

Tropical Fungi — VII.

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(580) **Parodiopsis kwangensis** (P. Henn.) Hansf., comb n.

Parodiella kwangensis P. Henn., Flore du Bas-et Moyen-Congo, II:3:225. 1908.

Type on *Sapium ellipticum*, Kisantu, Congo Belge, Vanderyst B 130 in Herb. Jard. Bot. Bruxelles; also Leopoldville, Vanderyst, s. n.

This species corresponds exactly to numerous other collections on this host from Tropical Africa, including Congo Belge and Uganda, previously determined by me as *Parodiopsis perae* Arnaud. The conidial stage was described by Hennings, l. c., p. 231 as *Helminthosporium kwangense*; it is typical of Arnaud's genus *Septoidium*, and can therefore be known as **S. kwangense** (Henn.) Hansf. comb. nov.

(581) **Parodiopsis portoricensis** Hansf., sp. n.

Plagulae hypophyllae, rubro-brunneae vel nigrae, densae, subvelutinae, subinde concentricè zonatae, usque ad 25 mm. diam. Hyphae brunneae, irregulariter ramosae, 7—9 μ cr., septatae, subrectae, dense radiantes. Stomopodia 2—3-lobata. Microconidiophora erecta, simplicia, atrobrunnea, septata, usque ad 200 \Rightarrow 8 μ , apice non inflata; microconidia terminalia, singulariter in sterigmatibus minutis producta, ellipsoidea vel ovata, hyalina, continua, levia, 6—9 \Rightarrow 3—4 μ . Macroconidia terminalia, singula in hyphis erectis mycelii, hyalina demum flavida, clavulata vel subcylindracea, apice rotundata, basi subtruncata, levia, 2-septata, haud constricta, 70—100 \Rightarrow 15—19 μ , paries 1.5—2 μ cr. Perithecia saepe in zono dense aggregata, globosa vel clavata, rubra vel atrobrunnea, 160—260 μ diam., usque ad 300 μ alt., leniter verrucosa. Asci modice numerosi, cylindracei vel saccati, apice rotundati, incrassati usque ad 12 μ , deorsum tunica 2—4 μ cr., basi breviter nodoso-stipitati, 8-spori, 100—150 \Rightarrow 40—60 μ . Sporae multiseriatae, subfusoidae utrinque rotundatae, saepe leniter curvatae, hyalinae, demum dilute fulvae, leves, 1-septatae, leniter constrictae, 50—65 \Rightarrow 15—20 μ , episporio 1—1.5 μ cr.

Hab. in foliis *Clusiae roseae*, Porto Rico, Stevens 816 (typus in Herb. Univ. Illinois), 746, 3615, 285 a; in foliis *C. krugianae*, Porto Rico, Stevens, 8862, 8826.

In size of perithecia, spores and macroconidia this species closely resembles *P. clusiae* Baker on the same host in Trinidad, but differs

in the simple microconidiophores and in the macroconidia being only 2-septate. Baker states definitely that his species is almost devoid of the red dye present in most species of the genus; in *P. portoricensis* this dye is present, especially on the exterior of the perithecia, which are often bright red in colour. The dye is either destroyed, or is not developed, in colonies parasitised by other fungi, in this species, as well as in others known to the author from Africa.

(582) **Balladyna strychni** Hansf., sp. n.

Plagulae amphigenae, usque ad 2 mm. diam. vel numerosas confluentesque, tenues. Hyphae atrobrunneae, subrectae vel flexuosae, irregulariter ramosae, laxe reticulato-radiantes, cellulis plerumque 15—20 \cong 5—7 μ . Hyphopodia alternata vel unilaterialia, continua, digitata, integra vel lenissime irregularia, 10—15 \cong 5—7 μ . Setae myceliales laxe dispersae, rectae vel leniter flexuosae, simplices, obtusae, opace atrobrunneae, leves, —130 \cong 7—8 μ . Perithecia numerosa, atra, globosa, breviter stipitata, circa 80 μ diam. et alt., sursum lenissime papillata, poro apicali rotundato pertusa; paries unistratosus, parenchymaticus, cellulis angulosis 8—12 μ diam. Asci modice numerosi, aparaphysati, in successio maturescenti, saccati vel ellipsoidei, apice rotundati, sessili, tenuiter tunicati, 8-spori, —50 \cong 20 μ . Sporae multi-seriatae vel conglobatae, oblongae, obtusae, 1-septatae, leniter constrictae, leves, 18—20 \cong 7 μ , brunnescentes, cellulis subaequalibus.

Hab. in foliis *Strychni angolensis*, Mpese, Congo Belge, V a n d e r y s t 38848 (typus), 38852, 38853, 38854, in Herb. Jard. Bot. Bruxelles.

(583) **Balladynopsis vanderystii** Hansf., sp. n.

Plagulae epiphyllae, usque ad 1 mm. diam., vel numerosae et late confluentes, subvelutinae. Hyphae dilute brunneae, subrectae vel flexuosae, oppositae vel irregulariter ramosae, subdense reticulatae, cellulis plerumque 10—15 \cong 4—6 μ . Hyphopodia alternata vel unilaterialia, continua, subglobosa, integra vel leniter angulosa, hyphis concolorata, 5—7 μ diam. Conidiophora hyphopodiis consimilia, sed leniter majores et obscuriores, usque ad 10 μ diam., sursum convexa vel brevissime cylindracea et conidium singulum ferentia. Conidia obclavata, sursum ad apicem obtusam attenuata, deorsum rotundata et basi hilo truncato atro praedita, transverse 6—7-septata, recta vel curvula, atrobrunnea, usque ad 130 \cong 12—14 μ . Perithecia in hyphis mycelii sessilia, subglobosa, atro-brunnea, 60—100 μ diam.; paries unistratosus, parenchymaticus, cellulis angulosis, 8—15 μ diam., sursum setis 2—6, rectis vel flexuosis, atro-olivaceis, 1—2-septatis, obtusis, usque ad 100 \cong 6 μ , ornatus. Asci 6—12, basali, erecti, sessili, subglobosi vel ellipsoidei, tenuiter tunicati, 8-spori, aparaphysati, 40—60 \cong 25—30 μ . Sporae brunnescentes, oblongae, obtusae, leves, 1-septatae, leniter constrictae, 19—22 \cong 9—11 μ , cellula superiore saepe leniter crassiore brevioraque.

Hab. in foliis Rubiacearum spec. indet., Kisanu, Congo Belge, V a n d e r y s t 32972, typus in Herb. Jard. Bot. Bruxelles.

This differs from all other species of the genus in that the "mycelial setae" regularly become detached from the basal cell ("conidiophore") as conidia.

(584) **Schiffnerula lisianthi** Hansf., sp. n.

Plagulae epiphyllae, tenues, leves, aegre perspicuae, 1—2 mm. diam. Hyphae dilutissime brunneae, subrectae vel leniter flexuosae, irregulariter ramosae, laxae reticulatae, cellulis plerumque 15—20 \Rightarrow 4—5 μ . Hyphopodia alternata, hemisphaerica, integra, continua, 6—9 \Rightarrow 6—7 μ . Perithecia numerosa, lateralia, brevissime stipitata, brunneola, subglobosa, usque ad 40 μ diam. et alt.; paries unistratosus, parenchymaticus, mox mucoso-diffluens. Asci 1—2, globosi, sessiles, tenuiter tunicati, 30—35 μ diam., 4—8-sporei, aparaphysati. Sporae conglobatae, hyalinae, oblongae, obtusae, 1-septatae, lenissime constrictae, leves, 15—18 \Rightarrow 7—8 μ , cellulis subaequalibus vel superiore brevior latioreque, demum brunnescentes. Conidia in ramulis lateralibus brevibus mycelii efformata, singula, fusioidea utrinque rotundata, curvula, 3-septata, non vel lenissime constricta, levia, 45—55 \Rightarrow 7—8 μ , brunneola vel subhyalina.

Hab. in foliis *Lisianthi grandiflori*, Wismar, British Guiana, S t e v e n s 316, typus in Herb. Farlow; in foliis *Chelonanthi chelonoidis* Tumatumari, British Guiana, S t e v e n s 36 p. p.

In both specimens this fungus occurs mixed with and often penetrating the colonies of *Meliola lisianthi* Stev. The conidia are much narrower and more elongate than those of most species of the genus, and appear to be formed in separate colonies from the perithecia; they germinate to give colonies bearing perithecia.

(585) **Schiffnerula vaccinii** Hansf., sp. n.

Plagulae amphigenae, densae, nigrae, leves, usque ad 2 mm. diam. vel confluentes. Hyphae brunneae, subrectae, irregulariter ramosae, dense reticulatae, cellulis plerumque circa 15 \Rightarrow 6 μ . Hyphopodia alternata, hemisphaerica, subglobosa vel ovata, integra, continua, 9—12 \Rightarrow 8—9 μ . Perithecia stipitata, globosa, usque ad 80 μ diam.; paries unistratosus, parenchymaticus, brunneus, demum mucoso-diffluens. Asci 2—5, aparaphysati, globosi, sessiles, tenuiter tunicati, 8-sporei, 40—50 μ diam. Sporae conglobatae, oblongae, obtusae, 1-septatae, constrictae, leves, atrobunneae, 21—24 \Rightarrow 12—13 μ . cellula superiore saepe leniter crassiore.

Hab. in foliis *Vaccinii reticulati*, Kilauea, Hawaii, S t e v e n s 821 p. p., typus in Herb. Univ. Illinois 4086.

The colonies occur on the leaves mixed with those of **Asteridiella exilis** (Syd.) Hansf., comb n. = *Irene exilis* (Syd.) Stev. = *Irenina exilis* (Syd.) Stev. = *Meliola exilis* Syd., as well as with much rarer colonies of *Meliola vaccinii* Stev.

(586) **Amazonia alyxiae** Hansf., sp. n.

Plagulae amphigenae, usque ad 1 mm. diam., densae, leves. Hyphae brunneae, subrectae vel leniter undulatae, alternatim vel irregulariter acuteque ramosae, dense radianto-reticulatae, subsolidae, cellulis plerumque $10-18 \approx 6-7 \mu$. Hyphopodia capitata alternata, antrorsa, recta vel curvula, $20-28 \mu$ longa; cellula basali cylindracea vel cuneata, $4-9 \mu$ longa; cellula apicali oblonga vel clavulata, obtusa, integra, $15-21 \approx 7-10 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata, ampullacea, $18-23 \approx 7-8 \mu$. Perithecia 1-3 in centro plagularum, saepe connata, orbiculata, radiata, atra, non vel lenissime fimbriata, usque ad 400μ diam. Sporae oblongae vel subellipsoideae, obtusae, atrobunneae, 4-septatae, constrictae, $40-47 \approx 18-20 \mu$.

Hab. in foliis *Alyxiae olivaeformis*, Hawaii, Stevens 239 (typus in Herb. Univ. Illinois 3585).

(587) **Amazonia clermontiae** Hansf., sp. n.

Plagulae amphigenae, dispersae vel subinde confluentes, usque ad 1 mm. diam., densae, leves. Hyphae brunneae, subrectae vel undulatae, alternatim vel irregulariter acuteque ramosae, dense radianto-reticulatae, cellulis plerumque $10-15 \approx 6-7 \mu$. Hyphopodia capitata alternata, antrorsa, recta vel curvula, $16-23 \mu$ longa; cellula basali cuneata, $3-10 \mu$ longa; cellula apicali subglobosa vel oblongo-piriformi, integra, $11-15 \approx 8-11 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata, ampullacea, $16-20 \approx 7-8 \mu$. Perithecia singula in centro plagularum, orbicularia, radiata, atrobunnea, levia, usque ad 350μ diam., margine non vel leniter fimbriata. Sporae atrobunneae, oblongae vel ellipsoideae, obtusae, 4-septatae, constrictae, $39-44 \approx 17-20 \mu$.

Hab. in foliis *Clermontiae multiflorae*, Hawaii, Stevens 329 (typus in Herb. Univ. Illinois 3612), 330.

(588) *Amazonia psychotriae* (P. Henn.) Theiss. var. **labordiae** Hansf. var. n.

Plagulae epiphyllae, usque ad 0.5 mm. diam., leves, tenues. Hyphae brunneae, subrectae vel undulatae, irregulariter acuteque ramosae, laxe radiantes, cellulis plerumque $10-15 \approx 6 \mu$. Hyphopodia capitata alternata, antrorsa, recta vel curvula, $15-20 \mu$ longa; cellula basali cuneata vel cylindracea, $3-6 \mu$ longa; cellula apicali ovata vel oblonga, integra, $11-15 \approx 7-10 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata, conoidea vel ampullacea, $15-19 \approx 7 \mu$. Perithecia singula in centro plagularum, atra, orbicularia, radiata, usque ad 270μ diam. et circa 100μ alt., margine non vel leniter fimbriata. Sporae oblongae vel subellipsoideae, atrobunneae, 4-septatae, constrictae, $35-39 \approx 15-18 \mu$.

Hab. in foliis *Labordiae* spec. indet., Hawaii, Stevens 611 (typus in Herb. Univ. Illinois 3587).

(589) *Amazonia psychotriae* (P. Henn.) Theiss., var. **Straussiae** Hansf., var. n.

Plagulae epiphyllae, usque ad 1 mm. diam., leves, tenues vel subdensae. Hyphae brunneae, leniter undulatae, alternatim acuteque ramosae, laxae vel subdense radiato-reticulatae, cellulis plerumque 15—20 \Rightarrow 5—7 μ . Hyphopodia capitata alternata, antrorsa, recta vel sursum leniter recurvata, 15—20 μ longa; cellula basali cuneata, 3—6 μ longa; cellula apicali oblonga vel subclavata, integra, obtusa, 10—15 \Rightarrow 6—8 μ . Hyphopodia mucronata illis capitatis commixta, alternata, conoidea vel ampullacea, 15—19 \Rightarrow 6—7 μ . Perithecia dispersa vel in centro plagularum subaggregata, radiata, usque ad 350 μ diam., levia, margine non vel leniter fimbriata. Sporae subellipsoideae, obtusae, 4-septatae, fortiter constrictae, atrobrunneae, 37—43 \Rightarrow 16—18 \Rightarrow 11—12 μ .

Hab. in foliis *Straussiae marinianae*, Hawaii, Stevens 244 (typus in Herb. Univ. Illinois 3591); in foliis *S. hawaiiensis*, Hawaii, Stevens 205; in foliis *S. spp.*, Hawaii, Stevens 442, 530.

The general appearance of the mycelium is very different from that of the type of the species, in that the capitate hyphopodia are elongate and the head cells narrower; in the type the latter are almost globose.

(590) **Amazonia scaevolae** Hansf., sp. n.

Plagulae amphigenae, densae, leves. Hyphae brunneae, undulatae vel tortuosae, oppositae vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque 10—15 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, antrorsa vel patentia, 13—18 μ longa; cellula basali cuneata, 3—7 μ longa; cellula apicali globosa vel piriformi, integra, 9—13 \Rightarrow 8—10 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, ampullacea vel conoidea, 15—20 \Rightarrow 6—7 μ . Perithecia singula vel 2—3-aggregata in centro plagularum, saepe lateraliter connata, orbicularia, sursum radiata, margine leniter fimbriata, atrobrunnea, usque ad 330 μ diam. Sporae atrobrunneae, oblongae vel ellipsoideae, obtusae, 4-septatae, constrictae, 33—38 \Rightarrow 15—17 \Rightarrow 11—12 μ .

