

Berk. & Broome, *Trans. Linn. Soc., Bot.*, ser. 2, 1, 1879.

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[Running title: “MESSRS. BERKELEY AND BROOME’S LIST / OF FUNGI FROM BRISBANE”.]



XXII. *List of Fungi from Brisbane, Queensland; with Descriptions of New Species.* By the Rev. M. J. BERKELEY, M.A., F.L.S., and C. E. BROOME, F.L.S.

(Plates XLV., XLVI.)

Read March 21st, 1878.

A FEW Australian fungi, about 120 species, have been put into our hands for determination by Mr. Lewis A. Bernays and Mr. F. M. Bailey, who are connected with the Botanical Garden at Brisbane. Several among them appear to be undescribed; and as that district can have been but imperfectly investigated, it may be of interest to present a list of them, with descriptions of new species, to the Linnean Society.

Agarics appear to be scarce, or the difficulty of preparing them for the herbarium and preserving them from insects may be considerable, for there are very few of that or the more nearly related genera among the species sent: this is of the less consequence as the specimens are unaccompanied by notes or sketches of any kind; and without such aids Agarics are generally incapable of determination. The same remark applies, with almost equal force, to the Clavariæ and other fleshy fungi. About thirty forms of Polyporei have been sent, amongst which the more interesting forms will be found. *Ileodictyon gracile* is the only representative of the Phalloidei which has reached us; nor has any species of hypogæous fungus hitherto occurred. This is the more to be regretted as in those tribes a rich harvest might have been expected from so new a field as North Australia. Two species only of Myxogastres occur among the plants received, and the dark and hyaline moulds seem to have been but little worked. Leaf-parasites also are but poorly represented. Three species of Helvellacei appear new, and amongst Sphæriacei we have two or three things of interest. *Hypoxylon cetrarioides*, Currey, containing perfect fruit, completes the author's history of that plant; and another fine *Hypoxylon*, apparently new, is among the number. Several species are identical with those of Ceylon and South America, and several with those of Europe. We look forward in hopes of many additions to our present scanty list from Mr. Bailey, who has only recently entered on the study of fungi.

AGARICINI,

1. AGARICUS GARDNERI, B., in Ln. J. of Bot. 1840, p. 427. Brisbane (L. A. Bernays, No. 26).
2. HYGROPHORUS MINIATUS, Fr. Brisbane (F. M. Bailey, No. 40). It appears to be this species, so far as can be told from dried specimens.
3. LENTINUS PASCIATUS, B., Ln. J. of Bot. 1840, p. 146. Brisbane (L. A. Bernays, No. 4).
4. LENTINUS CYATHUS, B. & Br., n. sp. Brisbane (F. M. Bailey, No. 31). *Lentinus pileo infundibuliformi, lento, tenui, ochraceo, lineis velutinis, brunneis, e centro radiantibus, marginem versus rarioribus ornato; lamellis brunneo-ochraceis, tenuibus, confertis, simplicibus, subdecurrentibus, (siccis) undulatis; stipite solido, æquali, pallido tomentoso; inter folia mycelio albo copioso radicante.*

In general habit *L. cyathus* comes near to *L. descendens*, Fr., differing in its unbranched gills, which are repeatedly dichotomous and very crowded in that species. In the figure of Afzelius, quoted by Fries, the gills are delineated as distant; but in the description they are said to be incorrectly drawn. In the single specimen sent from Brisbane the pileus is more than 4 inches across, the gills narrow and unbranched; the whole plant, including the rooting base, is about 6 inches high; the stem nearly equal, and about 7 lines in thickness, pallid, and tomentose, with a few downy patches of a darker tint near the base. The pileus is dark ochraceous, but clothed, especially towards the centre, with close, dark, velvety, slender lines, extending nearly to the margin. The margin thin, undulate when dry, and slightly recurved in places. There is a copious white mycelium extending from the base of the stem to some distance, among dead leaves &c. It grew in dense scrubs near Brisbane, but was rare.

