

Profiles of Fungi

92. AGROCYBE PUTAMINUM (Maire) Sing. in Beit. Bot. Centralbl. Abt. B, 56: 167 (1936).

Naucoria putaminum Maire in Ann. Mycol. 11: 350, pl. 16/8 - 17 (1913).

Habitat: on composted soil of cultivated land.

Distribution: rare, England, France, Germany, Netherlands and USA. (Photo: England, Surrey, Kew, Royal Botanic Gardens, on composted flowerbeds, 5 June 1996, Legon, K(M)391 85).

Pileus 3 - 10 cm diam, convex to subumbonate, becoming applanate; surface dark brown when young fading to pale yellowish tan, matt, smooth, finely pruinose recalling 'chamois leather'; margin finally reflexed. *Lamellae* adnate, broad, ventricose, pale clay brown, finally dark ochraceous brown, moderately crowded, with lamellulae; edge white, smooth to finely floccose. *Stipe* 5 - 8 x 1 - 1.5 cm, cylindrical, enlarged at apex (-2.5 cm diam) and with a clavate base (-2 cm diam), twisted; fistulose then hollow; surface concolorous with pileus, finely covered with

thin, raised, white, flocculose ridges especially towards apex, arising from numerous mycelial cords. *Veil* none. *Context* up to 1.5 cm thick, soft to firm, white, unchanging; *hyphae* with clamp-connexions; *odour* 'fungal' with strong farinose component; *taste* very bitter, with after-taste of 'cucumber'. *Spore deposit* dark tobacco brown. *Spores* 10 - 12 (-13.5) x 5 - 9 µm, ellipsoid, smooth, with a thickened wall, and a prominent germ-pore. *Basidia* 25 - 30 x 10 - 15 µm, clavate, bearing four sterigmata. *Lamella-edge* sterile, with crowded cheilocystidia. *Cheilocystidia* 30 - 45 x 10 - 15 µm, ventricose-fusoid, utriform to lageniform, hyaline, thin-walled. *Pleurocystidia* never abundant, 50 - 55 x 15 - 18 (-20) µm, broadly clavate, with an apical granular encrustation and yellowish contents in water mounts. *Pileipellis* an epithelium of clavate elements, 8 - 20 µm diam, hyaline, thin-walled, intermixed with numerous pileocystidia similar to caulocystidia. *Caulocystidia* numerous, 40 - 60 x 5 - 8 µm, flexuous, lageniform, sometimes subcapitate.

Agaricales - Bolbitiaceae - *Agrocybe* Fayod - Sect. *Microspora* Sing.



Other remarks: a tricholomatoid agaric, often growing in clumps but not caespitose. Closely resembles *A. praecox* (Pers.: Fr.) Fayod., which differs in being annulate, lacks caulocystidia, and has much smaller spores. Originally described from France as associated with *Prunus* stones but since found on soil mixed with straw, dung, and other debris. Only rarely found in northern Europe. All British records from flowerbeds at Royal Botanic Gardens, Kew, and first found in 1986.

References

- Bas (1958) Blumea, suppl. 4: 141 - m142, fig. 2; Legros (1996) Bull. Soc. Mycol. Fr. 112: 155 - 159, Atl. pl. 313; Watling & Bigelow (1983) Mycotaxon 17: 384 - 385, figs. 3 h-j.

D. N. Pegler & N. W. Legon



93. AGROCYBE VERVACTI (Fr.) Sing. in Beih. Bot. Centralbl. Abt. B, 56: 167 (1936).

Agaricus vervacti Fr., Syst. Mycol. 1: 263 (1821).

Naucoria vervacti (Fr.) Kummer, Führ. Pilzk.: 77 (1871).

Habitat: in grassland, pastures.

Distribution: uncommon, Europe. UK (Camb., Devon, Herts, Is Eigg, Oxon, Staffs, Suffolk, Somerset, Surr., Sussex, Wilts, Worc.) (Photo: England, Surrey, Richmond, Ham Lands, in rough pasture, 5 Oct. 1995, Legon, K(M)31350)

