

AUSTRALIAN FUNGI: NOTES AND DESCRIPTIONS.—No. 8.

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[Read October 8, 1931.]

The last paper of this series, No. 7, appeared in these Transactions and Proceedings, vol. lii., 1928, pp. 217-222. . . . Colour tints when specifically noted in capital letters are based, unless otherwise stated, on Ridgway's "Colour Standards and Colour Nomenclature," 1912 edition, references to the plates therein being given.

I am much indebted to Miss E. M. Wakefield, of the Royal Botanic Gardens, Kew, England, for kindly examining a number of specimens and water-colour drawings of Australian Clavarias forwarded to the Director, and for comparing these critically with the world-wide collections there and for expressing opinions on these species. Extracts from her report are appended to the descriptions of the species concerned.

499. *Amanita subalbida*, n. sp. — Pileus $1\frac{3}{4}$ in. (4.4 cm.) in diameter, irregularly convex, then nearly plane with the centre somewhat depressed, mealy with the remains of the universal veil, pallid brownish to nearly white. Gills just adnexed, close, rather narrow, white. Stem 1 in. (2.5 cm.) high, elongating from the bulbous base to $1\frac{3}{4}$ ins. (4.4 cm.), rather short, $\frac{3}{8}$ in. (10 mm.) thick, submealy, nearly equal when expanded, solid, white. Ring superior, when young well marked, membranous, marked above with gill-lines, tending to disappear. Volva disappearing, as a slight friable rim-like edge to the bulb. Spores white, obliquely elliptical, $9.5 \times 5.5 \mu$. Half-buried in sandy soil. S.A. — Kinchina, June 8, 1925.

500. *Amanita conico-bulbosa*, n. sp. — When young 2 ins. (5 cm.) in diameter, plano-convex with a deep rounded border and edge turned in, slightly viscid when moist, finely villose, greyish white; base of the stem very bulbous ($1\frac{1}{2}$ in., 3.7 cm. thick), the root conical and $2\frac{1}{4}$ ins. (5.6 cm.) deep. When adult, pileus 2 to 4 ins. (5 to 10 cm.) in diameter, slightly convex to a little upturned or convex with the centre depressed, slightly viscid when moist, in places smooth and shining, in others subvillose, with scattered warty patches often villose at the base, or the whole surface dull with no flakes, cuticle peels, white with a slight biscuity tint or chalky white, occasionally with a greyish-brown tint. Gills just reaching the stem, attenuated towards it, close, $\frac{1}{4}$ to $\frac{1}{2}$ in. (6 to 12.5 mm.) deep, ventricose, short ones at the periphery, creamy white, when old with a buffy tint in some lights, when dry brownish. Stem up to 3 to 5 ins. (7.5 to 12.5 cm.) high, $\frac{7}{8}$ in. (2.1 cm.) thick, slightly attenuated upwards, gill-marked above, fibrillose-scaly to matt below, solid, white or whitish, bulb $1\frac{1}{4}$ to $1\frac{1}{2}$ in. (3.1 to 3.7 cm.) thick, root up to 3 ins. (7.5 cm.) long, conical downwards. Ring superior to median, ample, dependant marked with gill-lines above, evanescent. No obvious volva, or volva as a mealy-evanescent rim when young. Flesh white, moderately thick ($\frac{1}{4}$ in., 6 mm., or more), attenuated outwards. Smell sometimes slightly fragrant, when cut somewhat phosphorus-like. Spores elliptical, hyaline, 9 to 11.5×5.5 to 7μ . Partly buried in sand or in the ground. S.A. — Kinchina, Beaumont, June, July, August, October.

This species is characterized by being greyish-white when young, later white with a slight biscuity or greyish-brown tint, and by having, usually, scattered villose warty patches, no strong smell and a very long conical root.

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501. *Amanitopsis sublutea*, n. sp. — Pileus $1\frac{1}{2}$ to $1\frac{3}{4}$ in. (3.7 to 4.3 cm.) broad, convex, becoming depressed a little in the centre, sticky when moist, pale buff [a little deeper than Warm Buff (xv.)]. Gills just reaching the stem, moderately close, becoming slightly ventricose, white. Stem up to $1\frac{3}{4}$ in. (4.3 cm.) high, $\frac{3}{8}$ in. (10 mm.) thick, equal, mealy above, smooth below, white or a little buff-tinted below, bulb up to $\frac{3}{4}$ in. (19 mm.) thick, spherical, the colour of the pileus, edge just free. Flesh of pileus rather thin, white, attenuated outwards. Spores oblique, 13 to 13.5 X 7 μ . In sand. S.A. — Encounter Bay, August, 1929.