Hab. in foliis *Scaevolae* sp., Hawaii, Stevens 634 (typus in Herb. Univ. Illinois), 640.

(591) *Amazonia stevensii* Hansf.

Since describing this species the author has had the pleasure of making a complete examination of all collections on *Perrottetia sandwicensis* in the late Prof. F. L. Stevens' herbarium, with the result that certain emendations are required. In place of the two species, *Actinodothis perrottetiae* and *Amazonia perrottetiae* originally described by Stevens from these specimens, it was found that four species were represented in them and often as many as three of these occur mixed on the same leaf. All have spores almost indistinguishable from each other, but the colonies and method of peri-

thecial development are very different. These four species are included in the present paper as:

- (a) *Amazonia stevensii* Hansf.
 - (b) *Asteridiella perrottetiae* (Stev.) Hansf.
 - (c) *Appendiculella kalalauensis* Hansf.
 - (d) *Asteridiella waimeana* Hansf.
- (a) *Amazonia stevensii* Hansf., emend.

Colonies amphigenous, to 5 mm. diam., solid, crustose, smooth or becoming slightly elevated over the perithecia, margin slightly crenulate. Hyphae substraight to undulate, branching alternate or irregular, acute, densely radiating and becoming solid, especially toward the edge of the colony, where few or no hyphopodia occur, cells mostly $15-25 \cong 7-8 \mu$. Capitulate hyphopodia alternate, antrorse, straight or bent, $20-23 \mu$ long; stalk cell cuneate to cylindrical, $4-15 \mu$ long; head cell versiform, irregularly lobate, $15-24 \cong 11-23 \mu$. Mucronate hyphopodia not seen. Perithecia formed and maturing beneath the mycelial pellicle, which covers each as a solid radiate plate without definite margin; more or less connate laterally, each surrounded by a thin subhyaline wall $10-15 \mu$ thick below and at sides, opening at centre of vertex by a definite pore lined by short hyaline periphyses, but appearing from above as an irregular, often stellate aperture in the overlying mycelium; up to 400μ diam. and about 120μ high. Spores dark brown, oblong, obtuse, 3-septate, constricted, $42-48 \cong 15-18 \mu$, often slightly bent.

The hyphopodia give rise each to a fine ($2-3 \mu$) pale brown filament penetrating the cuticle and passing through the dead epidermal cell, which is filled with a brown gum, and through other cells to extend deep into the mesophyll, each forming a single terminal haustorium in one host cell; these filaments are continuous, unbranched, constricted wherever passing through a host cell wall. They are in no sense a true internal mycelium, and each is independent of all others.

- (b) ***Asteridiella perrottetiae*** (Stev.) Hansf., comb. n.

Syn.: *Amazonia perrottetiae* Stev., Bishop Museum Bull. **19**: 47. 1925.

Irene perrottetiae (Stev.) Hansf., Sydowia **9**: 31. 1955, pro parte.

Colonies amphigenous, thin, to 5 mm. diam., smooth. Hyphae substraight to slightly undulate, branching alternate or irregular at acute angles, loosely reticulate, cells mostly $20-30 \cong 6-8 \mu$. Capitulate hyphopodia alternate, antrorse, straight or bent, $20-27 \mu$ long; stalk cell cuneate to cylindrical, $4-10 \mu$ long; head cell versiform, from rounded-angulose to deeply and irregularly stellate-lobate, $12-19 \cong 10-20 \mu$. Mucronate hyphopodia mixed with capitulate, opposite or mostly alternate, ampulliform, $13-20 \cong 6-7 \mu$, fairly

numerous. Perithecia loosely scattered, few, very easily secedent, each originating from a solid radiate basal disc, globose, rough, to 230 μ diam.; surface cells obtusely conoid, to 15 μ high. Spores bent cylindric, obtuse, 3-septate, constricted, 37—46 \Rightarrow 13—15 μ .

The type is Stevens 717 a, of which there is only a single slide prepared by Stevens in his collection, hence this slide must fix the type; the same species occurs on other specimens; e. g. Stevens 702 and 1159, often mixed with one or more of the others mentioned here.

(c) **Appendiculella kalalauensis** Hansf., sp. n.

Syn.: *Irene perrottetiae* (Stev.) Hansf., pro parte.

Plagulae plerumque hypophyllae, densae, leves, usque ad 0.5 mm. diam. Hyphae brunneae, subrectae, alternatim vel irregulariter ramosae, dense reticulatae et subsolidae, cellulis plerumque 10—15 \Rightarrow 7 μ . Hyphopodia capitata alternata vel usque ad 2% opposita, dense stipata, recta, 18—28 μ longa; cellula basali cylindracea vel cuneata, 5—10 μ longa; cellula apicali irregulariter stellatim lobata, 12—22 \Rightarrow 11—20 μ . Hyphopodia mucronata illis capitatis commixta, pauca, alternata, ampullacea, 14—18 \Rightarrow 7—8 μ . Perithecia singula (raro 2). globosa, atra, usque ad 220 μ diam.; appendices 5—12, radiant-erectae, cylindraceae vel conoideae, obtusae, apice curvatae vel uncinatae, dilute brunneae, continuae, leves, tenuiter tunicatae, transverse striatae, usque ad 100 μ longae et basi ad 28 μ cr. Sporae cylindraceae, obtusae, curvulae, 3-septatae, constrictae, 37—42 \Rightarrow 15—17 μ , atrobrunneae.

Hab. in foliis *Perrottetiae sandwicensis*, Hawaii, Stevens 474 p. p., typus in Herb. Univ. Illinois 3562, Stevens 1055 p. p., 1159 p.p., etc.

The dense colonies were previously mistaken by Stevens and the present writer as being merely very young stages of *Amazonia stevensii*, but the material now available has shown that they do not develop further, and bear the perithecia now described.

(d) **Asteridiella waimeana** Hansf., sp. n.

Plagulae amphigenae, densae, crustosae, usque ad 1 mm. diam., leves, margine solidae, crenulatae. Hyphae subrectae, alternatim vel irregulariter acuteque ramosae, dense radiantes, cellulis plerumque 10—15 \Rightarrow 7—9 μ . Hyphopodia capitata alternata, antrorsa, recta vel curvata, 17—28 μ longa; cellula basali cuneata, 3—9 μ longa; cellula apicali versiformi, rotundato-angulosa vel irregulariter stellatim lobata, 10—19 \Rightarrow 10—18 μ , saepius inter hyphas mycelii compressa. Hyphopodia mucronata non visa. Perithecia pauca, supra pelliculam mycelii evoluta, globosa, atra, verrucosa, usque ad 400 μ diam., cellulis parietis rotundatis vel obtuse conoideis, usque ad 20 μ alt. Sporae atrobrunneae, cylindraceae, obtusae, curvulae, 3-septatae, constrictae, 38—46 \Rightarrow 16—19 μ .

Hab. in foliis *Perrottetiae sandwicensis*, Waimea, Hawaii, Stevens 1055 p. p., typus in Herb. Univ. Illinois 3524.

In the absence of the perithecia the colonies are identical with those of *Amazonia stevensii*, save that they do not reach the full size of that species.

(592) **Amazonia wilkstroemiae** Hansf., sp. n.

Plagulae amphigenae, usque ad 1 mm. diam. vel numerosae et confluentes, leves, densae. Hyphae brunneae, alternatim vel irregulariter ramosae, dense radianto-reticulatae, cellulis plerumque 10—15 \cong 6—8 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvula, 15—22 μ longa; cellula basali cuneata, 3—8 μ longa; cellula apicali ovata vel piriformi, integra, 11—16 \cong 8—11 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, conoidea vel ampullacea, 17—22 \cong 6—8 μ . Perithecia 1—3 in centro plagularum aggregata, saepe lateraliter connata, orbicularia, radiata, usque ad 400 μ diam., margine lenissime fimbriata. Sporae atrobrunneae, oblongae vel ellipsoideae, obtusae, 4-septatae, constrictae, 37—44 \cong 17—19 μ .

Hab. in foliis *Wikstroemiae foetidae*, Hawaii, Stevens 635 (typus in Herb. Univ. Illinois 3578); in foliis *W. phillyriaefoliae*, Hawaii, Stevens 629; in *W. elongatae*, Hawaii, Stevens 610; in *W.* sp., Hawaii, Stevens 479, 2148.

(593) **Irenopsis casearina** Hansf., sp. n.

Plagulae hypophyllae, usque ad 3 mm. diam., tenues, aegre perspicuae. Hyphae tortuosae, inter pilis folii penetrantes, oppositae vel irregulariter ramosae, demum subdense reticulatae, cellulis plerumque 20—30 \cong 7—8 μ . Hyphopodia capitata alternata, subantrorsa, varie curvata, 16—25 μ longa; cellula basali cylindracea vel cuneata, 3—10 μ longa; cellula apicali oblonga vel irregulari, saepe curvata vel sinuosa, rotundato-angulosa vel sublobata, 12—17 \cong 8—15 μ . Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, 13—17 \cong 7—9 μ . Setae myceliales nullae. Perithecia laxè dispersa, atra, globosa, verrucosa, usque ad 210 μ diam., sursum setis 4—8 ornata; setae erecto-patentes, atrobrunneae, subrectae, simplices, continuae, usque ad 140 \cong 8—9 μ , apice curvatae vel contortae, obtusae, extus parce atrogranulosae, paries 1.5—2 μ cr. Sporae atrobrunneae, ellipsoideae, obtusae, 4-septatae, constrictae, 42—50 \cong 20—24 \cong 13—14 μ .

Hab. in foliis *Caseariae arboreae*, Monte de Oro, Porto Rico, Stevens 5709, typus in Herb. Univ. Illinois 5879.

(594) **Irenopsis gustaviae** Hansf., sp. n.

Plagulae hypophyllae, tenues vel densae, usque ad 3 mm. diam. vel confluentes, leves. Hyphae brunneae, subrectae vel undulatae, oppositae lateque ramosae, dense reticulatae, cellulis plerumque

15—30 \Rightarrow 7—8 μ . Hyphopodia capitata alternata vel opposita, antrorsa, recta, 15—22 μ longa; cellula basali cylindracea vel cuneata, 3—7 μ longa; cellula apicali globosa, integra, 11—16 \Rightarrow 10—13 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, pauca, ampullacea, 18—22 \Rightarrow 7—9 μ . Setae myceliales nullae. Perithecia pauca, dispersa, globosa, atra, usque ad 180 μ diam.; setae peritheciales 0—5, suberectae, deorsum rectae, simplices, obtusae, 2—3-septatae, usque ad 130 \Rightarrow 10 μ , sursum attenuatae usque ad 4—6 μ , apice hamatae vel uncinatae, granulosae. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 41—47 \Rightarrow 16—17 \Rightarrow 13—14 μ .

Hab. in foliis *Gustaviae angustae*, Coverden, British Guiana, Stevens 722 (typus in Herb. Univ. Illinois 5277).

(595) *Irenopsis lagerstroemiae* Batista & Nascimento, var. **major** Hansf., var. n.

Plagulae semper epiphyllae, tenuissimae, aegre perspicuae, 0.5—1.0 mm. diam. Hyphae brunneae, subrectae vel flexuosae, opposite vel irregulariter ramosae, laxe reticulatae, cellulis plerumque 30—40 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvula, 16—22 μ longa; cellula basali cylindracea vel cuneata, 5—9 μ longa; cellula apicali subglobosa vel ovata, integra, 10—15 \Rightarrow 10—13 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 16—22 \Rightarrow 7—9 μ . Perithecia pauca, dispersa, atra, globosa, verrucosa, —170 μ diam., cellulis parietis obtuse conoideis, usque ad 13 μ alt.; setae peritheciales 0—3, erecto-patentes, subrectae vel sursum curvulate, simplices, obtusae, brunneae, leves, 1—2-septatae, —125 \Rightarrow 6—7 μ . Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 35—39 \Rightarrow 15—17 μ .

Hab. in foliis *Lagerstroemiae indicae*, Recife, Brazil, IMUR 5043 p. p., leg. A. C. Batista.

In the type collection this appears to occur on separate and older leaves than the type of the species, from which it differs in much smaller and more scattered colonies, always on the upper surface, in larger hyphopodia and larger spores. No intermediate forms were found.

(596) *Irenopsis rollandiae* Hansf., sp. n.

Plagulae hypophyllae, usque ad 3 mm. diam. vel confluentes leves. Hyphae brunneae, tortuosae, irregulariter ramosae, subdense reticulatae sub tomentum folii, cellulis plerumque 20—35 \Rightarrow 5—7 μ . Hyphopodia capitata alternata, patentia, plerumque curvata, 17—33 μ longa; cellula basali cylindracea vel cuneata, saepe curvata, 4—22 μ longa; cellula apicali ovata vel clavata, integra, 12—17 \Rightarrow 8—11 μ . Setae myceliales nullae. Perithecia dispersa, atra, globosa, verrucosa, usque ad 225 μ diam.; setae peritheciales 0—6, erecto-patentes, flexuosae, simplices, obtusae, leves, 2—3-septatae, usque ad 110 \Rightarrow 7 μ ,

saepius sursum uncinatae vel contortae. Sporae atrobrunneae, ellipsoideae, obtusae, 4-septatae, leniter constrictae, 37—48 \cong 15—17 μ .

Hab. in foliis *Rollandiae argenteae*, Tumatumari, British Guiana, Stevens 55 a, typus in Herb. Univ. Illinois 3807; in foliis *R. fruticosae*, loc. cit., Stevens 55.

(597) *Asteridiella atricha* (Speg.) Hansf., var. **major** Hansf., var. n.

Plagulae amphigenae, tenues, leves, usque ad 2 mm. diam. Hyphae brunneae, subrectae, oppositae, subrectangulariterque ramosae, laxe reticulatae, cellulis plerumque 15—20 \cong 6—7 μ . Hyphopodia capitata alternata, patentia, recta vel curvata, 17—24 μ longa; cellula basali cylindracea, 3—7 μ longa; cellula apicali cylindracea vel longe ovata, integra, apice obtuse vel attenuato-rotundata, integra, recta vel curvata, 11—17 \cong 7—9 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 17—22 \cong 7—8 μ . Setae myceliales nullae. Perithecia dispersa, globosa, atra, rugosa, usque ad 180 μ diam., cellulis parietis obtuse conoideis vel submillimetricis, usque ad 30 μ alt. Sporae oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 40—47 \cong 16—19 \cong 14 μ .

Hab. in foliis *Myrciae splendentis*, Aibonito, Porto Rico, F. L. Stevens 8465 (typus in Herb. Univ. Illinois 5225).

(598) *Asteridiella chloranthi* Stev. ex Hansf., sp. n.

