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DERMOLOMA CYSTIDIATUM, A NEW SPECIES OF DERMOLOMA (AGARICALES) FROM INDIA

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Dermoloma cystidiatum, collected in grassland in Kerala, India, is proposed as a new species belonging in section *Atrobrunnea*. It is compared with other species of this section. The sterile lamella edge lined with cheilocystidia is unique in *Dermoloma* so far.

An undescribed species of *Dermoloma* has been collected on several occasions in large quantities in Kerala, India. It is similar in macroscopic appearance to most other species of this genus but differs from all species described so far in the grey discoloration of the lamellae on bruising and the sterile edge of the lamellae, lined with cheilocystidia. It is described in this paper as *Dermoloma cystidiatum*. Colour notations used (K&W) are those of Kornerup & Wanscher (1978).

Dermoloma cystidiatum Manimohan & Arnolds, *spec. nov.* — Fig. 1

Pileus 10–70 mm latus, conico-convexus vel convexus, obtuse umbonatus, dein applanatus vel depressus, obscure griseo-brunneus, dein pallide brunneus vel brunneo-griseus, siccus, glaber. Lamellae adnatae dente decurrente vel subdecurrente, albae, dein griseo-albae vel violaceo-griseae, griseascens, margine concolore. Stipes 20–60 × 3–15 mm, aequalis, solidus, albidus, griseo-brunneus pruinatus. Caro crassa, griseola, fragilis, odore nullo, sapore farinaceo. Sporae albae.

Basidia (15–)20–29 × 4–6.5 µm, clavata, 4-sporigera. Sporae 3.5–5.5(–6.0) × 3.0–4.0(–4.5) µm, late ellipsoideae vel ellipsoideae, leves, hyalinae, amyloideae. Cheilocystidia 17–36 × 2.5–5.5 µm, subcylindracea, clavata vel lageniformia, levia vel apice subramosae. Pleurocystidia nulla. Trama lamellarum subregularis, inamyloidea. Pileipellis hymenidermium pluristratum vel unistratum, cellulae subglobosae, clavatae vel pyriformes 8–45 × 6–18 µm, saepe tunicis brunneis. Stipitipellis cutis, hyphae 2–8 µm latae. Caulocystidia gregaria, clavata vel subcylindracea, 10–50 × 7–18 µm. Fibulae frequentes. Ad terram in pratis.

Holotypus: India, Kerala State, Calicut University Campus, 28.VI.1995, *P. Manimohan M627C* (WBS; isotypus in L).

Pileus 10–70 mm wide, conico-convex to convex, often somewhat obtusely umbonate, with inflexed margin, then applanate, finally slightly depressed in some sporocarps, initially dark greyish brown (K&W 8F2, 8F3, 7F4, 7F3), fading to brown, pale brown, or pale brownish grey (7E4, 6D4, 5D4, 8D2) dry, smooth, not striate, when dry with dull, pruinose appearance. Lamellae adnate with decurrent tooth to subdecurrent, crowded, up to 5 mm wide, often interveined, white, soon greyish white (5B2), gradually becoming violet-grey from edge upwards, turning greyish when bruised, with entire, concolorous edge. Stipe

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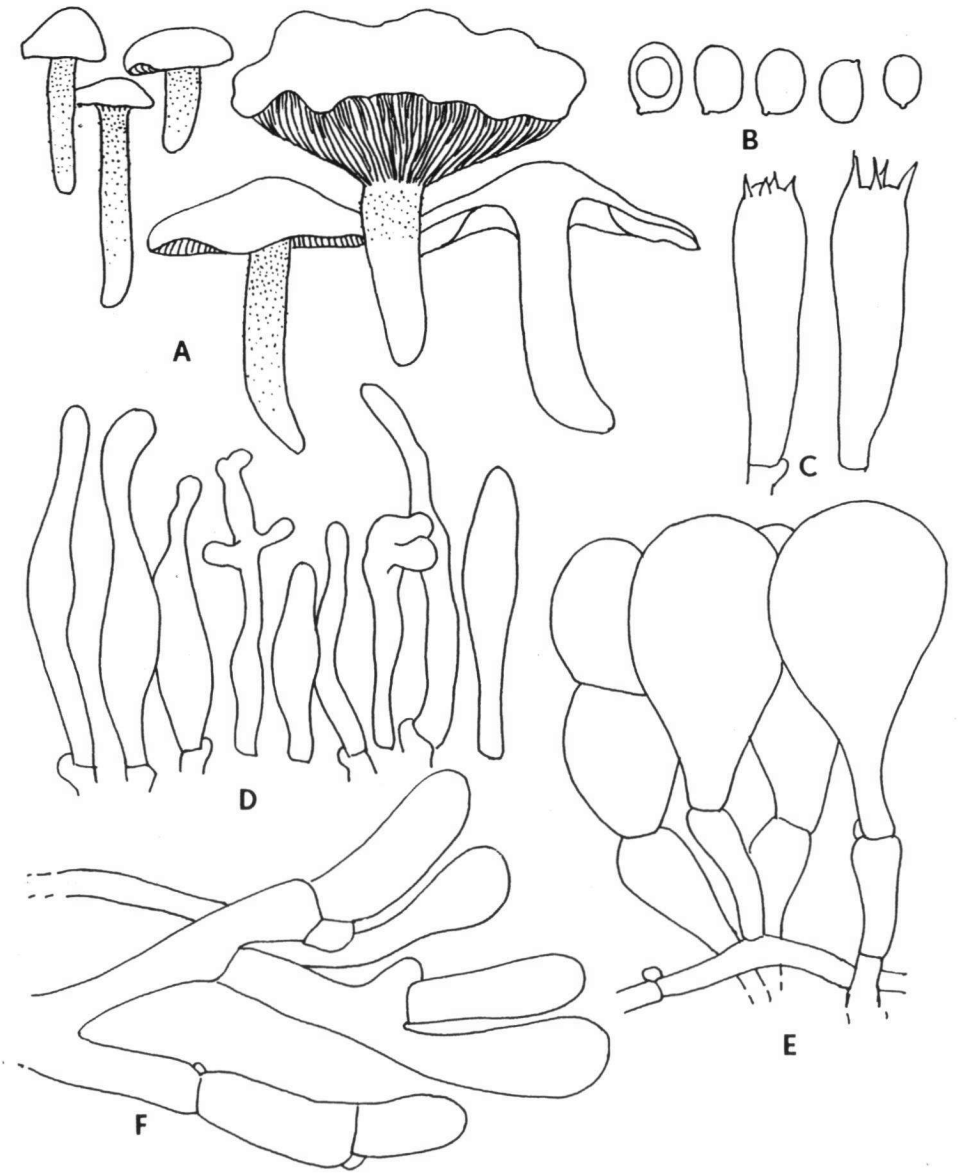

