Schedae Mycologicae XII—XXXIV[1].

By R. Ciferri (Pavia.

With 6 Figures.

XII. — **Spermochaetella** Cif., n. nom.

Comparing a fungus specimen collected in Venezuela, we had the occasion to study a small fragment of the authentic specimen (in the Herb. of Plant Path. Dept., Ministerio de Agricultura y Cría, Maracay) of *Chaetospermella tecomis* Chardon et Toro (Mon. Univ. Puerto Rico, ser. B, N. 2, p. 227. 1934) described on *Tecoma* sp. from the State of Aragua, Venezuela.

The systematic position of this fungus is quite doubtful; it is clearly related to *Chaetodiplodia* Karst., but parasitic and having an astomous pycnidium, as affirmed by the Puerto Rican students. Almost certainly it is not related with the *Meliolineae*.

In any case, the generic name duplicate *Chaetospermella* Naoumov, previusly described (Mater. Mycol. Phytopathol. Leningrad, Vol. VIII (2), p. 142. 1929), a saprophytic species on *Populus tremula* in U.R.S.S., the genus being attributed to the *Melanconiales*. From the description this genus is not clearly individuated.

In expect of a comprehensive revision of both genera, we propose the new name *Spermochaetella* with **S. tecomae** (Chard. et Toro) nob., n. comb. for *Chaetospermella* Chard. et Toro non Naoumov and for *C. tecomae* Chard. et Toro.

XIII. — **Strattonia** n. gen. and *Sordaria fimetaria* (Rabh.) *Strattonia* Cif., n. gen.

Perithecia superficialia vel immersa aut erumpentia, nigra, opaca, coriacella, aggregata vel singula, rostrata; ascis 4-sporis; sporis continuis, brunneis.

(Etym.: Clar. R. Stratton, mycol. boreali-americano, dic.).

Typus: **S. tetraspora** (Stratt.) nob., n. comb. = *Fimetaria tetraspora* Stratton (1921).

The genus is characterized by acid asci 4-spored instead of 8-spored, apparently a good differential characteristic in a somewhat homogenous order.

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[1]) Cont. I—XI see Mycopathologia et Mycologia Applicata, Vol. VI (1), p. 19—27, 1951.

Hab.: in charta putrida, in R. D., Valle del Cibao, prov. Santiago, Moca, Estación Nacional Agronomica, IV. 1928 (No. 2560).

This is the second species of *Fimetariales* found in the Dominican Republic, the first one being *Sordaria curvula* De By. (see Chardon, Farlowia, Vol. II, p. 465. 1946), the third species being *Sordaria fimetaria* (Rabh.) De Not., [found on old cow dung, Valle del Cibao, prov. Moca, in a field, IX. 1929 (No. 5003 bis)], probably a species new for the W. I.

XIV. — *Pantospora guazumae* Cif. (Fig. 1).

This peculiar fungus has been described by Ciferri (Ann. Mycol., Vol. XXXVI, p. 29. 1938) on *Guazuma ulmifolia* in Santo

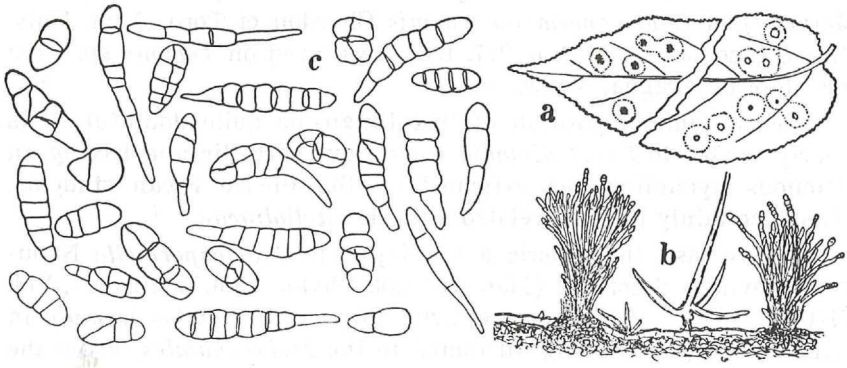

Fig. 1. *Pantospora guazumae* Cif. — a) Leaf with spots caused by the fungus, on the upper and the lower page. — b) Tufts of conidiophores with conidia and branched hairs. — c) Conidici.

Domingo and distributed under the No. 210 of the Myc. Dom. Exs. without a discussion on the systematic position.

A certain affinity is found with *Steganosporium brasiliense* Speg. (Bol. Ac. Nac. Ci. Cordoba, Vol. XXIII, pag. 170. 1919), found in Brasil on living leaves of a *Leguminosae,* possibly a *Lonchocarpus* (from the description only). The Spegazzinian species appears to be aberrant from the genus, being parasitic, and the doubtfulness of the determination is marked also by the fact that in the latin diagnosis are described the „acervuli", but glomeruli" in the spanish description, the brasilian fungus being situated amongst *Hyphales* (*Melanconiales* in Sacc., Syll. Fung., Vol. XXV, p. 612—613. 1931). Also admitting the different interpretation of *Steganosporium* Corda, the habitus only acervuloid of *S. brasiliense* and not acervuloid of *Pantospora guazumae* is against to the inclusion of the last named fungus in the genus *Steganosporium,* as a member of the *Melanconiales* order; in addition *Steganosporium* appears to be saprophytic and lignicolous.

Without the study of the truly representative members of the genus *Steganosporium* Corda and of the Spegazzinian species, a more accurate comparison with our species is not possible.

In any case *P. guazumae* differs from *S. brasiliense,* in addition to the parasitism on a different host plant, for the filiform, stratified sterigmata in the latter, in comparison with the well evident conidiophores in the former.

XV. — **Asterina turneracearum** Cif., n. sp. (Fig. 2).

Coloniis hypophyllis, raro etiam epiphyllis, per totam foliorum superficiem laxe usque densiuscule, irregulariter distributis, isolatis vel, rarius, partialiter confluentibus et magnam folii partem occupantibus, plus vel minus rotundatis usque sub-irregularibus, nigris,

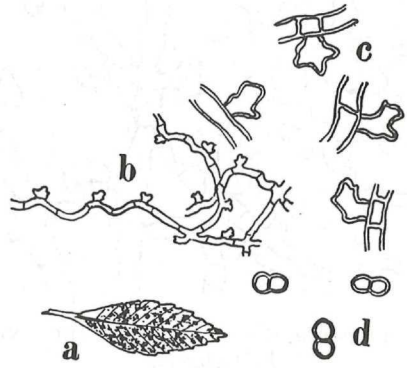

Fig. 2. *Asterina turneracearum* Cif. — a) Leaf with the fungus. — b) Mycelium with the hyphopodies. — c) Hyphopodies. — d) Spores.

centro atro, margine brunneo-fusco, 0,5—2 mm. diam.; mycelio ex hyphis irregularibus vel oppositis aut alternantibus, sinuosis usque anguloso-flexis, saepe anastomosantibus, septatis, brunneis, 3—4,5 μ crassis, composito; hyphopodia haud numerosa, singula, solitaria, attenuata, unicellularia, sphaerica usque sphaeroidea, rarius ovoidea usque sub-cylindrica, 1-vel plurilobulata, pro more 3-lobata, forma lilio gallico araldico plus vel minus revocante, in angulo inserta, 7—10 μ diam., vel 6—8 ⇌ 7—11 μ; thyriotheciis densiusculis sed irregulariter dispersis, singulis, raro parce aggregatis sed non connatis, rotundatis aut orbicularibus vel irregulariter oblongatis ellipsoideisque, 72—120 μ diam. stellatim dehiscentibus; laciniis multiplis triangularibus; ascis globulosis usque sub-ovoideis, tenuiter tunicatis, pro more 8-sporis, 35-48 ⇌ 40-50 μ; membrana basali tenuiter radiata; strato tegente radiatim contexto, ex hyphis castaneo-brunneis, septatis, fimbriato-anastomosatis, 3,5—5 μ crassis composita; sporis conglobatis, elliptico-oblongatis, utrinque late rotundatis, circa medium septatis

et fortiter constrictis, brunneolis usque brunneis vel fuscis, cellulis subaequalibus, levibus, 16—21 ⇌ 10—14 μ; paraphysoidibus mucosis, indistinctis.

Hab.: in foliis *Turnerae ulmifoliae* L., Republica Dominicana, Cordillera Central, prov. Samaná, Sabana de la Mar, El Valle, 13. VII. 1930, leg. E. L. Ekman (No. 4199).

It appears to be the first species of the genus *Asterina* described on members of the *Turneraceae* family.

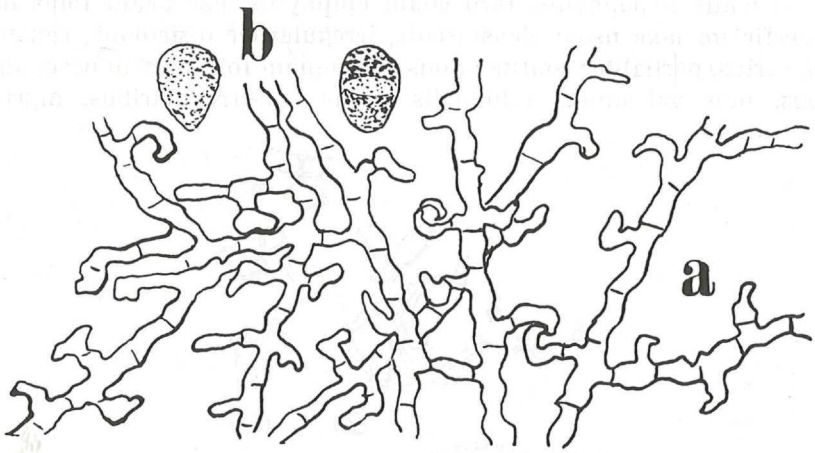

Fig. 3. *Asterostomella ornata* Cif. — a) Mycelium with hyphopodia. — b) Conidia.

