ADDITIONS TO THE FUNGUS FLORA OF TASMANIA.

PART 3.

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The previous notes and additions to our cryptogamic flora may be found in the Papers and Proceedings for the years 1917 and 1919.

Of those plants here recorded for Tasmania, but not as new species, fuller descriptions may be found in Cooke's Australian Fungi or in Massee's British Fungus Flora.

Cordyceps hawkesii. This, though close to C. gunnii, appears to be fairly distinct. The club is paler in colour; the perithecia less sunk and the fertile portion ceases abruptly and not imperceptibly shading away.

It appears to be confined to the north-east of Tasmania.

Ascomyces aureus, Mag. This is the Golden Blister of Black and Lombardy Poplar, common in many places in Tasmania.

Introduced with the host plant.

Ascocorticium effusum, n.s. A thin crimson sheet growing over dead wood and adjoining earth for many centimetres; immarginate and undifferentiated into body and hymenium, asci arising direct from web-like hyphæ. Asci clavate, 8 spored. Spores elliptic, obtuse, smooth, hyaline, 12-15 x 6μ . Paraphyses filiform, septate, slightly thickened at apex.

On dead wood and clay. McRobie's Gully. Something like *Trentopolia* but more crimson, very different in structure. Evanescent.

Ascobolus nitidus, n.s. Discoid, 0.3 mm. diameter on a slender stem of the same length, pale dull greenish-ochre, waxy, smooth externally. Asci protruding, pyriform, 8 spored; spores in an irregular group, oblong, sooty-black, smooth, uniseptate, $10 \times 6 \mu$.

On rotting Poria. Cascades, Hobart.

Peziza hadia, Pers. Sessile, concave, then flat, mostly 2-4cm. diameter, disk dark brown, external surface paler, often tinged with purple, minutely granular. Asci cylindric, 8 spored. Spores elliptic, hyaline, smooth, or minutely verrucose, $16 \times 9 \mu$. Paraphyses slender.

Very like Curreyella trachycarpa, but with very different spores.

Mt. Nelson.

Sepultaria austro-geaster, n.s. Oblong, at first subterranean and closed, about 1cm. diameter, at maturity bursting above just on surface of soil into few lobes as in outer peridium of Geaster. Fleshy, dull brown, rather darker internally; externally clothed with numerous hyphæ permeating sandy soil. Asci linear, 8 spored. Spores broadly elliptic, very obtuse, hyaline, smooth, 24 x 10 \(\mu\). Paraphyses clavate with a thickened end not coloured, septate, the cells in many instances swollen and moniliform.

On Sandy hill, Bellerive, Aug.-Sept.

Sepultaria aurantia, n.s The habit of the last only rather smaller. Margin fimbriate, disk bright orange-yellow to ochre. Spores elliptic, rather acute at both ends, hyaline, smooth, 22 x 8 μ . Paraphyses filiform, septate, hyaline.

On Sandy hill, Bellerive, Aug.-Sept.

Geopyxis pallidus, n.s. Cupshaped, 5-8mm. diameter, on a slender stem 10mm., all parts white, thin, fleshy, externally smooth or slightly mealy, margin brownish with short irregular fimbriations. Hymenium smooth, asci linear, spores uniseriate, oblong, $22-24 \times 10 \mu$. hyaline, minutely verruculose. Paraphyses filiform.

On ground, Mt. Nelosn.

Uyathicula multicuspidata, n.s. Cupshaped, sessile, white, delicate, about 1mm. broad, smooth, but the margin armed with compound lobes. Asci cylindric, 8 spored, uniseriate. Spores hyaline, smooth, continuous, narrow oblong, 15-20 x 4μ , but immature.

On decaying rhachis of Dicksonia.

Peziza brunneo-atra, Desm. Dark chestnut-brown, about 1cm., sessile, broadly attached, discoid at maturity. Asci cylindric. Spores uniseriate, elliptic, hyaline, granular rough, 27 x 12 μ. Paraphyses filiform with brown clavulate tips. Humaria macrospora, Fekl.

On ground, Bellerive.

Helotium claro-flavum, Berk. Small, seldom exceeding 1mm. diameter, lemon-yellow throughout, concave to convex, very shortly stalked. Asci clavate, spores elliptic, hyaline, obtuse, 7-10 x 3 μ .

On dead wood, not at all common.

Helotium striatum, n.s. Attached by a very short slender stalk or sessile; disk fleshy, soft, concave, pale emereous when fresh, ochre when dry, 1-2mm, diameter, externally sooty brown, smooth, striate; asci clavate, paraphyses filiform; spores oblong, obtuse, hyaline 6 x 3µ.

