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SYNOPSIS

OF

SOME GENERA

OF THE

LARGE PYRENOMYCETES

CAMILLEA
THAMNOMYCES
ENGLEROMYCES

By
C. G. LLOYD
CINCINNATI, OHIO, JANUARY, 1917

2

THE GENUS CAMILLEA.

The receipt of a nice specimen of Camillea Cyclops from Rev. Torrend, Brazil, has induced us to work over the similar species in our collection. On our last visit to Europe we photographed the various specimens we found in the museums, but did not study them as to structure. However, they make such characteristic photographs that we believe the known species can be determined from our figures.

We are all familiar with the common Hypoxylons that form little globose, black balls, usually on dead limbs, in our own woods. They have a solid carbonous interior with the perithecia imbedded near the surface. There have been over two hundred alleged Hypoxylons, mostly from the tropics. We have never worked them over, but suspect that a number of them from the tropics, when examined, will be found to be Camilleas. If the specimens were examined, no doubt "prior" specific names would be found for several of this list.[1]

In the old days all similar carbonous fungi were called Sphaeria. Montagne first received a section of Sphaeria with cylindrical form, from South America. The perithecia were long, cylindrical, and were arranged in a circle or were contiguous, near the summit of the stroma. He proposed to call it Bacillaria, as a section of Sphaeria, but the name being preoccupied, he, at the suggestion of Fries, afterwards named it in honor of himself, Camillea, Montagne's first name being Camille.

The original species were separated into a genus by Montagne in 1855, and five species listed, and it is a curious fact that these five species, as well as all others that have since been added, are of the American tropics. I have not worked over the "Hypoxylons" in the museums, but as far as the records go the genus Camillea does not occur in other tropical countries.

In 1845 Léveillé announced that he had discovered a plant resembling an Hypoxylon which had, however, the spores borne on filaments (acrogenous), and not in perithecia. He called it Phylacia globosa, and classified it in Sphaerioidaea. The specimen (Fig. 847) is still at Paris. Saccardo has omitted it, and states that Phylacia is probably a pycnidial condition of Hypoxylon turbinatum. Both were guesses, one statement surely, and both probably, wrong. The interior is filled with a powder that under the microscope appears to be made up of ligneous filaments mixed with a few spores. These filaments appear to me to be the disintegrated walls of the perithecia, and not the "filaments that bear the spores." From analogy, at any rate, the spores of all these similar species are probably borne in asci which disappear early, and Phylacia seems to be the same genus as Camillea, the walls of the perlthecla disintegrating and forming a powdery mass. If this view is correct, Camillea can be divided into two sections.

EUCAMILLEA.—Perithecia persistent.

PHYLACIA.—Perithecia early disintegrated.

3

SECTION 1. EUCAMILLEA.

CAMILLEA LEPRIEURII (Fig. 826).—Carbonous, black, cylindrical, 2-3 cm. long, 3-4 mm. thick. Apex truncate, excavate. Perithecia linear, near apex of stroma. Asci (teste Montagne) linear, 8 spored. Spores (pale) spindle shape, dark, 6-7 × 25-35 mic.

A most peculiar and apparently a rare species. All the specimens I have noted came to Montagne from Leprieur, French Guiana. Berkeley records it from Brazil, Spruce, but I think it has not been collected in recent years. Our figure 826 is from specimens in Montagne's herbarium, and these are three times as long as the specimen Montagne pictures. I saw no such short specimens. Patouillard has given a detailed account of the

structure of the plant. The perithecia are arranged in a circle neat the apex of the stroma. The spores are spindle shaped (rather than caudate, as Montagne shows them) and 25 to 35 mic long. Patouillard claims that Hypoxylon melanaspis has same spores and structure, and is the pulvinate form of Camillea Leprieurii. It does not seem possible to me, but I can not say to the contrary.

Fig. 826.

CAMILLEA BACILLUM (Fig. 827).—Stroma cylindrical, black, 1 cm. long, 1 mm. thick. Apex truncate, shown punctulate in Montagne's drawing. Spores dark, reniform.

