæ (A. GLAZIOU). — Ubi sporidia tandem nigrescant ad *Didymosphæriam* species transferenda esset.

13. **Didymella subalpina** Rehm, Hedw. 1902, p. (204). — Peritheciis 2227

dispersis, primitus immersis, denique sessilibus, glabris, globosis, poro conspicuo pertusis, fusce parenchymatice contextis, membranaceis, atris, 200 μ . diam.; ascis clavatis 60-65 \times 10-12, octosporis; sporidiis ellipticis, subobtusis, medio septatis, ad septum valde constrictis, utrinque biguttulatis, hyalinis 12-14 \times 5, distichis; paraphysibus filiformibus, hyalinis, 2 μ . crassis.

Hab. in foliis siccis gramineis sub monte Taubenberg Bavarie superioris.

14. **Didymella præstabilis** Rehm in Œst. Bot. Zeitschr. 1904, p. 83. 2228

— Peritheciis plerumque gregariis, in parenchymate foliorum fuscato primitus innatis, dein subsessilibus, globosis, haud papillatis poro vix conspicuo pertusis, siccis patellariformiter collabentibus, parenchymatice contextis, glabris, fusco-atris 200-250 μ . diam.; ascis ellipticis vel piriformibus, basi lata sessilibus, crasse tunicatis 60-75 \times 18-21, octosporis; sporidiis oblongo-ellipticis, interdum subclavatis, obtusis, medio septatis, vix constrictis, utraque cellula plerumque 1-2 guttas oleosas magnas includente, rectis, rarius subcurvatis, hyalinis 18-25 \times 6-9, distichis; paraphysibus paucis, ramosis.

Hab. ad culmos foliaque graminum juxta moles glaciales montis Ortler et montis Taschach Tirolie.

Didymellopsis Sacc. Species lichenicolæ.

15. **Didymella latitans** (Nyl.) Sacc. et D. Sacc. *Obryzum latitans* Nyl. 2229
Flora 1885, pag. 298. — Peritheciis innatis, minutissimis, nigris; ascis oblongo-saccatis 8-sporis, paraphysatis; sporidiis oblongo-ovoideis, bicellularibus, 16-21 \times 6-7, hyalinis.
Hab. in thallo *Omphalariae* cribelliferæ prope Amélie Pyrenæorum orient.
16. **Didymella perigena** (Nyl.) Sacc. et D. Sacc. *Sphæria perigena* Nyl. 2230
Flora 1878, p. 341. — Peritheciis nigris, globosis, 150 μ . diam.; ascis octosporis, clavato-cylindræis, molliter paraphysatis; sporidiis fusiformibus, bilocularibus, hyalinis, 18-23 \times 6-7.
Hab. in thallo *Endopyrenii* trapeziformis, Biskra Algeriæ.
17. **Didymella verrucosaria** (Linds.) Sacc. et D. Sacc. *Microthelia* 2231
verrucosaria Linds. Enum. p. 27, *Cercidospora* Arn. Lich. Fränk. Jura, 1890, pag. 48, Mudd Man. 165. — Peritheciis punctiformibus, atris, contextu olivaceo; ascis cylindræis, filiformi-paraphysatis, octosporis; sporidiis bicellularibus, hyalinis, 15-17 \times 5.
Hab. in thallo *Aspiciliæ* verrucosæ in Britannia et in Jura franconico.
18. **Didymella sphinctrinoides** (Zwackh) Berl. et Voglino — Syll. IX, 2232
p. 672. — var. *immersæ* Arnold ap. Zopf, Hedw. 1896, p. 339: Peritheciis immersis globosis nigris; ascis cylindræis 8-sporis; sporidiis bicellularibus, hyalinis, 18 \times 6; paraphysibus filiformibus.
Hab. in thallo *Lecidellæ* immersæ, in Germania.
19. **Didymella epicarphinea** (Nyl.) Sacc. et D. Sacc. *Verrucaria* 2233
epicarphinea Nyl. Flora 1872, p. 431. — Peritheciis nigris prominulis 150-180 μ . diam.; ascis 8-sporis; sporidiis ovoideis v. fusoides, bicellularibus, 18-25 \times 6-7, hyalinis; paraphysibus mediocribus.
Hab. in thallo *Placodii* carphinei in Pyrenæis orient.
20. **Didymella Bèrengeriana** (Arnold) Sacc. et D. Sacc. *Endococcus* 2234
Bèrengerianus Arnold apud Wint. Pilzfl. II, pag. 348, *Pharcidia hygrophila* var. *Bèrengeriana* (Arnold) Sacc. — Syll. IX, p. 676. — Peritheciis minutissimis, nigris, globosis prominulis; ascis oblongis, paraphysatis, octosporis; sporidiis bicellularibus, hyalinis, 22-28 \times 5-6.
Hab. in thallo *Biatoræ* Bèrengerianæ in Tirolia.

MASSARINULA Gen. de Lamarl — Syll. XIV p. 536, XVI p. 483.

1. **Massarinula phyllodiorum** Mc Alp. Proc. Linn. Soc. N. S. Wales 2235
1903, pag. 555. — Maculis numerosis, amphigenis, plus minusve orbicularibus, sæpe confluentibus, pallidis vel pallide brunneis, distincte brunneo-marginatis; peritheciis paucis, nigris, diu immersis dein erumpentibus, globosis, subcarbonaceis, poro pertusis, 250 μ . diam.; ascis clavatis, sessilibus, octosporis 120-140 \approx 30-50; sporidiis distichis vel conglobatis, hyalinis, lanceolatis, 1-septatis, ad septum subconstrictis, rectis vel subcurvulis, 54-64 \approx 13-16; paraphysibus copiosissimis, agglutinatis, filiformibus, subseptatis.

Hab. in phyllodiis *Acaciæ longifoliæ*, Mordialloc in Victoria Australiæ (C. FRENCH).

2. **Massarinula Barbieri** (West.) Rehm — v. **subalpina** Rehm Ascom. 2236
exs. n. 1570, Ann. Mycol. 1904, p. 520: cfr. Sacc. Syll. I, p. 547 sub *Didymella*. — Peritheciis basi insculptis, 150 μ . diam., contextu brunneo parenchymatico; ascis clavatis, apice rotundatis, sessilibus, 50 \approx 12, octosporis; sporidiis bicellularibus, lacrymiformibus, utrinque rotundatis, septo leviter constrictis, 4-guttatis, hyalinis, distichis, 12 \approx 6, strato mucoso tenui obductis.

Hab. in ramulis emortuis *Ericæ carneæ*, Valepp, in alpibus bavaricis.

APIOSPORA Sacc. — Syll. I p. 539, IX p. 659, XI p. 301, XIV p. 534, XVI p. 477.

1. **Apiospora chondrospora** (Ces.) Sacc. et D. Sacc. Ita vocanda est *Cryptosporella chondrospora* (Ces.) Rehm — Syll. I, pag. 467 — nam ejusdem sporidia et perithecia fabricam *Apiosporæ* præbent Cl. Ruhland — cfr. Syll. XVI p. 485 — ad genus novum *Aplacodina* superfluum, ut videtur, erexit. Cl. v. Höhnelt nuperius, Ann. Mycol. 1904, p. 42 ad *Spegazzinulam* duxit inter *Hypocreaceas*, a quo genere omnino abhorret.

MELANOPSAMMA Niessl — Syll. I p. 575, IX p. 682, XI p. 303, XIV p. 539, XVI p. 486.

1. **Melanopsamma balnei-ursi** Rehm, Œster. Bot. Zeitschr. 1903, p. 10. 2237
— Peritheciis sparsis, lata basi sessilibus, subglobosis, haud papillulatis, poro vix conspicuo pertusis, nigris, opacis, glabris, 500-800 μ . d., contentu crassiusculo, parenchymatico, submembranaceo; ascis 10-14, octosporis; sporidiis ellipsoideis, utrinque obtusis, medio septatis et paullulum constrictis, utrinque crasse guttulatis,

hyalinis, distichis, 20×8 , cellula superiore interdum sublatiore; paraphysibus subramosis, septatis, hyalinis $1,5 \mu$. cr.

Hab. ad ramulos emortuos Dryadis octopetalæ in Valle Kaiserthal Tirolia. — A *Melanops. anaxæa* satis diversa.

2. **Melanopsamma utahensis** Ell. et Ev. in Journ. of Mycol. 1903, 2238 p. 168. — Peritheciis gregariis, diu epidermide tectis, dein superficialibus, subglobosis, subdepressis, circ. $0,5$ mm. diam.; ascis clavato-cylindraceutis, breve pedicellatis, 75×12 ; paraphysibus evanescentibus; sporidiis subdistichis, clavato-oblongis, hyalinis, 1-septatis, constrictis, subcurvulis, $25-30 \times 6-7$.

Hab. in caulibus emortuis Acteæ rubræ, Salt Lake, Utah. Amer. bor.

3. **Melanopsamma nitens** Rehm, Hedw. XLIV p. 3 (1904). — Peritheciis in maculis epiphyllis, suborbicularibus, cinerescentibus ob hyphas rectangulariter ramosas, hyalinas, arcte congregatas arachnoideis, c. 1 cm. diam., gregarie sessilibus, conoideis, atris, nitentibus, poro minutissimo pertusis, carbonaceis, $0,25-0,5$ mm.; ascis cylindraceutis p. sporif. $50-60,5-6$, 8-sporis; sporidiis fusiformibus, utrinque rotundatis, medio septatis, utraque cellula guttis oleosis magnis 2 prædita, ad septum leviter constrictum faciliter secedentibus, hyalinis, $8-10-2,5-3$, monostichis; paraphysibus filiformibus, $1,5$.

Hab. in foliis Meliaceæ, Blumenau Brasiliæ (E. ULE). — Peritheciis magnis nitidis sporidiisque vero minutis dignoscitur.

4. **Melanopsamma minima** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2240 II, p. 211. — Peritheciis sparsis, globoso-depressis, non collabascensibus, basi leviter insculptis vel libero-superficialibus, rugulosis, atro-brunneis, $80-150 \mu$. diam.; ascis elliptico-ovoideis, $31-40 \times 13-15$; sporidiis 2-3-stichis vel inordinatis, ovoideo-ellipsoideis, bicellularibus, cellula superiore paullo crassiore, leviter constrictis, rectis curvulisve, hyalinis, vulgo biguttatis, $18-21 \times 5-6,5$.

Hab. in ligno putri Salicis, Luxemburg. — Contextus perithecii parenchymaticus, atro-brunneus, cellulis exterioribus colliculoso-prominulis.

ERIOSPHÆRIA Sacc. — Syll. I p. 597, IX p. 696, XI p. 307, XVI p. 490.

1. **Eriosphæria conoidea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2241 1903, p. 282. — Peritheciis dense gregariis, cortice interiori basi insculptis, erumpentibus dein sub vertice leniter collabentibus, hy-

phis septatis ramulosis, 2 μ . cr., brunneis, præcipue basi vestitis, levibus; ascis cylindræis v. cylindræo-clavatis, apice rotundatis, 2-foveolatis, crasse breve stipitatis, 62-72 \approx 6-8, octosporis; sporidiis mono-distichis, tereti-ellipsoideis utrinque obtusis, continuis, dein medio tenuiter 1-septatis, non constrictis, hyalinis, 2-guttulatis, 8-9 \approx 3,5-5.

Hab. in cortice sicco Piri communis, Luxemburg.

2. **Eriosphæria Scheremetieffiana** P. Henn. in Hedw. 1904, p. 69. — 2242

Peritheciis superficialibus, sparsis v. gregariis, punctiformibus, hyphis castaneis septatis 3-4 μ . crassis circumdatis, ovoideis, atris, vertice obtusis, 70-100 \approx 50-70 μ . diam., setulis rigidis, atris, acutis 20-30 \approx 3-4 μ . vestitis; ascis clavatis, apice obtuse rotundatis, octosporis 30-40 \approx 4-5; sporidiis oblique monostichis vel subdistichis, oblonge cylindræis, utrinque obtusis, rectis vel subcurvulis, 7-8 \approx 1,5-2,5, medio septatis, hyalinis.

Hab. in ligno decorticato Quercus pedunculatæ, Michailowskoje, in ditone Mosquensi Rossia.

3. **Eriosphæria atriseda** (Feltg). Sacc. et D. Sacc. *Trichosphæria* 2243

atriseda Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 205. — Peritheciis gregariis, ligno denigrato superficialibus, globoso-ovoideis, conico-papillatis, papilla alba, denique papilla elapsa pertusis, nigris, minute rugulosis 0,1-0,2 mm. latis, basi hyphis septatis, brunneis, ramosis 2-3 μ . cr., cinctis; ascis cylindricis, sursum leviter tenuatis, subsessilibus vel modice stipitatis, 30-45 \approx 2,5-3,5; paraphysibus filiformibus, septatis, 2-3 μ . crassis; sporidiis vulgo recte monostichis, breve cylindræis, utrinque rotundatis v. ovoideis, rectis curvulisve, bi-cellularibus, vix constrictis, hyalinis, 4,5-6,5 \approx 2-2,5.

Hab. in ligno decorticato putri Alni glutinosæ, Luxemburg. — Lignum usque 2-3 mm. profunde denigratum; habitus *Eriosphæriae vermicularioidis*.

4. **Eriosphæria blumenavica** Henn. in Hedw. 1902, p. (64). — Peri- 2244

theciis superficialibus sparsis v. aggregatis, membranaceo-subcarbonaceis, globosis, apice papillatis v. depressis, atris 350-400 μ . d., setulis atris, rigidis vestitis; ascis subclavatis v. subfusoides, apice subobtusis, basi attenuatis, substipitatis, octosporis 80-95 \approx 24-30; paraphysibus copiosis filiformibus, subhyalinis, ca. 3 μ . crassis; sporidiis subdistichis oblonge ellipsoideis, utrinque obtusis, medio 1-septatis, paullo constrictis, 25-30 \approx 10-13, hyalinis.

Hab. in ramulis corticatis, S. Catharina Brasiliæ (Dr. -MÖLLER).

LIZONIELLA P. Henn. Hedw. 1901, p. (96) ut subg. (Etym. a *Lizonia*).

— A typo *Lizoniæ* differt imprimis sporidiis omnino hyalinis. Huc ergo quoque ducendæ: *Lizoniella Jacquiniæ* (Bres.) Sacc. et D. Sacc. *L. Sphagni* (Cooke), *L. halophila* (B. R. S.), *L. opposita* (B. et R.), *L. Lagerheimii* (Rehm).

1. **Lizoniella Johansonii** (Rehm) Sacc. et D. Sacc. *Lizonia Johansonii* 2245

Rhem in (Est. Bot. Zeitschr. 1904, p. 86. — Peritheciis in parte sup. foliorum gregariis, erumpenti-superficialibus, glabris, globulosis, haud papillulatis, atris, parenchymatice fusco-nigro-contextis, 100-150 μ . diam.; ascis oblongis, apice rotundatis sessilibus, 70 \approx 30 octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, haud constrictis, hyalinis 30-32 \approx 15, distichis; paraphysibus nullis.

Hab. in foliis siccis Dryadis octopetalæ, in monte Herzo-genstand Bavaricæ.

2. **Lizoniella Gastrolobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2246

niella) *Gastrolobii* P. Henn. F. Australiae occid. I, in Hedw. 1901, p. (96). — Syll. XVI, p. 1133 (nomen). — Maculis fuscis; peritheciis amphigenis, caespitose erumpentibus, epidermide fissa, pallida velatis, caespitulis pulvinatis ca. 0,5-1 mm. diam., atro-brunneis, e peritheciis subconfluentibus numerosis, subglobosis, minutis, subrugulosis, compositis; ascis clavatis v. subfusoides, apice obtusiusculis, basi attenuatis curvulis 60-70 \approx 15-20, aparaphysatis, octosporis; sporidiis oblique monostichis vel distichis, oblongis vel subfusoides-clavatis, utrinque obtusiusculis, medio 1-septatis, paullo constrictis, hyalinis, pluriguttulatis 16-23 \approx 6-8.

Hab. in foliis vivis Gastrolobii spinosi, Perth Australiae occid.

3. **Lizoniella Oxylobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) 2247

Oxylobii P. Henn. F. Australiae occid. I, in Hedw. 1901, p. 97. — Syll. XVI, p. 1133 (nomen). — Maculis fuscidulis; peritheciis submembranaceis, epiphyllis, caespitose erumpentibus, raro simplicibus, subglobosis, lateraliter compressis, atro-brunneis, rugulosis, haud papillatis, ca. 150-180 μ . diam., in caepistulis pulvinatis effusis, confluentibus, contextu celluloso, castaneo; ascis clavatis v. fusoides-clavatis, apice crasse tunicatis, obtuso-rotundatis, basi attenuatis 80-100 \approx 15-20, octosporis, aparaphysatis; sporidiis oblique monostichis v. distichis, oblongis v. subclavatis 2-pluriguttulatis, medio 1-septatis, paullo constrictis, 18-22 \approx 7-9, hyalinis.

Hab. in foliis vivis Oxylobii linearis, Perth Australiae occid.

4. **Lizoniella Perkinsiæ** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2248

niella) *Perkinsiæ* Henn. in Hedw. 1902, p. (63). — Maculis fuscis, peritheciis cæspitose aggregatis in soris pulvinatis 0,5-1 mm. diam., erumpenti-superficialibus, subglobosis, rugulosis, atro-brunneis ca. 300 μ . diam., vix papillatis; ascis oblonge, ovoideis vel clavatis, apice hyalino-tunicatis, obtusis, octosporis 45-60 \times 18-26; sporidiis distichis v. conglobatis, oblongis subcylindræis vel subclavatis, utrinque obtusis, 20-23 \times 6-7 hyalinis.

Hab. in foliis vivis *Styracis Roramiæ*, Gujana britannica (R. SCHOMBURGK).

5. **Lizoniella singularis** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) *singularis* P. Henn. in Hedw. 1903, p. (80). — Peritheciis superficialibus, singularibus, raro aggregatis, subcoriaceis, subglobosis, atris, 40-50; ascis fasciculatis, clavatis, apice truncatis, octosporis, 18-22 \times 4-5; sporidiis distichis 1-septatis, haud constrictis, clavatis, hyalinis, 8-10 \times 2-2,5. 2249

Hab. in foliis siccis *Leucopogonis hispidi*, pr. Minginew Australiæ occid. (E. PRITZEL, L. DIELS).

OTTHIELLA Sacc. — Syll. I, p. 739 (ut subgenus). A genere *Otthia* differt sporidiis hyalinis v. subhyalinis. — Huc ducendæ sunt, præter *Otthiellam Ribis*, sequentes: *Otthiella seriata* (Peck) Sacc. et D. Sacc., *Otthiella Winteri* (Rehm) Sacc. et D. Sacc., *Otthiella Hazslinszkyi* Sacc. et D. Sacc., *Otthiella alnea* (Peck) Sacc. et D. Sacc. — Cfr. Syll. I, p. 739-740.

1. **Otthiella Ribis** (Tracy et Earle) Sacc. et D. Sacc. *Otthia* (Otthiella) *Ribis* Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fung. p. 29. — Peritheciis dense cæspitosis, erumpentibus, subrotundis, nigris, rugosis, globosis, 250-500 μ . diam.; ascis cylindræis, octosporis, stipitatis, 80-100 \times 12-15; sporidiis distichis, ellipticis, hyalinis vel dilutissime luteolis, 1-septatis, constrictis, 18-20 \times 5-6. 2250

Hab. in ramis *Ribis*, Bob Creek, South Colorado Amer. bor.

GIBBERA Fr. — Syll. I p. 599, IX p. 699, XI p. 306, XIV p. 542, XVI p. 491.

1. **Gibbera juruensis** P. Henn. Fungi Amaz. II, p. 242, cum icone (Hedw. 1904). — Stromatibus subcarbonaceis atris; peritheciis liberis superficialibus aggregatis, interdum confluentibus, rugulosis, verrucosis, atris, papillato-ostiolatis, ca. 250-300 μ . diam.; ascis cylindræo-clavatis, obtusis, 8-sporis, 70-100 \times 7-9; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ -2 μ . crassis; sporidiis subdistichis, fusoi- 2251

deis, subacutis, medio 1-septatis constrictis, primo hyalinis dein flavidis, 18-22 \times 4-5.

Hab. in foliis Bignoniacææ cujusdam, Rio Juruá, Juruá-Miry Amazoniæ. — Perithecia deorsum non vere hirta sed verrucoso-aspera.

LENTOMITA Niessl — Syll. I, p. 584, IX p. 698, XIV p. 542.

1. **Lentomita dubia** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2252 pag. 279. — Peritheciis dense gregariis, omnino superficialibus vel in cortice suberumpenti-superficialibus, globosis v. basi subapplanatis, carbonaceo-membranaceis, nigris 250-300 μ . diam., ostiolo tenui, cylindrico vel curvulo 700-900 μ . long., apice subinde incrassatulo; ascis clavatis, breve stipitatis, sessilibus, apice rotundatis, nunc 40 \times 10-13, nunc 80-87 \times 12-14, octosporis; sporidiis 2-3-stichis, oblongo-fusoideis, acutiusculis, rectis vel curvulis, medio constricto-1-septatis 4-guttulatis, hyalinis 13-18 \times 2,8-4.

Hab. in ramulis corticatis et decorticatis Callunæ vulgaris, Luxemburg. — Forte *Lentomitæ longirostratæ* affinis: an sporidia demum 3-septata?

2. **Lentomita herpotricha** Sacc. et in Atti Congr. bot. Palermo 1902, 2253 p. 51. — Peritheciis gregariis v. sparsis, a basi innata globoso hemisphæricis, brunneis, 300-350 μ . d., hyphis fuligineis tortuosis 180-200 \times 3, adpressis, ima basi cinctis, ceterum glabris, ostiolo cylindraceo obtuso, nigro, 180 \times 80 præditis; perithecii contextu obscure dense celluloso, fuligineo; ascis cylindræo-clavatis, breve stipitatis, apice rotundatis 90-100 \times 11-12, filiformi-paraphysatis, octosporis; sporidiis distichis, fusoideis, curvis rectisve, utrinque obtusatis, medio 1-septatis, leviter constrictis, 4-guttulatis, 20-22 \times 5, 5-6, hyalinis, tandem dilutissime fuscidulis.

Hab. in ligno denudato, putri, Rigny sur Arroux Galliæ. — Præcipue peritheciis brunneis ostioloque nigro, brevi dignoscenda species.

SPUMATORIA Masee et Salm. — Syll. XVI p. 1134.

1. **Spumatoria longicollis** Mass. et Salm. Coproph. fungi I, pag. 35, 2254 fig. 27. — Peritheciis sparsis, 0,75-1 mm. alt., semiimmersis demum superficialibus subglobosis, olivaceis, membranaceis, contextu parenchymatico e cellulis polygonis 6-10 μ . latis composito, glabris v. basi hyphis repentibus instructis, in rostrum longissimum cylindricum, atrum, rugulosum, apice fimbriatum plus minus

dilatatum, abrupte attenuatis; ascis cylindraceis 110-130 \approx 13-15 deorsum in stipitem attenuatis, octosporis citissime diffluentibus; sporidiis monostichis oblongis, utrinque rotundatis 15-19 \approx 5 hyalinis, 1-septatis, medio haud constrictis, demum in spumam mucilaginosam ex ore rostri ejectis; conidiis in eodem perithecio productis, oblongis, hyalinis 17-20 μ . long., 1-septatis, basi plus minus attenuatis, in conidiophoris simplicibus brevibus acrogenis.

Hab. in fimo equino, Epping Forest, Essex Britanniaë.

GNOMONIA Ces. et De Not. — Syll. I p. 561, IX p. 672, XI p. 302, XVI p. 483.

1. **Gnomonia pusilla** Sacc. et Flag. sp. n. — Peritheciis laxe gregariis, globosis, membranaceis, nigris, $\frac{1}{8}$ mm. diam., epidermide tumidula velatis ostioloque acute papillato erumpentibus, basi (in sicco) leviter excavatis, contextu parenchymatico olivaceo-fuligineo; ascis tereti-oblongis, sessilibus, utrinque, præcipue apice, obtusulis, 22-26 \approx 5-7, aparaphysatis, octosporis, tunica tenuissima; sporidiis distichis v. oblique monostichis, fusoideis, rectis curvulisve, 6-8 \approx 2, utrinque obtusiusculis, rarius acutiusculis, 4-guttulatis, demum tenuiter 1-septatis, non vel vix constrictis, hyalinis.

Hab. in caulibus emortuis Poterii Sanguisorbæ, Rigny sur Arroux (Saone et Loire) Galliaë. — Affinis præcipue *Gnom. tithymalinæ* sed omnibus partibus minor.

2. **Gnomonia Molluginis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 130, et III, 1903, p. 156, *Gnomonia borealis* Feltg. I, 1889, p. 384, non Schroët. — Peritheciis late sparsis v. gregariis, epidermide tumidula tectis 300-500 μ . diam, globosis, basi applanatis et siccitate concavis, in ostiolum rostellatum, rectum vel curvum tenuatis; ascis clavatis vel fusoideo-clavatis, sessilibus, 45-54 \approx 8-10, fasciculatis; sporidiis distichis elliptico-fusiformibus 15-18 \approx 4-5, utrinque obtusulis, constricto-1-septatis, 4-guttulatis.

Hab. in caulibus siccis Galii Molluginis, Luxemburg. — Affinis *Gnom. Fautreyi*.

3. **Gnomonia Hieracii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 156. — Peritheciis gregariis, late effusis, globoso-ellipsoideis epidermide immutata tectis 500 μ . diam., ostiolo brevi acute conoideo, nitido, perithecium dimidium æquante; ascis clavatis, clavato-fusoideis, deorsum stipitiforimi-tenuatis, sursum leniter attenuatis, poro distincto præditis, 46-52 \approx 10-12,5, octosporis, aparaphysatis.

physatis; sporidiis bi-tristichis, fusoides, utrinque rotundatis, constrictulo-1-septatis, 4-guttulatis, 13-15 \times 3-4.

Hab. in caulibus siccis Hieracii borealis, Luxemburg. — Affinis *Gn. tithymalinæ*.

4. **Gnomonia rhoïna** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2258 p. 131 *Diaporthe* spec. n. 633, Feltg. Vorstud. Pilz. Lux. 1899, I, p. 198, et *Gnomonia* spec. n. 675, Feltg. l. c. p. 213. — Peritheciis sparsis vel hinc inde confertis, corticulis et vulgo basi ligno insculptis, in ostiolum conicum vix emergens tenuatis; ascis teretibus clavatis, breve stipitatis, obtusulis 40-60 \times 7-9; sporidiis monostichis oblongo-ellipsoideis, utrinque obtusis, constricto-1-septatis rectis vel curvulis 12-18 \times 3-4, 4-guttulatis, cellula superiore subinde crassiore.

Hab. in ramis siccis Rhois typhinæ, Luxemburg. — Ad *Diaporthem* nutat.

5. **Gnomonia Aceris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2259 p. 131, et III, pag. 157. — Peritheciis 200 μ . diam. sparsis vel hinc inde approximatis, globosis, basi insculptis, peridermio tectis, ostiolo cylindræo-rostellato, perithecio duplo vel triplo longiore; ascis clavato-fusoides apice bifoveolatis 38-45 \times 7,5-10, octosporis, aparaphysatis; sporidiis, 2-3-stichis, obtuse fusiformibus, rectis, medio septatis, non constrictis, intus granulosis, 10-13 \times 2-3.

Hab. in ramulis siccis Aceris campestris, Luxemburg.

6. **Gnomonia epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2260 1903, p. 157. — Peritheciis sparsis, subglobosis valde depressis, cum epidermide connatis, minute papillatis v. poro tantum præditis, perexiguis, 80-100 μ . diam.; ascis obovoideis 30-35 \times 10,5, octosporis, aparaphysatis; sporidiis 3-4-stichis, fusiformibus, acutulis, bicellularibus, 4-guttulatis, rectis vel leviter curvis, hyalinis, 15-15,5 \times 2,6.

Hab. in ramis corticatis Aceris campestris, Luxemburg. — Peritheciis minutissimis, cum epidermide connatis mox dignoscitur species.

7. **Gnomonia Æsculi** Oud. Beih. Bot. Centr. 1902, p. 5. — Peritheciis immersis, sparsis v. per paria confluentibus, globosis 500 μ . d., rostro recto v. curvulo, 500 μ . longo instructis; ascis distichis, hyalinis, cylindræis, rectis v. curvatis, utrinque rotundatis, medio septatis, ad septum non constrictis, absque ciliorum vestigio, 3 v. 4-guttulatis, 16-18,5 \times 2,5.

Hab. in petiolis Æsculi rubicundæ, Nunspect Hollandiæ.

— Ab omnibus fere speciebus descriptis differt ascis multo brevioribus (35 μ . contra 45-90) et a *Gn. setacea* (Pers.) Ces. et De Not. ciliorum absentia.

8. **Gnomonia circumscissa** Mc. Alp. Fungus dis. Stone-fr. tr., Melb. 2262
1902, p. 94, t. XXI, fig. 50,51,52. — Peritheciis minutis, amphigenis, punctiformibus, erumpentibus, intense luteo-brunneolis, membranaceis, poro pertusis 120-150 μ . diam., ostiolo 60-75 μ . long., in maculis minutis, nigris, gregariis, insidentibus; ascis subsessilibus, octosporis obelavatis 50-60 \approx 24-25, raro oblongo-cylindraceis 95-130 \approx 15-17; sporidiis subhyalinis vel pallide luteis in massa, ovato-oblongis, 1-septatis, non constrictis, eguttulatis, granulosis, 20-26 \approx 5,5-7,5.

Hab. in foliis Pruni Armeniacæ, Pr. domesticæ, Pr. Cerasi, Pr. Persicæ. etc. in Australia.

9. **Gnomonia Vitis-Idææ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2263
II, p. 129, *Gnomonia campylostyla* Auersw. var. β . Feltg. Vorstud. Pilz. Luxemb. 1899, p. 211. — Peritheciis immersis, ostiolo conico acuto tantum emergentibus; ascis . . . non visis; sporidiis fusiformibus bicellularibus, hyalinis, 12 \approx 2,5.

Hab. in foliis adhuc stantibus vel delapsis Vaccinii Vitis-Idææ, Luxemburg.

10. **Gnomonia petiolicola** (Fuck.) Karst. — Syll. I, p. 568. — var. **Rhododendri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 128. 2264
— A typo differt ostiolo cylindrico longiore; ascis ellipsoideo-fusiformibus, 40-52 \approx 8-10, 5; sporidiis æqualiter bilocularibus, fusiformibus, 12-18 \approx 2,5-3, utrinque filiformi-apiculatis.

Hab. in petiolis Rhododendri spec., Luxemburg.

11. **Gnomonia rigniacensis** Sacc. et Flag. sp. nova. — Peritheciis 2265
gregariis parenchymate innatis, membranaceis, nigris, $\frac{1}{3}$ mm., diam., ostiolo crassiusculo, tereti-conico, perithecium subæquante erumpente; contextu perithecii sinuoso, tenui, olivaceo-fusco; ascis tereti-fusoideis, 50 \approx 10-11, aparaphysatis, octosporis; sporidiis fusoides, utrinque acutiusculis, 12-16 \approx 3-4,5, rectis v. leniter inæquilateris, quadriguttulatis, infra medium 1-septatis, non constrictis, hyalinis.

Hab. in petiolis nervisque primariis foliorum putrescentium Corni sanguineæ, Rigny sur Arroux Galliæ. — Affinis *Gnomonia cerastæ*, *G. errabundæ*, *G. petiolicolæ* sed satis diversa; matrix quoque aliena.

12. **Gnomonia Needhami** Mass. et Crossl. in the Natural. 1904, p. 3. 2266

— Peritheciis sparsis, semiimmersis, subglobosis, brunneo-nigris, 350 μ . diam., rostro longissimo, stricto, subcylindræo, apicem fimbriato, concolore 1-1,5 mm. longo; ascis subovatis, 24-28 \times 12-16; sporidiis hyalinis, 1-septatis, ellipsoideis, 14-22 \times 6-8.

Hab. in foliis emortuis Abietis, Crimsworth Dean, Hebden Bridge Britannicæ (J. NEEDHAM).

MELANCONIS Tul. — Syll. I p. 602, IX p. 700, XIV p. 543, XVI p. 492.

1. **Melanconis populina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2267 p. 119. — Stromatibus sparsis, subrotundis 1 mm. lat., pulvinato-semiglobosis, cortice interiore subimmutato nidulantibus, nigricantibus, disco griseo-flavido erumpente, linea stromatica lignea nulla limitatis; peritheciis in quoque stromate numerosis, globoso-ovoideis, 200-250 μ . diam., ostiolis obtuse conico-papillatis emergentibus; ascis tereti-clavatis, sursum leviter tenuatis, deorsum sensim tenuato-stipitatis, 63-76 \times 9-10, 5, filiformi-paraphysatis, octosporis; sporidiis subdistichis, oblongo-ellipsoideis, rectis curvulisve, utrinque rotundatis, medio septato-constrictis, hyalinis, intus granulosus, 16-18 \times 5.

Hab. in ramis siccis corticatis Populi italicæ, Luxemburg.

2. **Melanconis Quercus** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 2268 p. 707. — Stromate valseo; peritheciis in singulo stromate 6-12 collis robustis, obtusis, summo fere inflatis, ad 500 μ . altis; ascis elongatis 70 \times 10-12, octosporis; paraphysibus filiformibus; sporidiis distichis, fusiformibus, utrinque obtusis, non appendiculatis 18,5 \times 4,5 bi-guttulatis.

Hab. in ramis Quercus Roboris, Valkenberg Hollandiæ.

DIAPORTHE Nits. — Syll. I p. 606, IX p. 702, XI p. 307, XIV p. 543, XVI p. 492.

1. **Diaporthe** (Chorostate) **Androsæmi** Feltg. Vorstud. Pilz. Luxemb. 2269 Nachtr. III, 1903, p. 152. — Stromatibus sparsis vel subgregariis e basi subrotunda 1-1,5 mm. lata, obtuse conoideis, epidermide bullata tectis; peritheciis in quoque stromate paucis, cortice nidulantibus, ovoideis 300-400 μ . diam., collis brevibus in ostiola papillata in discum conjuncta abeuntibus; ascis tereti-fusoideis, octosporis 50-65 \times 5,5-7; sporidiis subdistichis, obtuse ellipsoideis, rectis 1-septatis, leviter constrictis 4-guttulatis, hyalinis, 10-16 \times 2,7-4,5.

Hab. in ramulis corticatis *Androsæmi officinalis*, Luxemburg. — *Diap. Dirceæ* affinis videtur.

2. **Diaporthe** (Chorostate) **Feltgeni** (Feltg.) Sacc. et Syd. — Syll. XVI, 2270 p. 493. — var. **Cydoniæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 148. — A typo differt peritheciis in quoque stromate parcioribus; ascis brevioribus, 50-65 \times 8-12, octosporis; sporidiis paullo minoribus et obtusioribus, 11-16 \times 4-5, quadriguttatis, nec granulosis.

Hab. in ramulis *Cydoniæ vulgaris*, Luxemburg.

3. **Diaporthe** (Chorostate) **congesta** Ell. et Ev. in Journ. of Mycol. 2271 1903, pag. 165. — Stromate conico-globoso 0,5 cm. diam.; peritheciis globosis 0,5 mm. diam. ab imo stromatis immersis, 20-30 in singulo stromate congestis, papillato-ostiolatis; ascis clavato-cylindraceutis, 60 \times 6, octosporis; sporidiis oblongo-fusoideis, subdistichis, hyalinis, 3-4-nucleatis, dein 1-septatis, 11-13 \times 2,5-3.

Hab. in ramis emortuis *Piri americanæ*, Sailors' Encampment, Mich., Amer. bor.

4. **Diaporthe** (Chorostate) **Mali** Bres. in P. Strasser, Zweiter Nachtr. 2272 zur Pilzflora des Sonntagberges, in Verhandl. d. k. k. zool. bot. Ges. in Wien 1902, p. 433. — Stromatibus subepidermicis, cortice interiori innatis, verruciformibus, basi applanatis 2-3 mm. latis, apice conoideis, pallidis; peritheciis 3-10 in quovis stromate, majusculis 300-500 μ . diam., obovatis vel mutua pressione difformibus, collis perithecii diam. paulo longioribus; ostiolis cylindraceutis plus minus prominentibus apice subattenuatis; ascis fusoideis 65-72 \times 10-14; sporidiis hyalinis, uniseptatis, ad septa subconstrictis, sæpe subcurvulis, guttulatis, 18-25 \times 4-6.

Hab. in ramis *Piri Mali*, Sonntagsberg Austriae bor.

5. **Diaporthe** (Chorostate) **ribesia** Rehm in Öst. Bot. Zeitschr. 1904, 2273 p. 82. — Stromatibus valsoideis, conoideis, in cortice interiore immutato nidulantibus, per peridermium elevatum varieque dilaceratum erumpentibus 2-3 mm. diam.; peritheciis globulosis 8-10 circinatim positis, 500 μ . diam., ostiolis subglobosis in disculo atro, dein pallide fuscidulo 1 mm. diam., circinatim emergentibus; ascis fusiformibus 60-75 \times 15-18, octosporis; sporidiis oblongis, medio septatis ibique constrictis, utraque cellula guttam magnam oleosam includentibus, hyalinis, utrinque filiformiter 5 μ . long. appendiculatis, 18-20 \times 6-7, distichis; paraphysibus ramosis.

Hab. in ramulis siccis *Ribis saxatilis*, in alpibus vallis Ötz Tiroliae.

6. *Diaporthe* (Chorostate) *spiræicola* Feltg. Vorstud. Pilz. Luxemb. 2274

Nachtr. III, 1903, p. 147. — Stromatibus dense confertis, ramos totos occupantibus, sæpe seriatis, basi cortice interiore vel ligno innatis, linea nulla stromatica cinctis, sed matricem intus dealbantibus, e basi 1-2,5 mm. lata, subrotunda subconicis, erumpentibus et ostiolis obtuse conicis vel subcylindræis et nodosis, discum rotundum, latiusculum initio albidum formantibus; peritheciis mono-distichis, 15-30 in quoque stromate, 200-300 μ . lat.; ascis teretifusoideis, apice rotundatis bi-foveolatis, deorsum tenuatis 57-63 \approx 8,5, octosporis; sporidiis mono-distichis, fusoideis, acutis, rarius obtusis, rectis curvulisve, constrictulo-1-septatis, 4-rarius 6-guttulatis, 14-17 \approx 4,5, rarius 14 \approx 6, hyalinis.

Hab. in ramis corticatis siccis *Spirææ* spec., Luxemburg. — *Diaporthe liphæmiæ* et *D. conjunctæ* affinis.

7. *Diaporthe* (Chorostate) *microstroma* Ell. et Ev. in Journ. of Myc. 2275

1903, p. 224. — Stromatibus 0,5 mm. diam. subrotundis, nigris et ambitu in parenchymate interiori linea circumscriptis; peritheciis 1-4 præcipue in singulo stromate congestis, 250 μ . diam., ostiolo brevi, conico, papillato non erumpente donatis; ascis clavato-oblongis, 80-100 \approx 15-20, paraphysibus numerosis evanescentibus obvallatis; sporidiis distichis initio fusoideis, utrinque acutis, dein maturitate plus minusve obtusis 1-septatis et constrictis, 22-30 \approx 10-13.

Hab. in corticibus *Aceris saccharini*, London, Canada, Amer. bor.

8. *Diaporthe* (Chorostate) *celastrina* Ell. et Barth. in Journ. of Myc. 2276

1902, p. 173. — Peritheciis circinantibus, 5-10-congestis, globosis, 500 μ . diam., intus griseis, immersis, ostiolis 0,5-1 mm. longis, brevibus levibus subconico-acuminatis fasciculatis erumpentibus; ascis clavato-cylindræis 50-60 \approx 6-8; sporidiis superne distichis, oblongo-cylindræis, bi-nucleatis, 1-septatis, ad septa constrictis, 12-15 \approx 4-5.

Hab. in caulibus emortuis *Celastris scandentis*, Clyde, Kansas Amer. bor.

9. *Diaporthe* (Chorostate) *Buxi* Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2277

III, 1903, p. 150. — Peritheciis ternis senis confertis, stromata valsea in cortice formantibus, dein erumpentibus et epidermide rupta cinctis, globosis, 200-250 μ . diam., ostiolis globoso-applanatis, erumpentibus, in discum vix emergentem conjunctis; ascis teretivallatis, apice rotundatis, deorsum stipitiformi-tenuatis, octosporis

78-104 \approx 10, aparaphysatis; sporidiis submonostichis oblongo-fusoideis, rectis, rarius curvulis, utrinque obtusis, 4-guttatis, medio 1-septatis constrictisque hyalinis, 15-20 \approx 5-5,5.

Hab. in ramis corticatis Buxi sempervirentis, Luxemburg. — Socia adest *Phomæ* spec., sporulis cylindræis, biguttatis 5-6 \approx 1,5-2.

10. **Diaporthe** (Chorostate) **Comptoniæ** (Schw.) Ell. et Ev. — Syll. IX, 2278 p. 705. — var. **berolinensis** P. Henn. in Notizblatt des Kgl. bot. Gart. Berl. 1900, n. 22, p. 37. — Pustulis gregariis epidermide velata tectis, rimosis; peritheciis paucis 3-5, atris, ostiolis brevibus, 300-400 μ . diam.; ascis clavatis apice rotundatis, octosporis 30-50 \approx 10-13; sporidiis subdistichis, oblongis, subfusoideis, utrinque obtusiusculis v. acutiusculis, interdum subinæquilateralibus, medio 1-septatis, constrictis, 4-guttulatis, 16-19 \approx 4,5-5 hyalinis.

Hab. in ramis Comptoniæ asplenifoliæ, in horto botanico Berolinensi Germaniæ.

11. **Diaporthe** (Chorostate) **Mezerei** Feltg. Vorstud Pilz. Luxemb. 2279 1901, Nachtr. II, p. 126. *Diaporthe e*) Feltg. Vorstud. Pilz. Luxemb. I, 1899, p. 206. — Stromatibus sparsis, depresso-conoideis, cortice nidulantibus; peritheciis in quoque stromate 5-8, basi applanata ligno adnatis, sursum in ostiola conica, discum minutum vix emergentem formantia productis; ascis fusoideis 54-60 \approx 9; sporidiis distichis, ellipsoideis, obtusulis, constricto-1-septatis, 15 \approx 4-5, rectis hyalinis, 4-guttulatis.

Hab. in ramis siccis Ampelopsidis hederacæ, Luxemburg.

12. **Diaporthe** (Chorostate) **Juniperi** Feltg. Vorstud. Pilz. Luxemb. 2280 Nachtr. III, 1903, p. 149. — Stromatibus sparsis e basi subrotunda 1-2,5 mm. lata, obtuse conoideis, cortice nidulantibus, leviter inflantibus et discum nigrum 0,5-1,5 mm. diam. revelantibus; peritheciis in cortice immutato nidulantibus 6-18 in quoque stromate, monostichis, globosis, 200-500 μ . lat., collis coalitis in ostiola breve conica in discum conjuncta abeuntibus; ascis tereti-clavatis, apice rotundatis, bi-foveolatis, stipitatis, aparaphysatis 90-120 \approx 7-8, octosporis; sporidiis monostichis, ellipsoideis, rectis curvulisve 10-16 \approx 5-6 septo tenuissimo medio divisis, hyalinis, minute guttulatis.

Hab. in ramis corticatis Juniperi communis, Luxemburg.

13. **Diaporthe** (Chorostate) **Pinastri** Feltg. Vorstud. Pilz. Luxemb. 2281 1899, Nachtr. II, p. 126. — *Diaporthe c*) Feltg. Vorstud. Pilz.

Luxemb. I, 1899, p. 205. — Stromatibus valsiformibus corticolis disco minuto, rotundo erumpentibus; peritheciis parcis, ostioli obtusis præditis; ascis ovoideo-ellipticis 33-36 \approx 12-14; sporidiis fusiformibus, obtuse acutatis, rectis curvulisve, constrictulo-1-septatis, 2-3-stichis, 2-4-guttatis.

Hab. in ramis siccis Pini silvestris, Luxemburg.

14. **Diaporthe** (Chorostate) **anisomera** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 10. — Stromatibus gregariis, corticolis, erumpentibus, ambitu suborbicularibus, convexis, 1,3-1,5 mm. diam., intus ligneo-pallidis; peritheciis 10-20, globosis vel mutua pressione irregularibus, 200-250 μ . diam., monostichis, ostioli breve cylindræis, parum emergentibus, apice rotundatis; ascis fusoido-clavatis, apice obtusis, deorsum tenuatis, 80-90 \approx 11-13, octosporis; sporidiis distichis, obovatis, 14-17 \approx 5-5,5, infra medium septatis, non constrictis, fartis, hyalinis et initio strato mucoso inæquali obductis, articulo superiore fere duplo majore.

Hab. in ramis emortuis decorticatis Coryli (?), Yakutat Bay Alaska (TRELEASE). — Etsi matrix non certa, species videtur distinguenda ob sporidia eximie anisomera.

15. **Diaporthe** (Chorostate) **italica** (Sacc.) Trav. in litt. sp. nov. *Diaporthe forabilis* f. *acervata* Sacc. in herb. — Stromatibus valseis, sparsis vel gregariis, e basi ellipsoidea conico-applanatis, 1-2 mm. diam., corticolis, erumpentibus, infra linea nigra nulla circumscriptis; peritheciis in quoque stromate 4-8, circinantibus, subglobosis, $\frac{1}{3}$ - $\frac{1}{2}$ mm. diam. in collum cylindræum abrupte attenuatis; ostioli in fasciculum dense stipatis, per peridermium perforatum erumpentibus, plus minusve longe exsertis, apice sæpe incrassatulis, atris; ascis cylindræo-clavatis vel oblongis, apice bifoveolatis octosporis, 40-48 \approx 7-8; sporidiis distichis vel, multo rarius, oblique monostichis, ellipsoideo-fusiformibus, 4-guttulatis, medio uniseptatis sed non constrictis, hyalinis, 11-12 \approx 3-3 $\frac{1}{2}$.

Hab. in ramis corticatis emortuis Populi pyramidalis, Patavii, martio 1874 (SACC.). — A *Diaporthe* (Ch.) *populea* et *pulchella* ascis sporidiisque minoribus, 4-guttatis sed ad septum non constrictis ostioliisque magis elongatis satis distincta.

16. **Diaporthe** (Chorostate) **simplicior** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 154. — Stromatibus gregariis, subrotundatis e basi usque 1 mm. lata, obtuse conoideis, disco minuto, subrotundo; peritheciis parcis (4-6) in quoque stromate, in cortice immutato nidulantibus globoso-depressulis, nigris, 250-300 μ . lat.,

linea stromatica in ligno nulla; collis manifestis in ostiola globulosa parum emergentia abeuntibus; ascis tereti-fusoideis, apice bifoveolatis 43-48 \approx 5,5-8 octosporis; sporidiis distichis, oblongo-cylindræis, obtusis, rectis, 1-septatis, leviter constrictis, 4-guttulatis, hyalinis, 10-13 \approx 2,5-3.

Hab. in ramis siccis Populi Tremulæ, Luxemburg.

17. **Diaporthe** (Chorostate) **caryigena** Ell. et Ev. in Journ. of Mycol. 2285
1903, pag. 223. — Peritheciis 3-6 congestis, corticulis, globosis, 500 μ . diam., ambitu parenchymateque interiori linea nigra distincta 0,5-1 mm. diam. circumscriptis; ostiolis fasciculatis initio tectis, dein erumpentibus, papillatis; ascis subcylindræis p. spor. 60 \approx 10; sporidiis submonostichis, ellipticis, 1-septatis utrinque rotundatis vel obtusis, constrictis, 9-13 \approx 3,5-4,5.

Hab. in ramis corticatis Caryæ, London, Canada Americæ borealis.

18. **Diaporthe** (Tetrastaga) **rhoïna** Feltg. Vorstud. Pilz. Luxemb. Na- 2286
chtr. III, 1903, p. 145. — Stromate maculiformi, acute limitato, versiformi, 0,5-2,5 \approx 0,3-0,7 mm., plano convexo, nigrificante; peritheciis cortice nidulantibus, plerumque 2-4-approximatis, globoso-ovoideis, 200-300 μ . diam., ostiolis breve-conoideis emergentibus; ligno infra immutato sed linea stromatica nigra limitato; ascis oblongo-clavatis, sessilibus, octosporis 35-45 \approx 8-10; sporidiis distichis rarius tristichis, obtuse ellipsoideis, rectis v. curvulis medio-septatis constrictisque, 4-guttulatis, hyalinis, 12-14 \approx 3,5-4,5.

Hab. in ramis corticatis Rhoï typhinæ, Luxemburg. — Affinis *Diap. crustosæ*.

19. **Diaporthe** (Tetrastaga) **tamaricina** Sacc. et Flag. in Atti Congr. 2287
bot. Palermo 1902, p. 52. — Peritheciis gregariis, cortice immutato immersis, globosis, perexiguis, vix 250 μ . d., ostiolo minutissimo perforante, vix exstante; ascis fusoides aparaphysatis, octosporis; sporidiis distichis, fusoides, sæpe curvulis, 10 \approx 2,5 obsolete-guttulatis, hyalinis, utrinque obtusiusculis.

Hab. in ramulis emortuis Tamaricis anglicæ, Paray-le-Monial Galliæ. — Linea nigra stromatica endoxyla nulla distincta.

20. **Diaporthe** (Tetrastaga) **Rhododendri** Feltg. Vorstud. Pilz. Lu- 2288
xemb. Nachtr. III, 1903, p. 141. — Peritheciis gregariis, sparsis v. fere valsiformiter 4-5 approximatis, substantia stromatica nulla, globosis, ostiolis rotundatis, singulis vel pluribus epidermidem perforantibus et paullo emergentibus; ascis fusoides, breve stipitatis, apice obtusato-conicis, bi-foveolatis 55-61 \approx 7-8, octosporis; spori-

diis distichis, fusoideis, 1-septato-constrictis, 4-guttatis, 12-14 \times 3-4, utrinque appendicula conica hyalina auctis.

Hab. in ramis siccis corticatis *Rhododendri* spec. cultæ Luxemburg.

21. **Diaporthe** (*Tetrastaga*) **Catalpæ** Ell. et Ev. in Journ. of Mycol. 2289 1903, p. 224. — Peritheciis sparsis vel 2-4 congestis, 0,5-0,8 mm. diam., semiimmersis, ligno linea nigra 1-2 cm. diam. circumscripto, ostiolo subgloboso, erumpenti donatis; ascis clavato-oblongis 40-50 \times 6-7; sporidiis subdistichis, fusoideo-oblongis, 4-nucleatis, 10-12 \times 2,5-3.

Hab. in ramis emortuis *Catalpæ*, London, Canada, Amer. bor.

22. **Diaporthe** (*Tetrastaga*) **sechalinensis** Sacc. in Atti Congr. bot. di 2290 Palermo 1902, p. 52. — Peritheciis gregariis, minutis, globoso-depressis, 300 μ . diam., membranaceis, nigris, intus griseis, cortice fere immutato nidulantibus, ostiolis conico-cylindricis perforantibus breviterque emergentibus; ascis fusoideis 48 \times 8 aparaphysatis; sporidiis octonis fusiformibus, utrinque brevissime apiculatis, 13-15 \times 3-4, 4-guttatis, hyalinis.

Hab. in caule *Polygoni sechalinensis* culti, Côte-d'Or Galliæ (FAUTREY). — A *Diap. discordi*, *D. discrepante* et *D. maculosa* satis diversa. Linea stromatica atra per lignum varie excurrit.

23. **Diaporthe** (*Tetrastaga*) **Nucis-Avellanæ** Feltg. Vorstud. Pilz. Lu- 2291 xemb. 1901, Nachtr. II, p. 121. — Stromate effuso, maculiformi, nunc 0,4-0,8 mm. diam., nunc latiore 1-4 mm., valde versiformi, plura perithecia amplectente; peritheciis nunc sparsis, nunc fere valsiformiter congestis, matricis superficiem nigrificantibus, sed non elevantibus, substantiam interiorem non mutantibus, subglobosis, nigris 200-300 μ . diam., in ostiola nodulosa, cylindræa, recta vel curvula 300-800 μ . longa, abeuntibus; ascis fusoideis, apice bifoveolatis, 47-58 \times 6,5-7,5, octosporis, rarius 5-6-sporis; sporidiis subdistichis, fusoideis, rectis vel curvulis constrictulo-1-septatis, 4-guttulatis, hyalinis, 13-18 \times 4-5, utrinque appendicula conica 2,5-3 μ . longa auctis.

Hab. in putaminibus *Coryli Avellanæ*, Luxemburg.

24. **Diaporthe** (*Tetrastaga*) **disputata** Bomm. Rouss. et Sacc. — Syll. 2292 XI, p. 312. — var. **Ulmi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 143. — A typo dignoscitur peritheciis paginæ inf. epidermidis adnatis, duplo crassioribus, 500-700 \times 300-400, subastomis, inferne albo-pruinosis; ascis 40-60 \times 5,5-7,5, aparaphysatis, 6-8-

sporis; sporidiis distichis, rarius tristichis, 13-15 \times 4-5, utrinque rotundatis, 4-guttatis, hyalinis.

Hab. in ramis corticatis Ulmi campestris var. suberosæ, Luxemburg. — An potius species distincta?

25. **Diaporthe** (Euporthe) **Hircini** Feltg. Vorstud. Pilzfl. Luxemb. 2293 Nachtr. III, 1903, p. 134. — Stromate effuso, non acute limitato, ligni stratum superiorem nigricante, sed linea stromatica nulla in ligno limitato; peritheciis sparsis vel gregariis, subinde valsiformiter confertis, globosis 300-500 μ . diam., nigricantibus, ostiolis cylindraceutis, rectis v. obliquis, rugosis, nunc brevibus, nunc sexies perithecium superantibus; ascis tereti-fusoideis, apice bifoveolatis 50-60 \times 7-8, octosporis; sporidiis mono-distichis, fusiformibus, utrinque obtusis, medio septatis, non vel vix constrictis, 4-guttulatis 10-18 \times 2,5-3,5, hyalinis.

Hab. in caulibus decorticatis Hyperici hircini, Luxemburg.

26. **Diaporthe** (Euporthe) **Teucree** Feltg. Vorstud. Pilz. Luxemb. 1903, 2294 Nachtr. III, p. 134. — Stromate maculiformi, forma vario 1-6 cm. longo, 1-6 mm. lato, nigricante, in ligno linea nulla limitato; peritheciis subglobosis, nigris 200-250 μ ., ligno subimmersis, sparsis v. aggregatis, plerumque seriatim erumpentibus, ostiolo rostello 1 mm. et ultra long., recto v. curvo; ascis elliptico-fusoideis, sessilibus, 50-55 \times 7-8, octosporis; sporidiis distichis breve fusoides, rectis curvulisve, bicellularibus, constricto-septatis, hyalinis, 4-guttatis, 14-16 \times 4-4,5.

Hab. in caulibus corticatis Teucree Scorodoniæ, Luxemburg. — *Diaporthe Rubiæ* affinis.

27. **Diaporthe** (Euporthe) **conigena** Feltg. Vorstud. Pilz. Luxemb. 2295 Nachtr. III, 1903, p. 136. — Peritheciis globosis 200-300 μ . diam., sparsis vel paucis 3-10 valsiformiter aggregatis, parenchymate immutato nidulantibus, sed maculam brunneam nigram irregularem vel subrotundam convexulam efficientibus, ostiolis emergentibus solitariis vel sæpe in discum subrotundum, parum elevatum conjunctis; ascis clavato-fusoideis, breve stipitatis, octosporis, apice rotundatis, apophysatis 40-44 \times 6,5-9; sporidiis distichis v. partim monostichis, obtuse fusiformibus, utrinque rotundatis, rectis curvulisve, medio septatis non v. vix constrictis, 4-guttulatis, hyalinis 11-15 \times 4,5-5, utrinque primitus minute brevissimeque appendiculatis.

Hab. in squamis strobilorum Abietis excelsæ, Luxemburg.

28. **Diaporthe** (Euporthe) **verecunda** Sacc. et Flag. in Atti Congr. bot. 2296

Palermo 1902, p. 52. — Peritheciis in interiore corticis durioris superficie fusco maculata immersis, globulosis, membranaceis, 400 μ . diam., atris, intus albidis, ostiolis exiguis, corticem perforantibus sed vix superantibus; ascis fusoideis, aparaphysatis, apice bifoveolatis, 45-50 \approx 6,5-7,5 octosporis; sporidiis fusoideis utrinque obtusatis, 11-13 \approx 2,8-3, medio leviter constrictis, 4-guttatis, hyalinis.

Hab. in pag. interiore corticis secedentis Salicis (an capræ?) Rigny sur Arroux Galliæ. — Notis datis videtur distinguenda.

MYRMÆCIUM Nitschke et Fuck. — Syll. I p. 600, XVI p. 492.

1. **Myrmæcium fraxineum** Ell. et Ev. in Journ. of Myc. 1903, p. 168. 2297

— Peritheciis ovato-ellipticis, 100-125 μ . diam., subimmersis, in stromate 3 \approx 1,5 mm. diam. confertis, superne planiusculis et erumpentibus, nigris, contextu albo; ascis cylindraceutis, p. spor. circ. 75 \approx 8-10; paraphysibus evanescentibus; sporidiis monostichis vel superne distichis, ovoideis, hyalino-olivaceis, 1-septatis, plus minusve ad septum constrictis, 12-14 \approx 5-6.

Hab. in ramis emortuis Fraxini viridi? River Forest, Illin. Amer. bor. — A *M. endoleuco* Sacc. sporidiis subolivaceis, constrictis differt.

ENDOTHIA Fr. — Syll. I p. 600, IX p. 700, XIV p. 550.

1. **Endothia longirostris** Earle in Muhlenbergia 1901, p. 14. — Stro- 2298

matibus dense sparsis, subinde confluentibus læte flavis, matrice profunde insertis, innatis, demum erumpentibus vulgo subelongatis 5-6 \approx 2-3 mm.; peritheciis 5-6 usque 15 in quoque stromate immersis, nigris circ. 0,5 mm. diam., ostiolis longe exsertis, usque 1 cm., brunneo-flavis, rugulosis; ascis fusiformibus, tenuiter tunicatis, aparaphysatis 25-30 \approx 6, octosporis; sporidiis ovoideis, demum æqualiter 1-septatis, 6 \approx 3.

Hab. in cortice arborum prope Santurce Portorico. — Sporulæ pycnidicæ adsunt minutissimæ 2 \approx 1 ex ostiolis nonnullis in cirros corallinos eructatæ.

Sect. 5. Phæodidymæ.

PHÆOSPHÆRELLA Karst. — Syll. IX p. 723, XI, p. 312.

1. **Phæosphærella Marchantiæ** P. Henn. Verhandl. Bot. Ver. Prov. 2299

Brandeb. 1904, p. 120. — Maculis effusis, brunneo-fuscis vel ci-

neris exaridis; peritheciis innato-erumpentibus, punctiformibus, gregarie sparsis, lenticularibus, atris, contextu membranaceo, fusco-atro, celluloso, medio poro late pertusis, ca. 80-100 μ . diam.; ascis subcylindræis, vertice rotundato-obtusis, basi subfasciculatis, aparaphysatis, 8-sporis, 70-80 \approx 9-10; sporidiis oblique monostichis vel subdistichis, subclavato-fusoideis, rectis vel curvulis, utrinque subacutiusculis, medio 1-septatis, paulo constrictis, fuscis 10-15 \approx 3 $\frac{1}{2}$ -4.

Hab. in thallo Marchantiæ polymorphæ pr. Berlin Germaniæ (K. OSTERWALD).

2. **Phæosphærella araneosa** (Rehm) Sacc. et D. Sacc. Ita vocanda *Epicymatia araneosa* (Rehm) Sacc. — Syll. I, p. 572 — seu *Sphærellothecium araneosum* (Rehm) Zopf in N. Act. Leop. Car. LXX, 1897, p. 178, cum icone. — Sporidia matura omnino fuliginea, 12,5-14,3 \approx 5,4; paraphyses nullæ.

TICHOTHECIUM Flotow — Syll. IX, p. 723, XIV, pag. 551, XVI, p. 498. — Aptius forte est hoc genus limitandum ad species tantum ascis polysporis sporidiisque phæodidymis præditas. Cfr. Syll. IX, p. 726, sect. II.

1. **Tichothecium microcarpum** Arn. Tirol. XIV, p. 477. — Peritheciis 2300
nigris, minutissimis; ascis 20-sporis aparaphysatis; sporidiis bicellularibus, brunneis, 6-8 \approx 3-3,5, ovoideis.

Hab. in apotheciis Callopismatis sp. et Biatorinæ dilutæ in Tirolia.

DIDYMOSPHERIA Fuck. — Syll. I p. 701, IX p. 728, XI p. 312, XIV p. 551, XVI p. 498.

1. **Didymosphæria minima** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2301
1903, p. 246. — Peritheciis gregariis vel sparsis, omnino tectis, globosis, basi applanatis, nigris 80-150 μ . diam., subinde epidermide denigrata tectis, ostiolo minuto conico, emergente; ascis teretivulvatis, deorsum tenuatis, filiformi-paraphysatis 55-85 \approx 3,5-5, octosporis; sporidiis mono-distichis, obovato-ellipsoideis vel subfusoideis, obtusulis, rectis vel curvulis 1-septatis, non constrictis, olivaceo-brunneis, 8-9 \approx 3-4, cellula superiori vulgo paullo crassiore.

Hab. in caulibus corticatis Echii vulgaris, Luxemburg. — Proxime affinis *Didym. subconoideæ*.

2. **Didymosphæria Stellaris** v. Höhnelt Fragm. zur Mycol. 1903, p. 6. 2302
— Foliicola; peritheciis teneris, sparsis, epidermide non nigre-

scente tectis, plerumque nervis foliorum insidentibus, sphæroideis, brunneis, obscurius papillatis, ostiolo 30-40 μ . lato pertusis, 170-250 μ . latis; tunica molli, e cellulis tenuibus, majusculis formata; ascis octosporis, clavatis, 80-100 \approx 16-18, breve et crasse pedicellatis; sporidiis distichis, flavis, elongato-fusiformibus, utrinque attenuatis, strato tenui, hyalino circumdatis, rectis vel plerumque curvulis, 24-36 \approx 6-9, didymis, cellula supera quam inferiore triplo vel quadruplo longiore, paraphysibus numerosis, filiformibus, crassiusculis.

Hab. in foliis languidis *Stellarie nemorum*, in silvis prope Westendorf Tirolie.

3. **Didymosphæria Idæi** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2303 II, p. 172. — Peritheciis gregariis 0,5-1 \approx 0,2-3 mm. epidermide immutata velatis et ostiolo conico atro-brunneo erumpentibus, globoso-depressis; ascis cylindricis, 82-104 \approx 8,5-10; sporidiis oblique monostichis, oblongis, sæpe inæqualiter bi-cellularibus, leviter constrictis, 13-15 \approx 4-5,5, brunneis, intus granulosis; paraphysibus tenuiter filiformibus.

Hab. in ramulis siccis *Rubi Idæi*, Luxemburg.

4. **Didymosphæria Rhois** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2304 1903, p. 248. — Peritheciis sparsis vel hinc inde approximatis, epidermide non elevata sed supra perithecia leviter denigrata tectis, globoso-depressis 150-450 μ . diam.; ascis cylindricis, breve stipitatis 80-100 \approx 7-9, filiformi-paraphysatis, octosporis; sporidiis monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio septatis, non v. vix constrictis, acutis curvulisve, brunneis 10-13 \approx 5-6.

Hab. in ramulis corticatis *Rhois typhinæ*, Luxemburg. — Tam a *Didym. majore*, quam a *Didym. rhoina* bene distincta. 2305

5. **Didymosphæria Hippophaës** Rehm, Hedw. 1903, p. (292). — Peritheciis gregarie sub epidermide nidulantibus eamque protrudentibus, globulosis, minutissime papillulatis, ostiolo conspicuo prominentibus, glabris, nigro-fuscis, ad basim hyphis nonnullis subfuscis, septatis 50 \approx 5 vestitis; contextu parenchymatico 100-120 μ . diam.; ascis obclavatis 60 \approx 12, octosporis; paraphysibus ramosis; sporidiis oblongis v. clavatis, utrinque obtusis, 1-septatis, utraque cellula sæpe 2-biguttulatis, interdum cellula superiore brevior, ad septum vix constrictis, flavido-fuscidulis 12-15 \approx 5-6, distichis.

Hab. in foliis putrescentibus *Hippophaës rhamnoidis*, Kaiserthal prope Hinterbärenbad Tirolie (Dr. REHM).

6. **Didymosphæria massarioides** Sacc. et Brun. — Syll. IX, p. 729. 2306

— var. **Hederæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 248. — A typo differt clypeo stromatico nigricante circa ostiolum; peritheciis globosis 400–600 μ . diam.; ascis paullo longioribus 136–152 \approx 8–10; sporidiis non constrictis 19–21 \approx 5,5–7, brunneis.

Hab. in ramis corticatis *Hederæ Helicis*, Luxemburg.

7. **Didymosphæria cryptosphærioides** Rehm, Ann. Mycol. 1904, p. 176. 2307

— Peritheciis gregariis, sub epidermide albescente fere confertis, sed non botryose nidulantibus eamque subhemisphærice elevantibus, dein ostiolo conoideo minutissimo perforantibus, demum liberis, globosis, glabris, nigris 0,3 mm. diam. subcarbonaceis; ascis clavatis, apice rotundatis 120–140 \approx 12–15, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, subfuscis 18–20 \approx 9–10, in ascis parte superiore distichis, in inferiore monostichis; paraphysibus ramosis, septatis, 4 μ . crassis.

Hab. ad corticem (*Mesquite* = *Acacia?* *Prosopis?*) Texas Amer. bor. (LONG). — Peritheciis sub epidermide primitus gregariis eamque *Cryptosphæriæ* modo poris minutis perforantibus sporidiisque in ascis distiche positis a ceteris speciebus divergens, forsitan potius *Amphisphæriæ* species propter perithecia carbonacea.

8. **Didymosphæria epidermidis** (Fr.) Fuck. — Syll. I, p. 709. — var. 2308

petiolorum Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 174, *Didym.* spec. Felt. Vorstud. Pilz. Luxemb. I, 1899, p. 272. — Peritheciis sparsis immersis, vix papilla minuta emergentibus, globoso-depressis, collabascentibus; ascis tereti-clavatis, filiformi-paraphysatis, 84–90 \approx 7–9; sporidiis monostichis, obtuse ellipsoideis, brunneolis, ad septum leniter constrictis, eguttulatis v. biguttulatis 9–15 \approx 5–6.

Hab. in petiolis siccis *Robiniaë Pseudacaciæ*, Luxemburg. — Var. **Catalpæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 249. — A typo differt peritheciis non collabascentibus 100–400 μ . diam., sporidiis jugiter monostichis, vulgo eguttulatis, 10–13 \approx 5–6. In ramulis corticatis *Catalpæ bignonioidis*, Luxemburg.

9. **Didymosphæria lignicola** Feltg. Vorstud. Pilz. Luxemb. 1901, 2309

Nachtr. II, p. 173. — Peritheciis gregariis v. sparsis, ligno basi insculptis, erumpentibus, clypeo atrato, angusto tectis; ascis tereti-clavatis, breve stipitatis 52–65 \approx 8–9; sporidiis monostichis, ellipsoideis non constrictis, brunneis 8–10 \approx 4,5–5,5; paraphysibus filiformibus, ramosis.

Hab. in ramis decorticatis *Populi canadensis*, Luxemburg.

— Var. **Frangulæ** Feltg. l. c. — A typo differt peritheciis plerumque seriatis, macula stromatica circa ostiolum magis expansa, ascis 52-70 \approx 6-9, tereti-clavatis; sporidiis monostichis, non constrictis, biguttatis, brunneis 8-11 \approx 5-6 et paraphysibus non (?) ramosis. In ramis decorticatis *Rhamni Frangulæ*, Luxemburg.

10. **Didymosphæria subcorticalis** Feltg. Vorstud. Pilz. Luxemb. 1901, 2310 Nachtr. II, p. 173. — Peritheciis gregariis, immersis, ostiolo conico per epidermidem circum circa atratam erumpentibus; ascis non visis; sporidiis ellipsoideis, utrinque tenuatis, bi-cellularibus, bi-guttatis, brunneis, 15-18 \approx 5.

Hab. in pariete interiore corticis *Salicis albæ*, Luxemburg.

11. **Didymosphæria nana** Rostrup — Syll. IX, p. 730. — var. **brachyspora** Sacc. Cfr. Harrim. Alaska Exped. Crypt. p. 30. — A typo differt; sporidiis paullo brevioribus, nempe 18-20 \approx 6,5-7,5 nec 25 \approx 7-8.

Hab. in foliis *Alni*, Port Vells Alaska (TRELEASE).

12. **Didymosphæria minuta** Niessl. — Syll. I, p. 715. — var. **Pseudo-Acori** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt, ascis minoribus nempe 34-40 \approx 5-6 sporidiisque multo minoribus, nempe 7-8 \approx 2,5-3, profunde constrictis, brunneolis, bi-guttulatis.

Hab. in caulibus et pedunculis *Iridis Pseudo-Acori*, Luxemburg.

13. **Didymosphæria Clementsii** Sacc. et D. Sacc. *Phorcys minutus* Clements in Bull. of the Torr. Bot. Cl. 1903, p. 84, nec *Did. minuta* Niessl. — Peritheciis solitariis, copiosis, raro subgregariis, primitus tectis, deinde epidermidem nigricantem pertusis, submembranaceis, depresso-globosis, ostiolo depresso, rugulosis, atro-brunneis, minutis 85-150 μ . diam.; ascis 6-8-sporis, irregulariter clavatis, brevibus, ad basim attenuatis 80 \approx 16-18; paraphysibus linearibus, paucis; sporidiis monostichis, sursum distichis, oblongo-ellipticis, uni-septatis, ad septum constrictis, levibus, brunneis, bi-guttulatis 13-16 \approx 6-7.

Hab. ad folia vetusta exsiccataque *Yuccæ glaucæ*, Cross Ruxton Amer. bor.

14. **Didymosphæria Feltgeni** Syd. Ann. Myc. 1903, p. 177, *D. Typhæ* Feltg. Vorstud. Lux. Nachtr. II, p. 172, nec Peck. — Peritheciis gregariis, immersis, globosis, basi applanatis, ostiolo breviter cylindraceo-conico per epidermidem erumpentibus, atro-brunneis 200

μ . diam.; ascis oblongo-clavatis, subsessilibus 21-26 \times 8-10, octosporis, paraphysibus filiformi-clavulatis, flaveolis, ascos superantibus; sporidiis inordinatis obovatis, inæqualiter bilocularibus, rectis vel curvulis brunneis 8-13 \times 2,5-3,5.

Hab. in calamo *Typhæ latifoliæ*, Luxemburg. — Contextus peritheciis atro-brunneus, parenchymaticus.

15. **Didymosphæria cypericola** P. Henn. Fungi Australien. II, p. 188. 2315

— Peritheciis sparsis, epidermide tectis dein erumpentibus, hemisphæricis, ostiolatis, membranaceis, atris, ca. 80-90 μ .; ascis cylindraceis, obtusiusculis, stipitatis, 8-sporis, 30-60 \times 3 $\frac{1}{2}$ -4 $\frac{1}{2}$; sporidiis oblique monostichis, oblongo-ellipsoideis, obtusiusculis, 1-2-guttulatis, medio 1-septatis haud constrictis, atro-fuscis.

Hab. in culmis *Cyperaceæ* cujusdam, Eumundi, S. Queensland, Australiae. (Doct. E. PRITZEL).

16. **Didymosphæria striatula** Penz. et Sacc. in Malpighia 1901, p. 227, 2316

Ic. fung. Jav. t. VIII, fig. 2. — Peritheciis in greges minutos suborbiculares 1,5-2 mm. long. digestis, peridermio atrato tectis, globulosis 250-350 μ . diam., nigris, dein ostiolo papillato erumpentibus; ascis cylindraceis, apice obtusis, crassiuscule et breviter noduloso-stipitatis, 85-95 \times 9-11, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, oblongo-fusoideis, sæpe inæquilateris, utrinque acutiusculis 20-23 \times 7, uniseptatis, leviter constrictis, atro-olivaceis, tenuiter longitrorsum striatis.

Hab. ad culmos putres *Bambusæ*, Tjibodas Javæ. — Notis datis facile distinguenda species. Nota dignum quod in non paucis Ascomycetum speciebus javanicis sporidia longitudinaliter striolata occurrant, quod rarissime in europæis.

17. **Didymosphæria crastophila** (Niessl) Wint. — Syll. XI, p. 735. 2317

— var. **Brachypodii** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt ascis angustioribus et brevioribus, nempe 31-60 \times 5 sporidiisque ovato-ellipsoideis, constrictis 6-8 \times 2,5-3,5, brunneolis, loculo superiori paullo crassiore.

Hab. in culmis et vaginis *Brachypodii* silvatici Luxemburg.

18. **Didymosphæria arenaria** Mouton — Syll. IX, p. 736. — var. **ma-** 2318

crospora Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. IV, fig. 9. — Sporidiis 40 \times 13,5 (nec 30 \times 14), fuscillis.

Hab. in culmis *Airæ cæspitosæ* v. *brevifoliæ*, Shumagin Islands, Alaska (HARRINGTON).

19. **Didymosphæria Patellæ** Rehm in Hedw. 1903, p. (175). — Pe- 2319

ritheciis globulosis, parasitice in disco, sessilibus, glabris, 120 μ .

diam., superius subhyalinis, ad basim fuscidulis et hyphis hyalinis, simplicibus, septatis, rectis 3 μ . cr. vestitis; contextu parenchymatico; ascis cylindraceutis apice rotundatis, 80-90 \times 9-10 octosporis; sporidiis dacryoideis, utrinque obtusis, medio septatis et subconstrictis, flavido-brunneis, 9-10 \times 6, monostichis; paraphysibus filiformibus 1 μ . cr., hyalinis.

Hab. parasitica in disco Heterosphæriæ Patellæ (Tode) Grev. Haugrav Gotland Sueciæ.

Endococcus Nyl. (1854) em. Species lichenicolæ, parasiticæ.

(Huc referri possunt species *Tichothecii* ascis 4-8-sporis, sporidiis phæodidymis præditæ. Cfr. Syll. IX, p. 723, sect. I).

20. **Didymosphæria stereocaulicola** (Linds.) Sacc. et D. Sacc. *Microthelia* 2320
stereocaulicola Linds. Obs. p. 537, t. XXIII, f. 30. — Peritheciis verrucarioideis, papilliformibus, perexiguis, nigris, subimmersis; ascis 55-60 \times 15, obsolete paraphysatis; sporidiis obovatis, hyalinis, 1-septatis, demum brunneis, 12-14 \times 8.

Hab. in thallo *Stereocauli paschalis* in Britannia.

21. **Didymosphæria parietinaria** (Linds.) Sacc. et D. Sacc. *Microthelia* 2321
parietinaria Linds. Obs. p. 541, t. XXIII, f. 33. — Peritheciis minutis, nigris, punctiformibus v. papilliformibus, basi immersis; ascis non visis; sporidiis 1-septatis, brunneis, constrictis, 12-13 \times 4.

Hab. in thallo *Xanthoriæ parietinæ* in Britannia.

22. **Didymosphæria Sporastatiæ** (Anzi) Wint. — Syll. IX, p. 739 — 2322
Polycoccum Sporastatiæ Anzi, forma **Incongruæ** Arn. in Hedw. 1896, p. 337. — Peritheciis globosis nigris; ascis octosporis; sporidiis bicellularibus, fusoideis, brunneis.

Hab. in thallo *Lecidææ incongruæ* in Tirolia.

23. **Didymosphæria squamarioides** (Mudd) Sacc. et D. Sacc. *Sorothelia* 2323
squamarioides (Mudd) Zopf, Hedw. 1896, p. 353, *Sphæria* Mudd, Man. p. 130. — Peritheciis congestis, punctiformibus, nigris; ascis cylindraceutis, 8-sporis, paraphysatis; sporidiis fusoideis v. ovoideis vel subpiriformibus vel subcylindraceutis 16-21 \times 6-9, bicellularibus, brunneis.

Hab. in thallo *Placodii gelidi* in Britannia. — Est fere absque dubio eadem ac *Tichothecium squamarioides* Wint. — Syll. IX, p. 725 — cujus tamen sporidia multo minora describuntur.

24. **Didymosphæria fumosaria** (Leight.) Sacc. et D. Sacc. *Verrucaria* 2324

fumosaria Leight. Brit. Lich. Fl. p. 493. — Peritheciis globoso-depressis semiimmersis, subdimidiatis; ascis octosporis aparaphysatis; sporidiis bicellularibus, brunneis, oblongis, 15-16 \approx 7.

Hab. in thallo *Lecideæ fumosæ* in Britannia.

25. **Didymosphæria pseudocarpa** (Nyl.) Sacc. et D. Sacc. *Endococcus* 2325
pseudocarpus Nyl. Flora 1873, p. 204, Zopf Hedw. 1896, p. 328. — Peritheciis sursum brunneis, deorsum vix coloratis; ascis octosporis sporidiis bicellularibus, brunneis, 9-15 \approx 5-6.

Hab. in thallo *Heppiæ Guepini* var. *nigrolimbatae* in Pyrenæis orient.

26. **Didymosphæria physciicola** (Nyl.) Sacc. et D. Sacc. *Mycoporum* 2326
physciicola Nyl. Fl. 1873, p. 299, Rehm Disc. p. 224. — Peritheciis globulosis, nigris prominulis; ascis octosporis; sporidiis oblongo-ovoideis, bicellularibus, 10-13 \approx 4-6, fuscis, septo constrictulis.

Hab. in thallo *Physciæ cæsiæ* in Gallia.

27. **Didymosphæria pellax** (Nyl.) Sacc. et D. Sacc. *Endococcus pellax* 2327
Nyl. Flora 1873, p. 204. — Peritheciis omnino brunneis nec infra pallidis; ascis 8-sporis; sporidiis bicellularibus brunneis 9-15 \approx 5-6, oblongo-fusiformibus; paraphysibus nullis (?).

Hab. in thallo *Heppiæ obscurantis* in Pyrenæis orientilibus. — Peraffinis *D. pseudocarpæ*.

28. **Didymosphæria epicallopisma** (Wedd.) Sacc. et D. Sacc. *Tichothecium* 2328
epicallopisma Wedd. Nouv. rev. d. Lichens etc. 1873, p. 22, *Phæospora epicallopisma* (Wedd.) Arn. ap. Zopf, Hedw. 1896, p. 327 (*Verrucaria*). — Peritheciis nigris; ascis octosporis; sporidiis brunneis, bicellularibus.

Hab. in thallo *Gyalolechiæ callopismatis*, Blossac Gallia.

29. **Didymosphæria Gyrophoræ** (Arnold) Sacc. et D. Sacc. *Pharcidia* 2329
Gyrophoræ (Arnold) Zopf in Hedw. 1896, p. 327. — Peritheciis innatis, 100-160 \approx 80-130; ascis aparaphysatis, latis, vix stipitatis, 4-8-sporis; sporidiis bicellularibus, tandem brunneis 13-17,9 \approx 7-8.

Hab. in thallo *Gyrophoræ cylindricæ* in Germania.

30. **Didymosphæria opulenta** (Th. Fr. et Almq.) Sacc. et D. Sacc. *Endococcus* 2330
opulentus Th. Fr. et Almq. Botaniska Not. 1867, p. 109. — Peritheciis subglobosis, semi-immersis, atris, diam. circ. 100-150; paraphysibus in gelatinam difflaxis; ascis subventricosis 8-sporis; sporidiis dyblastis, loculo inferiore angustiore, utrinque obtusis, nigricantibus, 24-26 \approx 12-13; gelatina hymenæa, jodo leviter cærulescente.

Hab. in thallo *Polyblastiæ intercedentis* et *Lecideæ*

enteroleucæ v. latypeæ pr. Midtakläppen, Herjedalen Sueciæ
(S. ALMQUIST.)

31. **Didymosphæria fusigera** (Th. Fr. et Almq.) Sacc. et D. Sacc. *En-* 2331
dococcus fusiger Th. Fr. et Almq. Botaniska Notiser 1867, p. 109.
— Peritheciis subglobosis, semiimmersis, atris, diam. circ. 0,2 mm.;
paraphysibus in gelatinam difflaxis; ascis cylindrico-subinflatis 8-
sporis; sporidiis fusiformibus, dyblastis, nigricantibus, 16-8 × 6;
gelatina hymen. jodo vinose rubente.

Hab. in thallo *Rhizocarp*i geminati prope Funnesdalen
Herjedalen Sueciæ (S. ALMQUIST.).

32. **Didymosphæria Dannenbergii** Stein ap. Arn. Exs. n. 1514 (absque 2332
diagnosi). — Peritheciis subsparsis, innato-erumpentibus, globu-
losis, nigris, nitidulis, 250-300 μ . diam.; ascis tereti-clavatis sub-
sessilibus, filiformi-paraphysatis, octosporis, 86-96 × 16; sporidiis
distichis ellipsoideo-oblongis, utrinque rotundatis, 1-septatis, leviter
constrictis, atro-fuligineis, vulgo rectis, 17 × 7-8.

Hab. in thallo *Pertusariæ* lutescentis ad truncos *Tiliæ*
Calvarienberg, Rhön Germaniæ (DANNENBERG).

MASSARIELLA Speg. — Syll. I p. 716, IX p. 739, XI p. 314, XIV
p. 555, XVI p. 503.

1. **Massariella Eriophori** (Feltg.) Sacc. et D. Sacc. *Phorcys Eriophori* 2333
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 162. — Pe-
ritheciis sparsis, immersis, dein erumpentibus, globosis, papillatis,
nigris, firmulis, 300-400 μ . diam.; ascis clavatis, apice rotundatis
et crasse tunicatis, breve stipitatis 190-210 × 33-37, octosporis; spo-
ridiis distichis, ellipsoideis, bicellularibus, constrictis, atro-brunneis,
muco obvolutis, 40-43 × 17-20; paraphysibus constricto-septatis,
ascos superantibus.

Hab. in calamis *Eriophori angustifolii*, Luxemburg.

AMPHISPHERIA Ces. et De Not. — Syll. I p. 718, IX p. 741, XI
p. 315, XIV p. 555, XVI p. 503.

1. **Amphisphæria Viæ-malæ** Rehm in Oest. Bot. Zeitschr. 1904, p. 81. 2334
— Peritheciis in cortice v. ligni superficie denigrata innatis, spar-
sis, subgregariis, globoso-conicis, papillula conoidea parvula, poro
pertusis, demum basi immersis, fere sessilibus, glabris, atris, car-
bonaceis, 300-350 μ . diam.; ascis cylindræis, apice rotundatis,
medio septatis, haud constrictis, utraque cellula guttam magnam

oleosam includente, fuscis, 8-10 \approx 3,5-4,5, monostichis; paraphysibus filiformibus 2 μ . cr.

Hab. ad ramulos siccos fere decorticatos Ligustri, Via mala montis Splügen, Graubünden Helvetiæ.

2. **Amphisphæria aterrima** Pat. in Duss Enum. Champ. Guadel. 1903, 2335 p. 71. — Peritheciis sparsis, subglobosis, ligno latissime nigrificato basi insculptis, ostiolo minuto papillato præditis, $\frac{1}{3}$ mm. d., carbonaceis, glabris; ascis cylindricis 160 \approx 15, octosporis; sporidiis monostichis fusoides utrinque tenuatis, medio 1-septatis leniterque constrictis, biguttatis, 23 \approx 10, brunneis; paraphysibus copiosissimis filiformibus, ramosis.

Hab. in trunco putri Richeriæ grandis, Basse-Terre Guadalupæ (Duss).

3. **Amphisphæria irregularis** Rehm, Hedw. XLIV, p. 4, fig. 4. — 2336 Peritheciis epiphyllis, sessilibus, plerumque 6-10 congestis, rarius sparsis, conoideis, glabris, poro pertusis, atris, carbonaceis, ca. 150 μ . cr.; ascis clavatis 50-60 \approx 12, octosporis; sporidiis clavatis, utrinque obtusis inæqualiter bicellularibus, cellula superiore $\frac{2}{3}$ brevior, ad septum non constrictis, subfuscis 12-15 \approx 5-6, distichis; paraphysibus? ramosis.

Hab. in foliis Meliaceæ cujusdam, Blumenau Brasiliæ. — Affinis *Amph. Clusiæ*; sporidiis inæqualiter bicellularibus, ascis clavatis etc. dignoscitur.

4. **Amphisphæria Thujæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2337 1903, p. 269. — Peritheciis sparsis vel 2-3-approximatis, erumpenti-subsuperficialibus, globosis, atro-brunneis, carbonaceo-fragilibus 250-300 μ . diam., vertice applanatis rugulosis et minute papillatis; ascis clavatis vel subteretibus, apice rotundatis, longe tenuato-stipitatis 60-90 \approx 5,5-8, filiformi-paraphysatis 4-6-8-sporis; sporidiis, submonostichis vel subdistichis, oblongo-ellipsoideis vel demum subcylindræis, bicellularibus, rectis curvulisve, utrinque obtusulis, medio fortiter constrictis, 4-6-guttulatis, pallide brunneo-nigricantibus, plerumque 13 \approx 4-5.

Hab. in ramis corticatis Thujæ orientalis, Luxemburg. — *Amph. Thujæ* proxima.

5. **Amphisphæria Juniperi** Tracy et Earle, Plantæ Bakerianæ fasc. I, 2338 Fungi, p. 30. — Peritheciis sparsis, superficialibus, globosis, carbonaceis, subsparsis, 0,6 mm. circ. diam., ostiolo papillato donatis; ascis clavato-cylindræis, breve stipitatis 100-120 \approx 20; paraphysibus filiformibus; sporidiis distichis, late fusiformibus, fu-

ligineo-pallidis, 1-septatis, constrictis, biguttulatis, utrinque sub-acutis 30-35 \times 10-12.

Hab. in ligno cæso Juniperi monospormæ, Mancos, Colorado Amer. bor.

6. **Amphisphæria Populi** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2339 Fungi p. 30. — Peritheciis dense sparsis, levibus, globosis, nigris, lucentibus, obscure poro pertusis, 250-300 μ . diam.; ascis cylindræis, breve stipitatis 80-90 \times 8; paraphysibus numerosis, filiformibus; sporidiis monostichis ovalibus utrinque rotundatis, fuliginis, æqualiter 1-septatis, valde constrictis, 12 \times 6.

Hab. in ramis decorticatis Populi angustifoliæ, Mancos, Colorado Amer. bor.

7. **Amphisphæria juglandicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2340 1903, p. 270. — Peritheciis in areis dealbatis gregariis, basi ligno insculptis, globosis, leviter depressis, brunneis vel atro-brunneis 400-600 μ . diam.; ostiolo obtuse conico; ascis cylindræis deorsum tenuato-stipitatis 77-108 \times 8, octosporis; paraphysibus filiformibus guttulatis, ascos superantibus ibique bifurcatis; sporidiis monostichis, tereti-ellipsoideis, late rotundatis, medio constricto 1-septatis, eguttatis, dilute brunneis 10-13 \times 5-6.

Hab. in ramis decorticatis Juglandis regiæ, Luxemburg. *Amph. salicicolæ* proxima.

8. **Amphisphæria granulosa** E. et Ev. Journ. of Mycol. 1904, p. 169. 2341 — Peritheciis erumpenti-superficialibus, globosis vel depressoglobosis, granuloso-rugulosis circ. 500 μ . diam., dense sparsis, ostiolo minuto papillato; ascis cylindræis, breve stipitatis 65-70 \times 4, obsolete paraphysatis; sporidiis monostichis, oblongis, 1-septatis, vix constrictis, pallide brunneis utrinque subattenuatis 10-12 \times 3-3,5.

Hab. in ligno vetusto quercino, ad terram, Lyndonville N. York Amer. bor. (C. E. FAIRMAN).

9. **Amphisphæria applanata** (Fries) Cesati et De Notaris — Syll. I, 2342 p. 718 et IX p. 741. — var. **Alaskæ** Sacc. Harrim. Alaska Exped. Crypt. p. 30 (ut typus). — Ascis angustioribus 105-115 \times 14-15; sporidiis 22-25 \times 8-8,5; loculo super. (!) majori et acutiori; peritheciis 500-600 μ . diam.

Hab. in ramis siccis, socia *Pirottææ yakutatiana*, Yakutat Bay Alaska (TRELEASE).

GAILLARDIELLA Pat. — Syll. XIV p. 559, XVI p. 507.

1. **GaillardIELLA Piptocarphæ** Rehm, Hedw. XLIV (1905) fig. 3. — 2343

— Peritheciis in epiphylo c. 5 arcte congregatis sessilibus semi-globosis, poro pertusis, glabris, membranaceis, nigro-fuscis c. 100 μ .; ascis clavatis, apice rotundatis, crasse tunicatis, $45 \approx 12$, 8-sporis; sporidiis clavatis, utrinque obtusis, inæqualiter 2-cellularibus, cellula superiore $\frac{2}{3}$ brevior, ad septum haud constrictis, subfuscis, $10 \approx 4-4,5$, distichis; paraphysibus filiformibus 3 μ . cr.

Hab. in foliis *Piptocarphæ oblongifoliæ*, Blumenau Brasiliæ (E. ULE). — Ob specimina manca dubium est an ad gen. *GaillardIELLAM* pertineat species.

DIMEROSPORIOPSIS P. Henn. Hedw. 1901, p. (173) (Etym. a *Dimerosporio*, quocum habitu convenit). — Perithecia parasitica, membranacea, globoso-depressa, collabentia, setulosa, subiculo mycelico atro effuso matricis ramos deformante, conidia fusoideo-clavata 1-3-septata brunnea generante insidentia. Asci elongati, paraphysati, octospori. Sporidia oblonga v. fusoidea, 1-septata, e flavo fusca. — Hic *Dimerosporio* hinc *Neopeckia* affine genus.

1. **Dimerosporiopsis Engleriana** P. Henn. l. c. *Dimerosporium Englerianum* P. Henn. — Syll. XIV, p. 468.

NEOPECKIA Sacc. — Syll. IX p. 749, XI p. 317, XIV p. 558, XVI p. 506.

1. **Neopeckia argentinensis** Speg. in Ann. Soc. Cient. Arg. 1899, 2344 p. 269. — Laxe gregaria, subsuperficialis dense sordideque subcinereo-villosa; peritheciis sparsis v. laxe gregariis, ovatis, basi vix insculptis, apice obtusis, fusco-atris, membranaceis e carnosocoriacellis, contextu fuligineo, hyphis septulatis levibus, pallide olivascentibus v. fumosis $100-150 \approx 5-7$, crispulis, vestitis; ascis cylindraceis, sursum obtuse rotundatis, brevissime pedicellatis $125-135 \approx 7-8$, octosporis, aparaphysatis?; sporidiis recte monostichis, cylindraceis, utrinque obtusiuscule rotundatis, $16-17 \approx 6$, medio 1-septatis, subconstrictis, 1-guttulatis, levibus, pulchre fuligineis.

Hab. ad ramos dejectos putrescentes *Erythrinæ cristagalli* in insula Santiago prope La Plata Argentinae.

DELITSCHIA Auersw. — Syll. I p. 732, IX p. 747, XI p. 317, XIV p. 558, XVI p. 506.

1. **Delitschia microspora** Oud. Hedw. 1882, vol. XXI, pag. 165. — 2345

Peritheciis et ascis non observatis; sporidiis oblongis utrinque rotundatis, septatis, vix constrictis, pallide brunneis $9-10 \approx 3,5$.

Hab. in stercore caprino prope Harlem et la Haye Hollandiæ. — Peritheciis ascisque ignotis, species omnino dubia et aptius omittenda.

2. **Delitschia vulgaris** Griff. Mem. Torr. B. Cl. 1901, p. 104, t. 14, 2346 f. 4-6. — Peritheciis sparsis, immersis, subgloboso-piriformibus, $600-750 \approx 375-450$, tenui-membranaceis e brunneo nigris, ostiolo cylindraceo, curvato, pilis parcis, septatis longiusculis vestito; ascis 8-sporis, cylindraceis apice rotundatis, breve stipitatis, $185-215 \approx 24-27$; paraphysibus filiformibus septatis ascos superantibus; sporidiis oblique monostichis, 2-cellularibus, utrinque late rotundatis profunde constrictis, $27-30 \approx 13-16$, e flavido opace atro-brunneis, strato prominenti, hyalino obductis.

Hab. in fimo bovino et equino, New York, Ft. Lee, Auburn Amer. bor.

3. **Delitschia excentrica** Griff. Mem. Torr. B. Cl. 1901, pag. 101, 2347 tab. XIII, fig. 7-9. — Peritheciis sparsis, immersis, ostiolo longo cylindraceo, truncato vel rotundato, plerumque pilis brevibus septatis brunneis vestito, præditis, $750 \approx 300-500$, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis cylindraceis, apice rotundatis, basi obtuse stipitatis $330-370 \approx 34-40$; paraphysibus filiformibus obsolete septatis; sporidiis ellipsoideis utrinque excentrice acutatis, oblique 1-septatis constrictisque $45-50 \approx 21-24$, e flavido atro-brunneis opacisque.

Hab. in fimo bovino, Austin et Biloxi, Amer. bor. (LONG, TRACY).

4. **Delitschia leporina** Griff. in Mem. Torr. B. Cl. 1901, pag. 101, 2348 tab. XIII, fig. 14-16. — Peritheciis sparsis, immersis $600-750 \approx 500$ piriformibus vel breve cylindraceis in ostiolum nigrum late truncatum rugosum et pilosum desinentibus, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis clavatis, apice late rotundatis breve obtuseque stipitatis $240-295 \approx 30-34$; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis distichis ellipsoideis utrinque acutiuscule rotundatis, oblique 1-septatis profundeque constrictis $40-65 \approx 16-20$ e flavido atro-brunneo opacisque, strato hyalino prædistincto ad septum constricto.

Hab. in stercore cuniculorum, Ft. Lee, N. Y. Amer. bor. 2349

5. **Delitschia apiculata** Griff. Mem. Torr. B. Club. 1901, pag. 104, tab. 13, f. 10-13. — Peritheciis semiimmersis, sparsis v. in greges

parvos confertis, 375-500 \approx 300-350, tenui-membranaceis, piriformibus; ostiolo papillato v. breve cylindraceo, curvato, nigro, setulis sparsis brevibus, acuminatis, brunneis 1-septatis vestito; ascis 8-sporis, clavatis, apice rotundatis longe stipitatis, 160-200 \approx 32-38; paraphysibus filiformibus, copiosis, indistincte septatis, ascos multo superantibus; sporidiis biseriatis, ellipsoideis, utrinque rotundatis, bicellularibus, non constrictis, 28-34 \approx 16-21, strato mucoso nullo præditis, sed utrinque apiculo hyalino triangulari auctis.

Hab. in caulibus *Salsolæ Tragi* sordibus fædatis, Aberdeen S. D. Amer. bor.

DELITSCHIELLA Sacc. n. g. (Etym. a *Delitschia*, cui affinis). — A

Delitschia distinguitur ascis polysporis nec octosporis.

1. **Delitschiella polyspora** (Griff.) Sacc. et D. Sacc. *Delitschia poly-* 2350
spora Griff. Mem. Torr. B. Cl. 1901, p. 105, tab. 14, f. 1-3. — Peritheciis sparsis, immersis, subgloboso-piriformibus, subcoriaceis, atro-brunneis opacis, 1000 \approx 650-750; ostiolo cylindraceo, truncato, nigro, recto v. curvulo variæ longitudinis; ascis 16-sporis, clavato-fusiformibus, apice rotundatis, breve stipitatis, 340-375 \approx 85-100; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis tristichis vel inordinatis, ellipsoideis, vulgo utrinque rotundatis, 1-septatis, profunde constrictis, 52-62 \approx 21-24, e flavido opace atro-brunneis, strato mucoso hyalino ad septum constricto prominenti obvolutis.

Hab. in fimo vaccino, Tucson Ariz. Amer. bor.

OTTHIA Nke — Syll. I p. 735, IX p. 752, XI p. 317, XIV p. 560, XVI p. 507.

1. **Otthia Clematidis** Earle, *Plantæ Bakerianæ* fasc. II, Fungi p. 13. 2351
— Peritheciis congestis, raro sparsis, nigris, carbonaceis, rugulosis 500 μ . diam., ostiolo pertusis, subimmersis, superne e stromate nigro emergentibus, interdum crustam latam efformantibus; ascis paraphysatis, subcylindraceis 90-120 \approx 16-20; sporidiis irregulariter dispositis, ovalibus, utrinque subacutis, leviter constrictis, interdum curvulis, 1-septatis, brunneis 40 \approx 8.

Hab. in ligno emortuo *Clematidis ligusticifoliæ*, Durangos South Colorado Amer. bor.

2. **Otthia Distegiæ** Tracy et Earle, *Plantæ Bakerianæ*, fasc. I, Fungi 2352
p. 29. — Peritheciis in soros oblongos congestis, nigris, rugosis, ostiolo minute papillato donatis, 250 μ . diam., erumpentibus; hy-

phis subiculi fuscis; ascis octosporis, clavatis, substipitatis, circ. $100 \approx 18$; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, obovatis, sæpe curvulis, fuligineis, 1-septatis, paululo constrictis, $25 \approx 8$.

Hab. in ramulis emortuis *Distegia involucrata*, Mancos, South Colorado, Amer. bor.

3. **Otthia fendlericola** Tracy et Earle, Plant. Bak. II, p. 14. — Pe- 2353
ritheciis immersis, dein suberumpentibus, 6-8 usque 20 in stromate dense congestis, e mutua pressione applanatis intense brunneo-nigris, rugosis 300-600 μ . latis, depressis, ostiolo pertusis; ascis cylindraceutis 100 \approx 18; paraphysibus filiformibus; sporidiis monostichis vel subdistichis, brunneis, fusiformibus, utrinque acutis, 1-septatis, non constrictis, $25 \approx 6$.

Hab. in ramis emortuis *Fendleræ*, Hermosa, South Colorado Amer. bor.

RHYNCHOSTOMA Karst. — Syll. I p. 730, IX p. 750, XI p. 317, XIV p. 559.

1. **Rhynchostoma piriforme** Annie L. Smith, Journ. Linn. Soc. XXXV, 2354
p. 16, tab. II, f. 16-18 (extr.) — Syll. XVI p. 1135 (nomen). — Peritheciis cæspitosis, basi confluentibus, omnino superficialibus, atris, globoso-piriformibus, rostro leniter curvulo, noduloso instructis, basi circa 1 mm. latis, fere 2 mm. longis; ascis cylindraceutis, breviter stipitatis, 85 μ . long.; sporidiis oblique et irregulariter monostichis, oblongo-ovatis, 1-septatis, brunneis $10 \approx 4$.

Hab. ad ligna, in ins. Dominica Indiæ occid.

HENNINGSOMYCES Sacc. n. gen. (Etym. a clariss. et sollertissimo mycologo, prof. P. HENNINGS, berlinensi, in studio mycetum exoticorum in primis peritissimo). — Perithecia superficialia, facile secedentia (phyllogena) globulosa, membranacea, nigra, levia, in rostellum cylindraceutum tenue producta, basi hyphis brevibus, radiantibus brunneis cincta, sed subiculo destituta. Ostiolum apice fimbriatum, conidiophorum; conidiis cylindraceutis fuscis 1-pluriseptatis. Asci obovati, 8-spori, aparamphysati. Sporidia ovato-oblonga, 1-septata, hyalino-fuscidula. — Ab affini gen. *Rhynchomeliola* Speg. differt subiculo nullo, ostiolis apice conidiophoris etc.

1. **Henningsomyces pulchellus** Sacc. n. sp. — Peritheciis hypophyllis, 2355
punctiformibus, hinc inde gregariis, 60-85 μ . diam., globulosis,

omnino superficialibus, basi hyphis subsimplicibus, septulatis, brevissimis cinctis, nigris, contextu laxo parenchymatico, brunneo; rostello cylindrico, recto, 180-190 \times 18-20 ex hyphis filiformibus, longitudinalibus, 2,5 μ . crassis, arcte conglutinatis formato, apice ex hyphis relaxatis fimbriato, conidiophoro; conidiis cylindræis rectiusculis, 2-3-septatis, non constrictis, dilute fuscis, 22 \times 3; ascis ovato-oblongis, apice rotundatis, brevissime stipitatis vel subsessilibus, 40-45 \times 20-25, octosporis, aparaphysatis; sporidiis 2-3 stichis, oblongis, utrinque rotundatis, rectis curvulisve, 20-24 \times 8, ex hyalino fuscidulis.

Hab. in pag. infer. foliorum languidorum *Byrsonimæ sericeæ*, Rio de Janeiro, Maná Brasiliæ 1899 (E. ULE). — Interdum adsunt pycnidia minuta globulosa, sporulis fusoides curvulis, hyalinis foeta.

XYLOBOTRYUM Pat. — Syll. XI p. 319, XVI p. 510.

1. **Xylobotryum Dussii** Pat. in Duss Enum. Champ. Guadal. 1903, 2356 p. 77. — Minute cæspitulosum, 8-10 mm. long., e ramulis gracilibus, coriaceis, rugulosis, pluries divisis, intricatis, perithecio singulo v. binis terminatis; ascis longe stipitatis, 30-35 \times 7-8 (p. sporif.); sporidiis oblongis, 7-9 \times 3-3,5, brunneis, 1-septatis, non vel vix constrictis.

Hab. ad ligna putrida, Deshaies Guadalupæ (Duss). — Habitus *Kretzschmaricæ*; affine *X. andino* sed habitu, sporidiis minoribus etc. diversum.

XYLOCERAS Annie L. Smith, Journ. Linn. Soc. XXXV (1901) p. 16. Syll. XVI, pag. 1135 (nomen) (Etym. *xylō* pro xylaria et *ceras* cornu). — Est *Xylaria* phæodidyma, corniformis, simplex, subsessilis, peritheciis exsertis. — A *Xylobotryō* non satis diversum genus videtur.

1. **Xyloceras Elliotti** Annie L. Smith l. c. tab. III, fig. 1-5. — Stro- 2357 matibus cæspitosis, apice attenuatis, 1 cm. altis, 1-2 mm. latis, basi et apice sterilibus; hyphis internis circa 10 μ . latis, brunneis; peritheciis subglobosis, circa 280 μ . latis; ascis cylindræo-clavatis, stipite 42 μ . longo, basi leviter dilatata, parte sporif. 35 μ . longa; sporidiis ovatis 10 \times 4; paraphysibus filiformibus.

Hab. ad ligna, prope flum. Caste Bruce, Dominica Indiæ occ.

MELANCONIELLA Sacc. — Syll. I, p. 740, IX p. 753, XIV p. 560, XVI p. 509.

1. **Melanconiella leucostroma** (Niessl) Sacc. — Syll. IX, p. 754. — 2358
f. **Piri** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 119. —
A typo (in Fago) recedit disco albo-cinereo; ascis clavatis (nec
elliptico-oblongis) longioribus, 80-95 \times 10-11 sporidiisque minori-
bus 15-19 \times 5-6, vulgo curvulis, non appendiculatis.

Hab. in ramis siccis Piri communis, Luxemburg.

2. **Melanconiella nyssagena** Ell. et Ev. in Journ. of Mycol. 1902, 2359
vol. 8, pag. 18. — Stromatibus corticalibus circularibus, depresso-
globosis, circ. 2 mm. diam., papillatis, superne erumpentibus, ni-
gris, levibus, ostiolo rotundo præditis; peritheciis circinantibus,
globosis, nigris, intus lucidis, 500 μ . diam.; sporidiis monostichis,
ellipticis v. oblongo-ellipticis, 1-septatis, constrictis, olivaceo-brun-
neis, 30-40 \times 12-20, plerumque 12-15 μ .

Hab. in ramis emortuis Nyssæ multifloræ, Newfield Ame-
ricæ borealis.

VALSARIA Ces. et De Not. — Syll. I p. 741, IX p. 755, XI p. 318,
XIV p. 560, XVI p. 509.

1. **Valsaria Tiliæ** De Not. Sfer. ital. p. 58, tab. 55. — Peritheciis 2360
sæpius quaterno numero fasciculatis et cortice insculptis, ovoideis
v. sphæroideo-depressis in collum crassum productis, ostiolis trun-
catis angulosisque vel pyramidatis 600-750 μ . crassis, atris, nu-
cleo pallido; ascis crasse clavatis, perfecte hyalinis, subsessilibus,
apice rotundatis; paraphysibus filiformibus longioribus, guttulatis
obvallatis; sporidiis monostichis, oblongis bilocularibus 1-septatis,
vix constrictis-badio, fuscis 42-48 \times 18-20, in quoqueasco 2-6.

Hab. in cortice levigato Tiliæ microphyllæ, prope Tro-
baso Italiæ bor. — Jam conjunxeram cum *Hercospora Tiliæ*, sed
reapse, observante cl. Oudemans in Rev. Mycol. 1902, ab ea
valde recedit.

2. **Valsaria Kriegeriana** Rehm in Krieger Fung. Saxon. exs. n. 1617, 2361
(1901) Hedw. 1903, pag. (159). — Stromatibus sparsis v. grega-
riis, minutis e basi rotundata leviter emergentibus et peridermio
tectis; peritheciis in quoque stromate 4-8, circulariter dispositis,
brunneo-nigricantibus 250 μ . diam., ostiolis brevibus discum brun-
neo-nigrum erumpentem formantibus; ascis cylindræis longe
stipitatis, octosporis, 70-90 \times 5-8, p. spor.; sporidiis ellipsoideis utrin-

que rotundatis, medio constricto 1-septatis, hyalinis, demum pallide brunneis 7-12 \approx 4,5-6, bi-quadri-guttatis.

Hab. in ramis siccis Sambuci nigræ prope Königstein Germaniæ (W. KRIEGER). — *Vals. staphylinæ* et *Vals. cornicolæ* affinis.

3. **Valsaria Magnoliæ** E. et Ev. Journ. of Mycol. 1904, p. 170. — 2362

Stromate corticali effuso, corticem interiorem nigrificante; peritheciis immersis dein semierumpentibus, intus albis 250 μ . diam., inæqualiter sparsis vel valsiformiter confertis vel seriatis, mox deciduis; ascis cylindraceutis, subsessilibus paraphysatis 80-100 \approx 10-12, subinde 100-150 \approx 10-12; sporidiis oblongo-ellipsoideis, brunneis, constricto 1-septatis, 18-23 \approx 8-10, obliquis in ascis brevioribus, rectis in ascis longioribus.

Hab. in truncis emortuis Magnoliæ spec. cultæ, London Canada (DEARNESS).

4. **Valsaria** (Phæosperma) **microspora** E. Rostr. Norske Ascom. 1904, 2363

p. 23 (Vidensk. Skrift.). — Stromate effuso, endoxylo, nigro; peritheciis gregariis; ascis cylindraceutis, 8-sporis; sporidiis monostichis, ovoideis v. oblongis, didymis, 7-8 \approx 5, fuscis, loculo altero paullo angustiore.

Hab. ad ramos Tiliæ, Ulmi, Quercus in Norvegia.

5. **Valsaria** (Phæosperma) **latitans** Sacc. in Atti Congr. bot. Palermo 2364

1902, p. 52. — Peritheciis hinc inde laxe gregariis ligno supra fusco-maculoso immersis, globosis, membranaceutis, 250 μ . d., ostiolo punctiformi vix perforante; contextu perithecii tenuissimo; ascis tereti-clavatis, apice rotundatis breve crasseque stipitatis, 110-140 \approx 20-22, octosporis; paraphysibus copiosissimis filiformibus, hyalinis; sporidiis oblique monostichis breve fusoides, sæpius inæquilateris, utrinque obtuse tenuatis, constricto-1-septatis, grosse bi-guttatis, fuligineis, 30-36 \approx 10-11.

Hab. in ligno carioso salicino v. populino diu aqua immerso, Rigny sur Arroux Galliæ. — Ab affini *Valsaria cariei* ostiolo punctiformi, ascis sporidiisque majoribus videtur satis diversa.

Sect. 6. Hyalophragmiæ.

SPHÆRULINA Sacc. — Syll. II p. 186, IX p. 846, XI p. 336, XIV p. 581, XVI p. 528.

I. *Eu-Sphærulina*: in plantis phanerogamis.

1. **Sphærulina Diapensiæ** Rostr. Islands Svampe in Bot. Tidsskrift, 2365
1903, vol. 25, p. 306. — Peritheciis aggregatis, minimis, innato-prominulis; ascis crasse piriformibus, apice valde incrassatis, 38-40 \times 20; sporidiis cylindræo-fusoideis, rectis v. leniter curvulis, utrinque obtusiusculis, 3-4-septatis, 4-guttulatis, 25-30 \times 7-8, hyalinis.
Hab. in pedunculis, sepalis, capsulis Diapensiæ lapponicæ in Islandia.
2. **Sphærulina Epigææ** P. Henn. in Notizblatt des Kgl. bot. Gart. 2366
Berl. 1900, n. 22, p. 37. — Peritheciis epiphyllis, innato-prominulis hemisphæricis, poro pertusis, atris ca. 150-180 μ . diam., in maculis fusoides sparsis v. gregariis; ascis basi fasciculatis, curvulis, clavatis, vertice crasse tunicatis, obtusis 35-45 \times 15-18, octosporis, aparaphysatis; sporidiis subdistichis, oblongis v. subfusoides, obtusiusculis v. acutiusculis 4-guttulatis (an deinde 3-septatis?) 18 \times 4, hyalinis.
Hab. in foliis emortuis Epigææ repentis, in horto botanico Berolinensi Germaniæ.
3. **Sphærulina Oxalidis** Rehm, Ann. Mycol. 1904, p. 177. — Perithe- 2367
ciis gregariis, sub peridermio plus minusve denigrato et hemisphærice elevato nidulantibus, globosis, glabris, papillula conoidea tenui subprominente, parenchymatice contextis, fuscis 0,25 mm. diam.; ascis elongato-subfusiformibus, vix stipitatis 40-45 \times 9 octosporis; sporidiis fusoides, rectis, 3-septatis, hyalinis 10-12 \times 2,5-3 distichis; paraphysibus nullis.
Hab. ad caules emortuos Oxalidis strictæ, Texas Americæ borealis.
4. **Sphærulina Pruni** Mc. Alp. Fungus Stone-fr. trees diseases, Melb. 2368
1902, p. 113, fig. 173-175. — Peritheciis minutis, nigris, punctiformibus, sparsis vel subcongestis, erumpentibus, globosis, membranaceis, 120 μ . diam., ostiolo papillatis; ascis breve stipitatis, oblongis, octosporis, aparaphysatis 45-50 \times 10; sporidiis distichis, hyalinis oblongo-ovatis, rectis, 3-septatis, ad septa non constrictis, 15-16 \times 4,5-5.
Hab. in ramulis emortuis Amygdali communis, Myrniog Victoria Australiæ. — *Sph. intermixtæ* Sacc. affinis.
5. **Sphærulina Spartii** v. Höhn, Ann. Myc. 1904, p. 43. — Ramicola; 2369

peritheciis gregariis, tectis, nigris, globulosis, 100-120 μ . latis, ostiolis 15-20 μ . latis, obsolete papillatis instructis; tunica crasse membranacea, atro-brunnea, contextu celluloso; ascis late clavatis, crassiuscule tunicatis, obtusis, sessilibus, octosporis, 50-65 \approx 10-11, aparaphysatis; sporidiis di-tristichis, hyalinis, bacillaribus, rectis vel subcurvulis, utrinque rotundatis, triseptatis, 18-35 \approx 2 $\frac{1}{2}$ -4.

Hab. in ramulis siccis *Spartii juncei* ad Selenika Dalmatiæ. — An sporidia normalia variant longitudine a 18 ad 35 μ . vere dubitandum!

6. **Sphærulina Sacchari** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2370 p. 62. — Maculis rotundatis v. oblongis confluentibusque pallidis exaridis, zona rufo-brunnea cingulatis; peritheciis hypophyllis sparsis vel gregariis punctiformibus, immersis, dein erumpentibus, fusco-membranaceis, poro pertusis, 80-100 μ . diam.; ascis fasciculatis, aparaphysatis, clavatis, obtuse rotundatis, basi breve pedicellatis, 8-sporis, 50-65 \approx 12-14; sporidiis oblique monostichis vel subdistichis, oblonge fusoides vel clavatis, 3-septatis, constrictiusculis, 4-guttulatis, hyalinis, 15-20 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Sacchari officinarum* culti, Leticia, Rio Amazonas, Perù.

7. **Sphærulina microthyrioides** Rehm Hedw. XLIV. — Peritheciis plerumque hypophyllis, sessilibus, subgregariis, lenticularibus, poro pertusis, glabris, parenchymatice fusce contextis, nigris, 120-150 μ . diam.; ascis subglobosis, 25-30 μ . diam., 8-sporis; sporidiis ellipsoideis, interdum subcurvatis, 3-septatis, hyalinis, 12 \approx 4; paraphysibus hyalinis, ? ramosis. 2371

Hab. in foliis graminis, Blumenau Brasiliæ (E. ULE). — Vix visibilis; perithecia non erumpentia, paraphyses distinctæ; tamen nonnisi ad *Sphærulinae* genus species spectare videtur.

8. **Sphærulina Maydis** Henn. in Hedw. 1902, pag. 302. — Maculis 2372 rotundatis, angulatis, pallidis, exaridis, zona brunneola cinctis; peritheciis gregarie sparsis, epidermide tectis, globosis, dein vertice erumpentibus, flavo-brunneis, membranaceo-cellulosis, ca. 60-80; ascis clavatis, apice rotundato-tunicatis, basi attenuato-curvatis, octosporis 40-55 \approx 10-14; sporidiis distichis, fusoides vel clavatis, 3-septatis, paullo constrictis, 10-16 \approx 3,5, hyalinis.

Hab. in foliis *Zæe Maydis* in horto botanico S. Paulo Brasiliæ.

II. *Pharcidiella* Sacc.: species lichenicolæ *).

9. **Sphærulina endococcoidea** (Nyl.) Sacc. et D. Sacc. *Verrucaria endococcoidea* Nyl. Flora 1865, p. 356. — Peritheciis semiimmersis, 3273
nigris 120-160 μ . diam., supra convexulis; ascis aparaphysatis, jodo rubro-tinctis, octosporis; sporidiis ellipsoideo-oblongis, 3-septatis, 16-18 \times 6-7, hyalinis.

Hab. in thallo *Rhizocarpi excentrici* in Ben Lawers Scotiæ.

10. **Sphærulina Amphilomatis** (Jatta) Sacc. et D. Sacc. *Arthopyrenia Amphilomatis* Jatta Lich. Ital. merid. 1889, pag. 206, *Cyrtidula* 2374
Amphilomatis Jatta Syll. Lich. ital. p. 496. — Peritheciis immersis, minutissimis, atris; ascis cylindraceis octosporis; sporidiis cuneiformibus, 1-3-septatis, 4-guttulatis, uno apice tenuatis, curvulis, 15-18 \times 5-6; paraphysibus obsoletis.

Hab. in thallo *Gasparriniæ murorum* in Italia centr. et merid.

METASPHÆRIA Sacc. — Syll. II p. 156, IX p. 825, XI p. 333, XIV p. 582, XVI p. 529.

I. *Eu-Metasphæria*: in plantis vascularibus.

1. **Metasphæria ocellata** (Niessl) Sacc. — Syll. II p. 157. — f. **Hircini** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 224. 2375
— A typo recedit ascis majoribus, crassius clavatis et longius stipitatis 90-108 \times 11-14, nec non sporidiis submonostichis et paraphysibus ramosis constricto-septatis.

Hab. in caulibus siccis *Hyperici hircini*, Luxemburg.

2. **Metasphæria Hyperici** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2376
1903, p. 239. — Peritheciis sparsis, immersis, papilla minutissima, tantum emergentibus, nigris; ascis tereti-clavatis, breve stipitatis 91 \times 7-8; sporidiis 1-distichis, fusiformibus, utrinque obtusulis, rectis curvulisve, 3-septatis, medio profunde constrictis, 4-guttatis et minute utrinque 1-guttulatis, hyalinis, 21 \times 5.

Hab. in caulibus siccis *Hyperici hircini*, Luxemburg.

3. **Metasphæria Magnoliæ** (Almeid. et S. Cam.) Sacc. *Sporoctomorpha* 2377
Magnoliæ Alm. et S. Cam. in Revista Agronomica de Portugal,

*) Huc ducendæ sunt species hyalophragmiæ *Pharcidiæ*, jam descriptæ, nempe: *Sphærulina* (*Pharcidiella*) *Schæreri* (Mass.) Sacc. *S. parvipuncta* (Stein) Sacc., *S. Arthoniæ* (Arn.) Sacc. — Syll. IX, p. 676 (omnes species sub *Pharcidia*).

1903, n. 3, pag. 90, tab. IX, fig. 4-6. — Peritheciis epiphyllis, glubulosis, atris, poro pertusis 150-200 μ . diam.; ascis obclavatis, substipitatis, octosporis 85-90 \times 17-20; paraphysibus numerosissimis, longiusculis, acicularibus; sporidiis distichis octoformibus, 3-septatis, utrinque rotundatis, in partes inæquales septo medio valde constricto divisus 18-20 \times 6-7,5, hyalinis.

Hab. ad folia Magnoliæ spec., Bemfica prope Lisboa Lusitaniæ (C. JELESIAS VIANNA). — Gen. *Sporoctomorpha* Alm. et Cam. non satis differt a *Metasphæria*, immo *Met. papulosa* et *anisometra* peraffines videntur.

4. **Metasphæria Angelicæ** Rostr. Islands Svampe in Bot. Tidsskrift 2378 1903, vol. 25, p. 306. — Peritheciis gregariis, erumpentibus, globoso-depressis, 300 μ . diam.; ascis cylindratis, paraphysatis 115-130 \times 10-12; sporidiis oblique monostichis, oblongo-fusoideis, hyalinis, 3-septatis, loculo subultimo crassiore, rectis vel curvulis, 20-22 \times 6-8.

Hab. in caulibus siccis Angelicæ silvestris in Islandia.

5. **Metasphæria Hederæ** (Sow.) Sacc. — Syll. II, p. 169. — f. **cor-** 2379 **ticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — A typo foliicolo vix differt peritheciis atro-brunneis, ascis varie flexis 70-80 \times 13-15; sporidiis medio fortiter constrictis, paullo crassioribus, 18-21 \times 5-6, maturis dilute flavidis.

Hab. in cortice ramorum Hederæ Helicis, Luxemburg.

6. **Metasphæria acerina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2380 1903, p. 228. — Peritheciis epidermide omnino tectis, papilla minuta depressa erumpentibus, lenticularibus, 500 μ . diam., nigris; ascis clavatis, stipitatis, paraphysibus filiformibus, ramosis superantibus copiose obvallatis, 120-140 \times 17-20, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis, obtusis, medio constricto-1-septatis, loculis biguttulatis tenuiterque 1-septatis, crasse tunicatis 20-26 \times 7-8,5.

Hab. in ramis corticatis Aceris campestris, Luxemburg. — *Met. vulgari* proxime affinis, sed perithecia majora etc.

7. **Metasphæria errabunda** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2381 1903, p. 235. — Peritheciis sparsis vel gregariis, hemisphæricis, cortice innato-subsurfacealibus 70-150 μ . diam., nigris, papilla tenuissima præditis; ascis fasciculatis, crasse fusoideis, brevi et crasse stipitatis, octosporis 55-75 \times 10-12, paraphysibus superantibus, filiformibus obvallatis; sporidiis 1-2-stichis, fusiformibus ob-

tusiusculis, subrectis 3-septatis, non constrictis, 4- vel pluri-guttulatis, hyalinis 16-22 \times 3-5.

Hab. in cortice sicco ramorum Buxi sempervirentis, Thujæ orientalis et Ilicis Aquifolii, Luxemburg. — *Metasph.* *Ferulæ* et *Met. Bambusæ* affinis. Sporidia subinde dilute flavida.

8. **Metasphæria epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2382 III, 1903, p. 230. — Peritheciis gregariis, epidermide nidulantibus et cuticula atrata tectis, hemisphæricis, nigro-brunneis, 100-200 μ . diam., papilla obsoleta; ascis fasciculatis, fusoides, stipitiformi-attenuatis, octosporis 44-68 \times 7-10, filiformi-paraphysatis octosporis; sporidiis 2-3-stichis, tereti-ellipsoideis, utrinque obtusis, rectis curvulisve, crasse 4-guttatis (an demum septatis?) non constrictis, hyalinis, 16-18 \times 3,5-5.

Hab. in cortice Rhamni Frangulæ, Luxemburg. — *Met. corticolæ, depressæ* etc. affinis.

9. **Metasphæria Ulicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2383 1903, p. 234. — Peritheciis sparsis, omnino immersis v. vertice obtuse papillato emergentibus, subinde longiuscule cylindrico-papillatis, globosis, nigris, 250-350 μ . diam.; ascis tereti-clavatis, tenui- et incurvo-stipitatis, octosporis, paraphysatis 150 \times 10; sporidiis distichis, elliptico-fusoides, obtusis, curvulis, triseptatis, ad septa, præcipue medium, fortiter constrictis 4-6-guttulatis, 22-27 \times 5,5-8.

Hab. in ramis corticatis Ulicis europæi, Luxemburg. — *Metasph. sepincolæ* affinis.

10. **Metasphæria Comari** P. Henn. Hedw. 1903, p. 218. — Peritheciis subcutaneis, sparsis, dein epidermide rimosa vertice suberumpentibus, hemisphæricis, obtuse, ostiolatis, atris; ascis cylindræo-subfusoides vel subclavatis, apice obtusis, octosporis, 70-90 \times 7-9, paraphysibus copiosis, filiformibus, septatis, ca. 2 μ . cr., hyalinis; sporidiis distichis v. oblique monostichis, oblonge fusoides, rectis v. subcurvulis, utrinque acutis, primo 4-guttulatis, dein 1- deinde 3-septatis, ad septa, præcipue medium constrictis, hyalinis, 18-23 \times 4-5.

Hab. in caulibus emortuis Comari palustris in horto botanico Berolini Germaniæ.

11. **Metasphæria Opulastri** Clements in Bull. of the Torr. Bot. Cl. 2385 1903, p. 84. — Peritheciis sparsis, erumpentibus, nudis, globosis, vix ostiolatis, brunneis, 200-300 μ .; ascis octosporis, clavatis, jodo

non cærulescentibus, 60-75 \times 10; paraphysibus clavulatis, hyalinis 2-3 μ . lat. ad apicem; sporidiis fusiformibus, acutis, plerumque 3-septatis, rectis vel curvulis, hyalinis, 22-25 \times 3-4.

Hab. ad ramulos vetustos *Opulastri monogynæ*, Minehaha Amer. bor.

12. **Metasphæria Carveri** Ell. et Ev. in Journ. of Mycol. 1902, p. 68. 2386

— Peritheciis dense sparsis vel gregariis, raro cæspitose-congestis, suberumpentibus, generaliter epidermide velatis, depresso-hemiphæricis, in sicco collapsis 120-200 μ . diam.; ascis oblongis, brevistipitatis 50-55 \times 8-12; paraphysibus evanescentibus; sporidiis distichis, oblongo-cylindræis, parce curvatis, hyalinis 15-20 \times 4-5, utrinque obtusis, granulosis 3-4-nucleatis (dein 2-3-septatis?).

Hab. in ramis emortuis *Sesami orientalis*, *Glycines hispidæ*, *Cassiae Toræ* et *Mucunæ utilis*, Alabama Amer. — Habitus fere *Vermiculariæ*.

13. **Metasphæria vulgaris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2387

II, p. 168, et III, p. 225. — Peritheciis gregariis, globoso-depressis, tectis 300-400 μ . diam., ostiolo papillato erumpente; ascis clavatis 70-115 \times 10-14; sporidiis distichis, crasse fusoides, utrinque rotundatis, triseptatis, ad septum medium fortiter constrictis, 4-guttatis, hyalinis 15-18 \times 5, cellula secunda crassiore; paraphysibus filiformibus ascum superantibus.

Hab. in ramis corticatis *Aceris campestris*, *Platani orientalis*, *Cratægi Oxyacanthæ*, *Syringæ vulgaris*, *Populi italicæ*, *Pruni Padi*, *Viburni Opuli*, *Tiliæ*, *Rubi*, *Corni*, *Fagi* et *Alni*, Luxemburg. — Affinis *Met. sepincolæ* sed peritheciis distincte papillatis, ascis sporidiisque minoribus satis distincta.

14. **Metasphæria Jaceæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2388

1903, p. 239. — Peritheciis gregariis v. sparsis, subcutaneo-erumpentibus, globoso-depressis 200-300 μ . diam., atro-brunneis, ostiolo minuto, conico; ascis clavatis, breve stipitatis, subinde cylindræis longe stipitatis, filiformi-paraphysatis, 6-8-sporis, 90-110 \times 13-16; sporidiis 1-2-stichis, oblongo-ovoideis vel subclavatis, rectis curvulisve, 4-septatis, constrictis obtusis, medietate inferiori angustiore et longiore 1-2-septata, hyalinis v. tandem dilutissime brunneolis, minute guttulatis, 22-27 \times 5,5-7.

Hab. in caulibus siccis *Centaureæ Jaceæ*, Luxemburg. — Perithecia quædam vertice setulosa et sporidia brunneola: an species diversa?

15. **Metasphæria Petasitidis** Feltg. Vorstud. Vorst. Pilz. Luxemb. 2389

Nachtr. III, p. 238. — Peritheciis epidermide innatis et per cuticulam conspicuis, demum subliberis, globoso-depressis, ostiolo breviter cylindraceo emergente; ascis . . . non visis; sporidiis obtuse fusiformibus, rectis curvulisve, medio constricto-1-septatis, plerumque 4-guttulatis et tandem 3-septatis, hyalinis, 18-24 \times 5-5,5.

Hab. in petiolis siccis *Petasitidis officinalis*, Luxemburg.

16. **Metasphæria Silphii** Ell. et Ev. in Journ. of Mycol. 1903, p. 167. 2390

— Peritheciis gregariis, subcuticularibus, ovatis, rugulosis, ostiolo papillatis, dein collapsis, cyathiformibus, 150-200 μ . diam.; ascis cylindraceis vel clavato-cylindraceis 45-55 \times 6-7, subpedicellatis, paraphysatis; sporidiis distichis, fusoideo-oblongis 2-3-septatis, ad septa constrictis, 12-16 \times 3,5-4, subbrunneis.

Hab. in caulibus emortuis *Silphii integrifolii*, Rooks Co., Kansas Amer. bor.

17. **Metasphæria sanguinea** Ell. et Ev. in Journ. of Myc. 1902, 2391

p. 68. — Peritheciis subcuticularibus, sparsis vel 2-3 congestis, membranaceis, dein collabentibus circ. 200 μ . diam., sanguineo-rubrescentibus, ostiolo papilliformi donatis; ascis clavato-cylindraceis 50-70 \times 7-8, paraphysatis; sporidiis (raro monostichis) distichis constricto-ellipticis vel subfusoideis, hyalinis 4-nucleatis, 3-septatis, 15-18 \times 14.

Hab. in caulibus emortuis *Helenii tenuifolii*, Alabama Amer.

18. **Metasphæria Cirsii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2392

1903, p. 239. — Peritheciis gregariis vel sparsis, immersis, globoso-depressis, 100-200 μ . diam., nigris, papilla globulosa emergente; ascis cylindraceis breve stipitatis 122-136 \times 7-8; paraphysibus filiformibus, superatis, octosporis; sporidiis monostichis, filiformibus, obtusis, rectis vel curvulis, 3-septatis, septo medio evidentiore ibique constrictis, hyalinis, 6-guttulatis, 21-26 \times 5-6.

Hab. in caulibus siccis *Cirsii arvensis*, Luxemburg. — Præcipue ascis anguste cylindraceis distinguenda species.

19. **Metasphæria Petrææ** Pat. in Duss Enum. Champ. Guadel. 1903, 2393

p. 71. — Peritheciis solitariis, sparsis, punctiformibus, nigris, cellulosis, molliusculis, sub cute dein radiatim fissa nidulantibus; ascis cylindraceis, in stipitem attenuatis, 105 \times 10, octosporis, filiformi-paraphysatis; sporidiis fusoideis, rectis, incoloribus, medio constrictis, utrinque acutatis, obscure 1-septatis et 6-8-guttulatis, 20 \times 6.

Hab. in foliis emortuis *Petrææ volubilis*, Ravine-Soufflée

Guadalupæ (Duss). — Subinde sporidia sunt medio inflatula. Jodi ops nulla.

20. **Metasphæria Liriodendri** Pass. — Syll. IX, p. 831. — f. **Catalpæ** ²³⁹⁴
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 233. — A typo differt peridermio non elevato; ascis paullo crassioribus et valde ludibundis, 80-124 \approx 10-14; sporidiis 19-23 \approx 4-5.

Hab. in ramis corticatis *Bignoniæ Catalpæ*, Luxemburg. — A *Metasph. vulgari* differt sporidiis angustioribus, nempe 4-5 μ . nec 5-7 μ . cr.

21. **Metasphæria depressa** (Fuck.) Sacc. — Syll. II, pag. 166. — f. ²³⁹⁵
caulium Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 225. — A typo differt præter matricem, peritheciis atro-brunneis; ascis angustioribus 120-125 \approx 8-10 et sporidiis quoque angustioribus 19-22 \approx 5,5.

Hab. in caulibus siccis *Origani vulgaris*, Luxemburg.

22. **Metasphæria Nicolai** (Bubák) Sacc. et D. Sacc. *Leptosphæria Nico-* ²³⁹⁶
lai Bubák, Pilzfl. Montenegr. 1903, p. 10. — Peritheciis cortice nidulantibus, minutis, membranaceis, nigris, poro minuto pertusis, 50-100 μ . diam., contextu subparenchymatico; ascis clavatis, curvulis, 50-80 \approx 15, octosporis; paraphysibus filiformibus, 80 μ . long. hyalinis; sporidiis breve cylindraceis, utrinque rotundatis, 17,5 \approx 6,5, hyalinis, 4- raro 3-septatis, distichis.

Hab. in caulibus *Salviæ officinalis* anni præcedentis, Bukovice pr. Cetinje, Montenegro. — A *M. Salviæ* omnino diversa.

23. **Metasphæria Ipomœæ** Ell. et Ev. in Journ. of Mycol. 1902, p. 68. ²³⁹⁷
— Peritheciis sparsis v. 2-3 congestis, subcuticularibus dein erumpentibus, generaliter collapsis 250-300 μ . diam., ostiolo papillato præditis; ascis clavatis, breve stipitatis 75-90 \approx 10-14; paraphysibus filiformibus; sporidiis monostichis vel distichis, elongato-ovatis vel late fusoideo-clavatis, 3-4-septatis, ad septa constrictis, pænultimo septo valde constrictis, 15-25 \approx 8-12.

Hab. in caulibus emortuis *Ipomœæ*, Alabama Americæ. — Ab ²³⁹⁸
affini *M. Kali* (Fabr.) Sacc. differt præcipue peritheciis congestis.

24. **Metasphæria Mezerei** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — Peritheciis gregariis v. sparsis, epidermide tectis hemisphærico-lenticularibus, nigris, 150-200 μ . diam. papilla minutissime emergentibus; ascis breve et crasse clavatis, subsessilibus, octosporis, 60-70 \approx 19-22, filiformi-paraphysatis; sporidiis 2-3-stichis, oblongo-ellipsoideis, utrinque rotundatis, rectis, constricto-

3-septatis, hyalinis, minute guttulatis, 19-22 \approx 5-6, zona mucosa 2-3 μ . crassa sæpius obductis, cellula secunda crassiore.

Hab. in cortice emortuo *Daphnes Mezerei*, Luxemburg.

25. **Metasphæria empetricola** Rostr. Islands Svampe in Bot. Tidsskrift 1903, vol. 25, p. 306. — Peritheciis lignicolis, majusculis, sphæroideis; ascis cylindræis; sporidiis fusoideo-oblongis, inæquilateralibus, 3-4-septatis, 25-28 \approx 6-7, hyalinis vel dilute flavis.

Hab. in caulibus *Empetri nigri* in Islandia.

26. **Metasphæria Periclymeni** Feltg. Vorstud. Pilz. Luxemb. 1901, 2400 Nachtr. II, p. 168. — Peritheciis sparsis, minutissimis, vix 100 μ . diam., omnino immersis, ostiolo tantum emergente papilliformi; ascis tereti-clavatis 54-74 \approx 5-7, octosporis; sporidiis mono-distichis, fusiformibus, utrinque acutis, vulgo curvulis 3-septatis, ad septum medium constrictis, 17-19 \approx 2,5-3, hyalinis.