Plagulae epiphyllae, tenues, usque ad 12 mm. diam. vel late confluentes, Hyphae brunneae, subrectae vel undulatae, oppositae vel irregulariter lateque ramosae, laxe reticulatae, cellulis plerumque 20—30 \cong 7—8 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvata, 18—25 μ longa, cellula basali cuneata, 4—8 μ longa; cellula apicali clavata, plerumque rotundato-3-angulosa vel sublobata, 13—17 \cong 11—17 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea 16—20 \cong 7—9 μ . Setae nullae. Perithecia dispersa, atra, globosa, immatura. Sporae atrobrunneae, subellipsoideae, obtusae, 4-septatae, constrictae, 37—45 \cong 16—17 μ .

Hab. in foliis *Chloranthi officinalis*, Mt. Maquiling, Laguna, Luzon, Philippine Is., Stevens 1851 (typus in Herb. Univ. Illinois).

Most colonies are heavily parasitised by *Arthrobotryum* and other fungi.

(599) *Asteridiella coprosmae* Hansf., sp. n.

Plagulae plerumque hypophyllae, usque ad 2 mm. diam. vel confluentes, tenues, leves. Hyphae brunneae, subrectae vel tortuosae, alternatim vel irregulariter acuteque ramosae, laxe intertextoreticulatae, cellulis plerumque 30—40 \cong 7—8 μ . Hyphopodia capitata alternata, antrorsa, recta vel curvata, 20—29 μ longa; cellula basali cuneata, 5—10 μ longa; cellula apicali ovata vel piriformi, integra, 15—20 \cong 9—14 μ . Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, 16—20 \cong 8—9 μ . Perithecia laxe

dispersa, atra, globosa, usque ad 240 μ diam., cellulis parietis conoideis, usque ad 24 μ alt. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 42—47 \Rightarrow 17—20 \Rightarrow 14 μ .

Hab. in foliis *Coprosmae* sp., Hawaii, Stevens 456 (typus in Herb. Univ. Illinois 3570), 444, 437 p. p., 523, 458.

(600) ***Asteridiella hypelates*** Hansf., sp. n.

Plagulae amphigenae, usque ad 1 mm. diam., densae, leves. Hyphae brunneae, subrectae vel undulatae, opposite vel irregulariter ramosae, dense reticulatae et subsolidae, cellulis plerumque 10—18 \Rightarrow 7—8 μ . Hyphopodia capitata alternata, subantrorsa vel patentia, recta vel curvata, 18—25 μ longa; cellula basali cuneata, 4—9 μ longa; cellula apicali oblonga vel piriformi, integra vel crenulata, subinde sublobata, 13—18 \Rightarrow 9—12 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 16—26 \Rightarrow 7—9 μ . Setae nullae. Perithecia in centro plagularum subaggregata, atra, globosa, usque ad 230 μ diam., cellulis parietis obtuse rotundatis vel conoideis, usque ad 15 μ alt. Sporae ellipsoideae, obtusae, 4-septatae, constrictae, 40—46 \Rightarrow 18—20 μ , atrobrunneae.

Hab. in foliis *Hypelates trifoliatae*, Cuba, Plantae Cubenses Wrightianae 2171 in Herb. Univ. Illinois 3963, typus; Mona I., Porto Rico, Britton 1768 a (ILL 3962); New Providence, Bahamas, Wilson 8246 (ILL. 3961).

(601) ***Asteridiella palicoureae*** Hansf., sp. n.

Plagulae amphigenae, usque ad 1 mm. diam., densae, leves. Hyphae brunneae, undulatae vel tortuosae, opposite vel irregulariter ramosae, dense reticulatae, subsolidae, cellulis plerumque 12—20 \Rightarrow 7—10 μ . Hyphopodia capitata alternata, patentia, recta vel curvata, 20—28 μ longa; cellula basali cylindracea vel cuneata, 3—9 μ longa; cellula apicali globosa vel piriformi, integra vel angulosa, 15—20 \Rightarrow 10—18 μ . Hyphopodia mucronata illis capitatis commixta, alternata, ampullacea, 18—22 \Rightarrow 8—9 μ . Setae nullae. Perithecia pauca, atra, globosa, verucosa, usque ad 160 μ diam. Sporae ellipsoideae, obtusae, 4-septatae, fortiter constrictae, atrobrunneae, 46—54 \Rightarrow 20—23 \Rightarrow 15—16 μ .

Hab. in foliis *Palicoureae*, sp., Porto Rico, Stevens 1070 a, typus in Herb. Univ. Illinois 4076.

(602) ***Asteridiella podocarp*** (Doidge) Hansf., var. ***portoricensis*** Hansf., var. n.

Plagulae plerumque epiphyllae, usque ad 4 mm. diam. vel late confluentes, subdensae, leves. Hyphae brunneae, opposite lateque ramosae, dense reticulato-intertextae, cellulis plerumque 25—40 \Rightarrow 7—8 μ . Hyphopodia capitata alternata, subantrorsa vel patentia, recta vel curvata, 18—24 μ longa; cellula basali cylindracea vel cuneata, 4—7 μ longa; cellula apicali subglobosa vel piriformi, integra, 13—17

$\cong 11-15 \mu$. Hyphopodia mucronata non visa. Perithecia laxè dispersa, atra, globosa, verrucosa, -170μ diam. (immatura). Sporae atrobrunneae, ellipsoideae, obtusae, curvulae, 3-septatae, constrictae, $44-54 \cong 17-20 \mu$.

Hab. in foliis *Podocarpì coriacei*, Porto Rico, Stevens 6774, typus in Herb. Univ. Illinois 4220.

The mycelium is peculiar in that very many secondary hyphae are devoid of hyphopodia. There is some doubt as to the correct genus for this collection; all perithecia seen intact were immature, but the remains of two broken perithecia showed 1-3 setae arising from the wall: straight, brown, obtuse, septate, to $100 \cong 6-7 \mu$, smooth. Further collections may show that this form belongs to *Irenopsis*, but for the present it is assigned as above, in view of the very close similarity of the spores with the South African species, having end cells small, and in young spores paler than the central cells.

(603) ***Asteridiella pygei*** Hansf., sp. n.

Plagulae epiphyllae, densae, leves, usque ad 2 mm. diam. Hyphae brunneae, subrectae, oppositè acutè ramosae, dense radiato-reticulatae, cellulis plerumque $30-40 \cong 7-8 \mu$. Hyphopodia capitata alternata, subantrorsa, recta vel curvata, $18-30 \mu$ longa; cellula basali cuneata, $4-9 \mu$ long; cellula apicali versiformi, irregulariter rotundato-angulosa vel lobata, saepe curvata, $14-21 \cong 11-20 \mu$. Hyphopodia mucronata pauca, illis capitatis commixta, alternata, ampullacea, $17-22 \cong 7-9 \mu$. Setae nullae. Perithecia in centro plagularum aggregata, atra-globosa, usque ad 290μ diam., cellulis parietis conoideis, obtusis, usque ad 30μ alt. Sporae atrobrunneae, ellipsoideae, curvatae, obtusae, 3-septatae, constrictae, $46-53 \cong 17-20 \mu$.

Hab. in foliis *Pygei afrìcani*, Woodbush, Transvaal, South Africa. Doidge 1761, typus in Herb. Univ. Illinois 3754.

(604) ***Asteridiella simarubae*** Hansf., sp. n.

Plagulae epiphyllae, usque ad 3 mm. diam. vel late confluentes, tenues, leves. Hyphae brunneae, subrectae, oppositè lateque ramosae, cellulis plerumque $25-35 \cong 7-8 \mu$, laxè vel subdense reticulatae. Hyphopodia capitata alternata, patentia, recta vel curvata, $20-27 \mu$ longa; cellula basali cylindracea vel cuneata, $3-9 \mu$ longa; cellula apicali oblonga vel clavata, integra, rotundato-angulosa vel sublobata, recta vel curvata, $15-20 \cong 8-12 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, conoidea vel ampullacea, $20-25 \cong 8-9 \mu$. Setae nullae. Perithecia in centro plagularum aggregata, atra, globosa, usque ad 230μ diam., cellulis parietis obtuse conoideis vel mammillatibus, usque ad 20μ alt. Sporae atrobrunneae, subellipsoideae, obtusae, 4-septatae, constrictae, $39-46 \cong 17-20 \mu$.

Hab. in foliis *Simarubae tulae*, Porto Rico, Stevens 7588, typus in Herb. Univ. Illinois 3965.

(605) *Asteridiella solanacearum* Hansf., var. **discopodii**
Hansf., var. n.

Plagulae epiphyllae, usque ad 1 mm. diam., tenues vel densae, leves. Hyphae brunneae, tortuosae vel undulatae, alternatim vel irregulariter ramosae, laxae vel dense reticulatae, cellulis plerumque 15—30 \cong 6—7 μ . Hyphopodia capitata alternata vel usque ad 10% opposita, saepius curvata, antrorsa vel retrorsa, 15—25 μ longa; cellula basali cylindracea vel cuneata, 3—8 μ longa; cellula apicali subglobosa, ovata vel oblonga, integra, 11—18 \cong 10—14 μ . Hyphopodia mucronata in hyphis distinctis evoluta, alternata vel opposita, ampullacea, 14—22 \cong 6—7 μ . Setae nullae. Perithecia in centro plagularum aggregata, atra, globosa, verrucosa, usque ad 270 μ diam., cellulis parietis obtuse conoideis, rectis vel curvatis, usque ad 28 μ alt. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 33—38 \cong 13—15 μ .

Hab. in foliis *Discopodii penninervi*, Kahuzi-Biega, Kivu, Congo Belge, Hendrickx 3623.

(606) *Asteridiella vegabajensis* Hansf., sp. n.

Plagulae hypophyllae, tenues, usque ad 1 mm. diam. vel confluentes, leves. Hypae brunneae, tortuosae vel undulatae, irregulariter acuteque ramosae, laxae intertexto-reticulatae, cellulis plerumque 25—30 \cong 5—7 μ . Hyphopodia capitata alternata, antrorsa vel patentia curvata, 15—25 μ longa; cellula basali cuneata, 3—11 μ longa; cellula apicali piriformi vel irregulariter rotundato-angulosa, saepe curvata, 12—15 \cong 10—16 μ . Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, 18—23 \cong 6—8 μ , collo elongato. Perithecia in centro plagularum dense aggregata, atra, globosa, verrucosa, usque ad 260 μ diam., cellulis parietis obtuse conoideis vel mammillatibus, usque ad 25 μ alt. Sporae oblongae, obtusae, 4-septatae, constrictae, atrobrunneae, 37—43 \cong 13—15 μ .

Hab. in foliis *Psychotriae* spec., Vega Baja, Porto Rico, Stevens 516, typus in Herb. Univ. Illinois 4074.

(607) *Asteridiella voacangina* Hansf., sp. n.

Plagulae amphigenae, usque ad 4 mm. diam. vel late confluentes, leves densae, fortiter adhaerentes. Hyphae brunneae, subrectae vel undulatae, opposite vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque 15—20 \cong 6—7 μ . Hyphopodia capitata alternata, rarissime opposita, subantrorsa, recta vel curvula, 14—19 μ longa; cellula basali cuneata vel cylindracea, 3—6 μ longa; cellula apicali subglobosa vel piriformi, integra, 10—14 \cong 9—12 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 18—26 \cong 6—8 μ . Perithecia dispersa, atra, globosa, rugosa, usque ad 220 μ diam., cellulis parietibus obtuse conoideis, usque ad 30 μ alt. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 38—44 \cong 15—18 μ .

Hab. in foliis *Voacangae* spec., Mt. Binuang, Tayabas, Luzon, Philippines, Ramos & Edano in Phil. Bur. Sci. 28902, typus in Herb. Univ. Illinois 4284.

(608) **Meliola acristae** Hansf., sp. n.

Syn.: *M. furcata* Auct., non Leveille.

Plagulae epiphyllae atrae, tenues, subvelutinae, usque ad 3 mm. diam. Hyphae brunneae, subrectae vel undulatae, oppositae vel irregulariter lateque ramosae, laxae reticulatae, cellulis plerumque 25—30 \cong 6—7 μ . Hyphopodia capitata alternata, subantrorsa vel patientia, recta, 18—25 μ longa; cellula basali cylindracea, 3—10 μ longa; cellula apicali ovata, clavata vel subinde leniter rotundato-angulosa, raro irregulari, 11—17 \cong 9—14 μ . Hyphopodia mucronata pauca, illis capitatis commixta, oppositae vel alternatae, ampullaceae, 15—20 \cong 7—9 μ . Setae myceliales paucae vel numerosae, rectae, usque ad 200 \cong 8—10 μ , apice 1—3-dichotomae, ramis usque ad 40 μ longis, late divergentibus. Perithecia dispersa, atra, globosa, verrucosa, usque ad 200 μ diam. Sporae atrobunneae, ellipsoideae, obtusae, 4-septatae, constrictae, 39—46 \cong 17—19 μ .

Hab. in foliis *Acristae monticolae*, Porto Rico, Stevens 8303 a, typus, 5400.

This species has been collected on many different species of Palmae in various parts of the world, but would seem to be chiefly limited to the New World tropics. Previous authors have referred it to *M. furcata* Lev., but the type specimen of this species occurs only on *Cissus*, and all records on other families must be referred to other species of *Meliola*; those on palms belong either to the present species or to *M. palmicola* Wint.

(609) **Meliola arrabidaeae** Hansf., sp. n.

Plagulae epiphyllae, usque ad 3 mm. diam. vel confluentes, tenues. Hyphae undulate, oppositae vel irregulariter, acute vel late ramosae, laxae reticulatae vel demum subdense intertextae, cellulis plerumque 20—30 \cong 4.5—5.5 μ . Hyphopodia capitata alternata, patientia vel subantrorsa, recta vel curvula, 14—17 μ longa; cellula basali cylindracea vel cuneata, 3—5 μ longa; cellula apicali subglobosa, integra, apice obtusa, 10—12 \cong 8—11 μ . Hyphopodia mucronata illis capitatis commixta, oppositae vel alternatae, ampullaceae, 14—16 \cong 6—7 μ . Setae myceliales modice numerosae, dispersae, etiam juxta perithecia aggregatae, rectae vel leniter flexuosae, simplices, obtusae vel clavulatae, usque ad 220 \cong 5.5—7 μ . Perithecia dispersa, atra, globosa, leniter verrucosa, usque ad 155 μ diam. Sporae atrobunneae, cylindraceae, obtusae, 4-septatae, leniter constrictae, 27—32 \cong 10—12 μ .

Hab. in foliis *Arrabidaeae* sp. indet., Panama, Stevens 545, typus in Herb. Univ. Illinois. 5984.

(610) **Meliola batangasensis** Hansf., sp. n.Syn.: *Meliola homalii* Stev. in herb., non Hansf.

Plagulae hypophyllae, usque ad 4 mm. diam. vel confluentes, densae, velutinae. Hyphae atrobrunneae, subrectae vel undulatae, oppositae vel irregulariter acuteque ramosae, dense reticulatae, cellulis plerumque 15—25 \cong 7—9 μ . Hyphopodia capitata alternata, plus minusve antrorsa, recta vel curvata, 18—30 μ longa; cellula basali cylindracea vel cuneata, 4—10 μ longa; cellula apicali oblonga vel piriformi, integra vel sursum irregulariter rotundato-angulosa, raro sublobata, 12—20 \cong 10—17 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, ampullacea, 21—28 \cong 8—10 μ . Setae myceliales numerosae, dispersae, rectae, simplices, acutae, —450 \cong 11—14 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 230 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 52—64 \cong 21—25 \cong 16—19 μ .