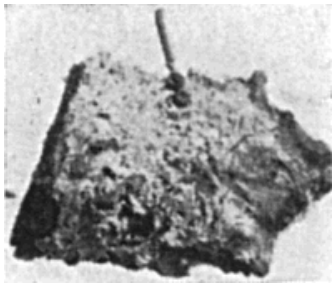

Fig. 827.

This is very similar to the preceding in shape, but is a much smaller species with different spores (teste Montagne). We have only seen the originals in Montagne's herbarium, from which our figure is made. The drawing given by Montagne represents the plant better than our photograph. Montagne records the species from Cuba and French Guiana. We think it a very rare plant.

CAMILLEA MUCRONATA (Fig. 828).—Stroma cylindrical, black, 6 mm. long, 3 mm. thick. Apex with a prominent, mucronate point. Perithecia linear, contiguous, near the apex of the plant. Asci cylindrical. Spores oblong (M.) 3½ to 4 × 10 mic., colored.

Fig. 828.

This also is a rare species, only known from the original collection by Leprieur, French Guiana. Our photograph is from the type. In the original drawing there is a circle of little acute protuberances shown near the apex of the plant. We can see but faint indication of them in our photograph.

CAMILLEA LABELLUM (Fig. 829).—Plant short, cylindrical, about a cm. tall and thick, with a depressed disc. Perithecia contiguous, forming at layer beneath the disc. Spores (M.) fusiform, dark, 30 mic., long.

I believe the plant is only known from the original collection in Montagne's herbarium, from Leprieur, French Guiana. It does not follow, however, that it is such a rare plant, but only that the plants of the region have been scantily collected. Our figure is a photograph of the types.

CAMILLEA TURBINATA (Figs. 830-833).—Plants obconic or turbinate, about a cm. tall and broad, growing in a dense cluster from a common, mycelial carbonous base. The summit is truncate, and marked with a raised central disc, which is thin and in old plants breaks irregularly. A section of a young plant (Figs. 831 ×6) shows the lower part composed of rather soft, carbonous tissue, the upper filled with a light brown powder, composed of spores mixed with hyphae tissue. In old plants the tops break in, the powder is dissipated, and there remains (Fig. 833) a bundle of carbonous tubes, the walls of the perithecia. Finally,

Fig. 829.

these break up and disappear, leaving the upper part of the plant hollow. The spores are elliptical, 6-7 × 16-18 mic., smooth, light colored. The asci which disappear at at very early stage, are shown by Moeller as oval, each containing 8 spores.

This is at common plant in our American tropics, and was named by Berkeley, as Hypoxylon turbinatum, but in a later paper he referred it to Camillea turbinata. It is compiled in Saccardo as Hypoxylon. I doubt not but that it was named Sphaeria caelata by Fries many years "prior." Spegazzini found it abundantly, and noting that it was not a good Hypoxylon, puzzled over it in two or three papers and finally also concluded that it was at Camillea. Moeller also "discovered" it, and although the common plant was well known in other centers, the rumors had not reached Berlin, hence he "discovered" it was a new genus, which he dedicated to his friend, Dr. Hennings and called it Henningsinia durissima. Fortunately, he gave a good figure by which his "discovery" could be interpreted.

We have beautiful specimens from Dr. J. Dutra, Brazil, from which our figure was made, also we have specimens from Rev. Rick.

Fig. 830. Camillea turbinata. (Side view, natural size.)

Fig. 831. Section with spore mass (X 6).

Fig. 832. Same, top view.

Fig. 833. Section after dispersion of spores.

CAMILLEA CYCLOPS.—Plants short, cylindrical, or semi-globose, black, about 4 mm. in diameter, erumpent from a common mycelial origin, and distributed regularly over the matrix. They are produced at intervals of about ½ cm, and apparently never two contiguous. Apex a circular, rounded depression, with a slightly elevated disc. Perithecia arranged in a central bundle, with permanent, carbonous walls (Fig. 835 ×6). Spores oblong, 8 × 12, pale colored.