Hab. in ramis siccis corticatis *Loniceræ Periclymeni*, Luxemburg.

27. **Metasphæria lentiformis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 230. — Peritheciis gregariis, epidermide tectis vertice papillulato emergentibus, globoso-depressis, nigris, 100-200 μ . diam.; ascis late clavatis vel subfusoideis, breve stipitatis 55-70 \approx 10-15, subinde 80 \approx 8, filiformi-paraphysatis 8-sporis; sporidiis distichis vel medio tetrastichis, oblongo-ellipsoideis vel subcuneiformibus, obtusis, rectis curvulisve 3-septatis, non constrictis, granulosis, hyalinis, 16-20 \approx 5,5-7.

Hab. in cortice sicco *Viburni Opuli*, Luxemburg. — Affinis *Metasphæricæ peridermii*.

28. **Metasphæria sambucina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 227. — Peritheciis subsolitariis vel hinc inde confertis, innato-erumpentibus et vertice lato emergentibus v. ostiolo brevi conico, nitido præditis, globoso-ellipsoideis, lignum nigrificantibus, subcarbonaceis 200 μ . diam.; ascis fasciculatis, tereti-clavatis, breve stipitatis, octosporis, 85-112 \approx 8,5-10, breve paraphysatis; sporidiis monostichis vel medio distichis, cylindræo-ellipsoideis vel subfusoideis, utrinque obtusis 1-3-septatis, 2-4-guttulatis, 15-20 \approx 5-6, hyalinis.

Hab. in ramis corticatis, putridis *Sambuci racemosæ*, Luxemburg. — Ob paraphyses parcissimas, an potius *Sphærvulinæ* species?

29. **Metasphæria conorum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 237. — Peritheciis solitariis vel gregariis, maculis brun-

neis insertis, hemisphæricis, cortice innatis, nigris, 300-500 μ . diam. minute papillatis; ascis tereti-clavatis vel fusoides, apice obtusulis, breve stipitatis, 80-98 \approx 5,5-9 octosporis; sporidiis 1-2-stichis, fusiformibus, utrinque rotundatis, rectis curvulisve, pluri-(3-5)-guttulatis (an demum septatis?), non constrictis, hyalinis 17,5-22 \approx 6-7; paraphysibus filiformibus.

Hab. in squamis conorum Abietis excelsæ, Luxemburg. — Proxime affinis *Metasph. Cyparissicæ* Pass.

30. **Metasphæria nigrovelata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2404
III, 1903, p. 229. — Peritheciis globoso-lenticularibus, cortice interiore nidulantibus et epidermide atrata tectis, dein erumpentibus, atro-brunneis 100-250 μ . diam., papilla obsoleta; ascis clavatis, longiuscule stipitatis 62 \approx 8 octosporis; sporidiis subdistichis, oblongo-fusoides, obtusiusculis, rectis curvulisve, 3-septatis non v. vix constrictis, hyalinis, minute pluriguttulatis, 16-22 \approx 2,7-4; paraphysibus filiformibus ascos superantibus.

Hab. in cortice sicco Carpini Betuli, Luxemburg. — Affinis *Met. corticolæ*. Sporidia subinde parte superiore incrassata.

31. **Metasphæria Coryli** Celotti — Syll. IX, p. 835. — f. **quercina** 2405
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 233. — A typo differt ascis majoribus, magis cylindricis, 90-125 \approx 10-14.

Hab. in ramis corticatis quercinis, Luxemburg. — f. **Juglandis** Feltg. l. c. p. 234: a præcedente var. differt peritheciis majoribus 0,5-1 mm. diam., vertice verruciformibus; ascis paullo crassioribus, et sporidiis mucro obvolutis. — In ramis corticatis Juglandis regiæ, Luxemburg.

32. **Metasphæria cavernosa** (E. et E.) Sacc. — Syll. IX, p. 833. — 2406
f. **Salicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 234. — A typo differt peritheciis minoribus 200-300 μ . diam. et sporidiis 1-septatis, 4-guttatis, nec plasmate 3-partito.

Hab. in ramis corticatis Salicis spec., Luxemburg. — Asci 100-150 \approx 10-14; sporidia 19-22 \approx 8.

33. **Metasphæria corticola** (Fuck.) Sacc. — Syll. II, pag. 166. — f. 2407
alnicola Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 231. — A typo recedit matrice superficie denigrata; ascis longe cylindraceis 6-8-sporis, 108-168 \approx 8-10; sporidiis tereti-oblongis, rectis 20-23 \approx 5,5-7.

Hab. in ramis corticatis Alni glutinosæ, Luxemburg.

34. **Metasphæria chætostroma** Sacc. — Syll. II, pag. 165. — var. 2408
Urticæ Rehm, Bot. Zeitschr. 1903, p. 10. — A typo differt se-

tulis vix 30 μ . longis, prope verticem sitis; ascis 80-90 \times 10-12; sporidiis 18-20 \times 5, vulgo utrinque appendicula brevi auctis.

Hab. in caulibus siccis *Urticæ dioicæ* in Tirolia.

35. **Metasphæria Senecionis** (Fuck.) Sacc. — Syll. II, p. 158. — f. 2409

Urticæ Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 238.

— A typo differt ascis brevioribus et latioribus, 95-108 \times 16-19, magis clavatis et matrice atrata.

Hab. in caulibus corticatis *Urticæ*, Luxemburg. — Sporidia 20-28 \times 5-6, cellula secunda crassiore.

36. **Metasphæria Washingtoniæ** Earle in New York Bot. Gard. 1902, 2410

p. 347. — Peritheciis dense gregariis in maculis magnis insidentibus vel 2-3 lineari-confluentibus, subcutaneis dein erumpentibus, nigris, subsphæroideis, 150 μ . diam.; contextu albido; ostiolo obscuro; ascis subcylindræis 70 \times 12; paraphysibus 2 μ . cr., superne ramosis; sporidiis distichis, hyalinis, valde constrictis, 3- vel 4-septatis, 20 \times 4.

Hab. in foliis emortuis *Washingtoniæ*, Stanford University Californiæ.

37. **Metasphæria Aracæ** P. Henn. Fungi Amaz. II, p. 243. — Macu- 2411

lis fuscidulis, rotundato-angulatis v. effusis; peritheciis hypophyllis, sparsis, tectis dein suberumpentibus membranaceis, subglobo-sis, atris, ca. 150-200 μ .; ascis clavatis, obtuse rotundatis, 8-sporis, 60-70 \times 6-7, paraphysibus filiformibus, ca. 1-1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, subacutis, primo 1-, dein 3-septatis, haud constrictis, 20-24 \times 4-4 $\frac{1}{2}$, hyalinis.

Hab. in foliis *Aracæ* cujusdam, Juruá-Miry Brasiliæ.

38. **Metasphæria Bellynickii** (West.) Sacc. — Syll. II, p. 178. — var. 2412

maculans Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 241.

— A typo differt matrice atro-maculata; ascis paullo longioribus, 70-120 \times 8-9 et loculo secundo sporidiorum paullo crassiore.

Hab. in caulibus siccis *Polygonati vulgaris*, Luxemburg.

39. **Metasphæria juncina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2413

1903, p. 243. — Peritheciis sparsis, immersis, globoso-depressis, 100-200 μ . diam. ostiolo minuto, conoideo erumpentibus; ascis late clavatis, obtusis, breve stipitatis 92-120 \times 13-15, paraphysibus filiformibus, subinde furcatis, obvallatis, 6-8-sporis; sporidiis 2-3-stichis, fusiformibus, obtusis, rectis curvulisve 6-septatis, 7-guttulatis, ad septa constrictis, hyalinis 27-33 \times 5,5-6, cellula tertia vel quarta paullo crassiore.

Hab. in calamis siccis *Junci effusi*, Luxemburg. — *Metasph.*

Funckiae proxime affinis.

40. **Metasphæria Luzulæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2414
1903, p. 244. — Peritheciis gregariis, epidermide parum elevata
tectis, globoso-depressis, ostiolo acuto vel obtusulo erumpentibus
200-250 μ . diam.; ascis cylindraceutis, breve stipitatis, filiformi-para-
physatis, octosporis 102-115 \approx 7,5-10; sporidiis 1-2-stichis, oblon-
go-fusoideis, obtusiusculis, vulgo curvulis, 8-guttulatis, medio con-
strictis (an serius 8-cellularibus) hyalinis, 33-38 \approx 5-5,3.

Hab. in calamis siccis *Luzulæ maximæ*, Luxemburg. — Af-
finis *Metasphæriæ Oryzæ*.

41. **Metasphæria Scirpi** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2415
II, p. 170, *Metasphæria* spec. Feltg. Vorst. Pilz. Luxemb. 1889,
I, p. 267, n. 815. — Peritheciis sparsis, immersis, globosis, nigris,
papilla verruciformi emergentibus; ascis tereti-fusoideis, longiu-
scule stipitatis, octosporis, 100-120 \approx 7-9, p. spor. 75-90 μ . long.;
sporidiis mono-distichis, fusiformibus, obtusulis, rectis 18-25 \approx 3,
5-4,5 quadriguttulatis vel plasmate 4-partito, hyalinis, subinde
mucobvolutis.

Hab. in calamis siccis *Scirpi lacustris*, Luxemburg.

42. **Metasphæria biseptata** E. Rostr. Norske Ascom. 1904, pag. 24, 2416
(Vidensk. Skrift.). — Peritheciis minutis, intus albidis in maculis
lanceolatis pallidis insidentibus, epidermide tectis; ascis crasse cy-
lindraceutis, 85-95 \approx 15-16; sporidiis distichis, inæqualiter obovatis,
biseptatis, loculo ultimo inferiore duplo longiore et crassiore.

Hab. in foliis *Caricis vesicariæ*, As Norvegiæ (WERENSKJOLD).

43. **Metasphæria subseriata** Ell. et Ev. in Journ. of Mycol. 1902, 2417
vol. 8, p. 17. — Peritheciis epidermide nigrificata velatis, depresso-
globosis 350-500 μ . diam. sparsis vel seriatis, ostiolo papilliformi
præditis; ascis cylindraceutis, sessilibus, obscure paraphysatis 60-75 \approx
6-7, curvulis; sporidiis distichis, fusideo-curvulis, 1-3-septatis, non
constrictis, luteo-hyalinis, 30-35 \approx 2,5-3, sæpius septis 1- v. 2 lon-
gitudinalibus præditis.

Hab. in culmis *Panici virgati*, Rooks County, Kansas Amer.
bor. (E. BARTHOLOMEW).

44. **Metasphæria acute-conoidea** Feltg. Vorstud. Pilz. Luxemb. 1901, 2418
Nachtr. II, p. 169, *Metasphæria* sp. n. 814, Feltg. Vorst. Lux. I,
1899, p. 262. — Peritheciis sparsis, innatis, globoso-conoideis ostiolo
acuto erumpentibus; ascis clavatis, crasse et breve stipitatis 190-

200 \approx 10-13, 4-8-sporis . . . ; sporidiis subdistichis, 6-cellularibus guttulatisque, 47-57 \approx 8-10,5, constrictis, hyalinis.

Hab. in rhizomatibus Phragmitis communis et ? Scirpi lacustris, Luxemburg. — A *Trematosphæria heterospora* omnino diversa.

45. **Metasphæria oxyspora** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2419 II, pag. 171. — *Metasphæria* spec. n. 817 Feltg. Vorstud. Pilz. Luxemb. I, 1899, I, p. 268. — Peritheciis dense sparsis, innatis, ostiolo papilliformi emergentibus, globoso-depressis; ascis teretibus clavatis, longiuscule stipitatis, octosporis, 90-105 \approx 8-10; sporidiis distichis, anguste fusoides, acutis rectis curvulisve, 3-5-septatis, non constrictis, hyalinis 27-30 \approx 3,5, 4,5-pluriguttulatis.

Hab. in culmis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. Lolii*.

46. **Metasphæria Phalaridis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2420 III, 1903, p. 243. — Peritheciis sparsis, omnino immersis, globosis 100-150 μ . diam., ostiolo obtuse conoideo; ascis cylindratis, brevis stipitatis, 110-135 \approx 8-9 octosporis; sporidiis mono-distichis, elliptico-fusoides, obtusis rectis, constricto 1-septatis, 4-guttulatis, 19-22 \approx 5-6.

Hab. in culmis siccis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. vulgari*. Sporidia ambitu torulosa.

47. **Metasphæria Polystichi** Feltg. Vorstud. Pilz. Luxemb. 1901, 2421 Nachtr. II, p. 171. — Peritheciis gregariis, immersis, vertice papillato, prominulo tantum emergente, epidermide immutata tectis, globoso-depressis, atris, 100-200 μ . diam.; ascis clavatis tenuiter stipitatis, copiose filiformi-paraphysatis 78-99 \approx 6-8; sporidiis distichis, ellipsoideis vel subcylindrico-fusoides, rectis curvulisve, 4-guttulatis, 4-ocularibus, 8-11 \approx 2,5-3,5, hyalinis.

Hab. in petiolis Polystichi Filicis-maris, Luxemburg.

II. *Sagediopsis* Sacc. Species lichenicolæ, parasiticæ.

48. **Metasphæria Körberi** (Stein) Schröt. Pilzfl. Schles. II, pag. 355, 2422 *Leptorrhaphis Körberi* Stein Flecht. Schles. p. 350, *Leptosphæria Körberi* (Stein) Wint. Pilzfl. II, p. 443. — Peritheciis primo immersis, demum subsuperficialibus, globosis, ostiolo profunde impresso, 0,1 mm. lat.; ascis clavatis, 8-sporis; sporidiis longe cylindratis 24-30 \approx 1-2, uno apice sæpe incrassatis, altero longe tenuatis, 4-8-septatis, hyalinis; paraphysibus manifestis.

Hab. in thallo *Körberiellæ Wimmerianæ*, Hirschberg Silesiæ (STEIN).

49. **Metasphæria Steinii** (Körb.) Schröt. Pilzfl. Schles. II, pag. 355, ²⁴²³
Leptorrhaphis Steinii Körb. in Bericht. bot. Sect. d. Schles. Ges. 1869, p. 67, *Leptosphæria Steinii* (Körb.) Wint. Pilzfl. II, p. 443.
 — Peritheciis sparsis, immersis, globosis, ostiolo applanato emergente, 0,4 mm. lat., contextu molli, atro-brunneo; ascis breve clavatis, sessilibus, 57-61 \approx 9-10, octosporis; sporidiis oblongo-fusoideis 22-40 \approx 2-3, curvulis, 2-8-septatis, hyalinis; paraphysibus filiformibus tenuissimis.

Hab. in thallo, qui albidus et verrucosus fit, *Lecanoræ frustulosæ* Hirschberg Silesiæ (KÖRBER).

50. **Metasphæria corniculata** (Wallr.) Sacc. et D. Sacc. *Obryzum corniculatum* Wallr. Fl. crypt. II, p. 296, Nyl. Syn. p. 136. — Peritheciis minutissimis, immersis, tuberculatis, sparsis; ascis octosporis, aparaphysatis; sporidiis breve fusoideis, utrinque acutulis subcorniculatis, indistincte 8-cellularibus, hyalinis, 16-21 \approx 5-6.

Hab. in thallo *Leptogii corniculati* et *L. microscopici* in Germania et Britannia.

51. **Metasphæria ? superveniens** (Nyl.) Sacc. et D. Sacc. *Melanotheca* ²⁴²⁵
superveniens Nyl. Flora, 1864, p. 358. — Peritheciis nigris, planis, subrotundatis, 1 mm. v. minoribus, nonnullis in quaque ex-crescentia matricis tuberculiformi innatis; sporidiis quaternis vel octonis, fusoideis, 3-septatis, hyalinis, deorsum subapiculatis 32-36 \approx 6-7; paraphysibus gracilibus, anastomosantibus.

Hab. in thallo *Parmeliæ sulcatæ* et saxatilis prope Brest Galliæ (CROUAN).

52. **Metasphæria Croceæ** (Bagl. et Car.) Sacc. et D. Sacc. *Xenosphæria* ²⁴²⁶
Croceæ Bagl. et Car. Anacr. lich. p. 352, t. V, f. 79 (1879). — Peritheciis exiguis, semiemersis, cupuliformibus, atris, nigro-fuscis; ascis elongato-fusoideis, 8-sporis, capillaceo-paraphysatis; sporidiis late fusoideis utrinque acutiusculis, plerumque oblique 3-7-septatis, 28-36 \approx 8-10, hyalinis, oculis sat inæqualibus.

Hab. in thallo *Solorinæ croceæ*, Valdobbia in Ital. super.

53. **Metasphæria dolichotera** (Nyl.) Sacc. et D. Sacc. *Leptosphæria* ²⁴²⁷
dolichotera (Nyl.) Zopf, Hedw. 1896, p. 324, *Obryzum dolichoterum* Nyl. Flora 1872, pag. 353. — Peritheciis immersis, nigris; ascis aparaphysatis, octosporis; sporidiis cylindraceo-oblongis, hyalinis, 4-6-cellularibus, 23-27 \approx 4,5-5.

Hab. in thallo *Collematis auriculati* in Scotia (CROMBIE).

54. **Metasphæria pluriseptata** (Nyl.) Sacc. et D. Sacc. *Verrucaria plu-* 2428
riseptata Nyl. Flora, 1873, p. 74. — Peritheciis nigris, exiguis; ascis octosporis, paraphysatis; sporidiis 6-cellularibus, 18-30 \times 5-6.

Hab. in thallo et apotheciis Placodii saxicoli prope Valbonne Pyrenæorum orientalium. — Peraffinis dicitur *Didymellæ epicarphineæ* sed sporidia pluriseptata.

MELOMASTIA Nits. et Fuck. — Syll. II p. 213.

1. **Melomastia corylina** Feltg. Vorstud. Pilz. Luxemb., 1901, Nachtr. 2429
II, p. 191. — Peritheciis gregariis, fere confluentibus, hemisphæricis, basi fere deficientibus, epidermide tumidula tectis, vertice tamen denudatis, membranaceo-coriaceis 500-800 μ . diam., atrobrunneis, ostiolo depresso-papillato; ascis clavatis, longiuscule stipitatis, apice rotundatis, filiformi-paraphysatis, 120 \times 13-15; sporidiis cylindræo-oblongis, utrinque conoideo-rotundatis, subdistichis 4-cellularibus, crasse 4-guttatis, rectiusculis 21-26 \times 6-8, cellulis mediis paullo crassioribus.

Hab. in ramis corticatis Coryli, Luxemburg. — *Melomastiæ corticolæ* affinis.

2. **Melomastia Morthieri** (Fuck.) Feltg. Vorstud. Pilz. Luxemb. 1901, 2430
Nachtr. II, p. 191: cfr. Syll. II, p. 222, sub *Zignoella* — var. **Thujæ** Feltg. l. c. — A typo differt ascis longioribus et angustioribus 60-104 \times 8-10; sporidiis quoque angustioribus 24-26 \times 4-5, pariter 4-cellularibus et 4-guttatis.

Hab. in ramis decorticatis Thujæ orientalis, Luxemburg.

CERIOSPORELLA Berl. Icon. fung. I pag. 121 tab. CXXVII. — Syll. XIV p. 19. — Perithecia epidermide tecta, papillata. Asci clavati, octospori. Sporidia fusoidea, subcymbiformia, utrinque setigera, hyalina, diu 1-septata, tandem 3-pluri-septata. — Huc referendæ *C. Patouillardii* (Let.) Berl. l. c. (= *C. Ulicis* Pat. — Syll. IX, p. 845 —), *C. bicalcarata* (Ces). Berl. l. c. *C. fuscescens* (Niessl.) Berl. l. c., ubi de generis autonomia dubitatur.

- 1 **Ceriosporella acuta** (Annie L. Smith), Sacc. et D. Sacc. *Ceriospora* 2431
acuta A. L. Smith Journ. Linn. Soc. XXXV, p. 17, t. II, f. 19-21. (extr.) — Syll. XVI, p. 1137 (nomen). — Peritheciis carbonaceis, atris, sparsis vel confertis et fere confluentibus, superficialibus, exiguis, inferne circa 500 μ . latis, in apicem lineis brunneis, longitudinaliter ornatum attenuatis, 200 μ . longis; sporidiis primum cylin-

draceis, utrinque appendiculatis dein sursum dilatatis, grosse guttulatis, 2-pluriseptatis, circa $45 \approx 8$, hyalinis.

Hab. ad ligna, in ins. Dominica Indiæ occid.

BERTIELLA Sacc. — Syll. I p. 584 (1882) XIV p. 19. — Ab affini genere *Bertia* dignoscitur sporidiis 2-pluri-septatis, hyalinis.

1. **Bertiella botryosa** Morgan Journ. Mycol. 1904, p. 161. — Pe- 2432
ritheciis 200 μ . diam. in tubercula minuta, depressa, orbicularia vel irregularia cæspitose-connatis, minutis, subglobosis, rugulosis, nigris, ostiolis simplicibus; ascis tereti-clavatis, breve stipitatis, paraphysatis octosporis, 100-110 \approx 11-14; sporidiis fusiformibus hyalinis 1-3-septatis, 20-30 \approx 5-6.

Hab. in ligno indurato Ulmi, Preston, Ohio Amer. bor.

BAUMIELLA P. Henn. in Ergebn. der Kunene Sambesi Exped. p. 165 (1902) (Etym. a collectore BAUM). — Perithecia cæspitose erumpentia dein superficialia, membranacea, sublevia v. rugulosa, minute ostiolata dein collabentia. Asci clavati octospori. Sporidia oblonga, hyalina, subflavidula, dein 3-septata. — Ob perithecia membranacea et habitationem a *Trematostomate* Sacc., *Winterina* Sacc. et *Bertia* De Not. differt.

1. **Baumiella cæspitosa** P. Henn. l. c. — Peritheciis cæspitosis vel 2433
botryose erumpentibus, epiphyllis gregariis in maculis rotundatis fuscis, primo epidermide rupta cinctis, membranaceis, atro-castaneis, subglobosis v. ovoideis, minute ostiolatis dein collabentibus, 150-180 μ . diam.; ascis clavatis, apice rotundatis tunicatis, octosporis; sporidiis subdistichis v. conglobatis, oblonge ellipsoideis vel clavatis, dein 3-septatis, paullo constrictis, utrinque obtusis, 26-33 \approx 9-13 hyalino-subflavidulis, loculis guttulatis.

Hab. ad folia graminea supra folia *Monotis dasyacanthi*, Quiriri pr. Sobi Africæ austr.

WINTERINA Sacc. — Syll. XIV p. 589, XVI p. 538 et cfr. quoque II p. 222, IX p. 870.

1. **Winterina gallica** Sacc. et Flag. in Atti Congr. bot. Palermo 1902, 2434
p. 53. — Peritheciis laxè gregariis, basi adnata superficialibus, globoso-depressis, 250 μ . d., ostiolo rotundo impresso 60-70 μ . d., pertusis, glabris, nigricantibus; perithecii contextu irregulariter parenchymatico, molliusculo, olivaceo-fuligineo; ostioli periphysibus copiosis, angustis, hyalinis; ascis cylindraceis, apice rotunda-

tis, basi tenuatis, $140 \approx 8-9$; paraphysibus copiosissimis, crassiusculis (an ascis sterilibus?) hyalinis; sporidiis oblique monostichis, fusoides, sæpe inæquilateris, utrinque obtusulis v. subacutis $22-26 \approx 4-4,5$, initio 6-guttatis, tandem spurie 5-septatis, non constrictis, cuboideo-nucleatis, hyalinis.

Hab. in ligno putrescente Castaneæ, Issy-l' Eveque Galliaë.

ZIGNOËLLA Sacc. — Syll. II p. 214, IX p. 860, XI p. 339, XIV p. 587, XVI p. 536, 1137.

1. **Zignoëlla Cæsalpiniaë** A. Zimm. in Centr. f. Bakter. 1902, VIII, 2435 pag. 181. — Peritheciis superficialibus, late gregariis, globoso-depressis, vertice poro rotundo amplo apertis, levibus, pachydermaticis, $370-450 \mu$. diam.; ascis cylindræis, octosporis; sporidiis oblongis, utrinque obtusis, 3-septatis, non constrictis, grosse 4-guttatis, hyalinis, $22 \approx 5-6$; paraphysibus filiformibus.

Hab. in ramis Cæsalpiniaë coriariaë cultæ pr. Buitenzorg Javæ.

2. **Zignoëlla Garciniaë** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. — 2436 Peritheciis superficialibus subgregariis, minutis, hemisphæricis, subcarbonaceis, atris, papillatis $100-150 \mu$. diam.; ascis oblonge clavatis, apice tunicatis, 8-sporis, $40-50 \approx 8-10$; paraphysibus copiosis, filiformibus, flexuosis, hyalinis, ca. $0,5 \mu$. cr.; sporidiis subdistichis, oblonge fusoides, utrinque obtusiusculis, 5-septatis, hyalinis, $12-15 \approx 3-4$.

Hab. in ramis Garciniaë spec., Ost-Usambara Africaë orient. (ENGLER).

3. **Zignoëlla Cascarillaë** Rehm, Hedw. 1903, p. (292). — Peritheciis 2437 sparsis, in cortice late dealbato sessilibus, globulosis, poro minutissimo pertusis, glabris, membranaceis, parenchymatice contextis, $120-200 \mu$. diam.; ascis clavatis, apice rotundatis $40-50 \approx 10-12$ octosporis; paraphysibus mucedinosis, jodi ope cæruleo tinctis; sporidiis subclavatis, utrinque obtusis 1-dein 3-septatis, ad septa vix constrictis, hyalinis, $12-14 \approx 4-5$, distichis.

Hab. ad corticem Crotonis Cascarillaë venalem, ex Amer. meridioneli. — Ad *Stigmateam* nutat.

4. **Zignoëlla Potentillaë** Tracy et Earle, Plantæ Bakerianæ fasc. I, Fungi 2438 p. 28. — Peritheciis sparsis, erumpentibus, subsuperficialibus, nigris, depresso-globosis, rugulosis, $0,5 \text{ mm.}$ diam.; ostiolo conico; ascis cylindræo-fusiformibus, breve stipitatis, octosporis $45-50 \approx$

10-12; paraphysibus filiformibusasco subæquilongis; sporidiis hyalinis ovoideis vel ellipticis, 3-4-septatis, 11-12 \approx 4-5.

Hab. in caulibus decorticatis *Potentillæ fruticosæ*, Bob Creek, Colorado Amer. bor.

5. **Zignoëlla sardoa** Sacc. et Trav. in *Annal. Mycol.* 1903, p. 431, f. I. 2439

— Peritheciis sparsis vel gregariis, cortice basi leviter immersis, subglobosis demum umbilicato-depressis, vix papillatis, latiuscule pertusis, nigris, glabris, $\frac{1}{4}$ mm. diam; ascis cylindraceo-clavatis, superne vix attenuatis, deorsum sensim pedicellatis, 60-70 \approx 5-6; paraphysibus ascos aliquantulo superantibus, guttulatis, continuis; sporidiis distichis, e cylindraceo fusoideis, utrinque acutulis, rectis vel curvulis, continuis, hyalinis, 14-18 \approx 3, obsolete guttulatis.

Hab. in ramis corticatis, emortuis, *Thymi*, prope Sassari Sardiniae (A. N. BERLESE). — Ad subg. *Zignoinam* spectat.

6. **Zignoëlla Piceæ** P. Henn. in *Hedw.* 1904, p. 70. — Peritheciis 2440

corticis superficialibus, gregariis vel sparsis, ovoideis, atris, opacis, papillatis, ca. 300-350 μ .; ascis cylindraceis, subfusoideis, apice attenuato-obtusiusculis, 8-sporis, 100-120 \approx 10-13, paraphysibus copiosis, filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis v. subdistichis, oblonge fusoideis, utrinque attenuatis, obtuse rotundatis v. subacutis, 4-guttulatis, dein 3-septatis, haud constrictis, hyalinis, 18-22 \approx 4-5.

Hab. in corticibus *Piceæ vulgaris*, Michailowskoje, in ditione Mosquensi Rossiae.

7. **Zignoëlla faginea** Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 2441

1903, p. 292. — Peritheciis gregariis vel sparsis, subgloboso-depressis, basi insculptis, coriaceo-carbonaceis, nigris 200-250 μ . diam. papilla minutissima; ascis clavatis, apice subrotundatis, breve stipitatis, crasse tunicatis, a paraphysibus filiformibus superatis, octosporis 48-60 \approx 9-10; sporidiis distichis, oblongo-ellipsoideis v. subfusoideis vel cylindraceis, utrinque obtusis, rectis curvulisve 2-4-guttulatis, an demum septatis?, hyalinis 10-14 \approx 3-4.

Hab. in ramis decorticatis *Fagi*, Luxemburg.

8. **Zignoëlla prorumpens** (Rehm) Sacc. — *Syll.* II, pag. 223. — var. 2442

oxystoma Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 1903, p. 292.

— A typo differt, præter matricem, ostiolis valde acutis vix perforatis; ascis crassioribus 130-150 \approx 10-13; sporidiis indistincte septatis, non nucleatis, 20-22 \approx 7-10.

Hab. in ramis decorticatis putridis *Quercus*, Luxemburg.

9. **Zignoëlla salicicola** H. Fabre — *Syll.* IX, p. 862. — var. **nigri-** 2443

ficans Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 272, sub *Melomastia*. — Peritheciis gregariis v. basi pluribus confluentibus, ligno denigrato subimmersis, globoso-ellipsoideis, 500 μ . diam., ostiolo breve cylindraceo perforato emergentibus, carbonaceis, nigris, nucleo albo; ascis clavatis, breve stipitatis, paraphysatis, octosporis, 80-95 \times 16-20; sporidiis distichis, elliptico-fusoides, utrinque obtusis, 3-septatis, ad septa, præcipue medium, constrictis 33-42 \times 8-10, subinde mucro obductis, cellula secunda paullo crassiore, cellulis mediis binis crasse 1-guttatis, extimis minute guttulatis.

Hab. in ramis decorticatis putrescentibus Salicis, Luxemburg.

10. **Zignoëlla sphæroides** (Schär.) Rehm, Hedw. 1903, p. (175) *Pyrenula sphæroides* Schär. Enumeratio Lichenum. p. 30, non *Verrucaria sphæroides* Wallr. (= *Acrocordia tersa* Körb.). — Peritheciis sparsis, in cortice dealbata sessilibus, globosis, apice demum truncatis, poro minutissimo pertusis, glabris, atris, parenchymatice fusce contextis 400 μ . diam.; ascis clavatis, crasse tunicatis, apice rotundatis, vix stipitatis, 80-100 \times 12-14, octosporis; sporidiis acicularibus, apice superiore sæpe crassiore, inferne acutatis, rectis v. subcurvatis, 7-septatis, hyalinis 30-40 \times 3-3,5, 2-3-stichis; paraphysibus filiformibus, septatis, 3 μ . diam.; hymenio jodi ope leviter tincto.

Hab. ad infimos truncos Alnorum, prope Zürich Helvetiæ (HEPP.) et in horto Castri Heidelbergensis Germaniæ (ZWACKH) et in cortice Rhamni Frangulæ, Riffersweil Hungariæ (HEGETSCHWEILER).

11. **Zignoëlla sabalina** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — Peritheciis superficialibus gregariis vel subcongestis, ovatis, rugosis, collapsis, 300-350 μ . diam., ostiolo papillato donatis; ascis clavato-cylindraceis 45-60 \times 10-12, subsessilibus, aparamphysatis; sporidiis fusoides, subinæquilateralibus vel curvulis, hyalinis, 3-septatis, parce constrictis, 15-20 \times 4,5-5.

Hab. in petiolis Sabalis Adansonii, Alabama Americæ.

12. **Zignoëlla enormis** Pat. et Har. Journ. de Bot. 1903, p. 228. — Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, apice poro pertusis, glabris, majusculis, 700-800 \times 400, contextu coriaceo (nec carbonaceo), parenchymatico, brunneo; ascis diffluentibus longe clavatis, sursum obtuse rotundatis, deorsum attenuatis, 8-sporis, indistincte paraphysatis; sporidiis cylindraceis, plus minus flexuosis, utrinque basim obtuse

attenuatis, transverse 4-5 septatis, non constrictis, hyalinis, protoplasmate nitenti repletis, 280-350 \times 12-14.

Hab. in thallo algæ *Stypocauli scoparii* pr. Cadiz Hispaniæ (SAUVAGEAU). — Sporidiis vere enormibus distincta.

13. **Zignoëlla cubensis** Har. et Pat. Bull. Soc. Myc. 1904, p. 65. — 2447

Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, coriaceis, non carbonaceis, glabris, majusculis 800 \times 500, apice poro 100 μ . lato pertusis; ascis diffluentibus; sporidiis valde elongatis 12-septatis, utrinque obtuse attenuatis, 240-250 \times 10-16.

Hab. in thallo algæ *Stypocauli scoparii*, prope Habana Cubæ (LENORMAND). — *Zign. enormi* valde affinis.

ACANTHOSTIGMA De Not. — Syll. II p. 207, IX p. 854, XI p. 337, XIV p. 590, XVI p. 539.

1. **Acanthostigma Heraclei** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2448

1903, p. 299. — Peritheciis gregariis confertis, coriaceo membranaceis, innato-erumpentibus, demum subliberis, globoso-depressis, minute papillatis, siccis collabentibus, 200-300 μ . diam., nigricantibus, setulis septatis, rigidulis 75-100 \times 5-8, brunneis vestitis basi que hyphis brunneis, repentibus cinctis; ascis tereti-clavatis, stipitatis, 75-95 \times 9-10, paraphysibus septatis, filiformibus obvallatis, octosporis; sporidiis monostichis, oblongis vel subfusoides, obtusis, rectis curvulisve constricto-1-septatis, hyalinis, demum flavido-melleis, 16-31 \times 5-8.

Hab. in caulibus siccis *Heraclei Sphondylii*, Luxemburg.

2. **Acanthostigma curvisetum** Mc. Alp. Fungus diseases Stone-fr. 2449

trees, Melbourne 1902, p. 123, fig. 251-254. — Peritheciis sparsis, superficialibus, nigris, globosis, membranaceis, firmis, poro pertusis, setulis curvulis nigro-brunneis vestitis, 180-200 μ . diam.; setulis 38 μ . long., apice conicis; ascis clavatis vel oblongo-clavatis, breve stipitatis, octosporis, 65-85 \times 11-19; paraphysibus tenuibus, filiformibus subæquilongis; sporidiis conglobatis, hyalinis, cylindraceo-fusoides, paullum curvulis, utrinque acutis, multiseptatis, usque 14-septatis, guttulatis, 50-60 \times 5-5,5.

Hab. in ligno emortuo *Pruni Armeniacæ*, Armadale Australiæ.

3. **Acanthostigma Conocarpi** Tracy et Earle in Bull. of the Torr. bot. 2450

Club. 1901, p. 186. — Maculis nullis; peritheciis hypophyllis, raro amphigenis, sparsis, minutis, subconicis, brunneis 75-90 μ . d.;

contextu parenchymatico; setulis sparsis, erectis, rigidis, intense fuligineis, opacis 40-50 μ . long. 4 μ . ad basim crassis, acuminatis; ascis oblongis vel subobovatis, breve pedicellatis 40 \approx 10; paraphysibus filiformibus asco sublongioribus; sporidiis distichis, cylindraceo-clavatis, basi obtusis, apice subacutis, 2-septatis, ad septa non constrictis, hyalinis, 12 \approx 3.

Hab. in foliis *Conocarpi sericeæ*, Longboat Key, Fla. Amer. bor.

4. **Acanthostigma dispar** Morgan Journ. of Mycol. 1904, p. 162. — 2451
Peritheciis superficialibus subgregariis, 300-400 μ . diam. ovoideis, nigris, papillatis, setulis minutis, sparsis, vestitis vel subglabris, contextu e cellulis globosis, membranaceis, amplis 20-25 μ . diam. formato; ascis lanceolatis curvatis, octosporis, parce paraphysatis, brevissime stipitatis 160-180 \approx 9-12; sporidiis 2-3-stichis, lineari-fusiformibus curvis, hyalinis, 7-11-septatis, 45-60 \approx 4.

Hab. in ligno putri, Preston, Ohio Amer. bor. — *Acanthostigmati scopulæ* et *A. minuto* proxime affine.

ENCHNOSPHERIA Fuck. — Syll. II p. 205, IX p. 883, XVI p. 541.

1. **Enchnosphæria hispida** Morgan, Journ. of Mycol. 1904, p. 162. — 2452
Peritheciis superficialibus, gregariis, ovoideis, pachydermicis, carbonaceis, setulis 100-200 μ . longis, nigris, rigidis vestitis, 300-400 μ . diam.; ascis tereti-clavatis paraphysatis, octosporis, 110-120 \approx 10-12; sporidiis clavato-oblongis, utrinque obtusis, hyalinis continuis, dein 3-septatis, 15-20 \approx 5-8.

Hab. in cortice interiore *Aceris*, Preston, Ohio Amer. bor.

LASIOSPHERIA Ces. et De Not. — Syll. II p. 191, IX p. 849, XI p. 336, XIV p. 592, XVI p. 540.

1. **Lasiosphæria conica** v. Höhn Ann. Mycol. 1904, p. 43. — Peri- 2453
theciis superficialibus, dense gregariis, ex ovoideo conicis, 600-800 μ . altis, ca. 500 μ . latis, carbonaceis, nigris, supra nudis et longitudinaliter sulcato-striatis, in basi strigoso-villosis; ascis fusoido-clavatis, supra sensim attenuatis, truncatis, longe pedicellatis, 120-180 \approx 12-18; paraphysibus numerosissimis, coalescentibus, ascos superantibus, 3-4 μ . latis, septatis, guttulis oleosis præditis obvallatis; sporidiis octonis pluriseriatis, cylindræis, in parte inf. obtuse et angulatim curvatis, antice rotundatis, basi caudicula subtili 3-4 \approx 1-1,5 auctis, continuis, multiguttulatis, 50-52 \approx 4-5.

Hab. in ligno carioso *Aceris* (?) in silvis vallis Schedinaz pr.

Jaize Bosniae, Sept. 1903. — *L. setosæ* affinis sed appendicula sporidiorum diversa.

2. **Lasiosphæria ovina** (Pers.) Ces. et De Not. — Syll. II, p. 199. — 2454
var. **aureliana** Fairm. Journ. of Mycol. 1904, p. 229. — Peritheciis sparsis vel gregariis majusculis, ovato-globosis, basi hyphis longis, septatis, brunneis 6 μ . cr., simplicibus vel ramosis, subflexuosis cinctis, tomento griseo-albido persistenti tectis, excepto ostiolo papilliformi denudato; perithecii substantia flavo-virenti; ascis oblongo-fusoideis, rectis vel curvis 100 \approx 12, vulgo guttula oleosa apice rotundato præditis; sporidiis imperfecte biseriatis v. fasciculatis, cylindræis, partim flexuosis, deorsum abrupte curvatis, continuis, hyalinis, 40 \approx 5, subinde appendicula 6 μ . longa, acuta, hyalina, hinc vel utrinque auctis; paraphysibus obsoletis.

Hab. in ligno putrescenti Tiliæ americanæ, Lyndonville N. Y. Amer. bor. — A typo forte specificè distinguenda species.

3. **Lasiosphæria luticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2455
1903, p. 297. — Peritheciis subcæspitosis, rarius solitariis, sessilibus, subiculo nullo insitis, subglobosis vel globoso-ovoideis, rugulosis et, excepto vertice, setulis copiosis, obtusis, brunneo-atris, rectis, 80-140 \approx 5-8 vestitis et basi hyphis repentibus, septatis ramosis, atris, cinctis, 500-600 μ . diam., ostiolo minuto, subgloboso, nitide nigro; ascis cylindræis vel subellipticis, stipitatis 270 \approx 19-23, octosporis, paraphysibus filiformibus evanidis; sporidiis distichis, cylindræis, deorsum geniculato-curvatis, sursum elliptico-inflatis, 16-20 \approx 10 (parte incrassata), primo appendicibus acutis hyalinis 20-30 μ . longis, utrinque auctis, continuis, minute pluriguttulatis, dein pluriseptatis ex hyalino brunneolis 55-63 \approx 5-6.

Hab. in lutosis silvaticis, Luxemburg. — *Las. acinosæ* et *L. palustri* subaffinis.

HERPOTRICHIA Fuck — Syll. II p. 211, IX p. 856, XI p. 338, XIV p. 592, XVI p. 541, 1137.

1. **Herpotrichia ochrostoma** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2456
III, 1903, p. 296. — Peritheciis gregariis, subinde pluribus confertis, subglobosis, basi leviter insculptis 500-800 μ . diam., papilla obtuse conoidea erumpentibus, hyphis septatis, ramosis, repentibus brunneis 5-7 μ . cr. vestitis, atro-brunneis, rugosis; ascis tereti-clavatis, breve stipitatis, aparamphysibus filiformibus, septatis superatis, 140-195 \approx 13-14, octosporis; sporidiis 1-2-stichis, fusi-

formibus, utrinque obtusulis, rectis curvulisve, 5-septatis, constrictis, pluriguttulatis, 40-49 \times 6,5-8.

Hab. in ramis putridis, decorticatis Fraxini excelsioris, Luxemburg. — *Enchnosphæriæ Cap. Medusæ* subaffinis.

2. **Herpotrichia laricina** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2457

II, p. 215. — Peritheciis gregariis, globosis, subdepressis, papillatis, basi leviter insculptis ibique hyphis brunneis vestitis, sursum setis nigro-brunneis septatis, rigidis, apice subacutis 40-52 \times 2,5-3,5 hirtis, 400 μ . diam.; ascis breve clavatis, 44-65 \times 10,5, octosporis; sporidiis distichis, obtuse fusoides, rectis curvulisve, 4-cellularibus, leviter constrictis, dilute flavidis v. brunneolis, 15-18 \times 5-6.

Hab. in ramis corticatis Laricis deciduæ, Luxemburg. — Indumento peculiari, sporidiis ascisque minutis dignoscenda species.

3. **Herpotrichia caulogena** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2458

1903, p. 296. — Peritheciis sparsis, sessilibus vel basi insculptis, hemisphæricis 500 μ . diam., atro-brunneis, papillatis, basi hyphis sursum setulis 40-45 \times 5, atro-brunneis vestitis; ascis clavatis, 91-130 \times 8-9, paraphysibus filiformi-clavatis, hyalinis, superantibus obvallatis; sporidiis distichis, ellipsoideo-clavatis, apice crassioribus et apiculo præditis, rectis curvulisve bicellularibus, pluriguttulatis hyalinis, ad septum leviter constrictis, 18-21 \times 3-4.

Hab. in caulibus putridis Silenes nutantis, Luxemburg. — *Herp. chæthomioidi* affinis.

4. **Herpotrichia collapsa** (Romell) Rehm, Hedw. 1903, pag. (176). —

Ita vocanda *Bertia collapsa* Romell Bot. Not. 1889, pag. 24 — Syll. IX, p. 687; nam ob subiculum proprium manifestum non est *Bertiæ* species, sed *Herpotrichiæ*.

CERATOSPHERIA Niessl — Syll. II p. 227, XI p. 340, XVI p. 1137.

1. **Ceratosphæria aparaphysata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2459

III, 1903, pag. 280. — Peritheciis solitariis vel 2-4 approximatis ligno immersis et tantum ostiolo conico obtuso vel cylindræo, crassiusculo, atro-nitido, perithecium dimidium æquante emergentibus, globosis, asperulis, firmis, nigris, 300-400 μ . diam.; ascis terti-clavatis, apice obtusulis incrassatis, tenuato-stipitatis, aparaphysatis 87-138 \times 8-9, octosporis; sporidiis 1-2-stichis, anguste fusiformibus, obtusulis, rectis curvulisve 5-septatis, non constrictis hyalinis, pluriguttulatis, 40-50 \times 2,5-3.

Hab. in ramis siccis decorticatis Fagi, Luxemburg.

2. **Ceratosphæria occultata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2460

III, 1903, p. 280. — Peritheciis gregariis innatis, globosis, nigris, 150-200 μ . diam., ostiolo emergente, cylindraceo-nodoso recto vel curvato, perithecium semel v. bis superante; ascis cylindraceis, apice rotundatis, longissime stipitatis, filiformi-paraphysatis, octosporis 190-210 \times 10, p. sporif. 130-140 μ . long.; sporidiis oblique monostichis, late ellipsoideis vel obovatis, 3-5-septatis, non constrictis, hyalinis, minute pluriguttatis, 19-23 \times 8.

Hab. in ramis putridis, decorticatis Fagi, Luxemburg. — Sporidiorum forma in genere peculiaris.

3. **Ceratosphæria obliquata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2461 1901, p. 203. — Peritheciis sparsis vel hinc inde approximatis, basi insculptis sed superficialibus, ovato-conicis, 300 μ . diam., nigris in ostiolum subæquans, conico-cylindraceum, atro-nitidulum acutum tenuatis; ascis cylindrico-clavatis, breve stipitatis, apice obtuse tenuatis, plerumque 120-150 \times 13-18, subinde longioribus; sporidiis distichis, fusoideo-clavatis, 5-7-septatis, leviter constrictis, rectis curvulisque, hyalinis, granulosis, 20-26 \times 5-8, raro longioribus; paraphysibus filiformibus, 2-3 μ . cr., guttulatis, ascos superantibus.

Hab. in ramis decorticatis Pini, Luxemburg. — Ad *Zignoëllæ* species breve rostellatas nutat.

4. **Ceratosphæria grandis** Boud. in Bull. Soc. Myc. de France 1902, 2462 n. 2, tab. VII, fig. 2. — Peritheciis 1-1,5 mm. diam., atro-virentibus, rotundato-applanatis, longe ostiolatis, primo e ligno erumpentibus dein subliberis sed ligno ad basim semper subimmersis sparsis v. gregariis, ostiolo sat crasso, recto aut sæpius undulato, concolori; contextu brunneo; ascis cylindraceis, octosporis, ad basim paullo attenuatis, 220 \times 10-12; paraphysibus tenuibus, hyalinis, intus vix granulosis, septatis; sporidiis cylindraceis, rectis aut curvatis, utrinque subattenuatis, 5-7-septatis, pluriguttulatis, hyalinis, intra ascos pallidissime fuscis, 70-100 \times 5-6.

Hab. ad ligna putrida prope Bourg, Ain Gallie (D. CLERC). — Ab affini *Cer. æruginosa* Rehm peritheciis sporidiisque duplo majoribus differt.

GNOMONIOPSIS Berl. Ic. fung. I, p. 93 (1892) (Etym. *Gnomonia* et *opsis* aspectus). — Perithecia innata, rostro longiusculo prædita membranacea. Asci octospori. Sporidia fusoideo-elongata, pluriseptata, articulis non secedentibus. — Articulis sporidiorum non sece-

dentibus a gen. *Cryptoderi* differt et *Ceratosphæriæ* accedit, quæ contra recedit peritheciis lignicolis durioribus.

1. **Gnomoniopsis Chamæmori** (Fr.) Berl. l. c. t. 85, f. 1, *Cryptoderis Chamæmori* (Fr.) Sacc. — Syll. II, p. 230.

CALOSPORA Sacc. — Syll. II p. 231, IX p. 871, XI p. 341, XIV p. 593.

1. **Calospora austriaca** v. Höhn. Ann. Mycol. II, 1904, pag. 44. — 2463

Stromate e basi ovali conico-attenuato, depresso, 1-1,5 mm. lato in pustulas parum elevatas protuberante, peridermio adhærente tecto: peridermio solum disculo transverso elliptico v. lanceolato pertuso; peritheciis in quoque stromate 10-25, in corticis contextu parenchymatico immutato insculptis, plerumque 2-3-stichis, globosis v. mutua pressione irregulariter ordinatis, 150-300 μ . latis, nigris, hinc inde confluentibus, collis brevibus crassis, usque 90 μ . long., 80 μ . lat. instructis; ostiolorum disculo atro-fusco, elliptico vel transverse lanceolato, ca. 1 mm. long., ruguloso; ostiolis parum incrassatis, poro pertusis, disculos parum superantibus; ascis clavatis, membrana apicem versus parum incrassata tectis, deorsum breve stipitatis, octosporis, 80-90 \approx 10-14, paraphysibus numerosis, subtilibus, hinc inde ramosis stipatis; sporidiis di-tristichis, hyalinis, subfusiformibus vel biconicis, quadricellularibus, ad septa, præcipue medium, constrictis, rectis vel sæpius parum curvatis, utrinque obtusiusculis, guttulis oleosis 4 fartis, strato mucoso destitutis, 18-25 \approx 3-5.

Hab. in ramulis emortuis Alni viridis in valle Gross Pischingthal prope Aspang ad pedem montis Wechsel Austriæ inferioris. — Exsicc.: Rehm, Ascomyceten n. 1477.

2. **Calospora allantospora** Ell. et Ev. in Journ. of Myc. 1903, p. 223. 2464

— Peritheciis sparsis, in cortice et in ligno immersis, depresso-globosis 0,5 mm. diam., brunneis, contextu carbonaceo-coriaceo; ostiolo conico vel breve cylindrico, erumpenti donatis; ascis clavatis, p. spor. 45-55 \approx 7-9; paraphysibus 50-90 μ . longis; sporidiis distichis, cylindræis, curvulis, hyalinis, obtusis sub-3-septatis, 15-20 \approx 2,5-3, ad septa non constrictis.

Hab. in ramis corticatis Corni alternifoliæ et Aceris saccharini, London, Canada, Amer. bor.

3. **Calospora Pickeli** Oud. et Rich. Beih. Bot. Centr. 1902, p. 5. — 2465

Stromatibus regulariter distributis, valsoideis, cortici immersis, e basi orbiculari vel elliptica, nigro-cincta late conoideo-truncatis,

primo peridermate tectis, dein protuberantibus, pustuliformibus, salvo disco, peridermate adhærente integro v. denique lacerato tectis; peritheciis basi corpori lignoso superficialiter impressis, in singulo stromate usque ad 20, circinantibus v. sibi invicem arcte appressis, subsphæroideis v. angulosis 0,3-1 mm. diam., collis brevibus, fasciculatis, vix conniventibus, ostioliis nigerrimis, micantibus, obtusis, perforatis; ascis fusiformibus 50-60 \approx 7 octosporis; sporidiis distichis, cylindræis, strictis, hyalinis, quadriguttulatis quasi 1-septatis medioque constrictis, revera autem, jodo addito, 3-septatis 14-16 \approx 3,5; paraphysibus tenerrimis, guttulatis, diffluentibus.

Hab. in ramis Carpini Betuli, Valkenberg Hollandiæ.

Sect. 7 Phæophragmiæ.

PHÆOSPORA Hepp — Syll. XVI p. 519.

1. **Phæospora triphracta** (Nyl.) Zopf, Hedw. 1896, p. 339, *Endococcus* 2466 *triphractus* Nyl. Fl. 1872, p. 364. — Peritheciis globosis, nigris; ascis 8-sporis, fusoideo-oblongis 11-16 \approx 4-6, 3-septatis fuscis.

Hab. in thallo Lecidææ umbonatulæ in Hogland (BRENNER).

2. **Phæospora triphractoides** (Nyl.) Zopf, Hedw. 1896, p. 338, *Endococcus* 2467 *triphractoides* Nyl. Grevillea III, pag. 24. — Peritheciis nigris hemisphæricis; ascis octosporis; sporidiis oblongo-fusoideis, 4-cellularibus brunneolis, 14-18 \approx 6-7.

Hab. in thallo, quem dealbat, Lecidææ scotinodis in Britannia.

3. **Phæospora Triplicantis** (Wainio) Zopf, Hedw. 1896, p. 320, *Tichothecium* 2468 *Triplicantis* Wain. Adj. II, p. 263. — Peritheciis nigris; ascis aparaphysatis octosporis; sporidiis oblongis, 4-6-cellularibus, 14-20 \approx 6-7, brunneis.

Hab. in thallo Bilimbicæ microcarpæ in Fennia.

4. **Phæospora Granulosæ** Arn. Lich. fragm. n. 34, p. 5, t. 8, fig. 6, 2469 *Æst. bot. Zeitschr.* 1895. — Peritheciis atris, punctiformibus, verrucarioideis; ascis aparaphysatis jodo non coloratis; sporidiis oblongis utrinque obtusulis, rectis curvulisve, 3-septatis, leviter constrictis, fuscis, 18-21 \approx 5-6.

Hab. in thallo Biatoræ granulose in Bavaria.

5. **Phæospora hetærizans** (Leight.) Zopf, Hedw. 1896, p. 366, *Verucaria* 2470 *hetærizans* Leight. Brit. Lich. p. 493. — Peritheciis im-

mersis nigris; ascis aparaphysatis, octosporis; sporidiis 4-cellularibus, ad septa constrictis, brunneis.

Hab. in thallo Verrucarïæ submersæ in Britannia.

6. **Phæospora supersparsa** Arn. ap. Zopf in Act. Leop. Carol. t. LXX, 2471 1897, p. 137, cum ic. — Peritheciis gregariis punctiformibus, innatis, 160-200 μ . diam., vertice obtusulo obsolete pertuso, vix emergente; ascis cylindræis, apice rotundatis, deorsum breviter tenuato-stipitatis, aparaphysatis, plerumque 4-6-sporis, 84-89 \times 10-14,5; sporidiis monostichis, ellipsoideo-oblongis, utrinque rotundatis, plerumque rectis, triseptatis non constrictis, vulgo 4-guttatis, fuligineis.

Hab. in thallo Lecidææ platycarpæ pr. Paneveggio, Trentino Ital. bor.

LEPTOSPHERIA Ces. et De Not. — Syll. II p. 13, IX p. 762, XI p. 321, XIV p. 562, XVI p. 510.

I. *Eu-Leptosphæria*: in plantis vascularibus.

1. **Leptosphæria Vitalbæ** Niessl — Syll. IX, p. 765. — var. **sarmenicola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 221. — A typo distinguitur; peritheciis minoribus 500 μ . diam.; ascis crassioribus, 170-200 \times 19-22 sporidiisque quoque majoribus 40-50 \times 8-9, 10-12-cellularibus.

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Leptosphæria Papaveris** Rostr. Islands Svampe in Bot. Tidsskrift 2473 1903, vol. 25, p. 305. — Peritheciis minutissimis 200 μ . diam., subgregariis; ascis oblongis, 55-70 \times 11-13; sporidiis distichis, oblongis, utrinque obtusiusculis, 3-septatis, loculo secundo crassiore, pallide flavis 20-23 \times 6-7.

Hab. in caulibus Papaveris radicati in Islandia.

3. **Leptosphæria Cerastii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2474 1903, p. 221. — Peritheciis sparsis, subcutaneis, globoso-lenticularibus atro-brunneis 150-250 μ . diam., papilla minute erumpente; ascis clavatis, breve et crasse stipitatis, octosporis, filiformi-paraphysatis, 95 \times 30; sporidiis oblongo-fusoideis, 2-3-stichis obtusulis, rectis curvulisve, plerumque 5-7-septatis, non v. vix constrictis, brunneolis 33-36 \times 4.

Hab. in caulibus siccis Cerastii arvensis, Luxemburg.

4. **Leptosphæria silvestris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2475
II, p. 162. — Peritheciis gregariis, immersis, dein erumpentibus, semiglobosis, nigris, 300 μ . diam., ostiolo obtuse conoideo; ascis clavatis, 51-65-78 \approx 7-8,5; sporidiis irregulariter 3-stichis, fusoidis, rectis v. curvulis, 6-cellularibus, medio constrictis, 6-guttulatis, initio subhyalinis, dein brunneo-flavidis, 13-15 \approx 3,5-4,5.

Hab. in caulibus siccis *Silenes inflatæ* et *Scabiosæ Columbariæ*, Luxemburg.

5. **Leptosphæria corrugans** Rehm in *Æst. Bot. Zeitschr.* 1904, p. 84. 2476
— Peritheciis, in maculis suborbicularibus vel irregulariter oblongis, exsiccatis flavidulis, fusco-rubro-marginatis post destructionem parenchymatis folii papyraceis et rugulosis, 1-3 cm. latis, gregarie innatis, globosis, in epiphylo papillula minima atra conspicua, in hypophyllo ut in epiphylo hemisphærice prominentibus, nigris, ad basim hyphis creberrimis, subramosis, fuscis obsessis, parenchymatice nigro-fusco contextis 200-300 μ . diam.; ascis clavatis, 115-120 \approx 10-12 octosporis; sporidiis elongato-fusiformibus, rectis vix curvatulis, 9-septatis, cellula 3^a, interdum 4^a latiore, flavidulis 30-33 \approx 4,5-5, distichis; paraphysibus vix conspicuis.

Hab. in foliis vivis *Cytisi alpini*, Rotweinklamm pr. Veldes Carniolæ (Voss).

6. **Leptosphæria fœniculacea** H. Fabr. — Syll. IX, p. 763. — var. 2477
lupina Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 29, pl. V, fig. 12. — Peritheciis globoso-depressis, diu tectis, dein nudatis, sparsis v. subgregariis, minutissime papillatis, 350-420 μ . diam., glabris, nigris; contextu parenchymatico, fuligineo; ascis longe clavatis, stipitatis, 100-120 \approx 13,5-15,5, octosporis; paraphysibus filiformibus septulatis obvallatis; sporidiis subdistichis, fusiformibus, 3-4-septatis, non constrictis, sæpe inæqualibus v. curvulis, dilute olivaceis 28-30 \approx 4-5.

Hab. in caulibus emortuis *Lupini*, socia *Phoma*, Disenchantment Bay Alaska (TRELEASE).

7. **Leptosphæria lupinicola** Earle Plantæ Bakerianæ, Fungi fasc. II, 2478
p. 20. — Peritheciis sparsis vel gregariis, tectis, dein erumpentibus, nigris, interdum rugulosis, non collapsis, 200-250 μ . diam., ostiolis valde papillatis donatis; ascis subcylindræis 80 \approx 8; paraphysibus filiformibus; sporidiis subdistichis, cylindræis, curvulis, nitide olivaceis 3-septatis, non constrictis, 25-30 \approx 4.

Hab. in caulibus emortuis *Lupini*, Hermosa, South Colorado Amer. bor.

8. **Leptosphæria Trifolii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2479 1903, p. 210. — Peritheciis gregariis subcutaneis globoso-depressis, nigro-brunneis 300-500 μ . diam., basi hyphis ramosis, septatis, brunneis cinctis, ostiolo minuto papillato erumpente; ascis teretoclavatis, longiuscule stipitatis 90-120 \approx 5,5-7 octosporis; sporidiis 1-2-stichis, oblongo-fusoideis, acutulis, rectis curvulisve, 4-cellularibus, eguttulatis v. pluriguttulatis, medio constrictis 20-28 \approx 2-3,5, flavido-brunneolis, cellula secunda crassiore.

Hab. in caulibus siccis Trifolii medii, Luxemburg. — Inter *Leptosph. dumetorum* et *L. doliolum* fere media.

9. **Leptosphæria Sorbi** Jaczewski in Syd. Ann. Mycol. 1903, p. 30. 2480 — Maculis epiphyllis, magnitudine variis, subrotundatis, griseis; peritheciis paucis, globosis, epidermide velatis, ostiolo impresso pertusis; ascis fasciculatis, cylindræo-clavatis, subsessilibus 55-60 \approx 12-14, paraphysatis; sporidiis distichis, fusoideis, rectis vel curvulis, 3-septatis, ad septa leniter constrictis, olivaceis, 25-30 \approx 4-5.

Hab. in foliis Sorbi Aucupariæ, Smolensk in Sibiria ross.

10. **Leptosphæria Rostrupii** Sacc. et D. Sacc. *Leptosphæria Dryadis* 2481 E. Rostr. Norske Ascom. 1904, p. 24 (Vidensk. Skrift.). — Peritheciis numerosis, epiphyllis, globosis, minutis; ascis 110-115 \approx 18-20; sporidiis oblongis, flavis, 25-30 \approx 8-10, triseptatis, loculo altero leniter prominulo.

Hab. in pagina superiore foliorum exsiccatorum Dryadis octopetalæ, Kongsvold Norvegiæ (A. BLYTT).

11. **Leptosphæria Dryadis** Rostr. Islands Svampe in Bot. Tidsskrift 2482 1903, vol. 25, p. 305. — Peritheciis sparsis vel subgregariis, conoideis, ostiolo crasso parum prominulo, circiter 500 μ . latis; ascis cylindræo-oblongis, rectis vel leviter curvulis, 3-5-septatis, guttulatis, ad septa leniter constrictis, loculo secundo crassiore, primitus hyalinis, dein fuscidulis 24-28 \approx 7-8; paraphysibus filiformibus, numerosis.

Hab. in caulibus lignosis decorticatis et in fructibus Dryadis octopetalæ in Islandia. — Certe affinis præcedenti.

12. **Leptosphæria rhopographoides** Rehm, Hedw. 1902, p. (204) *Rhopographus caulincola* Oudem. Contr. Mycol. XVIII, pag. 712, Ned. Kr. Arch. Ser. 3, II, 3. — Peritheciis sub epidermide late denigrata nidulantibus, gregariis, globosis, haud distincte ostiolatis, parenchymatice contextis, subfuscis, epidermidem, hyphis fuscis, longis, subramosis, septatis, 5 μ . crassis, percursam et fusca-

tam elevantibus, 300 μ . diam.; ascis clavatis, 70-80 \times 10-12, octosporis; paraphysibus ramosis 2-3 μ . diam.; sporidiis fusiformibus, rectis vel subcurvatis, subacutis, 3-septatis, quaque cellula guttulis 2 parvulis oleosis instructis, hyalinis, dein dilute fuscescentibus 20-24 \times 4-4,5.

Hab. in caulibus siccis Umbelliferæ cujusdam Valkenberg Hollandiæ.

13. **Leptosphæria norvegica** E. Rostr. Norske Ascom. 1904, pag. 24 ²⁴⁸⁴
(Vidensk. Skrift.). — Peritheciis sparsis; ascis clavatis 75 \times 10; sporidiis 2-3-stichis, elongatis, rectis v. curvulis, flavis, 5-septatis, loculo subultimo crassiore, 28-30 \times 5.

Hab. in caulibus Brayæ alpinæ, Bardo Norvegiæ (A. BLYTT).

14. **Leptosphæria Euphorbiæ** Niessl — Syll. II, p. 24. — var. **Esulæ** ²⁴⁸⁵
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 212. — Differt a typo peritheciis, ascis et sporidiis minoribus: peritheciis 200 μ . diam.; ascis 78-87 \times 13; sporidiis 15,5-23 \times 4-5,5, triseptatis, brunneis.

Hab. in caulibus corticatis Euphorbiæ Esulæ, Luxemburg.

15. **Leptosphæria variegata** Peck in Rep. of the State botanist 1902, ²⁴⁸⁶
p. 31. — Peritheciis numerosis, minutis, depresso-globosis, in maculis indeterminatis roseis, griseis vel brunneis insidentibus, diu epidermide velatis, dein erumpentibus, nigris; ascis cylindraceutis; sporidiis oblongis vel subfusiformibus, 3-septatis 18-20 \times 4-5.

Hab. in caulibus Phytolaccæ decandræ, prope Trenton Falls Amer. bor.

16. **Leptosphæria Pelargonii** Rehm, Hedw. XLIV (1905) fig. 2. — ²⁴⁸⁷
Maculis dealbatis exsiccatisque irregularibus, tenuissime fuscidule cinctis; peritheciis sparsis innatis, globulosis, nigris, ostiolo haud conspicuo c. 100 μ . diam., membranaceis; ascis clavatis, apice rotundatis, 60-65 \times 8-9, 8-sporis; sporidiis cylindraceutis, utrinque rotundatis, transverse 3, rarissime 4-septatis, haud constrictis, cellulis oleoso-guttatis, subfuscis, 12-14 \times 3, in superiore asci parte distichis; paraphysibus ramosis 2.

Hab. ad folium Pelargonii cult., Rio de Janeiro Brasiliæ (E. ULE). — Affinis *L. Tini* et *L. Physalidis* sed sporidiis rectis, obscurioribus et cylindraceutis mox dignoscenda.

17. **Leptosphæria dolioloides** (Auersw.) Karst. — Syll. II, p. 44. — ²⁴⁸⁸
var. **Lathyri** Feltg. l. c. p. 164. — A typo præsertim differt peritheciis collabascentibus.

Hab. in caulibus Lathyri (Orobi) nigri, Luxemburg. —

Var. **Rhinanthi** Feltg. l. c. — Distinguitur sporidiis longe fusiformibus 10-cellularibus, medio inter cellulas majores constrictis, curvulis, flavidis, $47-65 \times 2-3$. — In caulibus *Rhinanthi* siccis, Luxemburg.

18. **Leptosphæria plectrospora** Feltg. Vorstud. Pilz. Luxemb. 1901, 2489 Nachtr. II, p. 162. — Peritheciis gregariis epidermide pustulata tectis, conoideo-globosis, basi applanatis, rugulosis, $300-500 \mu$. d., ostiolo verruciformi v. globoso-conico erumpentibus; ascis teretoclavatis, apice rotundatis, breviter stipitatis, $78-91 \times 8$, octosporis; sporidiis 1-2-stichis, fusoides, vulgo curvulis, 5-(raro 6-7)-septatis, medio profunde constrictis, brunneo-flavis, $15-21 \times 4-5$, utrinque recte v. oblique appendicula calcarata, $5-7 \times 1,5-2$, hyalina auctis.

Hab. in caulibus *Galii Molluginis* et *Astragali glycyphylli*, Luxemburg. — *L. appendiculatæ* affinis sed probe diversa.

19. **Leptosphæria luxemburgensis** Sacc. et D. Sacc. *L. dumetorum* 2490 Feltg. non Niessl. — var. **Symphyti** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 211. — Peritheciis gregariis, tectis, globulosis, papillatis, $150-250 \mu$. diam.; ascis teretoclavatis, $70-80 \times 5,5-8$; sporidiis $30-38 \times 2,5-3$, triseptatis.

Hab. in caulibus *Symphyti caucasici*, Luxemburg. — var. **dolichospora** Feltg. l. c. p. 210. — A typo recedit ascis sporidiisque multo longioribus, nempe primis $80-100 \times 5,5-8$, alteris $30-40 \times 2,5-4$, triseptatis. — In ramis corticatis *Sambuci racemosæ*, Luxemburg. — A *L. dumetorum* certe diversa.

20. **Leptosphæria echiella** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2491 1903, p. 219. — Peritheciis sparsis v. gregariis, subcutaneis, vulgo in areis denigratis nidulantibus, globosis vel subellipsoideis, basi applanatis, nigricantibus, $200-300 \mu$. diam., ostiolo verruciformi-erumpente; ascis teretoclavatis, breve stipitatis $130-150 \times 16-19$, (octosporis) vel $85-108 \times 19$ (tetrasporis), filiformi-paraphysatis; sporidiis 1-2-stichis, elliptico-fusiformibus, obtusis, rectis curvulisve, demum 3-5-septatis, ad septa constrictis, $30-35 \times 8-8,5$ flavo-brunneolis.

Hab. in caulibus corticatis *Echii vulgaris*, Luxemburg. — Affinis *Leptosphæriae planiusculæ*.

21. **Leptosphæria trematostoma** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2492 III, 1903, p. 214. — Peritheciis sparsis, cortice nidulantibus, globoso-depressis, rugosis, atro-brunneis $500-600 \mu$. diam., hyphis brunneis, parvis cinctis, ostiolo depresso papillato perforato erum-

pentè; ascis cylindræis deorsum tenuato-stipitatis 115 \approx 9-10, octosporis; paraphysibus filiformibus, ramulosis, septatis, longe superantibus; sporidiis submonostichis, oblongo-ellipsoideis, utrinque rotundatis, vulgo rectis, constrictulo-3-septatis plerumque guttulatis, brunneis, 15-18 \approx 5-6,5.

Hab. in ramis corticatis *Syringæ vulgaris*, *Sarothamni scoparii* et *Tiliæ europææ*, Luxemburg. — Affinis *Leptosphæricæ Ribis*.

22. **Leptosphæria Basalduai** Speg. Myc. argent. ser. II, 1902, p. 71. 2493

— Peritheciis lenticulari-conoideis, carbonaceis, 350-400 μ . diam., ostiolo crassiusculo conoideo corticem perforante, sed non vel vix exserto donatis; ascis clavatis 100 \approx 20, antice obtuse rotundatis, postice breviter cuneato-pedicellatis, octosporis; paraphysibus filiformibus paullo longioribus; sporidiis monostichis, ellipticis v. leniter subovatis, 3-septatis, ad septa constrictulis, loculo majore supero et duobus apicalibus quandoque suboblique septatis, levibus, fuliginis.

Hab. ad ramos dejectos putrescentes *Lippiæ seriphioidis*, La Plata in Argentina.

23. **Leptosphæria Castilleiæ** Clements in Bull. of the Torr. Bot. Cl. 2494

1903, p. 85. — Peritheciis copiosis, numerosis, primitus tectis, deinde erumpenti-superficialibus, globosis, ostiolatis, vix conicis vel papillatis, glabris, 150-200 μ .; ascis octosporis, oblongis, paraphysatis, jodo non cærulescentibus, 80-100 \approx 8-14; sporidiis distichis, fusiformibus 3-4-septatis, curvulis raro rectis, acutis vel obtusis, ad septa leniter vel non constrictis, fusco-flavis 40-50 \approx 4; pycnidiis globosis 100-150 μ . diam., basidiis 10 \approx 1, sporulis oblongis, hyalinis 6-8 \approx 2.

Hab. ad caules emortuos *Castilleiæ pallidæ*, Ruxton Park Amer. bor. — A *L. ogilviensi* (B. et Br.) Ces. differt sporidiis 3-4-septatis, enucleatis, peritheciis erumpentibus, non papillatis, a *L. concinna* Ell. et Ev. peritheciis epapillatis, erumpentibus, sporidiis majoribus.

24. **Leptosphæria aquilana** D. Sacc. Mycoth. ital. n. 1485 (1904). — 2495

Peritheciis laxè gregariis, innatis, globulosis, 200-300 μ . diam., tantum ostiolo papillato vix erumpentibus, nigris, glabris; ascis tereti-clavatis, paraphysatis, octosporis; sporidiis distichis, teretifusoideis, utrinque obtusulis, 4-septatis, 40-50 \approx 6, luteolis minute 8-10-guttulatis, loculo secundo lenissime turgidiore, utrinque minute hyalino-apiculatis.

Hab. in caulibus emortuis Scrophulariæ spec. Tagliacozzo Aquila Ital. centr. Apr. 1904. — Ab affini *Lept. modesta* differt ascis sporidiisque majoribus et sporidiis sæpius 4-septatis, qua nota accedit ad *Lept. cylindrosporam*, quæ contra ascos 4-sporos habet.

25. **Leptosphæria Galeobdolonis** Feltg. Vorst. Pilz. Luxemb. Nachtr. 2496
III, 1903, p. 221. — Peritheciis approximatis, immersis, globoso-conoideis, basi applanatis, nigris 400-500 μ . diam., ostiolo obtuse conoideo, erumpente; ascis oblongo-clavatis, late rotundatis, breve stipitatis, 130-195 \times 8-10, octosporis; sporidiis 1-3-stichis oblongo-fusoideis, obtusulis, vulgo curvis 5-7-septatis, medio constrictulis, flavis, 42-50 \times 5-6, pluri-guttulatis.

Hab. in caulibus siccis Galeobdolonis lutei, Luxemburg.

26. **Leptosphæria Wegeliniana** Sacc. et Syd. — Syll. XIV, pag. 567. 2497
— f. **Teucris** Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 222. A typo vix distinguitur peritheciis paullo minoribus 150-250 μ . diam., ostiolis conoideis sporidiisque inordinatis, 35-50 \times 7-9, 10-12-septatis.

Hab. in caulibus siccis Teucris Scorodoniæ, Luxemburg.

27. **Leptosphæria cæspitosa** Niessl — Syll. II, p. 35. — var. **Salviæ** 2498
Feltg. Vorst. Pilz. Luxemb. Nachtr. II, p. 161. — A typo præcipue differt peritheciis subsparsis nec cæspitosis.

Hab. in caulibus siccis Salviæ pratensis, Luxemburg.

28. **Leptosphæria astericola** Ell. et Ev. in Journ. of Mycol. 1902, 2499
vol. 8, p. 17. — Peritheciis erumpenti-superficialibus, globosis, planiusculis v. concavis, subseriatis 2-3 confluentibus; ostiolo papilliformi; ascis subcylindraceis, breve-stipitatis, paraphysatis, 80-110 \times 7-8; sporidiis distichis, fusoideis, paullo curvatis, 3-septatis, non constrictis, luteolis 30-40 \times 3-4; pycnidiis forma perithecorum simillimis; sporulis oblongis v. oblongo-ellipticis, 6-8 \times 2,5-3, hyalinis, 1-septatis.

Hab. in caulibus emortuis Asteris multiflora, Rooks, County, Kansas Amer. bor. (BARTHOLOMEW). — *L. fuisporæ* Niessl et *L. leptosporæ* De Not. affinis.

29. **Leptosphæria dumetorum** Niessl — Syll. II, p. 15. — var. **coniformis** 2500
Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 159. — Peritheciis hemisphæricis in ostiolum obtuse conoideum sensim abeuntibus, atro-nitidis; ascis tereti-clavatis, 65-68 \times 3,5-5,5; sporidiis fusoideis, rectis curvulisve, utrinque acutulis, 4-cellularibus, 15-18 \times 2,5-3,5, cellula secunda vel binis interioribus paullo crassioribus, flavo-brunneolis.

Hab. in caulibus *Senecionis Fuchsii*, Luxemb. Cfr. n. 19.

30. **Leptosphæria planiuscula** Ces. et De Not. — Syll. II, p. 32. — 2501
var. **Saccisæ** Feltg. l. c. pag. 161. — A typo differt sporidiis 5-7-septatis sursum curvatis acutis, deorsum rectiusculis, æque acutis, flavido-brunneolis, 40-42 \times 7-8.

Hab. in caulibus *Succisæ pratensis*, Luxemburg.

31. **Leptosphæria Phyteumatis** (Fuck.) Wint. — Syll. II, p. 37. — 2502
var. **Knautiæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 164. — A typo præsertim diversa peritheciis omnino glabris; ascis 55-85 \times 7-9; sporidiis 5-7-septatis 21 \times 2,5-4, flavo-brunneis.

Hab. in caulibus *Knautiæ arvensis*, Luxemburg.

32. **Leptosphæria fuscella** (B. et Br.) Ces. et De Not. — Syll. II, p. 30, 2503
— var. **Hippophaës** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 212. — A typo differt matrice dealbata; peritheciis exacte globosis, rarius subdepressis, 250-500 μ . diam.; ascis majoribus 115-150 \times 13-14; sporidiis quoque majoribus, 19-22 \times 9,5-11 non constrictis læte flavis, triseptatis.

Hab. in ramis corticatis *Hippophaës rhamnoidis*, Luxemburg.

33. **Leptosphæria petiolaris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2504
III, 1903, p. 216. — Peritheciis subsparsis, subcutaneis, globoso-depressis, 170-200 μ . diam., papilla obtusa emergente; ascis clavatis, breve et crasse stipitatis, octosporis, 75-80 \times 14-16, filiformi-paraphysatis; sporidiis 2-3-stichis, elliptico-fusoideis, obtusis, rectis curvulisve, 4-cellularibus non v. vix constrictis, 22-23 \times 5,5-7 e flavo-olivaceis, cellula secunda paullo crassiore, eguttulatis vel pauci-guttulatis.

Hab. in petiolis siccis *Juglandis regiæ*, Luxemburg.

34. **Leptosphæria Valdobbiaë** Ferraris, Malp. 1904, p. 488, tab. IX, 2505
f. 1. — Peritheciis sparsis in maculis candidis orbicularibus fusco-marginatis sparse epiphyllis, nigris, 250-350 μ . diam., membranaceis pertusis; ascis clavatis, 55-60 \times 10, paraphysibus angustis obvallatis, octosporis; sporidiis subdistichis, oblongo-fusoideis, 3-5-septatis, olivaceis, interdum guttulatis, rectis curvulisve 30-35 \times 3.

Hab. in foliis *Fagi silvaticæ*, Riva Valdobbia Ital. bor. (CARESTIA).

35. **Leptosphæria desciscens** Oud. Beih. Bot. Centr. 1902, pag. 5. 2506
— Peritheciis numerosis, gregariis, primo epidermide velatis, denique expositis, conico-depressis, basi applanatis, 250-350 μ . diam., nigris, solidiusculis, rostro cylindrico altitudinem partis ascigeræ

fere æquante, pilis decumbentibus, late repentibus, dense intricatis, olivaceo-fuscis, ramosis, anastomosantibus, 3-5 μ : latis, involutis; ascis elongato-clavatis, longe pedicellatis, octosporis, 115-120 \times 10-12; sporidiis fusiformibus, curvatis, utrinque acutis, 7 v. 8-septatis, 50-55 \times 3,5, maturis isabellinis.

Hab. in caulibus plantæ ignotæ, Valkenberg Hollandiæ.

36. **Leptosphæria agnita** (Desm.) De Not. et Ces. — Syll. II, p. 40. 2507

var. **labens** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 11. — A typo differt peritheciis in macula flavida paullo majoribus (5 mm. diam.) facile collabentibus; sporidiis non diversis.

Hab. in caulibus herbaceis, Unalaska Alaska (TRELEASE).

37. **Leptosphæria Coccoes** d'Alm. et Da Cam. in Revista Agron. Li- 2508

boa, 1905, p. 384, tab. II, f. 5-7. — Peritheciis sparsis epidermide tectis, subglobosis, atris, poro pertusis, 90-150 μ . diam.; ascis subcylindricis, breve stipitatis, 80-100 \times 12-15; sporidiis cylindraceis, utrinque rotundatis, monostichis v. subdistichis, biseptatis ad septa, præcipue inferius, constrictis, fulvis.

Hab. in foliis Coccoes Romanzoffianæ in horto botanico Coimbra Lusitaniæ sociis *Coniothyrio palmicolo* et *Phyllosticta Coccoes* (A. MOLLER).

38. **Leptosphæria Dracænæ** S. Cam. in J. V. D'Almeida, Contrib. à 2509

la Mycoflore du Portugal, 1903, p. 26. — Peritheciis subtectis, prominulis, sparsis v. confluentibus, ostiolo simplici pertuso, atris, ovalibus, 130-190 \times 115-170; ascis numerosis, paraphysatis, breviter stipitatis, octosporis, clavato-oblongis, apice rotundatis, 75-80 \times 8-10; sporidiis distichis, oblongo-fusoideis, rectis curvulisve, subflavescentibus, 4-septatis, tenuiter constrictis, 16,5-17,5 \times 3,5-4.

Hab. in foliis emortuis Dracænæ Draconis, in horto Inst. agrarii, Lisboa Lusitaniæ (CASTRO GUEDES).

39. **Leptosphæria Veratri** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2510

p. 20. — Peritheciis sparsis, tectis, 250-350 μ . diam., ostiolo papillato, erumpente donatis; contextu e cellulis parenchymaticis, 8-10 μ . diam. formato; ascis clavatis, substipitatis, 100 \times 10; paraphysibus numerosis, filiformibus; sporidiis subdistichis, nitide luteis, 3-septatis, valde constrictis, utrinque rotundatis, 20-25 \times 5.

Hab. in caulibus emortuis Veratri spec, Pagosa Peak, South Colorado Amer. bor.

40. **Leptosphæria? microthyrioides** Feltg. Vorstud. Pilz. Luxemb. 2511

1901, Nachtr. II, pag. 154. — Peritheciis sparsis, immersis, udis globoso-depressis, siccis concavis, 150-200 μ . diam., papilla pun-

ctiformi basique hyphis radiantibus, septatis, 4-6 μ . cr., donatis atro-brunneis; ascis oblongo-cylindraceutis v. clavatis, apice rotundatis deorsum tenuatis, subsessilibus, 24-36 \times 5,5-6, octosporis, crassiuscule septato-paraphysatis; sporidiis distichis v. inordinatis elliptico-fusoideis, utrinque rotundatis, rectis curvulisve, 3-septatis, leniter constrictis, brunneo-flavidis, 8-10 \times 2,6.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg. — Contextus parenchymaticus, radians, atro-cyanescens, microthyriaceus; hinc species in genere dubia.

41. **Leptosphæria monilispora** (Fuck). Sacc. — Syll. II, pag. 79. — 2512
f. **Triglochinis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 208. — A typo recedit peritheciis nondum liberis, 100-200 μ . diam.; ascis clavato-fusoideis 136 \times 18-20; sporidiis flavo-brunneis, profunde constrictis 8-9-septatis, 33-40 \times 7-8.

Hab. in caulibus Triglochinis palustris, Luxemburg.

42. **Leptosphæria Stratiotis** Oud. Beih. Bot. Centr. 1902, pag. 6. — 2513
Peritheciis sparsis, atris, sub epidermide occultatis, tandem ostiolo hiantibus; ascis cylindraceutis 90-100 \times 10-12, apice rotundatis, octosporis; sporidiis distichis, oblongis, curvatis, læte olivaceis, utrinque rotundatis, 3-septatis, 20-30 \times 6-7.

Hab. in foliis Stratiotis aloidis, Nunspect Hollandiæ.

43. **Leptosphæria Junci** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2514
II, p. 156, III, p. 206, et I, 1899, p. 253, sub *Leptosphæria* spec. n. 764. — Peritheciis dense sparsis minutissimis, ostiolo papillato epidermidem perforante; ascis tereti-clavatis v. elongato-ellipticis, 104-120 \times 22-26, subsessilibus; sporidiis fusiformibus 29 \times 5, di-tristichis, plerumque curvulis, constanter 6-cellularibus, ad septa leniter constrictis, flavidis, cellula tertia paullo crassiore.

Hab. in calamis siccis Junci effusi, Luxemburg.

44. **Leptosphæria Pandani** Fl. Tassi in Bull. Lab. Ort. Bot. Sien. 1904, 2515
p. 125. — Peritheciis sparsis gregariisve, globosis, ostiolo papillato epidermidem perforante non v. vix exserto donatis, coriaceis, nigris, contextu atro indistincto 500-600 μ . diam.; ascis cylindraceutis vel subclavatis, apice rotundatis, basi modice attenuatis, abrupte pedicellatis, 100-110 \times 16-18, octosporis, paraphysibus filiformibus copiosis obvallatis; sporidiis distichis v. partim monostichis, subfusoideis, initio didymis, dein 3-septatis, loculo tertio paullulo crassiore, guttatis, 24-28 \times 8-10, fusco-fuligineis.

Hab. in foliis vaginisque exsiccatis Pandani utilis, in calidario horti botanici Siena Italiæ centr.

45. **Leptosphæria iridigena** Fautr. — Syll. XIV, p. 568. — f. **Typhæ** 2516
Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 206. — A typo differt tantum ostiolo non pertuso; ascis magis regularibus; sporidiis subconstrictis minute granulosis, utrinque tenuatis, 40-48 \times 5-6, 5-septatis.

Hab. in foliis *Typhæ angustifoliæ*, Luxemburg.

46. **Leptosphæria rivalis** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2517
II, p. 157, I, 1899, p. 256, sub *Leptosphæria* spec. n. 775. — Peritheciis sparsis, epidermide tectis, globoso-depressis, 200-300 μ . diam. nigris, ostiolo late papillato erumpente; ascis clavatis, subsessilibus, 123 \times 21-24; sporidiis 2-3-stichis, exacte fusiformibus, curvulis, utrinque obtusulis 10-12-septatis constrictisque, plerumque 11-13-guttulatis, dilute flavidis vel brunneolis, 35-45 \times 8-10.

Hab. in culmis foliisque *Caricis paludosæ*, Luxemburg.

47. **Leptosphæria cariciphila** Oud. in Ned. Kruidk. Arch., 3 Ser. II, 2518
4, pag. 870, 1903. — Peritheciis membranaceis, translucetibus, brunneis, 10-70 μ . diam.; ascis 35 \times 12, octosporis; sporidiis distichis, cylindræis, rectis vel curvulis, fulvis, utrinque rotundatis, 2- vel raro 3-septatis, 16-21 \times 4-7, ad septa non constrictis; paraphysibus parum numerosis.

Hab. in bracteis *Caricis arenariæ*, Nunspect Hollandiæ (BEINS).

48. **Leptosphæria sparsa** (Fuck.) Sacc. — Syll. II, p. 77. — var. **mei-** 2519
zospora Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 207. — A typo differt imprimis sporidiis multo majoribus 31-40 \times 6-7,5, 6-8, rarius 9-septatis.

Hab. in culmis *Brachypodii* et foliis *Caricis* et *Sparganii*, Luxemburg.

49. **Leptosphæria microscopica** Karst. — Syll. II, pag. 59. — var. 2520
flavo-brunnea Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 205. — A typo differt peritheciis flavo-brunneis basi hyphis diu cinctis, paullo crassioribus 100-150 μ . diam., ascis quoque majoribus 100-108 \times 13-16 sporidiisque pariter majoribus 23-30 \times 5,5-7, cellulis secunda et tertia crassioribus, triseptatis.

Hab. in culmis *Molinia*, *Poæ*, *Glyceriæ*, Luxemburg. — var. **Caricis-vulpinæ** Staritz in litt. — A typo dignoscitur ascis usque 90 \times 18-22, sporidiisque 34 \times 10. — In *Carice vulpina*, Anhalt.

II. *Xenosphæria* Trev. Species lichenicolæ, parasiticæ.

50. **Leptosphæria consocians** (Nyl.) Sacc. et D. Sacc. *Mycoporum con-* 2521
socians Nyl. Flora 1872, p. 364. — Peritheciis nigris, verrucarioi-
deis, 50-80 μ . diam.; ascis octosporis, indistincte paraphysatis;
sporidiis 4-cellularibus, nigricantibus, 10-11 \times 5-6.

Hab. in thallo *Biatoræ vernalis* in Lapponia orientali. —
Asci jodo colore roseo-violaceo tincti.

51. **Leptosphæria oligospora** (Wainio) Sacc. et D. Sacc. *Xenosphæria* 2522
oligospora Wain. Adj. II, p. 203. — Peritheciis omnino v. semiim-
mersis apice impressis, 200 μ . diam., nigris; ascis tereti-clavatis
4-sporis filiformi-paraphysatis; sporidiis oblongo-fusoideis, 4-cellu-
laribus ad septa constrictulis, atro-brunneis, 22-31 \times 8-10.

Hab. in thallo *Solorinæ croceæ* in silvis Lapponiæ Sodan-
kylensis.

52. **Leptosphæria Rivana** (De Not.) Sacc. — Syll. II, p. 83. — f. **Solo-** 2523
rinæ Rehm in *Æst. Bot. Zeitschr.* 1904, p. 84. — Sporidiis 3-
septatis, 24-27 \times 8-10, fuscis.

Hab. in thallo *Solorinæ croceæ*, Finsterthaler See, prope
Kühtai (Oetz) in Tirolia.

53. **Leptosphæria Arnoldi** Rehm in *Æst. Bot. Zeitschr.* 1904, p. 84. — 2524
Peritheciis gregarie dispersis, basi latis, sessilibus, globulosis, 90-
100 μ . diam., nigris, glabris, poro perspicuo pertusis, subcarbo-
naceis; ascis fusiformibus, apice valde incrassatis, sessilibus 36-
40 \times 12-14, octosporis; sporidiis oblongo-clavatis, obtusis, 3-septatis,
cellula secunda latiore, dilute fuscidulis 10-12 \times 3,5, distichis; pa-
raphysibus subramosis.

Hab. in thallo *Peltigeræ malaceæ*, fuscato, prope Pane-
veggio Tirolia austr. (Doct. ARNOLD).

54. **Leptosphæria neottizans** (Leight.) Zopf, Hedw. 1896, p. 361, *Verru-* 2525
rucaria neottizans Leight. Brit. Lich. Fl. p. 497. — Peritheciis
minutis, confertis, spherico-conicis, nigris, subcarbonaceis; ascis
4-sporis, distincte paraphysatis; sporidiis 4-cellularibus, ad septa
constrictis, brunneis, 24,5-25 \times 8,5-9, lineari-oblongis.

Hab. in thallo *Sphyridii byssoidis* in Britannia.

55. **Leptosphæria tartarina** (Nyl.) Zopf, Hedw. 1896, p. 341, *Verru-* 2526
caria tartarina Nyl. Flora 1874, p. 15, 318, *Sphæria verrucarioi-*
des Norm. teste Nyl. — Peritheciis nigris, 250 μ . diam., convexo-
prominulis; ascis octosporis; sporidiis fusoideis, 4-cellularibus, 14-
18 \times 4,5.

Hab. in thallo *Ochrolechiæ tartareæ* in alpe Dovre Norvegiæ (LETTERSTEDT).

56. **Leptosphæria Umbilicariæ** (Linds.) Sacc. et D. Sacc. *Microthelia* 2527
Umbilicariæ Linds. Obs. p. 538, t. XXIII et XXIV, tab. 3, f. 31.
— Peritheciis nigris, papilliformibus, sat versiformibus, semiimmer-
sis; ascis saccatis, paraphysibus tenuissimis obvallatis, jodo viola-
scentibus; sporidiis ovoideis vel late ellipsoideis 1-2-septatis, non
constrictis, maturis saturate brunneis, subtristichis.

Hab. in thallo *Umbilicariæ pustulatæ* in Britannia.

57. **Leptosphæria geographicola** (Arn.) Sacc. et D. Sacc. *Phæospora* 2528
geographicola Arnold in Zopf Hedw. 1896, p. 356. — Peritheciis
innatis, vertice lato nigro; ascis 5-6-8-sporis; paraphysibus longis,
crassiusculis; sporidiis 5-pluricellularibus, 11-27 \approx 7-10, brunneis.

Hab. in thallo *Rhizocarpi geographici* in Germania.

58. **Leptosphæria pycnostigma** (Nyl.) Sacc. et D. Sacc. *Verrucaria* 2529
pycnostigma Nyl. Flora 1869, p. 297, Hue Add. Nyl. p. 298. —
Peritheciis integris, nigris, innatis, parte supera prominulis; spo-
ridiis ellipsoideo-oblongis, 3-septatis, fuligineis, 21-24 \approx 8-9; gela-
tina hymenæa jodo immutata.

Hab. in thallo *Sphyriddii byssoidis* in Gallia occidentalis.

59. **Leptosphæria advenula** (Nyl.) Sacc. et D. Sacc. *Verrucaria adve-* 2530
nula Nyl. Flora 1865, p. 606. — Peritheciis erumpentibus mini-
mis, atris; ascis octosporis aparaphysatis; sporidiis oblongis, 3-
septatis ad septa sæpius constrictulis, 15-20 \approx 6-8, demum fusce-
scentibus.

Hab. in thallo *Diploctommatis excentrici* in Hibernia et
Italia bor.

LEPTOSPHERIOPSIS Berl. — Syll. XI p. 321.

1. **Leptosphæriopsis ophioboloides** (Sacc.) Berl. — Syll. XI, p. 321. — 2531
var. **Achilleæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 175.
— A typo dignoscitur peritheciis paullo minoribus 250-300 μ .
diam., sæpe ellipticis et basi hyphis brunneis, septatis, cinctis spo-
ridiisque acutis, ad septa constrictis, jugiter? hyalinis, 110-120 \approx 5-6.

Hab. in caulibus siccis *Achilleæ Millefolii*, Luxemburg.
— var. **Euphorbiæ** Feltg. l. c. p. 176: dignoscitur peritheciis mino-
ribus 250 μ .; ascis brevioribus et crassioribus 70 \approx 18-21 et spo-
ridiis brevioribus 34-40 \approx 4-4.5, flavo-brunneis. — In caulibus
corticatis *Euphorbiæ Esulæ*, Luxemburg. An specificè diversæ?

MASSARIA De Not. — Syll. II p. 2, IX p. 759, XI p. 319, XIV p. 561, XVI p. 510.

1. **Massaria marginata** Fuck. Sacc. — Syll. II, p. 9. — var. **aquilana** 2532
D. Sacc. Myc. ital. n. 1486. — A typo differt ascis majoribus 175-200 \approx 27-30 sporidiisque majoribus, 30-38 \approx 13-15, pariter constricto-3-septatis, loculis extimis pallidioribus, strato mucoso obductis.
Hab. in ramis Berberidis vulgaris prope Celano, Aquila Italiæ centr.

REBENTISCHIA Karst. — Syll. II 12, XIV p. 562.

1. **Rebentischia thujana** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2533
1903, p. 223. — Peritheciis sparsis, innato-erumpentibus demum subliberis, globosis, atro-brunneis, glabris, crassiusculis, 100-150 μ . diam., ostiolo breve conico-cylindræo; ascis crasse clavatis 80-87 \approx 16-22, basi tenuatis, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, clavatis, rectis curvulisve, pluri-guttulatis, demum 4-septatis, vix constrictis, 27-30 \approx 7-8, brunneis, appendicula apicali curvula cylindræa, hyalina, 10-18 μ . longa auctis.
Hab. in ramulis corticatis Thujæ orientalis, Luxemburg.

CLYPEOSPHÆRIA Fuck. — Syll. II p. 90, IX p. 798, XI p. 326, XIV p. 572, XVI p. 518.

1. **Clypeosphæria Aceris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2534
1903, p. 161. — Peritheciis crebre gregariis, vulgo seriatis, epidermide denigrata diu tectis, globoso-depressis, 400-500 μ . diam., papilla minuta erumpente; ascis tereti-clavatis, stipitatis, octosporis, filiformi-paraphysatis, 68-80 \approx 10; sporidiis 1-2-stichis, oblongo-ellipsoideis, obtusis, rectis, triseptatis, non constrictis, brunneis 18 \approx 6,5.

Hab. in ramis corticatis Aceris campestris, Luxemburg.

2. **Clypeosphæria pseudobufonia** Rehm, Ann. Mycol. 1904, p. 176. — 2535
Peritheciis dispersis, e cortice emersis, primitus plane cineree obtectis, dein lenticulariter prominentibus, minutissime papillatis, poro vix conspicuo pertusis, globulosis, glabris, atris, carbonaceis 0,5-1 mm. diam.; ascis cylindræis 90-100 \approx 9-10, octosporis: sporidiis ellipsoideis, utrinque rotundatis, 3-septatis, cellulis mediis majoribus, pallide fuscidulis, strato mucoso non obductis, 12-14 \approx 6-7, mono-distichis; paraphysibus filiformibus.

Hab. ad corticem Quercus in mt. Spanish, Texas Amer. bor. (LONG). — Proxima *Clyp. massariospora* Sacc., peritheciis minori-

bus, haud rugosiusculis, sporidiis non striolatis nec mucro obductis, minoribus differt.

MELANOMMA Nits. et Fuck. — Syll. II p. 98, IX p. 801, XI p. 327, XIV p. 573.

1. **Melanomma pleurostomum** (Rehm) Berl. — Sacc. Syll. II, p. 119 ²⁵³⁶
(*Trematosphaeria*). — var. **cistinum** Sacc. in Annal. Mycol. 1903, p. 431. — A typo differt sporidiis utrinque acutiusculis, 25-30 × 7-8, loculis extimis vix pallidioribus.

Hab. in ramis Cisti spec., prope Sassari Sardiniae (A. N. BERLESE). — Ob exemplaria immatura diagnosis paululum dubia est.

2. **Melanomma Rhododendri** Rehm -- Syll. II, p. 109. — var. **microsporum** Ferraris, Malp. 1904, p. 489. — A typo recedit ascis brevioribus 96-100 × 7-8; sporidiis paullo minoribus 14-17 × 5. ²⁵³⁷

Hab. in gemmis Rhododendri ferruginei Riva Valdobbia Ital. bor. (CARESTIA).

3. **Melanomma mutabile** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. ²⁵³⁸
II, p. 214. — Peritheciis gregariis, hinc inde dense approximatis, initio subcutaneis, mox erumpentibus liberisque, hyphulis brunneis tenuibus cinctis, atris, globosis, membranaceo-firmis, 300-400 μ. diam., ostiolo papillato v. breve conoideo; ascis tereti-clavatis v. cylindricis, apice rotundatis, breve stipitatis, 47-73 × 6-8 (cylindricis 91 × 6-8), 6-8-sporis; sporidiis 1-2-distichis, oblongo-ellipsoideis, utrinque rotundatis, 4-cellularibus, ad septa, præcipue medium, constrictis, dilute olivaceo-brunneis, 10-13 × 3-5; paraphysibus filiformibus, ramosis, sursum 2 μ. cr.

Hab. in caulibus siccis Solani Dulcamaræ, Luxemburg. — Sporidia initio bilocularia, hyalina.

4. **Melanomma herpotrichum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. ²⁵³⁹
III, 1903, p. 296. — Peritheciis sparsis, hemisphaericis, superficialibus, 500 μ. diam., a medio ad basim hyphis brunneis repentibus vestitis, papilla obtusa; ascis tereti-clavatis 125-145 × 10-15, octosporis; sporidiis submonostichis, elliptico-fusoideis, obtusis, 3-5-septatis, medio constrictis, vulgo rectis, flavo-brunneis, 18-23 × 5,5-7,5.

Hab. in ramis decorticatis Populi, Luxemburg. — Ad subgenus *Chaetomastiam* spectat.

TREMATOSPHERIA Fuck. — Syll. II p. 115, IX p. 811, XI p. 329, XIV p. 575, XVI p. 524.

1. **Trematosphæria Lupini** Earle, *Plantæ Bakerianæ*, fasc. II, *Fungi* 2540 p. 17. — Peritheciis sparsis, nigris, carbonaceis, liberis, basi subimmersis, sphaericis v. interdum elongatis 250-350 μ . diam., ostiolo parce papillato, pertusis; ascis numerosis, clavato-cylindræis, breve stipitatis, 80 \times 8; paraphysibus filiformibus, numerosis; sporidiis distichis vel irregulariter dispositis, utrinque acutis, pallide brunneis, 5-7-septatis, 30-40 \times 4.

Hab. in caulibus vetustis Lupini, Hermosa South Colorado Amer. bor.

2. **Trematosphæria alpina** Ferraris in *Malpighia* 1902, p. 453, t. X, 2541 f. 3. — Peritheciis superficialibus, basi ligno insculptis, carbonaceis, subhemisphaericis, sparsis, atris; ascis elongato-clavatis, basi attenuatis, 96 \times 12; sporidiis distichis vel oblique monostichis, fuscis, fusoides, rectis v. leniter curvulis, 5-septatis, ad septa constrictis 21-24 \times 6-7; paraphysibus filiformibus.

Hab. in sarmentis siccis Rosæ villosæ var. pomiferæ, St. Didier Italiæ bor.

3. **Trematosphæria Cactorum** Earle in *New York Bot. Gard.* 1902, 2542 p. 347. — Peritheciis sparsis vel gregariis, conico-sphæroideis, rugosis, nigrescentibus 130-180; ostiolo indistincto; ascis subcylindræis, breve stipitatis, 100-120 \times 8-10; paraphysibus filiformibus; sporidiis longitudinaliter monostichis, ovato-oblongis, fuscis, 3-septatis, utrinque obtuse conicis, 20-25 \times 7.

Hab. in aculeis Cerei spec., Stanford University Californiæ.

4. **Trematosphæria Chrysothamni** Earle, *Plantæ Bakerianæ* fasc. II, 2543 *Fungi*, p. 16. — Peritheciis sparsis vel interdum dense gregariis in maculis parvulis insidentibus, nigris, lucentibus, carbonaceis subsphaericis, superne paullum applanatis, 250 μ . diam. ostiolo minuto papillatis; ascis clavatis 70-80 \times 8-10, paraphysibus filiformibus, luteolis obvallatis; sporidiis distichis, brunneis, fusiformibus, sæpe curvis, 2-4-septatis, interdum ad septa constrictis, 16-20 \times 4-5.

Hab. in caulibus decorticatis Chrysothamni, Hermosa, Colorado Amer. bor.

5. **Trematosphæria clavispora** Ell. et Ev. in *Journ. of Mycol.* 1903, 2544 p. 166. — Peritheciis superficialibus, ovato-conicis, rugosulis 500-750 μ . diam.; ascis clavato-cylindræis, pedicellatis, p. sp. 70-75 \times 11-13; paraphysibus numerosis, filiformibus; sporidiis distichis,

clavato-fusoideis, subcurvulis, 6-septatis, secundo et tertio septo leviter constrictis, subhyalinis, dein luteo-brunneis.

Hab. in caulibus emortuis *Artemisiæ tridentatæ*, Steamboat Springs, Colorado Amer. bor.

6. **Trematosphæria Fendleræ** Earle, *Plantæ Bakerianæ* fasc. II, *Fungi* 2545 p. 17. — Maculis nigrescentibus; peritheciis sparsis vel gregariis, prominentibus conico-mamillatis, brunneo-nigris, basi rugosis, carbonaceis, non collapsis, 500 μ . diam. vel majoribus; ascis subcylindræis, 60-80 \times 18, paraphysibus filiformibus obvallatis; sporidiis distichis vel oblique monostichis, ellipticis, sæpe curvulis, brunneo-nigris, 3-septatis, parce constrictis, 20-25 \times 6.

Hab. in ramis decorticatis *Fendleræ*, South Colorado Amer. borealis.

7. **Trematosphæria Juniperi** Tracy et Earle, *Plantæ Bakerianæ* fasc. 2546 I, *Fungi* p. 31. — Peritheciis sparsis, subliberis, suborbicularibus, nigris, carbonaceis, non collapsis 0,5 mm. et ultra diam., ostiolo tuberculato, prominente, nigro donatis; ascis clavatis, breve stipitatis, facile evanescentibus, 100 \times 10; paraphysibus numerosis, filiformibus, guttulatis; sporidiis oblique monostichis v. subdistichis, fuligineis, obtuse fusiformibus v. subcylindræis sæpe, curvis 5-7-septatis, interdum constrictis ad septum medium, 30-35 \times 6-8.

Hab. in ligno ab ætate corrupto *Juniperi monospermæ*, Mancos, Colorado Amer. bor.

8. **Trematosphæria megalospora** (De Not.) Sacc. — *Syll.* II, p. 120. 2547 — f. **Quercus** Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 1903, pag. 273. — A typo differt ascis brevioribus 108-124 \times 16-20 et sporidiis angustioribus 35-43 \times 8-10, maturis 8-septatis.

Hab. in cortice putrescente *Quercus*, Luxemburg.

9. **Trematosphæria faginea** Morgan, *Journ. of Mycol.* 1904, p. 161. 2548 — Peritheciis gregariis semiimmersis, ovoideis, glabris, nigris, 400 \times 500 μ . diam., ostiolo simplici poro minuto pertuso; ascis cylindræis, 8-sporis, longe filiformi-paraphysatis, breve stipitatis, 110-128 \times 11-13; sporidiis oblique monostichis, elliptico-oblongis, initio hyalinis, demum fuscellis, 3-septatis, 14-17 \times 8-10.

Hab. in truncis prostratis *Fagi*, Preston, Ohio Amer. bor.

TREMATOSPHERIOPSIS Elenkin in *Bull. du Jard. bot. St. Petersb.* 1901, p. 146 (Etym. *Trematosphæria* et *opsis* aspectus). — Stroma ex hyphis crebre contextis, jodo lutescentibus quasi plectenchyma formantibus conflatum. Perithecia stromate immersa, ovoidea. Asci

octospori, paraphysati. Sporidia elongato-fusoidea 2-pluriseptata, dilute colorata. Gonidia (propria?) pleurococcoidea continet.

1. **Trematosphæriopsis parmeliana** Jacz. et Elenk. l. c. cum icon. — 2549

Peritheciis aggregatis immersis, ovoideo-piriformibus v. subrotundatis, poro pertusis; ascis cylindraceutis, stipitatis 80-85 \approx 16-20, copiose filiformi-paraphysatis, octosporis; sporidiis distichis fusoideis, rectis curvulisve, 30 \approx 6-8, quadrilocularibus, ad septa non v. vix constrictis ex hyalino luteolis.

Hab. in thallo Parmeliæ molliusculæ v. vagantis Nyl. in Rossia.

OHLERIELLA Earle in New York Bot. Gard. 1902, p. 349 (Etym.

ab *Ohleria*, cui affine genus). — Perithecia ut in *Amphisphæria*.

Asci elongati, initio octospori, dein polyspori. Sporidia initio hyalina multiseptata, dein brunnea et in loculos singulos secedentia.

— Ab *Ohleria* dignoscitur, quia loculi singulatim nec binatim secedunt.

1. **Ohleriella neo-mexicana** Earle l. c. — Peritheciis dense sparsis, 2550

nigris, hemisphæricis, erumpentibus, basi fibrillis tectis, ostiolatis papillatisque 500-750 μ . diam.; ascis latis, stipitatis, subcylindraceutis maturitate 48-sporis, 150-200 \approx 25-30, paraphysibus filiformibus valde adnatis; sporidiis tristichis, initio cylindraceutis, hyalinis 5-septatis, maturitate intense brunneis, opacis, simplicibus, subquadrangularibus, 8 μ . diam.

Hab. in caulibus siccis, Albuquerque, New Mexico Americæ.

CHÆTOSPHÆRIA Tulasne. — Syll. II p. 92, IX p. 799, XI p. 326.

XIV p. 572, XVI p. 521.

1. **Chætosphæria Thalictri** Clements in Bull. of the Torrey Bot. Club. 2551

1903, p. 83. — Peritheciis solitariis v. laxe gregariis, superficialibus, globosis, ostiolatis, distincte papillato-depressis, pilis flexuosis brunneis 100 \approx 3, dense setulosis 200-300 μ . diam.; ascis octosporis, clavatis, paraphysatis, jodo cærulescentibus 90-100 \approx 10; sporidiis distichis, fuscis, fusiformibus 3-5-septatis, sæpius 4-septatis et loculo secundo turgido, ad septa leniter constrictis, 30-35 \approx 4-5; pycnidiis globosis, glabris 200-300 μ . sporulis hyalinis, continuis, oblongis, 6-8 \approx 1,5.

Hab. in caulibus emortuis Thalictri sparsiflori, Minuchaha Colorado Amer. bor.

2. **Chætosphæria incrustans** Rick, Broteria 1904, p. 289. — Stromate 2552

hyphis ferrugineis setulisque inter se arcte aggregatis formato; peritheciis orbicularibus, vix 1 mm. diam., nigris, rugulosis, ostiolo minusculo, gregariis, ligna v. corticem pulvere nigro late incrustantibus; ascis cylindricis $70 \approx 12$, octosporis, filiformi-paraphysatis; sporidiis fusoides, brunneo-fuscis, 3-septatis, $25-30 \approx 5-6$, curvulis, cellulis extimis hyalinis, ad septa vix constrictis.

Hab. ad ligna emortua et cortices, Rio Grande do Sul Brasiliæ.

SPORORMIA De Not. — Syll. II p. 123, IX p. 816, XI p. 329, XIV p. 577, XVI p. 526.

1. **Sporormia dakotensis** Griff. Mem. Torr. Bot. Cl. 1901, p. 114, 2553
tab. XV, fig. 7-9. — Peritheciis sparsis vel aggregatis, immersis globulosis $700-800 \approx 350-450$, tenui-membranaceis, demum opace nigris, ostiolo longo, cylindrico, recto, curvulo vel varie contorto; ascis octosporis clavatis apice rotundatis, longe stipitatis $90-110 \approx 8-11$; paraphysibus filiformibus copiosis, septatis, ascos superantibus; sporidiis 2-3-stichis, cylindræis, rectis curvulisve, utrinque rotundatis $22-24 \approx 3-4$, quadriarticulatis, profunde constrictis et facile secedentibus, strato mucoso angustissimo obvolutis.

Hab. in fimo equino et bovino, Brookings, Biloxi et Great Falls Amer. bor.

2. **Sporormia longipes** Mass. et Salm. Coproph. fungi, I, p. 346, fig. 1. 2554
— Peritheciis sparsis plus minus superficialibus, subglobosis glabris, atris $250-500 \mu$. diam., ostiolo brevi, obtuso, contextu membranaceo parenchymatico e cellulis distinctis parvis, circ. 5μ . diam. composito; ascis late clavatis v. elongato-clavatis in stipitem longissimum $50-80 \mu$. long., angustum sæpe flexuosum attenuatis, 8-sporis, $120-145 \approx 15-20$; sporidiis asci apicem versus imbricato-3-stichis, cylindræis, utrinque rotundatis, rectis v. parum curvatis, quadrilocularibus $26-33 \approx 6-8$, primum fuligineis demum fuscis, facile secedentibus, articulis mediis minoribus subquadratis $5-6 \mu$. long., terminalibus longioribus oblongis v. ellipticis.

Hab. in fimo Cariaci mexicani, Capreoli Capræ, Camelopardalis giraffæ, Capræ dorcadis, Capræ sinaiticæ, Kew Britannicæ.

3. **Sporormia chrysozona** Griff. in Mem. Torr. Bot. Cl. 1901, p. 108. 2555
tab. XV, fig. 4-6. — Peritheciis sparsis, immersis vel in greges minutos erumpentes aggregatis demum subliberis, globulosis, $225-300 \mu$. diam. tenui-membranaceis; ostiolo brevi papillato, demum deciduo; ascis octosporis, cylindræo-clavatis, apice rotundatis,

crasse stipitatis 65-95 \approx 10-12, paraphysibus filiformibus septatis, parvis; sporidiis distichis, anguste ellipsoideis, sursum paullo latioribus, utrinque rotundatis, 21-24 \approx 5-7, quadricellularibus, profunde constrictis non facile secedentibus, maturis læte flavis, strato hyalino sæpe indistincto obductis.

Hab. in stercore cuniculorum, Decorah Iowa, Amer. bor. (HOLWAY). — Sporidiis læte flavis mox dignoscenda species.

4. **Sporormia tuberculata** Griff. Mem. Torr. Bot. Cl. 1091, p. 112, ²⁵⁵⁶ tab. XV, fig. 13-15. — Peritheciis sparsis diu immersis globulosis vel ovoideis 375-450 \approx 225-275, tenui-membranaceis, opace nigris, ostiolo elongato, sursum valde ampliato et grosse tuberculato, nigro; ascis octosporis clavatis, apice rotundatis, longiuscule stipitatis 100-130 \approx 11-13; paraphysibus filiformibus septulato-guttulatis ascos æquantibus; sporidiis distichis, cylindræis, utrinque rotundatis, 4-cellularibus, profunde constrictis et facile secedentibus 32-33 \approx 5,5-7, strato gelatinoso angusto obvolutis.

Hab. in fimo caprino Ft. Lee, N. Y. et in fimo equino Tucson Ariz. Amer. bor. — Ostiolo omnino peculiari distincta species.

5. **Sporormia chætomioides** Griff. Mem. Torr. Bot. Club. 1901, ²⁵⁵⁷ p. 113, t. XVI, f. 4-6. — Peritheciis sparsis, immersis, pilis longis, flexuosis septatis, fuscis præcipue ad ostiolum dense vestitis, 600-700 \approx 300-400, tenui-membranaceis e virescenti opace nigris, ostiolo longe cylindræo recto vel curvo; ascis octosporis tereti-clavatis longe stipitatis, 130-180 \approx 13-18; paraphysibus copiosis filiformibus, septatis, ramosis, ascos multo superantibus; sporidiis 2-3-stichis, cylindræis utrinque obtuse vel acutule rotundatis, 26-40 \approx 5-6, quadricellularibus, profunde constrictis, facile secedentibus, opace brunneis, strato mucoso angusto obductis.

Hab. in fimo bovino, Biloxi et Tucson Amer. bor.

6. **Sporormia kansensis** Griff. Mem. Torr. Bot. Cl. 1901, p. 113, t. XVI ²⁵⁵⁸ f. 7-9. — Peritheciis sparsis, immersis, erumpentibus et maturis partim denudatis, globulosis 600-900 \approx 300-450 substratui rhizinis copiosis firme adhærentibus, coriaceis, opace nigris, ostiolo longo, cylindræo apice truncato, tuberculato; ascis cylindræis, apice rotundatis modice et obtuse stipitatis 240-290 \approx 26-34; paraphysibus filiformibus septatis, subramosis, ascos superantibus; sporidiis 2-3-stichis, cylindræis, rectis curvulisve, utrinque rotundatis 4-cellularibus, profunde constrictis et secedentibus, 72-77 \approx 10-12, e flavido opace brunneis, stratu mucoso crasso obductis,

Hab. in fimo cuniculorum, Rooks Co. Kansas Amer. bor.
(BARTHOLOMEW).

7. **Sporormia americana** Griff. in Mem. Torr. Bot. Club. 1901, p. 114. 2559
tab. XVII, fig. 11-13. — Peritheciis sparsis, immersis $225 \approx 175$,
globuloso-ovoideis tenui-membranaceis vel coriaceis, nigris, niti-
dulis; ostiolo papilliformi, nitido, brevi; ascis octosporis, cylindra-
ceo-clavatis, apice rotundatis, breve stipitatis, $160-210 \approx 27-32$;
paraphysibus copiosis, filiformibus, ascos paullo superantibus;
sporidiis 2-3-stichis subfusiformibus, 7-cellularibus, loculo tertio
ab apice ceteris latiore, cellulis 5 intermediis latioribus quam lon-
gioribus, cellula apicali subovata et longiore quam latiore, $54-62 \approx$
 $10-13$, stratu gelatinoso crasso obvolutis.

Hab. in fimo cuniculorum, Gunnison Colorado, Amer. bor.

GIBBERIDEA Fuck. — Syll. II p. 132, XI p. 820.

1. **Gibberidea Ribis** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fung. 2560
p. 28. — Peritheciis in maculis nigrescentibus sparse congestis,
erumpenti-superficialibus, globosis, nigris 500μ . diam., rugosis,
ostiolo brevi, conico donatis; ascis breve stipitatis, oblongis vel
ellipticis $90-100 \approx 12-14$; sporidiis fuligineis, ellipticis, 5-7-septatis,
ad septa constrictis, $28-32 \approx 6-7$.

Hab. in ligno decorticato Ribis, South Colorado, Amer. bor.

2. **Gibberidea Symphoricarpi** Tracy et Earle, Plantæ Bakerianæ, fasc. 2561
I, Fungi pag. 28. — Peritheciis in greges congestis, pustuliformi-
bus, erumpentibus, setulis longis, strigosis, interdum septatis, fuscis,
circ. 6μ . diam. vestitis, carbonaceis, ostiolo minuto donatis, 750
 μ . diam.; ascis cylindraceo-clavatis, breve stipitatis $80-100 \approx 14-16$;
paraphysibus numerosis, filiformibus; sporidiis oblique monostichis,
ovoideis, fuligineis, 3-septatis, ad septa leviter constrictis, sæpe cur-
vulis, $30-35 \approx 8-10$.

Hab. in frustulis emortuis Symphoricarpi, Bob Creek, South
Colorado, Amer. bor.

3. **Gibberidea obducens** Rick in Rehm Ascom. exs. n. 1561 et Ann. 2562
Mycol. 1904, pag. 517. — Peritheciis primo immersis dein erum-
pentibus gregatim coacervatis, totum caulem circumeuntibus, et
crusta nigra insidentibus, 1-2 mm. diam., coriaceis, atris, prope
basim hyphis laxis vestitis, superne nitidis, in collum breve an-
gustatis; ascis pedicellatis v. sessilibus, clavatis, $80 \approx 6-7$, octospo-
ris; sporidiis subviridulis, acicularibus, curvulis, valde teneris, 3-

ocularibus, 25-30 \approx 2; paraphysibus, laxis filiformibus, 2 μ . cr. fuscellis.

Hab. parasitice ad caules vivos *Menthæ* spec., Sao Leopoldo Brasiliæ.

RHYNCHOSPHERIA Sacc. — Syll. II p. 112, 228, XVI p. 524.

1. **Rhynchosphæria alpina** Karst. Fungi nov. Lœnnb. 1904, pag. 5 ²⁵⁶³
(Finska Vetensk. Soc.). — Caulicola; peritheciis sparsis, per epidermidem erumpentibus, hemisphærico-conoideis, subcarbonaceis, atris apice acute rostratis, minutis; ascis cylindræis, apice basique paullo attenuatis, 8-sporis, 75-85 \approx 10-12; sporidiis distichis, fusoides, 3-5-septatis, vix constrictis ex hyalino fuscidulis, 19-22 \approx 7-9; paraphysibus haud bene discretis.

Hab. in caulibus *Atragenes* alpinae emortuis siccis in regione Baicalensi, Listvinitchnoje (O. A. F. LÖNNBOHM).

2. **Rhynchosphæria lopadostoma** (Feltg.) Sacc. et D. Sacc. *Melanomma* ²⁵⁶⁴
(Rhync.) *lopadostomum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 295. — Peritheciis solitariis vel gregariis, interdum quoque basi connatis, globosis, basi ligno insculptis, cortice atrato tectis, 400-600 μ . diam., carbonaceo-coriaceis, nigris, rugulosis, ostiolo e basi conica cylindræo, non perforato, apice excavato, subinde dilatato, 500 \approx 200; ascis cylindræis, breve stipitatis, 100-136 \approx 10-12, copiose filiformi-paraphysatis, 4-8-sporis; sporidiis monostichis, elliptico-fusoideis, obtusis, rectis curvulisve, 3-septatis ad septa, præcipue medium, constrictis, 18-23 \approx 7-8, ex olivaceo brunneis, cellulis mediis paullo crassioribus.

Hab. in ramis siccis *Ilicis* Aquifolii, Luxemburg.

PSEUDOVALSA Ces. et De Not. — Syll. II p. 135, IX p. 820, XI p. 330, XIV p. 577, XVI p. 527.

1. **Pseudovalsa ribesia** Sacc. et Scalia, Harrim Alaska Exped. Crypt. ²⁵⁶⁵
p. 29, pl. V, fig. 14. — Stromatibus corticolis tectis, dein erumpentibus, nigris, e peritheciis 4-6 connatis compositis, vix 1 mm. diam., ostiolis obtusulis breviter emergentibus; ascis crasse cylindræis, brevissime abrupte stipitatis, apice late rotundatis, 110-130 \approx 24-26, filiformi-paraphysatis, octosporis; sporidiis distichis, oblongo-fusoideis, primo hyalinis, didymis, strato mucoso hyalino obductis, dein 3-septatis, medio parum constrictis, 38-41 \approx 16-20, fuscidulis.

Hab. in ramis corticatis *Ribis laxiflori*, Siska Alaska (TRE-LEASE). — Sociæ adsunt *Rhynchophomæ*, *Godroniæ* et *Diaporthes* spp.

2. **Pseudovalsa canadensis** Ell. et Ev. in Journ. of Mycol. 1903, 2566 p. 224. — Peritheciis 0,5-0,8 mm. diam., in ligno immersis, sparsis vel 3-4 congestis, ostiolo papillato paullo emergente donatis; contextu subcoriaceo nigro; ascis 150-250 \times 8-10, cylindraceutis, summo rotundatis, paraphysibus numerosis, filiformibus, guttulis hyalinis obvallatis; sporidiis cylindraceutis, utrinque obtuse acuminatis, 7-10-septatis, luteo-brunneis, 23-30 \times 7-8.

Hab. in pariete interiore corticibus *Cratægi*, London, Canada, Amer. bor.

3. **Pseudovalsa minima** Ell. et Ev. in Journ. of Mycol. 1903, p. 224. 2567 — Stromatibus orbicularibus vel ellipticis 1-2 mm. latis, verticalibus, a matrice sursum nigrificata et circumcirca pallidiore formatis; peritheciis ab imo stromatis immersis, 2-6 in singulo stromate congestis, globosis vel ovatis 400 μ . diam.; ostiolis subconicis, paullo emergentibus; ascis cylindraceutis 100-120 \times 7; sporidiis monostichis, oblongo,-ellipticis 3-septatis, parce constrictis, olivaceo-brunneis 12-15 \times 3,5.

Hab. in corticibus *Aceris saccharini*, London, Canada, Amer. bor.

THYRIDARIA Sacc. — Syll. II p. 140, IX p. 821, XI p. 331, XIV p. 578.

1. **Thyridaria Sebillæi** Sacc. et Flag. in Atti Congr. bot. Palermo 1902, 2568 p. 53. — Peritheciis in soros minutos, inæquales (3-6) aggregatis v. interdum subsolitariis, stromate fuscescente parvo subcorticali connexis, globulosis, dein erumpentibus peridermioque laciniato cinctis, atris, rugulosis, 350 μ . diam., coriacellis; ostiolo obtuso brevissimo; ascis cylindraceuto-clavatis, 140-160 \times 14-16, apice rotundatis, copiose filiformi-paraphysatis, sensim tenuato-stipitatis, octosporis; sporidiis distichis, cylindraceuto-oblongis, subrectis, utrinque paullulum tenuatis rotundatisque 28 \times 7,5-9, fuliginis utrinque dilutioribus, 9-5-septatis, ad septa, præcipue medium, constrictis.

Hab. in ramis corticatis emortuis *Cratægi* v. *Pruni*, Rigny sur Arroux Galliæ. — Species distincta, cl. ab. R. Sebillæ dicata.

2. **Thyridaria Sambuci** (Karst.) Sacc. — Syll. II, p. 141. — f. **Fagi** 2569 Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 122. — A typo differt peritheciis semper valsoideo-aggregatis, cortice nidu-

lantibus, non rubro-pulverulentis, minutius papillatis; ascis, sporidiis et paraphysibus vero iisdem.

Hab. in ramis siccis corticatis Fagi silvaticæ, Luxemburg.

KALMUSIA Niessl — Syll. II p. 142, IX p. 822, XI p. 331, XIV p. 578, XVI p. 1137.

1. **Kalmusia Sarothamni** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2570 1901, p. 109 et I, 1899, p. 177, n. 534 (sub *Kalmusia Ebuli* in Sarothamno). — Peritheciis globoso-depressis plerumque gregariis, ligno atrato immersis v. semiimmersis, ostiolis erumpentibus, tereti conoideis; ascis clavatis, longe stipitatis, $65 \approx 8-10$; paraphysibus filiformibus, longe superantibus obvallatis, 8-sporis; sporidiis distichis v. inordinatis, tereti-fusoideis, utrinque rotundatis, 3-septato-constrictis, rectis curvulisve, brunneis, $13-15 \approx 5-6$.

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

2. **Kalmusia argentinensis** Speg. Myc. argentin. ser. II, 1902, p. 72. — 2571 Maculis fusco-atris, superficialibus, latissime effusis, sæpius ellipsoideis, indeterminatis; peritheciis ligno omnino immersis e latere compressis; subcoriacellis, nigris mediocribus, $200-350 \mu$. long. et alt. $100-150 \mu$. latis, ostiolo minutissimo donatis; contextu indistincto, nucleo fusco repletis; ascis linearibus, apice obtuse rotundatis, basi brevissime cuneato-pedicellatis, $160-180 \approx 12-16$; paraphysibus filiformibus sat numerosis paullo longioribus obvallatis; sporidiis elliptico-subcylindræis, recte vel oblique monostichis, utrinque obtuse rotundatis, $20-22 \approx 10-12$, levibus, fuligineis, 3-septatis, ad septa constrictulis, loculis mediis obscurioribus sæpeque 1-guttulatis.

Hab. ad palos decorticatos putrescentes Eucalypti globuli, La Plata in Argentina.

MELOGRAMMA Fr. emend. Tul. — Syll. II p. 144, IX p. 824, XI p. 331, XIV p. 579, XVI p. 527.

1. **Melogramma patens** Morgan in Journ. of Mycol. 1904, p. 49. — 2572 Stromatibus gregariis, in cortice immersis dein erumpentibus, 2-3 mm. d., 50-100 perithecia includentibus, depresso-pulvinatis, cinereo-nigris, superne mammillatis, pro peritheciis numerosissimis parvulis; peritheciis ovoideis, papillatis; ascis cylindræis, breve pedicellatis, octosporis $120-130 \approx 7-9$, paraphysatis; sporidiis fusiformibus, subcurvulis, 3-septatis, luteo-brunneis, $18-22 \approx 6-7$.

Hab. in ramis emortuis *Carpini americanæ*, Preston, Ohio
Amer. Bor.

Sect. 8. Hyalodictyæ.

PLEOSPHÆRULINA Pass. — Syll. XI p. 350, XIV p. 611, XVI p. 554.

1. **Pleosphærulina Cassiæ** P. Henn. Fungi costaricensis I, in Hedw. 2573
1902, p. 102. — Maculis rotundatis, fuscidulis, dein exaridis pal-
lescentibus, zona brunnea circumdatis, 2-3 mm. diam.; peritheciis
epiphyllis sparsis vel subgregariis, innatis, membranaceo-cellulosis,
subglobosis v. sublenticularibus, fuscis ca. 150 μ . diam.; ascis ovoi-
deis v. ellipsoideis, obtuse rotundatis, octosporis, aparaphysatis 50-
60 \approx 25-33; sporidiis conglobatis, oblonge fusoides, utrinque acu-
tiusculis v. obtusis, 4-septatis, interrupte muriformibus, 20-28 \times 7-8,
hyalinis.

Hab. in foliis *Cassiæ reticulatæ*, Rio Zent Amer. bor.

CATHARINIA Sacc. — Syll. II p. 275, IX p. 892, XI p. 350, XIV p. 641, XVI p. 554.

1. **Catharina Cascarillæ** Rehm, Hedw. XLIV (1905). — Peritheciis 2574
sparsis, primitus epidermide tectis, dein plus minusve emersis,
globosis, glabris, ostiolo minuto papillatis, atris, circ. 300 μ . diam.
membranaceis; ascis clavatis, crasse tunicatis 85-100 \approx 25-27, octo-
sporis; sporidiis ellipsoideis, transverse demum 7, longitudinaliter
plerumque 3-septatis, hyalinis, nitentibus, strato mucoso 3 μ . crasso
obductis, 20-25 \approx 10-12, distichis; paraphysibus ramosis, septatis,
1 μ . crassis.

Hab. ad corticem venalem *Cascarillæ officinalis* ex America
merid. (Dr. REHM). — Gonidia omnino nulla

2. **Catharina cylindrospora** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2575
1903, p. 199. — Peritheciis immersis, globosis, 200-250 μ . latis, ostiolo
acute conoideo, longiusculo, tantum emergente; ascis cylindratis,
stipitatis vel sessilibus, 100-136 \approx 8-10, octosporis; sporidiis mono-
stichis vel subdistichis, cylindratis, utrinque subattenuatis, vulgo
rectis, 4-5-septatis leniterque constrictis, septulis nonnullis longi-
trorsum divisis, hyalinis vel dilutissime flavidis, 16-19 \approx 5,5-7.

Hab. in caulibus siccis *Symphyti caucasici*, Luxemburg.

3. **Catharina Hircini** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2576

p. 199. — Peritheciis gregariis, rarius subsparsis, innato-erumpentibus vel fere liberis, globoso-conoideis, rugulosis, 300-500 μ . diam, ostiolo verruciformi vel breve cylindraceo; ascis tereti-clavatis breve stipitatis, 77-88 \times 13,5, sexsporis, filiformi-paraphysatis; sporidiis monostichis, oblongo-ovoideis, medio constricto-1-septatis, parte superiore majore 1-2-septata non constricta, septo longitudinali divisis, guttulis vel eguttulis, hyalinis, 15-18 \times 8-9.

Hab. in caulibus Hyperici hircini, Luxemburg.

PELTOSPHERIA Berl. — Syll. IX p. 898.

1. **Peltosphæria Orni** Rehm in *Æst. bot. Zeitschr.* 1904, p. 88. — 2577

Peritheciis sparsis, simplicibus, in cortice nidulantibus, clypeo stromatico atro orbiculari 1-1,2 mm. diam. adhærente tectis, sensim hemisphærice prominentibus, globosis, vix papillulatis, ostiolo perspicuo pertusis, atris, subcarbonaceis, 0,6-0,7 mm. diam.; ascis cylindraceis, apice rotundatis incrassatisque 120-130 \times 15-20, quadrisporis; sporidiis late fusoideis, transverse plerumque 7, longitudinaliter 2-3-septatis, hyalino-nitentibus, strato mucoso tenui 2 μ . cr. obductis, 30-35 \times 18, monostichis; paraphysibus filiformibus 2 μ . crassis.

Hab. in ramo corticato Fraxini Orni prope Podgora Carniolæ (STEINER).

TEICHOSPORELLA Sacc. — Syll. II p. 303, IX p. 908 (ut subg.) et XI p. 351.

1. **Teichosporella denudata** (Feltg.) Sacc. et D. Sacc. *Strickeria denudata* 2578

Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* II, p. 196. — Peritheciis gregariis vel nonnullis aggregatis basi insculptis, globosis, atro-brunneis, rugosulis 300-500 μ . diam., ostiolo breve cylindraceo, atro-nitido; ascis cylindricis, breve stipitatis, octosporis filiformi-paraphysatis, 110-162 \times 7-8; sporidiis monostichis, elliptico-oblongis, leviter clavatis, plerumque 5-7-septatis, constrictis, cellula 1-vel 2 longitudinaliter partitis, pluri-guttulatis hyalinis vel dilutissime brunneolis, rectis curvulisve 16-24 \times 6-8,5.

Hab. in ramis decorticatis Piri japonicæ, Luxemburg.

2. **Teichosporella Edwiniæ** (Clem.) Sacc. et D. Sacc. *Tichosporium Edwiniæ* 2579

Clements in *Bull. of the Torr. Bot. Cl.* 1903, p. 83. — Peritheciis copiosis, superficialibus, ad basim innatis, submembranaceis, depresso-globosis, deinde cupulate collabentibus, glabris, vix ostiolatis vel vere astomis, rima apicali dehiscentibus, nigris, 175-

300 μ . d.; ascis octosporis, late oblongis, membrana crassa, jodo vix vel non cærulescentibus, 60 \approx 12-14; sporidiis oblique monostichis, oblongo-ovatis, hyalinis 4-6-septatis, sæpius 5-septatis, loculis terminalibus exceptis, longitrorsum 1-divisis, ad septa distincte constrictis, 20-22 \approx 8-10.

Hab. ad ramos decorticatos *Edwinia* americanae, Minnaha Amer bor.

Subg. TEPHROSTICTA Sacc. et Syd.

Perithecia subiculo insidentia, collabascentia.

3. **Teichosporella Negeriana** Sacc. et Syd. Ann. Mycol. 1904, p. 163. — 2580

Subiculo tenuissime pulvereo, epiphylo, maculiformi, cinerescente; peritheciis laxè sparsis, superficialibus, globoso-hemisphæricis, mox collapsò-scutellatis, nigris, glabris, 160-200 μ . diam., apice poro rotundo, non papillato, 20 μ . diam. pertusis; contextu tenui, parenchymatico, fuligineo, cellulis 8 μ . diam.; ascis clavatis, breviter stipitatis, apice rotundatis, 65-75 \approx 11-13, aparaphysatis, octosporis; sporidiis distichis, ellipsoideo-oblongis, utrinque obtusulis vel acutiusculis, 12-14 \approx 5, triseptatis septoque uno vel altero longitudinali muriformibus, ex hyalino dilutissime chlorinis, farctis.

Hab. in foliis *Litseæ causticæ*, Concepcion in Chile (F. W. NEGER) socia *Meliolæ* specie indeterminata.

BERLESIELLA Sacc. — Syll. IX p. 914.

1. **Berlesiella hispida** Morg. Journ. Myc. 1903, p. 217. — Stroma- 2581

tibus (*Botryodiplodiæ*) corticalibus, erumpentibus, elongatis, nigris; peritheciis numerosis, compactis, prominentibus, rugulosis, nigris; sporulis obovoideo-oblongis, initio hyalinis continuis, dein brunneis 1-septatis 25-30 \approx 14-17; stromatibus (*Berlesiellæ*) corticalibus, erumpentibus, nigris, plus minusve effusis; peritheciis, in stromate immersis, latis, nigris, subglobosis, pertusis, setulis filiformibus, septatis, nigris vestitis; ascis cylindræis, breve pedicellatis, 150 \approx 18-22; paraphysibus filiformibus; sporidiis elliptico-oblongis, diu hyalinis, dein luteo-brunneis, transverse 4-7-septatis, longitudinaliter 1-septatis, ad septum medianum sæpe constrictis, 25-35 \approx 10-14.

Hab. in ligno corticato *Æsculi glabræ*, Preston, Ohio, Amer. bor.

Sect. 9. Phæodictyæ.

LEPTOSPHERULINA Mc Alpinae Fungus diseases Stone-fr. trees, Melbourne 1902, p. 103 (Etym. *leptos* angustus et *Sphærulina*). — Est *Pleosphærulina* phæodictya, nempe sporidiis septato-muriformibus, *brunneis* prædita.