5. LENTINUS LECOMTEI, Fr. Brisbane (L. A. Bernays, No. 27).

6. LENTINUS SUBDULCIS, B., Ln. J. of Bot. 1851, p. 46. Brisbane (F. M. Bailey, No. 114),

The specimens are in bad condition; there is a lateral stem, tomentose at the base and hirsute above where it joins the pileus; this may, however, be accidental, as the specimen appears to be injured.

7. LENTINUS EXILIS, Kl. in Fr. Syn. Lent. 10. Brisbane (F. M. Bailey, No. 103).

8. LENTINUS DUNALII, Fr. Brisbane (F. M. Bailey, No. 120).

9. SCHIZOPHYLLUM COMMUNE, Fr. Brisbane (L. A. Bernays, No. 15).

10. LENZITES BETULINA, Fr. Brisbane (F. M. Bailey, No. 65).

11. LENZITES DEPLANATA, Fr. Brisbane (F. M. Bailey, No. 11). This fine species seems identical with one from Cuba and Ceylon. It comes near to *D. glaberrima*, B. & C.; but the pores are longer and wider and more irregular.

#### POLYPOREI.

12. POLYPORUS (MESOPUS) XANTHOPUS, Fr. Brisbane (F. M. Bailey, Nos. 33 & 105).

13. POLYPORUS (MESOPUS) LUTEO-NITIDUS, B. (Pl. XLVI. figs. 7 & 8), Ln. J. of Bot. 1856, p. 175. Brisbane (F. M. Bailey, No. 107).

14. POLYPORUS (MESOPUS) BRUMALIS, Fr. Brisbane (L. A. Bernays, No. 18).

The specimens are in bad condition and are said to grow on the ground. *P. brumalis* occurs on sticks; but the Brisbane plant does not appear to differ.

15. POLYPORUS (MESOPUS) QUADRANS, B. & Br. *P. pileo rigido, glabro, scutato, tenui, zonato, margine brunneo; stipite brevi, excentrico, pileo concolori; poris minutis, rotundis, pallidioribus.*

The single specimen sent is about seven twelfths of an inch across, shortly and excentrically stipitate, concave below, smooth, of a dark ochraceous colour, with a brownish margin; pores very minute, nearly round, of the same colour but paler than the pileus. It comes near *Polyporus xanthopus*, but seems to be quite distinct. Brisbane (F. M. Bailey, No. 123). The name is taken from its resemblance to a small piece of money.