Hab. in foliis *Homalii barandanae*, Batangas, Luzon, Philippine Is., R a m o s & E d a n o in PBS 22682 (typus in Herb. Univ. Illinois); in foliis *H. villariani*, Luzon, Philippines, PBS 22681.

This differs from *M. homalii* Hansf. from the Belgian Congo, in the setae, which in the latter are widely arcuate and obtuse.

(611) **Meliola biegensis** Hanf., sp. n.

Plagulae amphigenae, usque ad 2 mm. diam., densae, velutinae. Hyphae subrectae vel tortuosae, oppositae acuteque ramosae, dense reticulatae, brunneae, cellulis plerumque 15—25 \cong 6—7 μ . Hyphopodia capitata alternata vel opposita, antrorsa, recta vel curvata, 12—18 μ longa; cellula basali cylindracea, 2—6 μ longa; cellula apicali subglobosa vel piriformi, integra 10—14 \cong 8—12 μ . Hyphopodia mucronata pauca, illis capitatis, alternata vel opposita, ampullacea, 15—20 \cong 6—8 μ . Setae myceliales numerosae, dispersae, usque ad 320 μ alt., simplices, obtusae, sursum hamatae, curvatae vel irregulariter subtortuosae, rarius subrectae, deorsum 9—11 μ cr., sursum gradatim attenuatae. Perithecia dispersa, atra, globosa, verrucosa, —160 μ diam. Sporae atrobrunneae, cylindraceae, obtusae, 4-septatae, leniter constrictae, 47—56 \cong 13—15 \cong 12—13 μ , saepe inaequilatae.

Hab. in foliis *Maesae rufescentis*, Mt. Biega, Kivu, Congo Belge, H e n d r i c k x 3599.

(612) *Meliola bignoniacearum* Stev. var. **irregularis** Hansf. var. n.

Plagulae epiphyllae, subdensae, usque ad 1 mm. diam. Hyphae brunneae, undulatae vel tortuosae, oppositae vel irregulariter lateque ramosae, dense intertexto-reticulatae, cellulis plerumque 20—30 \cong 6 μ . Hyphopodia capitata alternata, patentia, saepe curvata, 17—24 μ longa; cellula basali cuneata vel cylindracea, 3—7 μ longa; cellula apicali oblongo-ovata, saepe curvata, plus minusve irregulariter rotundato-angulosa vel sublobata, 11—18 \cong 8—12 μ . Hyphopodia mucro-

nata illis capitatis commixta, alternata vel opposita, ampullacea, 17—22 \cong 7—8 μ . Setae myceliales paucae, dispersae, rectae, usque ad 250 \cong 6—7 μ , apice obtusae vel irregulariter 2—4-dentatae usque ad 7 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 150 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 31—36 \cong 12—15 μ .

Hab. in *Bignoniacearum* spec. indet., Rockstone, British Guiana, Stevens 249 p. p. (typus in Herb. Univ. Illinois 2762).

(613) *Meliola bignoniacearum* Stev. var. **tenuis** Hansf., var. n.

Plagulae plerumque hypophyllae, tenuissimae, aegre perspicuae, usque ad 3 mm. diam., vel confluentes. Hyphae brunneae, subrectae vel undulatae, opposite acuteque ramosae, laxe reticulatae, cellulis plerumque 20—40 \cong 5—6 μ . Hyphopodia capitata alternata vel usque ad 10% opposita, subantrorsa vel patentia, saepe curvata, 13—19 μ longa; cellula basali cylindracea, 3—6 μ longa, cellula apicali oblonga vel piriformi, integra, saepe curvata, 10—13 \cong 7—9 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 20—28 \cong 7—8 μ , collo elongato. Setae myceliales paucae, juxta perithecia aggregatae, rectae, usque ad 250 \cong 5—6 μ , apice simplices vel 2—3-dentatae usque ad 10 μ . Perithecia dispersa, atra, globosa, leniter verrucosa, usque ad 130 μ diam. Sporae atrobrunneae, obtusae, 4-septatae, constrictae, 28—33 \cong 9—13 μ .

Hab. in foliis *Bignoniacearum* spec. indet., Rockstone, British Guiana, Stevens 249 p. p. (typus in Herb. Univ. Illinois 4762).

(614) *Meliola buchaniae* Stev. ex Hansf., sp. n.

Plagulae amphigenae, densae, velutinae, usque ad 5 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel undulatae, opposite vel irregulariter lateque ramosae, laxe vel dense reticulatae, cellulis plerumque 30—50 \cong 7—9 μ . Hyphopodia capitata alternata, patentia vel subantrorsa, recta vel curvata, 35—48 μ longa; cellula basali cylindracea, 9—20 μ longa, cellula apicali oblonga, saepe curvata vel sinuosa, plerumque integra, 22—33 \cong 11—17 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea vel conoidea, 30—45 \cong 9—11 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae, simplices, acutae, usque ad 1800 \cong 11—12 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 250 μ diam. Sporae oblongae vel ellipsoideae, obtusae, 4-septatae, constrictae, atrobrunneae, 63—72 \cong 23—28 \cong 20—22 μ .

Hab. in foliis *Buchaniae nitidae*, Surigao, Mindanao, Philippine Is., Phil. Bur. Sci. 35905, typus, 34642 (in Herb. Univ. Illinois 4780, 4779).

(615) *Meliola canangae* Stev. ex Hansf., sp. n.

Plagulae epiphyllae, tenues, subvelutinae, usque ad 2 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel undulatae, opposite

lateque ramosae, dense reticulato-intertextae, cellulis plerumque 20—25 \cong 4.5—6 μ . Hyphopodia capitata alternata vel usque ad 15% opposita, subantrorsa vel patentia, saepe curvata, 10—14 μ longa; cellula basali cylindracea, 2—4 μ longa; cellula apicali subglobosa, integra, 8—11 \cong 7—8 μ . Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, 15—21 \cong 6—7 μ . Setae myceliales tenuiter dispersae, etiam juxta perithecia aggregatae, rectae, usque ad 230 \cong 8—9 μ , apice 2—4-dentatae usque ad 12 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 140 μ diam. Sporae oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, atrobrunneae, 33—39 \cong 13—15 \cong 11—12 μ .

Hab. in foliis *Canangae odoratae*, Basiad, Tayabas, Luzon, Philippines Is., Yates in Phil. Bur. Sci. 25685 (typus in Herb. Univ. Illinois 4872).

(616) **Meliola canariicola** Stev. ex Hansf., sp. n.

Plagulae amphigenae, densae, velutinae, usque ad 4 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel undulatae, alternatim vel irregulariter acuteque ramosae, dense reticulatae, cellulis plerumque 25—35 \cong 8—9 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvata, 35—45 μ longa; cellula basali cuneata 12—20 μ longa; cellula apicali oblonga vel clavata, irregulariter stellato-lobata vel rotundato-angulosa, versiformi, 22—30 \cong 16—24 μ . Hyphopodia mucronata illis capitatis commixta, alternata, conoidea vel ampullacea, 20—28 \cong 8—9 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, paucae vel numerosae, rectae vel sursum curvatae, non uncinatae, simplices, obtusae vel clavulatae, usque ad 300 \cong 9—10 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 190 μ diam.: setae peritheciales 0—8, erecto-patentes, rectae vel curvulae, obtusae vel clavulatae, leves, 2—4-septatae, usque ad 145 \cong 8 μ . Sporae oblongae, obtusae, 4-septatae, constrictae, atrobrunneae, 53—60 \cong 20—22 μ .

Hab. in foliis *Canarii* sp., Paracale, Camarinea, Luzon, Philippine Is., Ramos & Edano in Phil. Bur. Sci. 34009, (typus in Herb. Univ. Illinois 4871).

(617) *Meliola capensis* K. & C., var. **euphoriae** Hanlf., var. n.

Plagulae amphigenae, subdensae vel tenues, usque ad 3 mm. diam., subvelutinae. Hyphae brunneae, in epiphylo rectae, in hypophyllo tortuosae, opposite lateque ramosae, laxae vel subdense intertexto-reticulatae, cellulis plerumque 20—30 \cong 5—6 μ . Hyphopodia capitata opposita, subantrorsa, recta vel leniter recurvata, 13—17 μ longa; cellula basali cuneata, 2—4 μ longa; cellula apicali conoidea, apice attenuato-rotundata, integra, 10—14 \cong 6—8 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea vel conoidea, 16—20 \cong 6—7 μ . Setae myceliales juxta perithecia aggre-

gatae, rectae, simplices, acutae, usque ad $1100 \cong 9 \mu$. Perithecia dispersa, verrucosa, atra, globosa, usque ad 155μ diam. Sporae oblongae, obtusae, 4-septatae, constrictae, $32-38 \cong 14-17 \cong 10-11 \mu$.

Hab. in foliis *Euphoriae ?cinereae*, Tawitawi I., Sulu Archipelago, Yates in Phil. Bur. Sci. 36137, typus; 36155: in foliis *E. didymae*, loc. cit., PBS 36149.

On the lower surface of the leaf the hyphopodia are more elongate, the stalk cells often irregularly bent and to 11μ long, with the head cells subglobose to ovate and often angulose; over the larger veins both hyphae and hyphopodia approximate to those on the upper surface.

(618) *Meliola caseariae-arboreae* Hansf. var. **guatemalensis** Hansf. var. n.

Plagulae amphigenae, usque ad 3 mm. diam. vel late confluentes, tenues. Hyphae brunneae, tortuosae vel undulatae, opposite ramosae, laxe intertexto-reticulatae, cellulis plerumque $20-25 \cong 6 \mu$. Hyphopodia capitata alternata, recta vel varie curvata, $14-18 \mu$ longa; cellula basali cylindracea vel cuneata, $2-5 \mu$ longa; cellula apicali ovata vel oblonga, integra, saepe curvata, $10-13 \cong 7-9 \mu$. Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, $20-27 \cong 7-8 \mu$. Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae simplices, obtusae, usque ad $530 \cong 8-9 \mu$. Perithecia dispersa, atra, globosa, verrucosa, usque ad 180μ diam. Sporae oblongae, obtusae, 4-septatae, constrictae, atrobunneae, $37-43 \cong 14-17 \mu$.

Hab. in foliis *Caseariae* spec., Masagua, Guatemala, Stanley 64124 (typus in Herb. Farlow).

(619) *Meliola cestri-macrophylli* Hansf., sp. n.

Plagulae hypophyllae, densae, usque ad 8 mm. diam. vel confluentes, velutinae. Hyphae brunneae, undulatae, opposite subrectangulariterque ramosae, laxe vel dense reticulatae, cellulis plerumque $15-20 \cong 7 \mu$. Hyphopodia capitata alternata vel circa 1% opposita, antrorsa vel patentia, saepe curvata, $13-19 \mu$ longa; cellula basali cylindracea vel cuneata, $2-5 \mu$ longa; cellula apicali subglobose vel oblonga, integra vel leniter rotundato-angulosa, $10-15 \cong 9-11 \mu$. Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, $15-20 \cong 7-9 \mu$. Setae myceliales numerosae, dispersae, rectae, simplices, acutae, usque ad $260 \cong 7.5 \mu$. Perithecia subaggregata, atra, globosa, verrucosa, usque ad 165μ diam. Sporae oblongae, obtusae, 4-septatae, constrictae, atrobunneae, $34-39 \cong 13-15 \cong 11 \mu$.

Hab. in foliis *Cestri macrophylli*, El Gigante, Porto Rico, Stevens 8561, typus in Herb. Univ. Illinois 5202; El Alto de la Bandera, Porto Rico, Stevens 8301.

(620) **Meliola chelonanthi** Hansf., sp. n.

Plagulae amphigenae, tenues vel subdensae, usque ad 3 mm. diam. vel confluentes majoresque. Hyphae brunneae, undulatae vel sinuosae, opposite vel irregulariter lateque ramosae, laxae vel subdense reticulatae, cellulis plerumque $20-35 \Rightarrow 6-8 \mu$. Hyphopodia capitata alternata, patentia vel antrorsa, saepe curvata, $15-20 \mu$ longa; cellula basali cylindracea vel cuneata, $3-5 \mu$ longa; cellula apicali subglobosa vel ovata, plerumque leniter rotundato-angulosa, $10-16 \Rightarrow 10-13 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, $14-25 \Rightarrow 7-9 \mu$. Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae vel sursum arcuatae, haud uncinatae, simplices, acutae, $-440 \Rightarrow 6-8 \mu$, sursum saepe leniter torulosae. Perithecia dispersa, atra, globosa, verrucosa, -215μ diam. Sporae atrobrunneae, cylindraceae, obtusae, 4-septatae, constrictae, $35-40 \Rightarrow 14-16 \mu$.

Hab. in foliis *Chelonanthi acutanguli*, El Alto, Costa Rica, Stevens 246, typus in Herb. Farlow.

(621) **Meliola cissi-rhombifoliae** Hansf., sp. n.

Syn.: *M. rizalensis* Syd. var. *panamensis* Stev., Ann. Mycol. Berl. 26: 250. 1928.

Plagulae epiphyllae, tenues, 1-5 mm. diam., aegre perspicues. Hyphae brunneae, undulatae vel tortuosae, opposite, acute vel late ramosae, laxae reticulato-intertextae, cellulis plerumque $30-40 \Rightarrow 5-6.5 \mu$. Hyphopodia capitata alternata, patentia vel subantrorsa, plerumque recta, $14-20 \mu$ longa; cellula basali cylindracea vel cuneata, $3-6 \mu$ longa; cellula apicali ovata, integra, $10-14 \Rightarrow 8-10 \mu$. Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, $13-24 \Rightarrow 6-7 \mu$. Setae myceliales tenuiter dispersae, etiam juxta perithecia aggregatae, rectae vel leniter flexuosae, simplices, obtusae, $-230 \Rightarrow 7-8 \mu$. Perithecia dispersa, atra, globosa, verrucosa, usque ad 130μ diam. Sporae atrobrunneae, cylindraceae, obtusae, 4-septatae, constrictae, $24-30 \Rightarrow 9-11 \mu$.

Hab. in foliis *Cissi rhombifoliae*, Fort Rudolph, Panama, Stevens 761, typus in Herb. Univ. Illinois.

This shows considerable divergence from *M. rizalensis* Syd., which is limited to Verbenaceous hosts, so that it is best to describe as a separate species.

(622) **Meliola cogniauxiae** Hansf., sp. n.