XVI. — **Asterostomella ornata** Cif., n. sp. (fig. 3).

Coloniis paucis, isolatis, singulis, sparsis, nigris, sub-crustosis, orbicularibus usque irregularibus; hypophyllis, infrequenter epiphyllis, 1,5—2,5 mm., rarius usque 3,5 mm. diam.; mycelio ex hyphis dense sed irregulariter ramificatis, saepe anastomosantibus, brunneis, frequenter septatis, rarius rectis, consuete sinuoso-angulatis, 4—5 μ crassis constituto; hyphopodiis numerosis, oppositis, unilateralibus, vel alternantibus, brunneolis usque brunneis, eximie variabilibus, saepe cylindraceis, sursum leviter constrictis, angulatis usque hamatis, cellula basilari continua praesente vel non, 12—18 ⇌ 3—6 μ; thyriotheciis sparsis vel sub-aggregatis, 70—100 μ diam., hyphis radiato-fimbriatis, brunneo-fuscis, septatis, 3—3,5 μ crassis, primum distinctis, dein confusis nigrisque efformatis, rima stellari dehiscentibus; laciniis 3—6, triangularibus aut irregularibus, variabilibus; sporis ovatis, rarius ellipsoideis, brunneis vel fusco-brunneis, sursum fere cuspidatis, basaliter rotundatis, continuis, 1—2-guttulatis, banda aequatoriali hyalina aut fumosa (3—4 μ crassa) symmetrica partitis, 20—23 ⇌ 9—11,5 μ; conidiophoris brevibus, individualiter indistinctis.

Hab.: in foliis *Fevilleae cordifoliae* L., Republica Dominicana, Valle del Cibao, prov. La Vega, Cotuí, circ. Yuna flum., 18. IV. 1930, leg. E. L. Ekman (No. 4589).

This species, which the perfect stage is unknown, appears to be different from the *Asterostomella* species described on members of the *Cucurbitaceae* family.

XVII. — *Cicinnobella truncatula* Cif., *C. epimeliola* Cif.

Cicinnobella truncatula Cif., n. sp.

Coloniis ut in *Meliola;* mycelio libero nullo vel non viso; pycnidiis mycelium *Meliolae* parasitantibus rarius singulis, pro more plus vel minus congregatis, saepe 3—6 aggregato-congestis, quasi connatis aut confluentibus, plus vel minus regulariter sphaeroideis usque irregulariter conformatis, valde variabilibus, singulis 45—75 μ diam., connatis 200 μ et ultra diam., in mycelio matricorum arcte adnatis sed liberis, quandoque basim peritheciorum circumdantibus et obtegentibus, ostiolo vero nullo, sed verticibus pycnidiorum irregulariter concavis, pycnidiis majoribus poro unico (rarius 2—3) centrali pertuso, 7—16 μ diam., pariete crassiore variabili quandoque delicata flaveola (praecipue in pycnidia juniora vel minora), quandoque crassiusculis (10—13 μ) sed irregulariter incrassatis, strato tegente flavo vel melleo, indistincte celluloso vel sub-levi, strato interiore subhyalino indistincte areolato, dilutissime flaveolo vel hyalinulo; conidiis totam cavitatem pycnidiorum explentibus, pro more in ipsa pariete interiore evolutis, vel abundantibus quandoque irregulariter distributis, pro more bacillariaceis aut cylindraceis, rarius asymmetricis, apicibus truncatis usque obtusis, rarius sub-attenuatis, rectis, rarius curvulis, non septatis, guttulatis vel nubilosis, hyalinis vel melleis aut dilutissime fumosis, 7—9 ⇌ 2—2,5 μ; conidiophoris brevissimis, variabilibus, sub-cylindricis usque papilliformi-oblongatis, 3—4 ⇌ 1—1,5 μ, vel 2—4 μ diam., in cellulis pariete interiorum suffulte evolutis.

Hab.: parasitica in mycelio perithecisque *Meliolae* (Ireninae) *coronatae* var. *triumfettae* Stev. in foliis *Triumfettae semitrilobae,* socia Hyphomycetibus pluribus, in Republica Dominicana, Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, 16. VIII. 1931, leg. R. Ciferri (No. 4925).

Cicinnobella epimeliola Cif., n. sp.

Coloniis ut in *Meliola*; mycelio denso, ex hyphis dense irregulariter ramosis, reticulato-anastomosantibus, hyalinis, sub-hyalinis usque dilute flavo-brunneolis, non hyphopodiatis, septatis, 2.5—3.5 μ crassis formato; pycnidiis latissime dispersis, rarissime parce aggregatis,

flavo-brunneis, rufo-brunneis vel brunneis, globosis, globulosis vel sub-ovoideis, 60—90 μ diam., 60—75 μ altis, glabris vel indistincte scabriusculis, ostiolo quandoque plano, quandoque breviter elongato-cylindraceo (15 μ longo vel minus), apicem versus dilatato, dilute flavo -brunneolo, subinde irregulari, 18—25 μ lato, pariete molliter membranaceo, 3,5—4,5 μ crasso, e singulo strato cellulari brunneo constituto, indistincte cellulatis (junioribus tamen distincte cellulosis), cellulis polyedricis 6—8 μ latis, intus strato tenuissimo hyalinulo fertili praeditis; conidiis abundantibus, ovoideo-ellipsoideis vel subcylindraceis, obtusis, non vel parce attenuatis, rectis, continuis, symmetricis, melleis usque dilutissime flavidulis (in grege flavis), simplicibus, 5—7 ⇌ 3—5 μ; conidiophoris suffultis, papilliformibus, simplicibus, parum distinctis, 2,5—3,5 μ diam.

Hab.: in foliis *Coccolobae* sp., in consortio *Meliolae* sp. et fungorum aliorum in Republica Dominicana, Valle del Yaque, prov. Santiago, Santiago, Hato del Yaque, prope Yaque flumen, 28. III. 1932, leg. R. et E. Ciferri (No. 4931).

The species of the genus *Cicinnobella* P. Henn. (Hedw., Vol. XLIII, pag. 386. 1904) as emended by Petrak and Sydow (in Fedde, Rep.Sp.Nov., Beih., pag. 314. 1927), associated with tropical, chiefly foliicolons *Ascomycetes,* were listed by Hansford (I.M.I. Myc., Pap. 15, pag. 21. 200—202. 1946) together with some allied fungi, in first place *Ectosticta.*

In the Dominican Republic at least two species are previously known, namely: *Ectosticta insignis* Petr. et Cif. (Ann. Myc., Vol. XXX, pag. 281, 1932) (together with *Phagmodimerium insigne* Petr. et Cif. and *Aschersonia* [*Hypocrella*] *turbinata* Berk.) species not quoted by Hansford, and *Cicinnobella domingensis* Petr. et Cif. (Ann. Mycol., Vol. XXX, pag. 271. 1932) („dominguensis" in Hansford, l. c.) (on the mycelium of *Schiffnerula* sp.).

The systematic position of *C. truncatula* is not sure because the mycelium has not been observed, in contrast with the abundant fructification, litterally overgrowing the perithecia of *Meliola.* It appears to be different from all described species of this genus for the shape of spores.

C. epimeliola appears to be allied to *C. megastoma* Syd., but distinct on account of greater pycnidia and pycnospores, and for the emergence — not allways evident — of the pore and ostiole; of course, the mycelium is not hyphopodiated and scanty.

Both species are remarkable for the association with *Meliolae* and not, as customary, with species of the genera *Phaeodimeriella, Dimerosporium, Dimerina, Dimerium, Stigme, Parodiopsis* and *Schiffnerula.* This is another reason to refuse the metagenetical connection between *Ectosticta-Cicinnobella* with the above named

genera. In the writer's opinion, both genera of Sphaeropsidaceae are only symbiothic with the Ascomycetes, as, e. g., the very many species of *Hyphales* and *Capnodiales* growing together with tropical, foliicolous *Ascomycetes* of the humid (chiefly rain and mountain) forest.

XVIII. — **Phyllachora macroloculata** (Chard) n. comb.

Phyllachora macroloculata (Chard) nob., n. comb. = *Catacauma macroloculatum* Chardon in Toro et Chardon, Ann. Mycol., Vol. XXXII, pag. 113 (1934).

Hab.: in foliis *Ternstroemiae obovatae,* Republica Dominicana, Valle del Cibao, prov. Santiago, Santiago de los Caballeros, road to Moca, VII. 1930, leg. R. Ciferri (No. 4344).

A species previously identified only in Colombia on *Ternstroemia* sp., well defined for the stromata circular and convex, black, dot-like (as a rule 1—1,5 mm. diam.), regularly distributed on the upper surface of the leaf. The microscopic characteristics agree with the description.