I. *Eu-Leptosphærulina*. Species in plantis vascularibus.

1. **Leptosphærulina australis** Mc Alp. l. c. — Peritheciis gregariis 2582 subepidermicis dein erumpentibus, globosis, poro pertusis, membranaceis, contextu parenchymatico, pallide brunneis circ. 150 μ . d.; ascis brevibus clavatis, octosporis 75-80 \approx 28-30; sporidiis distichis; v. tristichis, initio hyalinis, dein brunneis elongato-oblongis, utrinque rotundatis, 5-septatis, ad septa non constrictis, septulo longitudinali divisis, 30-32 \approx 11.

Hab. in foliis Pruni Armeniacæ, Queensland Australiae.

II. *Heterophracta* (Nyl.). Species lichenicolæ, parasiticæ.

2. **Leptosphærulina heterophracta** (Nyl.) Sacc. et D. Sacc. *Endococcus* 2583 *heterophractus* Nyl. Flora 1867, p. 373. — Peritheciis prominulis globosis, nigris 100 μ . diam.; ascis 8-sporis, aparaphysatis; sporidiis ellipsoideis 4-cellularibus, 10-14 \approx 6-7, nigrescentibus septulisque uno alterove longitudinali divisis.

Hab. in thallo Lopadii pezizoidei, Evois Fenniae.

3. **Leptosphærulina nigritella** (Nyl.) Sacc. et D. Sacc. *Verrucaria*? 2584 *nigritella* Nyl., Leight. Brit. Lich. Fl. p. 497. — Peritheciis nigris; ascis octosporis, aparaphysatis; sporidiis oblongis pluriseptato-muriformibus, 21-36 \approx 9-14, brunneis.

Hab. in thallo Catopyrenii cinerei in Britannia.

4. **Leptosphærulina coccispora** (Norm.) Sacc. et D. Sacc. *Endococcus* 2585 *coccisporus* Norm. Spec. loc. nat. Norv. 1868, p. 375. — Peritheciis crebris vix parte super. emersis 110-200 μ . d., atris, globosis, ostiolo obtuso, pertuso, 20-24 μ . diam.; ascis octosporis; sporidiis brunneis late ovoideis, quadrilocularibus, septisque uno v. paucis longitudinalibus, submuralibus, 60-80 \approx 40-50, loculis extimis brevioribus, vel brevissimis.

Hab. in thallo *Pyrenopsisid* hæmaleæ var. terricolæ in regione arctica Norvegiæ. — Jodi ope nucleus e flavo rubescit.

PLEOSPORA Rab. — Syll. II p. 241, IX p. 873, XI p. 342, XIV p. 594, XVI p. 544.

1. **Pleospora lepidiicola** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 22. 2586

— Peritheciis sparsis, tectis, nigris, ostiolo erumpentibus, 200-300 μ . diam.; ascis subcylindræis, breve stipitatis, 100-120 \times 20; paraphysibus filiformibus, numerosis; sporidiis subdistichis, ovatis, utrinque late rotundatis, brunneis, 7-septatis, ad septum medianum valde constrictis, verticaliter 3-vel-pluriseptatis, 20-28 \times 10-11.

Hab. in caulibus emortuis *Lepidii* a petali, Hermosa, South Colorado Amer. bor.

2. **Pleospora Armeniacæ** Mc Alp. Fung. diseases Stone-fr. trees, Melb. 2587

1902, p. 113, f. 176-178. — Peritheciis sparsis, initio subepidermicis dein erumpentibus, coriaceis, firmis, interdum in ostiolum elongatum desinentibus, nigris, circ. 500 μ . diam.; ascis cylindræis, stipitatis, apice rotundatis, octosporis, 100-108 \times 9-10; paraphysibus hyalinis granulosis 1,5-2 μ . crassis; sporidiis monostichis, olivaceis, oblongis v. oblongo-ellipticis transverse 3-septatis, ad septum medium leviter constrictis, longitudinaliter 2-septatis, 17-19 \times 6,5-7,5.

Hab. in ramulis emortuis *Pruni Armeniacæ*, Armadale, Victoria Australiæ.

3. **Pleospora kansensis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2588

p. 17. — Peritheciis sparsis, subcutaneis, ovato-globosis 250-360 μ . diam., ostiolo conico v. brevi-cylindrico præditis; ascis clavatis, superne rotundatis, inferne gradatim constrictis; paraphysibus 3 μ . cr., septatis, hyalinis; sporidiis distichis, oblongo-ovatis, sursum rotundatis 5-6-septatis, muriformibus, paullo constrictis, lucentibus, chlorino-luteis, 20-22 \times 7-9.

Hab. in caulibus emortuis *Meliloti* albi, Rooks Co. Kansas, in Amer. bor. — Ab affinibus *Pl. Meliloti* Rab. et *Pl. dura* Niessl facile dignoscitur.

4. **Pleospora ribesia** Feltg. Vorst. Pilz. Lux. Nachtr. III, 1903, p. 197. 2589

— Peritheciis subgregariis, subcutaneis, globoso-depressis 100-200 μ . diam., basi hyphis septatis ramosisque brunneis præditis, ostiolo papillato-erumpente; ascis cylindræis, breve stipitatis filiformi paraphysatis 180 \times 13-15, octosporis; sporidiis monostichis, ellipsoideis, 5-septato-muriformibus constrictis, flavo-brunneis, 18-20 \times 9-10.

Hab. in ramis siccis corticatis Ribis alpini, Luxemburg.

5. **Pleospora Vitis** Catt. — Syll. II, p. 257. — f. **Ribis alpini** Feltg. 2590
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 197. — A typo differt peritheciis majoribus et depressis, 300-400 μ . diam.; ascis brevioribus, 100-108 \approx 27; sporidiis 7-septato-muriformibus, 31-33 \approx 12-14.

Hab. in ramis siccis Ribis alpini, Luxemburg.

6. **Pleospora denudata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2591
1903, p. 196. — Peritheciis gregariis, ligni superficie basi insculptis et vertice emergentibus, globoso-ovoideis, siccis collabentibus, 150-200 μ . diam. atro-brunneis, ostiolo conico-papillato; ascis teretibus, longiuscule stipitatis, 108-123 \approx 12-16, filiformi-paraphysatis, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis v. obovatis demum 4-cellularibus muriformibusque, brunneis, ad septa constrictis 13-19 \approx 8-10.

Hab. in ligno nudo vel subcorticato Tiliæ, Luxemburg. — *Pleospora Saccardianæ* et *Pl. Juglandis* subaffinis.

7. **Pleospora Tiliæ** Feltg. Pilz. Luxemb. Nachtr. III, 1902, p. 193. — 2592
Peritheciis sparsis, basi insculptis, globosis 150 μ . latis, minute conico-papillatis, nigris; ascis elliptico-clavatis, breve crasse stipitatis 33-41 μ . cr.; sporidiis inordinate distichis, elliptico-cylindratis 5-7-septato-muriformibus, constrictis, 22-33 \approx 10-16, flavo-brunneis.

Hab. in foliis putridis Tiliæ, Luxemburg. — *Pleosporæ acaciicolæ* affinis.

8. **Pleospora Theæ** Speschnew, Tifl. Bot. 1904, p. 77, t. III, f. 8-13. 2593
— St. conid. *Macrosporium commune* Rab v. *theicum* Speschnew l. c. Conidiophoris radiantibus; conidiis oblongo-piriformibus, sub-4-septato-muriformibus 24-28 \approx 10. — St. ascoph. Peritheciis sporidiisque ut in Pl. herbarum var. Citrorum (sporidiis [in icone 13] ovato-oblongis 9-11-septato-muriformibus, brunneis).

Hab. in foliis vivis Theæ in Caucaso.

9. **Pleospora herbarum** (Pers.) Rabh. — Syll. II, pag. 247. — f. **Ca-** 2594
melliæ Speg. in Ann. Soc. Cient. Argent. 1899, p. 277. — Maculis amphigenis, arescentibus, suborbicularibus, 5-10 mm. diam., determinatis, linea callosa turgescente infusata limitatis, supra cinereo-albis, subtus albo-rubrescentibus; peritheciis epiphyllis, sparsis, minutis, epidermide tectis, globosis, atris, opacis; ascis clavatis 100-175 \approx 25-30, octosporis aparaphysatis; sporidiis obovatis, 25-30 \approx 12-15, utrinque obtusis, horizontaliter 5-7-septatis, ad septa

leniter constrictis, totis septo verticali interrupto unico divisis, fusco-flavis.

Hab. in foliis vivis *Camelliæ* cujusdam in hortis cultæ, La Plata Argentinae. — Var. **Rutæ** P. Henn. Hedw. 1903, p. 218. — Peritheciis 300-350; ascis superne truncato-rotundatis 80-140 \times 18-30, tetrasporis vel octosporis; sporidiis 3-7-septatis, muriformibus, ellipsoideis vel ovoideis, 20-35 \times 10-20. — In caulibus emortuis *Rutæ* graveolentis, in horto botanico Berolini. — Var. **spinicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 189. — Peritheciis 300-400 μ . diam. ascis tereti-clavatis 180-220 \times 25-35; sporidiis 1-2-stichis, 7-septato-muriformibus, flavis 33-40 \times 13-16. — In spinis bractearum *Onopordi Acanthii*, Luxemburg.

10. **Pleospora *Cenotheræ*** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2595 1903, p. 191. — Peritheciis sparsis, epidermide tectis, depressis, atro-brunneis, 400-500 \times 200-300, firmulis, obtuse papillatis; ascis clavatis breve crasse stipitatis 95 \times 40, subinde 200 \times 27, filiformi-paraphysatis, 6-8-sporis; sporidiis inordinate 4-3-stichis, oblongo-fusoideis, septis primariis 7 et secundariis 5-7 transverse partitis muriformibusque, constrictis, flavo-brunneis, 45-55 \times 13-15.

Hab. in caulibus siccis *Cenotheræ* biennis, Luxemburg. — *Pleosporæ Feltgeni* affinis.

11. **Pleospora *evonymella*** Maublanc in Bull. Soc. Myc. de France 2596 1903, fasc. III, p. 292, tab. XV, fig. 2. — Maculis amphigenis, albidis vel cinereis, late brunneo-cinctis; peritheciis epiphyllis, globosis vel leniter depressis, atris, ostiolo minuto, perforato donatis, epidermide tectis, 250 μ . latis; ascis clavatis, sepe curvis, basi in stipitem brevissimum abeuntibus, octosporis, 140-160 \times 20-25; sporidiis subdistichis, oblongis, parte superiore leniter crassiore 7-septatis, muralibus, ad septa vix constrictis, 33-40 \times 14-16; paraphysibus nullis.

Hab. in foliis *Evonymi japonici*, Pornic Gallie.

12. **Pleospora *collapsa*** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2597 1903, p. 198. — Peritheciis gregariis subcutaneo-erumpentibus, globoso-depressis, siccis subscutellatis, nigris, minute papillatis 300-400 μ . diam.; ascis clavatis, breve stipitatis, octosporis, 130-136 \times 27-33; sporidiis inordinatis, submonostichis, oblongo-ellipsoideis, 7-septato-muriformibus, constrictis, sursum latioribus, 32-38 \times 13-16.

Hab. in ramis corticatis *Papilionaceæ* cujusdam frutescentis, Luxemburg.

13. **Pleospora *Clematidis*** Fuck. — Syll. II, p. 265. — f. **Sarothamni** 2598

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 149. — Peritheciis gregariis, subliberis, nigris, papillatis; ascis cylindraceutis 104 \times 9-10; sporidiis monostichis, fusoides, utrinque obtusulis, plerumque 5-septato-muriformibus, flavo-brunneis, 18-21 \times 6-8.

Hab. in ramis siccis *Sarothamni scoparii*, Luxemburg.

14. **Pleospora atro-maculans** Rehm Ann. Mycol. 1904, p. 177. — 2599

Peritheciis gregariis, ramulum ambientibus, sub peridermio demum hemisphærice elevato et atro-maculato nidulantibus, eoque perfisso apice prominentibus, haud ostiolatis, poro minutissimo pertusis, globulosis, glabris, crasse membranaceo-contextis 0,3-0,5 mm. d.; ascis subcylindraceutis 80-100 \times 9-10, octosporis; paraphysibus filiformibus; sporidiis ellipsoideis, utrinque obtusis, primitus transverse 3, sæpe 5-septatis, demum cellulis mediis 1 vel 2 semel longitudinaliter septatis, ad medium interdum subconstrictis, olivaceis, 12-15 \times 5-6, plerumque oblique monostichis.

Hab. ad ramulos emortuos Corni, Blue Mountains, N. Carolina Amer. bor. (ATKINSON).

15. **Pleospora Briardiana** Sacc. — Syll. IX, p. 882. — f. **Achilleæ** 2600

Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 190. — A typo differt peritheciis in sicco vix collabescentibus; ascis brevioribus et crassioribus 80-108 \times 16-19; sporidiis inæquilateris vulgo 6-septato-muriformibus, 23-26 \times 8, flavis.

Hab. in caulibus siccis *Achilleæ Millefolii*, Luxemburg.

16. **Pleospora megalotheca** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2601

Fungi p. 35. — Peritheciis sparsis, erumpentibus, glabris, depressoglobosis, ostiolo conico breve donatis; ascis 15-20, oblongis, longe stipitatis, crasse tunicatis, octosporis 200-250 \times 40-45; sporidiis oblique monostichis vel distichis, ovatis, luteo-brunneis, dein opacis 11-13-septatis et 2-3 longitudinaliter septatis, 40-45 \times 16-20.

Hab. in caulibus *Achilleæ Millefolii*, Bob Creek, Colorado Amer.

17. **Pleospora Meliloti** Rabh. — Syll. II, pag. 246. — f. **Achilleæ** 2602

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 141. — Peritheciis gregariis, erumpentibus, globoso-depressis, dein collabentibus, minute papillatis; ascis cylindraceutis sessilibus, 6-sporis, 160-170 \times 17-20; sporidiis submonostichis, 5-6-septato-muriformibus, 30-32 \times 14, flavo-brunneis.

Hab. in caulibus siccis *Achilleæ Millefolii*, Luxemburg.

18. **Pleospora Balsamorrhizæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2603

Fungi p. 34. — Peritheciis sparsis, longitudinaliter suberumpenti-

bus, glabris, superne depressis, 300-400 μ . diam. ostiolo breve conico donatis; ascis 4-8, late clavatis vel obovatis 200-250 \times 70-80 octosporis; sporidiis sine ordine dispositis 7-septatis, ad septa constrictis, ad septum medium constrictioribus, magnitudine variis 60 \times 28 v. 38 \times 16, medie 45 \times 22.

Hab. in caulibus Balsamorrhizæ deltoideæ, Mancos Colorado, Amer.

19. **Pleospora Compositarum** Earle, Plantæ Bakerianæ fasc. II, Fungi 2604 p. 21. — Peritheciis sparsis, tectis, planiusculis, nigris 200 μ . diam., membranaceis; ascis ovoideis v. obovatis, breve stipitatis 80-90 \times 20; paraphysibus numerosis asco longioribus, guttulatis, superne inflatis, vage ramosulis; sporidiis distichis, brunneis, utrinque obtusis, ovoideis v. subovatis 5-(raro 6-7)-septatis, septo mediano constrictis, sæpe curvulis, longitudinaliter medio divisis, 20-25 \times 8-10.

Hab. in caulibus emortuis Eucephali spec., Hermosa South Colorado, Amer. bor.

20. **Pleospora Rhanterii** P. Henn. F. Oranen. Hochreut. p. 243 (Ann. 2605 Conserv. Jard. bot. Genève, 1903-1904). — Peritheciis cauliculis sparsis v. subgregariis, innatis, epidermidem suberumpentibus, hemisphæricis ca. 120-160 μ . diam., atro-membranaceis, poro pertusis; ascis clavatis apice tunicatis, rotundatis, ca. 75-100 \times 20-30, basi breve stipitatis curvulis, octosporis, obsolete paraphysatis; sporidiis subdistichis, oblonge ellipsoideis, utrinque rotundatis, primo melleis, dein brunneis, deinde atro-castaneis, 3-5-septatis, cuneiformibus, 20-30 \times 13-18.

Hab. in ramulis siccis Rhanterii suaveolentis, Oran Afr. sept. (HOCHREUTINER).

21. **Pleospora Senecionis** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2606 p. 22. — Peritheciis sparsis, tectis, dein erumpentibus, nigris, 200 μ . diam. v. ultra, planiusculis; ostiolo inconspicuo; ascis ovoideis, fere sessilibus, 80 \times 18; paraphysibus paucis, filiformibus, tenuibus, continuis; sporidiis subdistichis, ovatis, utrinque rotundatis, brunneis, 5-7-septatis, 20-30 \times 12.

Hab. in caulibus emortuis Senecionis, Hermosa, South Colorado, Amer. bor.

22. **Pleospora discoidea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2607 1903, p. 198. — Peritheciis sparsis epidermide tenui tectis, nigricantibus globoso-discoideis, minute conico-papillatis, subcarbonaceis 200-300 \times 100-150; ascis cylindræis breve crasse stipitatis, octo-

sporis 115-127 \approx 25-30, paraphysatis; sporidiis distichis, obovato-oblongis, vulgo 7-septato-muriformibus, constrictis, 30-38 \approx 13-16.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg.

23. **Pleospora Clematidis** Fuck. — Syll. II, p. 255. — f. **Sambuci** 2303
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903. p. 195. — A typo recedit, præter matricem, ascis magnitudine valde ludibundis 95-230 \approx 8-14, et sporidiis ellipsoideo-fusiformibus, 21-28 \approx 7-8, 4-5-septato, muriformibus, brunneo-flavis.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg. — f. **Viburni** Feltg. l. c. — Differt peritheciiis multo minoribus 100-200 μ . diam., globosis, basi non applanatis, non rugosis; ascis latioribus, 100-175 \approx 15-16; sporidiis crassioribus 20-23 \approx 8-11, 3-5-septato-muriformibus constrictisque, flavis. — In ramis corticatis Viburni Opuli, Luxemburg. — Cfr. supra n. 13.

24. **Pleospora Falconeri** P. Henn. Hedw. 1903, p. 218. — Peritheciiis 2609
foliicolis, in maculis fuscis v. griseis sparsis, subhemisphæricis, atro-olivaceis ca. 300 μ . diam.; ascis crasse clavatis, apice obtusis tunicatis, octosporis, 80-110 \approx 20-30, paraphysibus pluriseptatis 3-4,5 μ . crassis, hyalinis; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, melleis, dein brunneis, 9-10-septatis, 1-2 longitudinaliter septatis, constrictis, 25-32 \approx 14-16.

Hab. in foliis emortuis Rhododendri Falconeri, in horto botanico Berolinensi.

25. **Pleospora massarioides** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2610
p. 192. — Peritheciiis gregariis, epidermide tectis, membranaceo-coriaceis, nigris, globoso-depressis, 250-300 μ . diam., papilla verruciformi-erumpentibus; ascis elongato-clavatis, breve stipitatis 175-200 \approx 27-33, paraphysatis octosporis; sporidiis inordinate distichis, oblongo-ellipsoideis subclavatisve 7-septato-muriformibus constrictis, 40-47 \approx 13-16, melleo-brunneis, strato mucoso hyalino obductis.

Hab. in caulibus siccis Echii vulgaris, Luxemburg.

26. **Pleospora Acantholimonis** P. Henn. in Notizblatt des Kgl. bot. 2611
Gard. Berl. 1900, n. 22, p. 37. — Peritheciiis foliicolis, subgregariis, epidermide primo tectis, dein erumpentibus, lenticulari-hemisphæricis, atris, ca. 150-350 μ . diam.; ascis clavatis, vertice obtusis, basi attenuatis, sæpe stipitatis curvulis, 150-200 \approx 24-32, octosporis; sporidiis subdistichis v. oblique monostichis, ellipsoideis v. ovoideis, utrinque obtusis 3-dein 7-septatis, muriformibus, constrictis, melleis dein brunneis, 23-34 \approx 16-23.

Hab. in foliis *Acantholimonis glaucescentis* et *A. venusti* in horto botanico Berolinensi Germaniæ.

27. **Pleospora Ephedræ** Speg. Myc. argent. ser. II, 1902, p. 72. — 2612

Peritheciis laxè aggregatis, primo epidermide tectis, dein denudatis, superficialibus, conoideo-hemisphæricis, eximie papillato-ostiolatis, carbonaceis, glaberrimis, 150-250 μ . diam., contextu indistincto, atro; ascis cylindræis v. clavulatis dense paraphysatis, 90-160 \times 15-24; paraphysibus filiformibus, longioribus, simplicibus; sporidiis rectis, monostichis v. subdistichis, ex elliptico subovatis, 24-25 \times 10-12, horizontaliter 7-septatis, septo altero longitudinali divisus, olivaceis, in prima ætate tunica mucosa tenui vestitis, mox nudis, levibus.

Hab. ad ramulos dejectos putrescentes *Ephedræ ochreatæ*, La Plata in Argentina. — Species *P. Gilletianæ* Sacc. certe affinis, sed rite distincta.

28. **Pleospora Henningsiana** Ruhland, Jahn et Paul (Verh. d. Bot. 2613

Ver. d. Prov. Brandenb. XXXXIII, 1901, p. 105). — Peritheciis in cortice matricis sub peridermio innatis, depresso-globosis, coriaceo-membranaceis, sparsis, atris, ostiolo 50-60 μ . lato, paululum prominente instructis, ceterum peridermio tectis, c. 350 μ . latis, 260 μ . altis; ascis subcylindræo-clavatis, 160-180 \times 20-28, apice rotundatis, paraphysibus filiformi-tenuibus obvallatis; sporidiis plerumque 7-9-septatis, muriformibus, oblongo-fusiformibus, ad septa leviter constrictis, primum flavis, dein fusco-fuliginis, 45-50 \times 10-15.

Hab. ad ramulos emortuos *Coryli Avellanæ* (?) ad Wiederschönhausen pr. Berlin Germaniæ.

29. **Pleospora juglandina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2614

1903, p. 193. — Peritheciis sparsis, basi insculptis epidermideque pustulata tectis, demum subliberis, globosis, minute papillatis, nigris, 200-250 μ . diam.; ascis tereti-oblongis, octosporis, parce paraphysatis, 142-158 \times 23-29; sporidiis 1-2-stichis, obovato-oblongis 5-rarius 6-septato-muriformibus, constrictis, e melleo brunneis, 30-37 \times 14-17.

Hab. in pag. inf. foliorum *Juglandis regiæ*, Luxemburg.

30. **Pleospora Salicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2615

1903, p. 199. — Peritheciis sparsis, innato-erumpentibus, globoso depressis, obtuse papillatis, nigris 150-200 μ . diam.; ascis . . . non visis; sporidiis oblongo-ellipsoideis, obtusis, rectis, 7-septato-muriformibus, constrictis, flavo-brunneis 12-15 \times 4-5,5.

Hab. in ramis corticatis Salicis, Luxemburg.

31. **Pleospora sepulta** Clements in Bull. of the Torr. Bot. Cl. 1903, 2616 p. 85. — Peritheciis subcopiosis, subepidermidicis, rotundato-elevatis v. hysteroideis, globosis, vix ostiolatis, carbonaceis, glabris, 400-500 μ . diam.; ascis 6-8-sporis, clavato-cylindraceutis, jodo non tinctis, paraphysibus linearibus, simplicibus, valde torulosis, apice 4 μ . lat.; sporidiis oblongo-fusiformibus, oblique monostichis, utrinque attenuato-acutis, 8-11-plerumque 9-10-septatis, septo verticali uno, nonnumquam duobus, ad medium constrictis, ætate secedentibus, flavis dein brunneis, 30-45 \times 10-14.

Hab. ad ramos vetustos decorticatosque, Minnehaha, Americæ borealis.

32. **Pleospora Edwiniæ** Clements in Bull. of the Torr. Bot. Cl. 1903, p. 85. — Peritheciis sparsis, tectis, deinde cortice dejecto superficialibus, depresso-globosis, ostiolatis, vix vel non papillatis, magnis 500-600 μ .; ascis 4-6-sporis, clavatis, jodo non vel indistincte cærulescentibus, 100-120 \times 15; paraphysibus numerosis, linearibus, ascos valde superantibus; sporidiis recte monostichis, late ellipticis 4-5-septatis, uno septo verticali in quoque loculo, ultimis sæpe exceptis, ad septa leviter constrictis, ad secundum semper valde constrictis, fusco-brunneis, 20-25 \times 12-14.

Hab. in ramis siccis Edwiniæ americanæ, Sugar Loaf, Amer. bor.

33. **Pleospora Kentiæ** Maublanc in Bull. Soc. Myc. de France 1903, 2618 fasc. III, p. 291, tab. XIV, fig. 2. — Maculis elongatis, albidis, margine brunneo cinctis; peritheciis punctiformibus, nigris, globosis, immersis, sursum in papillam cylindricam, longiusculam, 70 μ ., desinentibus, 150 μ . diam.; ascis cylindricis 80-85 \times 12; sporidiis monostichis, oblongis, inæquilateralibus, utrinque attenuatis, 3-septatis, medio constrictis, loculo uno vel duobus intermediis longitudinaliter et interdum transverse divisis, ochraceis, 16-18 \times 8-9; paraphysibus diffluentibus.

Hab. in foliis vivis Kentiæ cujusdam in Algeria.

34. **Pleospora Aphyllanthis** P. Henn. Hedw. 1902, p. 135. — Peri- 2619 theciis primo epidermide tectis, dein erumpentibus, subhemisphæricis, submembranaceis, atris, glabris, levibus, papillato-ostiolatis 150-200 μ . diam.; ascis clavatis, apice obtuse rotundatis, basi breve stipitato-curvatis, octosporis, 120-150 \times 25-40; paraphysibus filiformibus, apice subclavatis, septatis, hyalinis, 4 μ . cr.; sporidiis distichis, oblongo-ellipsoideis vel ovoideis, utrinque obtusis, 7-se-

ptatis, muriformibus, plus minus constrictis, melleis dein atro-brunneis, 20-45 \times 12-20 (medie 30 \times 15).

Hab. in petiolis *Aphyllanthis monspeliensis*, in horto botanico Berolinensi Germaniæ.

35. **Pleospora Convallariæ** Cocc. et Mor. -- Syll. IX, pag. 886. — 2620
f. **Polygonati** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 184. — A typo differt peritheciis majoribus 150-200; sporidiis angustioribus, 35-38 \times 10, 7-septato-muriformibus.

Hab. in caulibus *Polygonati vulgaris*, Luxemburg. — Perithecia sæpius tam in typo quam in var. setulis conspersa, hinc potius *Pyrenophoræ* spec.

36. **Pleospora socialis** Niessl et Kunze — Syll. II, p. 264. — f. **Lini** 2621
Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 181. — A typo distinguitur peritheciis paullo majoribus, 200-300 μ . diam. et glabris; sporidiis 5-septato-muriformibus, 18-24 \times 9-10.

Hab. in caulibus siccis *Lini* spec., Luxemburg.

37. **Pleospora Sisyrinchii** Speg. Myc. argent. ser. II, 1902, p. 71. — 2622
Maculis nullis; peritheciis primo tectis, dein nudis, superficialibus, sublenticularibus, papillulatis, in sicco sæpius cupulato-collapsis, 250-350 μ . diam., coriacellis; contextu atro-olivaceo, opaco, ostiolo minute papillulato acutiusculo; ascis crasse tunicatis, apice obtusiusculis, deorsum cuneato-attenuatis brevissimeque pedicellatis, 100-140 \times 25 aparaphysatis; sporidiis distichis, horizontaliter 3-septatis, ad septa constrictulis, 30 \times 15, loculis septo altero verticali continuo divisis, e latere subcylindræis 10 μ . cr. et septo verticali destitutis, primo olivaceis dein atro-olivaceis v. fuligineis.

Hab. ad folia arida *Sisyrinchii juncei*, secus Rio Gallego in Patagonia.

38. **Pleospora spinosella** Rehm — Syll. II, p. 272. — var. **Luzulæ** 2623
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 147. — A typo differt ascis sporidiisque conspicue majoribus, nempe ascis 100-180 \times 24-30 sporidiisque 33-45 \times 12-20.

Hab. in culmis *Luzulæ maximæ*, Luxemburg.

39. **Pleospora Feltgeni** Sacc. et Syd. — Syll. XVI, p. 547. — var. 2624
Pseudacori Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 183. — A typo differt sporidiis dimidio minoribus.

Hab. in caulibus *Iridis Pseudacori*, Luxemburg. — var. **Eriophori** Feltg. l. c. — A typo differt ascis 6-8-sporis, clavatis vel cylindræis 205-230 \times 27-33; sporidiis 7-septato-muriformibus

35-45 \approx 13-18, utrinque pallidioribus. In culmis *Eriophori angustifolii*, Luxemburg.

40. **Pleospora lacustris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2625
1903, p. 185. — Peritheciis sparsis, immersis, globoso-depressis, nigris, 200-250 μ . diam., papilla minutissima erumpentibus; ascis clavatis, breve stipitatis, 80 \approx 18-20, paraphysatis, octosporis; sporidiis 2-3-stichis, elliptico-fusoideis, obtusis, vulgo curvis, 9-rarius 11-septato-muriformibus, constrictis, flavo-brunneis, 33-40 \approx 8-10.

Hab. in caulibus siccis *Typhæ angustifoliæ*, Luxemburg.

41. **Pleospora Alismatis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2626
p. 16. — Peritheciis sparsis, erumpentibus, hemisphærico-prominulis, paullo convexis 200 μ . diam.; ascis clavato-cylindræis, breve stipitatis 90-100 \approx 12-15, paraphysibus stipatis, filiformibus, obvallatis; sporidiis monostichis v. fere distichis, fusoideo-oblongis inæquilateralibus, 7-9-septatis, muriformibus, 22-27 \approx 10-12, raro 15 μ . diam.

Hab. in caulibus emortuis *Alismatis Plantaginis*, South Dakota, Amer. bor. (D. GRIFFITHS).

42. **Pleospora culmigena** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2627
II, p. 145. — Peritheciis gregariis, tectis, globosis, nigris 100-300 μ . diam., ostiolo obtuse conico erumpentibus; ascis clavatis breve nodoso-stipitatis 91 \approx 10,5 (tetrasporis) vel 156 \approx 10,5 (octosporis), filiformi-paraphysatis; sporidiis 1-2-stichis, ovato-oblongis v. fusoideis, rectis 6-9-frequentius 8-septato-muriformibus, constrictis, flavis, 29-32 \approx 10,5.

Hab. in caulibus putridis *Cerealium*, Luxemburg. — *Pleosporæ straminis* affinis.

43. **Pleospora gigantasca** Rostr. Islands Svampe in Bot. Tidsskrift, 2628
1903, vol. 25, p. 307. — Peritheciis sparsis, globosis; ascis oblongo-claviformibus, 240-250 \approx 60-65; sporidiis luteis, 9-septatis, 55-65 \approx 23-27 e latere compressis 16-18 μ . cr., ad septa constrictis, reticulariter costatis, guttulatis.

Hab. in foliis *Elymi arenarii*, Islandia.

44. **Pleospora Glyceriæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2629
II, p. 145. — Peritheciis gregariis vel sparsis vel seriatis, globosis 300-500 μ . diam., immersis, ostiolo acute conico emergente; ascis tereti-clavatis breve stipitatis, 110-115 \approx 15-18, octosporis; sporidiis elliptico-oblongis, rectis curvulisve 9-11-septato-muriformibus, medio constrictis, 1-2-stichis, 21-26 \approx 8, flavo-brunneis.

Hab. in culmis siccis *Glyceriæ fluitantis*, Luxemburg.

45. **Pleospora polymorpha** Maublanc in Bull. Soc. Myc. de France 2630
1903, fasc. 3, p. 291, tab. XV, fig. 1. — Peritheciis aggregatis,
longitudinaliter seriatis, nigris, innatis, erumpentibus, basi tenua-
to-cuneatis, vix papillatis; ascis clavatis 140-170 \times 20-27; para-
physibus filiformibus; sporidiis oblongis, interdum utrinque at-
tenuatis, parte superiore crassiore, 7-septatis, ad septa leniter
constrictis, oculis 1-2 longitudinaliter septis divisis, melleis, 32-
36 \times 13-14, mycelio fusco.

Hab. in paniculis *Gynerii argentei*, Pornic Gallia.

46. **Pleospora Sorghi** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, 2631
p. 181. — Peritheciis sparsis, innatis, globosis, 150-250 μ . diam.,
breve conico-papillatis; ascis cylindraceutis, breve stipitatis, 6-8-spo-
ris, 102-142 \times 10-13, filiformi-paraphysatis; sporidiis monostichis
oblongo-ellipsoideis vulgo 5-septato-muriformibus, constrictis, fla-
vis, 15-20 \times 7,5-10, episporio levi.

Hab. in culmis putrescentibus *Sorghi*, Luxemburg. — Affi-
nis *Pleospora microsporæ*.

47. **Pleospora Farlowiana** Rehm, Ann. Mycol. 1904, p. 177. — Pe- 2632
ritheciis sparsis, innatis, globosis, glabris, vix papillulatis, atris ca.
150 μ . diam.; ascis clavatis 80-90 \times 20, octosporis; sporidiis elli-
pticis apice superiore subacutatis, inferiore rotundatis, 3-septatis,
cellulis mediis rarius et apicalibus semel longitudinaliter divisis,
medio interdum subconstrictis, melleis, 20-22 \times 10-12, distichis;
paraphysibus ramosis.

Hab. ad *Selaginellam rupestrem*, White Fish Lake,
Ontario, Amer. bor. (FARLOW). — A ceteris *Lycopodiorum* inco-
lis, sporidiis minus septatis minoribusque plane diversa species.

48. **Pleospora filicina** Feltg. Vorstud. Pilz. Luxemb. 1903, Nachtr. 2633
III, p. 186. — Peritheciis gregariis vel sparsis, cuticula tectis,
globoso-depressis vix papillatis, brunneis, 80-150 μ . latis; ascis
cylindraceutis, breve stipitatis 136-150 \times 15-17, octosporis; paraphy-
sibus . . . non visis; sporidiis monostichis, elliptico-cylindraceutis,
obtusis, rectis, 3-rarius 5-septato-muriformibus, brunneis 22-
27 \times 10-11.

Hab. in stipitibus *Pteridis aquilinæ*, Luxemburg. — A
Pleospora Pteridis bene distincta.

PYRENOPHORA Fr. — Syll. II p. 277, IX p. 895, XI p. 344, XIV
p. 602, XVI p. 549.

1. **Pyrenophora flavo-fusca** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2634

1903, p. 202. — Peritheciis gregariis v. subcæspitosis, subcutaneis, globoso-depressis dein erumpentibus 100-150 rarius 250 μ . diam., ostiolo minute conico-papillato præditis, inferne flavidis, sursum brunneis et setis 40-80 \times 5-8 nigricantibus vestitis; ascis elliptico-clavatis, breve crasse stipitatis, filiformi-paraphysatis, 8-sporis, 125-150 \times 27-40; sporidiis subdistichis, late ellipsoideis, rectis 7-septato-muriformibus, constrictis, sursum crassioribus e flavo brunneis, 33-37 \times 13-16.

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Pyrenophora Clematidis** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2635 p. 23. — Peritheciis nigris, tectis, dein erumpentibus, 150-175 μ . diam., profunde collabentibus, setulis rigidulis brunneis 30-50 μ . longis, parce vestitis, ostiolo papillatis; ascis obovatis 80-90 \times 20-25; paraphysibus filiformibus; sporidiis distichis, ovalibus 5-7-septatis, loculis 1-2 longitudinaliter divisis, luteo-brunneis dein brunneo-opacis, 20-30 \times 12-15.

Hab. in caulibus emortuis Clematidis ligusticæfoliæ, Hermosa, South Colorado, Amer. bor.

3. **Pyrenophora Castillejæ** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2636 p. 23. — Peritheciis sparsis, nigris, tectis dein erumpentibus, 150-200 μ . d., collabentibus, setulis fuscis, crispulis 40-100 \times 4, superne vestitis, poro pertusis parce papillatis; ascis ovoideis vel obovatis 80 \times 30; paraphysibus filiformibus, asco longioribus; sporidiis distichis ovoideis, 5-7-septatis, 2-3 longitudinaliter divisis, initio luteolis 1-septatis, dein intense brunneis, 25-30 \times 10-12.

Hab. in caulibus emortuis Castillejæ, Hermosa, South Colorado, Amer. bor. — *P. Eriogoni* affinis.

4. **Pyrenophora Eriogoni** Earle, Plantæ Bakerianæ, fasc. II, Fungi, 2637 pag. 24. — Peritheciis sparsis, tectis dein erumpentibus, intense brunneis, 250 μ . diam., subapplanatis; setulis, raro septatis, inferne intense fuscis, sursum fere hyalinis, 80-150 \times 4; ostiolo incospicuo; ascis cylindræis, crasse tunicatis 120 \times 25; paraphysibus numerosis, filiformibus; sporidiis ovatis utrinque obtuse rotundatis, brunneis, 7-septatis, ad septum medianum constrictis, longitudinaliter 2-4-septatis, 25-30 \times 12.

Hab. in caulibus emortuis Eriogoni, Hermosa, South Colorado Amer. bor.

5. **Pyrenophora comata** (Niessl) Sacc. — Syll. II, p. 286. — var. **alpina** Ferraris, Malp. 1904, pag. 489. — Peritheciis setulis paucis sed longis, rigidis, rectis, usque 120 μ . long; ascis 90-100 \times 16-

18; sporidiis $19 \approx 9$, intense brunneis, subinde medio constrictulis.

Hab. in foliis emortuis *Alsines aretioidis*, Riva Valdobbia Ital. bor. (CARESTIA).

6. **Pyrenophora Pestalozzæ** Magn. in Bull. Herb. Boissier 1903, 2639 n. 7, p. 582, tab. IV, fig. 15-20. — Peritheciis hinc inde sparsis, subepidermicis, atris, subcarbonaceis, setulis rigidulis, filiformibus prope ostiolum vestitis; ascis oblongo-clavatis brevissime stipitatis octosporis; sporidiis subdistichis, 7-septato-muriformibus, medio vix constrictis, $34-35 \approx 13,5$ brunneis.

Hab. in foliis siccis *Alsines Pestalozzæ* in jugis alpinis Phrygiæ.

7. **Pyrenophora polyphragmoides** Saccardo et Scalia Harrim. Alaska 2640 Exped. Crypt. p. 28, pl. V, fig. 13. — Peritheciis erumpentibus, sparsis, punctiformibus, nigris, globulosis, $190-220 \mu$. diam., setis rigidis, fuscis septatis, $160-190 \approx 7-5$, vertice vestitis; contextu parenchymatico, fuligineo; ascis cylindræis, rectis curvulisve, apice rotundatis, brevissime oblique stipitatis, octosporis; sporidiis distichis, oblongo-fusoideis, utrinque obtusulis, initio 3-septatis, dein sub-7-septatis, melleis, tandem 9-12-septatis, murali-divisis, medio vix v. non constrictis, $36-56 \approx 18$, fuligineis.

Hab. in caulibus et foliis emortuis *Polemonii humilis*, Popof Island, Alaska (HARRINGTON). — Affinis *Pyren. phæosporæ* et *P. polyphragmicæ* sed rite distincta.

8. **Pyrenophora Salsolæ** Griffiths — Syll. XVI, pag. 549. — var. 2641 **Majanthemi** Feltg. Vorstud. Pilz. Lux. Nachtr. III, 1903, p. 204. — A typo differt peritheciis minoribus $150-200 \mu$. diam. lenticularibus, setis validioribus vestitis sporidiisque irregularibus flavo-brunneis, 5-septato-muriformibus.

Hab. in pag. super. foliorum *Majanthemi bifolii*, Luxemburg.

PLEOMASSARIA Speg. — Syll. II p. 239, IX p. 872, XI p. 341, XVI p. 552.

1. **Pleomassaria Magnoliæ** Shear in Bull. of the Torr. Bot. Cl. 1902, 2642 p. 455. — Peritheciis gregariis, immersis, subcutaneis, depressosphæricis vel sublenticularibus, coriaceo-carbonaceis $600-800 \mu$. diam., ostiolo conico erumpenti donatis; ascis clavatis, breve stipitatis, octosporis, $195-230 \approx 55-60$; paraphysibus filiformibus; sporidiis irregulariter dispositis, oblongo-clavatis, ad septum medianum

constrictis, initio hyalinis 3-6-septatis, dein olivaceis, septato-muriformibus, postremo brunneis, muco obvolutis, 66-78 \times 21-23.

Hab. in ramis corticatis Magnoliæ obovatæ, Washington, Amer. bor. — Pycnidium est *Camarosporium Magnoliæ* Shear.

TEICHOSPORA Fuck. — Syll. II p. 290, IX p. 899, XI p. 345, XIV p. 603, XVI p. 550.

I. *Eu-Teichospora*.

1. **Teichospora Davidssonii** Rostr. Islands Svampe in Bot. Tidsskrift, 2643 1903, vol. 25, p. 309. — Peritheciis gregariis, primitus sub epidermide nidulantibus, dein superficialibus, 300-500 μ . diam., breviuscule papillatis; ascis breviter et abrupte pedicellatis, cylindraceis, 130 \times 20; sporidiis monostichis, ellipsoideis, 3-4-septatis, loculo uno alterove septulo longitudinali diviso, flavis vel dilute fuscis 28-32 \times 10-15.

Hab. in gemmis Salicis lanatæ, Islandia (O. DAVIDSSON).

2. **Teichospora Cerasi** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1139 2644 (nomen) *Strickeria* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 197. — Peritheciis gregariis corticis fibris semiimmersis, globoso-ellipsoideis 150-250 μ . diam., nigris, minute papillatis; ascis cylindraceis, breviter stipitatis, filiformi-paraphysatis, 117-126 \times 10,5-13; sporidiis monostichis, cylindraceo-ellipsoideis, utrinque rotundatis, 5-septatis, profunde constrictis, flavis, 15-18 \times 7-9,5, cellulis mediis 4, longitrorsum 1-septatis.

Hab. in ramis decorticatis Cerasi avium, Luxemburg.

3. **Teichospora disconspicua** Rehm, Öst. Bot. Zeitschr. 1903, p. 11. 2645 — Peritheciis dispersis, sessilibus, globulosis, non collabentibus, vix papillulatis, atris, glabris, fusce parenchymatice contextis, 180 μ . diam.; ascis clavatis, apice rotundatis, 50-60 μ . long., 15 μ . latis, octosporis; sporidiis oblongis, vix ellipsoideis, utrinque obtusis, transverse 3-dein 5-septatis, una alterave cellularum mediarum semel longitudinaliter divisis, unaquaque cellula guttulam oleosam magnam continentibus, ad septa vix constrictis, dilute hyalino-fuscidulis, 15 \times 7, distichis; paraphysibus ramosis 1,5 μ . cr.

Hab. ad frustula putrescentia Pini, in Tirolia. — Jodi ope paraphyses mucosæ dilute vinoso-rubro tinguntur.

4. **Teichospora subcorticalis** (Feltg.) Sacc. et D. Sacc. *Strickeria sub-* 2646

corticalis Feltg. Vorst. Pilz. Luxemb. Nacktr. III, 1903, p. 274.

— Peritheciis sparsis vel gregariis, erumpentibus, basi insculptis, globosis vel subconoideis non collabascentibus, nigris, membranaceo-coriaceis, extus rugulosis 250-350 μ . diam. ostiolo globuloso vel breve cylindraceo; ascis cylindraceis, octosporis, breve stipitatis 108-121 \approx 10-11, filiformi-paraphysatis; sporidiis monostichis, elliptico-ovoideis vel clavulatis, sursum amplioribus, 3-septato-muriformibus, leviter constrictis, flavo-brunneis, 16-18 \approx 8.

Hab. in cortice interiore *Piri communis*, Luxemburg.

5. **Teichospora Symphoricarpi** (Tracy et Earle) Sacc. et D. Sacc. *Strickeria Symphoricarpi* Trac. et E. Plantæ Baker. I, pag. 30. — 2647
Peritheciis sparsis vel subgregariis in areis nigrescentibus, carbonaceis, nigris, globosis 0,5-1 mm. diam., rugosis, ostiolo minute papillato donatis; ascis cylindraceis, breve stipitatis 150-200 \approx 16; paraphysibus numerosis, filiformibus; sporidiis monostichis, fere ovalibus, initio luteis, 1-septatis, et valde constrictis, dein fuscis, 3-5-septatis, postremo 7-septatis, ad septum centrale constrictis, 25 \approx 12, longitudinaliter divisis.

Hab. in ramulis decorticatis *Symphoricarpi* spec. Bob Creek Colorado, Amer. bor. — *T. strigosæ* E. et Ev. affinis.

6. **Teichospora nivalis** v. Höhn. in Rehm Ascom. exs. n. 1564 et 2648
Ann. Mycol. 1904, p. 518. — Peritheciis superficialiter sessilibus, dispersis v. 2-3-congregatis, globulosis, vix ostiolatis, demum sæpe paullulum collabentibus, atris, scabris, carbonaceis, fragilibus, 750 μ . diam.; ascis cylindraceis, apice rotundatis, vix incrassatis 225-280 \approx 17-18 in stipitem brevem nodulosum 40 \approx 4 tenuatis, 6-8-sporis; sporidiis oblongo-ellipsoideis, utrinque rotundatis, apices versus attenuatis, transverse 7-12-longitudinaliter 2-3-septatis, fuscis, 33-40 \approx 14-14,5, monostichis; paraphysibus numerosissimis, ascos superantibus, sæpe ramosis, 1-1,5 μ . cr.

Hab. in spinis rhachidis *Astragali* sp. in alveis nivalibus ad 2700-2900 m. ad Argasum Asiæ minor. (Dott. E. ZEDERBAUER).
— Asci subinde minores 190 \approx 15 et tunc sporidia 25 \approx 10, tantum 7-8-septata.

7. **Teichospora pilosa** Bacc. in N. Giorn. bot. ital. 1904, p. 416. — 2649
Peritheciis sparsis, superficialibus, globosis 300 μ . diam. minute ac inconspicue papillatis, levibus vel basi tantum setis rigidis cinctis; subiculo atro ex hyphis erectis simplicibus 100 \approx 15, forsitan conidiiferis, insidentibus; ascis cylindricis paraphysibus tenuibus hyalinis, æquilongis obvallatis, 200 \approx 17; sporidiis trans-

verse triseptatis ad medium constrictis, loculis extremis pallidioribus, medianis longitudinaliter septatis, oblique monostichis $30 \approx 13$.

Hab. ad caules siccos herbarum quarumdam, Pisa Italiæ. — Præsertim subiculi dematiacei præsentia species dignoscitur.

II. *Strickeria* Korb.

8. *Teichospora Amelanchieris* (Earle) Sacc. et D. Sacc. *Strickeria Ame-* 2650

lanchieris Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 14. — Peritheciis sparsis vel interdum gregariis, nigris, levibus, valde collapsis 350μ . diam., ostiolo indistincto pertusis; ascis clavato-cylindræis $100 \approx 6$; paraphysibus filiformibus suffultis; sporidiis subdistichis, subovalibus, sæpe curvulis, 5-7-septatis, muriformibus, ad septum medianum constrictis, $30-35 \approx 7-10$.

Hab. in ramulis decorticatis *Amelanchieris* spec. Hermosa, Colorado, Amer. bor.

9. *Teichospora Cercocarpi* (Earle) Sacc. et D. Sacc. *Strickeria Cerco-* 2651

carpi Earle, Plantæ Baker. fasc. II, Fungi p. 14. — Peritheciis in ligno nigrificato immersis sparsis, vel 3-4 cæspitose-congestis, nigris, rugosis, superne collapsis, circ. 500μ . diam., ostiolo minute papillato, inconspicuo donatis; ascis cylindræis, breve stipitatis, ca. $100 \approx 10$; paraphysibus numerosissimis, filiformibus, asco longioribus; sporidiis monostichis subovatis, intense brunneis, 7-septatis muriformibus, ad septum medianum constrictis, superne obtusis vel subacutis, $20-25 \approx 8$.

Hab. in ramis decorticatis *Cercocarpi*, Hermosa, South Colorado, Amer. bor.

10. *Teichospora Populi* (Earle) Sacc. et D. Sacc. *Strickeria Populi* Earle 2652

Plantæ Bakerianæ f. II, Fungi p. 15. — Peritheciis sparsis, nigris, lucentibus, 500μ . diam., subglobosis, demum leniter collapsis vel superne incisiss, ostiolo simplici pertusis; ascis $80 \approx 16$; sporidiis monostichis, initio luteolis dein brunneis, 3-septatis, ad septa constrictis, muriformibus, utrinque obtusis, $18-20 \approx 8-10$.

Hab. in ramis decorticatis *Populi angustifoliæ*, Durango, Colorado, Amer. bor.

11. *Teichospora Fendleræ* (Earle) Sacc. et D. Sacc. *Strickeria Fendleræ* 2653

Earle Plantæ Bakerianæ fs. II, Fungi p. 15. — Peritheciis sparsis vel gregariis, nigris, lucentibus, collapsis-patelloideis $200-300 \mu$. diam.; ascis cylindræis, crasse tunicatis, $80-100 \approx 20$, paraphysibus filiformibus, obvallatis; sporidiis distichis, oblongis, utrinque

obtuse rotundatis, 4-septatis, muriformibus, initio hyalinis, dein brunneis 25-30 \times 10.

Hab. in ramis Fendleræ rupicolæ, Hermosa, Colorado, Amer. bor.

12. **Teichospora rhoïna** (Earle) Sacc. et D. Sacc. *Strickeria rhoïna* 2654

Earle Plantæ Bakerianæ fasc. II, Fungi p. 16. — Peritheciis dense sparsis, basi profunde immersis, nigris 500-750 μ . diam. denique collapsis, ostiolo minute papillato donatis; ascis cylindræis breve stipitatis 100-120 \times 10; paraphysibus filiformibus asco longioribus; sporidiis monostichis, ovatis, luteis vel brunneo-lucentibus, 3-4-septatis, dein 5-7-septatis, muriformibus, ad septum medianum leviter constrictis, 20 \times 8.

Hab. in ligno decorticato Rhois trilobatæ, Hermosa, Colorado, Amer. bor. — *Teichosporæ rhyodi* affinis.

PLEOSPHERIA Speg. — Syll. II p. 304, IX p. 910, XI p. 347, XIV p. 607.

1. **Pleosphæria albidans** Bäumler, Beitr. z. Cryptog. Fl. des Presb. 2655

Comit. 1902, pag. 32. — Peritheciis gregariis, innatis, dein plus minus superficialibus, globosis, 150-300 μ . diam., subcarbonaceis, extus rugosis pilisque brunneis, brevibus 3-4 μ . cr., vestitis, ostiolo minuto rotundo non collabente; ascis breve stipitatis 80-90 \times 10-12, copiose filiformi-paraphysatis, octosporis; sporidiis distichis, plerumque ascos totos implentibus, 16-19 \times 7-8, utrinque rotundatis, vulgo deorsum paullo tenuatis 5-7-septato-muriformibus, medio leviter constrictis, brunneolis.

Hab. in ligno dealbato, decorticato Aceris, in comitatu Presburg Hungariæ.

2. **Pleosphæria Lithospermi** Clements in Bull. of the Torr. Bot. Cl. 2656

1903, p. 83. — Peritheciis sparsis, superficialibus, submembranceis, globosis deinde collabentibus, minute papillatis, extus pilis simplicibus, septatis, brunneis 150 \times 4-5, obsitis, sed vertice nudis 250 μ . diam.; ascis octosporis, late clavato-oblongis, paraphysatis, jodo non cærulescentibus, 120-140 \times 20-25; sporidiis monostichis, oblongo-ellipticis, luteo-brunneis, 7-septatis, loculis 2-3-septatis, ad septum medium valde constrictis, ad cetera leniter constrictis 25-30 \times 14-15.

Hab. ad caules emortuos Lithospermi parviflori, Cross Ruxton, Minnehaha, Amer. bor.

3. **Pleosphæria xenochæta** Penz. et Sacc. in Malpighia 1902, p. 227 (ex 2657

errore sub *Teichospora*). — Peritheciis dense gregariis, superficialibus, globulosis, minutis, carbonaceis, nigris 250-260 μ . d., vertice imperspicue papillatis, demum facile fractis et inæqualiter apertis, ubique laxe setulosis; setulis tereti-cuspidatis, pro loco plus minus longis, 50-100 \approx 7, continuis, aterrimis, sæpius curvulis, apice peculiariter oblique acuteque rostellatis et sub rostello pallidiore septatis; ascis jam resorptis; sporidiis maximis, obovatis vel suboblongis, utrinque obtusulis 95-100 \approx 28-36, rarius 56-58 \approx 30, deorsum paullo angustioribus 9-11-septatis septisque longitudinalibus pluri-seriatis, ad septa leviter constrictis, fuligineis.

Hab. in petiolis *Palmarum* putrescentibus, Tjibodas, in insula Java. — Contextus peritheciis parenchymaticus, fuligineus. Perithecia basi hyphis mycelicis septatis, ramosis, ochraceis cincta.

CROTONOCARPIA Fuck. — Syll. II p. 306, IX p. 912.

1. **Crotonocarpia moriformis** Fuck. — Syll. II, p. 306 — Teste cl. v. Höhnelt (in Ann. Mycol. 1903, pag. 523) ex autopsia exempl. Fuckeliani est *Cucurbitaria Berberidis* in Berberidis ramis, nec in Rubo. Etiam *Crotonocarpia moriformis* Fuck., Feltgen Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 290 ex ipsius complorati auctoris declaratione in litt. ad cl. H. Sydow (22-I-1904) est ipsissima *Cucurbitaria Berberidis* non in Junipero sed in Berberide! Singulare quod præclari mycologi Fuckel, Winter et Feltgen cum de fungo tum de ejus matrice decepti fuerint!

CUCURBITARIA Gray — Syll. II p. 307, IX p. 915, XI p. 348, XIV p. 607.

1. **Cucurbitaria arizonica** Ell. et Ev. in Journ. of Myc. 1902, vol. 8, 2658 p. 16. — Peritheciis erumpenti-superficialibus, 500 μ . diam., dense sparsis inferne collapsis, globosis, fusco-nigris, ostiolo præditis; ascis cylindræis, p. sp. 75-80 \approx 12, breve stipitatis, paraphysatis; sporidiis generaliter oblique monostichis, oblongo-ellipticis, 3-septatis et submuriformibus, medio septo paullo constrictis, initio luteolis dein brunneo-nigris, 14 \approx 6-8.

Hab. in ramis emortuis *Acaciæ Grayii*, Tucson, Arizona, Amer. bor. (D. GRIFFITHS).

2. **Cucurbitaria Typhinæ** Ell. et et Ev. in Journ. of Mycol. 1903, 2659 p. 166. — Peritheciis subglobosis circ. 500 μ . diam., 2-6-congestis, erumpentibus; ostiolo papillato, inconspicuo, interdum subcompresso; ascis cylindræis 120-150 \approx 15, subpedicellatis, octosporis;

paraphysibus nullis vel indistinctis; sporidiis monostichis, oblongis vel oblongo-ellipticis, indistincte 6-septatis et muriformibus, parce constrictis, luteolis, $22-27 \approx 12$, dein subopacis et cellulis extremis subhyalinis.

Hab. in caulibus emortuis *Rhois typhinæ*, Harraby, Lake Resseau, Ont., Canada, Amer. bor.

3. **Cucurbitaria juglandina** Ellis et Barth. in Journ. of Mycol. 1902, 2660 p. 174. — Peritheciis erumpentibus 5-10-congestis, 500 μ . diam. ostiolo inconspicuo donatis; ascis cylindraceis breve stipitatis, paraphysatis, $100-120 \approx 8-10$; sporidiis monostichis, oblongo-obvatis 3-dein 5-7-septatis, luteo-brunneis, ad septum medium subconstrictis, $15-22 \approx 8-10$, longitudinaliter septatis.

Hab. in ramis emortuis *Juglandis nigræ*, Rooks Co. Kansas, Amer. bor. — Ab affini *Cuc. Juglandis* differt ascis cylindraceis et sporidiis minoribus.

4. **Cucurbitaria Celtidis** Shear in Bull. of the Torr. Bot. Cl. 1902, 2661 p. 451. — Peritheciis 350-500 μ . d., dense gregariis v. subcæspitosis, areas latas occupantibus, erumpentibus et basi subimmersis, depresso-globosis, carbonaceis, rugulosis, collapsis, ostiolo papillato donatis; ascis cylindraceis, breve stipitatis vel subsessilibus, $140-180 \approx 16$; sporidiis monostichis, initio hyalino-luteolis, maturitate intense brunneis, transverse 3-5-septatis, longitudinaliter 1-septatis, ad septa leviter constrictis, $24-27 \approx 8$; paraphysibus superne ramosis, 3 μ . diam.

Hab. in ramis emortuis *Celtidis occidentalis*, Osborne, Kansas, Amer. bor.

5. **Cucurbitaria Pritzeliana** P. Henn. in Hedw. 1903, p. (80). — Peritheciis erumpenti-superficialibus, botryose aggregatis, membranaceis, subglobosis v. ovoideis, granuloso-verrucosis, atris, contextu pseudoparenchymatico atro-fusco, ca. 240-280 μ . diam. basi hyphis fuscis, septatis, ramosis, ca. 2,5-3,5 μ . cr.; ascis clavatis, apice rotundatis, crasse tunicatis, $100-130 \approx 20-40$, octosporis; paraphysibus obvallatis, copiosis apice fuscidulis; sporidiis subdistichis vel subtristichis, fusoides, interdum utrinque hyalino-papillatis, pluri-septatis, muriformibus, primo rufo-brunneis, dein atro-castaneis $25-50 \approx 9-18$.

Hab. in ramis corticatis, flum. Russel, N. Queensland Australiæ (PRITZEL).

FENESTELLA Tul. — Syll. II p. 325, IX p. 922, XI p. 349, XIV p. 610, XVI p. 553.

1. **Fenestella gigaspora** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. 2663

— Syll. XVI pag. 1139 (nomen). — Stromatibus carbonaceis, atris, rotundato-pulvinatis, sub epidermide vertice applanato subnitenti erumpentibus, ca. 2 mm. diam.; peritheciis immersis, paucis 2-3 subglobosis; ascis cylindraceutis 5-8-sporis, apice obtusis, 35-50 μ . cr.; paraphysibus copiosis, filiformibus, guttulatis, hyalinis 2-2,5 μ . cr.; sporidiis monostichis, oblonge ellipsoideis utrinque rotundatis, primo pallide flavis dein atro-brunneis, pluriseptato-fenestratis, plerumque 9-septatis, haud constrictis, 70-90 \approx 35-45.

Hab. in ramis emortuis, Togo Africae.

2. **Fenestella Prunastri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2664

1903, pag. 121. — Stromatibus 1 mm. diam., gregariis, sparsis, conoideis, epidermide tumidula tectis, disco subrotundo, sordide brunneo, erumpente et epidermidis laciniis cincto; peritheciis 4-6 in quoque stromate, globosis, monostichis, collis brevibus adscendentibus, demum rostellatis, sed discum vix superantibus; ascis crasse clavatis, longiuscule stipitatis, filiformi-paraphysatis, 115-124 \approx 22, octosporis; sporidiis distichis, oblongo-ellipsoideis, rectis curvulisve plerumque 3-rarius 4-septatis, leviter constrictis, cellulis longitrorsum 1-3-partitis, flavis, 20-22 \approx 8-9.

Hab. in ramis corticatis siccis Pruni spinosae, Luxemburg. — *Fenestellae Lycii* proxime affinis.

3. **Fenestella Höhneliana** Rehm ap. Höhn. Ann. Mycol. 1904, p. 45. 2665

I. Fungus ascophorus. — Peritheciis sparsis vel ad 2-10 valsoideo-aggregatis, peridermio tectis, applanato-sphæroideis, 500-830 μ . latis, 300-400 μ . altis, contextu 30-40 μ . crasso, carbonaceo; collo subtus bene discreto, crasse tunicato (tunica usque 100 μ . crassa), ca. 300-400 μ . crasso et alto, late (usque 140 μ .) perforato, apice incrassato, sæpe fere infundibuliformiter dilatato, peridermium perforante; ascis cylindraceutis, supra rotundatis, breve pedicellatis, 180-250 \approx 16-18, octo-(sed etiam 2-7)-sporis, paraphysibus numerosis, septatis, filiformibus, 3 μ . crassis, guttulis oleosis farctis, obvallatis; sporidiis plerumque oblique monostichis, ellipsoideis, non constrictis, primum flavis, dein fuliginosis, 6-8- (plerumque 7) -septatis, septis longitudinalibus 2-3 muriformiter divisis, 25-34 \approx 12-16. — II. Fungus pycnidicus: *Dendrophoma Fenestellae* v. Höhn. l. c. — Pycnidiis habitu peritheciis simillimis, intermixtis vel sparsis,

intus sporophoris dendroideo- vel fasciculato-ramosis, 30-60 \approx 1, dense obtectis; sporulis hyalinis, rectis vel curvulis, 3-6 \approx 1.

Hab. in ramulis emortuis corticatisque Berberidis vulgaris prope Silz (Oberinntal) et prope Gries (Sellrain) Tiroliae (Doct. REHM) et in ditione Tumpen (Oetzthal) Tiroliae (v. HÖHNEL). — Affinis *F. Amorphæ* Ell. et Ev.

THYRIDIUM Sacc. — Syll. II p. 323, IX p. 920, XI p. 348, XIV p. 609, XVI p. 553.

1. **Thyridium platense** Speg. Myc. argent. Ser. II, 1902, p. 73. — 2666

Stromatibus effusis per matricem laxè excurrentibus, linea nigra limitatis; peritheciis stromate vel ligno fere immutato immersis, dense constipatis, globosis, parvis 0,3-0,8 mm. d., ostiolo quandoque brevissimo non exserto quandoque longiuscule exserto donatis; contextu minuto densissime parenchymatico parum distincto, olivaceo; ascis cylindræis, breviter pedicellatis, 160-180 \approx 12-18, densiuscule paraphysatis, octosporis; paraphysibus mucosis, guttulatis; sporidiis rectis vel oblique monostichis, levibus, sæpius 3, rarius 5-septatis, ad septa parum constrictis, septo altero longitudinali continuo divisis, loculis grosse 1-guttulatis, primo hyalinis dein fusco-fuligineis.

Hab. ad ramos vetustos Manihotis carthagenensis, La Plata in Argentina.

2. **Thyridium stilbostomum** Ell. et Ev. in Journ. of Mycol. 1903, 2667

p. 223. — Peritheciis globosis 350-500 μ . diam., sparsis vel in stromate 3-5-congestis, ostiolo depresso-hemisphærico, nigro donatis; ascis cylindræis, stipitatis, paraphysatis, p. spor. 75-80 \approx 8-10; sporidiis monostichis, ellipticis, brunneis 6-7-septatis, submuriformibus, ad septum medium plus minusve constrictis, 22-27 \approx 7-10.

Hab. in ligno decorticato, emortuo Aceris saccharini, London, Colorado, Amer. bor.

Sect. 10. Scolecosporæ.

DILOPHIA Sacc. — Syll. II p. 357, IX p. 937, XIV p. 617.

1. **Dilophia Sempervivi** Rick, Bot. Zeitschr. 1903, p. 161. — Peri- 2668

theeciis numerosis, per epidermidem transparentibus, vix erumpentibus, brunneis, 500 μ . diam., contextu e cellulis parvis, guttulatis

composito; ascis octosporis $150 \approx 8$; sporidiis cylindraceis $50-70 \approx 2$ apicem versus apiculatis, curvato-sinuatis, hyalinis, multi-septatis et multi-guttulatis.

Hab. in caule *Sempervivi*, Vorarlberg Austriæ.

ACERBIA Sacc. — Syll. XI p. 363, XIV p. 619.

1. **Acerbia rhopalasca** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2669
1903, pag. 179. — Peritheciis sparsis vel gregariis, ligno omnino immersis, sæpe superficiem ligni tumefacientibus, 500μ . diam., papilla applanata emergente; ascis rectis, lineari-clavatis, longe tenuato-stipitatis, apice rotundatis, $76-100 \approx 3-5$, filiformi-paraphysatis; sporidiis filiformibus, superne rotundatis, basi acutiusculis, medio nodulosis et obsolete septatis, hyalinis, $76-100 \approx 1-2$, eguttulatis vel 1-serialiter guttulatis.

Hab. in ligno decorticato quercino, Luxemburg.

ACERBIELLA Sacc. n. g. (Etym. ab *Acerbia* cui affinis). — A proximo gen. *Acerbia* differt peritheciis setigeris, ab *Ophiocerate* cum peritheciis erostribus tum indumento piloso.

1. **Acerbiella macrospora** (Rick) Sacc. et D. Sacc. *Lasiotharria ma-* 5670
crospora Rick, Broteria, 1904, p. 290. — Peritheciis late gregariis ab initio superficialibus, 1 mm. diam., globosis, pilis rigidis acutis atro-umbrinis usque ad medium vestitis, ostiolo glabro minutulo, sed bene distincto; ascis cylindraceis, sessilibus, 8-sporis, $200 \approx 10$, sursum tenuatis; sporidiis anguiformibus, multi-septatis usque $100 \approx 3-4$, apicem versus angustioribus, ad septa subconstrictis, 1-guttulatis.

Hab. ad ligna fabrefacta Rio Grande do Sul Brasilæ.

CRYPTODERIS Auersw. — Syll. II p. 229, IX p. 771, XVI p. 535. 2671

1. **Cryptoderis caricina** Rehm Ascom. exs. n. 1557 et Ann. Mycol. 1904, p. 519. — Peritheciis innatis, globulosis, usque 300μ . d., ad basim hyphis permultis simplicibus, fuscis, septatis 4μ . cr. obsessis, rostro filiformi, apice hyalino, obtuso, $180-500 \approx 90$ prominente, contextu perithecii parenchymatico, haud carbonaceo; ascis tereti-subclavatis, apice rotundatis, $70-80 \approx 8-9$, octosporis; sporidiis bacillaribus, apice obtusis, basim versus acutatis, subcurvatis, grosse 4-6-guttatis demum 3-5-septatis, $30-33 \approx 3-3,5$, popolystichis, hyalinis; paraphysibus nullis.

Hab. ad folia putrida *Caricis vulpinæ*, Gōda Saxonie (FEURICH).

OPHIOBOLUS Riess — Syll. II p. 337, IX p. 923, XI p. 351, XIV p. 614, XVI p. 557.

1. **Ophiobolus eburensis** Sacc. — Syll. II, p. 342. — f. **Hellebori** Feltg. 2672
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 167. — A typo vix differt præter matricem, peritheciis demum depresso-concavis, ostiolis breviter cylindræis, sporidiisque, apice rotundatis, basi acutatis, minute pluriguttulatis 120-130 \approx 1,5-2, ex hyalino flavidis.

Hab. in caulibus siccis *Hellebori viridis*, Luxemburg.

2. **Ophiobolus oxysporus** (Feltg.) Sacc. et D. Sacc. *Leptosphaeria oxy-* 2673
spora Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 165. — Peritheciis gregariis, omnino innatis, globoso-depressis, 200-300 μ . diam., ostiolo perithecii longitudine, tenui cylindræo; ascis tereti-clavatis, sensim tenuato-stipitatis, apice rotundatis, 104 \approx 6,5, filiformi-paraphysatis; sporidiis parallele fasciculatis, longe fusoides, utrinque acutissimis, 1-2-curvatis, medio constricto-1-septatis, quaque cellu'a tenuissime 3-4-septata guttulataque, hyalinis, 78 \approx 1,5-2,5.

Hab. in ramis siccis *Rubi idæi*, Luxemburg.

3. **Ophiobolus carneus** v. Höhnelt Fragm. zur Mykol. 1903, p. 10. — 2674
Peritheciis 400 500 μ . latis, nigris, primum ligni fibris tectis, demum erumpentibus, superficialibus, collabascendo cupulatis, a basi dense fibrillosis; paraphysibus filiformibus, 3 μ . crassis; ascis cylindræo-clavatis, 150-200 \approx 8 octosporis; sporidiis 100-120 \approx 2,5-3, filiformibus, medio noduloso-incrassatis, hyalinis, catervatim dilute roseis vel fere carneis, acute septatis (cellulis 6-7 μ . longis).

Hab. in ligno denudato ramulorum *Staphyleæ pinnatæ* in silvis Wienerwald, vallis « Wassergespreng » dictæ, Austriæ inferioris.

4. **Ophiobolus surculorum** Pass. — Syll. IX, p. 930 — var. **Deutzia** 2675
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 174. — Differt a typo peritheciis non collabentibus, hyphis basilaribus copiosis; ascis perfecte cylindricis, 140-160 \approx 8; sporidiis utrinque obtusis, distincte septatis, 120-136 \approx 2,5-3, flavo-brunneolis.

Hab. in ramulis siccis corticatis *Deutzia scabræ*, Luxemb.

5. **Ophiobolus camptosporus** Sacc. — Syll. II, p. 344. — var. **gonat-** 2676
osporus Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 143

et Nachtr. III, p. 174 (ut var. *sorbicola*). — A typo differt ostioliis breve cylindræis, ascis angustioribus, 104-160 \times 8,5-10; sporidiis vulgo pluri-septatis, 3-4 nodulosis et profundius constrictis, flavo-brunneolis.

Hab. in ramulis siccis Sorbi Ariæ, Luxemburg.

6. **Ophiobolus porphyrogonus** (Tode) Sacc. — Syll. II, pag. 338. — 2677
var. **Astragali** P. Henn. Hedw. 1902, p. 135. — Peritheciis primo tectis, dein erumpentibus, globoso-conicis, nigris 400-600 μ . d., plerumque in maculis caulium rubris dispositis; ostiolo pertusis 60 μ . diam.; ascis cylindræis, breve pedicellatis, 160-250 \times 4-6, generaliter longioribus quam in typo; paraphysibus filiformibus 2 μ . cr. hyalinis; sporidiis septatis filiformibus, 140-220 \times 1-1,5, hyalinis.

Hab. in caulibus Astragali sp. ex Armenia cultæ in horto botanico Berolinensi Germaniæ.

7. **Ophiobolus Sarothamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2678
1903, p. 174. — Peritheciis sparsis gregariisve, omnino immersis, globosis, nigris, 300 μ . diam., ostiolo acute conoideo emergente; ascis cylindricis, breve stipitatis, 125-136 \times 5,5-7, octosporis; sporidiis filiformibus, utrinque obtusis, flexuosis, hyalinis, pluri-guttulato-septulatis, 125 \times 2.

Hab. in ramis corticatis Sarothamni, Luxemburg.

8. **Ophiobolus acerinus** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2679
1903, p. 175. — Peritheciis sparsis, basi insculptis, globoso-depressulis, rugulosis, nigris, 500-1000 μ . diam., ostiolo cylindræo vel conoideo; ascis cylindricis, breve stipitatis, 100-130 \times 5-6, octosporis, leviter, prope medium vero profundius constrictis, hyalinis vel flavidis, 85-110 \times 2-2,5.

Hab. in ramis decorticatis Aceris campestris, Luxemburg.

Oph. salicino proxime affinis.

9. **Ophiobolus Rhamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1901, 2680
p. 143 et I p. 237, f). — Peritheciis immersis, ostiolo breve conoideo epidermidem perforante; ascis tereti-clavatis, longiuscule stipitatis 160-175 \times 11-12, paraphysibus noduloso-septatis obvallatis; sporidiis flexuosis pluriseptatis 105-125 \times 3-3,5, ex hyalino flavidis, articulis nonnullis prominulis.

Hab. in ramis corticatis Rhamni cathartici, Luxemburg.

10. **Ophiobolus Vitalbæ** Sacc. — Syll. II, pag. 345. — f. **Berberidis** 2681
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 143 et I, p. 236, c). — Peritheciis subcutaneis, ostiolo papillato-erumpente;

sporidiis multiseptatis, valde curvatis, utrinque obtusis, hyalinis, cellula media crassiore; ascis non descriptis.

Hab. in ramulis siccis *Berberidis vulgaris*, Luxemburg. — f. **Sambuci** Feltg. l. c. et Nachtr. I, p. 236, *d*). — Peritheciis basi ligno insculptis, globoso-conoideis, hyphis septatis brunneis einctis, ostiolo conoideo brevi, erumpente; ascis longiuscule stipitatis 125-175 \times 6-9; sporidiis pallelis, 100-160 \times 2,5-3, curvatis, pluriseptatis, plerumque bi-nodulosis hyalinis vel brunneolis. — In ramulis siccis corticatis v. decorticatis *Sambuci racemosæ*, Luxemburg.

11. **Ophiobolus Antenoreus** Berlese — Syll. IX, p. 929. — f. **Sambuci** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 175. — A typo vix recedit peritheciis depressis 200-300 μ . diam.; sporidiis brunneolis 140-150 \times 1-1,3, pluriseptatis.

Hab. in ramis decorticatis *Sambuci nigræ*, Luxemburg.

12. **Ophiobolus pellitus** (Fuck.) Sacc. — Syll. II, p. 352. — f. **Bidentis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 167. — A typo differt peritheciis minoribus 250 μ . diam. extus hyphis setulisque vestitis; ascis paullo brevioribus 120 \times 7,5-8; sporidiis crassioribus 2-2,5 μ . cr. et paraphysibus non simplicibus.

Hab. in caulibus siccis *Bidentis tripartiti*, Luxemburg.

13. **Ophiobolus persolinus** (Cald. et De Not.) Sacc. — Syll. II, p. 346. — var. **brachystomus** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 171. — A typo differt ostiolo verruculoso vel breviter conoideo nec cylindraceo (ut in Berlese icon.); sporidiis obsolete septatis, flavidis, 90-135 \times 2-2,5.

Hab. in caulibus *Centaureæ Jaceæ*, Luxemburg.

14. **Ophiobolus calathicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 172. — Peritheciis sparsis vel subaggregatis, innato-erumpentibus dein subliberis, globoso-conicis 150-200 μ . diam., ostiolo cylindrico-conico, perithecium subæquante; ascis cylindraceis breve stipitatis, filiformi-paraphysatis, octosporis, 120-130 \times 4,5-6,5; sporidiis deorsum tenuatis, flexuosis, circiter 14-septatis, flavidis 115 \times 2,5-3.

Hab. in bracteis florum *Centaureæ Jaceæ*, Luxemburg. —

Ophiobolo affini valde proximus.

15. **Ophiobolus fruticum** (Rob. et Desm.) Sacc. — Syll. II, p. 347. — f. **Dulcamaræ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 173. — A typo differt peritheciis depresso-applanatis; ascis versiformibus, sæpius longe stipitatis, usque 200 \times 10-11; spori-

diis inæqualiter articulatis, hyalinis 117-150 \approx 2,7-3,5, usque 20-septatis.

Hab. in caulibus siccis Solani Dulcamaræ, Luxemburg.

16. **Ophiobolus collapsus** Ell. et Sacc. — Syll. II, pag. 339. — var. ²⁶⁸⁷
trinodulosus Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 170.
 -- A typo differt sporidiis usque 12-septatis 125-140 \approx 2,5, medio et prope apices nodulosis, hyalinis.

Hab. in caulibus siccis Teucrii Scorodoniæ, Luxemburg.

17. **Ophiobolus Georginæ** (Fuck.) Sacc. — Syll. II, p. 341. — var. ²⁶⁸⁸
Symphyti Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 172.
 — Peritheciis immersis brunneolis, non erumpentibus, pilosulis 500 μ . diam., ostiolo acute conico longiusculo; ascis 217-225 \approx 4, parte sporif. 120-160; sporidiis 150-163 \approx 0,7-1, continuis, eguttulatis, flavidis.

Hab. in caulibus siccis Symphyti, Luxemburg.

18. **Ophiobolus Castillejæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, ²⁶⁸⁹
 Fungi p. 34. — Maculis nullis; peritheciis sparsis, erumpentibus, nigris, 200-250 μ . diam.; ascis clavatis, breve stipitatis 90-120 \approx 12; paraphysibus flexuosis, filiformibus; sporidiis luteo-brunneis, guttulatis 50-55 \approx 5, in asco fere recte dispositis.

Hab. in ramulis emortuis Castillejæ confusæ, Greene, Mt. Hesperus, Colorado, Amer. bor.

19. **Ophiobolus Heveæ** P. Henn. Fungi Amaz. II, p. 243, Notizbl. ²⁶⁹⁰
 Berl. bot. Mus. IV, n. 34, 1904, fig. 4 a-d. — Maculis rotundatis vel effuso confluentibus, griseis; peritheciis epiphyllis gregarie sparsis, innatis tectis, ovoideis, ca. 250 μ . diam. submembranaceo-atris; ostiolis subconico-obtusis, subnitentibus erumpentibus; ascis subfusoides vel clavatis, apice subincrassatis, obtusiusculis, ca. 60-70 \approx 7-10, 8-sporis; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis parallelis, filiformibus, utrinque obtusiusculis, hyalinis, pluriguttulatis, dein subseptatis, 50-60 \approx 2-3.

Hab. in foliis Heveæ, Rio Negro, Sao Joaquin Amazoniæ. —

Oph. Ingeæ affinis et ad gen. *Linosporam* nutans.

20. **Ophiobolus petiolaris** Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. ²⁶⁹¹
 II p. 143 et I p. 236, f). — Peritheciis sparsis omnino immersis, subglobosis, basi applanatis, mediocribus, nigris, ostiolo brevissimo obtuse cylindræo; ascis cylindricis 180-190 \approx 9; sporidiis filiformibus, utrinque acutiusculis indistincte septatis et minute guttulatis non nodosis nec constrictis, 175 \approx 2-3, hyalino-flavidis.

Hab. in rhachide foliorum Juglandis regiæ, Luxemburg.

21. **Ophiobolus Alismatis** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2692

II, p. 139 et I, p. 231 c). — Peritheciis sparsis vel approximatis immersis, globoso-ellipsoideis, ostioli longe conoideo-cylindraceutibus; ascis cylindricis subsessilibus, 125-150 \times 8-9, filiformi-paraphysatis; sporidiis filiformibus, 125-130 \times 2-3, eguttulatis vel pluriguttulatis, prope medium nodulosis ex hyalino flavidis.

Hab. in caulibus siccis Alismatis Plantaginis, Luxemburg.

22. **Ophiobolus peduncularis** Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. 2693

II, pag. 139. — Peritheciis gregariis immersis, globosis, 250-300 μ . diam., ostiolo conoideo vel fere cylindraceuto; ascis cylindraceutis vulgo breviter stipitatis 112-140 \times 4-5; sporidiis parallelis, filiformibus, utrinque acutulis, 86-130 \times 1-1,3, pluriguttulatis, guttulis sæpe per paria approximatis obsoleteque pluriseptatis.

Hab. in pedunculis siccis Iridis Pseudacori, Luxemburg.

23. **Ophiobolus bactrosporus** Feltg. Vorstud. Pilz. Luxemb. 1901, 2694

Nachtr. II, p. 139. — Peritheciis gregariis, globosis, basi applanatis hyphisque brunneis cinctis 300 μ . diam., ostiolo breve conoideo, epidermidem perforante; ascis cylindraceutis breve stipitatis 164-200 \times 5-6,5; sporidiis parallelis, filiformibus, utrinque acutiusculis, usque 16-septatis, leviter constrictis, pluriguttulatis, hyalinis 156-172 \times 1,7-2.

Hab. in caulibus Iridis Pseudacori, Luxemburg. — *Ophiobolo fragilisporo* affinis.

24. **Ophiobolus Pseudacori** Feltg. Vorst. Pilz. Luxemburg, Nachtr. 2695

II, 1901, p. 139. — Peritheciis gregariis immersis, globoso-applanatis 200-300 μ . diam., ostiolo cylindraceuto, longo, acutiusculo, epidermidem perforante; ascis cylindricis, longiuscule stipitatis 84-88 \times 5; sporidiis parallelis tereti-filiformibus, utrinque rotundatis, 8-11-septatis, septo tertio profundius constrictis, hyalinis 65-78 \times 2, cellula tertia crassiore.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg.

25. **Ophiobolus Feltgeni** Sacc. et D. Sacc. *Leptosphaeria longispora* 2696

Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 156. — Peritheciis sparsis, innatis, ostiolo late papillato erumpentibus, 500 μ . diam.; ascis longe clavatis, apice rotundatis, deorsum sensim longe pedicellatis, 97-130 \times 6,5-8, filiformi-paraphysatis, octosporis; sporidiis parallele fasciculatis, fusoideo-cylindraceutis, utrinque acutulis, multiseptatis, loculis 10-15 nodulosis, 60-95 \times 1,5-2,5, ex hyalino flavidis.

Hab. in caulibus siccis Iridis *Pseudacori*, Luxemburg. —

Ad Ophiobolus longisporum nutat.

26. **Ophiobolus Typhæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2697 p. 139 et I, p. 231, n. 711 b.) — Peritheciis perexiguis; sporidiis 75-100 \times 3, curvatis, 7-9-septatis, multiguttulatis:

Hab. in foliis *Typhæ latifoliæ*, Luxemburg.

27. **Ophiobolus juncicola** Rehm in *Æst. Bot. Zeitschr.* 1904, p. 87. 2698 — Peritheciis sparsis, immersis, modo papillula conoidea prominentibus, globosis, glabris, parenchymatice contextis, fuscidulis 150-200 μ . diam.; ascis cylindraceutis, apice rotundatis, 180-200 \times 5, octosporis; sporidiis filiformibus, rectis, guttulis plurimis oleosis repletis, hyalinis, 120-150 \times 1, parallele positis; paraphysibus filiformibus.

Hab. ad culmos putridos *Junci*, Olching Bavaricæ sup.

28. **Ophiobolus paludosus** (Feltg.) Sacc. et D. Sacc. *Leptosphaeria* 2699 *paludosa* Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. II, p. 157 et III, pag. 209. — Peritheciis sparsis v. hinc inde approximatis, globosis, obtuse conico-papillatis, 500-600 μ . cr., subcarbonaceis, nigris, hyphulis brunneis, ramosis cinctis; ascis clavatis, breve stipitatis, apice rotundatis, 90-110 \times 8-10, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, cylindraceuto-fusoideis, utrinque rotundatis, 60-75 \times 3-4, tenuiter 7-10-12-septatis, rectis curvulisve, guttulatis, flavidis.

Hab. in foliis *Caricis vesicariæ* et *Phalaridis arundinacææ*. — *Ad Ophiobolus graminis* nutat.

29. **Ophiobolus graminis** Sacc. — *Syll.* II, pag. 349. — Plenioram illustrationem hujus fungi perniciosi, cum iconibus, dederunt cl. Prillieux in *Malad. des pl.* II, p. 221 et Mac Alpine *The Journal of Agriculture of Victoria* 1903-1904, p. 410.

30. **Ophiobolus Festucæ** Tracy et Earle, *Plantæ Bakerianæ*, fasc. I, 2700 *Fungi* pag. 34. — Maculis nigris 1 mm. plerumque in pag. sup. foliorum insidentibus; peritheciis immersis, dein erumpentibus 200-250 μ . diam.; ascis late clavatis, breve stipitatis, 110-130 \times 20-25; paraphysibus in modum spiræ sursum convolutis; sporidiis anguste fusiformibus, 40-50 \times 3-4, guttulatis

Hab. in foliis emortuis *Festucæ* spec., Chicken Creek, Colorado, Amer. bor.

OPHIOCHÆTA Sacc. — *Syll.* II p. 352, ut subgenus, IX p. 934, XI p. 352, XIV p. 616.

1. **Ophiochæta Inulæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2701 p. 178. — Peritheciis gregariis superficialibus, hemisphæricis, 400-600 μ . diam., membranaceis, brunneis; hyphis brunneis, septatis, parce ramosis, 100-250 \approx 3-4, vestitis, ostiolo breve cylindraceo, glabro; ascis cylindraceis, apice rotundatis, longe stipitatis, 220-230 \approx 8, octosporis; sporidiis parallelis filiformibus, vulgo deorsum tenuatis, supra medium nodulosis, multiseptatis, hyalinis, intra ascum brunneolis, 120-136 \approx 2-2,5.

Hab. in caulibus siccis Inulæ Helenii, Luxemburg.

2. **Ophiochæta cereicola** Speg. Myc. argent. Ser. II, 1902, p. 73. — 2702 Peritheciis gregariis, primo tectis, dein subsuperficialibus minutis, 250-350 \approx 150-200, atris, crassiuscule umbonato-ostiolatis, deorsum hyphis paucis repentibus adpersis, sursum parce breviterque subpenicillato-pilosis; hyphis basalibus parce ramosis, septatis, 4-5 μ . cr., olivaceis; setulis ostiolorum continuis, fuligineis, apice pallidioribus, 50-60 \approx 6-8; ascis aparaphysatis, 250-300 \approx 14-15, apice obtuse rotundatis, basi breviter cuneato-pedicellatis; sporidiis ascorum longitudine 2,5 μ . crassis, utrinque obtusiusculis, filiformibus, primo multiguttulatis dein obsolete multiseptatis, non fragilibus.

Hab. ad spinas emortuas Cerei lamprochlori var. salinicolæ, La Plata in Argentina.

3. **Ophiochæta ramealis** (Feltg.) Sacc. et Syd. Vorstud. Pilz. Luxemb. 2703 1901, Nachtr. II, p. 219, *Acanthostigma ramealis* Feltg. — Peritheciis sparsis, superficialibus, globosis, extus nigris septatis 86-92 \approx 4,5-6 vestitis et basi hyphis ramosis septatis 2,5-4 μ . cr. cinctis, membranaceis, globosis, brunneis v. atro-brunneis 100-300 μ . diam., minute papillatis; ascis cylindraceis, rectis curvulisve stipitiformi-attenuatis 105-145 \approx 4,5-5,5 filiformi-paraphysatis; sporidiis filiformibus, contortis, pluriseptato-guttulatis, 100-100 \approx 1, 5-2, utrinque v. uno apice acutulis, hyalinis.

Hab. in ramis corticatis Alni glutinosæ, Luxemburg. — *Ophiochætæ chætophoræ* affinis.

LINOSPORA Fuck. — Syll. II p. 354, IX p. 935, XI p. 352, XIV p. 618.

1. **Linospora Sibbaldiæ** E. Rostr. Norske Ascom. 1904, p. 27 (Vi- 2704 densk. Skrift.) — Peritheciis amphigenis in pseudostromate clypeiformi solitarie nidulantibus, breve papillatis; ascis claviformibus, 65-75 \approx 7-9; sporidiis filiformibus, 50-60 μ . long.; paraphysibus filiformibus, longissimis, apice curvatis, numerosis.

Hab. in foliis exsiccatis *Sibbaldia* procumbentis, *Boiumbraeen* Norvegiæ (E. POULSSON).

2. ***Linospora arctica*** Karst. — Syll. II, pag. 354. — var. **helvetica** 2705
Rehm in *Æst. Bot. Zeitschr.* 1904, pag. 85. — Stromatibus epiphyllis, sparsis, innatis, suborbicularibus, convexulis, nigrescentibus, 1 mm. diam. rostro minimo in medio stromatis prominente; ascis cylindraceutis, apice rotundatis atque incrassatis, 150-160 \times 10-12, bisporis; sporidiis acicularibus, utrinque subacutatis, haud curvatis, 1-cellularibus, guttulis minutissimis repletis, an demum septatis? hyalinis 100-110 \times 5, parallele positis; paraphysibus nullis.

Hab. in foliis *Salicis reticulatae* (?) ad moles glaciales *Silvrette* in Helvetia (F. ARNOLD).

3. ***Linospora graminea*** Rehm in *Æst. Bot. Zeitschr.* 1904, p. 86. — 2706
Peritheciis in macula orbiculari vel oblonga, nigrescente 1-1,5 mm. diam., 1-2 innata eamque hemisphærice elevantibus, globulosis, vix papillulatis, poro minutissimo pertusis, glabris, tenuiter membranaceis, ex hyphis 3 μ . cr. parallelis, fuscidulis, contextis, ca. 180 μ . diam., 300 μ . altis; ascis cylindraceutis, apice rotundatis ca. 300 \times 5-6, octosporis; sporidiis æqualiter filiformibus, continuis, haud guttulatis, hyalinis asco æquilongis, 1 μ . cr., parallele positis; paraphysibus filiformibus 1-2 μ . cr.

Hab. ad culmos exsiccatos et dealbatos gramineos, juxta moles glaciales *Sulden montis Ortler* Tirolia.

OPHIIGNOMONIA Sacc. — Syll. I p. 419 (ut subgenus), XIV p. 613.

1. ***Ophiognomonium lapponicum*** Vesterg. *Micr. rarior. selecti*, in *Bot.* 2707
Not. 1902, p. 125. — Peritheciis globosis, hypophyllis, innatis, epidermide tectis, confertis, 360-440 \times 238-480; contextu parenchymatico brunneo, cellulis rotundatis 12 μ . diam.; ostioliis erumpentibus, cylindraceutis v. fere conicis, rectis v. curvulis, poro pertusis, 200-256 \times 72-112, nigro-brunneis; ascis elliptico-cylindraceutis, rectis v. paullo curvulis, breve stipitatis, 88-100 \times 6-8, octosporis; sporidiis raro rectis, ad S curvatis, truncatulis, pluri-guttulatis (usque ad 30) hyalinis 69-81 \times 2.

Hab. in foliis siccis *Betulae odoratae* pr. *Randijaur Lapponia*.

CRYPTOSPORA Tul. — Syll. II p. 361, IX p. 939, XI p. 353.

1. ***Cryptospora quercina*** Feltg., *Vorstud. Pilz. Luxemb. Nachtr.* III, 2708
1903, p. 118. — Stromatibus e basi applanata 1-1,5 mm. lata,

ligno adnata, conoideis, disco 0,5 mm. lato, epidermidis laciniis cincto; peritheciis valsiformiter aggregatis 5-9 in quoque stromate, globoso-ovoideis, 200-300 μ . lat. carbonaceis, nigris, ostiolis minutis; ascis plerumque cylindræis, 125-135 \times 12-18, rarius oblongis usque 28 μ . diam.; paraphysibus non visis; sporidiis 2-3-stichis cylindricis, utrinque obtusis, rarius parum tenuatis, rectis curvulisve vulgo continuis, rarius medio 1-septatis, non constrictis, 38-42 \times 5,5-7,5, hyalinis, intus granulosis.

Hab. in ramis corticatis putridis *Quercus*, Luxemburg.

Fam. 3. Hypocreaceæ DE NOT.

Cl. v. Höhnel in *Æsterr. bot. Zeitschr.* 190, pag. 54 contendit plura genera hucusque inter *Valsaceas* v. *Sphæriaceas* locata, ut *Endothia*, *Sillia*, *Cryptosporellæ* spp., *Myrmæcium* Sacc. ¹⁾, *Aplacodina* Ruhl. (= *Apiospora* ²⁾) etc. ad *Hypocreaceas* referenda esse. Non negarem eorum perithecii contextum molliusculum et subolivaceum interdum se præbere et stroma nonnumquam læte coloratum, sed ubi v. Höhnel observavisset contextum subsimilem in pluribus *Valsæ*, *Diaporthes*, *Læstadiæ*, *Sphærellæ* etc. speciebus adesse, certe persuasum se habuisset de necessitate ordinem totum non subvertendi. Quoad stroma e. g. *Endothicæ*, *Sillicæ* etc., quamquam læte coloratum, minime tamen est carnosum. « Natura non facit saltus » et certe *Sphæriaceæ* et *Valsaceæ* gradibus intermediis ad *Hypocreaceas* sensim abeunt; sed non est hæc ratio ut raptim et inconsiderate mutemus quæ magistri non sine studio statuerunt.

¹⁾ Cl. Lindau (*Pflanzenf. Pilze* I, p. 470 et 478) omnino inconsulto tribuit *Myrmæcio* meo nomen *Myrmæciella*, *Valsariæ* Ces. et De Not. nomen *Myrmæcium* et *Hercosporæ* Tul. nomen *Valsaria*. Revera Ces. et De Not. condiderunt gen. *Valsariam* anno 1862 pro *Valsaria insitiva* et aliis phæodidymis, quibus improprie anno 1863 addidit De Notaris *Valsam Tiliæ*, cui nomen *Hercospora* Tul. recte competit. Abrogato nomine *Myrmæcium* pro *Valsaria* typica, primum manere debet pro typo hyalodidymo a me condito. Quomodo cl. v. Höhnel huic postremo (acervulis extus nigerrimis, perithecii contextu fuligineo prædito!) adscribere possit suam *Myrmæciellam Caraganæ* (cf. *Cryphonectria*) omnino hypocreaceam, non liquet.

²⁾ Cl. Jaczewski jam anno 1896 (*Bull. Herv. Boiss.* pag. 663) *Apiosporam* (*Aplacodinam*) *chondrosporam* novo suo generi *Pseudomassariæ* accensuit, sed sporidia talia descripsit (mucosa, appendiculata!), ut dubitari liceat an de vera *Sphæria chondrospora* Ces. agat. Cfr. supra pag. 658.

Sect. 1. Allantosporæ.

ALLANTONECTRIA Earle — Syll. XVI p. 1140.

1. **Allantonectria Yuccæ** Earle Plantæ Bakerianæ, fasc. II, Fungi p. 12. 2709
— Peritheciis 12-20 in stromate congestis; crusta stromatica erumpente sparsa v. subconfluente, circ. 1 mm. lata; peritheciis rubris, lucentibus, levibus vel leniter rugosulis, collabentibus, 100-125 μ . diam; ascis octosporis, clavatis, minutis, aparaphysatis?, 20-30 \times 3-4; sporidiis distichis v. irregulariter dispositis, 4-5 \times 0,8-1, hyalinis, allantoideis.

Hab. in foliis emortuis Yuccæ spec., Hermosa, South Colorado Amer. bor.

Sect. 2. Hyalosporæ.

NECTRIELLA Sacc. — Syll. II p. 448, IX p. 941, XI p. 354, XIV p. 621, XVI p. 559.

1. **Nectriella Cacti** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2710
Peritheciis gregariis pallide sanguineo-rubris. molliusculis, ovatis 200 \times 110 μ .; ascis sublanceolatis 45-55 \times 4; paraphysibus non bene distinctis; sporidiis distichis, oblongis, continuis, 5-6 \times 1,5.

Hab. in Opuntia Ficu-indica, Alabama, Amer. — A *Nectria sanguinea* et *N. Opuntiae*, cui forsan affinis, differt notis datis.

SPHÆROSTILBELLA P. Henn. in Engl. bot. Jahrb. 1901, p. 40 (Etym. *Sphærostilbe*, cujus est analogum). — Stromata conidiophora elongata, capitata, conidiis subglobosis. Perithecia ascophora illis connexa, globosa v. hemisphærica læte colorata, nectriacea. Ascii octospori. Sporidia ellipsoideo-oblonga, continua, hyalina. — Est genus parallelum *Sphærostilbes*, sed amerosporum. In Tab. comp. (vol. XIV, p. 22) occupabit n. 42 bis inter *Hypocreaceas*.

1. **Sphærostilbella lutea** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. — 2711
Peritheciis gregariis interdum confluentibus, in villo byssino albido nidulantibus, flavo-ochraceis, farinaceis, hemisphæricis, dein collabentibus, obscurius papillatis, ca. 200 μ . diam.; contextu cellulis pseudoparenchymaticis, rotundato-angulatis, flavo-brunneolis; ascis sublinearibus, vertice obtusis, basi paullo attenuatis, octosporis,

60-80 \approx 3,5; sporidiis monostichis, ellipsoideis, obtusiusculis, continuis, 4-5,5 \approx 3-3,5 hyalinis; stromate conidiophoro filiformi, rigido, flexuoso, flavo 1,5-3 mm. longo, pedicello 30-50 μ . cr.; capitulis subflexuosis ca. 150 μ . diam.; conidiis subglobosis, levibus 3-3,5, hyalino-flavidulis.

Hab. ad truncos putres, Kamerun Africae occid.

CHILONECTRIA Sacc. — Syll. II p. 453, IX p. 945, XIV p. 624.

1. **Chilonectria michailowskojensis** P. Henn. in Hedw. 1904, p. 69. 2712

— Peritheciis caespitose erumpentibus, subglobosis, collabascentibus, subpezizoideis, levibus, coccineis 250-300 μ .; contextus cellulis rotundato-polyhedricis, coccineis; ascis clavatis, obtuse rotundatis, aparaphysatis, polysporis, 60-100 \approx 10-13; sporidiis oblongis ellipsoideis, obtusis, hyalinis, continuis, 3-4 \approx 1,5-2; conidiis sub epidermide fissa erumpentibus, oblongis, utrinque obtuse rotundatis, 2-guttulatis, hyalinis 8-12 \approx 4-4,5.

Hab. in ramis dejectis Fraxini excelsioris, Michailowskoje in ditone Mosquensi Rossiae.

2. **Chilonectria romana** Sacc. in Atti Congr. bot. Palermo 1902, p. 54. 2713

— Peritheciis in soros laxè gregarios, mox erumpentes approximatis, in quoque soro compluribus (12-20), peridermio laciniato et relaxato cinctis, globosis, saturate rubris, glabris, 300-400 μ . d., ostiolo impresso latiusculo, demum saepe umbilicato; contextu celluloso dilute rubro-rufescente; ascis clavatis, apice rotundatis, sensim tenuato-stipitatis, 80 \approx 12-14, aparaphysatis, 6-8-sporis et polysporis; sporidiis biformibus, octonis cylindricis, utrinque rotundatis, 50-60 \approx 4-5, nunc creberrime, nunc laxius multiseptatis, intermixtis sporidiis innumeris allantoides, 4-5 \approx 1, hyalinis.

Hab. ad ramulos emortuos Quercus Ilicis, Villa Doria Romae. — Affinis videtur *Chilon. scolecosporæ* Bref. et Tav. (Pflanzenf. Pilze I, p. 360 cum ic.) sed sporidia majora, in quoque asco suboctona nec tantum bina.

ELEUTHEROMYCES Fuck. — Syll. II p. 455, IX p. 942.

1. **Eleutheromyces subulatus** (Tode) Fuck. — Syll. II, p. 455. Observante cl. v. Höhnelt in Fragmente mykol. 1903, p. 36, species hæc secundum exempl. Fuckeliana esset forma pycnidica, quasi *Sphaeronæmella* sporulis biciliatis, sed cum et ego ipse statum etiam ascophorum reperissem (cfr. Michelia I p. 50), res videtur ulterius inquirenda.

PECKIELLA Sacc. — Syll. II p. 472, IX p. 944, XVI p. 560.

1. **Peckiella minima** Sacc. et Bres. Not. myc. in Annales Myc. 1903, 2714 n. 1, p. 25. — Peritheciis gregariis, *Corticii* hymenio superficialiter immersis et vertice erumpentibus, subiculo proprio subnullo cinctis, globulosis, exiguis 80-100 μ . diam., sordide roseis, ostiolo minuto vix papillato pertusis; peritheciis contextu tenui, dilute olivaceo, periphysibus subhyalinis; ascis cylindraceis, apice rotundatis, subsessilibus, 28-32 \times 3-3,5, aparaphysatis, octosporis; sporidiis monostichis, subsphæricis v. cuboideo-sphæricis, 4 \times 3, hyalinis, minutissime 1-2-guttulatis.

Hab. in hymenio *Corticii straminei* Bres. ad ramos *Alni* Val di Sole (Trento). — Minutie omnium partium, ascis angustissimis, sporidiis octonis globosis etc. mox dignoscenda species.

POLYSTIGMA Pers. — Syll. II p. 458, IX p. 945, XI p. 354, XIV p. 625.

1. **Polystigma pusillum** Syd. Ann. Mycol. 1904, p. 167. — Stroma- 2715 tibus amphigenis, maculis flavescentibus indeterminatis v. obsoletis insidentibus, innatis, laxe vel circulariter gregariis, minutis, rotundatis v. irregularibus, usque 1 mm. longis, carneo-ochraceis, tandem succineo-brunneolis; peritheciis omnino immersis, paucis (1-5, plerumque 1-3) in quoque stromate, ostiolo non vel parum emergente; ascis cylindraceo-clavatis, apice rotundatis, brevissime stipitatis, 45-66 \times 10-15, octosporis; sporidiis mono-distichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 10-12 \times 3 1/2-5.

Hab. in foliis vivis *Andiræ excelsæ*, Guatemala, Dep. Escuintée (J. DONNEL-SMITH).

MÖLLERIELLA Bres. — Syll. XIV p. 626.

1. **Mølleriella nutans** Rick, Ann. Mycol. 1904, p. 405, cum icone. — 2716 Stromate pulvinato hemisphærico, usque 2 cm. diam., matrici arcte adnato, carnosio-duriusculo, intus albo, extus ruguloso, ostiolis obscurioribus verruculoso; peritheciis periphericis, stipatis oblongis 1 mm. alt.; ascis 300 \times 10 et medio usque 20 μ . lat. polysporis; sporidiis primo filiformibus, dein in triplicem formam abeuntibus aut filiformibus, articulis jugiter cohærentibus aut articulis demum separatis, 10-12 \times 4, obtuse rectangularibus, 1-guttulatis, seriatis aut jam primitus in articulos sporomorphos ovoideos, obtusos v. apiculatos 14 \times 5, pluriguttulatos separatis; paraphysibus filiformibus.

Hab. in culmis adhuc vivis Arundinariæ, Sao Leopoldo
Brasilæ.

Sect. 3. Phæosporæ.

SPHÆRODERMA Fuck. II p. 459, IX p. 949, XI p. 355, XIV
p. 627, XV p. 562.

1. **Sphæroderma aureum** (Mc. Alp.) Sacc. et D. Sacc. *Rosellinia aurea* 2717
Mc. Alp. Fung. Stone-fr. tr. diseases, Melb. 1902, p. 102, f. 101, 102,
314. — Peritheciis atro-brunneis, superficialibus, gregariis vel
sparsis, 2-3 congestis, globosis, membranaceis, textura ex hyphis
hyalinis composita, ostiolo subrotundo ornatis, 300-400 μ . diam.;
ascis obovatis, brevi stipitatis, octosporis, $45 \approx 28$; paraphysibus
hyalinis, filiformibus,asco subæquilongis; sporidiis distichis, initio
hyalinis, dein olivaceis, tandem fuligineo-brunneis, navicularibus,
apiculo brevi, obtuso, hyalino utrinque ornatis, $24-26 \approx 13-14$.

Hab. in foliis Pruni domesticæ et Piri Mali, Victoria
Australiae. — Culta etiam in capsula vitrea.

2. **Sphæroderma Helleri** (Earle) Sacc. et D. Sacc. *Melanospora Hel-* 2718
leri Earle in Muhlenbergia 1901, p. 13. — Peritheciis superficia-
libus dense aggregatis 3-4 usque 20, hypostromate obsoleto, cor-
tice insculpto insertis, 500-600 μ . diam., profunde collapsis, griseis,
extus verruculis applanatis, demum deciduis conspersis perithecii
contextu parenchymatico parvi-celluloso, molli, brunneo; ostiolo
papillato, pertuso, pilis tenuissimis hyalinis vestito; ascis oblongis,
 $100 \approx 30$, mox evanescentibus; paraphysibus indistinctis; sporidiis
octonis subinde quaternis, distichis, ovoideis, continuis, hyalinis,
denique opace nigricantibus, strato mucoso hyalino plus minus
distincto obvolutis, $25-28 \approx 18-20$, demum expulsis et matricem
fœdantibus.

Hab. in cortice emortuo arborum in silvaticis Santurce, Porto-
rico. — Ad subgenus *Vittadinula* spectare videtur.

MELANOSPORA Corda — Syll. II p. 461, IX p. 950, XI p. 356,
XIV p. 626, XVI p. 563.

1. **Melanospora Rubi** Rehm in Œst. Bot. Zeitschr. 1904, p. 86. — 2719
Peritheciis solitariis vel 5 arcte congregatis, sessilibus, lagenifor-
mibus 150 μ . alt., 90 μ . latis, in rostrum cylindricum apice obtusum
et fimbriatum, 300 μ . long., 90 μ . lat., prosenchymatice ex hyphis

contortis 4 μ . lat., contextum, fuscidulum elongatis, pilis acutis simplicibus, rectis, hyalinis, 240 \approx 12, vestitis, et indumento albido ex hyphis hyalinis 4 μ . lat. septatis formato obductis, præsertim ad basim subpellucidis, flavidulis, mollibus, parenchymatice contextis; ascis subglobosis, mox evanidis 4-8-sporis, ca. 15 μ . d.; sporidiis primitus hyalinis, dein fuscidulis, glabris, discoideo-orbicularibus, mox conidiis 1-2 μ . d., minimis, hyalinis obsessis, ca. 6 μ . diam.; paraphysibus nullis.

Hab. in foliis putridis Rubi fruticosi prope Neufriedenheim, Monachii, Bavaricæ sup.

2. **Melanospora discospora** Mass. et Salm. Coproph. fungi I, p. 352, 2720 fig. 36-38. — Peritheciis sparsis, raro subgregariis 110-130 μ . diam., 180 \approx 200 μ . altis subimmersis, glabris, subglobosis, flavicantibus, membranaceis, contextu parenchymatico molli tenui e cellulis irregularibus circiter 10 μ . latis composito, rostro breve cylindræo recto obtuso 60-80 μ . longo, apicem versus subhyalino; ascis oblongis circ. 35 \approx 14 octosporis, citissime diffluentibus; sporidiis discoideis a fronte orbicularibus 7-9 μ . diam., a latere ellipticis 4 μ . latis, atro-brunneis, ad rostri apicem singulatim eructatis et tandem massam subglobosam nigram formantibus.

Hab. in fimo Capræ sinaiticæ et Ovis Burrhel, Kew Britannicæ.

Sect. 4. Hyalodidymæ.

CHARONECTRIA Sacc. — Syll. II p. 466, IX p. 953, XVI p. 1140.

1. **Charonectria pedicularis** Tracy et Earle in Plantæ Bakerianæ 2721 fasc. I, Fungi p. 27. — Peritheciis sparsis vel subgregariis, prominentibus, epidermide velatis, dein subdepressis, rubro-roseis, levibus, mollibus 400 μ . diam., ostiolo erumpentibus; ascis numerosis, cylindræis, breve pedicellatis, a paraphysatis (?) circ. 100 \approx 8; sporidiis oblique monostichis, hyalinis, minute guttulatis, 1-septatis, constricto-ovalibus, utrinque acutis, 17 \approx 4.

Hab. in caulibus emortuis Pedicularis crenulatae, Bear Creek Divide, Colorado Amer. bor.

2. **Charonectria Sambuci** de Höhnelt in Hedw. 1903, pag. (187). — 2722 — Peritheciis globosis, 100-300 μ . latis, immersis, sub epidermide nidulantibus, hanc verruciforme vel semiglobose elevantibus et ostiolo applanato-disciformi ca. 120 μ . lat. et 60 μ . alto perforan-

tibus, hyalinis vel pallide lutescentibus, disco paulo intensius luteolo, intus roseo-pellucidis v. singulis v. 2-5 approximatis, sæpe confluentibus, glabris, papilla solum in margine plerumque pilis hyalinis, rigidis, acutis v. obtusis, continuis, apice hinc inde breviter ramosis, 10-25 \times 2-4 obtecta; ascis paraphysibusque citissime in mucilaginem diffluentibus; sporidiis hyalinis, oblongo-fusiformibus, plerumque bicellularibus, sed non raro continuis, in medio paulum v. haud constrictis, 14 \times 4-5, haud raro tamen etiam minoribus.

Hab. in ramis tenuibus siccis Sambuci nigræ in Jablaniza Herzegovinæ. — Peritheciolorum ostiolum planum, parvum; contextus peritheciolorum e cellulis parvis, paulum gelatinosis, filiformibus formatus.

3. **Charonectria Umbelliferarum** de Höhnel in Hedw. 1903, p. (187). 2723

— Peritheciis sub epidermide immersis, 100-250 μ . diam. globosis, ostiolo 40-70 μ . lat, valde applanato-conico, pallide carneis, tunica tenui, e cellulis minutis formata; ascis clavatis, breviter stipitatis, 65 \times 9; paraphysibus numerosis, filiformibus, 2 μ . crassis, ut ascis mox in mucilaginem deliquescentibus; sporidiis distichis, in asco oblongis v. fusiformibus, hyalinis, bicellularibus v. rectis v. leviter curvatis, in medio non constrictis, 4-guttulatis, 14-18 \times 4-5.

Hab. ad caules siccos Umbelliferarum, Tumpener See in valle Eetzthal Tirolinæ (DE HÖHNEL).

4. **Charonectria biparasitica** de Höhnel in Ann. Myc. 1903, I, p. 395. 2724

— In peritheciis vacuis ex vetustis stromatibus *Eutypæ flavovirescentis* parasitica, omnino immersa; peritheciis tenerrimis, candidis, globulosis 250 μ . latis, ostiolo minuto, applanato instructis; ascis tenuibus, cylindratis, paraphysatis 80-100 \times 8; sporidiis octonis, monostichis, hyalinis, ellipticis, medio septatis, biguttulatis, tenuiter tunicatis, 12-16 \times 5,5-6,5.

Hab. in peritheciis vetustis, vacuis *Valsæ flavovirescentis*, in silva Kubany Bœmiæ.

CRYPHONECTRIA Sacc. — Syll. II, p. 507 (1883) ut subgen. (Etym. *cryphaos* occultus et *Nectria*) *Hypocreopsis* sp. Starb. *Myrmæciella* v. Höhn., nec Lind. — Perithecia *Nectriæ*, stromate pulvinato v. discoideo, carnoso, sæpius initio tecto immersa v. semiimmersa. Asci et sporidia *Nectriæ*. Status conidiophorus *Patellinæ* species sistens. Genus hinc *Hypocreopsidi* illinc *Clintoniellæ* affine et cum eis sedulo comparandum.

1. **Cryphonectria gyrosa** (B. et Br.) Sacc. *Nectria gyrosa* B. et Br. — Syll. II, p. 455.
2. **Cryphonectria moriformis** (Starb.) Sacc. *Hypocreopsis? moriformis* Starb. — Syll. XXI, p. 590.
3. **Cryphonectria Caraganæ** (v. Höhn.) Sacc. *Myrmæciella Caraganæ* ²⁷²⁵ v. Höhn. *Æst. bot. Zeitschr.* 1905, p. 53. — Stromatibus extus miniato-rubris dein brunneis et etiam nigricantibus, erumpentibus, laciniis peridermaticis cinctis, pulvinatis e rotundato irregularibus, 2-9 mm. long. 2-4 mm. lat., crassis, levibus, dein ob perithecia tenuiter verrucosis, denique colliculosis, carnosis, dein siccis suberosis, intus flavidis, e cellulis parenchymaticis 5-20 μ , diam. conflatis, cellulis externis minoribus; peritheciis numerosis, confertis, immersis, subgloboso-ovoideis, 300-315 \times 200-300, vix prominulis, contextu carnosio, læte flavo, 40 μ . cr.; ostioliis latiusculo papillatis poro exiguo; nucleo roseo; ascis sessilibus, tenuibus, 65-70 \times 10-12, aparaphysatis, 8-sporis; sporidiis mono-distichis, oblongis utrinque obtusulis, rectis v. curvulis, 1-septatis, vix constrictis, levibus, minute guttulatis, 14-20 \times 5-6,5, hyalinis, coacervatis roseis.
Hab. in ramis Caraganæ arborescentis in horto bot. Vindobonensi Austriæ. — Status conidiophorus formam *Patellinæ* sistens, verruciformis: basidiis 13-15 \times 1; conidiis 3-4 \times 1, roseolis.
4. **Cryphonectria abscondita** Sacc. *Nectria abscondita* Sacc. *Myc. Ven. Spec.* p. 123, tab. XII, f. 42-45. — Syll. II, p. 507.
5. **Cryphonectria variicolor** (Fuck.) Sacc. — Syll. II, p. 507. — Cl. Winter forte non immerito ad Hyphonectriam retulit.
6. **Cryphonectria xanthostroma** Penz. et Sacc. — Syll. XIV, p. 639.

NECTRIA Fr. — Syll. II p. 479, IX p. 955, XI p. 357, XIV p. 628, XVI p. 565.

I. *Eu-Nectria* Sacc.

1. **Nectria coccidophthora** A Zimm. *Centralbl. f. Bakter. u. Parass.* ²⁷²⁶ II, Abth. VII, 1901, p. 872, fig. 1. — Peritheciis ad basim sporochiorum conidiophororum gregatim nascentibus vel seorsim subsparsis, globoso-conoideis, sanguineis, ostiolo papillato dilutiore præditis, 230-280 μ . diam.; ascis octosporis, 100 μ . longis; sporidiis ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, intus granulosis, hyalinis, 17-20 \times 7-8; sporodochiis conidiophoris

cinnabarinis, conoideis, totis 0,7-0,8 mm. alt.; conidiis pilis (paraphysibus?) cinctis tereti-fusoideis, prælongis, 7-9-cellularibus, leviter curvis, 110-120 \times 6, intus granulosis, hyalinis.

Hab. in Mytilaspidis sp. ad Coffeam arabicam et in Parlatoria Zizyphi ad Citrum Buitenzorg Javæ. — Affinis *N. aurantiicolæ* sed satis diversa.

2. **Nectria Massei** Sacc. et D. Sacc. *N. verrucosa* Masee in Kew 2727 Bull. 1901, p. 166, nec (Schw.) Sacc. — Peritheciis in pulvinulos hemisphæricos 2-3 mm. diam., confertis, globosis, incarnatis, verrucosis, ostiolo papillato; ascis cylindræis, octosporis, aparaphysatis, 60 \times 8; sporidiis ellipticis, utrinque rotundatis, medio 1-septatis vix constrictis, loculis 1-guttulatis æqualibus, hyalinis, levibus, 10 \times 6.

Hab. in ligno emortuo, in horto botanico Aburi, Gold Coast Africae occident. (JOHNSON).

3. **Nectria fructicola** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2728 p. 182. — Peritheciis dense aggregatis stromateque suffultis, globosis, vix papillatis, glabris, ochraceo-flavis 180 μ . diam.; ascis 8-sporis; sporidiis oblongis, 2-cellularibus, medio distincte constrictis, hyalinis, 10-12 \times 3,5.

Hab. in fructibus atratis Coffeæ libericæ, Buitenzorg Javæ.

4. **Nectria compressa** Starb. in Arkiv för botan. 1904, Band. 2, p. 13, 2729 fig. 24. — Peritheciis stromate subcorticali læte luteo-miniato insidentibus, in acervulos plerumque orbiculares pulvinatos, 1-3 mm. diam. erumpentibus, superficialibus, dense aggregatis sed discretis, madore ovato-conoideis, siccis e latere compressis v. varie contractis, non vel vix collabentibus, coccineo-rubellis, minute sed manifeste obscurius ostiolatis, glabris, 100-150 μ . diam., usque 250 μ . altis, contextu carnosulo, hypocreaceo; ascis cylindræo-clavatis, breve pedicellatis, apice rotundatis, 55-65 \times 9-10, paraphysibus diffluentibus; sporidiis octonis distichis vel oblique monostichis, 1-septatis, ellipsoideis, hyalinis, 10-16 \times 6-7,5.

Hab. in ramis corticatis, San Antonio pr. Asuncion Paraguay.

5. **Nectria Cinchonæ** A. Zimm. Berichte üb. Land u. Forstw. Deutsch. 2730 Afrika, 1904, p. 32, tab. III, fig. 17. — Peritheciis compluribus in stromate communi confertis, rufo-brunneis, 300 μ . altis et 200 μ . lat., basi pilis albido-flavis, pluri-cellularibus, apice inflatulis, rugulosis cinctis; ostiolo parum prominente; ascis octosporis; sporidiis oblongis, utrinque rotundatis 10-13 \times 4, uniseptatis, non constrictis, hyalinis, membrana tandem flavida longitrorsum striata.

Hab. in ramis *Cinchonæ succirubræ* et *C. Ledgerianæ* in horto Amani Afr. orient. — Adest initio stat. conidioph. cæspitulosus; conidiis bicellularibus, hyalinis, 7-10 \times 2-3, basidiis cylindræis stipitatis suffultis.

6. **Nectria camerunensis** Appel et Strunk, Einig. Kamer. Theobr. 2731
Pilze, p. 9, fig. 11 (Centralbl. Bakter. 1903). — Peritheciis hypostromate compacto, carnosio, pulvinato, flavido suffultis, confertis, globoso-ovoideis, 0,2-0,3 mm. diam.; ascis octosporis, clavatis, deorsum tenuato-stipitatis, 60-75 \times 12; sporidiis fusoides, utrinque acutis, rectiusculis, 1-septatis, non constrictis, distichis v. oblique monostichis, 12-15 \times 3-4, obsolete guttulatis.

Hab. in fructibus emortuis *Theobromæ Cacao*, Victoria Kamerun Africæ occid. (STRUNK).

7. **Nectria Bonanseana** Sacc. sp. n. — Stromatibus in maculis epi- 2732
phyllis flavido-rufescentibus suborbicularibus 5-7 mm. latis circinatim dispositis, verruciformibus erumpentibus vix $\frac{1}{2}$ mm. diam., centralibus magis prominentibus, atro-rufis; peritheciis perexiguis, globulosis, numerosis, 20-30 in quoque stromate, semiprominentibus, rugulosis, nigricantibus, 100-160 μ . diam., contextu superne crassiore, celluloso, atro-olivaceo; ascis e fundo perithecii radiantibus, fusiformibus, subsessilibus, 90-96 \times 8-9, apice acutiusculis, octosporis; paraphysibus parum conspicuis; sporidiis distichis fusoides 1-septatis, utrinque acutulis, 16-17 \times 3,2-3,5, hyalinis, eguttatis.

Hab. in foliis morientibus vel emortuis *Agaves* sp. Mexico (Doct. SILVIUS BONANSEA). — A speciebus mihi notis omnino distincta.

8. **Nectria blumenaviensis** P. Henn. Fungi blumenavienses II, in 2733
Hedw. 1902, p. 3. — Peritheciis botryose cæspitosis, luteis, subgloboso-ovoideis, apice papillatis, levibus, glabris, 190-210; ascis cylindræo-clavatis, vertice rotundatis, ad basim attenuatis, octosporis, 35-45 \times 4-5, paraphysibus obsoletis; sporidiis oblique monostichis, ellipsoideis utrinque obtusis, bi-guttulatis, dein 1-septatis, haud constrictis, hyalinis, levibus, 8-11 \times 3,5-4.

Hab. in ramis corticatis, St. Catharina Brasilæ austr.

9. **Nectria cinnabarina** (Tode) Fr. — Syll. II, p. 479. — var. **oli-** 2734
gocarpa Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 304. — A typo recedit peritheciis non collabascentibus, levibus nec verruculosis, in quoque cæspitulo paucis, dilute coloratis, 500-600 μ . diam.; ascis 80 \times 8; sporidiis 16-22 \times 5-6.

Hab. in ramis *Spirææ Douglasii*, Luxemburg.

II. *Zimmermannia* Sacc. Ostiolum coronato-dentatum.

10. **Nectria peristomata** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2735 pag. 478, cum icon. — Peritheciis sparsis amphigenis, stromate carentibus, globosis, brunneis 180 μ . diam., vertice dentibus (10-15) patentibus obscurioribus, usque 80 μ . longis coronatis, ostiolo impresso pertuso; ascis octosporis 36-40 μ . longis; sporidiis bicellularibus oblongis, constricto 1-septatis, curvulis, utrinque obtusulis, vulgo 4-guttulatis, 14 \times 2-3, hyalinis.

Hab. in foliis emortuis *Vanillæ* cultæ, Buitenzorg in insula Java. — Ob coronam dentium circa ostiolum, novum subgenus est condendum et in honorem auctoris *Zimmermannia* vocandum.

III. *Dialonectria* Sacc.

11. **Nectria sanguinea** (Sibth.) Fr. — Syll. II, pag. 493. — var. 2736 **corallina** Bres. in Strass. Pilzfl. Sonntagb. IV, p. 414, in Verhandl. zool. bot. Gesell. Wien. 1901. — Sacc. Syll. XVI, pag. 1140 (nomen). — Peritheciis superficialibus, gregariis v. sparsis, ovoideis, papillatis, non collabentibus, vivide corallinis, 200-300 \times 230-330 μ ., contextu subparenchymatico; ascis cylindraceutis octosporis 80-90 \times 7-8; paraphysibus teneris, ramosis 2,5 μ . latis; sporidiis subfusoides vel subellipticis, uniseptatis, ad septum non vel vix constrictis 11-15 \times 4-5.

Hab. in ligno fagineo, Austria inf. — A typo differt colore et sporidiis majoribus.

12. **Nectria umbilicata** P. Henn. Fungi blumenavienses II, in Hedw. 2737 1902, p. 3. — Peritheciis sparsis vel subaggregatis, ovoideo-subglobosis, purpureis, levibus ca. 400 μ . diam., apice obscurius annulatis, umbilicatis, minute papillatis; ascis cylindraceuto-clavatis, apice rotundatis, octosporis, 70-90 \times 6-7; sporidiis ellipsoideis, utrinque obtusis, bi-guttulatis, intus flavidis, 1-septatis, haud constrictis, 10-13 \times 4-5, levibus.

Hab. in truncis, St. Catharina Brasiliæ austr.

13. **Nectria cyanostoma** Sacc. et Flag. in Atti Congr. bot. Palermo 2738 1902, p. 53, cum tab. — Peritheciis gregariis v. subsparis, globoso-conoideis, superficialibus, 200-250 μ . diam., glabris, inferne usque fere ad ostiolum roseis, superne cum ostiolo obtuse papillato atrocyanis; contextu perithecii parenchymatico ad ostiolum prosenchymatico amœne discolore; ascis cylindraceutis, obtusis, deorsum

breve tenuatis, aparaphysatis, octosporis 85-90 \approx 7-8; sporidiis rectis v. oblique monostichis, ovoideo-oblongis, utrinque rotundatis, constricto-1-septatis, 2-4-guttulatis, 14-16 \approx 5,5-6, hyalinis.

Hab. in cortice sicco ramorum Buxi sempervirentis, St. Romain prope Rigny Galliæ. — Pulchella species, inter *Liseam Buxi* et *Nectriam Desmazierii* media (an hybrida?). Cum ipsa *N. cyanostoma*, etsi rarius, occurrit *Fusarii* species (conid. falcatis 55-60 \approx 5-6, 5-7-septatis) affinis *F. buxicolo* Sacc. et statum ejus conidicum verisimiliter sistens. Cfr. Syll. II, p. 518.

14. **Nectria tricolor** de Höhnelt Fragmente zur Mykol. 1903, p. 5. — 2739
Stromate nullo; peritheciis nunc sparsis, nunc usque 3 vel 5 in acervulos minutos aggregatis, sphaeroideis, vertice depressis, 400 μ . latis, supra aurantio-rubris, medio luteis, infra brunneis; tunica parenchymatica e cellulis majusculis, usque 35 μ . latis, extus vel squamulose vel verruciforme prominentibus formata; ascis cylindraceis, tenuibus, 90 \approx 5; paraphysibus numerosis, filiformibus, 2 μ . crassis; sporidiis monostichis, levibus, hyalinis, didymis, medio non constrictis, utrinque leviter attenuatis, 10-11 \approx 3-3,5.

Hab. in ligno nudo putrido Abietis pectinatæ, prope Pressbaum Austriæ inf.

15. **Nectria striatospora** A. Zimm. in Centr. f. Bakter. Paras. 1901, 2740
II, Abt. pag. 105, fig. 6. — Peritheciis superficialibus, globosis, gregariis, sanguineis, ostiolo papillato, nigricante, 0,4 mm. long., 0,3 mm. cr.; ascis octosporis, 100 μ . long.; sporidiis bicellularibus, oblongo-ellipsoideis, utrinque obtusulis, medio leviter constrictis, 23 \approx 9, membrana longitudinaliter striolata, (manifestissime in sporidiis vacuis v. germinantibus.)

Hab. in cortice trunci Theobromæ Cacao. Buitenzorg, ins. Java.

16. **Nectria gigantospora** Zimm. in Bull. de l'Inst. Bot. de Buitenz. 2741
1901, p. 15. — Maculis brunneis, obscurius marginatis; peritheciis amphigenis, sparsis, initio in margine macularum insidentibus, rotundis, ostiolo donatis, 300 \approx 200, rubro-cinnabarinis; ascis clavatis octosporis; sporidiis hyalinis 1-septatis, constrictis, utrinque truncatis, curvulis, 50 \approx 9.

Hab. in foliis Fici elasticæ, Buitenzorg, in insula Java.

17. **Nectria galligena** Bres. in Strasser Pilzfl. Sonntaglb. IV, p. 413, 2742
in Verhandl. zool. bot. Gesell. Wien. 1901. — Peritheciis superficialibus, dense gregariis, adpressis, læte rubris, obovatis, papillatis, haud collabentibus, 200-300 μ . latis, contextu subparenchy-

matico; ascis cylindræis 100-110 \times 10; paraphysibus filiformibus, ramosis; sporidiis hyalinis, oblongis, uniseptatis, ad septum subconstrictis, 18-20 \times 7-8.

Hab. in gallis ad folia Salicis purpureæ, Austria inf. — *Nectriæ sanguineæ* Sibth. affinis, a qua præcipue ascis et sporidiis majoribus distincta.

18. **Nectria dacrymycelloides** Rehm in Hedw. 1903, pag. (175). — 2743

Peritheciis gregariis, initio innatis, dein emergentibus, sessilibus, globoso-conoideis, ostiolo minutissimo præditis, dilute aurantiacoluteolis, in sicco conoideis, vix collabentibus, obscurioribus, brunneis 210 μ . diam.; excipulo parenchymatico, flavido-brunneolo, glabro, basi hyphis nonnullis hyalinis obsesso; ascis clavatis 60 \times 12, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, medio septatis, vix constrictis, hyalinis, guttis oleosis fere carentibus, 18-20 \times 4,5-5, distichis.

Hab. in caulibus putrescentibus Senecionis Fuchsii, Utterwalder Grund Saxonie (KRIEGER).

19. **Nectria Behnickiana** P. Henn. Hedw. 1905, XLIV, p. 172. — 2744

Beritheciis corticulis, sparsis vel subaggregatis, ovoideis, apice subpapillatis, coccineis, ca. 180-220 μ . diam., hyphis, hyalinis, flexuosis ca. 2 μ . crassis vestitis; ascis clavatis, obtusis, 8-sporis, 60-70 \times 6-10; sporidiis oblique monostichis vel distichis, ellipsoideis vel ovoideis, hyalinis vel flavidulis, medio 1-septatis constrictulis, 10-13 \times 4 $\frac{1}{2}$ -6; stromatibus conidiophoris pulvinatis, farinosis, pallidis; conidiis ellipsoideis, obtusis, continuis, hyalinis, 4-5 \times 2-2 $\frac{1}{2}$.

Hab. in ramis corticatis emortuis Coffeæ arabicæ cum Orchidea connatis, ex Brasilia, in horto botanico Berolinensi.

20. **Nectria coffeicola** Zimm. in Centr. f. Bakter. Parass. II Abt. 2745

1901, n. 3, p. 103, fig. 4. — Peritheciis late confertis, stromate nullo suffultis, sessilibus, globosis, 0,3 mm. diam., 0,4 mm. alto, initio cinnabarinis, demum brunneolis, ostiolo prominulo, achromo vel denique cyanescente; ascis cylindræo-clavatis, octosporis; 70 μ . long.; sporidiis ellipsoideis, 1-septatis, non constrictis, utrinque obtusis, 10-13 \times 5-6.

Hab. in truncis annosis Coffeæ arabicæ nec non Meliæ et Theobromæ in Java et Cinchonæ sp. in Amani Afr. or. — Prope st. ascophorum evolvuntur status conidiophori: alter conidiis tereti-falcatis continuis capitulatis, 11-30 \times 3-4, alter conidiis fusariiformibus, 4-6-cellularibus, 40-50 \times 5 (hic postremus tantum probabilis). A *N. saccharina* certe diversa. — Var. **ochroleuca**

Zimm. l. c. p. 105. — A typo differt colore læte ochroleuco et peritheciis minoribus. In ramis Coffeæ emortuis in Java.

21. **Nectria amaniana** Zimm. Berichte üb. Land. und Forstwirth. 2746
Deutsch. Ostafrika, 1904, p. 31. — Peritheciis stromate carentibus, liberis, globosis, glabris, ochraceo-flavis, 200-260 μ . diam.; ascis octosporis; sporidiis oblongis, obtusis, 1-septatis, non constrictis, 7-8 \approx 3, hyalinis.

Hab. in ramis Cinchonæ succirubræ et C. Ledgerianæ in horto Amani Africæ orient.

22. **Nectria secalina** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2747
Peritheciis gregariis, ovato-globosis 100-120 μ . diam., luteo-aurantiacis, plus minusve leviter collapsis; ostiolo minuto, papilliformi; ascis clavato-cylindraceutis, sessilibus, aparaphysatis, 40-55 \approx 7-8; sporidiis subdistichis, oblongis vel oblongo-ellipticis, 1-septatis, parce constrictis, hyalinis, 7-10 \approx 3-4.

Hab. in culmis Secalis cerealis, Alabama Americæ. — A *N. gibberelloide* E. et E. et a *N. Brassicæ* E. et Ev. differt peritheciis aurantiacis sporidiisque minoribus.

23. **Nectria Bolbophylli** P. Henn. Hedw. XLIV, 1905, pag. 171. — 2748
Peritheciis bulbiculis, sparsis, v. subaggregatis, ovoideis, apice obtuse papillatis, coccineis, ca. 200-230 μ . diam.; ascis cylindraceuto-clavatis apice rotundato-obtusis, 8-sporis, 70-100 \approx 6-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtuso-rotundatis, medio 1-septatis constrictis, hyalinis vel flavidulis 10-12 \approx 5-6.

Hab. in pseudobulbis emortuis Bolbophylli Lobbi in horto bot. Berolinensi (E. BEHNICK).

24. **Nectria dasyscyphoides** P. Henn. Hedw. XLIV, 1905, p. 172. — 2749
Peritheciis corticulis, sparsis vel subgregariis, 250-300 μ . ovoideis papillatis dein pezizoideo-collabentibus, carneis, basi hyphis villosis repentibus, hyalinis ca. 90 \approx 2 $\frac{1}{2}$ -4 circumdatis; ascis subclavatis vel subfusoides, apice obtusis vel acutiusculis, 8-sporis, 60-80 \approx 7-9; sporidiis oblique monostichis vel subdistichis, ellipsoideis, obtusis, medio 1-septatis, haud constrictis, 2-4-guttulatis, 9-12 \approx 4-5.

Hab. in ligno corticato, cum Orchidea connato, ex Kamerun Africæ importato, in horto bot. Berolinensi (E. BEHNICK).

IV. *Lasionectria* Sacc.

25. **Nectria cæsariata** Pat. Bull. Soc. Mycol. 1902, p. 303, f. XIV, 2750
f. 4. — Peritheciis epiphyllis, 3-5-confluenter gregariis vel sub-

solitariis, nullo stromate fultis, maculis fuscis denique arescentibus insidentibus, sphæroideis, albo-rubellis 680-800 μ . latis, poro punctiformi pertusis, apice atro excepto, pilis flexuosis, fasciculatim conjunctis, simplicibus, tenacibus, crasse tunicatis, transverse septatis, hyalinis vel plus minus rubro-tinctis, apice obtusis 120-250 μ . longis, 6-10 μ . cr., undique obsitis; contextu parenchymatico, rubiginoso v. rubro-atro; ascis cylindræis, sursum rotundatis, deorsum attenuatis 130 \approx 12; sporidiis octonis, monostichis v. subdistichis, hyalinis, ellipsoideo-oblongatis, medio septatis, non constrictis 18 \approx 6.

Hab in foliis vivis Chusqueæ, in Brasilia (GLAZIOU). — *N. leucomacæ* Starb. affinis.

26. **Nectria vanillicola** P. Henn. F. javanici novi in Hedw. 1902, 2751 p. 141. — Peritheciis sparsis v. aggregatis, ovoideis, vertice papillato-acutiusculis, coccineis, membranaceis, ca. 150-180, pilis septatis apice plerumque incrassatis, rotundatis, curvulis, flavo-brunneis 40-80 \approx 3-5 vestitis, basi bysso velutina, cremea circumdati; ascis subclavatis v. fusoides, apice rotundatis v. subacutiusculis, octosporis, 35-45 \approx 7-10, paraphysibus septatis, hyalinis; sporidiis subfusoides, 1-septatis, haud constrictis, 8-12 \approx 3,5-4, hyalinis.

Hab. in foliis *Vanillæ aromaticæ*, Buitenzorg Javæ.

27. **Nectria Vanillæ** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2752 p. 470, cum. icon. — Peritheciis plerumque compluribus aggregatis, globoso-conoideis 350-400 μ . alt. et 250-300 μ . lat., primo cinnabarinis, dein brunneolis, pilis clavulatis, pallidis, crebris vestitis, ostiolo conoideo denudato; ascis clavatis 50-60 μ . long., octosporis aparaphysatis; sporidiis oblongis, rectis, utrinque obtusulis, 1-septatis, non constrictis, hyalinis 9-2.

