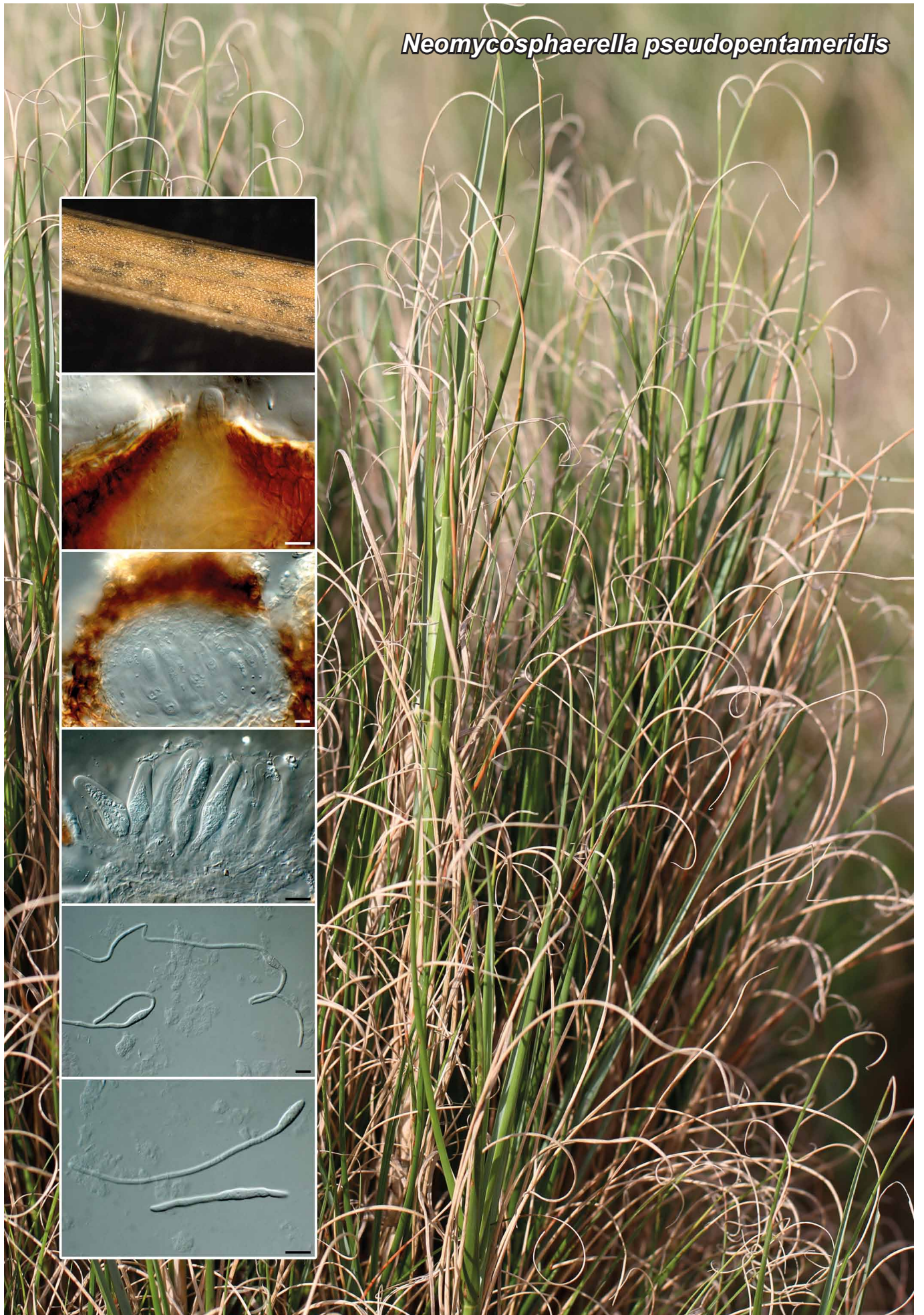


*Neomycosphaerella pseudopentameridis*



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## *Neomycosphaerella* Crous, *gen. nov.*

*Etymology.* Resembling the genus *Mycosphaerella*.