Plagulae epiphyllae, usque ad 2 mm. diam., subdensae, subvelutinae. Hyphae brunneae, subrectae vel flexuosae, opposite acuteque ramosae, dense reticulatae, cellulis plerumque $15-20 \Rightarrow 6-7 \mu$. Hyphopodia capitata alternata vel opposita, subantrorsa, recta vel curvata, $13-19 \mu$ longa; cellula basali cylindracea, $3-5 \mu$ longa; cellula apicali subglobosa vel ovata, integra, $10-14 \Rightarrow 8-10 \mu$. Hyphopodia mucronata illis capitatis commixta, opposita vel alternata,

ampullacea, 15—20 \cong 7—9 μ . Setae myceliales modice numerosae, dispersae etiam juxta perithecia aggregatae, usque ad 330 \cong 9 μ , apice 2—3-dentatae usque ad 15 μ vel raro furcatae —30 μ . Perithecia dispersa, verrucosa, —160 μ diam. Sporae atrobrunneae, cylindratae, obtusae, 4-septatae, constrictae, 32—40 \cong 11—13 μ .

Hab. in foliis *Cogniauxiae cordifoliae*, Sele, Congo Belge, V a n d e r y s t 35288, typus; Kongo, Congo Belge, V a n d e r y s t 34822, 34824 in Herb. Jard. Bot. Bruxelles.

(623) *Meliola connari* Yates var. **panamensis** Hansf., var. n.

Plagulae epiphyllae, densae, subcrustosae, usque ad 3 mm. diam., subinde etiam hypophyllae et velutinae. Hyphae brunneae, undulatae, opposite vel irregulariter acuteque ramosae, dense reticulatae, cellulis plerumque 15—25 \cong 7—10 μ . Hyphopodia capitata alternata vel circa 1% opposita, subantorsa, recta vel curvata, 21—27 μ longa; cellula basali cuneata vel cylindrata, 5—8 μ longa; cellula apicali oblonga vel piriformi, integra vel leniter rotundato-angulosa, 14—20 \cong 11—14 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, ampullacea, 23—33 \cong 9—10 μ . Setae myceliales dispersae, etiam juxta perithecia parce aggregatae, rectae, simplices, acutae, usque ad 660 \cong 10—12 μ . Perithecia pauca, dispersa, atra, globosa, verrucosa, usque ad 180 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 50—55 \cong 21—23 μ .

Hab. in foliis *Connari panamensis*, Panama, S t e v e n s 1143, typus in Herb. Univ. Illinois.

(624) **Meliola cordilicola** Hansf., sp. n.

Plagulae epiphyllae, tenues, subvelutinae, usque ad 2 mm. diam. Hyphae brunneae, undulatae vel tortuosae, opposite vel irregulariter ramosae, laxe reticulatae, cellulis plerumque 25—35 \cong 5—7 μ . Hyphopodia capitata alternata, patentia, recta vel curvata, 18—45 μ longa; cellula basali cylindrata, 4—30 μ longa; cellula apicali ovata vel clavulata, integra, 14—22 \cong 11—15 μ . Hyphopodia mucronata in hyphis distinctis in centro plagularum evoluta, opposita vel alternata, ampullacea, 17—23 \cong 7—9 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae vel flexuosae, simplices, obtusae, —200 \cong 6 μ . Perithecia laxe dispersa, atra, globosa, verrucosa, —190 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 35—39 \cong 14—16 μ .

Hab. in foliis *Cordia* sp., Mayaguez, Porto Rico, S t e v e n s 7472, typus in Herb. Univ. Illinois 4126.

This is mixed with the somewhat denser colonies of *Asteridiella usteriana* (Rehm) Hansf., from which it differs markedly in mycelial characters.

(625) **Meliola crenata** Wint. var. **bunchosiae** Hansf., var. n.

Plagulae amphigenae, tenues, subvelutinae, usque ad 5 mm. diam. vel confluentes. Hyphae brunneae, subrectae, opposite acuteque

ramosae, laxe intertecto-reticulatae, cellulis plerumque $25-40 \Rightarrow 5-6 \mu$. Hyphopodia capitata opposita vel alternata, patentia, recta vel curvula, $14-20 \mu$ longa; cellula basali cylindracea, $3-9 \mu$ longa; cellula apicali ovata, integra, $10-13 \Rightarrow 7-9 \mu$. Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, $18-26 \Rightarrow 6-7 \mu$, collo elongato. Setae myceliales modice numerosae, dispersae, etiam juxta perithecia aggregatae, rectae vel leniter flexuosae, usque ad $290 \Rightarrow 7-8 \mu$, apice modice dilatatae et obtuse dentatae usque ad 10μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 165μ diam. Sporae subfusoideae utrinque attenuato-rotundatae, leniter curvatae, 4-septatae, lenissime constrictae, $40-50 \Rightarrow 11-13 \Rightarrow 9-10 \mu$, atrobrunneae.

Hab. in foliis *Bunchosiae cornifoliae*, Panama, Stevens 496, typus in Herb. Univ. Illinois.

(626) **Meliola culebrensis** Hansf., sp. n.

Plagulae epiphyllae, tenues, usque ad 1 mm. diam. Hyphae brunneae, undulatae, opposite acuteque ramosae, laxe reticulatae, cellulis plerumque $20-30 \Rightarrow 5-6 \mu$. Hyphopodia capitata alternata, antrorsa, recta vel curvula, $15-21 \mu$ longa; cellula basali cuneata, $3-7 \mu$ longa; cellula apicali ovata, integra, apice rotundata vel subattenuata, $11-16 \Rightarrow 8-10 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata, ampullacea, $15-19 \Rightarrow 6-7 \mu$. Setae myceliales dispersae, etiam juxta perithecia aggregatae, paucae, rectae, simplices, acutae, usque ad $360 \Rightarrow 8-9 \mu$. Perithecia dispersa, atra, globosa, verrucosa, 140μ diam. Sporae atrobrunneae, cylindraceae, obtusae, 4-septatae, leniter constrictae, $27-32 \Rightarrow 9-10 \mu$.

Hab. in foliis Acanthacearum spec. indet., Culebra, Panama, Stevens 912 (typus in Herb. Univ. Illinois 6093).

(627) **Meliola discocalycis** Stev. ex Hansf., sp. n.

Plagulae amphigenae, tenues, usque ad 5 mm. diam., subvelutinae. Hyphae undulatae vel tortuosae, brunneae, irregulariter vel opposite, acuteque ramosae, laxe intertextae, cellulis plerumque $20-30 \Rightarrow 6-7 \mu$. Hyphopodia capitata alternata vel dispersa, subantrorsa, recta, $15-19 \mu$ longa; cellula basali cuneata, $3-6 \mu$ longa; cellula apicali globosa, integra, $10-15 \Rightarrow 9-13 \mu$. Hyphopodia mucronata in hyphis distinctis evoluta, alternata vel unilateralia, ampullacea, $15-20 \Rightarrow 6-7 \mu$. Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae vel flexuosae, simplices, acutae, usque ad $660 \Rightarrow 8-10 \mu$. Perithecia dispersa, atra, globosa, verrucosa, usque ad 160μ diam. Sporae oblongae vel subfusoideae, obtusae, saepe curvatae, 4-septatae, leniter constrictae, $33-39 \Rightarrow 12-14 \Rightarrow 10-11 \mu$.

Hab. in foliis *Discocalycis cymbianthoidis*, Rizal, Luzon, Philippine Is., Yates in Phil. Bur. Sci. 25057, typus in Herb. Univ. Illinois 5032.

(628) **Meliola edanoana** Stev. ex Hansf., sp. n.

Plagulae epiphyllae, tenues, usque ad 5 mm. diam. vel confluentes. Hyphae brunneae, subrectae, opposite lateque ramosae, laxe reticulatae, cellulis plerumque 20—35 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, patentia, recta vel curvata, 22—40 μ longa; cellula basali cylindracea, 4—12 μ longa; cellula apicali ovata vel cylindracea, recta vel curvata, apice attenuata vel rotundata, 17—30 \Rightarrow 8—10 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 30—40 \Rightarrow 8—10 μ , collo elongato. Setae myceliales juxta perithecia aggregatae, rectae, simplices, acutae, usque ad 700 \Rightarrow 10 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 150 μ diam. Sporae atrobunneae, ellipsoideae, obtusae, 4-septatae, fortiter constrictae, 38—45 \Rightarrow 18—22 \Rightarrow 16 μ .

Hab. in foliis *Zanthoxyli* sp., Malangas, Zamboanga, Mindanao, Philippine Is., R a m o s & E d a n o in Phil. Bur. Sci. 36336, typus in Herb. Univ. Illinois 5081.

(629) **Meliola erioglossi** Stev. ex Hansf., sp. n.

Plagulae amphigenae, densae, velutinae, usque ad 6 mm. diam. vel confluentes. Hyphae brunneae, subrectae, opposite ramosae, dense reticulatae, cellulis plerumque 20—30 \Rightarrow 6—8 μ . Hyphopodia capitata alternata, recta vel curvata, antrorsa vel patentia, 17—25 μ longa; cellula basali cylindracea vel cuneata, 4—10 μ longa; cellula apicali subglobosa vel oblonga, rotundato-angulosa, vel sublobata, 13—19 \Rightarrow 9—15 μ . Hyphopodia mucronata in hyphis distinctis evoluta, alternata vel opposita, ampullacea, 16—23 \Rightarrow 8—9 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, simplices, obtusae, usque ad 340 \Rightarrow 7.5 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 140 μ diam. Sporae oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, atrobunneae, 37—43 \Rightarrow 14—17 μ .

Hab. in foliis *Erioglossi rubiginosi*, Isabela, Basilan, Philippine Is., Y a t e s in Phil. Bur. Sci. 36237, typus in Herb. Univ. Illinois 5093.

(630) **Meliola eugeniae-monticolae** Hansf., sp. n.

Plagulae amphigenae, usque ad 2 mm. diam. vel confluentes, densae. Hyphae undulatae, brunneae, opposite vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque 15—20 \Rightarrow 6 μ . Hyphopodia capitata alternata vel usque ad 2% opposita, plus minusve antrorsa, saepe curvata vel flexuosa, 14—20 μ longa; cellula basali cylindracea, 2—5 μ longa; cellula apicali ovata vel oblonga, apice rotundata, saepe curvata, raro rotundato-angulosa, 10—15 \Rightarrow 7—8 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 16—25 \Rightarrow 7—8 μ . Setae myceliales tenuiter dispersae, etiam juxta perithecia aggregatae, leniter flexuosae, simplices, obtusae, usque ad 360 \Rightarrow 7 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 145 μ diam. Sporae atrobunneae, oblongae vel subellipsoideae, 4-septatae, constrictae, 37—43 \Rightarrow 15—18 μ .

Hab. in foliis *Eugeniae monticolae*, Manati, Porto Rico, Stevens 4285 (typus in Herb. Univ. Illinois 5228).

(631) **Meliola euonymi** Stev. ex Hansf., sp. n.

Plagulae amphigenae, plerumque hypophyllae, usque ad 5 mm. diam. vel late confluentes, tenues vel subdensae. Hyphae brunneae, subrectae vel undulatae, alternatim vel irregulariter acutaeque ramosae, dense reticulatae, cellulis plerumque 30—40 \Rightarrow 8—10 μ . Hyphopodia capitata alternata vel dispersa, subantrorsa, recta vel irregulariter curvata, 40—55 μ longa; cellula basali cuneata, 10—20 μ longa; cellula apicali versiformi, irregulariter fortiterque stellatim lobata, saepe curvata, 25—33 \Rightarrow 20—30 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, conoidea vel ampullacea, 20—30 \Rightarrow 8—9 μ . Setae myceliales dispersae, rectae, simplices, acutae, usque ad 400 \Rightarrow 7—8 μ . Perithecia dispersa, atra, globosa, verrucosa, immatura. Sporae ellipsoideae, curvatae, obtusae, 3-septatae, constrictae, 57—64 \Rightarrow 22—24 μ .

Hab. in foliis *Euonymi* spec., Jamindan, Capiz, Panay, Philippines, Ramos & Edano in Phil. Bur. Sci. 32154, typus in Herb. Univ. Illinois 5101.

(632) **Meliola excoecariicola** Stev. ex Hansf., sp. n.

Plagulae amphigenae, tenues vel subdensae, usque ad 5 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel leniter undulatae, opposite subrectangulariter ramosae, laxae vel subdense reticulatae, cellulis plerumque 15—20 \Rightarrow 6—8 μ . Hyphopodia capitata alternata vel usque ad 10% opposita, subantrorsa vel patentia, recta vel curvula, 15—19 μ longa; cellula basali cylindracea vel cuneata, 2—5 μ longa; cellula apicali oblonga, integra, 11—15 \Rightarrow 7—11 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 14—19 \Rightarrow 7—9 μ . Setae myceliales plerumque juxta perithecia aggregatae, rectae, simplices, acutae, usque ad 540 \Rightarrow 10 μ . Perithecia dispersa, globosa, verrucosa, nigra, immatura. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 50—55 \Rightarrow 22—25 μ .

Hab. in foliis *Excoecariae philippinensis*, Mt. Lumutan, Rizal, Luzon, Philippine Is., Ramos & Edano in Phil. Bur. Sci. 29809, typus in Herb. Univ. Illinois 5113.

(633) **Meliola ghesquieri** Hansf., sp. n.

Plagulae epiphyllae, tenues, usque ad 1 mm. diam. Hyphae brunneae, subrectae vel undulatae, opposite ramosae, laxae reticulatae, cellulis plerumque 15—20 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvula, 15—21 μ longa; cellula basali cylindracea vel cuneata, 3—6 μ longa; cellula apicali cylindracea vel clavulata, apice late rotundata, integra, 10—17 \Rightarrow 7—9 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata vel opposita,

ampullacea, 13—17 \Rightarrow 6—8 μ . Setae myceliales juxta perithecia aggregatae, rectae, simplices, obtusae, —330 \Rightarrow 7—8 μ (? immaturae). Perithecia dispersa, globosa, atra, leniter verrucosa, —140 μ diam. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 38—42 \Rightarrow 18—21 μ .

Hab. in foliis *Coffeae* spec. (*robustae* ?), Moyambi, Congo Belge, 1921, Ghesquiere 19, typus in Herb. Jard. Bot. Bruxelles.

In mycelial characters, of the species previously known on *Coffea*, this comes closest to *M. coffeae* Hansf., from which it differs in its simple setae and especially in the larger and much wider spores.

(634) **Meliola glaziovii** Hansf., sp. n.

Plagulae epiphyllae, densae, velutinae, subcrustosae, usque ad 3 mm. diam. Hyphae brunneae, subrectae, opposite lateque ramosae, dense reticulatae, cellulis plerumque 20—30 \Rightarrow 7—9 μ . Hyphopodia capitata opposita vel alternata, antrorsa, recta vel curvula, 14—20 μ longa; cellula basali cylindracea vel cuneata, 3—6 μ longa; cellula apicali ovata vel subglobosa, integra, 10—15 \Rightarrow 8—13 μ . Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, 15—22 \Rightarrow 8—9 μ . Setae myceliales numerosissimae, rectae, simplices, abrupte acutae, usque ad 300 \Rightarrow 8—10 μ . Perithecia subaggregata, atra, globosa, verrucosa, —190 μ diam. Sporae oblongae vel subellipsoideae, atrobrunneae, obtusae, 4-septatae, constrictae, 44—48 \Rightarrow 18—20 μ .

Hab. in foliis *Loranthaceaeum* spec. indet., Brazil, Glaziou 22710, typus in Herb. Jard. Bot. Bruxelles.

