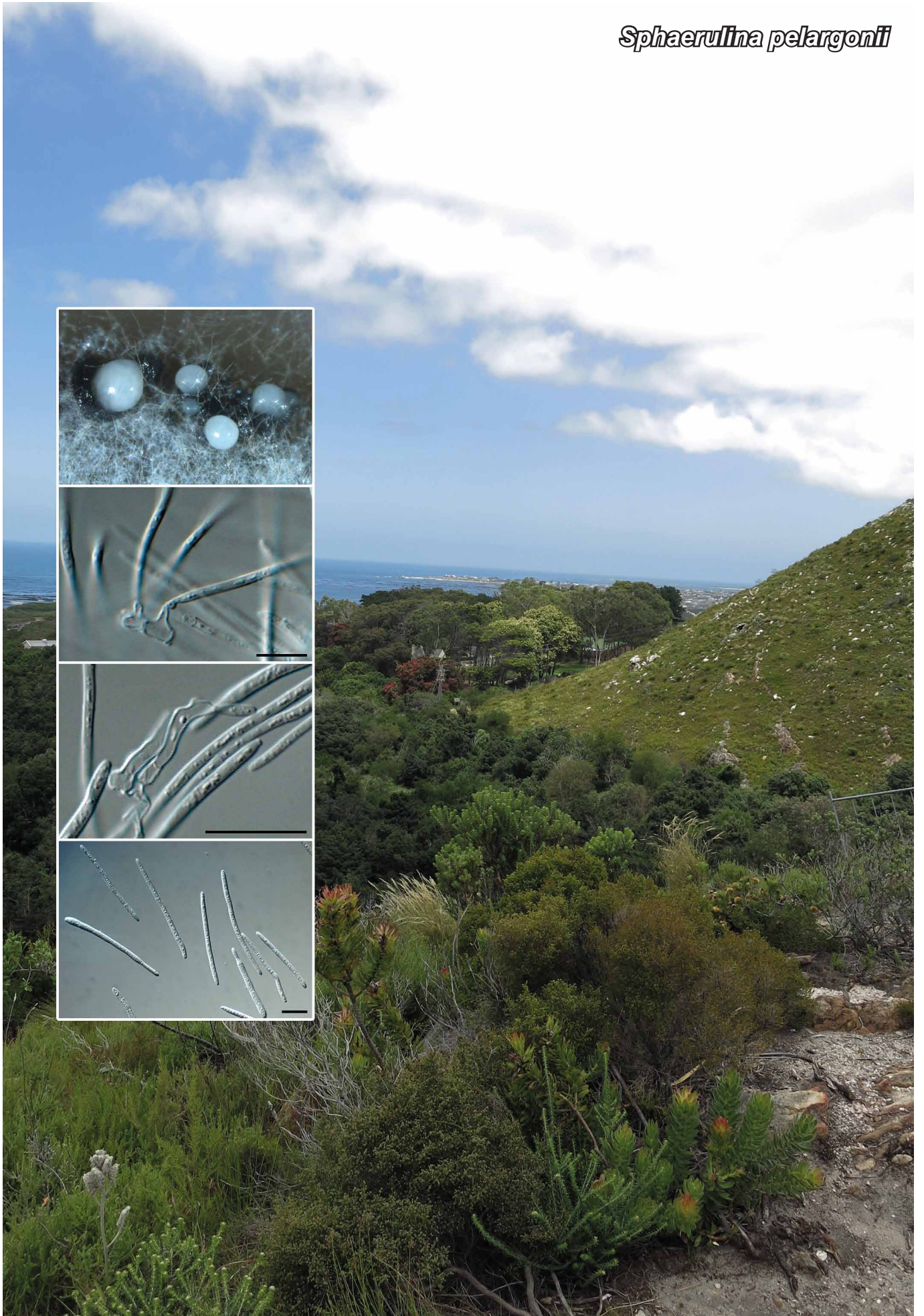


Sphaerulina pelargonii



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***Sphaerulina pelargonii* Crous & M.J. Wingf., sp. nov.**