Hab. in caulibus *Vanillæ cultæ*, cui valde noxia, Buitenzorg in insula Java. — Simul adsunt acervuli flavo-albidi conidiophori; conidiis 1-septatis, 16-20 \approx 3,5-4, basidio paullo longiore suffultis.

28. **Nectria raripila** Penz. et Sacc. in Malpighia 1901, p. 228, Ic. 2753 fung. Javan. t. XXXII, fig. 2. — Peritheciis laxè gregariis, superficialibus, sphæricis, vertice obtuse conoideis, ostiolo perexiguo pertusis, aurantiacis, 200-250 μ . diam., parce pilosis; contextu laxè parenchymatico, tenui, dilute roseo-flavo; pilis filiformibus, subflexosis, obtusis, 80-100 \approx 10-14, septatis, ex hyalino roseis; ascis fusoides, apice acutulis, subsessilibus, 70-75 \approx 10-12, mox diffluentibus, 4-5-sporis, aparaphysatis; sporidiis distichis fusiformibus, sæpe inæquilateris, utrinque obtusulis, 28-32 \approx 6,5-7, levibus, 1-

septatis, non constrictis, hyalinis, plasmate tenuissime longitrorsum striatulo.

Hab. in caulibus emortuis Elettariæ, Tjibodas, in insula Java (N. FLEISCHER). — Vere distincta, ad sect. *Lasionectriam* spectat, sed ob pilos vere parcos ad *Dialonectriam* accedit.

29. **Nectria pilosella** Rehm in *Æst. Bot. Zeitschr.* 1904, p. 87. — 2754

Peritheciis sparsis, sessilibus, globulosis, subumbilicatis, haud papillulatis, albo-succineis, poro obscuriore, vix conspicuo pertusis, 210-240 μ . diam., pilis crebris, rectis, simplicibus, ad basim dilatatam 5 μ . cr., 40-60 μ . long., versus apicem plus minusve subacutatis, septatis, hyalinis obsessis, parenchymatice contextis; ascis clavatis 50-60 \approx 7-8, octosporis; sporidiis fusiformibus v. subclavatis, rectis, medio septatis, haud constrictis, utraque cellula guttam oleosam 1-2 includente, hyalinis 12-14 \approx 3, plerumque oblique monostichis; paraphysibus tenerrimis, septatis, 2-3 μ . cr.

Hab. ad culmos Graminaceæ cujusdam in Valle Kienbach prope Andechs Baviariæ sup.

30. **Nectria Mercurialis** Boud. — *Sacc. Syll.* IX, pag. 969. — var. 2755

Urticæ Rehm in *Æst. Bot. Zeitschr.* 1904, p. 87. — Ascis clavatis 50 \approx 7-8; sporidiis obtusis fusiformibus vel oblongis, utrinque rotundatis, medio septatis, haud constrictis, utraque cellula guttas oleosas magnas includente, 12-17 \approx 4-5.

Hab. in caulibus siccis Urticæ dioicæ prope Neufriedenheim, pr. Monachium Baviariæ.

31. **Nectria gigantea** Speg. *Myc. argent. ser. II*, 1902, pag. 77. — 2756

Maculis nullis; peritheciis superficialibus, gregariis, aurantiis, sessilibus 0,5-0,75 mm. diam., carnosulis, hemisphærico-turbinatis, hispidulis, superne applanatis, glabris, vix papillulato-ostiolatis; spinulis erectis, 40-100 μ . long., 10-15 μ . cr., ex hyphis laxè coalitis 5 μ . cr., septulatis simplicibus obtusiusculis efformatis; ascis fusoido-subclavatis aparaphysatis, apice obtusis, deorsum brevissime cuneato-stipitellatis 90-110 \approx 15, octosporis; sporidiis polystichis rectis vel leniter curvulis, 45-50 \approx 5-7, utrinque obtusiusculis, ad medium 1-septatis non constrictis, loculis æquilongis, 3-4-guttulatis.

Hab. ad caules putrescentes Conii maculati, S. Catilina, in Argentina.

32. **Nectria luteo-pilosa** A. Zimm. in *Centralbl. f. Bakter.* 1902, 2757

VIII, p. 182. — Peritheciis dense gregariis, ovoideis, prominulo-papillatis, cinnabarinis, pilis luteis fere usque ad verticem vestitis, 250 \approx 180; pilis concretionibus aureis globosis tectis, verruculosis et

fortiter curvis; ascis 8-sporis, apice obtusis; sporidiis oblongis, non constrictis, obtusis, $10,5-12,5 \times 3$; paraphysibus nullis.

Hab. in fructibus atratis *Coffeæ libericæ*, Buitenzorg Javæ.

IV. *Lepidonectria* Sacc.

33. *Nectria ornata* Mass. et Salm. Coproph. fungi II, p. 75, fig. 29- 2758

32. — Peritheciis sparsis, minutis, subglobosis dein vertice subdepressis, $330-500 \mu$. diam., ostiolo minuto; obscuro, aurantiacis, basim versus squamulis argenteo-nitentibus, patulis undique instructis; ascis cylindraceutis vel cylindraceuto-clavatis, $65-75 \times 9-11$, octosporis; sporidiis primo monostichis, deinde irregulariter distichis, ellipsoideis, utrinque obtusis, $12-14 \times 4-5$, hyalinis, 1-septatis, ad septum haud constrictis.

Hab. in fimo equino, Kew Britannicæ.

34. *Nectria juruensis* P. Henn. Fungi Amaz. II, p. 244. — Perithe- 2759

ciis gregarie cæspitosis, ovoideis apice papillatis mox collabentibus, cupulatis, flavo-succineis, cinereo-furfuraceis, squamis rotundatis, brunneolis, ca. $250-280 \mu$.; ascis clavatis, obtusis, 8-sporis, $60-80 \times 18-22$; sporidiis cylindraceutis, utrinque rotundatis, intus granulatis, medio 1-septatis, haud constrictis, $20-40 \times 8-10$.

Hab. in ramis corticatis, Bom Fim Rio Juruá et Marmellos Amazonicæ.

35. *Nectria Iriartiacæ* P. Henn. Fungi paraenses II, in Hedw. 1902, 2760

p. 16. — Cæspitulis gregarie erumpentibus, pulvinatis, usque ad 2 mm. diam.; peritheciis plus minus numerosis, primo flavidis dein subminiatis, globosis vel ovoideis, ca. $150-200$, pilis cirratis septatis flavidis, $20-60 \times 6-7$, exasperatis, ostiolis papillatis obscurioribus; ascis clavatis, apice obtusis $35-55 \times 5-7$; sporidiis distichis v. oblique monostichis, oblonge ellipsoideis v. subfusoides utrinque obtusis, intus granulatis, medio 1-septatis, haud constrictis, $9-11 \times 3,5-4$ hyalinis.

Hab. in corticibus emortuis truncorum *Iriartiacæ* exorrhizæ Para, Amer. austr.

36. *Nectria hypocrellicola* P. Henn. fungi blumenavienses II, in 2761

Hedw. 1902, pag. 4. — Peritheciis cæspitose gregariis, minutis, ovoideis apice rotundatis, papillatis, subfarinaceo-pulverulentis, flavidis, ca. $100-140 \mu$. diam.; ascis cylindraceutis, apice rotundatis, basi attenuatis, curvulis $55 \times 68 \times 4,5-5,5$; paraphysibus hyalinis, filiformibus v. obsoletis; sporidiis oblique monostichis, ellipsoideis,

utrinque rotundatis, 1-septatis, constrictis, bi-guttulatis, 8-10 \approx 4,5 hyalinis, levibus.

Hab. in culmis *Bambusæ*, parasitica in *Hypocrellæ* spec., St. Catharina Brasiliæ austr.

37. **Nectria bulbicola** P. Henn. Notizbl. d. Bot. Gart. u. Mus. Berlin 2762 1901, p. 98. — Peritheciis cæspitose erumpentibus, subgloboso-ovoideis, luteis v. succineis, apice papillatis, dein collabentibus, extus subtiliter furfuraceo-squamulosis, 180-210 μ . diam.; ascis fusoideo-clavatis, apice acutiusculis v. subobtusiusculis, basi attenuatis, 35-45 \approx 6-9, octosporis; paraphysibus haud conspicuis; sporidiis oblongis vel oblique monostichis vel subdistichis, utrinque obtusis, primo continuis, dein medio septatis, haud constrictis, 9-11 \approx 3,5, hyalinis.

Hab. in bulbis *Maxillariæ rufescentis* in horto bot. Berolinensi Germ. — Sporodochia [*Tubercularia bulbicola* (Henn.) Sacc.] subpulvinata erumpentia, ceracea, albida dein flavescentia, sicco subfarinacea; conidiophoris fasciculatis filiformibus, hyalinis, 3 μ . cr.; conidiis ellipsoideis v. ovoideis continuis, 4-7 \approx 3-3,5, hyalinis.

38. **Nectria botryosa** P. Henn. Fungi Blumenavienses II, in Hedw. 2763 1902, p. 3. — Soris botryose cæspitosis, erumpentibus, pulvinatis, 2-3 mm. diam.; peritheciis subglobosis, conico-papillatis, sicco collapsis, furfuraceo-squamosulis, flavidis ca. 160-200 μ . diam.; ascis clavatis, apice obtusis, octosporis 45-60 \approx 6-8; sporidiis fusoideis utrinque acutis 9-12 \approx 3-3,5, septatis, haud constrictis, hyalinis, levibus, oblique monostichis.

Hab. in truncis putridis *Palmarum*, St. Catharina Brasiliæ austr.

39. **Nectria tuberculata** Trav. in Atti Congr. bot. Palermo 1902, p. 42. 2764 — Peritheciis superficialibus, plerumque solitariis, primitus strato conidiifero (*Dendroochium Nectricæ* Trav) tectis, dein liberis, pyriformi-globulosis, ostiolo minuto pertusis, 200-300 μ . d., miniatorubris, grosse et parce squamoso-tuberculatis, ceraceo-membranaceis, contextu late parenchymatico, citrino-ochraceo; ascis cylindraceo-clavatis, superne truncatis, 85-100 \approx 9-12, octosporis, paraphysatis; sporidiis distichis vel monostichis, ovato-ellipsoideis, 15-18 \approx 5-7, 1-septatis, non vel vix constrictis, loculo superiore paullo crassiore, diu hyalinis sed tandem ex hyalino fuscidulis.

Hab. ad basim trunci *Poincianæ* regię jam emortuæ et putrescentis, in calidariis horti botanici, Padova Italiæ bor.

VI. *Hyphonectria* Sacc. (Cfr. n. 24).

40. **Nectria subfalcata** P. Henn. Fungi blumenavienses II, in Hedw. 2765
1902, p. 4. — Peritheciis sparsis v. aggregatis, basi byssino-albidis, hyphis ramosis, septatis, hyalinis, 4-7 μ . cr. circumdatis, subglobosis, flavo-brunneis, apice papillatis dein collabentibus, ca. 300-350 μ . diam, contextu pseudo-parenchymatico, flavo v. rufo-brunneolo; ascis late fusoideis, utrinque acutiusculis, octosporis 60-80 \times 28-30; sporidiis conglobatis, longe fusoideis, utrinque acutiusculis, rectis vel falcatis, 1-septatis, oleoso-pluriguttulatis, 40-50 \times 5-8, hyalinis, levibus.

Hab. in caulibus putridis, St. Catharina Brasilæ austr.

41. **Nectria rosella** Bres. Fungi Lusitanici in Broteria 1903, vol. II, 2766
pag. 91. — Habitus Hypomycetis; peritheciis dense gregariis vel rarius connatis, ovato-globosis v. ovatis, papillatis, 160-200 μ . latis, roseo-auroreis, exsiccando saturatoribus, subiculo byssoideo, albido, innatis; ascis cylindraceutis, apice truncatis, 110-120 \times 8-9; sporidiis hyalinis, ellipsoideis 1-septatis, demum ad septum subconstrictis 12-17 \times 6-7. Subiculum *Fusarium* sistens: hyphis 3-4,5 μ . cr., apice conidia falcata 3-5-septata, hyalina 40-50 \times 4-4,5 gerentibus.

Hab. ad asseres Pini halepensis in Lusitania.

42. **Nectria pipericola** P. Henn. Fungi Amaz. II, p. 244. — Peri- 2767
theciis plerumque meliolicolis, sparsis vel aggregatis, vix conspicuis, ovoideis, papillatis vel collapsis, pallide flavidis vel carneis, pilosis, ca. 80 \times 60, basi hyphis repentibus, hyalinis, ramosis, septatis 3-3 $\frac{1}{2}$ μ . circumdatis; ascis subfusoideis v. clavatis, 18-25 \times 5-7, apice obtusis tunicatis; sporidiis subdistichis fusoideis, rectis vel curvulis, 2-guttulatis, medio 1-septatis, haud constrictis, hyalinis, 8-10 \times 3.

Hab. in foliis Piperis sp. ad hyphas Meliolæ, Fortaleza Amazoniæ.

43. **Nectria byssiseda** Rehm in Rabenhorst-Pazschke Fung. eur. 2768
n. 4152. — Peritheciis dispersis, sessilibus, in medio mycelii tenuissimi cinereo-albi ex hyphis centrifugis, ramosis, septatis, hyalinis, 3 μ . latis constructi, maculas epiphyllas, subrotundas, ca. 0,5 cm. lat., mucedinis instar penicilli expansas formantis, globosis, dein apice collabentibus, subcarneis, parenchymatice subhyalino-contextis, glabris, ca. 0,1 mm. diam.; ascis clavatis, 30 \times 9, 8-sporis; sporidiis fusiformibus v. oblongis rectis, 2-cellularibus, interdum

utraq̃ue cellula nucleo 1 instructa, ad septum haud constrictis, hyalinis 9×3 , distichis; paraphysibus filiformibus, hyalinis.

Hab. in fol. Pavoniæ spec. Sao Francisco, Estado Sta. Catharina Brasiliæ (E. ULE). — Peritheciis sporidiisque perparvis mox inter *Hyphonectrias* dignoscenda. Ex ipso cl. auctore (Hedw. 1900 p. 223) esset species eadem ac *Calonectria tubaroensis* Rehm, tamen, teste cl. Hennings, Hedw. 1904, p. 244, sporidiis fusoideis 1-septatis tute distinguitur.

44. **Nectria moschata** Glück — Syll. XIV, p. 638. — Cfr. quoque Glück in Engl. Jahrbüch. 1902, p. 495, tab. XV-XVI.

VII. *Cosmospora* Sacc.

45. **Nectria Rickii** Rehm in Hedw. XLIV, p. 2. — Peritheciis dispersis sessilibus, conoideis, glabris, aurantio-rubris, 150 μ . alt.; ascis cylindræis $60-70 \times 5$, octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, utraq̃ue cellula minute 1-guttulata, non constrictis, tenuissime verruculosis, hyalinis, dein flavidulis, $5-6 \times 3,5-4$, monostichis; paraphysibus tenerrimis, ramosis. 2769

Hab. in stromate Kretzschmariaë lichenoidis, Sao Leopoldo Brasiliæ (Prof. RICK). — A *N. episphaeria* var. *Kretzschmariaë* et *N. xanthostromate* sporidiis minutis tenuiter verruculosis distinguenda species.

46. **Nectria stigme** Rehm in Hedw. XLIV. — Peritheciis gregariis sessilibus, conoideo-globosis, glabris, purpureo-rubris, apicem versus plerumque obscurius tinctis, 240 μ . alt. et lat.; ascis clavatis teneris, $80-85 \times 12$, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, utraq̃ue cellula gutta magna oleosa prædita, exosporio crasse verruculoso, hyalinis, $12-14 \times 7$, distichis; paraphysibus? 2770

Hab. in stromate destructo Kretzschmariaë lichenoidis, Sao Leopoldo Brasiliæ (Prof. RICK). — A *N. xanthostromate* præcipue sporidiis majoribus, crasse verrucosis dignoscitur. E sect. *Cosmospora*.

VIII. *Phæonectria* Sacc.

47. **Nectria madeirensis** P. Henn. Fungi Amaz. II, p. 244. — Peritheciis gregarie cæspitosis, ovoideis, coccineis, pruinosis, papillatis, dein collabentibus, 250-300 μ . diam.; ascis clavatis, rotun- 2771

dati 8-sporis, 120-130 μ .; sporidiis fusoidis, utrinque obtusiusculis, rectis vel curvulis, medio septatis, haud constrictis, 20-32 \times 6-10, brunneo-fuscis.

Hab. in truncis corticatis emortuis, Marmellos, Rio Madeira Amazoniæ.

IX. *Lichenonectria* Sacc. Species lichenicolæ, parasiticæ.

48. ? **Nectria epicallopisma** (Arn.) Sacc. et D. Sacc. *Cercidospora epicallopisma* Arn. Fragm. XXV in Flora 1881, n. 20, t. VI, f. 14. 2772
— Peritheciis aurantio-rubris, exiguis; ascis 4-sporis, cylindræis; sporidiis bicellularibus, fusoidis, hyalinis, 15-18 \times 4; paraphysibus obsoletis.

Hab. in thallo *Gyalolechiæ callopismatis*, Vaocluse Galliæ.

49. **Nectria insidiosa** (Nyl.) Sacc. et D. Sacc. *Hymenobia insidiosa* Nyl. 2773
Lich. Alg. p. 338, Hue Add. Nyl. pag. 327, *Psora aporea* Nyl. Collect. Pyr. p. 15. — Peritheciis (?) microscopicis totis incoloribus; ascis octosporis; sporidiis oviformibus, hyalinis, 1-septatis, 12-15 \times 4-5.

Hab. in apotheciis *Lecideæ juranæ* et *Lec. phylliscocarpæ* in Gallia, Pyrenæis, Algeria. — Affinis *N. lichenicolæ*? Sed ob descriptionem imperfectam omnino dubia.

BRESADOLELLA v. Höhn. in Ann. Mycol. I (1903) p. 522 (Etym. in honorem viri clarissimi et amicissimi ab. JACOBI BRESADOLÆ, de re mycologica meritissimi). — Perithecia superficialia, sessilia, libera, globosa, carnosæ, ex aureo olivascentia, pilis rigidis ornata, ostiolo minuto; paraphyses parvæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, oblongis, facile jamque ipso in asco se separantibus formata. — A gen. *Neorhemia* præsertim ostioli præsentia dignoscitur.

1. **Bresadolella aurea** v. Höhn. l. c. — I. Fungus ascophorus. Plan- 2774
tula saprophytica; peritheciis sparsis, globosis, minutis, 70-110 μ . latis, ex aureo olivascentibus, carnosis, undique pilis paucis (usque 8-10), non septatis, acutis, leniter curvatis, primum aureis, demum atris, impellucidis, brevibus, 40-70 \times 6-7, obtectis; ostiolo minuto, subpapillato; paraphysibus parvis, filiformibus; ascis tenuissimis, clavatis, acutis, numerosis, 30-36 \times 5-6, octosporis, cum paraphysibus sæpe aureo-tinctis; sporidiis subdistichis vel oblique mono-

stichis, hyalinis, oblongis, $8 \approx 1,5$ e cellulis binis, oblongo-cuneatis, facile jamque ipso in asco se separantibus formatis. — II. Fungus conidiophorus?: *Dendryphium Bresadolellæ* v. Höhn. — Hyphis sterilibus parcis, obsoletis; hyphis fertilibus fasciculatis, erectis, subpellucidis, fere nigris, 7-10-septatis, sæpe irregulariter brevique ramulosis, usque $450 \approx 10-11$; ramulis supra et ad basin obtusis, 1-3-cellularibus, 30-80 μ . longis; conidiis ad ramos acrogenis, solitariis vel ad 2 concatenatis, cylindraceis, utrinque rotundatis, crassiuscule tunicatis, tunica 3-5 μ . lata, septatis, non constrictis, obscure fuligineis, 48-68 \approx 14-21.

Hab. in ligno putrido Fagi, prope Pressbaum Austriæ inferioris, loco « Viehoferin » dicto.

SPHÆROSTILBE Tul. — Syll. II p. 511, IX p. 972, XI p. 389.

1. **Sphærostilbe hypocreoides** P. Henn., Fungi blumenavienses II, in Hedw. 1902, p. 4. — Stromatibus carnosis, rotundato-hemisphaericis, flavo-subcarnescentibus, ca. 1-2 mm. diam.; peritheciis subimmersis, subglobosis, ostiolo papillato-prominulis, minutis; ascis cylindraceo-clavatis, obtusis, octosporis, 65-75 μ . long. p. sp. 50-60 \approx 57; sporidiis oblique monostichis, ellipsoideis, utrinque rotundato-obtusis, biguttulatis, dein medio 1-septatis, haud constrictis, 9-12 \approx 4-5,5 hyalinis, levibus; fasciculis conidiophoris clavatis, pedicello ca. 600 \approx 60, capitulis subglobosis ca. 150-180 μ . diam., flavidis; conidiis ellipsoideis, 8-10 \approx 4-5, hyalinis. 2775

Hab. in truncis, St. Catharina Brasiliæ austr.

2. **Sphærostilbe marmellosensis** P. Henn. Fungi Amaz. II, p. 245. — Peritheciis cæspitose erumpentibus, ovoideis, obtuse papillatis, rufo-brunneis vel subcoccineo-fuscidulis, ca. 150-200 μ .; ascis clavatis, obtusis, 50-80 \approx 15-18, 8-sporis, subdistichis ellipsoideis vel subclavatis, utrinque obtusis, medio 1-septatis, hyalinis, 15-20 \approx 7-8; conidiis clavatis vel stipitato-spathulatis, flavido-brunneolis, obtusis, ca. 1 mm. longis, 250 μ . crassis; conidiis fusoides, hyalinis 2 $\frac{1}{2}$ -3 \approx 1. 2776

Hab. in corticibus arborum Marmellos, Rio Madeira Amazoniæ.

RHYNCHONECTRIA v. Höhnel, Fragmente zur Mykologie 1903, p. 37 (Etym. *rhynchos* rostrum et *Nectria*). — Perithecia superficialia, carnosia, pallida v. læte colorata, elongata, ostiolo acute terminata; asci 4-8-spori; sporidia hyalina fusiformia, 1-septata, utrinque ciliata. — Ab *Eleutheromycete* sporidiis bilocularibus dignoscitur

et in Tab. comp. (Syll. XIV, p. 24) casulam n. 74^{bis} inter Hypocreaceas occupabit.

1. **Rhynchonectria longispora** (Phill. et Plow.) v. Höhnelt l. c. *Eleutheromyces longisporus* Phill. et Plowr. — Syll. IX, p. 942.

PODOCREA Sacc. — Syll. II p. 530, XIV p. 645 XVI p. 587 (ut subgen.). — Penz. et Sacc. in Malpighia 1902, p. 229 (Etym. *pous podos*, pes et *crea* pro *Hypocrea*). Ab *Hypocrea* distinguitur stromate verticaliter elongato, ostioliis brevibus. — Huc ducendæ sunt species sequentes: *Podocrea larvata* (Mont.) Sacc. et D. Sacc., *Pod. Petersii* (B. et C.) Sacc. et D. Sacc., *Pod. brevipes* (Mont.) Sacc. et D. Sacc. (omnes Syll. II, p. 530-531 sub *Hypocrea*); *Pod. Cornudamæ* (Pat.) Sacc. et D. Sacc. (Syll. XIV, p. 644); *Pod. deformans* (Bomm. et Rouss.) Sacc. et D. Sacc., *Pod. poronioidea* (A. Möll.) Sacc. et D. Sacc., *Pod. pezizoidea* (A. Möll.) Sacc. et D. Sacc., *Pod. sphæroidea* (A. Möll.) Sacc. et D. Sacc. (omnes Syll. XVI, p. 587).

1. **Podocrea Cordyceps** Penz. et Sacc. in Malpighia 1902, p. 229 et 2777 Icon. Fung. Javan. tab. 36, fig. 4. — Sparsa, simplex, teretiv-clavata, erecta, carnosæ, coccinea, glabra, 5-6 cm. alta, 3 mm. cr. (in clava), stipite cylindræo, clavam subæquante et ea vix subtiliore, nempe 2,5 mm. cr; clava apice obtuse tenuata, ostioliis minutissime punctata; peritheciis globulosis, 180-250 μ . diam., ostioliis vix prominentibus; ascis cylindræis, in ostiolum convergentibus, 70-80 \approx 3,5, facile fluxilibus, octosporis, obsolete paraphysatis; sporidiis monostichis, oblongis, bilocularibus, inter se arcte approximatis, utrinque obtusis, hyalinis 8-10 \approx 3, articulis elliptico-cuboideis, 4-5 \approx 3, facile secedentibus, dein echinulato-asperulis.

Hab. ad terram, forte ex sclerotio quodam, Tjibodas, in insula Java (M. FLEISCHER). — *Podocrea* Sacc., hucusque ut subgenus habita, formis novis et conspicuis accedentibus, in generis honorem extolli meretur. Præsens species faciem *Cordycipitis* omnino reddit.

2. **Podocrea Lloydii** (Bres.) Sacc. et D. Sacc. *Hypocrea Lloydii* Bres. 2778 in Lloyd, Mycol. Not. 1902, n. 9, p. 87 c. ic. — Habitu omnino *Cordycipitis*; stromate longe stipitato, apice clavula peritheciigera obovato-oblonga, 1,5 cm. longa, 3 mm. cr. farcta prædito; peritheciis minimis immersis, subglobosis, ostioliis punctiformibus prominulis ubique tectis; stipite farcto, glabro, tereti, tortuoso, al-

bido 3 cm. longo, 2 mm. cr.; ascis cylindræis, octosporis, $100 \approx 4-5$; sporidiis in articulos 16 solutis, articulis subcuboideis, subglobosis, $3-4 \approx 3-3,5$.

Hab. in Virginia occid. (LLOYD). — Habitu *Cordycipitis* et fructificatione *Hypocreæ*, ut præcedens, hinc prædistincta species!

HYPOCREA Fr. — Syll. II p. 520, IX p. 972, XI p. 361, XIV p. 641, XVI p. 583.

1. **Hypocrea cupularis** Pat. in Duss Enum. Champ. Guadel. 1903, 2779 pag. 80. — Subiculo nullo; stromatibus sparsis v. confluentibus, sessilibus, cupuliformibus, tenuibus, orbicularibus, margine integro et sinuoso, rigidulis, duris, 1 mm. diam. primitus albis, dein pallide rufis, facie superiore concavis, præter marginem sterilem, ostiolis punctatis; peritheciis immersis, punctiformibus, rufis; ascis cylindricis, rectis, $80 \approx 5$; sporidiis cylindricis v. cuneiformibus, utrinque rotundatis, in loculos binos æquales non secedentes partitis, $10 \approx 4$, incoloribus.

Hab. in cortice putri *Sterculiæ caribææ*, Montéran Guadalupæ.

2. **Hypocrea insignis** Berk. et Curt. — Syll. II pag. 534, ubi diagn. incompleta — Patouill. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Ascis cylindræis $80 \approx 5$; sporidiorum articulis 16, globosis, $3-4 \mu$. diam., hyalinis.

Hab. in ligno putri, in insula Martinica Amer. centr.

3. **Hypocrea hypoxyloides** P. Henn., Fungi blumenavienses II, in Hedw. 1902, p. 5. — Stromatibus carnosus, duris, breve crasseque stipitatis, hemisphærico-pulvinatis, margine obtusis, undulatis, rufo-ferrugineis, pruinosis v. subtomentosulis, 2-10 mm. diam.; peritheciis subglobosis, immersis, ostiolis punctulatis, minute subpapillatis, obscurioribus; ascis cylindræis, apice obtuso-rotundatis, basi attenuato-stipitatis, $70-80 \approx 4$; sporidiis mox in 16 cellulas globosas hyalinas $3,5-4 \mu$. diam. secedentibus.

Hab. in truncis, S. Catharina Brasiliæ austr.

4. **Hypocrea rufa** (Pers.) Fr. — Syll. II, p. 520. — var. **discoidea** 2781 Rehm, Hedw. 1902, p. (206). — Stromatibus gregariis, primitus in mycelio tenuissimo late expanso, albo sessilibus, discoideis, orbicularibus, vix lobatis, haud tuberculosus nec convexus, in sicco planis, crasse pseudomarginatis 2-4 mm. diam., 1 mm. crassis, junioribus citrinis, subalbido marginatis, adultis subolivaceis, su-

perficie minutissimis ostioliis fuscidulis punctulatis, intus albidis, stromate exteriori flavescente; peritheciis circ. 200 μ . diam.; sporidiis globosis 3 μ . diam. hyalinis.

Hab. ad truncos in Europa et Amer. bor.

5. **Hypocrea xylariicola** P. Henn. Fungi S. Paulenses III, p. 206. — 2782

Stromatibus ceraceo-carnosis, isabellinis, pulvinato-effusis, 1-4 mm. diam., ostioliis punctoideis, fuscidulis; peritheciis immersis ovoideis, 90-120 μ .; ascis cylindraceis obtusis, 70-85 \approx 4 $\frac{1}{2}$ -5 $\frac{1}{2}$; cellulis sporidiorum, 16, subcuboideis v. subglobosis ca. 4-5 μ , episporio levi flavidulo.

Hab. in stromate Xylariæ spec., Serra de Cantareira Brasiliæ.

6. **Hypocrea tangensis** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 2783

XXVIII, p. 38. — Stromatibus carnosis, pulvinato-effusis, flavidis, ca. 1 cm. diam., ostioliis vix obscurioribus, subconoideo-prominulis; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraceis, apice obtusis, basi paullo attenuatis, intus primo 8-septatis, dein octosporis, 80-100 \approx 4,5-5; sporidiis monostichis e cellulis duabus æqualibus, cuboideo-ellipsoideis, 1-guttulatis, 4-5 \approx 3,5-4, hyalinis.

Hab. in lignis, Usambara Africæ or. (KUMMER).

7. **Hypocrea umbilicata** P. Henn. Fungi blumenavienses II, in Hedw. 2784

1902, pag. 5. — Lignicola; stromatibus carnosis, hemisphæricis, centro umbilicato-depressis c. 7-9 mm. diam., e flavido subcarne-scentibus; peritheciis subglobosis ca. 180-200 μ . diam., hemisphærico-papillatis; ascis cylindraceis, apice obtusis, basi attenuato-stipitatis 40-50 \approx 3-4; cellulis sporidiorum (16) globosis, ca. 3 μ . hyalinis.

Hab. in truncis, St. Catharina Brasiliæ austr.

8. **Hypocrea platensis** Speg. in Ann. Soc. Cient. Arg. 1899, p. 270. 2785

— Stromatibus sparsis v. laxè gregariis, orbicularibus 2-5 mm. diam., superne concaviusculis vel vix undulatis, epunctatis, aurantiis, margine acutis integris, inferne convexulis, pallidis, glaberrimis, latiuscule adnato-sessilibus; peritheciis numerosissimis constipato-globulosis 90-100 μ . diam., vix ostiolatis, melleis, nucleo olivaceo-farcto; ascis cylindraceis, antice obtuse rotundatis, postice breviter attenuato-pedicellatis 70-90 \approx 4-4,5, octosporis apographysatis; sporidiis rectis, monostichis, olivaceis, bilocularibus, loculis mox secedentibus, globosis v. subglobosis 3,5-4 levibus.

Hab. ad ramos dejectos putrescentes Erythrinæ crista-

galli in insula Santiago, prope La Plata Argentinae. — *Hyp. pezizæformi* simillima, sed stromatibus aurantiis sporidiisque olivaceis sat recedens.

9. **Hypocrea pulchella** Penz. et Sacc. in Malpighia 1901, pag. 229, 2786
Ic. fung. Jav. t. XXXVI, f. 3. — Stromatibus gregariis, minutis, sessilibus, disciformibus, 0,7 mm, subplanis, succineo-aurantiis, minutissime verruculosus, ostiolis perexiguus obscurius punctatis; peritheciis globosis, numerosis; ascis cylindraceutis apice rotundatis, deorsum sensim leviter tenuatis 45-50 \times 2,8-3, octosporis; sporidiis monostichis, bilocularibus, olivaceis, dein in articulos globosos, 2,5-3 μ . diam. dilabentibus.

Hab. in ramis corticatis emortuis prope Buitenzorg, in insula Java. — Affinis *H. Catoptro*, sed asci et sporidia dimidio breviora. Ascomata in alcohole dilute flavida.

10. **Hypocrea rufo-alutacea** P. Henn. Fungi blumenavienses II, in 2787
Hedw. 1902, p. 6. — Ascomatibus carnosus, firmis, turbinato-scutellatis, extus rufo-brunneis, pruinosis, disco alutaceo, plano v. undulato, ca. 3 mm. 1 cm. diam.; peritheciis immersis, subglobosis, ostiolis punctulatis obscurioribus; ascis ca. 60-65 \times 4-4,5, octosporis, apice rotundatis, basi attenuatis; cellulis sporidiorum globosis v. cuboideo-angulatis ca. 3,5-4, primo flavis dein brunneo-rufis, levibus.

Hab. in ligno emortuo, St. Catharina Brasiliæ austr.

11. **Hypocrea porioidea** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 2788
— Stromatibus crustaceo-effusis, planis, gregario-confluentibus, porioideis, pallide ferrugineis, ambitu albo-byssinis, plerumque 3-5 mm. diam.; peritheciis immersis, subglobosis vel ovoideis 80-110 μ . diam., ostiolis punctiformibus, ferrugineis; ascis cylindraceutis, apice obtusis, octosporis, ca. 55-66 \times 3,5-4; cellulis sporidiorum globoso-subcuboideis, hyalinis, 1-guttulatis 3-3,5.

Hab. in ramis emortuis, Ost-Usambara Africae orient. (ENGLER).

12. **Hypocrea discelloides** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. 2789
— Stromatibus rotundato-pulvinatis, applanatis vel subgloboso-depressis, 1-2 mm. diam., primo citrinis, dein aurantio-fuscis, ostiolis minute punctoideis, obscurioribus; peritheciis immersis, ovoideis ca. 150 μ .; ascis cylindraceutis, apice obtusis, octosporis, 40-60 \times 2,5-3; sporidiis globosis, hyalinis 2,5 μ . diam.

Hab. in truncis emortuis, West-Usambara Africae orient. (ENGLER).

13. **Hypocrea Agaves** Maublanc in Bull. Soc. Myc. de France 1903, 2790

fasc. 3, p. 292, tab. XV, fig. 3. — Stromatibus in maculis obsoletis, aggregatis, superficialibus, atro-purpureis, mamillosis, orbicularibus v. oblongis; peritheciis globulosis vel ovatis, ostioliis prominulis; ascis aparaphysatis, fusoides, utrinque attenuatis, brevissime pedicellatis, octosporis, $60-70 \approx 18-20$; sporidiis hyalinis, inordinatis, fusiformibus, obtusis, 1-septatis, ad septum breviter constrictis, $23-26 \approx 6-7$.

Hab. in foliis *Agaves* spec. in Mexico.

HYPOMYCES Fr. — Syll. II p. 466, IX p. 954, XI p. 356, XIV p. 641, XVI p. 582.

1. **Hypomyces Bresadolæ** Sacc. Notæ Myc. in Syd. Ann. Myc. 1903, 2791 pag. 25. — Subiculo membranaceo-carnosulo, versiformi, pallido, glabrescente, ex hyphis crassiuscule cylindræis, parce ramosis $7-12 \mu$. cr., septatis, dense intermixtis formato; hyphis exterioribus fertilibus; conidiis perfecte globosis, crasse tunicatis, minute muriculatis, $28-32 \mu$. diam., pallide citrinis; peritheciis globoso-conicis, parte inferiore subiculo immersis $80-100 \mu$. diam., glabris, carnosulis, rubro-aurantiis; ascis cylindræis, obtuse tenuatis, breve stipitatis $150-160 \approx 7-9$, octosporis, aparaphysatis; sporidiis fusoides, recte v. oblique monostichis, $18-21 \approx 5-6$, biguttatis, tandem tenuiter 1-septatis, hyalinis.

Hab. ad acus, frustula lignea *Abietis excelsæ*, in silva Tertiolesi, Val di Sole agri Tridentini. — Affinis *H. chrysofermo*, a quo recedit habitatione, subiculo, conidiis multo majoribus et citrinis etc. St. conidicus *Sepedonii* speciem sistit.

2. **Hypomyces Biasolettianus** (Br. et Farn.) Sacc., *Chrysoglu ten Bia-* 2792 *solettianum* Br. et Farn. Int. ad un nuovo tipo di Licheni a tallo conidifero, p. 15, tab. V-VI (Atti Ist. Bot. Pavia vol. VIII, 1902). — Thallo seu stromate conidiophoro et ascophoro *Pionnotem Biasolettianam* (Corda) Sacc. sistente; peritheciis plus minus dense gregariis, primum subglobosis, in superficie thalli inclusis, dein piriformibus, ostioliis conicis emergentibus, vertice pertusis, rubro-aurantiis, carnosis, contextu parenchymatico, aurantiaco, $200-250 \approx 130-150$; ascis cylindræis, breve stipitatis, aparaphysatis apice rotundatis (initio sub apice contractis ut in *Nectriaceis!*), octosporis, $80-90 \approx 7-7,5$; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, rectis, $12-13 \approx 6-7$, intus granulosus, hyalinis.

Hab. ad truncos languidos v. demum emortuos *Vitis viniferae*, Vercelli, Milano, Vicenza, Treviso etc. in Ital. bor. -- Cll.

Briosi et Farneti, suspicati algulas quasdam virentes 1-paucicellulares intra thallum *Pionnotis* visas, sistere stratum gonidicum lichenis proprii, stirpem hanc pro novo genere et nova lichenum familia (*Chrysoglutinaceæ*) descripserunt; sed hanc attributionem habitus omnino funginus utriusque formæ evidentissime excludit. Certe de *Hypocreaceo* fungo agitur, *Hypomyceti Trichodermati* (Hoffm.) Sacc. Syll. II, 475 proximo, nec obstat matrix non fungina, cum species nonnullas *Hypomyceti* non fungicolas habeamus. — Specimina perfecte matura cl. prof. Brizi communicavit.

3. **Hypomyces Arecæ** Baccarini, in Nuovo Giorn. bot. ital. 1902, 2793
vol. IX, n. 4, pag. 497. — Peritheciis gregariis vel pro natura matricis, plus minus dense stromaticis, rotundis, stromate immersis vel semiimmersis et emersis, aureo-flavis, epapillatis, 0,3 mm. latis; ascis linearibus $38 \approx 4$ octosporis; sporidiis oblique monostichis, ellipticis, uni-septatis, ad septum non vel vix constrictis, $9,5 \approx 3,5$; hyphis conidiophoris sejunctis candidulis v. roseis, juventute simplicibus vel sæpius, instar *Verticillii* vel (senectute) *Penicillii*, ramosis; ramulis ad quemquam articulum ternis v. quinis, acuminatis 20 μ . longis, 2 μ . latis; conidiis ellipticis $3,8 \approx 2,5$ hyalinis vel coacervatis isabellinis, simplicibus; sclerotiis? rotundis, perexiguus 0,4 mm. latis, medulla pseudoparenchymatica oleosa; cortice lutescente.

Hab. in foliis siccis *Arecæ* madagascariensis in horto botanico Firenze Italiæ centr.

4. **Hypomyces albidus** Rehm, Hedw. 1903, p. (291). — Peritheciis gregariis, sessilibus, in mycelio late expanso albissimo hypharum rectangulariter ramosarum, hyalinarum, septatarum 4-5 μ . cr., globosis, demum subconoideis, vix papillulatis, hyalinis, demum subflavidulis, in sicco collabentibus, parenchymatice contextis, 150-200 μ . diam.; ascis cylindraceis $120 \approx 9$, octosporis e paraphysibus nullis; sporidiis ellipsoideis, utrinque acutatis, medio septatis et vix constrictis, utraque cellula guttam magnam oleosam includente, utroque apice minutissime appendiculatis, hyalinis, scabriusculis $20-22 \approx 7-8$, 4-8 monostiche positis.

Hab. parasitica in hymenio *Stereii* sanguinolenti, Schneeberg Austriæ inf. (Doct. v. HÖHNEL).

5. **Hypomyces arenaceus** Annie L. Smith, Journ. Linn. Soc. XXXV, 2795
p. 17, tab. III, fig. 6-8 (extr.) — Syll. XVI, p. 1140 (nomen). — Peritheciis sparsis v. confertis, arenæ micæ æmulantibus, fulvis, exiguis, circa 150-250 μ . diam.; ascis cylindraceis, angustis,

100 μ . longis; paraphysibus filiformibus; sporidiis monostichis, ovato-oblongis, circiter 10 \times 4-5, uniseptatis, hyalinis.

Hab. in hymenio Sterei, in insula Dominica Indiæ occid.

6. **Hypomyces galericola** Henn. in Hedw. 1902, p. (214). — Mycelio 2796 byssino, flavidulo, hyphis ramosis, septatis, hyalinis ca. 2,5-3,5 μ . crassis; peritheciis sparsis vel aggregatis, subgloboso-ovoideis, vertice minute papillatis, pallide flavis; ascis oblonge clavatis, apice obtusis, octosporis, 90-120 \times 9-11; sporidiis subdistichis, subfusoides, curvulis, utrinque subacutiusculis, medio 1-septatis, hyalinis 12-15 \times 3,5-4.

Hab. parasitice in Galera rubiginosa, pr. Cairo Ægypti.

7. **Hypomyces caulicola** P. Henn. Fungi blumenavienses II in Hedw. 2797 1902, p. 2. — Stromatibus cauliculis, pulvinatis 1-1,5 mm. diam.; hyphis septatis, ramosis, hyalinis 4-6 μ . cr. circumdatis; peritheciis semilibris subovoideis, apice rotundatis, luteo-carnescentibus 180-200 μ . longis. 90-100 μ . latis; ascis cylindraceo-clavatis vel subfusoides, apice obtusiusculis vel acutiusculis, basi attenuatis, octosporis, 55-65 \times 4-5; sporidiis oblique monostichis, fusoides utrinque subacutiusculis, 1-septatis, haud constrictis, hyalinis, levibus 9-11 \times 3-3,5.

Hab. in caulibus putridis, St. Catharina Brasilæ austr.

8. **Hypomyces sepulcralis** Pat. Champ. de la Guadeloupe, ser. III, in 2798 Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Stromate crustaceo, irregulari, albido-ochraceo, subtili; peritheciis globosis, semiimmersis, brunneis, dense congestis; ostiolis conicis, emergentibus; ascis cylindraceis, rectis 120-150 \times 5-6, octosporis; sporidiis monostichis, fusoides, hyalinis, non appendiculatis, paullulo rugulosis vel levibus, 1-septatis, ad septum non constrictis, 10-14 \times 4-5.

Hab. ad terram in sepulcreto, Guadalupa Amer. centr. — *H. terrestri* affinis.

9. **Hypomyces boletinus** Peck, Rep. State Bot. 1903, p. 15. — Peri- 2799 theciis minutis, conicis vel subglobosis, subiculo pallido vel albido dense nidulantibus, pallide rubris vel aurantiis; ascis linearibus tenuibus 100-120 \times 7-8; sporidiis subfusiformibus continuis (semper?) uno apice acuminatis vel apiculatis, 20-25 \times 6-7.

Hab. in Boleti spec. indeterminata, putrescente, socio *Sepe-donio chryospermo*. — Ab *H. polyporino* et *H. boleticola* notis datis satis diversus.

10. **Hypomyces stereicola** P. Henn. in Hedw. 1903, p. (79). — My- 2800

celio aurantio, crustaceo, effuso, hyphis flavidis v. subhyalinis, septatis, ramosis, ca. 3-4 μ . cr.; conidiis subglobosis aurantiis, intus punctulatis, 2,5-3 μ .; peritheciis sparsis v. gregariis, liberis, ovoideis v. subglobosis, citrinis, levibus, apice papillatis, pallidioribus, 130-180 \times 120-150; ascis cylindraceutis, apice obtusis, octosporis, 40-50 \times 2-2,5; sporidiis monostichis, fusoides, utrinque acutis, primo continuis guttulatis, dein medio 1-septatis, haud constrictis, 4,5-5,5 \times 1,5-2.

Hab. in pagina inferiore Sterei lobati, ubi stratum aureum format, N. Queensland Australiae (PRITZEL).

11. **Hypomyces ?conviva** Baccarini, in Nuovo Giorn. bot. ital. 1902, 2801
vol. IX, n. 4, p. 498. — Status ascophorus ignotus; hyphis conidiophoris fulvis, sejunctis ac caespitosis; vel in generatione e chlamydosporis ortis, fasciculatis, pluries verticillato-ramosis; ramulis ad quamque articulum ternis v. quaternis, ovato-acuminatis 11-18 μ . longis, 2-3 μ . latis; conidiis ellipticis, fulvis 2-3,8 μ .; hyphis conidiophoris fasciculatis ad apicem versus pallescentibus atque conidia altera hyalina gigantibus; chlamydosporis solitariis, obovatis, fulvis, bicellularibus; articulo superiore majore, membrana crassa verrucosa 30 \times 28, infimo obconico 18 \times 7, membrana levi.

Hab. in foliis siccis Arecae madagascariensis, in horto botanico Firenze Ital. centr.

12. **Hypomyces exiguus** Pat. Champ. de la Guadeloupe, ser. III, in 2802
Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Subiculo e tomento byssoideo albo contexto; peritheciis albido-luteolis, pellucidis 130-160 μ . diam.; ascis aparaphysatis, cylindraceutis 30-35 \times 3-4, octosporis; sporidiis monostichis, levibus, hyalinis, ovoideis, continuis, 3-4 \times 2.

Hab. parasitice in Stemonitis sp., Guadalupa Amer. centr.
H. violaceo Tul. affinis.

LISEA Sacc. -- Syll. II p. 517, XI p. 360, XIV p. 640, XVI p. 581.

1. **Lisea Parlatoriae** A. Zimm. in Centr. f. Bakter. u. Paras. II, Abth. 2803
VII, 1901, p. 873. — Stromate parasitico; peritheciis dense gregariis, liberis, globosis, verruciformi-papillatis, 0,2-0,25 mm. long., 0,15-0,18 mm. cr., nigricantibus; contextu sub microscopio atrovioleaceo v. atro, hydrati chloralii calefacti ope amœne rubro-violeaceo; ascis cylindraceutis, 8-sporis; sporidiis ellipsoideis, obtusis, 1-

septatis, non constrictis, hyalinis v. dilutissime brunneolis, 9-12 \times 4,5; paraphysibus nullis.

Hab. parasitice in Parlatoria Zizyphi in foliis Citri, Buitenzorg Javæ.

2. **Lisea exiguella** (Nyl.) Sacc. et D. Sacc. *Verrucaria exiguella* Nyl. 2804
Flora 1873, p. 204. — Peritheciis 100 μ . diam. super cyaneis, inferne fere achrois; ascis octosporis paraphysatis, jodo non tinctis; sporidiis fusoides, bicellularibus, hyalinis, 21-27 \times 6-8.

Hab. in thallo Rinodinæ exiguæ prope Portum Veneris in Pyrenæis orient. Quoad genus dubia.

CORALLOMYCES B. et C. — Syll. II p. 519, XIV p. 646, XVI p. 590.

1. **Corallomyces brachysporus** Penz. et Sacc. in Malp. 1901, p. 228, 2805
Ic. fung. Jav. t. XXXVII, f. 1. — Stromatibus erectis, firme carnosus, stipitiformibus, simplicibus v. parce ramosis, sæpius cæspitosis, cylindræis, aurantiacis, rugosis 1-1,5 mm. altis, 350 μ . cr., apicibus incrassatis obtusis conidiophoris; conidiis longe anguste fusoides 100-110 \times 6,5, leniter curvis, 8-12-septatis, non constrictis, in basidiis bacillaribus, septatis, fasciculatis 4,5-5 μ . cr. pleurogenis (nec acrogenis); peritheciis in medio stipite sessilibus, paucis, globoso-conoideis, brevissime papillatis, atro-rubris 200-240 μ . diam.; ascis cylindræis, breve stipitatis 100-110 \times 7 octosporis; sporidiis monostichis, ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, 12-13 \times 7 hyalinis.

Hab. ad truncos putres prope Buitenzorg in insula Java. — Ab affini *Corall. Jatrophæ* A. Möll., pariter fusariogeno, differt sporidiis multo brevioribus (nec 30-40 \times 7-9).

2. **Corallomyces mauritiicola** P. Henn. Fungi Amaz. II, p. 244. — 2806
Stromatibus fruticuloso-ramosis, cæspitosis, miniatis v. brunneo-coccineis, ramis conidiogenis erectis subteretibus vel compressis, apice clavulatis ca. 120 μ . crassis, miniatis, conidiis fusoides, hyalinis, ca. 14-18 \times 6-7, conidiophoris hyalinis 2-3 μ . crassis, filis usque ad 100 μ . longis intermixtis; peritheciis lateraliter sessilibus, ovoideis papillatis, coccineis ca. 200 μ . diam. dein collapsis; ascis cylindræo-clavatis, obtusis, 8-sporis, 80-120 \times 8-12; sporidiis ellipsoideis, rotundatis, medio 1-septatis paullo constrictis, 2-guttulatis, primo hyalinis dein brunneis, 11-18 \times 6-8.

Hab. in stipitibus emortuis Mauritiæ flexuosæ, Miry, Rio Juruá Amazoniæ. — *C. eleganti* affinis.

3. **Corallomyces Caricæ** P. Henn. Fungi Amaz. II, p. 245. — Stroma- 2807
tibus pulvinatis, fruticuloso-ramosis, coccineis, ramulis compressis;
peritheciis lateraliter sessilibus, coccineis, ovoideis, obscure papilla-
tis, levibus, dein collabentibus, usque ad 1 mm. d.; ascis clavatis,
8-sporis, obtusis; sporidiis oblonge fusoides, utrinque subobtu-
siusculis, medio 1-septatis constrictis, flavo-brunneis, 20-30 \times 6-10,
stromatibus conidiophoris haud conspicuis.

Hab. in trunco emortuo Caricæ, Cachoeira, Rio Juruá Ama-
zonæ. — A *C. mauritiicola* sporidiis multo majoribus dignoscitur.
C. Heinesii P. Henn. ob sporidia constanter hyalina a typo differt
et nunc *Corallomycetella Heinesii* P. Henn. vocatur.

Sect. 5. Phæodidymæ.

SPEGAZZINULA Sacc. — Syll. II p. 537.

1. **Spegazzinula juglandina** v. Höhnel in Ann. Mycol. 1903, I, p. 394. 2808
— Peritheciis in cortice leviter tumefacto immersis, sparsis v. ad
2-3 concretescentibus, 300-450 \times 200-250, ostiolo crassiusculo, papil-
lato-applanato, peridermium perforantibus; tunica 20-30 μ . crassa,
dilute brunnea, carnosomembranacea, e cellulis distinctis, brunneis,
subtiliter tunicatis composita; nucleo pallido v. roseo; ascis pedi-
cellatis, late clavatis, membrana mox mucoso-diffuente præditis,
90-110 \times 22-25; paraphysibus hyalinis, septatis, longissimis 5-10
 μ . crassis, guttulis repletis, obvallatis; sporidiis octonis, bi-tri-
seriatis, levibus, subtiliter tunicatis, 20-22 \times 12-13, utrinque acuti-
sculis, late ellipticis v. subfusoides, loculo infero semper hyalino,
multo minore, 4-5 μ . longo, loculo supero primum roseo, demum
dilute ochraceo, crassius tunicato, 1-guttulato.

Hab. in ramulis subviviis Juglandis regiæ, Jablaniza Her-
zegovinæ.

Sect. 6. Hyalophragmiæ.

CESATIELLA Sacc. — Syll. II p. 557.

1. **Cesatiella Rehmiana** v. Höhn. Ann. Mycol. 1904, p. 39. — Stro- 2809
matibus effusis, carnosis, tenuibus, hinc inde parum distinctis, in
cortice immersis, peridermio secedente subsuperficialibus, ex pal-
lide ochraceo nigrescentibus; peritheciis in stromate immersis, so-

litariis v. ad 2-5 aggregatis, sphaeroideis, plerumque leviter applanatis, distincte papillatis, 200-500 μ . latis; nucleo sordide carneo-roseo; tunica carnosula, 20-25 μ . crassa, ochracea, contextu plectenchymatico-fibroso; ascis cylindraceo-clavatis, in basi abrupte stipitatis, sæpe curvulis, tenuiter tunicatis, apice rotundato-truncatis, 74-105 \approx 11-14, paraphysibus numerosis, longis, filiformibus, minute guttulis, coalescentibus obvallatis; sporidiis hyalinis, cætervatim dilute roseis, octonis, biseriatis, utrinque acutiuscule rotundatis, plus minus curvulis, membrana tenui farctis, 5-cellularibus, cellulis extimis quam mediis duplo longioribus, 23-39 \approx 3 $\frac{1}{2}$ -7.

Hab. in ramulis siccis Fraxini excelsioris ad Jablaniza Herzegovinæ. — *Cesatiella selenospora* (Otth) v. Höhn. Ann. Myc. 1904, p. 41. Ita vocanda, teste v. Höhn. l. c. esset *Cladosphaeria selenospora* Otth seu *Ophiomassaria selenospora* (Otth) Jaczenski — Syll. XI p. 353 — ob peritheci contextum molliusculum, carnosum brunneum v. flavo-brunneum; sed nova epicrisis necessaria videtur ad exemplaria vegeta speciei post Otthium (1868) non repertæ.

DEBARYELLA v. Höhn. Ann. Mycol. 1904, p. 274 (Etym. a Magistro Botanices ANT. DE BARY). — Perithecia molliuscula, alba v. hyalina, in aliis Pyrenomycetis parasitica. Ascii cylindracei, 8-spori, paraphysati. Sporidia oblonga, 4-cellularia, hyalina. — *Passerinulæ* analogum genus.

1. **Debaryella hyalina** v. Höhn. l. c. — Peritheciis conoideo-oblongis, 2810 200 \approx 140, ex hyalino flavidulis, minute prosenchymaticis, collo-longiusculo, 50-60 \approx 40, parallele parenchymatico, apice pertuso ornatis, matrici omnino immersis et vix ostiolo emergentibus; ascis copiosissimis cylindricis, 130-160 \approx 10-12 apice rotundatis, tenui-tunicatis, breve stipitatis; sporidiis octonis, monostichis, fusoides, utrinque obtusiusculis, 21-26 \approx 6-7, hyalinis, 4-ocularibus, grosse 4-guttatis, rectis curvulisve; paraphysibus gracilibus.

Hab. in cavitate perithecorum Eutypæ scabrosæ, Dachsbauerg Pfalzau, Wiener Wald Austriae.

CALONECTRIA De Not. — Syll. II p. 540, IX p. 982, XI p. 363, XIV p. 647, XVI p. 593.

1. **Calonectria Coffeæ** A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, 2811 p. 139. — Peritheciis vulgo dense gregariis, superficialibus, globosis, læte flavis, ostiolo papillato atro-cyaneo, 0,26-0,3 mm. diam.;

ascis tetrasporis; sporidiis utrinque obtusulis, leniter curvis, hyalinis v. dilute brunneolis, 4-cellularibus, $21 \approx 5,4-6,3$.

Hab. ad corticem *Coffeæ arabicæ*, Buitenzorg Javæ.

2. **Calonectria cremea** A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, 2812
p. 140, fig. 9. — Peritheciis superficialibus, in greges plerumque approximatis, globosis, læte cremeo-flavis, 0,2 mm. diam., ostiolo prominulo, achromo; ascis clavatis, breve crasseque noduloso-stipitatis, 4-sporis aparaphysatis; sporidiis tereti-oblongis, utrinque rotundatis, leniter curvis, 4-cellularibus, ad septa leviter constrictis, hyalinis, $23-25 \approx 7-8$.

Hab. in fructibus emortuis *Theobromæ Cacao*, Buitenzorg Javæ.

3. **Calonectria Blumenaviæ** P. Henn. Fungi blumenavienses II, in 2813
Hedw. 1902, p. 6. — Peritheciis sparsis, ovoideis, apice papillatis, flavidis vel dilute brunneolis, levibus $200-210 \approx 150-180$; ascis clavatis v. fusoides, rectis v. curvulis, apice obtusiusculis $35-60 \approx 9-12$, octosporis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, sigmoideo-flexuosis, utrinque acutiusculis 5-7-septatis, haud constrictis $20-30 \approx 3,5-4$, hyalinis, levibus.

Hab. in caule *Bambusarum*, St. Catharina Brasiliæ austr.

4. **Calonectria Höhnelii** Rehm apud v. Höhn. in Ann. Mycol. 1904, 2814
p. 43. — Peritheciis dispersis et singulatim in centro mycelii tenuis, rosei vel sanguinei, ex hyphis radiatim expansis formati et maculas hypophyllas, vix $\frac{1}{2}$ mm. latas præbentis sessilibus, depressoglobulosis, supra glabris, infra pilosis, poro vix conspicuo, membranaceis, sanguineis, demum fusciscentibus, $150-300 \mu$. latis, in sicco collabentibus, contextu parenchymatico; ascis clavato-fusiforibus, breve noduloso-pedicellatis, $56-76 \approx 9-10$, octosporis; sporidiis di-tristichis, fusoides, utrinque acutis, rectis v. subcurvulis, 4-cellularibus, haud constrictis, hyalinis, $20 \approx 3-4$; paraphysibus copiosis, subtilibus, filiformibus, ascos superantibus.

Hab. in pagina inferiore foliorum *Psidii spec.* prope Petropolis, Rio de Janeiro Brasiliæ, mense Augusto 1899 (DE HÖHNEL).

5. **Calonectria Meliæ** A. Zimm. Centr. f. Bakter. Paras. 1901, n. 3, 2815
p. 106, fig. 7-8. — Peritheciis subglobosis, confertis greges 1-3 mm. lat. formantibus, flavidis, pulvereis, 0,2-0,3 mm. diam., ostiolo prominenti achromo; ascis tereti-clavatis 10μ . long. 4-sporis; sporidiis hyalinis, rectis curvulisve, oblongis, utrinque rotundatis, $28-32 \approx 9-12$, plerumque quadrilocularibus, rarius 5-6-ocularibus.

Hab. in trunco emortuo *Meliæ argutæ* in hortis Buitenzorg

Javæ. — Ante perithecia evolvitur forma conidica *Fusarii* speciem sistens: hyphis fertilibus verticillato-ramosis, conidiis cylindraceutis parum curvis, 6-8-cellularibus 46-64 \times 5,3-6,5. A *C. cucurbitula* ascis 4-sporis; sporidiis majoribus distincta.

6. **Calonectria intermixta** P. Henn. Fungi blumenavienses II, in Hedw. 2816 1902, p. 6. — Peritheciis sparsis v. aggregatis, ovoideo-subglobosis, papillatis, rufo-brunneis ca. 200-300 μ . diam., contextu pseudoparenchymatico, flavo-brunneo; ascis clavatis v. subfusoideis, apice subobtusis 60-80 \times 15-20, octosporis; sporidiis fusoideis oblongis, curvulis v. sigmoideis, utrinque acutiusculis 5-10 septatis, haud constrictis, hyalino-flavidulis 35-50 \times 6-8.

Hab. in ramis corticatis, intermixtis *Eriosphæra* spec. et *Ophioceratis* spec., St. Catharina Brasilæ austr.

7. **Calonectria ornata** Annie L. Smith. Journ. Linn. Soc. XXXV, 2817 p. 18, tab. III, fig. 9-10 (extr.). — Syll. XVI, p. 1141 (nomen). — Peritheciis minutis, sparsis, circa 300 μ . latis, aurantiacis, superficialiter cellulis prominentibus vestitis; ascis cylindraceuto-fusiformibus, apice angustioribus, deorsum attenuatis, breviter pedicellatis 180-200 \times 20-30; sporidiis elongatis, ascis fere æquilongis, 10-pluri-septatis, viridi-hyalinis.

Hab. in ramis in insula Dominica Indiæ occid.

8. **Calonectria vermispota** Mass. et Crossl. in the Natur. 1904, p. 4. 2818 — Peritheciis gregariis vel sparsis, globoso-conoideis, carneo-rufescentibus, cellulis rotundatis contextis 0,5 mm. diam., pilis hyalinis apice acutis, brevibus, 80-100 \times 8, sparsis vestitis; ascis mox evanidis; sporidiis elongato-fusoideis vel vermiformibus, leniter sigmoideis, hyalinis, 12-24-septatis, 60-100 \times 8-10.

Hab. in truncis decorticatis, dejectis, Hardcaste Britannæ (J. NEEDHAM).

9. **Calonectria (Chiajæa) Atkinsonii** Rehm, Ann. Mycol. 1904, p. 178. 2819 — Peritheciis gregariis, sessilibus, globoso-conoideis, in papillulam nigram protractis, extus primitus furfuraceutis, flavo-fuscidulis, demum nigricantibus, parenchymatice contextis, extus hyphis nonnullis brevibus fuscis 3-4 μ . crassis, conidia oblonga, fusca, 1-cellularia, 7 \times 3-5 gerentibus, obsessis, 500 μ . diam.; ascis clavatis, apice rotundatis, crasse tunicatis 90-100 \times 15-17, octosporis; sporidiis primitus fusoideis, dein superiore dimidia parte crassiore, transverse 2-demum 3-septatis, medio subconstrictis, rectis, hyalinis, denique fuscidulis, 27-33 \times 8-9, distichis; paraphysibus filiformibus 3 μ . crassis.

Hab. ad corticem, Mac Kinney Glon Amer. bor. (RITERS).

PARANECTRIA Sacc. — Syll. II p. 552, IX p. 987.

I. *Eu-Paranectria*.

1. **Paranectria Pritzeliana** P. Henn. in Hedw. 1903, p. (79). — Pe- 2820
 ritheciis aggregatis, subgloboso-ovoideis, cinnabarinis, dense furfu-
 raceo-squamosis, hyphis ca. 25-45 \times 3, apice subcinereo papillatis,
 ca. 200-250, contextu cellulis rotundato-polyhedricis, ca. 15-20 μ .
 diam., coccineis; ascis fusoideis, utrinque subacutiusculis, octosporis,
 60-80 \times 14-20; sporidiis conglobatis vel subtristichis, fusoideo-
 cylindraceis, 3-septatis haud constrictis, 30-42 \times 4-5 hyalinis, basi
 vel utrinque setulis filiformibus 30-45 \times 2.

Hab. in truncis emortuis Lianarum, ad fl. Russel, N. Queens-
 land Australiæ (PRITZEL).

II. *Paranectriella* P. Henn. Perithecia hypostromate fulta.

2. **Paranectria stromaticola** P. Henn. in Engl. Bot. Jahrb. 1903, 2821
 p. 50. — Mycelio albido, effuso, arachnoideo, hyphis repentibus,
 septatis, 3-4 μ . cr., hyalinis; peritheciis sparsis, subglobosis, pallide
 flavidis, membranaceo-molliusculis, cellulosis, 150-200 μ . diam.;
 ascis fasciculatis, clavatis, apice tunicato-rotundatis, octosporis, 65-
 80 \times 13-18; sporidiis oblique monostichis vel distichis, lanceolatis,
 subovoideo-fusoideis, hyalinis, 3-septatis, 13-18 \times 6-8, longo utrin-
 que rostratis, rostro superiori oblique conoideo, ca. 4-6 μ . longo,
 rostro inferiori oblonge setaceo 15-20 μ . longo, hyalino.

Hab. in foliis Berliniæ spec.?, Ost Usambara Africae orient.
 (ZIMMERMANN).

3. **Paranectria juruana** P. Henn. Fungi Amaz. II, p. 245, tab. IV, 2822
 fig. 8. — Stromatibus ceraceis plerumque in Dothideacea parasi-
 tantibus, pulvinato-effusis, byssinis, albidis, usque ad 1 mm. diam.;
 peritheciis aggregatis superficialibus, ovoideis, subpapillatis, colla-
 bentibus, flavidulo-subincarnatis, 120-150 μ .; ascis clavatis, obtu-
 sis, 8-sporis, 70-100 \times 8-12; sporidiis oblique monostichis v. subdi-
 stichis, subfusoideis, hyalinis, 3-septatis, 10-12 \times 4-5, utrinque ro-
 stratis, rostris filiformibus, curvulis ca. 6-8 μ . longis.

Hab. in foliis Miconiæ ad stromata Auerswaldiæ Miconiæ
 Juruá-Miry Rio Juruá Amazoniæ. — A specie precedente omnino
 distincta

BROOMELLA Sacc. — Syll. II p. 557, IX p. 988, XI p. 364, XIV p. 650.

1. **Broomella Ichnaspidis** A. Zimm. Centr. f. Bakter. Paras. II, Abth. 2823 1901, VII, p. 874, f. 3. — Stromate parasitico, carnosio, pustuloso, extus subhyalino, intus sanguineo; peritheciis in quoque stromate pluribus, usque medietatem immersis, brunneis, subglobosis vertice dein apertis; ascis cylindraceutis, leviter curvis, 8-sporis, 95-120 μ . long.; sporidiis clavato-bacillaribus, hyalinis, in asco dilute brunneolis, usque 16-ocularibus, non constrictis, sæpe curvulis (in articulos, ut videtur, non dilabentibus).

Hab. parasitice in Ichnaspide filiformi ad folia Elæis et Coffeæ libericæ pr. Buitenzorg Javæ. — Var. **major** Zimm. l. c. — A typo differt ascis 170 μ . longis, sporidiis æque bacillaribus non clavatis usque 155 μ . longis. — Parasitice in Diaspidis sp. ad folia Pierardiæ pr. Buitenzorg (RACIBORSKI).

GIBBERELLA Sacc. — Syll. II p. 552, IX p. 988, XI p. 363, XIV p. 649, XVI p. 599.

1. **Gibberella Saubinetii** (Mont.) Sacc. — Syll. II, p. 554. — var. **Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis gregariis, subconnoideis, ca. 150-180 μ . diam., atro-violaceis; hyphis hyalino-fuscis, septatis, ca. 5 μ . cr.; ascis clavatis ca. 70 μ . long. p. sporif. 30-50 \times 3-10; sporidiis distichis, fusoides, curvulis, 3-septatis, hyalinis 20-23 \times 4-4,5.

Hab. in foliis Calami spec., N. Queensland Australiae (PRITZEL). — Var. **tetraspora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 302. — A typo differt præcipue ascis tetrasporis, 66-78 \times 9-12; sporidiis triseptatis non constrictis 22-30 \times 4,5-6,5, contextu violaceo. — In caulibus emortuis Humuli Lupuli, Luxemburg. — var. **acuum** Feltg. l. c. p. 303. — Differt præcipue habitatione et contextu molliore. — In foliis emortuis Pini silvestris, Luxemburg.

2. **Gibberella Tritici** P. Henn. in Hedw. 1902, p. 301. — Peritheciis 2825 innato-superficialibus, sparsis v. dense cæspitosis confluentibusque, 120-180 μ . diam., sessilibus, membranaceis, subglobosis, paullo papillatis, dein collabentibus, atris, rugulosis, contextu pseudoparenchymatico atro-violaceo; ascis subfusoides, utrinque attenuatis, apice subacutiusculis vel obtusis 38-48 \times 6-8, octosporis; paraphysibus filiformibus, hyalinis, 2-3 μ . crassis; sporidiis oblique mono-

stichis vel subdistichis, fusoideis, utrinque acutiusculis, 3-septatis, haud constrictis, hyalinis, 15-21 \approx 3,5-4,5.

Hab. in caryopsidibus et in glumis Tritici Speltæ, S. Paulo Brasiliæ.

3. **Gibberella cantareirensis** P. Henn. Fungi S. Paulenses III, p. 205. 2826

— Peritheciis cæspitose gregariis submembranaceis, atro-cæruleis, ovoideis, papillatis, ca. 200 μ . diam., contextu cellulis subrotundatis cæruleo-violaceis ca. 12-18 μ .; basi hyphis repentibus, subviolaceis ramosis, 2-5 μ . crassis; conidiis fusoideis, curvulis, 5-septatis 25-30 \approx 4-5; ascis cylindræo-clavatis, pedicellatis, 8-sporis, 60-100 \approx 6-9; sporidiis oblique monostichis v. distichis, fusoideis, utrinque acutiusculis, 3-septatis haud constrictis, hyalino-violascentibus, 20-25 \approx 4-6.

Hab. in ramis emortuis indet. Serra da Cantareira Brasiliæ. — *G. Saubinetii* affinis sed ascis, sporidiis conidiisque distinguenda.

Sect. 7. Hyalodictyæ.

PLEONECTRIA Sacc. — Syll. II p. 559, IX p. 990.

1. **Pleonectria nigropapillata** Starb. in Arkiv. för Botan. 1904, Band 2, 2827

p. 13, f. 25-28. — Peritheciis e stromate pulvinato intus flavido-ochroleuco v. fere olivascente numerosis, erumpentibus, in cæspitulos subsparsos, versiformes, 2-10 mm. long. densissime aggregatis v. subsolitariis, sphæroideis, conico-papillatis, testaceo-melleis vel avellanaceo-umbrinis, primo pallide furfuraceis demum nigricantibus rugosiusculis 250-300 μ . diam., vertice semper nigro; contextu trans lucem ferrugineo-fulvescente; ascis clavatis, apice rotundatis, breve pedicellatis, 60-75 \approx 12-19, octosporis, filiformi-paraphysatis; sporidiis di-monostichis vel conglobatis, initio grumosis dein muriformi-septatis, ex hyalino flavidulis, ellipsoideis v. ovoideis, subinde anguloso-sphæroideis v. elongatis, ad septa vix v. leniter constrictis, 12-15 \approx 5-7,5.

Hab. ad cortices, San Antonio prope Asuncion, Paraguay. — *Pleon. denigratæ* affinis.

2. **Pleonectria coffeicola** A. Zimm. Centralbl. f. Bakter. Abt. 1902, 2828

VIII, p. 183. — Peritheciis superficialibus in stromate tenui, subhyalino sessilibus, globosis, papillatis, brunneolis, $\frac{1}{3}$ mm. diam.; ascis 8-sporis, crassis; sporidiis falciformibus, utrinque obtusis, hyalinis, circ. 20-septatis paræque muriformibus, ad septa con-

strictulis $100 \approx 12$, articulis sæpe inæqualiter latis, non raro quibusdam secedentibus.

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

MEGALONECTRIA Speg. — Syll. II p. 560, IX p. 992, XVI p. 599.

1. **Megalonectria pseudotrichia** (Schwein.) Speg. — Syll. II, p. 560. — 2829
var. **australiensis** P. Henn. in Hedw. 1903, pag. (79). — Ascis conspicue angustioribus nempe 12-17 μ . cr.; sporidiis minoribus, 14-20 \approx 7-10, 3-5-septato-muriformibus, ellipsoideis vel perfecte maturis fusoides. Cetera eadem.

Hab. in truncis emortuis in silvis Cairus, N. Queensland Australiæ (PRITZEL).

Sect. 8. Phæodictyæ.

FERACIA Roll. Bull. Soc. Mycol. 1905, p. 28 (Etym. *ferax* ob ascos multisporos). — Perithecia erumpenti-superficialia, sparsa v. gregaria, membranacea (atro-viridia) ostiolo prædita. Ascii clavati, paraphysati, poly-(24)-spori. Sporidia ellipsoideo-oblonga, 3-pluriseptato-muriformia, colorata. — Ob perithecia madore mollia et atro-viridia genus videtur Hypocreaceis adscribendum. In tab. comp. (vol. XIV, p. 25) casulam 219 inter Hypocreaceas occupabit.

1. **Feracia balearica** Roll. l. c. tab. 2, fig. 1. — Peritheciis minutissimis, globulosis, atro-viridibus, nitidis, 130-150 μ . diam., ostiolo aperto vix prominulo instructis, celluloso-membranaceis, per fibras lignosas erumpentibus, e madore mollibus, siccis fragilibus, e mycelio brunneolo septatis enatis; ascis crebris fusoides v. clavato-oblongis, breve stipitatis, 40-50 \approx 10-14, paraphysibus plus minus ramosis, filiformibus, hyalinis obvallatis, 24-sporis; sporidiis inordinate polystichis, ellipsoideo-oblongis utrinque rotundatis, e viridi-glaucis fuscidulis, 10 \approx 4, 3-septatis, non constrictis, 1-2 longitrorsum v. oblique partitis.

Hab. in ramis emortuis denudatis Buxi balearicæ, Como Negra, Soller ins. Balearium.

Sect. 9. Scolecosporæ.

OPHIONECTRIA Sacc. — Syll. II p. 563, IX p. 994, XI p. 365, XIV p. 651, XVI p. 601.

1. **Ophionectria hyphicola** P. Henn. Fungi blumenavienses II, in Hedw. 2831
1902, p. 7. — Peritheciis sparsis v. aggregatis, ovoideis; hyphis fuscidulis, septatis ramosis 3,5-7 μ . cr. circumdatis, apice subpapillatis dein collabentibus, luteo-brunneis, levibus, ca. 200-300 \approx 180-230 μ . diam.; ascis oblonge clavatis vel subfusoides, apice obtusiusculis, octosporis, 90-120 \approx 10-13; sporidiis filiformibus utrinque acutiusculis, flexuosis, pluri-septatis 70-80 \approx 3,5 hyalinis.

Hab. in ligno quercino emortuo, St. Catharina Brasiliæ austr.

2. **Ophionectria Theobromæ** Pat. in Duss, Enum. Champ. Guadel. 2832
1903, pag. 81. — Peritheciis in subiculo mycelico superficiali rufo sitis, ovoideo-oblongis, erectis, vertice truncatis, 360 \approx 260, coccineis, rugulosis; ascis 180 \approx 25; sporidiis attenuato-fusoides 160 \approx 6, incoloribus, 5-6-septatis.

Hab. in cortice putri Theobromæ Cacao, Honëlmont Guadalupe (Duss).

3. **Ophionectria belonospora** (Schræt.) Sacc. — Syll. XI, p. 365. — 2833
var. **unicaudata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 308, ut *Calonectria*. — A typo differt sporidiis 33-50 \approx 3-4,5, rarius 80 \approx 6, basi longe appendiculiformi-tenuatis.

Hab. in caulibus emortuis Clematidis Vitalbæ, Luxemburg.

4. **Ophionectria foliicola** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2834
p. 182. — Peritheciis in superficie mycelii tenuissimi sessilibus, applanatis, papillatis, cinnamomeis, glabris, 200-250 μ . lat., 150 μ . alt.; ascis octosporis 120 μ . long.; sporidiis fasciculatis rectis vel curvulis, c. 18-cellularibus, 100 \approx 5, hyalinis, cellulis extimis minutis.

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

TORRUBIELLA Boud. — Syll. IX p. 994, XI p. 365.

1. **Torrubiella rostrata** P. Henn. in Hedw. 1902, p. 167. — Mycelio 2835
effuso, crustaceo, albido; peritheciis gregariis interdum confluentibus v. sparsis, sessilibus v. stipitatis ovoideis v. subpiriformibus, 400-500 μ . diam., pallidis, pilis simplicibus v. ramosis hyalinis 30-100 \approx 3-4, intus guttulatis, obtusis vestitis, apice 1-3 subulato-rostratis, rostro ca. 0,5-5 mm. longo, basi ca. 100 μ . cr., apice subgloboso, sæpe recurvato ca. 140 μ . cr., sursum conidiophoris ovoideis apiculatis tectis; conidiis ellipsoideis 3,5 \approx 3, flavidulis; ascis cylindræis, apice obtuso-rotundatis, tunicatis 4-8-sporis, ca. 300 \approx 4-4,5; sporidiis longitudine asci, filiformibus, hyalinis, dense guttulatis v. septulatis, ca. 1 μ . cr.

Hab. in Noctua, Surinam Americæ.

2. **Torrubiella luteo-rostrata** A. Zimm., Centralbl. f. Bakter. u. Paras. 2836 II, Abth. VII, 1901, p. 872. — Stromate explanato, subcirculari, 6 mm. diam., intus brunneo-rubescente, extus albo, tenui-tunicato; peritheciis numerosis supra stroma plerumque aggregatis, rostellatis, rectis v. curvulis, 0,4-0,8 mm. long., basi 150 μ . lat., sanguineis, apice flavis, filamentis mycelicis rubescentibus consperso-asperulis; ascis filiformibus, 400 \approx 4, 8-sporis, apice crasse tunicatis; sporidiis in asco spiraliter convolutis, 1 μ . cr., ut videtur, continuis nec in articulos secedentibus.

Hab. in Coccide quodam in silvis pr. Buitenzorg Javæ. — Affinis *Torr. rubræ*, a qua peritheciis in quoque stromate numerosis et luteo-rostratis distinguitur.

HYPOCRELLA Sacc. — Syll. II p. 579, IX p. 1002, XI p. 367, XIV p. 653, XVI p. 603.

1. **Hypocrella Zimmermanniana** P. Henn. F. javanici novi, in Hedw. 2837 1902, p. 142. — Stromatibus rotundato-pulvinatis, applanatis, substipitatis 2-2,5 mm. diam., ochraceo-viridulis v. rufo-brunneis, papillato-ostiolatis, basi attenuato-substipitatis; peritheciis immersis, subglobosis; ascis clavato-fusoideis, apice obtusiusculis, 70-100 \approx 4-5,5; sporidiis filiformibus pluriseptatis, 60-80 \approx 1,5 hyalinis.

Hab. in foliis Zingiberacearum, Depok Javæ.

2. **Hypocrella Sloaneæ** Pat. in Duss, Enum. Champ. Guadal. 1903, 2838 p. 80. — Stromate ochraceo-albido, hemisphærico, 2-5 mm. diam., peritheciis ovoideis, concoloribus, exsertis tecto, ostiolis brunneolis; ascis longissimis, 12-15 μ . cr.; sporidiis linearibus, mox in articulos incolores, fusoideos, 9-12 \approx 2-3 dilabentibus.

Hab. in pag. inf. foliorum Sloaneæ spec, in silva Bains-Jaunes Guadalupa.

3. **Hypocrella juruana** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2839 p. 61. — Stromatibus phyllogenis, hypophyllis, sparsis vel subaggregatis, subdiscoideo-pulvinatis, convexis v. applanatis, corneis, rufo-brunneis 1-2 mm. diam., superne granulato-ostiolatis, subiculo nullo, intus pallidis; peritheciis omnino immersis, oblongis; ascis cylindræis, apice rotundato-tunicatis, 1-subsulcatis, basi attenuatis, curvulis ca. 150-200 \approx 4-5; sporidiis filiformibus, guttulatis, hyalinis, longitudine ascorum, ca. 1 μ . crassis.

Hab. in foliis coriaceis, putrescentibus, Rio Juruá Brasilæ.

4. **Hypocrella amazonica** P. Henn. Fungi Amaz. II, p. 246. — Stro- 2840 matibus molle ceraceis hypophyllis sparsis vel aggregatis, rotun-

dato-pulvinatis, pallide isabellinis, verrucoso-tuberculatis, obscure ostiolatis, ca. 1-3 mm. diam.; peritheciis immersis, oblonge ovoideis vel lageniformibus; ascis cylindraceo-subfusoideis v. clavatis apice rotundato-capitulatis, 140-200 \approx 4-5 $\frac{1}{2}$; sporidiis filiformibus, parallelis pluriseptatis, cellulis 4-5 \approx 1, vix dilabentibus.

Hab. in foliis *Sterculiaceæ* cujusdam, Iquitos Perù. — Nonnullis notis ad *Möllerellam flavam* accedit.

5. **Hypocrella marginalis** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 2841

Stromatibus marginicolis, hemisphærico-pulvinatis v. subglobosis, castaneis, 0,5-1 mm. diam., ambitu albido byssinis, corneis, levibus; peritheciis immersis; ascis cylindraceis, apice obtuso rotundatis, octosporis, 90-130 \approx 8-10; sporidiis parallelis, filiformibus, pluriseptatis 70-90 \approx 2,5, cyanescentibus, cellulis vix dehiscentibus, oblonge cuboideis 2,5-4 \approx 2,5.

Hab. in foliis *Garciniæ* spec., Ost-Usambara Africae orient. (ENGLER).

6. **Hypocrella rubiginosa** Annie L. Smith, Journ. Linn. Soc. XXXV, 2842

pag. 18, tab. III, f. 11-14 (extr.). — Syll. XVI, pag. 1141 (nomen). — Stromate pulvinate, rubiginoso, circa 5 mm. lato, basi late affixo, rugoso, peritheciis prominulis multi-punctato; peritheciis elongatis, angustatis, circa 1 mm. longis, 250 μ . latis, basi rotundatis, deorsum attenuatis, ostiolum versus attenuatis; ascis octosporis, apice rotundatis, deorsum attenuatis 500 \approx 8; sporidiis filiformibus, leviter curvulis v. rectis fere ascis æquilongis, pluriseptatis, hyalinis.

Hab. ad vetustum specimen *Hypoxyli*, in insula Dominica Indiæ occid.

7. **Hypocrella Raciborskii** A. Zimm. Centr. f. Bakter. u. Paras. 1901. 2843

II, Abth. p. 875, fig. 4. — Stromate libero, disciformi, carnoso, 5 mm. diam., albo v. pallide flavo, centro valde incrassato partim conidiophoro, *Aschersoniæ* speciem sistente; conidiis fusoideis homogeneis vel guttulatis, 11-13 \approx 1,5-2, paraphysibus prælongis intermixtis; peritheciis in quoque stromate numerosis (50 et ultra) omnino immersis; ascis longe cylindraceis apice incrassatis, 8-sporis, 220 \approx 10; sporidiis filiformibus ascum æquantibus, 2 μ . cr., parallelis sæpe contortis, in articulos, ut videtur, non dilabentibus; paraphysibus nullis.

Hab. parasitice in *Coccide* quodam ad folia *Citri* ad pedem M. Merapi in ins. Java (RACIBORSKI).

ECHINODOTHIS Atkins. Bull. Torrey bot. Club 1894, p. 224: cfr. Sacc. Syll. XIV p. 686, n. 2626 (Etym. *cchinos* erinaceus et *dothis* pro Dothidea). — Stroma subcarnosum, læte coloratum, tuberculiforme vel disciforme; perithecia omnino in stromate superficialia, subcylindræa et hinc faciem echinulatam reddentia. Asci cylindræci octospori; sporidia filiformia, septata, subhyalina.

1. **Echinodothis tuberiformis** (B. et R.) Atkins. l. c. et Bot. Gaz. 1891, p. 281, tab. XXV, sub *Hypocrella*. — Ita vocanda *Hypocrea tuberiformis* B. et R. — Syll. II, p. 534 et XI, p. 367.

2. **Echinodothis Gaduæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2844 p. 61, c. ic. — Stromatibus culmicolis carnosus v. ceraceis, firmis, subtuberosus, rugoso-tuberculatis ca. 1 cm. longis, 5-7 mm. crassis, pallide fuscidulis; peritheciis liberis breve cylindræcis, apice rotundatis, papillatis, flavidis vel succineis 0,3-8 mm. longis, 0,2-0,3 mm. crassis; ascis cylindræcis, apice capitellato-incrassatis, ad basim paullo attenuatis, 8-sporis, 180-220 \times 5-6; sporidiis filiformibus pluriseptatis, hyalinis, longitudine ascorum, ca. 3-3 $\frac{1}{2}$ μ . crassis.

Hab. in culmis tenuibus Gaduæ sp., Rio Juruá, Juruá-Miry Amazoniæ. — Affinis *Ech. tuberiformi*. Ab *Hypocrella* peritheciis omnino liberis diversa.

ASCOPOLYPORUS A. Möll. — Syll. XVI p. 605.

1. **Ascopolyporus Gollmerianus** P. Henn. Fungi blumenavienses II, 2845 in Hedw. 1902, p. 8. — Stromatibus corneis duris, subglobosis v. subhemisphæricis, primo pallidis, superne sterilibus rotundatis, dein cremaceis subtomentosis, postice interdum plicato-sulcatis, inferne fertilibus applanatis v. concavis, pallidis dein subfuscidulis, marginatis, punctato-poroideis, ca. 1-2,5 cm. diam., intus pallidis, subconcentrice brunneolo-zonatis pro parte cavernosis; peritheciis immersis, subovoideis apertis ca. 0,5 mm. longis; ascis cylindræceo-clavatis, apice rotundatis, basi paullo attenuatis 150-200 \times 5, octosporis; paraphysibus filiformibus, hyalinis, ca. 2 μ . cr.; sporidiis filiformibus, parallelis, longitudine asci, septatis dein in cellulas 4 μ . longis, 0,6-1 μ . cr., secedentibus, hyalinis.

Hab. in parvulis culmis Bambusarum, Venezuela Amer. austr.

FLEISCHERIA Penz. et Sacc. in Malp. 1901, p. 230 (Etym. a cl. viro MAX FLEISCHER, muscorum præprimis aliarumque cryptogamarum

sollerti scrutatore). — Stroma tuberoso-sphæroideum, biogenum, majusculum, basi applanata sessile, mox sclerotiaceo-corneum, durum. Perithecia omnino immersa, globoso-piriformia, ostiolo papillato vix emergente. Asci tereti-elongati, aparaphysati. Sporidia polysticha, filiformia, hyalina, mox in articulos bacillares utrinque obtusos dilabentia. — Genus insigne ab *Hypocrella*, *Mölliella* et *Ascopolyporo* stromate mox indurato, sclerotiaceo-corneo distinguendum.

1. **Fleischeria javanica** Penz. et Sacc. l. c. et Icon. fung. Jav. t. XL, 2846 f. 2. — Stromatibus laxe gregariis verrucosis, glabris, totis rufo-brunneis, 8-10 mm. altis et lat., basi planis punctoque centrali umbilicato, matrici affixis; peritheciis remotiusculis, piriformibus 350-380 μ . diam., in collum breve ostiolumque papillatum parum emergens productis, tenui-membranaceis; ascis anguste fusoides, apice obtuse tenuatis, deorsum crasse sensim stipitatis, 140-150 \times 7, aparaphysatis; sporidiis polystichis, initio filiformibus mox in articulos bacillares, numerosissimos, rectos, utrinque rotundatos 14-15 \times 1,7-2, hyalinos dilabentibus.

Hab. ad ramos adhuc vivos arboris indeterminatæ, Tjibodas, Java (M. FLEISCHER). — Stromata matrice avulsa relinquunt areolam albidam cum cicatricula centrali.

CLAVICEPS Tul. — Syll. II p. 564, IX p. 998, XVI p. 609.

1. **Claviceps cinerea** D. Griff. in Bull. Torr. Bot. Cl. 1901, XXVIII, 2847 pag. 240, fig. 1-2. — Sclerotio clavato, superne conico, erecto v. curvato vel contorto, 1,5-3 cm. longo, basi 1,75-2,5 mm. diam., viscido, in glumis permanente, levi, lucenti, nigro, reticulato; stromatibus erectis, e stipite brevi, cylindrico vel anguste fusiformi, firmo fere albido ortis, subglobosis, inferne applanatis subtus excavatis, 1,75-2,75 mm. diam., sublevibus, griseo-pallidis v. cinereis, viscidulis, ab ostiolis prominulis obscurioribus punctulatis; peritheciis subpiriformibus, stipatis 190-225 \times 60-90; ascis octosporis, fasciculatis cylindræis, longe pedicellatis, superne rotundatis 135-150 \times 4-5; sporidiis parallele dispositis, filiformibus guttulatis 100-120 \times 1-1,5.

Hab. in speciebus *Hilaria muticæ* et *H. cenchroidis*, Cochise, Arizona Amer. bor.

2. **Claviceps? caricina** Griffiths, Bull. of the Torr. Bot. Club 1902, 2848 p. 300. — Mycelio in parte centrali culmorum evoluto sclerotia longitudinaliter striata, nigra 1,5-5 cm. long., 1,5-5 mm. cr. effor-

mante; sclerotiis intus albidis; contextu æqualiter denso ex hyphis subseptatis, hyalinis intricatis, crasse tunicatis composito; statu aschophoro ignoto.

Hab. in culmis Caricis nebraskensis, Andrews, Oregon Amer. bor. (GRIFFITHS et MORRIS). — In parte super. culmorum adsunt sori elongati nigro-erumpentes (structura *Glæosporii*, teste auctore), conidiis globosis, hyalinis 1-2 μ . diam.

BALANSIA Speg. — Syll. IX p. 997, XI p. 366, XIV p. 656, XVI pag. 607. — Observante cl. Hennings, genus potius *Dothideaceis* adscribendum.

1. **Balansia chusqueicola** P. Henn. Pilz. Costaric. p. 148. — Stromatibus culmicolis, eos deformantibus margine tenui circumdatisque 2849 distanter insertis, subgloboso-depressis v. hemisphæricis lignoso-corneis, atris, paulo rugulosis ca. 0,5-1 cm. diam.; peritheciis omnino immersis, lageniformibus, atris, vix ostiolatis; ascis cylindraceis, apice rotundatis, 8-sporis, ca. 250-300 \times 5-7; sporidiis parallelis longitudine asci, hyalinis, pluriguttulatis vel septatis, ca. 1 $\frac{1}{2}$ -2 μ . crassis; contextu atro, duro, corneo.

Hab. in culmis udis Chusqueæ sp. Barba-Vulkan Costarica (C. HOFFMANN). — *B. regulari* subaffinis.

2. **Balansia asclerotiaca** P. Henn. Fungi Amaz. II, p. 259, cum icone. 2850 — Stromatibus culmicolis, cæspitose erumpentibus, matrice haud sclerotiaca, incrassata nigrificata, sessilibus vel stipitatis, stipite usque ad 2 $\frac{1}{2}$ mm. longo, 0,3 mm. crasso, tereti, pallide fusco, pruinoso striatulo; capitulis subglobosis, interdum confluentibus, atris, dense verrucoso-ostiolatis, ca. 1 mm. diam.; peritheciis immersis, subovoideis vel lageniformibus; ascis cylindræis apice attenuatis, subhemisphærico-incrassatis, 1-sulcatulis, ad basin attenuatis, 8-sporis, 150-220 \times 3 $\frac{1}{2}$ -4; sporidiis parallelis, longitudine asci, pluriguttulatis vel obsolete septulatis, filiformibus, hyalinis, ca. 0,6-0,8 μ . crassis.

Hab. in culmis Orthocladæ ramifloræ, Juruá-Miry, Rio Juruá Amazoniæ. — A ceteris speciebus præsentia sclerotii mox dignoscitur.

BALANSIELLA P. Henn. in Hedw. 1904, p. 85 (Etym. a *Balansia*, cui affinis). — Stromata stipitato-capitata, pallida, ceraceo-carnosa, e sclerotio plantæ virescentis oriunda. Perithecia stromate immersa subprominula. Asci cylindræi. Sporidia filiformia, septata.

— A gen. *Balansia* præcipue stromate ceraceo carnosio, biogeno nec carbonaceo-corneo mox dignoscenda.

1. **Balansiella Orthocladæ** P. Henn. l. c. *Claviceps pallida* (Wint.) var. *Orthocladæ* P. Henn. in Hedw. 1900, p. 77. — Syll. XVI, p. 610, *Balansia diadema* A. Möll. Ascom. 1901, p. 197. — Syll. XVI, p. 608.

CORDYCEPS Fr. — Syll. II p. 566, IX p. 998, XI p. 366, XIV p. 656, XVI p. 611. — Cfr. Penz. et Sacc. Icon. fung. Jav. t. XXXVIII-XL.

I. *Eu-Cordyceps*.

1. **Cordyceps subpolyarthra** P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 11. — Stromatibus clavatis v. capitulatis 4-12 mm. longis, coccineis, stipite tereti, 0,2-0,4 mm. cr., capitulis subglobosis 1 mm. diam. v. clavatis ca. 3 \approx 1 mm. diam.; peritheciis liberis, conoideis, apiculatis ca. 300-400 \approx 100-130; ascis cylindræis apice rotundato-capitatis 180-200 \approx 3; sporidiis filiformibus, pluriguttulatis vel obsolete septatis ca. 0,7 μ . crassis.

Hab. in foliis Musacearum, St. Catharina Brasiliæ austr.

2. **Cordyceps Fleischeri** Penz. et Sacc. in Malpighia 1901 p. 230, et Ic. fung. Javan. t. XXXIX, f. 4. — Clavato-cylindræa; clava teretiuscula, subæquali, 10-12 mm. longa, 2-3 mm. cr., vivide coccinea, apice longiuscule mucronata, basi a stipite discreta, carnosæ, glabra, ostiolis minutissimis asperula, stipite tenuiter cylindræo, glabro, brunneo, 5-7 cm. longo, 1-1,5 mm. cr.; peritheciis horizontaliter immersis, crebris, elliptico-oblongis, in ostiola punctiformia mox abeuntibus, 380-400 \approx 110; ascis cylindræis, prælongis, subsessilibus apice globoso-inflatulis, aparaphysatis, 170-180 \approx 6, 5-7, octosporis; sporidiis filiformibus, rectiusculis, utrinque obtusulis, multi (18-22)-septatis, 150 \approx 1,5 hyalinis, articulis 4-4,5 \approx 1,5.

Hab. in larvis insectorum, Tjibodas, in insula Java (M. FLEISCHER). — Affinis videtur *C. Barnesii* et *C. Thwaitesii*, sed differt clava coccinea, nec vix rubescente, ostiolis minus prominulis, stipite brunneo etc.

3. **Cordyceps cæspitoso-filiformis** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 11. — Stromatibus cæspitosis, filiformibus, simplicibus v. furcatis, coccineis, apice acutiusculis usque ad 3 cm. longis, 0,5-0,8 mm. cr., flexuosis; peritheciis interrupte gregariis, omnino liberis, ovoideis v. subconoideis, apice obtusiusculis, coc-

cineis vel rufis ca. 300 μ . longis et 200 ca. μ . latis; ascis cylindraceis apice rotundato-capitatis, flexuosis octosporis 150-200 \times 4-6; sporidiis longitudinaliter conglobatis, pluriguttulatis, hyalinis ca. 1 μ . crassis.

Hab. in larvis, St. Catharina Brasiliæ austr.

4. **Cordyceps coccinea** Penz. et Sacc. — Syll. XIV, p. 656. — var. 2854
subochracea Penz. et Sacc. in Malpighia 1901, p. 231. — A typo videtur satis differre peritheciis ex clavula magis emergentibus, stipite paullo brevioribus, nempe vix 45 mm. longo, colore fungi ochraceo-flavido, nec coccineo prætereaque habitatione.

Hab. in larva quadam Lepidopteri hirsuta, Tjibodas, in insula Java (M. FLEISCHER).

5. **Cordyceps tarapotensis** P. Henn. Fungi Amaz. II, pag. 246. — 2855
 Mycelio submembranaceo, effuso, pallido; stromatibus aggregatis v. sparsis, basi interdum fasciculatis, erectis subulatis, 10-16 mm. longis, stipite basi incrassatis, cylindraceo, flavido; clavula ca. 5 mm. longa, 1-1 1/2 mm. crassa, peritheciis aggregatis omnino liberis, oblongis, ovoideis, apice obscuris, rotundatis, brunneis, 300-350 \times 180-200 μ .; ascis cylindraceo-clavatis, apice subglobuloso depressis sulcatis, 8-sporis, 230-280 \times 4-6; sporidiis parallelis filiformibus, pluriseptatis, dilabentibus; cellulis subcuboideis, hyalinis ca. 4-5 \times 0,8.

Hab. in corpore Bombycinæ sp. Tarapoto, Perù. — *C. isarioidi* et *C. Englerianæ* affinis.

6. **Cordyceps amazonica** P. Henn. Fungi Amaz. II, p. 247, fig. 4. — 2856
 Stromatibus singularibus, stipitato-erectis, 2 1/2-3 cm. longis, stipite tereti ca. 2-2 1/2 cm. longo, 1 mm. crasso, æquali, pallido vel brunneolo, clavula subglobosa 2 1/2-3 mm. diam., coccineo-fuscicula; peritheciis omnino immersis, ovoideis, punctoideo-ostiolatis; ascis cylindraceo-subclavatis, rotundato-capitatis, sulcatis, ca. 130-150 \times 3 1/2-4; sporidiis filiformibus, parallelis, pluriseptatis; cellulis ca. 10 \times 0,5-0,7; conidiis stromate eodem, conidiophoris filiformibus hyalinis ca. 10 μ . longis; conidiis catenulatis, globosis, hyalinis, ca. 1 1/2.

Hab. in Locusta spec. Juruá-Miry Brasiliæ.

7. **Cordyceps Michaëlisii** Henn. in Hedw. 1902, p. 169. — Stroma- 2857
 tibus plerumque cæspitose gregariis, subclavatis 7-18 mm. longis, pallidis; stipite subtereti brevi v. plus minus elongato, levi 0,5-1 cm. longo, 1,5-2 mm. cr.; clavula oblonge ellipsoidea v. subglobosa, interdum compressa, pallida, 2-8 \times 2-7 mm. diam., brunneolo-punctata, ostiolata; peritheciis subimmersis, ovoideis 200 \times 120 μ .;

ascis cylindraceutis, flexuosis, apice rotundato-tunicatis, basi paullo attenuatis 160-200 \times 2,5-3 μ .; sporidiis longitudine asci, filiformibus, pluriguttulatis v. obsolete septulatis 0,6-0,8 μ . cr.

Hab. in chrysalidibus Bombycis, foliis circumdatis, Surinam Americæ merid.

8. **Cordyceps subcorticicola** P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 11. — Ascomatibus stipitatis, capitatis; stipite compresso, subclavato, flexuoso, pallido ca. 1 cm. longo, 1-1,5 mm. cr., apice subfurcato vel simplici; capitulis hemisphæricopulvinatis v. subgloboso-depressis 1,5-2 mm. diam., flavo-coccineis; peritheciis ad marginem subliberis, ovoideis v. subulatis ca. 500-600 \times 200 μ . diam., vertice semiimmersis, apiculatis; ascis cylindraceutis, apice rotundato-capitulatis, basi attenuatis ca. 220-280 \times 3 octosporis; sporidiis filiformibus guttulatis vel septulatis ca. 0,5 μ . crass.

Hab. in larvis emortuis in corticibus arborum, St. Catharina Brasilæ austr.

9. **Cordyceps Uleana** P. Henn. Fungi Amaz. II, p. 248, tab. IV, fig. 5. — Stromatibus sparsis vel cæspitosis, stipitato-globulosis, aurantiis, ca. 6-8 mm. altis, stipite tereti v. compresso 2-3 mm. longo, 1-2 mm. crasso; clavulis subglobosis interdum botryosocongestis, 3-5 mm. diam., ruguloso-verrucosis; peritheciis subimmersis oblonge ovoideis 300-350 \times 200-250, ostiolis rotundatis; ascis cylindraceuto-clavatis, apice obtuse rotundatis sulcatulis, basi attenuatis, 250-300 \times 4 $\frac{1}{2}$ -5; sporidiis parallelis filiformibus, pluriseptatis, cellulis 2-3 \times 0,6-0,8 dilabentibus.

Hab. in Locustideæ spec., Cerro de Escaler Perù. — *C. Corallomyceti* proxime affinis.

10. **Cordyceps locustiphila** P. Henn. Fungi Amaz. II, p. 247, tab. IV, fig. 3. — Mycelio effuso, pallido; stromatibus gregariis singularibus vel subfasciculatis, clavatis, 1-1 $\frac{1}{2}$ cm. longis, curvulis, stipitibus subtereti-compressis, flavidis, clavulis obtusis, ca. 0,8-12 mm. longis, 2-2 $\frac{1}{2}$ mm. crassis, subflavido-fuscidulis; peritheciis aggregatis, immersis, ca. 150 μ ., oblonge ovoideis, subhemisphærico-ostiolatis; ascis cylindraceuto-clavatis apice rotundato-sulcatis, 8-sporis, ca. 150-200 \times 3-3 $\frac{1}{2}$; sporidiis parallelis, filiformibus, pluriguttulatis vel pluriseptatis ca. 0,6-0,9 μ . crassis.

Hab. in Locusta spec. Bocca do Tejo, Rio Juruá Brasilæ. — *C. militari* affinis.

11. **Cordyceps surinamensis** P. Henn. in Hedw. 1902, p. 169. — Stro-

matibus stipitato-capitulatis, ca. 8 mm. longis; stipite tereti, flavo-brunneo, levi, ca. 6 mm. longo, 0,8 mm. crasso, clavula hemisphærica vel subglobosa, superne rugulosa v. levi, flavida, ca. 2 mm diam., ostiolis punctoideis vix conspicuis; peritheciis immersis, ca. 200 μ . diam., ovoideis, olivaceis; ascis cylindræis, apice rotundatis, basi attenuatis $150 \approx 3-4$; sporidiis filiformibus, pluriguttulatis haud septatis, ca. 1 μ . cr.

Hab. in thorace Ichneumonidæ, Surinam Americæ.

12. **Cordyceps subdiscoidea** P. Henn. in Hedw. 1902, p. 168. — Stro- 2862

matibus sparsis, stipitatis; capitulo convexo-subdiscoideo, applanato, flavo, ostiolis minute papillatis, obscurioribus, 1,5-2 mm. diam.; stipite tereti, flavo-brunneo, levi, æquali, ca. 4 mm. longo, 300 μ . crasso; peritheciis immersis, ovoideis, papillatis, ca. 150 μ . diam.; ascis cylindræis subclavatis $100-130 \approx 3$, octosporis; sporidiis filiformibus, pluriguttulatis, hyalinis, ca. 0,8 μ . crassis.

Hab. in thorace Formicæ spec., Surinam Americæ.

13. **Cordyceps miryensis** P. Henn. Fungi Amaz. II, p. 247. — Stro- 2863

matibus sparsis, clavatis, flavidis, 0,6-10 mm. longis, stipite subfiliformi, tereti, 3-5 mm. longo, clavula cylindræa, obtusa rotundata, ca. 3-5 mm. longo, 1-1 $\frac{1}{2}$ mm. crassa; peritheciis immersis ovoideis, papillato-ostiolatis; ascis cylindræo-clavatis, apice globuloso-capitatis, sulcatis, $120-150 \approx 3-3\frac{1}{2}$; sporidiis parallelis, filiformibus, pluriseptatis; cellulis 4-5 μ . longis, 0,5-0,7 μ . crassis.

Hab. in chrysalide Lepidopteri minuti ad folia, Juruá-Miry Rio Juruá Amazoniæ. — Proxime affinis *C. typhuliformi*.

14. **Cordyceps proliferans** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2864

fig. 6 (Hedw. 1904). — Stromatibus singularibus erectis, ca. 4 cm. altis, stipite tereti, subcorneo corticato, atro, 2-2 $\frac{1}{2}$ cm. longo, ca. 1 mm. crasso, æquali, clavulis subfusoideis, cylindræis vel compressis, proliferante-furcatis, flavido-stipitatis, subrugulosis, flavidis punctulato-ostiolatis; peritheciis ovoideis, immersis; ascis cylindræo-clavatis apice capitellato obtusis, sulcatulis, $150-180 \approx 4-5$; sporidiis filiformibus parallelis in cellulas subfusoideas, hyalino-cyaneascentes 6-8 $\approx 0,7-0,8$ dilabentibus.

Hab. in corpore emortuo Dinoponeræ (Formicæ) grandis, Marmellos Rio Juruá Amazoniæ. — *C. myrmecophilæ* affinis.

15. **Cordyceps joaquiensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2865

fig. 7. — Stromatibus cæspitosis vel singularibus, 6-8 cm. longis, cylindræo-fusoideis, superne simplicibus vel ramosis, fusco-olivaceis, stipite carnosio, farcto, tereti, flexuoso, clavula tereti, obtusa,

ca. 1-1 $\frac{1}{2}$ cm. longa, 2 $\frac{1}{2}$ -3 mm. crassa, punctoideo-ostiolata; peritheciis omnino immersis, ovoideis v. oblongis; ascis cylindraceis apice rotundatis incrassatis, sulcatusculis, 150-200 \approx 4-4 $\frac{1}{2}$; sporidiis filiformibus, parallelis, pluriguttulatis v. septatis, hyalino-subfuscidulis ca. 1 μ . crassis.

Hab. in larvis Coleopteri? cujusdam, Sao Joaquin Rio Negro Amazoniæ. — *C. submilitari* affinis.

16. **Cordyceps Lacroixii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 65, 2866

c. icon. — Stromate erecto, simplice, usque 20 cm. alt. 4 mm. cr., rigido, glabro, subtereti, sordide fusco, superne obscuriori in partem perithecigeram apice obtuse tenuatam 2-5 cm. longam, in sicco atram, levissimam, regulariter linguiformi-dilatato (6 mm.); peritheciis omnino immersis, confertis; ascis sporidiisque generis.

Hab. in larvis Lepidopteri cujusdam in Japonia (Comm. LACROIX). — Affinis *Cord. Huegelii*, sed clavula atra omnino levis.

17. **Cordyceps subunilateralis** Henn. in Hedw. 1902, p. 168. — Stro- 2867

mate stipitato, apice rotundato-clavato, ca. 5 mm. longo; stipite subcylindraceo, castaneo, sursum piloso, 2-2,5 mm. longo, 400 μ . crasso; clavula subglobosa v. ovoidea, longitudinaliter sulcata, sursum verrucosa 2,5 \approx 2 mm. castanea; peritheciis subimmersis, papillato-ostiolatis, ovoideis ca. 200-250 \approx 150 μ .; ascis cylindraceo-fusoideis, rectis vel flexuosis, utrinque attenuatis, apice capitato-rotundatis, octosporis 100-150 \approx 3,5-4; sporidiis longitudine asci, filiformibus, pluriseptatis, minute guttulatis, hyalinis, ca. 2-2,5 μ . cr.

Hab. in thorace Formicæ spec., Surinam Americæ merid.

18. **Cordyceps myosuroides** Henn. in Hedw. 1902, p. 169. — Stro- 2868

matibus clavatis, stipitatis 6-8 mm. long.; stipite filiformi-tereti, brunneo, minute pilosulo 4-5 \approx 0,4 mm.; clavula oblonge cylindracea, obtusa, castanea, verrucosa 2-3 \approx 0,8 mm.; peritheciis extus $\frac{2}{3}$ liberis, obliquis, rotundato-ostiolatis, ovoideis, 200-220 \approx 150-180 μ .; ascis cylindraceo-clavatis v. subfusoideis, rectis vel flexuosis, apice rotundato tunicatis, basi attenuatis 80-120 \approx 6-8; sporidiis longitudine asci, filiformibus, pluriseptulatis, minute guttulatis, ca. 2,5 μ . cr.

Hab. in thorace Ichneumonidæ, Surinam Americæ merid.

19. **Cordyceps javensis** P. Henn. F. javanici novi, in Hedw. 1902, 2869

p. 142. — Stromatibus solitariis ex dorso larvarum, olivaceo-brunneis; stipite tereti, flexuoso, carnosissimo, levi, glabro, 14-18 \approx 0,8 mm.; capitulo subgloboso, verrucoso-rugoso, ca. 2 mm. diam.; peritheciis subimmersis, apice subhemisphærico-elevatis; ascis cylindra-

ceis, vertice rotundato-subcapitulatis, 140-180 \approx 3,5-4,5; sporidiis filiformibus, pluriseptatis, longitudine ascorum, articulis 3-5 \approx 0,5-0,8 hyalinis.

Hab. in larvis Lepidopterorum, S. Aroun Javæ.

20. **Cordyceps juruensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2870 fig. 2. — Stromatibus stipitato-clavatis, 4-8 cm. altis, cinereo-alutaceis pruinosis vel subpulverulentis dein fuscidulo-atris, stipite cylindraceo v. compresso, flexuoso 3-6 cm. longo, 1-1 $\frac{1}{2}$ cm. crasso; clavula clavata vel subspathulata subfarinacea, compressa, obtusa, 5-10 mm. longa, 3-4 mm. lata; peritheciis omnino immersis, oblonge ovoideis, punctulato-ostiolatis; ascis cylindraceo-clavatis, apice incrassato-rotundatis, 4-sporis, 200-250 \approx 5-5 $\frac{1}{2}$; sporidiis filiformibus pluriseptatis, cellulis ca. 4-5 \approx 2, hyalinis; stromate eodem conidiophoro farinaceo; conidiophoris fasciculatis, ramosis, hyalinis; conidiis catenulatis, globosis, 1-guttulatis, 2 $\frac{1}{2}$ -3 μ .

Hab. ad terram, Marary Rio Juruá Amazoniæ. — Incertum, an species zoogena v. mycogena sit. *Cord. olivaceo-virescenti* proxime affinis.

II. *Cordyliella* P. Henn. Hedw. 1904, p. 248 Stromata tentaculato-ramosa.

21. **Cordyceps Volkiana** A. Möller. Phyc. et Ascom. p. 233, t. VII, 2871 f. 98, 99, t. XI, f. 4, P. Henn. Fungi Amaz. II, pag. 248. — Syll. XVI, p. 615.

Hab. quoque in larvis Lamellicornium, Rio Juruá Amazoniæ. — Conidia tantum 4-5 \approx 1,5-2.

Fam. 4. Dothideaceæ.

Sect. 1. Hyalosporæ.

ZIMMERMANNIELLA P. Henn. F. javanici novi, in Hedw. 1902, p. 142 (Etym. a cl. mycologo et phytopathologo, prof. Alb. Zimmermann). — Stromata foliicola, innato-superficialia, subglobosa, subcornea, verrucoso-rugosa, atra. Perithecia immersa subglobosa vix ostiolata. Asci subfusoides paraphysati, 3-spori. Sporidia monosticha, oblonga continua, hyalina. *Kullhemice* Karst. affinis.

1. **Zimmermanniella trispora** P. Henn. l. c. — Stromatibus hypophyllis, sparsis vel aggregatis, superficialibus, subglobosis, subcorneis,

atris, verrucoso-rugosis, dein rimosis, 0,5-1,5 mm. diam., intus atris; peritheciis immersis, vix ostiolatis, subglobosis; ascis lanciformibus v. fusoides, apice attenuatis, rotundato-obtusiusculis v. subacutiusculis, basi attenuatis, longe stipitatis, 60-80 μ . longis, p. sporif. 40-60 \approx 4-5, trisporis; paraphysibus copiosis, mycelioides, hyalinis; sporidiis monostichis, oblongis, utrinque obtusis v. subacutiusculis, intus granulosus, continuis, hyalinis, 17-22 \approx 3,5-4.

Hab. in foliis *Mangiferæ indicæ*, Buitenzorg, Java.

MAZZANTIA Mont. — Syll. II p. 591, IX p. 1006.

1. **Mazzantia rotundata** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2873 II, p. 100, et Nachtr. I, p. 148 *Mazzantia* spec. n. 440. — Stromatibus sparsis subrotundis usque 1 mm. lat., applanatis v. subconcavis, rarius convexulis, glabris, nigris intus brunneis; peritheciis in quoque stromate 2-9, globoso-depressis, vertice prominulis, astomis, nitidulis; ascis tereti-clavatis, tenuato-stipitatis, octosporis 75-90 \approx 9-11; sporidiis mono-distichis, oblongo-ellipsoideis, utrinque obtusulis, inæquilateris, fere reniformibus vel rectis, continuis, hyalinis, biguttulatis, 15 \approx 4,5-5.

Hab. in caulibus *Laserpitii latifolii*, Luxemburg. — *Mazz. Napelli* et *Mazz. Brunaudianæ* affinis.

PHYLLACHORA Nits. — Syll. II p. 594, IX p. 1006, XI p. 368, XIV p. 663, XVI p. 617.

1. **Phyllachora miryensis** P. Henn. Fungi Amaz III, 1904, p. 368. 2874 — Maculis rotundatis, fuscis; stromatibus epiphyllis sparsis vel gregariis, pulvinatis, atris, nitentibus, ca. 1-1 1/2 mm. diam., ostiolatis; peritheciis globulosis; ascis clavatis, obtuse rotundatis, 8-sporis, 60-70 \approx 10-18; paraphysibus filiformibus, hyalinis ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, utrinque obtusis, intus pluriguttulatis, hyalinis, 11-16 \approx 7-9.

Hab. in foliis *Anonaceæ* cujusdam, Juruá-Miry Rio Juruá Amazoniæ.

2. **Phyllachora Vochysiæ** P. Henn. Fungi Amaz. IV in Hedw. 1905, 2875 pag. 64. — Maculis rotundatis, fuscis; stromatibus hypophyllis sparsis vel gregariis, pulvinatis, atris; ascis clavatis, apice rotundatis, 8-sporis, 70-85 \approx 12-22; paraphysibus filiformibus, hyalinis, ca. 2 μ . cr.; sporidiis oblique monostichis vel subdistichis, oblonge ellipsoideis vel subovoideis, utrinque rotundatis, continuis 12-20 \approx 8-10, hyalinis.

Hab. in foliis *Vochysiæ* spec. Tarapoto, Rio Amazonas. —
A *Phyll. granulosa* (Lév.) Sacc. et *Ph. Lehmanniana* Henn. satis
diversa.

3. **Phyllachora Securidacæ** P. Henn. Fungi Amaz. II, pag. 251. — 2876
Maculis brunneis, rotundatis vel effusis; stromatibus amphigenis,
sparsis, plano-pulvinatis, atris, superne nitentibus, 1-2 mm. diam.;
peritheciis immersis vix ostiolatis; ascis clavatis vel fusoideis, ob-
tusis vel acutiusculis, 60-80 \times 10-18, paraphysatis; sporidiis oblique
monostichis vel subdistichis, fusoideis, intus granulatis, hyalinis,
15-18 \times 5-7.

Hab. in foliis *Securidacæ* cujusdam, Sao Joaquin, Rio Ne-
gro Amazoniæ.

4. **Phyllachora Monninæ** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2877
tibus amphigenis, rotundatis vel subrotundatis, sparsis, rarius con-
fluentibus, minutis, usque 1 mm. diam. atris, vix nitentibus, plu-
rilocularibus; ascis cylindræis, apice obtusis, stipitatis, 75-110 \times
11-13 octosporis; sporidiis oblique monostichis, ellipsoideis, utrin-
que rotundatis, continuis, hyalinis, intus granulosis, 13 \times 6 $\frac{1}{2}$ -8.

Hab. in foliis vivis *Monninæ emarginatæ*, Montevideo,
Uruguay (SELLO). — A *Phyllachora dendritica* Rehm, in *Monnina*,
omnino diversa.

5. **Phyllachora Hammari** P. Henn., Fungi S. Paulenses I, in Hedw. 2878
1902, p. 110. — Stromatibus epiphyllis, sparsis, pulvinatis, atro-
nitentibus, plerumque 1 mm. diam., loculis paucis immersis, sub-
globosis, ostiolatis; ascis oblonge ovoideis v. clavatis, apice obtuse
rotundatis, octosporis, 45-75 \times 20-30; paraphysibus filiformibus,
hyalinis 3,5 μ . cr.; sporidiis subdistichis v. conglobatis ovoideis v.
ellipsoideis, intus guttulatis, 13-16 \times 7-9, hyalinis.

Hab. in foliis *Machærii* spec. prope S. Paulo Brasiliæ.

6. **Phyllachora manaosensis** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2879
culis fuscidulis effusis; stromatibus epiphyllis, gregarie sparsis,
innato-subhemisphæricis, rotundatis vel oblongis atris nitentibus,
c. 200-250 μ . diam.; peritheciis paucis immersis, subglobosis vix
ostiolatis; ascis clavatis apice rotundatis, 8-sporis, 45-60 \times 12-18;
paraphysibus filiformibus hyalinis; sporidiis oblique monostichis v.
subdistichis, ellipsoideis, utrinque obtusis, intus guttulatis, hyali-
nis, 7-9 \times 5-6.

Hab. in foliis *Machærii* spec., Manaos, Rio Negro Ama-
zonæ. — A *Phyll. Machærii* omnino diversa.

7. **Phyllachora schizolobiicola** P. Henn. Fungi S. Paulenses, I in 2880

Hedw. 1902, p. 109. — Maculis fuscidulis; stromatibus amphigenis, punctiformibus, sparsis v. nervos sequentibus, striiforme confluentibus, atris, opacis, pulvinatis, plerumque 0,5-1 mm. diam., loculis paucis immersis, ostiolatis; ascis clavatis vel subfusoideis 50-70 \approx 10-14, octosporis; paraphysibus copiosis, filiformibus, hyalinis ca. 2 μ . cr.; sporidiis oblique monostichis v. distichis, ellipsoideis, utrinque obtusis, intus guttulatis, hyalinis, 8-14 \approx 4-4,5.

Hab. in foliis *Schizolobii excelsi*, in horto bot. S. Paulo Brasiliæ.

8. **Phyllachora Schizolobii** Rehm, Hedw. XLIV, 1905, p. 2. — Stro- 2881
matibus plerumque hypophyllis, orbicularibus v. irregulariter elongatis, atris, in maculis folii parvulis, dilute ochraceis innatis, 0,5-3 mm. diam., loculis globosis 1-12 verrucose prominentibus, plus minusve discretis, poro vix conspicuo pertusis; ascis fusiformibus, 65-75 \approx 12, 8-sporis; sporidiis oblongis, rectis, utrinque rotundatis, dilute luteolis, 1-cellularibus, 12-14 \approx 5, distichis; paraphysibus vix conspicuis.

Hab. in foliis *Schizolobii excelsi*, Minas Geraes Brasiliæ (ULE).

9. **Phyllachora Derridis** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2882
tibus epiphyllis; maculis fuscescentibus obsoletis indeterminatis insidentibus, laxè circulariter dispositis, rotundatis vel irregularibus, convexulis, atris, nitentibus, $\frac{1}{2}$ -1 mm. longis, plurilocularibus; ascis cylindræo-clavatis, apice rotundatis, breviter stipitatis, 55-70 \approx 12-15, octosporis; sporidiis monostichis vel rarius irregulariter subdistichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 14-16 \approx 4-6.

Hab. in foliis vivis *Derridis glabratae*, Angola (WELWITSCH).

10. **Phyllachora copeyensis** P. Henn. Fungi costaricensis I, in Hedw. 2883
1902, p. 103. — Maculis atris, rotundatis; stromatibus hypophyllis v. amphigenis, rotundatis, planis, levibus, atris subnitentibus, ca. 2 mm. diam.; peritheciis subglobosis, ostiolis vix prominulis subverrucosis; ascis clavatis v. subfusoideis, apice rotundatis vel subacutis, 65-70 \approx 15-17, octosporis; paraphysibus filiformibus ca. 2 μ . cr. hyalinis; sporidiis oblique monostichis v. subdistichis, oblonge ellipsoideis v. ovoideis, hyalinis, intus granulatis, 20-23 \approx 8-10, continuis.

Hab. in foliis vivis *Swartziaæ spec.*, Cerros de Velirla Amer. centr.

11. **Phyllachora juruensis** P. Henn. Fungi Amaz. II, pag. 252. — 2884

Maculis fuscidulis effusis; stromatibus amphigenis sparse gregariis, angulato-pulvinatis, superne atro-nitentibus, rugulosis, interne opacis, verrucosis, 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis fusoides apice subacutis, 8-sporis, 60-65 \times 10-17; paraphysibus filiformibus, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblonge fusoides utrinque subacutiusculis, intus granulosis, hyalinis, oblique monostichis vel subdistichis, 20-26 \times 5-6.

Hab. in foliis *Browniæ* spec.? (Leguminosæ), Bom Fim Rio Juruá Amazoniæ. — Stromatibus prominentibus et sporidiis fusoides distinguenda species.

12. **Phyllachora lungusaensis** P. Henn. in Engl. Bot. Jahrb. 1903, 2885

p. 50. — Peritheciis amphigenis, sparsis vel gregariis hemisphærico-pulvinatis, atro-nitentibus, minutis, ca. 0,2-0,3 mm. diam., levibus; peritheciis 1-4-subglobosis, immersis; ascis clavatis, interdum ovoideis, apice rotundatis 35-40 \times 10-18, octosporis; paraphysibus filiformibus; sporidiis distichis vel subtristichis, ellipsoideis, utrinque obtusis, biguttulatis hyalinis, 8-10 \times 3,5-4.

Hab. in foliis *Lonchocarpi* spec.?, Lungusa in Usambara Africæ orient. (ENGLER).

13. **Phyllachora Diocleæ** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2886

culis rotundatis v. effusis, brunneolis; stromatibus epiphyllis sparsis, rotundato-pulvinatis, planis, atris, granulato-verrucosis, 1 $\frac{1}{2}$ -3 mm. diam.; peritheciis immersis, ovoideis, subhemisphærico-ostiolatis; ascis clavatis vel subfusoides, apice rotundatis, 50-60 \times 10-12; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel distichis, oblonge clavatis vel subfusoides, 2-4-guttulatis, hyalinis, 18-22 \times 4-5.

Hab. in foliis *Diocleæ* spec. prope Rio Juruá Amazoniæ.

14. **Phyllachora centrolobiicola** P. Henn. Fungi Amaz. II, p. 251. — 2887

Maculis rotundatis vel effusis, fuscidulis; stromatibus epiphyllis gregariis vel sparsis rotundato-pulvinatis, atro-nitentibus, subrugulosis, 1-2 mm. diam.; peritheciis immersis ovoideis; ascis clavatis, obtusis vel subacutiusculis, 8-sporis, 80-90 \times 14-20; paraphysibus filiformibus, hyalinis, 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, ovoideis vel fusoides intus granulatis, obtusis, hyalinis, 12-20 \times 8-10; stromatibus conidiophoris æqualibus, conidiis subglobosis vel ovoideis, 1-guttulatis, 6-8 μ ., atris (*Haplosporella centrolobiicola* P. Henn.).

Hab. in foliis *Centrolobii* spec, Tarapoto, Perù. — A *Ph. Centrolobii* habitu et sporidiis distichis fusoides diversa.

15. **Phyllachora mexicana** Turc., Un fungo parass. sulla Chaquirilla, 2888
p. 29 (Atti Ist. bot. Pavia Majo 1904, vol. X), *Phyll. Adolphicæ* Ell.
et Kell. Journ. of Mycol. Sept. 1904, p. 232 c. iconib. — Stroma-
tibus numerosis, dense gregariis, rarius confluentibus, subrotundis
v. elliptico-elongatis, prominulo-applanatis v. leniter convexis, le-
vibus, atro-piceis, minutis, 1-2 mm. diam., denique longitudinaliter
fissis, 2-4-ocularibus; loculis globoso-depressis v. lenticularibus;
ascis cylindræis 80-110 \approx 12-15, superne rotundatis, inferne bre-
vissime et spurie attenuato-pedicellatis, aparaphysatis, octosporis;
sporidiis oblique monostichis, rarius subdistichis, ovato-ellipsoideis,
utrinque rotundatis, hyalinis, 11-15 \approx 6,5-8, intus granulosis.

Hab. in ramulis vivis *Adolphicæ* infestæ (*Chaquirilla*),
Mexico (A. L. HERRERA). — Socium adest pycnidium: *Cytosporina*
Adolphicæ Turc. — Test. Ell. et Kell. l. c. adsunt paraphyses bacil-
lares, 2-3,5 μ . crass. et sporidia sunt 12-15 \approx 8-10.

16. **Phyllachora pusilla** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2889
tibus epiphyllis, sparsis, minutissimis, punctiformibus, ca. $\frac{1}{2}$ - $\frac{1}{3}$
mm. diam., atris, subnitentibus, 1- vel paucilocularibus; ascis cy-
lindræis v. cylindræo-clavatis, apice rotundatis, breviter stipi-
tatis, 70-105 \approx 11-21, octosporis; sporidiis monostichis vel subdi-
stichis, ellipsoideis, utrinque rotundatis, intus guttulatis, continuis,
hyalinis, 11 $\frac{1}{2}$ -17 \approx 7-10; paraphysibus filiformibus.

Hab. in foliis vivis *Pavoniæ Schrankii* in Brasilia (SELLO).

17. **Phyllachora minuta** P. Henn. F. javanici novi, in Hedw. 1902, 2890
pag. 143. — Maculis rotundatis, fuscis; stromatibus amphigenis,
sparsis, minutis, pulvinatis, atro-nitentibus, 0,5-1 mm. diam., le-
vibus, glabris; peritheciis 1-2 subglobosis; ascis clavatis apice ob-
tusis, octosporis, 80-110 \approx 15-18; paraphysibus filiformibus, hyali-
nis 1-1,5 μ . cr.; sporidiis subdistichis v. oblique monostichis, elli-
psoideis v. ovoideis, intus nebulosis, 13-18 \approx 7-8, hyalinis, continuis.

Hab. in foliis *Hibisci* spec. Buitenzorg Javæ.

18. **Phyllachora macrospora** A. Zimm. in Centralbl. f. Bakter. 1902, 2891
VIII, p. 183. — Stromatibus orbicularibus, atro-brunneis nigrisve,
margine obscuriore leviter curvatis, parenchyma folii penetranti-
bus, sæpe hinc inde dense gregariis, 1-1,5 mm. diam.; loculis 1-3
in epiphyllis dehiscentibus; ascis obtusatis, 8-sporis, 140 μ . longis,
filiformi-paraphysatis; sporidiis oblongis utrinque obtusis, hyali-
nis, dein brunneolis, extus verruculosis, 35-40 \approx 8.

Hab. frequens in foliis *Durionis zibethini* circa Buitenzorg Java.

19. **Phyllachora Ocoteæ** P. Henn. in Hedw. 1904, p. 86. — Maculis 2892
obsoletis vel flavidulis; stromatibus epiphyllis sparse gregariis, innatis, subdiscoideo-applanatis vel convexis, rotundatis, atro-nitentibus 0,3-0,4 mm. diam.; peritheciis immersis vix prominulis; ascis clavatis, interdum substipitatis, apice rotundatis, octosporis, 60-80 \approx 12-20; paraphysibus copiosis, filiformibus, septatis, subramosis, hyalinis ca. 2 μ . crassis; sporidiis oblique monostichis v. subdistichis, ellipsoideis vel subovoideis, hyalinis, 10-15 \approx 7-8.

Hab. in foliis *Ocoteæ* spec., Cabo Frio, Rio de Janeiro Brasiliæ (E. ULE).

20. **Phyllachora opposita** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2893
culis rotundatis, fuscidulis; stromatibus innatis, opposito-amphigenis, subrotundato-dispositis, plano-pulvinatis, atro-opacis vel subnitentibus, minute ostiolatis, ca. 0,7-10 mm. diam.; peritheciis immersis, globosis; ascis fusoides vel subclavatis, apice subobtusorotundatis, stipitatis, 100-130 μ . longis, p. sp. 80-100 \approx 10-12; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis, oblonge fusoides, utrinque subacutis vel rotundatis, hyalinis, guttulatis, 14-17 \approx 5.

Hab. in foliis Lauraceæ cujusdam, Rio Juruá Amazoniæ.

21. **Phyllachora socia** P. Henn. Fungi Amaz. II, p. 253. — Maculis 2894
rotundatis, fuscis; stromatibus subcirculariter dispositis epiphyllis, innato-erumpentibus, rotundato vel oblonge pulvinatis, atro-nitentibus, 7-10 mm. diam.; peritheciis immersis, globulosis, atris; ascis subfusoides vel subclavatis, apice rotundato-obtusis, stipitatis, 140-200 \approx 18-30; paraphysibus filiformibus, 3-4 μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, crasse tunicatis, intus guttulatis, hyalinis, 20-30 \approx 13-15.

Hab. in foliis Lauraceæ cujusdam, intermixta *Phœangella socia* P. Henn., Cerro de Escaler, Perù.

22. **Phyllachora madeirensis** P. Henn. Fungi Amaz. III, 1904, p. 368. 2895
— Maculis subrotundatis, fuscidulis; stromatibus epiphyllis, gregariis, minutis ca. 250 μ ., subhemisphæricis ostiolatis, atro-nitentibus; peritheciis paucis, subglobosis; ascis clavatis vel subfusoides, rotundatis, 8-sporis, paraphysatis, 50-60 \approx 8-12; sporidiis oblique monostichis vel distichis oblonge fusoides vel clavatis, obtusis, hyalinis 12-16 \approx 5-6.

Hab. in foliis Lauraceæ cujusdam Marmellos Rio Madeira Amazoniæ.

23. **Phyllachora huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 368. 2896

— Maculis rotundatis, subinflatis, pallide fuscis, exaridis; stromatibus amphigenis, subconcentrice dispositis, sublenticulari-planis, atris opacis; peritheciis immersis, subglobosis; ascis clavatis, obtuse rotundatis, 8-sporis, paraphysatis, $50-80 \times 12-15$; sporidiis oblique monostichis vel subdistichis, fusoides vel ovoideis, intus granulatis, hyalinis, $12-15 \times 5-6$.

Hab. in foliis Lauraceæ cujusdam, Huallaga Yurimaguas, Perù.

24. **Phyllachora phyllanthophila** P. Henn. Fungi Amaz. II, p. 250. 2897

— Maculis rotundatis fuscidulis v. obsoletis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, opacis vel subnitentibus, 0,4-0,6 mm.; peritheciis paucis, ovoideis; ascis clavatis, apice rotundatis, basi substipitatis, 8-sporis, $35-45 \times 12-15$; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis subdistichis raro oblique monostichis, ellipsoideis vel subovoideis, intus granulatis, hyalinis, $10-14 \times 5-7$.

Hab. in foliis Phyllanthi spec., Sao Antonio, Perù.

25. **Phyllachora Maprouneæ** P. Henn. Fungi Amaz. II, p. 250. — 2898

Maculis pallidis vel violaceis, rotundatis vel effusis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, subnitentibus, 0,5 mm.; ascis clavatis, apice rotundatis, 8-sporis $60-100 \times 12-20$; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, hyalinis, continuis, $9-12 \times 7-9$.

Hab. in foliis Maprouneæ surinamensis Tarapoto, Huallaga, Perù. — Maculis matricis violascentibus dignoscenda species.

26. **Phyllachora Crotonis** (Cke.) Sacc. — Syll. II, pag. 599. — var. 2899

parvula Syd. Ann. Mycol. 1904, p. 162. — A typo recedit ascis multo minoribus, $42-55 \times 7-9\frac{1}{2}$ sporidiisque minoribus, nempe $7-11 \times 5\frac{1}{2}-7$.

Hab. in foliis vivis Crotonis chamædryfolii, Mattogrosso, Brasilia (SPENCER MOORE). — An propria species?

27. **Phyllachora Simabæ-Cedronis** P. Henn. Pilz. Cost. u. Parag. 2900

p. 147. — Stromatibus amphigenis, stellato-effusis v. plurilobatis, atris, nitentibus, fuciformibus, 1-2 cm. diam.; peritheciis immersis, subglobosis, ostiolis subprominulis; ascis clavatis, obtusis, stipitatis 8-sporis, $50-80 \times 15-26$; sporidiis oblique monostichis v. subdistichis ellipsoideis, hyalinis, intus granulatis, $8-12 \times 5-7$.

Hab. in foliis Simabæ Cedronis, Golfo de Osa, Costarica.

— Stromata stellata *Fucum* minutum æmulantur.

28. **Phyllachora Tonduzii** P. Henn. Fungi costaricensis I, in Hedw. 2901
1902, p. 103. — Maculis fuscis, rotundatis, minutis; stromatibus hypophyllis sparsis v. gregariis, rotundato-pulvinatis, applanatis, atris, subnitentibus, ca. 1 mm. diam.; loculis paucis, subglobosis, ostiolis vix prominulis; ascis clavatis v. subfusoides, obtusis vel subacutiusculis, octosporis, $75-80 \approx 15-20$; paraphysibus filiformibus, hyalinis ca. 1 μ . cr.; sporidiis subdistichis, oblonge clavatis, rectis v. curvulis, apice obtusis, basi acutiusculis, continuis $25-35 \approx 5-6$, hyalinis.

Hab. in foliis vivis Myrsines spec., Cerros de Velirla Amer. centr.

- 29 **Phyllachora Caseariæ** P. Henn. Fungi Amaz. II, pag. 251. — 2902
Maculis rotundatis vel effusis, brunneolis; stromatibus epiphyllis, gregarie sparsis, planis, atro-nitentibus, ostiolis punctoideis; peritheciis immersis, ovoideis; ascis clavatis vel subfusoides, apice rotundatis vel subacutiusculis, 8-sporis, $60-90 \approx 10-12$; paraphysibus filiformibus, hyalinis, $1\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis interdum subdistichis, ellipsoideis vel ovoideis, intus granulatis, hyalinis, $8-12 \approx 5-6$.

Hab. in foliis Caseariæ spec., Manaós, Rio Negro Amazoniæ.