502. *Lepiota fuliginosa*, n. sp. — Pileus up to $\frac{7}{8}$ in. (2.2 cm.) in diameter, slightly convex, then plane or a little upturned, in the centre sooty-brown from minute fibrous scales, almost villose, the scales scantier and paler round the periphery, leaving a pallid, slightly sooty zone $\frac{1}{8}$ in. (3 mm.) or more in diameter. Gills barely free, narrow, close, creamy white. Stem $\frac{1}{8}$ to $\frac{3}{4}$ in. (3 to 19 mm.) high, short, equal, smooth, solid, pallid whitish. Ring distant, as a narrow membranaceous ring, evanescent. Spores oblique with an apiculus, 5.5 X 4.5 μ . On the ground. S.A. — Kinchina, June 8, 1925.

503. *Lepiota nigro-cinerea*, n. sp. — Pileus $\frac{1}{2}$ in. (1.2 cm.) in diameter, convex, subumbonate, dark grey from, floccose scales. Gills barely reaching the stem, moderately close, cream-coloured. Stem $\frac{5}{8}$ in. (16 mm.) high, slender, a little fibrillose below, whitish. Ring (?) evanescent. Spores very oblique, sometimes nearly triangular, not thick-walled, 5.5 X 3.5 μ . On the ground. S.A. — Encounter Bay, May 24, 1928.

504. *Lepiota cinnamonea*, n. sp. [*cinnamomea*] — Pileus $\frac{1}{2}$ to 1 in. (1.2 to 2.5 cm.) in diameter, at first almost campanulato-convex, then expanding to convex, often more or less broadly umbonate, slightly floccose to flecked with minute scales, Light Pinkish Cinnamon (xxix.) to Cinnamon or near Tawny (xv.), sometimes when dry near Apricot Buff (xiv.). Gills just free or barely reaching the stem, rather close to moderately distant, rather narrow, ventricose, cream. Stem 1 in. (2.5 cm.) high, rarely $1\frac{1}{2}$ in. (3.7 cm.), rather slender (5 mm. thick), slightly attenuated upwards, fibrillose to fibrillose-scaly up to the veil attachment which is superior, stuffed or slightly hollow, paler than the pileus to near Tawny, sometimes Cinnamon Rufous (xiv.). No definite ring. Flesh thin, whitish, in the stem with a cinnamon tint and white in the centre. Spores elliptical, slightly oblique, not thick-walled, 5.5 to 7.5 X 3.7 to 4 μ . S.A. — On the ground in a glade in stringy-bark forest, National Park; in *Pinus radiata* Don. (*P. insignis* Douglas) forest, Mount Burr (S.E.), May, 1931.

505. *Lepiota subcristata*, n. sp. — Pileus 1 to $1\frac{1}{2}$ in. (2.5 to 3.7 cm.), at first conico-convex, then convex to nearly plane, with an obtuse umbo, densely covered with small brown fibrillose scales, darker and closer at the disc. Gills free, moderately close, white. Stem to $1\frac{3}{4}$ in. (4.4 cm.) high, rather slender, stuffed tending to be hollow, shaggy with fibrils up to the veil attachment, smooth above. No definite ring. Spores elliptical, not thick-walled, 5.5 to 3.7 μ . S.A. — In *Pinus radiata* Don. (*P. insignis* Douglas) forest, Mount Burr, May, 1931.

Resembles *L. cristata* (A. and S.) Fr., but differs in the shaggy fibrillose stem without a definite ring. *L. cristata* grew in the same locality.

506. *Lepiota discolorata*, n. sp. — Pileus $1\frac{1}{4}$ to 2 ins. (3 to 5 cm.) in diameter, nearly plane, a little upturned, subumbonate, covered with dense very dark reddish-brown scales, fewer near the periphery, sometimes slightly striate at the periphery. Gills just free, close, white or cream-coloured. Stem $1\frac{1}{4}$ to $2\frac{1}{2}$ ins. (3.1 to 6.2 cm.) high, slender, hollow, white above, pale brownish below or pallid with minute brownish flecks. Ring distant, membranaceous, evanescent. Flesh white stained reddish. Smell strong, radishy. The whole plant when dry Fuscous to Fuscous Black (xlvi). Spores elliptical, oblique, not thick-walled, 5 to 6.5 X

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3.5 μ , sometimes 7.5 to 9 X 4.5 μ . On the ground. S.A. — Mount Lofty; National Park; in *Pinus radiata* Don. (*P. insignis* Douglas) forest, Kalangadoo (S.E.). April to June.

A moderately small species, recognised by the dark reddish-brown scales in the pileus and the discolouration of the whole plant on drying.

507. *Lepiota haemorrhagica*, n. sp. — Pileus $\frac{3}{4}$ to $1\frac{1}{4}$ in. (1.8 to 3.1 cm.) in diameter, convex, sometimes irregular, covered with reddish-brown fibrillose scales thicker and darker at the disc. Gills free, close, creamy-coloured turning reddish like a fresh bloodstain when bruised. Stem 2 ins. (5 cm.) high, relatively rather stout, attenuated upwards, slightly hollow, clothed with reddish-brown fibrils even above the distant definite membranous pale to reddish ring. Spores elliptical, slightly oblique, not thick-walled, microscopically slightly tinted, 6 X 3.5 μ . On the ground in *Eucalyptus* forest. S.A. — Mount Burr (S.E.), May, 1931.