Fig. 834. Camillea Cyclops.

While this as probably not a rare plant in the American tropics, it appears to have been only known from the Leprieur collections sent to Montagne. We have recently gotten it from Rev. Torrend, Brazil, and the receipt of the specimens inspired this pamphlet. I notice on some of these specimens (not all) little protruding points that are similar to those that Montagne shows, near the apex of Camillea mucronata. These appear like abortive surface perithecia, but I do not find any clue to their nature, and I do not know what they are. Cyclops was the name of a giant in mythology that had but one eye in the middle of his forehead. Thus species has but one "eye," but it is hardly a giant.

In the same paper in which Montagne lists Camillea Cyclops, he names and figures Hypoxylon macromphalum. I can not tell the photograph (Fig. 837) I made of the type from the photograph of Camillea Cyclops. From Montagne's sectional figure, the perithecia are arranged in the same manner, and the two plants

are surely cogeneric and, I believe, identical. A close reading of Montagne's description discloses but one point of difference. He records that in Hypoxylon macromphalum the ostioles are prominent, and in a close examination of my photograph, I do note minute points on the disc that are absent from Camillea cyclops. Still I believe they are the same plant.

Fig. 835.

Fig. 837.

SECTION 2. PHYLACIA.

This might be made a genus, corresponding to Hypoxylon as to stroma, but having the stroma hollow and filled with a pulverulent mass. In reality, I think it is a better Camillea, the perithecia arranged the same way, not permanent, but broken up at an early stage. Of course, it is only an inference. Léveillé states that it has the spores borne on hyphae (acrogenous), but I do not place much value on Léveillé's statements. Patouillard, after admitting that he saw nothing but this powdery mass, adds "it is probable that the spores were contained in logettes with fugacious walls, of which only the marks on the inner side of the cavity remain." It would have been better if he had stopped there, but he goes on to propose afterwards that Hypoxylon Bomba should be held distinct from Camillea under the name Phylacia, because it presents a form "stylospored" and a form "ascospored." He does not give the reason for the assertion that it is "stylospored," not even citing the uncertain testimony of Léveillé. Phylacia might be held distinct from Camillea on the ground of the powdery mass and the early disappearance of the perithecia and ascus walls. There is nothing new about that. It was done years ago by Fries who called the "genus" Leveilleana, which is a tip for some future name-juggler. All that is really known about its early structure is only from inference, and that inference is contrary to its having been "stylospored." 7

Fig. 840.

Fig. 838.

Fig. 839.

Camillea Sagraena. Fig. 838, a cluster natural size; Fig. 839, broken specimen as often seen; Fig 840, two long stipe specimens.

CAMILLEA SAGRAENA (Figs. 838-840).—Plants oblong about 3-4 mm., stipitate or substipitate at the base, growing densely caespitose, in patches, black, smooth, the apices usually obscurely mammillate. Stipes usually short, but sometimes 6-8 mm. long, and when growing in clusters, the bases consolidated by a carbonous stroma. Interior of the receptacle in two compartments (Fig. 841 ×6), the lower filled with soft tissue, black around the edges, but *white* in the center. The upper compartment filled with a mass of spores mixed with a few fragments of hyphae. Spores narrowly elliptical, 6 × 12, straight, pale colored.

In Cuba I made abundant collections of this species. It grew in patches from the thin bark, usually on the branches of a dead tree. I do not know the name of the tree, but I think it was only on one kind, one of the few softwood trees of Cuba. Camillea Sagraena is undoubtedly a common species in the American tropics. It has never been well described, and the white tissue of the interior lower half, which is a very rare occurrence in similar black, carbonous plants, has never been noted. A "new genus" might be based on this feature. It is quite fragile and the broken bases as shown (Fig. 839) are often all that remain of it when old. Camillea surinamensis as named by Berkeley from specimens from Surinam, type at Kew, is exactly the same species. Berkeley does not record it from Cuba, but from Nicaragua, and the specimen is supposed to be illustrated by Ellis in his plate 38. It may have been the plant, but if so, it was so inaccurately drawn that it would never be recognized. In addition to my abundant collections from Cuba, I have a scanty collection also from Cuba from E. B. Sterling.

