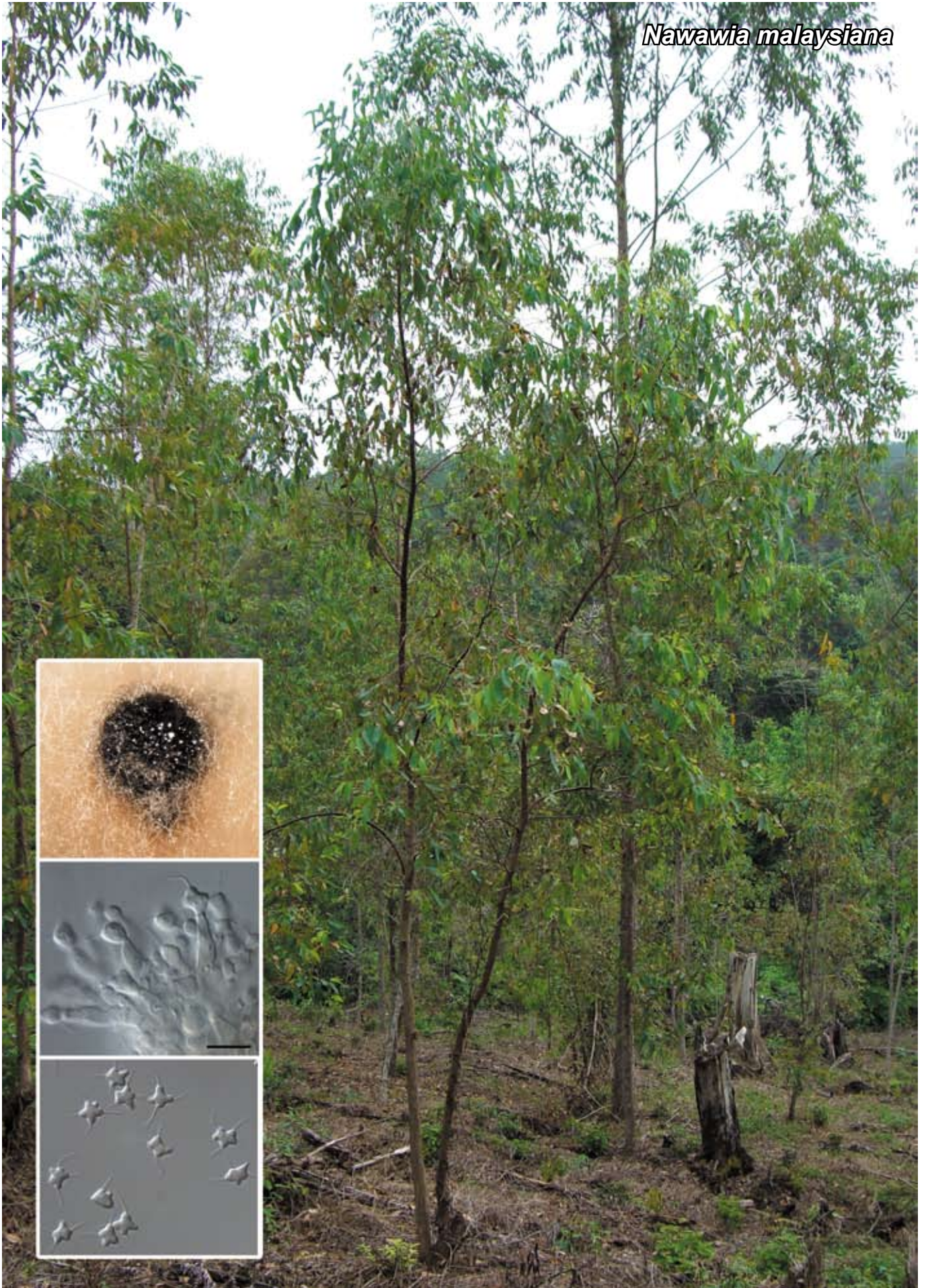


Nawawia malaysiana



Fungal Planet 41 – 23 December 2009

Nawawia malaysiana Crous & S.S. Lee, *sp. nov.*

Sporodochia ex conidiophoris dense aggregatis, subcylindraceis, 1–5-septatis composita. Cellulae conidiogenae in conidiophoris integratae, terminales vel laterales, monophialicae, 5–10 × 2.5–3.5 µm. Conidia solitaria, (4–)5(–6) µm diam. sine protuberationibus, hyalina, laevia, aseptata, quinquelobata, (4–)5(–6) protuberationibus, 1–2 µm longis, cum appendicibus gracilibus, trichoidibus, 3–9 µm longis.

