

## *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.