

Marasmius multicystidiatus sp. nov.



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Cap: small to medium, 8–15 mm diam., broadly parabolic to applanate, with low central umbo and upturned margins; central disc apricot (47) to sienna (11) grading to paler margin; smooth, dry.

Stipe: 25–35 × 1.5 mm; cinnamon (10) base becoming paler in upper trunk with cream apex; cartilaginous, pruinose, off-white basal mycelial tuft.

Lamellae: moderately close, 16–18, free to adnexed, cream, no coloured edge; 4–5 tiers of lamellulae, occasional low cross-venation.

Flesh: thin, white.

Spores: smooth, ellipsoid, inamyloid, 8–9 × 3.5–4 µm, average 8.5 × 4 µm, $Q_{av} = 2.12$.

Basidia: not seen.

Pleurocystidia: uncommon; smooth, thin-walled, capitate, 24–28 × 5.5–6.5 µm.

Cheilocystidia: *Siccus*-type cells, narrow, cylindric to clavate, main body 7.5–20 × 5–10 µm, apical setules thin- to thick-walled, sparse to crowded, 4–11 × 1–2 µm.

Pileipellis: hymeniderm of *Siccus*-type cells, cylindric to clavate, main body 10–19 × 5.5–9 µm, setules crowded, 1–6 × 0.5–1 µm.

Caulocystidia: three types: a) smooth, branching obtuse-ended cells, 8–31(–50) µm long; b) uncommon *Amyloflagellula*-type cells (see image above) with small thin bodies and long, narrow, tapering setules, more common in lower third of stipe; and c) rare *Siccus*-type cells with sparse, thick-walled, long setules to 10 × 2 µm.

Substrate: well-rotted wood.

Habitat: gregarious in subtropical riparian rainforest.

Collections examined: SEQ, Maleny, Dilkusha, 2 Jan 2015, *F.E. Guard*, F2015002 (BRI AQ1019024).

Notes: While this species resembles *M. elegans* macroscopically, it is very different microscopically with its pleurocystidia and multiple forms of caulocystidia, including *Amyloflagellula*-type cells. Its sister on DNA analysis is *M. sullivantii* from USA. While in subsect. *Leonini*, it is on a different branch from ser. *Luteoli*. A new series is proposed, ser. *Multicystidiati*, based on this species and *M. sullivantii*. More collections are needed.