*Foliicolous*, phytopathogenic. *Ascomata* immersed, subepidermal, frequently in a brown stroma, unilocular, in rows of 2–4, globose, with central ostiole; wall of 2–4 layers of brown *textura angularis*. *Asci* fasciculate, stipitate, 8-spored, with minute ocular chamber, obovoid, straight to slightly curved, hyaline. *Asco-*

*spores* tri- to multiseriate, hyaline, smooth, granular, medianly 1-septate; *ascospores* becoming brown and verruculose with age.

*Type species.* *Neomycosphaerella pseudopentameridis*.  
Mycobank MB805814.

## *Neomycosphaerella pseudopentameridis* Crous, *sp. nov.*

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

*Foliicolous*, associated with leaf tip blight. *Ascomata* immersed, subepidermal, frequently in a brown stroma, unilocular, in rows of 2–4, globose, up to 120 µm diam, with central ostiole, 10–15 µm diam; wall of 2–4 layers of brown *textura angularis*. *Asci* fasciculate, stipitate, 8-spored, with minute ocular chamber, obovoid, straight to slightly curved, hyaline, 35–55 × 10–12 µm. *Ascospores* tri- to multiseriate, hyaline, smooth, granular, medianly 1-septate, slightly constricted at septum, (15–)16–17(–18) × (3.5–)4(–5) µm; *ascospores* becoming brown and verruculose with age.

*Culture characteristics* — Colonies reaching 30 mm diam after 2 wk. On MEA surface folded, with sparse aerial mycelium and smooth, even margins. On MEA surface pale olivaceous-grey, reverse iron-grey. On OA surface pale olivaceous-grey with patches of grey-sepia. On PDA surface olivaceous-grey, reverse iron-grey.

*Typus.* SOUTH AFRICA, Western Cape Province, Cape Town, Green Point Park, on leaves of *Pseudopentameris macrantha* (*Poaceae*), 22 July 2012, P.W. Crous (holotype CBS H-21416, culture ex-type CPC 21127, 21126 = CBS 136407, ITS sequence GenBank KF777173, LSU sequence GenBank KF777226, MycoBank MB805815).

*Notes* — Morphologically *Neomycosphaerella* resembles the genus *Mycosphaerella*, though is not associated with a *Ramularia* asexual state (Crous et al. 2009a, Koike et al. 2011), and clusters apart from *Ramularia* s.str., being closer related to *Brunneosphaerella*. Three species of *Brunneosphaerella* are presently known, all of which are foliar pathogens of *Proteaceae* (Crous et al. 2011b). *Neomycosphaerella* is distinct from *Brunneosphaerella* in that the latter genus has *ascospores* that are pigmented, 3-septate, and frequently also have mucoid caps.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Passalora intermedia* (GenBank FJ790292; Identities = 856/873 (98 %), Gaps = 4/873 (0 %)), *Mycosphaerella parkii* (GenBank DQ246245; Identities = 854/873 (98 %), Gaps = 4/873 (0 %)) and *Brunneosphaerella protearum* (GenBank JN712512; Identities = 854/874 (98 %), Gaps = 6/874 (0 %)). Closest hits using the ITS sequence had highest similarity to *B. nitidae* (GenBank GU214625; Identities = 598/648 (92 %), Gaps = 17/648 (2 %)), *Passalora intermedia* (GenBank FJ790261; Identities = 572/621 (92 %), Gaps = 16/621 (2 %)) and *B. protearum* (GenBank JN712448; Identities = 585/636 (92 %), Gaps = 17/636 (2 %)).

*Colour illustrations.* *Pseudopentameris macrantha* growing at Green Point Park, South Africa. Immersed ascomata, section through ascomata showing wall structure and ostiole, asci, germinating *ascospores*. Scale bars = 10 µm.