XIX. — **Hormodendron eupatorii** Cif., n. sp.

Sine maculis; coloniis in pagina superiore foliorum densissime aggregatis, pro more confluentibus, stratum superficiale nigrum, crustosum, fumagoideum efformantibus, totum folium saepe occupantibus; hyphis sterilibus valde variabilibus, saepe flavidulis usque flavo-brunneolis fuscisque, septatis, dense ramificatis, plus vel minus curvatis, saepe anastomosatis et dense intertextis, subreticulatis, levibus, 3—5 μ crassis, brunneis, aut castaneo- vel olivaceo-brunneis, non vel parce ramosis, crassioribus (4—6 μ), densissime septatis usque monilioideis; cellulis myceliaribus (chlamydosporis) seriatis, plus vel minus individuatis, forma et dimensione variabilibus, distinctissimis usque sub-indistinctis; hyphis fertilibus sterilibusque peraffinibus sed crassioribus (4—7 μ crassis), pro more repentibus, non rarius plus minusve erectis; conidiis (chlamydosporis) catenulatis, 70—160 μ seriatis, saepe breviter (2—3 lateraliter) ramificatis, catenulis divaricatis, rectis vel curvulatis, sub-erectis usque erectis, rarius repentibus, non facile secedentibus, fuscis vel brunneis, ovatis vel oblongis, oblongatis, vel cylindraceo-truncatis (conidio terminali prope basim truncato, prope apicem rotundato), dissimilibus saepe ob cellulis hyphorum non vel parum distinctis sed obscurioribus, dein prope apicem partialiter elongatis, non septatis, apicaliter vel lateraliter pluriter gemmatis, levibus 4—6 usque 30 vel plus seriatis, 5—10 μ diam., vel 4—8 ⇌ 5—12 μ.

Hab.: in foliis vivis *Eupatorii* sp. in Republica Dominicana, Valle del Cibao, prov. Santiago, Santiago, El Hoyazo, 14. II. 1932, leg. R. Ciferri (No. 3972).

Admitting the genus *Hormodendron* in the Sydow's sense, this species is allied to *H. nectandrae* Syd. (Ann. Mycol., Vol. XXV, pag. 144. 1927) from Costa Rica on *Nectandra,* but, in any case, different from the ordinary species of the genus *Hormodendrum* Bon., a *Cladosporium*. The fungus may be classified among the confuse group of sooty-molds having only conidial, hyphomycetic fructification, for which the establishment of a new genus is not justified.

XX. — **Cercospora tagetea** Cif., n. sp.

Maculis propriis nullis, sed decolorationes irregulares indeterminatas, amphigenas, viridulo-flavas, dein sordide-flavas efformantibus; coloniis amphigenis, sed pro more hypophyllis, olivaceo-nigris usque nigridulis, centro fusco, margine dilutiore, isolatis, sparsis, effusis, subinde propter confluentiam majoribus, sed distinctis, rotundatis, orbicularibus aut irregularibus, plus vel minus laxe flocculosis, 0,7—2 mm. diam., pro more 1—1,5 mm., aggregatis, in vivo perspicuis, in sicco sub-indistinctis; caespitulis sub lente laxe flocculoso-lanosis, fumosis, regulariter dispersis, abundantibus, circiter 150 μ remotis, 120—160 μ diam., sine basi stromatica; mycelio superficiali tenui parce ramoso, septato, sub-hyalino usque fumoso, parce evoluto, 2,5—3,5 μ crasso; conidiophoris 5—15 fasciculatis, laxe stipitatis, adscendentibus, rarius sub-erectis, prope basim fasciculatis, prope apicem isolatis, brunneo-nigridulis (junioribus fumosis), 3—8 septatis, semper simplicibus, basi non vel lenissime incrassata, cylindraceis, saepe anguloso-dentatis, tunica externa crassiuscula, 3—4,5 μ crassis, 70—200 μ longis, pro more 90—150 μ rectis vel curvulis, rarius irregulariter toruloso-monilioideis vel sub-inflatis, sursum obtuso-truncatis usque obtusis vel sub-obtusis; conidiis acrogenis vel sub-acrogenis, aciculari-filiformibus vel angustissime cylindraceis aut fusoideis, elongatis, prope basim rotundatis vel sub-truncatis, prope apicem longissime acuminatis, junioribus dein septis pluribus (4—10) sub-indistinctis praeditis, pro more 6—8 septatis, ad septa non constrictis hyalinis vel sub-hyalinis, singulis (vel 2—3 catenulatis, sed facile secedentibus), 72—120 μ longis, saepe 44—80 μ prope basim 3 μ latis, prope apicem 1—1,5 μ latis.

Hab.: in foliis vivis *Tagetes patulae* L. cult. (Compositae), in Republica Dominicana, Valle del Cibao, prov. Santiago, Hato del Yaque, in horto, 21. XII. 1931, leg. A. M. Ciferri et R. Ciferri (No. 3950).

This species is clearly different from the North American species *C. tageticola* Ell. et Ev. found on the same host plant.

XXI. — **Acrothecium yaqueanum** Cif., n. sp. (Fig. 4).

Caespitulis isolatis, sparsis usque aggregatis, saepe 3—7 seriatis, pro more longitudinaliter dispositis, punctiformibus, 1—2 mm. diam., nigris, velutinis vel sub-lanosis; mycelio parce evoluto, ex hyphis paucis, laxe ramosis, saepe ex centro radiatis, dilute brunneis vel fumosis aut olivaceis, dense septatis, pellucidis, non vel ad septa constrictis, 3,5—4,5 μ crassis composito; conidiophoris fasciculatis, divergentibus, erectis vel sub-erectis, rarius sub-repentibus, olivaceo-brunneis, subimpellucidis, apice sub-inflatis, quasi inflatis, usque simplicibus, basi bulboso-inflata, saepe a cellula basali sphaeroidea assurgentibus, frequenter prope basim quasi connatis (cellula basali

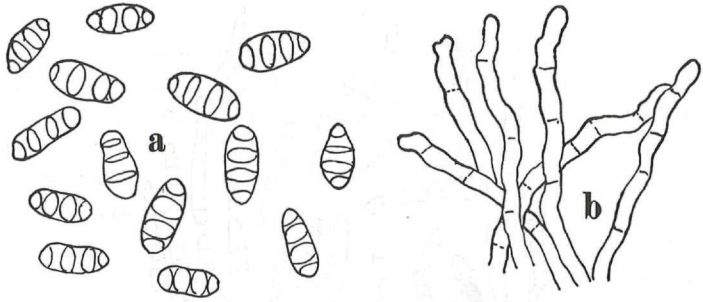

Fig. 4. *Acrothecium yaqueanum.* — a) Conidia. — b) Conidiophores.

8—11 μ diam.), plus vel minus distinctis, remote septatis, hinc inde sub-inflatis vel sinuosis, 200—300 ⇌ 4,5—7 μ, pro more 220—260 μ longis, apice saepe monosporibus, conidiis acrogenis vel sub-acrogenis, pro more singulis, rarius 2—3 capitulatis, sub-hyalinis usque fuscidulis, subimpellucidis, typice ovoideis vel ellipsoideis, apicibus rotundatis vel rotundato-acutatis, rarissime sub-truncatis, basi rotundato-applanata vel truncatula, rarius 2-septatis, typice 3-septatis, non constrictis, septis crassis sed irregulariter incrassatis, cellulis subaequalibus, 18—24 ⇌ 10—12 μ.

Hab.: in pagina superiore foliorum rarius in inferiore *Cynodontis dactylonis* Pers., socia *Puccinia cynodontis* Lacr., Republica Dominicana, Valle del Cibao, prov. Santiago, Santiago, 25. V. 1931, leg. A. M. Ciferri et R. Ciferri (No. 4659).

It is possible that this species is parasitic (symbiotic) on *Puccinia cynodontis* Lacr., being frequently (but not allways) associated with this rust on the same spots.

XXII. — **Oreophylla** nob., n. gen. (Fig. 5).

Biophilus, sine mycelio superficiali; caespituli basi pseudostromatica; conidiophora erecta, brunnea, simplicia, recta vel tortuosa, septata; conidia singularia, acrogena, cylindraceo-attenuata, transversaliter pluriseptata, recta vel curvula, hyalina.

Oreophylla angelaemariae nob., n. sp.

Biophilus; maculis parvissimis amphigenis, in pagina superiore foliorum ochraceis vel rufo-brunneis, plus vel minus aggregatis, punctiformibus, 0,5—1 mm. diam., in pagina inferiore rufo-violaceis vel purpureo-cinereis, parum distinctis; caespitulis irregulariter distributis, quandoque plus vel minus isolatis, quandoque aggregatis usque sub-confluentibus, inperspicuis, punctiformibus, circiter 0,2 mm. diam., elevato-emergentibus, pro more in pagina superiore (rarius in pagina inferiore) foliorum efformatis, rarius singulis, binis vel ternatis, pro more in greges (4—15 vel plus) congestis, us-

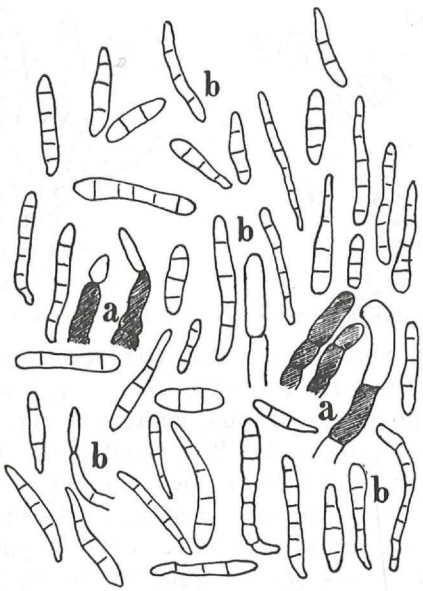

Fig. 5. *Oreophylla angelaemariae* Cif. — a) Tip of fertile conidiophores. — b) Conidia.