508. *Lepiota umbonata*, n. sp. — Pileus $\frac{1}{2}$ in. (1.2 cm.) in diameter, slightly convex with a broad obtuse umbo, pallid whitish with a buffy tint. Gills just free, moderately close, pallid flesh-coloured. Stem $1\frac{1}{4}$ in. (3.1 cm.) high, slender, flesh-coloured. Ring distant. Whole plant when drying brownish. Spores not thick-walled, 5.5 X 3.5 μ . S.A. — In *Pinus radiata* Don. (*P. insignis* Douglas) forest, Kalangadoo, May.

A small species with a whitish umbonate pileus and slender moderately long stem.

509. *Lepiota albo-fibrillosa*, n. sp. — Pure white. Pileus $\frac{1}{8}$ in. (3.5 mm.) in diameter, convex, subumbonate, mealy, dotted with white fibrils continuous with the veil and clothing the stem below the attachment of the veil, no definite ring. Gills free, many short, edges rather thick, white. Stem $\frac{3}{8}$ in. (10 mm.) high, slender, base a little swollen. Spores elliptical, 6.2 to 7.5 X 3.75 μ . On the ground, under a rock. S.A. — Mount Lofty, May.

A minute white delicate short-stemmed species with white fibrils on the pileus and clothing the stem without a well-defined ring.

510. *Lepiota bulbosa*, n. sp. — Pileus 1 in. (2.5 cm.), convex, pale earthy brown with scattered villose scales. Gills barely reaching the stem, close, slightly ventricose, creamy white. Stem $\frac{3}{4}$ in. (18 mm.) with the bulb, slender, under $\frac{1}{4}$ in. (6 mm.) thick, bulb $\frac{1}{2}$ in. (12.5 mm.) thick, white and striate from the gills above the median fixed definite membranous ring, slightly fibrillose and whitish with a brownish tint below, slightly hollow. Spores elliptical, oblique, not thick-walled, 9.3 to 10.5 X 5.5 to 7 μ . On the ground. S.A. — Inman Valley, September 5, 1925.

511. *Clitocybe straminea*, n. sp. — Pileus 1 to 1½ ins. (2.5 to 3.7 cm.) in diameter, irregularly convex, centre usually depressed, thin, nearly semi-translucent, pilose in the centre, fibrillose peripherally, slightly striate, edge radiately splitting, centre blackish-brown, the remainder smoky yellowish-brown, the smokiness due to fine fibrils. Gills slightly but definitely decurrent, moderately close, straw-coloured to pale egg-yellowish. Stem 1½ to 2 ins. (3.7 to 5 cm.) high, equal, slender, somewhat flexuous, twisted, slightly striate, mealy fibrillose above, less so below, hollow, the colour of the gills. Spores subspherical, 4 to 5 μ. Densely caespitose at the base of stumps. S.A. — Mount Lofty, March, April. The specific name has reference to the straw colour of the gills and stem.

512. *Clitocybe eucalyptorum*, n. sp. — Pileus 6 ins. (15 cm.) or more in diameter, irregularly convex with the edge turned in when young, then expanding, the centre finally more or less depressed, repand, innately fibrillose to subtomentose with occasionally small circular patches of thickened cuticle, the edge slightly sulcate, Drab (xlvi.) when young to browner than Tawny Olive (xxix.). Gills moderately decurrent, moderately close, up to ¾ in. (10 mm.) deep, attenuated at the periphery, cream-coloured, assuming a slight fleshy tint, becoming yellowish

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round the edge when old. Stem 4 ins. (10 cm.) long, stout, up to 1 in. (2.5 cm.) thick, swollen below when young, marked above with lines of the gills, subfibrillose below, pallid with tints as on the pileus, with white mycelium mixed with earth at the base. Shed spores subspherical, pear-shaped, slightly irregular, hyaline, 5.5 to 6.5 X 4.5 μ. On the ground amongst leaves, etc., under *Eucalyptus*. S.A. — National Park, July.

513. *Clitocybe campestris*, n. sp. — Pileus up to 1 in. (2.5 cm.) in diameter, slightly convex, irregular with a depressed centre, slightly shiny, the edge turned in when young, pallid stone colour and slightly mottled, faintly obscured by a minute white pile (near Avellaneous, xl.; Light Buff, xv.). Gills adnate, close, rather thick, rarely forking or with buttresses, pallid brownish white (Avellaneous, xl.; near Vinaceous Buff, xl.). Stem up to ¾ in. (1.8 cm.) high, stout, sometimes, flattened, slightly fibrous, tough, hollow, mealy, pallid, or the colour of the pileus. Flesh white. Smell strong. Spores 4.5 to 4.8 X 2.2 to 3.2 μ. In grassy places, Beaumont Common, May, June; Eagle-on-the-Hill, June (Miss Fiveash, Watercolour No. 25); Noarlunga Hill (spores 5.5 X 3.7 μ).