Basidiomes gregarious. *Pileus* 1.5 - 3 cm diam., convex expanding to applanate or somewhat depressed; surface dark ochraceous, bright tawny to golden brown, slightly viscid when fresh, matt when dry; margin undulate, non-striate. *Lamellae* adnate, clay

buff darkening to dark sepia brown, rather broad, subdistant, with lamellulae; edge white, floccose. *Stipe* short, 1 - 2.5 x 0.3 - 0.5 cm, cylindrical, hollow; surface whitish to pale buff, ochraceous at base, silky fibrillose, with a faint, ephemeral annular zone. *Context* thin, creamy white; hyphae with clamp-connexions. *Spore deposit* sienna brown. *Spores* 6 - 8 x 4 - 6 μ m, ovoid to ellipsoid, brown, with a slightly thickened wall, smooth, and an indistinct germ-pore. *Basidia* 15 - 25 x 5 - 6 μ m, clavate to cylindrical, bearing four sterigmata. *Lamella-edge* sterile, with cheilocystidia. *Cheilocystidia* slender, 20 - 42 x 5 - 12 μ m, elongate lageniform, hyaline, thinwalled. *Pleurocystidia* none. *Pileipellis* an epithelium of clavate and inflated elements, 10 - 20 μ m diam, with scattered pileocystidia, similar to cheilocystidia.

Agaricales - Bolbitiaceae - *Agrocybe* Fayod - Sect. *Pediadae*

Other remarks: The microcharacters of small spores, and slender cheilocystidia distinguish this small species. Other species in similar locations include the common *A. semiorbicularis* (Bull.) Fayod, with much larger spores, 10 - 14 x 7 - 9 μ m; *A. pusilla* (Fr.) Watl. is smaller and the spores lack a germ-pore; and *A. tabacina* (DC: Fr.) Konr. & Maubl., which is more deeply coloured.

References

Breitenbach & Kränzlin (1995) *Fung. Switz.* 4: 296, fig. 371; Cetto (1979) *Grosse Pilzfr.*: pl. 449; Cooke 504(617); Lange (1938) *Fl. Agar. Dan.* 3: p1. 126G; Michael, Hennig & Kreisel (1985) *Handb. Pilzfr.* 4: pl. 225; Watling (1982) *Br. Fung. Fl.* 3: 23 - 24.

D. N. Pegler & N. W. Legon

94. GYMNOPIUS DILEPIS (Berk. & C. R. Broome) Singer in *Lilloa* 22: 560 (1951).

Agaricus dilepis Berk. & C. E. Broome in *Journ. Linn. Soc., Bot.* 11: 542 (1871).

Flammula dilepis (Berk. & C. E. Broome) Sacc., *Syll. Fung.* 5:812 (1887).

Habitat: In domestic residence in pot with *Philodendron* originally purchased from local supermarket but recently repotted in non-peat compost. New to Britain. *Distribution:* Tropical S. E. Asia (Photo: Edinburgh, Midlothian 20 Oct 1997, White)

Pileus 8.5 - 9.5 mm diam., broadly convex or obtusely umbonate, reddish purple to magenta from minute, erect squamules at the disk, more adpressed outwards; margin incurved. *Lamellae* sinuate, pale yellowish becoming flushed with rust-colour, ventricose, subdistant, with lamellules of two lengths; margin irregular. *Stipe* 20 - 30 x 2 - 3 mm (base 4mm), cylindric to slightly clavate, hollow, cream-colour at apex, magenta below, intensifying downwards, fibrillose striate. *Veil* cortinoid, evanescent, attached at pileus margin and forming slight line at stipe-apex. *Context* white to cream-colour. *Basidiospores* 5.5 - 8.5 x 4.5 - 5.5 μ m, broadly ovoid or shortly ellipsoid, yellowish brown in water, slightly darker in aqueous alkali solutions, thick-walled, coarsely ornamented from verrucae. *Basidia* 20 - 25 x 5 - 10 μ m, clavate, hyaline, 4-spored. *Cheilocystidia* abundant, utriform with non-capitate, broad, rounded apex, thin-walled, hyaline although some covered in yellow-brown amorphous material. *Pileipellis* a disrupted cutis with fascicles of radially parallel, inflated, hyaline, thinwalled hyphae with bands of brown encrusting material. *Hymenophoral trama* regular. *Clamp-connexions* present.

Cortinariales - Cortinariaceae - subfam. Cortinarieae. *Gymnopilus* P. Karst.-Sect. *Gymnopilus*.



Other remarks: This is a very distinctive and beautiful fungus. It is common on old coconut stumps in Sri Lanka (Pegler, 1986) material of which agrees in all ways with the Edinburgh specimens although the latter are a little small. It is known from Langkawi, Malaysia and from West Africa (unpublished data).

References

Pegler, D. N. (1986) *Kew Bull. Add. Series.* 12: 433, Fig 97A-C.

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