

*Paraphysalospora eucalypti*





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## *Paraphysalospora* Crous, *gen nov.*

*Etymology.* Named refers to *Physalospora*, a morphologically similar genus.

*Classification* — *Clypeophysalosporaceae*, *Xylariales*, *Sordariomycetes*.

*Ascospores* hyaline, smooth, limoniform with cylindrical appendage at each end. *Conidiomata* sporodochial, with buff, slimy conidial mass. *Conidiophores* subcylindrical, pale brown,

smooth, branched, septate. *Conidiogenous cells* terminal and intercalary, subcylindrical, pale brown, smooth, phialidic with prominent periclinal thickening. *Conidia* solitary, hyaline, smooth, aseptate, sickle-shaped, apex subobtuse, base truncate.

*Type species.* *Paraphysalospora eucalypti* Crous.  
MycoBank MB823380.

## *Paraphysalospora eucalypti* Crous, *sp. nov.*

*Etymology.* Name refers to *Eucalyptus*, the host genus from which this fungus was collected.

Single ascospores shot onto MEA, but ascomata not traced on leaf tissue. *Ascospores* hyaline, smooth, limoniform with cylindrical appendage at each end, 45–50 × 15–20 µm. *Conidiomata* sporodochial on OA and SNA, up to 400 µm diam, with buff, slimy conidial mass. *Conidiophores* subcylindrical, pale brown, smooth, branched, septate, up to 80 µm tall. *Conidiogenous cells* terminal and intercalary, subcylindrical, pale brown, smooth, 10–20 × 2.5 µm, phialidic with prominent periclinal thickening. *Conidia* solitary, hyaline, smooth, aseptate, sickle-shaped, apex subobtuse, base truncate, (13–)15–17(–20) × 1.5 µm.

*Culture characteristics* — Colonies erumpent, spreading, surface folded, with sparse aerial mycelium and smooth, lobate margins, reaching 10 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface dirty white, reverse luteous.

*Typus.* AUSTRALIA, New South Wales, Barren Grounds Nature Reserve, on leaves of *Eucalyptus sieberi* (*Myrtaceae*), 26 Nov. 2016, P.W. Crous (holotype CBS H-23274, culture ex-type CPC 32053 = CBS 143177, ITS and LSU sequences GenBank MG386038 and MG386091, MycoBank MB823381).

*Notes* — The genus *Paraphysalospora* is related to *Clypeophysalospora* and *Neophysalospora* (*Xylariales*), both occurring on *Eucalyptus* (Crous et al. 2014b, Giraldo et al. 2017). Based on the ascospore shape, mucoid appendages and sporodochial asexual morph, *Paraphysalospora* clearly represents yet another genus in this complex. There were only a few ascomata on the leaf tissue, and hence the ascomatal anatomy remains to be elucidated pending further collections.

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were *Castanediella hyalopenicillata* (GenBank KX306751; Identities 397/427 (93 %), 3 gaps (0 %)), *Bagadiella lunata* (GenBank NR\_132832; Identities 567/610 (93 %), 20 gaps (3 %)) and *B. koalae* (GenBank JF951142; Identities 565/611 (92 %), 21 gaps (3 %)). The highest similarities using the LSU sequence were *Neophysalospora eucalypti* (GenBank KP004490; Identities 821/839 (98 %), 2 gaps (0 %)), *Clypeophysalospora latitans* (GenBank KX820265; Identities 772/792 (97 %), 1 gap (0 %)) and *Plectosphaera eucalypti* (GenBank DQ923538; Identities 828/853 (97 %), 4 gaps (0 %)).

*Colour illustrations.* Barren Grounds Nature Reserve; conidiomata sporulating on OA, conidiophores, conidia and germinating ascospores. Scale bars = 10 µm.

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