Micoflora Domingensis Exsiccata.

(Cent. IV, No. 301—425) [1]

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Wit 1 Textfig.

The present century deals with 146 species and varieties, distributed in 153 specimens. The following species are new to science: *Acladium biophilum, Asterina pliniae, Aulographum panici-maximi, Bremia domingensis, Chaetothyrium ceibae, C. dominicanum, Dictyothyriella inaequiseptata, Eutypa petiolaris, Haplosporella thespesiae, Hemidothis palmarum, H. pellitiforme, Meliola combinans, M. monochroma, Microthyriella domingensis, Phyllachora sarcomphali, Phyllosticta sancti-josephi, P. yunaensis, P. cordillerana, P. yaguarum, Pileolaria domingensis, Septoria phylloptosica, Torula epistromata.* New combinations are *Meliolina pulveracea, Mycosphaerella laureolae* and *M. nectandrae,* in addition to *Phyllachora guazumae* (Chard.) n. comb. (= *Trabutia guazumae* Chard., Mycologia, Vol. XIII, pag. 291, 1921). Many species are new to the Dominican Republic (Santo Domingo) and to West Indies; a few to the Americas. Many host plants are also new for their respective species of fungi.

A general index of the genera, species, varieties and forms published in the centuries I—IV is appended. A number of previous determinations are rectified.

A few species were collected in the Republic of Haiti on the Western side of the same Española (Hispaniola) island.

No. 425. *Frankiella alni* (Wor.) Maire et Tison, Ann. Myc., Vol. VII, p. 242 (1909). — On living woody roots of *Alnus glutinosa* (L.) Vill. (Cult.) Llano Costero, prov. Santo Domingo, Haina, Estacion Agronomica, V. 1926, coll. R. C. — A conventional determination because we never observed any fungus or *Actinomycetes.* The species has been determined for the shape of radical galls. The identity of causative organism, *Plasmodiophora alni* (Wor.) Moell., *Frankiella alni* (Wor.) Maire et Tison, or *Actinomyces alni* (Wor.) Peklo is still uncertain. The root tubercles were found on a few, small and young trees of *Alnus glutinosa,* evidently introduced for experimental

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[1]) For I, II and III centuries, see Annal. Mycol., Vol. XXIX, 3—4, p. 283—299 (1931), Vol. XXXI, 3, p. 144—167 (1933) and Vol. XXXVI, 2—3, p. 198—245 (1938).

purposes from Europe or USA in the Experimental Station of Haina. A few years later the trees were lost.

No. 133 bis. *Albugo platensis* (Speg.) Sw., Journ. Mycol., Vol. VII, p. 113. 1892. — On living leaves of *Boerhaavea erecta* L. (var.?), Cordillera Septentrional, prov. Santiago, Santiago, road to Puerto Plata, in fields, 24. VI. 1929, coll. R. C. — A quite common Dominican species, both on *Boerhaavea erecta* and *B. paniculata* and varieties or allied microspecies.

No. 424. *Peronospora ficariae* Tul., Comptes Rend., Vol. XXXVIII, p. 1103 (1854). — On living leaves of *Ranunculus* sp. (Cult.), Peninsula de Samanà, Samanà, garden in the town, V. 1930, coll. R. C. — A species new to Santo Domingo and for the West Indies, but diffuse in Europe and North America. The presence of the species in the Dominican Republic, where the members of the Ranunculaceae family are exceedingly scarce both in nature and cultivation is very interesting.

No. 357. **Bremia domingensis** Cif., sp. n.

Coloniis hypophyllis, niveis, sublanosis, delicatis, etiam in sicco persistentibus et evidentibus, delimitatis, pro more angulatis, plus vel minus elongatis, marginalibus vel non, pro more apicalibus, nervo mediano foliari limitatis, variabilibus sed 2—5 mm longis, 1—3 mm latis, etiam pluribus in quaque lacinia, non vel parum maculiculis, halone imperspicuo, decolorato cinctis, in pagina superiore foliorum non vel parum perspicuis; sporangiophoris ut in *Bremiae lactucae,* 300—450 μ longis, 7—10 μ latis, 3—5-ramosis, apicaliter attenuatis; sterigmatibus apicalibus 3—5 variabilibus; sporangis numerosissimis, subglobosis, hyalinis, levibus, continuis, 12—17 μ diam., pro more 13—15,5 μ, uniformibus.

Hab.: in foliis vivis *Parthenii hysterophori* L. (Compositae), Valle del Cibao, prov. Santiago, Hato del Yaque, in ruderatis, tempora pluviosa anni 1930—31 frequens, legit R. Ciferri.

First segnalation of the genus for Santo Domingo and the West Indies. This species is extremely common on this weed only during the rainy season, then rapidly and completely disappearing, so that is easy to understand why the fungus escaped to the collection. This mold is evident on the host plant not more than one week, may be also ten days; during this period at least one half of the leaf harboured the fungus. The morphology of our specimen agree well with *B. lactucae* Regel sensu lato; it is quite variable, but in the limits established by Ling and Tai (Trans. Brit. Myc. Soc., Vol. XXVIII, pag. 16—25. 1945). The sporangiophores are 3—5-branched, about 300—450 μ in length, having 3—5 sterigmata; the sporangia are subglobose, 12—17 μ, as a rule 13—15,5 μ diam. We suppose that

this fungus is specialized on the new host plant as a new geographical race of the genus in view of the work on the biological specialization by Schweizer (Die kleinen Arten von *Bremia lactucae* etc. Bern 1919) and by Ling and Tai.

No. 346. *Phytophthora colocasiae* Raciborski, Parasit. Algen Pilze Javas, Vol. I, p. 9 (1900). — On living leaves of *Dracontium polyphyllum* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 21. XII. 1930, coll. R. C.

No. 346 bis. As above, on living leaves of *Xanthosoma* sp. (Cult.), Valle del Cibao, prov. Pacificador, San Francisco de Macoris, Cenoví, in fields and gardens, 8. VIII. 1931, coll. R. C. — A common species on cultivated Araceae, e. g. species of the genera *Alocasia, Colocasia, Xanthosoma,* etc., during the rainy seasons. *Dracontium polyphyllum* is an unusual host plant for this mildew; it has been collected on plants cultivated from the wild material. As a rule poorly fructified, but evident by the large, decolorized or water-soaked foliar spots.

No. 335. **Chaetothyrium ceibae** Petr. et Cif., sp. n.

Fumagineum; subiculo brunneo-nigridulo, ex hyphis dense intertextis composito; mycelio rarius cylindraceo, brunneo, septato, 2—3 usque 5 μ crasso, frequenter e cellulis catenulatis efformato; cellulis singulis ellipticis, ovatis vel subcylindraceis, 5—25 ⇌ 3—10 μ, brunneis, continuis, crassiuscule tunicatis; peritheciis brunneo-nigris, 150—300 μ diam., plus vel minus cellulosis, rotundatis vel ovato-pyriformibus, sursum ostiolatis papilla pluristratosa distincta praeditis, 20—25 μ diam.; pariete pluristratoso e cellulis angularibus efformato, extus brunneo pergamenaceo, rigidiusculo, intus flavidulo blando; ascis aparaphysatis, octosporis, clavatis vel obcylindraceis, denique mucoso-deliquescentibus, apice incrassato, 80—120 ⇌ 25—35 μ; sporis distichis usque polystichis, primo hyalinis, dein flavidulis usque flavo-fumosis, variabilibus, pro more ellipticis vel ovatis aut subcylindraceis, apice rotundato-attenuato, basi rotundata sed variabili, 5—7-septatis, rarius 8-septatis, ad septa leviter constrictis, plerumque non muriformibus, rarius cum 1 usque 2 septis longitudinalibus etiam obliquis vel divaricatis, 35—55 ⇌ 10—18 μ.

Hab.: in foliis visis *Ceibae pentandrae* (L.) Gaertn. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in sylva, 28. I. 1931, leg. R. C.

Mature ascosporic fructifications are unfrequent in our material, which is frequently mixed with *Microxyphium* ceratopycnidia and normal pycnidia, and with Hyphomycetous fungi like *Triposporium,* cladosporioid and hormodendroid chains, and so on. It is very possible that the ascosporic sooty-mould grows intermingled with other, fumagoid fungi. Our species is strictly allied to *C. javanicum*

(Zimm.) Boedijn (Bull. Jard. Bot. Buitenzorg sér. 3, Vol. XI, p. 225. 1931) and if this species is considered as larger as in this paper, our binomial must be reduced to synonym. On the other hand, if the species of the genus *Chaetothyrium* are take in a more restrictive sense, as in Hansford (I. M. I., Bull. No. 15, p. 144. 1946) it may be distinguished from the described species.

No. 358. **Chaetothyrium dominicanum** Cif., sp. n.

Mycelio pauco, ex hyphis laxe ramosis, hyalinis vel subhyalinis, parce septatis, parum distinctis, 2—3 μ crassis constituto; perithecia plerumque epiphylla, sparsa, non maculicola, superficialia, solitaria vel binata aut ternata, globoso-depressa, poro 10—18 μ diam. pertusa, pro more 100—180 μ diam., basaliter setis latis ornata; setis perithecialibus suffultis usque paucis, irregulariter radiatis, flavo-hyalinulis, dein brunneolis, rigidiusculis, rectis vel undulatis, simplicibus, crasse tunicatis, sursum pallidioribus et rotundatis vel obtusis, prope basim opacis, 20—60 μ longis, 3—4 μ latis; ascis numerosis, oblongatis dein clavulatis, sessilibus vel saltem substipitatis, pro more 8-sporis, rarius 4—6-sporis, crassiuscule tunicatis, 40—55 ⇌15—30 μ; sporis confuse distichis vel indistincte tristichis, ellipsoideis vel oblongatis aut subfusoideis, etiam clavulatis, rectis vel curvulis, utrinque acutatis, transverse pluriseptatis, individualiter hyalinis, in cumulo dilutissime flavo-fumosis, pro more 3-septatis, rarius usque 5-septatis, ad septa non vel parum constrictis, 10—17 ⇌ 5—8 μ, pro more 12—16 μ longis; paraphysoideis indistinctis, mucoso-fibrosis, paucis.

Hab.: in foliis vivis *Eupatorii odorati* L. (Compositae), Valle del Cibao, prov. Santiago, Santiago, Palmarejo, 21. XI. 1930, leg. R. Ciferri et E. L. Ekman (N. H. 16203).

A good species, different from *C. permixtum* Syd., common in Santo Domingo, and from the rarer *C. variabile* Toro and *C. ekmanii* Pet. et Cif., both endemic. Apparently dont agree with none of the described species.

No. 334. *Phyllachora azuanensis* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 235 (1932). — On living leaves of *Barbiera pinnata* (Pers.) Baill., R. D., Cordillera Central, prov. La Vega, La Vega, road to Jarabaccoa, 800 m ca., 30. I. 1929, coll. R. C. — This is the second collection of this rare, endemic *Phyllachora.*

No. 214 bis. *Phyllachora chaetochloae* Stev., Ill. Biol. Mon., Vol. LXXXIII, p. 19. 1923. — On living leaves of *Setaria* sp., Valle del Cibao, prov. Santiago, Santiago, road to Janico, 21. IX. 1931, coll. R. C. — It is doubtful if this species is to be referred to *P. cornispora* Alk. (Bull. Cornell Univ., Vol. III, p. 1897) typically found on *Setaria setosa (Chaetochloa setosa).*

No. 304. *Phyllachora eugeniae* Chard., Mycologia, Vol. XIX, p. 300 (1927). — On living leaves of *Eugenia rhombea* (Berg.) Krug et Urb., Cordillera Septentrional, prov. Santiago, Santiago, Los Lagunas, road to Monte Cristy, 18. IV. 1932, coll. R. C. — A species previously collected in Puerto Rico and in the Dominican Republic on the same host plant by Chardon.

No. 319. *Phyllachora maculatum* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 241. (1932). — On living leaves of *Gilibertia arborea* (L.) E. March., Cordillera Central, prov. La Vega, La Vega, road to Jarabacoa, 22. XII. 1929, coll. R. C. — This species has been described on *Oreopanax capitatum* (Jacq.) Dcne et Planch. of the same family of host plants. This is the second record of this endemic species of Santo Domingo. *Gilbertia arborea* is also known as *Dendropanax arboreum* (L.) Dcne. et Planch. Associated with the ascosporic fungus is found the imperfect stage of *Linochora maculatum* Petr. et Cif. Both the perfect and the imperfect stages agree very well with the type specimen.

No. 368. *Phyllachora nectandrae* Stev. et Dalbey, Bot. Gaz., Vol. LXVIII, p. 57 (1919). — On living leaves of *Misantheca triandra* (Sw.) Mez., Cordillera Central, prov. Santo Domingo, La Cumbre, rain forest, 300 m ca., 3. III. 1930, coll. R. C. — Associated on the same leaf with *Meliola glabra* Berk. et Curt., previously found in Santo Domingo but not on this host plant. The *Meliola* is overgrown by *Hyphomycetes* and other fungi.

Stromata rounded to orbicular, also irregular, amphigenous but better developed on the upper surface of the leaf, 1,5—3 mm diam. or larger, surrounded by a decolorized, then yellow brownish, diffuse, indelimitate spots, better evident in the upper surface, black, shining, raised, scattered, rarely confluent, of indistinct structure, with a black, diffuse clypeus, 30—60 μ in thichness; locules as a rule many for each stromata, more or less serially arranged, rounded to round-flattened as a rule 200—300 μ or more in diam., also elongate, with wall and base 8—12 μ in thickness, of confused parenchymatous structure; asci cylindric or ellipsoided, with rounded free end and sessile, but narrowed base, 8-spored, 80—120 ⇌ 8—12 μ; ascospores confusedly disposed to distichous, oblong to ellipsoidal or subovoidal in shape, with rounded ends, hyaline, continuous, smooth, 12—15 by 4—6 μ; paraphyses filiforme, as a rule well developed, simple or sparingly branched at the top, 60—140 μ in length.

It agrees well with *P. nectandrae* as described in Puerto Rico on *Nectandra patens* of the same family of host plants. A new species to Santo Domingo and a new host record for this *Phyllachora.*

No. 368 bis. On living leaves of *Nectandra coriacea* (Sw.) Griseb., Cordillera Central, prov. La Vega, Bonao, rain forest, III. 1926, coll. R. C. — Associated with *Dictyothyriella heterosperma* Syd. (q. v.).

No. 331. *Phyllachora paspalicola* P. Henn., Hedwigia, Vol. XLVIII, p. 106 (1908). — On living leaves of *Paspalum clavuliferum* Ch. Wr., Valle de San Juan, prov. de Azua, San Juan de la Maguana, in fields, 22. VIII. 1929, coll. E. L. Ekman. — A new host record for this species on *Paspalum*. *P. paspalicola* is widely diffused throughout tropical America, but on *P. conjugatum* Berg. Our specimen agrees with the description of *P. paspalicola,* a rather variable species, but many species even in the West Indies, not always clearly distinct one from another have been described on *Paspalum*. This group of *Phyllachorae* needs a comparative revision.

No. 323. *Phyllachora sancta* Petr. et Cif., Ann. Mycol. Vol. XXX, p. 247 (1932). — On living leaves of *Guajacum sanctum* L., Cordillera Septentrional, prov. Santiago, Santiago, Las Lagunas, hills at Arroyo Haranguillo, 400 m ca., 20. X. 1930, coll. R. C. — Only one collection of this wonderful species. This is part of the type specimen.

No. 379. **Phyllachora sarcomphali** Cif., sp. n.

Maculae siccae, in pagina superiore foliorum griseolae, plus vel minus rotundatae vel late ellipticae, singulae, sparsae 2—3,5 mm diam. vel confluendo majores, halone angustissimo brunneo cinctae, in pagina inferiore dilute brunneae, halone angusto fusco cinctae; stromate in mesophyllo evoluto, uno in quaque macula, semper epiphyllo, centrali, nigro, 150—300 μ diam., epidermide velato, dein erumpente, strato basali 10—20 μ crasso, immerso, structura parenchymatica indistincta, brunneo; clypeo quasi carbonaceo, indurato, 20—30 μ crasso, cum epidermide connato, fusco-brunneo, opaco, indistincte parenchymatico; perithecia singula, etiam bina, rarius trina, globoso-depressa, semper irregularia, ostiolo papilliformi clypeo immerso praedita; pariete delicato, dilute-brunneo vel subhyalino, fibrosiusculo; ascis paucis, clavatis, rotundatis dein clavulatis, sessilibus vel late, breviter stipitato-truncatis, 8-sporis, pro more 50—70 ⇌ 10—15 μ; sporis indistincte di-tristichis, cylindraceis vel elliptico-elongatis, interdum obclavatis, apicibus rotundato-obtusatis, etiam attenuatis, rectis vel curvulatis, hyalinis, continuis, pro more 20—25 ⇌ 5—7 μ; paraphysoideis numerosis sed fibroso-mucosis, indictinctis.

Hab.: in foliis vivis *Sarcomphali* sp., Valle del Cibao, prov. Espaillat, Moca, prope via Salcedo, II. 1928, leg. R. Ciferri.