(635) **Meliola guarelella** Hansf., sp. n.

Plagulae epiphyllae, tenues, usque ad 2 mm. diam. Hyphae brunneae, subrectae, opposite ramosae, laxe reticulato-intertextae, cellulis plerumque 25—40 \Rightarrow 5—6 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvula, 12—16 μ longa; cellula basali cylindracea vel cuneata, 2—6 μ longa; cellula apicali ovata vel subglobosa, integra, 10—12 \Rightarrow 7—9 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, ampullacea, 16—22 \Rightarrow 7—8 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae, simplices, acutae, usque ad 280 \Rightarrow 7 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 150 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 31—36 \Rightarrow 13—14 \Rightarrow 10—12 μ .

Hab. in foliis *Guareae* sp., socio *Meliola guareae* Speg., Misiones, Argentina, typus in Herb. Univ. Illinois 5172.

(636) *Meliola hirsuta* Hansf. & Deight. var. **major** Hansf., var. n.

Plagulae hypophyllae, usque ad 25 mm. diam. vel confluentes, subtenues, tenuiter velutinae. Hyphae brunneae, subrectae vel undulatae, opposite lateque ramosae, laxe reticulatae vel intertextae, cel-

lulis plerumque 25—35 \Rightarrow 6—7 μ . Hyphopodia capitata alternata vel 1—2% opposita, antrorsa vel patentia, recta vel curvula, 14—20 μ longa; cellula basali cylindracea 3—6 μ longa; cellula apicali cylindracea vel subclavata, integra, saepe leniter retrorse curvata, 10—15 \Rightarrow 7—9 μ . Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, 18—24 \Rightarrow 6—7 μ . Setae myceliales dispersae, etiam juxta perithecia breviores aggregatae, rectae, simplices, obtusae, usque ad 2200 \Rightarrow 7—10 μ . Perithecia laxe dispersa, atra, globosa, verrucosa, usque ad 160 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 41—48 \Rightarrow 16—19 \Rightarrow 12—14 μ .

Hab. in foliis *Diospyri crassifolii*, Kivu, Congo Belge, Hendrickx 3918.

(637) **Meliola inconspicua** Hansf., sp. n.

Plagulae epiphyllae, tenuissimae, usque ad 2 mm. diam. Hyphae brunneae, undulatae vel tortuosae, opposite vel irregulariter ramosae, laxe radianto-reticulatae, cellulis plerumque 20—35 \Rightarrow 5—6 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvula, 18—30 μ longa; cellula basali cuneata, 5—13 μ longa; cellula apicali ovata, apice rotundata vel subacuta, integra, 15—20 \Rightarrow 8—10 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 14—30 \Rightarrow 6—7 μ . Setae myceliales paucae (saepe deficientes), juxta perithecia evolutae, rectae, simplices, obtusae, usque ad 140 \Rightarrow 6—7 μ . Perithecia laxe dispersa, atra, globosa, verrucosa, —140 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 29—34 \Rightarrow 11—14 μ .

Hab. in foliis *Melastomatacearum* spec. indet., Culebra, Panama, Stevens 926, typus in Herb. Univ. Illinois 4172.

(638) **Meliola kisantuensis** Hansf., sp. n.

Plagulae epiphyllae, densae, velutinae, usque ad 2 mm. diam. Hyphae subrectae vel flexuosae, opposite lateque ramosae, dense reticulatae, cellulis plerumque 15—25 \Rightarrow 6—7 μ . Hyphopodia capitata alternata vel opposita, saepius curvata, 12—17 μ longa; cellula basali cylindracea, 2—5 μ longa; cellula apicali ovata vel cylindracea, integra, 14—20 \Rightarrow 6—8 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 14—20 \Rightarrow 6—8 μ . Setae myceliales numerosae, dispersae etiam juxta perithecia aggregatae, rectae, simplices obtusaeque vel 2—3-dentatae (—7 μ), usque ad 600 \Rightarrow 9—10 μ . Perithecia dispersa, verrucosa, atra, globosa, —140 μ diam. Sporae atrobrunneae, cylindraceae, obtusae, 4-septatae, constrictae, 34—40 \Rightarrow 13—15 μ .

Hab. in foliis *Securidacae* sp., Kisantu, Congo Belge, Vanderyst 33078, typus in Herb. Jard. Bot. Bruxelles.

(639) **Meliola linocierina** Hansf., sp. n.

Plagulae epiphyllae, subdensae, usque ad 2 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel undulatae, opposite lateque

ramosae, dense reticulatae, cellulis plerumque 15—20 \cong 5—6 μ . Hyphopodia capitata alternata vel opposita, patentia vel leniter antrorsa, saepe curvata, 13—18 μ longa; cellula basali cylindracea, 2—5 μ longa; cellula apicali subglobosa, piriformi vel oblonga, integra vel leniter rotundato-angulosa, saepe curvula, 9—13 \cong 6—9 μ . Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, 14—18 \cong 6—7 μ . Setae myceliales paucae, dispersae, rectae vel curvulae, simplices, acutae, usque ad 280 \cong 7—8 μ . Perithecia dispersa, atra, globosa, usque ad 140 μ diam., cellulis parietis obtuse conoideis, usque ad 20 μ alt. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 37—44 \cong 15—17 μ .

Hab. in foliis *Linocierae* spec., Ilocos Norte, Luzon, Philippine Is., Ramos in PBS 33432, typus in Herb. Univ. Illinois 5384.

(640) **Meliola lophopetali** Stev. ex Hansf., sp. n.

Plagulae amphigenae, tenues, usque ad 2 mm. diam. Hyphae brunneae, subrectae vel undulatae, opposite lateque ramosae, laxe reticulatae, cellulis plerumque 15—25 \cong 6—7 μ . Hyphopodia capitata opposita vel alternata, patentia, recta vel curvata, 13—19 μ longa; cellula basali cylindracea vel cuneata, 3—5 μ longa; cellula apicali ovata, oblonga vel subconoidea, apice obtuse rotundata, saepe curvula, 11—15 \cong 7—8 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 16—21 \cong 6—7 μ . Setae myceliales paucae, praecipue juxta perithecia evolutae, erectae, rectae, simplices, acutae, —250 \cong 7 μ . Perithecia dispersa, atra, globosa, leniter verrucosa, —160 μ diam. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 33—38 \cong 15—16 μ .

Hab. in foliis *Lophopetali toxici*, Rizal, Luzon, Philippine Is., Yates in PBS 25076 (typus in Herb. Univ. Illinois 5418).

(641) **Meliola malangasensis** Hansf., sp. n.

Plagulae epiphyllae, tenuissimae, aegre perspicuae, usque ad 3 mm. diam. vel confluentes. Hyphae subrectae vel tenuiter undulatae, opposite lateque ramosae, laxe reticulatae, cellulis plerumque 20—30 \cong 6—7 μ . Hyphopodia capitata alternata, patentia vel subantrorsa, recta vel curvula, 15—20 μ longa; cellula basali cylindracea vel cuneata, 3—5 μ longa, cellula apicali subglobosa vel piriformi, integra vel rotundato-angulosa, recta vel curvata, 10—15 \cong 8—11 μ . Hyphopodia mucronata in hyphis distinctis evoluta, opposita, ampullacea, 13—18 \cong 7—8 μ . Setae myceliales paucae, dispersae, simplices, rectae, obtusae vel acutae, usque ad 360 \cong 7.5 μ . Perithecia laxe dispersa, atra, globosa, verrucosa, usque ad 130 μ diam. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 31—37 \cong 13—15 μ .

Hab. in foliis *Eugeniae* sp., Malangas, Zamboanga, Mindanao, Philippine Is., Ramos & Edano in Phil. Bur. Sci. 36335, typus in Herb. Univ. Illinois.

(642) **Meliola mandingensis** Hansf., sp. n.

Plagulae epiphyllae, subdensae, velutinae, usque ad 5 mm. diam. Hyphae subrectae vel undulatae, oppositae vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque 20—25 \Rightarrow 7 μ . Hyphopodia capitata alternata vel circa 1% opposita, recta vel varie curvata, antrorsa vel patentia, 16—30 μ longa; cellula basali cuneata vel cylindratae, 3—11 μ longa; cellula apicali globosa vel oblonga, saepe curvata, integra vel leniter angulosa, 11—19 \Rightarrow 10—13 μ . Hyphopodia mucronata in hyphis distinctis, rectis evoluta (cellulis hypharum 35—45 μ longis), opposita vel alternata, ampullacea, 14—18 \Rightarrow 7—9 μ . Setae myceliales numerosae, dispersae, etiam juxta perithecia aggregatae, deorsum subrectae, usque ad 200 \Rightarrow 8 μ , apice irregulariter contortae vel geniculatae, dentatae usque 12 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 145 μ diam. Sporae oblongae, obtusae, 4-septatae, constrictae, atrobrunneae, 33—39 \Rightarrow 13—15 \Rightarrow 11 μ .

Hab. in foliis *Bignoniacearum* spec. indet., Mandingo, Panama, Stevens 1339 (typus in Herb. Univ. Illinois 31728).

(643) **Meliola maurandiae** Hansf., sp. n.

Plagulae epiphyllae, dense dispersae, usque ad 1 mm. diam., tenues vel subdensae. Hyphae brunneae, undulatae vel sinuosae, oppositae vel irregulariter, laxeque ramosae, cellulis plerumque circa 20 μ longis, 5—7 μ cr. Hyphopodia capitata alternata, antrorsa, recta, 15—20 μ longa; cellula basali cuneata, 4—7 μ longa; cellula apicali ovata, apice rotundata vel subacuta, integra, 11—14 \Rightarrow 6—9 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 15—18 \Rightarrow 6—7 μ . Setae myceliales paucae, dispersae etiam juxta perithecia aggregatae, erectae, rectae vel flexuosae, simplices, obtusae, usque ad 250 \Rightarrow 7—8 μ . Perithecia in centro plagularum laxe aggregata, atra, globosa, leniter verrucosa, —150 μ diam. Sporae atrobrunneae, cylindratae, obtusae, 4-septatae, constrictae, 28—33 \Rightarrow 11—12 μ .

Hab. in foliis *Maurandiae erubescens*, Silver Hill, Jamaica, Martyn in IMI 34802, typus; in foliis *M. scandentis*, loc. cit., Maxon & Killip 1236 in Farlow Herb.

This species differs from *M. microspora* Pat. & Gaill. mainly in the more elongate and narrower capitate hyphopodia.

(644) **Meliola melochiae** Hansf., sp. n.

Plagulae epiphyllae, raro etiam hypophyllae, usque ad 2 mm. diam., tenues. Hyphae brunneae, undulatae, oppositae lateque ramosae, laxe reticulatae, cellulis plerumque 20—30 \Rightarrow 5—6 μ . Hyphopodia capitata alternata, patentia, recta vel curvata, 11—15 μ longa; cellula basali cuneata vel cylindratae, 2—5 μ longa; cellula apicali subglobosa vel piriformi, integra, 8—12 \Rightarrow 8—11 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 15—20 \Rightarrow 6—8 μ . Setae myceliales juxta perithecia aggregatae, rectae vel sub-

flexuosae, simplices, obtusae, usque ad $280 \approx 8-9 \mu$. Perithecia in centro plagularum aggregata, atra, globosa, verrucosa, usque ad 160μ diam. Sporae atrobrunneae, oblongae vel ellipsoideae, obtusae, 4-septatae, constrictae, $32-37 \approx 14-16 \mu$.

Hab. in foliis *Melochiae umbellatae*, Philippine Is., Ramos in Phil. Bur. Sci. 24642, socio *Irenopsis curvata* (Yates) Hansf.

(645) *Meliola panicii* Earle var. **chilensis** Hansf., var. n.

Plagulae epiphyllae, usque ad 3 mm. diam., tenues vel subdensae, tenuiter velutinae. Hyphae brunneae, rectae vel undulatae, alternatim vel irregulariter ramosae, demum dense reticulatae. cellulis plerumque $25-40 \approx 8-10 \mu$. Hyphopodia capitata alternata, plus minusve antrorsa, plerumque curvata, $30-40 \mu$ longa; cellula basali cuneata vel cylindracea, $8-18 \mu$ longa; cellula apicali versiformi, irregulariter lobata, saepe curvata, $20-26 \approx 12-22 \mu$. Hyphopodia mucronata in hyphis distinctis evoluta, alternata vel opposita, ampullacea, $14-19 \approx 8-10 \mu$. Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae, simplices, acutae, usque ad $5550 \approx 9-10 \mu$. Perithecia dispersa, atra, globosa, verrucosa, usque ad 260μ diam. Sporae oblongae vel subellipsoideae, atrobrunneae, obtusae, 4-septatae, constrictae, $45-52 \approx 15-19 \approx 13-14 \mu$.

Hab. in foliis *Graminearum* spec. indet., Corral, Chile, Thaxter 6661 (typus), 6674, in Farlow Herb.

The host is given as "bamboo" and may possibly be *Chusquea* sp.

(646) *Meliola pazschkeana* Gaill. var **macropoda** Hansf., var. n.

Plagulae amphigenae, tenues vel densae, velutinae, usque ad 3 mm. diam. Hyphae brunneae, subrectae, opposite lateque ramosae, dense reticulatae, cellulis plerumque $25-40 \approx 8-9 \mu$. Hyphopodia capitata alternata, antrorsa vel patentia, plerumque curvata, $28-35 \mu$ longa; cellula basali cylindracea vel cuneata, $7-15 \mu$ longa; cellula apicali oblongo-clavata, saepe curvata, integra vel irregulariter sublobata, $17-24 \approx 11-17 \mu$. Setae myceliales numerosae, dispersae, etiam juxta perithecia aggregatae, simplices, obtusae, sursum late uncinatae, usque ad $330 \approx 8-10 \mu$, apice 5μ cr. Perithecia dispersa, atra, globosa, verrucosa, usque ad 195μ diam. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, $42-48 \approx 15-17 \mu$.

Hab. in foliis *Bauhiniae* spec., Lancetilla Valley, Tela, Honduras, Standley 54062 (typus in Herb. Farlow).

(647) *Meliola perpusilla* Syd. var. **bogoriensis** Hansf., var. n.

Plagulae epiphyllae, densae, subvelutinae, usque ad 2 mm. diam. vel confluentes. Hyphae brunneae, subrectae vel undulatae, opposite vel irregulariter, acuteque ramosae, dense reticulato-radiantes, cellulis plerumque $15-20 \approx 6-7 \mu$. Hyphopodia capitata alternata,

antrorsa, recta vel curvula, 15—22 μ longa; cellula basali cylindracea, 3—6 μ longa; cellula apicali cylindracea apice rotundata, recta vel curvula, integra, 12—17 \Rightarrow 6—8 μ . Hyphopodia mucronata, pauca, in hyphis distinctis evoluta, opposita vel alternata, ampullacea. Setae myceliales numerosae, dispersae etiam juxta perithecia aggregatae, rectae vel curvulae, simplices, obtusae vel subacutae, usque ad 480 \Rightarrow 7—9 μ . Perithecia laxe aggregata, atra, globosa, verrucosa, —140 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 27—34 \Rightarrow 12—15 μ .

