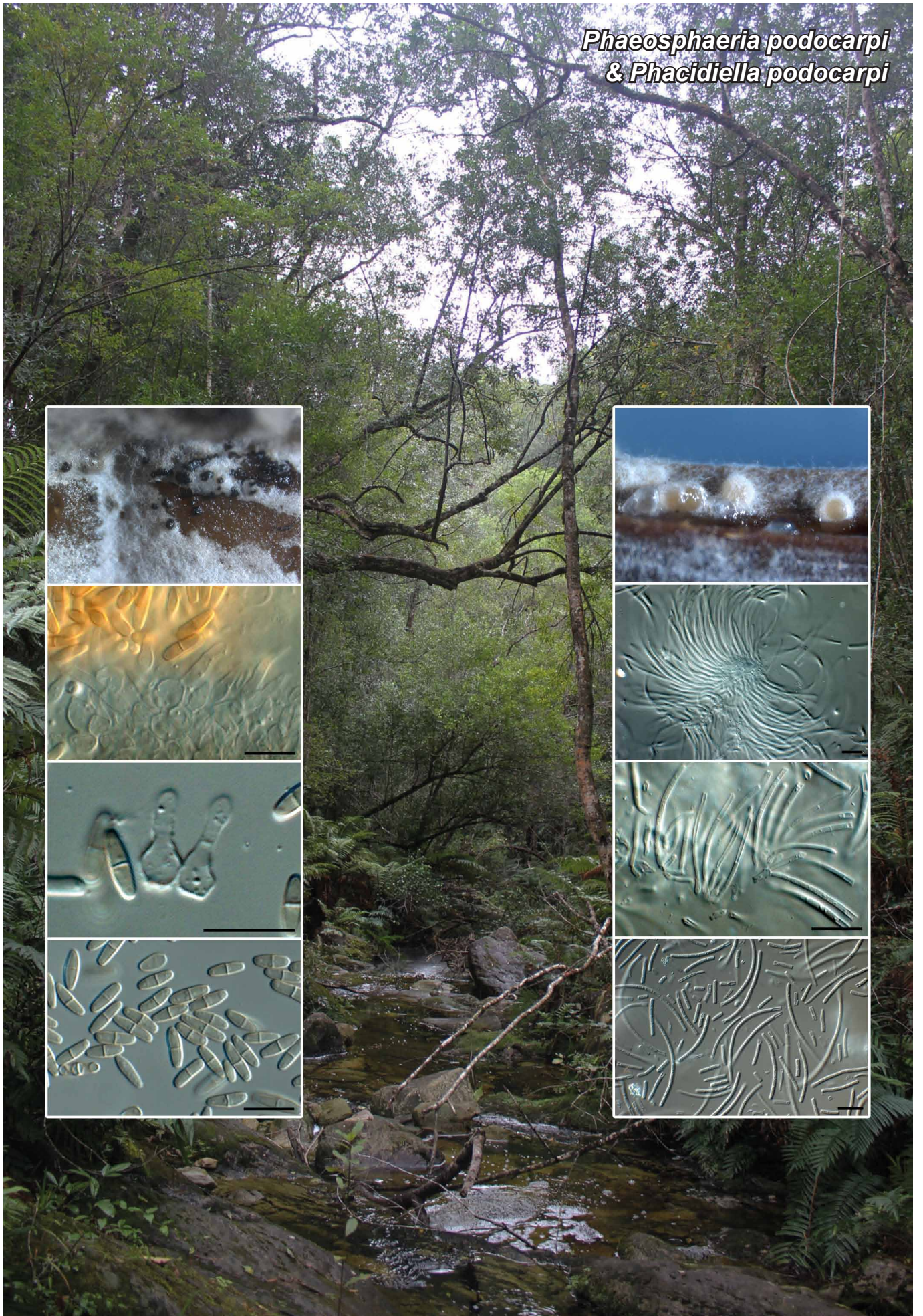


Phaeosphaeria podocarpi
& *Phacidiella podocarpi*



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Phaeosphaeria podocarpi Crous & A.R. Wood, *sp. nov.*

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

Conidiomata pycnidial, erumpent, brown, globose, solitary, up to 300 µm diam, with central ostiole; wall of 4–8 layers of brown *textura angularis*. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* lining the inner cavity, hyaline, smooth, ampulliform, 4–7 × 3–4 µm, phialidic with inconspicuous periclinal thickening at apex. *Paraphyses* intermingled among conidiogenous cells, subcylindrical, hyaline, 1–2-septate, up to 25 µm long, 2–3 µm diam. *Conidia* solitary, red-brown in mass, smooth, fusoid-ellipsoidal, apex obtuse, base truncate, 1–1.5 µm diam, medianly 1-septate, mostly straight, (7–)8–10(–12) × (2–)2.5(–3) µm.

Culture characteristics — Colonies reaching 30 mm diam after 2 wk at 25 °C in the dark, surface folded, with moderate aerial mycelium and even, lobate margins. On MEA surface dirty white, reverse apricot. On OA surface pale olivaceous-grey. On PDA surface pale olivaceous-grey, reverse olivaceous-grey.