Etymology. Named after the country from which it was collected, Malaysia.

Colonies sporulating on tap water agar supplemented with sterile nettle stems, on oatmeal agar (OA) and 2 % malt extract agar (MEA; Oxoid). *Conidiomata* sporodochial on all media, but at times also immersed in agar on OA, appearing semi-cupulate; sporodochia after 1 mo on nettle stems brown, up to 100 µm diam. *Mycelium* consisting of pale brown, smooth to somewhat roughened, septate, branched, 3–4 µm wide hyphae. *Conidiophores* pale brown, smooth, subcylindrical, densely aggregated, frequently branched, rarely loose or solitary on mycelium, 1–5-septate, 10–40 × 3–4 µm; conidiophores can also be reduced to clavate cells giving rise to 7–8 conidiogenous cells arranged like sun rays around the apex of the conidiophore cell. *Conidiogenous cells* terminal and lateral on conidiophores, monophialidic, pale brown, smooth, subcylindrical to somewhat ampulliform, 5–10 × 2.5–3.5 µm; tapering towards apex, 1–1.5 µm diam, with inconspicuous collarete (at times somewhat flaring, but mostly cylindrical), and periclinal thickening visible. *Conidia* in olivaceous, slimy masses, solitary, hyaline, smooth, round, 5-lobed, aseptate, with (4–)5(–6) projections, 1–2 µm long, that are bluntly rounded, and from the centre give rise to a thin, hair-like appendage, 3–9 µm long; conidium body (4–)5(–6) µm in height and diam; when viewed from the side conidia are fusoid to ellipsoid, 3–3.5 µm diam; the fifth conidium projection is basal, 1–2 µm long, and has a truncate base which was attached to the conidiogenous cell, 1 µm diam.

Colour illustrations. *Eucalyptus urophylla* trees growing in Malaysia; fungal colony growing on OA; conidiophores with terminal conidiogenous cells, giving rise to conidia; conidia with appendages. Scale bar = 10 µm.

Culture characteristics — Colonies on MEA at 25 °C in the dark after 2 wk: 12 mm diam, flat, spreading, with sparse aerial mycelium and feathery margins; surface smoke-grey; reverse fawn to hazel. On OA similar, with sparse aerial mycelium, reaching 15 mm diam; surface hazel.

Typus. Malaysia, Sarawak, on leaves of *Eucalyptus urophylla*, 20 April 2009, S.S. Lee, CBS H-20345, holotype, cultures ex-type CPC 16757 = CBS 125544, CPC 16758; GenBank (ITS: GU229886; LSU: GU229887), MycoBank MB514707.

Notes — Four species of *Nawawia* have thus far been described, though none are known from culture. Members of the genus are recorded as being aero-aquatic¹. *Nawawia malaysiana* was isolated from the apex of a conidiomatal spore mass of a *Satchmopsis* species sporulating on a *Eucalyptus* leaf in a moist chamber. The latter provides additional support for its potential ecological role as an aero-aquatic fungus. Other species known to date form pigmented, solitary to synnematal conidiophores², and *N. malaysiana* is the first species observed to form sporodochia. However, as no other molecular data are available, this taxon is presently best accommodated in this genus.

BLASTn results of the LSU sequence were 91 % identical over approx. 910 bp with species of *Chaetosphaeria* (*Chaetosphaeriales*, *Sordariomycetes*), for example *Chaetosphaeria fuegiana* (GenBank EF063574), *Chaetosphaeria lateriphiala* (GenBank AF466071) and *Chaetosphaeria callimorpha* (GenBank AF466062).

References. ¹Descals E. 2005. Diagnostic characters of propagules in Ingoldian fungi. *Mycological Research* 109: 545–555. ²Hyde KD, Goh T-K, Steinke T. 1996. *Nawawia dendroidea*, a new synnematosus hyphomycete from submerged Phragmites in South Africa. *Mycological Research* 100: 810–814.

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