Hab. in foliis *Asclepiadacearum* spec. indet., Bogor, Indonesia, 1899, typus in Herb. Jard. Bot. Bruxelles.

(648) **Meliola phytolaccae-dioicae** Hansf., sp. n.

Plagulae epiphyllae, densae, usque ad 3 mm. diam., velutinae. Hyphae brunneae, undulatae, opposite ramosae, dense reticulatae, cellulis plerumque 15—25 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, subantrorsa, recta, 13—16 μ longa; cellula basali cylindracea vel cuneata, 3—5 μ longa; cellula apicali globosa, integra, 10—12 \Rightarrow 9—12 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata vel opposita, ampullacea, 12—18 \Rightarrow 6—8 μ . Setae myceliales numerosae, dispersae, simplices, obtusae, usque ad 300 \Rightarrow 9 μ , sursum arcuatae vel uncinatae. Perithecia in centro plagularum subaggregata, atra, globosa, verrucosa, usque ad 210 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 34—41 \Rightarrow 13—15 μ .

Hab. in foliis *Phytolaccae dioicae*, Blumenau, Sta. Catharina, Brazil, U l e, Herb. Brasil, 1138 (typus in Herb. Farlow).

(649) **Meliola picramniae** Hansf., sp. n.

Plagulae plerumque hypophyllae, densae, subvelutinae, usque ad 3 mm. diam. Hyphae brunneae, subrectae vel undulatae, opposite vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque 20—25 \Rightarrow 6—8 μ . Hyphopodia capitata alternata, patentia, recta vel curvula, 13—20 μ longa; cellula basali cylindracea vel cuneata, 3—7 μ longa; cellula apicali oblonga, integra, 10—14 \Rightarrow 7—8 μ . Hyphopodia mucronata illis capitatis commixta, pauca, alternata, ampullacea, 15—20 \Rightarrow 7—8 μ . Setae myceliales paucae vel numerosae, rectae vel leniter flexuosae, simplices, acutae, usque ad 490 \Rightarrow 11 μ . Perithecia in centro plagularum subaggregata, atra, globosa, verrucosa, usque ad 210 μ diam. Sporae atrobrunneae, obtusae, 4-septatae, constrictae, 42—48 \Rightarrow 15—17 \Rightarrow 12—13 μ .

Hab. in foliis *Picramniae antidesmae*, El Alto, Costa Rica, Stevens 5118, typus in Herb. Univ. Illinois 5118.

(650) **Meliola recurvipoda** Hansf., sp. n.

Plagulae amphigenae, tenues vel densae, plus minusve velutinae, usque ad 5 mm. diam. Hyphae brunneae, subrectae, opposite acuteque ramosae, dense reticulato-intertextae, cellulis plerumque 20—30 \Rightarrow 6 μ . Hyphopodia capitata alternata vel opposita, antrorsa vel patentia,

saepe recurvata, 16–22 μ longa; cellula basali cylindracea, 3–8 μ longa; cellula apicali oblonga vel subconoidea, apice obtusa vel attenuato-rotundata, integra, saepius curvate, 10–15 \Rightarrow 7–9 μ . Hyphopodia mucronata illis capitatis commixta, pauca, opposita vel alternata, ampullacea, 18–22 \Rightarrow 6–7 μ . Setae myceliales numerosae, rectae, simplices, acutae, usque ad 800 \Rightarrow 9–12 μ . Perithecia dispersa, globosa, verrucosa, atra, —180 μ diam. Sporae atrobrunneae, subellipsoideae, obtusae, 4-septatae, constrictae, 47–55 \Rightarrow 19–21 \Rightarrow 16–18 μ .

Hab. in foliis *Peleae hawaiiensis*, Waimea Canyon, Kauai, Hawaii, S t e v e n s 411 (typus in Herb. Univ. Illinois 5336).

(651) **Meliola rockstonensis** Hansf., sp. n.

Plagulae hypophyllae, usque ad 5 mm. diam., subdensae, velutinae. Hyphae brunneae, subrectae vel undulatae, opposite lateque ramosae, dense reticulatae, cellulis plerumque 15–25 \Rightarrow 5–6 μ . Hyphopodia capitata opposita vel subinde alternata, subantrorsa, recta vel curvata, 10–17 μ longa; cellula basali cylindracea, 2–5 μ longa; cellula apicali subglobosa vel oblonga, saepe curvata, integra, 7–12 \Rightarrow 7–9 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 15–19 \Rightarrow 7 μ . Setae myceliales numerosae, dispersae, etiam juxta perithecia aggregatae, rectae, usque ad 210 \Rightarrow 5–6 μ , apice 2–3-dentatae usque ad 13 μ . Perithecia dispersa, atra, globosa, leniter verrucosa, usque ad 145 μ diam. Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 32–40 \Rightarrow 13–15 \Rightarrow 9–11 μ .

Hab. in foliis *Bignoniacearum* spec. indet., Rockstone, British Guiana, S t e v e n s 249 p. p. (typus in Herb. Univ. Illinois, 4762).

This occurs mixed with the very much thinner colonies of *Meliola bignoniacearum* Stev. var. *tenuis* Hansf., also distinguished by a much higher proportion of alternate hyphopodia, which are longer.

(652) **Meliola rubiella** Hansf., sp. n.

Plagulae epiphyllae, tenuissimae, aegre perspicuae, usque ad 2 mm. diam. Hyphae brunneae, undulatae, opposite lateque ramosae, laxe intertexto-reticulatae, cellulis plerumque 20–40 \Rightarrow 5–6 μ . Hyphopodia capitata alternata, antrorsa vel patentia, recta vel curvata, 11–15 μ longa; cellula basali cuneata, 2–4 μ longa; cellula apicali subglobosa, integra, 9–11 \Rightarrow 8–10 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 18–22 \Rightarrow 6–7 μ , collo elongato. Setae myceliales juxta perithecia evolutae, rectae, simplices, acutae, usque ad 550 \Rightarrow 9 μ . Perithecia laxae dispersa, atra, globosa, verrucosa, usque ad 120 μ diam. (immatura?). Sporae atrobrunneae, oblongae, obtusae, 4-septatae, constrictae, 29–33 \Rightarrow 10–12 μ .

Hab. in foliis *Rubi moluccani*, Philippines, S t e v e n s 1461 p. p. (typus), 1361 p. p., 4226 p. p., 4233 p. p. (in Herb. Univ. Illinois).

This appears to be always associated with *Appendiculella calostroma*, from which it is very different, with smaller hyphopodia and 4-septate spores; the mycelial setae are not always developed.

(653) *Meliola securidacae* Hansf., var. **vanderystii** Hansf., var. n.

Plagulae amphigenae, plerumque hypophyllae, usque ad 2 mm. diam., tenues vel subdensae. Hyphae brunneae, subrectae vel leniter flexuosae, oppositae lateque ramosae, laxae vel subdense reticulatae, cellulis plerumque 15—20 \cong 5—7 μ . Hyphopodia capitata alternata vel opposita, subantrorsa vel patentia, recta vel curvula, 12—17 μ longa; cellula basali cylindracea 2—4 μ longa; cellula apicali ovata vel cylindracea, integra, 9—15 \cong 6—8 μ . Hyphopodia mucronata pauca, illis capitatis commixta, opposita vel alternata, ampullacea, 15—20 \cong 7—8 μ . Setae myceliales dispersae etiam juxta perithecia aggregatae, rectae, usque ad 280 \cong 8—10 μ , apice 2—3-furcatae (—15 μ), ramis 2—3-dentatis —6 μ . Perithecia dispersa, verruculosa, atra, globosa, —140 μ diam. Sporae cylindraceae, obtusae, 4-septatae, constrictae, atrobrunneae, 37—44 \cong 14—16 μ .

Hab. in foliis *Securidacae* spec., Kisantu, Congo Belge, **Vanderyst** 33693, typus in Herb. Jard. Bot. Bruxelles.

(654) *Meliola serdangensis* Hansf., sp. n.

Plagulae epiphyllae, densae, subvelutinae, usque ad 4 mm. diam. Hyphae brunneae, undulatae vel sinuosae, alternatim vel irregulariter ramosae, dense intertexto-reticulatae, cellulis plerumque 20—30 \cong 6—7 μ . Hyphopodia capitata alternata, antrorsa vel patentia, recta vel curvula, 17—23 μ longa; cellula basali cylindracea vel cuneata, 4—8 μ longa; cellula apicali ovata vel subglobosa, margine angulosa, crenulata vel interdum sublobata, recta vel curvata, 11—18 \cong 10—14 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 17—20 \cong 7—9 μ . Setae myceliales numerosae, dispersae, etiam juxta perithecia aggregatae, rectae, simplices, acutae vel subacutae, —190 \cong 7—8 μ . Perithecia dispersa, atra, globosa, verrucosa, —140 μ diam. Sporae cylindraceae, atrobrunneae, obtusae, 4-septatae, constrictae, 36—42 \cong 15—17 μ .

Hab. in foliis *Malloti paniculati*, Serdang, Malaya, **Johnston** in IMI 61991-a, typus.

(655) *Meliola spinigera* Speg., Anal. Soc. Cient. Argentina, **9**, no. 118. 1880.

The type is **Puiggari** 1491, on unknown host, Apiaty, Sao Paulo, Brazil, 1881 (SPEG 528), and this has been re-examined:

Only two portions of a leaf now remain, and neither shows any remains of any hyphopodiate mycelium. I obtained the "spines" originally described by **Spegazzini**, which appear to be mycelial hyphae agglutinated, not fertile. No evidence of any *Meliola* was obtained.

Spegazzini's sketches on the sheet show the same "spines" and also a single spore of *Meliola* type, but with no indication of any connection between them, and no sketch of any hyphopodia, as he invariably gave on other sheets of *Meliola* spp. in his herbarium.

It is therefore considered that the species should be deleted as being wholly doubtful.

(656) ***Meliola straussiae*** Hansf., sp. n.

Plagulae plerumque hypophyllae, usque ad 2 mm. diam., subdendae, velutinae. Hyphae brunneae, undulatae vel tortuosae, opposite lateque ramosae, dense reticulato-intertextae, cellulis plerumque 20—25 \Rightarrow 5—6 μ . Hyphopodia capitata alternata, subantrorsa, recta vel curvata, 15—25 μ longa; cellula basali cuneata, 4—9 μ longa; cellula apicali ovata, piriformi vel irregulariter rotundato-angulosa, raro sublobata, 12—18 \Rightarrow 7—10 μ . Hyphopodia mucronata pauca, illis capitatis commixta, alternata, conoidea vel ampullacea, 15—19 \Rightarrow 6—8 μ . Setae myceliales numerosae, dispersae, etiam juxta perithecia aggregatae, rectae vel flexuosae, simplices vel 2-dentatae (—15 μ), acutae, usque ad 330 \Rightarrow 9—11 μ . Perithecia dispersa, atra, globosa, verrucosa, usque ad 190 μ diam. Sporae atrobunneae, oblongae, obtusae, 4-septatae, leniter constrictae, 33—41 \Rightarrow 11—13 μ .

Hab. in foliis *Straussiae* sp., Hawaii, Stevens 483 p. p. (typus in Herb. Univ. Illinois).

(657) *Meliola strychnicola* Gaill. var. ***vanderystii*** Hansf., var. n.

Plagulae epiphyllae, tenues, usque ad 2 mm. diam. Hyphae brunneae, undulatae, opposite acuteque ramosae, laxe reticulatae, cellulis plerumque 20—30 \Rightarrow 6—7 μ . Hyphopodia capitata alternata, antrorsa, recta vel curvata, 17—24 μ longa; cellula basali cylindracea vel cuneata, 4—7 μ longa; cellula apicali subglobosa vel clavato-cylindracea, integra, 11—17 \Rightarrow 8—11 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 15—20 \Rightarrow 6—8 μ . Setae myceliales dispersae, etiam juxta perithecia aggregatae, rectae, simplices, obtusae, usque ad 240 \Rightarrow 8—9 μ . Perithecia dispersa, verrucosa, atra, globosa, —145 μ diam. Sporae atrobunneae, cylindraceae, obtusae, 4-septatae, constrictae, 32—36 \Rightarrow 14—16 \Rightarrow 12—13 μ .

Hab. in foliis *Strychni suberiferae*, Kisantu, Congo Belge, Vanderyst 43499, typus in Herb. Jard. Bot. Bruxelles.

(658) ***Meliola terecitisensis*** Hansf., sp. n.

Plagulae amphigenae, tenuissimae, usque ad 6 mm. diam. Hyphae brunneae, subrectae vel leniter undulatae, opposite acuteque ramosae, laxe reticulatae, cellulis plerumque 30—50 \Rightarrow 7—9 μ . Hyphopodia capitata alternata, subantrorsa, curvata, 22—33 μ longa; cellula basali cylindracea vel cuneata, 7—12 μ longa; cellula apicali piriformi vel irregulariter rotundato-angulosa, versiformi, saepe curvata, 15—23 \Rightarrow

13–18 μ . Hyphopodia mucronata illis capitatis commixta, alternata vel opposita, ampullacea, 18–26 \Rightarrow 7–9 μ . Setae myceliales dispersae et breviores juxta perithecia aggregatae, rectae vel sursum geniculatae, simplices, obtusae, usque ad 700 \Rightarrow 9 μ . Perithecia laxae dispersa, atra, globosa, verrucosa, usque ad 160 μ diam. Sporae ellipsoideae, obtusae, atrobrunneae, 4-septatae, constrictae, 38–45 \Rightarrow 15–17 \Rightarrow 12 μ .

Hab. in foliis *Sapindacearum* spec. indet., Terecita, Ecuador, Stevens 81, typus in Herb. Univ. Illinois 4078).

In the type collection this is mixed with another species of *Meliola* having somewhat denser colonies; this second species is immature, without mature setae or perithecia, but it appears to be close to *M. furcillata*.

(659) *Meliola trichiliae* Beeli, Bull. Jard. Bot. Bruxelles, **7**: 99. 1920.

Type on *Trichilia retusa*, Aruwimi, Congo Belge, Bequaert 1495 in Herb. Jard. Bot. Bruxelles:

Colonies epiphyllous, dense, subvelvety, to 4 mm. diam. Hyphae substraight to undulate, branching opposite at wide angles, densely reticulate, cells mostly 15–25 \Rightarrow 7–9 μ . Capitata hyphopodia alternate or opposite, mostly alternate, straight or bent, antrorse to recurved, 17–22 μ long; stc. cylindric to cuneate, 3–8 μ long; hc. subglobose, cylindric or clavulate, entire, 12–16 \Rightarrow 10–12 μ . Mucronate hyphopodia few, mixed with capitata, alternate or opposite, ampulliform, 13–20 \Rightarrow 7–9 μ . Mycelial setae fairly numerous, straight, simple, acute, to 300 \Rightarrow 10–11 μ . Perithecia scattered, verruculose, to 230 μ diam. Spores dark brown, cylindric, obtuse, 4-septate, constricted, 44–51 \Rightarrow 15–18 μ .