16. POLYPORUS (PLEUROPUS) PICIPES, Fr. Brisbane (F. M. Bailey, No. 61).
17. POLYPORUS (PLEUROPUS) LUCIDUS, Fr. Brisbane (F. M. Bailey, No. 13).
18. POLYPORUS (PLEUROPUS) SANGUINEUS, Fr. Brisbane (L. A. Bernays, No. 5).
19. POLYPORUS (PLEUROPUS) FLABELLIFORMIS, Kl. Brisbane (F. M. Bailey, No. 3).
20. POLYPORUS (PLEUROPUS) AFFINIS, Fr. Brisbane (F. M. Bailey, Nos. 96 & 98).
21. POLYPORUS (PLEUROPUS) FUSCOLINEATUS, B. & Br., n. sp. (Pl. XLV. fig. 1). Brisbane (F. M. Bailey, No. 80). *P. pileo tenui, lento, flabelliformi, ochraceo, lineis strigosis brunneis radiantibus notato; margine sinuato, (sicco) incurvo; poris mediis, irregularibus, fusco-brunneis; stipite depresso, ochraceo, sursum latiore, reticulato, deorsum tomentos.*
- The pileus is thin, depressed above, marked with broad shallow zones, together with the pores, 2 to 3 lines thick, tough, rigid when dry, of a pale ochraceous colour, marked by very slender lines radiating from the centre to the edge; at the centre they are clothed with brown appressed hairs, which form small tufts at intervals, giving a rough appearance to the pileus; the pores are angular, flexuous, and irregular, from  $\frac{1}{4}$  to 1 line long by about half that in width; they cease abruptly at the top of the stem, which is depressed or flattened above, convex beneath, and finely reticulated where the pores cease; the reticulations become gradually larger and shallower downwards; at about halfway down they cease, and the stem below is nearly tomentose. This species is allied to *Polyporus grammocephalus*, B.
22. POLYPORUS (PLEUROPUS) RHIPIDIUM, B. (Pl. XLVI. figs. 4, 5, & 6), Ln. J. of Bot. 1847, p. 319. Brisbane (F. M. Bailey, No. 78).
23. POLYPORUS (PLEUROPUS) PLATOTIS, B. & Br., n. sp. (Pl. XLV. fig. 7). Brisbane (F. M. Bailey, No. 32). *P. pileo e clavato plano-infundibuliformi, glabro, ochraceo, fragili, spongioso, lineis tenuibus radiantibus notato; stipite elongate, sursum crassiore, pileo et poris mediis angulatis ad basin descendentes concolori.*
- Allied to *P. grammocephalus*, B. The pileus is about 2 inches across, and, with the stem, 3 inches high, depressed, glabrous, marked with slender, tomentose, radiating lines of a dull ochraceous colour; the margin is thick and deeply sinuate; pores rather small, .005 to .011 inch across, very irregular and angular, of a darker although similar colour to the pileus; they descend quite to the base of the stem. The whole substance of the plant is fragile and spongy. On wood.
24. POLYPORUS (PLACODERMEI) SENEX, B. Brisbane (F. M. Bailey, No. 123).
25. POLYPORUS (ANODERMEI) IGNIARIUS, Fr. Brisbane (L. A. Bernays, No. 17); Nees & M. Mont. Cuba, p. 402.
26. POLYPORUS (ANODERMEI) FRUTICUM, B. & C. (Pl. XLVI. figs. 9 & 10). On a tree, Trinity Bay, Brisbane (F. M. Bailey, No. 84).

These specimens were sent a second time under the same number (No. 84), perhaps in a younger state; the pores are much lighter in colour, but the plants have the same spongy texture.

27. POLYPORUS (ANODERMEI) RUBIDUS, B., *Ln. J. of Bot.* 1847, p. 500. Brisbane (F. M. Bailey, Nos. 95, 116).

28. POLYPORUS (ANODERMEI) FUNALIS, Fr. Brisbane (F. M. Bailey, No. 124).

29. POLYPORUS (PLACODERIMEI) CINEREO-FUSCUS, Currey, *Linn. Trans*, ser. 2, vol. i. 124, cum icone. Brisbane (F. M. Bailey, No. 121).

30. POLYPORUS (INODERMEI) LUTEO-OLIVACEUS, B. & Br., n. sp. (Pl. XLV. fig. 8). Brisbane (F. M. Bailey, No. 58). *P. pileo lignoso-rigido, sessili, tenui, oculo armato et tactu pubescente, cum hymenio profunde et concentricè zonato, verrucis subrotundis exasperato; poris minutis, rotundis, æqualibus, ochraceo-brunneis.*

The pileus is about 5 inches wide by 3 long, and deeply and concentrically zoned, thin, so that the zones on the upper surface cause corresponding depressions beneath; rough on the upper surface, with irregular roundish warts, and of an ochraceous-brown colour; pubescent under a lens, and soft to the touch. The pores are of a pale olivaceous brown; about .008 inch diameter.

31. POLYPORUS (INODERMEI) HIRSUTUS, Fr. Brisbane (F. M. Bailey, No. 62).

32 POLYPORUS (INODERMEI) CICHORACEUS, B. (Pl. XLVI. figs. 27–37), *Ln. J. of Bot.* 1842, p. 149, sub nomine *P. intybacei*. Brisbane (L. A. Bernays, Nos. 7, 94). This species has also been received from Ceylon (No. 472).