Typus. SOUTH AFRICA, Western Cape Province, Knysna, Garden Route National Park, Velbroeksdraai picnic site, Diepwalle Forest, S33°56' E23°09', on leaves of *Podocarpus latifolius* (*Podocarpaceae*), 1 July 2013, A.R. Wood (holotype CBS H-21986, culture ex-type CPC 23433 = CBS 138903; ITS sequence GenBank KP004452, LSU sequence GenBank KP004480, ACT sequence GenBank KP004502, TUB sequence GenBank KP004508, MycoBank MB810598).

Phacidiella podocarpi Crous & A.R. Wood, *sp. nov.*

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

Conidiomata pycnidial, hyaline to subhyaline on SNA, aggregated in clusters, globose, up to 350 µm diam; wall of 3–6 layers of hyaline *textura intricata*. *Conidiophores* lining the inner cavity, subcylindrical, smooth, hyaline, 1-septate, giving rise to 1–2 conidiogenous cells, 5–8 × 2–2.5 µm. *Conidiogenous cells* terminal, hyaline, smooth, subcylindrical to doliiform, proliferating sympodially at apex, 3–6 × 2–2.5 µm. *Conidia* solitary, hyaline, smooth, subcylindrical, flexuous, apex obtuse, base truncate, (45–)50–70(–90) × 2(–2.5) µm, 9–18-septate, disarticulating into phragmospores, cylindrical with truncate ends, 5–6 µm long.

Culture characteristics — Colonies reaching 10 mm diam after 2 wk at 25 °C in the dark, spreading, with fluffy aerial mycelium and feathery margin. On MEA surface and reverse dirty white, with diffuse apricot zone in agar. On OA surface apricot. On PDA surface salmon, reverse dirty white.

Typus. SOUTH AFRICA, Western Cape Province, Knysna, Garden Route National Park, Velbroeksdraai picnic site, Diepwalle Forest, S33°56' E23°09', on leaves of *Podocarpus latifolius* (*Podocarpaceae*), 1 July 2013, A.R. Wood (holotype CBS H-21987, culture ex-type CPC 23447 = CBS 138904; ITS sequence GenBank KP004453, LSU sequence GenBank KP004481, MycoBank MB810599).

Colour illustrations. Velbroeksdraai picnic site, Diepwalle Forest, South Africa; *Phaeosphaeria podocarpi* (left column): colonies on OA, conidiogenous cells and conidia; *Phacidiella podocarpi* (right column): conidiomata on PNA, conidiogenous cells and conidia. Scale bars = 10 µm.

Notes — The genus *Phaeoseptoria* was shown to be synonymous with *Phaeosphaeria* by Quaedvlieg et al. (2013). Although most of the asexual morphs of *Phaeosphaeria* species have multiseptate conidia, the general morphology of *P. podocarpi* corresponds with other members of the genus. However, there are several unresolved lineages that are phaeosphaeria-like awaiting study. It is thus possible that *P. podocarpi* could still be segregated in a distinct genus based on additional collections and DNA sequence data.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Ascochyta manawaorae* (GenBank GU230751; Identities = 461/478 (96 %), Gaps = 3/478 (0 %)), *Phaeosphaeria poagena* (GenBank KJ869114; Identities = 522/542 (96 %), Gaps = 3/542 (0 %)) and *Parastagonospora nodorum* (GenBank KF512822; Identities = 510/532 (96 %), Gaps = 9/532 (1 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Phaeosphaeria oryzae* (GenBank KF251689; Identities = 816/816 (100 %), no gaps), *Phaeosphaeriopsis musae* (GenBank DQ885894; Identities = 816/816 (100 %), no gaps) and *Phaeosphaeria papayae* (GenBank KF251690; Identities = 815/815 (100 %), no gaps).

Notes — The genus *Phacidiella* (1884) has been linked to *Pyrenopeziza* (1870) sexual morphs (Sutton 1980). However, *Pyrenopeziza* is also linked to *Cylindrosporium* (1823), while some species of *Cylindrosporium* are linked to *Blumeriella* (1961) (Johnston et al. 1914). Sutton (1980) stated that *Phacidiella* and its generic synonyms are in need of revision, as some have 1-septate conidia (e.g. *Ramulariospora*), and others are aseptate, suggesting that they may not all be congeneric. *Phacidiella podocarpi* is thus best described in the genus *Phacidiella* based on its hyaline, aseptate conidia.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Glomerobolus gelineus* (GenBank DQ247782; Identities = 232/248 (94 %), Gaps = 6/248 (2 %)), *Caloplaca albopruinosa* (GenBank EF093566; Identities = 240/260 (92 %), Gaps = 3/260 (1 %)) and *Umbilicaria mammulata* (GenBank DQ782851; Identities = 243/265 (92 %), Gaps = 5/265 (1 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Stictis radiata* (GenBank AY300864; Identities = 751/783 (96 %), no gaps), *Carestiella socia* (GenBank AY661682; Identities = 790/827 (96 %), Gaps = 3/827 (0 %)) and *Conotrema populorum* (GenBank AY300833; Identities = 780/826 (94 %), Gaps = 4/826 (0 %)).