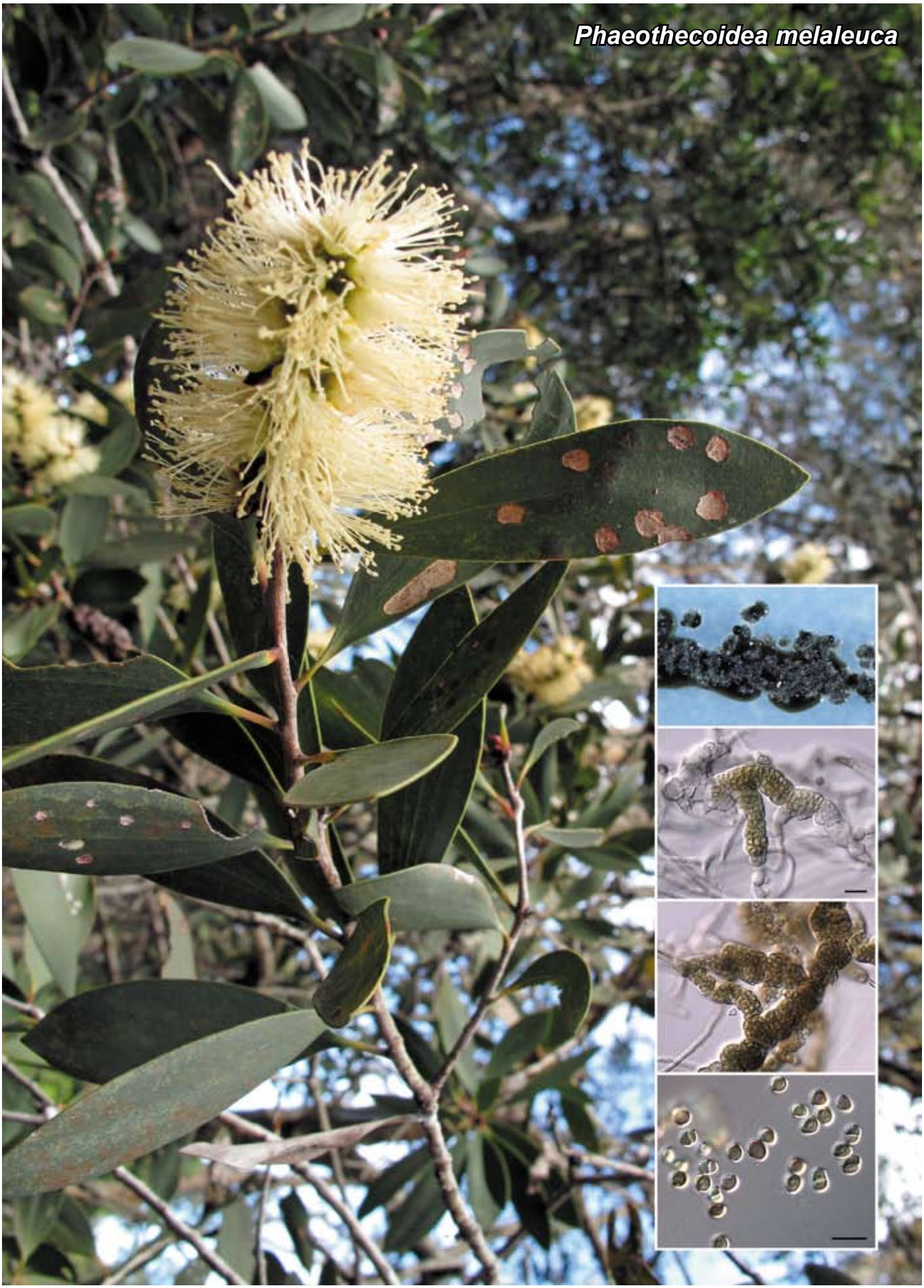
Phaeothecoidea melaleuca

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Phaeothecoidea melaleuca Crous & R.G. Shivas, *sp. nov.*

Phaeothecoideae proteae similis, sed conidiis minoribus, (5–)6–7(–8) × (4–)5–6 µm, distinguitur.

Etymology. Named after the host genus from which it was collected, *Melaleuca*.

Mycelium consisting of branched, septate, pale to medium brown, 3–5 µm diam hyphae, frequently constricted at septa and encased in a mucoid sheath which results in black, shiny exudate on the surface of agar media; hyphal ends becoming swollen, ellipsoid, 20–35 µm wide, 25–70 µm long, filled with endoconidia. *Endoconidia* brown, thick-walled, smooth to finely verruculose, ellipsoid to globose, 0–1-septate, (5–)6–7(–8) × (4–)5–6 µm.

Culture characteristics — (in the dark, 25 °C, after 2 wk): Colonies spreading, flat, folded, with sparse aerial mycelium, and smooth, lobate margins, exuding copious amounts of black slime; reaching 15 mm diam. On oatmeal agar, potato-dextrose agar and malt extract agar, olivaceous-black.

Typus. Australia, Queensland, Brisbane, Slaughter Falls, 27°28'35"S 152°57'48.9"E, on leaves of *Melaleuca quinquenervia*, 16 July 2009, *P.W. Crous & R.G. Shivas*, CBS-H 20494 holotype, cultures ex-type CPC 17223, 17224 = CBS 128213, ITS sequence of CPC 17223 GenBank HQ599594 and LSU sequence of CPC 17223 GenBank HQ599595, MycoBank MB517541.

Notes — A megablast search in GenBank using the LSU sequence retrieved as closest sister species *Readeriella brunneotingens* (GenBank EU019286; Identities = 887/907 (98 %), Gaps = 7/907 (0 %)), *Teratosphaeria dimorpha* (GenBank FJ493215; Identities = 886/907 (98 %), Gaps = 7/907 (0 %)) and *Penidiella columbiana* (GenBank EU019274; Identities = 885/906 (98 %), Gaps = 5/906 (0 %)). A megablast with the ITS sequence revealed as closest sister species *Phaeothecoidea proteae* (GenBank EU707898; Identities = 604/646 (94 %), Gaps = 20/646 (3 %)) and *Batcheloromyces leucadendri* (GenBank EU707890; Identities = 593/642 (93 %), Gaps = 20/642 (3 %)). Morphologically *P. melaleuca* and *P. proteae* are distinct, in that endoconidia of *P. proteae* are verruculose and larger in size, (6–)8–10(–13) × (4–)5–6(–11) µm than those of *P. melaleuca*[1].

Colour illustrations. *Melaleuca quinquenervia*; colony on potato-dextrose agar; hyphae with endoconidia; endoconidia. Scale bars = 10 µm.

Reference. [1]Crous PW, Summerell BA, Mostert L, Groenewald JZ. 2008. Host specificity and speciation of Mycosphaerella and Teratosphaeria species associated with leaf spots of Proteaceae. Persoonia 20: 59–86.

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