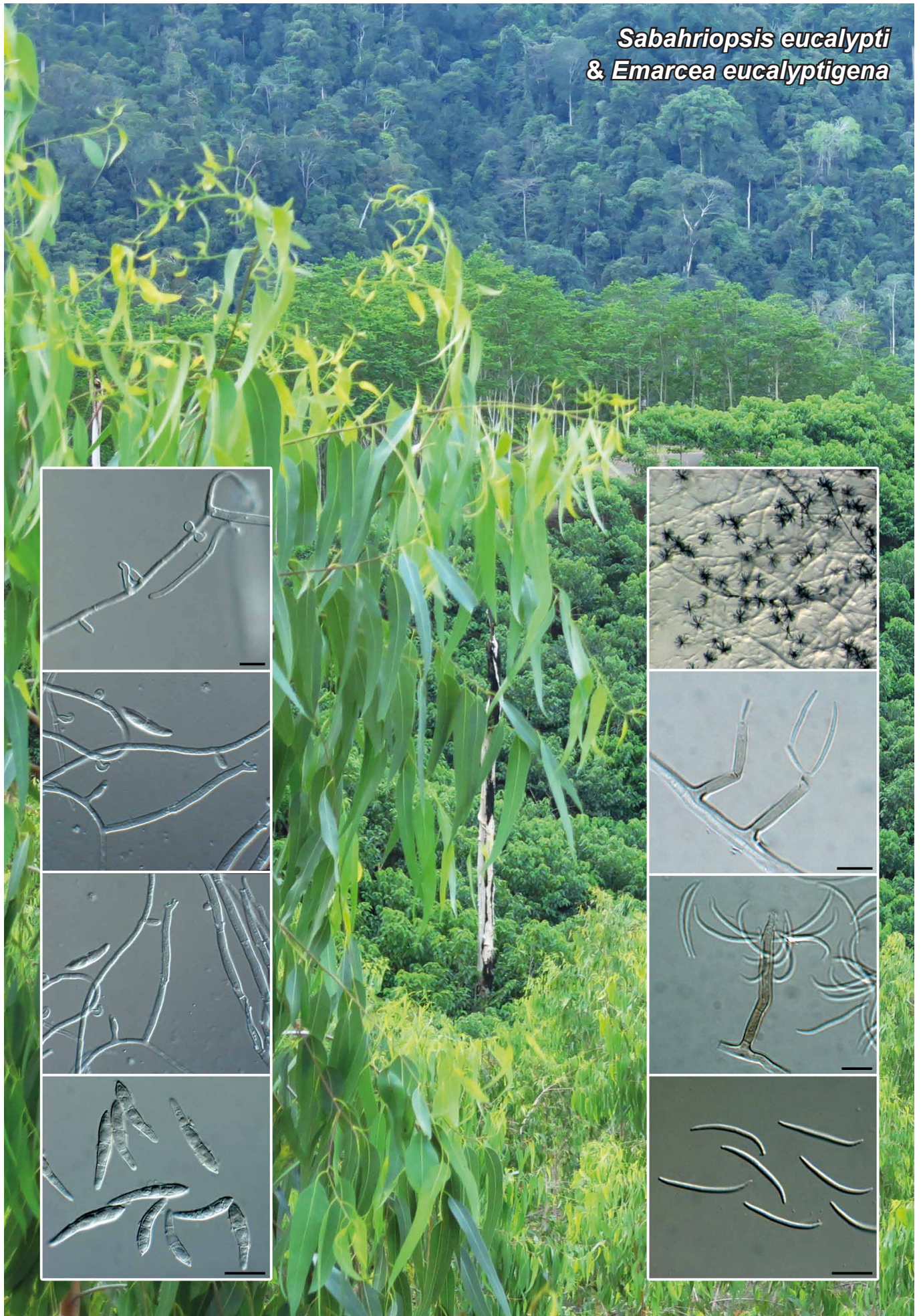


Sabahriopsis eucalypti
& *Emarcea eucalyptigena*



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***Sabahriopsis* Crous & M.J. Wingf., gen. nov.**

Etymology. Name reflects Sabah, Malaysia, where the fungus was collected.

Classification — *Incertae sedis*, *Helotiales*, *Leotiomyces*.

Mycelium consisting of hyaline, smooth, branched, septate hyphae that contain hyphopodia-like structures. *Conidiophores* solitary, erect, subcylindrical, hyaline to pale olivaceous, straight to flexuous, septate. *Conidiogenous cells* integrated, subcylindrical, terminal and intercalary, hyaline to pale olivaceous,

containing several erumpent, refractive denticles, apical and basal on conidiogenous cells; rim somewhat darkened. *Conidia* solitary, pale brown, granular to guttulate, obovoid, straight to somewhat curved, apex subobtusate, base obconically truncate, septate, median cell encased in flared mucoid appendage; hilum with cylindrical marginal frill.

Type species. *Sabahriopsis eucalypti*.
MycoBank MB812447.

***Sabahriopsis eucalypti* Crous & M.J. Wingf., sp. nov.**

Etymology. Name reflects the host genus *Eucalyptus*, from which the species was isolated.