This species is clearly allied to *P. petrakii* Cif., but distinct in many ways: clearly parasitic habitus, larger spots and stromata, spores of different shape and size, and a few secondary characteristics. But it may be considered also as a variety of *P. petrakii*. In the same spots are not rarely found two unidentified Sphaeropsidales.

No. 327. *Phyllachora swieteniae* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 252 (1932). — On living leaves of *Swietenia mahagoni* Jacq., R. D., prov. Santo Domingo, Llano Costero, Haina, 3. V. 1929; San Cristobal, 22. IX. 1930, coll. R. C. — This is the second collection of this beautiful, endemic species.

No. 42 ter. *Phyllachora tabebuiae* (Rehm) Theiss. & Syd., Annal. Mycol., Vol. XIII, p. 553. 1915. — On living and half-dry leaves of *Tabebuia ? berterii* (D. C.) Britt., R. D., Valle del Cibao, prov. Santiago, Santiago, road to San José de las Matas, 2. II. 1931, coll. R. C. — Not infrequent on leaves of species of *Tabebuia* and *Catalpa (C. longisiliqua)*.

No. 301. *Meliola angusta* Stev. et Teh., Mycol., Vol. XVIII, p. 6 (1926). — On living leaves of *Coccoloba ? costata* Ch. Wr., R. D., Valle del Cibao, prov. Santiago, Villa Altagracia, in thickets, 6. I. 1939, coll. E. L. Ekman.

No. 301 bis. As above on living leaves *Coccoloba ? buchii* O. C. Schmidt, R. D., Cordillera Central, prov. Monte Cristy, Monción, V. 1929, coll. R. C. — A common species on *Coccoloba* spp. in Santo Domingo. In addition to the true species (with setae 150—360 μ in length, capitate hyphopodia with the head cell 12—15 μ in diam. and spores, as rule of 40 by 10 μ) a glabrous *Meliola* which may be an undescribed specis is also present.

No. 53 bis. *Meliola capsicola* Stev., Ill. Biol. Mon., Vol. II, p. 41 (1916). — On living leaves of *Capsicum frutescens* L. (Cult.), R. D., Valle del Cibao, prov. Espaillat, Moca, in a garden, 12. IV. 1930, coll. R. C. — Previously found on *Capsicum bacchatum*.

No. 339. **Meliola combinans** Cif., n. sp. ad interim.

Coloniis nigris, epiphyllis, effusis, irregularibus, pulveraceis, sparsis sed saepe confluentibus, rotundatis, orbicularibus vel irregularibus, 1—3 mm diam.. confluendo multo majoribus; mycelio dense ramoso, indistincte septato, brunneo-fusco, opaco, e segmentis rectis vel undulatis, 3,5—5 μ crassis composito; setulis myceliaribus abundantibus, nigris, opacis, rigidiusculis, 250—380 μ usque 800 μ

longis, apice simplicibus, acutatis, basi sub-bulbosis, 5—7 μ crassis; hyphopodiis capatatis sparsis, pro more alternatis, pedunculatis, cellula basali, 5—10 μ longa, irregulariter cylindracea, cellula apicali multo irregulari, ovata, fusoidea, elliptica, trigona vel varie angulosa, pro more 5—15 ⇌ 5—8 μ; peritheciis nigris, sphaerico-depressis, opacis, rotundatis, astomis, indistincte cellulosis, 100 μ diam. vel minoribus, rarius usque 120 μ; appendicibus vermiformibus non semper praesentibus paucis vel numerosis, dilute brunneis usque flavo-brunneis, simplicibus, rectis vel undulatis, 50—100 μ longis, 3,5—5 μ latis, apice rotundatis, basi non incrassatis; hyphopodiis mucronatis et ascis non visis; sporis ellipsoideis, brunneis, regularibus, 4-septatis, ad septa constrictis, 40—50 ⇌ 17—20 μ.

Hab.: in foliis vivis vel siccis *Phari* sp. (Graminaceae), Cordillera Septentrional, prov. Puerto Plata, prope viam ad Puerto Plata, 6. VIII. 1931, leg. R. Ciferri.

An interesting species unfortunately overgrowth by other fungi. The peculiarity of this species is the possession of mycelial setae and perithecial and vermiform appendages, combining the characteristics of the genera (according our proposal, sub-genera) *Irene* and *Eumeliola.*

We are hesitating to propose a new subgenus **Chaetoirene** combining the vermiform appendages of the perithecium with the setae of the mycelium because we are not sure that two species of *Meliola* are associated in the same colonies. The formula of this species is: 3111. 4213.

No. 330. *Meliola desmodii* Karst. et Roum., Rev. Mycol., Vol. XII, p. 77 (1890). — On living leaves of *Meibomia* sp., Valle del Cibao, prov. Moca, Moca, Estación Nacional Agronomica, in fields, 26. XI. 1927, coll. R. C. — A species common in Santo Domingo on *Desmodium* spp. (*Meibomia* spp.) and *Centrosema* (*Bradburya*).

No. 302. *Meliola durantae* Gaill., Bull. Soc. Myc. France, Vol. VIII, p. 181 (1892). — On living leaves of *Lantana involucrata* L,. Cordillera Central, prov. Santiago, road Santiago to San José de las Matas, 13. IV. 1932, coll. R. C. — Not uncommon both on *Lantana involucrata* and *L. trifolia.* It has been never observed on the remaining ten or eleven species of *Lantana* found in the Hispaniola island, including the common *L. aculeata* L.

No. 368. *Meliola (Irenina) glabra* Berk. et Curtis, Journ. Linn. Soc. London, Vol. X, p. 392 (1869). — On living leaves of *Misanteca triandra* (Sw.) Mez. — See under *Phyllachora nectandrae* Stev.

No. 201 bis. *Meliola mayaguesiana* Stevens, Ill. Biol. Mon., Vol. II, p. 32 (1916). — On leaves of *Palicourea crocea* (Sw.) R. et Sch., Cordillera Central, prov. La Vega, Bonao, rain forest, III. 1930, coll. R. C. — A quite variable specie; in this specimen the formula is 3411. 3122 instead of 3411. 512: perithecia about 100 μ diam.; spores, as a rule, 40 μ in length, very narrowed at the septa; setae simple, about 500 μ in length, straight or slightly curved, fasciculate, rigid, black, truncate, simple. Not rarely associated with *Trichothyrium dubiosum* (Bomm. et Rouss.) Theiss., and with an immature Asterinea.

No. 78 bis. *Meliola melastomacearum* Speg., Bol. Acad. Nac. Ci. Cordoba, Vol. XI, p. 495. 1889. — On living leaves of *Miconia* sp., Cordillera Central, prov. Santo Domingo, La Cumbre, 325 m ca., 29. IV. 1930, coll. R. C. — A common species on members of the Melastomataceae family. Found in the Dominican Republic on many host plant of the same family. It is a very typical species of the subgenus *Irenina.*

No. 338. *Meliola moelleriana* Wint., Hedwigia, Vol. XXV, p. 98 (1886). — On living leaves of *Hibiscus brasiliensis* L., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in thickets, 6. XI. 1931, coll. R. C. — An intertropical species, quite common in Santo Domingo on members of *Malvaceae.*

No. 344. **Meliola monochroma** Cif., sp. n.

Coloniis epiphyllis, nigris, applanatis, densis, subeffusis, in quoque foliola numerosis, pro more 2—3 mm diam., non maculicolis; mycelio brunneo, septato, parce ramoso, leviter undulato, 3,5—4,5 μ crasso; hyphopodiis capitatis paucis, alternatis, sparsis, variabilibus, quasi apodis, sphaericis vel sphaeroideis, 10—13 μ diam., sed irregulariter usque breviter stipitatis, stipite 3—6 μ longo, pro more cellula apicali rotundata vel rotundato-depressa, ovata, elliptica aut subirregulari, 9—12 ⇌ 8—10 μ; sine vel cum paucis hyphopodiis mucronatis, a hyphopodiis capitatis separatis, oppositis, rarius unilateralibus, in partibus myceliaribus distinctis locatis, ampulliformibus basaliter cylindraceo-inflatis, sursum attenuatis, 20—25 μ longis, 6—8 μ latis vel minoribus; peritheciis brunneis, sphaerico-depressis, opacis, structura cellulari indistincta, bene ostiolatis, 50—80 μ diam., rarius majoribus; setis myceliaribus brunneis, rectis, interdum paulo curvatis, apice rotundato sed attenuato, paucis, 200—250 μ longis, 7—8 μ prope basin, 4—6 μ in apice latis; ascis non visis; sporis oboovatis vel ellipsoideis, 4-septatis, brunneis, ad septa constrictis 40—50 ⇌ 9—11 μ.

H a b.: in foliis vivis *Mimosae ceratoniae* L., (Leguminosae), Llano Costero, prov. Santo Domingo, Ciudad Trujillo, Los Alcarrizos, 11. II. 1830, leg. R. Ciferri.

A species allied to *M. lonchocarpi* Speg. and *M. gesuitica* Speg. (the last not found in Santo Domingo) but distinct by the size of ascospores, shape and arrangement of hyphopodia, structure of the setae, etc. The formula of this species is: 3111. 4110.

No. 325. *Meliola panicicola* H. et P. Syd., Ann. Mycol., Vol. XII, p. 552 (1914). — On living leaves of *Leersia hexandra* Sw., R. D., Cordillera Central, prov. L Vega, at Rincón, in swamps, 15. II. 1928, coll. R. C. — A not uncommon species on members of the Graminaceae. Previously found in Santo Domingo on the same host.

No. 317. *Meliola psidii* Fries, Linnaea, Vol. V, p. 549 (1830). — On living leaves of *Psidium guajava* L. (Cult.), Valle del Cibao, Espaillat, Moca, at La rosa, in fields, 30. V. 1931, coll. R. C.

No. 317 bis. As above, *Psidium guineense* Sw. (Cult.), Valle del Cibao, prov. Moca, road to Salcedo, in fields, 6. VI. 1928, coll. R. C. — A very common species, fully neotropical.

No. 351. *Meliola zigzag* Berk. et Curt., in Berk., Journ. Linn. Soc. London, Bot. Vol. X, p. 392 (1869). — On living leaves of *Phoebe* sp., Cordillera Central, prov. Santo Domingo, La Cumbre, 300 m ca., 18. IX. 1928, coll. R. C.

Colonies black, sooty, subcrustose, hypophyllous, adherent, of very irregular shape, 1—3 mm diam. or length if single, more if confluent; mycelium light-brown, not very branched, septate, branching irregular, 10 μ in thickness; mycelial setae abundant, dull-brown in color opaque with a lighter type, and here narrowed but truncate, septate, not narrowed at the septa, with an ampullaceous base, straight or a little curved at the base, not branched, 510—900 μ in length, 10 μ wide at the base 8 μ near the tip; capitata hyphopodia with a short foot, elliptic or clavate, more or less irregular, straight or slightly curved, 6 μ in length, with head cell irregular, 18 μ of average length, 2 μ in thickness, alternate, abundant; mucronate hyphopodia mixed with the capitate one but scarcer, opposite or unilateral, bottle-shaped, with a curved, narrowed and truncate free end, 24 μ in length, 8 μ in with near the base; perithecia dull-brown, opaque spheric-depress, of cellular structure if young, indistinct if mature, ostiolate, 180—200 μ in diam.; asci not observed; ascospores light-brown, elliptic, regularly 4-septate, narrowed at the septa, as a rule 40—45 by 16—19 μ.

A cuban species (but also South American and Indian) new to Santo Domingo; probably also the host plant is new for this species. With minor difference, it agrees well with the description of Gaillard (Genre Meliola, p. 81. 1892) and of Spegazzini (Boll. Acad.

Nac. Ci. Cordoba, Vol. XXVI, p. 382. 1923). The formula is: 3411. 4222.

No. 350. **Meliolina pulveracea** (Speg.) Cif., comb. n.

Syn.: *Meliola pulveracea* Speg., An. Soc. Cient. Argentina, Vol. XIII, No. 118 (1882).

Clearly defined, black, pulveraceous to cobwebby-radiate colonies, as a rule rounded, 3 to 12 or more mm in diam., almost completely hypophyllous, well evident and characteristic; if the colonies are less mature, they are also more diffuse, lighter and subconfluent; mycelium dull-brown, very branched but irregularly, in many cases superimposed, not very densely septate, 7—10 μ diam., without setae or appendages and without hyphopodia; perithecia very black, carbonaceous, glabrous, rough, with a wide apical mouth, 60—120 μ diam., rarely up to 200 μ; asci not observed; ascospores few, cylindric with rounded ends, brown, 3-septate, slightly narrowed at the septa, with equidistant septa, 26—30 ⇌ 7—10 μ.

On living leaves of *Palicourea* sp. on fragments of an old Meliolaceous mycelium, Cordillera Central, prov. Santo Domingo, La Cumbre, 350 m ca., 29. IV. 1930, coll. R. C.

Formula: 2100. 2110. — This is a tentative reinterpretion of an old, Spegazzinian species. All the species of the genus *Meliolina* need to be revised (and the characteristics better defined). The present specimens are puzzling because too poorly and scanty fructified: the perithecia are dense and apparently well developed, but the mature ones very few. The determination is, then, uncertain. According Spegazzini's diffuse description, our specimen agree well with the species, of course, without taking in consideration the characteristics of the symbiotic Hyphomycetes described with the ascosporic species. The Spegazzinian species has been found on a coriaceous leaf, in Brasil, on an unknown host plant.

No. 362. *Parodiopsis stevensii* Arnaud. Ann. Epiph., Vol. IX, p. 22, (1923). — On living and dead leaves of *Inga* sp. (Cult.), Cordillera Central, prov. La Vega, Bonao, in coffee plantation, VII. 1927, coll. R. C.

No. 362 bis. As above, on living leaves of *Inga laurina* (Sw.) Willd., Cordillera Central, prov. La Vega, Bonao, rain forest, II. 1930, coll. R. C. — A not uncommon species, previously found in Santo Domingo on *Inga vera* Willd.

No. 386. *Zopfia rhizophila* Rabh., Fungi Eur., N. 1734 (1874). — On living root of *Asparagus officinalis* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, VII. 1928, coll. R. C. — This fungus appeared in a small, experimental

plot of this plant introduced from Europe. The plants were destroyed.

No. 326. *Asterina ciferriana* Petr., in Petr. et Cif., Ann. Mycol., Vol. XXX, p. 155 (1932). — On living leaves of *Caesalpinia crista* L., Costal Plain, Playa de Rincón, coastal forest, 25. V. 1930, coll. E. L. Ekman. — Only one collection of this nice species. This is part of the type specimen.

No. 367. **Asterina pliniae** Cif., sp. n.

Plagulae epiphyllae, rarius etiam hypophyllae, dense vel laxe dispersae, angulato-rotundatae vel irregulares, nigrae, 1,5—4 mm diam., non maculicolae; mycelio ex hyphis brunneo-fuscis, remotiuscule septatis, irregulariter et parce ramosis, reticulato-verticillatis, 5—7 μ crassis composito; hyphopodiis parce evolutis, variis, plerumque sessilibus, rotundatis vel cylindraceis, etiam angulatis vel integris, antrorsum vel retrorsum curvulis 4—7 ⇌ 4—10 μ; thyriotheciis subaggregatis vel singulis, rotundato-depressis, 90—120 μ diam., primo clausis, maturitate fimbriato-stellatis dehiscentibus, distincte cellulosis, radiato-striatis, margine parum vel non fimbriato; membrana basali tenui, flavidula vel dilute brunnea, strato tegente coriaceo, ex hyphis radiato-intertextis composito; ascis numerosis, ovatis vel subglobosis, sessilibus vel substipitatis, apice semper rotundatis, 8-sporis, 35—60 ⇌ 35—55 μ; sporis tristichis vel subconglobatis, ellipsoideis vel ovatis, apicibus rotundatis usque attenuatis aut subacutatis, primo subhyalinis et continuis, dein fuscidulis vel brunneis, circa medium septatis, ad septum non constrictis, 15—22 ⇌ 6—9 μ; paraphysoidibus mucosis, indistinctis.

Hab.: in foliis vivis *Pliniae* sp. (Myrtaceae), Cordillera Central, prov. La Vega, Bonao, in sylva, 150 m ca., III. 1931, leg. R. Ciferri.

This species does not agree completely with the species of *Asterina* described on *Eugenia* and allied genera of *Myrtaceae*, but for a critical determination the revision of the many species described on these hosts is needed. Apparently distinguished by small spores and rudimentary, polymorphic hyphopodia.

No. 352. *Asterina radians* Ell., Journ. Mycol., Vol. VII, p. 276 (1893). — On living leaves of *Capparis baducca* L., Península de Samaná, prov. Samaná, Cabo Cabrón, La Herradura, 21. V. 1930, coll. E. L. Ekman.

Mycelium brown, septate, very branched, composed of undulate-flexuose segments, 4 μ in thickness; thyriothecia dimidiato-scutate, abundant but poorly developed, of confused radiate structure, brownish-black, 100—150 μ in diam., without or with a reduced basal layer, single, scattered; hyphopodia irregularly distributed, unilateral,

very irregular in shape and size, 10—16 by 3,5—5 μ, mostly composed of an elongate or transverse, undulate to sublobate head cell, with a basal cell short, as a rule not more than 4 μ in length; asci ovate or subglobose, aparaphysate, 20—26 by 18—22 μ as a rule with 8 spores; ascospores oblong to subspheric, 1-septate at the middle part and here narrowed, light-brown to brown the color, 8—12 by 4,5—7 μ.