A small species somewhat resembling small specimens of *Hebeloma hiemale* Bres., characterised by its pallid buff pileus with darker tints of avellaneous and wood brown appearing as if under the surface, the avellaneous gills, short stem and occurrence in grassy places.

514. *Clitocybe pascua*, n. sp. — Pileus 1 to 1½ in. (2.5 to 3.7 cm.), rarely 2 ins. (5 cm.) in diameter, irregularly convex, soon becoming depressed in the centre and sometimes infundibuliform, edge often irregular and wavy or slightly lobed, sometimes lacerated, smooth, when moist between Sudan Brown and Brussels Brown (iii.) and semi-translucent, when dry opaque whitish or buffy whitish. Gills slightly decurrent, rather close, moderately narrow, many short, greyer than Pinkish Buff (xxix.). Stem short, ½ to 1 in. (1.2 to 2.5 cm.) high, slender, equal or sometimes attenuated

downwards, fibrillose, hollow, brownish when moist, pallid when dry. Flesh watery brownish when moist, whitish when dry. Smell a little strong. Spores obliquely elliptical, $7 \times 3.7 \mu$. Gregarious on grassy hills. S.A. — Near Noarlunga, June 25, 1927.

515. *Clitocybe australiana*, n. sp.—Pileus up to $1\frac{1}{4}$ to 4 ins. (3.1 to 10 cm.) in diameter, irregular, somewhat convex, centre depressed, edge rather irregular and broken up, dull, smooth, pale biscuit colour (near Pinkish Buff, xxix.), paler than Mikado Brown (xxix.) and near Vinaceous Cinnamon (xxix.), soapy-looking when moist, near Sayal Brown (xxix.) when dry. Gills adnato-decurrent to decurrent, narrow, moderately close, near Pinkish Buff. Stem up to $1\frac{1}{2}$ ins. (3.7 cm.) high, slender to stout, up to $\frac{5}{8}$ in. (15 mm.) thick, slightly attenuated downwards, dull surface, solid or slightly hollow, with fluffy mycelium at the base, white. Flesh white, thick over the stem, attenuated outwards. Spores 3.2 to 5.6×1.6 to 3.2μ . Single or two or three together or subcaespitose in sandy soil under trees. S.A. — Kinchina, Monarto South, and Enfield. N.S.W. — Bumberry and Manildra. July, August, September, October.

516. *Collybia subdryophila*, n. sp. — Pileus up to $1\frac{1}{4}$ in. (3.1 cm.), slightly convex, sometimes eventually a little upturned at the edge, irregular, matt, near Pinkish Buff (xxix.). Gills adnate to adnexed (once apparently sinuate), close, narrow, creamy white. Stem up to $1\frac{1}{2}$ in. (3.7 cm.) high, rather slender, sometimes flattened, sometimes slightly attenuated upwards, smooth or matt, hollow, flesh confluent with but heterogeneous from that of the pileus, reddish-brown (near Verona Brown, xxix.). Shed spores with one end more pointed, 4 to $4.2 \times 2 \mu$. S.A. — Mount Lofty, July, 1921, and April, 1924 (spores $5.6 \times 3.75 \mu$); Mount Compass, October; Kinchina, July (spores $3.2 \times 2 \mu$); near Happy Valley, September; National Park; Hope Valley.

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517. *Collybia deusta*, n. sp. — Pileus 2 to 3 ins. (5 to 7.5 cm.) in diameter, irregularly plane to slightly depressed with a trace of umbonation, edge somewhat undulatory, surface matt to subtomentose, smoky brownish to scorched brown. Gills adnato-adnexed with occasionally a decurrent tooth, close, narrow ($\frac{1}{4}$ in. +, 6.5 mm. deep), pallid dingy greyish to pallid dingy buff. Stem $1\frac{1}{2}$ to 2 ins. (3.7 to 5 cm.), rather slender ($\frac{1}{4}$ to $\frac{3}{8}$ in., 6 to 9 mm., thick), fibrillose, tough, solid, base slightly swollen into a knob ending abruptly, dark smoky brown. Flesh of stem cartilaginous differing in texture from the flesh of the pileus, which is white and thin. Spores elliptical, $8.5 \times 5.2 \mu$. No obvious smell. S.A. — In sand under *Melaleuca halmaturorum* F. v. M., Inman River, Victor Harbour. May.

518. *Collybia alutacea*, n. sp. — Pileus $\frac{3}{4}$ to $1\frac{1}{2}$ in. (1.8 to 3.7 cm.) in diameter, more or less plane becoming upturned-repand, sometimes subumbonate, smooth, rich salmony-buff and moist-looking, sometimes reddish-brown at the periphery, drying opaque matt and a paler pinkish-buff. Gills adnexed, narrow, close, creamy white. Stem $\frac{3}{4}$ to 1 in. (1.8 to 2.5 cm.) high, rather short, somewhat slender, sometimes flattened, equal, smooth, slightly hollow, pallid with a slight or definite tint of the pileus. Flesh of the stem cartilaginous differing from the thin white flesh of the pileus which is attenuated outwards. On the ground. S.A. — Back Valley, off Inman Valley. May, 1929.