30. **Phyllachora Baumii** P. Henn. in Ergebn. der Kunene Sambesi 2903
Expedit. p. 166 (1902). — Maculis sparsis, rotundatis, brunneis v. cinereis exaridis, zona obscuriore circumdatis; stromatibus circulariter dispositis, rotundato-pulvinatis, atris, subnitentibus minutis ca. 1 mm. diam.; 1-3 peritheciis globulosis vix ostiolatis; ascis longe clavatis, apice obtusiusculis, basi stipitato-attenuatis, octosporis, $90-150 \approx 8-10$; paraphysibus filiformibus, septulatis, 3 μ . cr.; sporidiis oblonge fusoides v. subclavatis, continuis $15-18 \approx 5-7$, hyalinis.

Hab. in foliis vivis Sideroxyli spec., Jau, Afr. austr.

31. **Phyllachora Melaleucæ** Syd. Ann. Mycol. 1904, p. 164. — Stro- 2904
matibus amphigenis, innatis, minutis, ca. $\frac{1}{3}$ mm. diam., atris, nitidis, hemisphærico-prominulis, paucilocularibus; ascis cylindræis, apice rotundatis, basi breviter stipitatis, $66-84 \approx 8-11$, octosporis; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque obtusiusculis, hyalinis, continuis, $11-14 \approx 4\frac{1}{2}-6\frac{1}{2}$; paraphysibus filiformibus.

Hab. in foliis vivis *Melaleucæ spinosæ*, Australia (PREIS; comm. F. W. NEGER).

32. **Phyllachora cinerea** E. et Ev. Journ. of Mycol. 1904, p. 170. — 2905

Stromatibus sparsis, cortice interiore atrato nidulantibus, orbicularibus 500 μ . diam. vel oblongis 1500 \approx 750 μ ., intus cinereis, disco fusco cinereo, erumpente, applanato, epidermide rupta cincto; ascis cylindraceo-clavatis, paraphysatis, 80-100 \approx 12-15; sporidiis distichis, ovato-ellipsoideis, hyalinis, continuis 12-15 \approx 5-7.

Hab. in ramis emortuis *Catalpæ*, London, Canada Amer. bor. — Socia adest *Phoma diatrypea*, probabile pycnidium. Loculi parum distincti.

= *P. pyrenopeziza*?
in *Vernonia* herb.
the same!

33. **Phyllachora vernoniicola** P. Henn., Fungi S. Paulenses I, in 2906

Hedw. 1902, p. 110. — Maculis fuscidulis; stromatibus innatis, amphigenis sparsis v. gregariis, minutis, pulvinatis, atro-nitentibus 0,3-0,4 mm. diam., plerumque unilocularibus, loculis subglobosis immersis ostiolatis; ascis clavatis apice rotundato-obtusis, octosporis, 70-80 \approx 13-15; paraphysibus filiformibus, hyalinis 2-3 μ . cr.; sporidiis monostichis, ovoideis, intus granulatis, 12-14 \approx 6-8 hyalinis.

Hab. in foliis *Vernoniæ* spec. in horto botanico, S. Paulo Brasiliæ.

34. **Phyllachora? Mutisiæ** Speg. Myc. argent. ser. II, 1902, p. 75. — 2907

Stromatibus hypophyllis, non nitentibus, eximie limitatis 1-5 mm. diam., repando-suborbicularibus, aterrimis, innato-subsuperficialibus, epidermide innatis; loculis constipatis angulato-subglobosis 30-50 μ ., numerosis, nucleo albo fartis; ascis

Hab. ad folia viva Mutisiarum, Carreuleofü, in Argentina. — Species vulgata et pulchella sed certe in foliis delapsis tantum maturans.

35. **Phyllachora viticicola** P. Henn. Fungi Amaz. II, pag. 251. — 2908

— Maculis fuscis effusis vel rotundatis; stromatibus gregariis amphigenis innato-erumpentibus, rotundato-pulvinatis, atro-nitentibus, 0,5 mm. diam.; peritheciis paucis immersis; ascis clavatis, apice rotundatis, 8-sporis, 65-80 \approx 13-20; paraphysibus filiformibus ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis v. distichis, fusoides utrinque apiculatis, hyalinis, 15-23 \approx 8-10.

Hab. in foliis *Viticis* sp. Bom Fim Rio Juruá Amazoniæ. — A *Ph. Tarumæ* sporidiis acute fusoides distincta.

36. **Phyllachora? Gaylussaciæ** P. Henn. in Hedw. 1902, p. 303. — 2909

Maculis rotundato-explanatis, rufo-violaceis; stromatibus ampli-

genis, applanatis, atris, carbonaceis, ca. 0,5-1 cm. diam., opacis, dense granulato-verrucosis; peritheciis immersis, ostiolatis, globulosis; conidiis filiformibus, flexuosis, hyalinis, continuis 30-60 \times 0,5-0,7.

Hab. in foliis Gaylussaciæ spec. pr. S. Paulo Brasiliæ.

37. **Phyllachora Macrosiphoniæ** P. Henn. Fungi S. Paulenses III, 2910 p. 206, Hedw. 1904 (nomen correctum), *Phyllachora Heteropteridis* P. Henn., Fungi S. Paulenses I, in Hedw. 1902, p. 110. — Stromatibus epiphyllis, sparsis v. aggregato-confluentibus, carbonaceo-atris, nitentibus, pulvinatis, angulatis, ruguloso-verrucosis 0,5-8 mm. diam.; loculis subglobosis, immersis, ostiolatis; ascis clavatis apice obtusis, 55-65 \times 9-11 octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, granulosis 6-8 \times 5-6, hyalinis.

Hab. in foliis et fructibus *Macrosiphoniæ* spec. prope S. Paulo Brasiliæ. — Stromata hinc inde a *Zythia phyllachoricola* invasa.

38. **Phyllachora effigurata** Syd. Ann. Myc. 1903, p. 178, *Ph. dendritica* P. Henn. Hedw. 1902, p. (17) nec Rehm. — Maculis fuscis, effusis; stromatibus sæpe amphigenis, nervos sequentibus, epiphyllis sparsis, minutis, atris, nitentibus, hypophyllis gregariis, subpulvinatis, dendritico-confluentibus, atris, opacis, verrucoso-tuberculatis; peritheciis paucis, globosis, immersis; ascis clavatis, obtusis 70-100 \times 6-11; paraphysibus copiosis, filiformibus sporidiis oblique monostichis, oblonge ellipsoideis v. clavatis, intus granulosis, 13-18 \times 5-6, hyalinis.

Hab. in foliis *Urostigmatis* spec. in horto botanico Pará, Amer. austr.

39. **Phyllachora Astrocaryi** P. Henn. in Hedw. 1904, pag. 87. — 2912 Stromatibus erumpente-superficialibus, subglobosis, carbonaceis, atrofuscis, opacis, verrucoso-ostiolatis 1-2 mm. diam.; peritheciis subglobosis immersis; ascis clavatis, apice rotundatis vel applanatis, pedicellatis, ca. 80-140 \times 13-16, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, fusoideis vel oblonge subellipsoideis, utrinque subacutis vel obtusiusculis, hyalinis, 12-14 \times 7-8.

Hab. in foliis *Astrocaryi* spec., Rio de Janeiro Brasiliæ (E. ULE).

40. **Phyllachora Scirpi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 2913 1901, p. 99. — Stromatibus sparsis, innatis, oblongo-ellipsoideis,

0,5-1 mm. long.; peritheciis prominulis, verruciformibus, in primis ad stromatis marginem; ascis clavatis, longiuscule stipitatis, obtusulis, 65-85 \approx 10-12, octosporis; sporidiis distichis, ellipsoideis, rectis curvulisve, bi-guttulatis, subinde plasmate bipartito, hyalinis, 15-18 \approx 4-5.

Hab. in calamis Scirpi lacustris, Luxemburg. — *Phyllachoræ Cynodontis* proxime affinis.

41. **Phyllachora eximia** Syd. Ann. Myc. 1904, p. 163. — Stromatibus in 2914
utraque folii pagina conspicuis, maculis striiformibus flavo-stramineis insidentibus, sparsis v. seriatim confluentibus, singulis oblongis $\frac{1}{2}$ -2 mm. longis, confluentibus majoribus, atris; ascis cylindraceis, apice rotundatis, breviter stipitatis, maximis, 125-200 \approx 18-25 μ ., octosporis; sporidiis oblique monostichis vel subdistichis, ellipsoideo-fusiformibus, fine inferiore acutiusculo, altero magis obtuso, continuis, ex hyalino flavescentibus, 25-28 \approx 8-12.

Hab. in foliis vivis Arundinariæ alpinæ, Africæ or. inter Ssedia et Kwa-Musini-Ssagara, Ussagara (W. BUSSE). — Ascis sporidiisque majusculis dignoscenda species,

42. **Phyllachora Maydis** Maublanc, Bull. Soc. Mycol. 1904, pag. 72, 2915
t. VII, f. 7. — Stromatibus carbonaceis, amphigenis, subrotundatis v. oblongis, intus loculos monostichos, globulosos v. angulatos foventibus; ascis cylindricis, leviter pedicellatis, 80-100 \approx 7-8; paraphysibus numerosis, filiformibus, guttulatis, ascos superantibus, 2-3 μ . cr.; sporidiis monostichis, ovoideis, basi leniter tenuatis, chlorino-hyalinis, dein crasse 1-guttatis granulatisque, 10-14 \approx 5,5-6,5.

Hab. in foliis subvivi Zeæ Maydis in Mexico, socio et valde Zeæ noxio *Helmintosporio turcico* (Doct. S. BONANSEA). — In loculis junioribus formantur sporulæ filiformes, 10-15 \approx 0,2.

43. **Phyllachora serialis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2916
p. 18. — Stromatibus seriatis, internerviis, punctiformibus, initio velatis dein suberumpentibus, plus minusve confluentibus 2-3 mm. diam.; stromatibus singulis 500 μ . diam., in parenchyma foliorum immersis.; ascis dense fasciculatis, clavato-cylindraceis, breve stipitatis 75-80 \approx 12-15; sporidiis oblique monostichis vel distichis, ovatis, continuis 10-12 \approx 5-6, hyalinis.

Hab. in Spartina stricta, Pacific Grove, California.

44. **Phyllachora Sacchari** P. Henn. F. javanici novi, in Hedw. 1902, 2917
p. 143. — Maculis pallidis v. fuscis; stromatibus epiphyllis, oblonge pulvinatis, innato-erumpentibus, carbonaceo-atris, opacis, levi-

bus 1-1,5 cm. longis 0,5-1 mm. latis; peritheciis immersis 1 vel paucis; ascis clavatis, apice obtuse rotundatis, octosporis 80-120 \times 15-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel monostichis, ellipsoideis vel ovoideis, utrinque obtusis, intus nebulosis, hyalinis, continuis, 12-18 \times 9-12.

Hab. in foliis Sacchari officinarum, Buitenzorg Javæ.

45. **Phyllachora Vossiae** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2918

tibus sparsis, utraque pagina folii conspicuis, minutis, subrotundatis vel oblongis, usque 1 mm. longis, atris, paucilocularibus; ascis cylindraceutis, apice rotundatis, breviter stipitatis, 55-66 \times 9-11, octosporis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 9-11 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis vivis Vossiae proceræ, Kordofan merid. Birket-Rahad, Africa (Dr. J. PFUND).

46. **Phyllachora Sporoboli** Patouill. in Bull. Soc. Myc. de France, 2919

1903, fasc. 3, p. 258. — Stromatibus sparsis vel confluentibus, elongatis nigris, 1-2 mm. long., epidermide nigrificata nitenti adnata tectis; peritheciis immersis, ostiolis vix prominulis; ascis claviformibus, apice rotundatis, inferne attenuatis 100 \times 20 octosporis; paraphysibus numerosis, linearibus, guttulatis; sporidiis subdistichis, ovoideis, simplicibus, levibus, diu hyalinis, dein pallidissime brunneis 20-23 \times 10; loculis junioribus sporulas lineares, flexuosas, hyalinas, 8-10 \times 0,5 includentibus.

Hab. in Sporoboli (Agrostidis) pungentis, Arzew Algeriæ. — Ab affini *Phyll. Cynodontis* Sacc. sporidiis majoribus differt.

47. **Phyllachora Eleusines** Speg. Myc. argent. ser. II, 1902, p. 75. — 2920

Maculis nullis; stromatibus amphigenis, atris, suborbicularibus, levibus, subnitidulis 1-3 mm. diam. parum prominulis; loculis constipatis, e mutua pressione angulatis 150-200 μ . diam., albofarctis, astomis?; ascis cylindraceutis, apice subtruncatis, deorsum breviter attenuato-pedicellatis 130 μ . long. 12 μ . crass., octosporis; paraphysibus paullo longioribus, filiformibus, septulatis; sporidiis ellipsoideis v. leniter inæquilateralibus, levibus, grosse 1-guttulatis 15 \times 7 hyalinis.

Hab. in foliis vivis Eleusines tristachyæ, La Plata in Argentina.

48. **Phyllachora Chionachnes** Syd. Ann. Mycol. 1904, p. 64. — Stro- 2921

matibus hypophyllis, in epiphylo maculas indeterminatas fusco-violascentes obsoletas generantibus, sparsis v. seriatim dispositis v. irregulariter ordinatis, oblongis, hinc inde confluentibus, solitariis

ca. 1 mm. longis, confluentibus, usque 1 cm. longis, atris, subnitidis; ascis late cylindræis, apice rotundatis, 45-58 \times 10-11, octosporis; sporidiis oblique monostichis, late ellipsoideis, utrinque rotundatis, intus granulosus, continuis, hyalinis, 9-11 \times 6 $\frac{1}{2}$ -7 $\frac{1}{2}$; paraphysibus numerosis, fusiformibus, apice leniter incrassatis.

Hab. in foliis vivis *Chionachnes barbatae*, Panjab Indiæ or. (HOOKER fil. et THOMSON).

49. **Phyllachora graminis** (Pers.) Fuck. — Syll. II, p. 602. — var. 2922

Panici-sulcati P. Henn. Fungi costaricensis I, in Hedw. 1902, p. 103. — Stromatibus amphigenis, gregariis, angulato-rotundatis v. oblongis, atris, 1-1,5 mm. diam., opacis v. subnitentibus; peritheciis subglobosis, immersis, ostiolis vix prominulis; ascis clavatis, apicæ rotundatis, octosporis, 60-80 \times 10-14, paraphysibus filiformibus, hyalinis ca. 1,5 μ . cr.; sporidiis ellipsoideis v. ovoideis, utrinque obtusis, intus pluriguttulatis, 10-15 \times 7-8 continuis, hyalinis.

Hab. in foliis vivis *Panici sulcati*, S. Francisco de Guadalupe Amer. centr.

50. **Phyllachora Arthraxonis** P. Henn. in Hedw. 1904, pag. 142. — 2923

Stromatibus epiphyllis, gregarie sparsis, minute punctiformibus, ca. 250. μ . vel nervos sequentibus oblongis, ca. 1 mm. longis, atris, subopacis, 1-paullo-perithecigeris; ascis clavatis, apice rotundatis 35-45 \times 8-12, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subfusoideo-clavatis, hyalinis, bi-guttulatis, 8-11 \times 4-5.

Hab. in foliis *Arthraxonis ciliaris*, Tôchi in prov. Tosa Japoniæ (YOSHINAGA).

51. **Phyllachora pteridiicola** P. Henn. Fungi Amaz. II, p. 249. — 2924

Stromatibus epiphyllis sparsis interdum nervisequentibus, oblonge pulvinatis, brunneis opacis, ca. 0,6-1 mm. longis; peritheciis immersis, vix ostiolatis, subglobosis; ascis cylindræo-clavatis apice obtuse applanatis, 8-sporis, paraphysatis, 90-100 \times 10-15; sporidiis oblique monostichis v. subdistichis, oblonge fusoideis, plerumque acutiusculis, continuis, hyalinis, 18-22 \times 7-8.

Hab. in foliis *Pteridis aquilinæ*, Manãos, Rio Negro Amazoniæ — A *Ph. Flabella* (Schw.) Thüm. omnino distincta.

52. **Phyllachora filicina** Saccardo et Scalia, Harrim. Alaska Exped. 2925

Crypt. p. 27, pl. V, f. 15. — Stromatibus epiphyllis, maculiformibus, atris, applanatis, parum emergentibus, ambitu e circulari angulosis, superficie regulari, contextu atro-brunneo, parenchymatico; loculis numerosis, immersis, globosis, 70-80 μ . diam., pallidioribus;

ascis tereti-clavatis, brevissime stipitatis, $70 \approx 10-11,5$, apice rotundatis, octosporis; sporidiis elliptico-oblongis. utrinque rotundatis, rectis, $14-15 \approx 5-6$, continuis, hyalinis, intus granuloso, farctis.

Hab. in foliis vivis *Aspidii Lonchitis*, Unalaska Alaska (EVERMANN). — *Pulchella* species, omnino distincta.

EURYACHORA Fuck. — Syll. II, p. 625, IX p. 1030, XIV p. 674, XVI p. 624.

1. **Euryachora ? Arjonæ** Speg. Myc. argent. ser. II, 1902, p. 75. — 2926

Stromatibus innatis, epidermide arcte adhærente vestitis, extus intusque atris, levibus, primo minutis granuliformibus, dein effusis totam matricem infestantibus; loculis confertissimis, subglobosis v. e mutua pressione angulosis 50μ . diam., obsolete ostiolatis, nucleo filamentoso-mucedineo, albo repletis.

Hab. ad folia et caules vivos *Arjonarum*, Mendoza et Chubut in Argentina. — Species vulgatissima sed adhuc semper sterilis inventa; caules et folia infecta sæpius leviter hypertrophica crassiuscula, primo pallidiora stromatibus punctiformibus plus minusve gregariis, subseriatis percursa, mox tota sæpius utrinque tecta.

Sect. 2. Phæosporæ.

AUERSWALDIA Sacc. — Syll. II p. 626, IX p. 1031, XI p. 374, XIV p. 675, XVI p. 625.

1. **Auerswaldia Balansæ** (Speg.?) Fl. Tassi in Bull. Lab. Ort. Bot. 2927

Siena 1904, p. 74, *Lasmenia Balansæ* Speg. — Syll. X, p. 425. — Maculis nullis; stromatibus hypophyllis $300-500 \mu$. diam., partim orbicularibus, partim irregularibus, densiuscule sparsis, numquam confluentibus, nigris, levibus, glabris, pulvinatis, parenchyma inter duas epidermides pervadentibus; loculis in quoque stromate sæpe solitariis v. paucis 2-3, immersis, albo-farctis; ascis cylindricis, apice rotundatis, deorsum breve attenuatis, octosporis, $100-125 \approx 14-15$; sporidiis monostichis, haud raro subdistichis, ellipticis, utrinque obtusulis $15-20 \approx 8-9$ non v. grosse 1-guttulatis, brunneo-olivaceis, paraphysibus filiformibus obsoletis obvallatis.

Hab. in foliis vivis *Eugeniæ* spec. Cerro Hu, prov. Paraguay (B. BALANSA, Pl. du Paraguay n. 3750).

2. **Auerswaldia Miconiæ** P. Henn. Fungi Amaz. II, p. 253. — Ma- 2928

culis rufo-brunneis, rotundatis; stromatibus hypophyllis sparsis, atro-carbonaceis, pulvinato-erumpentibus, rotundatis, ruguloso-verrucosis, ca. 1 mm. diam.; peritheciis subimmersis, verrucoso-ostiolatis; ascis cylindraceo-clavatis, apice obtusis, 8-sporis, 120-130 \times 6-7; paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, 10-13 \times 4-5 $\frac{1}{2}$, atris, continuis.

Hab. in foliis *Miconiæ* spec., Rio Juruá Amazoniæ. — Ab *Auersw. Fiebrigii* omnino diversa.

3. **Auerswaldia Fiebrigii** P. Henn. Pilz. Costar. u. Parag. p. 148. — 2929

Maculis rotundatis, rufo-brunneis; stromatibus pulvinato-applanatis vel subdiscoideis sparsis vel gregariis hypophyllis, atris, verruculosis, 1-2 mm. diam.; peritheciis immersis, subglobosis, obtuse ostiolatis; ascis clavatis vel subfusoideis, obtusis, 8-sporis, 120-160 \times 10-13; paraphysibus subramosis, hyalinis, 2-3 μ . crassis; sporidiis oblonge fusoideis utrinque obtusiusculis, continuis, primo hyalinis dein flavo-brunneis vel fuscis, 15-24 \times 6-8.

Hab. in foliis *Miconiæ* spec., Cordillera de Altos Paraguay (K. FIEBRIG). — Sporidiis læte brunneis v. flavo-brunneis distincta species.

4. **Auerswaldia Leandræ** Syd. in Hedw. 1901, p. 2. — Maculis epi- 2930

phyllis minutis, brunneis, interdum obsolete; stromatibus hypophyllis, sparsis non confluentibus, innato-superficialibus globosis v. hemisphærico-sublenticularibus, verruciformibus 1-1,5 mm. d., atris, rugulosis; loculis numerosis, globulosis v. ovatis 180-240 μ . diam.; ascis cylindraceis, breviter stipitatis, rectis 95-120 \times 6-8, octosporis; paraphysibus filiformibus, flexuosis; sporidiis monostichis, ovatis v. oblongis, utrinque rotundatis, continuis, primo hyalinis, demum fuscidulis, intus granulosus, 13-16 \times 4-6.

Hab. in foliis vivis *Leandræ cordifoliæ*, Rio Grande do Sul Amer. austr. (REINECK et CZERMACK).

5. **Auerswaldia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 2931

1902, pag. 111. — Maculis bullatis, rotundatis, fuscis, 5-10 mm. diam.; stromatibus epiphyllis, rarissime hypophyllis gregarie erumpentibus, subgloboso-depressis, botryoso-rugosis, atro-carbonaceis, opacis 1-1,5 mm. diam.; peritheciis subglobosis, immersis, pallidis; ascis clavatis vel subfusoideis, apice obtusis vel subacutiusculis, basi attenuatis, octosporis, 120-150 \times 17-25; paraphysibus filiformibus, hyalinis 3-4 μ . cr.; sporidiis oblique monostichis v. distichis, ovoideis v. ellipsoideis, 16-22 \times 12-14, hyalino-fuscidulis.

Hab. in foliis Lauracearum, Sao Paulo Brasiliæ.

6. **Auerswaldia Cecropiæ** P. Henn. Fungi Amaz. II, pag. 253. — 2932

Maculis rufo-brunneis, rotundatis; stromatibus erumpenti-superficialibus, applanato-pulvinatis, atro-carbonaceis, ruguloso-verrucosis, ca. 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, $50-80 \times 14-22$; paraphysibus filiformibus, hyalinis. sporidiis subdistichis, ellipsoideis vel ovoideis, continuis, utrinque rotundatis, primo hyalino-granulatis, dein fuscis, $13-18 \times 8-11$.

Hab. in foliis Cecropiæ spec., Rio Juruá Amazoniæ.

7. **Auerswaldia microthyrioides** P. Henn. in Hedw. 1904, p. 142. — 2933

Stromatibus innato-superficialibus epiphyllis, sparse gregariis paginam totam vestitibus, minutis, carbonaceis, rotundato-pulvinatis, atris, nitentibus, ostiolatis, margine plano subopaco circumdatis 0,3-1 mm. diam., 1 pauci-perithecigeris; ascis clavatis, apice rotundatis $35-45 \times 13-17$, octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis subdistichis, ellipsoideis, intus granulosis, hyalinis, dein fuscidulis, $9-13 \times 6-8$.

Hab. in foliis Fici erectæ, Tôchi-mura in prov. Tosa Japoniæ (YOSHINAGA).

8. **Auerswaldia quercicola** P. Henn. in Hedw. 1904, pag. 142. — 2934

Stromatibus epiphyllis, innato-superficialibus, gregariis, carbonaceis, atro-nitentibus, rotundato-pulvinatis, levibus 1-2 mm. diam.; peritheciis paucis immersis, globulosis; ascis clavatis, apice rotundatis, octosporis $90-130 \times 12-18$; paraphysibus copiosis, hyalinis filiformibus ca. 2-3 μ . crassis; sporidiis oblique monostichis vel distichis, ellipsoideis utrinque rotundatis, fusco-brunneis, basi subhyalino-papillatis $15-20 \times 8-10$; stromatibus conidiogenis æqualibus; basidiis ramosis, septatis 3-4 μ . crassis, hyalinis; sporulis acrogenis, fuscoideis, medio 1-septatis, biguttulatis, $10-20 \times 3,5-4$.

Hab. in foliis Quercus thalassicæ in prov. Tosa Japoniæ (YOSHINAGA).

9. **Auerswaldia quercina** G. Cam. in Revista Agronom. de Portugal. 2935

1903, n. 2, pag. 57, tab. VII, fig. 7 et tab. VIII, fig. 1-3. — Maculis nullis; stromatibus epiphyllis, subhemisphæricis (raro hypophyllis, irregularibus), plerumque in rachide dispositis, sæpe confluentibus, subsuperficialibus, magnitudine varia 1-4 mm., loculis omnino prominulis, haud immersis, inæqualibus, numerosis, lenticularibus vel subconoideis, minutis, $130-180 \times 60-80$, ostiolo indistincto, contextu albo fartis; ascis oblongis, apice rotundatis,

stipitatis, octosporis 70-75 \times 18-20, paraphysatis; sporidiis subcymbiformibus, levibus, continuis, pallide salmoneis, distichis, 18-25 \times 10-12, granulosis.

Hab. in foliis vivis *Quercus humilis*, S. Martinho do Bispo, prope Coimbra Lusitaniæ.

10. **Auerswaldia maxima** Masee in Kew Bull. 1901, pag. 166. — 2936

Stromatibus disciformibus, erumpentibus, rotundatis, seu irregularibus, atris, opacis, multilocularibus 1-2 cm. latis; loculis dense congestis, immersis; ascis cylindræis, octosporis, 120 \times 10; sporidiis monostichis, ellipsoideis, continuis, brunneis, opacis 12 \times 6-7.

Hab. in ramis emortuis in horto botanico Aburi, Gold Coast Africae occident. — *Auersw. disciformi* Wint. affinis.

Sect. 3. Hyalodidymæ.

MICROCYCLUS Sacc. in Ann. Mycol. 1904, p. 165 (Etym. *micros* et *cyclos* ob stromata minuta circularia). — Stromata superficialia, minuta, disciformia, atra; loculis immersis. Asci octospori. Sporidia oblonga, 1-septata, hyalina. — A *Dothidella* differt stromate superficiali, disciformi, sæpius minuto.

I. *Eu-Microcyclus*. Stromata a matrice non secedentia.

1. **Microcyclus angolensis** Sacc. et Syd. Ann. Myc. l. c. — Stromatibus in græges usque 5 mm. diam. dispositis, plerumque hypophyllis, superficialibus, in folio vivo subimmutato nascentibus, exiguis, disciformibus, 250 μ . diam., applanatis, rugulosis, aterrimis; loculis pluribus globosis, 70-80 μ . diam., ostiolis non emergentibus clavulatis, apice rotundatis, breviter stipitatis, 50-64 \times 12-15, octosporis; sporidiis distichis, oblongis, 1-septatis, loculo superiore latiore, hyalinis, 14-18 \times 3 $\frac{1}{2}$ -5.

Hab. in foliis vivis *Millettia Thonningii*, Angola Africae (WELWITSCH).

2. **Microcyclus scutula** (B. et C.) Sacc. l. c. = *Dothidella scutula* (B. et C.) Sacc. in Syll. II, p. 632.
3. **Microcyclus Osyridis** (Cke.) Sacc. l. c. = *Dothidella Osyridis* (Cke.) Berl. et Vogl., Addit. Syll. p. 240 — Syll. IX, p. 1038.
4. **Microcyclus Tassianus** (Sacc.) Syd. = *Dothidella Osyridis* subsp. *Tassiana* Sacc. in Bull. Soc. Myc. France 1896, p. 69 — Syll. XIV, p. 676.

5. **Microcyclus Bicchianus** (De Not.) Syd. l. c. = *Dothidella Bicchiana* (De Not.) Sacc. Syll. II, p. 633.
6. **Microcyclus Adenocalymmatis** (P. Henn.) Syd. l. c. = *Dothidella Adenocalymmatis* P. Henn. Hedw. 1895, p. 323 — Syll. XIV, p. 677.
7. **Microcyclus Mikaniæ** (P. Henn.) Syd. l. c. = *Dothidella Mikaniæ* P. Henn. in Hedw. 1902, p. 111. Cfr. infra p. 849.

II. *Chorisodonthis* S. et S. Stromata facile secedentia. = *Campoa* Speg.

8. **Microcyclus labens** Sacc. et Syd. Ann. Mycol. 1904, p. 165. — 2938
Stromatibus hypophyllis, superficialibus, immo facile secedentibus, disciformi-applanatis, ambitu suborbicularibus, 1 mm. latis v. confluendo latioribus, subcarbonaceis, opace nigris, superficie leviter colliculosa, intus imperfecte plurilocularibus, pallidioribus, ostioli non distinctis; ascis cylindraneo-clavatis, breve stipitatis, 50-80 \times 11-14, octosporis; paraphysibus apice ramulosis, subcoalescentibus; sporidiis irregulariter distichis, ellipsoideis, utrinque rotundatis, hyalinis, 12-15 \times 5-6, plasmate bipartito inæqualiter bilocularibus, denique leniter constrictis, loculo majore modo supero modo infero.

Hab. in foliis *Eugeniæ* spec., Concepcion in Chile frequens (F. W. NEGER). — Ob stroma superficiale a matrice facile secedens et loculos et ostiola non distincta forte novi generis typus (*Chorisodonthis* Sacc. et Syd.) = *Campoa* Speg.

PLOWRIGHTIA Sacc. — Syll. II p. 635, IX p. 1041, XI p. 376, XIV p. 680, XVI p. 628.

1. **Plowrightia Mali** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2939 p. 100 et Nachtr. I, p. 151, n. 449, *Plowrightia* spec. — Stromatibus erumpenti-subsuperficialibus, orbicularibus, nigris, 300-600 μ . diam., disco applanato, ostioli 5-15 minutis, vix prominulis, punctato; ascis tereti-clavatis 110-120 \times 12; sporidiis monosubdistichis, inæqualiter bi-cellularibus, utrinque acutulis, 25-35 \times 7-8, hyalinis vel chlorinis.

Hab. in ramis emortuis Piri Mali, Luxemburg.

2. **Plowrightia noxia** (Ruhl.) Sacc. et D. Sacc. *Dothidea noxia* Ruhl. 2940 in Centralbl. f. Bakter. 1904, XII, p. 252. — Stromatibus per majorem partem innatis, per corticem fissum tuberculari-erumpentibus, æqualiter et densiuscule sparsis, non confluentibus, plerumque transverse oblongo-ellipticis v. suborbicularibus, vix emergentibus, peridermii laciniis plus minus tectis, atris minutis, $\frac{1}{2}$ - $\frac{2}{3}$

raro 1 mm. latis; loculis 3-8-compluribus, plus minus periphericis, dense constipatis, parvis; ascis cylindraceo-clavatis, apice obtusatis, basi breviter tenuatis, 120-140 \approx 9-11,5; sporidiis oblique monostichis, rarissime subdistichis, fusoido-oblongis, utrinque obtusatis v. obtusiusculis, 1-septatis, ad septum valde constrictis, utraque cellula binucleatis, hyalinis, 18,5-22 \approx 4,5-6.

Hab. in cortice vivo *Quercus* nec non *Fagi* et *Castaneæ* Meklemburg Germaniæ borealis, socio statu pycnidico *Fusicocco noxio* Ruhl. — Arboribus indicatis species vere noxia.

3. **Plowrightia circumscissa** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 187. — Maculis latis; stromatibus dense sparsis, nigris subcutaneis dein erumpentibus in areis circumscissis, irregulariter ovatis vel suborbicularibus, raro confluentibus 0,8-1 mm. diam., ostiolis 3-8 in quoque stromate vel compluribus; ascis stipitatis, aparaphysatis, 60-80 \approx 16; sporidiis subdistichis, ovatis, 1-septatis, hyalinis, 20 \approx 5.

Hab. in foliis languidis *Agaves* spec., Longboat Key, Fla., Amer. bor.

4. **Plowrightia argentinensis** Speg. Myc. argent. ser. II, 1902, p. 76. — Stromatibus subsuperficialibus, a matrice cinerescente vel nigrefacta facile integre secedentibus 1-3 mm. diam. 0,5-1 mm. crass., superne planis sed etiam convexulis, inferne coarctatis applanatis, margine rotundatis non nitentibus, atris, carbonaceis opacis minutissime ostiolato-papillulosis; loculis numerosis ellipticis, 100-120 \approx 125-150; ascis clavulatis, breviter pedicellatis, paraphysatis 50-60 \approx 6-8, densiuscule paraphysatis; sporidiis oblique subdistichis, utrinque acutis, 16 \approx 3, sæpe subcurvulis, loculis subæquilongis grosse 1-guttulatis.

Hab. ad culmos aridos *Setariæ* cujusdam prope Mendoza et in culmis subemortuis *Gymnopogonis* spec. pr. Rufino in Argentina. — Species eximia habitu fere *Hypocreæ* cujusdam, sed stromatibus atris, carbonaceis mox dignoscenda.

DOTHIDELLA Speg. — Syll. II p. 627, IX p. 1036, XI p. 375, XIV p. 676, XVI p. 626.

1. **Dothidella Melicyti** Syd. Ann. Myc. 1904, p. 164. — Stromatibus amphigenis, rotundatis vel subrotundatis, innatis, $\frac{1}{2}$ -1 $\frac{1}{2}$ mm. diam., atris, rugulosis; loculis numerosis; ascis cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 45-65 \approx 9-12, octosporis; sporidiis distichis, subnavicularibus v. subfusoides, utrinque atte-

nuatis, sed obtusiusculis, rectis vel leniter inæquilateris, medio 1-septatis, non constrictis, hyalinis, $20-24 \approx 3\frac{1}{2}-5$.

Hab in foliis vivis Melicyti ramiflori, Highcliff, South Island Novæ Zealandiæ (L. COCKAYNE).

2. **Dothidella Serjanix** P. Henn. in Hedw. 1904, p. 87. — Stroma-²⁹⁴⁴
tibus ramicolis, erumpenti-superficialibus, gregariis confluentibus, pulvinatis, fusco-brunneis, opacis, rugulosis, 2-5 mm. diam.; peritheciis immersis, subovoideis; ascis clavatis, apice rotundatis octosporis, $40-55 \approx 10-16$; sporidiis oblique monostichis vel distichis oblonge clavatis vel fusoides, utrinque obtusis, rectis v. subcurvulis, medio 1-septatis paullo constrictis, hyalinis $12-18 \approx 4-5,5$.

Hab. in ramulis Serjanix spec., Corcovado, Rio de Janeiro Brasilix (E. ULE).

3. **Dothidella Pterolobii** Rostr. in Bot. Tidsskrift Copenhagen, 1902, ²⁹⁴⁵
vol. 24, p. 212. — Stromatibus hypophyllis, oblongis, pulvinatis, fusco-nigris, 0,5-1 mm. longis; ascis obsoletis; sporidiis hyalinis, oblongo-clavatis, 1-septatis, $11-12 \approx 4-5$.

Hab. in foliis Pterolobii Schmidtiani, Siam Asiæ merid.

4. **Dothidella lonchocarpicola** P. Henn. Fungi Amaz. II, p. 255. — ²⁹⁴⁶
Maculis fuscidulis effusis; stromatibus hypophyllis gregariis, innato-superficialibus, rotundato-pulvinatis, subplanis, atris, subnitentibus, ca. 0,3-0,4 mm. diam.; peritheciis paucis, immersis, globulosis, minute ostiolatis; ascis subfusoides, apice attenuatis, rotundatis, 8-sporis, $60-70 \approx 7-9$; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis v. distichis, oblonge fusoides utrinque acutis, rectis vel curvulis, guttulatis, medio 1-septatis vix constrictis, hyalinis, $15-22 \approx 4-4\frac{1}{2}$.

Hab. in foliis Lonchocarpi spec., Marary, Rio Juruá Amazoniæ. — Sporidia subinde simulate pluriseptata.

5. **Dothidella machæriophila** P. Henn. Fungi Amaz. p. 256. — ²⁹⁴⁷
Maculis flavido-brunneolis, rotundatis; stromatibus epiphyllis, gregarie sparsis, atro-carbonaceis, rotundato-pulvinatis, rugulosis, $1-1\frac{1}{2}$ mm. diam.; peritheciis subglobosis immersis; ascis subfusoides vel subclavatis, apice obtusiusculis, 8-sporis, $50-70 \approx 7-9$; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, medio 1-septatis, vix constrictis, $8-10 \approx 4\frac{1}{2}-5\frac{1}{2}$, atris.

Hab. in foliis Machærii spec., Fortaleza, Rio Juruá Amazoniæ.

6. **Dothidella Piptadeniæ** P. Henn. Fungi Amaz. II, p. 254. — ²⁹⁴⁸

culis fuscidulis, effusis; stromatibus innato-epiphyllis gregariis, rotundato-pulvinatis, atro-nitentibus, minutis, ca. 250 μ . diam.; peritheciis singularibus vel paucis, immersis; ascis clavatis, apice rotundatis, 8-sporis, 50-70 \approx 12-17, paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ crassis; sporidiis oblique monostichis vel subdistichis, ovoideis, submedio 1-septatis, constrictis, cellula superiori majori, cellula inferiori subtriquetra subcurvula, 11-13 \approx 6-7.

Hab. in foliis *Piptadeniæ* spec. Tarapoto, Perù. — Stromate perexiguo *Stigmateam* in memoriam revocat.

7. **Dothidella Parkiæ** P. Henn. Fungi Amaz. II, p. 254 — Maculis ²⁹⁴⁹ fuscidulis effusis; stromatibus epiphyllis, erumpente-superficialibus, minutis, rotundato-pulvinatis, atro-nitentibus; peritheciis paucis immersis; ascis clavatis, rotundato-obtusis, 50-60 \approx 16-20, 8-sporis; paraphysibus filiformibus, hyalinis ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, fusoideis, acutiusculis, submedio 1-septatis, intus granulatis, 13-18 \approx 5-7.

Hab. in foliis *Parkiæ* spec., Rio Juruá Amazoniæ. — Stromata exigua non raro perithecium unicum foventia.

8. **Dothidella yapensis** Henn. in Hedw. 1902, pag. (64). — Maculis ²⁹⁵⁰ fuscidulis, rotundatis; peritheciis hypophyllis interdum epiphyllis, gregariis, rotundato-pulvinatis sæpe confluentibus 0,5-1 mm. diam., verrucoso-papillatis, carbonaceo-atris, opacis; peritheciis plerumque paucis, subglobosis; ascis oblonge clavatis, apice obtusiusculis, basi curvulis, octosporis 50-70 \approx 9-14; paraphysibus filiformibus hyalinis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, hyalinis, medio 1-septatis, haud constrictis 7-10 \approx 4-5.

Hab. in foliis vivis *Derridis* ellipticæ, Yap in insulis Carolinis (G. VOLKENS).

9. **Dothidella mararyensis** P. Henn. Fungi Amaz. III, 1904, p. 369. ²⁹⁵¹ — Maculis flavo-brunneis, rotundatis; stromatibus innatis, amphigenis rotundatis, applanatis, atris, ca. 1-2 mm. diam.; ostiolis subhemisphericis, nitentibus; peritheciis subglobosis; ascis clavatis v. subfusoideis, rotundatis v. subacutiusculis, 8-sporis, paraphysatis, 50-60 \approx 10-12; sporidiis oblique monostichis vel distichis, oblonge fusoideis vel subclavatis, 2-3-guttulatis, primo continuis, deinde medio 1-septatis vix constrictis, 13-16 \approx 4 $\frac{1}{2}$ -5 $\frac{1}{2}$, hyalinis.

Hab. in foliis *Meliaceæ* cujusdam, Marary, Rio Juruá Amazoniæ.

10. **Dothidella huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 369. ²⁹⁵²

— Maculis fuscidulis v. pallidulis, rotundatis; stromatibus innato-erumpentibus concentricè dispositis, hemisphæricis, rugulosis, atris, opacis, ca. 180-250 μ .; peritheciis immersis, subglobosis; ascis clavatis vel subfusoides, 8-sporis, paraphysatis, 50-60 \times 13-15; sporidiis oblonge clavatis, rectis v. curvulis, hyalinis, medio 1-septatis vix constrictis, hyalinis, 20-25 \times 4-5.

Hab. in foliis Saururacæe cujusdam Cerro de Escaler, Perù.

11. **Dothidella Arechavaletæ** Speg. Myc. argent. ser. II, 1902, p. 76. 2953

— Stromatibus amphigenis, hypophyllis vix prominulis tectis, epiphyllis magis prominulis, atris, innatis, subgloboso-lenticularibus, laxè gregariis, 0,3-0,5 mm. diam.; loculis in quoque stromate 1-5, globosis, e mutua pressione angulosis 100-120 μ . diam.; ascis apice obtuse rotundatis crassiusculeque tunicatis 60-65 \times 10, brevissime pedicellatis, octosporis, aparamphysatis; sporidiis rectis v. leniter curvulis 22 \times 4, utrinque subobtusiusculis, subclavulatis, medio 1-septatis, non v. constrictis hyalinis, an tandem 3-septatis atque chlorinis?

Hab. in foliis vivis Ocoteæ acutifoliæ prope Montevideo, in Uruguay.

12. **Dothidella Mikaniæ** P. Henn., Fungi S. Paulenses I, in Hedw. 2954

1902, p. 111. — Stromatibus epiphyllis sparsis, minutis, pulvinato-verrucosis, atris, subcarbonaceis, opacis, 0,3-0,8 mm. diam., peritheciis globulosis ca. 150-200 μ . diam.; ascis clavatis, apice obtusis, basi attenuato-stipitatis, octosporis, 50-65 \times 12-16; paraphysibus filiformibus, hyalinis ca. 1,5 μ . cr.; sporidiis oblique monostichis vel distichis, ovoideis, ellipsoideis vel subfusoides, medio 1-septatis, loculis 1-guttulatis, 10-14 \times 4-5, hyalinis.

Hab. in foliis Mikaniæ pr. S. Paulo Brasiliæ. Cfr. supra p. 845.

13. **Dothidella Ulei** P. Henn. Fungi Amaz. II, p. 254. — Stromati- 2955

bus erumpenti-superficialibus cæspitose congestis, ovoideis, carbonaceo-atris, rugulosis, ca. $\frac{1}{3}$ -3 mm. diam.; peritheciis paucis, ovoideis immersis; ascis clavatis, rotundato-obtusis, 8-sporis, paraphysatis, 50-80 \times 10-16; sporidiis subdistichis, oblonge clavatis, hyalinis, medio 1-septatis, haud constrictis, 13-20.

Hab. in foliis Hevæ brasiliensis, Rio Juruá Amazoniæ.

14. **Dothidella Coutoubæ** P. Henn. Fungi Amaz. II, pag. 254. — 2956

Stromatibus epiphyllis gregarie sparsis, innato-erumpentibus, rotundato-pulvinatis, planis, atris, punctoideo-ostiolatis, ca. 1-2 mm. diam.; peritheciis immersis subglobosis v. ovoideis; ascis fusoides, subobtusis, 8-sporis, 70-90 \times 6-9; paraphysibus filiformibus, hyali-

nis, 1 μ . crassis; sporidiis oblique monostichis vel subdistichis, fusoides vel ovoideis, medio 1-septatis vix constrictis, hyalinis, 10-12 \approx 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis *Coutoubeæ guyanensis*, Manáos, Rio Negro Amazoniæ.

15. **Dothidella Kusanoi** P. Henn. in Hedw. 1904, p. 143. — Maculis 2957
fuscidulis rotundatis ca. 5 mm. diam.; stromatibus erumpenti-superficialibus, epiphyllis, circulariter dispositis, minutis, hemisphærico-pulvinatis, carbonaceis, atris nitentibus; peritheciis 1- v. paucis ca. 200 μ . d. globulosis; ascis clavatis, obtuse rotundatis, 4-8-sporis, paraphysatis 80-90 \approx 30-40; sporidiis subdistichis oblongis, utrinque rotundatis, ad basim 1-septatis vix constrictis, 25-35 \approx 15-20 hyalinis.

Hab. in foliis *Quercus glaucæ* in Mt. Takao Japoniæ (KUSANO).

16. **Dothidella betulina** (Fr.) Sacc. — Syll. II, p. 628. — var. **yakutatiana** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. pag. 27. 2958
pl. V, fig. 15. — Stromatibus innato-erumpentibus, pulvinato-applanatis, subtilissime punctulatis, atris, 5 mm. diam.; loculis minutissimis, globulosis, 50 μ . diam., ostiolo pertusis; ascis oblongo-cylindræis, apice rotundatis, deorsum nonnunquam incrassatulis, subsessilibus, 40-48 \approx 10-12, octosporis; sporidiis subdistichis vel polystichis, obovato-cuneatis, apice rotundatis, basi acutatis, 1-septatis, non constrictis, eguttulatis, 10-12 \approx 3-4, e chlorino hyalinis.

Hab. in foliis emortuis arboris ignotæ, Yakutat Bay Alaska (TRELEASE).

17. **Dothidella Heliconiæ** P. Henn. Fungi Amaz. p. 255. — Maculis 2959
effusis, fuscis; stromatibus gregarie erumpentibus, oblongis, ruguloso-verrucosis, atris, subcarbonaceis, 1-3 mm. diam.; peritheciis subglobosis verrucoso-papillatis; ascis clavatis, obtusis, 8-sporis, 70-75 \approx 7-8; paraphysibus filiformibus, hyalinis; sporidiis subdistichis oblonge fusoides vel clavatis, medio 1-septatis hyalinis 10-12 \approx 3 $\frac{1}{2}$ -4.

Hab. in foliis *Heliconiæ* spec., Rio Juruá Amazoniæ. — Ob exemplaria male evoluta species aliquantum incerta.

18. **Dothidella scleriicola** P. Henn. Fungi Amaz. II, pag. 253. — 2960
Stromatibus amphigenis gregariis, innato-erumpentibus minutis, oblonge vel rotundato-pulvinatis, atro-nitentibus ca. 250 μ .; peritheciis paucis, immersis; ascis clavatis rotundatis, 8-sporis, 60-80 \approx 12-17 paraphysatis; sporidiis oblique monostichis v. distichis ob-

longe fusoides vel clavatis, subobtusis, $20-25 \approx 4\frac{1}{2}-5\frac{1}{2}$, guttulis, medio 1-septatis haud constrictis, hyalinis.

Hab. in foliis *Scleriæ* spec., prope Rio Juruá Amazoniæ. — Cum *Phyllachora Scleriæ* ascis late clavatis et sporidiis bilocularibus non confundenda.

19. **Dothidella minima** Sacc. et Syd. Ann. Mycol. 1904, pag. 164. — 2961

— Stromatibus sparsis vel laxe gregariis, plerumque hypophyllis, minutissimis, vix 250μ . longis, innato-erumpentibus, applanatis, ambitu oblongo-quadraticis, nigris; loculis in quoque stromate pluribus, globulosis, $45-60 \mu$. diam.; ascis tereti-clavatis, apice rotundatis, breve noduloso-stipitatis, $45-50 \approx 8,5-9$, octosporis aparaphysatis (?); sporidiis distichis vel oblique monostichis, fusoides-oblongis utrinque obtusulis, $11-12 \approx 2\frac{1}{2}-3$, medio 1-septatis, non vel vix constrictis, hyalinis:

Hab. in foliis languidis *Arundinariæ macrospermæ*, New Orleans, Louisiana Americæ bor. — Minutie stromatis et loculorum mox dignoscitur.

20. **Dothidella tosensis** P. Henn. Pilze Jap. II, p. 152. — Stromatibus 2962

amphigenis, oblongis striiformibus, primo tectis dein erumpentibus, atris, ca. $0,5-1$ mm. longis, $200-250 \mu$. latis; peritheciis sparsis, subglobosis, immersis; ascis cylindraco-clavatis, obtusis breve stipitatis, 8-sporis, paraphysatis, $60-70 \approx 6-7$; sporidiis oblique monostichis ellipsoideis vel ovoideis, obtusis, guttulatis, hyalinis, medio 1-septatis, $7-12 \approx 5-6$.

Hab. in foliis *Agrostidis perennantis*, Komodsomura, Tosa Japoniæ.

21. **Dothidella platensis** Speg. Myc. argent. ser. II, 1902, p. 76. — 2963

Maculis nullis v. pallescentibus, effusis, indeterminatis; stromatibus amphigenis, elliptico-linearibus, opacis, levibus $0,5-1$ mm. long. $0,2-0,3$ mm. diam.; loculis constipatis, globosis, $150-200 \mu$. diam., ostiolo minutissimo non vel vix prominulo donatis; ascis cylindraco-clavulatis dense paraphysatis $100-120 \approx 12-14$; paraphysibus filiformibus; sporidiis monostichis vel distichis, rectis oblanceolatis v. subovatis, $22 \approx 8$, medio-septatis, non constrictis, loculo supero obtusiusculo, infero acutissimo fere cuspidato.

Hab. ad folia viva *Paspali platensis* prope La Plata in Argentina.

22. **Dothidella Setariæ** Sacc. Notæ mycologicæ in Syd. Ann. Mycol. 2964

1903, n. 1, p. 25. — Stromatibus epiphyllis, dense gregariis, tenuibus, oblongis, brunneo-atris, vix $\frac{1}{4}$ mm. long., superne strato

unico cellularum 5-7 μ . diam. formatis, intus (saltem initio) sub-unilocularibus; ascis clavato-oblongis, brevissime stipitatis, 48-55 \times 18, spurie paraphysatis; sporidiis distichis oblongo-clavulatis medio 1-septatis constrictisque, 16 \times 6, hyalinis, farctis; stromatibus pycnidicis similibus et intermixtis; sporulis oblongis, utrinque rotundatis, 10 \times 3, biguttulatis, hyalinis, basidiis bacillaribus 10-12 \times 2,5-3 suffultis.

Hab. in foliis adhuc vivis *Setariæ glaucæ*, Montello (Treviso) Italiæ borealis. — Status pycnidicus est *Phyllachora? Setariæ* Sacc. Syll. II, p. 623, *Placosphaeria Setariæ* Sacc. nuncupandus.

23. **Dothidella Stübelii** P. Henn. Pilz. Costar. u. Parag. p. 148. — 2965

Stromatibus foliorum marginalibus, pulvinatis, atris, opacis, verrucosis ca. 0,3-0,5 mm. diam.; peritheciis immersis, hemisphærico-ostiolatis; ascis clavatis, obtusis, 8-sporis, 45-60 \times 7-10; paraphysibus filiformibus septatis; sporidiis oblique monostichis vel subdistichis, subclavatis vel subfusoides, obtusis, subcurvulis, 8-11 \times 2 $\frac{1}{2}$ -3 $\frac{1}{2}$, hyalinis, medio 1-septatis, haud constrictis.

Hab. in foliis *Pteridis deflexæ*, Bogota Columbiae (A. STÜBEL).

ROSENSCHELDIA Speg. — Syll. IX p. 1036.

1. **Rosenscheldia paraguayana** Speg. — Syll. IX, pag. 1036. — Cfr. Speg., Not. synonym. p. 9, in Ann. Mus. Nac. Buen. Ayres 1903, tomo IX. — Huc spectat *Ophioceras Hyptidis* Henn. (1897), teste cl. Spegazzini l. c.

Sect. 4. Phæodidymæ.

DOTHIDEA Fr. — Syll. II p. 639, IX p. 1043, XI p. 377, XIV p. 680, XVI p. 628.

1. **Dothidea papilloideo-septata** P. Henn. Fungi Amaz. II, p. 256. — 2966
— Maculis rotundatis fusco-brunneis, subconcavis; stromatibus hypophyllis sparsis, subatro-carbonaceis, rotundato-pulvinatis, 2-3 mm. diam., ruguloso-verrucosis, ostiolis subacutis; peritheciis immersis, subglobosis; ascis clavatis, apice rotundatis, 8-sporis, 30-50 \times 7-13; paraphysibus filiformibus; sporidiis oblique monostichis v. distichis oblonge ovoideis v. ellipsoideis, rectis v. subcurvulis, utrinque obtusis, ad basim 1-septatis, constrictis, loculo superiore

majusculo, loculo inferiore subpapillato, ca. 3 μ ., rufo-brunneis, 10-13 \approx 4-5 $\frac{1}{2}$.

Hab. in foliis Sapindaceæ cujusdam Marary, Rio Juruá Amazoniæ. — Sporidiis basi septatis prædistincta species.

2. **Dothidea Centrolobii** P. Henn. Fungi Amaz. II, p. 255. — Ma- 2967
culis fuscidulis vel obsoletis; stromatibus epiphyllis, pulvinatis v. subhemisphæricis, rugulosis, carbonaceis, atro-castaneis, opacis, 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, 60-80 \approx 8-13; paraphysibus filiformibus, hyalinis, 1 $\frac{1}{2}$ μ . crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subovoideis, utrinque rotundatis vel subapplanatis, medio 1-septatis, atro-castaneis, 8-13 \approx 5-7.

Hab. in foliis Centrolobii spec. Tarapoto, Perù. — A *Phyl-lachora centrolobiicola* stromatibus rugosis atro-brunneis mox distincta.

3. **Dothidea tubaraoensis** P. Henn. in Hedw. p. 88. — Stromatibus 2968
corticis, innato-erumpentibus, sparsis vel gregariis confluentibusque, subhemisphærico-pulvinatis, rugosis, atro-fuscis 1-3 mm. diam.; peritheciis immersis, subglobosis; ascis cylindræo-clavatis, obtusis, octosporis, 70-90 \approx 8-12; paraphysibus copiosis, hyalinis, filiformibus 1,5-2 μ . crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, haud constrictis 11-15 \approx 5-7, atro-castaneis.

Hab. in corticibus Leguminosæ cujusdam, Tabarao, St. Catharina Brasiliæ (E. ULE).

4. **Dothidea mauaensis** P. Henn. in Hedw. 1904, p. 88. — Maculis 2969
fuscidulis rotundatis; stromatibus hypophyllis superficialibus rotundatis, applanatis v. subglobosis, rugulosis, atro-castaneis subnitentibus vel opacis c. 1-4 mm. diam.; peritheciis immersis subglobosis; ascis clavatis apice rotundatis, 60-90 \approx 12-16; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis vel distichis, ellipsoideis, primo hyalinis, continuis, dein medio 1-septatis, constrictis, brunneis, 8-12 \approx 5-8.

Hab. in foliis Dalbergiaceæ cujusdam, Maua, Rio de Janeiro Brasiliæ.

5. **Dothidea orgaosensis** P. Henn. in Hedw. 1904, p. 87. — Maculis 2970
flavidulis explanatis; stromatibus innato-epiphyllis, gregariis, interdum paginam omnino tegentibus confluentibusque, rotundato-pulvinatis, atro-nitentibus, ca. 1 mm. diam.; peritheciis immersis subglobosis; ascis clavatis, apice obtusis, octosporis, 100-150 \approx 9-12;

paraphysibus copiosis hyalinis; sporidiis oblique monostichis, ovoideis, superne rotundatis, medio vel ad basim 1-septatis, constrictis, castaneis $12-17 \approx 5-7$.

Hab. in foliis *Eugeniæ* spec., Serra dos Argãos, Rio de Janeiro Brasiliæ (E. ULE).

6. **Dothidea juruana** P. Henn. Fungi Amaz. III, 1904, pag. 369. — 2971

Maculis subrotundatis vel effusis, fuscidulis; stromatibus gregariis sæpe confluentibus, subcirculatim dispositis v. nervos sequentibus, subhemisphærico-pulvinatis, rugulosis, ca. $150-250 \mu$., atris, opacis; peritheciis subglobosis; ascis clavatis, apice rotundatis, paraphysatis, 8-sporis, $55-70 \approx 7-10$; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, primo hyalinis, continuis, dein flavido-brunneolis, medio 1-septatis, $13-15 \approx 4\frac{1}{2}-5$.

Hab. in foliis *Ebenaceæ* cujusdam Marary, Rio Juruá Amazoniæ (E. ULE).

7. **Dothidea Daphnopsidis** P. Henn. in Hedw. 1904, p. 87. — Maculis 2972

subsanguineis vel obsolete; stromatibus amphigenis, erumpenti-superficialibus, rotundato-lenticularibus vel pulvinatis, rugulosis, atro-nitentibus, punctato-ostiolatis, ca. 2-4 mm. diam.; peritheciis immersis, numerosis, prominulis, ovoideis; ascis clavatis, vertice rotundatis ca. $90-120 \approx 12-15$, octosporis; paraphysibus copiosis, hyalinis, apice 3μ . cr.; sporidiis oblique monostichis vel subdistichis oblonge ellipsoideis, primo 2-4-guttulatis, continuis, hyalino-flavidulis dein medio 1-septatis, constrictis, atro-castaneis $13-18 \approx 6-7,5$.

Hab. in foliis *Daphnopsidis* spec, Tjiuca, Rio de Janeiro Brasiliæ (E. ULE).

PHÆODOTHIS Syd. Ann. Mycol. 1904, p. 166 (Etym. *phaios* ater et *dothis* pro *Dothidea*). — Stromata innata, effusa, subplana, atra: loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Dothidella*, cui proxime accedit, differt sporidiis coloratis, nec hyalinis.

1. **Phæodothis Tricuspidis** Syd. l. c. — Stromatibus in utraque folii 2973

pagina conspicuis, maculis pallescentibus indeterminatis insidentibus vel folia tota infecta decolorantibus, sparsis v. sæpe seriatim dispositis confluentibusque, solitariis ellipticis vel oblongis usque 1 mm. longis, confluentibus usque $\frac{3}{4}$ cm. longis, innatis, atris, opacis vel vix subnitentibus; ascis cylindræis, apice rotundatis,

breviter stipitatis, 62-75 \approx 9-11, octosporis; sporidiis oblique mono- v. subdistichis, fusiformibus, medio 1-septatis, leniter constrictis, utrinque attenuatis, sed apicibus obtusis, olivaceo-brunneis, 13-17 \approx 4 $\frac{1}{2}$ -5.

Hab. in foliis *Tricuspidis latifoliæ*, San José, Salta Argentina (P. G. LORENTZ).

2. **Phæodothis caaguazuensis** (Speg.) Syd. = *Dothidella caaguazuensis* Speg. — Syll. IX, pag. 1039. — Sporidia ex hyalino dilute fusca vel chlorina, elongato-clavulata.
3. **Phæodothis effusa** (A. L. Smith) Syd = *Dothidella effusa* A. L. Smith — Syll. XIV, p. 678. — Sporidia fusca.
4. **Phæodothis Yuccæ** (Ell. et Ev.) Sacc. *Dothidea Yuccæ* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19. — Huc ducenda est *Phyllachora? Yuccæ* Ell. et Ev. — Syll. XIV, p. 670. — Stromatibus amphigenis, folii parenchymate immersis; ascis oblongo-cylindraceis 75-80 \approx 10-12; sporidiis biseriatis, ovato-oblongis, luteo-brunneis 1-septatis, 12-15 \approx 5-6, ad septa constrictis. Cetera ut in diagnosi Syll. l. c.

Hab. in foliis *Yuccæ angustifoliæ*, Maniton, Colorado, Amer. bor. (E. T. HARPER).

HYPOXYLOPSIS P. Henn. Fungi Amaz. II, p. 256 (1904) (Etym. *Hypoxylo* et *opsis* aspectus). — Stromata crasse pulvinata, tuberculata, sublignoso-coriacea, nigricantia. Perithecia immersa ostiolata. Asci cylindranei, 8-spori paraphysati; sporidia ellipsoidea, 1-septata, fusca. — *Plowrightiæ* et *Dothideæ* affinis sed stromata diversa, *Hypoxylo* simillima.

1. **Hypoxylopsi Huræ** P. Henn. l. c. cum icone. — Stromatibus trunciculis, erumpenti-superficialibus, sublignoso-coriaceis, firmis, duris, convexo-pulvinatis, crassis, rugoso-tuberculatis, atrovinosi v. atrofusci, pruinosi ca. 5 mm. 4 cm. diam., ostiolis subhemisphæricoprominulis, atris; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraneo-clavatis, apice rotundatis, 8-sporis, 70-80 \approx 7-10; paraphysibus filiformibus, hyalinis, 2-3 μ . crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, 8-13 \approx 6-8, atro-castaneis; contextu atrovinoso subcoriaceo.

Hab. in truncis emortuis *Huræ* crepitantis, Bom Fim, Rio Juruá Amazoniæ. — Facies *Hypoxyli* sed fabrica dothideacea. Uda succum vinosum exsudat.

MAURODOTHIS Sacc. et Syd. Ann. Mycol. 1904, pag. 166 (Etym. *mauros* nigrita et *dothis* poro Dothidea). — Stromata superficialia v. subsuperficialia, minuta, disciformia, atra; loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Phæodothide*, cui sporidiis similis, differt stromate superficiali, disciformi.

1. **Maurodothis Alyxiæ** Sacc. et Syd. l. c. — Stromatibus hypophyl-²⁹⁷⁵lis, superficialibus, aterrimis, concentricè dispositis, centralibus latioribus, applanatis, usque 1 mm. latis, plurilocellatis, periphericis minoribus 1-2-locellatis, omnibus ostioli obtusis nitidis præditis; ascis clavato-saccatis, apice rotundatis, breviter stipitatis, 52-70 × 18-28, octosporis; sporidiis distichis vel tristichis, constricto-didymis, utrinque rotundatis, ex hyalino brunneis, 21-24 × 8-10¹/₂; paraphysibus filiformibus.

Hab. in foliis *Alyxiæ buxifoliæ*, Australia (R. BROWN). — An *Doth. Alyxiæ* Mass. eadem sit, ob diagnosim insufficientem dubium manet. Genera *Dothideacearum didymospora* ita distinguuntur:

	I. Sporidia hyalina.	II. Sporidia colorata.
Stroma sepius effusum, innatum	} <i>Dothidella</i> Speg. } <i>Munkiella</i> Speg.	<i>Phæodothis</i> Syd.
Stroma disciforme, superficiale.	} <i>Microcyclus</i> Sacc.	<i>Maurodothis</i> Sacc. et Syd.
Stroma innatum, erumpens, pulvinatum.	} <i>Rosenscheldia</i> Speg. } <i>Plowrightia</i> Sacc.	<i>Dothidea</i> Fr. <i>Roussoella</i> Sacc.

Sect. 5. Hyalophragmiæ.

DARWINIELLA Speg. — Syll. IX p. 1048.

1. **Darwiniella gracilis** Speg. Myc. argent. ser. II, 1902, p. 77. Huc²⁹⁷⁶ duceuda est *Dothidella? gracilis* Speg. — Syll. II, pag. 633. — Sporidiis maturis tandem 3-septatis, 22-24 × 4-5, ad septa leniter constrictis, utrinque obtusiusculis, hyalinis v. leniter subchlorinis; ascis subcylindræis, 70-80 × 8-10, paraphysibus paucissimis obvallatis.

Hab. ad folia viva *Acnisti* cujusdam, in dumetis prope Cafayate Argentinae.

Sect. 6. Phæophragmiæ.

HOMOSTEGIA Fuck. — Syll. II, p. 649, IX p. 1049, XIV p. 683, XVI p. 631.

1. **Homostegia leucosticta** Pat. in Duss, Enum. Champ. Guadel. 1903, 2977 p. 78. — Stromate orbiculari peridermio immerso, vix emergente, nigro, supra plano, 5 mm. ostiolis late apertis albo-punctato; peritheciis ovoideis, numerosis, 130-160 μ . diam., nucleo albo; ascis cylindræis, 60-80 \times 12-14, octosporis, copiose filiformi-paraphysatis; sporidiis ovoideis, non constrictis, 10-14 \times 5-7, diu incoloribus, demum fuligineis, 2-3-septatis, loculis guttulam lucidam continentibus.

Hab. in truncis vetustis putridis, Sainte-Rose Guadalupæ (Duss).

RHOPOGRAPHUS Nitschke — Syll. II p. 647, XI p. 378, XVI p. 630.

I. *Eu-Rhopoglyphus*.

1. **Rhopoglyphus Chamæmori** E. Rostr. Rorske Ascom. 1904, p. 13 2978 (Vidensk. Skrift.). — Stromatibus innatis, gregariis vel confluentibus, nigris, oblongis v. breve lineatis, depressis, minutis; loculis immersis; ascis cylindræis 100-115 \times 10-12; sporidiis monostichis, oblongo-ellipsoideis initio didymis, hyalinis, dein 3-septatis, flavidis, 18-20 \times 7-10, sæpe utrinque hyalino-appendiculatis.

Hab. in caulibus Rubi Chamæmori, Gjelfos Norvegiæ.

2. **Rhopoglyphus caulicola** Oud. Nederl. Kruidk. Arch. 1902, II, 2979 p. 712. — Stromatibus sub epidermide atrata et nitida nidulantibus ex loculis minutis compositis, parenchymaticis impellucidis, longitudinaliter dispositis 2-3 cm. longis 0,5-1 cm. latis, subinde confluentibus, primo levibus, dein colliculosis, loculis inæqualiter dispositis 0,5-1 mm. diam., partim ascigeris, partim pycnidicis; ascis cylindræis 80-100 \times 7, spurie paraphysatis, octosporis; sporidiis fusoides, curvis, utrinque acutis, 3-septatis, non constrictis 23 \times 3,5 pallide olivaceis; sporulis orbicularibus 2-2,3 μ . diam. melleis.

Hab. in caule Umbelliferæ cujusdam indet., Valkenberg Hollandiæ (J. Rick.).

3. **Rhopoglyphus Bakeri** Earle in New York Bot. Gard. 1902, p. 350. 2980 — Stromatibus subsuperficialibus, interdum confluentibus, nigris

1-1,5 mm. long. 350-500 μ . crass.; peritheciis 2-3 in quoque stromate, subprominentibus; ascis cylindraceutis 40-50 \times 8; paraphysibus filiformibus; sporidiis distichis, subcylindraceutis, fuscis 3-septatis, valde constrictis, cellula mediana majore, 16 \times 4.

Hab. in caulibus plantæ ignotæ, Massinga, prope Santa Marta, Columbia, Amer. austr. (C. F. BAKER.).

II. *Rhopographella* P. Henn. Sporidia subhyalina.

4. **Rhopographus Gaduæ** P. Henn. Fungi Amaz. II, p. 257, c. icon. 2981
— Stromatibus culmicolis striiforme erumpentibus, pulvinato-effusis, confluentibus oblonge pulvinatis, crassis, atris, ruguloso-tuberculatis vel rimosis, usque ad 5 cm. longis, ostioliis hemisphærico-prominulis; peritheciis immersis, subglobosis; ascis cylindraceuto-clavatis, apice rotundatis, 8-sporis, 120-160 \times 15-20; paraphysibus filiformibus, fasciculatis, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, mucosis, 25-35 \times 5-6, utrinque rostratis, rostro 5-6 \times 2, 3-dein 5-septatis, subconstrictis, hyalino-cyanescentibus.

Hab. in culmis Gaduæ, Juruá-Miry, Rio Juruá Amazoniæ.

5. **Rhopographus Gynerii** P. Henn. Fungi Amaz. III, p. 369, 1904, 2982
cum icon. — Maculis fuscidulis; stromatibus amphigenis gregariis lineare vel striiforme erumpentibus, epidermide pallida rimosavelatis, ca. 2-2 1/2 mm. longis subatris, subhemisphærico-ostiolatis, peritheciis globulosis seriatis; ascis subfusoides-clavatis, 8-sporis, 60 \times 90 \times 10-14; paraphysibus filiformibus, hyalinis, ca. 2 μ . crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoides, utrinque subobtusis vel subacutiusculis, 4-guttulatis, dein 3-septatis paullo constrictis, hyalinis, haud flavescentibus, 17-20 \times 3 1/2-4.

Hab. in foliis Gynerii saccharoidis, Juruá-Miry, Rio Juruá Amazoniæ.

Sect. 7. Phæodictyæ.

CURREYA Sacc. — Syll. II p. 651, IX p. 1051, XI p. 378, XIV p. 684, XVI p. 632.

1. **Curreya rhoïna** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2983
p. 101. — Stromatibus sparsis, erumpentibus, epidermide rupta demum cinctis, subrotundis vel ellipsoideis, plano-convexis, atrobrunneis, 1-1,5 mm. long. et 100-300 μ . alt., intus griseo-flavidis;

peritheciis (loculis) parvis, subsuperficialibus, subglobosis, pallidis, ostioli punctiformibus, demum umbilicatis, vix emergentibus; ascis cylindricis, apice rotundatis, breve crasse stipitatis, octosporis, $68-86 \approx 8,5-10,5$; sporidiis 1-2-stichis, oblongo-ellipsoideis, rectis, 5-septato-muriformibus, medio profundius constrictis, pallide flavis $15,5-21 \approx 7-8,5$.

Hab. in ramis corticatis *Rhois typhinæ*, Luxemburg. — Forte *Dothiora cellulosa* (Wallr.) Sacc. cum hac specie collidit. Status secundarios describit Feltg. l. c.

Sect. 8. Scolecosporæ.

MYRIOGENOSPORA Atk. — Syll. XIV p. 685.

1. **Myriogenospora Bresadoleana** P. Henn. Fungi blumenavienses II, 2984 in Hedw. 1902, p. 9. — Stromatibus innatis, longe striiformibus atris, usque ad 5 cm. longis, ca. 1 mm. latis, intus pallidis; peritheciis immersis parallelis, ovoideis vix prominulis; ascis cylindraceis, utrinque attenuatis, apice rotundatis, $130-180 \approx 5-7$; sporidiis innumeris conglobatis, longe fusosideo-acicularibus, utrinque acutiusculis, pluriguttulatis, hyalinis, $26-38 \approx 1,5-2$.

Hab. in foliis *Paspali*, St. Catharina Brasilie austr.

OPHIODOTHIS Sacc. — Syll. II p. 652, IX p. 1051, XIV p. 685, XVI p. 632.

Subgen. *Ophiodothella* P. Henn. Ascii apice tenuati, nec subcapitati.

1. **Ophiodothis atro-maculans** P. Henn. Fungi Amaz. p. 258, cum icone. 2985 — Maculis amphigenis effusis atro-crustaceis, stromatoideis, folium plus minus tegentibus, stromatibus gregariis amphigenis, rotundato-pulvinatis, atro-nitentibus, ca. 250-300 mm. diam.; peritheciis paucis vel singularibus, immersis, subglobosis, papillatis; ascis fusosideis, apice attenuatis, rotundatis, substipitatis, 8-sporis, $50-70 \approx 5-8$; paraphysibus sparsis filiformibus; sporidiis parallelis, longitudine asci, filiformibus, hyalinis, pluriguttulatis, dein pluri-septatis, $1\frac{1}{2}-2$ μ . crassis.

Hab. in foliis *Lonchocarpi* sp., Rio Juruá, Marary Amazonie.

Fam. 5. Coccoideaceæ P. HENN. Hedw. XLIII, 1904, p. 143.

Stromata puncto centrali stipitiformi basi matrici affixa, ceterum libera; viva subcarnosa, sicca subcornea. Loculi pariete proprio distincto carentes. — Peculiari in matrice insertione a Dothideaceis distinguitur familia, quæ ad Myriangiaceas nutat. Genus primum: *Coccoidea* P. Henn. — Syll. vol. XVI p. 624.

Sect. 1. Phæosporæ.

COCCODISCUS P. Henn. in Hedw. 1904, p. 144. (Etym. *coccus* granum et *discus*). — Stromata subcarnosa, discoideo-rotundata, inferne medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa. Asci clavati, octospori, paraphysati; sporidia ovoidea, continua, basi papillata, fusca.

1. **Coccodiscus quercicola** P. Henn. l. c. — Stromatibus hypophyllis ²⁹⁸⁶ sparsis, subcarnosis rotundato-discoideis, inferne medio affixis, margine liberis 1,5-2 mm. diam., atris, superne planis, minute granulatis; peritheciis immersis, globulosis; ascis clavatis, stipitatis, octosporis 60-90 \approx 14-20; paraphysibus copiosis filiformibus, hyalinis, ca. 1. μ . crassis; sporidiis subdistichis vel conglobatis, interdum oblique monostichis, ovoideis, basi subhyalino-papillatis, 1-guttulatis, atro-fuscidulis, 8-11 \approx 5,5-8.

Hab. in foliis vivis *Quercus thalassicæ*, Ushiseyama in prov. Tosa Japoniæ (YOSHINAGA).

Sect. 2. Hyalodidymæ.

YOSHINAGAIA P. Henn. in Hedw. 1904, p. 143 (Etym. a cl. botanico YOSHINAGA japonico). — Stromata e subcarnoso cornea, disciformi-pulvinata, erumpenti-superficialia, medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa, subverruciformi-ostiolata. Asci octospori, paraphysati; sporidia fusoidea, hyalina, 1-septata.

1. **Yoshinagaia Quercus** P. Henn. l. c. — Stromatibus gregarie ²⁹⁸⁷ epiphyllis, erumpenti-superficialibus, rotundato-pulvinatis, medio affixis, verruculoso-rugulosis, atris, 1 mm. diam.; peritheciis immersis, globulosis; ascis fasciculatis, clavatis, apice rotundatis, tu-

nicatis, octosporis 70-120 \approx 13-18; paraphysibus subfiliformibus, ca. 4 μ . crassis, hyalinis; sporidiis subdistichis fusoides vel subclavatis, plerumque 4-guttulatis, acutis, medio 1-septatis (an deinde pluriseptatis?) hyalinis, 20-40 \approx 4-8.

Hab. in foliis vivis Quercus glaucæ, Kochi, Tosa Japoniæ (YOSHINAGA).

Fam. 6. Microthyriaceæ.

Subfam. 1. Microthyriæ Sacc. et Syd.

Sect. 1. Hyalosporæ.

MYIOCOPRON Speg. — Syll. II p. 659, IX p. 1053, XI p. 379, XIV p. 686, XVI p. 633.

- * 1. **Myiocopron denudans** Rehm, Hedw. 1903. p. (292). — Peritheciis 2988 in utraque foliorum parte gregariis, sessilibus, dimidiato-scutatis, orbicularibus, nigris, ex hyphis radiantibus 3 μ . cr., fuscis, septatis, prosenchymatice contextis, poro haud conspicuo, glabris 100-120 μ . diam.; ascis clavatis, sessilibus, apice rotundatis 35-40 \approx 7-8, octosporis; sporidiis elongato-fusoides, rectis, 1-cellularibus, guttulas oleosas 2-4 includentibus, hyalinis, 12-15 \approx 2-2,5, distichis; paraphysibus filiformibus, septatis 1,5 μ . diam., apice 3 μ . cr. hyalinis.

Hab. in foliis putridis fagineis in Saxonia (FEURICH), in horto Neufriedenheim Monacensi (Doct. REHM). — Hymenium in hypothecio parenchymatico, hyalino positum atque plene evolutum, perithecio uno latere operculatim subelevato, dein denudatum.

Sect. 2. Phæosporæ.

VIZELLA Sacc. — Syll. II p. 662. IX p. 1054.

1. **Vizella Hieronymi** Wint. — Syll. IX, pag. 1054. — var. **Coffeæ** 2989 Maublanc, Bull. Soc. Mycol. 1904, p. 71, t. VII, f. 6. — Peritheciis superficialibus, epiphyllis, greges minutos formantibus, depresso conoideis, atris, ostiolo minuto pertusis; ascis oblongis, octosporis, paraphysatis, 65 \approx 70 \approx 12-14; sporidiis inordinatis, oblongis, basi subtenuatis, fuscis, supra medium linea alba notatis, ad basim appendicula brevi, subhyalina ornatis, 13-15 \approx 5-6.

Hab. in foliis Coffeæ in Mexico (HERRERA). — Observante cl. Maublanc, species et varietas prædictæ ob vittas albas transversas sporidiorum a typo *Vizellæ* forte separandæ.

Sect. 3. Hyalodidymæ.

MICROTHYRIUM Desm. — Syll. II p. 662, IX p. 1055, XI p. 379, XIV p. 687, XVI p. 635.

1. **Microthyrium microscopicum** Desm. — Syll. II, p. 662. — var. ²⁹⁹⁰
Dryadis Rehm, Ascom. exs. n. 1571, Ann. Mycol. 1904, p. 520.
 — Peritheciis in maculis fuscidulis insidentibus, epiphyllis, 70-90 μ . diam., poro pertusis, hyphis rectangulariter ramosis, septatis, 3-4 μ . cr., interdum hyphopodia oblonga vel triloba, continua 6 \approx 4-5 gerentibus cinctis; ascis oblongo-piriformibus 25 \approx 7-8, octosporis filiformi-paraphysatis: sporidiis oblongis, utrinque obtusis, medio subconstricto-1-septatis, 8 \approx 2-2,5, distichis, strato tenui mucoso obvolutis.

Hab. in foliis adhuc pendulis Dryadis octopetalæ in Alpi-bus bavaricis.

2. **Microthyrium Uvariæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 47. ²⁹⁹¹
 — Peritheciis epiphyllis, sparsis, discoideis, atris, membranaceis, rugulosis, 0,3-0,6 cm. diam., lobato-rimosis, contextu radiato-cellulosis, fusco-brunneis; ascis ovoideis vel ellipsoideis, vertice rotundatis, truncatis, octosporis, 35-50 \approx 25-30; sporidiis ellipsoideis vel oblonge ovoideis, rectis vel curvulis, utrinque rotundatis, 1-septatis, intus granulosis, 18-24 \approx 8-10.

Hab. in foliis Uvariæ Kirchii, Dar-es-Salam-Zanzibar Africae orient.

3. **Microthyrium Styracis** Starb. in Arkiv. för Botan. 1904, Band 2, ²⁹⁹²
 p. 12. — Peritheciis sparsis v. sparse gregariis, interdum nonnullis confluentibus, maculas non efformantibus, scutellatis, orbicularibus, centro pertusis, margine inæquali v. irregulariter lobulato, nigris, trans lucem fuligineis, contextu reticulato-prismatico, 100-200 μ . diam., ascis late clavatis, sursum fere truncatis, 31-38 \approx 5,5-7,5; sporidiis octonis distichis, clavulatis, primo guttatis, dein supra medium 1-septatis, loculo sup. rhombiformi, acutiusculo, inf. cylindrico-clavulato, obtusiusculo, hyalinis 11-12 \approx 4,5-5; paraphysibus nullis.

Hab. ad folia Styracis, Piratiny, Rio Grande do Sul Brasiliæ.

4. **Microthyrium Hederæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2993
1903, pag. 310. — Peritheciis sparsis, sessilibus, applanato-hemisphæricis 200-250 μ . diam., nigricantibus, poro pertusis, radiato-contextis, margine vix fimbriatis; ascis oblongo-ellipsoideis, utrinque rotundatis 40-50 \times 10-11, octosporis; sporidiis distichis, cylindraceis, utrinque rotundatis 2-4-guttulatis, continuis (an semper?), hyalinis 10 \times 2,7-3,5.

Hab. in ramulis corticatis, emortuis Hederæ Helicis, Luxemburg. — Paraphyses non observatæ.

5. **Microthyrium Melaleucæ** P. Henn. in Hedw. 1903, pag. (78). — 2994
Peritheciis amphigenis, dimidiato-scutellatis, atris, 0,3-0,7 mm. diam., radiato-cellulosis; ascis ovoideis, apice tunicatis, rotundatis, basi curvulis attenuatis, 8-sporis, 16-20 \times 7-8; sporidiis clavatis v. oblonge ovoideis, 1-septatis, haud constrictis, hyalino-chlorinis 8-10 \times 2-2,5.

Hab. in foliis coriaceis Melaleucæ Leucadendri, Barron M. Queensland Australiae (PRITZEL).

6. **Microthyrium Eucalypti** P. Henn. F. Austral. occ. II, in Hedw. 2995
1901, p. 352. — Maculis nullis; peritheciis amphigenis, sparsis, mycelio repente, filis brunneolis, brevibus, subtorulosis ca. 3-4 μ . cr. circumdatis, dimidiato-subpulvinatis, orbicularibus, atro-castaneis, punctulatis, 250-300 μ . diam., centro obtuse subostiolatis, pertusis, dein subtrilobato dehiscentibus; ascis clavatis, apice obtuse rotundatis, basi attenuato-substipitatis, octosporis, 80-100 \times 18-22; sporidiis subdistichis, mucosis, fusoides, utrinque subacutiusculis, medio 1-septatis, hyalinis vel minute flavidulis, 20-25 \times 4-5,5.

Hab. in foliis vivis Eucalypti santalifoliæ prope Cranbrook Australiae occid.

7. **Microthyrium cantareirensis** Henn. in Hedw. 1902, pag. 300. — 2996
Peritheciis orbiculari-scutellatis, epiphyllis, gregariis, contextu atro-membranaceo, radiato, poro pertusis, 300-350 μ . diam., radiatim rimosis, hyphis fuscis, septatis 3,5-4,5 μ . circumdatis; ascis oblonge ellipsoideis vel clavatis, apice obtuso-rotundatis, crasse tunicatis, octosporis, 60-75 \times 20-35; sporidiis subdistichis, ovoideis, 1-septatis, valde constrictis, hyalinis, dein fuscidulis 20-24 \times 13-15.

Hab. in foliis Myrtaceæ cujusdam, Serra da Cantareira, pr. S. Paulo Brasiliæ.

8. **Microthyrium Coffeæ** P. Henn. Notizbl. bot. Gart. Berl. 1903, 2997
p. 240. — Peritheciis epiphyllis, sparsis, dimidiato-scutatis, mem-

branaceis, rugulosis, medio elevato-applanatis, atris, radiato-cellulosis vel reticulatis, 0,5-0,7 μ . diam.; ascis ovoideis vel clavatis, apice rotundatis, crasse tunicatis, 8-sporis, 58-65 \approx 25-40, aparamphysatis; sporidiis subdistichis vel conglobatis, oblongis, utrinque obtuse rotundatis, curvulis, intus granulatis, hyalinis, medio 1-septatis, haud constrictis, 30-40 \approx 10-12.

Hab. in foliis vivis *Coffeæ libericæ*, Ngomini in Africa or. (ZIMMERMANN). — Sporidiis magnis prædistincta species, quæ nonnullis notis ad *Clypeolum megalosporum* nutat.

9. **Microthyrium Platani** Richon. — Syll. IX, p. 1061 (nomen) — secundum Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 310: — Peritheciis subgregariis plano-convexis, poro minuto pertusis, radiato-contextis, margine non fimbriatis, 100-130 μ . latis; ascis clavatis, sessilibus, 40-48 \approx 5-7; sporidiis 2-3-stictis, ovoideo-fusiformibus, sæpe inæquilateralibus, eguttulatis, 8-10 \approx 2,5-3,5.

Hab. in foliis et petiolis *Platani orientalis*, Luxemburg.

10. **Microthyrium Harrimani** Saccardo, Harrim. Alaska Exped. Crypt. p. 26, pl. II, fig. I. — Peritheciis densiuscule gregariis, superficialibus, dimidiatis, omnino applanatis, orbicularibus, 350-450 μ . diam., subinde binato-approximatis, ostiolo centrali pertusis, margine fimbriatis, contextu distincte parenchymatico, radiato; ascis tereti-fusoideis, utrinque obtusulis, 80-100 \approx 9-10, octosporis; paraphysibus parcis, sæpe furcatis; sporidiis 2-3-stichis, clavato-fusiformibus, utrinque acutiusculis, infra medium 1-septatis, non constrictis hyalinis.

Hab. in squamis morientibus strobili *Tsugæ heterophyllæ* Orca Alaska (TRELEASE). — Affine *M. Abietis* Mont.

11. **Microthyrium abnorme** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 65. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, subradiato-cellulosis, atro-olivaceis, medio ruguloso-papillatis, margine tenue membranaceis, ca. 1 mm. diam.; ascis oblonge clavatis, curvulis vel rectis, apice rotundato-tunicatis, basi breve stipitatis, 4-8-sporis, 150-180 \approx 15-30; sporidiis subdistichis oblonge clavatis, rectis vel curvulis, continuis, dein medio septatis, 30-40 \approx 10-14, hyalinis.

Hab. in foliis coriaceis arboris cujusdam, Marary, Rio Juruá Amazoniæ.

12. **Microthyrium Carludovicæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 66. — Maculis mycelii fuscis effusis vel obsoletis; peritheciis epiphyllis, sparse gregariis, dimidiato-scutellatis, atris, ra-

diato-cellulosis, medio papillatis, ca. 200-250 μ .; ascis clavatis, apice rotundatis, fasciculatis, 8-sporis, 35-45 \approx 3 $\frac{1}{2}$ -4; paraphysibus copiosis, filiformibus, hyalinis obvallatis; sporidiis oblonge fusoides, subacicularibus, utrinque obtusis vel subacutiusculis, medio 1-septatis, vix constrictis, hyalinis, 8-10 \approx 2-2 $\frac{1}{2}$.

Hab. in foliis Carludovicæ spec., Rio Juruá Amazoniæ.

PEMPHIDIUM Mont. — Syll. II p. 670, IX p. 1054.

1. **Pemphidium bomulense** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3002
— Maculis pallidis explanatis; peritheciis sparsis amphigenis, innato-superficialibus, subscutellatis, ostiolatis, pertusis, atris, subnitentibus, ca. 120-130 μ . diam.; ascis fasciculatis, aparamphysatis, oblonge fusoides, utrinque attenuatis, octosporis 50-60 \approx 4-5,5; sporidiis subdistichis, oblonge fusoides vel subclavatis, utrinque acutiusculis, 3-guttulatis, an deinde septatis? hyalinis, 15-25 \approx 2,5.

Hab. in foliis Berliniæ?, Bomule, Ost-Usambara, Africae orient. (ZIMMERMANN).

POLYSTOMELLA Speg. — Syll. IX p. 1063, XVI p. 639.

1. **Polystomella aphanes** Rehm, Hedw. XLIV, 1905. — Stromatibus 3003
dispersis, sessilibus, dimidiatis, lentiformibus, 0,2-0,4 mm. d., poris minutissimis creberrimis punctiformibus pertusis, nigris, versus marginem radiatim contextis; ascis piriformibus, sessilibus, ad apicem valde incrassatis, 40-45 \approx 12-15, 8-sporis; sporidiis clavatis, medio septatis et subconstrictis, strato mucoso obductis, hyalinis, 12-14 \approx 3, distichis; paraphysibus ramosis.

Hab. ad ramulum corticatum? Tubarao Brasiliæ (ULE). — Tantum sub microscopio ut *Polystomella* recognoscenda species.

Sect. 4. Phæodidymæ.

SEYNESIA Sacc. — Syll. II p. 668, IX p. 1064, XI p. 381, XIV p. 689, XVI p. 639.

1. **Seynesia juruana** P. Henn. Fungi Amaz. III, 1904, p. 376, cum 3004
icon. — Peritheciis in maculis subrotundatis, hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, margine fimbriatis, hyphis fuscis, septatis, ramosis 4-6 μ . crassis, hyphopodiis subalternis, capitatis, interdum lo-

batis ca. 12-15 \times 5-8; ascis oblonge clavatis, obtusis tunicatis, 8-sporis, paraphysatis, 100-120 \times 22-26; sporidiis subdistichis, oblonge ovoideis, primo hyalinis, cellula superiori intus granulata, dein fuscis, basi hyalino-subpapillatis, 25-28 \times 9-12.

Hab. in foliis Caseariæ sp. Juruá-Miry, Rio Juruá Amazoniæ.

2. **Seynesia marmellensis** P. Henn. Fungi Amaz. III, 1904, p. 375. 3005.

— Peritheciis hypophyllis sparsis vel gregariis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis vel pertusis, ca. 250-300 μ . diam., margine hyphis radiantibus, subramosis, fuscis; ascis clavatis, tunicatis, 8-sporis 40-70 \times 15-25, subparaphysatis; sporidiis subdistichis v. subconglobatis, ovoideis, medio 1-septatis, constrictis, atris, 14-22 \times 7-10.

Hab. in foliis Sweetiæ nitentis, Marmellos, Rio Madeira Amazoniæ.

3. **Seynesia Melastomatacæ** P. Henn. in Hedw. 1902, p. 300. — Ma- 3006

culis atris; peritheciis epiphyllis, aggregatis convexo-scutellatis, subcoriaceis, centro papillatis, dein irregulare apertis, stellato-rimosis, ca. 140-160 μ . diam., contextu radiato, fusco-atro, margine hyphis repentibus fuscis, septatis 3-4 μ . cr. circumdatis; ascis ovoideis rotundatis, crasse tunicatis, 40-50 \times 20-28, octosporis, conglobatis ellipsoideo-ovoides, 1-septatis, hyalino-fuscidulis, dein constrictis, 17-20 \times 6-7.

Hab. in foliis Melastomatis, Campos de Agna Branca, pr. S. Paulo Brasilæ.

4. **Seynesia Humiriæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3007

p. 65. — Maculis mycelii amphigenis, radiato-effusis, hyphis septatis subtorulosis, ramosis, atro-brunneis, 3-4 μ . crassis; conidiis fusoides, castaneis, 4-5-septatis, paullo constrictis, 30-40 \times 4-5; peritheciis dimidiato-scutellatis, medio papillatis, contextu radiato-cellulosis, longitudinaliter rimosis, 200-250 μ . diam.; ascis subglobosis, apice tunicatis, 8-sporis, 40-50 μ .; sporidiis conglobatis, ovoideis, medio 1-septatis, valde constrictis, aterrimis, granulato-verrucosis, 18-23 \times 10-13.

Hab. in foliis Humiriæ floribundæ, Pontenegro, Rio Negro Amazoniæ.

5. **Seynesia petiolicola** P. Henn. in Hedw. 1903, p. (78). — Perithe- 3008

ciis aggregatis, scutellatis, atris, radiato-cellulosis, pertusis, ca. 200-350 μ . diam.; ascis oblonge ovoideis, apice rotundatis, crasse tunicatis, octosporis, 30-35 \times 10-13; sporidiis conglobatis, ellipsoi-

deis vel ovoideis, utrinque rotundatis primo hyalinis, continuis, granulatis, dein medio 1-septatis, fuscis, 8-10 \approx 5-6.

Hab. in petiolis foliorum *Dysoxyl*i spec., Eumundi, South Queensland Australiæ (PRITZEL).

6. **Seynesia submegas** P. Henn. Fungi Amaz. III, 1904, p. 374, cum icon. — Maculis mycelii subrotundatis, fuscis, epiphyllis; peritheciis gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, ca. 200-250 μ . diam., hyphis fuscis, ramosis, septatis, radiatim circumdatis; hyphopodiis alternis, ovoideis, ca. 10- μ .; ascis ovoideis, crasse tunicatis, 4-8-sporis, 50-65 \approx 40-50; sporidiis conglobatis, oblonge ovoideis, obtusis, medio 1-septatis, valde constrictis, atris, 26-36 \approx 18-25. 3009
Asci & sporidia

Hab. in foliis *Guarea*e spec., Juruá-Miry, Rio Juruá Amazoniæ.

7. **Seynesia Hammariana** P. Henn. in Hedw. 1902, p. 301. — Maculis nullis; peritheciis epiphyllis, interdum hypophyllis sparsis v. gregariis, discoideo-scutellatis, rotundatis, magnis, 1-2 mm. diam., atris, centro rugulosis, contextu subcorneo, radiato, atro-fusco, cærulescente, margine crenulatis, haud hyphoideis, deinde stellatim lobato-rimosis; conidiophoris gregariis, inter perithecia, hyalinis, 10-14 \approx 4; conidiis acrogenis ovoideis vel subellipsoideis, continuis, atro-castaneis, medio pellucide porosis, 20-35 \approx 20-30; ascis ovoideis vel subgloboso-ellipsoideis, 4-8-sporis, 40-60 \approx 40-50; sporidiis ovoideis vel ellipsoideis, medio 1-septatis, paullo constrictis, hyalino-fuscidulis, 20-30 \approx 16-20, conglobatis. 3010
S. rugulata

Hab. in foliis *Coccolobæ*? S. Catharina Brasiliæ (A. HAMMAR).

8. **Seynesia fusco-paraphysata** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. — Peritheciis hypophyllis, sparsis, subcorneis, dimidiato-scutellatis, atris, margine fimbriatis, 1-1,5 mm. diam., centro ruguloso-papillatis, dein rimosis; ascis clavatis, apice rotundatis, octosporis, 80-90 \approx 28-32; paraphysibus basi ramosis, filiformibus, ca. 3 μ . cr., septatis, apice clavatis, fuscis, 4-4,5 μ . cr.; sporidiis subdistichis, oblongis v. clavatis, utrinque rotundatis, medio 1-septatis, valde constrictis, mox in cellulas secedentibus, atris, 20-30 \approx 10-13. 3011

Hab. in foliis *Tabernaemontanae* spec., West-Usambara Africæ orient.

9. **Seynesia Banksiæ** P. Henn. in Hedw. 1903 (p. 78). — Maculis fuscis rotundatis v. confluentibus; peritheciis epiphyllis gregariis, scutellatis, radiato-cellulosis, atris, longitudinaliter lobato-dehiscen- 3012

tibus ca. 180-222 μ . diam.; ascis ovoideis vel clavatis, apice late rotundatis, octosporis, 50-80 \approx 15-22; sporidiis distichis v. conglobatis, ovoideis vel subellipsoideis, 1-septatis, constrictis, olivaceofuscis 13-18 \approx 7-9.

Hab. in foliis Banksiæ, Höhen prope Gosford N. S. Wales Australiæ (PRITZEL). — Sec. cl. Mac Alp. in Proc. Linn. Soc. N. S. Wales 1903, p. 563, adsunt paraphyses stipatæ, filiformes, hyalinæ, valde ramosæ. — In foliis Banksiæ ornatæ, Dimboola Desert in Victoria Australiæ (READER).

10. **Seynesia megas** Rehm — Syll. XVI, p. 640. — var. **macrospora** 3013 Starb. in Arkiv. för Botan. 1904, II, p. 13. — Ascis 114 \approx 25; sporidiis majoribus, loculo superiore rhomboideo, guttula una magna globulosa fæto, loculo inferiore angustiore, apice rotundato 32 \approx 20 (parte sup.) \approx 12 (p. inf.).

Hab. in foliis plantæ indet. Matto Grosso Brasiliæ (LINDMAN). — Hæc forma, verisimiliter, a typo est specificè distinguenda.

11. **Seynesia coccoidea** P. Henn. F. javanici novi, in Hedw. 1902, 3014 p. 141. — Peritheciis amphigenis, sparsis, dimidiato-scutellatis, margine subfimbriatis, vertice gibboso, atris 1-2,5 mm. diam., intus flavidis subcarnosulis, mycelio fusco-brunneo ex hyphis septatis, 3-3,5 μ . cr.; ascis ovoideis ca. 20 \approx 15 octosporis, utrinque obtusis; sporidiis ovoideis, obtusis 10-12 \approx 5-6, flavidis.

Hab. in foliis Bambusæ spec. in insula Java.

Sect. 5. Hyalophragmiæ.

MICROPELTIS Mont. — Syll. II p. 669, IX p. 1069, XI p. 381, XIV p. 690, XVI p. 642.

1. **Micropeltis Rollinæ** P. Henn. in Hedw. 1904, p. 84. — Perithe- 3015 ciis aggregatis, superficialibus, crustaceo-maculiformibus in poris ca. 1 mm. diam. confluentibusque atris, primo subpulvinatis, ca. 100 μ . diam., poro pertusis, dein subcupulatis, contextu subradiante celluloso, atro-cinnamomeo; ascis clavato-fusoideis, apice tunicatis, attenuatis, 20-30 \approx 5-7 octosporis; paraphysibus copiosis obvallatis, filiformibus, hyalinis, ca. 1-1,5 μ . cr.; sporidiis parallelis aciculari fusoides, utrinque acutis, rectis vel flexuosis, hyalinis, pluriguttulatis vel obsolete pluriseptatis, 15-20 \approx 2-2,5.

Hab. in foliis Rolliniæ emarginatæ, Laguna pr. St. Catharina Brasiliæ (E. ULE).

2. **Micropeltis Xylopiæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3016 p. 66. — Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis, atro-fuscis 240-300 μ . diam.; ascis clavatis, apice crasse tunicatis, octosporis, 40-50 \times 8-12; sporidiis sub-di- vel sub-tristichis, cylindratis, utrinque obtusis, 3-5-septatis, constrictis, 14-20 \times 3,5-4,5, hyalinis. *Micropeltis*

Hab. in foliis Xylopiæ, Rio Juruá Amazoniæ.

3. **Micropeltis erysiphoides** Rhem, Hedw. XLIV, 1904, pag. 1. — 3017 Peritheciis hypophyllis, subgregariis, dimidiatis, poro centrali per-tusis, atris, glabris, parenchymatice versus marginem hyphis ra-diantibus contextis, 200 μ . diam; ascis clavatis, 50-55 \times 8-9, 8-spo-ris; sporidiis clavatis, 3-septatis, hyalinis, 15 \times 2-2,5, distichis; pa-raphysibus tenerrimis, ramosis. *Micropeltis*

Hab. ad folia Malpighiaceæ, Cabo Frio Brasiliæ (ULE). — Habitus *Erysiphes* et ægre detegenda.

4. **Micropeltis Scheffleri** P. Henn. Fungi Afr. Orient. II, in Bot. 3018 Jahrb. XXVIII, p. 38. — Peritheciis hypophyllis, raro epiphyl-lis, dimidiato-scutatis, applanatis, atris, margine subintegris, cen-tro radiato-dehiscentibus 300-400 μ . diam, contextu membranaceo-parenchymatico; ascis clavatis, apice obtuso-rotundatis, crasse tu-nicatis, ca. 80-110 \times 22-30, octosporis, apapaphysatis; sporidiis conglobatis, oblonge fusoides vel clavatis, 10-11-septatis, 60-90 \times 7-9; cellulis cuboideis, constrictis, ca. 8 μ . diam. subseceden-tibus. *Micropeltis*

Hab. in foliis Flacourtiaceæ cujusdam, Usambara (SCHEFFLER).

5. **Micropeltis manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 377, 3019 cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, rotundatis, atris, 130-160 μ . diam., radiato-cellulosis, fusco-brun-neis, margine fimbriatis, subpallidis, medio subpapillatis; ascis cla-vatis, apice rotundatis, 8-sporis, 30-40 \times 11-15; sporidiis subdisti-chis v. conglobatis, oblongis v. clavatis, rectis v. curvulis, utrinque rotundatis, primo 1-dein 2-3-septatis, subconstrictis, guttulatis, 10-13 \times 3-3 $\frac{1}{2}$. *Micropeltis*

Hab. in foliis Myrtaceæ cujusdam, Manaos, Rio Negro Amer-merid.

6. **Micropeltis Garciniæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3020 — Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, mar-gine hyalino, radiato-fimbriatis, rugulosis, ca. 250-300 μ . diam., contextu radiato-celluloso; ascis clavatis, apice rotundato-tunicatis, *Micropeltis*

octosporis, 40-50 \times 10-12, aparaphysatis; sporidiis clavatis, obtusis 3-4-septatis, constrictis, 15-20 \times 3,5-4 hyalinis.

Hab. in foliis *Garciniæ* spec., Ost-Usambara Africae orient.

7. **Micropeltis distincta** P. Henn. in Engl. Bot. Jahrb. 1901, p. 257. 3021

— Sacc. Syll. XVI, pag. 1141 (nomen). — Peritheciis epiphyllis v. hypophyllis, sparsis, orbiculari-scutatis, depressis, tenui-marginatis, olivaceo-fuscis, radiato-reticulatis, 180-250 μ . diam.; ascis clavatis, vertice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 35-65 \times 20-28; sporidiis conglobatis, oblonge clavatis 3-9-septatis, 25-50 \times 4-5, hyalinis; paraphysibus fasciculatis, filiformibus, dichotomis 30-60 \times 1-1,5.

Hab. in foliis *Tricalysiae Nyassæ* ex Rubiaceis, Konde-land sup. Africae orient.

8. **Micropeltis coffeicola** P. Henn. in Hedw. 1902, p. (63). — Perithe- 3022

ciis epiphyllis, sparsis, dimidiato-scutellatis, atris, margine tenui subhyalino, 200-250 μ . diam, contextu pseudoparenchymatico brunneo; ascis clavatis, apice obtuse rotundatis, basi attenuato-curvulis 2-8-sporis, 26-36 \times 12-18; sporidiis conglobatis fusoides v. clavatis, utrinque obtusiusculis, rectis v. curvulis, 3-6-septatis, haud constrictis, hyalino-cyanescentibus, 18-30 \times 3,5-5.

Hab. in foliis vivis *Coffeæ arabicæ*, Chocoma, Guatemala (PREUSS).

9. **Micropeltis Schmidtiana** Rostr. in Bot. Tidsskrift-Copenhagen 1902, 3023

vol. 24, p. 211. — Peritheciis dimidiato-scutatis, orbicularibus, convexulis, tabacinis, epiphyllis, ambitu plano membranaceis; ascis fasciculatis, fusiformibus, 50-52 \times 10-12; paraphysibus filiformibus, obvallatis, octosporis; sporidiis anguste fusoides, hyalinis, 5-7-septatis, 20-25 \times 5.

Hab. in foliis *Apostasiae Lobbii*, Siam Asiae merid.

10. **Micropeltis aureo-brunnea** P. Henn. Fungi Amaz. III, 1904, p. 378, 3024

cum icon. — Peritheciis hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, rotundatis, primo flavo-brunneis, dein castaneis, ca. 280-320 μ . d., contextu radiato-celluloso, aureo-brunneo, dein rufo-brunneo vel subolivaceo, margine pallidiori pellucido; ascis fusoides, subapiculatis, 8-sporis, 33-40 \times 8-11; paraphysibus filiformibus, hyalinis, ca. 0,8 μ . crassis; sporidiis oblique monostichis vel subdistichis, fusoides, rectis vel curvulis 3- interdum 2-septatis, hyalino-cyanescentibus, 13-18 \times 2 $\frac{1}{2}$ -3 $\frac{1}{2}$.

Hab. in foliis *Trichomanis* sp. Juruá-Miry Rio Juruá Amazoniae.

ACTINIOPSIS Starb. — Syll. XVI p. 543. — *Asteropeltis* P. Henn. Hedw. XLIII pag. 380. — Genus, observante cl. Hennings, ad *Microthyriaceas* nec *Sphæriaceas* adscribendum et ita definiendum: Perithecia membranacea dimidiato-scutata, suborbiculata medio pertusa, margine appendiculis rigidis rectis ex hyphis conflatis vestita. Asci fusoides vel clavati 8-spori, paraphysati; sporidia cylindræa, pluriseptata, hyalina. *Micropelti* et *Scolecopelti* affinis.

1. **Actiniopsis Ulei** P. Henn. Hedw. XLIV, p. 66, *Asteropeltis Ulei* P. 3025 Henn. Hedw. XLIII, p. 381 — *Asteropeltis mirabilis* Rehm, Hedw. XLIV, p. 3. — Peritheciis epiphyllis sparsis, subdimidiato-scutatis, subrotundatis, atris, membranaceo-cellulosis, poro pertusis, ca. 180-200 μ . diam., margine tenuissimo, subhyalino, appendiculis rigidis in sicco erectis, in vivo stellato-explanatis, atris, 100-250 \times 60, ex hyphis septatis, fuscis sursum acutis pallidioribus laxè conflatis; ascis oblonge fusoides, apice crasse tunicatis rotundatis, curvulis vel rectis, 8-sporis, 70-100 \times 11-17, subsessilibus; paraphysibus filiformibus, flexuosis, basi ramosis, 1-1 $\frac{1}{2}$, hyalinis; sporidiis oblique monostichis vel subdistichis, oblonge cylindræis, obtusis, flexuosis vel rectis, 7-septatis, subconstrictis, hyalinis, 45-50 \times 3 $\frac{1}{2}$ 4.

Hab. in foliis *Calathææ*, Blumenau et *Orthocladæ* varifloræ, Juruá Miry, Rio Juruá Brasilæ. — Sec. cl. Rhem sporidia 9-11-septata, tristicha, 40-45 \times 4-4,5, basim versus acutata.

2. **Actiniopsis juruensis** P. Henn. Fungi Amaz. IV, in Hedw. 1904, 3026 XLIV, pag. 66. — Peritheciis sparsis, epiphyllis, subturbinato-scutellatis, fuscidulis, medio pertusis, cellulosis, 300-500 μ . diam., ad marginem appendiculis plurimis, rigidis, squarrosis, apice fimbriatis, pallidis, 100-150 μ . longis, ex hyphis laxè conflatis; ascis oblonge clavatis, apice rotundatis, tunicatis, paraphysatis, octosporis 90-100 \times 13-15; sporidiis subtristichis, longe fusoides vel filiformibus, apice subacutiusculis, 8-12-septatis, constrictiusculis 40-60 \times 3-4.

Hab. in foliis *Marantaceæ* cujusdam, Rio Juruá Amazoniæ.

TRICHOPELTIS Speg. — Syll. IX p. 1068.

1. **Trichopeltis ferruginea** Rehm, Hedw. XLIV, p. 1. Ita vocanda *Calo-* 3027 *nectria ferruginea* Rehm — Syll. XVI, p. 595. — var. **Psychotriæ** Rehm, Hedw. XLIV, p. 1. — Maculis mycelii 1 mm. diam.; peritheciis solitariis; ascis fusoides 45-50 \times 12-15; sporidiis fusiformibus, utrinque obtusis, 3-septatis, 18-20 \times 5, tristichis.

Hab. in foliis *Psychotriæ* et *Calathææ* pr. Blumenau Brasiliæ (ULE).

2. *Trichopeltis obtecta* Rehm, Hedw. XLIV. Ita vocanda *Calonectria obtecta* Rehm — Syll. XVI, p. 595.

ULEOPELTIS P. Henn. Fungi Amaz. II, p. 267 (1904) (Etym. a cl. E. ULE, generis detectore et strenuo Brasiliæ innumerorum mycetum collectore). — Stromata superficialia, dimidiato-scutellata, subcarbonacea, atra. Perithecia in stromate immersa, rimis subconcentricis dehiscentia. Asci clavati, 8-spori, paraphysati; sporidia oblonge fusoides vel linearia, hyalina, pluriseptata. — Genus, quoad locum systematicum, adhuc dubium.

1. *Uleopeltis manaosensis* P. Henn. l. c. cum icon. — Stromatibus 3028 epiphyllis, sparsis superficialibus, e suborbiculari dimidiato-scutellatis, vertice interdum obtuse papillatis, rugulosis, atro-subcarbonaceis, rima subconcentrice vel irregulariter dehiscentibus, 1-2 mm. diam., hyphis radiantibus, ramosis, fuscis, 3-4 μ . crassis circumdatis; ascis oblonge clavatis, vertice tunicatis, rotundatis, 8-sporis, basi substipitatis, 85-120 \times 10-12; paraphysibus filiformibus, hyalinis, ca. 1 $\frac{1}{2}$ μ . crassis; sporidiis subdistichis, oblonge fusoides vel linearibus, subobtusis, rectis vel flexuosis, 3-6-septatis, hyalinis, 30-55 \times 3 $\frac{1}{2}$ -4 $\frac{1}{2}$.

Hab. in foliis *Palmæ* cujusdam (*Chamædoreæ*?) Manaos, Rio Negro Amazoniæ.

Sect. G. Phæophragmiæ.

PHÆOSCUTELLA P. Henn. Fungi Amaz. III 1904, p. 382 (Etym. *phaios* fuscus et *scutella*, ob sporidia phæophragmia). — Perithecia subdimidiato-scutellata, tenue membranacea, subfibrosa, fuscicula pellucida, sine structura cellulosa. Asci ellipsoidei vel ovoidei, 8-spori, aparaphysati; sporidia parallele conglobata, cylindracea, pluriseptata, fusca. *Trichopeltis*

1. *Phæoscutella Gynerii* P. Henn. l. c. cum icon. — Peritheciis am- 3029 phigenis sparsis v. aggregatis, subdimidiato-scutellatis, atro-fuscis, tenue membranaceis, subfibrosis, structura vix cellulosa, fusco-brunneola, hyphis mycelii fuscis permixtis, 0,5-1 mm. diam.: conidiis fusoides, fuscis, pluriseptatis, 20-30 \times 5-7; ascis oblonge ellipsoideis, interdum subovoideis, rotundatis, 30-50 \times 15-25, 8-spo-

ris, aparaphysatis; sporidiis parallele conglobatis, cylindraceis, obtusis, rectis vel curvulis, 5-8-septatis, constrictis, castaneo-fuscis, dein atris, ca. 22-45 \times 5-6.

Hab. in foliis *Gynnerii saccharoidis*, Rio Juruá, Juruá-Miry Amazoniæ.

Sect. 7. Phædictyæ.

PHÆOSACCARDINULA P. Henn. Fungi Amaz. IV in Hedw. 1905, pag. 66 (Etm. *phaios* fuscus, quasi *Saccardinula* phæodictya). — Perithecia superficialia (phyllogena) scutellato-dimidiata, contextu subradiato-celluloso, fusco. Asci subovoidei, 8-spori, paraphysati. Sporidia oblonge cylindracea, pluriseptata, muralia, fusca. — A *Saccardinula* Speg. ascis paraphysatis, sporidiis fuscis etc. diversa. In Tabulis comparativis (Syll. XIV pag. 25) occupabit n. 19, inter Microthyriaceas.

1. **Phæosaccardinula diospyricola** P. Henn. l. c. p. 67, cum icone. — 3030
Peritheciis epiphyllis, superficialibus, sparsis, dimidiato-scutellatis, hyphis fuscidulis simplicibus circumdatis, mediõ subpapillatis, pertusis, subradiato-cellulosis, fuscis, ca. 280-300 μ . diam.; ascis ovoideis vel late clavatis, rotundatis, octosporis, 55-75 \times 35-40; paraphysibus copiosis, filiformibus, hyalinis; sporidiis conglobatis, longe cylindraceis, utrinque obtuse rotundatis, 7-13-septatis, interrupte muralibus, 35-60 \times 7-10, fuscis.

Hab. in foliis *Diospyri*, Tarapoto, Rio Amazonas.

Sect. 8. Scolecosporæ.

OPHIOPELTIS d'Almedia et da Camara in Revista Agronomica 1903, vol. I n. 5, pag. 175 (Etym. *ophis* anguis et *pelte* scutum). — Perithecia submembranacea, dimidiato-scutata, superficialia, centro perforata. Asci subcylindraceuti, aparaphysati, oligospori (trispori); sporidia vermicularia, ascos subæquantia, multiguttata, hyalina. — Ab affini *Scolecopelte* differt sporidiis non articulatis. *Tranaholthysporia*

1. **Ophiopeltis Oleæ** d'Alm. et da Cam. l. c., tab. X, fig. 8-10. — 3031
Peritheciis peltatis, atris, ostiolo distincto impressoque, 200-300 \times 80-100; ascis subcylindraceutis, in stipitem brevem attenuatis, apice rotundatis 38-50 \times 12-15 trisporis (jugiter?); sporidiis vermiformibus, obtusiusculis, plerumque curvulis, hyalinis, pluriguttatis, 35-58 \times 2,5-3.

Hab. ad ramulos siccos Oleæ europææ, Lisboa Lusitaniæ (BENFICA).

SCOLECOPELTIS Speg. — Syll. IX p. 1072, XIV p. 646.

1. **Scolecopeltis æruginea** A. Zimm. Centr. f. Bakter. 1902, II Abt. 3032 VIII, p. 183. — Peritheciis superficialibus, lenticularibus, glabris, nigris, sub microscopio ærugineis albo-marginatis, 0,4-0,5 mm. diam., margine ex hyphis mycelialibus laxis 2 μ . cr. formato, 0,2 mm. lato; ostiolo 20 μ . diam.; ascis e perithecii fundo orientibus, 4-sporis v. sæpius 2-3-sporis, clavatis, 80 \times 25; sporidiis cylindræis mox (etiam intra ascos) in articulos 15-20 \times 12 secedentibus.

Hab. in foliis Coffeæ libericæ hinc inde frequens, sed non noxia, Buitenzorg Javæ.

2. **Scolecopeltis Bauhiniaë** P. Henn. Fungi Amaz. III, 1904, p. 379. 3033 cum icon. — Peritheciis epiphyllis sparsis, rotundato-scutellatis, atris, 180-200 μ . diam., celluloso-radiatis, margine fimbriato-membranaceis subpallidis; ascis clavatis interdum subfusoides, apice rotundatis 8-sporis, 70-90 \times 20-30; sporidiis parallelis, cylindræis, obtusis, pluriseptatis, dein moniliformibus, cellulis globosis 6-8 μ . diam., hyalinis, in asco secedentibus.

Hab. in foliis Bauhiniaë spec., Iquitos, Rio Amazonas, Perù.

3. **Scolecopeltis Gaduæ** P. Henn. Fungi Amaz. III, 1904, p. 378. — 3034 Peritheciis sparsis epiphyllis, dimidiato-scutellatis, rotundatis, atris, opacis, centro subconico-papillatis subnitentibus, margine tenui subradiato, ca. 300 μ . diam.; ascis late clavatis vel subfusoides, apice rotundato-tunicatis, 8-sporis, sparse paraphysatis, 70-90 \times 20-40; sporidiis parallelis, subcylindræo-clavatis, 14-20-septatis, rectis vel curvatis, valde constrictis, cellula superiore subellipsoidea, cellulis mediis subglobosis 60-70 \times 5-7, hyalinis, deinde dilatantibus.

Hab. in foliis Gaduæ sp. Juruá-Miry Rio Juruá Amazoniæ.

4. **Scolecopeltis Guettardæ** P. Henn. Fungi Amaz. III, 1904, p. 380, 3035 cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, medio papillatis, atris, ca. 400-500 μ . diam., contextu radiato-celluloso, atro-cæruleo, margine fimbriato; ascis oblange clavatis, apice rotundato-tunicatis, 8-sporis, paraphysatis, 110-140 \times 25-30; sporidiis parallelis, cylindræis, utrinque rotundatis pluri- ca. 20-26-septatis, ca. 90-112 \times 6-7, cellulis subgloboso-cuboideis, deinde secedentibus.

Hab. in foliis *Guettardæ megalophyllæ*, Juruá-Miry, Rio Juruá Amazoniæ.

5. **Scolecopeltis quindecimseptata** P. Henn. Fungi Amaz. III, 1904, 3036 p. 379, cum icon. — Peritheciis epiphyllis gregarie sparsis, rotundato-scutellatis, 500-800 μ . diam., membranaceis, radiato-cellulosis, atro-cæruleis, margine fimbriatis; ascis clavato-fusoideis, apice rotundato-tunicatis, basi attenuato-stipitatis, 8-sporis, 130-150 \times 30-40; sporidiis parallelis, cylindræis, utrinque obtuse rotundatis, rectis vel flexuosis, 15-septatis, ca. 100-120 \times 6-7; cellulis cuboideis, haud secedentibus?, hyalino-cyanescentibus.

Hab. in foliis *Araceæ* cujusdam, Juruá-Miry, Rio Juruá Amazoniæ.

Subfam. 2. **Asterineæ** Sacc. et Syd.

Sect. 1. **Phæodidymæ.**

ASTERINA Lév. — Syll. I p. 39, IX p. 379, XI p. 255, XIV p. 693, XVI p. 646 *).

1. **Asterina Belluciæ** P. Henn. Fungi. Amaz. III, 1904, p. 374, cum 3037 icon. — Maculis mycelii epiphyllis sparsis, rotundatis, atris, hyphis repentibus, torulosis, ramosis, atris, 4-7 μ . crassis, hyphopodiis alternis ovoideis, ca. 10 μ .; peritheciis gregariis, minutis, sublenticularibus, brunneo-fuscis, 70-100 μ . diam.; ascis paucis, ovoideis tunicatis, 8-sporis, 40-50 \times 35-40; sporidiis conglobatis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris 20-23 \times 8-10.

Hab. in foliis *Belluciæ* sp. Juruá Miry, Rio Juruá Amazoniæ.

2. **Asterina byrsonimicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3038 p. 65. — Maculis mycelii hypophyllis vel epiphyllis effusis, atris; hyphis repentibus, radiatis ramosis, fusco-atris, usque ad 8-10 μ . crassis, pseudopodiis alternis ovoideis, 20 \times 10; peritheciis gregariis dimidiato-scutellatis, radiato-cellulosis, fusco-brunneis, medio perforatis, 250-300 μ . diam.; ascis ovoideis v. ellipsoideis, rotundatis,

*) Lapsu typographico in *Tab. comp. gen. fung.* (Syll. XIV, p. 24) locatur *Asterina* inter *Hyalodidymas* et *Asterella* inter *Phæodidymas*, sed, ut notum est, prorsus contrario res se habet.

8-sporis, 50-60 \times 30-40; sporidiis conglobatis ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, 20-30 \times 10-15.

Hab. in foliis *Byrsonimæ* spec., Rio Negro, Manáos Amazoniæ.

3. **Asterina celtidicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3039 p. 64. — Maculis mycelii atris, effusis; hyphis repentibus, atris, septatis, ramosis, ca. 3-4 μ . cr., pseudopodiis alternis ovoideis, atro-fuscis, 8-10 \times 4-5; peritheciis dimidiato-scutellatis, radiato-cellulosis, fuscis, medio perforatis, lobato-rimosis 90-120 μ . diam.; ascis ovoideis v. subglobosis, tunicatis, octosporis, 20-28 \times 18-25; sporidiis conglobatis, ellipsoideis vel subovoideis, primo hyalinis, levibus, dein atris, granulato-verrucosis 15-20 \times 8-9.

Hab. in foliis *Celtidis* spec., Bom Fim, Rio Juruá, Amazoniæ.

4. **Asterina opulenta** (P. Henn.) Sacc. *Asterella opulenta* P. Henn. 3040 in Hedw. 1904, p. 83. — Mycelio effuso crustaceo, aterrimo, maculiformi; hyphis ramosis, septatis, atris, 3-4 μ . crassis; conidiis subglobosis vel ovoideis, continuis, atro-fuscis 8-12 μ .; peritheciis discoideis rotundatis, atris, asteroideo-dehiscentibus, lobis subtriangularibus 120-150 μ . diam.; ascis paucis, ovoideis, tunicatis 4-8-sporis, 60-80 \times 40-60; sporidiis conglobatis oblongis, utrinque rotundatis, medio 1-septatis, mucosis, haud constrictis, 32-40 \times 14-17, primo hyalinis dein atro-castaneis.

Hab. in foliis *Ilicis* spec. Tijuca, Rio de Janeiro Brasiliæ (E. ULE).

5. **Asterina Hyphaster** P. Henn. in Hedw. 1902, p. 299. — Maculis 3041 fuscidulis indeterminatis; hyphis repentibus atris, ramosis, anastomosantibus, septatis 3-4,5 μ . crassis; conidiis ovoideis v. ellipsoideis, atro-fuscis, medio 1-septatis; peritheciis lenticularibus v. discoideis, contextu radiato-fibroso, atro-fusco, centro pellucido, subtrilobato dehiscentibus, ad marginem radiato-stellatis, 150-180 μ . diam. primo conidia ovoidea, atrofusca 1-septata, constricta 10-15 \times 6-7, conidiophoris brevibus hyalinis suffulta gerentibus; ascis ovoideis, tunicatis 20-25 \times 20-30, octosporis conglobatis, ellipsoideis v. ovoideis, medio 1-septatis, constrictis, primo hyalinis dein atro-castaneis 12-16 \times 6-8, cellulis subglobosis, deinde secedentibus.

Hab. in foliis *Malvastri* spec., in horto botanico S. Paulo Brasiliæ. — *Hyphaster* P. Henn. est st. initialis conidicus.

6. **Asterina Violæ** P. Henn. in Hedw. 1902, p. (63). — Mycelio atro, 3042 radiato-effuso hypophyllo, in maculis minutis gregariis; hyphis septatis, ramosis, fuscis 2,5-3,5; peritheciis sparsis, lenticularibus,

radiato-cellulosis, poro pertusis, atris 40-50 μ . diam.; ascis ovoideis, utrinque rotundatis, 4-8-sporis, 12-15 \times 9-13; sporidiis conglobatis, ellipsoideis, fusco-brunneis, 1-septatis, paullo constrictis, 8-10 \times 4-4,5.

Hab. in foliis vivis *Violæ silvestris* var. *grypoceratis*, Mt. Yokogura Japoniæ (YOSHINAGA).

7. **Asterina Dictyolomatis** P. Henn. Fungi Amaz. III, 1904, p. 372. — 3043

— Maculis mycelii epiphyllis, gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, ramosis, anastomosantibus, atrofusis, ca. 3-4 μ . crassis, hyphopodiis sparsis vel alternis, capitato-ovoideis; peritheciis gregariis, lenticularibus, radiato-cellulosis, medio pertusis, ca. 100-150 μ . diam.; ascis ovoideis vel late ellipsoideis, ca. 30-40 \times 30, 8-sporis, apice crasse tunicatis; sporidiis conglobatis ellipsoideis vel subovoideis, hyalinis dein atris, medio 1-septatis, constrictis, 15-20 \times 8-10.

Hab. in foliis *Dictyolomatis* spec., Jurimaguas, Huallaga Peruvia.

8. **Asterina anonicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 3044

p. 107. — Mycelio crustaceo atro, maculas parvas, superficiales, ex hyphis septatis, atro fuscis 3-5 μ . cr. formante; conidiis ovoideis atro-fuscis 1-septatis, 20-24 \times 10-15; peritheciis sparsis, discoideis, poro pertusis, radiato-cellulosis, margine fimbriatis, 180-200 μ . d.; ascis ovoideis, octosporis 35-45 \times 30-35; sporidiis conglobatis ovoideis, medio septatis, vix constrictis, hyalino-fuscidulis 15-20 \times 10-13.

Hab. in foliis *Anonæ* spec., in horto botanico S. Paulo Brasiliæ.

9. **Asterina Passifloræ** (P. Henn.) Sacc. *Asterella Passifloræ* P. Henn. 3045

in Hedw. 1904, p. 84. — Mycelio atro, effuso, interdum obsolete, maculis minutis, rotundatis: hyphis castaneis, septatis, ramosis, ca. 3-4 μ . crassis; peritheciis lenticularibus, membranaceo-atris, aggregatis, radiato-cellulosis, poro pertusis 120-180 μ .; ascis ovoideis, vertice tunicatis, octosporis, 30-40 \times 20-25; sporidiis ovoideis vel ellipsoideis, medio 1-septatis haud constrictis, atris, 16-22 \times 8-12.

Hab. in foliis *Passifloræ* spec. Sao Francisco, pr. St. Catharina Brasiliæ (E. ULE).

10. **Asterina Negeriana** Syd. Ann. Mycol. 1904, p. 167. — Amphigena, 3046

maculas orbiculares sæpe confluendo effusas efficiens; mycelio ex hyphis ramosis brunneis septatis ca. 3½ μ . crassis composito; peritheciis gregariis, minutis, punctiformibus, globulosis, radiatim contextis, atris, 100-175 μ . diam.; ascis ovato-globosis vel ovatis,

apice incrassatis, sessilibus, 25-35 \approx 18-28, octosporis; sporidiis bistrichis vel conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, leniter constrictis, loculo superiore paullo latiore, ex hyalino brunneis, 14-18 \approx 7-8 $\frac{1}{2}$.

Hab. in foliis Escalloniæ pulverulentæ, Concepcion in Chile et Escalloniæ spec. eodem loco.

11. **Asterina paraphysata** Starb. in Arkiv. för Botan. 1904, Band. 2, 3047

p. 12. — Mycelio latiuscule repente, peripherice laxissimo, reticulato, centrum versus dense crustaceo, nigerrimo, maculas vage determinatas inæqualiter polygonas formante; hyphis 5-12 μ . crasso; hyphopodiis oppositis, versiformibus, cellula basilari plerumque breve tuberculato-ramulosa, superne obtusa, continua vel 2-septata; peritheciis subsparsis, plicato-rugosis vel setis brevibus obsessis, primo scutellatis, dein lenticularibus, pulveraceo-carbonaceis, 100-150 μ . diam.; ascis subpiriformibus, subsessilibus, 65-75 \approx 35-40, octosporis; sporidiis conglobatis rhomboideis, 1-septatis, ex hyalino fuligineis, 29-32 \approx 14-16,5, membrana minutissime granulosa; paraphysibus numerosis dense septatis, ramosis, olivascentibus, filiformibus, ramulis extremis varie curvatis.

Hab. in foliis Styracis, Piratiny, Rio Grande do Sul Brasiliæ. — Asci jodo cærulescentes. Paraphysium caractere species prædistincta.

12. **Asternia Turneræ** P. Henn. Fungi Amaz. III, 1904, p. 372, c. ic. — 3048

Maculis mycelii amphigenis, epiphyllis gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, atro-fuscis, ramosis, anastomosantibus, 3-5 μ . crassis; pseudopodiis alternantibus, 2-4 lobatis, ca. 8 \approx 6, lobis subovoideis, obtusis, atro-fuscis; peritheciis subgregariis, subhemisphæricis, pertusis, radiato-cellulosis, margine radiantibus, rufo-fuscis, 60-90 μ .; ascis ovoideis vel late ellipsoideis, 8-sporis, crasse tunicatis, 30-40 \approx 25-35; sporidiis conglobatis, oblonge ellipsoideis, interdum subovoideis, utrinque rotundatis, medio 1-septatis valde constrictis, atro-fuscis, episporio minute granuloso, 14-20 \approx 7-10.

Hab. in foliis Turneræ ulmifoliæ, Tarapoto, Perù.

13. **Asterina Aucubæ** P. Henn. F. japonici IV, in Bot. Jahrbücher 3049

vol. XXXI, 1902, p. 739. — Maculis rotundatis, atris, mycelio crustaceo; hyphis repentibus, atris 4-6 μ . crass., pseudopodiis ovoideis, 1-septatis, 6-8 \approx 5-6; peritheciis gregariis subdiscoideis, pertusis 160-200 μ . diam., membranaceis, atris; ascis ellipsoideis, utrinque obtusis, 40-50 \approx 30-40 octosporis, aparaphysatis; sporidiis ob-

longe ellipsoideis, utrinque obtusis, medio 1-septatis, 25-35 \times 10-12, constrictis.

Hab. in foliis *Aucubæ japonicæ*, Tosa Japoniæ.

14. **Asterina huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 372, 3050
cum icon. — Maculis mycelii epiphyllis, gregariis rotundato-confluentibus, atris; hyphis repentibus, ramosis, atris; peritheciis sparsis raro subgregariis, hemisphærico-lenticularibus, atris, radiato-cellulosis, medio pertusis, 90-120 μ . diam.; ascis subglobosis vel ovoideis, 8-sporis, tunicatis, 25-30 \times 22-26; sporidiis oblonge ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, minute verrucosis, 15-18 \times 7-9.

Hab. in foliis *Crotonis*, Huallaga, Tarapoto Perù.

15. **Asterina dilabens** Syd. Ann. Mycol. 1904, p. 168. — Amphigena; 3051
peritheciis gregariis, punctiformibus, 90-200 μ . diam., globulosis, atris, radiatim contextis, e medio marginem versus radiatim dehiscentibus; hyphis mycelii ramulosis, brunneis, ca. 3 $\frac{1}{2}$ μ . crassis; ascis ovato-globosis, sessilibus, 22-26 \times 18-24, octosporis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictisque, oculis æqualibus, facile dilabentibus, ex hyalino brunneis, 12-15 $\frac{1}{2}$ \times 7 $\frac{1}{2}$ -9.

Hab. in foliis *Sarmientæ repentis*, Concepcion in Chile. — Affinis *A. Negerianæ*, a qua differt sporidiis profundius constrictis et in binos articulos æquales facile secedentibus.

16. **Asterina Memoræ** P. Henn. Fungi Amaz. III, 1904, p. 373, cum 3052
icon. — Maculis mycelii epiphyllis, rotundatis vel effusis, atro-subcrustaceis vel subobsoletis; hyphis repentibus, ramosis, rufo-brunneis, ca. 3-5 μ . crassis, anastomosantibus; conidiis fusoides, hyalino-stipitatis, fuscidulis, 3-septatis apice subhyalinis, 15-20 \times 4-5; peritheciis gregariis v. sparsis, lenticularibus, pertusis, atris, radiato-cellulosis, ca. 150 μ . diam.; ascis clavatis, tunicatis, breve curvato-stipitatis, 8-sporis, 30-35 \times 13-17; sporidiis subdistichis v. conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 10-13 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis *Memoræ* spec. Huallaga, Tarapoto Perù.

17. **Asterina solanicola** P. Henn. Fungi S. Paulenses I, in Hedw. 3053
1902, pag. 108. — Mycelio crustaceo, atro, maculas minutas formante; hyphis superficialibus epiphyllis, atro-fuscis plerumque obsoletis; peritheciis sparsis, subhemisphæricis, poro pertusis 100-140 μ . diam., contextu parenchymatico, atro; ascis clavatis apice obtuso-rotundatis, basi curvulis, attenuatis, 35-40 \times 8-10, octosporis;

sporidiis subdistichis, ellipsoideis, medio septatis, haud constrictis, hyalinis dein brunneis, 5-7 \approx 3,5-4.

Hab. in foliis Solani leucodendri prope S. Paulo Brasiliæ.

18. **Asterina systema-solare** Masee in Kew Bull. 1901, p. 160. — 3054

Peritheciis gregariis, mycelio maculiformi atro insidentibus, sphæroideo-depressis, glabris, 90-100 μ . latis; ascis cylindraceo-clavatis, breviter pedicellatis, octosporis, 50-55 \approx 12; sporidiis distichis, obovatis, 1-septatis, fuscidulis, loculo superiore majore, obtusatis 9-10 \approx 5.

Hab. in pag. sup. fol. Banksiæ marginatæ in Tasmania (RODWAY).

19. **Asterina Yoshinagai** P. Henn. in Hedw. 1902, p. (63). — Mycelio 3055

atro, radioso, in maculis rotundatis; hyphis effusis, septatis, ramosis vel simplicibus 3,5-5 μ . crassis; conidiis fusoides, brunneis, apice interdum papillatis, basi stipitatis, 2-3-septatis, haud constrictis 18-20 \approx 4-4,5, stipite fuscidulo usque ad 10 μ . longo; peritheciis sparsis, lenticularibus, radiato-cellulosis, atro-brunneis, poro pertusis 50-80 μ . diam.; ascis oblonge ovoideis, apice rotundatis, basi curvulis attenuatis, octosporis, 30-40 \approx 15-18; sporidiis subdistichis v. conglobatis, oblonge ovoideis v. subclavatis, primo 4-guttulatis, dein medio 1-septatis, hyalino-fuscidulis, 13-20 \approx 4-5.

Hab. in foliis Quercus acutæ in prov. Tosa Japoniæ (YOSHINAGA).

20. **Asterina circularis** Pat. Bull. Soc. Mycol. 1902, p. 301. — My- 3056

celio plagas atras, epiphyllas, 1-2 mm. latas, orbiculares, crustaceas, centro mox nudatas efficiente, ex hyphis brunneis, radiantibus, prostratis, 4-5 μ . cr., septatis, ramulosis, dense stipatis, hypophodiis sessilibus, 1-cellularibus, brunneis, globoso-sinuatis, 6-7 μ . alt. ornatis, setulis destitutis, composito; peritheciis numerosis circulatim gregariis, dimidiatis 150-180 μ . diam., subastomis, opacis, contextu radiante; ascis ovoideis, subsessilibus 35 \approx 15, octosporis; sporidiis hyalinis dein brunneis, ellipticis, medio 1-septatis vix constrictis 13 \approx 3.

Hab. in foliis vivis arboris ignotæ, Java (CLAUTRIAU).

21. **Asterina Libertæ** Syd. Ann. Mycol. 1904, p. 167. — Amphigena; 3057

peritheciis in greges rotundatos vel ellipticos subinde irregulares 1-5 mm. longos sæpius circulariter dispositis, plerumque etiam folia tota tegentibus, superficialibus, oculo nudo conspicuis, atris, contextu radiato, mycelio ex hyphis repentibus nodulosis anastomosantibus composito, stellatim dehiscentibus, 140-200 μ . diam.;

ascis globosis vel subglobosis, sessilibus, superne incrassatis, 30-42 \approx 28-38, octosporis; sporidiis di-tristichis, ellipsoideo-oblongis, utrinque rotundatis, medio 1-septatis leniter constrictis, primitus hyalinis, tandem fuscis, 18-25 \approx 9-11, loculo superiore interdum paullo majore, plerumque autem loculis duobus æqualibus.

Hab. in foliis vivis *Libertiæ* spec., Concepcion in Chile, frequens.

22. **Asterina Pandani** Rostr. in Bot. Tidsskrift. Copenhagen 1902, 3058
vol. 24, p. 211. — Maculis epiphyllis, atris, rugosis, usque 1 cm. latis, margine fibrilloso; peritheciis membranaceis, lenticularibus; ascis ovatis 46 \approx 33; sporidiis ellipsoideis 15 \approx 13.

