Mycosphaerella elaecarpi Crous & Summerell, sp. nov.

**Mycobank**: MB504456.

**Etymology**: Named after its host genus, *Elaeocarpus*.

**Latin diagnosis**: Mycosphaerellae gregariae similis, sed ascosporis majoribus, (12–)14–16(–18) × 3–4(–4.5) µm.

**Description**: Leaf spots amphigenous, irregular to sub-circular, 1–6 mm diam, grey to pale brown, with a thin, raised, dark brown border. *Ascomata* pseudocapituliform, predominantly epiphyllous, dark brown, subepidermal to somewhat erumpent, globose, up to 70 µm wide; apical ostiole 10 µm wide; wall consisting of 2–3 layers of medium brown *textura angularis*. *Asci* aparaphysate, fuscate, bitunicate, subsessile, obovoid to broadly ellipsoidal, straight to slightly curved, 8-spored, 30–40 × 8–9 µm. *Ascospores* tri- to multi-seriate, overlapping, hyaline, guttulate, thin-walled, straight to slightly curved, fusoid-ellipsoidal with obtuse ends, widest in middle of apical cell, mostly medianly 1-septate and unconstricted at the septum, but larger ascospores tend to be unequally 1-septate, and slightly constricted at the septum, tapering towards both ends, but more prominently towards the lower end, (12–)14–16(–18) × 3–4(–4.5) µm. Ascospores germinate from polar ends, with germ tubes parallel to the long axis of the spore; spore not distorting, but becoming constricted at the septum, up to 4 µm wide, at times developing 1–2 additional lateral branches on the original germ tubes, or spore body (germination Type I)³.

**Cultural characteristics**: Colonies reaching 17 mm diam after 2 months on 2 % malt extract agar; colonies erumpent, sectored, with sparse aerial mycelium, and uneven, feathery margins; surface buff to honey with exudate droplets of cinnamon colour; reverse dark-brick.

**Typus**: Australia, Queensland, Cairns, Baron Falls train station, close to Kuranda, S16°50’123”, E145°38’38.4”, on leaves of *Elaeocarpus sp.* (*Elaeocarpaceae*), 19 August 2006, collected by P.W. Crous, CBS H-19919, *holotypus*, cultures ex-type CPC 13309 = CBS 121713, CPC 13310–13311, GenBank EU040212.

**Notes**: Presently no species of *Mycosphaerella* are known from *Elaeocarpus*⁵, and because *Mycosphaerella* species are generally regarded as host-specific, the current collection is regarded as new. *Mycosphaerella elaecarpi* was observed to be associated with prominent leaf spotting on a species of *Elaeocarpus*, though inoculation tests need to be conducted to prove its pathogenicity. No anamorph was observed on the leaves, nor were we able to induce any asexual state in culture.

BLASTn results of the ITS sequence of *M. elaecarpi* strain CPC 13309 had high identity to sequences of *M. elongata* Crous & M.J. Wingf. (EF394833, 93 % identical), *M. heimii* Bouriquet ex Crous (EF394840, 89 % identical) and *M. acaciigena* Crous & M.J. Wingf. (EF394823, 89 % identical), all three occurring on *Eucalyptus*.

**Colour illustrations**: Train ride towards Baron Falls station, Kuranda, Queensland; leaf spot on *Elaeocarpus* sp.; germinating ascospores on 2 % malt extract agar; ascii; ascospores (P.W. Crous). Scale bars = 10 µm.


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