On dead wood.

Helotium microsporium, n.s. Discoid, shortly stipitate, 1-2mm, diameter, livid, nearly white, soft fleshy, externally smooth; asci cylindric, spores hyaline, smooth oblong, obtuse, $4.5 \pm 2 \mu$.

Very close to Mullisia.

Much paler than II. prasinum.

On dead wood.

Helotium carnosum, n.s. Sessile or very shortly stalked, pale ochre yellow when fresh, soft fleshy becoming darker to dull red when old, 1mm. diameter, rim thick involute, convex, externally delicately pruinose; ascicylindric; spores hyaline, smooth, narrow oblong, 6 x $1.5~\mu$.

On dead wood,

Helotium tasmanicum, u.s. Sessile, concave to convex, 2-4mm., bright orange yellow all over but externally a little paler, slightly furfuraceous, asci cylindric, spores narrow oblong, 14-18 x 3-1.5 μ ., hyaline, smooth, not with a darker disk as in H. citrinum, to which it is closely related.

On dead wood.

Mollisia undulata, n.s. Soft waxy, sessile, usually broadly affixed, concavo-discoid, undulate, 5-8mm., livid gray, turning black when dry, externally black; asci narrow cylindric, spores narrow oblong, smooth hyaline, 6 x $1.5~\mu$, paraphyses filiform.

Differs from M, cinerea in large size, broad attachment, undulate disk, black exterior, and absence of even white margin, completely collapsing when dry.

On rotting wood.

Dasyscypha ovina, n.s. Superficial to partially crumpent, sessile, cupshaped, exciple exceeding the disk, externally coarsely woolly with a dense vestiture of globose cells, dull ochre brown, 1-2mm. diameter; asci cylindric, spores 8, uniseriate, broadly elliptic, obtuse, smooth, brown at maturity, 14 x 8 \mu, paraphyses slender with clavate olive tips.

On dead bark.

Humaria omphalodes, Mass. Minute disks 1mm. diameter, orange to reddish, arising from a spreading subiculum on burnt ground; spores elliptic, 11-13 x 6μ .

On Domain.

Cenangella tasmanica, n.s. Erumpent, cartilaginous, sessile, concavo-convex, smooth, black; asci cylindric, 8 spores in one series; spores elliptic, subacute, uniseptate. smooth, wall thick, light purple when mature $10-12 \times 5 \mu$, paraphyses filiform, mostly branched above.

On dead wood.

Patellaria masseea. n.s. Gregarious, sessile, concave then plane, dark green becoming black when dry, 1-2 mm. broad. Asci clavate, base little constricted, 8 spored, staining blue with iodine, 150 x 10 μ. Spores in two series, oblongo-elliptic, 3-6, often 5, septate, hyaline, 18-22 x 5 μ. Paraphyses filiform, ramose, apex thickened.

Allied to *P. tasmanica*, *Berk.*, but distinguished by the larger size of the ascophore, also by the larger septate spores. The hypothecium and excipulum consist of slender interwoven hyphæ.

On dead branches of Acacia verniciflua.

The above is the description of the plant by the late Mr. Massee in Kew Bulletin No. 138, under the name of *Patellaria maura*, n.s. Unfortunately this name was already applied by Phillips to a European plant.

Tremella mesenterica, Retz. Toughly gelatinous, lobes short and contorted, surface pruinose with white spores.

Very common, but not recorded for Tasmania. Much tougher and darker than in *T. lutescens*.

Auricularia mesenterica, Fries. Waxy when fresh, resupinate on under surface of fallen wood, nearly black to greyish-brown, margin reflexed, velvety.

Fairly common.

Contophora orbracea, Mass. Very broadly effused, submembranaceous, usually indeterminate; hymenium pulverulent, whitish then ochraceous; spores yellowish, subglobose, $8 \times 6 \mu$.

Common on dead wood.

Solenia anomala, Fries. Minute, cup-shaped, on a slender stalk usually under 1 mm, high, externally hairy dingy brown to ochraceous, hymenium smooth, spores oblong, $7 \times 4 \mu$.

On dead wood. Resembling a brown Dasyscypha, but the hymenium is basidiosporous.

Typhula tasmanica, n.s. Very slender, filiform, arising from a peltate strigose base, white or pale ochre below; stipes 2 cm., fertile portion 1 cm., and very little enlarged. Spores white, smooth, broadly oblong, slightly unequal sided, 6 x $3-4~\mu$.

