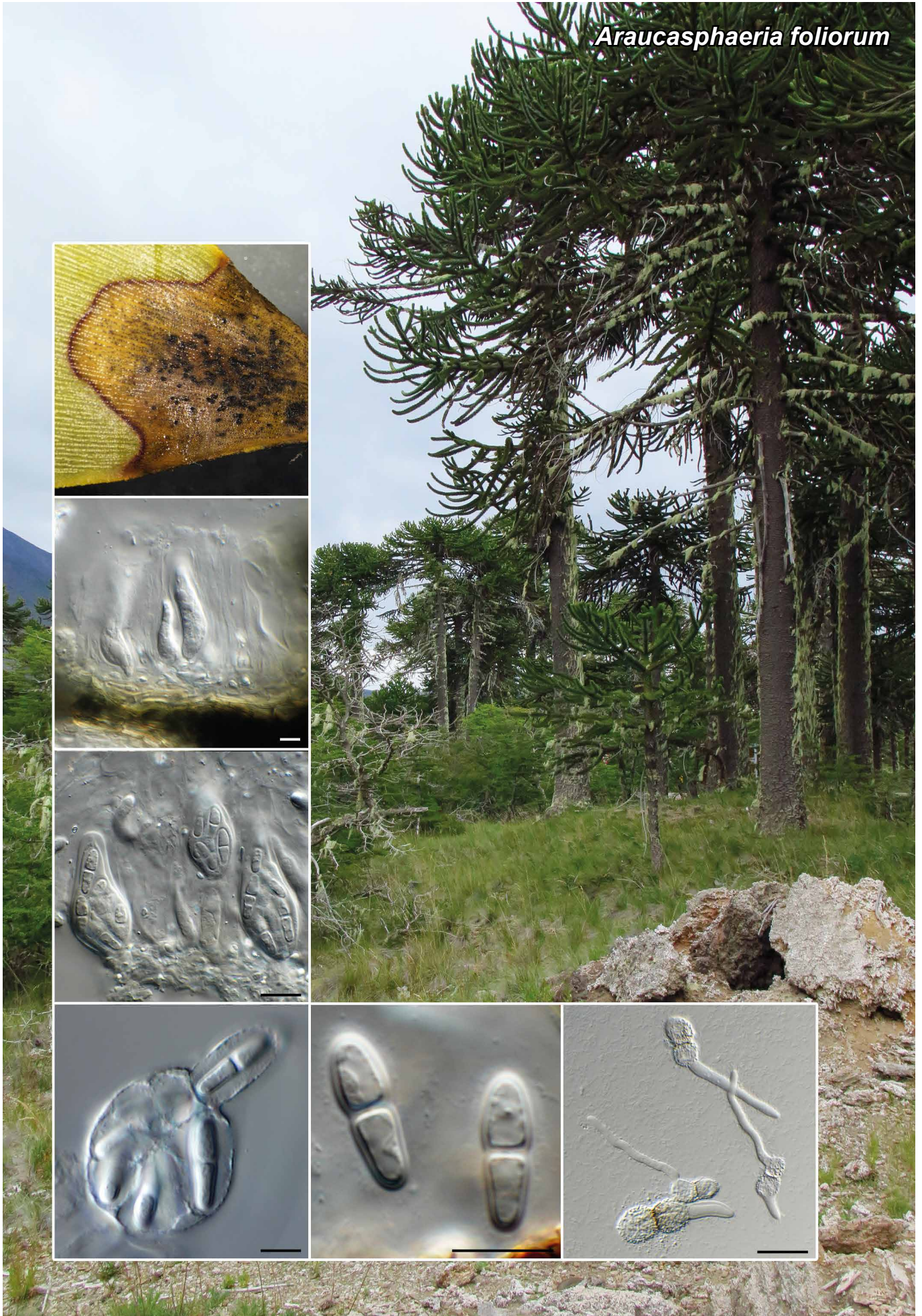


Araucasphaeria foliorum



Fungal Planet 756 – 13 July 2018

Araucasphaeria Crous & M.J. Wingf., *gen. nov.*

Etymology. Name combines the host genus, *Araucaria*, and the related fungal genus, *Teratosphaeria*.

Classification — *Teratosphaeriaceae*, *Capnodiales*, *Dothideomycetes*.