Of the seven species of *Asterina* described on plants of the genus *Capparis* our specimen apparently agrees with the Ellis species, described from Florida. Easily distinguished from the other species by the mycelium with very few, scattered hyphopodia and small spores, but poorly fructified. This identity is to be confirmed on account of the brief original description.

No. 340. *Asterinella puiggarii* Speg., Brotheria, Bot., Vol. X, p. 116 (1912). — On living leaves of *Eugenia ligustrina* (Sw.) Wild., Valle del Cibao, prov. Santiago, Santiago, Hato gel Yaque, near the Yaque River, 16. XII. 1931, coll. R. C. — We agree that this species is the same described by Toro (apud Chard. et Toro, Mon. Puerto Rico, Phis. Biol. Sci., ser. B, No. 2, p. 102. 1934) as *Stomiopeltis eugeniae* and by Ryan (Mycologia, Vol. XVI, p. 179. 1924) as *Caudella psidii,* but we are favorable to the conservation of the genus *Caudella,* in view of the heterogeneity of the genus *Asterinella.*

No. 372. **Aulographum panici-maximi** Cif., sp. n.

Sine maculis, culmicolum; thyriotheciis subepidermicis intraparenchymaticis, dein erumpentibus, striiformibus vel lineariformibus, longe seriatis et parallelis, tunc etiam confluentibus, singulis 0,5—2,5 mm longis, seriato-confluentibus usque 30 mm longis, 0,25—0,35 mm latis, primo clausis, dein rimosis, per totam longitudinem stromatum apertis; mycelio non viso; loculi plurimi, longitudinaliter, irregulariter seriati, etiam transversaliter locati, distincti, globoso-depressi, 70—150 μ lati, 70—100 μ alti, strato basali 20—30 μ crasso, strato tegente et pariete 15—25 μ crasso, e cellulis brunneis polygonatis, individualiter parum distinctis, compositi, prope marginem interdum dilutioribus; ascis numerosissimis, paralleliter stipatis, dein fasciculato-divaricatis, ovato-oblongis vel clavulato-ellipsodeis, superne rotundatis, ad basim abbreviatis, truncatellis, sessilibus, 8-sporis (semper?), 25—35 ⇌ 8—12 μ; sporis distichis vel confuse seriatis, typice rotundatis vel ovatis ellipsoidisque, hyalinis, continuis, 15—20 μ diam. vel 17—25 ⇌ 17—20 μ; paraphysoidibus confusis, fibroso-mucosis.

Hab.: in culmis siccis *Panici maximi* Jacq., Valle del Cibao, prov. Santiago, Santiago, in pratis, III. 1930, leg. R. Ciferri.

A doubtful determination. The attribution of this species to the genus *Aulographum* has been made on the supposition that the ascospores are too young and then not septate instead of 1-septate; the general appearance of the fungus, however is that of an *Aulographum,* but poorly fructifieds. If so, it may be allied (from the description) to *A. bambusinum* Pet. (Ann. Mycol., Vol. XXIX, p. 221. 1931) found on Bambusea in the Philippine Islands.

No. 263 bis. *Caudella psidii* Ryan, Mycologia, Vol. XVI, p. 179. 1924. — On living leaves of *Eugenia procera* (Sw.) Poir., Valle del Cibao, prov. Santiago, Santiago, in thickets, 8. IV. 1930, and prov. La Vega, Sabana de San Lorenzo in thickets, 20. III. 1931, coll. R. C. (See the Nr. 340.)

No. 263 ter. On living leaves of *Eugenia monticola* (Sw.) DC. (var.?), Cordillera Central, prov. La Vega, Bonao, in thickets, 3. I. 1929, coll. R. C. — A common species, previously found in the Dominican Republic on *Psidium guajava, Calyptranthes syzygium, Eugenia mucronata, E. aeruginea, E. axillaris, E. buxifolia, E. isabellina* and *E.* sp.

No. 368 bis. *Dictyothyriella heterosperma* Syd., Ann. Mycol., Vol. XV, p. 231. 1917. — Mostly on the upper surface of living leaves of *Nectandra coriacea* (Sw.) Griseb., Cordillera Central, prov. La Vega, Bonao, rain forest, III. 1930, coll. R. C. — This identification is doubtful because the poor fructification, also in consideration of the variability of this species, confirmed by Stevens (Bot. Gaz., Vol. LXXIX, p. 275. 1925) not present in all the leaves. Species found in the Philippine Islands and in the British Guyana. The thyriothecia are 0,5—1 mm diam., ostiolate; asci variable, 120—160 ⇌ 20—30 μ paraphysate, from 4- to 6—8-spored; spores spindle-shaped to elliptical or ovate or globoid, 2—3-septate, hyaline, more or less narrowed at the septa, as a rule with asymmetric cells, 35—70 ⇌ 6—11 μ.

No. 378. **Dictyothyriella inaequiseptata** Cif., sp. n.

Thyriothecia semper hypophylla, sine maculis, dispersa singula, etiam inaequaliter laxe congregata, 300—500 μ diam., strato tegente coeruleo-brunneo, dein atro atque opaco, structura indistincte submeandriformi, peripherice late pelliculosa, demum in hyphas subhyalinas, parum distinctas dissociata, intus dilute colorata; strato 15—20 μ crasso, loculo singulo rotundato-depresso, poro irregulariter rotundato 30—70 μ diam. pertuso; ascis clavatis, saccatis, apice rotundatis, basi sessilibus vel breviter stipitatis, pro more 8-sporis, variabilibus, 50—70 ⇌ 20—35 μ; sporis confuse distichis vel tristichis, rectis vel leviter curvatis, oblongis vel subclavatis aut ellipsoideo-elongatis,

apice rotundatis vel truncato-rotundatis, etiam attenuatis, basi leviter attenuatis, subtruncatis vel rotundatis, typice 2-septatis, cellula prima et tertia abbreviata, secunda elongata vel cellula prima elongata, secunda et tertia abbreviata, sed etiam 1-septatis, septo centrali vel non, aut 3-septatis, cellulis aequilateris vel asymmetricis, 25—35 ⇌ 3,5—5 μ; paraphysoidibus addensatis mucosis, individualiter indistinctis.

Hab.: in foliis *Inga* ? *laurima* (Sw.) Willd., Cordillera Central, prov. Santo Domingo, La Cumbre, 250 m ca., VII. 1927, leg. R. Ciferri.

A nice species, which cannot be classified among the species previously known. It is distinguished by the peculiar dissimmetry of the typical 2-septate spores, as well as by the shape of many organs. But in view of the variability and ubiquity of the species of this genus, the comparative revision is greatly needed.

No. 321. *Dielsiella ciferriana* Petr. in Petr. et Cif., Ann. Mycol., Vol. XXX, p. 183 (1932). — On living leaves of *Capparis flexuosa* L., R. D., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in thickets, 31. XII. 1930, coll. E. L. Ekman. — This is part of the type specimen of this nice species.

No. 320. *Echidnodes asterinearum* Petr. et Cif., Ann. Mycol., Vol. XXVIII, p. 381. (1930). — On an Asterinaceous mycelium, on living leaves on *Eugenia* sp., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, hillside, 3. III. 1932, coll. R. C. — This is the third collection, allways on *Eugenia* spp.

No. 337. *Hysterostomella sabalicola* Tracy et Earle, Bull. Torrey Bot. Chub, Vol. XXVIII, p. 185 (1901). — On living or dry pinnae and petioles of *Sabal causiarum* (O. F. Cook) Becc. (*Inodes causiarum* O. F. Cook), Valle del Cibao, prov. Santiago, Santiago, San José de las Matas, 11. IV. 1930, coll. R. et E. C. — Not a very common species. For a discussion and redescription see Petrak and Ciferri (Ann. Mycol., Vol. XXVIII, p. 383; 1930).

No. 356. **Microthyriella domingensis** Cif., sp. n.

Thyriothecia hypophylla, isolata vel appropinquata sed singula, per folium dispersa, pauca vel abundantia, non raro symmetrice disposita, una in quoque margine foliolorum, minuta, rotundata, in sicco fusca, pro more 140—160 μ diam., rotundato-applanata, sine membrana basali, astoma; membrana tegente plana, 3—5 μ crassa, brunnea vel rufo-brunnea, contextu confuse celluloso; sine mycelio superficiali; ascis monostratosis, subparallelis sed sparsis, aparaphysatis, globosis, subglobosis vel ovatis, firme tunicatis, ad basim saepe leviter attenuatis, pro more 8-sporis, 18—30 ⇌ 10—16 μ, paucis sporis confuse conglobatis, fusoideis, leniter arcuatis, apicibus acutatis, in

medio 1-septatis, ad septum distincte constrictis, flavidulis vel dilute brunneis.

Hab.: in foliis vivis vel semisiccis *Caesalpiniae coriariae* (Jacq.) Willd. [*Libidibiae coriariae* (Jacq.) Vahl.], Cordillera Septentrional, prov. Monte Cristy, Monte Cristy ad viam El Morro, III. 1930, leg. R. Ciferri.

A species having thyriothecia abundant on the leaflets, but sparingly fructified and hence difficult to recognize. In the key of Stevens and Manter (Bot. Gaz., Vol. LXXIX, p. 289. 1925) it appears to be intermediate between the groups with rounded and ovate asci. In any way the ascospores are intermediary in size between the two groups of species. A good but quite intriguing species. The differential characteristic is that the ascospores are yellowish to very light-brown, instead of hyaline.

No. 322. *Rhagadolobium cucurbitacearum* (Rehm) Theiss. et Syd., Ann. Mycol., Vol. XII, p. 275 (1914). — On living leaves of *Cayaponia americana* (Lam.) Cogn., Cordillera Septentrional, prov. Santiago, Santiago, Loma Diego de Ocampo, 950 m ca., 12. VII. 1929, coll. R. C. — A species living on members of the Cucurbitaceae family, found in the Dominican Republic on *Gurania, Trichosanthes* and *Cayaponia,* but not on cultivated Cucurbitaceae as in Trinidad and South America.

No. 369. **Eutypa petiolaris** Cif., sp. n.

Biophila, sed non vel vix parasitica; stromate effuso, cortice innato et tunc libero, in crustam elevatam concrescente, superficie undulato-crebra, pustuloso-scabrida, nigra, carbonacea, dura, in petiolis inserto, rarius per totam foliorum superficiem expanso 3—8 mm longo, 2—3,5 mm lato (cum petiolo), structura indistincta; peritheciis cum stromate cortici immersis, monostichis sed irregulariter dispositis, sparsis, globoso-depressis vel lateraliter compressis, irregularibus, usque 450 μ altis, 300—400 μ latis, superne crusta 50—150 μ tectis ad stromatis basim ipsam adnatis vel leviter dispersis, collo brevi vel brevissimo praeditis, ostiolo rotundato-conico, 30—70 μ diam., dein irregulariter ampliato seu fracto praeditis; ascis clavatis vel ovatis, longe stipitatis, 8-sporis, superne rotundatis, ad basim longe pedicellatis, parte sporifera 30—45 ⇌ 6—9 μ, dense paralleliterque stipatis, aparaphysatis; sporis allantoideis, 12—20 ⇌ 2—2,5 μ, hyalinis vel viridulo-stramineis, simplicibus, undulatis vel rectiusculis.

Hab.: in petiolis foliorum vivis *Nectandrae coriaceae* (Sw.) Gris. (Lauraceae), Cordillera Central, prov. La Vega, Bonao, in sylva humida, 1930—31, leg. R. Ciferri.

A good species, unfortunately not well fructified. It is distinguished from the other species of the same genus by the biophilous habit apparently not being parasitic and the localization of this stromata only at the insertion of the petiole with the branchlets and the insertion on the leaf blade. It is almost never found in the middle portion of the petiole, and rarely, for a few millimeters, on the central vein of the leaf. Also, the round to hemispherical locules are quite characteristic.

On the same leaves are found also *Phyllachora nectandrae* Stev. et Dalbey (see the No. 368) and a badly fructified species of maculicolous *Guignardia,* probably *G. nectandrae* Stev. (Bot. Gaz., Vol. LXIX, pag. 255. 1920), found on *Nectandra? coriacea* in Puerto Rico, but not previously listed for Santo Domingo. (see the No. 404).

No. 305. *Glomerella manihotis* (Sacc.) Petr. et Cif., Ann. Myc., Vol. XXX, p. 282 (1932). — On dry stems of *Manihot esculenta* Crantz (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in fields, 11. III. 1931, coll. R. C. — Not uncommon on dry or half dry stems and branchlets of the cultivated cassava plant. The imperfect stage is a *Colletotrichum* near but not identical with *Colletotrichum lussoniense* Sacc. (Ann. Mycol., Vol. XII, p. 311. 1914). The specific determination is to be revised.

No. 316. *Mycosphaerella guettardina* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 211 (1932). — On living leaves of *Guettarda scabra* (L.) Lam., Llano Costero, prov. Santo Domingo, Santo Domingo City, Sabana El Manielito, 11. II. 1930, coll. R. C. — A species collected only once.

No. 395. *Mycosphaerella laureolae* (Auers.) Lindau.

Syn.: *Spharella laureolae* Auersw. in Gonnerm. et Rabh., Mycol. Europ., Heft V—VI, p. 9. 1869.

On living leaves of *Daphnopsis* sp., Cordillera Central, prov. La Vegas, forest near Constanza, III. 1929, coll. R. C.

A species new to Santo Domingo and probably to America. Spots, on the upper surface of the leaf, yellowish to yellow-grayish, rounded to irregular in shape, single to confluent, with a light brown, undefinite halo; on the lower surface creamy-yellow, 3 to several millimeters in diam.; perithecia on both surfaces brown-black, single or grouped, but not bound by a common stroma, globular, 100—130 μ diam., ostiole papilliform with a rounded mouth, 10—15 μ diam., confusely cellular in structure; wall of the perithecia parenchymatic, 5—8 μ in thickness, light-brown, whitish in the inner part; asci abundant, clavate or subcylindric or elliptic in shape, with free and rounded, basal end narrowed and contracted almost stipitate, with

8 spores 40—50 by 8—10 μ: spores distichous, oblong to ovate or ellipsoid, ends almost obtuse, hyaline, smooth, straight, 1-septate in the middle portion but not narrowed near the septum, 10—15 by 2—3 μ; paraphysoids a few, almost indistinct.

It agrees well with the description of the species on *Daphne* in Europe. *Phyllosticta laureolae* Desm. (Ann. Sci. Nat. Bot., sér. 3, Vol. VIII, p. 33. 1847) and *Asteroma laureolae* Chev. (Fl. Paris, Vol. I, p. 448, 1826), are doubtful synonyms because the spores were not observed or described.

No. 366. *Mycosphaerella manihotis* (Syd.) Sacc., Syll. Fung., Vol. XVI, p. 472 (1902). — On living and dry leaves of *Manihot esculenta* Crantz (Cult.), Valle del Cibao, prov. Santiago, Hato del Yaque, in fields, common during the rainy season, years 1930-31, coll. R. C. — Found on the same spots as *Helminthosporium hispaniolae* Cif. (Ann. Mycol., Vol. XXIX, p. 291. 1931), which is probably the perfect stage.

Spots circular to orbicular, well evident particularly on the upper surface of the leaf, amphigenous, 3—8 mm diam., brownish, clearly delimitate; perithecia found on the *Helminthosporium* spots, sparse, abundant, chiefly epiphyllous, irregularly disposed, often marginal on the spots, brown to dull in color, from 60—70 to 100—110 μ in diam., rarely subovate, more or less distinctly cellular-parenchymatic, in transversal section 50—60 μ height, 50—80 μ width, without stromatic base, 15—25 μ in thickness, a little thinner around the ostiole; ostiole central, rounded, 20—40 μ diam.; asci abundant, cylindric or subclavate, almost sessile, round at the top, about 30—50 by 5—9 μ; without paraphyses; spores distichous, elliptic but a little spindled for the small narrowed ends, hyaline, 1-septate in the central part, very little narrowed at the septa, 10—14 by 2—3 μ.

This species is new to Santo Domingo and probaly to the West Indies; it was first described by Sydow as *Sphaerella manihotis* (Bull. Herb. Boiss., sér. 2, Vol. I, p. 78. 1901) from Brasil.

Viennot-Bourgin and Grimaldi (Rev. Inst. Bot. Appl. Agric. Trop., Vol. XXX, p. 138—146. 1950) revised the *Cercosporae* on cassava and stated that *H. hispaniolae* is synonym of *C. henningsii* Allesch. The attribution of our species to the genus *Cercospora* or *Helminthosporium* is matter of opinion because — as we stated previously — it is an a typical species for both genera. The general appearence of the fungus under the microscope (e. g. shape of the conidiophoric tufts, width and thickness of conidiophores and conidia, shape of conidia, and so on) resemble *Helminthosporium* more than *Cercospora.* For this reason we selected the former genus.