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

Sporulating on SNA. *Conidiomata* pycnidial, brown, separate, immersed to erumpent, globose, up to 150 µm diam, exuding a creamy crystalline conidial mass via a central ostiole; wall of 3–4 layers of brown *textura angularis*. *Conidiophores* reduced to conidiogenous cells. *Conidiogenous cells* hyaline, at times pale brown, smooth, subcylindrical, straight to geniculous-sinuuous, 7–15 × 3–5 µm, proliferating sympodially. *Conidia* hyaline, smooth, guttulate, filiform, narrowly obclavate, apex subobtusely rounded, base long obconically truncate, (1–)3–4-septate, (15–)28–45(–60) × 1.5–2(–2.5) µm.

Culture characteristics — Colonies on PDA, MEA and OA spreading with sparse to moderate aerial mycelium, and smooth, lobate margins, reaching 20 mm diam after 2 wk at 25 °C in the dark. On MEA surface olivaceous-grey with apricot sporulation, iron-grey underneath. On PDA surface olivaceous-grey with strands of dirty white mycelium, reverse iron-grey. On OA surface dirty white.

Typus. SOUTH AFRICA, Western Cape Province, Betty's Bay, Harold Porter National Botanical Garden, on leaves of *Pelargonium* sp. (*Geraniaceae*), 15 Jan. 2014, P.W. Crous & M.J. Wingfield (holotype CBS H-21990, culture ex-type CPC 24151 = CBS 138857; ITS sequence GenBank KP004456, LSU sequence GenBank KP004484, TEF sequence GenBank KP004506, MycoBank MB810603).

Notes — The genus *Sphaerulina* was shown to have septoria-like asexual morphs by Quaedvlieg et al. (2013), several of which were either endophytes or important plant pathogens. Although *Sphaerulina pelargonii* was associated with small, brown leaf spots on *Pelargonium*, inoculation studies have not been conducted to confirm its pathogenicity. This is the first species of *Sphaerulina* reported on this host. Similar taxa reported from *Pelargonium* include *Septoria pelargonii* (conidia 3–5-septate, 40–60 × 2–2.5 µm), *Septoria canberria* (conidia 1–3-septate, 12–30(–36) × 1.5–2 µm), *Septoria geranii* (conidia 35–50 × 1 µm) and *Septoria geranii-nodosi* (conidia 50–65 × 2 µm). Species of *Septoria* that are known from culture were recently treated in detail by Verkley et al. (2013).

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Sphaerulina rhododendricola* (GenBank KF777187; Identities = 600/614 (98 %), Gaps = 8/614 (1 %)), *Mycosphaerella ribis* (GenBank EU167588; Identities = 634/649 (98 %), Gaps = 5/649 (0 %)) and *Pseudocercospora chaenomelis* (GenBank JQ793663; Identities = 573/587 (98 %), Gaps = 8/587 (1 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Sphaerulina rhododendricola* (GenBank KF779493; Identities = 834/836 (99 %), no gaps), *Pseudocercospora chaenomelis* (GenBank GU253834; Identities = 826/828 (99 %), no gaps) and *Sphaerulina azaleae* (GenBank KF252105; Identities = 823/825 (99 %), no gaps).

TEF. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the TEF sequence are *Sphaerulina rhabdoclinis* (GenBank KF253578; Identities = 344/382 (90 %), Gaps = 9/382 (2 %)), *Sphaerulina amelan-chier* (GenBank KF253545; Identities = 344/382 (90 %), Gaps = 9/382 (2 %)) and *Sphaerulina menispermi* (GenBank KF253565; Identities = 343/381 (90 %), Gaps = 10/381 (2 %)).

Colour illustrations. Harold Porter National Botanical Garden, Betty's Bay, South Africa; conidiomata on OA, conidiogenous cells and conidia. Scale bars = 10 µm.

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