

*Paramycosphaerella brachystegia*



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## *Paramycosphaerella* Crous & Jol. Roux, *gen. nov.*

*Etymology.* Named after its morphological similarity to the genus *Mycosphaerella*.

*Follicolous*, plant pathogenic. *Ascomata* erumpent, amphigenous, brown, globose, with central ostiole; wall of 2–3 layers of brown *textura angularis*. *Asci* fasciculate, bitunicate with

apical chamber, 8-spored, subcylindrical to narrowly ellipsoid. *Ascospores* tri- to multiseriate, thin-walled, guttulate, not to very slightly constricted at septum, obovoid, remaining hyaline.

*Type species.* *Paramycosphaerella brachystegia*.  
Mycobank MB805850.

## *Paramycosphaerella brachystegia* Crous & Jol. Roux, *sp. nov.*

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

*Leaf spots* amphigenous, subcircular to somewhat angular, confined by leaf veins, 5–15 mm diam, pale brown with raised, dark brown border. *Ascomata* intermingled among spermatogonia, erumpent, amphigenous, up to 120 µm diam, brown, globose, with central ostiole, 15 µm diam; wall of 2–3 layers of brown *textura angularis*. *Asci* fasciculate, bitunicate with apical chamber, 8-spored, subcylindrical to narrowly ellipsoid, 40–55 × 10–12 µm. *Ascospores* tri- to multiseriate, thin-walled, guttulate, obovoid, widest in middle of apical cell, not to very slightly constricted at septum, apex subobtusate, base subobtusate, 18–20(–23) × 3(–3.5) µm; ascospores germinating with germ tubes parallel to the long axis, developing lateral branches, remaining hyaline, becoming slightly constricted at septum, 3–4 µm diam.

*Culture characteristics* — Colonies reaching 25 mm diam after 2 wk, erumpent with moderate aerial mycelium, and water droplets; margin smooth, lobate. On PDA surface pale olivaceous-grey with patches of iron-grey, reverse iron-grey; on OA pale olivaceous-grey with red diffuse zone surrounding colony; on MEA surface pale olivaceous-grey, with patches of olivaceous-grey; reverse iron-grey, surrounded by a diffuse red pigment.

*Typus.* ZIMBABWE, Mtau forest reserve, near Mvuma, on leaves of *Brachystegia* sp. (*Fabaceae*), 2 Apr. 2012, J. Roux (holotype CBS H-21445, culture ex-type CPC 21136, 21137 = CBS 136436, ITS sequence GenBank KF777178, LSU sequence GenBank KF777230, MycoBank MB805851).

*Notes* — Although a *Mycosphaerella* sp. has been reported from *Brachystegia* in Malawi, no species has been formally named on this host (Peregrine & Siddiqi 1972) and thus it is described here as new. *Paramycosphaerella* is morphologically a typical '*Mycosphaerella*', although it lacks a *Ramularia* asexual state and is phylogenetically distinct and can thus no longer be accommodated in the latter genus (Crous et al. 2009a). *Paramycosphaerella brachystegia* clusters with species such as '*M.* *intermedia*' and '*M.* *marksii*' (clade 8 sensu Crous et al. 2013a) which will also have to be relocated to *Paramycosphaerella*.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Mycosphaerella marksii* (GenBank GU214447; Identities = 871/877 (99 %), no gaps), *M. intermedia* (GenBank DQ246247; Identities = 870/877 (99 %), no gaps) and *M. wachendorffiae* (GenBank JF951163; Identities = 867/876 (99 %), no gaps). Closest hits using the ITS sequence had highest similarity to *M. marksii* (GenBank GQ852747; Identities = 602/648 (93 %), Gaps = 14/648 (2 %)), *Microcyclosporella mali* (GenBank JQ358791; Identities = 629/680 (93 %), Gaps = 14/680 (2 %)) and *Mycosphaerella rosigena* (GenBank EU167587; Identities = 623/678 (92 %), Gaps = 13/678 (1 %)).

*Colour illustrations.* Leaves of *Brachystegia* sp., Zimbabwe; close-up of leaf spots; asci and ascospores; germinating ascospores. Scale bars = 10 µm.

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