On OA. *Mycelium* consisting of hyaline, smooth, branched, septate, 2–2.5 µm diam hyphae that contain hyphopodia-like structures. *Conidiophores* solitary, erect, subcylindrical, hyaline to pale olivaceous, straight to flexuous, 1–4-septate, 50–130 × 2–3 µm. *Conidiogenous cells* integrated, subcylindrical, terminal and intercalary, hyaline to pale olivaceous, 25–30 × 2–3 µm, containing several erumpent, refractive denticles, apical and basal on conidiogenous cell, 1 µm diam, 1 µm tall, rim somewhat darkened. *Conidia* solitary, pale brown, granular to guttulate, obovoid, straight to somewhat curved, apex subobtusate, base obconically truncate, (1–)2-septate, median cell encased in flared mucoid appendage up to 3 µm diam, apical cell appearing smooth, but median and basal cell finely verruculose, hilum with cylindrical marginal frill, 1 µm diam, 0.5–1 µm long, widest in middle of basal cell, (12–)22–26(–32) × (3.5–)4–5(–6) µm.

Culture characteristics — Colonies spreading, with sparse aerial mycelium, and feathery margins, reaching 8 mm diam after 1 mo at 25 °C. On MEA surface dirty white, reverse honey. On PDA surface and reverse dirty white. On OA surface honey.

Typus. MALAYSIA, Sabah, on leaf spots of *Eucalyptus brassiana* (*Myrtaceae*), May 2014, *M.J. Wingfield* (holotype CBS H-22235, culture ex-type CPC 24957 = CBS 139906; ITS sequence GenBank KR476734, LSU sequence GenBank KR476767, MycoBank MB812448); CPC 24958.

Notes — *Sabahriopsis* is reminiscent of *Chaetendophragmiopsis* occurring on *Eucalyptus citriodora* in Brazil (Sutton & Hodges 1978), but differs from that genus in not having pigmented conidiophores arising from a stroma, and conidia lacking apical appendages. *Chaetendophragmiopsis* (based on *C. pulchra*) was regarded as synonym of *Endophragmiella* by Kirk (1982), and subsequently excluded from the Genera of Hyphomycetes (Seifert et al. 2011). The type species of the latter two genera are morphologically distinct, and it is very likely that once recollected, the genus *Chaetendophragmiopsis* will need to be reinstated.

Morphologically *Sabahriopsis* is also reminiscent of some genera in the *Pyricularia* complex (Klaubauf et al. 2014), but they are phylogenetically distinct. Similarly, the genus is also comparable to some genera in the *Ramichloridium* complex (Arzanlou et al. 2007), given the mucoid appendages, but it is phylogenetically distinct. *Sabahriopsis* is also reminiscent of *Trichoconis*, but the latter genus has conidia with apical appendages, and terminal conidiogenous cells (Seifert et al. 2011).

***Emarcea eucalyptigena* Crous & M.J. Wingf., sp. nov.**

Etymology. Name reflects the host genus *Eucalyptus*, from which this species was isolated.

Classification — *Xylariaceae*, *Xylariales*, *Sordariomycetes*.

Mycelium consisting of smooth, hyaline, septate, branched, 1.5–2 µm diam hyphae. *Conidiophores* solitary, erect, 1–3-septate, subcylindrical, straight to flexuous, unbranched, smooth to finely roughened, brown at base, pale brown at apex, 20–45 × 2–3 µm. *Conidiogenous cells* integrated, terminal, pale brown, finely verruculose, 10–35 × 2–2.5 µm, forming a rachis with numerous small, pimple-like denticles, 0.5 µm diam. *Conidia* hyaline, smooth, falcate, granular, apex subobtusate, base truncate, 0.5 µm diam, (16–)18–20(–23) × 1.5(–2) µm.

Colour illustrations. *Eucalyptus* trees in Malaysia; *Sabahriopsis eucalypti* (left column): conidiophores and conidia; *Emarcea eucalyptigena* (right column): colony on SNA, conidiophores and conidia. Scale bars = 10 µm.

Culture characteristics — Colonies spreading with moderate aerial mycelium and smooth, even margins, reaching 70 mm diam after 1 mo at 25 °C. On MEA surface dirty white, reverse buff. On PDA surface and reverse dirty white. On OA surface dirty white.

Typus. MALAYSIA, Sarawak, on leaf spots of *Eucalyptus brassiana* (*Myrtaceae*), May 2014, *M.J. Wingfield* (holotype CBS H-22237, culture ex-type CPC 24914 = CBS 139908; ITS sequence GenBank KR476733, MycoBank MB812449); CPC 24915.

Notes — *Emarcea eucalyptigena* is known only by its asexual morph. Phylogenetically it is closely related to the genus *Emarcea*, which is based on the sexual morph *E. castanopsideicola* (Duong et al. 2004). However, as the latter description lacks any reference to an asexual morph, this relationship is based purely on DNA-based phylogenetic relatedness. Morphologically, conidia of *E. eucalyptigena* resemble those of *Anthostomella eucalyptorum* (Crous et al. 2006), although these taxa are not that closely related (for phylogenetic tree, see MycoBank).

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