33. POLYPORUS (RESUPINATUS) BROOMEI, Rabenh. (Pl. XLV. fig. 16), *Fun. Europ. exsicc.* No. 2004. Brisbane (F. M. Bailey, No. 2).

This species is related to *P. rufus*, Fr.; it also resembles in habit *P. sinuosus*, Fr.; but the pores are much longer in the last-named plant. The Brisbane plant is paler in colour than in Rabenhorst's specimens, resembling them in other respects.

34. POLYPORUS (RESUPINATUS) CALCEUS, B. & Br., in *Linn. J. Bot.* vol. xiv. p. 55; *Ceylon Fungi*, No. 506. Brisbane (F. M. Bailey, No. 119).

35. TRAMETES PERENNIS, Fr. Brisbane (F. M. Bailey, Nos. 44 & 106).

36. TRAMETES DEVEXA, B. (Pl. XLV. fig. 10), *Journ. Lin. Soc.* vol. xiii. p. 165. Brisbane (L. A. Bernays, Nos. 20 & 24).

37. TRAMETES RIGIDA, B. & Mont. (Pl. XLV. figs. 14 & 15), *Ann. Scien. Naturelles*, 1849, xi. p. 240. Brisbane (F. M. Bailey, No. 102).

38. DÆDALEA SPRUCEI, B. (Pl. XLVI. figs. 19 & 20), *Ln. Journ. of Bot.* 1856, p. 236. Brisbane (L. A. Bernays, No. 14).

39. *DÆDALEA UNICOLOR*, Fr. Brisbane (F. M. Bailey, No. 101).
40. *HEXAGONIA POLYGRAMMA*, Mont., in Ramon de la Sagra, Cuba, t. xiv. f. 3. Brisbane (F. M. Bailey, No. 97).
41. *LASCHIA THWAITESII*, B. & Br., Ln. J. of Bot. vol. xiv. p. 58; Ceylon Fungi, No. 535. Brisbane (F. M. Bailey, No. 115).

#### HYDNEI.

42. *IRPEX FLAVUS*, Fr. Brisbane (F. M. Bailey, No. 122).
43. *IRPEX ZONATUS*, B., Ln. J. of Bot. 1854, p. 168. Brisbane (L. A. Bernays, No. 67). *Irpex mollis* and *I. sinuosus* come very near.

#### AURICULARINI.

44. *THELEPHORA PEDICELLATA*, Schwein., Car. t. 2. fig. 3. Brisbane (F. M. Bailey, No. 79).
45. *HYMENOCHÆTE CACAO*, B. (Pl. XLVI. figs. 1, 2, & 3), Ln. J. of Bot. 1854, p. 169. Brisbane (L. A. Bernays, No. 8). No. 46 comes very near.
46. *HYMENOCHÆTE TENUISSIMA*, B. (Pl. XLVI. figs. 21 to 26), Ln. J. of Bot. 1847, p. 510, under *Stereum*. Brisbane (L. A. Bernays, No. 46), This species comes very near to *Hymenochcete Cacao*, B.
47. *STEREUM LOBATUM*, Fr. Brisbane (L. A. Bernays, Nos. 21 & 68).
48. *CORTICIUM LÆVE*, Fr. Brisbane (F. M. Bailey, No. 82).
49. *GUEPINIA SPATHULARIA*, Fr. Brisbane (F. M. Bailey, Nos. 35, 57, 100).