8

Fig. 841.

Fig. 844. **Fig. 845.**

Camillea Bomba. Fig. 844 on bark; Fig. 845 on hard wood.

CAMIILLEA BOMBA (Figs. 844, 845).—Plants globose, sessile, 4-6 mm. in diameter, black, smooth, without any disc. Dehiscing by irregular fracture. Stroma hollow on the interior (Fig. 846 ×6) filled with a brown powder, composed of spores mixed with abundant hyphae remnants of the perithecia and asci. Spores 6-7 × 10-12, elliptical, pale colored.

This seems to be a frequent species in tropical America. I collected it in Cuba and have specimens from Miss Barrett, Jamaica, and L. J. K. Brace, Bahamas. The latter specimens grew erumpent from thin bark, and the broken bark forms a kind of cup at the base of the stroma. A thin, black mycelial stroma underlies the bark. Those I collected in Cuba were somewhat larger, and more irregular. Some grew in same manner, erumpent from thin bark and the broken bark forms a kind of cup at the base of the stroma, others on the naked, hard

wood and grew more compact. In the latter case the black stroma at the base was thicker and more in evidence. There is no question but that Camillea Bomba is cogeneric with Camillea Sagraena, but the gleba of the latter consists almost entirely of spores, while in the former there is considerably more hyphae remnants than spores.

CAMILLEA GLOBOSA (Fig. 847).—Plants densely caespitose, sessile, globose, black, smooth. 7-8 mm. in diameter. Opening by irregular fracture. Stroma hollow, filled with a brown mass of spores and hyphae remnants. Spores elliptical.

Léveillé named this from a specimen from Tolima, Columbia, South America. The type Fig. 847 is all than is known to me. Léveillé spins a long story about it having spores borne on filaments, merely a wrong deduction, I think, from his having found filaments (of the perithecia walls?) mixed with the spores. Saccardo, who evidently did not take much stock in Léveillé's story, omitted the species, suggesting that it was a form of Camillea turbinata. Saccardo's conclusions were almost as bad as Léveillé's.

9

Fig. 846.

We have not examined any specimens of Camillea globosa, but suspect a section would show two divisions of the gleba, as in the next. In fact, with the exception of the stipe, it appears to be the same plant, and abundant collections may show them as only sessile and stipitate forms of the same thing.

Fig. 847.

CAMILLEA POCULIFORMIS (Figs. 848 and 849).—Plants caespitose, stipitate, globose or obovate, smooth, black, 8-15 mm. in diameter. Stroma somewhat flattened at apex, opening circumscissally[2] or breaking irregularly. Stipe 8-10 cm. long, 2-3 mm. thick, black. Stroma hollow, the interior in two divisions, a narrow layer above, the fertile portion with a few spores in abundant, hyphae remnants, the lower (corresponding to the sterile base of a Lycoperdon) of matted hyphae. Spores short, elliptical, 9 × 14, pale colored, scantily found.

10

Fig. 848. Camillea poculiformis.

Fig. 849.

The pulverulent mass is rather firm, and remains after the peridium breaks up. Camillea poculiformis was named Corynelia poculiformis in Weigel's old exsiccatae, about a hundred years ago. It came from South America. Years later Montagne published it as Hypoxylon poculiformis, and Léveillé as Phylacia poculiformis. I can not trace it from Fries' writings, though no doubt Fries had it and doubtless named it. The old specimens of Weigel's exsiccatae are found in most museums of Europe, and all the publishing has been done on this one collection. I have a nice collection (Fig. 848), made by T. J. Collins in Guatemala.

SPECULATIONS.