The question of the identity of the many *Cercosporae* described on *Manihot,* and of the priority of the specific names, can only be

answered by comparison of authentic specimens or, at least topotypes of the different species. In any case, the reidentification of the previously described species on cassava made by the French students is based on material collected in Ivory Coast. All the species described on *Manihot* and related to the genus *Cercospora* (and allied genera) with one exception were described in America or on american material. Incidentally, *C. manihotae* Viégas (Bol. Soc. Bras. Agron. Vol. VIII, p. 38. 1945) has not been considered by the french workers. Until better available information in our opinion the conclusions of Viennot-Bourgin and Grimaldi are based on a misinterpretation of the american species.

No. 404. **Mycosphaerella nectandrae** (Stev.) Cif., comb. n.

Syn.: *Guignardia nectandrae* Stev., Bot. Gazette, Vol. XLIX, p. 255. 1920.

On living leaves of *Nectandra sintenisii* Mez, Cordillera Central, prov. Santiago, S. José de las Matas, 13. VII. 1931, No. 4821, coll. R. C.

Found in Puerto Rico an *Nectandra ? coriacea* and new to Santo Domingo. Well fructified, but perithecia mostly unripe. Here is a redescription of this species: spots scattered, single, rarely confluent, more or less circular to orbicular or irregular, 1,5—3 mm, rarely more, in diam., on the periphery of the leaf or elsewhere, including the border of the central vein on the upper surface, at first water-soaked or greenish, then yellowish and at last yellow-brownish, dry, with a very delicate, dull-brown halo, deep in the leaf, on the lower surface similar to the upper; perithecia scattered on the spot, typically around and near the border, and disposed in one regular or in many more or less irregular rows, but also sparse scattered and single, or near one to another, subepidermal or intraparenchymatic, at last partly erumpent about 80—120 to 150 μ in diam., chiefly epiphyllous, spheric, more or less depresse, ostiole punctiform, a little prominent; perithecial cavity round-flattened, usually 50—60 by 70—80 μ wall in the external portion brown to brown-blackish, pseudoparenchymatic, more or less distinctly cellular, 10—20 μ in thickness, but irregularly thickened, indistinctly concentric-striate, the inner portion lighter to hyaline, fibrose; asci clavate to oblong, also elliptic or subpyriform, rounded at the top, almost sessile, 90—120 by 17—21 μ, 8-spored; ascospores di- or tristichous, ovoidal or shortly elliptic, variable, 20—25 by 7,5—11 μ, hyaline, with one transverse septum, sometimes central but usually excentric, so that the two cells are of inequal size, one being up to one third larger than the other; without paraphyses.—This species has been described as *Guignardia*, but the ripe ascospores are septate, so that it appears to me better classified as species in the genus *Mycosphaerella*. There is no doubt, on the other hand, that the habit of the fungus, from the leaf spot

to the morphology, is more allied to *Guignardia* than to *Mycosphaerella.*

No. 360. *Zignoella anonicola* Speg., An. Mus. Nac. Buenos Aires, Vol. XIX, p. 376 (1909). — On living leaves of *Anona reticulata* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 6. VI. 1931, coll. E. L. Ekman (No. 4861). — Previously found on leaves of *Anona muricata* in the Dominican Republic. A feeble parasite if not a saprophyte. A scantly fructified specimen. agreeing well with Spegazzinian description, but not entirely with the material and the figure of Fragoso and Ciferri: in this material the perithecia are subepidermal, then fully emergent, without neck but with an ostiole irregularly elongated in shape; ascospores not guttate; paraphyses not well differentiated. The conclusion is that the generic position of the fungus found in Santo Domingo on *Anona* spp. is very doubtful, and it must be revised on better material.

No. 384. *Dasyscypha* cfr. *calycina* (Schum.) Fuck., Symb., p. 305. 1870. — On branchlets of *Pinus occidentalis* Sw., Cordillera Central, prov. La Vaga, Valle Nuevo, ab. 1000 m; III. 1929, coll. R. C. — A critical specimen. It is allied but does not agree completely with this european species, neither with the american *D. agassizi* (Berk. et Curt.) Sacc., *D. arida* (Phill.) Sacc., *D. ellisiana* (Rehm) Sacc., *D. pini* (Brunch.) Hahn et Ayers, *D. calyciformis* (Willd.) Rehm, *D. oblongospora* Hahn et Ayers, *D. serinella* (Quél.) Sacc., nor with *D. willkommii* (Hart.) Rehm. Probably it will prove to be a new species when studied comparatively on better and more abundant material. It has been collected only once, being — apparently — localized and mild parasitic.

No. 393. *Pseudopeziza medicaginis* (Lib.) Sacc., Fungi Ital., tab. 1390 (1883). — On living leaves of *Medicago sativa* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, on an experimental plot, XI. 1928, coll. R. C. — An unusual species for the tropical regions, new to S. Domingo.

No. 411. *Cintractia caricis* (Pers.) Magnus, Verh. Bot. Ver. Prov. Brandenburg, Vol. XXXVII, p. 79 (1895). — In ovaries of *Carex* sp., Cordillera Central, prov. La Vega, Constanza, in moist places, about 1200 m alt., III. 1929, coll. R. C. — A species not previously found in the Dominican Republic, but cosmopolitan. The host plant has not been previously recognized. It may be a species near the european *Carex diversicolor* Crantz, but this species is not included in the florae of the Dominican Republic.

No. 348. *Ustilago maydis* (DC.) Corda, Ic. Fung., Vol. V, p. 3 (1842). — On the flower parts of *Zea mays* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in fields, 1930, coll. R. C. — Very common on cultivated corn, as well as on Teosinte (*Euchlaena mexicana* Schrad.) Commonly designated *U. zeae* (Schw.) Ung. (for the right binomial see Stevenson and Johnson, Plant Dis. Rptr., Vol. XXVIII, p. 673. 1944).

No. 383. *Graphiola phoenicis* (Moug.) Poiteau, Ann. Sci. Nat., Bot., sér. 1, Vol. III, p. 473 (1834). — On living leaves of *Phoenix dactylifera* L. (cult.), R. D., Valle del Cibao, prov. Santiago, Santiago, in the town, IV. 1927, coll. R. C. — A species frequently found on cultivated date palm in the Dominican Republic. Together with other undeterminable fungi.

No. 380. *Cronartium praelongum* Winter, Hedwigia, Vol. XXVI, p. 24 (1887). — On living leaves of *Eupatorium* sp., Cordillera Central, prov. La Vega, Firme del Banilejo, IX. 1927, coll. R. C. — A continental, South American species, new to Santo Domingo, but of doubtful attribution, because dont agree well with the description of *C. praelongum.*

The uredosori are peridiate, small, pustuliform, more or less densely aggregate in spots on the lower surface, on the upper macular, pale green; uredospores ellipsoidal or ovoidal 20—25 by 15—20 μ; teleutosori filiform, flexuose, 1—2 mm long; teleutospores ellipsoidal or oblong, 40—60 by 10—15 μ, brown or light-brown, with a thin, smooth epispore (about 1—1,5 μ in thickness). — The host plant was a small sterile shrub, possibly a montane species of *Eupatorium* (including *Osmia*), somewhat allied to *E. ivaefolium* L. of even doubtful, generic attribution.

No. 385. *Aecidium rumicis* Schlecht., Fl. Berolin., Pars II, p. 114. 1824. — On living leaves of *Rumex obtusifolius* L., Republique d'Haiti, Port-au-Prince, hills near the town, 1927, coll. R. Duvivier. — This is a haitian species, sent me by a student in this Republic. It has been collected on the adventitious, european species *Rumex obtusifolius,* apparently established in the hills around Port-au-Prince together with many other european weeds. I am not completely sure that *A. rumicis* is the right species, because the aeciospores agree with *A. rumicis* in the size and shape, but the general aspect is also that of the North American *A. minutulum* Jacks., at least from the description.

No. 333. *Kuchneola gossypii* (Lagh.) Arth., N. Am. Fl., Vol., VII, p. 187 (1912). — On living leaves of *Gossypium herbaceum* ×

Gossypium barbadense (Cult.), Valle del Cibao, prov. Santiago, road to Moca, in small fields, 28. IX. 1929, coll. R. C. — An intertropical rust, very common in Santo Domingo and injurious to cultivated cotton. Now commonly indicated under the binomial *Cerotelium desmium* (Berk. et Br.) Arth., based on the oldest binomial of the aecial stage.

No. 423. **Pileolaria domingensis** Cif., sp. n.

Pycnia et aecia non visa; uredosori pro more hypophylli, pustuloso-aggregati orbiculati, confluentes, rufo-brunnei, pulverulenti; uredosporis sphaeroideis vel ellipsoideis aut oblongatis, apice parum incrassatis, minutissime verruculosis, verrucis spiraliter dispositis, 2—3 μ distantibus, 20—40 ⇌ 18—25 μ membrana brunneo-fusca; teleutosoris hypophyllis, uredosoris affinibus; teleutosporis sphaeroideo-aplanatis, compressis, umbonatis, apicibus attenuatis, brunneis, 20—25 ⇌ 25—35 μ, verrucosis, membrana brunnea 3—5 μ crassa; pedicello hyalino longissimo, persistente, 3—6 μ crasso.

Hab.: in foliis vivis *Comocladiae* sp., Cordillera Septentrional, prov. Puerto Plata, in sylva costiera, VI. 1929, leg. R. C. — A nice species of *Pileolaria,* a genus of rust fungi not previously found in the Dominican Republic. This species is allied to the few species of *Pileolaria* on *Anacardiaceae* in North America and Europe and from which it has been distinguished in account of the geographical situation and the host plant. The host plant has been doubtfully classified as *Comocladia* sp., possibly near *C. pinnatifolia* L.

No. 390. *Puccinia asparagi* DC., Fl. Franç., Vol. II, p. 595. 1805. — On *Asparagus officinalis* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in a small experimental plot, VII. 1928, coll. R. C. — This rust has been found, together with *Zopfia rhizophila* and *Rhizoctonia violacea* (see), in a small plot of plants introduced from Europe. Apparently it is not a West Indian rust, nor it has been observed on onions. The plants were destroyed.

No. 105 bis. *Puccinia chaetochloae* Arth., Bull. Torrey Club, Vol. XXXIV, p. 585. 1907. — On living leaves of *Paspalum densum* Poir., Cordillera Septentrional, prov. Santiago, Santiago, Hato del Yaque, in fields, 3. III. 1929, coll. R. C. — A rust common in Santo Domingo on several species of the genus *Paspalum,* as *P. arundinaceum, P. densum, P. distortum, P. lindenianum, P. orbicularum* and probably others.

No. 341. *Puccinia cordiae* (P. Henn.) Arth., Mycologia, Vol. VIII, p. 17 (1916). — On living leaves of *Cordia* (Cerdana) *alliodora* (R. et P.) Cham., Valle del Cibao, prov. Santiago, Santiago, Hato

del Yaque, 12. II. 1931, coll. R. C. — An interesting and uncommon rust. This is the second collection of this species in Santo Domingo, in the same locality as the first specimen, and, of course, on the same host plant.

No. 203 bis. *Puccinia gouaniae* Holw., Anal. Mycol., Vol. III, p. 21. 1905. — On living leaves of *Gouania* sp., Cordillera Central, prov. Santo Domingo, La Cumbre, 12. XI. 1928, Coll. R. C. — A not uncommon species on *Gouania polygama, G. lupuloides* and possibly other species of the same genus. Frequently associated with *P. invaginata* Arth. et Johnst. on the same plant and also on the same leaves, the latter rust being less common than the former.

No. 49 quat. *Puccinia heterospora* Berk. et Curt., Journ. Linn. Soc. London, Vol. X, p. 356 (1868). — On leaves of *Sida* sp., Valle del Cibao, prov. Santiago, Santiago, Quinigua, in fields, XI. 1931, coll. R. C. — A common species, probably on *Sida spinosa* L., the commonest host plant for this species.

No. 422. *Puccinia virgata* Ell. et Ev., Proc. Acad. Philadelphia, p. 154 (1893). — On half-dry leaves of *Sorghastrum* sp., Cordillera Central, prov. Monte Cristy, Moncion, V. 1929, coll. R. C. — A species new for Santo Domingo and the West Indies, but distributed in North, Central and South America. — The host was sterile so that its determination is doubtful. The only species of *Sorghastrum* known for Santo Domingo is *S. setosum* (Gris.) Hitchc., which is not the present species. Our plant may be a species of *Andropogon,* but the rust agrees with *P. virgata.*

No. 329. *Uromyces appendiculatus* (Pers.) Fries, Summ. Veg. Scan., p. 514 (1849). — On living leaves of *Dolichos lablab* L. [*Lablab vulgaris* (L.) Savi], Cordillera Septentrional, prov. Santiago, Santiago, Hato del Yaque, 5. V. 1930, coll. R. C.

No. 329 bis. As above on living leaves of *Phaseolus lunatus* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 11. XII. 1931, coll. R. C. — A common, cosmopolitan species on members of the Leguminosae.

No. 401. *Uromyces geranii* (DC.) Fries, Summa Veg. Scand., p. 514 (1849). — On living leaves of *Geranium* sp., Republique d'Haiti, in the mountains of Furcy, about 1500 m, 1927, coll. R. Duvivier. — A species new to the Hispaniola Island and the W. I., but cosmopolitan in cold climate lands. It has been found only on the mountains

of Furcy, with a temperate-cold climate, on an adventitious *Geranium* sp.

No. 168 ter. *Uromyces janiphae* (Wint.) Arth., Mycologia, Vol. VII, p. 190. — On living leaves, petioles and young branchlets of cultivated *Manihot esculenta* Cranz, prov. Santiago, Santiago, Quinigua, in fields, 7. II. 1930, coll. R. C. — Common on cultivated Cassava, and frequently causing severe outbreaks, with evident deformation of young organs of the plant.

No. 389. *Exobasidium vaccinii* (Fuck.) Woronin, Nat.-Gesell. Freiburg, Vol. IV (4), p. 397. 1867. — On living leaves and branchlets of *Vaccinium* sp. (Cult.), Cordillera Central, prov. La Vega, Jarabacoa, in a garden, III. 1929, coll. R. C. and E. L. Ekman. — This species has been found in a shrub of *Vaccinium* sp. cultivated in a small garden and probably introduced from the USA. — The characteristic of this fungus agree well with the description. The late Dr. E. L. Ekman assured me that this leaf-gall disease has not been observed on the cuban-dominican species *Vaccinium cubense* (A. Rich.) Griseb. By our suggestion, the shrub was eradicated and destroyed.

No. 407. *Polyporus annosus* Fries, Syst. Mycol., Vol. I, p. 375 (1821). — On the foot of rotting trunk of *Pinus occidentalis* Sw., Cordillera Central, prov. Santiago, S. José de las Matas, in pineland, VII. 1930, coll. R. C. — A common cosmopolitan species, probably redescribed under others binomials in the near West Indies. It has been found in Cuba.

No. 399. *Polyporus picipes* Fries, Epicr. Syst. Mycol., p. 440. 1838. — On rotted trunk of *Ochroma pyramidale* (Cav.) Urb. (= *O. lagopus* Sw.), Cordillera Central, prov. La Vega, Bonao, rain forest, III. 1930, coll. R. Ciferri. — This species, previously identified in Cuba, appears to me a glabrous vicariant of *P. squamosus* Huds. apud Fries. Found only once, but probably not infrequent.

No. 336. *Colletotrichum gloeosporioides* (Penz.) Sacc., Sylv. Fung., Vol. III, p. 735 (1884). — On living leaves of *Mangifera indica* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in fields, 17. II. 1928, coll. R. C.

No. 336 bis. A above, on living leaves of *Citrus aurantium* L., R. D., Llano Costero, prov. Santo Domingo, Haina, Estación Agronomica, II. 1926, coll. R. C. — A very common semi-parasitic species found on fruit trees (Citrus, mango, avocado) and probably on wild host plants.

No. 417. *Coryneum disciforme* Kunze et Schm., Mycol., Vol. I, p. 76 (1817). — On bark of living trees of *Celtis* sp., Peninsula de Barahona, prov. Barahona, Barahona, arid forest, V. 1929, coll. R. C. — A critical corticicolous species, doubtfully identified with *C. disciforme,* a common, plurivorous species of Europe. The conidia are fusoidal in shape, with rounded free ends and longer, narrowed basal ends, 4—7-septate (as a rule 6-septate), 40—55 by 13—16 μ, smoky-brown to brown, a little narrowed at the septa; conidiophores filiform, almost fasciculate, slender to linear, 30—60 μ in length apparently not septate; acervuli from flattened to pulvinate, black, hard, erumpent from the epidermical layer. — No ascosporic stage has been observed.

No. 412. *Pestalotia aquatica* Ell. et Ev., Journ. Mycol., Vol. XI, p. 157 (1889). — On living leaves of *Anthurium andraeanum* Lind. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, 1928, coll. R. C.