Hab. in foliis *Pandani*, Siam Asiæ merid.

23. **Asterina Stuhlmanni** P. Henn. Notizbl. bot. Gart. Berl. 1903, 3059
pag. 239. — Maculis epiphyllis, rotundatis vel effusis, bullatis, flavo-brunneolis, dein centro fuscis; peritheciis sparsis epiphyllis, lenticularibus 120-140 μ . diam., atro-fuscis, pertusis, radiato-cellulosis, mycelio fusco circumdatis; hyphis ramosis, septatis, sæpe torulosis, 3-4 μ . crassis; conidiis ellipsoideis vel ovoideis, utrinque obtusis, fuscis, medio 1-septatis, sæpe constrictis, plerumque 8-14 \approx 4-5; ascis ovoideis, apice rotundatis, tunicatis, 8-sporis, 25-32 \approx 18-24; sporidiis conglobatis, ovoideis vel ellipsoideis, primo hyalinis, 2 grosse guttulatis, dein fuscis medio 1-septatis, constrictis, episporio granulato-verrucoso, 12-15 \approx 8-9.

Hab. in foliis *Ananassæ* cultæ Dar-es-Salam Africae orient. (STUHLMANN). -- Sporidiis verrucosis ad *A. alpinam* et *mexicanam* accedit, ceterum omnino diversa.

24. **Asterina Cyathearum** Rac. — Syll. fung. XVI, p. 649. — Huc ducenda *Halbania Cyathearum* Rac. Cryptog. parasit exsicc. Java n. n. 89 (saltem in meo exempl.), nam diagnosim novi generis nullibi vidi. In auctoris indice inter Phacidiaceas locatur.

KUSANOBOTRYS P. Henn. in Hedw. 1904, p. 141 (Etym. a cl. botanico *Kusano* japonensi). — Perithecia in mycelio crustaceo atro, stromatico superficialia, botryosa, subovoidea, membranacea, atra, basi setulis superantibus circumdata. Asci ovoidei 4-8-spori paraphysati; sporidia ovoidea 1-septata, fusca. — An potius ad Perisporiaceas prope *Meliolam* referendum genus?

1. **Kusanobotrys Bambusæ** P. Henn. in Hedw. 1904, p. 141. — Ma- 3060
culis epiphyllis, gregariis, rotundatis, atris, sæpe confluentibus, 2-3 mm. diam., mycelio crustaceo substromatico; hyphis olivaceo-

fuscis, ramosis, ca. 3 μ . crassis; conidiis ovoideis, olivaceo-fuscis, medio 1-septatis 13-20 \times 6-10; peritheciis 5-12 vel plurimis, botryose congestis, basi setulis atris, erectis ca. 108 \times 5-15, circumdatis, piriformibus, apice rotundatis subostiolatis, atro-olivaceis, parenchymatico-cellulosis, 60-80 \times 50-60; ascis ovoideis, apice crasse tunicatis, rotundatis 4-8-sporis ca. 40 \times 30; sporidiis conglobatis, ovoideis, rotundatis, medio 1-septatis, vix constrictis, primo hyalinis dein fuscis vel subatris, 16-23 \times 8-10.

Hab. in foliis Bambusæ Veitchii, Nikko Japoniæ (KUSANO).

Sect. 2. Hyalodidymæ.

ASTERELLA Sacc. — Syll. I p. 42, IX p. 393, XI p. 256, XIV p. 698, XVI p. 649.

1. **Asterella manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 370, ³⁰⁶¹ cum icon. — Maculis mycelii epiphyllis, rotundatis, atro-subcrustaceis, ca. 5-8 mm. diam.; hyphis repentibus ramosis, torulosis, fuso-atris, 4-5 μ . crassis; peritheciis dense gregariis confluentibusque, lenticularibus, atro-brunneis, radiato-cellulosis, pertusis, ca. 180-250 μ .; ascis clavatis, apice rotundato-tunicatis, basi attenuatis, curvulis, 8-sporis, 50-80 \times 12-18; sporidiis subdistichis vel subconglobatis, oblonge ovoideis, clavatis v. ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictiusculis, hyalinis, 12-15 \times 4 $\frac{1}{2}$ -5 $\frac{1}{2}$.

Hab. in foliis Anonaceæ cujusdam Manáos, Rio Negro, Amazoniæ.

2. **Asterella Eupomatiae** P. Henn. in Hedw. 1903, p. (78). — Maculis ³⁰⁶² rotundatis v. indeterminatis, fuscis, hypophyllis; peritheciis minutis, lenticularibus, radiato-cellulosis, atris ca. 60 μ . diam.; hyphis repentibus, ramosis, atro-fuscis, septatis, ca. 3-3,5 crassis; conidiis subellipsoideis v. ovoideis, atris, 2-septatis, 10-12 \times 5-6; ascis subglobosis v. ovoideis, octosporis 25-30 \times 22-28; sporidiis conglobatis, ellipsoideis v. ovoideis, hyalinis, 1-septatis, valde constrictis, 12-18 \times 5-6.

Hab. in foliis Eupomatiae laurinae, Eumundi, South Queensland Australiae.

3. **Asterella rufo-violascens** (P. Henn.) Sacc. *Asterina rufo-viola-* ³⁰⁶³ *scens* P. Henn. in Hedw. 1904, pag. 83. — Mycelio crustaceo, fragili, atro maculiformi rotundato, 2-3 mm. diam.; peritheciis

lenticulari-rotundatis, sicco subcupulatis, membranaceis, atris, radiato-cellulosis, rufo-violascentibus, poro pertusis; hyphis mycelii ramosis, septulatis, radiatis, varie crassis; conidiis fusoides, 1-septulatis, rufis, 20-25 \times 4; ascis clavatis vertice rotundatis, tunicatis, octosporis, 35-45 \times 13-15; sporidiis subdistichis, oblonge ovoideis, utrinque obtusis, ad basim 1-septatis, constrictis, hyalinis 12-15 \times 5-6.

Hab. in foliis Begoniæ, Serra das Orgaos, Rio de Janeiro Brasilæ (E. ULE).

4. **Asterella Parmularia** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3064 p. 64. — Peritheciis hypophyllis in mycelio *Asterinæ* parasitantibus, scutellato-rotundatis, hyphis repentibus, septatis, vix ramosis, subhyalinis, 2-4 μ . cr. circumdatis, 80-100 μ ., radiato-cellulosis, brunneis, poro pertusis; ascis clavatis, apice incrassatis, rotundato-obtusiusculis, octosporis, 25-35 \times 8-10; sporidiis distichis, clavatis, obtusis, medio 1-septatis, haud constrictis, 8-10 \times 3-4, hyalinis.

Hab. in foliis Cassiæ spec., Tarapoto, Rio Amazonas.

5. **Asterella Gardoquiæ** Syd. Ann. Mycol. 1904, pag. 169. — Hypophylla; peritheciis sparsis v. hinc inde subgregariis, minutis, punctiformibus, 70-140 μ . diam., radiatim contextis, irregulariter vel subinde substellatim dehiscentibus, membranaceis, mycelio ex hyphis tenuibus ca. 2-2 $\frac{1}{2}$ μ . crassis anastomosantibus septatis ramosisque composito cinctis; ascis subglobosis, sessilibus, apice vix v. leniter incrassatis, 25-32 \times 14-22, octosporis; sporidiis di-tristichis, ovato-oblongis, 1-septatis, non constrictis, apice rotundatis, basim versus leniter tenuatis, hyalinis, 14-17 \times 5-6.

Hab. in foliis vivis Gardoquiæ multifloræ, Concepcion in Chile (F. W. NEGER).

6. **Asterella microtheca** (Pat) Sacc. *Asterina microtheca* Pat. Bull. 3066 Soc. Mycol. 1902, p. 301. — Maculis amphigenis, superficialibus, brunneis, sparsis aut confluentibus, orbicularibus, 2-4 mm. latis; peritheciis numerosis, atris, minutis 70-80 μ . diam., poro pertusis, globoso-depressis, contextu minute celluloso, brunneo; hyphis prostratis, radiantibus, rectis, subsimplicibus 80-130 μ . longis, 4 μ . cr., brunneis, hyphopodiis destitutis, e basi enatis, insidentibus; ascis ovoideis, sessilibus, minutis 20-25 \times 13, octosporis; sporidiis hyalinis, ovoideis v. subcylindræis 6-8 \times 3, medio 1-septatis.

Hab. in foliis Leucopsidis Tweediei in Brasilia (GLAZIOU).

— *A. irradianti* Pat. affinis.

7. **Asterella macularis** Syd. Ann. Mycol. 1904, p. 168. — Epiphylla; 3067

maculas rotundatas 2-4 mm. diam. dein confluentes tandemque magnam folii partem occupantes atro-purpureas efficiens; peritheciis sparsis vel subgregariis, rotundatis vel rotundato-ovatis, radiatim contextis, irregulariter rimose dehiscentibus, atris, 150-500 μ . diam., basi hyphis radiantibus ramosis septatis brunneis ca. $3\frac{1}{2}$ μ . crassis cinctis; ascis oblongo-cylindraceutis, apice crassius tunicatis, sessilibus, 50-70 \times 10-16, octosporis; sporidiis distichis, ovato-oblongis, 1-septatis, loculo superiore minore rotundato, inferiore longiore attenuato, non constrictis, hyalinis, $12\frac{1}{2}$ - $16\frac{1}{2}$ \times $4\frac{1}{2}$ - $5\frac{1}{2}$.

Hab. in foliis vivis Myrceugeniæ Pitræ, Concepcion in Chile (F. W. NEGER).

8. **Asterella verruculosa** Syd. Ann. Mycol. 1904, p. 168. — Mycelio 3068 maculas nigras amphigenas rotundatas v. confluentes ca. 3-8 mm. latos efformante; hyphis mycelicis castaneo-brunneis, nodulosis, anastomosantibus, ramosis, septatis; peritheciis sessilibus, applanatis, ca. $\frac{1}{4}$ mm. diam., atris, membranaceis, centro perforatis; ascis saccatis, apice rotundatis, breviter stipitatis, 50-75 \times 22-31, octosporis; sporidiis distichis, clavatis, medio 1-septatis, constrictis, loculo supero rotundato latiore verruculoso, inferiore deorsum attenuato angustiore levi v. sublevi, totis 22-25 μ . longis, loculo supero 8-11 μ . lato, inferiore $4\frac{1}{2}$ -8 μ . lato.

Hab. in foliis Myrrhinei rubriflori, Rio Grande do Sul Brasiliæ (REINECK et CZERMAK, comm. F. W. NEGER). — Sporidiis peculiaribus prædistincta species.

9. **Asterella Aspidii** P. Henn. in Hedw. 1904, pag. 141. — Maculis 3069 superficialibus, rotundatis, atris, crustaceis, ca. 5 mm. diam.; peritheciis gregariis, interdum confluentibus, lenticularibus, atris, radiato-cellulosis, poro pertusis, lobato-dehiscentibus, ca. 60-90 μ . diam., basi hyphis fuscis 3-3, 5 μ . circumdatis; ascis ovoideis 20-30 \times 18-20; sporidiis conglobatis ovoideis v. ellipsoideis, utrinque obtusis, medio 1-septatis, 10-12 \times 6-8, hyalino-fuscidulis.

Hab. in foliis Aspidii falcati var., Fortuna Tosa, Nekodati Japoniæ (YOSHINAGA).

Sect. 3. Hyalophragmiæ.

ASTERIDIUM Sacc. — Syll. I p. 49, IX p. 435, XI p. 269, XIV p. 699, XVI p. 650.

1. **Asteridium ferrugineum** P. Henn. in Engl. Bot. Jahrb. 1903, 3070

p. 47. — Maculis hypophyllis, subrotundatis, explanatis, ferrugineis; hyphis repentibus, brevibus, confluentibus, septatis, subtorulosis, ramosis ca. 3-5 μ . cr., ochraceo-fuscidulis; peritheciis subglobose-lenticularibus, poro pertusis, membranaceo-cellulosis, fuscis, margine radiantibus, ochraceo-fuscidulis 140-160 μ . diam.; ascis clavatis, apice rotundatis, crasse tunicatis, octosporis, 25-40 \times 8-10; sporidiis conglobatis, oblonge cylindræis vel clavatis, utrinque obtusis, 3-septatis, constrictis, hyalinis, 15-20 \times 3,5-4.

Hab. in foliis *Cocöes nuciferæ*, Das-es-Salam, Zanzibar Africae orient. (STUHLMANN).

2. **Asteridium Heteropteridis** P. Henn. Fungi S. Paulenses I, in Hedw. 3071 1902, p. 108. — Peritheciis sparsis hypophyllis, in villo nidulantibus; hyphis subhyalino-fuscidulis repentibus, septatis ca. 3 μ . cr., circumdatis, convexo-lenticularibus, 140-200 μ . diam., atro-brunneis, membranaceis, astomis; ascis clavatis, rectis vel curvulis, apice obtusis, 35-50 \times 7-10, octosporis; paraphysibus filiformibus, hyalinis, 2 μ . cr.; sporidiis oblongis vel clavatis, subdistichis, obtusis, 2-3-septatis, 12-14 \times 3-4 hyalinis.

Hab. in foliis *Heteropteridis*, in horto botanico S. Paulo Brasiliæ.

Sect. 4. Phæophragmiæ.

ASTERIDIELLA Mac. Alp. — Syll. XIV p. 701.

1. **Asteridiella radiata** P. Henn., Fungi S. Paulenses I, in Hedw. 3072 1902, p. 108. — Mycelio radiato-effuso, atro, amphigeno; hyphis repentibus fuscis, septatis 4-6 μ . cr.; conidiis clavatis, apice obtusis, 3-5-septatis, atro-fuscis, 20-30 \times 5-6; stipite elongato usque ad 40 μ . longo, hyalino; peritheciis gregariis subhemisphæricis, poro pertusis, contextu membranaceis, radiato-cellulosis, atro-brunneis 60-80 μ . diam.; ascis clavatis, apice obtusis, octosporis, 30-49 \times 10-13; sporidiis conglobatis, clavatis, apice obtusis, basi subacutis, 5-septatis, haud constrictis, hyalino-fuscidulis, 25-30 \times 3,5.

Hab. in foliis Lauracæe cujusdam prope S. Paulo Brasiliæ.

2. **Asteridiella Marcgraviæ** P. Henn. Fungi Amaz. III, 1904, p. 376. 3073 cum icon. — Peritheciis hypophyllis in maculis subrotundatis, atris, scutellato-dimidiatis vel lenticularibus, atris, radiato-cellulosis, astomis, pertusis, ca. 150-200 μ . diam.; hyphis radiantibus, atris ramosis, atro-fuscis; ascis oblonge clavatis, rotundatis, basi

substipitatis curvatis, paraphysatis, 8-sporis, ca. 45-55 \times 14-16; sporidiis subdistichis, oblonge cylindræis, utrinque obtusis, 3-septatis, primo hyalinis, dein fuscis, 25-35 \times 3-4.

Hab. in foliis *Marcgraviæ flagellaris*, Juruá-Miry, Rio Juruá Amazoniæ.

Metastictella 43. **Asteridiella Citharexyli** P. Henn. Fungi S. Paulenses I, in Hedw. 3074 1902, pag. 108. — Mycelio obsoleto v. hyphis fuscidulis, sparsis, repentibus 3,5-4 μ .; peritheciis amphigenis gregarie sparsis, punctiformibus, sublenticularibus, atris, margine membranaceo-fimbriatis, pallidioribus 100-140 μ . diam., astomis; ascis oblonge ellipsoideis, v. ovoideis, utrinque obtusis, octosporis, 25-40 \times 14-18; sporidiis conglobatis, fusoideis, utrinque acutis, 1-dein 4-septatis, hyalinis, dein fuscis 13-22 \times 3-4.

Hab. in foliis *Citharexyli Pœppigii*, prope S. Paulo Brasiliæ.

Fam. 7. Lophiostomaceæ Sacc.

Sect. 1. Phæosporæ.

LOPHIELLA Sacc. -- Syll. II p. 673.

1. **Lophiella Bambusæ** P. Henn. F. javanici novi, in Hedw. 1902, 3075 p. 143. — Maculis oblongis interdum confluentibus, subochraceis; peritheciis epiphyllis sparse gregariis, innato-subsuperficialibus, atro-carbonaceis, rotundato-pulvinatis, vertice poroso-rimosis, late apertis, ca. 1 mm. diam.; ascis clavatis apice rotundatis, octosporis, 80-90 \times 15-16; paraphysibus filiformibus hyalinis; sporidiis distichis oblongis vel clavatis, obtusis, 20-30 \times 6-8, continuis, fusco-brunneis.

Hab. in foliis *Bambusæ* spec. in insula Java.

Sect. 2. Hyalodidymæ.

LOPHIOSPHÆRA Trev. — Syll. II p. 675, IX p. 1075, XI p. 383, XIV p. 702.

1. **Lophiosphæra Antillarum** Pat. in Duss. Enum. Champ. Guadel. 3076 1903, p. 83. — Peritheciis sparsis v. inordinate gregariis, cortice superficie atrato immersis, $\frac{1}{3}$ mm. diam., ostiolis exsertis, erectis, compressis, contextu coriaceo nigro, celluloso; nucleo albo; ascis

cylindræis apice rotundatis, basi tenuatis, 160-200 \times 25, octosporis; paraphysibus copiosis, linearibus, ramosis et vulgo apice contortis; sporidiis biseriatis, elongato-fusoideis rectis, curvulisve, muticis, 1-septatis, constrictis, grosse 2-4-guttulatis, 53-63 \times 12-14, hyalinis dein pallidissime fuliginæis.

Hab. in ramis emortuis *Ingæ laurifoliæ*, Camp-Jacob Guadalupæ.

Sect. 3. Phæodidymæ.

SCHIZOSTOMA Ces. et De Not. — Syll. II p. 673, IX p. 1074, XI p. 382, XIV p. 702, XVI p. 650.

1. **Schizostoma Cercocarpi** Earle, *Plantæ Bakerianæ*, fasc. II, Fungi, 3077 p. 18. — Peritheciis ovoideis 300 \times 250 μ ., nigris vix lucentibus, dense congestis v. confluentibus in crusta stromatica insidentibus, ostiolo minute et obsolete pliciformi donatis; ascis lineari-cylindræis 80 \times 6; paraphysibus numerosis; sporidiis monostichis, fusiformibus, 1-septatis, constrictis, pallide olivaceo-brunneis, 16-18 \times 4.

Hab. in ligno emortuo *Cercocarpi*, Hermosa, South Colorado, Amer. bor.

Sect. 4. Hyalophragmiæ.

LOPHIOTREMA Sacc. — Syll. II p. 678, IX p. 1076, XIV p. 703.

1. **Lophiotrema Cercocarpi** Earle, *Plantæ Bakerianæ* fasc. II, Fungi, 3078 p. 17. — Peritheciis dense gregariis, in areis nigrescentibus insidentibus, nigris, conicis, basi immersis, ostiolo conico-papillato donatis, compressis; ascis clavatis 80-100 \times 12-15; paraphysibus filiformibus,asco longioribus; sporidiis distichis, fusoideo-falcatis, utrinque acutis, non appendiculatis, 3-5-septatis, parce constrictis, guttula magna utroque polo donatis, hyalinis v. pallide olivaceis, 35 \times 8.

Hab. in ligno emortuo *Cercocarpi*, Hermosa, Colorado Amer. borealis.

Sect. 5. Phæophragmiæ.

LOPHIOSTOMA (Fr.) Ces. et De Not. — Syll. II p. 689, IX p. 1083, XI p. 383, XIV p. 704, XVI p. 651.

1. **Lophiostoma quadrinucleatum** Karst. — Syll. II, p. 689. — var. 3079
Sarothamni Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 265.
 — A typo differt peritheciis densius confertis, 300-500 μ . diam. ascis longioribus et angustioribus 90-130 \approx 10; sporidiis submonostichis, subfusoideis, brevioribus 15-17 \approx 8-10, triseptatis, brunneis.
Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.
2. **Lophiostoma Cephalanthi** Fairm. Journ. of Mycol. 1904, p. 230. — 3080
 Peritheciis ligno immersis, superne hemisphærico-prominentibus, centro ostiolo compresso emergente præditis; ascis tereti-clavatis longe sensim stipitatis 100-130 \approx 10; sporidiis oblongo-fusoideis, rectis curvulisve, 5-7-septatis, initio 6-8-guttulatis, utrinque tenuatis, ad septa leniter constrictis, brunneis, 27-30 \approx 6-7; paraphysibus filiformibus nucleolatis.
Hab. in ramis decorticatis Cephalanthi occidentalis, Ridgeway, N. Y. Amer. bor. — Sporidia medio disticha, utrinque monosticha.
3. **Lophiostoma insidiosum** (Desm.) De Not. — Syll. II, p. 703. — 3081
 var. **sessile** Rehm in Hedw. 1901, p. (104). — Peritheciis sparsis, emergentibus, dein plane sessilibus, 0,5 mm. diam.
Hab. in ramulis Ericæ carneæ, in alp. Bavariæ. — A proxime affini *L. caulium* sporidiis plerumque appendiculatis differt.
4. **Lophiostoma roseo-tinctum** Ell. et. Ev. — Syll. IX, p. 1085. — 3082
 var. **ebulicola** Feltg. Vorstud. Luxemb. Nachtr. III, 1903, p. 263.
 — A typo præcipue distinguitur peritheciis confertioribus; ascis longioribus et angustioribus 120-140 \approx 8-10; sporidiis plerumque 3-5-septatis, fusoideis, non appendiculatis.
Hab. in caulibus emortuis Sambuci Ebuli, Luxemburg.
5. **Lophiostoma quercinum** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 3083
 1903, p. 265, *Lophiotrema quercinum* Feltg. II, p. 186. — Peritheciis sparsis vel gregariis, ligno semiimmersis, globoso-conoideis, ostiolo vario, nunc subpapillato, nunc compresso, nunc subanguloso, demum deciduo, nigris, carbonaceo-fragilibus 300-600 μ . diam.; ascis tereti-clavatis, breve stipitatis, 85-110 \approx 13-18, filiformi-paraphysatis suboctosporis; sporidiis mono-distichis, fusiformibus, plerumque acutis, rectis curvulisve, diu 1-septatis hyalinis, 4-8 guttulatis, demum brunneis, tenuiter 3-6-septatis, plerumque hinc vel utrinque appendiculatis et mucro obductis, 33 \approx 5-7.
Hab. in ramis emortuis et ligno Quercus Roboris, Luxemburg. — *Lophiost. perverso* et *Loph. vaganti* affine.

6. **Lophiostoma occidentale** Tracy et Earle, *Plantæ Bakerianæ fasc. I*, 3084
Fungi p. 31. — Peritheciis sparsis, prominentibus, nigris, inferne rugosis, superne levibus, ovalibus 1-1,5 × 0,5-1 mm., ostiolo compresso; ascis clavato-cylindræis, longe stipitatis 150-160 × 20; paraphysibus longis, filiformibus; sporidiis ellipticis, superne rotundatis, inferne subacutis, fuscis, 5-septatis, 30-40 × 10-15.

Hab. in ramulis Juniperi monospermæ, Mancos, South Colorado, Amer. bor.

BRIGANTIELLA Sacc. — Syll. II p. 707 (ut subgenus).

1. **Brigantiella pallida** P. Henn. F. javanici novi, in Hedw. 1902, 3085
p. 143. — Peritheciis hypophyllis, sparsis v. subaggregatis, innato-superficialibus, membranaceo-subcarbonaceis, pulvinate-hemisphæricis, albido-villosis, clausis, obtusis, dein apice poroso-apertis, ca. 0,5 mm. diam.; ascis clavatis, vertice obtuso-rotundatis, basi attenuatis, curvatis, octosporis, 150-200 × 20-25, paraphysatis; sporidiis distichis oblonge clavatis, apice rotundatis, basi hyalino-rostratis, 5-septatis, haud constrictis, brunneis vel atro-fuscis, 28-40 × 10-14.

Hab. in foliis Hibisci spec., Buitenzorg Javæ.

Sect. 6. Phæodictyæ.

PLATYSTOMUM Trevisan in Bull. Soc. Bot. Belgique 1877, vol. XVI, pag. 16. — Syll. XIV p. 27. — *Lophidium* Sacc. Mich. I, p. 340 (1878) — Syll. II p. 710, IX p. 1091, XI p. 384, XIV p. 706, XVI p. 653. — Huc ducendæ sunt species sequentes: *Platystomum compressum* (Pers.) Trev., *Pl. fraudulentum* (Diet. M.) Trev., *Pl. gregarium* (Fuck.) Trev., *Pl. hygrophilum* (Sacc.) Trev., *Pl. ramorum* (Nke) Trev., *Pl. nuculoides* (Sacc.) Lind., *Pl. Spartii* (Fabr.) Lind., *Pl. Cotini* (Fabr.) Lind., *Pl. thyridioides* (Sacc. et Speg.) Lind., *Pl. fenestræ* (Cooke et Ell.) Lind., *Pl. obtectum* (Peck) Lind., *Pl. ambiguum* (Fabr.) Sacc. et D. Sacc., *Pl. aromaticum* (Fabr.) Sacc. et D. Sacc., *Pl. confertum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Cotini* (Fabr.) Sacc. et D. Sacc., *Pl. curtum* (Tr.) Sacc. et D. Sacc., *Pl. deflectens* (Karst.) Sacc. et D. Sacc., *Pl. diminuens* (Pers.) Sacc. et D. Sacc., *Pl. graphidosporum* (Anzi) Sacc. et D. Sacc., *Pl. inops* (Pass.) Sacc. et D. Sacc., *Pl. melanommoides* (Speg.) Sacc. et D. Sacc., *Pl. minus* (Ell.) Sacc. et D. Sacc., *Pl.*

nitidum (Ell. et Ev.) Sacc. et D. Sacc., *Pl. nobile* Sacc. et D. Sacc., *Pl. pachysporum* Sacc. et D. Sacc., *Pl. pachystomum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Populi* (Fabr.) Sacc. et D. Sacc., *Pl. psilogrammum* (Dur. et Mont.) Sacc. et D. Sacc., *Pl. purpurascens* (Mont.) Sacc. et D. Sacc., *Pl. Ritro* (Pass.) Sacc. et D. Sacc., *Pl. ruborum* (Crouan) Sacc. et D. Sacc., *Pl. Santolinæ* (Fabr.) Sacc. et D. Sacc., *Pl. Scorpii* (Fabr.) Sacc. et D. Sacc., *Pl. subcompressum* (Karst.) Sacc. et D. Sacc., *Pl. subgregarium* (C. Mass.) Sacc. et D. Sacc., *Pl. tingens* (Ell.) Sacc. et D. Sacc., *Pl. incisum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. trifidum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. rude* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. anomalum* (Atkin.) Sacc. et D. Sacc., *Pl. chartarum* (Sacc. et Syd.) Sacc. et D. Sacc.

1. **Platystomum hysterioides** Earle, *Plantæ Bakerianæ fasc. II*, Fungi 3086 p. 18. — Peritheciis sparsis, elongatis $1 \approx 0,5$ mm. rugosis, nigris, basi fibrillis vestitis in rima longitudinali apertis; ostiolo inconspicuo; ascis cylindraceis breve stipitatis $100-140 \approx 12$; paraphysibus filiformibus, numerosis; sporidiis ovoideis 3-septatis, septo mediano constrictis, longitudinaliter divisis, initio brunneolis, dein intense brunneis, $20 \approx 10$.

Hab. in ramis decorticatis *Amelanchieris* et *Fendleræ* spec. Hermosa South Colorado, Amer. bor.

2. **Platystomum Amelanchieris** Tracy et Earle *Plantæ Bakerianæ*, 3087 fasc. I, pag. 32. — Peritheciis sparsis, immersis, nigris, inferne rugosis, superne lucentibus, fere hemisphæricis $0,5-1$ mm. diam. sæpe irregulariter elongatis, ostiolo, inconspicuo donatis; ascis cylindraceis, stipitatis, $140-150 \approx 13-15$; sporidiis oblique monostichis, fuscis, dein opacis, ellipticis, utrinque acutis, 3-5-septatis, muriformibus, plus minusve constrictis, $22-24 \approx 7-8$.

Hab. in ramis decorticatis *Amelanchieris* spec., Mancos, South Colorado, Amer. bor.

3. **Platystomum Aceris** Tracy et Earle, *Plantæ Bakerianæ*, fasc. I, 3088 Fungi p. 32 (*Lophidium* Sacc.). — Peritheciis sparsis, nigris, rugosis, compressis $0,8-1 \approx 0,5-0,8$ mm. diam., ostiolo depresso, ellipticis; ascis oblongis, stipitatis $100-120 \approx 14-16$; paraphysibus numerosis filiformibus; sporidiis oblique monostichis, ovalibus, 3-septatis, ad septum medianum profunde constrictis, muriformibus, intense brunneis $17-18 \approx 9-10$.

Hab. in ramis decorticatis *Aceris glabri*, La Plata River, South Colorado, Amer. bor.

4. **Platystomum desertorum** Tracy et Earle Plantæ Bakerianæ fasc. I, 3089 Fungi pag. 32. — Peritheciis sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel ovatis, 0,5 mm. diam., ostiolo elliptico vel fere circulari donatis; ascis cylindræis, longe stipitatis 135-150 \approx 11-13; paraphysibus numerosissimis, filiformibus asco longioribus; sporidiis oblique monostichis, ovalibus, intense brunneis, 5-7-septatis, ad septum medium valde constrictis, muriformibus, 22-24 \approx 8-9.

Hab. in caulibus emortuis « Sage Brush » dictis (Artemisiæ?) Mancos, South Colorado, Amer. bor.

5. **Platystomum Salicum** Earle, Plantæ Bakerianæ, II, fasc. I, Fungi 3090 p. 18. — Peritheciis sparsis initio velatis, dein erumpentibus, nigris, lucentibus, oblongis 0,7-1 mm. longis, 0,5 mm. latis, ostiolis pertusis, generaliter immersis, longis quantum latis; ascis clavatis 80-100 \approx 16; paraphysibus numerosis, filiformibus; sporidiis subdistichis 5-7-septatis, ad septum medianum leviter constrictis, utrinque subacutis, curvulis, cellulis medianis longitudinaliter septatis initio pallide brunneolis dein fuliginæis opacisque, 30-35 \approx 7-8.

Hab. in ramulis emortuis Salicis spec., Hermosa, South Colorado, Amer. bor.

6. **Platystomum alpinum** Tracy et Earle, Plantæ Bakerianæ fasc. I, 3091 Fungi p. 32. — Peritheciis, in areis magnis, sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel subovatis, 0,8-1 mm., ostiolo obsolete papillato, longiusculo, donatis; ascis cylindræis, breve-stipitatis 140-160 \approx 12-14; paraphysibus numerosis, filiformibus; sporidiis oblique monostichis late ellipticis vel ovatis, brunneis dein opacis, 5-septatis, ad septum medium valde constrictis, loculo centrali longitudinaliter septato, 20-22 \approx 8-10.

Hab. in ligno emortuo Populi tremuloidis, Bob Creek, South Colorado, Amer. bor. — *Loph. trifido* E. et E. peraffine.

7. **Platystomum Aspidii** (E. Rostr.) Sacc. et D. Sacc. *Lophidium* 3092 *Aspidii* Rostr. Norske Ascom. 1904, p. 12 (Vidensk. Skrift.). — Peritheciis sparsis, tectis demum subliferis, ostiolo valde compresso; ascis cylindræis 150-155 \approx 15-20; sporidiis fusoides, 9-septatis, 45-52 \approx 6-8.

Hab. in stipitibus *Aspidii spinulosi*, Alstadhaug Norvegiæ.

Fam. 8. Hemihysteriaceæ SPEG.

HYSTEROSTOMELLA Speg. — Syll. IX p. 1098, XI p. 385, XIV p. 708, XVI p. 655.

1. **Hysterostomella sabalicola** Tracy et Earle in Bull. of the Torr. 3093 bot. Club. 1901, p. 185. — Maculis parvis, irregularibus, luteis; stromatibus sparsis hypophyllis, nigris, scutellatis, parvulis, irregulariter ovatis 0,8-1 mm. diam., margine constrictis; peritheciis elevatis, rugosis, rima percursis, labiis irregulariter conniventibus; ascis ovalibus 40-50 \times 20, octosporis; sporidiis irregulariter in asco dispositis, 1-septatis, fere hyalinis (immaturis?), 20 \times 6.

Hab. in foliis Sabalis Palmetto, Longboat Key, Fla. Amer. borealis.

2. **Hysterostomella floridana** Tracy et Earle in Bull. of the Torr. 3094 bot. Club. 1901, p. 185. — Maculis nullis; stromatibus sparsis, epiphyllis, nigris, superficialibus crustiformibus, 1-4 mm. diam., centro rugosis, rima connivente percursis, margine levibus, subiculo ex hyphis anastomosantibus fuscis composito, ut in *Lembosia*; ascis late ovalibus, octosporis, aparaphysatis, 30-35 \times 20-25; sporidiis inordinatis, anguste ovatis, 1-septatis, constrictis, apice v. utrinque obtusis, hyalinis pallide olivaceis (probabiliter maturitate intense coloratis) 16-18 \times 6-7.

Hab. in foliis Ardisiæ Pickeringii, Manatee, Fla. Amer. borealis.

3. **Hysterostomella Uleana** Rehm — Syll. XVI, p. 655. — var. **Asclepiadeæ** P. Henn. Hedw. 1904, p. 90. — Peritheciis amphigenis vel cauliculis, rotundato-maculiformibus, atris 5-7 mm. diam., crustaceis, medio congestis, linearibus, curvatis, rima longitudinaliter angusta dehiscentibus, contextu parenchymatico atro; ascis oblonge ovoideis, vertice tunicatis, rotundatis, octosporis, 26-35 \times 14-20; paraphysibus filiformibus 1,5 μ . crassis, epithecio olivaceo conglutinatis; hypothecio olivaceo; sporidiis subdistichis vel globatis ellipsoideis, utrinque obtusis, medio 1-septatis, valde constrictis, hyalino-fuscidulis.

Hab. in foliis caulibusque Asclepiadaceæ cujusdam, Tijuca, Rio de Janeiro Brasiliæ (E. ULE).

PARMULARIELLA P. Henn. Fungi Amaz. II p. 266 (1904) (Etym. a

Parmularia, cui affinis). — Stromata superficialia dimidiato-scutellata; perithecia in stromate immersa, radiantia, rima longitudinaliter dehiscentia; asci ovoidei v. clavati, 8-spori; sporidia oblonge clavata 1-dein 3-septata, omnino hyalina. — *Parmularia* affinis et simillima, sed sporidiis hyalinis, deinde 3-septatis.

1. **Parmulariella Vernoniæ** P. Henn. l. c. cum icone. — Maculis fuscidulis rotundatis; stromatibus plerumque hypophyllis, sparsis v. subgregariis superficialibus, rotundato-scutellatis, centro papillato-ruguloso, radiatim subplicatis, atro-cellulosis; hyphis radiantibus, castaneis, 3-4 μ . crassis circumdatis; peritheciis subimmersis radiatis, rectis vel flexuosis, rima longitudinaliter dehiscentibus; ascis subovoideis vel clavatis, 8-sporis, vertice rotundatis, tunicatis, basi substipitatis curvulis, 25-45 \times 12-20; sporidiis conglobatis clavatis, hyalino-tunicatis, medio 1-septatis, constrictis, deinde plus minus 3-septatis, omnino hyalinis.

Hab. in foliis *Vernoniæ* spec., Tarapoto Peruviae.

Fam. 9. Hysteriaceæ CORDA.

Sect. 1. Hyalosporæ.

SCHIZOTHYRIUM Desm. — Syll. II p. 723, IX p. 1100, XIV p. 710, XVI p. 657.

1. **Schizothyrium Hyperici** (Vesterg.) Sacc. et D. Sacc. *Aporia Hype-* 3097
rici Vesterg. *Micr. rariores selecti* in Bot. Not. 1902, p. 115. — Peritheciis minutissimis, innatis, longitudinaliter seriatis, ambitu ellipticis, utrinque acutatis, udis, per rimam latiusculam, longitudinalem, discum album, revelantem dehiscentibus, nigris 400-500 \times 150-200; ascis cylindraceo-clavatis, deorsum tenuatis, sed sessilibus, apice rotundatis, octosporis, 60-85 \times 12-15; sporidiis mono-distichis obovato-oblongis, plerumque inæquilateris, utrinque rotundatis, continuis, hyalinis, 1-guttatis 13-15 \times 5-6.

Hab. in caulibus siccis *Hyperici* quadranguli in insula Abro Rossiae balticæ.

2. **Schizothyrium Pteridis** Feltg. *Vorstud. Pilz. Luxemb. Nachtr.* III, 3098
1903, pag. 103. — Peritheciis gregariis basi insculptis, oblongis, rectis vel curvis, acutiusculis, rima tenui dehiscentibus, nigris, 1000-1350 \times 50-100, disco vix manifesto; ascis oblongo-fusoideis v. clavulatis, breve stipitatis, 22-30 \times 5,5-6, filiformi-paraphysatis;

sporidiis oblongis, utrinque obtuse tenuatis, hyalinis eguttulatis, 1-cellularibus (semper?), $5,5-6 \approx 1$.

Hab. in stipitibus Pteridis aquilinæ, Luxemburg. — An forte idem ac *Aulographum aquilinum*, adhuc immaturum?

HENRIQUESIA Pass. et Thüm. — Syll. II p. 726, XVI p. 658.

1. **Henriquesia italica** S et Cav. — Syll. XVI, p. 658 — Teste Doct. 3099 Paoli in App. N. G. B. I. 1905, p. 93, c. ic., diagnosis speciei, quoad perithecium, sic reformanda: — Peritheciis superficialibus, sparsis, coriaceo-carbonaceis, ovatis, profunde sulcatis, quatuor sulcis majoribus rhombice dispositis, opacis, atris, rima inæquali, mediana, plus minusve lata, $\frac{3}{4}-1$ mm. longis, paulo minus latis; ascis clavatis, longiuscule tenuato-stipitatis 60-65 \approx 7-8 (p. spor.), 8-sporis; sporidiis oblique monostichis, ovato-oblongis, unicellularibus utrinque obtusulis, interdum inæquilateralibus 7-8 \approx 2,5-3; paraphysibus filiformibus copiosis, apice massa grumosa fusce olivacea conglomeratis.

Hab. ad ramos decorticatos Abietis albæ, Vallombrosa, Italia (CAVARA).

DICHÆNA Fr. — Syll. II p. 771, IX p. 1116. — Observante doct. Paoli (vide infra), sporidia etiam perfecte matura sunt continua, ovoidea hyalina, nec demum septata.

1. **Dichæna quercina** (Pers.) Fr. Elench., II, 141. — Syll. II, p. 771, 3100 Paoli App. N. G. B. J. 1905, p. 96, c. icone, ubi diagnosis reformata sequens: — Peritheciis primum immersis, dein erumpentibus, in maculas rotundatas ellipticas vel irregulares 0,5-2 cm. latas aggregatis, ellipticis vel elongatis, convexis, opacis, atris, subcarbonaceis, asperis, rima longitudinali angusta, dein, labiis tumidis dimotis, dehiscentibus, circiter 1 mm. long. $\frac{2}{3}-\frac{1}{2}$ mm. crassis; ascis clavatis vel lageniformibus, compressis, 80 \approx 26 \approx 15 subsessilibus 8-sporis; sporidiis oviformibus unicellularibus, primum endoplasmate granuloso, 1-guttulatis, hyalinis, tandem fuligineis 18-20 \approx 13; paraphysibus filiformibus simplicibus vel parce ramosis, septatis, articulis brevibus, epithecium distinctum non formantibus.

Hab. ad corticem vivum lucidum juvenum Quercuum in Gallia, Italia, Germania. — Verisimiliter status pycnidici sunt *Psilospora Quercus* et *Dichænopis Notarisii*, de quibus cfr. suo loc.

Sect. 2. Hyalodidymæ.

AULOGRAPHUM Lib. — Syll. II p. 727, IX p. 1101, XI p. 386, XIV p. 711, XVI p. 659.

1. **Aulographum juruanum** P. Henn. Fungi Amaz. III, p. 382 (1904) 3101 cum icone. — Peritheciis epiphyllis in maculis atris, rotundato-angulatis, gregariis, ellipsoideo-scutellatis, atris, rima longitudinaliter dehiscentibus, ca. 150-180 \times 100-140 μ ., radiato-cellulosis, margine hyphis septatis, fusco-brunneis, 3-4 μ . crassis circumdatis; ascis ovoideis, rotundatis, tunicatis, 8-sporis, 50-60 \times 35-50; sporidiis conglobatis, ovoideis, submedio 1-septatis, constrictis, hyalinis, 25-30 \times 10-14.

Hab. in foliis Rolliniæ spec., Juruá Miry, Rio Juruá, Amer. merid.

2. **Aulographum anaxæum** Sacc. et D. Sacc. Myc. ital. n. 1314. — Peritheciis hinc inde laxe gregariis, nigris, exiguis, ovatis oblongisve, convexulis, rimula longitudinali exaratis, 250-300 \times 100, superficialibus, contextu tenui; ascis clavatis, brevissime stipitatis, apice rotundatis, 30-40 \times 9-11, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, tereti-clavatis, utrinque obtusis, 1-septatis, leviter constrictis, loculo infero angustiore, 2-guttatis, 9-10 \times 4-4,5, hyalinis.

Hab. in foliis emortuis Caricis spec. ad flum. Piave (Anaxum), Narvesa (Treviso) Italiæ bor.

3. **Aulographum mugellanum** Paoli App. N. G. B. J. 1905, p. 100, 3103 c. icone. — Peritheciis punctiformibus, subiculo nullo, epi-et hypophyllis gregariis, parallelis, superficialibus, cuticula striata nigricata tectis, dimidiatis, ovatis, rectis, simplicibus, utrinque obtusis, nitidulis, atris, membranaceis, rima superficiali angusta pertusis 300-350 \times 120-140; ascis ovatis fuscidulo-tunicatis, 36-40 \times 23-25, 8-sporis; sporidiis confertis, ovatis, episporio crasso, uni-septatis, loculis subequalibus, endoplasmate chlorino non guttulado neque granuloso, 15-16 \times 6; paraphysibus paucis, conglutinatis.

Hab. ad folia sicca Pini (silvestris?) S. Piero a Sieve in Mugello Etruriæ, Sept. 1904. — Ab *Aulogr. Pinorum* peritheciis minoribus magis applanatis etc. distinguitur.

4. **Aulographum quercinum** Ell. et Mart. deest in Sylloge, teste Rehm, Ann. Mycol. 1904, p. 354, sed revera adest sub nomine *Lembosia quercinæ* Tracy et Earle. — Syll. XIV, p. 714.

GLONIUM Mühl. — Syll. II p. 731, IX p. 1102, XI p. 386, XIV p. 711, XVI p. 661, 1144.

1. **Glonium Calathææ** Rehm, Hedw. XLIV (1905). — Peritheciis gregariis, epiphyllis, sessilibus, linearibus v. trigonis, utrinque obtusis, rectis, rima longitudinali apertis, labiis medio distantibus, discum hyalinum denudantibus, atris, glabris, membranaceis, 0,3-0,5 mm. long. 90 μ . lat.; ascis ovoideis 35-40 \approx 15, octosporis; sporidiis fusiformibus, utrinque obtusis, 7-septatis, hyalinis 25 \approx 5-7; paraphysibus ramosis conglutinatis. 3104

Hab. in foliis Calathææ, Blumenau Brasiliæ (E. ULE). — Affine *Gloniellæ scriptæ*, sed disco brunneo et sporidiis minoribus 6-cellularibus diversum.

2. **Glodium microsporum** Sacc. — Syll. II, p. 736. — var. **americanum** Starb. in Arkiv. för Botan. 1904, II, pag. 8. — Peritheciis rarissime elongatis, sæpissime ellipticis v. fere globosis; sporidiis minoribus 7,5-9 \approx 3-4, plane interdum fere imbricatim monostichis a typo differt hæc varietas. 3105

Hab. in truncis prope Zarate in delta fluminis Paraná Buenos Aires Argentinæ. — Huc ducendum *Glodium microsporum* Starb. in Ascomyceten der ersten Regnellschen Expedition I, in Bih. K. Sv. Vet.-Akad. Handl. Band 25 Afd. III p. 18.

3. **Glodium cypericola** P. Henn. in Hedw. 1903, p. (84). — Peritheciis sparsis oblongis, convexis, atris, ca. 0,5-0,7 mm. longis, rectis, anguste rimosis, labiis obtusis; ascis clavatis, apice obtusis, octosporis 25-35 \approx 5,5-7,5, paraphysibus filiformibus, hyalinis, 0,5 μ . cr.; sporidiis distichis, clavatis v. oblongis, obtusis, primo pluri-guttulatis, dein medio 1-septatis, 5-7 \approx 2-2,5 hyalino-chlorinis. 3106

Hab. in Cyperaceæ siccæ cujusdam sp., S. Queensland Australiæ (PRITZEL).

CYCLOSCHIZON P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. XXVIII p. 39 (Etym. *cyclos* circulus et *schizo* findo). — Stromata membranacea, dimidiato-orbicularia, superficialia, atra, rima circulari tenuissima aperta. Asci ovoidei, paraphysati, octospori; sporidia subclavata, 1-septata, hyalina vel subfuscidula. *Parmulariæ* affinis.

1. **Cycloschizon Brachylænæ** (Rehm) P. Henn. Hedw. 1901, p. 173, 3107
Schneepia Brachylænæ Rehm Hedw. 1901, p. 173. — Stromatibus epiphyllis, gregariis, sæpe confluentibus, atris, glabris, haud nitentibus, dimidiatis, membranaceis, fusco-contextis, orbicularibus,

centro elevato-papillatis, rima circulari tenuissima 15 μ . lata, sæpe tenuiter albido-marginata, in siccio vix perspicua, centrifuge denique dilatata apertis, 250-300 μ . diam.; ascis ovoideis, sessilibus, apice valde incrassatis, 35-45 \times 20, octosporis; sporidiis tristichis clavatis, 1-septatis, cellula sup. $\frac{2}{3}$ longiore, ad septum non constrictis, hyalinis, 12 \times 5; paraphysibus filiformibus, septatis, 2 μ ., apice 3 μ . cr. fuscidulis.

Hab. in foliis vivis *Brachylænæ neriifoliæ* ad Promont. Bonæ Spei Afric. austral. (MAC OWAN).

Sect. 3. Phæodidymæ.

LEMBOSIA Lév. — Syll. II p. 741, IX p. 1104, XI p. 387, XIV p. 712, XVI p. 663.

1. **Lembosia Cactorum** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 186. — Maculis indefinitis; peritheciis sparsis, nigris, lucentibus, crassiusculis, v. subelevatis hysteriiformibus 200-250 \times 100-150, apice obtusis, labiis conniventibus v. leviter apertis, subiculo ex hyphis confertis anastomosantibusque 2-4 μ . diam. composito; epithecio bene evoluto; ascis ovalibus 25-30 \times 16-20 octosporis; sporidiis anguste ovatis, irregulariter dispositis, inæqualiter septatis, apice utrinque obtusis, hyalinis?, 12 \times 4.

Hab. in *Opuntia vulgari*; Palma Sola, Fla., Amer. bor.

2. **Lembosia brevis** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 185. — Maculis irregularibus, brunneis 2-4 mm. diam.; peritheciis epiphyllis sparsis, nigris, crustiformibus, raro furcatis et subconfluentibus, brevissimis, apice obtusis 100-175 \times 70-80, subiculo ex hyphis fuscis, simplicibus 10-20 \times 2-3 composito; ascis ovalibus octosporis, circ. 20 \times 16; sporidiis inordinatis, oblongis apice utrinque obtusis, 1-septatis, subhyalinis (immaturis?) 8-10 \times 4.

Hab. in foliis vivis *Ilicis spec.*, Longboat Key, Fla. Amer. borealis.

3. **Lembosia Albersii** P. Henn. Fungi Africae orient. II, in Bot. Jahrb. XXVIII, p. 39. — Epiphylla gregaria, raro hypophylla, sparsa; peritheciis innato-superficialibus, subcarbonaceis in maculas orbiculares atras, subiculo radiante fibrilloso vel crustaceo circumdatis, plerumque gregariis, confluentibus, elongatis, atris, rima longitudinali dehiscentibus; ascis late clavatis, apice rotundatis,

crasse tunicatis, 4-8-sporis, 45-90 \approx 20-30; paraphysibus filiformibus, obvallatis, apice incrassatis curvulis, fuscis 3,5-4; sporidiis subdistichis vel monostichis, ovoideis, medio 1-septatis, constrictis, fuscis dein atris, 20-30 \approx 10-12.

Hab. in foliis *Elæodendri* spec. Usambara (ALBERS).

4. **Lembosia huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 382, 3111 cum icone. — Peritheciis epiphyllis sparsis in maculis effusis, fuscidulis, oblonge v. ellipsoideo-scutellatis, utrinque obtusis, rectis vel curvulis, 200-300 \approx 150-200 diam.; contextu radioso-celluloso fusco-brunneo, margine hyphis septatis, ramosis, hyphopodiis alternis, ovoideis ca. 10 \approx 5; ascis ovoideis vel late clavatis, apice rotundatis, 4-8-sporis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris, 25-28 \approx 10-12.

Hab. in foliis Sapindaceæ cujusdam, Huallaga, Perù.

5. **Lembosia Drymidis** Lév. — Syll. I, p. 743, Rehm Hedw. XLIV, (1904) p. 8. Forma typica dignoscitur. — Peritheciis semper trigonis in centro macularum orbicularium 5 mm. diam. arcte congregatis; ascis ovoideis, apice valde incrassatis, 40-45 \approx 25; sporidiis clavatis, 18-20 \approx 6-7, strato mucoso tenui obvolutis; paraphysibus ramosis, 2-3 μ . crassis.

Hab. quoque in foliis *Drymidis chilensis*, Concepcion, Chili (Doct. NEGER).

6. **Lembosia Byrsonimæ** P. Henn. Fungi Amaz. II, p. 265. — Ma- 3112 culis epiphyllis atris suberustaceis, rotundatis vel effusis; peritheciis sparsis vel subgregariis, dimidiato-oblongis, radiato-cellulosis atris, hyphis ramosis, rufo-fuscis, ca. 3 1/2-4 μ . crassis, radiatim circumdatis, ca. 200 - 280 \approx 150, rima longitudinaliter exaratis; ascis subglobosis vel ovoideis 40-45 \approx 35, 4-sporis, paraphysatis; sporidiis conglobatis ovoideis vel ellipsoideis, utrinque obtusis, 1-septatis, constrictis, atro-brunneis, 22-30 \approx 13-14.

Hab. in foliis *Byrsonimæ* spec., Manaos, Rio Negro Amazoniæ. — Ascis tetrasporis imprimis dignoscenda species.

7. **Lembosia manaosensis** P. Henn. Fungi Amaz. II, pag. 265. — 3113 Peritheciis epiphyllis, sparsis v. gregariis, vix maculosis, oblonge dimidiatis, utrinque subobtusis, rectis, ca. 300-400 \approx 200-250, contextu radiato-cellulosis, atris, hyphis radiantibus, septatis, ramosis, 3-5 μ . crassis, castaneis circumdantibus, longitudinaliter rimosis; ascis ovoideis, apice crasse tunicatis, 8-sporis, 55-65 \approx 45-50, paraphysibus apice conglutinatis; sporidiis allipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 25-35 \approx 13-17.

Hab. in foliis Malpighiaceæ cujusdam Manaos, Rio Negro Amazoniæ. — A *L. Byrsonimæ* ascis 8-sporis, maculis subcrustaceis subnullis mox distinguenda.

8. **Lembosia Sclerolobii** P. Henn. Fungi Amaz. III, p. 265. — Ma- 3114
culis epiphyllis, rotundatis vel confluentibus, atris; peritheciis sparsis vel gregariis oblongis, subfusoideo-dimidiatis, atris, utrinque subacutis rectis usque ad 1 mm. longis, ca. 140-180 μ . latis, rima longitudinaliter dehiscentibus, hyphis fuscis, 3-4 μ . crassis radiantibus; ascis ovoideis, apice crasse tunicatis, 35-50 \approx 30-40, 8-sporis; paraphysibus conglutinatis; sporidiis conglobatis oblongis, interdum clavatis, obtusis, medio 1-septatis, valde constrictis, atrobrunneis, 17-23 \approx 6-9.

Hab. in foliis coriaceis Sclerolobii bracteosi, Marmellos, Rio Madeira Amazoniæ.

9. **Lembosia Warscewiczii** P. Henn. Fungi Amaz. II, pag. 264. — 3115
Maculis rotundatis, atris; peritheciis gregariis, plerumque circulariter dispositis, simplicibus vel substellato-ramosis, linearibus, rectis vel flexuosis, ca. 1-1 $\frac{1}{2}$ mm. longis, 180-200 μ . latis, utrinque acutiusculis, hyphis fuscis radiantibus circumdatis, rima angusta longitudinaliter dehiscentibus; ascis ovoideis vel subclavatis, vertice rotundato-incrassatis, 8-sporis, 50-60 \approx 25-30, paraphysibus hyalinis, filiformibus, apice conglutinatis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictis, primo hyalinis, dein atris, 20-26 \approx 10-13.

Hab. in foliis Warscewiczii coccineæ, Manaos, Rio Negro Amazoniæ.

10. **Lembosia diffusa** Wint. — Syll. IX, p. 1106. — var. **hypophylla** 3116
Syd. Ann. Mycol. 1904, p. 162. — A typo præcipue differt peritheciis hypophyllis, maculis purpureo-fuscis carentibus; ascis 42-55 \approx 30-35; sporidiis octonis, hyalinis, dein brunneis, medio valde constrictis, 22-27 \approx 9-11.

Hab. in foliis Posoqueriæ latifoliæ in Brasilia (SELLO). — *Lemb. diffusa* Wint. var. *breviuscula* Penz. et Sacc., observante cl. Sydow l. c., specificè est distinguenda nomine *L. breviscula* (Penz. et Sacc.) Syd.

11. **Lembosia Cassupæ** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 3117
1905, p. 67. — Maculis mycelii epiphyllis, angulato-rotundatis sparsis, atris vel subobsoletis; peritheciis gregariis, oblonge fusoideis interdum substellatis, atris, longitudinaliter rima erumpentibus, 400-500 μ . longis, rectis, 200-250 μ . latis, contextu radiato-cellu-

loso, margine hyphis repentibus atro-fuscis circumdatis, hyphopodiis alternis, ovoideis vel corniformibus, atro-brunneis 8×5 vel $15 \times 5-6$; conidiis fusoides vel subclavatis, 1-4-septatis, $15-20 \times 4$; ascis ovoideis, apice crasse tunicatis, 8-sporis, paraphysatis, $40-60 \times 30-40$; sporidiis conglobatis, ellipsoideis v. subovoideis, medio 1-septatis, valde constrictis, atris, intus granulatis, $20-28 \times 10-14$.

Hab. in foliis *Cassupæ juruanæ*, Rio Juruá Amazoniæ.

12. **Lembosia parmularioides** P. Henn. Fungi Amaz. II, p. 265, c. ic. — 3118

Maculis nullis; peritheciis epiphyllis gregariis variiformibus, stellatim conexas, interdum parmularioides, 0,5-3 mm. diam., ramulis oblongis substriiformibus apice subobtusis, convexis, longitudinaliter rima dehiscentibus, hyphis fuscidulis circumdatis, contextu atro, submembranaceo, radiato; ascis ovoideis, apice crasse tunicatis, 8-sporis, $35-50 \times 20-26$; paraphysibus apice ramosis, fuscidulis, conglutinatis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, atro-fuscis, $14-21 \times 8-9$.

Hab. in foliis *Apocynaceæ* cujusdam Juruá Miry Amazoniæ. — Pulcherrima species peritheciis stellatim connexas distincta et ad *Parmulariam* nutans, sed hypostroma nullum.

13. **Lembosia lophiostomacea** Starb. in Arkiv f. Botan. 1904, II, 3119

pag. 8, fig. 16-18. — Mycelio hyphis 3-6 μ . cr., valde flexuosis, hinc inde nodulosis vel rugosis, anastomosantibus, fuscis, composito, maculas nigricantes, orbiculares, interdum confluentes, pro ratione distincte determinatas formante, 2-6 mm. diam.; peritheciis sine ordine aggregatis, solitariis vel nonnullis confluentibus, polymorphis, plerumque ambitu elliptico, sæpe rotundato vel fere anguloso, dimidiatis, margine fimbriato, fibrillis in mycelium repens transeuntibus, linea media, primo depressiuscule elata, demum rimosim, interdum laceratim dehiscentibus, textura membranacea, $200-300 \times 125-200$; ascis ovatis vel sphæroideis, sessilibus v. late et brevissime pedicellatis, $16-19 \times 20-32$; sporidiis octonis, 1-septatis superne rhomboideis vel ellipsoideis, inferne cylindraceutis, basi truncatis, apice rotundatis, $12-17 \times 5,5-6$; paraphysibus nullis; conidiis aterrimis ex hyphis marginalibus orientibus, septatis, loculis mediis fuscis, impellucidis, apicalibus, sursum uno, deorsum plerumque duobus pallidioribus $19-25 \times 10-25$.

Hab. ad folia in silvula riparia fluvii Riacho Mbope, Paraguay. — Peritheciolorum forma, sporidiis et conidiis, ut videtur, prædistincta species.

14. **Lembosia Cocoës** Rehm, Hedw. XLIV (1905) p. 8, *Lembosia Dry-* 3120

midis Lév. et Auct. p. p. — Peritheciis in centro macularum fuscaram irregulariter suborbicularium vel oblongarum marginem versus dilutiorum, ex mycelio hypharum rectangulariter ramosarum septatarum fuscaram 3-4 μ . lat. compositarum 0,5-1 cm. diam. sessilibus, linearibus, rarius subcurvatis utrinque acutatis, dispersis, sæpe centrifuge e centro radiantibus, atris, 900-1000 \approx 150; labiis arcte juxta positis; ascis ovoideis 50-55 \approx 25-28, octosporis; sporidiis clavatis 20-25 \approx 9-10, medio septatis; paraphysibus ramosis 2 μ . cr.

Hab. in foliis *Cocoës cryospathæ* Laguna, St. Catharina Brasiliæ (E. ULE). — A *Lembosia Drymidis* peritheciarum forma omnino diversa.

15. **Lembosia Diplothemii** P. Henn. Hedw. 1904, p. 89. — Mycelio 3121 maculiformi rufo-brunneo effuso; peritheciis sparsis vel aggregatis, linearibus rectis vel curvulis, obtusis, interdum substellato-confluentibus, usque ad 1 mm. longis, atris, rima longitudinaliter vix conspicua dehiscens, basi hyphis radiantibus septatis, circumdatis; ascis oblonge ovoideis vel subclavatis, apice tunicato-incrassatis, rotundatis, octosporis, 30-42 \approx 16-24; paraphysibus copiosis, in epithecium atro-fuscum confluentibus; sporidiis oblonge fusoides, subcurvulis, utrinque subacutiusculis, medio 1-septatis, constrictis, interdum dilabentibus, 15-20 \approx 4-6, hyalino-subfuscidulis.

Hab. in petiolis foliorum *Diplothemii maritimi*, Mauá Rio de Janeiro Brasiliæ (E. ULE).

16. **Lembosia Philodendri** P. Henn. in Hedw. 1904, p. 89. — Macu- 3122 lis obsoletis; peritheciis subcirculariter dispositis, linearibus, rectis vel subcurvulis, obtusis, usque ad 1 mm. longis, ca. 200-250 μ . latis, atris; hyphis radiantibus ramosis, ca. 3-4 μ . crassis, fuscis circumdatis, longitudinaliter rima ca. 30-40 μ . lata dehiscens; ascis oblonge ovoideis, apice crasse tunicatis, octosporis, ca. 25-40 \approx 15-20; sporidiis conglobatis, oblonge fusoides vel subclavatis, obtusiusculis, hyalinis, submedio 1-septatis, constrictis, 14-20 \approx 3, 5-4,5.

Hab. in foliis *Philodendri*, Tijuca, Rio de Janeiro Brasiliæ (E. ULE).

17. **Lembosia Agaves** Earle in Muhlenbergia 1901, p. 15. — Macu- 3123 lis crebre sparsis, atratis, leviter elevatis, 1-3 mm. diam.; mycelii hyphis tenuibus, brunneis, anastomosantibus, diffusis; peritheciis sparsis v. confertis non confluentibus, irregulariter ovoideis utrin-

que obtusis, rectis, firmulis et carbonaceis 200-500 \times 80-100; labiis arcte adpressis; ascis late ovoideis, tenui-tunicatis, 30-40 \times 20-25; sporidiis inordinatis, ovoideis, 1-septatis, constrictis, cellula altera globosa, altera acutiuscula, demum late brunneis, 14-16 \times 6-7.

Hab. in foliis *Agaves*, prope Carboroio, Portorico. — Subiculum circa perithecia parcum, ex hyphis rigidulis, fuscis, anastomosantibus constans.

DIELSIELLA P. Henn. in Hedw. 1903, p. (84) (Etym. a cl. L. DIELS cui dicatum). — Perithecia erumpenti-superficialia carbonaceo-atra, convexo-pulvinata vel scutellata, medio depressa papillata, rima subcirculari dehiscentia. Asci ovoidei vel clavati, 4-8-spori, copiose paraphysati; sporidia ellipsoidea, 1-septata, atro-fusca. — *Tryblidio*, *Lembosia* et *Cycloschizo* affinis.

1. **Dielsiella Pritzelii** P. Henn. l. c. p. (84). — Peritheciis amphige- 3124
nis, erumpenti-superficialibus, plerumque cæspitosis, convexo-depressis vel scutellatis, fragilibus, atro-carbonaceis, subiculo fibrilloso; hyphis atris septatis ca. 4,5 μ . crassis circumdatis, medio papillatis, rima subcirculari-dehiscentibus, 0,5-1 mm. diam.; ascis ovoideis v. clavatis, apice rotundatis, tunicatis, 4-8-sporis, 60-120 \times 25-50; paraphysibus copiosis filiformibus, septatis, guttulatis, hyalino-fuscidulis, apice clavatis 3-4 μ . cr.; sporidiis subdistichis vel subtristichis, oblonge ellipsoideis, subfusoideis vel ovoideis, medio 1-septatis, constrictis, atro-fuscis, 36-46 \times 15-24.

Hab. in foliis *Agathidis Palmerstonii* pr. flum. Barron, N. Queensland Australiæ (L. DIELS et PRITZEL).

BULLIARDELLA Sacc — Syll. II p. 764 (ut subgen.) (Etym. a summo mycologiæ magistro BULLIARD). — A *Mytilidio* dignoscitur sporidiis didymis (pariter fusco-olivaceis) nec pluriseptatis.

1. **Bulliardella Baccarinii** Paoli App. N. G. B. J. 1905, p. 101, c. ic. 3125
— Peritheciis minutis, sparsis vel subgregariis, undique versis, mytiliformibus vel obverse cymbiformibus, utrinque acutis, carinatis, longitudinaliter tenuissime striatis, subnitentibus, atris, fragilibus, rima longitudinali angustissima, labiis acutis arcte conniventibus, circiter $\frac{3}{4}$ -1 mm. long., $\frac{1}{4}$ - $\frac{1}{3}$ mm. crassis; ascis cylindraceis, subsessilibus, tenuiter tunicatis 100 \times 7-8, 8-sporis; sporidiis recte vel oblique monostichis, fusoideis, utrinque plus minusve acutatis, interdum etiam obtusis, pallide olivaceis, 1-septatis, ad

septum non constrictis, $17-19 \approx 4-4\frac{1}{2}$; paraphysibus paucis filiformibus, parce ramosis.

Hab. in cortice Thujæ, S. Marcello Etruriæ (O. BECCARI, 1862).

Sect. 4. Hyalophragmiæ.

GLONIELLA Sacc. — Syll. II p. 765, IX p. 1112, XI p. 388, XIV p. 717, XVI p. 666.

1. **Gloniella Ingæ** Rehm in Hedw. 1903, pag. (172). — Peritheciis 3126 gregariis, sessilibus, orbicularibus vel plerumque linearibus, rectis, obtusis, glabris, atris, rima longitudinali vix perspicua percursis, $0,2-0,8 \approx 0,2-0,3$ mm. carbonaceis; ascis cylindraneo-clavatis, apice rotundatis $60-65 \approx 7-8$ μ ., octosporis; sporidiis subfusiformibus, rectis, 3-septatis, cellula secunda latiori, ad septa vix constrictis, hyalinis, $9 \approx 3$, distichis; paraphysibus filiformibus, apice subcurvatis, hyalinis 2 μ . cr.

Hab. in leguminibus putridis Ingæ, Theresiopell Brasiliæ (v. HÖHNEL).

2. **Gloniella comma** (Ach.) Rehm, Hedwigia 1903, p. (172) *Opegrapha* 3127 *comma* Ach. Syn. meth. p. 73. — Peritheciis in maculis corticis niveis, longe extensis dispersis, sessilibus, lineariformibus, rectis v. subcurvatis interdum trigonis, obtusis, glabris, nigris, rarissime confluentibus, rima longitudinali tenuissima percursa, carbonaceis $0,5-1$ mm. long., $0,1-0,15$ mm. latis; ascis clavatis, apice rotundatis, in stipitem tenuem angustatis, $50-60 \approx 15$, octosporis; sporidiis fusiformibus, rectis, utrinque acutatis, transverse 11-septatis, hyalinis, demum subfuscidulis, $30 \approx 6$, parallele positis; paraphysibus ramosis, apice fuscescentibus, itaque epithecium formantibus; hymenio Jodii ope cærulee tincto.

Hab. in corticibus Crotonis Cascarillæ venalis (DR. REHM).

3. **Gloniella chinicola** Rehm in Hedw. 1903, p. (172). — Peritheciis 3128 dispersis, sessilibus, lineariformibus, rectis vel subcurvatis, obtusis, glabris, atris, rima angustissima percursis, $0,2-1$ mm. longis, $0,1-0,15$ mm. latis, carbonaceis; ascis oblongis, apice rotundatis, $60-65 \approx 12$, octosporis; sporidiis subclavatis, rectis, transverse 7-septatis, quaque cellula 1-2 guttas magnas oleosas includente, ad septa subconstrictis, dilute fuscidulis 24 μ . long., apice sup. 7 μ . latis, distichis; paraphysibus filiformibus apice rotundato-clavatis, 4 μ . latis et fuscidulis, epithecium fuscum formantibus.

Hab. ad corticem *Cinchonæ* vulgo dictæ *Chinæ regię* venalis (Dr. REHM).

4. **Gloniella Pentastemonis** Earle in New York Bot. Gard. 1902, 3129 p. 346. — Peritheciis ex matrice nigrificata erumpenti-superficialibus, in cortice basi immersis, sparsis vel gregariis, plus minusve curvatis, utrinque acutis, intense nigris, non striatis, $1-1,5 \approx 0,5$ mm.; ascis clavatis 60-70 \approx 8-10; paraphysibus filiformibus, septatis, epithecium brunneolum efformantibus; sporidiis oblique monostichis, hyalinis, subovatis, maturitate 3-septatis, paullo constrictis 15-18 \approx 6-7.

Hab. in caulibus emortuis *Pentastemonis* speciei cultæ, Stanford University Californiæ (C. F. BAKER).

5. **Gloniella sardoa** Sacc. et Trav. in Annal. Mycol. 1903, pag. 435, 3130 fig. IV. — Peritheciis hinc inde gregariis, anguste ellipsoideis, 0,5-0,8 mm. longis, 0,3-0,4 mm. latis, basi ligno infossis, nigrescentibus; ascis octosporis, ovato-clavatis, superne attenuatis, 50-60 \approx 13-15; paraphysibus apice clavatis, in materiam brunneam concretis; sporidiis cylindraceo-curvulis, utrinque rotundato-obtusis, 6-7-septatis, hyalinis, 16-18 \approx 6.

Hab. in ligno denudato *Populi albæ*, prope Sassari Sardinia (A. N. BERLESE).

6. **Gloniella pseudocomma** Rehm in Hedw. 1903, p. (172). — Asco- 3131 matibus in cortice longe dealbato gregarie sessilibus, lineariformibus, plerumque obtusis, interdum subacutatis, rectis v. subcurvatis, rarissime trigonis v. stelliformibus, glabris, atris, rima angusta, medio dehiscente percursis, 0,3-1,5 mm. long., 0,15-0,2 mm. latis, carbonaceis; ascis clavatis, crasse tunicatis, apice rotundatis, 65-70 \approx 20, octosporis; sporidiis fusoides, rectis, transverse 3-7-septatis, hyalinis, denique flavidulis, 25 \approx 7-8, distichis; paraphysibus apice ramosis, crassioribus atque fuscidulis.

Hab. ad cortices, in Nova Zelandia (Dr. SCHIMPER).

7. **Gloniella Xerotis** P. Henn. Fungi Austral. II, p. 187. — Perithe- 3132 ciis erumpenti-innatis, oblongis, substriiformibus, subcarbonaceis, rima longitudinaliter dehiscentibus, atris, 0,3-0,4 mm. longis ascis cylindraceis vix stipitatis, obtusis, 8-sporis, 100-120 \approx 8-12; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, fusoides, crasse tunicatis, 3-septatis, constrictis, hyalinis, 16-22 \approx 6-7.

Hab. in foliis dejectis *Xerotis Drummondii*, Swan-River, Australia orient. (L. DIELS).

8. **Gloniella scripta** P. Henn. Hedw. 1904, p. 90. -- Maculis cinerco- 3133

fuscidulis effusis; peritheciis gregariis variiformibus, lineatis, rectis vel curvulis, stellulatis, usque ad $1\frac{1}{2}$ mm. longis, atris, rima tenuissima percursis; ascis ovoideis vel subclavatis apice rotundatis, octosporis $35-40 \approx 14-20$; paraphysibus in epithecium fuscum confluentibus; sporidiis oblongo-fusoideis, rectis v. curvatis, utrinque acutis, 5-septatis, paullo constrictis, hyalinis, $15-20 \approx 4-5$.

Hab. in foliis *Pothoes* spec., Gavea, Rio de Janeiro Brasiliæ (E. ULE).

9. **Glioniella graphidioidea** Rehm, Hedw. 1903, p. (290). — Peritheciis 3134 in cortice longe lateque dealbatis, sessilibus, lineariformibus, utrinque subobtusis, rectis, serius curvatulis, interdum trigonis, rima longitudinali percursis, labiis demum subdistantibus et discum nigrum 100μ . lat. denudantibus, $0,5-2-3$ mm. long., $0,15-0,2$ mm. lat. nigris, glabris, carbonaceis; ascis elongato-ovoides, apice rotundatis, sessilibus, $50-60 \approx 15$ octosporis; paraphysibus subramosis 2μ . cr., apice 4μ . cr. et fuscis; sporidiis ellipsoideis, 5-septatis, strato mucoso tenui obductis, hyalinis $15-18 \approx 5-6$, 2-3-stichis.

Hab. in stipitibus siccis *Pteridis aquilinæ*, Côte de Normantier, Vendée Galliæ (Doct. VIAND MARAIS).

PSEUDOGRAPHIS Nyll. — Syll. II p. 769, IX p. 1116, XIV p. 717.

1. **Pseudographis Mahoniæ** Feltg. Vorst. Pilz. Luxemb. 1903, Nachtr. 3135 III, p. 99. — Peritheciis gregariis, innato-erumpentibus, demum subliberis, rotundis vel oblongis, $300-500 \mu$. lat., extus brunneis, siccis atro-brunneis, disco concaviusculo, udo subolivaceo-brunneo, margine tenuiter denticulato; ascis clavatis, longiuscule stipitatis, $70-100 \approx 11-16$, p. spor. $55-68 \mu$. long., octosporis; sporidiis inordinatis, 1-2-stichis, oblongo-fusoideis, utrinque obtusis, rectis curvulisve, 2-4-cellularibus, non constrictis, sæpe pluri-guttulatis, $21-27 \approx 5,5-6$; paraphysibus filiformibus, paullo superantibus, ramulosis, supra $3-4 \mu$. lat., flavo-brunneis.

Hab. in ramis decorticatis, putridis *Mahoniæ* spec. Luxemburg.

2. **Pseudographis hysterioides** Feltg. Vorstud. Pilz. Luxemb. 1903, 3136 Nachtr. III, p. 99. — Peritheciis gregariis sessilibus, basi interdum annulo tenui piloso cinctis, ellipticis, utrinque obtusis, raro subrotundis, rima recta v. curvula margine erosa dehiscentibus, $500-1000 \approx 500$, extus brunneo-nigris, pruinoso-rugulosis, disco oblongo-elliptico plano convexulo, concolore; ascis clavatis, longiuscule stipitatis $70-80 \approx 10-11,5$, octosporis; paraphysibus septa-

tis, sursum ramosis et uncinatis, obtusulis, subinde conidia 3-5-septata, oblongo-elliptica gerentibus; sporidiis distichis, elliptico-fusoideis, obtusis, rectis vel curvulis, 3-septatis, non v. vix constrictis, rarius 1-2-cellularibus, hyalinis v. ex hyalino flavidis, 16-21 \times 5-6, interdum hinc vel utrinque breve appendiculatis.

Hab. in cortice et in ligno *Gleditschiæ Triacanthi*, Luxemburg. — *Ps. buxicolæ* affinis.

3. **Pseudographis? Icerbæ** P. Henn. in Hedw. 1903, pag. (85). — 3137

Peritheciis erumpenti-superficialibus, difformibus, subhemisphærico-depressis v. oblongo-curvatis, atro-carbonaceis, ca. 1-1,5 mm. longis, rima longitudinaliter exaratis; ascis cylindræo-clavatis, apice obtuse rotundatis, octosporis ca. 140 \times 6-8; paraphysibus filiformibus, hyalinis, ca. 2,5 μ . diam.; sporidiis oblique monostichis, fusoideis, utrinque subacutiusculis, pluriseptatis, 25 \times 5-6, hyalino-fuscidulis.

Hab. in caulibus *Icerbæ brexioidis*, Neu-Seeland Australiæ (L. DIELS).

4. **Pseudographis Cocoës** P. Henn. Fungi S. Paulenses I, in Hedw. 3138

1902, p. 111. — Maculis atro-rufis v. pallescentibus, exaridis, rotundatis; peritheciis epiphyllis sparsis v. gregariis, sæpe nervos sequentibus, innato-erumpentibus, oblonge rotundatis, fuscis, longitudinaliter rimosis, subcupulatis 150-200 μ . diam.; ascis oblonge ovoideis, apice obtusis, octosporis 20-30 \times 15-17; paraphysibus superne ramosis; sporidiis conglobatis, ellipsoideis v. oblonge ovoideis, 4-septatis, haud constrictis, hyalinis, 9-13 \times 3,5-4.

Hab. in foliis *Cocoës Romanzoffianæ*, in horto botanico S. Paulo Brasilæ.

PHRAGMOGRAPHUM P. Henn. Fungi Amaz IV in Hedw. 1905, p. 68, cum icone (Etym. *phragma* septum, quasi *Aulographum* hyalophragmium). — Perithecia superficialia, sublinearia, simplicia vel ramulosa, rima longitudinali dehiscentia, submembranacea, atra. Asci subovoidei, clavati, 8-spori, aparaphysati; sporidia longe fusoidea, pluriseptata, basi subrostrata, hyalina *Aulographo* affiu. sed sporidia pluriseptata.

1. **Phragmographum Bactridis** P. Henn. l. c. cum icone. — 3139

epiphyllis, effusis, fuscidulis vel obsoletis; peritheciis gregariis superficialibus, linearibus, rectis vel curvulis, sæpe stellato-ramosis, ca. 1 mm. longis, ca. 150-200 μ . latis, rima longitudinaliter dehiscentibus, atro-cellulosis; ascis subovoideis vel clavatis, apice

rotundato-tunicatis, 8-sporis, paraphysatis, 35-60 \approx 18-22 μ .; sporidiis subtristichis vel conglobatis, fusoides, flexuosis apice rotundatis vel acutiusculis, basi subcurvato-rostratis, 4-5-septatis, constrictis, hyalinis, 25-30 \approx 4.

Hab. in foliis *Bactridis* sp. pr. Rio de Janeiro Brasiliæ.

Sect. 5. Phæophragmiæ.

HYSTERIUM Tode em. — Syll. II p. 743, IX p. 1108, XI p. 387, XIV p. 715, XVI p. 664.

1. **Hysterium compressum** Ell. et Ev. in Journ. of Mycol. 1902, 3140 p. 69. — Peritheciis sparsis, medio rima longitudinali percursis, 1-3 mm. long. 0,5 mm. lat., linearibus vel undulatis curvulisve, apice utrinque obtusis, labiis clausis v. leviter apertis; ascis oblongo-cylindræis, breve stipitatis 75-80 \approx 15-20, sursum incrassatis; paraphysibus filiformibus, permultis; sporidiis di-tri-stichis, fusoides, 3-septatis, parce constrictis, hyalinis dein fuligineo-brunneis, subinæquilateralibus, curvulis, compressis, 25-30 \approx 7-10.

Hab. in ligno emortuo Pini palustris, Alabama Americæ. — Ab *H. insidente* differt sporidiis semper 3-septatis et distincte compressis, e latere tantum 4-5 μ . cr.

2. **Hysterium vermiforme** Masee in Kew. Bull. 1901, pag. 166. — 3141 Peritheciis superficialibus, gregariis, atris, carbonaceis, lineari-elongatis seu vermiformibus, utrinque acutiusculis, medio rima longitudinali percursis, 2-4 mm. longis, 0,5 mm. latis, transverse striatulis; ascis cylindræis apice truncato-rotundatis, octosporis; paraphysibus filiformibus; sporidiis monostichis, cylindræo-ellipsoideis, utrinque obtusiusculis, triseptato-constrictis, brunneis, 35-40 \approx 12-14.

Hab. in ramis corticatis in horto botanico, Aburi, Gold Coast Africæ occident. — *Hyst. eumorpho* Sacc. affine.

3. **Hysterium angustatum** Alb. et Schw. — Syll. II, pag. 746. — 3142 var. **Ceratonix** Roll. Bull. Soc. Mycol. 1905, p. 29. — Peritheciis coriaceis, atro-nitidis, dense gregariis, usque ad 2,5 \approx 0,2-0,5 mm.; ascis spurie paraphysatis, 60-90 \approx 8-10, clavato-oblongis; sporidiis elliptico-fusoides, utrinque rotundatis, 3-septatis, ad septa constrictis, 12-15 \approx 4-6, rarius usque 18 μ . long., æqualiter subluteo-fuscidulis, loculis æqualibus, 1-guttatis.

Hab. in ligno vetusto *Ceratonix* Siliquæ Sa Coma, Soller

ins. Balearium. — A typo ascis sporidiisque paullo minoribus, habitu et matrice dignoscitur.

TRYBLIDIELLA Sacc. — Syll. II p. 757, IX p. 1110, XI p. 388, XVI p. 665.

1. **Tryblidiella irregularis** Starb. in Arkiv. för Botan. 1904, Band 2, 3143 p. 5. — Peritheciis dense gregariis, interdum crustam fere formantibus, superficialibus, vix erumpentibus variiformibus v. elongatis, rectis vel flexuosis, rarius ellipsoideis, rarissime rotundatis, plerumque stellatim vel aliter partitis, interdum polygonis, apicibus acutiuscule rotundatis, glabris, non striatis, primo labiis arcte connexis clausis, deinde latiuscule apertis, aterrimis, textura molli-ter coriacea, 0,5-1 mm. longis, 100-150 μ . latis; ascis clavatis, deorsum breviter pedicellatis, sursum rotundatis incrassatulis, octo-sporis, 65-75 \times 12-15; sporidiis distichis, inferne monostichis, oblongo-ellipsoideis vel plerumque ovoideis, triseptatis, utrinque loculo guttula una majore præditis, vix ad septa constrictis, primo hyalinis, denique fuliginea 16,5-18 \times 6-7,5; paraphysibus filiformibus, hyalinis, partitis, continuis 1-2 μ . crassis; epithecio ex massa granulosa, atra formato.

Hab. in truncis in delta fluminis Paraná prope Zarate, Buenos Aires Argentinae. — *T. Steigeri* affinis, sed multo minor.

MYTILIDIUM Duby — Syll. II p. 760, IX p. 1111.

1. **Mytilidium Thujæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3144 1903, p. 112. — Peritheciis sparsis vel gregariis, basi angustata sessilibus, navicularibus, rectis vel curvulis, acutis vel obtusis, tota longitudine rima angusta dehiscentibus, extus glabris et nitidulis, nigris, 300-1200 \times 300-400; ascis cylindræis, longiuscule stipitatis, 90-105 \times 5,5-7, filiformi-paraphysatis, 6-8-sporis; sporidiis 1-2-stichis, longe demum 5-7-septatis, non v. vix constrictis, pallide flavo-brunneis, minute guttulatis, 22-30 \times 2,5-3.

Hab. in cortice vetusto Thujæ orientalis, Luxemburg. — Ascis sporidiisque perangustis mox dignoscenda species.

HYPODERMOPSIS Earle in New York Bot. Gard. 1902, p. 345 (Etym. ab *Hypodermate*, cui affinis). — Perithecia elongata, nigra, minuta, epidermide velata, ut in *Hypodermate*; sporidia ellipsoidea-fusoidæ brunnea, bi- vel pluri-septata. — Gen. intermedium inter *Dermateaceas* et *Hysteriaceas*.

1. **Hypodermopsis Sequoiæ** Earle in New York Bot. Gard. 1902, 3145 p. 345. — Peritheciis sparsis, late ellipticis vel subangularibus, prominentibus, convexis, epidermide velatis, subellipticis vel undulatis, rima subprominula dehiscentibus vel anguste subclausis 750-1000 \times 500-750 μ .; ascis subcylindræis 70-75 \times 8-10; paraphysibus filiformibus epithecium vix distinctum formantibus; sporidiis distichis, fusoides, olivaceis 3-septatis, non constrictis, 18 \times 6.

Hab. in ramulis Sequoiæ sempervirentis, Coast Range, prope Stanford University Californiæ.

Sect. 6. Hyalodictyæ.

HYSTEROPSIS Rehm — Syll. IX p. 1118.

1. **Hysteropsis laricina** v. Höhnel Fragm. zur Mykologie 1903, p. 11. 3146

— Peritheciis sparsis, sub epidermide matricis atrocæruleo-æruginea innatis, rotundatis v. oblongis, 300-500 μ . longis 300-400 μ . latis, applanatis 120-130 μ . crassis, ostiolo rimoso, rima c. 100 μ . longa et ca. 50 μ . lata, marginibus acutis; tunica carnea, tenui, supra crassiore, cæruleo-æruginea; ascis clavatis, membrana subcrassa, 100-120 \times 14-16; sporidiis mono-vel subdistichis, ovalibus vel oblongis, hyalinis, transverse 3-7-septatis, longitudinaliter 1-4-septatis, mucositate destitutis, 18-19 \times 10-12; paraphysibus numerosis, supra valde ramosis, filiformibus, 1-5 μ . crassis, ascos valde superantibus, apice in capitula elliptica, 2,5 μ . lata incrassatis.

Hab. in ramulis dejectis novellis, sed jam lignosis et epidermide adhuc tectis Laricis europææ, loco « Kaltenbachgraben » dicto prope Spital Styriæ superioris et prope Welsberg Tirolæ.

2. **Hysteropsis larigna** (Lamb. et Fautr.) v. Höhnel, Fragm. zur Mykol. p. 12. Ita vocanda est *Gloniopsis larigna* Lamb. et Fautr. — Syll. XIV, p. 718. — Huic enim, teste v. Höhn. l. c., sunt perithecia 200-300 \times 200 applanata, epidermide velata; asci ovoideo-piriformes 32-52 \times 14-24, 8-spori, paraphysibus ramosis obvallati; sporidia oblongo-ellipsoidea, 3-4-septata septulisque 1-2 longitudinaliter divisa, hyalina, 14-18 \times 5-6.

GLONIOPSIS De Not. — Syll. II p. 772, IX p. 1116, XIV p. 717.

I. *Eu-Gloniopsis* Paoli. Perithecia completa.

1. **Gloniopsis curvata** (Fr.) Sacc. — Syll. II, p. 775, Paoli in App.

N. G. B. I. 1905, p. 113, *Hysterium elongatum* β *curvatum* Fries, Syst. Myc., II, p. 138; *Hysterium curvum* Fr. « in litt. »; *Hysterium curvatum* (Fr.) Duby. — Peritheciis subparallele aggregatis, elongato-linearibus, utrinque obtusiusculis, levibus, opacis vel nitidulis, atris, carbonaceis, rima longitudinali angusta, labiis vix inflexis, dein dimotis latiuscula, 2-2 $\frac{1}{2}$ mm. lat., 0,5-0,7 mm. crassis; ascis cylindraceo-clavatis, sessilibus 75-80 \approx 14-15, 8-sporis; sporidiis distichis vel subdistichis, medio constrictis, utrinque obtusis 4-5-septatis, loculis nonnullis 1-2 septulis longitudinalibus divisis, septis omnibus tenuibus, 14-15 \approx 6-7; paraphysibus ramosis epithecium luteolum formantibus (Paoli l. c.)

Hab. ad ramos Rosæ caninæ in Gallia (MOUGEOT ex herb. FRIES).

2. **Glioniopsis levantica** Rehm — Sacc. Syll. IX, p. 1118, D. Sacc. in Staz. Sperim. Agrar. ital. 1904, p. 63, *Hysterium curvatum* Plur. Auct. nec Fries (teste Paoli). — Peritheciis subsuperficialibus, congestis v. subsparis, sessilibus, lineari-elongatis 600 \approx 200, atris, striatis, initio clausis dein in rimam angustam linearem hiantibus; ascis clavatis, crassis, 90-100 \approx 15-18, fere sessilibus, octosporis; sporidiis distichis vel subdistichis, interdum muco obvolutis, loculo superiore crassiore, ellipsoideis, pluriguttulatis dein maturitate 5-6-septatis, muriformibus, 18-25 \approx 7-9 hyalinis vel pallidissime luteolis; paraphysibus tenuibus granuloso-farctis, sursum interdum ramosis.

Hab. in sarmentis emortuis Rubi, Acque albule, Romæ et in Britannia.

3. **Glioniopsis ilicicola** (Feltg.) Sacc. et D. Sacc. *Hysterographium ilicicolum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 110. — Peritheciis gregariis, ligno denigrato basi insculptis, oblongo-ellipticis, utrinque rotundatis, rectis curvulisve, subparallelis, rima latiuscula apertis et crassiuscule marginatis, opace nigris, non striatis, 500-1000 \approx 200-300; ascis crasse clavatis, breviuscule stipitatis 60-80 \approx 20-22, octosporis; sporidiis distichis, obovato-ellipticis, rectis, 5-septatis, medio constrictis, cellulis mediis longitrorsum partitis, ex hyalino flavidulis minute guttulatis 16-19 \approx 9-10.

Hab. in ramis decorticatis Ilicis Aquifolii, Luxemburg. — Affinis *Glioniopsi Lonicerae*.

4. **Glioniopsis argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 74. 3147 — Maculis candidis, ellipticis 15-60 mm. long. 5-20 mm. diam.;

peritheciis inter fibrillas ligni dealbati ex erumpenti-superficialibus, semifusoideis, subcarbonaceis, 1-2 mm. long. 0,4-0,6 mm. lat., glabris, contextu atro, opaco, indistincto; ascis cylindraceutis, apice obtusissime rotundatis, basi brevissime cuneato-pedicellatis 150-200 μ . long. 18-20 μ . cr.; paraphysibus filiformibus parum numerosis, longioribus; sporidiis recte vel oblique monostichis utrinque obtusiusculis 30 \approx 15, 7-septatis, ad septum medium validius ad cetera leniter constrictis, oculis sæpius 3-4-guttulatis, hyalinis. Membrana ascorum jodi ope tenuiter cærulescit.

Hab. ad palos decorticatos vetustos Eucalypti globuli, La Plata, in Argentina.

5. **Gloniopsis regia** Rehm in Hedw. 1903, p. (173). — Ascomatibus 3148 dispersis, sessilibus, lineariformibus, rectis, rarissime subcurvatis, utrinque obtusis, glabris, atris, rima angustissima, medio interdum subdehiscente percursa, 1-2 mm. longis, 0,2-0,3 mm. lat. carbonaceis; ascis ovalibus, sessilibus, 150 \approx 45 octosporis; sporidiis oblongis, apice superiore latiore, rectis, transverse 15-, longitudinaliter 2-3-septatis, hyalinis, 120 \approx 25, parallele positis; paraphysibus filiformibus, apice dilatatis et fuscidulis, epithecium formantibus.

Hab. ad corticem Cinchonæ vulgo *Chinæ regię* dictæ venalis (Dr. REHM).

6. **Gloniopsis multiformis** Starb. in Arkiv. för Botan. 1904, Band 2, 3149 pag. 8. — Peritheciis sparse gregariis vel aggregatis, non v. vix confluentibus, superficialibus, paullum basi innatis, plerumque ellipsoideis v. oblongatis, utrinque obtusiusculis, elongatis, flexuosis vel rectis et acutiusculis, usque 1 mm. longis, 200 μ . latis, sæpe fere sphæroideis vel ovoideis, circ. 200 μ . diam., levibus v. rugosulis, atratis; ascis late cylindraceutis vel clavatis, deorsum mox angustioribus, breviter pedicellatis, sursum rotundatis, paullo incrassatis, 60-80 \approx 19-23; sporidiis octonis, conglobatis, transversim 5-7-septatis, oculis longitudinaliter 1-3-partitis, medio constrictis piriformibus vel ovoideis, hyalinis, 19-22 \approx 7,5-10; paraphysibus filiformibus, ramulosis, hyalinis.

Hab. in petiolis foliorum Coperniciæ ceriferæ, Paraguay in Paraguay. — *G. decipienti* De Not. affinis.

II. *Hemigloniopsis* Paoli. Perithecia imperfecta h e dimidiata.

7. **Gloniopsis tecta** Paoli App. N. G. B. I. 1905, p. 111, cum icone. 3150

— Peritheciis parallele subgregariis, profunde immersis 1-2 \approx $\frac{1}{2}$ - $\frac{3}{4}$ mm. superne ligno nigrificato obtectis et fere formatis, inferne tenuibus, hyalinis, ellipticis, elongatis, utrinque acutissimis, opacis, rima longitudinali brevi exaratis, labiis inflexis; ascis cylindraceutis vel vix clavatis, 110-130 \approx 16-18, sessilibus, octosporis; sporidiis oblique monostichis v. subdistichis, oviformibus, septulis transversalibus 6-7, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, 22-25 \approx 10-11; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. ad lignum (abietinum?) intemperiiis expositum juxta flumen Piave, Prov. di Treviso (herb. Sacc.).

8. **Gloniopsis Penzigi** Paoli App. N. G. B. I. 1905, p. 111. — Peri- 3151
theeciis punctiformibus, suborbicularibus, 0,5 \approx 0,4 mm. convexiusculis, coriaceo-membranaceis, atris, utrinque obtusis, semiemergentibus, superne e contextu proprio nigro formatis, inferius tenuibus, hyalinis, rima brevi excavata pertusis; ascis cylindraceutis vel vix clavatis, 100-120 \approx 16-18, sessilibus, typice octosporis, rarius oligosporis; sporidiis oblique monostichis, oviformibus, septulis transversalibus 6-8, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, 22-25 \approx 10-11; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. in ligno eroso Oleæ prope Mentone, Nizza (PENZIG in herb. Sacc.)

Sect. 7. Phæodictyæ.

HYSTEROGRAPHIUM Corda — Syll. II p. 776, IX p. 1119, XI p. 389, XIV p. 718, XVI p. 668.

1. **Hysterographium Rousselii** (De Not.) Sacc. — Syll. II, p. 779. — 3152
f. **Piri** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 111. — A typo differt peritheciis subcæspitosis, paullo minoribus, 1-2 mm. long., 0,5 mm. lat., semper levibus, opace nigris; ascis brevioribus et latioribus 82-108 \approx 13-18; sporidiis flavis vel flavo-brunneolis.

Hab. in ligno nudo Piri communis, Luxemburg.

2. **Hysterographium Bakeri** Earle Plante Bakerianæ, fasc. II, Fungi 3153
p. 10. — Peritheciis gregariis, sæpe congestis, nigris, superficia-

libus, subcylindræis, utrinque obtusis, rima longitudinali percursis, sæpe e latere longitudinaliter striatis 0,5-1 mm. longis, 350 μ . crassis; ascis subcylindræis 80 \approx 12, paraphysibus brevioribus obvallatis; sporidiis distichis, ellipticis vel subcylindræis, 5-7-septatis, leviter constrictis, muriformibus, utrinque subobtusis, brunneis 20-22 \approx 6.

Hab. in ligno decorticato nigrificato *Cercocarp*i, Hermosa, Colorado, Amer. bor.

3. **Hysterographium nucicolum** (Schw.) Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19, *Hysterium nucicolum* Schw. — Syll. II, p. 756, *Hyst. hians* Ell. et Ev. in herb. — Peritheciis elongatis 0,8-1 mm. long. 0,5 mm. latis, nigris, levibus, indistincte striatis, rectis v. curvatis, apice obtusis, rima distincte apertis; ascis oblongo-clavatis, paraphysatis 60-70 \approx 12-15; sporidiis ovato-oblongis, biseriatis, initio hyalinis dein brunneo-nigris, 4-6-septatis, longitudinaliter septato-muriformibus, ad septum medium constrictis 15-22 \approx 6-9.

Hab. in nucibus ad terram putrescentibus, Newfield, in Amer. boreali.

GRAPHYLLIUM Clements — Syll. XVI p. 1145.

1. **Graphyllum Chloës** Clements Bot. Surv. Nebraska 1901, p. 6. — Peritheciis minutis, sparsis vel gregariis, interdum linearibus, innatis, longitudinaliter erumpentibus, glabris, elongato-ellipticis v. linearibus, membranaceis; contextu parenchymatico e cellulis irregularibus, polygonalibus 5 \approx 6 composito, nigris, rima exili percursis, 100-300 \approx 30-50; ascis octosporis ovoideo-clavatis 60 \approx 15 vel cylindræo-clavatis 90-110 \approx 12; sporidiis distichis vel irregulariter monostichis, brunneis vel luteo-brunneis, oblongis v. ovato-oblongis, utrinque obtuse rotundatis, 3-raro 4-septatis, maturitate longitudinaliter divisis, 1 loculo compresso, altero subinflato, 20-22 \approx 8-10.

Hab. in ramulis *Aristidæ* purpureæ et *Boutelouæ* oligostachyæ, in Nebraska, Amer. bor.

Sect. 8. Scolecosporæ.

LOPHODERMIIUM Chev. — Syll. II p. 791, IX p. 1124, XI p. 390, XIV p. 720, XVI p. 670.

1. **Lophodermium montanum** Ferraris in Malpighia 1902, p. 456, t. X,

f. IV. — Peritheciis sparsis, innato-depressis, atris, ellipsoideis 0,5-1 mm. long., rugulosis, rima longitudinali demum hiantibus; ascis clavatis, basi attenuatis, 70-80 \approx 9-10, octosporis; sporidiis parallele stipatis, filiformibus, pluriguttulatis, 40-50 \approx 1-1,5; paraphysibus filiformibus, flexuosis.

Hab. in foliis siccis *Tofieldiæ calyculatæ*, Courmayeur, Italiæ bor.

2. **Lophodermium Theobromæ** Pat. in Duss Enum. Champ. Guadel. 3157 1903, p. 84. — Maculis amphigenis, albidis, siccis, orbicularibus, 4-8 mm. diam., linea nigra nulla cinctis, sparsis confluentibusque; peritheciis epiphyllis, in medio maculæ paucis approximatis, superficialibus, nigris, angustis, utrinque attenuatis, vix 0,5 mm. long., 125 μ . lat. rectis, curvis v. trigonis, longitrorsum fissis, labiis conniventibus; contextu denso, brunneo-nigro, cellulis minutis angulosis formato; ascis cylindræis, utrinque attenuatis, 85-90 \approx 5-7, octosporis; paraphysibus filiformibus sursum vix incrassatis; sporidiis filiformibus, 60-65 μ . long., parce guttulatis.

Hab. in foliis languidis *Theobromæ Cacao*, Basse-Terre Guadalupa (Duss). — Affine *L. hysterioidi*, a quo peritheciis angustissimis distinguitur.

3. **Lophodermium Spirææ** Hazsl. Zool. bot. Verh. 1887, p. 153. — 3158 Peritheciis ovalibus vel oblongis, obscure fuscis, rima angusta percursis, hymenio molli; ascis clavatis, inferne anguste pedicellatis; sporidiis filiformibus, utrinque acutatis, haud septatis.

Hab. ad caules *Spirææ Arunci*, Vallis Kohlbach, Tatra Hungariæ.

LOPHIUM Fr. — Syll. II p. 799, IX p. 1126, XIV p. 723.

1. **Lophium leptothecium** Earle Plantæ Bakerianæ, fasc. II, Fungi, 3159 p. 11. — Peritheciis sparsis vel gregariis, erectis, oblongis, compressis, basi immersis, nigris, fragilibus, carbonaceis, transverse rugoso-striatis, rima exili, valde compressis 1-1,5 mm. longis, 0,5 mm. crassis; ascis 400-500 \approx 6, paraphysibus filiformibus, 1 μ . cr. ramosulis suffultis; sporidiis asco æquilongis, 2 μ . crassis, intense brunneis, dense septatis.

Hab. in ramis emortuis *Amelanchieris*, *Quercus*, *Rhois*, *Hermosa*, Colorado, Amer. bor.

LABOULBENIOMYCETÆ Peyr. *)

(sub titulo *Laboulbeniaceæ* Peyr. 1875)

Syll. VIII p. 909, IX p. 1130, XI p. 446, XIV p. 725, XVI p. 674.

DIMEROMYCES Thaxter — Syll. XIV p. 275, XVI p. 674.

1. **Dimeromyces Forficulæ** Thaxter Proceed. of the Americ. Acad. 3160 of Arts and Sciennes 1902, p. 9.

Hab. in corpore Forficulæ tæniatæ in Guatemala. — Mas: long. total. 60; antheridium cum stipite 28-30 \times 7-8. Femina: long. total. 150-185 μ .; appendices 80 μ . longæ; perithecia cum stipite 90-110 \times 18-22; sporidia 35 \times 3,5.

MONOICOMYCES Thaxter. — Syll. XVI p. 675.

1. **Monoicomyces Oxypodæ** Thaxter, Proceed. of the Americ. Acad. 3161 1902, p. 10.

Hab. in abdomine Oxypodæ, Intervale N. H. Amer. bor. — Long. tot. 150-165 μ .; appendices 75 longæ; perithecia 75-90 \times 18-20; antheridia 107 \times 25-35 μ . long.; sporidia 45 \times 4,5.

2. **Monoicomyces nigrescens** Thaxter, Proceed. of the Americ. Acad. 3162 1902, p. 10.

Hab. in abdomine Calloderæ et Tachyusæ speciei, Intervale N. H. Amer. bor. — Long. Tot. 100-160 μ .; appendices 35-50 μ . longæ perithecia 60-65 \times 22-25; antheridia 35 μ . long.

HERPOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, p. 11 (Etym. *herpo serpo et myces*).

1. **Herpomyces chætophilus** Thaxter l. c. p. 12.

3163

Hab. in spinis et antennis Periplanetæ sp. Zanzibar et ins. Mauritii Africæ merid. — Mas: long. tot. 50-55 μ . Femina: tot. long. individui primarii 35-40 μ .; receptaculum secundarium 35-75 \times 22; perithecia 125-185 \times 35-48; sporidia 30-35 \times 3.

*) De speciebus Labulbeniácearum Thaxterianis cfr. Syll. XIV, p. 725 nota.

2. **Herpomyces Periplanetæ** Thaxter l. c. p. 13. 3164
Hab. in corpore *Periplanetæ* et *Stylopygæ* sp. pl., Bermuda, Mexico, Panama, Brasilia, China et Amer. bor. — Mas: long. tot. 60-90 μ . Femina: tot. long. 125 \approx 75; perithecia 145-220 \approx 30-36; sporidia 16 \approx 1,5.
3. **Herpomyces arietinus** Thaxter l. c. p. 14. 3165
Hab. in antenna insecti cujusdam Kentucky Amer. bor. — Mas: tot. long. 29 μ ., antheridia 20 μ . long. Femina: perithecia 100 \approx 22, cum processu terminali 18 μ . long.; receptaculum secundarium 55 \approx 18; sporidia 20 \approx 2.
4. **Herpomyces zanzibarinus** Thaxter l. c. p. 15. 3166
Hab. in antenna insecti cujusdam, Zanzibar Africae. — Mas: tot. long. 28 \approx 6,5; antheridia 25 μ . long. Femina: perithecia 125 \approx 28-32, cum processu terminali 10 μ . longo; paria receptaculi 45 \approx 30-35.
5. **Herpomyces forficularis** Thaxter l. c. p. 15. 3167
Hab. in antenna insecti cujusdam, ins. Mauritii? Africae merid. — Mas: tot. long. 18 \approx 5; antheridium 35 μ . long. Femina: long. tot. perithecii 220-250; receptacula secundaria 35 \approx 20-35; sporidia 18 \approx 2.
6. **Herpomyces Diplopteræ** Thaxter, l. c. p. 16. 3168
Hab. in corpore *Diplopteræ dityscoidis*, in insula Ascension Atlantici merid. — Mas: tot. long. 50 μ .. Femina: long. tot. 175-185; perithecia, pars ascigera, 70-75 \approx 28-30.
7. **Herpomyces tricuspидatus** Thaxter, l. c. p. 17. 3169
Hab. in antennis *Blaberæ* et *Epilampræ?* spp., Panama, St. Kitts, Haiti, China? — Mas: long. tot. 75 μ . Femina: long. tot. 175-200 μ . lat. maxima 220 μ .; pars ascigera perith. 45-50 \approx 15; sporidia 12 μ . long.
8. **Herpomyces paranensis** Thaxter, l. c. p. 19. 3170
Hab. in antenna *Blaberæ?* sp. Para Brasiliæ. — Mas: long. tot. 250 μ .; antheridia 60-70 μ . long. Femina: long. tot. 123 μ ., pars ascig. perith. 58 \approx 30; sporidia 15 \approx 1,6.
9. **Herpomyces Ectobiæ** Thaxter, l. c. p. 20. 3171
Hab. in corpore *Ectobiæ germanicæ* et sp., Cambridge, Zanzibar, St. Kitts. — Mas: long.? Femina: long. tot. receptaculi secund. 200-225 \approx 15; perithecia cum basi 80-90 \approx 20; sporidia 20 \approx 2,5.

CORETHROMYCES Thaxter — Syll. XI p. 449, XIV p. 729, XVI p. 681.

1. **Corethromyces longicaulis** Thaxter, Proceed. of the Americ. Academy 1902, p. 20. 3172

Hab. in corpore *Stilici angularis*, Arlington Mass. Amer. bor. — Longit. tot. 200 μ .; perithecia 65 \approx 20; cellula basil. 90-110 \approx 12; sporidia 30 \approx 3.

ACOMPSOMYCES Thaxter — Syll. XVI p. 692.

1. **Acompsomyces Atomariæ** Thaxter, l. c. p. 22. 3173

Hab. in elytris *Atomariæ ephippiatæ*, Kittery, Point Maine et Intervale N. H. Amer. bor. — Long. tot. 125-150 μ .; perithecia 36-46 \approx 25-30; cellula basil. 25-30 \approx 10; sporidia 44 \approx 3.

2. **Acompsomyces pauperculus** Thaxter, l. c. p. 23. 3174

Hab. in elytra, prothorace et artubus *Atomariæ* spec. Kittery Point, Maine Amer. bor. — Long. tot. 110; perithecia 70 \approx 30-35; cellula basilaris 12-18 \approx 9; sporidia 45 \approx 4.

ACALLOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, pag. 23 (*Eym. a privat. callos pulchritudo et myces*).

1. **Acallomyces Homalotæ** Thaxter, l. c. p. 24. 3175

Hab. in parte superiore abdominis *Homalotæ*, Intervale N. H., Amer. bor. — Long. tot. 125-150; perithecia 75-95 \approx 25-32; antheridia 21-25 μ . long.; sporidia 35 \approx 3,5.

STICHOMYCES Thaxter. — Syll. XVI p. 692.

1. **Stichomyces stilicicola** Thaxter, Proceed. of the Amer. Acad. 1902, p. 24. 3176

Hab. in thorace, prothorace et artubus *Stilici angularis* Arlington Mass. Amer. bor. — Appendices 150-200 μ . long.; perithecia 60-90 \approx 18-28; cellula basil. 90-100 \approx 20; sporidia 35 \approx 3.

RHACHOMYCES Thaxter — Syll. IX p. 454, XIV p. 735, XVI p. 690.

1. **Rhachomyces anomalus** Thaxter, Proceed. of the Americ. Academy, 1902, p. 25. 3177

Hab. in corpore *Conosomatis pubescentis*, Waverly Mass. Amer. bor. — Long. tot. 110-125; perithecia 75-90 \approx 20-25; appendices longiores 75 μ . long.; sporidia 46 \approx 4.

2. **Rhachomyces Berlesianus** Bacc. in N. giorn. bot. it. 1904, p. 418. 3178
tab. IV, f. 2. — Peritheciis singulis obovatis subhyalinis, trichogynis evanidis; receptaculo pluricellulari, cellulis triserialibus ad basin usque, sed basin versus gradatim tenuioribus; serie cellularum mediana clavato-fusiformi ex cellulis intense nigrefactis et ob parietum densitatem ad septa anulatis formata; serie laterali e cellulis hyalinis appendicem brevem atram obconicam in quoque apice gerentibus formata; antheridiis non visis.

Hab. in acaride Fedrizzia grossipede Can., Australia — Dedit cl. prof. ANT. BERLESE, cui merito dicata species.

CERAIOMYCES Thaxter. — Syll. XVI p. 682.

1. **Ceraiomyces Selinæ** Thaxter, Proceed. of the Americ. Acad. 1902, 3179 p. 26.

Hab. in prothorace Selinæ Westermanni, in India orient. — Long. tot. 219-490; receptaculum 200-325 \approx 25-30; appendices 185-400; perithecia 125-150 \approx 30-35; cellula basilaris 22-25 μ . long.

ECTEINOMYCES Thaxter, Proceed. of the Americ. Academ. 1902, p. 26 (Etym. *ecteino* extendo et *myces*).

1. **Ecteinomyces trichopterophilus** Thaxter, l. c. p. 26. 3180

Hab. in elytris et abdomine Trichopterycis Haldemani Intervale N. H. Amer. bor. — Long. tot. 100-220; perithecia 55-65 \approx 22-28; appendices 75-100 μ . long.; receptaculum 95-140 \approx 7-12; sporidia 25 \approx 3.

LABOULBENIA Mont. et Rob. — Syll. VIII p. 909, IX p. 1132, XI p. 450, XIV p. 730, XVI p. 682.

1. **Laboulbenia acanthophora** Thaxter, Proceed. of the Americ. Acad. 3181 1902, p. 27.

Hab. in elytris Pericalli in India orient. — Tot. long. 580; perithecia 220 \approx 50; cellula basilaris 60 \approx 30; receptaculum 220 \approx 65; sporidia 75 \approx 4,5.

2. **Laboulbenia Bledii** Thaxter, l. c. p. 27. 3182

Hab. in elytris et abdomine Bledii Jacobinii, in California. — Long. tot. 290-360 μ .; receptaculum 220-275 \approx 45; appendices 90 μ . long.; perithecia 100-125 \approx 35-40.

3. **Laboulbenia borneensis** Thaxter, l. c. p. 28. 3183

Hab. in corpore Thyreopteri? spec., S. Borneo. — Long.

tot. 350-380; perithecia 100-120 \approx 35-50; sporidia 45 \approx 4; receptaculum 250-290 μ . long.

4. **Laboulbenia cauliculata** Thaxter, l. c. p. 29. 3184

Hab. in corpore Colpocacci, Athelotri, Mesothrisei specier. in insulis pluribus Oceaniæ. — Tot. long. 220-290; perithecia 125-165 \approx 45-60; sporidia 58 \approx 5; receptaculum 90-100 \approx 35-40; appendices 125-185. — var. **prolixa** Thaxter l. c. p. 29. In corpore Mesothrisei tricoloris et M. collaris, Molokai, Maui et Oahu in insulis Oceanicis. — Tot. long. 450-670; perithecia 365-540 \approx 55; sporidia 70 \approx 5. — Var. **spectabilis** Thaxter, l. c. p. 30. In corpore Discoli et Metromeni specier., Oahu, Molokai, insulis Oceanicis. — Long. tot. 290-360; perithecia 165-200 \approx 40-48.

5. **Laboulbenia columbiana** Thaxter, l. c. p. 30. 3185

Hab. in setis elytræ Anchonoderi concinni, Columbia. — Tot. long. 200-250 μ .; perithecia 90-110 \approx 20-25; receptaculum 150 \approx 30; appendices 40 μ . long.; sporidia 50 \approx 4.

6. **Laboulbenia concinna** Thaxter, l. c. p. 31. 3186

Hab. in abdomine Casnoniæ sp., Buitenzorg Javæ. — Tot. long. 325-375; perithecia 150-180 \approx 33-45; stipes 30 \approx 25; receptaculum 150-175 \approx 55-65; appendices 125 μ . long.

7. **Laboulbenia corniculata** Thaxter, l. c. p. 31. 3187

Hab. in corpore Galeritæ carbonariæ in Brasilia. — Tot. long. appendic. 450-600 μ .; perithecia 165-240 \approx 60-80; receptaculum 325-475 μ . long.; sporidia 90-110 \approx 7.

8. **Laboulbenia Craspidophori** Thaxter, l. c. p. 32. 3188

Hab. in corpore Craspidophori, Panagæi, Microsomi spp. in India or., Calabar, Congo, Liberia Africæ. — Tot. long. 280-500; perithecia 180-210 \approx 48; receptaculum 150-325 μ . long.; appendices 300-375 μ . long.; sporidia 75 \approx 5.

9. **Laboulbenia curvata** Thaxter, l. c. p. 33. 3189

Hab. in artubus Galeritæ carbonariæ et G. speciei in Brasilia. — Long. tot. 500-600 μ .; perithecia 325-400 \approx 50-70; receptaculum 185-220 \approx 75-90; sporidia 70-75 \approx 4.

10. **Laboulbenia dentifera** Thaxter, l. c. p. 34. 3190

Hab. in elytra Notio biæ dispositæ, Chontales Nicaragua. — Long. tot. 240; perithecia 125 \approx 32; receptaculum 115 \approx 55; appendices 220 μ . long.

11. **Laboulbenia Disenochi** Thaxter, l. c. p. 34. 3191

Hab. in corpore Disenochi et Brosconegnei spp. in insulis

- Hawai. — Tot. long. 290-360; perithecia 150-165 \times 58-62; receptaculum 185-220; sporidia 65 \times 6.
12. **Laboulbenia Dryptæ** Thaxter, l. c. p. 34. 3192
Hab. in corpore *Dryptæ ruficollis*, Natal Africae. — Long. tot. 220-250; receptaculum 135-180 μ . long.; appendices 220 μ . long.; perithecia 110-150 \times 35-40.
13. **Laboulbenia dubia** Thaxter, l. c. p. 35. 3193
Hab. in abdomine *Philonthi politi*, Alverstoke Britanniae. — Tot. long. 440-500; perithecia 165-185 \times 55-65; receptaculum 320-325 \times 75; appendices 220 μ . long.; sporidia 55 \times 5.
14. **Laboulbenia Euchilæ** Thaxter, p. 36. 3194
Hab. in artubus *Euchilæ flavilabris*, in Brasilia. — Long. tot. 300-350; perithecia 100-30; receptaculum 220-250 \times 35-40; appendices 150 μ . long.; sporidia 60 \times 4,5.
15. **Laboulbenia Eudaliæ** Thaxter, l. c. p. 36. 3195
Hab. in elytris et artubus *Eudaliæ latipennis*, Port Denison Australiae. — Long. tot. 250-350 μ .; perithecia 150-155 \times 55; receptaculum 170-220 μ . long.; appendices 180-225 μ . long.; sporidia 72 \times 5.
16. **Laboulbenia exigua** Thaxter, l. c. p. 37. 3196
Hab. in thorace *Chlænii biguttati* in Japonia. — Long. tot. 250-290; perithecia 86 \times 26; receptaculum 220 μ . long.; appendices 150-184 μ . long.; sporidia 40 \times 4.
17. **Laboulbenia flaccida** Thaxter, l. c. p. 37. 3197
Hab. in artubus *Casnoniæ subdistinctæ*, loco non indicato. — Tot. long. 175-220 μ .; perithecia 80-90 \times 25-30; receptaculum 90-125 μ . long.; appendices 150-200 μ . long.; sporidia 40 \times 4.
18. **Laboulbenia Tachyis** Thaxter, l. c. p. 38. 3198
Hab. in corpore *Tachyis incurvi* et *T. spp.*, Cambridge et Florida, Amer. bor. — Tot. long. 155 μ .; perithecia 60 \times 16; receptaculum 110 μ . long.; appendices 45 μ . long.
19. **Laboulbenia formicarum** Thaxter, l. c. p. 39. 3199
Hab. in corpore *Lasii americani* et *Formicæ neogagatis*, Cambridge Mass. Amer. bor. — Tot. long. 70-80 μ .; perithecia 50-60 \times 16-18; receptaculum 30-35 \times 18; appendices 90 μ .; sporidia 30 \times 2,5.
20. **Laboulbenia fusiformis** Thaxter, l. c. p. 39. 3200
Hab. in prothorace *Galeritæ carbonariæ*, in Brasilia. — Tot. long. 1650 μ .; perithecia 450-580 \times 60-75; receptaculum 500-1000 \times 70-75; appendices 275-375; sporidia 90 \times 7.

21. **Laboulbenia hawaiiensis** Thaxter, l. c. p. 40. 3201
Hab. in corpore *Atelothri*, *Disenochi*, *Maunæ*, *Colpodisci*, *Mesothrisei* spp. in insulis oceanicis pluribus. — Tot. long. 230-360 μ .; perithecia 90-125 \approx 40-55; receptaculum 200-335; appendices 290-725 μ . long.; sporidia 65 \approx 5.
22. **Laboulbenia Helluodis** Thaxter, l. c. p. 41. 3202
Hab. in corpore *Helluodis nebrionidis*, Ceylon. — Tot. long. 360 μ .; perithecia 150-165 \approx 40-55; receptaculum 185-220 \approx 60; appendices 290 μ . long.; perithecia 150-165 \approx 40-55; sporidia 85 \approx 5.
23. **Laboulbenia Helluomorphæ** Thaxter, l. c. p. 42. 3203
Hab. in elytris *Helluomorphæ melanariæ* et *Pleurocanthi brevicollis* in Amazonia et Surinam. — Tot. long. 290-325; perithecia 130-140 \approx 35-40; receptaculum 180-220; appendices 185-300 μ . long.; sporidia 70 \approx 7.
24. **Laboulbenia humilis** Thaxter, l. c. p. 42. 3204
Hab. in elytris *Chlæni monogrammi* et *Chl. cyanicipitis*, Hong-kong. — Tot. long. 250-275 μ .; perithecia 100-125 \approx 30; receptaculum 185 μ . long.; appendices 60-75 μ . long.; sporidia 50 \approx 5.
25. **Laboulbenia incerta** Thaxter, l. c. p. 43. 3205
Hab. in corpore *Galeritæ carbonariæ* in Brasilia — Tot. long. 360-500 μ .; perithecia 185-250 \approx 60; receptaculum 185-290 \approx 70-80; appendices 200-250 μ . long.; sporidia 95-100 \approx 8.
26. **Laboulbenia insignis** Thaxter, l. c. p. 43. 3206
Hab. in thorace *Thyreopteri brevicollis*, Madagascar. — Tot. long. 600-650; perithecia 290-310 \approx 80-87; receptaculum 365-540 \approx 150; appendices 2200 μ . long.; sporidia 185 \approx 6,5.
27. **Laboulbenia japonica** Thaxter, l. c. p. 44. 3207
Hab. in artubus *Brachini* spec., in Japonia. — Tot. long. 420; perithecia 235 \approx 70; receptaculum 185 \approx 70; appendices 100-150 μ . long., sporidia 80 \approx 5.
28. **Laboulbenia Latonæ** Thaxter, l. c. p. 45. 3208
Hab. in corpore *Latonæ Spinolæ*, Bogota Columbiae. — Tot. long. 325-1125 μ .; perithecia 175-220 \approx 70; appendices 1150 μ . long.; sporidia 70 \approx 5.
29. **Laboulbenia media** Thaxter, l. c. p. 45. 3209
Hab. in corpore *Galeritæ* spp. Venezuela et Costarica. — Tot. long. 350-725 μ .; perithecia 180-290 \approx 40-48; stipes 55-

- 125 \approx 26-35; receptaculum 150-220; appendices 165-185; sporidia 45 \approx 4,5.
30. **Laboulbenia Megalonychi** Thaxter, l. c. p. 46. 3210
Hab. in prothorace *Megalonychi patrobioidis* et *M. angolensis* in Africa orient. — Tot. long. 300-435; perithecia 100-125 \approx 40-50; receptaculum 275-360 μ . long.; appendices 185 μ . long.; sporidia 58 \approx 5.
31. **Laboulbenia notata** Thaxter, l. c. p. 47. 3211
Hab. in corpore *Thyreopteri armati*, Madagascar. — Tot. long. 1150 μ .; perithecia 271 \approx 55; receptaculum 1100 \approx 75; appendices 185 μ . long.
32. **Laboulbenia obliquata** Thaxter, l. c. p. 48. 3212
Hab. in elytris *Coptoderæ gagatinæ* in Brasilia. — Long. tot. 325-360 μ .; perithecia 165-170 \approx 40; receptaculum 185-200 \approx 45; sporidia 45 \approx 3,5.
33. **Laboulbenia Œdichiri** Thaxter, l. c. p. 48. 3213
Hab. in elytris et abdomine *Œdichiri* sp. Rio de Janeiro Brasiliæ. — Tot. long. 250 μ .; perithecia 125 \approx 32; receptaculum 150 \approx 30; appendices 90 μ . long.; sporidia 55 \approx 5,5.
34. **Laboulbenia pallida** Thaxter, l. c. p. 49. 3214
Hab. in elytris *Clivinæ fasciatæ* et *Cl. dilutipennis*, in Guatemala et in Mexico. — Tot. long. 290-380; perithecia 125-150 \approx 60-70; receptaculum 220-300 μ . long.; appendices usque 150 μ . long.; sporidia 75 \approx 6.
35. **Laboulbenia perplexa** Thaxter, l. c. p. 49. 3215
Hab. in elytris et prothorace *Galeritæ carbonariæ* in Brasilia. — Tot. long. 500 μ .; perithecia 290-360 \approx 50-60; receptaculum 220 \approx 60-70; appendices 200-360 μ . long.; sporidia 90 \approx 7.
36. **Laboulbenia Planetis** Thaxter, l. c. p. 50. 3216
Hab. in thorace *Planetis bimaculati* in Java. — Tot. long. 400-425; perithecia 155-165 \approx 55-60; receptaculum 250 μ . long.; appendices 360-435; sporidia 65 \approx 5.
37. **Laboulbenia Platyprosopi** Thaxter, l. c. p. 51. 3217
Hab. in elytris et abdomine *Platyprosopi beduini* in Nubia. — Tot. long. 275-350; perithecia 150-185 \approx 36-45; receptaculum 150-220 \approx 60-70; appendices usque 360 μ .; sporidia 55 \approx 5.
38. **Laboulbenia producta** Thaxter, l. c. p. 52. 3218
Hab. in elytris *Anchonoderi concinni* in Columbia. — Tot. long. 220 μ .; perithecia 90-100 \approx 25; receptaculum 110 μ . long.; sporidia 55 \approx 4.

39. **Laboulbenia proliferans** Thaxter — Syll. XIV, p. 734. — var. **3219**
atrata Thaxter, l. c. p. 53.

Hab. in corpore Chlænii, Euchlænii, Craspedophori, Rhopalomeli spp. in Africæ variis locis. — Var. **cincta** Thaxter, l. c. p. 53. In corpore Eudematis, Episcosomi, Craspedophori in Africa, variis locis. — Var. **divaricata** Thaxter, l. c. pag. 53. In corpore Chlænii, Notonomi, Bembii Rhembii spp., Borneo, Australia, Japonia, Java.

40. **Laboulbenia Sphyriopsidis** Thaxter, l. c. p. 53. 3220

Hab. in corpore Mitronemi caliginosi, in insulis Hawai. — Perithecia 90-110 \times 40-48; receptaculum 220-250 μ . long.; appendices 150-185 μ . long.

41. **Laboulbenia Stomonaxi** Thaxter, l. c. p. 54. 3221

Hab. in elytris Stomonaxi sp., in Java. — Tot. long. 130-140 μ .; perithecia 65 \times 25; receptacula 100-710 μ . long.; appendices 50-75 long.; sporidia 50 \times 5.

42. **Laboulbenia texana** Thaxter. — Syll. XIV, p. 734. — var. **pen-** 3222
dula Thaxter, l. c. p. 55.

Hab. in corpore Brachyni geniculati et Br. lateralis, Uruguay et Mexico.

43. **Laboulbenia Napoleonis** Bacc. in N. Giorn. bot. it. 1904, p. 417. 3223

— Peritheciis ovatis singulis in quoque exemplari, apice truncatis, subhyalinis, ore nigrefacto vel obscuriore; receptaculis subhyalinis stipitatis, stipite inferne uniseriato tricellulari, superne e quatuor cellulis biserialibus efformato, quarum serie altera perithecium gerente, altera singulam vel binas appendices filiformes hyalinas articulatas; cellulis insidentibus suberosis nigrificatis; antheridiis non visis.

Hab. in acaride Antennophoro Foreli Wasm., Luxemburg. — Eximio mycologo b. m. Aug. NAPOL. BERLESE, qui primus in Italia de Laboulbeniomycetis disseruit, merito dicata species.

44. **Laboulbenia argentinensis** Speg. Myc. argent. ser. II, 1902, 3224

p. 79. — Atro-fuliginea, hinc inde pauci-aggregata, erecta 350 μ . alta; stipite chlorino-fusco 220 μ . alto, ima basi rotundato, crassiuscule tunicato, infra medium cylindraceo 30-35 μ . crasso, supra medium obconico 70 μ . lat. apic., ejusdem ramulis v. pedicellis atro-opacis, 25 \times 20-30; paraphysibus 6-8 linearibus 60 μ . long., toruloso-6-articulatis; articulis chlorinis ellipticis, 10-12 \times 7-8; antheridiis obclavulatis 50 \times 10, subfumosis, sursum attenuatis apice truncatis; peritheciis ellipticis, utrinque subtruncatis, 140-

150 \approx 50-60, ostiolo obsolete denticulato, fuligineis, subopacis; ascis clavulatis vel oblanceolatis 60 \approx 18, sessilibus, aparaphysatis; sporidiis subquaternis conglobatis, leniter arcuatis utrinque acutiusculis, 30-40 \approx 3-4, hyalinis.

Hab. ad oculos *Brachyni* cujusdam vivi, prope Buenos Ayres in Argentina (J. BRÉTHES).

COREOMYCES Thaxter, Proceedings of the Americ. Acad. of Arts and Sciences 1902, p. 56 (Etym. *coris* cimex st *myces*).

1. **Coreomyces Corisæ** Thaxter, l. c. p. 56.

3225

Hab. in abdomine *Corisæ Kennicottii* spp. Arlington Mass. et Java, Amer. bor. — Tot. long. 275-290 μ .; perithecia 100-110 \approx 25-35; stipes 30-33 \approx 32-35; receptaculum 75-100 μ . long.; appendices 200-250 μ .; sporidia 85 \approx 6.

REPERTORIUM

FUNGORUM IN VOL. XVII. DESCRIPTORUM

secundum matrices (vegetabilia et animalia)

Obs. — *Ga.* *Gasteromycetæ.* — *Hy.* *Hymenomycetæ.* — *La.* *Laboulbeniaceæ.* —
• *P.* *Phycomycetæ.* — *Py.* *Pyrenomycetæ.* — *Ur.* *Uredinaceæ.* — *Ust.* *Ustilagineæ.*

- Abies* — *Hy.* 191, 352, 435, 559, 568 *bis*, 625. — *Ur.* 1351 — *Py.* 1888, 1913, 2067 *bis*, 2266, 2295, 2403, 2739, 2791, 3099, 3150.
Acacia — *Hy.* 511. — *Ur.* 1335, 1536. — *Py.* 2071, 2080, 2235, 2307, 2658.
Acanthaceæ — *Ur.* 1384.
Acanthophyllum — *Py.* 1779.
Acanthospermum — *Ur.* 1003.
Acer — *Hy.* 274, 569, 574. — *Py.* 1946, 2008, 2061, 2259, 2260, 2275, 2380, 2387, 2452, 2453, 2464, 2533, 2567, 2655, 2667, 2679, 3088.
Achillea — *Ur.* 949, 950. — *Py.* 2531, 2600, 2601, 2602.
Acicarpa — *Ur.* 1063.
Acnistus — *Py.* 2976.
Aconitum — *Ur.* 1206.
Acridocarpus — *Py.* 1849.
Acriulus — *Ur.* 1570.
Acroptilon — *Ur.* 1004.
Actæa — *Ur.* 1320. — *Py.* 2137, 2238.
Actinomeris — *Ur.* 965.
Adenia — *Ur.* 1426.
Adenostegia — *Ur.* 1090.
Adenostyles — *Ur.* 930.
Adiantum — *Ur.* 919.
Adolphia — *Py.* 2888.
Ægiphila — *Py.* 1932.
Ægopodium — *Ur.* 1154.
Æsculus — *Hy.* 626. — *Py.* 2261, 2581.
Æthusa — *Ur.* 1148.
Agaricus — *P.* 1681.
Agathis — *Py.* 3124.
Agave — *Py.* 1971, 1988, 2732, 2790, 2941, 3123.
Agropyrum — *Ur.* 1284. — *Ust.* 1662.
Agrostis — *Py.* 2962.
Ailanthus — *Py.* 2218.
Ainslia — *Ur.* 1005.
Aira — *Py.* 2318.
Albizzia — *Ur.* 1534.
Aleurites — *Hy.* 426. — *Py.* 2074.
Alisma — *P.* 1747. — *Py.* 1972, 2626, 2692.
Allium — *Ur.* 888, 911, 912, 1224. — *P.* 1773.
Allophyllum — *Ur.* 1512.

- Alnus — Hy. 203, 503 *bis*, 513, 533 *ter*,
 535, 563, 569 *bis*, 575, 599 *ter*,
 604 *bis*, 607 *bis*, 611, 615, 621 *ter*,
 624 *bis*, 635, 637, 647, 727. — Py.
 1879, 1918, 2019, 2243, 2311, 2387,
 2407, 2444, 2463, 2703.
 Alsine — Py. 2638, 3639.
 Alstroemeria — Ur. 1232.
 Althæa — Ur. 1425.
 Alyssum — Ur. 1195.
 Alyxia — Py. 2975.
 Ambrosinia — Ust. 1643.
 Amelanchier — Ur. 1353. — Py. 2650,
 3086, 3087, 3159.
 Amorpha — Py. 2016.
 Ampelopsis — Py. 2279.
 Amphicarpa — Ur. 1436.
 Amsonia — Py. 1965.
 Amygdalus — Hy. 572. — Py. 2368.
 Anacardium — Py. 1859.
 Ananassa — Py. 3059.
 Anchusa — Ur. 1277.
 Ancylanthus — Ur. 1377, 1484.
 Andira — Py. 1801, 2715.
 Andropogon — Ur. 1269, 1270. — Ust.
 1613, 1624 *bis*, 1648, 1649, 1654,
 1669 *bis*. — Py. 2226.
 Androsace — Ust. 1589.
 Androsæmum — Py. 2269.
 Andryala — Ur. 1480.
 Anemone — Ur. 1208, 1210, 1211, 1212,
 1456. — Ust. 1672. — Py. 1945.
 Anethum — Ur. 1148.
 Angelica — Ur. 1159, 1160. — Py. 2378.
 Anguillula — P. 1751.
 Anisacanthus — Ur. 1083.
 Annesorrhiza — Ur. 1508.
 Anoda — Ur. 1188.
 Anogra — Ur. 1413.
 Anona — Py. 1871, 3044.
 Anonaceæ — Py. 2874, 3061.
 Anthemis — Ur. 953.
 Anthephora — Ur. 1572.
 Anthistiria — Py. 2178.
 Anthoceron — Ust. 1667.
 Anthocleiste — Ur. 1312.
 Antholiza — Ur. 893.
 Anthospermum — Ur. 1069.
 Aphelandra — Ur. 1386.
 Aphyllanthes — Py. 2619.
 Apium — Ur. 1147.
 Aplopappus — Ur. 1006.
 Apocynaceæ — Py. 3118.
 Apostasia — Py. 3023.
 Aqua — P. 1691, 1728, 1758.
 Aquilegia — Ur. 1205, 1460.
 Araceæ — Py. 2411, 3036.
 Aralia — Ur. 1163.
 Araucaria — Hy. 198.
 Arbutus — Py. 1882.
 Arcangelia — Ur. 1160.
 Arctostaphylos — Ur. 1506.
 Ardisia — Py. 1956, 3094.
 Areca — Py. 2793, 2801.
 Arenaria — Ur. 1214.
 Ariona — Py. 2926.
 Aristeia — Ur. 1228.
 Aristida — Py. 3155.
 Aristolochia — Ur. 1219.
 Aronicum — Ur. 966.
 Arracacha — Ur. 1164.
 Arrhenatherum — Ur. 1283.
 Artemisia — Ur. 955, 956, 957. — Py.
 2544, 3089.
 Arthonia — Py. 1997.
 Arthraxon — Py. 2023.
 Artocarpus — Ga. 803.
 Arum — Py. 1933.
 Arundinella — Ust. 1647.
 Arundinaria — Py. 2716, 2914, 2961.
 Asclepiadaceæ — Py. 3095.
 Aspalathus — Ur. 868.
 Asparagus — Hy. 578. — Ur. 1230.
 Asperula — Ur. 1080, 1300, 1302.
 Aspicilia — Py. 1937, 1975, 1977, 1998,
 1999, 2187, 2231.
 Aspidium — Ur. 917, 922. — Py. 2925,
 3069, 3092.
 Asplenium — Ur. 916.
 Aster — Ur. 954, 1246. — Py. 2499.
 Asteriscus — Py. 1782.
 Asteromæa — Ur. 1475.
 Astilbe — Ur. 1333.
 Astragalus — Py. 2489, 2648, 2677.

- Astrocaryum — Py. 2912.
 Athamanta — Ur. 1158.
 Athyrium — Ur. 923.
 Atractylis — Ur. 984.
 Atragene — Ur. 1201. — Py. 2563.
 Atrichum — Hy. 564 *bis*.
 Atriplex — Ur. 1463.
 Aucuba — Py. 3049.
 Auerswaldia — Py. 2822.
 Averrhoa — Hy. 204.

 Baccharis — Ur. 932, 933, 934, 935. —
 Py. 1804, 1817, 1826, 1839.
 Bactris — Py. 1791, 1825.
 Balsamorhiza — Py. 2603.
 Bambusa — Hy. 425. — Py. 1909, 1910,
 2123, 2316, 2761, 2813, 2845, 3014,
 3060, 3075.
 Banksia — Py. 3012, 3054.
 Barkhausia — Ur. 1053.
 Barneoudia — Ust. 1672.
 Barroetea — Ur. 1025.
 Basanacantha — Ur. 1469 *ter*.
 Basella — Ur. 878.
 Bauhinia — Ur. 1527. — Py. 1812,
 1827, 3033.
 Begonia — Py. 3063.
 Bellucia — Py. 3037.
 Berberis — Hy. 729. — Ur. 1199, 1200,
 1283, 1453, 1454. — Py. 1828, 2532,
 2665, 2681.
 Berlinia — Py. 2821, 3002.
 Berula — Ur. 1411 *bis*.
 Beta — Ust. 1644 *bis*. — Py. 1778.
 Betula — Hy. 99, 200, 342 *bis*, 504 *bis*,
 525, 535, 562, 568 *bis*, 575, 599 *ter*,
 604 *bis*, 614, 621, 627, 635, 657, 728.
 — P. 1732. — Py. 2707.
 Biatora — Py. — 2234, 2469, 2521.
 Bidens — Py. 2683.
 Bigelovia — Ust. 1658 *bis*.
 Bignonia — Py. 2161, 2394.
 Bignoniaceæ — Ur. 1087, 1088, 1491. —
 Py. 1808, 2251.
 Bilimbia — Py. 2468.
 Biscutella — Ur. 1443.
 Blainvillea — Ur. 1473.