que subconfluentibus sed individualiter distinctis, variabilibus, pro more 75—200 μ diam. vel 100—200 ⇌ 70—150 μ, usque 300 μ altis; sine mycelio superficiali; mycelio endogeno inperspicuo, parce ramoso, dilutissime flaveolo vel hyalino, subepidermico vel intraparenchymatico; basi caespitulorum confuse pseudostromatica; stromate basali erumpente, sphaerico-applanato, irregulariter prosenchymatico, ex hyphis 4—7 μ latis, sub-articulatis, divergentibus, bruneo-fuscis constituto; conidiophoris caespitulatis, adscendentibus, sursum leviter divergentibus, erectis vel sub-erectis, pro more arcuato-undulatis, angulatis sinuosis usque tortuosis (rarius rectis), rarius torulosis, semper simplicibus, evidenter 2—6 septatis, flavo-brunneis usque

brunneo-fuscis, apice dilute flavis usque sub-hyalinis, 30—75 ⇌ 6—8 μ; conidiis singulis, acrogenis, valde variabilibus, quandoque breviter cylindraceis vel ellipsoideis ovatisve, 1—3 septatis, quandoque angustis, cylindraceo-elongatis vel subfuscatis, rectis vel leniter curvatis usque flexis, clasterosporieis, basi attenuato-elongata vel abrupte obtusa aut truncata, apice attenuato-obtusato usque acutato-truncato, 1—4 usque 6—9 (pro more 3—7) transversaliter septatis ad septa non constrictis, cellulis plus vel minus regulariter distributis (sed apicalis basilarisque irregularibus), hyalinis vel dilute viridulis aut flavescentibus, 22—45 μ, rarius ultra, longis 6—8 μ latis.

Hab.: in foliis vivis *Glyricidiae saepii* cultiv. vel subcultiv., in R. D., prov. Santiago, Batey de Hato del Yaque, 16. II. 1932, leg. A. M. Ciferri (sine numero).

In some cases associated, in the same leaf, with a number of saprophytic fungi, more frequently with *Periconia pycnospora.*

This genus is characterized for the absence of superficial mycelium but with endogenous hyphae; aggregate conidiophores from a pseudostromatic base, as a rule undulate or sinuate up to hamate; conidia very polymorphic, hyaline. The conidium is developed from an apical cell on the conidiophore, ovate, elongate or piriculate in shape, at first not septate, then more and more elongate and septate.

This genus is a slightly allied to *Ramularia, Cercosporidium* and similar genera, but clearly distinct a number of characteristics.

This fungus is a mild parasite on leaves of *Glyricidia saepium,* a Leguminosaceous tree very diffuse in the West Indian islands as fence tree. It has been found very common in one locality of the Cibao Valley (Hato del Yaque), at the end of the principal rain season, but rapidly disappearing with the new flush of leaves. Probably it has not been observed, up to-now, in account of the almost microscopic tufts developing on a very little evident, small foliar spots.

This species has been dedicated to my wife Angela Maria, collector of the specimen.

XXIII. —**Morenoella ormosiana** (Sacc.) n. comb.

On leaves of *Ormosia krugii* Urb., Dominican Rep., Cordillera Central, prov. Santo Domingo, La Cumbre, rain forest, 12. XII. 1926, leg. R. Ciferri (No. 4928).

This is description of the fungus: colonies found, as a rule, in the lower page, rarely in the upper, poorly developed, superficial, crustose, black, more or less irregularly elongated, 2—4 mm. in lenght, scattered, rarely confluent; mycelium poorly developed, formed by hyphae sparingly and irregulary branched, brown, septate, very rarely anastomized, 4—6 μ in thickness; hyphopodia sparse, irregularly distributed, from 22 to 60 μ apart, oblong-ellipsoid, sub-cylindroid or

irregularly lenghtened, obtuse on the upper side, without septa, simple (not lobate), without basal cell, 6—10 ⇌ 3—4 μ; thyriothecia orbicular, oblong to elongate, very rarely 2—3-connate and also aggregate, as a rule single and scattered, 200—465 μ in lenght, 96—146 μ of transversal size, formed by linear-radiate, brown, opac, fimbriate hyphae, 2—3 μ in thickness, without evident septa, around the periphery almost fringed, yellow-brownish, individually distinct; dehiscence by a longitudinal fissure, up to linear, central (rarely subcentral), irregularly elongate, then linear-fringed, 125—380 μ in lenght, and, at first only 18—42 μ; asci aggregated but irregularly distributed, ovoid or ellipsoid, up to globular, sessile, or with a little evident basal end, 8-spore, without paraphyse, 32—44 ⇌ 20—28 μ; spore ellipsoid ovoidal or ovate-oblong, rarely almost globular, agglomerated, with both ends rounded, septate about the middle part and here narrowed, forming two, almost identic cells or the superior a little larger than the inferior, yellow-brownish in color up to opac-brown, 14—22 ⇌ 8—12 μ.

In our opinion this fungus is identic to *Lembosia ormosiana* Sacc. (Bull. Orto Bot. Napoli, Vol. VI, pag. 14. 1918), found in Malaya on leaves of *Hormosia* (*Ormosia*) *sumatrana,* in the supposition that the „pilis septulatis" described in the diagnose near the base of thyriothecia were conidiophores or mycelic hyphae of one of the frequent, symbiotic Hyphales found on or around the foliicolous Ascomycetes.

XXIV. — **Eriomycopsis acrophioglossa** n. sp. and **E. fusarioides** (Stev.) n. comb.

Eriomycopsis acrophioglossa Cif., n. sp.

Coloniis oculo inermi non vel parum manifestis, non maculicolis, tenuiter pulverulentis aut subarachnoideis, effusis, indelimitatis, irregularibus, isolatis aut confluentibus, 2—6 mm. diam. vel longis, supra hyphis myceliaribus Microthyriacearum sterilium quorundarum vegetantibus; mycelio ex hyphis hyalinis, parce irregularibusque ramosis, remote et indistincte septatis, repentibus, laxe intricatis (rarius densiusculis), 2—2,5 μ crassis formato; conidiophoris hinc inde ornatis, erectis vel sub-erectis, rarius sub-repentibus, rectis rarius curvalis usque undulatis, singulis vel pluribus laxiuscule aggregatis, sed non connatis, remote indistincteque septatis, hyalinis, simplicibus, 420—870 μ longis, saepe 500—600 μ, 2,5—3,5 μ altis, papillis paucis (1—3, pro more 1—2), hyalinis, minutis, elliptico-filiformibus, usque fusatis ‚minutissimis, 1,2—2 ⇌ 9,7—1,2 μ praeditis, rarius sine papillis; conidiis solitariis, acrogenis, super papillas sitis, typice oblongo-clavatis, rarius ovoideo-elongatis, aut sub-fusatis, prope apicem rotundatis, prope basim valde attenuatis usque subacutatis, typice attenuato-truncatis, rectis, rarius sub-curvulis, juni-

oribus 1—2-septatis, sed conidiis maturis typice 3-septatis, ad septa non constrictis, septis irregulariter distributis, saepe prope partem incrassatam locatis, cellulis inaequaliter et irregulariter latis, guttulatis vel granulatis, 22—37 ⇌ 7,5—10,5 μ.

Hab.: in mycelio Microthyriacearum sterilium quorundam in foliis vivis *Solani ciliati* Lam., in Republica Dominicana, Valle del Cibao, prov. Espaillat, Moca, Estacion Nacional Agronomica, 8. III. 1930, leg. E. L. Ekman (No. 4205).

A species found on an Asterinea with hyphopodiate mycelium, spheric hyphopodia of 6—8 μ diam., and in mature thyriothecia of 43—75 μ diam.; if a number of ovoidal, brown conidia, of 13—17 ⇌ 6—8 μ, found around the thyriothecia are pertaining to these same fungus, it may be a species of *Asterostomella* or an allied genus.

This species is apparently allied but distinct from *Eriomycopsis englerulae* Hansf. according Hansford (Bothalia, Vol. IV, p. 464. 1942; I. M. I. Myc. Pap. No. 15, pag. 206. 1946), but a direct comparison of both specimens would be necessary.

Eriomycopsis fusarioides (Stev.) Cif., n. comb. has been described as *Trichothecium fusarioides* by Stevens (Trans. Ill. Ac. Sci., Vol. X, pag. 201. 1917) as parasitic on stromata of *Bagnisiopsis peribebuyensis* (Speg.) Theiss. et Syd. (as *Phyllachora peribebuyensis* Speg.); Arnaud (Ann. Epiph., Vol. IX, pag. 36. 1923) quoted this fungus as parasite of *Parodiellinaceae.*

We have found in the Dominican Republic [Cordillera Central, prov. Azua, S. Juan de la Maguana, Loma La Viuda, ca. m. 1500, without data, coll. E. L. Ekman (No. 4966)] a fungus apparently identic with Steven's specimen also on *Bagnisiopsis peribebuyensis* on leaves of *Miconia punctata* (Desr.) D. Don. This is the description of our specimen: the stromata of *Bagnisiopsis* are surrounded — and in some cases almost covered — by this fungus, forming whitish, cottony (if sterile) or arachnoid, powdery spots, 1—4 mm. diam. if single, up to 10 or more mm. if confluent, rounded or oblong to irregular in shape; mycelium formed by hyaline creeping, not densely septate hyphae, irregularly branched (and in many cases at right angle) 2—2,5 μ diam.; conidiophores inserted on the hyphae, hyaline, 2—6-septate, erect to suberect, not or very sparingly branched, scattered or pseudo-aggregate in fascicle composed of 2—6 or more elements, each one straight, curved up to sinuate, about 2 μ thick, more or less acutate at the free end, having from 1 to 5 or more papillae (sterigmata) punctiform, very small (about 1 μ diam.), not easily observable; on each sterigma a single (acrogenous) conidium is found, but for the aggregation, the conidia appears to be fasciculate, the number of conidia being from about 10 to 40, in rather close groups of 2 to 10 for each free end of conidiophore, and not very

easily isolated; conidia hyaline, 1-septate (rarely 2-septate), typically fusoid, straight or slightly curved, with upper end almost acute and basal end narrowed but truncate or obtuse, with protoplasm granulated or guttate, rarely shiny, 12—18 μ in lenght, 2,5—3 μ thick in the central side and 1,2—2 μ at the ends.

