

Phyllosticta ericarum



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***Phyllosticta ericarum* Crous, sp. nov.**

Etymology. Named after the host genus from which it was isolated, *Erica*.

Disease symptoms associated with leaf tip blight. *Conidiomata* pycnidial, solitary, black, erumpent, globose, exuding colourless to opaque conidial masses; *pycnidia* up to 180 µm diam; pycnidial wall of several layers of *textura angularis*, up to 30 µm thick; inner wall of hyaline *textura angularis*. *Ostiole* central, up to 20 µm diam. *Conidiophores* subcylindrical to ampulliform, reduced to conidiogenous cells, or with 1–2 supporting cells, at times branches at base, 20–40 × 4–6 µm. *Conidiogenous cells* terminal, subcylindrical, hyaline, smooth, coated in a mucoid layer, 12–20 × 3–4 µm; proliferating several times percurrently near apex. *Conidia* (8–)9–10(–12) × (6–)7 µm, solitary, hyaline, aseptate, thin and smooth walled, coarsely guttulate, or with a single large central guttule, ellipsoid or obovoid, tapering towards a narrow truncate base, 2–3 µm diam, enclosed in a thin, persistent mucoid sheath, 3–4 µm thick, and bearing a hyaline, apical mucoid appendage, (5–)8–10(–12) × 1.5(–2) µm, flexible, unbranched, tapering towards an acutely rounded tip.

Culture characteristics — (in the dark, 25 °C after 3 wk): Colonies erumpent, spreading, with moderate aerial mycelium and feathery margins, reaching 60 mm diam. On MEA surface olivaceous grey, reverse iron-grey; on OA iron-grey; on PDA iron-grey on surface and reverse.

Typus. SOUTH AFRICA, Western Cape Province, Stellenbosch, Stellenbosch Botanical Garden, on leaves of *Erica gracilis* (*Ericaceae*), 18 Aug. 2011, P.W. Crous & C.L. Lennox, holotype CBS H-20961, cultures ex-type CPC 19745, 19744 = CBS 132534, ITS sequence GenBank JX069865 and LSU sequence GenBank JX069849, MycoBank MB800377.

Notes — Van der Aa (1973) regarded *Phyllosticta ericae* (on dead leaves of *Erica carnea*, Germany) as identical to *P. pyrolae* (conidia 4.5–7.5 × 4–9 µm; on *Pyrola rotundifolia*, USA). Phylogenetically, *P. pyrolae* is distinct from *P. ericarum*. Okane et al. (2001) compared *Phyllosticta* isolates occurring on *Ericaceae*, and concluded that *P. pyrolae* is distinct from *P. capitalensis*, which proved to be a dominant endophyte associated with *Ericaceae*. *Phyllosticta capitalensis* was recently shown to have an extremely wide host range, occurring on numerous economically important crops, on which it is commonly incorrectly identified (Glienke et al. 2011).

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the ITS sequence is *Guignardia philoprina* (GenBank AF312008; Identities = 622/626 (99 %), Gaps = 1/626 (0 %)), followed by *Phyllosticta citribraziliensis* (GenBank FJ538352; Identities = 605/606 (99 %), Gaps = 1/606 (0 %)), and *Phyllosticta citrichinaensis* (GenBank JN791665; Identities = 627/639 (98 %), Gaps = 6/639 (1 %)). Closest hits using the LSU sequence yielded highest similarity to *Phyllosticta hymenocallidicola* (GenBank JQ044443; Identities = 908/914 (99 %), Gaps = 0/914 (0 %)), *Guignardia vaccinii* (GenBank FJ588242; Identities = 907/915 (99 %), Gaps = 0/915 (0 %)), and *Guignardia philoprina* (GenBank DQ377878; Identities = 898/915 (98 %), Gaps = 2/915 (0 %)).

Colour illustrations. Leaves and flowers of *Erica gracilis*; conidiogenous cells and conidia with mucoid sheaths. Scale bars = 10 µm.

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