A species new to Santo Domingo, previously known in North America on *Peltandra,* of the same family. It is characterized by the large foliar spots, amphigenous, clearly concentric-sulcate, irregular in shape and size, but many centimeters in length or diam. brownish, but alternatively of dull and light color in both pages of the leaf. The fructiferous bodies are found mostly on the upper surface of the leaf, 150—300 μ diam., frequently in concentric series, prominent, then fully opened; conidiophores simple, hyaline, straight, apparently not septate, fully basal, confuse, 8—15 μ by 3,5—6 μ; conidia fusate or obovate, 4-septate, with the two extreme locules hyaline or almost so, locules intermediate dull in color, the central is usually the dullest, 15—20 by 6—7,5 μ with 3 apical setae, divaricate, hyaline, 15—20 by 1 μ. — *Pestalotia briosiana* Montemartini (Atti Ist. Bot. Pavia, sér. 2, Vol. VI, p. 78, 1900) described on cultivar of *Anthurium* in the greenhouses of the Botanical Garden of Pavia is this same species, as I observed on the authentic specimens collected and studied by Montemartini. — In the Dominican Republic this *Pestalotia* has been found on cultivated, ornamental *Anthurium andraeanum* in Moca, never on the common, wild *A. scandens* (Aubl.) Engl., nor in the other species of wild *Araceae.*

No. 414. *Pestalotia hartigii* Tubeuf, Beitr. Baumkrankh., p. 40 (1888). — On living seedlings of *Pinus* spp., Llano Costero, prov. Santo Domingo, Haina, Estación Agronomica, in seed beds, I. 1927, coll. R. C. — A new, but a common species on seedlings of Pinaceae in Santo Domingo. Apparently parasitic only on weak, suffering seedlings. It agrees well with european specimens.

No. 396. *Ascochyta syringae* Bresad., Hedwigia, Vol. XXXIII, p. 207. 1894. — On living leaves of *Syringa vulgaris* L. (Cult.), Llano Costero, prov. Santo Domingo, Ciudad Trujillo, in a garden, XII. 1925, coll. R. C.

A species new to Santo Domingo and the West Indies, agreeing well with European specimens. Spots mostly marginal or apical, at first half-circular, then increasing to more or less irregular, also indistinctly concentric, yellowish-gray on the upper surface brownish on the lower, up to many centimeters in size, but when central on the leaf smaller and rounded; pycnidia mostly epiphyllous, but also amphigenous, globoso-depressed, 100—130 μ diam., brown, indistinctly cellular, translucent, with a simple, central ostiole, rounded, 18—35 μ diam., at first covered by the epidermal layer, but superficial in the mesophyll, then, at least in part, erumpent; pycnidial cavity ellipsoidal to irregularly flattened, up to lenticular-inflated wall 7—15 μ in thickness, of confuse concentric structure, in the inner, fertile part hyaline or almost so, entirely covered by conidiophores; conidiophores delicate, hyaline, simple, straight or curved, very variable in size, mostly 5—15 by 1,5—2 μ; pycnospores bacillar, hyaline, with narrowed, subacute ends, straight or slightly curved, at first not septate, at last with one central septum, not narrowed at the septum, 5—10 by 2,5—3,5 μ. — It seems probably that *Phyllosticta syringae* West. is the younger stage of this species, as asserted by Bresadola.

No. 403. *Asteromella coccothrinacis* Petr. et Cif., Ann. Mycol., Vol. XXVIII, p. 404. 1930. — On dry petioles, rarely in leaflets of *Coccothrinax argentea* (Lodd.) Sarg., Valle del Cibao, prov. Santiago, Hato del Yaque, in fields, 7. II. 1931, coll. R. C. — The second record of this species; a duplication of No. 175. Sparingly fructified, together with some *Sphaeriales* or *Sphaeropsidales, Pestalotia palmarum* Cooke and a few *Hyphales*. Pycnospores up to 4—5 ⇌ 1,5 μ and pycnidia up to 120 μ diam.; with an ostiole 12—18 μ diam. at the mouth, thickened around.

No. 418. *Diplodia magnoliae* Westend., Bull. Acad. Belg., sér. 2, Vol. II, N. 7 (1857). — On the bark of living branchlets of *Magnolia* sp., Cordillera Central, prov. La Vega, at Rio Maimón, Firme del Banilejo, 1000 m ca., 18. XII. 1930, coll. E. L. Ekman. — A species new to Santo Domingo and West Indies, but known in Europe and USA. — It agrees well with description of Grove (Brit. Stem-Leaf Fungi, Vol. II, p. 47, 1937).

No. 376. **Haplosporella thespesiae** Cif., sp. n.

Pycnidia in maculis foliorum siccis, fragilibus, dein perforatis, griseis, halone tenui brunneo-nigro circumdatis, deinde decolorato,

indelimitato cinctis; pycnidiis densis sed sparsis, superficialibus, globosis, brunneis, distincte cellularibus, 120—150 μ diam., etiam 160 μ, sine stromate basali, ostiolo rotundo, circinato, 10—20 μ diam. pertusis; pariete 10 μ vel minus crasso; sporophoris hyalinis, parum evidentibus, 6—10 ⇌ 2—3 μ pseudophysoidibus 25—50 ⇌ 1,5—2,5 μ commixtis; conidiis typice sphaericis vel subovatis, brunneolis vel brunneis, levibus, 12—15 μ diam. vel 12—16 ⇌ 10—13 μ.

Hab.: in maculis foliaribus siccis sed in foliis vivis *Thespesiae populneae* (L.) Soland (Malvaceae) (Cult.), Valle del Cibao, prov. Santiago, Hato del Yaque, secus viam, I. 1930, leg. R. Ciferri.

Leaf spots ample (also many centimeters in length) very irregular, very dry and easily to breake out, ash-gray, well delimitate, corresponding to both page of the leaf, frequently surrounded by a narrow, brown-blackish halo, on larger yellowish, indelimitate, effuse, decolorized spots; pycnidia very abundant, scattered, light-brown to brown, globose or globose-depressed, rarely sub-ovate or sub-elliptic, entirely superficial, 120—150 μ diam., rarely up to 160 μ, without stromatic base, clearly cellular-polygonate, with a central or excentric ostiole, ostiole round, as a rule 10—20 μ diam., thickened around the mouth or slightly so, wall and base parenchymatic, up to 10 μ in thickness; conidiophores hyaline short, 6—10 by 2—3 μ, dense but not clearly distinct from the hyaline pseudophysoides, 25—50 μ by 1,5—2,5 μ; conidia as a rule perfectly spheric to ob-ovoidal, light-brown to brown, smooth, mostly 12—15 μ diam. but also 12—16 by 10—13 μ.

This species is very distinct from *Haplosporella hibisci* (Berk.) Pet. et Syd. (Gatt. Pyren., I, p. 63 extr. 1927) found in USA. on branches of *Hibiscus syriacus* and the few other more or less allied species of the *Malvaceae*. Notwithstanding, the attribution of this fungus to the above genus is to be revised on better fructified material. The large dry spots are apparently caused by a non parasitic leaf disease, and the fungus is but a secondary pathogen.

No. 363. **Hemidothis palmarum** Cif., sp. n.

In pagina inferiore foliorum maculas nullas vel indistincte decoloratas, in pagina superiore etiam nullas vel decoloratas aut centro brunneas, halone decolorato cinctas efformans, stromatibus secus nervos minores raro majores evolutis, raro solitariis, plerumque copiose aggregatis vel aggregato-linearibus, raro singulis, in gregem rotundatum irregularem, aut subelongatum dispositis, 1—2 usque 5 mm diam. congregatis, singulis 0,3—2 mm, confluendo etiam majoribus 0,3—0,5 mm latis, basi applanata subepidermicis, denique erumpentibus, nigris, carbonaceis, primum scabridis, dein erosis et irregulariter lacerato-disruptis, e cellulis parenchymaticis indistinctis, fusco-brunneis, compositis; loculis conidiiferis numerosis, seriatis vel irre-

gulariter dispositis, crusta stromatica 100—250 μ crassa tectis; globosis vel subglobosis aut irregularibus 100—500 ⇌ 150—300 μ, ostiolo vero non viso; conidiophoris dense suffultis, hyalinis, non vel indistincte septatis, simplicibus, rectis vel undulatis, variabilibus, pro more 10—30 μ longis, 2,5—3,5 μ crassis, apice monosporis, basaliter et lateraliter, raro etiam superne dispositis; conidiis ovatis vel ellipsoideis, etiam subsphaericis, hyalinis, continuis, acrogenis, numerosis, 2,5—3,5 ⇌ 2,5—3 μ.

Hab.: in frondibus *Coccothrinacis argenteae* (Lodd.) Sarg. (Palmae), Cordillera Central, prov. Santiago, Janico m 250 ca., 16. XI. 1930 (N. H. 16193; Cif. 4691), leg. E. L. Ekman et R. Ciferri. — An imperfect stage of a species of *Bagnisiopsis,* without ascosporic stage. In the Dominican Republic on Palmae, *Bagnisiopsis nervisequens* Pet. et Cif. and *B. petrakii* Cif., were described on *Euterpe globosa* and *Oreodoxa* (*Roystonea*) *regia,* none on *Coccothrinax argentea.* The shape and size of the stromata are more allied to *B. petrakii* than to *B. nervisequens.*

No. 361. **Hemidothis pellitiforme** Cif., sp. n.

Stromata hypophylla, in pagina superiore foliorum parum conspicua, non maculicola, pustulosa, magna, prope basim nervatura mediana solo disposita, 5—12 mm longa, 1,5—2,5 mm lata, cylindraceo-dimidiata, continua, brunneo-nigra, carbonacea, indurata, sub lente continua, superficie externa scabrida, postremo irregulariter erosa, basi plana subepidermali, e cellulis parenchymaticis composita; sine mycelio externo; loculis intrastromaticis numerosis, irregulariter dispositis, crusta inaequaliter incrassata tectis, globosis vel ellipticis ovatisve aut irregularibus, 200—500 μ latis, ostiolo irregulari pertusis; conidiophoris dense suffultis basim vel totam cavitatem loculorum replentibus, hyalinis, basaliter indistincte septatis, filiformibus seu cylindraceis, superne etiam leviter incrassatis, simplicibus, rectis vel undulatis, 40—60 ⇌ 2—3,5 μ usque 80 μ longis; conidiis acrogenis hyalinis, ovatis, ellipticis vel sphaeroideis, continuis, 3—4 ⇌ 2,5—3,5 μ.

Hab.: in foliis vivis *Thespesiae populneae* (L.) Soland. (Malvaceae) (Cult.), Valle des Cibao, prov. Santiago, Santiago, Hato del Yaque, prope viam, I. 1931, leg. R. Ciferri.

A species poorly fructified, but with well developed stromata. Probably it is an imperfect stage of some unknown *Bagnisiopsis* — like fungus. The stromata are always found on the mediane vein on lower surface of the leaf, near, but never on, the branching of the veins. It is clearly different from *H. pittieri* Syd. (Ann. Mycol., Vol. XXVIII, p. 193. 1930) found also in Santo Domingo, as the imperfect stage of *Bagnisiopsis peribebuyensis* (Speg.) Theiss. et Syd.

Of course the attribution of this specimen to the genus *Hemidothis,* in absence of the ascosporic stage, is conventional.

No. 319. *Linochora macularum* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 241 (1932). — On living leaves of *Gilibertia arborea* (L.) E. March., R. D., Cordillera Central, prov. La Vega, La Vega, road to Jarabacca, 22. XII. 1929, coll. R. C. — See under the ascosporic stage *Phyllachora macularum* Petr. et Cif.

No. 382. *Microdiplodia constrictula* Bub., Ann. Myc., Vol. XIV, p. 152. 1916.

var. **crini** Cif., n. var.

A typo differt sporis etiam minoribus, primo rotundatis, continuis, etiam 4,5—5,5 μ diam., dein ovatis vel pyriculatis, usque 10 ⇌ 5 μ, 1-septatis brunneis.

Hab.: in foliis siccis *Crini* sp. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in horto, IX. 1927, leg. R. Ciferri.

Found on completely dry leaves, the spots not evident; pycnidia superficial, mostly intra-epidermial, single and scattered, at last fully emergent from the tissue, rounded, brown, indistinctly cellular, globose or a little flattened, small, as a rule 50—80 μ diam., with a central or eccentric ostiole, mostly elliptic or ovate, 8—10 ⇌ 15—20 μ with the mouth not thickened; wall thin (8—12 μ), lighter in color to subhyaline, in the inner part, brownish in the outer, of confusely concentric structure; conidiophores mostly in the basal part of the pycnidium, suffult, papilliform and very small, hyaline; conidia at first rounded or oblong, not septate then elliptic, ovoidal or pyriform with rounded ends or one rounded and one slightly narrowed and almost truncate, dull brown in color, 1-septate in the middle part, more or less narrowed at the septum, the smallest 4,5—6 μ diam., as a rule 7—10 ⇌ 4—5,5 μ.

This variety is slightly different from the type species found in Italy and elsewhere on *Yucca.* In addition many other species of fungi are present in the same specimens of which one or more *Alternaria-Macrosporium* sp., *Cladosporium* sp. (probably *C. epiphyllum* Corda), etc.

No. 174 bis. *Phaeodomus erumpens* (B. & C.) Petr. & Syd., Rep. Spec., Beiheft XLII, p. 179. 1927. — On living leaves of *Ocotea leucoxylon* (Sw.) Mez., Cordillera Central, prov. La Vega, thickets from La Vega to Bonao, rain forest, 3. VII. 1931, coll. R. C. — This species has been found also on *Ocotea floribunda.*

No. 377. *Phomopsis phaseoli* (Desm.) Grove, Kew Bull., p. 60 (1917). — On dry stems and petioles of *Desmodium* sp., Valle

del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, VI. 1928, coll. R. C. — A species new to Santo Domingo. It agrees with the description of the Groves' species, probably identical with *Phoma phaseoli* Desm. Many other more or less developed *Deuteromycetes* are present in the same stems and twigs.

No. 415. *Phyllosticta briardi* Sacc., Syll. Fung., Vol. X, p. 109 (1892). — On living leaves of *Pyrus malus* L. (Cult.), Llano Costero, prov. Santo Domingo, Haina, Estación Agronomica, II, 1926, coll. R. C. — The dominican specimens agree completely with the european. The *Phyllostictae* on pomaceous species are to be revised, so that this determination in conventional. The pycnidial conidia are very small (3,5—5 by 1,5—2 μ) and small are the pycnidia (80—100 μ diam.).

No. 364. *Phyllosticta commelinicola* Young, Mycologia, Vol. VII, p. 144 (1915). — On living leaves of *Commelina* sp., Valle del Cibao, Santiago, Hato del Yaque, near Río Yaque, VII, 1931, coll. R. C.

A species previously described in Puerto Rico on *Commelina nudiflora,* and probably on the same host plant in Santo Domingo also. Abundant, but poorly fructified spots, amphigenous, at first indefinite and diffuse then well delimitated, dry and grayish with a distinct brown, diffuse halo in both sides of the leaf; pycnidia at first subepidermical, then more or less erumpent, spherico-depressed, or both leaf surfaces, brownish, 100—150 μ diam., with a well evident central, rounded, ostiole, 25—50 μ diam.; conidiophores hyaline, simple, erect or almost so, indistincty septate, 35—65 μ by 2,5—4 μ, conidia hyaline, simple, ovate or ellipsoidal, 9—13 by 4,5—7 μ. — In the same leaf, if not in the same spot, many other fungi are present.

No. 410. **Phyllosticta cordillerana** Cif., sp. n.

Maculae amphigenae, orbiculares, singulae, sparsae, rarius confluentes, pro more 2—3,5 ⇌ 3—4 mm, etiam marginales, elongatae, 2—3 ⇌ 5—7 mm, brunneae vel fuscae, maturitate centro sicco flavobrunneo, dilute colorato, margine annulato fusco, delimitatae, in quoque pagina similes; pycnidiis gregariis vel sparsis, precipue epiphyllis, globoso-depressis, astomis, dein late ostiolatis, subepidermicis dein erumpentibus, 80—150 μ diam., brunneis, contextu confuso celluloso, ostiolo imperfecto dehiscentibus, loculo unico 70—110 μ diam., sphaerico-applanato, pariete externo brunneo, intus sub-hyalino 10—18 μ crasso; conidiophoris cylindraceis, rectis vel sub-rectis hyalinis, addensatis, non vel confuse septatis, pro more basaliter adnatis, consuete 9—12 ⇌ 3—4 μ, simplicibus, sursum non vel parum attenuatis;

conidiis hyalinis, acrogenis, singulis, ovatis, ellipsoideis vel oblongis, obtusatis, rectis vel curvulatis, continuis, 12—16 ⇌ 5—7 μ.

Hab.: in foliis vivis *Bambusearum* ? cujusdam, Cordillera Central, prov. La Vega, ad viam Jarabacoa-Constanza, in foresta montana, III. 1929, leg. R. C.

A species very different from *Phyllosticta bambusina* Speg., *P. sampaioana* Gonz. Frag. and, of course, from *Phyllostictina divergens* Pet. et Syd. for the leaf spots and many characteristics in the morphology of the fungus. The host plant is of uncertain, systematic position.

No. 355. *Phyllosticta hesperidearum* (Catt.) Penzig, Ann. Agric. 1887, p. 350 (1887). — On living leaves of *Citrus aurantium* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in fields, 15. V. 1926, coll. R. C. — Of the ten or twelve species of *Phyllosticta* described on leaves of Citrus, our specimen agrees well with *Phyllosticta hesperidearum,* which compared with the authentic specimen of *Phoma hesperidearum* Cattaneo conserved in the herbaria of the Cryptogamic Laboratory of Pavia.