For shape and size of conidia, it is an apparently different species from those described by H a n s f o r d (l. c.).

In Puerto Rico a *Diplosporium album* Bon. var. *fungicolum* Stev., which description is unknown to us has been found on *Parodiella cayaponiae* on *Cayaponia* sp. (see S t e v e n s, l. c., p. 202); it is well possible that it is a poor developed form of a species of *Eriomycopsis,* with apparently single conidium.

XXV. — On the genus *V a s c u l o m y c e s* Ashby.

The monotypic genus *Vasculomyces* has been described as *V. xanthosomae,* and at first as *Hormiscium xanthosomae* Ashby (see Bull. Dept. Agric. Jamaica, Vol. II, pag. 150; 1913) on the cultivated *Xanthosoma* in Jamaica, causing the so called „dry rot" or „sak-petre" disease of the tuberized roots of this Aracea.

In the culture of *Xanthosoma* spp. plurib. (*X. sagittifolium* Schott and other species) found at the middle elevation in the rain forest belt of Santo Domingo, this fungus is not infrequent on half-rotted roots. We dont isolated the species, but it is frequently associated with a *Fusarium* of the *oxysporum* group, while in many cases the leaves are affected by *Phytophthora colocasiae* Rac., and it is possible that one or the other species are the primary, pathogenic ones.

The fungus is intravascular, but also (in rotted portions of the tuberized root) extravascular; the mycelium is formed by hyaline, up to yellowish hyphae, densely but irregularly branched, also densely septate, not anastomized, septate, superposed but not aggregated, as a rule 2,5—4 μ diam., forming intercalar as well as apical sessile chlamydospores, but in many cases found on a kind of undifferentiated hyphae acting as „conidiophore", of the same size and colour; the chlamydospores are typically found in short acrogenous or intercalar chains; the acrogenous chains are composed also by 30—50 or more spores, not easily dissolved or only in monilioid fragments, which short intercalar chains (as a rule composed of 2 to 5 elements), rarely short-branched or furcate; the chlamydospores are very variable in shape (spheroidal, ovate, elliptic to subelliptic or cylindroid, rarely spheric or elongate) without septa or with a central septum, and, in this case, slightly narrowed at the septum, and flattened near the junction, with a thick (2—3 μ) epispore, smooth from 14—19 ⇌ 7—12 μ to 32 ⇌ 15 μ (in culture, according A s h b y, 10—13 ⇌ 9—10 μ); not rarely the chlamydospores are irre-

gularly aggregated, forming sub-polyedric, subcuboidal or glomerulated masses, more or less intersecated by mycelic hyphae.

This genus appears to be a regressive or inferior metagenetic stage of a more evoluted fungus, forming only chlamydospores, then of doubtful affinity. A redescription of the genus is:

Vasculomyces Ashby emend.

Biophilum, mucedineum, micronemeum; mycelium endogenum, hyalinum, septatum, ramosum; hyphae sporigenae non vel parum distinctae; chlamydosporae typicae, firmeque catenulatae, acrogenae, rarius intercalares, vel irregulariter conglomeratae usque sarcinatae, hyalinae vel dilutissime coloratae, ovoideae usque cylindraceae, continuae usque 1-septatae.

The affinities are doubtful; apparently this genus is near *Myceliophthora* Cost., but distinct for many characteristics.

XXVI. — **Lembuncula pothoidei** n. gen. et n. sp. and **Morenoella pothoidei** (Rehm) n. comb.

Lembuncula Cif., n. gen. (etym., ob *lembus, lembunculus*).

Mycelium superficiale ab hyphis ramosis, fuscis, septatis, hyphopodiatis compositum, pycnothecia pluristratosa, dimidiata vel acutata, lineari vel oblongo-elongata, nigra, rima longitudinali irregulari dehiscente; conidia brunnea, continua.

Typus: *L. pothoidei* Cif., n. sp.

Plagulae et mycelium ut in statu ascophoro [*Morenoella pothoideis* (Rehm) Cif.]; pycnotheciis dispersis aut pluribus aggregatis, 250—350 ⇌ 80—120 μ, contextu atro, sub-carbonaceo, opaco, rima longitudinali latiuscula apertis, strato tegente ex hyphis sub-tenuibus, rectis vel sub-sinuosis, parce anastomosantibus, latissime indistincte septatis, fusco-brunneis aut atriusculis, 2—2,5 μ crassis composito; membrana in superficie interna loculi dilute flavo-brunneola, papillis sub-conoideis, truncatis, sub-indistinctis, concoloribus, in parte basali obtectis; conidiis oblongis, ellipsoideis vel sub-elongatis, continuis, rectis vel leniter curvatis, dilute brunneis usque brunneis, basaliter plus vel minus attenuatis, in apice attenuato-truncatis, saepe minutissime guttulatis aut nubilosis, 22—28 ⇌ 5,5—7 μ.

Hab.: in foliis vivis *Anthurii scandentis* (Aubl.) Engl., in Republica Dominicana, Cordillera Central, prov. Santo Domingo, Villa Altagracia, secus Río Isabela, 7. VII. 1928, ipse legi, No. 4960.

In spite of the fact that the original specimen studied by Rehm is unknown to us, is very probable that our species is identic with **Morenoella pothoidei** (Rehm) Cif., n. comb. (= *Lembosia pothoidei* Rehm, Journ. Philipp. Sci, Vol. VIII, pag. 191. 1913) found on *Pothoideum* (Araceae) in the Philippine Islands.

In our specimen, the imperfect stage of the fungus is much more abundant and better developed than the ascosporic stage. Apparently the imperfect fructification has been found also by Rehm judging from the reference in Saccardo's (Sylloge Fungorum, Vol. XXIV, pag. 491. 1926); the description is short and the imperfect stage anonimous, but we dont know the original description of the species.

The characteristics of the dominican specimen in the ascophoric stage are the following: colonies as a rule epiphyllous, and aggregate in spots 5—10 mm. in diam., also up to 15 mm., rarely single, frequently well evident, orbicular or irregular, black, opac; mycelium composed of brown hyphae, laxely and irregularly branched, with a few, not well defined septa, seldom anastomozing, and in certain sectors, almost nettled; hyphopodia few and rudimental, unicellular, alternate but very irregularly distributed, simple, not lobate, globular to ovoidal, 6—8,6 μ diam. or 6—8 ⇌ 5—7 μ; thyriothecia laxely or densely dispersed, elongate to linear, rarely straight, as a rule curved, in a few cases confluent and crossed (Y or St. Andrew cross), 250—400 ⇌ 90—150 μ; esternal layer in optical section plano-convex, formed by hyphae, individually not well distinct, 2—3 μ in thickness, indistinctly septate, straight or curvulate up to sinuate, rarely anastomizing of fibulated, better individualized in the marginal side, and here sub-radiate, black, opac, almost carbonaceous; internal layer yellowish to light brown-yellowish; asci ovoid or ellipsoid, not aggregated, a little thickened at the end, octospore, with not regularly disposed ascospores, without paraphysoid, 62—85 ⇌ 42—50 μ; spores almost spheric, ovoid or ellipsoid, yellowish to light brown, with a central septum, dividing the spore in two symmetrical or almost symmetrical portions, almost not narrowed at the septum, smooth, 22—26 ⇌ 10—13 μ.

The dehiscence of the thyriothecium is evident by longitudinal fission, at first narrowed and reduced in length (mostly at the central portion), then of the same lenght of thyriothecia and sparingly but irregularly laciniated, then fully laciniate, star-like at all. The pycnothecia are identic to thyriothecia with exception of the presence of pycnospores instead of ascospores.

XXVII. — **Phyllosticta alternantherae** Cif., n. sp.

Maculis rotundatis, orbicularibus, isolatis vel sub-confluentibus, 2 mm. diam., definitis, centro albidulo et halone brunneo circumdatis; pycnidiis flavo-brunneis, hemisphaerico-compressis, vel sub-ellipticis, gregariis, confuse cellulato-parenchymaticis, 80—115 μ, ostiolatis, cum ostiolo centrali evidente, irregulariter rotundato, 15—25 μ diam., conidiophoris brevibus, hyalinis, simplicibus; pycnosporis hyalinis, continuis, parvis, paucis, 4—7 ⇌ 2—3 μ.

Hab.: in foliis *Alternantherae sessilis,* Republica Dominicana, Valle del Cibao, prov. Espaillat, Moca, Estacion Nacional Agronomica, IX. 1929, leg. R. Ciferri (No. 2613).