 Blechnum — Ur. 914, 1583, 1584.
 Blepharis — Ur. 1082.
 Boehmeria — Ur. 1330.
 Boerhavia — Ust. 1658. — P. 1762.
 Bolbophyllum — Py. 2748.
 Boletus — P. 1729. — Py. 2799.
 Boltonia — Ur. 1368.
 Bombus — Py. 1798, 2508.
 Bonannia — Ur. 1151.
 Boopsis — Ur. 1481.
 Boronia — Ur. 1184.
 Borreria — Ur. 1071, 1376.
 Borrichia — Ur. 1367.
 Bossiæa — Ur. 1435.
 Bouletoua — Ust. 1610.
 Bouvardia — Ur. 842, 1070.
 Brachylæna — Py. 3107.
 Brachypodium — Ur. 1273, 1280, 1289.
 — Py. 2317, 2519.
 Bractis — Py. 3139.
 Brassica — Hy. 570. — Py. 2026.
 Braya — Py. 2484.
 Brickellia — Ur. 1013, 1014, 1399.
 Brodiæa — Ur. 1225.
 Bromus — Ur. 1273, 1282, 1576. — Ust.
 1663.
 Brongniartia — Ur. 1348.
 Brownia — Py. 2884.
 Brunella — P. 1742.
 Bryum — Ust. 1666.
 Ruddleya — Py. 1842.
 Bupleurum — Py. 1949.
 Burseraceæ — Ur. 1423.
 Buxus — Py. 2219, 2277, 2381, 2738,
 2830.
 Byrsonima — Hy. 521. — Py. 2355,
 3038, 3112.

 Cachrys — Ur. 851. — Py. 1948.
 Cactææ — Py. 2215.
 Cæsalpinia — Ur. 1346. — Py. 2435.
 Calamagrostis — Ur. 1273, 1578.
 Calamus — Hy. 79, 669. — Ust. 1677.
 — Py. 2015, 2824.
 Calandrinia — Ust. 1590.
 Calathea — Py. 3025, 3027, 3104.
 Calendula — Ur. 958.

- Calimeris — Ur. 1026.
 Callirrhoe — Ur. 1425.
 Callopisma — Py. 2300.
 Calluna — Hy. 653. — Py. 1964, 2252.
 Caltha — Ur. 1207.
 Calycera — Ur. 1061, 1062.
 Camellia — Py. 2594.
 Campanula — Ur. 1320 *bis*.
 Camposema — Ur. 867.
 Canna — Ur. 1234.
 Cannabis — Ur. 1548. — P. 1679.
 Caragana — Ur. 872. — Py. 2725.
 Cardamine — Ur. 1320 *bis*.
 Cardiandra — Ur. 1439.
 Cardiospermum — Ur. 1413 *bis*.
 Carduncellus — Ur. 1000, 1001.
 Carduus — Ur. 993, 994, 995.
 Carex — Hy. 627 *bis*. — Ur. 896, 1240,
 1242 ad 1251, 1565, 1568 — Ust.
 1600, 1646. — Py. 2176, 2416, 2517,
 2518, 2519, 2520, 2671, 2699, 2848,
 3102.
 Carica — Py. 2807.
 Carludovica — Py. 3001.
 Carphochaeta — Ur. 1366.
 Carpinus — Hy. 538, 569 *ter*, 651, 730.
 — Py. 1813, 2404, 2465, 2572.
 Carpodinus — Ur. 1502.
 Carum — Ur. 1142.
 Carvalhoa — Ur. 1136.
 Carya — Py. 2285.
 Cascarilla — Py. 2574.
 Casearia — Py. 2902, 3004.
 Cassandra — Ur. 1313 *ter*.
 Cassia — Ur. 1337 ad 1343, 1432, 1531,
 1532, 1533. — Py. 2386, 2573, 3064.
 Cassupa — Py. 3117.
 Cassytha — Py. 2150.
 Castanea — Hy. 288, 424. — Ur. 1329.
 — Py. 2014, 2434, 2940.
 Castilleja — Py. 2494, 2636, 2689.
 Castilloa — Py. 1874.
 Casuarina — Hy. 510.
 Catalpa — Py. 2289, 2308, 2905.
 Catopyrenium — Py. 2584.
 Cattleya — Py. 1970.
 Cayponia — Ur. 840.
 Ceanothus — Hy. 61.
 Cecropia — Hy. 436. — Py. 2932.
 Cedrela — Ur. 1543.
 Celastrus — Py. 2276.
 Celosia — Ur. 880.
 Celtis — Py. 1907, 2087, 2661, 3039.
 Centaurea — Ur. 975, 976, 977, 978,
 979, 1248. — Py. 2388, 2684, 2685.
 Centrolobium — Py. 2887, 2967.
 Centrophyllum — Ur. 981.
 Cephalanthus — Ur. 1378, 1485. — Py.
 3080.
 Cerastes — P. 1734.
 Cerastium — Py. 2474.
 Cerasus — Hy. 54. — Py. 2644.
 Ceratonia — Py. 3142.
 Cercocarpus — Py. 2651, 3077, 3078,
 3153.
 Cerefolium — Ur. 1143.
 Cereus — Py. 2153, 2542, 2702.
 Cestrum — Ur. 844, 1093.
 Chærophyllum — Ur. 1144, 1145, 1146.
 Chamæcyparis — Ur. 1552.
 Chamæsaracha — Ur. 1099.
 Chenopodiaceæ — Ur. 1217.
 Chionachne — Py. 2921.
 Chloris — Ust. 1611.
 Chondrilla — Ur. 1056.
 Chrysanthemum — Ur. 951, 1241. —
 Ust. 1636.
 Chrysophyllum — Hy. 160, 526. — Ur.
 1507.
 Chrysopogon — Ust. 1653.
 Chrysopsis — Ur. 972.
 Chrysothamnus — Py. 2543.
 Chusquea — Py. 2750, 2819.
 Cichorium — Ur. 1055.
 Cinchona — Ur. 1486. — Py. 1889,
 2730, 2745, 2746, 3128, 3148.
 Cirsium — Ur. 990, 992, 995, 996, 997.
 — Py. 2392.
 Cissus — Ust. 1644 *ter*, 1645.
 Cistus — Hy. 370. — Py. 1890, 2536.
 Citharexylon — Py. 3074.
 Citrus — Hy. 304. — Py. 1873, 2726,
 2843.
 Cladium — Py. 1864.

- Cladophora — P. 1743.
 Clathorix — Ust. 1656.
 Clarionea — Ur. 1027.
 Clematis — Ur. 1202, 1458. — Py. 2351, 2472, 2634, 2635, 2833.
 Clerodendrum — Ur. 1393, 1495, 1496. — Py. 1847.
 Clethra — Ur. 1331.
 Clibadium — Hy. 190. — Ur. 1365.
 Clidemnia — Py. 1806.
 Clitandra — Ur. 1503.
 Clitoria — Ur. 860.
 Cnicus — Ur. 991.
 Coccides — Py. 2836, 2843.
 Coccoloba — Py. 3010.
 Cochlearia — Ur. 1196.
 Cocos — Ust. 1678. — Py. 1832, 2508, 3070, 3120, 3138.
 Coffea — Hy. 432, 610, 631. — Py. 1872, 1875, 1876, 1878, 1880, 2004, 2018, 2057, 2156, 2726, 2728, 2744, 2745, 2757, 2811, 2823, 2828, 2834, 2989, 2997, 3022, 3032.
 Collema — Py. 2427.
 Collomia — Ur. 1400.
 Comarum — Py. 2384.
 Combretum — Ur. 1540, 1541.
 Commelina — Ur. 895, 1304.
 Comptonia — Py. 2278.
 Compositæ — Ur. 1058, 1059. — Py. 1870.
 Conferva — P. 1741.
 Coniferæ — Hy. 8, 32, 73, 127, 163, 403, 643. — Py. 1985.
 Conium — Py. 2756.
 Conocarpus — Py. 2449.
 Conyza — Ur. 959.
 Cooperia — Ur. 1231.
 Copaifera — Py. 1815.
 Copernicia — Py. 3149.
 Coprinus — Hy. 336.
 Chorcoropsis — Ur. 925.
 Cordia — Ur. 1498. — Py. 1807.
 Cordylanthus — Ur. 1090.
 Cornus — Hy. 626. — Py. 1887, 1893, 2265, 2387, 2464, 2599.
 Coronilla — Py. 2140.
 Correa — Py. 1882 *bis*.
 Corticium — Py. 2714.
 Cortusa — Ur. 1291.
 Corylus — Hy. 492 *ter*, 565, 571 *bis* 599 *ter*, 614 *bis*, 620, 624 *bis* 641 *bis*, *ter*. — Py. 2282, 2291, 2429, 2613.
 Cosmocladium — P. 1740.
 Cosmos — Ust. 1637.
 Coulterophytum — Ur. 1168.
 Courtoisia — Ur. 1571.
 Cousinia — Ur. 1001.
 Coussapoa — Py. 1863.
 Coutoubea — Py. 2956.
 Cratægus — Hy. 446, 713. — Ur. 1438. — Py. 1896, 2206, 2387, 2566, 2568.
 Crepis — Ur. 1037, 1039, 1053, 1478, 1479. — P. 1744.
 Crinum — Ur. 1469.
 Crotalaria — Ur. 1433, 1529, 1530.
 Croton — Ur. 906. — Py. 2437, 2899, 3050, 3127.
 Crucianella — Ur. 1079.
 Cryptotænia — Ur. 1162.
 Cuphæa — Ur. 1298, 1299.
 Cucumis — P. 1765.
 Cucurbita — P. 1765.
 Cydonia — Py. 2270.
 Cymboseris — Py. 1057.
 Cynoctonus — Ur. 1135. — Py. 1821.
 Cynosurus — Ur. 900.
 Cyperaceæ — Py. 2315, 3106.
 Cyperus — Ur. 1253, 1566. — Ust. 1630, 1631, 1632.
 Cystoclenium — P. 1753.
 Cytharexylon — Hy. 208, 407, 516
 Cytisus — Ur. 1434. — Py. 2476.
 Dacampia — Py. 2186, 2188.
 Dalbergia — Ur. 1518, 1519.
 Dalbergiaceæ — Py. 2969.
 Dalechampia — Ur. 1417, 1418.
 Dampiera — Ur. 1066.
 Danthonia — Ur. 1577. — Ust. 1602, 1603, 1626.
 Daphne — Py. 2398.
 Daphnopsis — Py. 2972.
 Daucus — Ur. 1411 *ter*.

- Deeringia — Ur. 881.
 Delphinium — Ur. 1459. — Py. 1774, 2136.
 Derris — Ur. 1334. — Py. 2882, 2950.
 Desmanthodium — Ur. 1029.
 Desmodium — Ur. 858, 859, 1522, 1523.
 Deutzia — Py. 1893, 2205, 2675.
 Diapensia — Py. 2365.
 Diaspis — Py. 2823.
 Dichromera — Ust. 1599, 1674.
 Dicliptera — Ur. 843.
 Dictyoloma — Py. 3043.
 Dierama — Ur. 1229.
 Digitalis — Py. 2163.
 Digitaria — Ust. 1606.
 Dioclea — Py. 2886.
 Dioscorea — Ur. 1561.
 Diospyros — Ur. 1406, 1407. — Py. 3030.
 Diplachne — Ur. 1281.
 Diplasia — Ust. 1601.
 Diplothemium — Py. 3121.
 Diplotomma — Py. 2530.
 Dirca — Ur. 1254
 Dissotis — Ur. 1542.
 Distichlis — Ust. 1614.
 Dolichotis — Py. 2059.
 Dorema — Ur. 1167.
 Doronicum — Ur. 967, 968.
 Dorstenia — Ur. 1550.
 Dracæna — Ust. 1598. — Py. 2509.
 Draparnaldia — P. 1757.
 Dryas — Py. 1983, 2143, 2210, 2237, 2245, 2481, 2482, 2990.
 Drymaria — Ur. 1213.
 Drymis — Py. 3112.
 Dulichium — Ur. 1252.
 Duvaua — Py. 1840.
 Durio — Py. 2891.
 Dysoxylon — Py. 3008.
 Ebenaceæ — Py. 2971.
 Echinodorus — Ust. 1625.
 Echinopis — Ur. 998.
 Echinopteris — Ur. 1182.
 Echium — Py. 2301, 2491, 2610.
 Edwinia — Py. 2579, 2617.
 Elæodendrum — Py. 3110.
 Elæagnus — Ur. 1220. — Py. 1900.
 Electra — Ur. 1030.
 Elettaria — Py. 2753.
 Eleusine — Py. 2920.
 Elymus — Ur. 1273. — Ust. 1664. — Py. 2628.
 Empetrum — Py. 2963, 2399.
 Encephalum — Py. 2604.
 Encianthus — Ur. 1408.
 Endocarpum — Py. 2184.
 Endopyrenium — Py. 2230.
 Entada — Ur. 1345.
 Enteropogon — Ur. 1276.
 Ephedra — Py. 2612.
 Epicampis — Ur. 1275.
 Epidendrum — Ur. 1555.
 Epigæa — Py. 2366.
 Epilobium — Ur. 1174, 1469 *bis*.
 Equus — P. 1709.
 Eragrostis — Ur. 898. — Ust. 1615. — Py. 2214.
 Eranthis — P. 1767.
 Erica — Py. 2236, 3081.
 Ericaceæ — Ur. 903.
 Erigeron — Ur. 960, 1247, 1357. — Py. 2165.
 Eriocaulon — Ust. 1611 *bis*, 1668.
 Eriochloa — Ust. 1650.
 Eriogonum — Py. 2637.
 Eriophorum — Py. 2333, 2624.
 Eritrichium — Ur. 1395.
 Eryngium — Ur. 1409.
 Erythrina — Hy. 102. — Py. 1885, 2344, 2785.
 Escallonia — Py. 1957, 3046.
 Eucalyptus — Hy. 78, 244. — Py. 2571, 2995, 3147.
 Eucharis — Lr 1559.
 Eugenia — Ur. 1539. — Py. 2145, 2927, 2938, 2970.
 Eupatorium — Ur. 961, 962, 1477. — Py. 1995.
 Euphorbia — Ur. 854, 855, 1415 — Py. 1780, 1781, 2485, 2531.
 Euphorbiaceæ — Py. 1866.
 Euphrasia — P. 1746.
 Eupomatia — Py. 3062.

- Euterpa — Py. 2009.
 Eutrema — Ur. 1197.
 Eutypa — Py. 1887, 2810.
 Evolvulus — Ur. 1128.
 Evonymus — Py. 2596.
- Faba — Py. 2008.
 Fagus — Hy. 30, 207, 341, 567, 596,
 726, 731. — Py. 1981, 1990, 2023,
 2170, 2387, 2441, 2459, 2460, 2505,
 2548, 2569, 2736, 2774, 2940, 2988.
 Fatoua — Ur. 885.
 Fendlera — Py. 2353, 2545, 2653.
 Ferula — Ur. 849, 1411, 1411 *bis*.
 Ferulago — Ur. 848.
 Festuca — Ust. 1612. — Py. 2700.
 Ficus — Ga. 814. — Ur. 1551. — Py.
 1942, 2008, 2012, 2082, 2741, 2933.
 Fimbristylis — Ur. 1569.
 Fimus — Hy. 292, 593, 294, 363, 364,
 365, 367 *bis*. — P. 1684, 1686, 1689,
 1690, 1705, 1716, 1718, 1719, 1720,
 1725, 1727, 1728. — Py. 1784, 1794,
 1796, 1797, 1799, 2027 ad 2055, 2091,
 2254, 2345 ad 2348, 2350, 2353 ad
 2559, 2720, 2758.
- Flacourtiaceæ — Py. 3018.
 Floerkea — P. 1770.
 Floscopa — Ur. 1556.
 Fourcroya — Py. 1966.
 Frangula — Hy. 563, 616, 624 *ter*, 637,
 645.
 Franseria — Ur. 1024.
 Frasera — Ur. 847, 1402.
 Fraxinus — Hy. 246. — Ur. 1287, 1404.
 — Py. 1980, 2297, 2456, 2577, 2711,
 2809.
 Fritillaria — Ur. 890.
 Fuirena — Ur. 1564.
- Gadua — Py. 2844, 2981, 3034.
 Gagea — Ur. 1223.
 Galactis — Ur. 969.
 Galasia — Ur. 1364.
 Galatella — Ur. 970.
 Galenia — Ur. 1215.
- Galeobdolon — Py. 2496.
 Galera — Py. 2796.
 Galium — Ur. 1078, 1301. — Py. 2256,
 2489.
 Garcilassa — Ur. 1476.
 Garcinia — Py. 2436, 2841, 3020.
 Gardenia — Hy. 644. — Ur. 1490.
 Gardoquia — Py. 3065.
 Gasparrinia — Py. 1818, 2374
 Gastrolobium — Py. 2246.
 Gaultheria — Py. 1862.
 Gaylussacia — Py. 2909.
 Gayophytum — Ur. 1171.
 Gelatina — P. 1685, 1687, 1688, 1703,
 1721, 1722, 1723, 1724.
 Geophila — Ur. 1483.
 Geranium — Ur. 856, 1421.
 Gerardia — Ur. 1089.
 Geum — Py. 1853.
 Gladiolus — Ur. 891.
 Glechoma — Py. 2164.
 Gleditschia — Py. 3136.
 Glœosporium — P. 1737.
 Glyceria — Py. 2520, 2629.
 Glycine — Ur. 1520. — Py. 2386.
 Glycosma — Py. 2149.
 Gnaphalium — Py. 1805, 2201.
 Gomphrena — Ur. 1216.
 Gonospermum — Ur. 1023.
 Goodenia — Py. 2147.
 Gossypium — Py. 1785.
 Grabowskia — Ur. 1293.
 Graminaceæ — Hy. 100. — Py. 2227,
 2228, 2371, 2627, 2706, 2754.
 Grevillea — Py. 1814.
 Grewia — Py. 2202.
 Grindelia — Ur. 1363. — Ust. 1658 *bis*
 Guardiola — Ur. 1022. — Ust. 1657.
 Guarea — Hy. 66. — Ur. 1429, 1430.
 — Py. 3009.
 Guatteria — Ur. 1446, 1447, 1448, 1449.
 Guettarda — Py. 3035.
 Gyalolechia — Py. 2328, 2772.
 Gymnogramme — Ur. 1582.
 Gymnopogon — Ur. 1272. — Py. 2942.
 Gynerium — Py. 2630, 2982, 3029.
 Gyrophora — Py. 2007, 2329.

- Habenaria — Ur. 1465.
 Hæmatoxylon — Hy. 448.
 Hæmodorus — Ur. 1233.
 Hamamelidis — Ur. 1412.
 Haplophyllum — Ur. 1516.
 Hedera — Py. 1941, 2306, 2379, 2993.
 Helenium — Py. 2391.
 Helianthella — Ur. 1021, 1362.
 Heliconia — Py. 2959.
 Helinus — Ur. 1510.
 Heliocarpus — Ur. 1177.
 Heliopsis — Ur. 973.
 Heliotropium — Ur. 1121.
 Helleborus — Py. 2672.
 Heppia — Py. 2325, 2327.
 Heracleum — Ur. 1156, 1157. — Py. 2448.
 Hertia — Py. 2154.
 Hesperaloe — Py. 1993.
 Heteropteris — Ur. 1181. — Py. 3071.
 Heterosphæria — Py. 2319.
 Hevea — Py. 2690, 2955.
 Hibiscus — Ur. 1255, 1515. — Py. 2218, 2890, 3085.
 Hieracium — Ur. 10¹⁶⁴⁴4. — Py. 2257.
 Hilaria — Py. 2847.
 Hippophæ — Py. 2022, 2305, 2503.
 Hoffmannia — Hy. 147.
 Holcus — Ur. 1271.
 Homojanthus — Ur. 1020.
 Hordeum — Ur. 1263, 1273. — Ust. 1659.
 Houstonia — Ur. 1072.
 Humiria — Py. 3007.
 Humulus — Py. 2824.
 Hura — Py. 2974.
 Hyacinthus — Py. 2008.
 Hyalotheca — P. 1740.
 Hydrangea — Ur. 1440.
 Hydrocharis — Ust. 1634, 1671.
 Hyoscyamus — P. 1769.
 Hypericum — Py. 2293, 2375, 2376, 2576, 3097.
 Hyphæne — Py. 1869.
 Hypochæris — Ur. 1031.
 Hypocrella — Py. 2741.
 Hypoxylon — Py. 2842.
 Hyptis — Ur. 1113, 1493. — Py. 1811, 1823.
 Icerba — Py. 3137.
 Ichnaspis — Py. 2823.
 Ilex — Hy. 420. — Py. 2381, 2564, 3040, 3109, 3146 *bis*.
 Impatiens — Ur. 1179.
 Imperata — Ur. 1264.
 Inga — Ur. 871, 1528. — Py. 3076, 3126.
 Indigofera — Ur. 869, 870.
 Insecta — Py. 2852 ad 2871. — La. 3160 ad 3225.
 Inula — Ur. 1361. — Py. 2701.
 Ipomœa — Ur. 1067, 1129, 1294, 1295, 1296, 1297, 1388. — Py. 2397.
 Iponema — Hy. 405. — Py. 1851.
 Iriartia — Py. 2760.
 Iris — Ur. 1227. — Py. 2312, 2511, 2624, 2693, 2694, 2695, 2696.
 Ischnosiphon — Ur. 1558.
 Iseilema — Ust. 1617.
 Isoglossa — Ur. 1383.
 Ivesia — Ur. 1328.
 Jacquemontia — Ur. 1401.
 Jambosa — Ur. 1175.
 Jasminum — Ur. 1137, 1138, 1403.
 Jasonia — Ur. 1472.
 Jatropha — Ur. 853.
 Johannesia — Ur. 1514.
 Jostephane — Ur. 1019.
 Juglans — Py. 2340, 2405, 2504, 2614, 2660, 2691, 2808.
 Juncus — Ur. 1239, 1563. — Py. 2413, 2514, 2698.
 Juniperus — Hy. 449. — Ga. 787. — Ur. 927, 928, 929. — Py. 1944, 2166, 2280, 2338, 2546, 3084.
 Jurinea — Ur. 998.
 Jussiæa — Ur. 1172.
 Kentia — Py. 2619.
 Knautia — Py. 502.
 Körberiella — Py. 2422.
 Kraunhia — Ur. 918.

- Kretzschmaria — Py. 2769, 2770.
 Krigia — Ur. 1018.
 Kundmannia — Ur. 1169.

 Lactuca — Ur. 1032, 1033, 1034, 1040,
 1245.
 Laguncularia — Py. 1845.
 Lappa — Ur. 985.
 Larix — Hy. 346, 453, 514, 654. — Py.
 2457, 3145.
 Laserpitium — Ur. 1155. — Py. 2873.
 Lathyrus — Py. 2488.
 Lauraceæ — Py. 1959, 1960, 2893, 2894,
 2895, 2896, 2931, 3072.
 Lauxania — P. 1732.
 Leandra Py. 2930.
 Lecania — Py. 2000.
 Lecanora — Py. 2002, 2193, 2200, 2433.
 Lecidea — Py. 2194, 2322, 2324, 2330,
 2466, 2467, 2471, 2773.
 Lecidella — Py. 2232.
 Lecythydaceæ — Py. 1787.
 Lecythis — Py. 2122.
 Ledum — Ur. 1313 *bis*.
 Leguminosæ — Py. 1838, 1919, 2968.
 Leonotis — Ur. 1110.
 Leontice — Ur. 1455.
 Leontodon — Ur. 1035.
 Lepachys — Py. 1958.
 Lepargyrea — Py. 1894.
 Lepidagathis — Py. 1822.
 Lepidium — Py. 2586.
 Lepidobolus — Ust. 1669.
 Leptochloa — Ust. 1605.
 Leptogium — Py. 2424.
 Leschenaultia — Ur. 1065, 1372.
 Leucæna — Ur. 1347.
 Leucas — Ur. 1115.
 Leuceria — Ur. 1060.
 Leucobryum — Hy. 655. — Ga. 795.
 Leucopogon — Py. 2249.
 Leucopsis — Py. 3066.
 Leuzea — Ur. 1017.
 Liabus — Ur. 1318.
 Lianæ — Py. 2820.
 Libertia — Py. 3057.
 Libocedrus — Ur. 926.

 Ligna — P. 1717.
 Ligusticum — Ur. 1139.
 Ligustrum — Py. 2334.
 Lilium — Ur. 1466.
 Linaria — Pk. 2221.
 Lindsæa — Ur. 1545.
 Linum — Ust. 1639. — Py. 2621.
 Lippia — Ur. 1122, 1123, 1124, 1394,
 1494. — Py. 1843, 2493.
 Liriodendron — Py. 2061.
 Lithoidea — Py. 2185.
 Lithospermum — Ur. 1396. — Py. 2556.
 Litsea — Ur. 1198. — Py. 1802, 1840,
 2580.
 Lobeliaceæ — Py. 1848.
 Locusta — P. 1682, 1683.
 Lomatia — Py. 1867.
 Lonchocarpus — Ur. 1309, 1521. — Py.
 1850, 2285, 2946, 2985.
 Lonicera — Hy. 708. — Py. 2159, 2400.
 Lopadium — Py. 2583.
 Lophanthus — Ur. 1114.
 Loranthus — Py. 1823.
 Lugoa — Ur. 1016.
 Lupinus — Ur. 862. — Py. 2477, 2478,
 2530.
 Luzula — Ur. 1238. — Ust. 1632 *ter*.
 — Py. 1973, 2175, 2414, 2623.
 Lychnis — Ur. 877.
 Lycium — Ur. 1094.
 Lycopodium — Py. 1974.
 Lycurus — Ust. 1616.

 Macaranga — Py. 1790, 1819.
 Machærium — Py. 1953, 2878, 2879, 2947.
 Machilum — Ur. 1445.
 Macrosiphonia — Py. 2910.
 Macrozamia — Py. 1996.
 Madia — Ur. 963, 1310 *bis*.
 Magnolia — Py. 1915, 2139, 2362, 2377,
 2642.
 Mahonia — Ur. 1452. — Py. 3135.
 Majanthemum — Py. 2641.
 Malpighiaceæ — Py. 3017, 3113.
 Malvastrum — Py. 3041.
 Mangifera — Hy. 256, 515. — Py. 1877,
 2872.

- Manihot — Hy. 536. — Py. 1810, 1854, 2666.
 Manisurus — Ur. 1309 *bis*.
 Maprounea — Ur. 1414, 1513. — Py. 2898.
 Maranthaceæ — Py. 3073.
 Marcgravia — Py. 3073.
 Marchantia — Py. 2299.
 Marsdenia — Ur. 1130, 1134.
 Mauritia — Py. 1846, 1978, 2806.
 Maxillaria — Py. 2762.
 Medicago — Ur. 1517. — P. 1748. — Py. 1927.
 Melaleuca — Hy. 417. — Py. 2904, 2994.
 Melananthus — Ur. 1385.
 Melasphærulea — Ur. 894.
 Melastoma — Py. 3006.
 Melia — Py. 2745, 2815.
 Meliaceæ — Py. 2239, 2336, 2951.
 Melica — Ur. 1268.
 Melicytus — Py. 2943.
 Melilotus — Py. 2588.
 Meliola — Py. 1824.
 Meliosma — Hy. 407.
 Memora — Ur. 1088, 1491. — Py. 3052.
 Meniscium — Py. 1789.
 Mentha — Py. 2562.
 Mentzelia — Ur. 1310, 1544.
 Menziesia — Hy. 719. — Ur. 1313.
 Mercurialis — Ur. 852, 1416, 1586.
 Mertensia — Ur. 1398.
 Metastelma — Ur. 1132.
 Miconia — Py. 2822, 2928.
 Microchloa — Ur. 899.
 Microlonchus — Ur. 980.
 Micromeria — Ur. 1111.
 Microtis — Ur. 886 *bis*.
 Mikania — P. 1761. — Py. 2954.
 Millettia — Py. 1937.
 Mimosa — Ur. 1336. — Py. 2141.
 Mirabilis — Py. 1924.
 Modiola — Ur. 1186.
 Mogiphanes — Ur. 1546.
 Monardella — Ur. 1119.
 Molinia — Py. 2179, 2520.
 Monimia — Hy. 186.
 Monnina — Py. 2877.
 Monopsis — Ur. 1450.
 Monotes — Py. 2433.
 Morus — Ur. 1464, 1549. — Py. 2008.
 Moschosma — Ur. 1392.
 Mucor — P. 1704, 1726.
 Mucuna — Py. 2218, 2386.
 Mühlembergia — Ur. 1255. — Ust. 1618, 1619.
 Mulgedium — Ur. 833, 1036.
 Musa — Hy. 353.
 Musaceæ — Py. 2851.
 Musca — P. 1732.
 Mutisia — Ur. 1028. — Py. 2907.
 Myosotis — Ur. 1292.
 Myrceugenia — Py. 3067.
 Myrsine — Py. 1803, 2901.
 Myrrhinium — Py. 3068.
 Myrtaceæ — Hy. 607. — Py. 2996, 3019.
 Mytilaspis — Py. 2726.
 Nastanthus — Ur. 1064. — P. 1760.
 Negundo — Py. 2016.
 Nicotiana — Ur. 1492. — P. 1769.
 Noctua — Py. 2835.
 Nolina — Ust. 1670.
 Nummularia — Py. 1800.
 Nyssa — Py. 2359.
 Ochrolechia. — Py. 2526.
 Ocotea — Py. 2892, 2953.
 Œdogonium — P. 1739, 1752.
 Œnanthe — Ust. 1638.
 Œnothera — Ur. 1244. — Py. 2595.
 Olea — Hy. 609. — Py. 1891, 3031, 3151.
 Olyra — Ur. 1573. — Py. 1830.
 Omphalaria — Py. 2229.
 Oncidium — Ur. 1553, 1554.
 Onoclea — Ur. 921.
 Onopordum — Ur. 986, 987, 1001, 2594.
 Opegrapha — Py. 2001.
 Opercularia — Ur. 1073.
 Ophelia — Ur. 1505.
 Ophioceras — Py. 2816.
 Ophiopogon — Ur. 1558.

- Opulastrum — Py. 2385.
 Opuntia — Py. 1836, 2710, 3108.
 Orchideæ — Py. 2749.
 Orchis — P. 1715.
 Origanum — Ur. 1108, 1109. — Py. 2395.
 Orthoclada — Py. 2850.
 Orthosiphon — Ur. 1117.
 Oryza — P. 1680, 1700, 1710, 1711, 1712.
 Oryzopsis — Ur. 1267.
 Osmodium — Ur. 1397.
 Osmunda — Ur. 924.
 Ossa — Py. 2044.
 Ostrya — Hy. 93, 561.
 Otiophora — Ur. 1074.
 Otopappus — Ur. 971.
 Oxalis — Py. 2367.
 Oxylobium — Py. 2247.
 Oxypetalum — Ur. 846.
 Oxyria — Py. 1926.

 Pæderia — Ur. 1487.
 Pæonia — Py. 2008.
 Palicurea — Ur. 1482.
 Palmæ — Hy. 162, 245. — Py. 1786, 1844, 2124, 2657, 2763, 3027.
 Panax — Ur. 1509.
 Pandanus — Py. 2204, 2515, 3058.
 Panicularia — Ur. 1266.
 Panicum — Ur. 1257, 1265, 1285, 1574, 1575. — Ust. 1606, 1607, 1675. — Py. 1855, 2180, 2417, 2922.
 Papaver — P. 1766. — Py. 2473.
 Papilionaceæ — Py. 1950, 1951, 2597.
 Parietaria — Hy. 718.
 Parkia — Py. 2949.
 Parlatoria — Py. 2726, 2803.
 Parmelia — Py. 2199, 2425, 2549.
 Parnassia — Ur. 902, 1191. — Py. 2148.
 Parrya — Ur. 1290.
 Paspalum — Ur. 1567. — Ust. 1620, 1655. — Py. 2963, 2984.
 Passiflora — Ur. 1427, 1428. — Py. 3045.
 Patagonium — Ga. 753.
 Patrinia — Ur. 1371.
 Paullinia — Py. 1868.
 Paulownia — Hy. 573.
 Pavonia — Ur. 857, 1187. — Py. 2768, 2889.
 Peckoltia — Ur. 1499.
 Pectronia — Ur. 1373, 1374, 1375, 1488.
 Pedicularis — Ur. 1091. — Py. 2162, 2721.
 Pelargonium — Py. 2487.
 Peltigera — Py. 2524.
 Pennisetum — Ur. 1305, 1306. — Ust. 1621.
 Pentanisia — Ur. 1075.
 Pentastemon — Py. 2160, 3129.
 Peplis — Ust. 1633.
 Periclymenum — Hy. 708.
 Pericopsis — Py. 2138.
 Persea — Py. 1860.
 Persica — Hy. 54. — Ur. 1537 *bis*. — Py. 2008.
 Persoonia — Py. 2151.
 Pertusaria — Py. 2332.
 Petasites — Py. 2389.
 Petræa — Py. 2393.
 Petroselinum — Ur. 1148.
 Peucedanum — Ur. 1161, 1410.
 Phacelia — Ur. 1125.
 Phalaris — Ust. 1665. — Py. 2420, 2421, 2699.
 Phaseolus — Py. 1952.
 Phellopterus — Ur. 1165.
 Phillyrea — Ur. 920.
 Philodendron — Py. 3122.
 Phlox — Ur. 1126.
 Phragmites — Ur. 1286. — Py. 1935, 2419.
 Phryganea — Py. 2326.
 Phyllanthus — Py. 2897.
 Phyllodon — Py. 1881.
 Physcia — Py. 2326.
 Phytolacca — Py. 2486.
 Picea — Hy. 723, 725. — Py. 2440.
 Picnomum — Ur. 983.
 Pieris — Ur. 1038.
 Picrosia — Ur. 1015.
 Pierardia — Py. 2823.
 Pieris — Hy. 661.
 Pimpinella — Ur. 1152.

- Pinaropappus — Ur. 1002.
 Pinus — Hy. 342 *bis*, 367, 432 *bis*, 440, 453 *bis*, 477, 492, 492 *bis*, *ter*, 496 *ter*, 502, 502 *bis*, 505, 506, 533 *bis*, 548, 550, 564, 568 *bis*, 576, 576 *bis*, 577 *bis*, 578 *bis*, 579, 583, 599 *ter*, 604 *bis*, 614 *bis*, 621, 622, 627, 635, 641, 641 *bis*, *ter*, 657, 734. — Py. 2006, 2281, 2461, 2645, 2766, 2824, 3103, 3140.
 Piper — Py. 1857, 2203, 2767.
 Piptadenia — Py. 2948.
 Piptocarpha — Py. 2342.
 Pirus — Hy. 54, 618, 713. — Ur. 1354. — Py. 1897, 1906, 1921, 2241, 2271, 2272, 2358, 2578, 2646, 2939, 3152.
 Pisum — Ur. 863. — P. 1758, 1759.
 Pithecolobium — Ur. 1525. — Py. 1829.
 Pittosporum — Py. 1961.
 Placodium — Py. 2233, 2323, 2428.
 Plantago — Py. 2157, 2158.
 Platanus — Py. 1886, 1984, 2387, 2998.
 Plectranthus — Ur. 1116.
 Plumeria — Ur. 1501.
 Plumiera — Ur. 1319.
 Poa — Ur. 897, 1262. — Ust. 1644. — Py. 2177, 2520.
 Poinciana — Py. 2764.
 Podospermum — Ur. 1049.
 Polemonium — Py. 2640.
 Polyblastia — Py. 1939, 2197, 2330.
 Polygonatum — Py. 2412, 2620.
 Polygonum — Ur. 1462. — Ust. 1592, 1594, 1595, 1596, 1642, 1644 *ter*, 1652. P. 1772. — Py. 2290.
 Polymnia — Ur. 1474.
 Polypodium — Ur. 915. — Py. 2094.
 Polytrichum — Hy. 317.
 Popowia — Ur. 1451.
 Populus — Hy. 88, 421, 431, 496 *bis*, 507, 535, 554, 563, 568 *bis*, 599 *ter*, 617, 618 *bis*, 627, 639, 641 *bis*, 646. — Ur. 911. — Py. 1776, 2005, 2267, 2283, 2284, 2309, 2339, 2364, 2387, 2539, 2652, 3091, 3130.
 Posoqueria — Py. 3116.
 Potentilla — Ur. 1325, 1326, 1327. — Py. 2438.
 Poterium — Py. 2255.
 Pothos — Py. 3133.
 Prasiola — Py. 1936.
 Premna — Ur. 1125.
 Prenanthes — Ur. 1039, 1040, 1041, 1042. — Py. 1930.
 Primula — Ur. 1140.
 Pritchardia — Hy. 71.
 Prosopis — Py. 2307.
 Prunus — Hy. 551, 595, 650, 667. — Ur. 1538, 1586 *bis*. — P. 1706, 1708. — Py. 1892, 1898, 1928, 1991, 2216, 2262, 2387, 2449, 2568, 2582, 2587, 2664, 2717.
 Pseudarthria — Ur. 867 *bis*.
 Pseudotsuga — Ur. 1350.
 Psidium — Hy. 447. — Py. 2814.
 Psilocarya — Ust. 1632 *bis*.
 Psophocarpus — Ur. 866.
 Psora — Py. 1938.
 Psychotria — Hy. 303. — Ur. 841, 1379, 1380, 1489. — Py. 1852, 3027.
 Pteris — Ga. 813, 2633. — Py. 2924, 2965, 3098, 3134.
 Pterolobium — Py. 2945.
 Pueraria — Py. 1923.
 Pulmonaria — Ur. 1279.
 Pulsatilla — Ur. 1209.
 Punica — Hy. 85.
 Pyrenopsis — Py. 2585.
 Pyrrhopappus — Ur. 1003.
 Quercus — Hy. 47 *bis*, 54, 153, 248, 306, 344, 355, 415 *bis*, 432 *bis*, 445, 451, 557, 571, 571 *bis*, 591, 599 *ter*, 600, 608, 621 *bis*, 623, 636, 641 *bis*, *ter*, 650, 673 *bis*, 707, 713, 735 *bis*. — Py. 1775, 1793, 1915, 1982, 1986, 1989, 2008, 2025, 2115, 2134, 2171, 2222, 2223, 2224, 2268, 2341, 2363, 2442, 2535, 2547, 2669, 2708, 2713, 2831, 2834, 2935, 2940, 2957, 2986, 2987, 3055, 3083, 3100, 3159.
 Ranunculus — Ur. 1457. — Ust. 1641.

- Rhagadiolus — Ur. 1043.
- Rhamnus — Hy. 658. — Ur. 1289. —
Py. 1907, 2309, 2382, 2444, 2680.
- Rhanterium — Py. 2605.
- Rhaponticum — Ur. 974.
- Rhexoblephara — Py. 2191.
- Rhinanthus — Py. 2488.
- Rhizocarpum — Py. 2192, 2331, 2373,
2528.
- Rhododendrum — Hy. 81, 659, 660. —
Py. 2264, 2288, 2536, 2609.
- Rhus — Py. 1893, 2258, 2286, 2304,
2654, 2659, 2983, 3159.
- Rhynchospora — Ust. 1628, 1629,
1632 *bis*.
- Rhysostelma — Ur. 1133.
- Ribes — Ur. 1183, 1240, 1441. -- Py.
2250, 2273, 2560, 2565, 2589, 2590.
- Richeria — Hy. 703. — Py. 2335.
- Riddellia — Ur. 1311.
- Rinodina — Py. 2804.
- Robinia — Hy. 444. — Py. 2308.
- Rollinia — Py. 3015, 3101.
- Romulea — Py. 2174.
- Rosa — Ur. 1585. — Py. 1893, 1907,
1925. — Py. 2541, 3146 *bis*.
- Rotifera — P. 1735.
- Rottboellia — Ur. 901, 1307, 1579.
- Rubia — Ur. 1076, 1077, 1081.
- Rubiaceæ — Py. 3021.
- Rubus — Ur. 875, 876, 1313 *bis*, 1321,
1322, 1323, 1324, 1536, 1537. — Py.
1858, 1954, 1955, 2144, 2207, 2208,
2209, 2217, 2303, 2387, 2673, 2719,
2978, 3146 *bis*.
- Ruellia — Ur. 1084, 1085, 1381, 1382.
- Rumex — Ur. 883, 884, 1218. — Ust.
1593. — P. 1749. — Py. 2212.
- Ruta — Py. 2594.
- Sabal — Hy. 466. — Py. 2445, 3093.
- Saccharum — Py. 2370, 2917.
- Salix — Hy. 199 *bis*, 421, 535, 599 *ter*,
614 *bis*, 624 *ter*, 638, 673 *bis*, 712,
727. — Ur. 907, 908, 909, 910, 912.
— Py. 1883, 1991, 2019, 2056, 2168,
2169, 2240, 2296, 2310, 2364, 2406,
2443, 2615, 2643, 2705, 2742, 3090.
- Salvadora — Ur. 1405.
- Salsola — Py. 2349.
- Salvia — Ur. 1099, 1100, 1101, 1102,
1103, 1104, 1105, 1106, 1107, 1390.
— Py. 2396, 2498.
- Sambucus — Ga. 750 *bis*. — Py. 2220,
2361, 2402, 2607, 2608, 2681, 2682
2722, 3082.
- Sanguisorba — Py. 1795.
- Sanicula — Ur. 1141.
- Sapindaceæ — Hy. 604. — Ur. 1185,
1424. — Py. 1868, 2966, 3111.
- Saprolegnia — P. 1736.
- Sarmienta — Py. 3051.
- Sarothamnus — Py. 2019 *bis*, 2492,
2570, 2598, 2678, 3079.
- Satyrium — Ur. 1222.
- Saururaceæ — Py. 2952.
- Saururus — Ur. 882.
- Saussurea — Ur. 834.
- Saxifraga — Ur. 904, 1190, 1192, 1193.
— P. 1771, 1931.
- Scabiosa — Py. 2155.
- Schizolobium — Py. 2880, 2881.
- Schœnoprasum — Ur. 912.
- Scilla — Ur. 880. — P. 1745.
- Scirpus — Hy. 627 *bis*. — Py. 2415,
2418, 2913.
- Scitamineæ — Hy. 553.
- Scleria — Py. 2960.
- Sclerolobium — Py. 3114.
- Schoberia — Ur. 879.
- Scholochloa — Ust. 1623.
- Scolymus — Ur. 982. — Ust. 1587.
- Scorzonera — Ur. 1050, 1051.
- Scrophularia — Py. 2495.
- Secale — Ur. 1273, 1277. — Py. 1943,
2747.
- Securidaca — Py. 2876.
- Selaginella — Py. 2632.
- Selinum — Ur. 1147.
- Sempervivum — Py. 2669.
- Senecio — Ur. 930, 945, 946, 947, 948,
1358, 1359, 1360. — Py. 2500, 2606,
2743.

- Sequoja — Hy. 61. — Py. 3145.
 Serjania — Py. 1947, 2944.
 Serratula — Ur. 988, 989.
 Sesamum — Py. 2386.
 Seseli — Ur. 1149.
 Setaria — Ur. 1580. — P. 1763. — Py. 2942, 2964.
 Sibbaldia — Py. 2704.
 Sideritis — Ur. 1389.
 Sideroxylon — Py. 2903.
 Sieversia — Ur. 1189.
 Silene — Ust. 1588. — Py. 2152, 2458, 2475.
 Siler — Ur. 1150.
 Silphium — Py. 2390.
 Simaba — Py. 2900.
 Simaruba — Hy. 432, 624.
 Sisyrinchium — Py. 2622.
 Sium — Ur. 850.
 Sloanea — Py. 2838.
 Smilax — Hy. 676. — Ur. 1235, 1236, 1237, 1560. — Py. 1992, 2172.
 Solanaceæ — Py. 1831.
 Solanum — Ur. 1095, 1096, 1097, 1387. — P. 1760. — Py. 1783, 1792, 1820, 2538, 2686, 3053.
 Solidago — Ur. 838, 839, 944, 1249, 1356. — Ust. 1658 *bis*.
 Solorina — Py. 2189, 2426, 2522, 2523.
 Sonchus — Ur. 1047, 1048.
 Sophora — Ur. 873, 874, 1437.
 Sorbus — Py. 2480, 2676.
 Sorghum — Ur. 1581. — Ust. 1624. — Py. 2631.
 Sparassis — Ur. 892.
 Sparganophorus — Ur. 1562.
 Spartina — Ur. 1287, 1288. — Py. 2916.
 Spartium — Py. 2369.
 Spelta — Ur. 1273.
 Sphæroma — P. 1740.
 Sphagnum — Hy. 83, 224, 226, 242.
 Sphyridium — Py. 2525, 2529.
 Spiræa — Py. 1795, 1922, 2274, 2734, 3157.
 Spirogyra — P. 1739.
 Sporobolus — Ur. 1261, 1408. — Py. 2919.
 Stachys — Ur. 1112.
 Staphylea — Py. 2674.
 Stellaria — Py. 2302.
 Stemonites — Py. 2802.
 Stenorrhynchus — Ur. 886.
 Stephanomeria — Ur. 1052.
 Sterculia — Hy. 439. — Py. 2779.
 Sterculiaceæ — Ur. 1422. — Py. 2840.
 Stereum — Hy. 560. — Py. 2795, 2795, 2800.
 Sterocaulon — Py. 2320.
 Sticta — Py. 2183.
 Stipa — Ur. 1274, 1278. — Ust. 1608, 1609, 1651, 1660, 1661, 1673.
 Stizolophus — Ur. 1012.
 Stobæa — Ur. 1004.
 Stratiotes — Py. 2513.
 Struthanthus — Py. 1835.
 Stylocaulon — Py. 2446, 2447.
 Styrax — Hy. 508. — Py. 2248, 2992.
 Suæda — Ur. 879.
 Succisa — Py. 2501.
 Swartia — Ur. 1344. — Py. 2883.
 Sweetia — Py. 3005.
 Swertia — Ur. 1505.
 Symbolanthus — Ur. 1504.
 Symphoricarpus — Py. 2561, 2647.
 Symphytum — Ur. 1279. — Py. 2490, 2575, 2688.
 Synaphæa — Py. 1809.
 Syringa — Py. 1884, 2387, 2492.
 Tabernæmontana — Ur. 1500. — Py. 3011.
 Tamarindus — Hy. 247. — Py. 2142.
 Tamarix — Hy. 422. — Py. 2287.
 Tanacetum — Ur. 952.
 Tapesia — Py. 2182.
 Taraxacum — Ur. 1045.
 Tarrietia — Py. 1908.
 Tassadia — Ur. 1131.
 Taxodium — Hy. 523.
 Taxus — Hy. 581.
 Tecoma — Ur. 1086.
 Tephrosia — Ur. 1349, 1524.
 Terminalia — Hy. 490.
 Tetranthera — Ur. 1444.

- Teucrium — Ur. 1120. — Py. 2294, 2497, 2687.
 Thalictrum — Ur. 1203, 1461. — Py. 2135, 2551.
 Thalloidima — Py. 2196.
 Thamnolia — Py. 2195.
 Thapsia — Ur. 1411 *bis*.
 Thea — Hy. 509. — Py. 2211, 2593.
 Theobroma — P. 1737. — Py. 2731, 2740, 2745, 2812, 2832.
 Thesium — Ur. 1547.
 Thlaspi — Ur. 1442.
 Thrincia — Ur. 1054.
 Thuja — Hy. 173. — Py. 2337, 2381, 2430, 2533, 3127, 3144.
 Thymus — Ur. 1109. — Py. 2439.
 Tilia — Hy. 568 *bis*, 614 *bis*, 641 *bis*, 656. — Py. 2360, 2363, 2387, 2454, 2492, 2591, 2592.
 Tillandsia — Ust. 1597.
 Tinnea — Ur. 1391.
 Tofieldia — Py. 1934, 3156.
 Torulinus — Ur. 1566.
 Tournefortia — Ur. 845. — Py. 2065.
 Tozzia — Ust. 1640.
 Trachycarpus — Ust. 1676.
 Tragia — Ur. 1419.
 Trametes — Hy. 652.
 Trautvetteria — Ur. 1204.
 Tremandra — Ur. 1180.
 Tricalybia — Py. 3021.
 Trichoma — Py. 3024.
 Trichosanthes — Hy. 709.
 Tricuspis — Ust. 1604. — Py. 2973.
 Trifolium — Py. 2479.
 Triglochin — Py. 2512.
 Trigonella — Ur. 861.
 Triodia — Ust. 1604.
 Triplasis — Ust. 1591.
 Triplium — P. 1707, 1750.
 Trisetum — Ur. 1260. — Py. 2181.
 Triticum — Ur. 1258, 1259, 1273, 1282. — P. 1699, 1713, 1714. — Py. 2825.
 Triunfetta — Ur. 1178.
 Trymatococcus — Ur. 1303.
 Tsuga — Hy. 462, 679. — Py. 2999.
 Turnera — Ur. 1420. — Py. 3048.
 Typha — Py. 2314, 2516, 2625, 2697.
 Ulex — Py. 2383.
 Ulmaria — Ur. 1332.
 Ulmus — Hy. 571, 577, 609 *bis*, 614 *bis*, 636, 638, 640, 715. — Py. 1899, 2070 *bis*, 2167, 2292, 2363, 2432.
 Umbelliferæ — Ur. 1170. — Py. 2003, 2483, 2723, 2979.
 Umbilicaria — Py. 2527.
 Urostigma — Py. 2911.
 Urtica — Ur. 1121. — Py. 2409, 2755.
 Utricularia — Ust. 1635.
 Uvaria — Py. 2991.
 Vaccinium — Py. 1979, 2263.
 Valeriana — Ur. 1068.
 Valsa — Py. 2724.
 Vanilla — Ur. 887. — Py. 1969, 2735, 2751, 2752.
 Vaucheria — P. 1738.
 Velæa — Ur. 1166, 1194.
 Veratrum — Py. 2510.
 Verbena — Py. 1777.
 Verbesina — Ur. 940, 941, 942, 943, 1316, 1317, 1470.
 Vernonia — Ur. 931, 1315, 1370. — Py. 2906, 3096.
 Veronica — Ur. 1092. — Py. 1929.
 Verrucaria — Py. 2190, 2198, 2470.
 Viburnum — Py. 2387, 2401, 2608.
 Vicia — Ur. 864, 865, 1431.
 Viguiera — Ur. 936, 937, 938, 939.
 Vincetoxicum — P. 1764.
 Viola — Py. 3042.
 Vitex — Ur. 1497. — Py. 2908.
 Vitis — Hy. 662, 671. — Py. 1905, 1917, 2008, 2146, 2792.
 Vochysia — Py. 2875.
 Vossia — Py. 2918.
 Warscewiczia — Py. 3115.
 Washingtonia — Py. 2410.
 Wedelia — Ur. 837, 1355.
 Wikstroemia — Ur. 905.
 Willemetia — Ur. 1046.
 Willoughbya — Py. 1861.

Wistaria — Py. 1940.

Wulffia — Ur. 836, 1369.

Wyethia — Ur. 1011.

Xanthoria — Py. 1972, 2321.

Xerotes — Py. 3132.

Xylaria — Py. 2782.

Xylomelus — Py. 1962.

Xylophia — Py. 3016.

Xylorrhiza — Ur. 1010.

Yucca — Py. 2173, 2313, 2709, 2973.

Zauschneria — Ur. 1173.

Zea — Py. 2372, 2915.

Zelkova — Py. 1902.

Zephyranthes — Ur. 1468.

Zexmenia — Ur. 835.

Zinnia — Ur. 964.

Zingiberaceæ — Py. 2837.

Ziziphora — Ur. 1118.

Zizyphus — Ur. 1511.

Zoysia — Ur. 1256.

Zygadenus — Ur. 1226.

Zygnema — P. 1739.

INDEX ALPHABETICUS

specierum in volumine XVII descriptarum

additis synonymis (*cursive impressis*)

- abietina (Russula) 32.
Abietis (Calosphæria) 561.
Abietis-Caprearum (Melampsora) 266 et 462.
Abietis-Chamænerii (Pucciniastrum) 469.
abnorme (Corticium) 168.
abnorme (Microthyrium) 864.
abscondita (Cryphonectria) 784.
abscondita (Nectria) 784.
abscondita (Tilletia) 490.
abyssinica (Puccinia) 336.
Acaciæ (Hypoxylon) 613.
Acanthi (Puccinia) 289.
Acantholimonis (Pleospora) 752.
Acanthophora (Laboulbenia) 918.
Acanthophylli (Erysiphe) 526.
Acanthospermi (Puccinia) 294.
Acarnæ (Puccinia) 288.
accedens (Puccinia) 332.
acerina (Metasphæria) 696.
acerina (Odontia) 157.
acerinum (Stereum) 174.
acerinus (Ophiobolus) 770.
Aceris (Clypeosphæria) 732.
Aceris (Gnomonia) 665.
Aceris (Platystomum) 890.
Acerum (Puccinia) 392.
Achilleæ (Leptosphæriopsis) 731.
Achilleæ (Pleospora) 750.
achroa (Puccinia) 362.
Acriuli (Uredo) 456.
Acroptili (Puccinia) 295.
Actææ (Coleosporium) 398.
Actææ (Sphærella) 636.
Actææ-Agropyri (Puccinia) 464.
Actinellæ (Puccinia) 391.
Actinomeridis (Puccinia) 282.
acuminata (Puccinia) 392.
acuminata (Xylaria) 622.
acuta (Ceriospora) 707.
acuta (Ceriosporella) 707.
acute-conoidea (Metasphæria) 704.
acutum (Rhabdium) 512.
acuum (Gibberella) 813.
adelura (Philocopra) 607.
adelura (Pleurage) 607.
Adenocalymmatis (Dothidella) 845.
Adenocalymmatis (Microcyclus) 845.
Adenostegiæ (Puccinia) 322.
Adianti-Capilli-Veneris (Hyalospora) 268.
Adianti-Capilli-Veneris (Uredo) 268.
adnatifolia (Lepiota) 6.
adunca (Syncephalis) 509.
adventitius (Mucor) 496.
advenula (Leptosphæria) 731.
advenula (Verrucaria) 731.
Æcidii-Leucanthemi (Puccinia) 369 et 464.
Æcidiis-Trientalis (Puccinia) 464.
æcidioides (Melampsora) 462.
Ægopodii (Puccinia) 342.
ægra (Puccinia) 392.
æmulans (Xylaria) 630.
æquatoriensis (Puccinia) 335.
æquilinearis (Eutypella) 566.
æquilinearis (Sphæria) 566.

- æruginea (*Scolecopeltis*) 874.
 æruginescens (*Russula*) 32.
 Æsculi (*Gnomonia*) 665.
 ætnense (*Tricholoma*) 9.
 affine (*Phragmidium*) 400.
 affinis (*Cintractia*) 480.
 affinis (*Puccinia*) 275.
 africana (*Cunninghamella*) 508.
 Agaves (*Coutinia*) 590.
 Agaves (*Hypocrea*) 802.
 Agaves (*Lembosia*) 901.
 Agaves (*Physalospora*) 585.
 agnita (*Leptosphæria*) 727.
 Agropyri (*Puccinia*) 464.
 agropyrina (*Puccinia*) 384 et 464.
agropyrina (*Uredo*) 384.
 Agrostis (*Puccinia*) 464.
 Aikeni (*Æcidium*) 434.
 Ailanthi (*Didymella*) 654.
 Ainsliæ (*Puccinia*) 295.
 Alaskæ (*Amphisphæria*) 685.
alaskana (*Guignardia*) 576.
 alaskana (*Læstadia*) 576.
 alaskanum (*Æcidium*) 435.
 alaskensis (*Limacinia*) 558.
 alba (*Panus*) 50.
 albellus (*Panæolus*) 93.
 Albertii (*Lembosia*) 897.
 albicans (*Tylostoma*) 223.
 albida (*Chrysomyxa*) 396.
 albida (*Cunninghamella*) 508.
 albida (*Lentodiopsis*) 47.
 albida (*Phlebia*) 155.
 albidans (*Pleosphæria*) 763.
 albidipes (*Boletus*) 98.
 albidula (*Collybia*) 15.
 albidulum (*Hebeloma*) 67.
albidum (*Ædocephalum*) 508.
 albidus (*Boletus*) 101.
albidus (*Ceratomyces*) 101.
 albidus (*Favolus*) 141.
 albidus (*Hymenogaster*) 239.
 albidus (*Hypomyces*) 804.
 albidus (*Polyporus*) 114.
albidus (*Polystictus*) 114.
 albi-peridia (*Puccinia*) 370 et 464.
 albipes (*Cantharellus*) 35.
 albo-carneus (*Boletus*) 98.
 albocreata (*Amanitopsis*) 2.
 albo-farinaceus (*Marasmius*) 41.
 albo-griseus (*Fomes*) 116.
 albo-luteus (*Polystictus*) 128.
 albo-magnum (*Hydnum*) 148.
albo-marginata (*Thelephora*) 160.
 albo-ochraceum (*Corticium*) 169.
albo-pruinosa (*Diatrype*) 566.
 albo-stramineus (*Hypochnus*) 185.
albo-virescens (*Omphalia*) 23.
 albo-virescens (*Pleurotus*) 23.
albulensis (*Puccinia*) 391.
 album (*Hebeloma*) 67.
Aleæ (*Æcidium*) 433.
Alfalfæ (*Cladochytrium*) 515.
 Alfalfæ (*Urophlyctis*) 515.
 algericum (*Podaxon*) 219.
 algeriensis (*Cintractia*) 479.
Alismatis (*Doassansia*) 479.
 Alismatis (*Ophiobolus*) 773.
 Alismatis (*Physalospora*) 585.
 Alismatis (*Pleospora*) 756.
 allantospora (*Calospora*) 717.
 Allii-Fragilis (*Melampsora*) 462.
 Allii-japonici (*Puccinia*) 363.
 Allii-Phalaridis (*Puccinia*) 464.
 Allii-populina (*Melampsora*) 266 et 462.
 Allii-Salicis albæ (*Melampsora*) 266 et 462.
 Allophili (*Uredo*) 444.
 allogena (*Pharcidia*) 648.
allogena (*Verrucaria*) 648.
 alnea (*Otthiella*) 632.
alneum (*Stereum*) 166.
alneus (*Xerocarpus*) 178.
 alnicola (*Coprinus*) 92.
 alnicola (*Metasphæria*) 702.
alpina (*Eutypella*) 566.
 alpina (*Guepinia*) 207.
 alpina (*Hypocopra*) 605.
 alpina (*Melampsora*) 462.
 alpina (*Pyrenophora*) 758.
 alpina (*Rhynchosphæria*) 740.
alpina (*Sordaria*) 605.
 alpina (*Trematosphæria*) 734.
 alpinum (*Platystomum*) 891.
 alpinum (*Triphragmium*) 402.
 Alstroemeriae (*Puccinia*) 366.
 altaica (*Puccinia*) 305.
 alutaceo-umbrinus (*Hypochnus*) 186.
 alutaceum (*Corticium*) 172.
 alveolatus (*Panæolus*) 93.
 Alyssi (*Puccinia*) 354.
 Alyxiæ (*Maurodothis*) 856.
 amabilis (*Marasmius*) 46.
 amariana (*Nectria*) 790.
 amaniensis (*Peniophora*) 175.

- Amarella (Agaricus)* 13.
 amazonense (*Æcidium*) 430.
 amazonensis (*Uredo*) 447.
 amazonica (*Cordyceps*) 823.
 amazonica (*Hypocrella*) 817.
 amazonica (*Xylaria*) 630.
 amazonica (*Zukaliopsis*) 554.
 amazonicum (*Dimerosporium*) 535.
 amazonicus (*Marasmius*) 44.
 ambigua (*Thelephora*) 162.
 ambiguum (*Platystomum*) 889.
 Ameghinoi (*Entyloma*) 483.
 Amelanchieris (*Platystomum*) 890.
Amelanchieris (Strickeria) 762.
 Amelanchieris (*Teichospora*) 762.
 americana (*Diatrype*) 571.
 americana (*Puccinia*) 464.
 americana (*Sporormia*) 739.
 americana (*Thelephora*) 161.
 americana (*Uredinopsis*) 269.
 americanum (*Glonium*) 896.
 americanus (*Lentinus*) 48.
 Amigenatska (*Thelephora*) 171.
 amœne-rosea (*Laschia*) 144.
 Amorphæ (*Rosellinia*) 598.
ampelina (Cryptovalsa) 567.
 amphigena (*Puccinia*) 464.
Amphilomatis (Arthopyrenia) 695.
Amphilomatis (Cyrtidula) 695.
 Amphilomatis (*Sphærulina*) 695.
Amphilophii (Puccinia) 392.
ampla (Cyphella) 191.
 amplexans (*Hexagonia*) 138.
 Amygdalinæ (*Melampsora*) 463.
 Anacardii (*Meliola*) 551.
 anaxæum (*Aulographum*) 895.
 anceps (*Æcidium*) 411.
 anceps (*Coleosporium*) 398.
Anchusæ (Æcidium) 381.
 Ancylanthi (*Æcidium*) 414.
 Ancylanthi (*Uredo*) 439.
 Andersoni (*Phragmidium*) 400.
 andina (*Erysiphe*) 526.
 andina (*Urocystis*) 492.
 andinum (*Secotium*) 217.
 Andiræ (*Dimerosporium*) 533.
 Andropogonis (*Puccinia*) 464.
Andropogonis (Ustilago) 487.
Andropogonis-contorti (Ustilago) 487.
 Andropogonis-hirtifolii (*Sphacelotheca*) 487.
Andropogonis-hirtifolii (Ustilago) 479 et 487.
 Andropogonis-saccharoidis (*Ustilago*) 479.
Andropogonis-saccharoidis (Ustilago) 487.
 Androsaces (*Ustilago*) 472.
 Androsæmi (*Diaporthe*) 667.
 Andryalæ (*Uredo*) 438.
 aneirina (*Poria*) 133.
 Anemones (*Urocystis*) 491.
 Angelicæ (*Metasphæria*) 696.
 Angelicæ (*Puccinia*) 344.
 Angelicæ-Bistortæ (*Puccinia*) 464.
 Angelicæ-mamillata (*Puccinia*) 464.
 angelicicola (*Puccinia*) 344.
 angolensis (*Microcyclus*) 844.
 angustata (*Puccinia*) 464.
 angustatum (*Hysterium*) 907.
 Anisacanthi (*Puccinia*) 320.
anisatus (Lentinus) 50.
 anisomera (*Diaporthe*) 671.
 annosus (*Fomes*) 120.
 Anodæ (*Puccinia*) 352.
 anodonta (*Æcidium*) 427.
 Anogræ (*Æcidium*) 423.
 anomala (*Meliola*) 552.
 anomala (*Pleurage*) 603.
anomala (Puccinia) 377.
anomala (Solenia) 146.
 anomala (*Sordaria*) 603.
 anomalum (*Platystomum*) 890.
 anomalus (*Rhachomyces*) 917.
 Anonæ (*Capnodium*) 555.
 anonicola (*Asterina*) 877.
ansata (Puccinia) 319.
 antarctica (*Phyllactinia*) 524.
 Antenoreus (*Ophiobolus*) 771.
 Anthemidis (*Puccinia*) 279.
 Anthephoræ (*Uredo*) 456.
 Anthistiria (*Sphærella*) 645.
 Anthocleistæ (*Schizospora*) 396.
 Antholyzæ (*Uromyces*) 260.
 Anthospermi (*Puccinia*) 316.
Anthyllidis (Uromyces) 263.
 Antillarum (*Clavaria*) 197.
 Antillarum (*Lophiosphæra*) 886.
 Antillarum (*Tremellopsis*) 193.
 aparaphysata (*Ceratosphæria*) 715.
 aphanes (*Polystomella*) 865.
 aphanicondra (*Puccinia*) 336.
 Aphelandræ (*Æcidium*) 416.
 Aphyllanthi (*Pleospora*) 754.
 apiculata (*Delitschia*) 687.
 apiculata (*Didymella*) 653.
apiculata (Ustilago) 491.

- apiculatus (Rhizopus) 502.
 Apii (Puccinia) 339.
 Aplopappi (Puccinia) 295.
 apogyra (Anthostomella) 595.
 apogyra (*Melanotheca*) 595.
 aporea (*Psora*) 797.
 appendiculatoides (Puccinia) 321.
 applanata (Amphisphæria) 685.
 applanata (Stigmatula) 578.
 applanatus (*Coriolus*) 129.
 applanatus (Polystictus) 129.
 atro-inquinans (Physalospora) 580.
 apula (Sphærella) 636.
 aquilana (Leptosphæria) 724.
 aquilana (Massaria) 732.
 Aquilegiæ-viridifloræ (Puccinia) 358.
 aquosus (Polyporus) 112.
 arabica (Mycosyrinx) 484.
 arabica (*Schræteria*) 484.
 Araceæ (Metasphæria) 703.
 arachnoidea (*Thelephora*) 187.
 arachnoides (Chætomium) 600.
 arachnoideus (Hypochnus) 187.
 Araliæ-cordatæ (Puccinia) 345.
 araneosa (*Epicymatia*) 676.
 araneosa (Phæosphærella) 676.
 araneosum (*Sphærellothecium*) 676.
 aratoides (Trametes) 136.
 aratus (Fomes) 125.
 Araucariæ (Lentinus) 49.
Araujæ-Morreniæ (Puccinia) 394.
 Arcangeliana (Mycena) 18.
 arctica (Linospora) 776.
 arctica (Puccinia) 337.
 ardosiacus (Hypochnus) 190.
 Arecæ (Hypomyces) 804.
 Arechavaletæ (Dothidella) 849.
 Arechavaletæ (Omphalia) 22.
 arenaceus (Hypomyces) 804.
 Arenariæ (Puccinia) 392.
 arenaria (Didymosphæria) 680.
 arenariicola (Puccinia) 464.
 arenicola (Battarrea) 225.
 argentata (Puccinia) 464.
 argentinensis (Claudopus) 61.
 argentinensis (Daldinia) 616.
 argentinensis (Glioniopsis) 910.
 argentinensis (Kalmusia) 742.
 argentinensis (Laboulbenia) 923.
 argentiniensis (Melampsora) 264.
 argentiniensis (Neopekia) 686.
 argentiniensis (Plowrightia) 846.
 argentiniensis (Sporodinia) 505.
 argentiniensis (Xylaria) 627.
 argillaceus (*Hypochnus*) 189.
 argyropotamicum (Tricholoma) 9.
 Ari (Læstadia) 575.
 arietinus (Herpomyces) 916.
 Ari-Phalaridis (Puccinia) 465.
 arida (Coniophora) 182.
 arida (Hymenochæte) 167.
 arida (*Hymenochætella*) 167.
 Aristidæ (Uromyces) 470.
 arizonensis (*Pleurage*) 601.
 arizonensis (Sordaria) 601.
 arizonica (Cucurbitaria) 764.
 arizonicum (Secotium) 217.
 Arjonæ (Euryachora) 841.
 Armeniaceæ (Pleospora) 747.
 Arnoldi (Leptosphæria) 730.
 aromatica (Puccinia) 338.
 aromaticum (Platystomum) 889.
 Arrhenatheri (Puccinia) 383 et 465.
 artemisiella (Puccinia) 279.
 artemisiicola (Puccinia) 279.
 Arthraxonis (Phyllachora) 840.
 Arthuri (Puccinia) 390.
 Artini (Battarreopsis) 223.
 Arundinellæ (Sorosporium) 484.
 Aschersoniana (Pholiota) 63.
 Aschi (Mycena) 20.
 Asclepiadeæ (Hysterostomella) 892.
 asclepiadeum (Cronartium) 461.
 asclerotiaica (Balansia) 821.
 asiatica (Puccinia) 392.
 Asparagi-lucidi (Puccinia) 365.
 aspera (Puccinia) 353.
 asperata (Tubaria) 76.
Asperifolii (*Æcidium*) 382.
 asperula (Xylaria) 628.
 Asperulæ-cynanchicæ (Puccinia) 389.
 Asperulæ-odoratæ (Puccinia) 389.
 asperulina (Puccinia) 319.
asperulinum (*Æcidium*) 319.
 asperulus (Polyporus) 112.
 Asphodeli (Puccinia) 394.
 Aspiciiliæ (Physalospora) 587.
Aspicilia (*Verrucaria*) 587.
 Aspidii (Asterella) 884.
Aspidii (*Lophidium*) 891.
 Aspidii (Platystomum) 891.
Aspidiotus (*Hyalospora*) 268.
Aspidiotus (*Uredo*) 268.
 astericola (Leptosphæria) 725.

- asterinoides (Meliola) 549.
 Asteris-alpini (Puccinia) 279.
 Asteris-Caricis (Puccinia) 465.
 Asterisci (Erysiphe) 527.
 Asteromœæ (Uredo) 437.
Asterum (*Æcidium*) 371.
 Astragali (Ophiobolus) 770.
 Astragali (Uromyces) 470.
 Astantiæ (Puccinia) 393.
astrantiicola (Puccinia) 393.
 Astrocaryi (Phyllachora) 837.
 ater (Boletus) 99.
 aterrima (Amphisphæria) 684.
 athamantina (Puccinia) 343.
 Atkinsoniana (Puccinia) 465.
 Atkinsonii (Calonectria) 811.
 Atkinsonii (Lachnocladium) 193.
 Atkinsonii (Uredinopsis) 269.
 Atomariæ (Acompsomyces) 917.
 atra (Plasmopara) 520.
 Atractylidis (Puccinia) 288.
Atragenes (Puccinia) 356.
 atrata (Laboulbenia) 923.
 atricapilla (Meliola) 553.
atricola (*Microthelia*) 594.
atricola (*Müllerella*) 594.
 atripes (Polystictus) 127.
 Atriplicis (*Æcidium*) 434.
 atriseda (*Eriosphæria*) 660.
atriseda (*Trichosphæria*) 660.
 atro-album (*Æcidium*) 421.
 atro-crocea (*Lepiota*) 4.
 atro-crustacea (*Ravenelia*) 406.
 atro-fuscus (Uromyces) 261.
 atro-maculans (*Ophiodothis*) 859.
 atro-maculans (*Pleospora*) 750.
 atrovirens (*Corticium*) 173.
 atrum (*Lycoperdon*) 230.
Atryneæ (*Endococcus*) 648.
Atryneæ (*Pharcidia*) 648.
 Aucubæ (*Asterina*) 878.
 auletica (Uredo) 457.
auloderma (Puccinia) 393.
 aurantiaca (*Kneiffia*) 182.
aurantiaca (*Poria*) 133.
 aurantiaca (*Pterula*) 199.
 aurantiaca (*Syncephalis*) 508.
 aurantiaca (Uredo) 452.
 aurantiacum (*Gymnosporangium*) 271.
 Aurantii (*Limacinia*) 556.
 aurantiicola (*Peroneutypella*) 570.
 aurasiacus (*Cortinarius*) 77.
 aurata (Puccinia) 312.
 aurea (*Bresadolella*) 797.
 aureliana (*Lasiosphæria*) 714.
 aureo-brunnea (*Micropeltis*) 870.
 aureo-viridis (*Flammula*) 70.
 aureum (*Sphæroderma*) 781.
 aureus (*Merulius*) 145.
aureus (*Merulius*) 145.
 auriscalpioides (*Fomes*) 124.
 australiensis (*Kretzschmaria*) 615.
 australiensis (*Megalonectria*) 815.
 australis (*Eutypella*) 564.
 australis (*Leptosphærulina*) 746.
 australis (Puccinia) 465.
 austriaca (*Calospora*) 717.
 austriaca (*Kordyanella*) 159.
austro-americanana (*Ustilago*) 484.
 austro-americanum (*Melanopsichium*) 484.
 autumnalis (Meliola) 549.
 avellanea (*Kneiffia*) 178.
 axicola-minor (*Cintractia*) 480.
axicola-spinularum (*Cintractia*) 479.
 Baccharinii (*Bulliardella*) 902.
 baccharidicola (*Parodiella*) 541.
baccharidicolum (*Æcidium*) 436.
baccharidicolum (*Dimerium*) 537.
 Baccharidis-hirtellæ (Puccinia) 273.
 Baccharidis-multifloræ (Puccinia) 273.
 baccharidophilum (*Æcidium*) 436.
 bactridicola (*Saccardomyces*) 530.
 bactridicolum (*Dimerium*) 541.
 Bactridis (*Phragmographum*) 906.
 bactrosporus (*Ophiobolus*) 773.
 badia (*Collybia*) 16.
badia (*Collybia*) 17.
 badio-umbrina (*Ulocolla*) 207.
 badius (*Leucogaster*) 240.
 baicalensis (*Annularia*) 53.
 Bakeri (Boletus) 99.
 Bakeri (*Hebeloma*) 66.
 Bakeri (*Hysterographium*) 912.
 Bakeri (*Rhopoglyphus*) 857.
 Bakeriana (Puccinia) 343.
 balaensis (Uredo) 458.
 Balansæ (*Auerswaldia*) 841.
 balearica (*Feracia*) 815.
 ballotæflora (Puccinia) 325.
 balnei-ursi (*Melanopsamma*) 658.
 balsameum (*Hydnum*) 152.
 Balsamorrhizæ (*Pleospora*) 750.

- Bambusæ (Kusanobotrys) 881.
 Bambusæ (Lophiella) 886.
 bambusicola (Polyporus) 111.
 banisteriicola (Uredo) 437.
 Banksiæ (Seynesia) 867.
 barbata (Xylaria) 626.
 Barbieri (Massarinula) 658.
 Barbosæ (Eutypa) 569.
 Bardanæ (Puccinia) 288.
 Barkhausiæ-rhœadifoliæ (Puccinia) 310.
 Barnadesiæ (Dimerium) 537.
 Barroeteæ (Puccinia) 300.
 Bartholomæi (Puccinia) 465.
 Bartletti (Magnusia) 531.
 Bartolomewii (Puccinia) 465.
 Basalduai (Leptosphæria) 724.
 Basanacanthæ (Æcidium) 436.
 Basellæ (Uromyces) 256.
 Batatæ (Puccinia) 333.
 Batesiana (Puccinia) 284.
 Bauhiniæ (Scolecopeltis) 874.
 Bauhiniæ (Uredo) 447.
 Bauhinarum (Parodiella) 541.
 bauhnicolum (Dimerosporium) 536.
 Baumiana (Ravenelia) 405.
 Baumianum (Æcidium) 414.
 Baumii (Clathrus) 213.
 Baumii (Phyllachora) 835.
 Behnickiana (Nectria) 789.
 Belluciæ (Asterina) 875.
 bellula (Peroneutypa) 569.
 Bellynckii (Metasphæria) 703.
 belonospora (Ophionectria) 816.
 Benedicti (Puccinia) 290.
Berberidis (Cucurbitaria) 764.
 Berberidis (Ophiobolus) 770.
 Berberidis-ruscifoliæ (Æcidium) 432.
 Berberidis-trifoliæ (Puccinia) 356.
 Berengeriana (Didymella) 657.
Berengeriana (Pharcidia) 657.
Berengerianus (Endococcus) 657.
 Berlesiana (Jattæa) 562.
 Berlesianus (Rhachomyces) 918.
 Bernieri (Polyporus) 110.
Bernieri (Xanthochrous) 110.
 berolinensis (Diaporthe) 670.
 berolinensis (Ruhlandiella) 242.
 bertioides (Xylaria) 625.
 Berulæ (Æcidium) 422.
 Berulæ-Scirpi (Uromyces) 470.
 Beschiana (Puccinia) 368.
 Betæ (Microsphæra) 525.
 betiphilum (Entyloma) 483.
 Betula (Boletus) 98.
 betulina (Dothidella) 850.
 betulinum (Melampsoridium) 464.
Biasolettianum (Chrysoglutem) 803.
 Biasolettianus (Hypomyces) 803.
Bicchiana (Dothidella) 845.
 Bicchianus (Microcycelus) 845.
 bicalcarata (Ceriosporella) 707.
 bicolor (Clavaria) 195.
bicolor (Clavaria) 196.
 bicolor (Leptonia) 58.
 bicolor (Odontia) 158.
 Bidentis (Ophiobolus) 771.
 biformis (Marasmius) 41.
biformis (Polyporus) 138,
biformis (Polystictus) 138.
 bifrons (Physalospora) 584.
 Bigeloviæ (Rosellinia) 598.
Bigeloviæ (Sorosporium) 488.
 Bignoniæ (Sphærella) 641.
 biguttulata (Rosellinia) 598.
 biparasitica (Charonectria) 783.
 bipindiensis (Clitocybe) 12.
 bipindiensis (Favolus) 142.
 bipindiensis (Hygrophorus) 29.
 bipindiensis (Inocybe) 66.
 bipindiensis (Mycena) 19.
 bipindiensis (Pleurotus) 25.
 bipindiensis (Typhula) 201.
 Biscutellæ (Æcidium) 430.
 biseptata (Metasphæria) 704.
 biseptatum (Gymnosporangium) 461.
 bisontinum (Tricholoma) 10.
 Bistortæ (Puccinia) 465.
 Bistortarum (Ustilago) 473.
 bithynica (Puccinia) 325.
 blechnicola (Uredo) 458.
 Blechnii (Melampsorella) 266.
 Bledii (Laboulbenia) 918.
 Blepharidis (Puccinia) 320.
 Blumenaviæ (Calonectria) 810.
 blumenavica (Eriosphæria) 660.
 blumenavica (Xylaria) 623.
 blumenaviensis (Nectria) 786.
Boehmeriæ (Uredo) 401.
 Boehmeriæ (Pucciniastrum) 401.
 boganidensis (Dædalea) 139.
bohémica (Urophlyctis) 515.
 bolaris (Hypochnus) 184.
 Bolbophylli (Nectria) 790.
 boletinus (Hypomyces) 805.

- Bolleyana (Puccinia) 465.
 Boltoniæ (Æcidium) 412.
 Bolusii (Uromyces) 253.
 bomfimensis (Fomes) 121.
 bomfimensis (Uredo) 447.
 bomolense (Æcidium) 426.
 bomolense (Pemphidium) 865.
 Bonacinæ (Xylopodium) 238.
 Bonæ-Spei (Diatrype) 571.
 Bonanniæ (Puccinia) 341.
 Bonanseana (Nectria) 786.
 bonariensis (Dædalea) 139.
 boopidicola (Uredo) 438.
 boreale (Hydnum) 149.
 boreale (*Stereophyllum*) 191.
 borealis (*Anthurus*) 214.
 borealis (*Gnomonia*) 664.
 borealis (*Lysurus*) 214.
 borealis (*Peniophora*) 175.
 borealis (*Physalospora*) 579.
 borealis (*Polystictus*) 129.
 borealis (Puccinia) 465.
 borealis (*Sphacelotheca*) 486.
 borneensis (Laboulbenia) 918.
 Bornmülleri (Tilletia) 489.
 Boroniæ (Puccinia) 351.
 Borreriæ (Æcidium) 414.
 Borreriæ (Puccinia) 316.
 Borrichiæ (Æcidium) 412.
 Bossiæ (Æcidium) 428.
 Bouwardiæ (Puccinia) 316.
 Bouwardiæ (Uromyces) 246.
 botryosa (*Bertiella*) 708.
 botryosa (*Nectria*) 794.
 botryosum (*Corticium*) 173.
 bovilla (*Sphæria*) 605.
 Brachylænæ (*Cycloshizon*) 896.
 Brachylænæ (*Schneepia*) 896.
 Brachypodii (*Didymosphæria*) 680.
 brachypus (Puccinia) 383.
 brachysora (Puccinia) 383.
 brachyspora (*Didymosphæria*) 679.
 brachysporus (*Corallomyces*) 807.
 brachystomus (*Ophiobolus*) 771.
 Brændlei (*Flammula*) 68.
 brasiliense (*Capnodium*) 556.
 brasiliense (*Hypoxylon*) 611.
 brasiliense (*Sclerangium*) 237.
 brasiliensis (*Drepanoconis*) 519.
 brassicicola (*Odontia*) 156.
 brassicicola (*Rosellinia*) 600.
 Braunii (*Thelephora*) 161.
 Bresadolæ (*Anixia*) 530.
 Bresadolæ (*Collybia*) 17.
 Brasadolæ (*Hypochnus*) 185.
 Bresadolæ (*Hypomyces*) 803.
 Bresadoleana (*Myriogenospora*) 859.
 breviculmis (Uredo) 455.
 Brevierei (*Cladochytrium*) 514.
 brevipes (*Podocrea*) 799.
 brevipes (*Tubaria*) 76.
 brevipes (*Xylaria*) 624.
 brevis (*Lembosia*) 897.
 Briardiana (*Pleospora*) 750.
 Brinkmanni (*Odontia*) 157.
 Briosiana (*Læstadia*) 573.
 bromina (Puccinia) 382, 465.
 bromina (Uredo) 382.
 Brongniartiæ (*Pleoravenelia*) 407.
 Broomei (*Polyporus*) 131.
 Brumellarum-Moliniæ (Puccinia) 465.
 Brunkii (*Tolyposporella*) 491.
 Brunkii (*Ustilago*) 491.
 brunnescens (*Lepiota*) 6.
 bryophila (*Galera*) 75.
 bryophilus (*Cantharellus*) 36.
 Buchloës (Puccinia) 394.
 buddleyicola (*Meliola*) 546.
 bulbicola (*Nectria*) 794.
 bulbipes (*Pluteus*) 55.
 Bulbocastani (Puccinia) 393.
 bulbosum (*Hebeloma*) 67.
 bulbosum (*Tricholoma*) 11.
 bullata (Puccinia) 393.
 Bunii (Puccinia) 393.
 Bupleuri (*Physalospora*) 580.
 Bupleuri (Puccinia) 393.
 Bupleuri (Uredo) 393.
 Bupleuri-falcati (Puccinia) 393.
 Bornettii (Puccinia) 382.
 Burtianum (*Stereum*) 163.
 Burtii (*Grandinia*) 154.
 Burtii (*Hebeloma*) 66.
 Burtii (*Inocybe*) 66.
 Busseanum (Æcidium) 414.
 Buxi (*Diaporthe*) 669.
 buxicola (*Didymella*) 654.
 Byrsonimæ (*Lembosia*) 898.
 byrsonimicola (*Asterina*) 875.
 byssiseda (*Clavaria*) 194.
 byssiseda (*Nectria*) 795.
 byssisedoides (*Claudopus*) 61.
 byssoidea (*Coniophora*) 183.
 byssoidea (*Coniophorella*) 183.

- caaguazensis* (*Dothidella*) 855.
caaguazensis (*Phæodothis*) 855.
cabo-friensis (*Uromyces*) 247.
cacao (*Xerocarpus*) 179.
Cacaliæ (*Coleosporium*) 460.
cachoirasensis (*Polyporus*) 115.
Cacti (*Nectriella*) 778.
Cactorum (*Lembosia*) 897.
Cactorum (*Trematosphæria*) 734.
cæomatiformis (*Puccinia*) 273.
cærulescens (*Corticium*) 173.
cæruleus (*Hypochnus*) 185.
Cæsalpinia (*Ravenelia*) 406.
Cæsalpinia (*Zignoella*) 709.
cæsariata (*Nectria*) 790.
cæsia (*Thelephora*) 187.
cæsium (*Corticium*) 187.
cæsius (*Hypochnus*) 187.
cæsius (*Polyporus*) 114.
cæspitosa (*Baumiella*) 708.
cæspitosa (*Laschia*) 144.
cæspitosa (*Leptosphæria*) 725.
cæspitosa (*Rosellinia*) 597.
cæspitosa (*Sphærella*) 643.
cæspitoso-filiformis (*Cordyceps*) 822.
cæspitoso-terrestris (*Pleurotus*) 24.
cæspitulosa (*Pistillaria*) 202.
Cajanderi (*Fomes*) 120.
calabrensis (*Collybia*) 15.
Calamagrostis (*Puccinia*) 465.
Calami (*Gibberella*) 813.
Calami (*Rosellinia*) 598.
Calandrinæ (*Ustilago*) 472.
Calatheæ (*Glonium*) 896.
calathicola (*Ophiobolus*) 771.
calcarea (*Ustilago*) 476.
calceum (*Corticium*) 174.
Calendulæ (*Puccinia*) 280.
californica (*Flammula*) 68.
californica (*Thecaphora*) 488.
californica (*Xylaria*) 626.
californicum (*Hypholoma*) 88.
californicum (*Sorosporium*) 488.
Calimeridis (*Puccinia*) 301.
Calkinsii (*Fomes*) 119.
Calkinsii (*Pyropolyporus*) 119.
caloceriformis (*Clavaria*) 194.
calospora (*Tulasnella*) 210.
calosporus (*Crinipellis*) 47.
calocephus (*Lepiota*) 3.
calosporus (*Marasmius*) 47.
calva (*Mucronella*) 158.
Calyceræ (*Puccinia*) 313.
Calyceræ (*Puccinia*) 313.
Calyceræ-Cavanillesii (*Puccinia*) 313.
calycinoides (*Omphalia*) 21.
Cambodja (*Mucor*) 503.
Cambodja (*Rhizopus*) 503.
Camelliæ (*Pleospora*) 748.
camerunensis (*Nectria*) 786.
camerunensis (*Rimbachia*) 38.
camerunensis (*Xylaria*) 633.
Campanulæ (*Coleosporium*) 398.
Campanulæ-macranthæ (*Coleosporium*) 460.
Campanulæ-rapunculoidis (*Coleosporium*) 460.
Campanulæ-rotundifoliæ (*Coleosporium*) 460.
Campanulæ-Trachelii (*Coleosporium*) 460.
campanulata (*Collybia*) 17.
camptosporus (*Ophiobolus*) 769.
campylostyla (*Gnomonia*) 666.
canadensis (*Pseudovalsa*) 741.
canadensis (*Puccinia*) 349.
canariensis (*Puccinia*) 311.
candida (*Merisma*) 203.
candida (*Nidula*) 215.
candidum (*Tremellodendron*) 208.
canescens (*Irpex*) 153.
Cannæ (*Puccinia*) 366.
cantareirensis (*Dimerosporium*) 534.
cantareirensis (*Hypoxyton*) 611.
cantareirensis (*Microthyrium*) 863.
cantareirensis (*Gibberella*) 814.
capensis (*Diatrype*) 571.
caperatus (*Favolus*) 141.
capillata (*Peroneutypella*) 570.
capistraria (*Valsa*) 564.
capitatus (*Uromyces*) 250.
Caproni (*Bovilla*) 605.
Caraganæ (*Cryphonectria*) 784.
Caraganæ (*Myrmæciella*) 784.
caraganicola (*Uromyces*) 254.
carbonicola (*Poria*) 134.
Cardiandræ (*Æcidium*) 429.
Cardiospermi (*Æcidium*) 423.
Cardui-pycnocephali (*Puccinia*) 291.
Carduncelli (*Puccinia*) 293.
Cari-Bistortæ (*Puccinia*) 465.
Caricæ (*Corallomyces*) 808.
caricina (*Claviceps*) 820.
caricina (*Cryptoderis*) 768.
cariciphila (*Leptosphæria*) 729.

- Caricis (Puccinia) 371, 465.
 Caricis (Sorosporium) 484.
 Caricis-Asteris (Puccinia) 371, 405.
 Caricis-Erigerontis (Puccinia) 372.
 Caricis-frigidæ (Puccinia) 465.
 Caricis-himalensis (Puccinia) 465.
 Caricis-montanæ (Puccinia) 372, 465.
 Caricis-Solidaginis (Puccinia) 373.
 Caricis-vulpinæ (Leptosphæria) 729.
 Carludovicæ (Microthyrium) 864.
 carneola (Kneiffia) 178.
 carneus (Ithyphallus) 212.
 carneus (Ophiobolus) 769.
 carnosa (Poria) 134.
 carotinum (Æcidium) 422, 470.
 Carphochætes (Æcidium) 412.
 Carpodini (Uredo) 442.
 Carveri (Metasphæria) 698.
 caryigena (Diaporthe) 672.
 Caryphyllacearum (Melampsorella) 464.
caryophyllea (Auricularia) 161.
caryophyllea (Thelephora) 161.
 Cascarillæ (Catharinia) 743.
 Cascarillæ (Zignoella) 709.
 Caseariæ (Phyllachora) 835.
 Cassandræ (Chrysomyxa) 397.
Cassandræ (Uredo) 397.
 Cassiæ (Pleosphærulina) 743.
 Cassiæ-glaucæ (Uredo) 448.
 Cassiæ-stipularis (Uredo) 448.
 Cassupæ (Lembosia) 899.
 Cassythæ (Sphærella) 638.
 Castagnei (Puccinia) 357.
Castagnei (Puccinia) 393.
castanea (Granularia) 216.
 castanea (Nidularia) 216.
 Castaneæ (Pucciniastrum) 401.
 Castaneæ (Rosellinia) 597.
 castaneus (Hygrophorus) 26.
 castanicola (Clitocybe) 13.
 castanophilus (Polyporus) 111.
 Castilleiæ (Leptosphæria) 724.
 Castillejæ (Ophiobolus) 772.
 Castillejæ (Pyrenophora) 758.
Castilloæ (Antennaria) 557.
 Castilloæ (Limacinia) 556.
 Casuarinæ (Hexagonia) 138.
 Catalpæ (Diaporthe) 673.
 Catalpæ (Didymosphæria) 678.
 Catalpæ (Metasphæria) 700.
 Cathestechi (Tilletia) 490.
Cathestechi (Ustilago) 490.
 Cattleyæ (Physalospora) 585.
 caulicola (Hypomyces) 805.
 caulicola (Puccinia) 417.
 caulicola (Venturia) 652.
 caulicolum (Æcidium) 417.
 caulicola (Puccinia) 328.
caulincola (Rhopoglyphus) 721.
 cauliculata (Laboulbenia) 919.
 caulincola (Rhopoglyphus) 857.
 caulium (Metasphæria) 700.
 cauligena (Herpotrichia) 715.
 cavernosa (Metasphæria) 702.
 Cecropiæ (Auerswaldia) 843.
 Cedrelæ (Uredo) 450.
 celastrina (Diaporthe) 669.
 Celosiæ (Uromyces) 256.
 celtidicola (Asterina) 876.
 Celtidis (Cucurbitaria) 765.
 Centaureæ (Puccinia) 286.
Centaureæ-Scabiosæ (Æcidium) 372.
 centralis (Clitocybe) 13.
centrifuga (Rhizoctonia) 174.
 centrifugum (Corticium) 174.
 Centrolobii (Dothidea) 853.
 centrolobiicola (Phyllachora) 831.
 Centrophylli (Puccinia) 237.
 Cephalanthi (Lophiostoma) 888.
 Cephalanthi (Uredo) 439.
 Cephalanthi-peruviani (Æcidium) 414.
 Cerasi (Teichospora) 760.
 Cerasi (Valsa) 563.
 Cerastii (Leptosphæria) 719.
 ceratophora (Neorehmia) 537.
 ceratophora (Valsa) 563.
 Ceratonix (Hysterium) 907.
 cereicola (Ophiochæta) 775.
 Cercocarpi (Lophiotrema) 887.
 Cercocarpi (Schizostoma) 887.
Cercocarpi (Strickeria) 762.
 Cercocarpi (Teichospora) 762.
Cerei (Mycosphærella) 639.
 Cerei (Sphærella) 639.
 cerrense (Æcidium) 425.
 cerussatus (Marasmius) 43.
 cervicornis (Clavaria) 194.
 cerviculata (Eutypella) 566.
 cervina (Trametes) 137.
 cervinus (Polystictus) 138.
 Cestri (Puccinia) 323.
 chætomioides (Sporormia) 738.
 chætophilus (Herpomycetes) 915.
 chætophorus (Hypochnus) 186.

- chætostroma (Metasphæria) 702.
 Chaignoni (Coprinus) 91.
chalybea (Tomentella) 187.
 chalybeus (Hypochnus) 187.
chalybæus (Hypochnus) 173.
 chamæloninus (Boletus) 99.
Chamæmori (Cryptoderis) 717.
 Chamæmori (Gnomoniopsis) 717.
 Chamæmori (Rhopographus) 857.
 Camæsarachæ (Puccinia) 324.
 changensis (Boletus) 97.
 changensis (Laschia) 144.
 changensis (Physalacria) 203.
 Changensis (Polystictus) 129.
Changensis (Scrillus) 97.
 changensis (Xerotus) 51.
 chartaceum (Corticium) 173.
 chartarum (Platystomum) 890.
Chasmatis (Puccinia) 392.
 chinicola (Gloniella) 903.
 Chionachnes (Phyllachora) 839.
 chlamydosporium (Corticium) 175.
 Chloës (Graphyllum) 913.
 chlorascens (Hydnum) 151.
 chlorinus (Hypochnus) 185.
 chondrillina (Puccinia) 312.
 chondrospora (Apiospora) 658.
chondrospora (Cryptosporella) 658.
 chrysophyllicola (Uredo) 443.
 Chrysopogonis (Sphacelotheca) 486.
 Chrysosplenium (Tilletia) 490.
 chrysospora (Sporormia) 737.
 Chrysothamni (Trematosphæria) 731.
 chubutensis (Uromyces) 261.
 chusqueicola (Balansia) 820.
 Cichorii (Puccinia) 311.
 Cinchonæ (Calosphæria) 562.
 Cinchonæ (Nectria) 785.
 Cinchonæ (Uredo) 439.
 cincta (Glomerella) 573.
 cincta (Laboulbenia) 923.
cinctus (Polyporus) 131.
 cinerea (Claviceps) 820.
 cinerea (Kneiffia) 182.
 cinerea (Mycena) 19.
 cinerea (Phyllachora) 836.
 cinerea (Trogia) 37.
 cinerellus (Hypochnus) 188.
 cinereo-carneum (Corticium) 172.
 cinereo-flavidus (Marasmius) 45.
 cinereo-violacea (Grandinia) 154.
 cinerescens (Hypochnus) 188.
cinereum (Corticium) 182.
 cingulata (Glomerella) 573.
 cinnabarina (Nectria) 786.
 cinnamomeo-squamulosus (Polyporus) 109.
 circinans (Physalospora) 581.
circinans (Puccinia) 392.
 circularis (Asterina) 880.
 circumscissa (Gnomonia) 666.
 circumscissa (Læstadia) 574.
 circumscissa (Plowrightia) 846.
 Cirsii (Metasphæria) 699.
 Cirsii (Puccinia) 292.
Cirsii (Thecaphora) 488.
 Cissi (Mycosyrinx) 484.
Cissi (Schroeteria) 484.
 Citharexyli (Asteridiella) 886.
 Citri (Crepidotus) 77.
 citrina (Psilocybe) 89.
 citrina (Puccinia) 367.
 citrino-carnescens (Pluteus) 55.
 citrinum (Melanomma) 733.
 cladophila (Didymella) 654.
 clandestinum (Endobasidium) 190.
 clarioneicola (Puccinia) 301.
Clarkiana (Pucciniostele) 264.
 clavariiforme (Gymnosporangium) 461.
clavariiformis (Phyllactinia) 524.
 clavata (Daldinia) 616.
 clavata (Puccinia) 356.
 claviformis (Xylaria) 625.
 clavigera (Kneiffia) 178.
 clavipes (Gymnosporangium) 462.
 clavispora (Trematosphæria) 734.
 clavulata (Peroneutypella) 570.
claytoniata (Puccinia) 392.
claytoniatum (Æcidium) 392.
 Clematidis (Otthia) 688.
 Clematidis (Pleospora) 749, 752.
 Clematidis (Pyrenophora) 758.
 Clematidis-Agropyri (Puccinia) 465.
 Clementsii (Didymosphæria) 679.
 clerodendricola (Æcidium) 418.
 clerodendricola (Uredo) 441.
 Clibadii (Æcidium) 412.
 Clidemmiæ (Dimerosporium) 535.
 Clitandræ (Uredo) 442.
 clitocybiformis (Marasmius) 44.
 clitocyboides (Lentinus) 48.
 Cnici-oleracei (Puccinia) 291.
 coccidophora (Nectria) 784.
 coccinea (Cordyceps) 823.

- coccinea* (Xylaria) 623.
coccispora (Leptosphaerulina) 746.
coccisporus (Endococcus) 746.
coccoidea (Seynesia) 868.
Cochleariæ (Puccinia) 355.
cochlearis (Agaricus) 50.
cochlearis (Cyphella) 191.
cochlearis (Lentinus) 50.
cochlearis (Panus) 50.
Cocoës (Lembosia) 900.
Cocoës (Leptosphaeria) 727.
Cocoës (Pseudographis) 906.
cocoina (Graphiola) 493.
Coffeæ (Anthostomella) 594.
Coffeæ (Calonectria) 809.
Coffeæ (Microthyrium) 863.
Coffeæ (Mycosphærella) 640.
Coffeæ (Peniophora) 175.
Coffeæ (Rostrella) 609.
Coffeæ (Sphaerella) 640.
Coffeæ (Vizella) 861.
coffeicola (Limacina) 577.
coffeicola (Micropeltis) 870.
coffeicola (Nectria) 789.
coffeicola (Pleonectria) 814.
coffeicola (Rosellinia) 598.
coffeicola (Seuratia) 558.
cognata (Daldinia) 616.
cognata (Puccinia) 275.
cohæsa (Puccinia) 359.
coleosporioides (Melampsora) 265.
collapsa (Bertia) 715.
collapsa (Herpotrichia) 715.
collapsa (Philocopra) 607.
collapsa (Pleospora) 749.
collapsa (Pleurage) 607.
collapsus (Ophiobolus) 772.
coloradensis (Naucoria) 72.
colossus (Hydnum) 148.
Columbariæ (Mycosphærella) 640.
Columbariæ (Sphaerella) 640.
columbina (Laboulbenia) 919.
Comari (Metasphaeria) 697.
comata (Endoxyla) 570.
comata (Pyrenophora) 758.
comatus (Mucor) 497.
combinans (Hydnum) 151.
comma (Glioniella) 903.
comma (Opegrapha) 903.
Commelinæ (Puccinia) 389.
commixta (Nummularia) 618.
communis (Mucor) 498.
commutata (Puccinia) 315.
comosa (Peroneutypella) 570.
comosa (Psalliota) 84.
comosus (Agaricus) 84.
compacta (Puccinia) 392.
Compositarum (Pleospora) 751.
compressa (Nectria) 785.
compressum (Hysterium) 907.
compressum (Platystomum) 889.
Comptoniæ (Diaporthe) 670.
concinna (Laboulbenia) 919.
concinna (Volvaria) 53.
conductrix (Læstadia) 557.
conductrix (Verrucaria) 577.
confertissima (Didymella) 653.
confertum (Platystomum) 889.
confinis (Physalospora) 583.
confluens (Puccinia) 281.
confusa (Solenia) 146.
confusa (Xylaria) 632.
confusum (Gymnosporangium) 462.
congesta (Diaporthe) 668.
conglobata (Puccinia) 349.
conglobatus (Polyporus) 108.
conglobatus (Polypilus) 108.
congregata (Puccinia) 393.
conica (Lasiosphaeria) 713.
conica (Psathyra) 90.
conidiigera (Uncinula) 525.
conigena (Diaporthe) 674.
conigenum (Hydnum) 150.
coniformis (Leptosphaeria) 725.
conioides (Pharcidia) 647.
conioides (Verrucaria) 647.
conjuncta (Puccinia) 332.
connectens (Dendrogaster) 241.
Conocarpi (Acanthostigma) 712.
conocephala (Mycena) 20.
conoidea (Eriosphaeria) 659.
Conopodii-Bistortæ (Puccinia) 465.
conorum (Metasphaeria) 701.
conorum (Peridermium) 409.
Conrathi (Geasteropsis) 229.
consanguinea (Uredo) 452.
consocians (Leptosphaeria) 730.
consocians (Mycoporum) 730.
consociata (Xylaria) 630.
Constantineani (Rhizophidium) 512.
constricta (Puccinia) 391.
contortum (Sorosporium) 485.
Convallariæ (Pleospora) 755.
Convallariæ-Digraphidis (Puccinia) 465.

- conviva (Hypomyces) 806.
 conyzella (Puccinia) 280.
 Cookeana (Meliola) 546.
Cookei (*Microthelia*) 649.
 Cookei (Mycosphærella) 649.
 Cooperiæ (Puccinia) 365.
 Copelandi (Marasmius) 39.
 Copelandi (Uredinopsis) 270.
 Copelandi (Uredo) 443.
 copeyensis (Phyllachora) 830.
 coprinoides (Montagnites) 95.
 coprinophila (Stropharia) 86.
 coprophila (Sordaria) 605.
 corallina (Nectria) 787.
coralloides (*Ramaria*) 195.
 Corchoropsidis (Uredinopsis) 270.
 Cordiæ (Uredo) 441.
 cordicolum (Dimerosporium) 535.
 cordubensis (Lentinus) 48.
 Cordyceps (Podocrea) 799.
 Corisæ (Coreomyces) 924.
 Corium (Bornetina) 193.
 Corni (Valsa) 563.
 corniculata (Laboulbenia) 919.
 corniculata (Metasphæria) 706.
 corniculata (Peroneutypa) 569.
corniculatum (*Obryzum*) 706.
 cornu-capræ (Meliola) 553.
 cornu-cervi (*Æcidium*) 424.
 cornu-damæ (Podocrea) 799.
 coronata (Puccinia) 465.
coronata v. *himalensis* (*Puccinia*) 336.
coronata v. *himalensis* (*Puccinia*) 466.
 coronifera (Puccinia) 466.
 corrugans (Leptosphæria) 720
 corrugata (Xylaria) 624.
 corsica (Puccinia) 282.
 corticola (Metasphæria) (96, 702).
corticola (*Poria*) 133
 cortinata (Inocybe) 65.
 Cortusæ (Puccinia) 336
 corvarensis (Puccinia) 341.
 Coryli (Metasphæria) 702.
 corylina (Melomastia) 707.
 corynostoma (Peroneutypella) 570.
 costatus (Boletus) 97.
 cothurnatus (Agaricus) 85.
 Cotini (Platystomum) 889.
 Coulterophyti (Puccinia) 346.
 Courtoisiæ (Uredo) 456.
 Cousiniæ (Puccinia) 293.
 Coutoubæ (Dothidella) 849.
 Cowellii (Polyporus) 104.
 Craspidophori (Laboulbenia) 919.
 crassa (Peniophora) 176.
 crassicutis (Puccinia) 301.
 crassior (Puccinia) 362.
 crassipes (Clavaria) 195.
 crassivertex (Uromyces) 255.
 crassivolvata (Amanitopsis) 3.
 crastophila (Didymosphæria) 680.
 Cratægi (Eutypella) 564.
 Cratægi (Venturia) 651.
 crateriformis (Hymenochæte) 166.
 cremea (Calonectria) 810.
 cremea (Kneiffia) 182.
cremea (*Peniophora*) 182.
 cremeo-tomentosus (Fomes) 121.
cremeum (*Corticium*) 182.
 cremicolor (Hypochnus) 185.
 cremoricolor (Russula) 31.
 crenatoporus (Polystictus) 129.
 Crepidis (Physoderma) 513.
 Crepidis-integræ (Uredo) 438.
 Crepidis-japonicæ (Uredo) 438.
 Crepidis-leontodontoidis (Puccinia) 304.
 cretacellus (Agaricus) 83.
 crispatus (Merulius) 146.
 cristata (Peronospora) 521.
 cristatum (Hydnum) 149.
 Croceæ (Metasphæria) 706.
Croceæ (*Xenosphæria*) 706.
 croceus (Polyporus) 109.
Crombiei (*Endocarpia*) 648.
 Crombiei (Pharcidia) 648.
 crotalariicola (Uredo) 447.
 crustosus (Fomes) 119.
crustosus (*Pyropolyporus*) 119.
cryptarum (*Polyporus*) 120.
 cryptosphærioides (Didymosphæria) 678.
Cryptotæniæ (*Æcidium*) 345.
Cryptotæniæ (*Uredo*) 345.
cubensis (*Peronospora*) 520.
cubensis (Plasmopara) 520.
cubensis (Zignoella) 712.
 Cuboniana (Sphærella) 638.
 cucullatum (Hydnum) 150.
 cucullatus (Uromyces) 244.
 Cucumis (Naucoria) 72.
 Cucurbitarum (Choanophora) 507.
Cucurbitarum (*Rhopalomyces*) 508.
 culmigena (Pleospora) 756.
 culmorum (Trichosphæria) 589.
 cuneata (Thecaphora) 488.

- cuneatum* (*Sorosporium*) 488.
cuneiformis (*Crepidotus*) 77.
Cunninghamianum (*Gymnosporangium*) 462.
Cuphæ (*Puccinia*) 388.
cuprea (*Daldinia*) 617.
cupularis (*Hypocrea*) 800.
cupularis (*Pharcidia*) 646.
cupulatum (*Stereum*) 163.
curvatus (*Dictyocephalus*) 238.
curtipes (*Puccinia*) 392.
curtum (*Platystomum*) 889.
curvata (*Gloniopsis*) 909.
curvata (*Laboulbenia*) 919.
curvatum (*Hysterium*) 910.
curvisetum (*Acanthostigma*) 712.
cuspidata (*Mycena*) 19.
cyanea (*Clitocybe*) 14.
cyaneo-tinctum (*Hydnum*) 149.
Cyani (*Puccinia*) 286.
cycanocephala (*Collybia*) 17.
cyanostoma (*Nectria*) 787.
Cyathearum (*Albania*) 881.
Cyathearum (*Asterina*) 881.
Cydoniæ (*Diaporthe*) 668.
cylindrica (*Peroneutypa*) 569.
cylindrica (*Peroneutypella*) 570.
cylindrica (*Ustilago*) 487.
cylindrospora (*Catharinia*) 743.
Cymbalariæ (*Didymella*) 654.
Cymboseridis (*Puccinia*) 312.
Cynoctoni (*Puccinia*) 335.
Cynosuroidis (*Uromyces*) 261.
Cyperi (*Cintractia*) 480.
Cyperi (*Meliola*) 553.
cypericola (*Didymosphæria*) 680.
cypericola (*Glonium*) 896.
cyrnæa (*Puccinia*) 368.
Cytisi (*Æcidium*) 428.
cyttarioides (*Æcidium*) 416.

dacrymycelloides (*Nectria*) 789.
Dactylidis (*Uromyces*) 470.
dakotense (*Æcidium*) 434.
dakotensis (*Coprolepa*) 608.
dakotensis (*Hypocopra*) 608.
dakotensis (*Philocopra*) 607.
dakotensis (*Pleurage*) 607.
dakotensis (*Sporormia*) 737.
dalechampiicola (*Æcidium*) 424.
Dampieræ (*Puccinia*) 315.
Dannenbergi (*Didymosphæria*) 683.

Danthoniæ (*Uredo*) 457.
Daphnopsidis (*Dothidea*) 854.
dasyscyphoides (*Nectria*) 790.
Davidsonii (*Pæcilosporium*) 488.
Davidsonii (*Teichospora*) 760.
Davidsonii (*Tolyposporium*) 488.
dealbans (*Pharcidia*) 647.
dealbans (*Sphærella*) 647.
dealbata (*Bovista*) 234.
dealbata (*Bovistella*) 234.
De Baryana (*Puccinia*) 356.
Debeauxii (*Entyloma*) 514.
Debeauxii (*Physoderma*) 514.
decipiens (*Burrillia*) 479.
decipiens (*Ceratostoma*) 609.
decipiens (*Doassansia*) 479.
Deeringiæ (*Uromyces*) 257.
deflectens (*Corticium*) 174.
deflectens (*Grandinia*) 174.
deflectens (*Platystomum*) 889.
deformans (*Podocrea*) 799.
deformata (*Clitocybe*) 13.
deformatus (*Boletus*) 98.
dehiscens (*Puccinia*) 364.
delicatula (*Poria*) 134.
delicatula (*Xylaria*) 631.
Delilei (*Marasmius*) 45.
Delphinii (*Æcidium*) 433.
Delphinii (*Sphærotheca*) 524.
delphiniicola (*Mycosphærella*) 635.
delphiniicola (*Sphærella*) 635.
Demangei (*Bolbitius*) 74.
Demangei (*Pluteolus*) 74.
dendriticum (*Corticium*) 168.
denigrata (*Rosellinia*) 598.
densissima (*Clavaria*) 193.
dentata (*Nidularia*) 216.
dentatus (*Sphærobolus*) 216.
dentifera (*Laboulbenia*) 919.
denudans (*Myiocopron*) 861.
denudata (*Pleospora*) 748.
denudata (*Strickeria*) 744.
denudata (*Trichosporella*) 744.
depauperans (*Æcidium*) 392.
depauperatus (*Irpex*) 153.
depilata (*Stropharia*) 88.
depressa (*Metasphæria*) 700.
deremensis (*Russula*) 34.
Derridis (*Hapalophragmium*) 402.
Derridis (*Phyllachora*) 830.
desciscens (*Leptosphæria*) 726.
deserticola (*Tricholoma*) 10.

- deserticola (Xylaria) 629.
 desertorum (Platystomum) 891.
 Desmanthodii (Puccinia) 301.
 Desmodii-leiocarpi (Uredo) 446.
 Desmodii-pulchelli (Uredo) 446.
detergibile (Coleosporium) 439.
 detergibilis (Uredo) 439.
 Deutziae (Ophiobolus) 769.
 Deutziae (Valsa) 563.
 Deutziae (Venturia) 650.
 diabolicum (Hydnum) 148.
 Diagraphidis (Puccinia) 466.
 Diapensiae (Sphærulina) 693.
 diaphana (Odontia) 156.
diaphanum (Hydnum) 156.
 Dichronemæ (Ustilaginoidea) 492.
 Dichronemæ (Ustilago) 474.
 dichroum (Hydnum) 150.
 Dictyolomatis (Asterina) 877.
 dictyospora (Puccinia) 347.
 Dielsiana (Puccinia) 361.
 Dielsii (Æcidium) 427.
 Dielsii (Polyporus) 108.
 Dieramæ (Puccinia) 365.
 Dietelianum (Entyloma) 483.
 Dieteliana (Melampsorella) 267.
 diffusa (Lembosia) 899.
 Digitalis (Sphærella) 642.
 digitariicola (Ustilago) 475.
 Diguetii (Calvatia) 235.
 dilabens (Asterina) 879.
 diminuens (Platystomum) 889.
 diminuta (Eutypella) 565.
 dimorpha (Puccinia) 319.
 Diocleæ (Phyllachora) 831.
 Dioicæ (Puccinia) 466.
 Dioscoreæ-quinquelobæ (Uredo) 454.
 diospyricola (Phæosaccardinula) 873.
 Diplachnes (Puccinia) 383.
 Diplasiæ (Ustilago) 474.
 Diplopteræ (Herpomyces) 916.
 diplospora (Sphacelotheca) 487.
 diplospora (Ustilago) 475.
diplospora (Ustilago) 487.
 Diplothemii (Lembosia) 901.
 discelloides (Hypocrea) 802.
 discipes (Lepiota) 4.
 discoidea (Hypocrea) 800.
 discoidea (Pleospora) 751.
 disconspicua (Teichospora) 760.
 discopus (Marasmius) 46.
 discospora (Melanospora) 782.
 Disenochi (Laboulbenia) 919.
 dispar (Acanthostigma) 713.
 dispersa (Puccinia) 381, 466.
dispersa (Uredo) 331.
dispersa v. *Agropyri* (Puccinia) 384.
dispersa v. *Bromi* (Puccinia) 382.
 disputata (Diaporthe) 673.
 dissolvens (Entomophthora) 511.
 dissospora (Physalospora) 583.
 Dissotidis-longicaudæ (Uredo) 450.
 Distegiæ (Otthia) 688.
 distincta (Micropeltis) 870.
 divaricata (Laboulbenia) 923.
 divergens (Kretzschmaria) 615.
 djurense (Lycoperdon) 232.
 dolichopus (Hydnum) 148.
 dolichospora (Leptosphæria) 723.
 dolichosporus (Uromyces) 247.
dolichotera (Leptosphæria) 706.
 dolichotera (Metasphæria) 706.
dolichoterum (Obryzum) 706.
 dolioloides (Leptosphæria) 722.
 dolomitica (Puccinia) 338.
 Doremæ (Puccinia) 346.
 doronicella (Puccinia) 283.
 Doronici (Puccinia) 283.
 dovrefjeldiensis (Cantharellus) 35.
 Dracænæ (Leptosphærella) 727.
 Dracænæ (Ustilago) 474.
 dryadea (Trichosphæria) 588.
 dryadicola (Sphærella) 637.
 Dryadis (Leptosphæria) 721.
Dryadis (Leptosphæria) 721.
 Dryadis (Microthyrium) 862.
 Drymidis (Lembosia) 898.
 dryophilus (Coprinus) 91.
 Dryptæ (Laboulbenia) 920.
 dubia (Laboulbenia) 920.
 dubia (Lentomita) 663.
 dubia (Peronospora) 522.
 dubiosum (Æcidium) 410.
 dubius (Mucor) 494.
 Dulcamaræ (Ophiobolus) 771.
 Dulichii (Puccinia) 373.
 dumetorum (Leptosphæria) 725.
 Dupainii (Boletus) 99.
duracinus (Leptoporus) 115.
 duracinus (Polyporus) 115.
 durus (Cyathus) 215.
Dusenii (Sorica) 621.
 Dussii (Crepidotus) 77.
 Dussii (Lycogalopsis) 212.

- Dusii (*Xylobotryum*) 690.
 Dussianum (*Hypoxylon*) 611.
 Duvauæ (*Meliola*) 546.
 Dybowski (Geaster) 226.

 Earleanum (*Hydnum*) 152.
 Earlei (Fomes) 119.
Earlei (*Pyropolyporus*) 119.
 Earlei (*Russula*) 33.
 Earlei (*Tilletia*) 489.
Ebuli (*Kalmusia*) 742.
 ebulicola (*Lophiostoma*) 888.
 eburensis (*Ophiobolus*) 769.
 echiella (*Leptosphaeria*) 723.
 echinata (*Rosellinia*) 597.
 echinocephala (*Eomycenella*) 21.
 Echinodori (*Burrillia*) 479.
 Echinopsis (*Puccinia*) 292.
 Echinopteridis (*Puccinia*) 351.
 echinospora (*Flammula*) 69.
echinosporum (*Corticium*) 189.
 echinosporus (*Xerotus*) 52.
 echinulata (*Cunninghamella*) 508.
echinulatum (*Edocephalum*) 508.
 echinus (*Meliola*) 552.
 ecitodora (*Lepiota*) 7.
 Ectobiæ (*Herpomyces*) 916.
 Edwiniæ (*Pleospora*) 754.
 Edwiniæ (*Teichosporella*) 744.
Edwiniæ (*Tichosporium*) 744.
 effigurata (*Phyllachora*) 837.
effusa (*Dothidella*) 855.
 effusa (*Phæodothis*) 855.
 Eichleriana (*Tulasnella*) 209.
 Eichlerianum (*Corticium*) 173.
 Eichlerii (*Radulum*) 154.
 elaeicola (*Marasmius*) 41.
 Elasticæ (*Phomatospora*) 578.
 Electræ (*Puccinia*) 302.
elegans (*Cladochytrium*) 514.
 elegans (*Nowakowskiella*) 514.
 elegans (*Ustilago*) 476.
 Eleusines (*Phyllachora*) 839.
 Elliotti (*Xyloceras*) 690.
 elliptica (*Didymella*) 655.
Ellisiana (*Pleurage*) 601.
 Ellisiana (*Sordaria*) 601.
Ellisii (*Coniophora*) 183.
 Ellisii (*Gymnosporangium*) 462.
Ellisii (*Sorosporium*) 486.
Ellisii var. *occidentale* (*Sorosporium*) 487.
Ellisii var. *provinciale* (*Sorosporium*) 485.
 elongata (*Amanitopsis*) 3.
 Elymi (*Puccinia*) 466.
 Elymi-*Impatientis* (*Puccinia*) 466.
 Empetri (*Physalospora*) 583.
 empetricola (*Metasphaeria*) 701.
 Encianthi (*Æcidium*) 421.
 endococcoidea (*Sphaerulina*) 695.
endococcoidea (*Verrucaria*) 695.
 endogena (*Nowakowskiella*) 514.
 endotephrum (*Lycoperdon*) 231.
 enecta (*Puccinia*) 333.
 Engleriana (*Dimerosporiopsis*) 686.
 Engleriana (*Puccinia*) 336.
 Englerianum (*Dimerium*) 537.
Englerianum (*Dimerosporium*) 686.
 enormis (*Zignoella*) 711.
 Enteropogonis (*Puccinia*) 381.
 Ephedræ (*Pleospora*) 753.
epicallopusma (*Cercidospora*) 797.
 epicallopusma (*Didymosphaeria*) 682.
 epicallopusma (*Nectria*) 797.
epicallopusma (*Phæospora*) 682.
epicallopusma (*Trichothecium*) 682.
 Epicampis (*Puccinia*) 381.
 epicarphinea (*Didymella*) 657.
epicharphinea (*Verrucaria*) 657.
 epidermidis (*Didymosphaeria*) 678.
 epidermidis (*Gnomonia*) 665.
 epidermidis (*Metasphaeria*) 697.
 Epigææ (*Sphaerulina*) 693.
 Epilobii (*Puccinia*) 348.
Epilobii (*Puccinia*) 348.
 Epilobii (*Pucciniastrum*) 470.
epimyces (*Corticium*) 186.
 epimyces (*Hypochnus*) 186.
 epiphylla (*Melampsora*) 265.
 epiphylla (*Pleoravenelia*) 407.
 equinus (*Rhizopus*) 502.
eradians (*Coniophora*) 188.
 eradians (*Hypochnus*) 188.
 eradicatus (*Lentinus*) 49.
 Eranthidis (*Peronospora*) 521.
erigeronatum (*Æcidium*) 372.
 Erigerontis-Caricis (*Puccinia*) 466.
 erinaceum (*Lycoperdon*) 230.
 Eriochloæ (*Sorosporium*) 485.
Eriocauli (*Cintractia*) 476.
 Eriocauli (*Tolyposporium*) 490.
 Eriocauli (*Ustilago*) 476.
 Eriogoni (*Pyrenophora*) 758.
 eriophora (*Lepiota*) 7.
 Eriophori (*Massariella*) 683.

- Eriophori (Phorcys)* 683.
Eriophori (Pleospora) 755.
Eriophori (Puccinia) 466.
Eritrichii (Æcidium) 418.
erostrata (Pleurage) 604.
erostrata (Sordaria) 604.
errabunda (Metasphæria) 696.
Eryngii (Puccinia) 393.
erysiphinum (Dimerium) 537.
erysiphinum (Dimerosporium) 537.
erysiphoides (Micropeltis) 869.
erythræus (Uromyces) 256.
erythrojonipoda (Hydrocybe) 80.
erythrojonipus (Agaricus) 80.
erythrojonipus (Cortinarius) 80.
Escalloniæ (Physalospora) 581.
Eschscholzii (Daldinia) 617.
Eschscholzii (Sphæria) 617.
Espinosarum (Puccinia) 281.
Esulæ (Leptosphæria) 722.
Eucalypti (Microthyrium) 863.
euchæta (Venturia) 652.
Eucharidis (Uredo) 454.
Euchilæ (Laboulbenia) 920.
Eudaliæ (Laboulbenia) 920.
Eugeniæ (Mycosphærella) 637.
Eugeniæ (Sphærella) 637.
eupatoriicola (Cryptosporella) 592.
Euphorbiæ (Erysiphe) 526.
Euphorbiæ (Leptosphæria) 722.
Euphorbiæ (Leptosphæriopsis) 731.
Euphorbiæ-Astragali (Uromyces) 470.
Euphorbiæ-connatæ (Uromyces) 249.
Euphorbiæ-Corniculatæ (Uromyces) 470.
Euphrasiæ (Coleosporium) 461.
Eupomatïæ (Asterella) 882.
europæa (Heterochæte) 209.
Euterpes (Rosellinia) 593.
Eutremæ (Puccinia) 355.
eutypelloidea (Cryptovalsa) 568.
evolvens (Corticium) 170.
evonymella (Pleospora) 749.
Evonymi-Capræarum (Melampsora) 463.
Evonymi-Incanæ (Melampsora) 463.
excavatum (Secotium) 101.
excavatus (Strobilomyces) 101.
excentrica (Delitschia) 687.
excentrica (Flammula) 69.
excipulata (Uredo) 447.
exigua (Eutypella) 565.
exigua (Laboulbenia) 920.
exigua (Thelephora) 161.
exigua (Ustilago) 475.
exiguella (Lisea) 807.
exiguella (Verrucaria) 807.
exiguus (Hypomyces) 806.
exilis (Meliola) 552.
exilis (Puccinia) 352.
eximia (Phyllachora) 838.
exitiosa (Puccinia) 321.
exitiosum (Cæoma) 458.
exitiosus (Mucor) 495.
expansa (Puccinia) 272.
extensicola (Puccinia) 466.
externa (Cintractia) 480.
externa (Tilletia) 480.
extinctoriiformis (Agaricus) 84.

Fagi (Thyridaria) 741.
faginea (Trematosphæria) 735.
faginea (Zignoella) 710.
Falcariæ (Puccinia) 393.
Falconeri (Pleospora) 752.
farinacea (Puccinia) 325.
farinosa (Kneiffia) 178.
farinosa (Uredo) 519.
farinosa (Valsa) 563.
Farlowiana (Pleospora) 757.
Farrahi (Entoloma) 56.
fascicularis (Mucronella) 159.
fascicularis (Pterula) 200.
fastibilis parvulus (Agaricus) 67.
fastigiatum (Hydnum) 152.
Fatouæ (Uromyces) 258.
favosum (Lycoperdon) 229.
Feltgeni (Diaporthe) 668.
Feltgeni (Didymosphæria) 679.
Feltgeni (Ophiobolus) 773.
Feltgeni (Pleospora) 755.
Fendleræ (Strickeria) 762.
Fendleræ (Teichospora) 762.
Fendleræ (Trematosphæria) 735.
Fendleri (Æcidium) 432.
Fendleri (Mycosphærella) 635.
Fendleri (Sphærella) 635.
fendlericola (Otthia) 689.
fenestrale (Platystomum) 889.
ferox (Puccinia) 276.
Ferrarisii (Puccinia) 344.
ferruginea (Microsphæra) 525.
ferruginea (Trichopeltis) 871.
ferrugineum (Asteridium) 884.
ferruginosa (Puccinia) 280.
Ferulæ (Æcidium) 422.

- Ferulæ (Uromyces) 248.
 Ferulaginis (Uromyces) 248.
 Festucæ (Ophiobolus) 774.
 Festucæ (Puccinia) 466.
 Festucæ-tenellæ (Ustilago) 477.
 Feurichii (Melampsorella) 267.
 fibrillosa (Nolanea) 59.
 fibrillosum (Tylostoma) 221.
 Fiebrigii (Auerswaldia) 842.
 filicicolum (Hyaloderma) 529.
 filicina (Phyllachora) 840.
 filicina (Pleospora) 757.
 filiformis (Ustilago) 477.
 fimbriata (Ræstelia) 409.
 fimicola (Hypocrea) 606.
 firma (Naucoria) 71.
 firma (Puccinia) 466.
 fisso-lobata (Hymenochæte) 166.
 flabellatus (Marasmius) 47.
 flaccida (Laboulbenia) 920.
flaccidum (Cronartium) 461.
 Flageoletiana (Nitschkea) 561.
 Flageoletiana (Sphærella) 643.
 Fleischeri (Cordyceps) 822.
flava (Tomentella) 189.
 flavescens (Puccinia) 381.
 flavescens (Trametes) 137.
 flavidulus (Marasmius) 41.
 flavidus (Lentinus) 49.
 flavipes (Gomphidius) 94.
 flaviceps (Russula) 33.
 flavo-brunnea (Coniophora) 183.
 flavo-brunnea (Leptosphæria) 729.
 flavoconia (Amanita) 1.
 flavo-fuliginus (Pluteus) 54.
 flavo-fusca (Inocybe) 65.
 flavo-fusca (Pyrenophora) 757.
 flavo-nigrescens (Ustilaginoidea) 492.
flavo-nigrescens (Ustilago) 492.
 flavo-rubescens (Amanita) 1.
 flavus (Mucor) 495.
 floccifera (Pluteus) 54.
 flocculenta (Cyphella) 191.
flocculenta (Thelephora) 191.
flocculentum (Corticium) 191.
 Flærkeæ (Peronospora) 522.
floridana (Hexagona) 144.
 floridana (Hysterostomella) 892.
floridana (Thelephora) 187.
 floridana (Uredo) 450.
 floridanus (Favolus) 144.
 Floscopæ (Uredo) 453.
 flosculosa (Nummularia) 619.
 fœniculacea (Leptosphæria) 720.
 fœtidus (Lactarius) 29.
 foliicola (Ophionectria) 816.
forabilis (Diaporthe) 671.
 Forficulæ (Dimeromyces) 915.
 forficularis (Herpomyces) 916.
 formicarum (Laboulbenia) 920.
 Forsteroniæ (Dimerium) 537.
 Fourcroyæ (Physalospora) 584.
foveolata (Dasyscypha) 392.
 fragilis (Favolus) 143.
fragilis (Hexagona) 143.
 fragilis (Psathyrella) 94.
 fragrans (Ravenelia) 403.
 Franciscana (Battarrea) 225.
 Frangulæ (Didymosphæria) 679.
 Frangulæ (Kneiffia) 177.
 Franseriæ (Puccinia) 300.
 Fraseræ (Æcidium) 420.
 Fraseræ (Uromyces) 248.
 fraudulentum (Platystomum) 889.
 fraxinata (Puccinia) 466.
fraxinata (Puccinia) 385.
fraxinatum (Peridermium) 385.
 fraxineum (Myrmæcium) 675.
Fraxini (Æcidium) 385.
 Fraxini-Bungeoanæ (Æcidium) 420.
 fraxinicola (Wallrothiella) 588.
 Friesii v. Salicis (Enchnoa) 560.
 fructicola (Nectria) 785.
 fructigena (Glomerella) 573.
 frustulosum (Corticium) 171.
 fruticum (Ophiobolus) 771.
 Fuckelii (Puccinia) 293.
 Fuirenæ (Uredo) 455.
 fuliginosa (Hymenochæte) 167.
fuliginosum (Stereum) 167.
 fulvescens (Hypochnus) 186.
 fulvo-squamosa (Pholiota) 62.
 Fumago (Dimerium) 537.
 fumosa (Poria) 132.
 fumosaria (Didymosphæria) 681.
fumosaria (Verrucaria) 681.
 fumosus (Boletus) 96.
 fungicolum (Rhizophidium) 512.
 furfuraceus (Hypochnus) 188.
fuscata (Hypochnopsis) 189.
fuscatus (Hypochnus) 189.
 fuscella (Leptosphæria) 726.
 fuscella (Nummularia) 618.
 fuscescens (Ceriosporella) 707.

- fusco-ferruginosus (Hypochnus) 184.
 fusco-maculatus (Polyporus) 112.
 fusco-paraphysata (Seynesia) 867.
 fusco-pulveracea (Meliola) 546.
 fusco-purpurea (Mycena) 18.
 fuscoporus (Coprinus) 92.
 fusco-violaceum (Septobasidium) 203.
 fuscus (Mucor) 495.
 fusiformis (Laboulbenia) 920.
fusiger (*Endococcus*) 683.
 fusigera (Didymosphæria) 683.
 fuispora (Didymella) 653.
 fuispora (Naucoria) 72.
 fuispora (Puccinia) 362.
- Gaduæ (Echinodochis) 819.
 Gaduæ (Rhopoglyphus) 858.
 Gaduæ (Scolecopeltis) 874.
 Galactitis (Puccinia) 283.
 Galanthi-Fragilis (Melampsora) 463.
 Galasiæ (Æcidium) 412.
 Galatellæ (Puccinia) 284.
 galatica (Puccinia) 291.
 Galeniæ (Puccinia) 361.
 Galeobdolonis (Leptosphæria) 725.
 galeriicola (Hypomyces) 805.
Galii (*Puccinia*) 393.
 Galii-elliptici (Puccinia) 318.
 Galii-silvatici (Puccinia) 389.
 gallica (Winterina) 708.
 gallicum (Anthostoma) 635.
 galligena (Nectria) 788.
 Garcilassæ (Uredo) 437.
 Garciniæ (Micropeltis) 869.
 Garciniæ (Zignoella) 709.
 Gardeniæ (Hypochnus) 184.
 Gardeniæ-Thumbergiæ (Uredo) 440.
 gardeniicolum (Dimerium) 539.
gardeniicolum (*Dimerosporium*) 539.
 Gardoquiæ (Asterella) 833.
 garganica (Sphærella) 644.
 Gastrolobii (Lizoniella) 661.
 Gaudichaudii (Uredo) 437.
gaveensis (*Mycosphærella*) 640.
gaveensis (Sphærella) 640.
 Gaylussaciæ (Phyllachora) 836.
 Gayophyti (Puccinia) 347.
 gemella (Puccinia) 358.
 gentianeum (Cronartium) 461.
 geogenium (Corticium) 170.
 geographicola (Leptosphæria) 731.
geographicola (*Phæospora*) 731.
- geophilicola (Uredo) 439.
 geophilus (Mucor) 496.
 geophyllus (Marasmius) 45.
 Georginæ (Ophiobolus) 772.
 Gerardiæ (Puccinia) 322.
 Giacomellianus (Geaster) 226.
 gibbosum (Chytridium) 513.
 Gibbsii (Coprinus) 93.
 Giberti (Puccinia) 391.
 gigantasca (Pleospora) 756.
 gigantea (Kneiffia) 182.
 gigantea (Nectria) 792.
 giganteus (Uromyces) 256.
 gigantispora (Puccinia) 359.
 gigantospora (Nectria) 788.
 gigaspora (Fenestella) 766.
 Gilgiana (Puccinia) 314.
 Gilgianum (Dimerium) 537.
 Gillesii (Puccinia) 326.
Gillotii (*Polyporus*) 120.
 glabra (Pleoravenelia) 407.
 glabra (Syncephalis) 509.
glabrum (*Corticium*) 180.
 Glatfelteri (Bolbitius) 74.
 Glatfelteri (Lepiota) 7.
 glaucophylla (Russula) 33.
glaucopus (*Androsaceus*) 40.
 glaucopus (Marasmius) 40.
 glaucum (Diploderma) 229.
 Gleadowii (Polystictus) 130.
glebarum (*Arthopyrenia*) 649.
glebarum (Pharcidia) 649.
 Glechomæ (Sphærella) 642.
 Gliæ (Uredo) 443.
 globosa (Sordaria) 602.
 globosum (Gymnosporangium) 462.
 globosum (Rhizoclosmatium) 516.
 glomerata (Puccinia) 276.
 glumarum (Puccinia) 380 et 466.
glumarum (*Uredo*) 380.
 glutinosus (Hygrophorus) 27.
 glutinosus (Pluteolus) 74.
 Glyceriæ (Pleospora) 756.
Glycosmæ (*Mycosphærella*) 638.
Glycosmæ (Sphærella) 638.
 Gnaphalii (Dimerosporium) 534.
 Gnaphalii (Puccinia) 391.
 Gnaphalii (Stigmatea) 649.
Gnaphalii (*Uredo*) 391.
 Gœldiana (Uredo) 450.
 Gœppertianum (Pucciniastrum) 470.
 Gœtzei (Polyporus) 106.

