Peyronellaea eucalypti Crous & M.J. Wingf., sp. nov.

Etymology. Name refers to Eucalyptus, the host genus from which this fungus was collected.

Classification — Didymellaceae, Pleosporales, Dothideomycetes.

Ascomata pseudothecial, solitary, erect, pyriform, 120–200 μm diam; apex dark brown, basal two thirds pale brown, with central papillate ostiole; wall of 3–6 layers of brown textura angularis. Pseudoparaphyses absent. Asci bitunicate, stipitate, narrowly ellipsoid to subcylindrical with inconspicuous apical chamber, 45–70 × 8–12 μm. Ascospores bi- to triseriate, hyaline, smooth, constricted at median septum, prominently guttulate with mucoid sheath, widest just above septum, ends subobtusely rounded, (13–)14–15(–17) × (4–)5–6 μm.

Culture characteristics — Colonies flat, spreading, with moderate aerial mycelium and smooth, lobate margins, reaching 60 mm diam after 2 wk at 25 °C. On MEA surface dirty white, reverse chestnut. On PDA surface and reverse isabelline. On OA surface olivaceous grey.

Notes — The genus Peyronellaea is characterised by species having setose pycnidia and dictyochlamydospores. Aveskamp et al. (2009, 2010) showed that these structures have evolved several times within the Phoma complex. Peyronellaea eucalypti is phylogenetically related to Peyronellaea glomerata (GenBank KM79831; Identities = 523/535 (98 %), 3 gaps (0 %)). It cannot be compared based on morphology because P. eucalypti only occurs as a sexual morph. This is interesting, because it links a didymella-like sexual morph to the genus. The protein-coding sequences did not reveal any highly similar sequences in the NCBI's GenBank nucleotide database.

Colour illustrations. Eucalyptus pellita trees growing in Malaysia; ascomata sporulating on PNA (scale bar = 200 μm); asci and ascospores (scale bars = 10 μm).