Myrtapenidiella eucalyptorum & Castanediella eucalypti
**Fungal Planet description sheets**

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**Myrtapenidiella eucalyptorum** Crous & M.J. Wingf., *sp. nov.*

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

*Classification.* *Teratosphaeriaceae, Capnodiales, Dothideomycetes.*

*Mycelium* consisting of branched, septate, pale brown, smooth, 2–3 µm diam hyphae. *Conidiophores* solitary, erect, rarely branched below, straight to geniculatus-sinuous, 40–70 × 3–5 µm, 2–6-septate, brown, roughened, thick-walled. *Conidiogenous cells* terminal and intercalary, subcylindrical, thick-walled, straight, brown, roughened, 15–30 × 3–5 µm, with 1–2 flat-tipped apical loci, 2–3 µm diam, thickened and darkened. *Ramoconidia* brown, thick-walled, roughened, subcylindrical to ellipsoid-fusoid, 0–1-septate, 16–20 × 3–4(–5) µm, with 1–2 hila, thickened, darkened, 2–3 µm. *Conidia* occurring in branched chains (~10), acroperal, brown, thick-walled, roughened, medianly 1-septate, (10–)12–14(–16) × (3–)3.5–4 µm; hila thickened, darkened, 1.5–2 µm diam.

*Culture characteristics.* Colonies erumpent with sparse aerial mycelium and even, lobed margins, reaching 25 mm diam after 1 mo at 25 °C. On MEA, PDA and OA surface and reverse iron grey.

**Castanediella eucalypti** Crous, Hern.-Restr. & M.J. Wingf., *sp. nov.*

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

*Classification.* *Incertae sedis, Xylariales, Sordariomycetes.*

*Mycelium* consisting of hyaline to pale brown, branched, septate, medium brown, smooth, 10–30 × 3–4 µm. *Conidiogenous cells* terminal to intercalary, subcylindrical to amputiform, pale brown, smooth, terminating in a swollen apex 2–3 µm diam with several scars, polyblastic, 8–25 × 2.5–4 µm. *Conidia* solitary, hyaline, smooth, falcate, slightly curved, widest in middle with subobtuse ends, (15–)18–21(–23) × 2–3 µm.

*Culture characteristics.* Colonies spreading, reaching up to 60 mm diam after 1 mo at 25 °C, with sparse aerial mycelium, and smooth, lobed margins. On OA surface honey with patches of isabelline. On MEA surface isabelline with patches of dirty white, reverse umber. On PDA surface and reverse fuscous black.

Colour illustrations. Symptomatic leaf of *Eucalyptus pellita; Myrtapenidiella eucalyptorum* (left column): colony, conidiophores and conidia; *Castanediella eucalypti* (right column): colony on SNA, conidiophores and conidia. Scale bars = 10 µm.


Notes — The genus *Myrtapenidiella* (*Teratosphaeriaceae*) was introduced by Quaedvlieg et al. (2014) to accommodate penidiella-like genera occurring on *Myrtaceae*. Two species are presently known, namely *M. corymbia* (ramoconidia 0–2-septate, (7–)10–12(–14) × 2.5–3 µm, intercalary conidia 0–1-septate, 7–9(–12.5) × 2.5–3(–3.5) µm, terminal conidia 4.5–6.5 × 2–3 µm; Cheewangkoon et al. 2009) and *M. eucalypti* (ramoconidia (0–)1(–3)-septate, (25–)35–40(–48) × (3.5–)4–5(–6.5) µm, intercalary conidia 0–1(–2)-septate, (10–)12–15(–18) × (3.5–)4–5(–5.5) µm, terminal conidia 0–1-septate, (9–)12–15(–19) × (4–)5–6(–7) µm; Cheewangkoon et al. 2008). *Myrtapenidiella eucalyptorum* is distinct from both species by having ramoconidia intermediary in length between that of *M. corymbia* and *M. eucalypti*.

**Castanediella eucalypti** Crous, Hern.-Restr. & M.J. Wingf., *sp. nov.*

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

*Classification.* *Incertae sedis, Xylariales, Sordariomycetes.*

*Mycelium* consisting of hyaline to pale brown, branched, septate, 2–5 µm diam hyphae, frequently constricted at septa. *Conidiophores* erect, solitary, branched below or not, 1–2-septate, subcylindrical, medium brown, smooth, 10–30 × 3–4 µm. *Conidiogenous cells* terminal to intercalary, subcylindrical to amputiform, pale brown, smooth, terminating in a swollen apex 2–3 µm diam with several scars, polyblastic, 8–25 × 2.5–4 µm. *Conidia* solitary, hyaline, smooth, falcate, slightly curved, widest in middle with subobtuse ends, (15–)18–21(–23) × 2–3 µm.

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Colour illustrations. Symptomatic leaf of *Eucalyptus pellita; Myrtapenidiella eucalyptorum* (left column): colony, conidiophores and conidia; *Castanediella eucalypti* (right column): colony on SNA, conidiophores and conidia. Scale bars = 10 µm.


Notes — The genus *Castanediella* is morphologically different from *C. acaciae* in that it lacks sporodochia. Furthermore, its conidiophores are not densely branched, and it also has larger conidia than those of *C. acaciae* (8–12 × 1.5–2 µm). These species are also phylogenetically distinct.

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