After comparison with many specimen from different localities and on many host plants, described under several binomials, in our opinion only two species of *Phyllosticta* are found on leaves of *Citrus* namely: 1.) *P. hesperidearum* (= *P. disciformis* Penz., l. c., p. 350. 1887) with pycnospores of 3—6 by 2—3 μ. — 2.) *P. ocellata* Pass. et Beltr., Trans. R. Accad. Lincei Roma, sér. 3, Vol VII, N. 23. 1882 (= *P. beltranii* Penz., l. c., p. 349. 1887; *P. marginalis* Penz., l. c., p. 351. 1887) with pycnospores 2,5—3 ⇌ 0,7—1,5 μ.

No. 374. *Phyllosticta rosae* Desm., Pl. Crypt. N. France, No. 687 (?) fide Sacc., Syll. Fung., Vol. III, p. 9. 1884. — On living leaves of *Rosa* sp. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, XII. 1926, coll. R. C.

Not a rare species, previously unrecorded for Santo Domingo. Spots single to sub-confluent, scattered, sparce, rounded to obovate, as a rule not marginal, on the upper surface decolorized, then ash-gray, dry, 1,5 to 4 mm diam. up to 6 mm in length, with a dull brown, narrow (1 mm) halo, on the lower surface brown, allways evident; pycnidia mostly ephiphyllous, densely aggregate to sparse, abundant, finally superficial, brown-black, globular more or less compressed, 80—120 μ diam., with a central, simple ostiole, 8—12 μ in diam., of confuse cellular structure, wall 4—9 μ in thickness, in the outer portion brown and hyaline in the inner; conidiophores abundant but confused, simple, straight, apparently not septate, filiform, with rounded-truncate tip, up to 8 by 1—2 μ; conidia elliptic, variable in shape and size, also ovoidal to cylindric with rounded tips, hyaline,

non-septate, mostly 4—8 by 1,5—3 μ. — The *Phyllostictae* on *Rosa* spp. are confuse and must be critically revised.

No. 318. *Phyllosticta sambuci* Desm., Ann. Sci. Nat., Vol. VIII, p. 34 (1847). — On living leaves of *Sambucus* ? *simpsonii* Rehd. (Cult.), Valle del Cibao, prov. Santiago, Santiago, in a garden, III. 1931, coll. R. C. — A species new to Santo Domingo an the West Indies. The characteristics agree well with the description. The fungus has been found on a cultivated elder shrub, probably the american elder or an allied species, in a garden.

No. 388. **Phyllosticta sancti-iosephi** Cif., sp. n.

Maculae amphigenae in pagina superiore foliorum sparsae, isolatae vel plus minus confluentes, in sicco rufo-brunneae, 1,5—5 mm diam., halone decolorato, indistincto effuso cinctae, in pagina inferiore foliorum brunneolae, margine leviter infuscato, rotundatae, orbiculares vel irregulares; pycnidiis numerosis, dilute flavo-brunneis, matrici immersis, dein plus vel minus erumpentibus sed partialiter epidermide velatis, rotundatis sed plus minus applanatis, 90—160 μ diam., ostiolo centrali vel excentrico pertusis, 10—18 μ diam., plano, pariete distincte celluloso, delicato, extus flavo-brunneo parenchymatico, intus sub-hyalino, fibrosiusculo; conidiophoris individualiter parum distinctis, hyalinis, simplicibus, rectis, variabilibus, continuis 2—5 μ longis, 1—2,5 μ latis; conidiis ovoideis vel ellipsoideis aut oblongis, hyalinis, continuis, variabilibus, in quoque pycnidio paucis, levibus, 3—5 ⇌ 2,5—3,5 μ.

Hab.: in foliis vivis *Cassiae* sp., Cordillera Central, prov. Santiago, S. José de Las Matas, in sylvis, II. 1926, leg. R. C. — A poorly fructified species of *Phyllosticta*. From the description it appears to be different from the North American *P. cassiicola* Kell. et Sw., *P. siameae* Sawada (Rept. Gov. Res. Inst. Formosa, Vol. LXXXV, p. 66. 1943) described in Formosa Island on *Cassia siamea* is unknown to us.

No. 421. *Phyllosticta sterculicola* Traverso, Ann. Mycol., Vol. I, p. 228 (1903). — On living and half-dry leaves of *Sterculia apetala* (Jacq.) Karst., Valle del Cibao, prov. Santiago, Quinigua, III. 1929, coll. R. C. — Previously found in the Dominican Republic under the same binomial, the host plant being indicated as *Sterculia carthaginensis* Cav., a synonym of *S. apetala*. The forma *carthaginensis* Frag. et Cif. (Boll. R. Soc. Esp. Hist. Nat., Vol. XXV, p. 362. 1925) is without taxonomic importance. To sum up, our specimens (even when not well fructified) agree almost completely with *P. sterculicola*.

No. 402. **Phyllosticta yaguarum** Cif., sp. n.

Maculae rotundatae vel orbiculares aut irregulares, singulae sparsaeque, rarius confluentes, pro more 1,5—3 mm diam. vel longae, in pagina superiore foliorum primo decoloratae, dein flavidulae vel brunneolae, halone brunneo-fusco, delimitato cinctae, maturitate cinerae vel argenteae, siccae, in epiphyllo tantum flavo-brunneae, halone brunneo-nigro cinctae, in foliis reliquis perforatae; pycnidiis sparsis, frequenter peripheric is, plus vel minus seriatis, plurimis in quoque macula, subepidermicis, dein plus vel minus erumpentibus, globoso-depressis, plerumque 50—85 μ diam., ostiolo rotundato perforatis, usque 10 μ diam.; pariete 4—7,5 μ crasso, unistratoso vel pluristratoso, pellucide brunneo, intus in stratum hyalinum, fibrosulum, parum distinctum transeunte; conidiophoris jam evanidis; conidiis late ellipsoideis, obovatis vel subclavatis utrinque rotundatis vel etiam subacutatis, hyalinis, continuis, levibus, rectis vel curvulis, 12—20 ⇌ 2,5—3,5 μ.

Hab.: in foliis vivis *Caseariae* sp., „palo de yagua" dicta, Cordillera Central, prov. La Vega, Bonao, in sylva, III. 1926, leg. R. Ciferri. — A few species of the genus *Phyllosticta* were described on members of the *Flacourtiaceae.*

No. 365. **Phyllosticta yunaensis** Cif., sp. n.

Maculae primo decoloratae, dein siccae, bene delimitatae, marginales vel centrales, margine tenuiter flavo-brunneo cinctae, irregulares, magnae, saepe irregulariter orbiculares, amphigenae; pycnidiis praecipue epiphyllis, primo epidermide velatis, dein emersis, sphaerico-depressis, indistincte cellulosis, brunneis vel fuscis, pro more 70—130 μ, non vel indistincte pertusis, conidiophoris simplicibus, filiformibus, hyalinis, rectis vel undulatis, individualiter parum distinctis, 4—7 ⇌ 2—3 μ; pycnosporis acrogenis, hyalinis, simplicibus, cylindraceis, ovatis, rectis, saepe guttulatis, levibus, 8—9,5 ⇌ 3,5—4,5 μ.

Hab.: in foliis vivis *Trichiliae pallidae* Sw. (Meliaceae), Cordillera Central, prov. La Vega, Bonao, secus Río Yuna, in forest VI. 1926, leg. E. et R. Ciferri. — Probably the first *Phyllosticta* described on species of the genus *Trichilia.*

No. 398. *Septoria ampelina* Berk. et Curtis, Ann. Mag. Nat. Hist., III. sér., Vol. IV, N. 440 (1859). — On living leaves of *Vitis labrusca* L. (Cult.), R. D., Llano Costero, prov. Santo Domingo, Haina, Estación Agronomica, 1926, coll. R. C. — A species common on american wild grapes cultivated for experimental purposes, but not previously recorded for Santo Domingo.

No. 397. *Septoria clematidis* Rob. et Desm., An. Sci. Nat., Bot., Sér. 2, Vol. XX, p. 93 (1853). — On living leaves of *Clematis* sp.,

probably Sierra de Neyba, prov. Barahona, without locality and data, coll. E. L. Ekman. — One of the last collections of the late botanist, without label. A species new to Santo Domingo and West Indies, so characterized: On the upper surface spot brown to brown-blackish, rounded to polygonal, single or confluent, central or marginal, 1,3—3,5 mm, larger if confluent, with a small decolorized to light-brown halo, or the lower page dull-brown; pycnidia amphigenous, small, subepidermical or mesophyllar, then a little emergent, light-brown in color, spheric or little flattened, 55—80 μ diam., with a central, rounded, simple ostiole, about 10—15 μ diam., subcellular in structure; pycnidial cavity, subspheric-depressed, almost flattened to lenticular, with light-brown, indistinctly parenchymatic wall, 7,5—11 μ in thickness, hyaline in the inner portion, 40—60 by 25—30 μ; conidiophores simple, hyaline, non-septate (?), filiform, dense, covering all the cavity, individually almost indistinct, straight or slightly curved, 12—18 by 2,5—3,5 μ; spores hyaline, bacillar-lengthened, curved to flexuous, rarely straight, obtuse but also slightly narrowed at the ends, even subclavate, 3—6-(mostly 4—6-)septate, not narrowed at the septa, 50—75 by 3—4 μ.

No. 413. *Septoria convolvuli* Desm., An. Sci. Nat. Bot., Vol. XVII, p. 108 (1842). — On living leaves of *Ipomoea* sp., Cordillera Central, prov. La Vega, La Vega, rain forest, II. 1926, coll. R. C. — A species new to Santo Domingo and, probably, to the West Indies. It agree completely with the european specimen on *Convolvulus,* and, in our opinion, is the same species.

The *Septoriae* on *Convolvulus* spp. were revised by v. Höhnel (Hedwigia, Vol. LX, p. 148, 1919) who established the validity of *S. convolvuli* Desm. (with the ? var. *soldanellae* Brun., *S. flagellaris* Ell. et Ev. and *S. fabletiana* Speg.), while *S. calystegiae* West. (with *S. saepium* Desm., *S. convolvulina* Speg., *S. obtusispora* Oud., *S. longispora* Bond. and two species of *Polystigma*) was referred to *Hendersonia.* Our species agrees completely with *S. convolvuli* Desm., being distinct from *S. bataticola* Taubenh. (Phytopath., Vol. IV, p. 320. 1914). *S. calystegiae* Losa España (An. Jard. Bot. Madrid, Vol. VI, p. 465. 1945, non Westendorp) needs to be revised.

No. 419. **Septoria phyllоptosica** Cif., sp. n.

Maculae typice rotundatae vel orbiculares usque irregulares, amphigenae, singulae vel isolatae, rarius confluentes majoresque, in sicco brunneo-fuscae et indistinctae halone praeditae, delimitatae, nitidae, in vivo arescendo decoloratae, dein flavo-brunneae, 1,5—3,5 mm diam.; pycnidiis plerumque epiphyllis, rarius hypophyllis, laxe dispersis, paucis, in mesophyllo evolutis, dein prominulis, nunquam erumpentibus, globosis vel parum elongatis, nunquam com-

pressis, ovatis vel pyriformibus, 50—85 μ diam., ad apicem ostiolo minuto rotundato prominente apertis, pariete membranaceo, delicato, 5—7 μ crasso, extus e singulo strato cellularum, pellucide brunneo compositis, intus laxe fibrosis, sub-hyalinis; conidiophoris papilliformibus, 3 μ vel minus longis, parum conspicuis hyalinis; conidiis filiformibus, obtusiusculis vel in apicibus attenuatis, rectis, curvulis vel undulatis aut subrectis, hyalinis eximie 2—4-septatis, 55—72 ⇌ 2—3,5 μ, pycnidiis repletis.

Hab.: in foliis vivis *Metopii* sp., (Anacardiaceae), Cordillera Septentrional, prov. Puerto Plata, Foresta Costiera prope Sosua, 25. III. 1930, leg. R. C.

A nice species, fully parasitic, judging from the number of leaves dropped from the tree. Easily recognized for the shape of the mesophyllar pycnidia, scarcely erumpent and small-ostiolate, and the size of the conidia. Probably found on *Metopium toxiferum* (L.) Kny et Urb.

No. 276 bis. *Septoria tabebuiae* Petr. et Cif., Ann. Mycol., Vol. XXVIII, p. 418. 1930. — On living leaves of *Tabebuia* sp., Valle del Cibao, prov. Espaillat, Moca, road to La Vega, VII. 1929, coll. R. C. — An endemic species not rare on *Tabebuia* spp. and *Catalpa longissima.*

No. 373. **Acladium biophilum** Cif., sp. n.

Foliicolum, praecipue hypophyllum, sed non parasiticum; coloniis brunneo-fuscis vel nigris, effusis, non maculicolis, irregulariter distributis, sparsis vel confluentibus; mycelio brunneo, septato, dense irregulariter ramoso, quasi rhizomatoso, hinc inde incrassato seu toruloso, 3—5 μ crasso, pilis folii intermixto; conidiophoris reptantibus vel erumpentibus, dilute brunneis, remote septatis, 30—42 μ longis, 3—4 μ latis, sursum rotundatis, basi non inflatis, rectis, circiter a medio sursum versus papillatis, papillis minimis, punctiformibus; conidiis singulis, pleurogenis, hyalinis, subhyalinis, typice orbicularibus, sed etiam ellipsoideis ovatisve, 5—7 ⇌ 1,3—1,7 μ, continuis, levibus.

Hab.: in pagina inferiore foliorum *Wissadulae* sp., Valle del Cibao, prov. Santiago, Hato del Yaque, in agris II. 1931, leg. R. Ciferri.

A species distinguished from the few species of the genus *Acladium* for the biophilous foliicolous habitus and the conidia relatively long, orbicular. The colonies described are mixed (but not allways) with a species of *Monotospora,* quite frequent on the Dominican Republic, but almost never well developed and fructified. It is characterized by poorly developed, hyaline to light-brown mycelium; short, undifferentiated aleurophores, not or slightly inflated, unbranched, hyaline or very light brown, 10—14 by 4—6 μ, non or

rarely septate; aleuriospores typically rounded, frequently ovate or subsphaeric, light to medium brown in color, of variable size, the smaller 12—15 μ diam., the larger up to 36 μ diam., but also 30—35 by 19—22 μ with a double contour, as a rule smooth, but also slightly rough; without phyalides or phyalospores.

The dominican species does not agree with *Monotospora daleae* Mason (I. M. I. Paper, No. 2, p. 50. 1933), nor with *M. brevis* (Gilm. et Abb.) Mason and the allied *M. lanuginosa* (Griff. et Maubl.) Mason.

No. 309. *Asperisporium caricae* (Speg.) Maubl., Bull. Soc. Mycol. France, Vol. XXIX, p. 358 (1913). — On living leaves of *Carica papaya* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, road to Hatillo, 21. IX. 1931, coll. R. C.

No. 311. As above, Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque in gardens, 19. I. 1931. voll. R. C.

A very common species on the leaves of this cultivated species, more frequently known under the binomial *Pucciniopsis caricae* (Speg.) Earle (Bull. New York Bot. Gard., Vol. II, p. 340. 1902). In spite the fact that this fungus is parasitic, it is allways harmless for the host plant. Frequently associated (parasitized?) on the same stromata with *Rhynotrichum gossypinum* Speg. (see).

No. 353. *Camptomeris albizziae* (Petch.) Mason apud Hansf., Proc. Linn. Soc. London, 1942—43, p. 161 (1943). — On living leaflets of *Acacia* (*Vachellia*) *farnesiana* (L.) Willd., Valle del Cibao, prov. Santiago, Quinigua, along Río Yaque, 7. VII. 1931, coll. R. C. — A specimen poorly fructified on a new host plant. Slightly different from the other species according to Hughes, (I. M. I. Pap. No. 49. 1952) for the poorly developed basal stromata, conidiophore long as in *C. albizziae,* but thicker than in the *C. calliandrae,* conidia 1—3-septate, from tapered toward the apex to shortly rounded. It is possible that *C. calliandrae* and *C. albizziae* are the same species, but a revision on better fructified material is needed.

No. 400. *Cercospora brachyata* Ell. et Ev., Journ. Mycol., Vol. IV, p. 5 (1888) („brachiata"). — On living leaves of *Amaranthus* sp., Valle del Cibao, prov. Santiago, Hato del Yaque, in fields, II. 1930, coll. R. C. — A common species, probably on *A. spinosus* L., but never fully fructified. New to Santo Domingo, but not to W. I.

No. 307. *Cercospora calotropidis* Ell. et Ev., Ann. Rep. Missouri Bot. Gard., Vol. IX p. 120 (1898). — On living leaves of *Calotropis procera* L., Valle de San Juan, prov. Azua, San Juan de la Maguana, at Río Mija, 22. VIII. 1929, coll. R. C. — A common

pantropical species, described under several binomials, of which one (*C. domingensis* Frag. et Cif.) has been applied to Dominican material.

No. 308. *Cercospora conspicua* Earle, N. Y. Bot. Gard. Bull. III, p. 312 (1905). — On living leaves of *Cleome spinosa* Jacq., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, at Río Yaque, 7. II. 1932, coll. R. C.