The scanty knowledge we have of the real structure of this group of plants leaves much to speculation. They are all evidently closely related plants, and I think best classified under one general head, or genus, Camillea. They are quite different from the Hypoxylons of the temperate region, although we do not question that the tropical species are included in Saccardo mostly under Hypoxylon. When we come to compare what little we know of the species we find several differences on which "genera" could be based, and no doubt will be in time. In the original sense, Camillea might be restricted to the two cylindrical species, C. Leprieurii and C. Bacillum.

Then we have the short, cylindrical or globose forms with persistent or semi-persistent perithecia, Camillea Labellum, C. Cyclops and C. turbinata with the intermediate species C. mucronata. The above will form one, or two, genera, according to taste.

In the following plants we find no perithecia in the ripe specimens, hence of course they will in time be considered a genus. We believe there are two distinct differences between the few species we know, corresponding with the old ideas of Bovista and Lycoperdon in the puff balls. Camillea Sagraena and C. poculiformis, with two divisions of the gleba, a fertile and a sterile portion, and Camillea Bomba and C. globosa (?) with homogenous gleba. The species Camillea Sagraena differs from the other in having the fertile portion composed largely of spores (scanty in others) and in having part of the

sterile portion of uncolored hyphae. Of course, it will form a "genus." Thus the genus Camillea can be easily divided into five "genera" and we make the suggestion for the benefit of those engaged in breaking up the old genera, and proposing new names to which to add their own. Who will rise to the occasion?

THE GENUS THAMNOMYCES.

This is included in Saccardo as part of Xylaria, but we feel is well entitled to generic rank. It was proposed by Ehrenberg in 1820 for a curious species collected in Brazil. The genus differs from Xylaria in having the fruiting bodies on the ends of branches, which in one species are dichotomous, or in the other two species sessile or subsessile and borne on a slender rhachis. There are conflicting accounts of the structure of these bodies. The original, by Ehrenberg, represents them as hollow bodies, with the perithecia imbedded in the walls. That also is as shown by Cooke and is the usual idea. Moeller, on the contrary, represents each body as a perithecium, and our examination confirms Moeller's view. If Moeller's account is true, as it seems to be, it is a strong reason why Thamnomyces should not be classed with Xylaria. 11

The usual Xylaria has a white, sterile, central portion known as the stroma, bearing a carbonous crust. The perithecia are generally imbedded in the outer portion of the stroma, the mouths opening through the carbonous crust. The walls of the perithecia are carbonous, and confluent with the crust. The genus Thamnomyces has a slender stem, entirely carbonous. This seems to have been the main difference between it and Xylaria in the old classification, but the character is fallacious.

There are Species of Xylaria that have no white stroma. The stem is slender and carbonous and bears the carbonous fruit bodies, superficial, but sessile and globose. Fries proposed for these species, the generic name Rhizomorpha, which Saccardo united with Thamnomyces as a section of Xylaria. In my view it is an entirely different idea from Thamnomyces and should form a section in itself in the genus Xylaria. There are Several species like Xylaria scopiformis that intimately connect Rhizomorpha with Xylaria.

We believe the genus Thamnomyces, in the true sense, embraces only three species as follows:

Fig. 850.

THAMNOMYCES CHAMISSONIS (Fig. 850).—Stem Carbonous, black, smooth, repeatedly dichotomously branched, the ultimate branches bearing ovate, acute fruiting bodies. Structure of these bodies shown by Moeller is entirely carbonous, hollow, each forming a single, carbonous perithecium. Spores shown by different authors as of different shapes and sizes. In our specimens they are 9×20-28 mic., dark, and arctuate. They closely resemble the ordinary Xylaria spore. 12

This was originally named from Brazil by Ehrenberg, who gave a good illustration of it. It has therefore escaped all synonyms, excepting by Cooke, who discovered it was a new species and called it Thamnomyces dendroidea. Hennings also discovered it from Africa, first as a new variety, then as a new species, Thamnomyces camerunensis, but of course everything that came to Hennings must be "new" something. It grows on rotten, hard wood, and does not seem frequent in our American tropics. In Africa, however, I judge it is more abundant as numbers of African collections are in the museum at Berlin. We have only received it once, at nice specimen (Fig. 850) from R. H. Bunting, Gold Coast, Africa.