#### CLAVARIEI.

50. *CLAVARIA STRICTA*, P. Brisbane (F. M. Bailey, No. 38). There is some uncertainty about this species, as the colour of the spores cannot be seen.
51. *CLAVARIA RUGOSA*, Bull. Brisbane (F. M. Bailey, No. 47). The same remarks apply here as in No. 50.
52. *CLAVARIA ARGILLACEA*, Fr., var. Brisbane (F. M. Bailey, No. 41). The colour of this plant is said by Mr. Bailey to be a light orange, which scarcely agrees with the normal colour of *C. argillacea*; in other respects it resembles that species.
53. *LACHNOCLADIUM FURCELLATUM*, Lev. [*sic*: Lév.] Brisbane (F. M. Bailey, No. 104). A very variable species; the specimen from Brisbane agrees well with a small form from Ceylon.

TREMELLINI.

54. *HIRNEOLA POLYTRICHA*, Mont. Brisbane (F. M. Bailey, Nos. 109 & 110).

55. *HIRNEOLA AURICULA-JUDÆ*, B. Brisbane (L. A. Bernays, No. 28).

HELVELLACEI.

56. *PEZIZA (GEOPYXIS) CINEREO-NIGRA*, B. & Br., n. sp. (Pl. XLVI. figs. 16, 17, & 18). Brisbane (F. M. Bailey, No. 70). Cupula infundibuliformis, (sicca) cinereo-nigra, extus lævis, profunde et irregulariter rugosa, margine incurva; stipes lævis, concolor, sursum dilatatus; asci lineares, 8 sporidia curvata continentis; paraphyses lineares, apice furcati.

A fine species, allied to *P. corium*, from which it differs in its more tender substance, and consequently deeply wrinkled cups and curved, somewhat sausage-shaped, sporidia, which measure 0.001 inch in length by about half that in width. It grows on wood, while *P. corium* occurs on the ground; but its affinities are with the section *Geopyxis*. The cups are about 1 inch 2 lines across, and with the stem are about 1¼ inch high.

57. *PEZIZA (CUPULARIS) VINOSO-BRUNNEA*, B. & Br. (Pl. XLV. figs. 11, 12 & 13). Brisbane (F. M. Bailey, No. 19). *P. sessilis*, hemisphærica, flexuosa, dein explanata, vinoso-brunnea, pilis raris, obtusis, brevibus strigosa.

Growing on burnt ground in a crowded manner; cup when young nearly hemispherical, then expanded and flexuous, of a clear vinous brown, sparsely clothed with short, blunt, septate hairs; from 3 to 6 lines across. Asci equal throughout, containing 8 oval sporidia, which are at first invested in a gelatinous coat 0.001 inch long; paraphyses slightly clavate at the tips.

This species comes very near to *P. sepiatra*, Cooke, differing, as Mr. Phillips observes, in its more crowded growth, paler disk, and lighter and rougher exterior, and in its rather larger sporidia.

58. *PEZIZA (LACHNEA) SCUTELLATA*, L. Brisbane (F. M. Bailey, No. 60).

59. *CENANGIUM LICHENOIDEUM*, B. & Br., n. sp. (Pl. XLV. fig. 9). Brisbane (F. M. Bailey, No. 112). *C. cæspitosum*, cinereum, cupulis turbinatis, stipitatis, verrucis cinereis irregularibus vestitis, perfectis margine crasso, incurvo, cinereo, striato, junioribus absque ordine squamosis; hymenio lævi, rufo-brunneo, e paraphysibus clavatis apice coloratis constituto; asci breves, 8-spori, paraphysibus immersi.

It forms dense masses of ashy-grey cups, which are stipitate, ½ to 1 line in width, and very lichenoid in appearance. The young cups are densely clothed with rough scales and tubercles, so that the colour of the inferior substance is not visible. In mature cups the hymenium is smooth and of a light chestnut-colour, owing to the coloured tips of the paraphyses, which are blended together and form a waxy disk. The asci are quite immersed, and contain 8 elliptic hyaline sporidia, from 0.0013 to 0.0015 inch long, and apparently constituted of 2 or 3 distinct coats.