Small (about 2 mm.), circular, isolated or sub-confluent, well definite spots, with a brown marge and a withish center; pycnidia yellow-brown hemispheric-compressed or sub-elliptic, gregarious, confusely cellular-parenchymatic, 80—115 μ in diam.; central, large, irregularly rounded ostiole, 15—25 μ in diam.; conidiophores short, hyaline, simple; pycnospores hyaline, 1-cellular, small, scarce, 4—7 by 2—3 μ.

Living on the leaves, and associate with another abundant but immature Sphaeropsidales on the same spots, with a poor developed undetermined Hyphales. So far we know, no *Phyllosticta* species were indicated on *Alternanthera.*

XXVIII. *Bagnisiopsis tijucensis* Theiss. et Syd., *B. peribebuyensis* (Speg.) Theiss. et Syd., and *Protoscypha.*

This fungus is of very common occurence in the rain forest of the Caribbean lands, continental and insular, on leaves of very many species of Melastomataceae, and we collected specimes from the Dominican Republic, Haiti, Venezuela and Colombia.

Miller and Burton (Mycol., Vol. XXXV, pag. 318—325. 1943) concluded that the above named species are distinguibable only on the spores size, namely: 11,4—17 by 7,6—12 μ, as a rule 15 by 9 μ for *B. tijucensis* and 13,3—24 by 7,6—12 μ, as a rule 19 by 10 μ for *B. peribebuyensis.*

From the comparison of a number of specimens, we are in condition to assert that really, judging from the variability in size of the ascospore, the species are indistinguishable, and the valide binomial, then, is *B. peribebuyensis.*

The specimens studied were:

1. On *Miconia nematophora* Urb. et Ek. R. O., Cordillera Central, prov. Seybo, El Jovero, road to Sabana del Hato, (without number and date), leg. E. L. Ekman. Spores 12—18 by 8—11 μ, as a rule 13—16 by 9—10 μ.
2. On *Miconia impetiolaris* (Sw.) D. Don, R. D., Valle del Cibao, prov. Le Vega, Cotué, edge of forest, 18. IV. 1930 (No. 4796), leg. E. L. Ekman. Spores 10—20 by 7—13 μ, as a rule 12—16 by 9—12 μ.
3. On *Miconia prasina* (Sw.) P. DC., R. D., Cordillera Central, prov. Samaná, Sabana de la Mar, 9. VII. 30, No. 4805, leg. E. L. Ekman. Spores 12—22 by 8—12 μ, as a rule 16—20 by 8—12 μ.
4. On *Miconia ottoschulzii* Urb. et Ekm., R. D., Cordillera Central, prov. Santo Domingo, La Cumbre m. 250, 12. XII. 1929, No. 2745, leg. E. L. Ekman. Spores 13—24 by 8—14 μ, as a rule 15—18 by 9—12 μ.
5. On *Miconia prasinaeformis* Ekm. ad interim ? R. D., Cordillera Central, prov. La Vega, Monción, La Cumbre, VI. 1929, No. 2377, leg. E. L. Ekman. Spores 12—24 by 7—13 μ, as a rule 14—18 by 9—12 μ.

6. On *Miconia pteropoda* Benth., R. D., Cordillera Central, prov. Samaná, Sabana de la Mar, 9. VII. 1930, No. 4943, leg. E. L. Ekman. Spores 10—18 by 7—13 μ, as a rule 13—16 by 8—11 μ; conidia 14—28 by 1—1,5 μ.

7. On *Miconia racemosa* (Aubl.) P. DC., R. D., Cordillera Central, prov. Santo Domingo, La Cumbre, 3. III. 1930, No. 3246, leg. E. L. Ekman. Spores 14—20 by 9—12 μ, as a rule 14—17 by 9—11 μ.

8. On *Clidemia strigillosa* (Sw.) D. C., R. D., Cordillera Central, Arroyo Manacle, m. 1100, VIII. 1929, No. 2862 p. p., ipse legit. Stromata almost sterile; a few spores of 11—15 by 10—12 μ.

9. On *Clidemia hirta* R. D., c. s., No. 2898, p. p., c. s. Spores 12—20 by 9—14 μ, as a rule 14—18 by 10—13 μ; conidia 13—25 by 1—1,5 μ.

10. On *Heterotrichum umbellatum* (Will.) Urb. (Myc. Dom. Exs., 274). Spores 12—17 ⇌ 8—12 μ, as a rule 13—16 ⇌ 9—12 μ.

11. On *Tibouchina longifolia* (Vahl.) Baill., R. D., sine loc. et sine mm. Stromata well developed, but apparently not mature, of *Bagnisiopsis*.

12. On *Graffenrieda ottoschulzii* Urb. et Ekm., R. D., Cordillera Central, prov. La Vega, La Cumbre, 3. 1930. No. 4443 bis, leg.?

Sterile stromata of *Bagnisiopsis*, mixed with a second stroma, perhaps of the genus *Protoscypha*.

13. In *Meriana involucrata* (Desr.) Naud., R. D., sine loc., leg. E. L. Ekman, sine number. Spores 12—16 ⇌ 9—12 μ, as a rule 12—14 ⇌ 10—12 μ, subsphaeroidal; conidia 16—26 ⇌ 1—1.5 μ.

14. On *Ossaea* ? sp., Venezuela, Est. Miranda, road to Ocumare del Tuy, XII. 1947, leg. R. Ciferri.

Stromata not well mature; a few spore of 16—22 ⇌ 7—11 μ.

15. *Blakea* sp., Venezuela, ex Syd., Fungi Ven. (almost certainly *B. longibracteata* Cogn.), leg. H. Sydow.

Spores 13—18 ⇌ 8—12 μ. as a rule 14—17 ⇌ 9—11 μ.

16. On *Clidemia* ? *plumosa* (Desv.) DC., Venez., Est. Aragua, Rancho Grande, V. 1948, leg. R. Ciferri.

Spores of 13—24 ⇌ 1—13 μ, as a rule 15—19 ⇌ 8—11 μ.

17. On *Conostegia speciosa* Nard., Venez., as above, VII. 1948.

Spores of 10—18 ⇌ 8—12 μ, as a rule 13—16 ⇌ 9—11.5 μ.

18. On *Graffenrieda latifolia* Triana, as above, VI. 1948, ipse leg.

Sterile stromata of Bagnisiopsis, parasitized by a *Helminthosporium* sp.

19. On *Miconia* sp., Columbia, Valle del Cauca, near Cali, II. 1948, ipse leg.

Spores 13—19 ⇌ 8—13 μ; as a rule 15—18 ⇌ 9—12 μ; conidia 16—25 ⇌ 1—1.5 μ.

In conclusion, the spore size is quite variable, and also the shape is variable from relatively short and elongated to almost spheroidal, with an individual, sensible variability also in the same stromata.

In addition the allied characteristics of the imperfect stage in a number of specimen confirm the identity of both species.

The imperfect stage of *B. peribebuyensis* has been described in the British Guyana by Stevens (Ill. Biol. Mon., Vol. VIII, pag. 180. 1923), and appears to be referable to *Hemidothis miconiae* Syd. *H. pittierii* Syd. is certaintly the same species.

Protoscypha subtropica (Wint.) Petr. is frequently associated with *Bagnisiopsis*, yet living on not well differentiated stromata, and in

the last case it appears to develop directly from the leaf of the Melastomatacea, as, e. g., in the specimen No. 4443 bis.

We have nothing to add to the accurate paper of Miller and Burton (Mycologia, Vol. XXXV, pag. 83—87. 1943) in relation the synonimy with *Myriangiella* Stev. and *Pittierodothis* Chard., as well as in regard to the systematic position. But, in our opinion, the identification of *Dothiora* Fries emend. Sacc. emend. Theiss. et Syd. with *Protoscypha* Syd. is inopportune, lacking of a through comparative, morpho-anatomical study of *Dothiora* and *Protoscypha* in different stages of development. In addition, *Protoscypha* appears to be a biophilous, fungicolous fungus of the tropic-equatorial regions, chiefly of the rain (or moist) forest; *Dothiora* may be the vicariant genus of the temperate some, saprophilous, if not only ligni-corticicolous genus.

XXIX. — *Stromatographium* v. H. emend. and *Sphaerostilbe* subg. **Mammostilbe** nob.

To identify a *Sphaerostilbe* sp. apparently parasitic on scale insects on leaves of *Poncirus trifoliata* in Venezuela (Estado Carabobo, Valencia, in a garden, XII. 1947 ipse leg.), then identified as *S. aurantiicola* (B. et Br.) Petch. for the courtesy of the late phytopathologist Dr. Meredith we have the opportunity to study the venezuelan specimen of *S. mammiformis* Chard.

S. mammiformis Chard. has been described (in Seaver and Chardon, Sci. Survey Puerto Rico Virg. Isl., Vol. VII, p. 1, p. 46. 1928) on the bark of a tree in Puerto Rico, then found on rotted bark in Venezuela (cfr. Chardon, Bol. Soc. Ven. Ci. Nat., Vol. V, no. 40, p. 242. 1939).

In effect, the species is characterized by an ostiole clearly mamillate and red, when the cogeneric species (e. g. *S. aurantiicola*) are characterized by a more or less smooth ostiole of the same color of the stromata; in addition the typical species of *Sphaerostilbe* are biophilous, and, as a rule, insectophilous, when the Puerto Rican and Venezuelan species is lignicolous and saprophilous.