THAMNOMYCES CHORDALIS (Fig. 851).—Stem long, slender, several proceeding from a common base, entirely carbonous, black, smooth. Fruiting bodies (or perithecia?) sessile along the stem, ovate, with slender apices, black. Spores oblong, arctuate, dark.

This, I believe, is only known from tropical America, but is apparently not rare as it is recorded a number of times, mostly from Brazil. Fries named it from French Guiana in 1830 and gave a characteristic description of it. A co-type with the fruit mostly gone is at Kew. Later Montagne got it also from French Guiana and gave a good figure and description under the name Thamnomyces rostratus. He thought it was different from Fries' species on account of the spores not being globose, but the "globose" spores of the original description is doubtless an error. The plants are surely the same. As Montagne's figure is characteristic, the plant when subsequently found has usually been recorded under his name. We present in our figure both Montagne's and Fries' type.

THAMNOMYCES FUCIFORMIS (Fig. 852).—In general appearance, this is the same as Thamnomyces chordalis, but a much larger plant. The fruit bodies (perithecia?) are more slender and are short, stalked. Our figure, which is about half the spike, will show exactly the difference between the two species. The plant was named by Berkeley from specimens collected in Brazil by Spruce, and to this day is only known from this old collection. The name is from the habits, "those of a fucus rather than a fungus," a far-fetched comparison, for my impression is there are no fuci that are carbonous, or have much resemblance to this plant.

Fig. 851.

Fig. 852.

RELATED PLANTS.

The following plants are compiled in the section Thamnomyces in Saccardo. None of them are true Thamnomyces, and most of them could go into Fries' genera Rhizomorpha. I do not believe, however, it is possible to keep Rhizomorpha separate from Xylaria. The type species Xylaria setosa is quite different from the normal type of Xylarias in having entirely carbonous, filiform stems and superficial perithecia, but both of these features merge into Xylaria through so many intermediate species that there is no drawing the line of demarcation.

Fig. 853.

XYLARIA SETOSA (Fig. 853).—Stem densely fasciculate, filiform, black, entirely carbonous. Perithecia ovate, sparse, rarely developed. Spores (teste Fuckel), ovoid, dark, 10 × 16 mic.

This is a rare plant in Europe, growing on old sacks, matting, carpets, and similar refuse. It is generally found in cellars. I think it is not known on wood nor recorded in the United States. It resembles carbonized horse hair and was called "horse hair usnea" by old Dillenius. Our photograph of the specimen at Kew will give a good idea of it, although from the account it grows erect, and is not matted. Both Bulliard and Sowerby gave characteristic figures, both from plants growing in cellars, on old mats. It has had a great number of names, and 14
is recorded in Saccardo as Xylaria hippotrichoides, the specific name proposed by Sowerby and used by Persoon. Some very recent juggler, I have forgotten who, dug up the old name setosa, which I adopt as being less cumbersome. Occasionally these jugglers do propose some improvement in names, and I believe in encouraging them, when their wonderful date dictionary discoveries are really better names. Saccardo gives the following synonyms: Sphaeria hippotrichoides, Ceratonema hippotrichoides, Hypoxylon loculiferum, Rhizomorpha tuberculosa, Cryptothamnium usneaeforme, Rhizomorpha setiformis, Chaenocarpus setosus, Chaenocarpus Simonini. The date expert must have had quite a job.

Xylaria adnata as described by Fuckel (Rhizomorpha adnata), and unknown to me, is evidently very similar to the preceding plant, but grows closely adnate to rotten beech wood.

Xylaria fragilis (Rhizomorpha fragilis) is imperfectly known from old records in Europe. It is probably same as above.