Characterised by the rich salmony-buff pileus becoming pinkish-buff, contrasting

with the close white gills and short pallid stem slightly tinted like the pileus.

519. *Collybia abutyracea*, n. sp. — Pileus up to $4\frac{3}{4}$ ins. (11.8 cm.) in diameter, at first convex with the edge turned in, then expanding, irregular and repand and more or less subumbonate, at first slightly velutinate, finely somewhat shining and subfibrillose, when young pallid or Cream Buff (xxx.) with a smoky brown tinge, then pallid biscuit-coloured, sometimes with a smoky or scorched tinge, sometimes with the umbo approaching Saccardo's Umber (xxxix.). Gills slightly sinuate to adnate, close, rather dingy creamy white, becoming more biscuit-coloured. Stem up to $1\frac{1}{2}$ in. (3.7 cm.) high, rather slender to moderately stout, $\frac{3}{8}$ to $\frac{1}{2}$ in. (10 to 12.5 mm.) thick, coarsely fibrillose, equal, not rooting, tough and cartilaginous but with the flesh not very clearly distinct from that of the pileus, solid, not stuffed, breaking up into tough fibrils, dark smoky brown to pallid brownish, base whitish when young. Spores elliptical, 7.5 to 9 X 5 to 5.5 μ . No special smell. Amongst grass. S.A. — Beaumont Common, Pinnaroo, Belair. June, July, August.

520. *Collybia eucalyptorum*, n. sp. — Pileus $\frac{5}{8}$ to $1\frac{1}{2}$ in. (1.6 to 3.7 cm.) in diameter, broadly conico-campanulate to nearly plane, then slightly upturned, smooth, with the surface dull from innate fibrils, edge slightly striate, Pale Pinkish Buff becoming Cinnamon Buff (xxix), or Ochraceous Buff (xv.) and darker in the centre, becoming pallid towards the periphery. Gills adnexed, close, narrow, with short ones at the periphery, creamy-white or approaching Warm Buff (xv.). Stem 1 to $2\frac{1}{2}$ ins. (2.5 to 6.2 cm.) high, relatively slender ($\frac{1}{8}$ in., 3.5 mm., or more thick), flexuous, smooth or subfibrillose, barely striate, hollow, cartilaginous, differing from the flesh of the pileus, reddish-brown (between Tawny, xv., and Russet, xv.; Mikado Brown, xxix.). Flesh thin, slightly brownish. Smell moderately strong. Spores pear-shaped, hyaline, 5 to 5.5 X 3.5 μ . Caespitose at the bases of old trunks of *Eucalyptus* or stumps. S.A. — Mount Lofty Summit, June.

521. *Mycena subgalericulata*, n. sp. — Pileus $\frac{1}{2}$ to 1 in. (1.2 to 2.5 cm.) in diameter, $\frac{1}{3}$ to $\frac{3}{4}$ in. (0.8 to 1.8 cm.) high, conico-campanulate, somewhat expanding, umbonate, dry, smooth, submembranaceous, somewhat striate to the umbo, near Olive Brown (xl.), occasionally paler (Buffy Brown, xl.), sometimes Mummy Brown (xv.), during drying becoming paler from above from Olive Brown to Buffy Brown, when young with a pallid peripheral ring. Gills adnate, sometimes

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with a slight decurrent tooth, sometimes connected by veins, whitish, sometimes flesh-tinted or greyish when old. Stem $\frac{3}{4}$ to 2 ins. (1.8 to 5 cm.) high, often curved, smooth, polished, somewhat fragile to rather tough, base somewhat strigose, whitish to pallid, sometimes brownish especially below. Shed spores elliptical, oblique, 9 to 13 X 5.5 to 8.5 μ . No cystidia seen. No smell. Caespitose on trunks. S.A. — Mount Lofty (on trunks of *Eucalyptus obliqua* L'Hérit.), National Park. April, June, July, August.

This is evidently a variable species. It differs from Rea's description of *Mycena galericulata* (Scop.) Fr. in being of smaller size, with the cap apparently darker, the gills sometimes becoming greyish when old, and in the stem often being nearly pure white.

The characteristics of the species are the caespitose habit on trunks or stumps, the dark fuscous brown to pale smoky brown umbonate pileus, the gills adnate sometimes

with a decurrent tooth and whitish becoming flesh-coloured or greyish, and in the whitish or pallid stem sometimes brownish below.