SPHÆRACEI.

60. XYLARIA POLYMORPHA, Fr. Brisbane (F. M. Bailey, Nos. 6, 36).

61. XYLARIA RHYTIDOPHLEA, Mont., *Ann. Sci. Naturelles*, 1855, iii. 101. Brisbane (L. A. Bernays, Nos. 22 & 25).

The sporidia are slightly larger than in Montagne's species, 0·0005 to 0·0007 inch long in our plant, and about 0·0004 in Montagne's, otherwise there is little difference.

62. XYLARIA PILEIFORMIS, B., *Ln. J. of Bot.* 1842, pl. vii. fig. 6. Brisbane (F. M. Bailey, No. 71). Unfortunately the plant is immature, but there can be no doubt about the species.

63. HYPOXYLON CONCENTRICUM, Grev. Brisbane (F. M. Bailey, No. 59).

64. HYPOXYLON ANGOLENSE, Welwitsch & Currey, *Linn. Trans.* xxvi. p. 282. Brisbane (F. M. Bailey, No. 117).

65. HYPOXYLON CETRARIOIDES, Welwitsch and Currey, *Linn. Trans.* xxvi. p. 282. Brisbane (F. M. Bailey, No. 118). (Pl. XLV. fig. 6.)

Specimens occurred with mature fruit, which thus complete the account of the species given in the *Linn. Trans.*

66. HYPOXYLON CRETACEUM, B. & Br., n. sp. (Pl. XLV. figs. 2, 3, 4, & 5.) Brisbane (F. M. Bailey, No. 111). *H.* subglobosum, stipitatum, e candido albidum, subrugosum, lineis tenuibus fuscis reticulatum, ostiolis nigris minute punctatum, intus stratis ligneis, fragilibus, e stipite radiantibus formatum; perithecia oblonga, nigra, ostiolis vix prominentibus munita; sporidia oblonga, brunnea, continua, finibus acutis.

Stromata globose or subglobose, stipitate, from 1 inch to 1½ inch in height, the stem compressed, from 2 to 5 lines in length; the external colour changes from white to a dull chalky fuscous in drying, the surface is then reticulated by little dark anastomosing lines, and minutely punctate with the black ostiola. The interior substance is composed of broad, flaky, woody but fragile strata, radiating from the stem to the outer surface, of a pale cork-colour. The perithecia are rather large, more than ½ line high, black and oblong. There are but few asci left, and a few sporidia remain in the perithecium; they are dark brown, continuous, and opaque, with acute ends, about ·0015 to ·002 in. long, by 0·0005 to 0·0008 in. wide.

PHALLOIDEI.

67. ILEODICTYON GRACILE, B., *Ln. J. of Bot.* 1845, t. 2. fig. 8. Brisbane (F. M. Bailey, No. 52).

NIDULARIACEI.

68. CYATHUS CAMPANULATUS, Corda. Brisbane (F. M. Bailey, No. 37).

69. CYATHUS FIMETARIUS, DC. (Pl. XLVI. figs. 11 to 15). On horse-dung. Brisbane (F. M. Bailey, No. 66). Spores subglobose, 0·0012 to 0·0014 inch long.

TRICHOGASTRES.

70. *GEASTER SACCATUS*, Fr. Brisbane (F. M. Bailey, No. 55). The plant appears to belong to this species on account of its determinate disk.
71. *GEASTER STRIATUS*, DC., var. *MINOR*. Brisbane (F. M. Bailey, No. 54).
72. *BOVISTA LILACINA*, Mont. & B., *Ln. J. of Bot.* 1845, p. 64. Brisbane (F. M. Bailey, No. 85).
73. *LYCOPERDON PUSILLUM*, Fr. Brisbane (F. M. Bailey, No. 108).
71. *MYCENASTRUM CORIUM*, B., *Ln. J. of Bot.* 1845, p. 518. Brisbane (F. M. Bailey, No. 53).
75. *POLYSACCUM OLIVACEUM*, Fr. Ironbark Forest. Brisbane (L. A. Bernays, No. 30). The plant agrees well with Sowerby, t. 425, *a, b*; spores yellow.
76. *POLYSACCUM PISOCARPIUM*, Fr. This plant came in the same packet with *Polysaccum olivaceum*, Fr. (No. 30).  
It agrees with Albertini and Schweintz's figure, t. i. fig. 3; the spores are brown-ferruginous. Brisbane (L. A. Bernays).
77. *SCLERODERMA BOVISTA*, Fr. Brisbane (F. M. Bailey, No. 48).