On dead Eucalypt leaf.

Hydnangium glabrum, u.s. Irregularly globose, red-brown, 1cm., no sterile base. Peridium very thin not differentiated, gleba pale red-brown to other, canals very numerous and tortuous. Spores spherical glabrous or with few very minute asperities, white, 7-10 u.

Close to Hymenogaster l'evisporus.

Slopes of Mt. Wellington.

Gymnomyces solidus, n.s. Irregularly globose, white, 1cm. Peridium none, the tramal plates defining the sporiferous cavities protruding externally. Gleba dense white, canals .3 mm. diameter closely packed, full of spores. Spores white globose, coarsely echinulate, 12 µ.

Slopes of Mt. Wellington.

Hymenogaster barnardi, n.s. Irregularly globose, white, 1-1.5 cm. Peridium very thin. Globa rather tough white, cells numerous much convoluted, no sterile base. Spores oblong, acute at both ends, hyaline, smooth, white, $16\text{-}18 \times 7 \mu$.

McRobie's Gully.

Hymenogaster maideni, n.s. Globose, 2 cm. Peridium very thin, white or slightly ochraceous when exposed. Sterile base obsolete. Gleba white, canals numerous, small, contorted. Spores ovate to oblong, yellow brown, smooth, $10\text{-}12 \ge 6$ μ .

McRobie's Gully.

Dasyscypha pteridophylla, n.s. Cupulate on a short slender stem, lemon-yellow throughout, about 0.3 mm. diameter, clothed externally with short slender hairs, asci cylindric, eight spores biseriate. Spores fusiform, acute, hyaline, 16 x 1.5 μ . Paraphyses filiform.

On stipe of Dicksonia, National Park.

Rhizina atra, n.s. Discoid, black, plane, undulate, bound down except on the margin by mycelial strands, externally pruinose, mostly 1 cm. diameter, rather tough. Asci cylindric, eight spored in one series. Spores broadly oblong, dark brown, coarsely verrucose, $22 \times 12 \mu$. Paraphyses filiform, clavate at the apex, brown.

On ground, in woods, McRobie's Gully.

Humaria tenacella, Phil. Cupulate, to discoid, sessile, dark umber brown, externally paler and furfuraceous, asci cylindric, spores elliptic, smooth, hyaline, 15 x 7 μ ; paraphyses filiform with clavate dark umber tips.

On ground, Ridgeway.

Humaria rutilans, Fr. Cupulate, 0.5-1 cm. diameter, pale crimson to orange, externally slightly pubescent, paler. Asci cylindric; spores elliptic, obtuse, hyaline, granular when mature $25 \times 14 \mu$.

On burnt ground, McRobie's Gully.

Humaria mollispora, n.s.` Hemispheric, sessile, fleshy, pinkish-hyaline, 1 mm. diameter, exciple smooth, parenchymatous, disk plane; asci cylindric, eight spored. Spores elliptico-fusiform, smooth, hyaline, rather irregular in form due to the spore wall being very thin, $18 \times 5 \mu$. Paraphyses filiform with slightly clavate tips.

Near H. omphalodes, Mass.

Cascades, Hobart.

Barlaea verrucosa, n.s. Hemispheric to plane, sessile, crimson, fleshy. 1 mm. diameter, the exciple parenchymatous. Asci cylindric, eight spores in one series. Spores globose $20~\mu$. diameter covered with large hemispheric warts even when young, hyaline. Paraphyses slender, claverulate, crimson.

On ground, Cascades, Hobart.

Morchella tasmanica, J. Ramsbottom. This is a Morel often found in Tasmania, and hitherto referred to M. esculenta, Linn. It differs chiefly in the capitulum being more cylindric, and the spores larger. The species is described in the Journal of Ecology, Vol. VIII., No. 1, March, 1920, from material gathered in Tasmania by Miss Gibbs.

Trametes serpens, Fr. At first tubercular and erumpent on dead wood, then resupinate and spreading on the surface, margin determinate, pubescent, pores rounded or angular, unequal, obtuse, 1.3 mm. diameter; spores ovoid, hyaline, $14 \times 6 \mu$. (Cooke).

Very like $Poria\ vaporaria$, but distinguished at once by the much larger pores.

Lindisfarne.

Radulum orbiculare, Fr. Orbicular pale or white, often many centimetres wide and confluent, glabrous, but covered with prominent cylindric-obtuse to hemispheric tubercles 2-3 mm, long, margin hyssoid. Spores cylindric-oblong slightly curved, 10 x 5 μ

On dead wood, Cascades, Hobart.