Xylaria hispidissima (Rhizomorpha hispidissima) from East Indies is known only from old description. It is an evident Xylaria and seems to be same as recently collected, adventitious in a hot house in Hungary, and distributed as Xylaria hungarica.

Xylaria annulata, described in 1820 from West Indies as Thamnomyces annulatus and unknown otherwise, reads like Thamnomyces chardalis, but the branches of the latter are not known to be "annulated under a lens."

XYLARIA ANNULIPES, described and figured by Montagne as Thamnomyces annulipes from Brazil, is same as since named Xylaria marasmoides (Fig. 854) by Berkeley. Berkeley does not mention the rings on the stem as shown so plainly in Montagne's enlarged figure, nor can I note them with a lens on my photograph of Berkeley's or Montagne's types. Spegazzini refers marasmoides as a synonym for annulipes, no doubt correctly. Theissen refers it as a synonym for Xylaria aristata, an evident error. Xylaria vermiculus, recently published

from Brazil by Sydow, as "Saccardo n. sp. in litt.," is, both from description and photograph, evidently the same as Xylaria annulipes.

XYLARIA MELANURA (Fig. 855), West Indies, described as Chaenocarpus melanurus and compiled in Saccardo in section Thamnomyces, is evidently same as Xylaria gracillima in sense of Berkeley and Montagne, but not I believe as to Fries. We present a photograph made from Léveillé's cotype.

Fig. 854.

Xylaria axillaris was not compiled in Thamnomyces in Saccardo, but is evidently a very similar if not the same plant as Xylaria setosa, and is only known from Currey's original account from Africa. It is about a half inch high, with filiform stem, and few, superficial perithecia. Spores are given as 25 to 32 mic., which are much larger than those of setosa.

Xylaria patagonica as named by Crombie as Thamnomyces and compiled in Saccardo, Vol. 9, was based on Dillenius' old (1741) figure t. 13, f. 11, from Patagonia, which, as far as the figure goes, could be Xylaria setosa. Of course, nothing as known about it.

Fig. 855.

Xylaria Schwackei, named by Hennings from Brazil, seems from description to be Xylaria melanura.

Xylaria Warburgii, named by Hennings from New Guinea, seems from the crude figure to be Xylaria carpophila.

Xylaria luzonensis, named from Philippines by Hennings, seems from crude figure to be Xylaria multiplex in original sense of Fries (not Thiessen).

Fig. 856. Engleromyces Gœtzei.

THE GENUS ENGLEROMYCES.

Plants large, subglobose, with alveolate, sinuate carbonous exterior. Stroma white, fleshy, 1½-2 cm. thick. Perithecia carbonous, forming several stratose layers, imbedded in the stroma in the depressions. Spores 12-15×18-24, dark, smooth, curved, agreeing with Xylaria spores.

ENGLEROMYCES GŒTZEI (Figs. 856 and 857).—This is the largest Pyrenomycete, and as far as known only occurs in Eastern, tropical Africa. In 1900 Hennings described and named it, and there are several specimens on exhibition in the museum at Berlin. Some years later (1906) a specimen reached Paris from the same region. It was sent to the anthropological museum at Paris, the collector taking it for a fossilized skull. The reference to a skull is not inappropriate as will be noted from our photograph (Fig. 857) from the specimen at Paris. Patouillard, not knowing of course what Hennings had done at Berlin, renamed it Colletomanginia paradoxa. Our figure 856 shows a section, and the arrangement of the perithecia. Practically nothing is known as to its habits. Patouillard states it occurs on the trunk of Abies, Hennings on Bamboo. We feel that on publication of our photograph there will be no occasion for further names for it.

Fig. 857

FOOTNOTES:

[1] Thus there is no doubt whatever in my mind that Camillea turbinata is Sphaeria caelata of Fries, but not knowing the Friesian species from specimens, I take the only sure name I know. Montagne refers it to Camillea poculiformis, but I do not think he knew more about it than I do, and I do not know anything excepting the "description."

[2] So shown in one specimen on Fig. 848, but doubtful if it is a character of the plant.

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