MYXOGASTRES.

78. *DIDYMIUM FARINACEUM*, Fr. Brisbane (F. M. Bailey, No. 92).
79. *STEMONITIS FUSCA*, Roth. Brisbane (L. A. Bernays, No. 29).

STILBACEI.

80. *STILBUM CINNABARINUM*, Mont. Brisbane (F. M. Bailey, No. 93 bis). The Brisbane plant has slightly smaller spores than Montague's, being about 0.0003 inch long; in other respects it accords with specimens of his species.

TORULACEI.

81. *BACTRIDIVM FLAVUM*, Kze. Brisbane (F. M. Bailey, No. 64).

MUCEDINES.

82. *ASPERGILLUS GLAUCUS*, Lk. Brisbane, on decaying *Boleti* (F. M. Bailey, No. 81).
83. *CIRCINELLA UMBELLATA*, Van Tieghem and Le Monnier, *A. S. N. sér. 5*, vol. xvii. p. 300, var. *Moreliæ*, B. & Br. Brisbane (F. M. Bailey, No. 93), on dung of a carpet-snake kept in a bag. Although our plant differs in some respects from the above, the spores being in Van Tieghem's plant 0.0002 to 0.0003 inch diameter, whilst in ours they are 0.0005 to 0.0007 inch diameter, yet the general resemblance between them and the similarity of their habitat leaves the identity tolerably certain. Van Tieghem and Le Monnier describe *Circinella umbellata* as having steel-blue spores; in ours they are nearly hyaline or very faint brown.

DEMATIEI.

84. CLADOSPORIUM HERBARUM, Lk. Brisbane (F. M. Bailey, Nos. 125, 126). Probably forms of the above species; spores of various sizes, from 0.0003 to 0.0007 inch long, simple, uniseptate, &c., are seated at the tips of clear brown threads, which arise from a branched septate mycelium on *Andropogon muticum*.
85. HELMINTHOSPORIUM RAVENELII, Curtis. On *Sporobolus diandrus*. Brisbane (F. M. Bailey, Nos. 73–75). These seem to belong to one species. The spores are alike in all. They resemble in structure the sporidia of *Massaria fœdans*, Fr. In the above they measure 0.003 inch in length.

ECIDIACEI.

86. ECIDIUM APOCYNATUM, Schwein. On *Tabernæmontana orientalis*. Brisbane (F. M. Bailey, No. 39). Spores 0.001 inch long.

CÆOMACEI.

87. THECAPHORA GLOBULIGERA, B. & Br., n. sp. On *Leersia hexandra*. Brisbane (F. M. Bailey, No. 86). Cystidia subglobosa vel oblonga, in paleis *Leersia hexandra* nidulantia, sporis numerosis, brunneis, echinulatis conferta. Spores echinulate, pale brown, subglobose, 0.00035 to 0.0005 in. diameter, contained in irregular dark brown cysts, 0.003 to 0.008 inch long; cysts forming crowded masses adhering to the interior of the paleæ.

There is another plant which occupies the interior of some of the paleæ; it consists of numerous dark threads, like those of *Helminthosporium*, and subglobose, reticulate, brown spores, about 0.001 inch long. The spores are free, but, no doubt, grow on the tips of the brown septate threads.