On the same leaves are also colonies of ***Asteridiella bersamae*** Hansf. (comb. n. = *Irenina bersamae* Hansf.), very different in all characters. Stevens in Ann. Myc. **26**: 230, 1928 considered *M. trichiliae* as identical with *M. opposita* Sydow, but my comparison of types leads me to the conclusion that they are distinct species. My Uganda collections formerly referred to *M. trichiliae* have very crowded, opposite hyphopodia, and hence are now regarded as the African form of *M. opposita* Syd.

(660) ***Meliola tumatumariensis*** Hansf., sp. n.

Plagulae amphigenae, tenues, subvelutinae, usque ad 4 mm. diam. Hyphae brunneae, undulatae, opposite acuteque ramosae, laxae vel subdense reticulato-intertextae, cellulis plerumque 25–35 \Rightarrow 5–6 μ . Hyphopodia capitata alternata vel usque ad 1% opposita, subantrorsa vel patentia, recta vel curvata, 13–18 μ longa; cellula basali cuneata vel cylindracea, 3–7 μ longa; cellula apicali subglobosa vel clavata, integra, saepe curvata, 9–12 \Rightarrow 8–11 μ . Hyphopodia mucronata illis capitatis commixta, opposita vel alternata, ampullacea, 18–28 \Rightarrow 6–8 μ , collo elongato. Setae myceliales paucae vel

numerosae, dispersae, etiam juxta perithecia aggregatae, rectae, usque ad $350 \approx 7 \mu$, apice irregulariter denticulatae usque ad 10μ et saepe flexuosae. Perithecia dispersa, atra, globosa, verrucosa, usque ad 165μ diam. Sporae atrobrunneae, cylindratae vel tenuiter ellipsoideae, obtusae, 4-septatae, leniter constrictae, $38-46 \approx 11-13 \mu$.

Hab. in foliis *Piperis* sp., Tumatumari, British Guiana, Stevens 195 (typus in Herb. Farlow).

(661) **Meliola vanderystii** Hansf., sp. n.

Plagulae plerumque epiphyllae, densae, subvelutinae, -2 mm . diam. vel confluentes. Hyphae brunneae, undulatae vel sinuosae, opposite vel irregulariter lateque ramosae, dense reticulatae, cellulis plerumque $15-20 \approx 6-7 \mu$. Hyphopodia capitata alternata, recta vel curvata, subantrorsa, $18-30 \mu$ longa; cellula basali cuneata, $6-12 \mu$ longa; cellula apicali ovata, clavata, angulosa vel sublobata, versiformi, $14-20 \approx 8-12 \mu$. Hyphopodia mucronata illis capitatis commixta, alternata, ampullacea, $16-22 \approx 7-8 \mu$, collo curvato elongato. Setae myceliales praecipue juxta perithecia aggregatae, rectae vel leniter flexuosae, simplices, obtusae, $-330 \approx 7-8 \mu$. Perithecia dispersa, atra, globosa, verrucosa, -230μ diam. Sp. cylindratae, atrobrunneae, curvatae, obtusae, 4-septatae, constrictae, $42-51 \approx 11-12 \mu$.

Hab. in foliis *Acanthacearum* spec. indet., Panzi, Congo Belge, Vanderyst 16906, typus in Herb. Jard. Bot. Bruxelles.

(662) **Meliola villaresiana** Hansf., sp. n.

Plagulae epiphyllae, usque ad 1 mm . diam., densae, subleves. Hyphae brunneae, subrectae vel leniter sinuosae, opposite lateque ramosae, dense reticulatae, cellulis plerumque $20-25 \approx 7-9 \mu$. Hyphopodia capitata alternata, subantrorsa, recta, $25-35 \mu$ longa; cellula basali cuneata, $5-13 \mu$ longa; cellula apicali ovata, apice rotundata, integra vel leniter irregularia, $20-25 \approx 12-15 \mu$. Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, $22-25 \approx 7-9 \mu$. Setae myceliales rarissimae, juxta perithecia aggregatae, erectae, subrectae, simplices, obtusae, $-300 \approx 10-11 \mu$ (immaturae). Perithecia dispersa, atra, globosa, leniter verrucosa, -120μ diam. (immatura). Sporae atrobrunneae, cylindratae, obtusae, 4-septatae, constrictae, $48-58 \approx 22-24 \mu$.

Hab. in foliis *Villaresiae* spec., Brazil, Glaziov 22713 p. p., in Herb. Stockholm et Herb. Bruxelles.

(663) **Meliola zamboagensis** Hansf., sp. n.

Plagulae amphigenae, densae, subvelutinae, usque ad 3 mm . diam. vel late confluentes. Hyphae brunneae, undulatae vel tortuosae, opposite acuteque ramosae, dense reticulatae, cellulis plerumque $15-25 \approx 7-8 \mu$. Hyphopodia capitata alternata, curvata, antrorsa vel retrorsa, $20-25 \mu$ longa; cellula basali cylindrata vel cuneata, $3-9 \mu$ longa; cellula apicali subglobosa vel oblonga, saepe curvata, plerum-

que irregulariter rotundato-angulosa, 14—18 \Rightarrow 10—15 μ . Hyphopodia mucronata in hyphis distinctis evoluta, opposita vel alternata, ampullacea, 13—17 \Rightarrow 7—9 μ . Setae myceliales dispersae, rectae, simplices, acutae, usque ad 330 \Rightarrow 9 μ . Perithecia dispersa, verrucosa, atra, globosa, usque ad 140 μ diam. Sporae atrobrunneae, oblongae vel subellipsoideae, obtusae, 4-septatae, constrictae, 37—45 \Rightarrow 15—17 \Rightarrow 13 μ .

Hab. in foliis *Dysoxylum* spec., Malangas, Zamboanga, Mindanao, Philippine Is., Ramos & Edano in Phil. Bur. Sci. 36345 (typus in Herb. Univ. Illinois 5018).

(664) **Hysterostomella chaetocarpi** Hansf., sp. n.

Stromata amphigena, non opposita, atra, rotundata, usque ad 3 mm. diam., dispersa vel subinde 2-confluentia, rugulosa, haud fimbriata; mycelium liberum nullum; paries superior irregulariter radiatus, subopace atrobrunneus. Loculi numerosi, usque ad 1 mm. longi, recti vel irregulariter curvati, radiantes ex centro sterili leniter pulvinato, longitudinaliter dehiscentes. Hymenium circa 90 μ cr., sursum brunneum, mucoso-gelatinosum; paraphyses numerosae 2 μ cr., dubie septatae, sursum dilute brunneae, subinde ramosae, epithecium brunneum formantes; asci numerosi, clavato-ellipsoidei, sessili, apice rotundati incrassatique (—10 μ), usque ad 70 \Rightarrow 10—15 μ , 8-sporei. Sporae multiseriatae, clavulato-oblongae, obtusae, 1-septatae, leniter constrictae, leves, brunnescentes, 15—17 \Rightarrow 5 μ , cellula superiore saepius leniter crassiore breviorque.

Hab. in foliis *Chaetocarpi africanae*, Congo Belge, Vanderyst 42539, typus in Herb. Jard. Bot. Bruxelles.

The stromata have a thin hypothecium below the loculi, which radiate closely from a central sterile boss; the asci are at first clavulate-ellipsoid, but elongate at maturity to discharge their spores through the gelatinous epithecium, and then collapse. The stromata are attached centrally to a small hypostroma in the leaf.

(665) **Halbaniella mimusopsidis** Hansf., sp. n.

Plagulae hypophyllae, usque ad 3 mm. diam. vel late confluentes, tenues. Hyphae dilute brunneae, flexuosae vel tortuosae, 2.5—4 μ cr., indistincte septatae, irregulariter ramosae, laxe reticulatae. Hyphopodia haud numerosa, alternata vel sparsa, 1-septata; cellula basali cylindracea, curvata, 4—15 μ longa; cellula apicali ovata vel clavata, integra, curvata, 6—9 \Rightarrow 3—4 μ . Thyriothecia dispersa, rotundata, radiata, usque ad 80 μ diam.; paries superior atrobrunneus, margine non vel leniter fimbriata, mox mucoso diffluens; paries inferior indistinctus, hyalinus. Asci numerosi, erecti, ellipsoidei vel clavati, sessili, apice late rotundati et in juventute incrassati (—5 μ), 8-sporei, usque ad 45 \Rightarrow 20 μ . Paraphyses numerosae, erectae, circa 3 μ cr., sursum mucosae. Sporae parallelae, clavulatae, hyalinae, utrinque obtusae, transverse 4-septatae, haud constrictae, leves, 35—38 \Rightarrow 6 μ . Pycnothecia thyriothecia consimilia; pycnosporae hyalinae, cylindra-

ceae, apice rotundatae, basi subtruncatae, leves, rectae, 3-sepatae, haud constrictae, $18-21 \rightleftharpoons 4-4.5 \mu$.

Hab. in foliis *Mimusopsidis welwitschii*, Mpese, Congo Belge, V a n d e r y s t 39032 (typus), 39047, 39133, 39131, etc., in Herb. Jard. Bot. Bruxelles.

The hyphopodia frequently occur in pairs on the same stalk cell; all hyphopodia grow to the close vicinity of the host stomata, but do not penetrate between the guard cells, and appear to parasitise the neighbouring epidermal cells.

(666) **Asterina mimusopsidis** Hanf., sp. n.

Plagulae epiphyllae, usque ad 3 mm. diam., tenues. Hyphae atrobrunneae, subrectae, alternatim vel opposite ramosae, acute, laxe reticulato-radiantes, cellulis plerumque $30-40 \rightleftharpoons 9-11 \mu$. Hyphopodia alternata vel unilateralia, continua, subglobosa, integra, hyphis concolorata, $12-17 \mu$ diam. Thyriothecia dense dispersa, atra, rotundata, usque ad 200μ diam.; paries superior radiatus, atro-brunneus, margine haud fimbriatus, hyphis undulato-radiantibus, $6-10 \mu$ cr.; paries inferior subhyalinus, tenuis, indistincte radiatus. Asci usque ad 20, ovati vel globosi, sessili, tenuiter tunicati, 8-spori, usque ad 65μ diam. Sporae conglobatae, oblongae, obtusae, 1-septatae, leniter constrictae, leves, brunnescentes, $28-32 \rightleftharpoons 14-16 \mu$, cellula superiore leniter crassiore. Paraphysoides mucoso-diffuentes; thyriothecia sursum irregulariter dehiscentia. Conidia nulla.

Hab. in foliis *Mimusopsidis welwitschii*, Mpese, Congo Belge, V a n d e r y s t 39047 (typus), 39032, 39133, 39131, etc., in Herb. Jard. Bot. Bruxelles.

This species resembles *Asterina robusta* Doidge, but the mycelium and hyphopodia are larger than in that species, while the spores are considerably smaller.

(667) **Dimerium vanderystii** Hansf., sp. n.

Mycelium in plagulas *Parodiopsis kwangensis* (P. Henn.; Hansf. (comb. n., syn. *Parodiella kwangensis* P. Henn.) parasitans; hyphae exhyphopodiatæ, dilutissime brunneae, $2-3 \mu$ cr., septatae, irregulariter ramosae. Perithecia dispersa, atro-brunnea, globosa, $70-85 \mu$ diam., sessilia, apice subtruncata vel subpapillata, poro rotundato pertusa; paries unistratosus, parenchymaticus, atrobrunneus, cellulis angulosis, $4-7 \mu$ diam.; setae nullae. Asci numerosi, saccati vel clavato-ellipsoidei, sessili, apice rotundati, 8-spori, usque ad $40 \rightleftharpoons 15 \mu$. Sporae $2-3$ -seriatae, oblongae, obtusae, 1-septatae, leniter constrictae, leves, brunnescentes, $12-15 \rightleftharpoons 3.5-4 \mu$.

Hab. in plagulis *Parodiopsis kwangensis* in foliis *Sapii elliptici*, Banza Boma, Congo Belge, V a n d e r y s t 38052, typus in Herb. Jard. Bot. Bruxelles.

Below and between the asci are the septate filamentous remains of the hyaline ground tissue of the young perithecium.

(668) **Ophionectria hendrickxii** Hansf., sp. n.

Hyphae mycelii superficiales in plagulis *Englerulae macarangae* parasiticae, subhyalinae vel dilutissime flavo-brunneae, septatae, 2–3 μ cr., dense reticulatae et subpelliculosae. Conidia nulla. Perithecia dispersa, superficialia, sessilia, subglobosa vel conoidea, atrobrunnea (sub lente lutea vel rufo-brunnea), glabra, 80–100 μ alt., 60–70 μ diam.; paries circa 5 μ cr., ex hyphis intertextis compositus, intus hyalinus, concentrice fibrosus, membranaceus, apice poro rotundato perforata. Asci numerosi, basali, erecti, clavulati, sursum rotundati, haud incrassati, deorsum in stipitem brevem attenuati, tenuiter tunicati, 8-sporei, usque ad 45 μ \cong 6–7 μ . Sporae parallelae, hyalinae, aciculares utrinque acutae, leniter arcuatae, 18–20 μ \cong 1–1.5 μ , medio dubie 1-septatae, haud constrictae. Paraphyses numerosae, hyalinae, simplices, filiformes, ascos superantes, sursum curvatae vel hamatae, continuae, 1 μ cr., massam gelatinosam formantes.

Hab. in plagulis *Englerulae macarangae* in foliis *Macarangae* spec., Mt. Biega, Kivu, Congo Belge, Hendrickx 3499.

(669) **Actinocymbe congensis** (P. Henn.) Hansf., comb. n.

Syn.: *Actiniopsis congensis* P. Henn. in Flore du Bas- et Moyen-Congo, II: 2: 99. 1907.

The genus *Actiniopsis* Starb. was founded on lichens, hence cannot include the present fungus, in which there is no trace of association with algae.

Perithecia hypophyllous, scattered loosely, completely superficial and easily detached, depressed globose, to 130 μ diam., surrounded at the base with a loosely reticulate mycelium of pale olivaceous to subhyaline, much branched, septate, exhyphopodiate hyphae 2–4 μ thick; this mycelium is continuous with the edge of the superficial membrane covering the perithecium, and consisting of dark olivaceous, angulose parenchyma, not radiate in arrangement, thin, membranous, without a visible apical pore. Around the sides of the perithecium itself arise 6–15 or more setae, dark brown, straight, smooth, obtuse, septate, to 500 μ \cong 4–6 μ , sometimes agglutinate in strands of 2–4; the apex sometimes descends to the leaf surface and grows out into mycelial hyphae. Asci basal, numerous, erect, clavulate-cylindric, rounded and slightly thickened at the apex, attenuate below into short stipe, 8-spored, 60–80 μ \cong 10–15 μ ; paraphyses numerous in young stages, erect from the base, simple, hyaline, filiform, 1–1.5 μ thick, later mostly disappearing. Spores parallel in ascus, hyaline, clavulate-filiform, rounded at apex, attenuate to subacute base, 5–7-septate, not constricted, smooth, thin-walled, straight, 40–70 μ \cong 3.5–4 μ .

On *Psophocarpus palustris*, Kisantu, Congo Belge, Vanderyst B 75, typus in Herb. Jard. Bot. Bruxelles.

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