In the original and in the subseguent description, Chardon referred the conidial stage as *Stilbum*. Really it is characterized by a series of small synnemata, emerging from the sterile and fructified stromata and standing up, yellowish to straw in color, 1—2,5 mm. long, not setose, 120—250 μ in diam., erect, compact, not branched, formed by hyphae individually hyaline or almost so, and having in the top a spheric or subspheric capitulum (by cohalescence of the synnemata), apparently more than one. The capitulum is of 120—300 μ in diam., as a rule 150—250 μ, and it is formed by a mucous substance inglobing the hyaline conidia, at first not septate, then, as

a rule, 1-septate, elliptic or ellipsoidal to ovate in shape, of 20—40 by 8—12 μ, as a rule 25—35 by 10—12 μ.

For the structure of the conidia, this fungus must not be referred to *Stilbum*; in any case, is more allied — but differing in many ways — to *Graphium*, a genus that moreover is related to other orders of Ascomycetes.

In our opinion, for this species is possible to reconvalidate the genus *Stromatographium* v. Höhn. (in Falck, Myk. Unters. Ber., Vol. I (3), p. 368. 1923), but with an emendation, to extend the genus to the species with stromata light in color and not carbonaceous, namely, to the *Hypocreales*:

Stromatographium v. Höhn. emend.

Synnemata erecta cylindracea, simplicia, hyalina vel laete colorata, monocapitata, ex stromatibus carbonaceis aut laete coloratis assurgente; conidia acrogena, hyalina, 1-septata, muco in capitulum sphaericum conglobata.

Typus: **S. mammiformie** nob., n. nom.; stadio perfecto *Sphaerostilbe mammiformis* Chardon.

Most of the old species of the genus *Sphaerostilbe* were transferred by Wollenweber on *Nectria* and/or allied genera (but this statement is discutable) including *S. coccophila* Tul. (= *S. aurantiicola* (B. et Br.) Petch, according the last student; Ann. Bot. Gard. Peradeiya, Vol. VII, p. 119. 1920); on the contrary Petch established *S. coccidophthora* (Zimm.) Petch for *Nectria coccidophthora* Zimm. The same student described *Microcera aurantiicola* Petch as conidial stage of *S. aurantiicola*, and *Microcera coccidiophthora* Petch for *S. coccidophthora*, namely *Fusarium* or a strictly allied genus.

We propose the subdivision of the genus *Sphaerostilbe* in two subgenera (perhaps also two genera may be justified):

I) Ostiolo plano, concolore; species biophilae, typice entomogenae; st. conid. *Fusarium* (*Microcera*)

Subg. *Eu-sphaerostilbe* nob.

Typus: *S.* (*Eu-sphaerostilbe*) *aurantiicola* (B. et Br.) Petch.

II) Ostiolo mammillato, numquam concolore; species saprophilae, typice lignicolae?; st. conid. *Stromatographium*

Subg. *Mammostilbe* nob.

Typus: *S.* (*Mammostilbe*) *mammiformis* Chard.

XXX. — **Phanerococculus** n. gen., imperfect stage of *Phanerococcus* Theiss. et Syd.

The genus *Phanerococcus* Theiss et Syd. has been erected on *Asteridium feijoae* Rehm, a brasilian species of the Pseudosphaeriales order (Ann. Mycol., Vol. XVI, p. 9. 1918), a species apparently unconfirmed up to-now. A second species of the same genus (*P. tricho-*

philus Syd., Ann. Mycol., Vol. XXXV, p. 265. 1937) from Uganda has been referred by Hansford (Myc. Pap. I. M. I.; n. 15, p. 86. 1946) to the genus *Aphanostigme,* while the same student (Proc. Linn. Soc. London, Vol. CLIX, p. 28. 1947) described on *Rapanea,* in the Belgian Congo, another species: *P. rapaneae* Hansf., among the *Dothideales.*

On *Rapanea ferruginea* (R. et P.) Mey. we found a species corresponding a to *P. rapaneae,* with a poorly developed ascosporic stage, but with a well developed imperfect stage, that has been quoted, but not described by Hansford (l. c.) (R. D., Cordillera Central, prov. La Vega, Bonao, rain forest; without data, number and name of the collector, but probably one of the last collections of the late friend Dr. E. L. Ekman). The pycnospores are very similar to the true ascospores of the same fungus, pycnothecia and perithecia being mixed on the same spot if not on the same stromata, so that, at the first, we supposed to be free ascospores liberated from diffluent asci; but really the asci are not evidently diffluent.

On account of the metagenetic bound, we suppose that a new genus for the imperfect stage is justified:

Phanerococcoculus n. gen.

Pycnothecia ut in *Phanerococco,* cum peritheciis congregatis; loculis pycnidiorum immersis, stromaticis; conidiophoris brevibus usque papillosis aut subnullis; pycnosporis fusatis, hyalinis, transversaliter pluriseptatis.

Typus: **P. rapaneae** n. sp.:

Pycnotheciis ut in *Phanerococco rapaneae;* conidiophoris brevissimis vel subnullis; pycnidiosporis fusatis, minus vel plus arcuatis, hyalinis, apicibus rotundato-truncatis sed attenuatis, 2—4, pro more 3-septatis, levibus, ad septum leviter constrictis, 30—46 ⇌ 5—7 μ, typice 35—40 ⇌ 5—6 μ.

Hab.: in foliis *Rapaneae ferrugineae,* socia *Phanerococco rapaneae* Hansf., in Republica Dominicana (vide supra).

XXXI. — *Monosporium uredinicolum* Stev. and *Oospora uredinis* (Link) Wallr.

Monosporium uredinicolum Stev. (Trans. Ill. Ac. Sci., Vol. X, p. 201. 1917) has been described on *Coleosporium ipomoeae* on leaves of *Ipomoea batatas* in Puerto Rico.

In the Dominican Republic this species is not unfrequent on the same rust — apparently, an elective host — chiefly after the rain periods. It develops on the rust spot, covering it in part, but also covering the spot at all, with a white layer composed of mycelium flocculose to woolly, but also delicate up to arachnoid, hyaline, very branched — also more or less dichotomically branched, but, as a rule, diffusely and irregularly

branched — with indistinctly septate hyphae, thin (1—2,5 μ diam.); the conidiophores are undifferentiated, being constituted by short hyphae, without distinctive characteristics; on the top of the more or less acutate conidiophore, are found one conidial chain, very easy to separate from the conidiophore and, as a rule, remaining only with the basal, youngest conidium; really the chains are formed by 8—12 and more conidia; the conidia are hyaline, non septate, ovoid or ellipsoid up to cylindric-cuboid, with obtuse but not truncate ends, 14—17 μ diam. or 14—18 by 10—13 μ.

In spite of the fact that we never studied the autentic Stevens' specimen, there are no doubt on the identity of our specimen; but it is not certainly a species of the conventional genus *Monosporium* Bon. (Handb. Allg. Mykol., pag. 95. 1851) having well differentiated, branched conidiophores with an acrogenous conidium each one. The definition of the above named species is attributed to the fact the chains are easily broken off, and on the conidiophore remains only an apical conidium.

According the description, our fungus agree with *Oospora uredinis* (Link) Wallr. (Fl. Krypt. Germ., Vol. II, pag. 86. 1833) (of which we dont know the autentic specimen) in the conventional signification attributed to this species, adopted by Lindau (in Rabenh., Die Pilze, VIII, Abth., pag. 30. 1907), an european species living on rusts of *Euphorbia* and *Rubus*. Yet the genus *Oospora* is amazingly confused and the signification fully conventional, there are some doubt also on the fungus according Saccardo (Ann. Mycol., Vol. I, pag. 24. 1903). The systematic position of this *Oospora*, and the synonimy must be revised on autentic specimen; in expect, we are accepting the identity of *M. uredinicolum* with the conventional *Oospora uredinis*.

XXXII. — *Ophionectria palicoureae* Seav. et Whetz., and *Tovariella pittieriana* Syd.

Ophionectria palicoureae Seav. et Whetz. (in Seav. et Chard., Scient. Survey of Porto Rico and Virgin Isl., Vol. VIII, p. 1, pag. 45. 1926) has been described on leaves of *Palicourea* sp. in Puerto Rico, and *Tovariella pittieriana* Syd. (Ann. Mycol., Vol. XXVIII, pag. 173. 1930) on leaves of *Psychotria* (*Palicourea*) *riparia* in Venezuela.

We found on living leaf of *Palicourea domingensis* (Jacq.) P. DC. (Dominican Republic, Cordillera Central, prov. Santo Domingo, La Cumbre, road to Bonao, 300 m., 20. V. 1928, leg. R. C. (No. 3943) a fungus not completely developed. The characteristics of the dominican fungus are corresponding to those of the venezuelan fungus: almost hyaline or light-yellowish to yellowish-pink in color; asci ovoidal in shape, 8—12 μ diam.; spores with 7—15 septa, of 8—100 ⇌ 3—4 μ;

paraphyses very abundant and well branched, chiefly on the upper part, filiform, 130—190 μ long (up to 245 μ). In the young specimen they are forming almost an epithecium, but, near the maturity, they are disposed more or less without regularity, and are almost cottony or wooly.

In spite of the fact that we dont studied the autentic specimen *Ophionectria palicoureae,* it is almost sure that it is identic with *Tovariella pittieriana,* at least from the short description of the american mycologists, for the morphology and the size of the elements, on the base of the dominican specimen. In this case, the specific name *palicoureae* must have the priority on the specific name *pittieriana.*

It would be useful to compare the generic position of both fungi with *Dexteria* Stev. (monotypic: *D. pulchella* Stev., Trans. Ill. Acad. Sc., Vol. X, pag. 174. 1917) on leaves of *Paullinia pinnata,* but the description of this species is too short.