Fig. 1. *Dermoloma cystidiatum*. A. basidiocarps (× 0.7); B. spores; C. basidia; D. cheilocystidia; E. pileipellis; F. caulocystidia (Figs. B–F, × 1400).

20–60 × 3–15 mm, equal or slightly tapering to the base, terete or slightly compressed solid, whitish, greyish brown pruinose to subsquamulose, more densely pruinose towards the apex, without distinct basal mycelium. Context thick, greyish, brittle. Odour not distinctive, taste farinaceous. Spore print white.

Spores 3.5–5.5(–6.0) × 3.0–4.0(–4.5) µm, Q = (1.15–)1.2–1.5(–1.55), broadly ellipsoid to ellipsoid, thin-walled, smooth, hyaline, in Melzer violet (amyloid). Basidia (15–)20–29 × 4–6.5 µm, slenderly clavate, 4-spored, sterigmata up to 4 µm long. Lamella edge sterile, made up of densely packed cheilocystidia, 17–36 × 2.5–5.5 µm, versiform: subcylindrical, clavate or slenderly lageniform, often forked or with some large, rounded excrescences. Pleurocystidia absent. Hymenophoral trama subregular; hyphae 1.5–15 µm wide, thin-walled, hyaline, inamyloid. Pileipellis a unistratous to pluristratous hymeniderm, made up of erect, branched hyphae with swollen, pyriform, sphaero-pedunculate to subglobose terminal cells, 8–45 × 6–18 µm with slightly thickened, smooth, brownish walls; subterminal cells mostly slightly inflated, with slightly thickened, brownish wall. Hypodermial hyphae often with faint, hyaline, spiral incrustrations. Pileitrama interwoven, hyphae 1.5–15 µm wide, hyaline. Stipitipellis a cutis, made up of repent hyphae, 2–8 µm wide, with hyaline or pale brown incrusted walls, producing dense clusters of caulocystidia or recurved hyphal tips with swollen apices. Caulocystidia 10–50 × 7–18 µm, mostly clavate, also cylindrical, fusiform, subglobose or constricted, often with a slightly thickened, brown wall. Clamp-connections present in all tissues.

Terrestrial, solitary or in small groups, in overgrazed, poor grassland with scattered rubber trees (*Hevea brasiliensis* (H. B. & K.) Muell.-Arg.).

Collections examined. INDIA: Kerala State, Calicut University Campus, 19 June 1995, *P. Manimohan M627a* (WBS); 20 June 1995, *P. Manimohan M627b* (WBS); 28 June 1995, *P. Manimohan M627c* (holotype WBS); 3 July 1995, *P. Manimohan M627d* (WBS); 1 July 1997, *P. Manimohan M627e* (Herb. Manimohan); 8 July 1997, *K.M. Leelavathy M627f* (Herb. Manimohan); 10 July 1997, *P. Manimohan M699* (Herb. Manimohan).

This fungus is a typical representative of the genus *Dermoloma*, characterized, among other things, by a hymeniderm with parietal, brownish pigment and small, hyaline spores. It differs from all species described so far in the consistently sterile edge of the lamellae, lined by cheilocystidia. Furthermore, the grey staining of bruised lamellae has not been reported for any other species. In view of the amyloid spores, *D. cystidiatum* belongs in section *Atrobrunnea* (Singer, 1975). It is rather similar to *D. scotodes* (B. & Br.) Pegler, described from Sri Lanka, but that species further differs in having an almost white pileus margin, slightly larger and more elongated spores (5.2–6.5 × 3.2–3.7 µm) and a white (instead of grey-brown) flocculose stipe (Pegler, 1986). Spore size and pileus colour are more similar to *D. atrobrunneum* (Dennis) Sing. from Central America, but that species differs also in having a grey-brown stipe with dark brown fibrils (Pegler, 1983). *Dermoloma cystidiatum* is also related to the European species *D. josserandii* Dennis & P. D. Orton, in particular to var. *phaeopodium* (P. D. Orton) Arnolds with a dark brown pileus. Differences are, next to the presence of cheilocystidia and the staining of the lamellae on bruising, the presence of grey-brown (instead of white) dots on the stipe and slightly smaller spores in *D. cystidiatum* (Arnolds, 1993). A grey-brown dotted stipe has been described so far only from *D. cuneifolium* (Fr.: Fr.) M. Bon var. *punctipes* Arnolds, a taxon with inamyloid spores (Arnolds, 1992).

Dermoloma cystidiatum has been collected repeatedly in great quantities on the type locality. The habit and size of sporocarps showed a remarkable variability, even within this single population. A similar variation was reported by Arnolds (1992) for *D. cuneifolium* in western Europe.

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