Phytopathogenic. *Ascomata* pseudothecial, aggregated in a brown stroma, immersed to erumpent, globose, with central ostiole, filled with hyaline, branched, septate periphysoids; wall of

3–8 layers of dark brown *textura angularis*. *Asci* aparaphysate, fasciculate, bitunicate, subsessile, obovoid, straight to slightly curved, 8-spored. *Ascospores* multiseriate, overlapping, hyaline, guttulate, thick-walled, fusoid-ellipsoid with obtuse ends, medianly 1-septate, encased in a mucoid sheath.

Type species. *Araucasphaeria foliorum* Crous & M.J. Wingf. MycoBank MB825397.

Araucasphaeria foliorum Crous & M.J. Wingf., *sp. nov.*

Etymology. Name refers to the fact that the fungus occurs on leaves.

Leaf spots amphigenous, irregular to subcircular, 5–20 mm diam, brown, with dark brown margins. *Ascomata* pseudothecial, amphigenous, aggregated in a brown stroma, dark brown, immersed to erumpent, globose, 70–100 µm diam, with central ostiole, filled with hyaline, branched, septate periphysoids, 5–15 × 2–3.5 µm; wall of 3–8 layers of dark brown *textura angularis*. *Asci* aparaphysate, fasciculate, bitunicate, subsessile, obovoid, straight to slightly curved, 8-spored, 25–45 × 12–17 µm. *Ascospores* multiseriate, overlapping, hyaline, guttulate, thick-walled, straight, fusoid-ellipsoid with obtuse ends, widest just above septum, medianly 1-septate, constricted at septum, tapering towards both ends, but more prominently towards lower end, encased in a mucoid sheath up to 5 µm diam, (12–)14–15 × (4–)4.5–5 µm. *Ascospores* germinating primarily from one end, with germ tubes at an angle to the long axis of the spore, becoming constricted at septum, medium brown, verruculose, 5(–7) µm diam.

Culture characteristics — Colonies erumpent, spreading, with moderate aerial mycelium and smooth, lobate margin, reaching 15 mm diam after 2 wk at 25 °C. On MEA surface pale olivaceous grey, margin buff, slimy, reverse cinnamon. On PDA surface and reverse olivaceous grey. On OA surface olivaceous grey.

Typus. CHILE, Rio Puesco, near Pucon, on symptomatic leaves of *Araucaria araucana* (*Araucariaceae*), Mar. 2010, M.J. Wingfield (holotype CBS H-23591, culture ex-type CPC 33084 = CBS 144411, ITS and LSU sequences GenBank MH327793.1 and MH327829.1, MycoBank MB825398).

Notes — A common ascomycete found on the leaves of *Araucaria* in South America is *Mycosphaerella araucariae* (Rehm 1901, Von Arx 1958, Aptroot 2006). *Araucasphaeria foliorum* is distinct from *Mycosphaerella araucariae*, which has larger *ascomata* (100–140 µm diam), *asci* (65–90 × 12–17 µm) and *ascospores* (19–26 × 5–6 µm) (Von Arx 1958). *Araucasphaeria* differs from *Pseudoteratosphaeria* (Quaedvlieg et al. 2014) in having *ascomata* aggregated in a stroma, ostioles that are lined with hyaline, branched, septate periphysoids, and *ascospores* encased in a prominent mucoid sheath.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Pseudotaeniolina globosa* (GenBank KC311489.1; Identities = 482/548 (88 %), 20 gaps (3 %)), *Phaeothecoidea proteae* (GenBank EU707898.1; Identities = 483/553 (87 %), 27 gaps (4 %)) and *Xenophacidiella pseudocatenata* (GenBank JF499851.1; Identities = 485/555 (87 %), 35 gaps (6 %)). Closest hits using the LSU sequence are *Pseudoteratosphaeria secundaria* (GenBank EU019306.2; Identities = 847/868 (98 %), 1 gap (0 %)), *Pseudoteratosphaeria flexuosa* (GenBank JN232432.1; Identities = 846/868 (97 %), 1 gap (0 %)) and *Pseudoteratosphaeria ohnowa* (GenBank EU019305.2; Identities = 846/868 (97 %), 1 gap (0 %)).

Colour illustrations. *Araucaria* trees growing in Chile; symptomatic leaf, *asci* in *ascomata*, *ascospores* with and without sheath, germinating *ascospores*. Scale bars = 10 µm.