XXXIII. — **Berteromyces aeneus** Cif., n. gen. et n. sp. (Fig. 6).

The characteristics of this genus, dedicated to the italian botanist Carlo Bertero (1789—1831), the first italian botanist collecting plants in the spanish side of Hispaniola Island (now Dominican Republic), are the following:

Berteromyces Cif., n. gen.

Biophilum, mycelium superficiale nullum, mycelium endogenum ramosum, hyalinum, parce evolutum, conidiophora hyalina vel subhyalina, erumpentia, dense suffulta, fasciculata, simplicia, erecta, distincta; conidia solitaria acrogena, hyalina, ovoidea, primum continua, dein 1-septata, levia.

Typus: *B. aeneus* n. sp.

The genus is allied to *Diploidium* Arn., differing for the absence of superficial mycelium and the modality of aggregation of the conidiophores, as well as to *Exosporina,* Arn., differing also for the absence of superficial mycelium, and having conidia of different shape. In addition a basal pseudo-hypostroma is present.

Berteromyces is, then, allied to *Parodiellinae* and *Parodiopsidae* (following the Arnaud's system), of which *Diploidium* and *Exosporina* are considered to be the conidial stages, also for the aspect of the spots, and in spite of the fact that the pigment is absent (or, at least, very poorly developed). In our opinion, *Diploidium* and *Exosporina,* as well as *Berteromyces,* are Hyphales symbiotic with species of Ascomycetous fungi but also free living, never an imperfect stage of *Parodiopsis* or allied fungi (see Les Astér., Vol. I, p. 21. 1918; Ann. Epiph., Vol. VII, pag. 56. 1919).

Berteromyces aeneus Cif., n. sp.

Maculis amphigenis in pagina superiore foliorum brunneis usque sordide flavescentibus, margine indistincto viridulo cinctis, halone decolorato plus vel minus rotundato 1—4 mm. diam., effuso, sub-limitatis; in pagina inferiore lenissime viridulis effusis, sub-

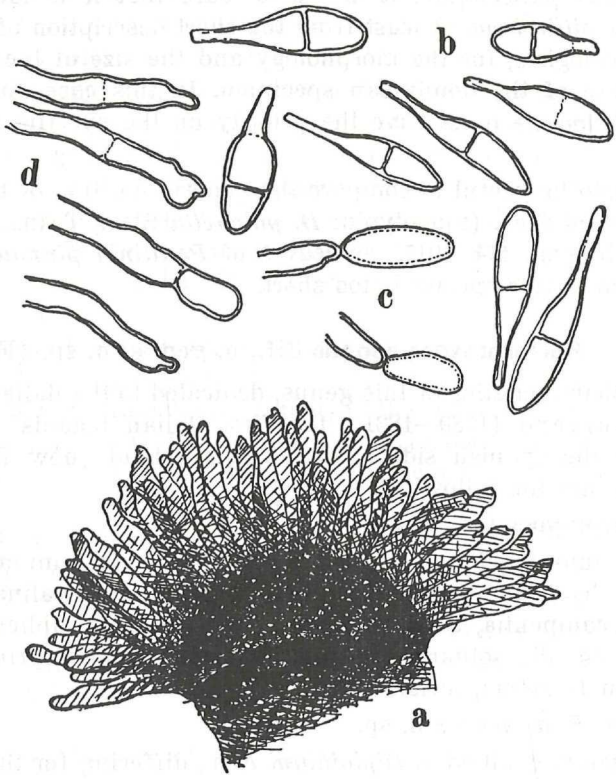

Fig. 6. *Berteromyces aeneus* Cif. — a) Sterile tufts. — b) Conidia. — c) fertile tips of the conidiophores. — d) Conidiophores.

decoloratis, saepe rotundatis aut orbicularibus, indelimitatis, 2—5 mm. diam.; coloniis semper hypophyllis, brunneo-viridulis, rotundatis, orbicularibus aut irregularibus, saepe singulis, 2—4 mm. diam. rarius sub-aggregatis majoribus sed individualiter distinctis, frequenter punctiformibus, 1—2,5 mm. diam., mycelio superficiali nullo; mycelio intramatricali ex hyphis tenuibus (2—2,5 μ), indistincte septatis, parce ramosis composito; caespitulis paucis, rarius singulis in quoque macula, pro more 4—12, remote sparsis, erumpentibus, basaliter dense coacervatis, pseudostromate sphaerico-applanato, usque 75 μ alto (hypostromate vero non viso), apice divaricato-

expanso sed denso, a stomatibus vel ab epidermide assurgentibus, 100—180 μ diam., 80—130 μ altis, oculo inermi indistinctis, sub lente imperspicuis, ob 30—70 (rarius ultra) conidiophoris compositis; conidiophoris simplicibus, dense fasciculatis, rectis vel leniter curvulatis, plus vel minus erectis, sed irregularibus, apice non vel paullo incrassatis, 1-denticulatis vel incisis, cylindraceis vel sub-clavulatis, hyalinis, sub-hyalinis vel dilute flavis, non septatis vel parce et remote septatis, 46—57 μ altis, 7—12 μ crassis, apice monosporis; conidiis primo simplicibus, continuis, ovatis vel cylindroideis, apicibus rotundatis, dein 1-septatis (rarissime et indisticte 2-septatis), clavatis, superne elliptico elongatis, apice rotundatis, ad basim sub-caudatis, angustato-elongatis, apice inferiore obtusato-truncato, in toto 60—75 μ longis (cauda 18—36 μ longa) 9—10—14 μ lata (cauda 6—9 μ crassa), septo prope medium incrassato, ad septum non constrictis, plasmate granulato vel nubiloso usque guttulato.

Hab.: in foliis vivis *Cassiae indecorae* H. B. K. vel sp. aff., Republica Dominicana, Valle del Cibao, prov. Santiago, Santiago, Hato del Yaque, Hatillo, 14. VIII. 1931, ipse legi (No. 4958).

XXXIV. — *Miscellaneous records.*

Macrosporium amaranthi Peck, Bull. Torrey Bot. Club, pag. 394 (1895). On *Amaranthus viridis,* Valle del Cibao, prov. Espaillat, Moca, Estación Nacional Agronomica, IV. 1929, coll. R. C. (without number).

Living on half-dry leaves, apparently saprophytically or almost so. Species new for Santo Domingo; also the host plant is new for the species. Colonies very small, nearly punctiform, black or black-greenish, isolated or sub-confluent, 2 mm. in diam.; conidiophores fasciculate, erect or suberect, simple, not enlarged neither at the top, nor at base, septate, brown-olivaceous, 26—40 by 5—9,5 μ. Conidia sub-clavate to sub-fusiform, acrogenous, scattered (?), brownish, irregularly septate, with 3—6 transversal and 2—4 longitudinal septa, 22—36 by 6—12 μ.

The fungus occurring on *Amaranthus viridis* seems to be intermediate in characters between that of *A. retroflexus* and the form *celosiae* Br. et Cav. (F. parass. N. 366) of the same species, found on *Celosia cristata,* particularly for the dimensions of the conidiophores; this form was referred to the type by Ferraris (Hyph., pag. 501. 1910). In the North American specimen, the conidiophores are 21—32 μ long; in the italian form 28—45 μ, and in our specimen 26—40 μ.

Aschersonia turbinata Berk. On *Psidium guajava,* Llano Costero, prov. Santo Domingo, Santo Domingo City, banks of Rio Ozama, 15. XII. 1929, coll. E. L. Ekman, No. 2812.

Valle del Cibao, prov. Duarte, Pimentel, in savana, VIII. 1929, coll. R. C., No. 2720. Llano Costero, prov. Santo Domingo, Sabana de Guerra, VIII. 1929, coll. E. L. Ekman, No. 2874.

On *Salmea scandens,* Cordillera Central, prov. Santo Domingo, Villa Altagracia, 7. I. 1930, coll. E. L. Ekman, Nr. 2852.

With an indeterminate, immature Meliolinea.

Previously known in Santo Domingo on Coccidae on the first host plant; a frequent species.

Fusarium heterosporium Nees.

On spikes of *Paspalum plicatulum,* Llano Costero, prov. Santo Domingo, Pimentel, in savana, VIII. 1929, coll. R. C., No. 2717.

?*F. subulatum* Appel et Woll., on the same host plant Valle del Cibao, prov. Duarte, Pimentel, in savana, VIII. 1929, coll. R. C., No. 2702.

Associated with a *Coniostroma* sp.

Both species are known for Santo Domingo on other host plants.

Albugo platensis (Speg.) Sw., Journ. Mycol., Vol. VII, pag. 113 (1892). On *Boerhaavea erecta* L. (*Nyctaginaceae*), Valle de San Juan, prov. Azua, San Juan de la Maguana, Sabana de Santomé. 18. VIII. 1929, coll. E. L. Ekman, No. 2875.

Albugo candida (Pers.) Kuntze.

On *Brassica rapa* L. cult., Valle del Cibao, prov. Espaillat, Moca, Safarraya, near Javava, 10. XII. 1929, coll. R. C., No. ?.

Precedently found in Santo Domingo on *Brassica urbaniana.*

Cercospora stevensii Young, Mycol., Vol. VIII, p. 45 (1916).

On leaves of *Andira jamaicensis,* Cordillera Central, prov. La Vega, Bonao, in forest, about m. 500, IV. 1928, coll. R. C. (without number).

A species new to Santo Domingo and a new host plant for the species, described in Puerto Rico on *Andira inermis* (but it is possible that both host plants are the same species). The characteristics of our specimens agree well with the description.