- Gollani (Daldinia) 617.
 Gollani (Pholiota) 62.
 Gollani (Podaxon) 219.
 Gollani (Polystictus) 130.
 Gollmerianus (Ascopolyporus) 819.
 gonatosporus (Ophiobolus) 769.
 Gonospermi (Puccinia) 300.
 Goodeniæ (Sphærella) 638.
 goyazensis (Didymella) 656.
 gracile (Gymnosporangium) 271.
 gracile (Tylostoma) 221.
gracilis (*Clavaria*) 197.
gracilis (*Clitocybe*) 11.
gracilis (*Darwiniella*) 856.
gracilis (*Dothidella*) 856.
gracilis (*Pluteolus*) 74.
gracillima (*Xylaria*) 631.
graminea (*Linospora*) 766.
graminicola (*Pleurotellus*) 26.
graminicola (*Pleurotus*) 26.
graminicola (*Saccoblastia*) 203.
graminicola (*Sclerospora*) 520.
graminis (*Ophiobolus*) 774.
graminis (*Puccinia*) 466.
graminis (*Uromyces*) 470.
graminum (*Sphærella*) 645.
grammica (*Xylaria*) 623.
grandis (*Ceratosphæria*) 716.
grandis (*Clavaria*) 195.
grandis (*Pholiota*) 62.
 Grangei (*Schulzeria*) 8.
granosa (*Thelephora*) 189.
granosus (*Hypochnus*) 189.
granulata (*Russula*) 32.
granulosa (*Amphisphæria*) 685.
granulosa (*Flammula*) 70.
granulosa (*Urocystis*) 492.
 Granulosæ (*Phæospora*) 718.
granuloso-verrucosa (*Pholiota*) 64.
graphidioidea (*Gloniella*) 905.
graphidosporum (*Platystomum*) 889.
gravecolens (*Æcidium*) 384.
graveolens (*Entoloma*) 56.
gregaria (*Puccinia*) 392.
gregarium (*Platystomum*) 889.
Grewiæ (*Stigmatea*) 650.
Griffithsii (*Battarrea*) 224.
Griffithsii (*Philocopra*) 607.
Grindeliæ (*Æcidium*) 411.
grisea (*Amanita*) 2.
grisea (*Stropharia*) 87.
griseo-flavus (*Marasmius*) 40.
griseo-viridis (*Pluteus*) 53.
griseola (*Puccinia*) 326.
griseum (*Phragmidium*) 399.
griseus (*Boletus*) 100.
griseus (*Gyroporus*) 100.
 Grossulariæ (*Sphærella*) 643.
grumosa (*Puccinia*) 364.
 Guadalajavæ (*Æcidium*) 419.
 Guardioliæ (*Puccinia*) 299.
 Guareæ (*Æcidium*) 427.
 Guettardæ (*Scolecopeltis*) 874.
 Gussonei (*Lenzites*) 52.
Gymnopogonis (*Puccinia*) 380.
Gynerii (*Phæoscutella*) 872.
Gynerii (*Rhopographus*) 858.
gyrosa (*Cryphonectria*) 784.
gyrosa (*Nectria*) 784.
Gyrophoræ (*Didymosphæria*) 682.
Gyrophoræ (*Pharcidia*) 682.

habunguense (*Æcidium*) 418.
Hæmatoxyli (*Pyropolyporus*) 118.
Hæmatoxyli (*Fomes*) 118.
Hæmodori (*Puccinia*) 366.
halophila (*Lizoniella*) 661.
halophila (*Ustilago*) 477.
Hamamelidis (*Æcidium*) 422.
hamatum (*Dimerium*) 537.
hamatum (*Lachnocladium*) 198.
Hammari (*Phyllachora*) 829.
Hammari (*Uredo*) 440.
Hammariana (*Seynesia*) 867.
Haplophylli (*Uredo*) 445.
haplospora (*Müllerella*) 593.
haplosporus (*Endococcus*) 593.
haplotella (*Müllerella*) 593.
haplotellus (*Endococcus*) 593.
Harmandi (*Pleurotus*) 25.
Harrimani (*Microthyrium*) 864.
hawaiensis (*Laboulbenia*) 921.
Hazlinskyi (*Otthiella*) 662.
Hedenii (*Fulminaria*) 512.
Hedenii (*Harpochytrium*) 512.
Hederæ (*Didymosphæria*) 678.
Hederæ (*Metasphæria*) 696.
Hederæ (*Microthyrium*) 863.
Hederæ (*Phomatospora*) 578.
Helianthellæ (*Æcidium*) 411.
Helianthellæ (*Puccinia*) 299.
Heliconiæ (*Dothidella*) 850.
Helini (*Uredo*) 444.

- Heliocarpi (Puccinia) 349.
 heliotropicola (Puccinia) 331.
 Hellebori (Ophiobolus) 769.
Helleri (*Melanospora*) 781.
 Helleri (Sphæroderma) 781.
 Hellerianus (Uromyces) 245.
 Helluodis (Laboulbenia) 921.
 Helluomorphæ (Laboulbenia) 921.
 helopus (Polyporus) 107.
Helosciadii (*Æcidium*) 347.
 helvelloides (Cantharellus) 37.
 helvetica (Grandinia) 155.
 hemiglossa (Xylaria) 625.
 hemisphærica (Poronia) 620.
 hemisphærica (Puccinia) 302.
 hemisphærica (Urophlyctis) 515.
hemisphæricum (*Æcidium*) 302.
hemisphæricum (*Entyloma*) 515.
 hemisphæricum (Scleroderma) 235.
hemisphæricus (*Edomyces*) 515.
hemisphæricus (*Uromyces*) 515.
 Henningsiana (Lepiota) 5.
 Henningsiana (Pleospora) 753.
Henningsii (*Agaricus*) 61.
 Henningsii (Eccilia) 61.
 Henningsii (Uredo) 456.
Henriettæ (*Agaricus*) 15.
 Henriettæ (Clitocybe) 15.
 Henryana (Puccinia) 367.
 Heraclei (Acanthostigma) 712.
 Heraclei (Puccinia) 342.
 herbarum (Pleospora) 748.
 Heribaudii (Nidularia) 216.
 herpotricha (Lentomita) 663.
 herpotrichum (Melanomma) 733.
 Hertia (Sphærella) 640.
 heteracantha (Peroneutypa) 569.
 hetærizans (Phæospora) 718.
hetærizans (*Verrucaria*) 718.
 heterochæta (Philocopra) 606.
heterochæta (*Pleurage*) 606.
heterogamus (*Mucor*) 500.
 heterogamus (*Zygorrhynchus*) 500.
 heterogena (Ustilago) 475.
 heterophracta (Leptosphærulina) 746.
heterophractus (*Endococcus*) 746.
 Heteropteridis (Asteridium) 885.
Heteropteridis (*Phyllachora*) 837.
 heterosporum (Phragmidium) 399.
 Hetieri (Lepiota) 5.
 Heucheræ (Puccinia) 393.
Heucheræ (*Uredo*) 393.
Heucheræ v. asiaticæ (Puccinia) 392.
 Heveæ (Ophiobolus) 772.
hians (*Hysterium*) 913.
 Hibisci (Didymella) 654.
 Hibisci (Uredo) 445.
hibisciatum (*Æcidium*) 374.
hibisciatum (Puccinia) 374.
 hiemalis (Mucor) 494.
 Hieracii (Gnomonia) 664.
 hieronense (Entyloma) 483.
 Hieronymi (Pleoravenelia) 407.
 Hieronymi (Vizella) 861.
 himalensis (Puccinia) 386.
 Himantia (Odontia) 156.
 himantioides (Merulius) 145.
 Hippophaës (Didymosphæria) 677.
 Hippophaës (Leptosphæria) 726.
 Hippophaës (Rosellinia) 599.
 Hircini (Catharinia) 743.
 Hircini (Diaporthe) 674.
 Hircini (Metasphæria) 695.
 Hirculi (Melampsora) 264.
 hirsutus (Cyathus) 214.
 hispida (Berlesiella) 745.
 hispida (Enchnosphæria) 713.
 hispida (Trogia) 37.
 Hoffmanni (Botryosphæria) 590.
 Hoffmanni (Lachnocladium) 198.
 Höhneliana (Fenestella) 766.
 Höhnelii (Calonectria) 810.
 holcina (Puccinia) 379, 466.
holcina (*Uredo*) 379.
 Hollandii (Polyporus) 111.
 Hollosiana (Disciseda) 233.
 Holmskjoldi (Clavaria) 195.
 holocyaneus (Polyporus) 105.
 Holwayi (Entyloma) 482.
 Holwayi (Neoravenelia) 408.
 Holwayi (Peridermium) 408.
Holicayi (*Ravenelia*) 408.
 Homalotæ (Acallomyces) 917.
 Homoianthi (Puccinia) 299.
 hondurensis (Favolus) 141.
hondurensis (*Hexagona*) 141.
 Hookeri (Puccinia) 379.
 hortensis (Leptonia) 59.
 hospitans (Müllerella) 594.
 Houstoniæ (Puccinia) 317.
 huallagense (*Æcidium*) 431.
 huallagensis (Asterina) 879.
 huallagensis (Dothidella) 848.
 huallagensis (Lembosia) 898.

- huallagensis (Phyllachora) 834.
 huallagensis (Puccinia) 324.
 huallagensis (Uredo) 440.
 huallagensis (Uromyces) 250.
 Huberiana (Xylaria) 623.
 Huberianum (Stereum) 164.
 humicola (Mortierella) 506.
 humidulum (Hydnum) 149.
humile (Tricholoma) 11.
 humilis (Laboulbenia) 921.
 humilis (Melampsora) 265.
 Humiriæ (Seynesia) 866.
 hungarica (Bovista) 234.
 hungarica (Calvatia) 234.
 hungaricum (Lycoperdon) 232.
 hungaricus (Geaster) 227.
 Huræ (Hypoxyloopsis) 885.
 hyalina (Debaryella) 809.
 hyalina (Sordaria) 604.
 hyalina (Uredo) 455.
 Hyalothecæ (Harpochytrium) 512.
 hydnoidea (Puccinia) 374.
 hydnoides (Merulius) 146.
hydnoideum (Æcidium) 374.
 Hydrangeæ-paniculatæ (Æcidium) 429.
 Hydrocharitis (Tracya) 491.
 hygrocycloides (Marasmius) 40.
 hygrophanus (Boletus) 97.
hygrophanus (Suillus) 97.
 hygrophila (Pharcidia) 649.
 hygrophilum (Platystomum) 889.
hygrophilus (Endococcus) 649.
 hygrophilus (Mucor) 497.
Hyoscyami (Peronospora) 522.
Hyperici (Aporia) 893.
 Hyperici (Metasphæria) 695.
 Hyperici (Schizothyrium) 893.
 Hyphænes (Pleomeliola) 554.
 Hyphaster (Asterina) 876.
 hypnicola (Ophionectria) 816.
 hypholomoides (Hygrophorus) 28.
 hypholomoides (Stropharia) 85.
hypnophilum (Corticium) 173.
hypnophilum (Pleurotellus) 26.
 Hypochæridis (Puccinia) 302.
Hypochæridis (Puccinia) 391.
 hypocrellicola (Nectria) 793.
 hypocreoides (Sphærostilbe) 798.
 hypophylla (Lembosia) 899.
 hypostomatica (Sphærella) 644.
 hypoxantha (Eutypa) 569.
hypoxantha (Eutypa) 569.
hypoxyloides (Amphisphæria) 599.
 hypoxyloides (Hypocrea) 800.
 hypoxyloides (Rosellinia) 599.
Hypoxylon (Xylaria) 628.
 hypsophila (Tilletia) 489.
 hypsophilus (Uromyces) 249.
 hyptidicola (Puccinia) 329.
 hyptidicolum (Dimerosporium) 536.
Hyptidis (Æcidium) 391.
Hyptidis (Ophioceras) 852.
Hyptidis (Puccinia) 391.
 Hyssopti (Puccinia) 329.
 hysterioides (Botryosphæria) 591.
 hysterioides (Platystomum) 890.
 hysterioides (Pseudographis) 905.
 Icerbæ (Pseudographis) 906.
 Ichnaspidis (Broomella) 813.
 Idæi (Didymosphæria) 677.
ignescens (Cantharellus) 35.
 Ikeni (Hydnum) 147.
 illicicola (Gloniopsis) 910.
 illicicola (Polyporus) 110.
illicicolum (Hysterographium) 910.
 illuminans (Mycena) 20.
 illyricum (Stereum) 164.
 imitans (Puccinia) 324.
 Immersæ (Didymella) 657.
 Impatientis-Elymi (Puccinia) 467.
 imperspicua (Puccinia) 345.
 imperspicuum (Dimerium) 537.
 implexicola (Sphærella) 641.
 inanipes (Puccinia) 281.
 incana (Dædalea) 139.
incana (Dædaleopsis) 139.
incarnata (Eichleriella) 208.
incarnata (Hirneolina) 208.
 incarnata (Kneiffia) 182.
incarnatum (Corticium) 182.
 incerta (Laboulbenia) 921.
 incertum (Æcidium) 411.
 incisa (Trichosphæria) 588.
 incisum (Platystomum) 890.
 inclusa (Puccinia) 290.
 Incongruæ (Didymosphæria) 681.
 incrustans (Chætosphæria) 736.
 incurvum (Æcidium) 410.
 indecorata (Russula) 30.
 indica (Pholiota) 63.
 Indigoferæ (Pleoravenelia) 407.
 Indigoferæ (Uromyces) 253.
 induratus (Uromyces) 246.

- inflata (Tremella) 205.
 inflorescentiæ (Ustilago) 473.
 infundibuliformis (Cyathus) 215.
 Ingæ (Glioniella) 903.
 ingicola (Uromyces) 254.
 innata (Pharcidia) 647.
innata (Verrucaria) 647.
 inopinata (Puccinia) 274.
 inops (Platystomum) 839.
 Inouyei (Æcidium) 428.
insidiosa (Hymenobia) 797.
 insidiosa (Læstadia) 574.
 insidiosa (Nectria) 797.
 insidiosum (Lophiostoma) 888.
 insignis (Hypocrea) 800.
 insignis (Laboulbenia) 921.
 insignis (Puccinia) 338.
insulare (Ganoderma) 125.
insulare (Placidium) 586.
 insularis (Fomes) 125.
 insularis (Phýsalospora) 586.
 intermedium (Harpochytrium) 513.
 intermedium (Helicostylum) 505.
 intermedium (Olpidium) 511.
 intermixta (Calonectria) 811.
intybacea (Thelephora) 161.
 Inulæ (Coleosporium) 461.
 Inulæ (Ophiochæta) 775.
 Inulæ-Helenii (Æcidium) 411.
involvens (Æcidium) 392.
 Ipomœæ (Meliola) 549.
 Ipomœæ (Metasphæria) 700.
Ipomœæ-pandurata (Æcidium) 315.
Ipomœæ-pandurata (Puccinia) 315.
 iquitosense (Æcidium) 415.
 iquitosensis (Meliola) 547.
 Iriartiæ (Nectria) 793.
 iridigena (Leptosphæria) 729.
 irregulare (Entoloma) 57.
 irregularis (Amphisphæria) 684.
 irregularis (Olpidiopsis) 511.
 irregularis (Tryblidiella) 908.
 irrorata (Collybia) 17.
 isabellina (Mortierella) 506.
 isabellinum (Corticium) 172.
 isabellinus (Hypochnus) 189.
isabellinus (Hypochnus) 172.
 isariphora (Peroneutypella) 570.
Ischæmi (Cintractia) 487.
 Ischæmi (Sphacelotheca) 487.
Ischæmi (Ustilago) 487.
 Ischnosiphonis (Uredo) 453.
isoderma (Puccinia) 393.
 Isoglossæ (Æcidium) 416.
 istriaca (Puccinia) 331.
 italica (Diaporthe) 671.
 italica (Henriquesia) 894.
 italica (Meliola) 553.
 Ivesiæ (Phragmidium) 400.
 Jaceæ (Metasphæria) 698.
 Jacquemontiæ (Æcidium) 419.
 Jacquiniæ (Lizoniella) 661.
 jalapense (Æcidium) 417.
 jaliscensis (Puccinia) 388.
 jamaicensis (Fomes) 118.
jamaicensis (Pyropolyporus) 118.
 Jambosæ (Puccinia) 349.
 Jamesiana (Puccinia) 466.
japonica (Calostoma) 225.
 japonica (Laboulbenia) 921.
 japonica (Urocystis) 492.
 japonicum (Gymnosporangium) 462.
 japonicus (Mitremyces) 225.
 japonicus (Rhizopus) 503.
 Jasmini-Chrysopogonis (Puccinia) 466.
 Jasoniæ (Uredo) 437.
 jaundensis (Naucoria) 72.
 javanica (Fleischeria) 820.
 javanica (Limacinia) 558.
javanicum (Capnodium) 558.
javanicum (Corticium) 163.
 javensis (Cordyceps) 826.
 joaquiensis (Cordyceps) 825.
 Joffrini (Uromyces) 258.
 Johansonii (Lizoniella) 661.
 Johnsonii (Lepiota) 6.
 Johnsonii (Pistillaria) 201.
 jonides (Marasmius) 40.
 Jostephanes (Puccinia) 299.
 juglandicola (Amphisphæria) 685.
 juglandina (Cucurbitaria) 765.
 juglandina (Pleospora) 753.
 juglandina (Spegazzinula) 808.
 Juglandis (Metasphæria) 702.
 Junci (Leptosphæria) 728.
 Junci (Uromyces) 470.
 juncicola (Ophiobolus) 774.
 juncina (Metasphæria) 703.
 juncina (Uredo) 454.
juncinus (Uromyces) 454.
 Juniperi (Amphisphæria) 684.
 Juniperi (Diaporthe) 670.
 Juniperi (Trematosphæria) 735.

- Juniperi* (*Xerocarpus*) 181.
juniperinum (*Gymnosporangium*) 462.
Juniperi (*Xylaria*) 627.
jur anum (*Dryodon*) 150.
jur anum (*Hydnum*) 150.
jurensis (*Polystictus*) 127.
Jurineæ (*Puccinia*) 293.
jur uana (*Dothidea*) 854.
jur uana (*Hypocrella*) 817.
jur uana (*Meliola*) 548.
jur uana (*Paranectria*) 812.
jur uana (*Physalospora*) 582.
jur uana (*Seynesia*) 865.
jur uana (*Zukalia*) 543.
jur uanum (*Aulographum*) 895.
jur uanus (*Polyporus*) 112.
jur uense (*Æcidium*) 431.
jur uense (*Hypoxylon*) 612.
jur uense (*Lycoperdon*) 231.
jur uensis (*Actiniopsis*) 871.
jur uensis (*Cyphella*) 192.
jur uensis (*Cordyceps*) 827.
jur uensis (*Geaster*) 228.
jur uensis (*Gibbera*) 662.
jur uensis (*Guepinia*) 206.
jur uensis (*Hygrophorus*) 29.
jur uensis (*Naucoria*) 73.
jur uensis (*Nectria*) 793.
jur uensis (*Penicillium*) 528.
jur uensis (*Phæopterula*) 201.
jur uensis (*Phyllachora*) 831.
jur uensis (*Uredo*) 442.
jur uensis (*Xylaria*) 631.
- Kabatianus* (*Uromyces*) 249.
kakelense (*Æcidium*) 423.
kampuluvensis (*Uredo*) 450.
kansense (*Tylostoma*) 220.
kansensis (*Hypocopa*) 605.
kansensis (*Pleospora*) 747.
kansensis (*Pleurage*) 602.
kansensis (*Sordaria*) 602.
kansensis (*Sporormia*) 738.
karelica (*Puccinia*) 373.
karstenii (*Peniophora*) 179.
Kentiaë (*Pleospora*) 754.
kermanensis (*Puccinia*) 292.
Klebahni (*Melampsora*) 463.
Klitzingii (*Lysurus*) 214.
Knautiaë (*Leptosphæria*) 726.
Kolaczakii (*Ustilago*) 487.
komabense (*Corticium*) 169.
komabensis (*Thelephora*) 162.
Komarowii (*Clastopsora*) 264.
Komarowii (*Puccinia*) 350.
Komarowii (*Uromyces*) 245.
Körberi (*Leptogrhaphis*) 705.
Körberi (*Leptosphæria*) 705.
Körberi (*Metasphæria*) 705.
kozukensis (*Puccinia*) 379.
Kraunhiæ (*Phacopsora*) 267.
Kriegeriana (*Melampsorella*) 267.
Kriegeriana (*Phlebia*) 155.
Kriegeriana (*Uredo*) 451.
Kriegeriana (*Valsaria*) 691.
Krigiaë (*Puccinia*) 298.
krjukowensis (*Elasmomyces*) 218.
krjukowensis (*Secotium*) 218.
Kummeriana (*Septoria*) 59.
Kundmanniaë (*Puccinia*) 347.
Kunzei (*Venturia*) 651.
Kusanoana (*Ustilago*) 477.
Kusanoi (*Dothidella*) 850.
Kusanoi (*Eutypa*) 568.
Kusanoi (*Pucciniastrum*) 401.
- labens* (*Leptosphæria*) 727.
labens (*Microcyclus*) 845.
Labiatarum (*Dimerium*) 537.
labiatus (*Leucoporus*) 113.
labiatus (*Polyporus*) 113.
laceratus (*Crepidotus*) 76.
lachnocephala (*Collybia*) 16.
laciniata (*Battarrea*) 224.
laciniata (*Thelephora*) 161.
Lacroixii (*Cordyceps*) 826.
lactescens (*Corticium*) 170.
lactescens (*Polystictus*) 130.
lacteus (*Irpex*) 153.
Lactucarum (*Puccinia*) 303.
lactucina (*Puccinia*) 303.
lactucinum (*Æcidium*) 371.
lacunosus (*Boletus*) 97.
lacustre (*Thelidium*) 647.
lacustris (*Pharcidia*) 647.
lacustris (*Pleospora*) 756.
laticolor (*Merulius*) 145.
laticolor (*Polyporus*) 102.
laticolor (*Scutigera*) 102.
lætum (*Corticium*) 173.
lætum (*Hyphoderma*) 173.
Lagerheimi (*Lizoniella*) 661.
Lagunaë (*Cantharellus*) 37.
Lagunaë (*Dictyolus*) 37.

- Lagunculariæ (Meliola) 547.
 lamelliporus (Lentinus) 49.
 lamellosa (Poria) 133.
 Langloisii (Dimerium) 537.
 Langloisii (Fomes) 118.
Langloisii (*Pyropolyporus*) 118.
 lapponica (Ophiognomonina) 776.
 laricina (Herpotrichia) 715.
 laricina (Hysterop-is) 909.
 Laricis-Capræarum (Melampsora) 463.
 Laricis-Daphnoidis (Melampsora) 463.
 Laricis-epitea (Melampsora) 463.
 Laricis-Nigricantis (Melampsora) 463.
 Laricis-Pentandræ (Melampsora) 463.
 Laricis-populina (Melampsora) 463.
 Laricis-Purpureæ (Melampsora) 463.
 Laricis-Tremulæ (Melampsora) 463.
larigna (*Gloniopsis*) 909.
 larigna (Hysteropsis) 909.
larvæformis (*Helicomycetes*) 519.
 larvata (Podocrea) 799.
 larviformis (Drepanoconis) 519.
 larviformis (Meliola) 548.
 Laserpitii (Puccinia) 342.
 latericium (Dimerium) 537.
 Lathyri (Leptosphæria) 722.
 latitans (Didymella) 657.
latitans (*Obryzum*) 657.
 latitans (Valsaria) 692.
 Latonæ (Laboulbenia) 921.
 Laurentiana (Puccinia) 353.
 Lauxaniæ (Entomophthora) 510.
 laxa (Pterula) 201.
laxa (*Thelephora*) 170.
 Leandræ (Auerswaldia) 842.
 Ledi (Chrysomyxa) 460.
 lejoderma (Puccinia) 341.
 Le-Monnieriana (Piptocephalis) 508.
 lentiformis (Metasphæria) 701.
 lentinoides (Polyporus) 113.
 leonotidicola (Puccinia) 328.
 Leontices (*Æcidium*) 432.
 Leontodontis (Puccinia) 304.
 Leopoldina (Peroneutypa) 569.
 Lepachydis (Physalospora) 582.
 Lepargyreæ (Valsa) 563.
 Lepidagathis (Dimerium) 540.
Lepidagathis (*Dimerosporium*) 540.
 lepidiicola (Pleospora) 747.
 Lepidoboli (Tolyposporium) 491.
 lepiotoides (Russula) 32.
 lepiotoides (Stropharia) 86.
 leporina (Delitschia) 687.
leproides (*Physoderma*) 515.
leproides (*Urophlyctis*) 515.
 leptoderma (Phellorina) 239.
 leptopus (Marasmius) 39.
 leptosperma (Puccinia) 360.
 leptospermus (Geaster) 228.
 leptospora (Sphærella) 644.
 leptothecium (Lophium) 914.
 Le-Ratii (Squamotubera) 621.
 Leucadis (Puccinia) 329.
 Leucænæ (Ravenelia) 407.
leucanthematum (*Cœoma*) 369.
Leucanthemi (*Æcidium*) 369.
 Leucanthemi (Entyloma) 482.
 leuceriicola (Puccinia) 313.
 leucocreas (Xypoxylon) 613.
leucoderma utriculicola (*Cintractia*) 479.
 leucophæa (Hirneolina) 209.
 leucosticta (Homostegia) 857.
 leucostroma (Melanconiella) 691.
 Leuzæ (Puccinia) 298.
 levantica (Gloniopsis) 910.
 leve (Corticium) 170.
leve (*Corticium*) 181.
 leve (Diorchidium) 395.
 levigata (Kneiffia) 181.
 levis (Kneiffia) 181.
 levis (Pleoravenelia) 407.
levis (*Puccinia*) 395.
 levispora (Battarrea) 224.
 Libertæ (Asterina) 880.
 lichenoides (Kretzschmaria) 614.
 lichenum (Pharacidia) 649.
 Ligericæ (Puccinia) 467.
 Ligniaria (Collybia) 17.
 lignicola (Didymosphæria) 670.
 lignicola (Geaster) 228.
 lilacina (Cyphella) 192.
 liliacea (Tulasnella) 210.
 Lillii-cordifolii (*Æcidium*) 435.
 liliputiana (Volvaria) 53.
 limitata (Cintractia) 480.
 Limosæ (Puccinia) 467.
 limpibus (Mucor) 498.
 Lindrothii (Puccinia) 354.
 Lindseæ (Uredo) 451.
 linearis (Puccinia) 467.
 lineata (Sphærella) 641.
lineatum (*Mycosphaerium*) 641.
 lineolatus (Uromyces) 470.
 Lini (Entyloma) 482.

- Lionnetii (Fomes) 124.
Lionnetii (Ganoderma) 124.
 Lippiæ (Meliola) 546.
 Lippiæ (Uredo) 441.
 Lippiæ-sidoidis (Æcidium) 418.
 Liriodendri (Metasphæria) 700.
 lithophylloides (Polyporus) 107.
 Lithospermi (Pleosphæria) 763.
Litseæ (Æcidium) 355.
 Litseæ (Dimerosporium) 533.
 Litseæ (Puccinia) 355.
 lividum (Protohydnum) 153.
 Lloydii (Geaster) 226.
 Lloydii (Podocrea) 799.
 Lobeliæ (Puccinia) 391.
 locellata (Poria) 132.
locellatus (Physisporus) 132.
 locusticola (Mucor) 495.
 locustiphila (Cordyceps) 824.
 Lœnnbohmi (Poria) 135.
 Lolii (Puccinia) 467.
 lonchocarpicola (Dothidella) 847.
 longaense (Æcidium) 420.
 longaensis (Uredo) 450.
 Longiana (Puccinia) 321.
 Longiana (Ravenelia) 404.
 Longiana (Xylaria) 628.
longicaudata (Pleurage) 601.
 longicaudata (Sordaria) 601.
 longicaulis (Corethromyces) 917.
 longicollis (Spumatoria) 663.
 longipes (Sporormia) 737.
 longirostrata (Peroneutypella) 570.
longirostrata (Valsa) 570.
 longirostris (Endothia) 675.
 longispora (Kneiffia) 181.
longispora (Leptosphæria) 773.
 longispora (Rhynchonectria) 799.
longisporus (Eleutheromyces) 799.
 longissima (Puccinia) 467.
 lopadostoma (Rhynchosphæria) 740.
lopadostomum (Melanomma) 740.
 lophiostomacea (Lembosia) 900.
 luandensis (Puccinia) 330.
 Lugoæ (Puccinia) 298.
 lungusaensis (Phyllachora) 831.
 lupina (Leptosphæria) 720.
Lupini (Dicæoma) 263.
 Lupini (Trematosphæria) 734.
Lupini (Uromyces) 263.
 lupinicola (Leptosphæria) 720.
 lupinicola (Uromyces) 263.
 lurida (Coniophora) 183.
 lusitanica (Odontia) 157.
 lutea Guepinia) 206.
 lutea (Sphærostilbella) 778.
 luteo-alba (Clavaria) 196.
 luteo-basis (Russula) 34.
 luteolus (Panus) 50.
 luteo-pilosa (Nectria) 792.
 luteo-rostrata (Torrubiella) 817.
 luteum (Entoloma) 57.
 luticola (Lasiosphæria) 714.
 luxemburgensis (Leptosphæria) 723.
 luxurians (Puccinia) 376.
luxurians (Puccinia) 390.
 luxuriosa (Puccinia) 390.
 Luzulæ Cintractia) 481.
 Luzulæ (Metasphæria) 704.
 Luzulæ (Pleospora) 755.
Luzulæ (Ustilago) 481.
Lycocconi (Æcidium) 358.
 Lycocconi (Puccinia) 358.
Lycocconi (Uredo) 358.
 lycoperdoides (Schulzeria) 9.
 lycuroides (Ustilago) 477.
Lysimachia (Puccinia) 394.
 Mac-Alpini (Puccinia) 391.
 Macarangæ (Dimerium) 539.
Macarangæ (Dimerosporium) 539.
 Macarangæ (Englerula) 529.
 maceiensis (Uredo) 444.
 machæriicola (Physalospora) 581.
 machæriophila (Dothidella) 847.
 Machili (Æcidium) 430.
 macilentus (Pleurotus) 25.
 Maclagani (Tilletia) 490.
Maclagani (Ustilago) 490.
 Mac-Owani (Uromyces) 259.
 Mac-Owaniana (Pleoravenelia) 407.
 macrescens (Hydnum) 152.
 macrocarpa (Ravenelia) 406.
 macropus (Gymnosporangium) 462.
 Macrosiphonia (Phyllachora) 837.
 macrospora (Acerbiella) 768.
 macrospora (Cryptovalsa) 567.
 macrospora (Didymosphæria) 680.
 macrospora (Graphiola) 493.
macrospora (Lasiosphæria) 768.
 macrospora (Phyllachora) 832.
 macrospora (Physalospora) 579.
 macrospora (Seynesia) 868.
 macrosporum (Corticium) 174.

- Macrozamiæ (Cryptosporella) 593.
 maculans (Metasphæria) 703.
 macularis (Asterella) 883.
 maculatum (Scleroderma) 235.
maculicola (Puccinia) 394.
 maculipes (Cortinarius) 80.
 maculosus (Polyporus) 104.
 madeirense (Lachnocladium) 198.
 madeirensis (Nectria) 796.
 madeirensis (Phyllachora) 833.
 madeirensis (Polystictus) 126.
 madeirensis (Rosellinia) 597.
Madiæ (Coleosporium) 395.
 Madiæ (Puccinia) 282.
 Madiæ (Stichopsora) 395.
 Magelhænica (Puccinia) 384.
 magnatum (Æcidium) 435.
 magnifica (Russula) 30.
 magnivelaris (Stropharia) 86.
 Magnoliæ (Dimerium) 537.
 Magnoliæ (Metasphæria) 695.
 Magnoliæ (Pleomassaria) 759.
Magnoliæ (Sporoctomorpha) 695.
 Magnoliæ (Valsaria) 692.
 Magnusiana (Melampsora) 463.
 Magnusiana (Puccinia) 467.
 Magnusii (Puccinia) 467.
 Mahoniæ (Pseudographis) 905.
 Majanthemi (Pyrenophora) 759.
 major (Broomella) 813.
 majuscula (Botryosphæria) 590.
 Makinoi (Cæoma) 459.
 Mali (Diaporthe) 668.
 Mali (Plowrightia) 845.
 malvicolum (Æcidium) 425.
 mamillata (Puccinia) 467.
 mammosa (Lepiota) 7.
mammosum (Tylostoma) 222.
 manaoense (Diorchidium) 394.
 manaoensis (Asterella) 882.
 manaoensis (Dothidea) 853.
 manaoensis (Lemaosia) 898.
 manaoensis (Meliola) 547.
 manaosensis (Micropeltis) 869.
 manaosensis (Parodiella) 542.
 manaosensis (Perisporina) 545.
 manaosensis (Phyllachora) 829.
 manaosensis (Physalospora) 582.
 manaosensis (Uleopeltis) 872.
 Mangaranga (Æcidium) 436.
 Mangiferæ (Bresadolia) 140.
 manihoticola (Meliola) 550.
 Manihotis (Dimerosporium) 536.
 Maprouneæ (Æcidium) 423.
 Maprouneæ (Phyllachora) 834.
 Maprouneæ (Uredo) 444.
 mararyense (Æcidium) 431.
 mararyensis (Dothidella) 848.
 mararyensis (Physalospora) 580.
 mararyensis (Uredo) 445.
marasmioides (Melanopus) 106.
 marasmioides (Polyporus) 106.
 Marcgraviæ (Asteridella) 885.
 Marchanthiæ (Phæosphærella) 675.
 Marci (Æcidium) 424.
 marginalis (Flammula) 69.
 marginalis (Hypocrella) 818.
 marginata (Clitocybe) 12.
 marginata (Cyphella) 192.
 marginata (Massaria) 732.
 margine-incrassata (Uredo) 446.
 Mariæ-Wilsoni (Puccinia) 392.
 Marianæ (Puccinia) 284.
 Mariani (Septobasidium) 204.
 marinus (Pyrrhosorus) 516.
 Maritimæ (Uromyces) 470.
 marmellensis (Seynesia) 866.
 marmellosensis (Polyporus) 103.
 marmellosensis (Sphærostilbe) 798.
 Marsdeniæ (Puccinia) 334.
 Martii (Thelephora) 160.
Martinatiana (Arthropyrenia) 648.
 Martinatiana (Pharcidia) 648.
martinicense (Mycenastrum) 237.
 martinicense (Scleroderma) 237.
 martinicensis (Pholiota) 64.
 martinicensis (Xerotus) 51.
 massarioides (Didymosphæria) 677.
 massarioides (Pleospora) 752.
 Massei (Nectria) 785.
 mattogrossensis (Meliola) 550.
 Maublancii (Æcidium) 432.
Mauritiæ (Sphæria) 587.
 Mauritiæ (Trabutia) 587.
 mauritiicola (Corallomyces) 807.
 maxima (Auerswaldia) 844.
 maxima (Capnodiella) 621.
maximum (Capnodium) 621.
 Maydis (Phyllachora) 838.
 Maydis (Puccinia) 467.
 Maydis (Sphærulina) 694.
 Mayori (Æcidium) 417.
 media (Laboulbenia) 921.
 Medicaginis (Uredo) 445.

- Megalonychi (Laboulbenia) 922.
 magalospora (Trematosphæria) 735.
 megalotheca (Pleospora) 750.
 megas (Seynesia) 868.
megastoma (*Diatrype*) 566.
 Megatherium (Puccinia) 363.
 Mei-mamillata (Puccinia) 467.
 meizospora (Leptosphæria) 729.
 mejospora (Wallrothiella) 588.
 Melaleucæ (Microthyrium) 863.
 Melaleucæ (Phyllachora) 835.
 Melampyri (Coleosporium) 461.
 Melananthi (Æcidium) 416.
 melanocephalus (Polyporus) 109.
melanocephalus (*Xanthochrous*) 109.
 melanoderma (Anthostomella) 594.
 melanommoides (Platystomum) 889.
 melanopsis (Puccinia) 364.
 melanostigmoides (Wallrothiella) 588.
 melanotes (Æcidium) 430.
 melasmoides (Puccinia) 357.
 Melasphærulæ (Uromyces) 260.
 Melastomatacæ (Seynesia) 866.
 Meliæ (Calonectria) 810.
 Melicæ (Puccinia) 379.
 Melicyti (Dothidella) 846.
 Meliloti (Pleospora) 750.
 membranaceus (Pleurotus) 24.
Memmingeri (*Coltricia*) 127.
 Memmingeri (Polystictus) 127.
 Memoræ (Asterina) 879.
 Memoræ (Puccinia) 322.
 mendozanum (Perisporium) 554.
 Menieri (Tilletia) 490.
 Mentzelii (Stichopsora) 395.
 Menziesiæ (Chrysomyxa) 396.
Mercurialis (*Cæoma*) 459.
 Mercurialis (Nectria) 792.
 Mercurialis (Uromyces) 249.
 Mertensiæ (Æcidium) 419.
 mexicana (Phyllachora) 832.
 mexicana (Thecaphora) 488.
mexicanum (*Æcidium*) 432.
 Mezerei (Diaporthe) 670.
 Mezerei (Metasphæria) 700.
 Michaëlisii (Cordyceps) 823.
 michailowskjanus (Elamomyce) 218.
michailowskjanus (*Secotium*) 218.
 michailowskojensis (Chilonectria) 779.
michailowskojensis (*Lentinus*) 51.
 michailowskoiensis (Panus) 51.
 Michellii (Clavaria) 197.
 Miconiæ (Auerswaldia) 841.
 Micranthæ (Puccinia) 378.
 microcarpa (Nidula) 215.
 microcarpa (Peroneutypa) 570.
 microcarpum (Dimerium) 540.
microcarpum (*Dimerosporium*) 540.
 microcarpum (Tichothecium) 676.
 Microchloæ (Uromyces) 262.
 Microlonchi (Puccinia) 287.
 Micromeriæ (Puccinia) 328.
 microscopica (Leptosphæria) 729.
 microscopicum (Microthyrium) 862.
 microsora (Melampsora) 265.
 microsorum (Hypoxylon) 613.
microsperma (*Puccinia*) 391.
 microspermus (Agaricus) 83.
 microsphineta (Puccinia) 337.
microspora (*Calostoma*) 225.
 microspora (Daldinia) 618.
 microspora (Delitschia) 686.
 microspora (Endoxyla) 570.
microspora (*Gonatobotrys*) 598.
microspora (*Hexagona*) 143.
 microspora (Hypocorpa) 606.
 microspora (Kretzschmaria) 615.
 microspora (Prachtflorella) 508.
 microspora (Physalcespora) 586.
 microspora (Poria) 132.
 microspora (Solenoplea) 619.
microspora (*Ustilago*) 475.
 microspora (Ustilago) 473.
 microspora (Valsaria) 692.
 microsporium (Eurotium) 527.
 microsporium (Glonium) 896.
 microsporium (Melanomma) 733.
 microsporus (Favolus) 143.
 microsporus (Mitremyces) 225.
microsporus (*Physisporus*) 133.
 microsporus (Pleurotus) 25.
 microstoma (Diaporthe) 669.
 microtheca (Asterella) 883.
microtheca (*Asterina*) 883.
 microthyrioides (Auerswaldia) 843.
 microthyrioides (Leptosphæria) 727.
 microthyrioides (Sphærulina) 694.
 Microtidis (Uromyces) 258.
 microtricha (Rosellina) 599.
 miedzyrzecensis (Platyglœa) 204.
 Mikaniæ (Cystopus) 519.
 Mikaniæ (Dothidella) 849.
Mikania (*Dothidella*) 845.
 Mikaniæ (Microcyclus) 845.

- Millefolii (Puccinia) 277.
 millegrana (Rosellinia) 593.
mimosicola (*Mycosphærella*) 636.
 mimosicola (Sphærella) 636.
 miniato-flexuosus (Coprinus) 91.
 miniatus (Cantharellus) 35.
 minima (Didymosphæria) 676.
 minima (Dothidella) 851.
 minima (Melanopsamma) 659.
 minima (Pekiella) 780.
 minima (Physalospora) 581.
 minima (Pseudovalsa) 741.
 minor (Hypoxylon) 611.
 minor (Montagnites) 95.
 minor (Pharcidia) 649.
 minus (Platystomum) 889.
 minusculus (Polyporus) 114.
 minuta (Didymosphæria) 679.
 minuta (Phyllachora) 832.
 minuta (Rosellinia) 598.
minutellum (*Æcidium*) 309.
 minutissima (Exidia) 207.
 minutissimus (Polystictus) 129.
 minutula (Puccinia) 276.
 minutum (Dimerium) 537.
 minutum (Tylostoma) 223.
minutus (*Phorcys*) 679.
 minutus (Pleurotus) 26.
 mirabilis (Capnodiopsis) 555.
 mirabilis (Læstadia) 573.
 miryense (Æcidium) 427.
 miryensis (Cordyceps) 825.
 miryensis (Phyllachora) 828.
 missangoënsis (Marasmius) 42.
 Mitchellii (Ustilago) 477.
 mitrata (Puccinia) 326.
 mkusiensis (Uredo) 440.
 modica (Puccinia) 361.
 Modiolæ (Puccinia) 352.
 mogianensis (Uromyces) 259.
 Moliniæ (Puccinia) 467.
 molle (Corticium) 172.
 Mölleri (Stilbohypoxyton) 634.
 Mölleri (Zygorrhynchus) 500.
 Möllariana (Rosellinia) 599.
 Molluginis (Gnomonia) 664.
 molluscus (Merulius) 145.
 Monardella (Puccinia) 331.
 monilifera (Sphacelotheca) 487.
monilifera (*Ustilago*) 487.
 monilifera (Dimerium) 537.
 moniliforme (Lachnocladium) 199.
 monilispora (Leptosphæria) 728.
 Monninæ (Dimerium) 537.
 Monninæ (Phyllachora) 829.
 montanensis (Hypocopa) 605.
montanensis (*Sordaria*) 605.
 montaniensis (Sphacelotheca) 487.
 montaniensis (Ustilago) 478.
montaniensis (*Ustilago*) 487.
 montanum (Lophodermium) 913.
 montanum (Synchytrium) 513.
 montellica (Sphærella) 645.
 monticola (Guepinia) 206.
 mordax (Eccilia) 60.
 Moreniana (Puccinia) 363.
 moricola (Æcidium) 435.
 moricola (Uredo) 451.
 moriformis (Crotonocarpia) 764.
 moriformis (Cryphonectria) 784.
moriformis (*Hypocreopsis*) 784.
 Morinii (Pilobolus) 505.
Moroti (*Cœoma*) 399.
 Morreniæ (Puccinia) 394.
 Morthieri (Melomastia) 707.
Morthieri (*Zignoella*) 707.
 moschata (Nectria) 796.
 Moschosmatis (Æcidium) 417.
 mucilaginosus (Mucor) 496.
mucophila (*Fulminaria*) 512.
 Mucunæ (Didymella) 654.
 mugellanum (Aulographum) 895.
 Mühlenbeckiæ (Puccinia) 394.
 Mühlenbergiæ (Puccinia) 374.
 Mühlenbergiæ (Ustilago) 478.
 Mulgedii (Puccinia) 304.
 Mulgedii (Uromyces) 244.
Mulgedii (*Uromyces*) 394.
 Mülleri (Podaxon) 219.
multicaudata (*Pleurage*) 603.
 multicaudata (Sordaria) 603.
multifida (*Thelephora*) 128.
multifidum (*Hydnum*) 128.
 multiforme (Hypoxylon) 611.
 multiformis (Glioniopsis) 911.
 multiramis (Cantharellus) 34.
 multisquamosa (Amanita) 2.
 multipunctus (Boletus) 100.
 muriculata (Botryosphæria) 591.
 murinus (Hypochnus) 187.
 musashiensis (Fomes) 120.
 muscicola (Corticium) 175.
muscigena (*Thelephora*) 191.
 muscigena (Cyphella) 191.

- musicola* (Psathyra) 90.
mussooriense (Lachnocladium) 198.
mussooriense (Tylostoma) 223.
mussooriensis (Cladoderris) 163.
mutabile (Melanomma) 733.
Mutisiæ (Phyllachora) 836.
myceliosa (Clavaria) 193.
myceliosa (Poria) 134.
Myosotidis (Puccinia) 387.
Myosuri-Eranthidis (Peronospora) 521.
myosuroides (Cordyceps) 826.
myriasea (Anixia) 530.
myriensis (Naucoria) 73.
myriensis (Polyporus) 107.
Myristicæ (Perisporium) 544.
Myrrhis (Puccinia) 339.
Myrtilli (Wallrothiella) 587.
- Nakanishikii* (Ustilago) 474.
nana (Didymosphæria) 679.
nana (Naucoria) 73.
nana (Psalliota) 85.
nana (Pterula) 200.
nanomitra (Puccinia) 274.
nanus (Agaricus) 85.
Napoleonis (Laboulbenia) 923.
Nastanthi (Puccinia) 314.
nauseosus (Leptosporus) 114.
nauseosus (Polyporus) 114.
nebulosa (Venturia) 653.
necans (Physalospora) 586.
necatrix (Dematophora) 595.
necatrix (Rosellinia) 595.
Needhami (Gnomonia) 666.
Negeriana (Asterina) 877.
Negeriana (Meliola) 554.
Negeriana (Parodiella) 541.
Negeriana (Teichosporella) 745.
neglectus (Cantharellus) 34.
neglectus (Mucor) 499.
negrensis (Puccinia) 324.
Negundinis (Rosellinia) 598.
Nelsonii (Gymnosporangium) 271 et 462.
Nelsonii (Ræstelia) 409.
Nemesiæ (Cronartium) 461.
nemoralis (Puccinia) 467.
neocaledonicum (Hypoxylon) 610.
neocaledonicum (Stereum) 164.
neo-mexicana (Ohleriella) 733.
neottizans (Leptosphæria) 730.
neottizans (Verrucaria) 730.
- nervincola* (Puccinia) 312.
ngamboensis (Uredo) 448.
Niaouli (Polyporus) 109.
Niaouli (Xanthochrous) 109.
Nicholsoni (Pleuroascus) 532.
Nicolai (Leptosphæria) 700.
Nicolai (Metasphæria) 700.
Nicotianæ (Peronospora) 521.
Nicotianæ (Uredo) 440.
nidicola (Microascus) 610.
nidulans (Uredo) 445.
nidus-avis (Gymnosporangium) 462.
nigerrima (Diaporthe) 571.
nigra (Circinella) 501.
nigrellus (Leptoporus) 116.
nigrellus (Polyporus) 116.
nigrescens (Monoicomyces) 915.
nigrescens (Puccinia) 391.
nigrescens (Puccinia) 391.
nigricans (Entyloma) 56.
nigricans (Platyglœa) 204.
nigrificans (Zignoella) 711.
nigripes (Polystictus) 126.
nigritella (Leptosphærulina) 746.
nigritella (Verrucaria) 746.
nigro-marginata (Lepiota) 4.
nigro-papillata (Pleonectria) 814.
nigro-velata (Metasphæria) 702.
Nishidanum (Triphragmium) 402.
nitens (Melanopsamma) 659.
nitida (Poria) 133.
nitidum (Platystomum) 890.
nitidus (Arachnomyces) 532.
nivalis (Teichospora) 761.
nivea (Clavaria) 197.
nivea (Pterula) 200.
niveipes (Tricholoma) 9.
niveum (Corticium) 170.
niveus (Marasmius) 43.
nobile (Platystomum) 890.
nobilis (Cortinarius) 79.
nocticolor (Puccinia) 387.
nodospora (Nolanea) 59.
Nolinæ (Tolyporella) 491.
nonensis (Puccinia) 369.
nootkatensis (Uredo) 452.
norvegica (Leptosphæria) 722.
notata (Laboulbenia) 922.
novo-zelandica (Puccinia) 392.
noxia (Plowrightia) 845.
nucicolum (Hysterium) 913.
nucicolum (Hysterographium) 913.

- Nucis-Avellanæ (Diaporthe) 673.
 nuculoides (Platystomum) 889.
 nudipes (Cortinarius) 79.
 nummularia (Ustilago) 476.
 nutans (Mœlleriella) 780.
 nyikensis (Uromyces) 260.
 nyssagena (Melanconiella) 691.

 oaxacana (Puccinia) 272.
 oaxacanus (Uromyces) 249.
 obducens (Gibberidea) 739.
 obducens (Puccinia) 285.
 obducens (Tomentella) 183.
 obesa (Puccinia) 326.
 obliquata (Ceratosphæria) 716.
 obliquata (Laboulbenia) 922.
 obliquus (Cortinarius) 79.
 obpatellata (Camillea) 620.
 obscura (Puccinia) 467.
 obtecta (Calonectria) 872.
 obtecta (Trichopeltis) 872.
 obtectum (Platystomum) 889.
 obtegens (Puccinia) 290.
 obtusa (Puccinia) 391.
 obtusata (Puccinia) 467.
 occidentale (Æcidium) 433.
 occidentale (Lophiostoma) 889.
 occidentale (Phragmidium) 399.
 occidentalis (Sphacelotheca) 487.
 occidentalis (Uromyces) 251.
 occultata (Ceratosphæria) 715.
 occultata (Rosellinia) 600.
 occultum (Dimerium) 537.
 ocellata (Metasphæria) 695.
 ochraceo-flava (Uredo) 449.
 ochraceo-niger (Marasmius) 45.
 ochraceo-papillatus (Marasmius) 39.
 ochraceo-hirta (Flammula) 68.
 ochraceum (Hydnum) 150.
 ochraceus (Cantharellus) 36.
 ochraceus (Neurophyllum) 36.
 ochroleuca (Lepiota) 5.
 ochroleuca (Nectria) 789.
 ochroleucum (Stereum) 165.
 ochroleucum (Xylopodium) 239.
 ochrostoma (Herpotrichia) 714.
 Ocoteæ (Phyllachora) 833.
 oculatus (Lactarius) 29.
 odoratum (Stereum) 166.
 Oederi (Puccinia) 322.
 Oedichiri (Laboulbenia) 922.
 Oedogonii (Lagenidium) 516.
 Oenantes (Entyloma) 482.
 Enotheræ (Æcidium) 370.
 Enotheræ (Pleospora) 749.
 Erteliana (Sphærella) 636.
 ohiense (Hypoxyton) 612.
 oidiifera (Achlya) 518.
 Oleæ (Ophiopeltis) 873.
 oligocarpa (Nectria) 786.
 oligospora (Leptosphæria) 730.
 oligospora (Xenosphæria) 730.
 oligotrichum (Dimerium) 537.
 olivacea (Collybia) 15.
 olivacea (Coniophorella) 183.
 olivacea (Flammula) 70.
 Olivaceæ (Pharcidia) 649.
 olivaceum (Dimerium) 539.
 olivascens (Polystictus) 129.
 Olvræ (Uredo) 456.
 Oncidii (Uredo) 452.
 Onopordi (Puccinia) 289.
 Onosmodii (Æcidium) 418.
 opegraphicola (Müllerella) 594.
 Operculariæ (Puccinia) 317.
 Opheliæ (Uredo) 443.
 ophioboloides (Leptosphæriopsis) 731.
 Ophiopogonis (Uredo) 453.
 Opizii (Æcidium) 371.
 Opizii (Puccinia) 371, 467.
 opposita (Lizoniella) 661.
 opposta (Phyllachora) 833.
 Opulastri (Metasphæria) 697.
 opulenta (Asterella) 876.
 opulenta (Asterina) 876.
 opulenta (Didymosphæria) 682.
 opulentus (Endococcus) 682.
 orbiculata (Puccinia) 389.
 orbiculatum (Dimerium) 537.
 orbiculatum (Dimerosporium) 537.
 Orchidearum-Phalaridis (Puccinia) 467.
 Orchidis (Tieghemella) 504.
 Orchidis-Repentis (Melampsora) 463.
 oregonensis (Puccinia) 337.
 orgaoensis (Diatrypella) 572.
 orgaoensis (Dothidea) 853.
 ornamentale (Peridermium) 409.
 ornata (Calonectria) 811.
 ornata (Nectria) 793.
 Orni (Peltosphæria) 744.
 ornithopoda (Clavaria) 196.
 Orthocladæ (Balansiella) 822.
 Orthocladæ (Claviceps) 822.
 Osmundæ (Uredinopsis) 270.

- Osyridis (Dothidella)* 841.
Osyridis (Microcyclus) 844.
Otiophoræ (Puccinia) 317.
Otopappi (Puccinia) 284.
Oudemansii (Puccinia) 386.
ovina (Lasiosphæria) 714.
Oxalidis (Sphærulina) 693.
Oxycedri (Gymnosporangium) 271.
Oxylobii (Lizoniella) 661.
Oxypodæ (Monoicomycetes) 915.
Oxyriæ (Læstadia) 574.
oxyspora (Leptosphæria) 769.
oxyspora (Metasphæria) 705.
oxyspora (Zignoella) 710.
oxysporus (Ophiobolus) 769.

pachyphlœa (Puccinia) 362.
pachysporum (Platystomum) 890.
pachystomum (Platystomum) 890.
Padi (Eutypella) 564.
Padi (Pucciniastrum) 470.
Pæderiæ (Uredo) 439.
Palicureæ (Uredo) 438.
pallens (Puccinia) 394.
pallescens (Strobilomyces) 101.
pallida (Brigantiella) 889.
pallida (Didymella) 655.
pallida (Laboulbenia) 922.
pallida (Puccinia) 330.
pallida (Puccinia) 394.
pallida (Tulasnella) 210.
pallide-sepiaceus (Marasmius) 42.
pallidifolius (Cortinarius) 80.
pallidipes (Amanita) 2.
pallidum (Æcidium) 436.
pallidus (Hygrophorus) 28.
palmicola (Penicilliopsis) 528.
paludosa (Leptosphæria) 744.
paludosa (Puccinia) 467.
paludosus (Ophiobolus) 774.
paludosus (Hygrophorus) 27.
palustris (Russula) 32.
pamparum (Sphacelotheca) 486.
pamparum (Ustilago) 487.
Panacis (Uredo) 443.
Pandani (Asterina) 881.
Pandani (Leptosphæria) 728.
Pandani (Stigmatea) 650.
pangerangense (Dimerium) 537.
Panici (Meliola) 550.
Panici (Uredo) 456.
Panici (Uredo) 456.
Panici-sulcati (Phyllachora) 840.
panicicola (Mycosphærella) 646.
panicicola (Sphærella) 646.
Paniculariæ (Puccinia) 378.
Papaveris (Leptosphæria) 719.
papillifera (Ravenelia) 405.
papilloideo-septata (Dothidea) 852.
paradoxa (Galera) 75.
paraensis (Xylaria) 623.
paraguayana (Rosenscheldia) 852.
paraguayensis (Rosellinia) 596.
paranensis (Herpomyces) 916.
paranensis (Uredo) 451.
paraphysata (Asterina) 878.
paraphysatum (Coleosporium) 398.
parasitica (Clitocybe) 14.
parasitica (Sphærella) 646.
parasiticum (Dimerium) 538.
parasiticum (Dimerosporium) 538.
Paridis-Digraphidis (Puccinia) 467.
parietinaria (Didymosphæria) 681.
parietinaria (Microthelia) 681.
Parkiæ (Dothidella) 848.
Parlatoriæ (Lisea) 806.
parmeliana (Trematosphæriopsis) 736.
Parmula (Polystictus) 126.
Parmularia (Asterella) 882.
parmularioides (Lembosia) 900.
Parnassiæ (Æcidium) 263.
Parnassiæ (Puccinia) 353.
Parnassiæ (Sphærella) 638.
Parnassiæ (Trichobasis) 263.
Parnassiæ (Uredo) 263.
Parnassiæ (Uromyces) 263.
Parthelii (Entoloma) 55.
parvula (Coprolepa) 608.
parvula (Hypocopra) 608.
parvula (Phyllachora) 834.
parvulus (Fomes) 123.
parvulus (Ganoderma) 123.
Pasadenæ (Uredo) 458.
pascuense (Hebeloma) 67.
paspalicola (Uredo) 455.
Paspali-notati (Sphacelotheca) 486.
Paspali-notati (Ustilago) 486.
Paspali-Thunbergii (Ustilago) 478.
Passifloræ (Æcidium) 426.
Passifloræ (Asterella) 877.
Passifloræ (Asterina) 877.
Passifloræ (Dimerium) 537.
Passifloræ (Sphærella) 641.
passifloricolum (Æcidium) 426.

- Pastinacæ-Scirpi (Uromyces) 470.
 patagonicum (Æcidium) 419.
 Patellæ (Didymosphæria) 680.
 patens (Cyphella) 192.
 patens (Melogramma) 742.
 Patouillardi (Ceriosporella) 707.
 Patouillardi (Tremella) 205.
 patrinæ (Æcidium) 413.
 pauciloculare (Phragmidium) 399.
 paulense (Dimerium) 538.
 paulense (*Dimerosporium*) 533.
 paulense (Septobasidium) 204.
 paulensis (Clitocybe) 14.
 paulensis (Fomes) 121.
 paulensis (Uredo) 457.
 pauperculus (Acampsomyces) 917.
 Pavoniæ (Uromyces) 251.
 paxilloides (Russula) 31.
 Peckianum (Entoloma) 56.
 Peckii (Æcidium) 370.
 Peckii (Clavaria) 196.
 Peckii (Hygrophorus) 27.
 Peckii (Puccinia) 370.
 Peckii (Puccinia) 467.
 Peckoltia (Uredo) 441.
 pecosense (Hypholoma) 88.
 pedemontana (Anthostomella) 595.
 pedemontana (Didymella) 655.
 pedemontanus (Boletus) 96.
 pedicellatus (Cantharellus) 36.
pedicellatus (*Dictyolus*) 36.
 pedicularis (Charonectria) 732.
 peduncularis (Ophiobolus) 773.
 Pelargonii (Leptosphæria) 722.
 pellax (Didymosphæria) 682.
pellax (*Endococcus*) 682.
 pellicula (Hypochnus) 189.
 pellitus (Ophiobolus) 771.
 pencana (Puccinia) 285.
 Penicilliopsis (Mülleroclavus) 634.
 pennata (Pterula) 200.
 Penningtonii (Polyporus) 102.
 Penningtonii (Puccinia) 387.
 Penniseti (Puccinia) 390.
 Penniseti-japonici (Ustilago) 478.
 pentagonospora (Eccilia) 60.
 Pentagynæ (Puccinia) 317.
 Pentastemonis (Glioniella) 904.
Pentastemonis (*Mycosphærella*) 641.
 Pentastemonis (Sphærella) 641.
 Penzigii (Glioniopsis) 912.
 peperonioides (Xylaria) 622.
 Peplidis (Doassansia) 481.
 Periclymeni (Metasphæria) 701.
Pericopsidis (*Mycosphærella*) 636.
 Pericopsidis (Sphærella) 636.
 peridermiospora (Puccinia) 385 et 467.
peridermiospora (*Uredo*) 385.
 perigena (Didymella) 657.
perigena (*Sphæria*) 657.
 Periplanetæ (Herpomyces) 916.
 peristomata (Nectria) 787.
 Perkinsiæ (Æcidium) 413.
 Perkinsiæ (Lizoniella) 661.
 perplexa (Laboulbenia) 922.
 perplexans (Puccinia) 467.
perplexans (*Puccinia*) 334.
 persistens (Puccinia) 467.
 persolinus (Ophiobolus) 771.
Persooniæ (*Mycosphærella*) 639.
 Persooniæ (Sphærella) 639.
 peruviana (Puccinia) 332.
 Pestalozzæ (Pyrenophora) 759.
 Petasitidis (Metasphæria) 699.
 Petasitis (Coleosporium) 461.
 Petersii (Podocrea) 799.
 petiolaris (Leptosphæria) 726.
 petiolaris (Ophiobolus) 772.
 petiolicola (Gnomonia) 666.
 petiolicola (Seynesia) 866.
 petiolorum (Didymosphæria) 678.
 Petrææ (Metasphæria) 699.
 Petroselini (Puccinia) 340.
Petroselini (*Uredo*) 340.
 Peucedani-parisiensis (Puccinia) 393.
 pexatum (Hydnum) 151.
 pezizoidea (Guepinia) 206.
 pezizoidea (Nummularia) 618.
 pezizoidea (Podocrea) 799.
pezizoidea (*Tubercularia*) 165.
 Phaceliæ (Puccinia) 333.
 Phalaridis (Metasphæria) 705.
 Phalaridis (Puccinia) 467.
 Phaseoli (Physalospora) 580.
 Phellopteri (Puccinia) 345.
philocoproides (*Sordaria*) 607.
 Philodendri (Lembosia) 901.
 Phlei-pratensis (Puccinia) 467.
 phlyctopus (Puccinia) 391.
 Phœnicis (Graphiola) 493.
 Phragmitis (Puccinia) 468.
 phrygica (Ustilago) 478.
 phyllachoroidea (Tremella) 205.
 phyllachoroides (Uromyces) 262.

- phyllanthophila (Phyllachora) 834.
 phyllodiorum (Massarinula) 658.
Phillyreæ (*Æcidium*) 268.
Phillyreæ (*Cæoma*) 268.
Phillyreæ (*Uredo*) 268.
 Phillyreæ (Zaghouania) 268.
 phymatospora (Puccinia) 340.
physciicola (*Mycoporum*) 682.
 physciicola (Didymosphæria) 682.
 Phyteumatis (Coleosporium) 461.
 Phyteumatis (Leptosphæria) 726.
picea (*Nolanea*) 72.
 Piceæ (Zignoella) 710.
 piceina (Clitocybe) 11.
 Pickeli (Calospora) 717.
 Picridis-strigosæ (Puccinia) 305.
 Picosiæ (Puccinia) 298.
 Pieridis (Exobasidium) 190.
 pilifera (Ceratostomella) 592.
piliferum (*Ceratostoma*) 592.
 pilosa (Teichospora) 761.
 pilosella (Nectria) 792.
 piluliformis (Thecaphora) 488.
Pimpinellæ-Eryngii (*Puccinia*) 393.
 Pinaropappi (Puccinia) 294.
 Pinastri (Diaporthe) 670.
Pinastri (*Hydnum*) 145.
 Pini (Peridermium) 464.
 pinicola (Tulasnella) 210.
 pinitorqua (Melampsora) 463.
 piperata (Glomerella) 573.
 pipericola (Nectria) 795.
 Piperii (Ustilago) 473.
 Piperis (Meliola) 551.
 Piperis (Stigmatea) 650.
 Piptadeniæ (Dothidella) 847.
 Piptocarphæ (Gaillardielli) 686.
 Piri (Hysterographium) 912.
 Piri (Melanconiella) 691.
 piriforme (Lycoperdon) 233.
 piriforme (Rhynchostoma) 689.
 pirina (Cryptovalsa) 567.
 pirina (Eutypella) 564.
 Pirolæ (Chrysomyxa) 460.
 pisana (Hypocopra) 605.
pisciadora (*Nolanea*) 72.
 Pisi (Uromyces) 470.
 Pittieriana (Puccinia) 324.
 Pittierianus (Uromyces) 255.
 Pittospori (Physalospora) 582.
 Placenta (Poria) 132.
 Planetis (Laboulbenia) 922.
 planiuscula (Leptosphæria) 726.
 Platani (Microthyrium) 864.
 platense (Thyridium) 767.
 platensis (Cystopus) 519.
 platensis (Dothidella) 851.
 platensis (Hypocrea) 801.
 platensis (Marasmius) 39.
 platensis (Mucor) 497.
 platensis (Odontia) 157.
 platensis (Phæosolenia) 147.
 platensis (Poria) 131.
 | latyprosopi (Laboulbenia) 922.
 plectroniicola (*Æcidium*) 413.
 plectrospora (Leptosphæria) 723.
 pleurostomum (Melanomma) 733.
 plorans (Polyporus) 110.
plorans (*Xanthochrous*) 110.
 Plucheæ (Uredo) 436.
 plumbea (Kneiffia) 181.
 plumeriicola (Uredo) 442.
 Plumieræ (Coleosporium) 398.
 pluriseptata (Metasphæria) 707.
pluriseptata (*Verrucaria*) 707.
 Poæ (Uromyces) 471.
 Poarum (Puccinia) 468.
 poculatum (Tylostoma) 221.
 podlachica (Sabacina) 208.
 podlachicus (Polyporus) 113.
 Podospermi (Puccinia) 309.
 Polliniæ (Puccinia) 468.
 polonensis (Kneiffia) 177.
 Polygonati (Pleospora) 755.
 Polygoni (Peronospora) 522.
 Polygoni-amphibii (Puccinia) 394 et 468.
 Polygoni-cuspidati (*Æcidium*) 434.
 Polygoni-vivipari (Puccinia) 468.
 polygonium (Corticium) 172.
 polymorpha (Pleospora) 757.
 polymorpha (Xylaria) 622.
 Polypodii (Hyalospora) 268.
Polypodii (*Uredo*) 268.
 Polypodii-Dryopteridis (Hyalospora) 268.
 polyphragmoides (Pyrenophora) 759.
 polyporoides (Poronia) 620.
polyspora (*Delitschia*) 688.
 polyspora (Delitschiella) 688.
 Polystichi (Metasphæria) 705.
 Pooreana (Entomophthora) 511.
poponalis (*Agaricus*) 13.
 poponalis (Clitocybe) 13.
 Popowiæ (*Æcidium*) 431.
 Populi (Amphysphæria) 685.

- Populi (Platystomum) 890.
Populi (Stickeria) 762.
 Populi (Teichospora) 762
 populina (Melanconis) 667.
populina (Trametes) 138.
 populinum (Hydnum) 151.
populinus (Polyporus) 138.
 porioidea (Hypocrea) 802.
 poronioidea (Podocrea) 799.
 porosum (Æcidium) 427.
porphyrogenita (Puccinia) 392.
 porphyrogonus (Ophiobolus) 770.
 Porteri (Puccinia) 391.
portoricensis (Hexagona) 141.
 portoricensis (Favolus) 141.
 portoricensis (Ravenelia) 405.
 Potentillæ (Zignoella) 709.
 Potentillæ-canadensis (Phragmidium) 400.
 præclara (Puccinia) 351.
 præmorsa (Puccinia) 297.
 prærimosus (Fomes) 117.
prærimosus (Pyropolyporus) 117.
 præstabilis (Didymella) 656.
 Premnæ (Puccinia) 332.
 Prenanthis (Læstadia) 575.
 Prenanthis (Puccinia) 306.
 Prenanthis-purpureæ (Puccinia) 306.
 Prenanthis-racemosæ (Puccinia) 307.
 Pringhsheimiana (Puccinia) 468.
 Pritzeliana (Cucurbitaria) 765.
 Pritzeliana (Paranectria) 812.
 Pritzeliana (Puccinia) 350.
 Pritzelii (Cladoderris) 163.
 Pritzelii (Dielsiella) 902.
 procera (Xylaria) 632.
 producta (Laboulbenia) 922.
 proliferans (Cordyceps) 825.
 proliferans (Laboulbenia) 923.
 prolificus (Mucor) 498.
 prolixa (Laboulbenia) 919.
prominens (Guignardia) 575.
 prominens (Læstadia) 575.
 prorumpens (Zignoella) 710.
 provinciale (Sorosporium) 485.
 pruinatum (Corticium) 171.
 Prunastri (Fenestella) 766.
Prunellæ (Uromyces) 263.
 Pruni (Botryosphæria) 591.
 Pruni (Sphærulina) 693.
 Pruni (Uredo) 449.
 Pruni-Maximowiczii (Uredo) 449.
 psalliotoides (Lepiota) 4.
 psathyroidea (Stropharia) 86.
 Pseudacori (Didymosphæria) 679.
 Pseudacori (Ophiobolus) 773.
 Pseudacori (Pleospora) 755.
 Pseudarthriæ (Uromyces) 253.
 pseudobufonia (Clypeosphæria) 732.
 pseudocalopus (Marasmius) 42.
 pseudocarpa (Didymosphæria) 682.
pseudocarpus (Endococcus) 682.
 pseudocepæforme (Lycoperdon) 232.
 pseudocolumnare (Æcidium) 436.
 pseudocomma (Glioniella) 904.
 pseudodomesticus (Coprinus) 91.
 pseudolacrymans (Merulius) 145.
 pseudolimbatus (Geaster) 227.
 pseudopusillum (Lycoperdon) 232.
 pseudoradicans (Lycoperdon) 231.
 pseudosplachnoides (Marasmius) 38.
pseudostorea (Agaricus) 89.
 pseudostorea (Hypholoma) 89.
 pseudostriatus (Geaster) 227.
 pseudotrichia (Megalonectria) 815.
 pseudoumbrinum (Lycoperdon) 231.
 pseudovillosa (Cyphella) 191.
 Psilocaryæ (Cintractia) 481.
Psilocaryæ (Ustilago) 481.
 psilogrammum (Platystomum) 890.
 Psilostomatis (Dimerium) 537.
 Psophocarpi (Uromyces) 252.
 Psychotriæ (Æcidium) 415.
 Psychotriæ (Crepidotus) 77.
 Psychotriæ (Meliola) 549.
 Psychotriæ (Trichopeltis) 871.
 Psychotriæ (Uromyces) 246.
 Ptarmicæ (Puccinia) 278.
 pteridiicola (Phyllachora) 840.
 Pteridis (Schizothyrium) 893.
 Pteridis (Scleroderma) 236.
 Pteroclænæ (Uromyces) 248.
 Pterolobii (Dothidella) 817.
 Puiggarianus (Polyporus) 103.
 pulchella (Hypocrea) 802.
 pulchella (Torrendia) 241.
 pulchellus (Henningsomyces) 689.
 pulcherrimum (Cæoma) 459.
 pulcrifolius (Cantharellus) 35.
 pullus (Pilobolus) 506.
Pulmonariæ (Æcidium) 282.
pulposa (Urophlyctis) 483.
 Pulsatillæ (Coleosporium) 461.
 Pulsatillæ (Puccinia) 360.
Pulsatille (Puccinia) 359.

- pulveracea* (*Lepiota*) 5.
pulveracea (*Lepiota*) 6.
pulverulenta (*Russula*) 34.
pulviscula (*Trichosphæria*) 589.
pumila (*Clitocybe*) 13.
pumila (*Laccaria*) 13.
punctata (*Puccinia*) 393.
punctatum (*Æcidium*) 443.
punctifolius (*Cortinarius*) 81.
punctoidea (*Puccinia*) 274.
punctum (*Spolverinia*) 577.
purpurascens (*Platystomum*) 890.
purpurea (*Kneiffia*) 180.
purpurea (*Poria*) 136.
purpurea (*Puccinia*) 394.
purpurea (*Thelephora*) 180.
purpureo-albus (*Polystictus*) 128.
purpureo-conica (*Lepiota*) 8.
purpureo-lilacina (*Russula*) 33.
Purpusiorum (*Æcidium*) 428.
pusilla (*Flammula*) 70.
pusilla (*Gnomonia*) 664.
pusilla (*Mortierella*) 507.
pusilla (*Phyllachora*) 832.
pusillima (*Cœlosphæria*) 560.
pusillum (*Polysaccum*) 237.
pusillum (*Polystigma*) 780.
pusiola (*Thelephora*) 162.
pusillus (*Agaricus*) 85.
pusillus (*Hygrophorus*) 28.
pusillus (*Polystictus*) 126.
Puttemansii (*Auerswaldia*) 842.
Puttemansii (*Marasmius*) 45.
Puttemansii (*Mycosphærella*) 640.
Puttemansii (*Polyporus*) 105.
Puttemansii (*Puccinia*) 378.
Puttemansii (*Sphærella*) 640.
Puttemansii (*Uredo*) 449.
pycnostigma (*Leptosphæria*) 731.
pycnostigma (*Verrucaria*) 731.
Pyrethri (*Puccinia*) 278.
Pyrrhopappi (*Puccinia*) 294.

quadrinucleatum (*Lophiostoma*) 888.
Queenslandiæ (*Rosellinia*) 599.
Queenslandiæ (*Coniochæta*) 599.
Queletii (*Corticium*) 174.
Queletii (*Craterellus*) 160.
quercicola (*Auerswaldia*) 843.
quercicola (*Coccodiscus*) 860.
quercina (*Auerswaldia*) 843.
quercina (*Cryptospora*) 776.
quercina (*Dichæna*) 894.
quercina (*Metasphæria*) 702.
quercina (*Lembosia*) 895.
quercinum (*Aulographum*) 895.
quercinum (*Lophiostoma*) 888.
quercinum (*Lophiostoma*) 888.
quercinum (*Stereum*) 166.
quercinus (*Hypochnus*) 204.
Quercus (*Didymella*) 654.
Quercus (*Melanconis*) 667.
Quercus (*Pistillaria*) 202.
Quercus (*Trematosphæria*) 735.
Quercus (*Yoshinagaia*) 860.
Quercus (*Cronartium*) 461.
quindecimseptata (*Scolecopeltis*) 875.

Rabenhorstii (*Cryptovalsa*) 567.
Raciborskii (*Hypocrella*) 818.
radians (*Cortinarius*) 78.
radians (*Spinalia*) 510.
radiata (*Asteridiella*) 885.
radiata (*Lenzites*) 52.
radicata (*Stropharia*) 88.
radicatum (*Tricholoma*) 9.
radicosus (*Lentinus*) 48.
radiosum (*Corticium*) 172.
radula (*Poria*) 132.
Ramannianus (*Mucor*) 499.
ramealis (*Acanthostigma*) 775.
ramealis (*Ophiochæta*) 775.
ramicola (*Venturia*) 651.
ramorum (*Platystomum*) 889.
ramosus (*Polyporus*) 106.
ramulicola (*Æcidium*) 428.
ramulicola (*Uredo*) 449.
ramuligera (*Xylaria*) 632.
Randie (*Æcidium*) 436.
Ranunculacearum (*Æcidium*) 433.
raripila (*Nectria*) 791.
recedens (*Æcidium*) 410.
recedens (*Puccinia*) 276.
rectangularis (*Antennaria*) 559.
regale (*Hypoxylon*) 610.
regia (*Glioniopsis*) 911.
Regis (*Panæolus*) 93.
regularis (*Clitocybe*) 12.
Rehmiana (*Cesatiella*) 808.
Rehmii (*Apiosporium*) 545.
Rehmii (*Perisporium*) 545.
Rehsteineri (*Hymenogaster*) 239.
Reiliana (*Cintractia*) 487.
Reiliana (*Sphacelotheca*) 487.

- Reiliana* (*Ustilago*) 487.
 reniformis (*Marasmius*) 46.
 reniformis (*Xylaria*) 624.
 repens (*Actinomucor*) 499.
 repens (*Glomerula*) 510.
 residua (*Ustilago*) 475.
 retecta (*Puccinia*) 360.
 reticulata (*Galera*) 75.
reticulatum (*Æcidium*) 259.
 reticulatus (*Marasmius*) 42.
 reticulatus (*Mucor*) 497.
 reticulatus (*Uromyces*) 259.
 retifera (*Puccinia*) 338.
 retirugis (*Pholiota*) 64.
 retorta (*Saprolegnia*) 518.
 Reukaufii (*Doassansia*) 481.
 rhacodioides (*Lepiota*) 3.
Rhagadioli (*Æcidium*) 307.
 Rhagadioli (*Puccinia*) 307.
 Rhamni (*Ophiobolus*) 770.
 Rhanterii (*Pleospora*) 751.
 Rhapontici (*Puccinia*) 285.
rheades (*Polyporus*) 111.
 Rhexoblepharæ (*Pharcidia*) 648.
Rhexoblepharæ (*Verrucariæ*) 648.
 Rhinanthi (*Leptosphæria*) 723.
 rhizomorphaidea (*Xylaria*) 631.
 rhodocylioides (*Eccilia*) 60.
 Rhododendri (*Chrysomyxa*) 460.
 Rhododendri (*Diaporthe*) 672.
 Rhododendri (*Gnomonia*) 666.
 Rhododendri (*Melanomma*) 733.
 rhodospora (*Nolanea*) 60.
rhodosporus (*Agaricus*) 60.
 rhoina (*Curreya*) 858.
 rhoina (*Diaporthe*) 672.
 rhoina (*Gnomonia*) 665.
rhoina (*Strikeria*) 763.
 rhoina (*Teichospora*) 763.
 Rhois (*Didymosphæria*) 677.
 rhombispora (*Stropharia*) 87.
 rhopalasca (*Acerbia*) 763.
 rhopographoides (*Leptosphæria*) 721.
 rhyparella (*Pharcidia*) 647.
rhyparella (*Verrucaria*) 647.
 Rhyssostelmatis (*Puccinia*) 335.
 ribesia (*Diaporthe*) 668.
 ribesia (*Pleospora*) 747.
 ribesia (*Pseudovalsa*) 740.
 ribesicola (*Æcidium*) 429.
 Ribesii-Auritæ (*Melampsora*) 463.
 Ribesii-Caricis (*Puccinia*) 468.
 Ribesii-Pseudocyperi (*Puccinia*) 468.
 Ribesii-Purpureæ (*Melampsora*) 463.
 Ribesii-Viminalis (*Melampsora*) 463.
 ribicola (*Cronartium*) 461.
 Ribis (*Gibberidea*) 739.
 Ribis (*Otthiella*) 662.
 Ribis (*Puccinia*) 392.
 Ribis-alpini (*Pleospora*) 748.
 Ribis-japonici (*Puccinia*) 351.
 Ribis-nigri-Acutæ (*Puccinia*) 468.
 Richardii (*Dimerium*) 537.
Richardsonii (*Hypocrea*) 165.
 Richardsonii (*Puccinia*) 333.
 Richenii (*Orbicula*) 533.
 Ricini (*Didymella*) 654.
 Rickerianus (*Uromyces*) 257.
 Rickii (*Mucronella*) 159.
 Rickii (*Nectria*) 796.
 Riddelliæ (*Gymnoconia*) 395.
 Ridleyi (*Boletus*) 96.
 rigniacensis (*Gnomonia*) 666.
 rimosa (*Diatrypella*) 572.
rimosa (*Psalliota*) 83.
 rimosum (*Tricholoma*) 10.
 rimosus (*Agaricus*) 83.
 rionegrense (*Æcidium*) 430.
 riparia (*Puccinia*) 368.
 Ritro (*Platystomum*) 890.
 rivalis (*Leptosphæria*) 729.
 Rivana (*Leptosphæria*) 730.
rivulorum (*Arthopyrenia*) 648.
rivulorum (*Pharcidia*) 648.
 Robiniæ (*Fomes*) 117.
Robiniæ (*Pyropolyporus*) 117.
 Rodwayi (*Secotium*) 218.
 rœsteliiformis (*Puccinia*) 327.
 Rollinæ (*Micropeltis*) 868.
 Romagnolina (*Puccinia*) 374.
 romana (*Chilonectria*) 779.
 Rompeli (*Michenera*) 217.
 Romuleæ (*Sphærella*) 644.
 Rosarum (*Cryptovalsa*) 567.
 rosea (*Tremella*) 205.
 roseipes (*Pluteus*) 54.
 rosella (*Nectria*) 795.
 roseo-lilacina (*Poria*) 136.
 roseo-tinctum (*Lophiostoma*) 888.
rosicola (*Guignardia*) 574.
 rosicola (*Læstadia*) 574.
 Rossiana (*Puccinia*) 394.
 rostrata (*Coprolepa*) 608.
rostrata (*Hypocopra*) 608.

- rostrata (Sporophlyctis) 518.
 rostrata (Torrubiella) 816.
 rostrata (Xylaria) 633.
 Rostrupii (Boletus) 97.
 Rostrupii (Leptosphaeria) 721.
 Rostrupii (Melampsora) 463.
 Rottboelliana (Puccinia) 390.
 Rottboelliæ (Uredo) 457.
Rottboelliæ (Uredo) 262.
 Rottboelliæ (Uromyces) 262.
 rotundata (Mazzantia) 828.
rotundata (Tilletia) 490.
rotundata (Ustilago) 490.
 Roumeguerii (Kneiffia) 180.
 Rousselii (Hysterographium) 912.
 Rubi (Melampsora) 781.
 Rubi (Uromyces) 255.
 rubicola (Glomerella) 573.
 rubicola (Meliola) 551.
 rubicola (Puccinia) 318.
 rubicola (Sphaerella) 637.
 rubicola (Venturia) 651.
 rubicunda (Puccinia) 388.
 rubidula (Mycena) 20.
 rubiginosa (Hypocrella) 818.
 rubiivora (Puccinia) 318.
 ruborum (Platystomum) 890.
 rubricans (Puccinia) 350.
 rubritinctus (Fomes) 120.
rubro-canum (Corticium) 168.
rubro-marginata (Mycena) 20.
 rubro-pallens (Corticium) 168.
 rubro-tincta (Russula) 33.
 rubrum (Eurotium) 528.
 Rübsaameni (Puccinia) 327.
 Rübsaameni (Urophlyctis) 515.
 rude (Platystomum) 890.
 rudis (Nidularia) 216.
 Ruelliæ-Bourgæi (Puccinia) 320.
 rufa (Hypocrea) 800.
 rufidula (Lepiota) 8.
rufipes (Agaricus) 26.
 rufipes (Pleurotus) 26.
 rufipes (Puccinia) 377.
 rufitincta (Poria) 135.
 rufo-alutacea (Hypocrea) 802.
rufo-marginata (Thelephora) 165.
 rufo-violascens (Asterella) 882.
rufo-violascens (Asterina) 882.
 rufum (Stereum) 165.
 rugispora (Nidula) 215.
 rugosiceps (Collybia) 15.
 rugosoides (Mycena) 19.
rugulosa (Puccinia) 393.
 rugulosa (Russula) 31.
 Rumicis (Ustilago) 473.
 rupestris (Puccinia) 468.
 Rutæ (Pleospora) 749.
 rutilescens (Agaricus) 82.
 sabalicola (Hysterostomella) 892.
 sabalina (Zignoella) 711.
 Sabinæ (Gymnosporangium) 462.
 Sabinæ (Sphaerella) 642.
 Saccardoanum (Dimerium) 539.
 Saccardoï (Meliola) 546.
Saccardoï (Mucor) 500.
 Saccardoï (Proabsidia) 500.
 Saccardoï (Valsella) 567.
 Sacchari (Phyllachora) 838.
 Sacchari (Sphaerulina) 694.
 saharanpurensis (Polyporus) 108.
 saharanpurensis (Tubaria) 76.
 sajanense (Hydnum) 150.
sajanensis (Sclerodon) 150.
 sakawensis (Meliola) 548.
 sakawensis (Uromyces) 245.
 salicella (Sphaerella) 643.
 salicicola (Zignoella) 710.
 salicina (Sphaerella) 643.
 salicina (Valsa) 564.
 Salicis (Enchnoa) 560.
 Salicis (Metasphaeria) 702.
 Salicis (Pleospora) 753.
 Salicum (Platystomum) 891.
 salinum (Æcidium) 422.
saloisensis (Poria) 134.
 Salsolæ (Pyrenosphora) 759.
 Salviæ (Leptosphaeria) 725.
 Salviæ (Puccinia) 327.
Salviæ-glutinosæ (Puccinia) 327.
 Salviæ-lanceolata (Puccinia) 391.
 Salviæ-Stipæ (Puccinia) 468.
 Sambuci (Charonectria) 782.
 Sambuci (Ophiobolus) 771.
 Sambuci (Pleospora) 752.
 Sambuci (Puccinia) 468.
 Sambuci (Thyridaria) 741.
 sambucina (Didymella) 654.
 sambucina (Metasphaeria) 701.
 samöense (Lycoperdon) 233.
 sanguinea (Kneiffia) 180.
 anguineas (Laschia) 144.
 sanguinea (Metasphaeria) 699.

- sanguinea (Nectria) 787.
 sanguineus (Ithyphallus) 212.
sanguineus (Phallus) 212.
 sanguinolenta (Poria) 135.
 Santolinæ (Platystomum) 890.
 sarcinatum (Æcidium) 422.
 sarcoptoides (Asterophlyctis) 517.
 sardoa (Gloniella) 904.
 sardoa (Valsa) 562.
 sardoa (Zignoella) 710.
 sardous (Boletus) 95.
 sarmenticola (Leptosphæria) 7.9.
 Sarothamni (Kalmusia) 742.
 Sarothamni (Lophiostoma) 888.
 Sarothamni (Ophiobolus) 770.
 Sarothamni (Pleospora) 749.
 Satyrii (Puccinia) 363.
 Saururi (Uromyces) 257.
 Saussureæ (Uromyces) 244.
 Saxifragæ (Læstadia) 575.
Saxifragæ (Melampsora) 264.
 Saxifragæ (Peronospora) 522.
 scabra (Absidia) 504.
 scabripes (Boletus) 96.
 scalare (Stereum) 164.
 Scheffleri (Dimerium) 540.
Scheffleri (Dimerosporium) 540.
 Scheffleri (Micropeltis) 869.
 Scheremetieffiana (Eriosphæria) 660.
 schizans (Rhizopus) 502.
 Schizolobii (Phyllachora) 830.
 schizolobiicola (Phyllachora) 829.
 Schmidtiana (Micropeltis) 870.
 Schmidtiana (Puccinia) 468.
 Schmidtii (Polystictus) 128.
 Schœleriana (Puccinia) 468.
 Schœnoprasi (Sphærella) 644.
 Scholzii (Uredo) 441.
 Schreeteriana (Puccinia) 468.
 Schweinfurthii (Entyloma) 483.
 Schweinfurthii (Puccinia) 392.
 Schweinfurthii (Ravenelia) 406.
Schweinfurthii (Rostrupia) 392.
Schweinitzii (Thelephora) 208.
 Schweinitzii (Tremellodendron) 208.
Scilla (Puccinia) 394.
 Scirpi (Metasphæria) 704.
 Scirpi (Phyllachora) 837.
 Scirpi (Puccinia) 468.
 Scirpi (Uromyces) 422, 471.
scirpina (Athelia) 175.
scirpinum (Corticium) 175.
 scleriicola (Dothidella) 850.
 Sclerolobii (Lembosia) 899.
 Scolochloæ (Ustilago) 478.
 Scolymi (Puccinia) 287.
 Scolymi (Ustilago) 472.
 scoparia (Peroneutypella) 570.
 scoparioides (Eutypella) 566.
 scopigena (Uredo) 437.
 scoriadea (Antennaria) 560.
 Scorpii (Platystomum) 890.
 Scorzonæræ (Puccinia) 309.
 scorzonericola (Puccinia) 310.
 scripta (Gloniella) 904.
 scruposa (Kretzschmaria) 614.
 scutellatus (Polyporus) 105.
scutula (Dothidella) 844.
 scutula (Microcyclus) 844.
 Sebillei (Thyridaria) 741.
 secalina (Nectria) 790.
 secalina (Phomatospora) 578.
 secedens (Dimerium) 537.
 sechalinensis (Diaporthe) 673.
 Securidacæ (Phyllachora) 829.
 sejuncta (Puccinia) 307.
selenospora (Cesatiella) 809.
selenospora (Cladosphæria) 809.
selenospora (Ophiomassaria) 809.
 Selinæ (Ceraiomycetes) 918.
 semianus (Coprinus) 90.
 seminuda (Hypocopra) 606.
seminuda (Sordaria) 606.
 Sempervivi (Dilophia) 767.
 Senecionis (Coleosporium) 461.
 Senecionis (Metasphæria) 703.
 Senecionis (Pleospora) 751.
 Senecionis (Puccinia) 277.
senilis (Clitocybe) 13.
 sepium (Trametes) 136.
 septata (Uncinula) 524.
 septentrionalis (Puccinia) 468.
 septicoides (Pleurotus) 26.
 septobasidioides (Hymenochæte) 167.
 sepulcralis (Hypomyces) 805.
 sepulta (Pleospora) 754.
 Sequoiæ (Hypodermopsis) 909.
 serenula (Lepiota) 4.
 serialis (Kneiffia) 179.
 serialis (Phyllachora) 838.
seriata (Guignardia) 576.
 seriata (Læstadia) 576.
 seriata (Otthiella) 662.
 seriata (Puccinia) 278.

- sericea* (*Acia*) 151.
sericeum (*Hydnum*) 151.
sericeum (*Hypholoma*) 89.
sericipes (*Hebeloma*) 66.
Serjaniae (*Dothidella*) 847.
Serjaniae (*Physalospora*) 579.
Serratulæ-Caricis (*Puccinia*) 468.
Serratulæ-oligocephalæ (*Puccinia*) 289.
Sesleriae (*Puccinia*) 468.
sessile (*Ganoderma*) 122.
sessile (*Lophiostoma*) 888.
sessilis (*Fomes*) 122.
sessilis (*Puccinia*) 468.
Setariae (*Dothidella*) 851.
Setariae-italicæ (*Sclerospora*) 520.
Setariae-italicæ (*Uredo*) 457.
seticeps (*Leptonia*) 58.
setigera (*Kneiffia*) 176.
setosa (*Antennaria*) 557.
setosa (*Limacinia*) 557.
setulosa (*Parodiella*) 542.
setulosum (*Hapalophragmium*) 403.
setulosum (*Triphragmium*) 403.
Seurati (*Lycoperdon*) 223.
sexspora (*Zukalia*) 543.
Seymouriana (*Puccinia*) 385.
Seymouriana (*Sphacelotheca*) 486.
Sheariana (*Eutypella*) 566.
Shenoi (*Polystictus*) 130.
Shiraianum (*Exobasidium*) 190.
Sibbaldiae (*Linospora*) 775.
sibirica (*Lenzites*) 52.
sibiricum (*Apiosporium*) 531.
siculus (*Ceromyces*) 140.
Sieversiae (*Puccinia*) 353.
Sii-Falcariae (*Puccinia*) 393.
Sii-latifolii (*Uromyces*) 248.
Silenis (*Mycosphærella*) 639.
Silenis (*Sphærella*) 639.
Sileris (*Puccinia*) 340.
siliquæ (*Ravenelia*) 403.
Silphii (*Metasphæria*) 699.
silvana (*Wallrothiella*) 588.
silvatica (*Puccinia*) 469.
silvestris (*Leptosphæria*) 720.
silvestris (*Pholiota*) 63.
Simabæ-Cedronis (*Phyllachora*) 834.
simile (*Chætomium*) 601.
similis (*Pleoravenelia*) 407.
similis (*Pleurotus*) 24.
similis (*Puccinia*) 275.
similis (*Xylaria*) 626.
simillima (*Puccinia*) 385. et 469.
simplex (*Gastrosporium*) 243.
simplex (*Parasitella*) 501.
simplex (*Paxillus*) 81.
simplex (*Puccinia*) 377 et 469.
simplex (*Puccinia*) 392.
simplicior (*Diaporthe*) 671.
simulans (*Coriolus*) 129.
sinensis (*Rhizopus*) 503.
singulare (*Endophyllum*) 263.
singularis (*Lizoniella*) 662.
sinuosa (*Poria*) 131.
Sisyrrinchii (*Pleospora*) 755.
sitnensis (*Hypochnus*) 189.
Sloaneæ (*Hypocrella*) 817.
Smilacearum-Digraphidis (*Puccinia*) 469.
smilacina (*Sphærella*) 644.
Smilacis-Chinae (*Puccinia*) 367.
socia (*Phyllachora*) 833.
socialis (*Pleospora*) 755.
socius (*Saccardomyces*) 530.
Socotræ (*Uredo*) 448.
Sojæ (*Uredo*) 446.
Solani (*Erysiphes*) 527.
solanicola (*Asterina*) 879.
solenoides (*Ræstelia*) 409.
Solidaginis (*Æcidium*) 373.
Solidaginis (*Sorosporium*) 488.
Solidaginis-Caricis (*Puccinia*) 469.
solidipes (*Agaricus*) 84.
solitaria (*Puccinia*) 392.
Solorinæ (*Leptosphæria*) 730.
Sonchi (*Coleosporium*) 461.
sonchina (*Puccinia*) 308.
Sophoræ (*Æcidium*) 428.
Sophoræ-flavescentis (*Uromyces*) 254.
Sophoræ-japonicæ (*Uromyces*) 254.
Sorbi (*Leptosphæria*) 721.
Sorbi (*Ochrospora*) 464.
sordaria (*Rosellinia*) 599.
sordescens (*Diplonema*) 183.
sordidum (*Hydnum*) 145.
Sorghii (*Pleospora*) 757.
Sorghii (*Sphacelotheca*) 487.
Sorghii (*Ustilago*) 387.
sorghicola (*Ustilago*) 479.
Sorghii-halepensis (*Uredo*) 457.
Sorghii-vulgaris (*Cintractia*) 487.
spadiceus (*Pleurotus*) 23.
sparassoides (*Craterellus*) 128.
sparassoides (*Thelephora*) 162.
Sparaxidis (*Uromyces*) 260.

- sparganioides* (*Puccinia*) 385.
 Sparganophori (*Uredo*) 454.
 sparsa (*Leptosphaeria*) 729.
 sparsa (*Omphalia*) 22.
 Spartii (*Platystomum*) 889.
 Spartii (*Sphaerulina*) 693.
 spathulatum (*Radulum*) 153.
spathulatus (*Irpea*) 153.
 spathulatus (*Panus*) 51.
 speciosus (*Mucor*) 495.
 spectabile (*Dimerium*) 537.
 spectabilis (*Laboulbenia*) 919.
spectabilis (*Puccinia*) 291.
 spectabilis (*Rinia*) 592.
 Spegazzinii (*Tricholoma*) 11.
 Speschnewii (*Venturia*) 652.
 sphaerocarpus (*Uromyces*) 253.
 sphaeroidea (*Podocrea*) 799.
 sphaeroidea (*Puccinia*) 348.
sphaeroides (*Pyrenula*) 711.
sphaeroides (*Verrucaria*) 711.
 sphaeroides (*Zignoella*) 711.
 sphaerospora (*Mycena*) 21.
 sphaerospora (*Puccinia*) 334.
 sphaerosporus (*Agaricus*) 82.
 sphaerosporus (*Clitopilus*) 58.
 Sphagni (*Lizoniella*) 661.
 sphagnophila (*Eccilia*) 60.
 sphagnophila (*Omphalia*) 21.
 sphagnophilus (*Hygrophorus*) 28.
 sphalerocondra (*Puccinia*) 346.
 sphinctrinoides (*Didymella*) 657.
 Sphyriopsidis (*Laboulbenia*) 923.
spicularum (*Cintractia*) 479.
 spinicola (*Pleospora*) 749.
 spinosella (*Pleospora*) 755.
 spinulosa (*Ravenelia*) 404.
 Spirææ (*Læstadia*) 573.
 Spirææ (*Lephodermium*) 914.
 spiræicola (*Diaporthe*) 669.
 Sporastatiæ (*Didymosphaeria*) 681.
Sporastatiæ (*Polycoccum*) 681.
 Sporoboli (*Phyllachora*) 839.
spretæ (*Puccinia*) 393.
 squamarioides (*Didymosphaeria*) 681.
squamarioides (*Sorothelia*) 681.
 squamosa (*Inocybe*) 65.
 squarrosa (*Pterula*) 200.
 squarrosus (*Cortinarius*) 81.
 Stanfordianus (*Coprinus*) 92.
 Starnesii (*Locellina*) 65.
 Staudtiana (*Stropharia*) 87.
 Staudtii (*Fistulinella*) 101.
Steinii (*Leptosphaeria*) 706.
Steinii (*Leptoglyphis*) 706.
 Steinii (*Metasphaeria*) 706.
 Stellariæ (*Didymosphaeria*) 676.
 stenorrhynchi (*Uromyces*) 258.
 Stephanomeriæ (*Puccinia*) 310.
 stereicola (*Hypomyces*) 805.
 stereocaulicola (*Didymosphaeria*) 681.
stereocaulicola (*Microthelia*) 681.
 Sterlingii (*Agaricus*) 82.
 Sterlingii (*Scleroderma*) 237.
 Stigmæ (*Nectria*) 796.
 stilbostomum (*Thyridium*) 767.
 stillicicola (*Stichomyces*) 917.
 Stipæ (*Puccinia*) 469.
 stipata (*Odontia*) 156.
 stipata (*Solenia*) 146.
 stipicola (*Ustilago*) 476.
 stipitatus (*Fomes*) 122.
 Stizolophi (*Puccinia*) 297.
 Stomonaxi (*Laboulbenia*) 923.
 straminella (*Odontia*) 158.
 straminis (*Coprinus*) 92.
 Stratiotis (*Leptosphaeria*) 728.
 stratosum (*Radulum*) 154.
 stratosus (*Pleurotus*) 24.
 striata (*Naucoria*) 71.
 striata (*Puccinia*) 393.
 striatospora (*Nectria*) 788.
 striatula (*Amanita*) 2.
 striatula (*Didymosphaeria*) 680.
 striatus (*Uromyces*) 471.
 strictissimum (*Lachnocladium*) 197.
 strobilaceum (*Podaxon*) 219.
 strobilina (*Phellorina*) 239.
 stromaticola (*Paranectria*) 812.
 Struthanthi (*Perinopsis*) 544.
 Stübelii (*Dothidella*) 852.
 Stuckerti (*Ceromyces*) 140.
 Stuckerti (*Omphalia*) 22.
 Stuckerti (*Puccinia*) 361.
 Stuhlmanni (*Asterina*) 881.
 Stuhlmanniana (*Meliola*) 548.
 Stuhlmanniana (*Zukalia*) 543.
 styracicola (*Trametes*) 138.
 Styracis (*Microthyrium*) 862.
suaveolens (*Stereum*) 166.
 suaveolens-Cyani (*Puccinia*) 286.
 suavissimus (*Lentinus*) 50.
 subalbicans (*Odontia*) 156.
subalbicans (*Thelephora*) 156.

- subalpina (Didymella) 656.
 subalpina (Massarinula) 658.
 subalpinum (Coleosporium) 461.
 subalutacea (Kneiffia) 179.
subalutaceum (Corticium) 179.
 subamboinensis (Fomes) 124.
 subandina (Puccinia) 377.
 subascondita (Kneiffia) 177.
subaurantiacus (Merulius) 145.
 subbulbipes (Polystictus) 127.
subcalceum (Corticium) 177.
 subcarneus (Cantharellus) 35.
 subclavata (Clitocybe) 15.
 subcompressa (Rosellinia) 598.
 subcompressum (Platystomum) 890.
 subconcava (Clitocybe) 12.
 subcongregata (Sphærella) 642.
subcongregata (Sphærella) 644.
 subconica (Nitschkea) 561.
 subcorticalis (Didymosphæria) 679.
subcorticalis (Strickeria) 760.
 subcorticalis (Teichospora) 760.
 subcorticicola (Cordyceps) 824.
 subcostatum (Stereum) 165.
 Subcurreyi (Marasmius) 44.
 subdecora (Puccinia) 297.
 subdiscoidea (Cordyceps) 825.
 subdryophila (Collybia) 18.
 subendoxyla (Cryptovalsa) 568.
 subfalcata (Nectria) 795.
 subfuscum (Tylostoma) 222.
 subglobosa (Puccinia) 274.
 subgracillima (Xylaria) 631.
 subgregarium (Platystomum) 890.
 subimpudicus (Marasmius) 44.
 subincarnatum (Æcidium) 425.
 sublateritius (Cortinarius) 79.
 subleve (Corticium) 171.
 submarginalis (Cortinarius) 78.
 submegas (Seynesia) 867.
 submyochroa (Volvaria) 52.
 subnitens (Puccinia) 469.
 subochracea (Cordyceps) 823.
 subomphaloides (Marasmius) 41.
 subpilosus (Marasmius) 38.
 subplancus (Marasmius) 38.
 subpolyarthra (Cordyceps) 822.
 subradicatus (Polyporus) 102.
subradicatus (Scutigera) 102.
 subrufescens (Hygrophorus) 28.
 subrutilum (Hypoxylon) 611.
 subseriata (Metasphæria) 704.
 subsinuosa (Trametes) 136.
 subsulphurea (Kneiffia) 179.
subsulphureum (Corticium) 179.
subtile (Hydnum) 158.
 subtilis (Psathyrella) 94.
 subtilissima (Mortierella) 507.
 subtrachelina (Xylaria) 629.
subtrifida (Schizonella) 488.
 subulatus (Eleutheromyces) 779.
 subuliformis (Protoascus) 516.
 subunilateralis (Cordyceps) 826.
 subviolaceus (Clitopilus) 57.
 subviolaceus (Hygrophorus) 28.
subvolvata (Telamonia) 78.
 subvolvatus (Cortinarius) 78.
 subzonatum (Hydnum) 148.
 Succisæ (Leptosphæria) 726.
 Suckerti (Bovista) 234.
 suffusca (Puccinia) 359.
sulcatum (Ganoderma) 125.
 sulcatum (Hypoxylon) 612.
sulphuratum (Stereum) 165.
 sulphurea (Collybia) 16.
 sulphurea (Flammula) 70.
sulphureo-pulverulentus (Inonotus) 114.
 sulphureo-pulverulentus (Polyporus) 114.
 sulphureum (Corticium) 172.
 sulphureus (Arachnomyces) 532.
Sumstinei (Grifola) 108.
 Sumstinei (Polyporus) 108.
 superbus (Marasmius) 44.
 superflua (Puccinia) 388.
superior (Pleurage) 603.
 superior (Sordaria) 603.
 superior (Uredo) 455.
 superposita (Pharcidia) 649.
superposita (Verrucaria) 649.
 supersparsa (Phæospora) 719.
superveniens (Melanotheca) 706.
 superveniens (Metasphæria) 706.
 surculorum (Ophiobolus) 769.
 surinamensis (Cordyceps) 824.
 Suzukianus (Hymenogaster) 240.
 Sydowiana (Puccinia) 469.
 Symbolanthi (Uredo) 442.
 Symphoricarpi (Gibberidea) 739.
Symphoricarpi (Strickeria) 761.
 Symphoricarpi (Teichospora) 761.
Symphyti (Æcidium) 382.
 Symphyti (Leptosphæria) 723.
 Symphyti (Melampsorella) 464.
 Symphyti (Ophiobolus) 772.

- Symphyti-Bromorum (Puccinia) 469.
Symphyti-Bromorum (Puccinia) 382.
 Synapheæ (Dimerosporium) 535.
Syntherismæ (Sorosporium) 486.
 syriaca (Puccinia) 319.
 Suringæ (Enchnoa) 560.
 systema-solare (Asterina) 880.
- Tachyis (Laboulbenia) 920.
tænioides (Pleurage) 602.
 tænioides (Sordaria) 602.
 tagananensis (Puccinia) 309.
 tahitense (Hypoxylon) 612.
 Talpæ (Pleoravenelia) 408.
 tamaricina (Diaporthe) 672.
Tamaricis (Polyporus) 111.
Tamaricis (Xanthochrous) 111.
Tamarindi (Mycosphærella) 637.
 Tamarindi (Sphærella) 637.
 tangensis (Hypocrea) 801.
 tangensis (Limacinia) 557.
 Tapesiæ (Sphærella) 646.
 tarapotense (Æcidium) 413.
 tarapotensis (Cordyceps) 823.
 tarapotensis (Parodiella) 542.
 tarapotensis (Uromyces) 252.
 Tarrietæ (Eutypa) 568.
 tartarina (Leptosphæria) 730.
tartarina (Verrucaria) 730.
 Tasmaniæ (Puccinia) 277.
 tasmanicum (Dimerium) 537.
 tasmanicum (Lycoperdon) 230.
 tasmanicus (Irpex) 153.
 Tassadiæ (Puccinia) 334.
Tassiana (Dothidella) 844.
 Tassianus (Microcycclus) 844.
 tatarica (Puccinia) 394.
 tatrensis (Calvatia) 235.
 Taubertiana (Cintractia) 481.
Taubertiana (Ustilago) 481.
 taurica (Erysiphe) 526.
 Taxodii (Favolus) 142.
Taxodii (Hexagona) 142.
 taxophilus (Craterellus) 160.
 tecta (Gloniopsis) 911.
 Tellinianum (Æcidium) 420.
 tenerrima (Clavaria) 197.
tenue (Corticium) 179.
 tenue (Hypoxylon) 613.
 tenuior (Xylaria) 633.
 tenuis (Kneiffia) 179.
 tenuistipes (Puccinia) 469.
- tephroleucum (Corticium) 171.
 Tephrosiæ (Pleoravenelia) 407.
 tephrosiicola (Uredo) 446.
 Termitum (Pluteus) 55.
 terrestris (Thelephora) 161 et 162.
 terrigenum (Corticium) 170.
tersa (Acrocordia) 711.
 tessellatula (Hexagona) 142.
 tessellatus (Favolus) 142.
 testaceus (Marasmius) 43.
 tetraspora (Eutypella) 565.
 tetraspora (Gibberella) 813.
 tetraspora (Sordaria) 604.
 tetraspora (Trichosphæria) 589.
 Teucree (Diaporthe) 674.
 Teucree (Leptosphæria) 725.
 texana (Laboulbenia) 923.
 texana (Puccinia) 355.
 texana (Tilletia) 489.
 texensis (Dictyobole) 213.
 Thalictri (Chætosphæria) 736.
 Thalictri-Elymi (Puccinia) 469.
 thallophila (Müllerella) 593.
 Theæ (Pleospora) 748.
 Theæ (Trametes) 138.
 Thecopsora (Pucciniastrum) 470.
 Theobromæ (Lophodermium) 914.
 Theobromæ (Ophionectria) 816.
 Theresiæ (Uredo) 448.
therophila (Physalospora) 586.
 Thesii-decurrentis (Uredo) 451.
 thlaspianum (Æcidium) 429.
 thomeense (Coleosporium) 397.
 Thornberi (Thecaphora) 487.
 Thuemeniana (Puccinia) 392.
 Thujæ (Amphisphæria) 684.
 Thujæ (Melomastia) 707.
 Thujæ (Mytilidium) 908.
 Thujana (Rebentischia) 732.
 thujinus (Maramius) 43.
 Thwaitesii (Venturia) 651.
 Thymi-Stipæ (Puccinia) 469.
 thyridioides (Anthostomella) 595.
 thyridioides (Platystomum) 889.
Tiarellæ (Puccinia) 393.
 tigrensis (Puccinia) 314.
 tigrinus (Polystictus) 128.
 tijucensis (Cyphella) 192.
 Tiliæ (Pleospora) 748.
 Tiliæ (Valsaria) 691.
 Tillandsiæ (Ustilago) 474.
 Tinctoriæ (Puccinia) 289.

- tingens (Platystomum) 890.
 tingitanus (Uromyces) 257.
 Tinneæ (Æcidium) 417.
 tirolensis (Venturia) 651.
 Tofieldiæ (Læstadia) 576.
 togoensis (Penicillioopsis) 528.
 tokyensis (Puccinia) 345.
 tomentella (Kneiffia) 176.
 tomentosipes (Marasmius) 43.
 Tonduzii (Phyllachora) 835.
 tonkinensis (Rhizopus) 502.
 Toræ (Æcidium) 427.
 Torrendii (Boletus) 100.
 Torrendii (Corticium) 169.
 Torrendii (Scleroderma) 236.
 Torulini (Uredo) 455.
 tosenis (Dothidella) 851.
 tosenis (Marasmius) 46.
 tosenis (Uromyces) 261.
 tosta (Puccinia) 376.
 Toumeyii (Puccinia) 392.
 Tozziæ (Entyloma) 482.
 Trabutiana (Physalospora) 579.
 Trabutii (Uredo) 452.
 Trachycarpi (Graphiola) 493.
 Tracyanum (Æcidium) 415.
 tragiicola (Æcidium) 424.
 Trailii (Pæcilosporium) 488.
 Trailii (Puccinia) 469.
 Trailii (Thecaphora) 488.
 transversarium (Cauloglossum) 218.
 Trautvetteriæ (Puccinia) 357.
 trematostoma (Leptosphæria) 723.
 tremelloides (Gymnosporangium) 462.
 tremula (Pistillaria) 202.
 triarticulata (Puccinia) 469.
 trichopoda (Xylaria) 633.
 trichopterophilus (Ecteinomyces) 918.
 tricolor (Leptonia) 58.
 tricolor (Nectria) 788.
 tricuspидatus (Herpomyces) 916.
 Tricuspидis (Phæodothis) 854.
 Tricuspидis (Ustilago) 475.
 trifidum (Platystomum) 890.
 trifidus (Anthurus) 214.
 Trifolii (Leptosphæria) 721.
 Trifolii (Olpidium) 515.
 Trifolii (Synchytrium) 515.
 Trifolii (Urophlyctis) 515.
 Triglochinis (Leptosphæria) 728.
 Trigonellæ-occultæ (Uromyces) 251.
 trinodulosus (Ophiobolus) 772.
 triphracta (Phæospora) 718.
 triphractoides (Endococcus) 718.
 triphractoides (Phæospora) 718.
 triphractus (Endococcus) 718.
 Triplasidis (Ustilago) 473.
 Triplicantis (Phæospora) 718.
 Triplicantis (Trichothecium) 718.
 triqueter (Polyporus) 128.
 triqueter (Polystictus) 128.
 Triseti (Sphærella) 646.
 Triseti (Puccinia) 376, 469.
 Triseti (Uredo) 376.
 trispora (Zimmermanniella) 827.
 tristis (Dacryomyces) 210.
 tristis (Hypochnus) 189.
 tristis (Psilocybe) 89.
 Tritici (Gibberella) 813.
 Tritici (Rhizopus) 504.
 triticina (Puccinia) 376, 469.
 triticina (Uredo) 376.
 Triticorum (Puccinia) 375.
 Tsugæ (Fomes) 123.
 Tsugæ (Ganoderma) 123.
 tsugina (Clavaria) 196.
 tubaracensis (Dothidea) 853.
 tuberculata (Nectria) 794.
 tuberculata (Sporormia) 738.
 tuberculatum (Tylostoma) 222.
 tuberculiformis (Ustilago) 473.
 tuberiformis (Echinodopsis) 819.
 tuberosa (Naucoria) 71.
 tuberosa (Psilocybe) 90.
 Tuberosæ (Æcidium) 415.
 tucumanense (Æcidium) 391.
 tumida (Puccinia) 393.
 tunetanus (Melanopus) 106.
 tunetanus (Polyporus) 106.
 tunicata (Thecaphora) 488.
 turbinata (Camillea) 620.
 turgida (Puccinia) 323.
 Turneræ (Æcidium) 424.
 Turneræ (Asterina) 878.
 turrita (Puccinia) 353.
 Tussilaginis (Coleosporium) 461.
 tweriensis (Plasmopara) 520.
 Typhæ (Athelia) 174.
 Typhæ (Corticium) 174.
 Typhæ (Didymosphæria) 679.
 Typhæ (Leptosphæria) 729.
 Typhæ (Ophiobolus) 774.
 Typhinæ (Cucurbitaria) 764.
 typholoides (Eucronartium) 211.

- ufensis* (*Leptoporus*) 115.
ufensis (*Polyporus*) 115.
Uleana (*Cordyceps*) 824.
Uleana (*Hysterostomella*) 892.
Ulei (*Actiniopsis*) 871.
Ulei (*Æcidium*) 421.
Ulei (*Dimerium*) 537.
Ulei (*Dothidella*) 849.
Ulicis (*Ceriospora*) 707.
Ulicis (*Metasphæria*) 697.
uliginosa (*Naucoria*) 71.
uliginosa (*Puccinia*) 469.
Ulmi (*Corticium*) 169.
Ulmi (*Diaportha*) 673.
Ulmi (*Mucronella*) 158.
Ulmi (*Mycosphærella*) 642.
Ulmi (*Sphærella*) 642.
ultimum (*Pythium*) 518.
umbellatus (*Rhizopus*) 502.
Umbelliferarum (*Charonectria*) 783.
Umbilicariæ (*Leptosphæria*) 731.
Umbilicariæ (*Microthelia*) 731.
umbilicata (*Hypocrea*) 801.
umbilicata (*Nectria*) 787.
umbilicatum (*Hydnum*) 147.
umbilicatus (*Clitopilus*) 57.
umbonata (*Collybia*) 16.
umbrina (*Coniophora*) 184.
umbrina (*Coniophorella*) 184.
umbrosus (*Boletus*) 98.
undata (*Poria*) 131.
undatus (*Polyporus*) 131.
Underwoodii (*Fomes*) 117.
Underwoodi (*Pyropolyporus*) 117.
Unedonis (*Antennaria*) 559.
unicaudata (*Ophionectria*) 816.
unicolor (*Peniophora*) 183.
unicolor (*Psilocybe*) 89.
Uredinis (*Oidium*) 397.
Uredinis (*Oospora*) 397.
Uredinis (*Torula*) 397.
uredinoidis (*Æcidium*) 425.
Urticæ (*Metasphæria*) 702, 703.
Urticæ (*Nectria*) 792.
Usambaræ (*Ravenelia*) 404.
usambarense (*Corticium*) 168.
usambarense (*Lachnocladium*) 199.
usambarensis (*Aleurodiscus*) 168.
usambarensis (*Blumenavia*) 212.
usambarensis (*Ustilaginoidea*) 492.
ussanguensis (*Hymenochæte*) 167.
utahensis (*Melanopsamma*) 659.
Utriculariæ (*Doassansia*) 481.
utriculicula (*Cintractia*) 479.
utriculosa (*Ustilago*) 473.
Uvariæ (*Microthyrium*) 862.
vagabundus (*Protomyces*) 515.
vagans (*Physalospora*) 581.
Vaginataæ (*Puccinia*) 469.
Valdobbiaæ (*Leptosphæria*) 726.
Valerianæ (*Puccinia*) 315.
Valerianæ (*Uromyces*) 263.
Valerianæ (*Uromyces*) 263.
valesiacus (*Uromyces*) 252.
Vanillæ (*Nectria*) 790.
Vanillæ (*Physalospora*) 585.
vanillicola (*Nectria*) 790.
vaporaria (*Poria*) 131.
variabile (*Entoloma*) 56.
variabilis (*Microascus*) 610.
variabilis (*Puccinia*) 308.
variabilis (*Siphonaria*) 517.
varians (*Physalospora*) 584.
varians (*Xylaria*) 629.
variegata (*Leptosphæria*) 722.
variicolor (*Cryphonectria*) 784.
variiporus (*Polyporus*) 101.
vastatrix (*Chlorospora*) 523.
Vaucheriaæ (*Rhizophidium*) 512.
velata (*Flammula*) 69.
velatus (*Boletus*) 97.
velatus (*Suillus*) 97.
Velenovskyi (*Tilletia*) 489.
velutina (*Kneiffia*) 178.
velutina (*Peniophora*) 179.
ventricosa (*Pholiota*) 63.
ventricosipes (*Russula*) 31.
venturioides (*Coleroa*) 652.
venustus (*Uromyces*) 247.
Veratri (*Leptosphæria*) 727.
Verbenæ (*Cronartium*) 461.
verbenicola (*Puccinia*) 469.
Verbesinæ (*Coleosporium*) 397.
Verbesinæ-dentatæ (*Uredo*) 436.
verecunda (*Diaportha*) 674.
vermiforme (*Hysterium*) 907.
vermispora (*Calonectria*) 811.
vernica (*Daldinia*) 618.
Vernoniæ (*Parmulariella*) 893.
Vernoniæ (*Puccinia*) 272.
vernoniicola (*Phyllachora*) 836.
Veronicæ (*Læstadia*) 575.
Veronicæ (*Puccinia*) 323, 391.

- Veronica* (*Uredo*) 391.
Veronica-Anagallidis (*Puccinia*) 349.
Verrucariarum (*Arthopyrenia*) 647.
Verrucariarum (*Pharcidia*) 647.
verrucarioides (*Sphaeria*) 730.
verrucicola (*Læstadia*) 576.
verrucicola (*Sphaeria*) 576.
verrucosa (*Nectria*) 785.
verrucosaria (*Cercidospora*) 657.
verrucosaria (*Didymella*) 657.
verrucosaria (*Microthelia*) 657.
verrucosella (*Asterella*) 884.
verrucosus (*Hymenogaster*) 240.
versicolor (*Fomes*) 116.
vestita (*Eusordaria*) 604.
vestita (*Pleurage*) 604.
vestita (*Podospora*) 604.
vestita (*Puccinia*) 285.
vestita (*Sordaria*) 604.
vestitum (*Dimerosporium*) 534.
vetusta (*Diatrypella*) 572.
Via-malæ (*Amphisphaeria*) 683.
Viburni (*Pleospora*) 752.
Vicia-Craccæ (*Uromyces*) 252.
vicinus (*Mucor*) 493.
Vilfæ (*Puccinia*) 469.
vilis (*Puccinia*) 375.
Vincetoxici (*Plasmopara*) 520.
violacea (*Poria*) 135.
violacea (*Tulasnella*) 210.
violacea-major (*Ustilago*) 472.
violaceo-cinerescens (*Pleurotus*) 23.
violaceo-griseus (*Cantharellus*) 35.
violaceo-pannosa (*Xylaria*) 727.
Violæ (*Asterina*) 876.
violascens (*Æcidium*) 425.
virgatum (*Æcidium*) 421.
virginalis (*Omphalia*) 23.
viscosum (*Tricholoma*) 10.
Vitalbæ (*Leptosphaeria*) 719.
Vitalbæ (*Ophiobolus*) 770.
vitellina (*Thelephora*) 160.
viticicola (*Phyllachora*) 836.
Viticis-polygamæ (*Uredo*) 441.
Vitis (*Cyphella*) 192.
Vitis (*Pleospora*) 748.
Vitis (*Volutella*) 192.
Vitis-Idææ (*Gnomonia*) 666.
vitrea (*Poria*) 131.
vitreus (*Polyporus*) 131.
Vittadini (*Tylostoma*) 222.
Vochysiæ (*Phyllachora*) 823.
Volkiana (*Cordyceps*) 827.
volvatus (*Cryptoporus*) 125.
volvatus (*Fomes*) 125.
Vossiæ (*Phyllachora*) 839.
Vossii (*Puccinia*) 329.
vulgaris (*Delitschia*) 687.
vulgaris (*Metasphaeria*) 698.
vulgaris (*Mucor*) 498.
Vulpinæ (*Puccinia*) 469.
vulpinus (*Polyporus*) 138.

Warmingii (*Polystictus*) 128.
Warscewiczii (*Lembosia*) 899.
Washingtoniæ (*Metasphaeria*) 703.
Wedeliæ (*Æcidium*) 410.
Wedeliæ (*Uromyces*) 245.
Wegeliniana (*Leptosphaeria*) 725.
Whiteæ (*Scutigera*) 103.
Whiteæ (*Cortinarius*) 78.
Whiteæ (*Polyporus*) 103.
Weinlandii (*Xylaria*) 622.
Wisseanus (*Hypochnus*) 187.
Wilcoxiana (*Tilletia*) 489.
Willemetiæ (*Puccinia*) 308.
Williamsii (*Æcidium*) 418.
Williamsii (*Sorosporium*) 485.
Willoughbyæ (*Meliola*) 552.
Wilsonii (*Favolus*) 143.
Wilsonii (*Hexagona*) 143.
Windsoviæ (*Puccinia*) 469.
Winteri (*Otthiella*) 662.
Winteri (*Puccinia*) 392.
Winteriana (*Puccinia*) 469.
Wistariæ (*Phomatospora*) 577.
Wittmackiana (*Uredo*) 453.
Woodii (*Puccinia*) 294.
Woodrowii (*Agaricus*) 83.
Woronini (*Chrysomyxa*) 397, 460.
Wossnessenskii (*Mucor*) 499.
Wulffiæ (*Æcidium*) 412.
Wulffiæ (*Uromyces*) 245.
Wyethiæ (*Puccinia*) 296.
Wyethiæ (*Uredo*) 296.

xantha (*Poria*) 133.
xantha (*Poria*) 134.
xanthophæa (*Xylaria*) 622.
Xanthoriæ (*Physalospora*) 587.
Xanthoriæ (*Sphaeria*) 587.
xanthostroma (*Cryphonectria*) 784.
xanthostroma (*Diatrypella*) 572.
xanthus (*Polyporus*) 133.

- xenochaeta* (Pleosphaeria) 763.
Xerotis (Gloniella) 904.
Ximenesiæ (Puccinia) 275.
xylariicola (Hypocrea) 801.
Xylomeli (Physalospora) 583.
Xylopiæ (Micropeltis) 869.
Xylorrhizæ (Puccinia) 296.

Yakutatiana (Dothidella) 850.
Yapensis (Dothidella) 848.
Yokogureæ (Puccinia) 373.
Yoshinagai (Asterina) 880.
Yoshinagai (Exobasidium) 190.
Yoshinagai (Melampsora) 264.
Yoshinagai (Uromyces) 251.
yucatensis (Fomes) 116.
yucatensis (*Pyropolyporus*) 116.
Yuccæ (Allantonectria) 778.
Yuccæ (*Dothidea*) 855.
Yuccæ (Phæodothis) 855.
Yuccæ (Sphaerella) 644.
yurimaguensis (Uredo) 454.
yurimaguensis (Uromyces) 251.

zanzibarinus (Herpomyces) 916.
Zauschneriæ (Puccinia) 348.
Zelkowæ (Eutypella) 566.
Zenkeri (Boletus) 98.
Zenkeri (Lachnocladium) 199.
Zenkeri (Lactariopsis) 30.
Zenkeri (Phæohygrocybe) 82.
Zenkeri (Pholiota) 64.
Zenkeri (Polystictus) 126.
Zenkeri (Scleroderma) 236.
Zenkeriana (Naucoria) 72.
Zephyranthis (Æcidium) 435.
Zimmermanni (Corticium) 169.
Zimmermanniana (Hypocrella) 817.
Zimmermanniana (Puccinia) 336.
Zinniæ (Puccinia) 282.
Ziziphoræ (Puccinia) 330.
Zizyphi-vulgaris (Uredo) 444.
Zœgeæ-crinitæ (Puccinia) 296.
zonatum (*Ganoderma*) 122.
zonatus (Fomes) 122.
Zoysiæ (Puccinia) 375.
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INDEX ALPHABETICUS GENERUM

- Absidia 504.
Acallomyces 917
Acanthostigma 712
Acerbia 768
Acerbiella 768
Achlya 518
Acompsomyces 917
Actiniopsis 871
Actinomucor 498
Æcidium 410
Agaricus 82
Allantonectria 778.
Amanita 1
Amphisphæria 683
Anixia 530
Annularia 53
Antennaria 559
Anthostoma 635
Anthostomella 594
Anthurus 214
Apiospora 658
Apiosporium 530
Arachnomyces 532
Ascopolyporus 819
Asterella 882
Asteridiella 885
Asteridium 884
Asterina 875
Asterophlyctis 517
Auerswaldia 811
Aulographum 895.

Balansia 821
Balansiella 821
- Battarrea 224
Battarreopsis 223
Baumiella 708
Berlesiella 745
Bertiella 708
Blumenavia 212
Bolbitius 74
Boletus 95
Bornetina 193
Botryosphæria 590
Bovista 234
Bresadolella 797
Bresadolia 140
Brigantiella 889
Broomella 813
Bulliardella 902
Burrillia 479

Cæoma 458
Calonectria 809
Calosphæria 561
Calospora 717
Calvatia 234
Camillea 620
Cantharellus 34
Capnodiella 621
Capnodiopsis 555
Capnodium 555
Catharinia 743
Cauloglossum 218
Ceraimyces 918
Ceratosphæria 715
Ceratostoma 609
Ceratostomella 592
- Cerimyces 140
Ceriosporella 707
Cesatiella 808
Chætomium 600
Chætosphæria 736
Charonectria 782
Chilonectria 779
Chlorospora 523
Choanophora 507
Chrysomyxa 396. 460
Chytridium 513
Cintractia 479
Circinella 501
Cladochytrium 514
Cladoderris 163
Clastopsora 263
Clathrus 213
Claudopus 61
Clavaria 193
Claviceps 820
Clitocybe 11
Clitopilus 57
Clypeosphæria 732
Coccodiscus 860
Cœlosphæria 560
Coleosporium 397. 460
Collybia 15
Coniophora 182
Coniophorella 183
Coprinus 90
Coprolepa 608
Corallomyces 807
Cordyceps 822
Coreomyces 924

- Corathomyces** 917
Corticium 168
Cortinarius 77
Coutinia 589
Craterellus 160
Crepidotus 76
Cronartium 461
Crotonocarpia 746
Cryphonectria 783
Cryptoderis 768
Cryptoporus 125
Cryptospora 776
Cryptosporella 592
Cryptovalsa 567
Cucurbitaria 764
Cunninghamella 508
Curreya 858
Cyathus 214
Cycloschizon 896
Cyphella 191
Cystopus 519

Dacryomyces 210
Daedalea 139
Daldinia 616
Darwiniella 856
Debaryella 809
Delitschia 686
Delitschiella 688
Dendrogaster 240
Diaporthe 667
Dichæna 894
Dictyobole 213
Dictyocephalus 238
Didymella 653
Didymosphæria 676
Dielsiella 902
Dilophia 767
Dimerium 537
Dimeromyces 915
Dimerosporiopsis 686
Dimerosporium 533
Diorchidium 394
Diploderma 229
Disciseda 233
Doassansia 481
Dothidea 852

Dothidella 846
Drepanoconis 519
Eccilia 60
Echinodothis 819
Ecteinomyces 918
Elasmomyces 218
Eleutheromyces 779
Enchnoa 560
Enchnosphæria 713
Endobasidium 190
Endophyllum 263
Endothia 675
Endoxyla 570
Englerula 529
Entoloma 55
Entomophthora 510
Entyloma 482
Eomycenella 21
Eriosphæria 659
Erysiphe 526
Eucronartium 211
Eurotium 527
Euryachora 841
Eutypa 568
Eutypella 565
Exidia 207
Exobasidium 190

Favolus 141
Fenestella 766
Feracia 815
Fistulinella 101
Flammula 68
Fleischeria 819
Fomes 116

Gaillardiiella 686
Galera 75
Gastrosporium 243
Geaster 226
Geasteropsis 229
Gibbera 662
Gibberella 813
Gibberidea 739
Glomerella 573
Glomerula 509
Gloniella 903

Gloniopsis 909
Glonium 896
Gnomonia 664
Gnomoniopsis 716
Gomphidius 94
Grandinia 154
Graphiola 493
Graphyllum 913
Guepinia 206
Gymnoconia 395
Gymnosporangium 271.
461

Hapalographium 402
Harpochytrium 512
Hebeloma 66
Helicostylum 505
Henningsomyces 689
Henriquesia 894
Herpomyces 915
Herpotrichia 714
Heterochæte 209
Hexagonia 138
Hirneolina 208
Homostegia 857
Hyaloderma 529
Hyalospora 268
Hydnum 147
Hygrophorus 26
Hymenochæte 166
Hymenogaster 239
Hypholoma 83
Hypochnus 184
Hypocopra 605
Hypocrea 800
Hypocrella 817
Hypodermopsis 908
Hypomyces 803
Hypoxylon 610
Hypoxyloopsis 855
Hysterium 907
Hysterographium 912
Hysteropsis 909
Hysterostomella 892

Inocybe 65
Irpex 153

- Ithyphallus 212
 Jattæa 562

 Kalmusia 742
 Kneiffia 176
 Kordyanella 159
 Kretzschmaria 615
 Kusanobotrys 881

 Laboulbenia 918
 Lachnocladium 197
 Lactariopsis 30
 Lactarius 29
 Læstadia 573
 Lagenidium 516
 Laschia 144
 Lasiosphæria 713
 Lembosia 897
 Lentinus 48
 Lentodiopsis 47
 Lentomita 663
 Lenzites 52
 Lepiota 3
 Leptonia 58
 Leptosphæria 719
 Leptosphæriopsis 731
 Leptosphærulina 746
 Leucogaster 240
 Limacinia 556
 Linospora 775
 Lisea 806
 Lizoniella 661
 Locellina 65
 Lophiella 886
 Lophiosphæra 886
 Lophiostoma 887
 Lophiotrema 887
 Lophium 914
 Lophodermium 913
 Lycogalopsis 242
 Lycoperdon 229
 Lysurus 213

 Magnusia 531
 Marasmius 38
 Massaria 732
 Massariella 683

 Maurodothis 856
 Mazzantia 828
 Megalonectria 815
 Melampsora 264. 462
 Melampsorella 266. 464
 Melampsorium 464
 Melanomma 733
 Melanconiella 691
 Melanconis 667
 Melanopsamma 658
 Melanopsichium 484
 Malanospora 781
 Melomastia 707
 Merulius 145
 Metasphæria 695
 Michenera 217
 Microascus 610
 Microcyclus 844
 Micropeltis 868
 Microsphæra 525
 Microthyrium 862
 Mitremyces 225
 Moelleriella 780
 Moelleroclavus 634
 Monoicomycetes 915
 Montagnites 95
 Mortierella 506
 Mucor 494
 Mucronella 158
 Müllerella 593
 Mycena 18
 Mycosphærella 649
 Mycosynrinx 484
 Myiocopron 861
 Myriogenospora 859
 Myrmæcium 675
 Mytilidium 908

 Næmatelia 205
 Naucoria 71
 Nectria 784
 Nectriella 778
 Neopeckia 686
 Neoravenelia 408
 Neorehmia 536
 Nidula 215
 Nidularia 216

 Nitschkea 561
 Nolanea 59
 Nowakowskiella 514
 Nummularia 618

 Odontia 156
 Ohleriella 736
 Olpidiopsis 511
 Olpidium 511
 Omphalia 21
 Ophiobolus 769
 Ophiodothis 859
 Ophiognomonina 776
 Ophionectria 815
 Ophiopeltis 873
 Ophiotheca 774
 Orbicula 533
 Otthia 688
 Otthiella 662

 Panæolus 93
 Panus 50
 Paranectria 812
 Parasitella 501
 Parmulariella 892
 Parodiella 541
 Paurocotylis 243
 Paxillus 81
 Peckiella 780
 Peltosphæria 744
 Pemphidium 865
 Penicilliopsis 528
 Peniophora 175
 Peridermium 408
 Perisporina 545
 Perisporiopsis 544
 Perisporium 544
 Peroneutypa 569
 Peroneutypella 569
 Peronospora 520
 Phacopsora 267
 Phæodothis 854
 Phæohygrocybe 81
 Phæopterula 201
 Phæosaccardinula 873
 Phæoscutella 872
 Phæosolenia 147

- Phæosphærella** 675
Phæospora 718
Pharcidia 646
Phellorina 239
Philocopra 606
Phlebia 155
Pholiota 62
Phomatospora 577
Phragmidium 398
Phragmographium 906
Phyllachora 829
Phyllactinia 524
Physalacria 203
Physalospora 579
Physoderma 513
Pilobolus 505
Piptocephalis 508
Pistillaria 201
Plasmopara 520
Platyglœa 204
Platystomum 889
Pleomassaria 759
Pleomeliola 554
Pleonectria 814
Pleoravenelia 407
Pleosphæria 763
Pleosphærulina 743
Pleospora 747
Pleuroascus 532
Pleurotus 23
Plowrightia 845
Pluteolus 74
Pluteus 53
Podaxon 219
Podocrea 799
Polyporus 101
Polysaccum 237
Polystictus 126
Polystigma 780
Polystomella 865
Poria 131
Poronia 620
Proabsidia 500
Protoascus 516
Protohydnum 153
Psathyra 90
Psathyrella 94
Pseudographis 905
Pseudovalsa 740
Psilocybe 89
Pterula 199
Puccinia 272. 464
Pucciniastrum 401. 470
Pyrenophora 757
Pyrrhosorus 516
Pythium 518

Radulum 153
Ravenelia 403
Rebentischia 732
Rhachomyces 917
Rhizoclosmatium 516
Rhizophidium 512
Rhizopus 502
Rhopographus 857
Rhynchonectria 798
Rhynchosphæria 740
Rhynchostoma 689
Rimbackia 38
Rinia 591
Roestelia 409
Rosellinia 595
Rosenscheldia 852
Rostrella 609 *Rozites XI, 131*
Ruhlandiella 241
Russula 30

Saccardomyces 530
Saccoblastia 203
Saprolegnia 518
Schizospora 396
Schizostoma 887
Schizothyrium 893
Schulzeria 8
Sclerangium 237
Scleroderma 235
Sclerospora 520
Scolecopeltis 874
Sebacina 208
Secotium 217
Septobasidium 203
Seuratia 558
Seynesla 865
Siphonaria 517

Solenia 146
Solenoplea 619
Sordaria 601
Sorosporium 484
Spegazzinula 808
Sphacelotheca 486
Sphærella 635
Sphærobolus 216
Sphæroderma 781
Sphærostilbe 798
Sphærostilbella 778
Sphærotheca 524
Sphærulina 693
Spinalia 510
Spolverinia 577
Sporodinia 505
Sporophlyctis 517
Sporormia 737
Spumatoria 663
Squamotubera 621
Stereum 163
Stichomyces 917
Stichospora 395
Stigmatæa 649
Stigmatula 578
Stilboxylon 623
Strobilomyces 101
Stropharia 85
Syncephalis 508
Synchytrium 513

Teichospora 760
Teichosporella 744
Thecaphora 487
Telephora 160
Thyridaria 741
Thyridium 767
Tichothecium 676
Tieghemella 504
Tilletia 489
Tolyposporella 491
Tolyposporium 490
Torrendia 241
Torrubiella 816
Trabutia 587
Tracya 491
Trametes 136

Trematosphæria 734
 Trematosphæriopsis 735
 Tremella 205
 Tremellodendron 208
 Tremellopsis 193
 Tricholoma 9
 Trichopeltis 871
 Trichosphæria 588
 Triphragmium 402
 Trogia 37
 Tryblidiella 908
 Tubaria 76
 Tulasnella 209
 Tylostoma 220
 Typhula 201
 Uleopeltis 872

Ulocolla 207
 Uncinula 524
 Uredinopsis 269
 Uredo 436
 Urocystis 491
 Uromyces 244. 470
 Urophlyctis 515
 Ustilaginoidea 492
 Ustilago 472

Valsa 562
 Valsaria 691
 Valsella 567
 Venturia 650
 Vizella 861
 Volvaria 52

Wallrothiella 587
 Winterina 708

Xerotus 51
 Xylaria 622
 Xylobotryum 690
 Xyloceras 690
 Xylopodium 238

Yoshinagaia 860

Zaghouania 268
 Zignoella 709
 Zimmermanniella 827
 Zukalia 543
 Zukaliopsis 554.

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