88. TRICHOBASIS RUBIGO-VERA, Lév. On stems and leaves of *Hemarthria compressa*. Brisbane (F. M. Bailey, No. 89).
89. USTILAGO CARBO, Tul. On *Aristida calycina*. Brisbane (F. M. Bailey, No. 76). Spores subglobose, 0.0004 inch diameter.
90. USTILAGO AXICOLA, B., in *Ann. of Nat. Hist*, March 1852. Brisbane (F. M. Bailey, No. 72). On *Fimbristylis*. Spores spherical, 0.0006 inch diameter.

MYCELIA.

91. RHIZOMORPHIA HARRIMANNI, Sow. Brisbane (F. M. Bailey, No. 63).
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DESCRIPTION OF THE PLATES.

PLATE XLV.

- Fig. 1. *Polyporus (Pleuropus) fuscolineatus*, B. & Br., n. sp., under surface, nat. size.  
Figs. 2, 3, & 4. *Hypoxylon cretaceum*, B. & Br., n. sp., nat. size, and fig. 5 magnified spores of same.  
Fig. 6. *Hypoxylon cetrarioides*: spores, highly magnified.  
Fig. 7. *Polyporus (Pleuropus) platotis*, B. & Br., n. sp., nat. size.  
Fig. 8. *Polyporus (Inodermei) luteo-olivaceus*, Berk., n. sp.: plant, nat. size.  
Fig. 9. *Cenangium lichenoideum*, B. & Br., n. sp.: upper surface, nat. size.  
Fig. 10. *Trametes devexa*, B.: a section of plant, nat. size.  
Figs. 11, 12, & 13. *Peziza (Cupularis) vinoso-brunnea*, B. & Br.; fig. 11, plant, nat. size; fig. 12, asci and paraphyses highly magnified; fig. 13, spores, also highly magnified.  
Figs. 14 & 15. *Trametes rigida*, B. & Mont.: plant, nat. size; fig. 14, upper, and fig. 15, under surface.  
Fig. 16. *Polyporus (Resupinatus) Broomei*, Rabenh., exterior surface, nat. size.

PLATE XLVI.

- Figs. 1, 2, & 3. *Hymenochæte Cacao*, B. Fig. 1, under surface; fig. 2, upper surface of another specimen; fig. 3, partially side view of still another example: all nat. size.  
Figs. 4, 5, & 6. *Polyporus (Pleuropus) rhipidium*, B. Fig. 4, portion of a specimen, upper surface; fig. 5, another piece, showing its upper surface; fig. 6, a small plant: all nat. size.  
Figs. 7 & 8. *Polyporus (Mesopus) luteo-nitidus*: plants, nat. size.  
Figs. 9 & 10. *Polyporus (Anodermei) fruticum*, B. & C. Fig. 9, exterior surface of plant; fig. 10, a section of part of the same: both nat. size.  
Figs. 11, 12, 13, 14, & 15. *Cyathus fimetarius*, DC. Fig. 11, upper surface; fig. 12, partially side view of same; fig. 13, a single specimen; fig. 14, another portion of plant: all nat. size. Fig. 15, spores of *C. fimetarius*, highly magnified.  
Figs. 16, 17, & 18. *Peziza (Geopyxis) cinereo-nigra*, B. & Br. Fig. 16, a side view of plant, nat. size; fig. 17, ascus and paraphysis; fig. 18, spores, also highly magnified.  
Figs. 19 & 20. *Dædalea Sprucei*, B. Fig. 19, half of the under surface of a plant, and fig. 20, a sectional view of the same: both nat. size.  
Figs. 21, 22, 23, 24, 25, & 26. *Hymenochæte (Stereum) tenuissima*, B. A series of examples of the plant in different views: all nat. size.  
Figs. 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, & 37. *Polyporus (Inodermei) cichoraceus*, B. Series of specimens in different aspects: all nat. size.