No. 308 bis. As above, Valle des Cibao, prov. Espaillat, Moca, at Arroyo Caimito, 18. IV. 1930, coll. R. C.

A common species in Santo Domingo and Porto Rico. In the Dominican Republic previously found on *Cleome gynandra,* in addition to the present host.

No. 371. *Cercospora corchorica* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 310 (1932). — On living leaves of *Corchorus* sp., Cordillera Septentrional, prov. Santiago, Santiago, Cuesta de Piedra, XI. 1930, coll. R. C. — It agrees well with the description, but spots also amphigenous, conidia mostly 3-septate, 50—60 by 3—4 μ, almost acicular. Collected in the type locality, also found in India.

No. 343. *Cercospora costeroana* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 311 (1932). — On living leaves of *Solanum nigrum* L. var. *americanum* (Mill.) O. E. Schultz, Llano Costero, prov. Santo Domingo, Ciudad Trujillo, Santo Domingo City, near La Caleta, 11. II. 1930, coll. R. C.

No. 343 bis. As above, on living leaves of *Solanum* sp. (*verbascifolium* L. or an allied species), R. D., Llano Costero, prov. Santo Domingo, Ciudad Trujillo, road to La Caleta, II. 1930, coll. — I am not sure that, at least for the *Cercosporae* on *Solanum,* the key redacted by Chupp (Mon. *Cercospora,* p. 529. 1953) is fully valid. The specimen on *S. verbascifolium* may be assigned to *C. costeroana* as well as to *C. solani-torvi* Frag. et Cif. (= *C. trichophila* Stev. p. p.). Of other hand, the *Cercospora* on *Solanum nigrum* is allied to *C. costeroana,* but also to *C. solani* Thuem. It is probable that a number of species with diffuse, non-maculicolous colonies on leaves must be to synonymized. See the No. 347.

No. 314. *Cercospora curatellae* Syd., Ann. Mycol., Vol. XXVIII, p. 208 (1930). — On living leaves of *Curatella americana* L., Llano Costero, prov. Santo Domingo, Guerra, Sabana des Guabatico, 11. VIII. 1929, coll. R. C. — First record of this species of Santo Domingo, but previously known from Trinidad. Our specimens are

of a typical *Cercospora,* so that the combination *Helminthosporium curatellae* (Syd.) Chupp (Mon. *Cercospora,* p. 194. 1953) is not justified. It is possible that one species of *Cercospora* and one of *Helminthosporium* are present in South American specimens on *Curatella.*

No. 306. *Cercospora densissima* Speg., Ann. Mus. Nac. Buenos Aires, sér. 2, Vol. III, p. 341 (1889). — On living leaves of *Sida* sp., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in fields, 21. III. 1932, R. C. — A characteristics species, not uncommon on the leaves of *Sida* spp., and not rarely found on the same plant, even in the same leaf, with *C. sidae* (P. Henn.) March. et Stey. (Bull. Soc. R. Bot. Belg., Vol. LXI, p. 187, 1929), previously listed for Santo Domingo under the binomial *C. sidae* (P. Henn.) Pet. apud Pet. et Cif. (Ann. Mycol., Vol. XXX, p. 334. 1932). (But in the Dominican specimen on *Sida cordifolia* L. the conidia are larger and longer than in the description). According Chupp (Mon. *Cercospora,* p. 377. 1953) this species of Spegazzini is identical with *C. sidaecola* Ell. et Ev. (Journ. Mycol., Vol. V, p. 72. 1889) and is referred under this binomial. See the No. 375.

No. 381. *Cercospora gliricidiae* Syd., Philipp. Journ. Sci., Vol. VIII, p. 283 (1913). — On living leaves of *Gliricidia sepium* (Jacq.) Steud. (Cult.), Valle del Cibao, prov. Espaillat, Moca, in fields, III. 1930, coll. R. C. — A common species, always poorly frucified; for the full description see Petrak and Ciferri (Ann. Mycol., Vol. XXX, p. 314. 1932). In the same leaves many other *Hyphomycetes* are present, namely: *Monotospora* sp., *Oreophylla angelaemariae* Cif., *Periconia* sp., etc. The form shortly described and doubtfully assigned to the genus *Septoidium* by Petrak and Ciferri (l. c., p. 315) in an appendix to the german description of *C. gliricidiae*) may be the imperfectly developed *Oreophylla angelaemariae,* not rarely found in poor and badly developed tufts.

No. 315. *Cercospora hibisci* Tracy et Earle, Bull. Torrey Bot. Club, Vol. XXII, p. 179 (1895). — On living leaves of *Hibiscus* (*Abelmoschus*) *esculentus* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in fields, 22. I. 1931, coll. R. C.

No. 328. On living leaves of *Hibiscus esculentus* L. (Cult.), Cordillera Septentrional, prov. Santiago, Santiago, small fields near the town, 10. VIII. 1930, coll. R. C.

No. 328 bis. On living leaves of *Hibiscus abelmoschus* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 6. I. 1931, coll. R. C.

A cosmopolitan species, frequent on this host in Santo Domingo but apparently harmless or almost so. Two different collections of this species and one duplicate are included, because the difficulty of discrimination of both species considered by Chupp (Mon. *Cercospora,* p. 370. 1953) : *C. abelmoschi* Ell. et Ev., considered by him as identical with *C. hibisci,* and *C. hibiscina* Ell. et Ev., described on species of the genus *Hibiscus* (including *Abelmoschus*). The conidiophores are variable from pale to dark in color, from straight to undulate or tortuous (but never geniculate), from short to long, fasciculate or not. A revision on cultural characteristics of the species is needed. — *Verticillium cercosporae* Petr. et Cif. (see), is frequently found on the fascicles.

No. 349. *Cercospora malachrae* Heald et Wolf, Mycologia, Vol. III, p. 19 (1911). — On living leaves of *Malachra alceifolia* Jacq., Cordillera Central, prov. Monte Cristy, road to Monción, 26. V. 1929, coll. R. C. — A common species on *Malachra* spp., but never found on *Urena* in the Dominican Republic. An american species, from North to South.

No. 359. *Cercospora ocimicola* Pet. et Cif., Ann. Mycol., Vol. XXX, p. 342 (1932). — On living leaves of *Ocimum micranthum* Willd., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 26. XI. 1930, coll. R. C. — Only one collection from the type locality; also collected in Formosa.

No. 331. *Cercospora paspalicola* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 326. 1932. — On living leaves of *Paspalum clavuliferum* Ch. Wr., Valle de San Juan, prov. de Azua, San Juan de la Maguana, in fields, 22. VIII. 1929, coll. R. C. — Part of the type specimen; an endemic species collected only twice in the Dominican Republic, and described on material collected in 1926. Associated on the same leaves with *Phyllachora paspalicola* P. Henn. Chupp (Mon. *Cercospora,* p. 250. 1953) considers that this species may also be considered as an of *Exosporium* for the short conidiophores and the pauciseptate conidia. But in the conventional *Exosporium* the conidia are also, if not specially, multiseptate, and the stroma hemispheric, superficial and very large; in addition the base of the conidium is frequently darker and turbinate, and the general shape is that of an *Helminthosporium* (for *Exosporium tiliae* Link, see Hughes, Can. Journ. Bot., Vol. XXXI, p. 630. 1953).

No. 312. *Cercospora sesami* Zimm., Ber. Land.-forst. Deutsch-Ostafr., Vol. II, p. 28 (1904). — On living and half-dry leaves of *Sesamum orientale* L. (Cult.), Valle del Cibao, prov. Pacificator, San Francisco de Macoris, Cenoví, near the Batey, 9. I. 1932, coll. R. C.

No. 312 bis. As above, Valle del Cibao, prov. Moca, Estación Nacional Agronomica, in fields, 26. XI. 1927 and 11. X. 1929, coll. R. C. — A very common species, parasitic and seriously harmful during certain seasons favorable to the development of the fungus. The second specimen (on an usual variety of the host) is less typical than the first one and is included for study of the morphological variability of the fungus). If the environmental conditions are favorable to the growth of the fungus, the conidiophores are fasciculated and dense, frequently branched, longer, and the conidia longer. If the conditions are unfavorable, the fascicles are composed of a few conidiophores, even one, not septate, with conidiophores and conidia shorter.

No. 375. *Cercospora sidaecola* Ell. et Ev., Journ. Mycol., Vol. V, p. 72 (1889). — On living leaves of *Sida* sp., Valle del Cibao, prov. Santiago, Quinigua, in fields, XI. 1930, coll. R. C. — It agrees well with the descriptions of Chupp (Mon. *Cercospora,* p. 377. 1953), but the leaf spots are evident on the upper surface as black or blackish, quite well delimitated rounded or ovate-elliptic or irregular, 2—5 mm in diam. or in length. Previously found in Santo Domingo. See the No. 306.

No. 347. *Cercospora solani-torvi* Frag. et Cif., Bull. R. Soc. Esp. Hist. Nat., Vol. XXVII, p. 80 (1927). — On living leaves of *Solanum torvum* Sw., Llano Costero, prov. Santo Domingo, Estación Agronomica, in fields, 11. XI. 1926, coll. R. C. — This species has been distributed on the same host plant as No. 100 of these Exsiccata, under the binomial *Cercospora trichophila* Stev. (Ill. Acad. Sci. Trans., Vol. X, p. 212. 1917) but Chupp (Mon. *Cercospora,* p. 552. 1953) stated that *C. trichophila* has been described as a first host plant on *Helicteres jamaicensis.* According this student the binomial *C. solani-torvi* must be reserved to the *Cercospora* on *Solanum torvum.*

No. 310. *Cercospora tagetea* Cif., Sydowia, Vol. VIII, p. 252 (1954). — On living leaves of *Tagetes patula* L., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, Batey, N. I, 13. II. 1932, coll. R. C. — A species clearly distinct from *C. tageticola* Ell. et Ev. (Journ. Mycol., Vol. VIII, p. 72. 1902) on the same host plant in North America.

No. 313. *Cercospora trichostigmatis* Stev., Trans. Ill. Acad. Sci., Vol. X, p. 211 (1917). — On living leaves of *Trichostigma octandrum* (L.) H. Walt., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in thickets, 30. XII. 1930, coll E. L. Ekman. — Only one collection of this species in Santo Domingo. It has been

published for Puerto Rico on the same host plant under the binomial *C. trichostigmae,* and fully redescribed by Petrak and Ciferri (Ann. Mycol., Vol. XXX, p. 336. 1932). Apparently not listed in the recent monograph by Chupp (1953).

No. 392. *Cladosporium cycadis* Marcolongo, Riv. Pat. Veg., Vol. VII, p. 6 (1914). — On living fronds of *Cycas revoluta* Thunb. (Cult.), Llano Costero, prov. Santo Domingo, Ciudad Trujillo, in a garden, VII. 1928, coll. R. C. — A rare species, probably collected for the second time since the discovery. Here follows a redescription: Spots well evident on the fronds, at first scattered and single, yellowish, then more or less confluent, light-brown, central or marginal, at last brownish on the upper surface and dull-brown on the lower; tufts only on the lower surface not well evident, greenish-black, diffuse; mycelium formed by reptant, simple, rarely slightly torulose hyphae, 2,5—5 μ in thickness, in part intraparenchymatic, densely septate, sparingly and irregularly branched, dull-brown and more or less opaque, conidiophores mostly simple, rarely a little branched, as a rule tortuose but also straight, irregularly cylindric or lengthened, septate, erect or decumbent, more or less narrowed at the septa, subdenticulate at or near the top, olive-brown in color, 25—46 ⇌ 2,5—4 μ; conidia acro-pleurogenous, elliptic, ovate or apiculate, also cylindric or ovoidal, brown to olivaceous in color, simple to 1-septate (and then narrowed at the septa) at the middle part, single or 2—3-chained, not abundant, smooth, variable in size, 8—20 ⇌ 2—4,5 μ.

No pycnidial stage (*Phoma cycadis* Marcolongo), described as methagenetical stage of the *Cladosporium* has been observed. In our opinion, this biophilous species is but a feeble parasite, the primary disease being, probably, a not-parasitic disorder.

No. 405. *Eriomycopsis tenuis* Syd., Ann. Mycol., Vol. XXV, p. 137 (1927). — On old, hyphopodiate sterile, Asterinaceous mycelium on living leaves of *Capsicum bacchatum* L. (Cult.), Valle del Cibao, prov. Santiago, Hato del Yaque, in a small plot, II. 1930, coll. R. C.

With some hesitation we refer this specimen to the above species, because the conidia are almost always 3-septate (rarely 1—2-septatis), as a rule with an asymmetric disposition of the septa (the first and the third, near the top and the base of the conidium respectively), clavate, from 20 by 6 μ to 31 by 8 μ, as a rule 23—27 by 6—7,5 μ; basal sterigma of the conidium not always present. Hansford (Bothalia, Vol. IV, p. 464. 1942; I. M. I. Pap. No. 15, p. 206. 1946) based his key of the species on the limit af 7 μ in width but most of the characteristic of our specimen agree with the description of this intertropical species. It has been previously recorded for

Santo Domingo. Many other species of fungi are present in the same leaf, even in the same spot, one of the most frequent being *Nigrospora oryzae* (B. et Br.) Petch. or a closely allied form.

No. 345. *Fulvia fulva* (Cooke) Cif., Atti Ist. Bot. Lab. Critt. Univ. Pavia, ser. 5, Vol. p. (1955).

Syn.: *Cladosporium fulvum* Cooke, Grevillea, Vol. XII, p. 32 (1883).

On living leaves of *Lycopersicum esculentum* Mill. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in fields, 2. III. 1930, coll. R. C.

No. 345 bis. As above, on living leaves of *Lycopersicum pimpinellifolium* (Juss.) Mill. (Cult.), as above, VII. 1928, coll. R. C. — The tufts of the fungus are more evident on the almost glabrous leaves of the currant tomato (or a nearly allied form). Frequently associated with *Verticillium cercosporae* Petr. et Cif., particularly on the common tomato.

No. 141 ter. *Fumago vagans* Pers., Mycol. Europ., Vol. I, p. 9. 1822. — On living leaves of *Caesalpinia ? bijuga* Sw., Cordillera Septentrional, prov. Monte Cristy, El Morro, 300 m ca., in thickets, III. 1930, coll. R. C. — This is one of the commonest dematiaceous sooty-molds, frequent on lower surface of the leaflets of *Caesalpiniaceae,* mostly in arid regions of the Dominican Republic. As a rule this „species" is badly fructified.

No. 324. *Helminthosporium giganteum* Heald et Wolff, Mycologia, Vol. III, p. 21 (1911). — On living leaves of *Panicum adspersum* Trin., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in fields, 14. VII. 1931, coll. R. C. — This fungus has been described in North America on *Cynodon dactylon* and the host is new for the species. The spots are yellowish and dry in the center, with a narrow brown border more or less effuse, and evident in both leaf surfaces; the border may be dull-brown up to very light brown; the spots are scattered and single to more or less confluent, in many cases longitudinally seriate, less than 1 mm to 2,5 mm in diam. or in length. The conidia are more variable than in the description, from 3—4 to 6—7-septate, very long. A clearly parasitic species, scarcely fructified.

No. 394. *Helminthosporium lanceolatum* Cooke, in Rav. et Cooke Amer. Fungi, No. 614. 1881. — On dry stem and branches of *Hibiscus esculentus* L. [*Abelmoschus esculentus* (L.) Moench.] (cult.), Valle del Cibao, prov. Santiago, Hato del Yaque, small culture, III. 1930, coll. R. C.

Spots superficial, black or blackish, diffuse, indelimitated caused by the association of some saprophytic Deuteromycetes, among which this species is prominently visible (under a lens) as hirsute, black tufts; mycelium superficial dull-brown, opaque not much branched, 8—12 μ thick, uniformly or irregularly thickened, densely septate, narrowed or not at the septa; conidiophores fasciculate, 3—8 in each tuft, rarely more or less, individually erect or suberect, dull-brown, cylindric, elongate, densely septate and uniform, or apparently composed of articles for the narrowing at the septa, 200—400 μ in length 6—15 μ in thickness ,with the base bulbose (20—50 μ diam.) or not, straight or curvulate or undulate, with the tip of the same diam. et rounded or truncato-rounded, without spiculae; the aggregation of the conidiophores is forming a pseudostromatic, irregular base; conidia very variable in size and shape, chiefly subclavate, 10—20 μ pseudoseptate, as a rule with 11—15 false septa for the transversal

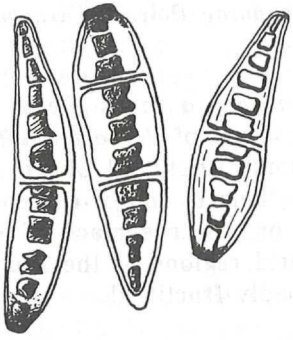

Fig. I. *Helminthosporium lanceolatum* Cooke. — Conidia.

division of the protoplasma, and 2—3 (rarely 1) true transversal septa interrupting (in part) also the epispore, 80—140 μ in length, as a rule 110—120 μ, straight or slightly curvate, with both ends rounded-truncate or one more or less narrow ends, or truncate at the base and more or less rounded at the free end, 18—35 μ diam. if uniform, 10—15 μ, if narrowed, with a very thick epispore, one half to two third of the width in thickness, not always uniform, refrigent and hyaline (the content then nubilose to light-smoky), smooth, lanceolate to racket-shaped, 3—5-septate (2—3 in the larger portion, 1—2 in the narrowed portion), 60—90 μ in length, 15—30 μ width in the upper part and 6—15 μ in the lower, thinner epispore; also obovate to almost elliptic conidia, 1—3 transversely septate, 35—50 ⇌ 15—30 μ with epispore relatively thin, are present.