522. *Mycena australiana*, n. sp. — Pileus $\frac{1}{2}$ in. (1.2 cm.) high, $\frac{3}{4}$ in. (1.8 cm.) broad, broadly conico-campanulate, slightly striate, Buffy Brown to Clove Brown (xl.) or Wood Brown (xl.), apex darker. Gills adnate, with no decurrent tooth, moderately close, pure white becoming creamy. Stem about 3.7 cm. high, slender, polished, a little mealy at the base but without strigose hairs, apex whitish, Buffy Brown towards the base. Spores 8.5 to 11 X 6 to 7.5 μ . Gregarious or caespitose on fallen log. S.A. — National Park, Mount Lofty. May, June, July.

523. *Mycena vinacea*, n. sp. — Pileus $\frac{3}{4}$ to 1 $\frac{1}{2}$ in. (1.8 to 3.7 cm.) in diameter, conico-hemispherical or broadly conical to convex, then expanded, sometimes with an acute or obtuse umbo, matt or smooth, slightly shining, striate at the periphery when moist, edge slightly incurved when young, Pale Vinaceous Drab to Vinaceous Drab (xlv.), Light Cinnamon Drab (xlvi.), near Sorghum Brown (xxxix.) or yellower than Vinaceous Brown (xl.), sometimes Fuscous (xlvi.) when old, drying to near Pinkish Buff (xxix.), paler than Avellaneous (xl.) or between Avellaneous and Olive Buff (xl.). Gills adnate or slightly sinuate with a decurrent tooth, moderately close, ventricose, many short, edges tending to be frayed, Pale Vinaceous Drab, Pale Brownish Drab (xlv.), Pale Greyish Vinaceous, or Vinaceous Fawn to Fawn Colour (xl.). Stem 1 to 2 $\frac{3}{4}$ ins. (2.5 to 6.8 cm.) high, slender to a little stout, equal or slightly attenuated upwards or downwards, smooth, hollow, base pallid and tending to be villose, Dark Vinaceous Drab (xlv.) when young, Light Greyish Vinaceous (xxxix.), near pale Brownish Drab or Wood Brown (xl.). The pallid brownish flesh of the cartilaginous stem heterogeneous from the white flesh of the pileus. Spores obliquely elliptical, 7.5 to 13 X 4 to 8.5 μ . Caespitose or subcaespitose on fallen wood on the ground, at the base of stumps, or amongst fallen leaves and grass or pine needles. S.A. — Mount Lofty, National Park, Baker's Gully near Clarendon, Kuitpo, Kinchina, Kalangadoo (under *Pinus*), Caroline State Forest (near Mount Gambier — under *Pinus*). N.S.W. — Cambewarra Mount. May, June, July, August.

Readily recognised by the lilacy [*sic*] or vinaceous tint of the whole plant and the caespitose habit.

524. *Mycena subalbida*, n. sp. — Pileus up to $\frac{1}{4}$ in. (6.2 mm.) in diameter, usually less, conico-campanulate to convex, sometimes dimpled, sometimes gibbous or umbonate, ribbed, mealy or scurfy to glabrous, white with a greyish-brown or creamy tint. Gills adnate, attached to a collar, ascending, slightly ventricose, rather narrow, about 12 to 14 in number with shorter ones interposed, pallid greyish white. Stem $\frac{3}{16}$ to $\frac{3}{8}$ in. (4.5 to 10 mm.) high, curved, very slender, mealy to smooth, white to pallid, sometimes slightly brownish below, attached by a minute slightly strigose disc. Spores subspherical, 9 to 11 μ , 10 X 8.4 μ ; the

cells on the edges of the gills bristling with minute processes; cystidia, 25 μ long, with tapering apices and ventricose bases seen in one batch of specimens. S.A. — On mossy bark of elms (*Ulmus campestris* L.), North Terrace, Adelaide, June, July; on bark of *Schinus* [*sic*] *Molle* L., Fullarton, July; on trunk, National Park (spores 9.5 X 6.5 μ).

The species seems to be related to *M. corticola* Fr. and *M. hiemalis* (Osb.) Fr., but differs and belongs to the section *Basipedes* by having a definite though small disc. We cannot find a description to fit it.

525. *Leptonia fusca*, n. sp. — Pileus $\frac{3}{4}$ to $1\frac{1}{8}$ in. (1.8 to 2.8 cm.) in diameter, slightly convex, umbilicate, radiately fibrillose, between Natal Brown and Bone Brown (xl.). Gills sinuately adnexed, moderately close, edges not dark, near Vinaceous Buff (xl.). Stem $1\frac{1}{4}$ in. (3.1 cm.) high, slender, sometimes flattened, polished, brittle, hollow, cartilaginous, near Dusky Drab (xlv.), base whitish. Flesh very thin. Spores angular, tinted, 11 to 13 X 7.5 μ . On the ground. S.A. — Encounter Bay. May 24, 1931.

Characterised by the dark dusky brown pileus and stem, whitish base to the stem, vinaceous buff gills and rather large angular spores.