Many species are more or less similar to the present fungus, and it is not easy to select one without the comparison with authentic material. One of the oldest allied species is probably *H. lanceolatum*

Cooke, but the conidia of our specimen are also of different shapes. *H. polyphragmium* Syd. (Ann. Mycol., Vol. X, p. 409. 1912) may be the same species. From the study of the authentic specimen, *H. theobromae* Turconi (Atti Ist. Bot. Univ. Pavia, sér. 2, Vol. XVII, p. 7. 1917 [not 1920]) is certainly the same species. From the figures of Hughes (Canad. Journ. Bot., Vol. XXXI, p. 633. 1953) *H. microsorum* D. Sacc., if not *H. smithii* Berk. are very allied if not identical *H. macrocarpum* Grev. also agrees well, except that the conidia are a little smaller.

If Hughes statement is correct, an older species, if not the oldest, of this group, is *H. tiliae* Fries, but the description (and also the figure of Saccardo, F. Ital., tab. 823. 1881) does not agree well with the Hughes' figure. This group of *Helminthosporium* is clearly distinct from the other groups of the genus, from the graminicolous *Helminthosporia* like *H. teres* Sacc. because: 1) there are two kinds of septa: true septa (intersecting the episporium) 1—3 in number, pseudosepta (intersecting only the protoplasm), 5—20 or more in number; 2) the episporium is very thick: typically one half or more of the width of conidium; 3) there is a thickening at the base like a „cap", of brownish color; 4) the ascosporic stage is unknown. Under these conditions, this group of species may be distinguished in another genus, but we lack sufficient knowledge of the type and the evolution of the taxonomy of the group. In expectation of a better understanding, we select the binomial of Cooke.

No. 303. *Hormodendron eupatorii* Cif., Sydowia, Vol. VIII, p. 251 (1954). — On living leaves of *Eupatorium odoratum* L., Cordillera Central, prov. Santiago, Santiago, near Hatillo Viejo, 8. III. 1932, coll. R. C. — The genus *Hormodendron* is admitted in the Sydow's sense as a sooty-mold having dematiaceous fructification. Fungi allied to this species or to *H. nectandrae* Syd. (Ann. Mycol., Vol. XXV, p. 144. 1927) are not uncommon on a wide variety of plants in the Dominican Republic.

No. 354. *Monotospora daleae* Mason, Ann. Acc. I. M. I., p. II, p. 50 (1933). — On half dry leaves and culms of *Cynodon dactylon* L., Valle del Cibao, prov. Santiago, Hato del Yaque, in field, II. 1930, coll. R. C.

This fungus is common on leaves of plants in Santo Domingo, as a rule associated with other species of fungi, but almost always poorly fructified. It is most frequent on leaves and culms of grasses during the rainy seasons. It agrees well with the description of Mason, but in many cases the mycelium is poorly developed and in patches; aleuriophores from very short and almost undifferentiated to about 30 μ in length; aleuriospores globose, light-brown to dull-

brown, as a rule 20—40 μ in diam., with an evident double contour. In our specimen at least three Dematiaceous fungi are present in addition to *Monotospora*; the tufted species appears to be an almost sterile *Macrosporium*.

No. 332. *Oidium erysiphoides* Fr. f.

Hab.: on living leaves of *Tagetes patula* Hort. (Cult.), Valle del Cibao, prov. Santiago, Santiago, in gardens of Hato del Yaque, 24. XII. 1929, coll. R. C. — A matrical form of this common species of powdery mildew, harmful to cultivated marigolds.

No. 342. *Oidium leucoconium* Desm., Ann. Sci. Nat., Bot., ser. 3, Vol. XIII, p. 102 (1859). — On living leaves of *Rosa* sp. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in garden, 25. I. 1931, coll. R. C. — A very frequent and injurious species of powdery mildew on cultivated *Rosae*. — The ascosporic stage *Sphaerotheca pannosa* Lév. (Ann. Sci. Nat., Bot., Sér. 3, Vol. XV, p. 138. 1851) has never been collected in Santo Domingo.

No. 387. *Oidium tabaci* Thuemen, Rev. Cient. Lit. Istituto Coimbra, sér. 2, Vol. XXVIII, p. 24 (1880). — On living leaves of *Nicotiana tabacum* L. (Cult.), Republique d'Haiti, near Port-au-Prince, 1927, coll. R. Duvivier. — A haitian, not dominican species. It has been attributed mostly to *Erysiphe cichoracearum* DC., but the ascosporic stage is not present in the leaves. According the collector, this mildew is unknown on local cultivars of tobacco, but has been found on a few plants of introduced, oriental tobacco of an unnamed cultivar. I never observed this species in the Dominican Republic, nor in Cuba, and apparently it is unknown in West Indies. It may be supposed that the mildew has been transferred from some *Cucurbitaceae* to this susceptible variety of tobacco.

No. 23 quater. *Oidium verbenae* Bolle et Thuemen, Boll. Soc. Adr. Sci. Nat. Trieste IX, p. 70 (1885). — On living leaves of *Stachytarpheta cayennensis* (L. C. Rich.) Vahl., Valle del Cibao, prov. Santiago, Santiago, road to Quinigua, XI. 1930, coll. R. C. — Previously found on *S. jamaicensis*. A very common mold.

No. 391. *Ovularia pulchella* (Ces.) Sacc., Syll. Fung., Vol. IV, p. 144. 1886. — On leaves of an undetermined Graminacea, Valle del Cibao, prov. Santiago, Hato del Yaque, in fields, II. 1930, coll. R. C.

A species new to Santo Domingo and probably to the West Indies. Parasitic; the spots are common on the leaves, less on the sheaths, single or more or less confluent, but, as a rule, individually distinct, rounded to oblong or elliptic, also irregular, diffuse, more

frequently about the leaf border, not rarely subseriate, 2—4 mm in diam. or 2—6 by 3—4 mm, on the lower surface ochraceous-red to brownish, with the periphery duller in color, on the upper, lighter and less evident; mycelium poorly developed, mostly subepidermical, hyaline, sparingly septate, branched, tortuose; tufts poorly developed, almost only on the lower surface of the leaf, emergent, composed of 1—3, rarely more conidiophores, up to about 50 μ in length; conidiophores single or sparingly ramose, tortuose to straight, 1-septate or unseptate, quite irregularly thickened, cylindric with acuminate, almost denticulate tip, 30—60 by 2,5—4 μ; conidia single, acrogenous, ovate or piriculate to sub-irregular in shape, more frequently with one rounded and one acutate ends, hyaline, not septate, 8—13 by 5—7 μ, smooth.

No. 210 bis. *Pachytrichum guazumae* Syd., Ann. Mycol., Vol. XXIII, p. 420. 1925. — On living leaves of *Guazuma tomentosa* H. B. K., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, Batey No. 1, 7. I. 1931, coll. R. C. — This species has been quoted previously for the Dominican Republic by Toro and by Petrak and Ciferri. It is not uncommon, but localized, and very frequently associated with *Pantospora guazumae* (see).

No. 210 bis. *Pantospora guazumae* Cif., Ann. Mycol., Vol. XXXVI, p. 29. 1938. — On living leaves of *Guazuma tomentosa* H. B. K., Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, Batey No. 1, 7. I. 1931, coll. R. C. — Very frequently associated, also on the leaf or spot, with *Pachytrichum guazumae* Syd. Cultural study of this species is needed, in comparison with *Pachytrichum*.

No. 416. *Piricularia oryzae* Cavara, Fungi Longob. Exsicc., No. 49 (1891). — On living leaves, panicles and glumes of *Oryza sativa* L. (Cult.), Valle de S. Juan, prov. Azua, S. Juan de la Maguana, in filds, VIII. 1929, coll. R. C. — A very common and serious pathogen on cultivated rice. In the same leaves *Helminthosporium sigmoideum* Cav. (Rev. Mycol., Vol. XI, p. 186. 1889) and a number of saprophytes Dematiaceous are frequently present.

No. 420. *Ramularia taraxaci* Karsten, Hedwigia, Vol. XXIII, p. 7 (1884).

On living leaves of *Leontodon taraxacoides* (Willd.) Mérat, Cordillera Central, prov. La Vega, Valle Nuevo, 1800 m ca., 1930, coll. E. L. Ekman. — This *Ramularia* agrees quite well with the description of the species in Europe on *Taraxacum officinale*. New species to Santo Domingo and West Indies.

The spots are large and very evident, rounded to orbicular or irregular, 2—6 mm diam., as a rule single and scattered, but also confluent, dry and brownish in the centre, dull-brown in the border, with a well defined ring 1—1,5 mm diam. on the upper surface in the lower the spots are similar; tufts mostly epiphyllous, subepidermical but fully erumpent, almost astromatic, composed of 2—4 (rarely more) fasciculated conidiophores, each one hyaline, tortuose, denticulate, simple or branched near the top, septate, 12—40 by 2,5—3,5 μ; conidia acrogenous or acropleurogenous, cylindric, with acutate ends, straight, hyaline, not- or 1-septate in the middle portion, 12—32 by 3—4 μ.

No. 408. *Ramularia vincae* Sacc., Michelia, Vol. II, p. 551 (1882). — On living leaves of *Vinca major* L. (Cult.), Valle del Cibao, prov. Santiago, near Santiago town, in a garden, 1927, coll. R. C. — Found only once after a heavy rainy season, in a number of plants in a small garden culture, the only one that I knew in the Dominican Republic. (In this Republic *Vinca minor* has been indicated in the catalog of Moscoso, but both *V. major* and *V. minor* are cultivated for ornamental purpose, under the same common name of „Trinitaria"). The fungus agrees well with the european specimens.

No. 309. *Rhinotrichum gossypinum* Speg., Ann. Soc. Cient. Arg., Vol. XVI—XXII, p. 160 (extr.) (1885?). — On the stromata of *Asperisporium caricae* (Speg.) Maubl. on living leaves of *Carica papaya* L. (Cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, road to Hatillo, 21. IX. 1931, coll. R. C. — Common on the fructification of *Asperisporium caricae* during the rainy seasons. *R. gossypinum* is commonly indicated as parasitic on *Asperisporium.* but, in our opinion, it is only an indifferent symbiotic fungus, because it never affects the development or the fructification of *Asperisporium.* In addition *R. gossypinum* may be found on leaves of *Carica papaya* growing on the lower surface in the absence of *Asperisporium caricae.*

No. 370. **Torula epistromata** Cif., sp. n.

Caespituli super stromata Phyllachorarum, in pagina inferiore foliorum (rarius in superiore) locati, brunneo-nigri, infra pilis evoluti, 0,7—1,5 mm diam., sparsi, singuli, rarius confluentes; mycelio pauco, superficiale, brunneo, septato, parce ramoso; conidiophoris fasciculatis, brunneis, septatis, repentibus vel erumpentibus, simplicibus vel parce ramosis, 4—6 μ crassis, 60—180 μ altis, rectis vel parce curvatis, sursum fertilibus; conidiis acrogenis, pallide brunneis, pellucidis, breviter (2—5) catenulatis, sed facillime secedentibus,

plus vel minus sphaericis, pro more 12—16 μ diam.; episporio evidente, punctato usque indistincte verruculoso, verruculis circ. 0,5 μ altis.

Hab.: in stromate probab. *Phyllachorae guazumae* P. Henn., praecipue in pagina inferiore foliorum sicca *Guazumae ulmifoliae* Lam., Valle del Cibao, prov. Santiago, Hato del Yaque, II. 1930, leg. R. Ciferri.

This species only conventionally attributed to the genus *Torula* Pers. It is distinguished chiefly by the peculiar epistromatic habit from the other species of the section *Trachyspora* Sacc., but also for the larger, shortly catenulate conidia. The stromata present in the leaf are too old for a certain determination of the species, but it looks like *Phyllachora guazumae* P. Henn. (Hedwigia, Vol. XLVIII, p. 7. 1909), a common antillean species, almost certainly identical with *Trabutia guazumae* Chardon (Mycologia, Vol. XIII, p. 291. 1921).

No. 315. *Verticillium cercosporae* Petr. et Cif., Ann. Mycol., Vol. XXX, p. 352 (1932). — On the fruiting of *Cercospora hibisci* on living leaves of *Hibiscus (Abelmoschus) esculentus* L. (cult.), Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, in fields, 22. I. 1931, coll. R. C.

No. 345. On the colonies of *Fulvia fulva* (Cke.) Cif. on the leaves of *Lycopersicum esculentum* Mill. (cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in fields, 2. III. 1930, coll. R. C. — During the rainy seasons, this *Verticillium* is not uncommon on fascicles of many species of *Cercospora,* rarely on Hyphomycetous fungi pertaining to other genera. This association apparently does not affect the development of the *Cercosporae. V. cercosporae* has not been previously found on *Cladosporium* or allied genera.

No. 409. *Rhacodium therryanum* Thuem., Rev. Mycol., Vol. II, p. 87 (1880). — On rotting débris of *Pinus occidentalis* Sw., Cordillera Central, prov. La Vega, Jarabacoa, in pineland, about 1000 m alt., III. 1929, coll. R. C. — A sterile mycelium agreeing well with the description of this „species" in France, without any kind of fructification. It has been found in the litter of the Dominican pine, in moist places tangling branchlets and leaves with the dull-brown, very branched, septate hyphae, 5—7,5 μ in thickness.

No. 406. *Rhizoctonia violacea* Tulasne, Fungi Hypogaei, p. 188 (1863). — On roots of *Asparagus officinalis* L. (Cult.), Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, in a small, experimental plot, VII. 1928, coll. R. C. — Found together with *Zopfia rhizophila* (on the root) and *Puccinia asparagi* on the same host plant.

bidentata 48, 48 bis, 48 ter; biparasitica 287; burseracearum 197; bursi 218; byrsonimae 46, 46 bis, 46 ter, 46 quarter; canellae 144; capilligera 143; capsicola 53, 53 bis; caput-medusae 163; carbonacea 242; caymanensis 251; chiococcae 73; circinans 177; clavulata 21, 21 bis; clidemiae 223, coccolobis 257; combinans 339; conferta 182; crescentiae 176; cucurbitacearum 249; cuspidata 54; desmodii 330; didymopanacis 264; dieffenbachiae 25; diphollidis 173; durantae 302; durantae lippiae 165; erithalidis 81; fasciculiseta 228; forsteroniae 153; funebris 269; furcata 247, 247 bis; furcata coccothrinacis 217; garciniae 169; glabra 61, 61 bis, 368; hurae 159; hymenaeicola 75; inermis 237; integriseta allophyli 51; intricata 190; isochaeta 252; kaduae erithalidis 81 (vide M. erithalidis); kerniana 215; krugiodendri 273; lagerheimii 161; laguncullariae 246; lictorea 239; lonchocarpicola sancti-dominici 215; macropoda 50; magnoliae illicii 162; manca 62; mangiferae 89; mappiae 87; mayaguesiana 153, 201, 201 bis; melastomacearum 78, 78 bis; merrillii 178; miriopoda 225; moelleriana 338; monochroma 344; mouririae 24; monensis 255; niessleana 59; nigra 121, 121 bis; ocoteicola 256; ochnacearum 253; orchidacearum 254; panamensis hispaniolensis 234; panici 205, 205 bis, 205 ter, 205 quater; panicicola 199, 325; paralabatiae 187; paulliniae 58; philodendri 65; piperis 94, 94 bis, 94 ter; perseae 265; plebeja 198; portoricensis 209; procera 231; psidii 317; psychotriae 267; pteridicola 108; roureae 32; samydae 47; sapindacearum 63; selaginellarum 238; seminata 43, 43 bis; serjaniae 219, 219 bis; serjaniae dentata 220; seyboensis 250; sororcula 150 ter; sphaeropoda 226; stenotaphri 194; substenospora 192; swieteniae 184; tabernaemontanae 92, 92 bis; tabernaemontanae forsteroniae 153 (vide M. forsteroniae); teramni 151; tersa 135; thouiniae 200, 200 bis; tonduzi 189; tonkinensis 261; tonkinensis potomorphes 101; toroana 211; torulipes 229; trichocarpa 202; trifurcata 212; triloba 185; vilis 241; wismarensis antillana 221; zig-zag 351 — Meliolina pulveracea 350 — Microdiplodia constrictula crini 382 — Microsphaera diffusa 115 — Microthyriella domingensis 356 — Monacrosporium meliolicola 150 — Monilia carbonaria 204 — Monotospora daleae 354 — Mycosphaerella clusiae 55; danaeae 172; laureolae 395; manihotis 366; nectandrae 404 — Mycosyrinx cissi 128 — Myriangium tunae 208 (cfr. Stevensea wrightii).

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