526. *Clitopilus prostratus*, n. sp. — Pileus $\frac{3}{4}$ to 1 in. (1.8 to 2.5 cm.) in diameter, very irregular, more or less convex with the centre depressed, somewhat rugose, somewhat fibrillose, edge sometimes crinkled, colour of dead grass. Gills decurrent, moderately close, relatively deep, pallid salmon-colour[e]d. Stem short (1 cm.), central to excentric, slender, surface matt, whitish. Spores angular with a central yellowish gutta, tinted, 9.5 to 10.5 X 7.5 μ . Nearly prostrate on bare sandy soil in heathy scrub. S.A. — Near Mount Burr (S.E.). May, 1931.

527. *Clitopilus subfrumentaceus*, n. sp.—Pileus $1\frac{1}{4}$ to 4 ins. (3 to 10 cm.) in diameter, irregularly convex, then more expanded or with the centre depressed, often distorted, sometimes with a small umbo, subfibrillose, edge turned in when young, not shining, somewhat hygrophanous, Pinkish Cinnamon, Cinnamon, Sayal Brown, or Mikado Brown (xxix.) becoming paler. Gills adnate to adnate-decurrent, narrow, moderately close, edges sometimes irregularly serrate, rarely forking or anastomosing near the stem to form long narrow cells, Light Pinkish Cinnamon (xxix.). Stem $1\frac{1}{2}$ to $2\frac{1}{2}$ ins. (3.7 to 6.2 cm.) high, stout (up to $\frac{7}{8}$ in., 2.2 cm. thick), base swollen (1 in., 2.5 cm. thick), sometimes a little excentric, somewhat mealy or fibrillose, solid, pale fawny or biscuity whitish or white. Flesh watery semi-translucent becoming whitish. Slight smell of radishes. Spores obliquely pear-shaped, rather irregular, definitely tinted, 6.5 to 8.5 X 4.2 to 6 μ . Densely caespitose under trees or amongst grass. S.A. — Mount Lofty Range, National Park. Vict. — Ararat. April to August.

The specific name has reference to its resemblance to *Entoloma frumentaceum* (Bull.) Berk.

528. *Clavaria vinaceo-cervina*, n. sp. — Plants $\frac{1}{2}$ to 2 ins. (1.2 to 5 cm.) high, nearly vertical or slightly spreading, from a short stem-like base very irregularly branching, sometimes with only a few branches or prong-like divisions, sometimes with a number of small branches, ultimate divisions short, prong-like, mostly blunt, sometimes acute and thorn-like, sometimes awl-like or finger-like, often fastigate, the branches often irregularly flattened and the whole plant rugose, usually relatively slender but in some collections stouter and more knobby, Vinaceous Fawn (xl.) to Fawn Color (xl.), near a pale Vinaceous Russet (xxviii.), deeper than Vinaceous Buff (xl.), between Vinaceous Buff and Avellaneous (xl.), Vinaceous Pink (xxviii.) at the tips with the stem Vinaceous Fawn (xl.), greyer than Buff Pink (xxviii.), or Pinkish Cinnamon (xxix.) with a fine bloom giving a vinaceous pink colour tinge on the pinkish cinnamon, base of stem pallid. Spores subspherical 7.5 to 9 μ , 8 X 6.5 μ , 9 to 10 X 8 to 8.8 μ . On the ground under

trees amongst shrubs. S.A. — Stirling West, July 23, 1927; Mount Lofty, April, June (Kew No. 86), July; Belair, July; Clare, August.

Specimens of this species (Kew, No. 86) were sent to Miss E. M. Wakefield, who reported : "Probably new. Not European or American."

529. *Clavaria australiana*, n. sp. — Densely branched, up to 4 ins. (10 cm.) high and 5 ins. (12.5 cm.) broad, the branches between Vinaceous Buff (xl.) and Avellaneous (xl.), their tips near Vinaceous Fawn and Fawn (xl.). Contracting uniformly from above to a broad conical base of several stout compacted stems. The thick main branches spread somewhat and divide rather sparingly and very irregularly till the last $\frac{3}{4}$ in. is reached. Here they divide frequently into numerous blunt irregular prongs, often at wide angles, the prongs often divided again and flattened. The stout main branches and the branchlets are definitely rugose. Spore mass slightly but definitely coloured. Spores microscopically slightly coloured, elongated, oblique, mummy-shaped, not striate, 13 to 16 X 4.5 to 5.5 μ . S.A. — On the ground, Mount Lofty, July, 1927.

530. *Clavaria corallino-rosacea*, n. sp. — Clubs simple, occasionally forked several times, up to 1½ to 2¼ ins. (4 to 5.6 cm.) high, prongs when present up to 1 cm. long, slender, attenuated downwards and also sometimes upwards, sometimes rather flattened and grooved, solid, coral red or rosy pink (when moist a little pinker than Morocco Red, Dauthenay, Pl. 95, Ton. 1; when drying shades of Coral Red, Pale Scarlet, Salmon Pink, Pl. 76), often pruinose above, when buried under leaves base whitish. Flesh light coral red. Spores somewhat pear-shaped, 6 X 3.4 to 4 μ . On the ground, sometimes under *Lantana*. N.S.W. — Mosman (Kew, No. 81; D.I.C., Water-colour No. 54) and Neutral Bay, Sydney, April and June.

Miss E. M. Wakefield, in reporting on No. 81, says:— "Probably the same as the Brisbane specimen (Bailey 241) on which the Australian, record of *C. miltina* was founded. The true *miltina* from South America is stouter and has no distinct stem. Unfortunately, the type shows no spores, but it seems unlikely that the Australian species would be the same."

531. *Clavaria complana*, n. sp. — Forming a mass 3 ins. (7.5 cm.) high and 5 ins. (12.5 cm.) broad. From the solid base dividing repeatedly into slender branches which then become flattened and expanded, and then again divide into slender digitate processes $\frac{1}{4}$ in. (6 mm.) long, pale pinkish tussore, becoming brownish salmon, when damp staining paper pinkish salmon. Spores hyaline, subspherical, 5.2 to occasionally 7 μ . N.S.W. — Sydney suburb, probably Hornsby, June 13, 1916 (Kew, No. 68).

Miss Wakefield reported as follows:— "The habit is like that of *C. flabellata* Wakef. from New Caledonia, but the colour is different and the spores larger. It differs from most of the other large branched forms in its hyaline spores."

532. *Clavaria sinapicolor*, n. sp. — Densely branched forming masses up to 2¼ X 2¼ ins. and 3 X 3 ins. (5.6 X 5.6 cm. and 7.5 X 7.5 cm.), near Mustard Yellow (xvi.) or yellower, Straw Yellow (xvi.) and Colonial Buff (xxx.), Naples Yellow (xvi.) or dingier, or Light Orange Yellow (iii.), when old near Chamois (xxx.) but yellower towards the tips or near Cinnamon Buff (xxix.), the bases of the branches paler, the stem whitish. The main branches are compacted into a broad mass at the base up to 1¼ in. (3.1 cm.)

thick. Dividing upwards repeatedly by very narrow angles into closely pressed nearly vertical more or less rounded rather slender slightly rugose branches, at first $\frac{1}{4}$ in. (6.5 mm.), then $\frac{1}{8}$ in. (3.2 mm.) and then less in diameter, the last $\frac{1}{4}$ to $\frac{1}{2}$ in. ending usually in numerous rather blunt prongs, some very short, often with wider angles between them than in the branches. Spore mass slightly but distinctly buff-tinted or old gold. Spores obliquely pear-shaped to elliptical, slightly tinted microscopically, 5.5 to 8 occasionally 10.4 X 3.8 to 4.5, occasionally 5 μ . On the ground, usually

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in Eucalyptus (*e.g.*, *E. obliqua*) forests. S.A. — Mount Lofty (Kew, Nos. 65, 75, 76), Kuitpo, National Park. N.S.W. — National Park (Kew, No. 66, Miss Clarke, Water-colour No. 126), Kendall, Milson Island in Hawkesbury River (smaller, Kew, No. 67). May to August.

Five collections, as above, were submitted to Miss E. M. Wakefield at Kew, who reported as follows:— "Nos. 65 and 66 are apparently the same as No. 75 and 76. The species is not British or North American. There is no specimen of *C. Kalchbrenneri* Müller at Kew, and the meagre description does not fit it very well. It would probably be better described as new. One of Cooke's determinations of *C. coralloides*, from Ovens River, seems to be the same species. No. 67 has spores similar to the last, but appears to have been a smaller and less branched plant. The material is insufficient to enable me to judge as to habit."

533. *Clavaria ochraceo-salmonicolor*, n. sp. — Compact, cauliflower-like $1\frac{3}{4}$ to $3\frac{1}{2}$ ins. (4.4 to 8.7 cm.), usually about $2\frac{1}{2}$ ins. (6.2 cm.) high, 2 to 3 ins. (5 to 7.5 cm.) broad in larger specimens. From a thick pallid base up to 1 in. (2.5 cm.) wide, dividing into stout branches (up to $\frac{3}{8}$ in., 10 mm. thick) and these again dividing three or four times to end in blunt prong-like processes capped by several blunt teeth a few mm. long, angles rather rounded, branches with longitudinal rugae. Colour Light Ochraceous Salmon (xv.), Ochraceous Salmon (xv.), Light Ochraceous Buff (xv.), or Apricot Buff (xv.) when drying; when young Capuchin Orange (iii.), the tips yellower, which yellow may be lost when older; tips sometimes Warm Buff (xv.) or Ochraceous Buff (xv.). Spores elongated pear-shaped with an oblique apiculus, in the mass yellowish-brown, microscopically slightly tinted, 8.5 to 13 X 3.7 to 5 μ , usually about 9 to 10 X 4 μ . S.A. — Mount Lofty (Kew, No. 71), Willunga Hill, Second Valley Forest Reserve, MacDonnell B. (in S.E.), April, May, June, July.

Specimens from Mount Lofty, June 16, 1917, forwarded to Kew were returned by Miss Wakefield as "not matched at Kew."