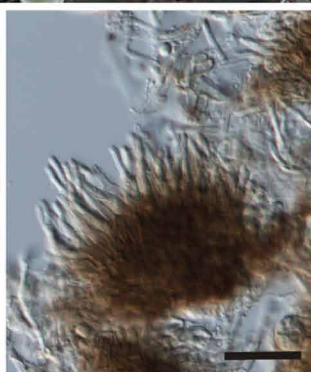


Pseudocercospora angularis



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***Pseudocercospora angularis* W.S. Lisboa, D.M. Macedo & R.W. Barreto, sp. nov.**

Etymology. Named after angular leaf spots.

Classification — *Mycosphaerellaceae*, *Capnodiales*, *Dothideomycetes*.

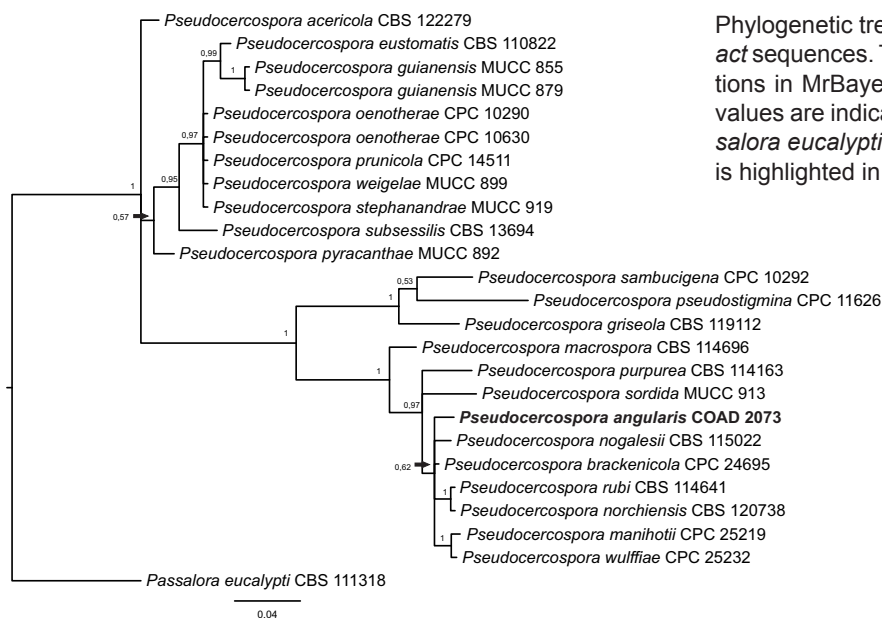
Lesions on the leaves diamond to variously angular-shaped, 4–8 × 3–11 mm, coalescing and leading to leaf necrosis. *Internal mycelium* 1–5 µm diam, branched, septate, hyaline to subhyaline. *Stromata* erumpent, pulvinate to subsphaerical, 20–40 × 25–63 µm, composed of pale to dark brown *textura angularis*. *Conidiophores* sporodochial, reduced to conidiogenous cells, epigenous, subcylindrical, 11–40 × 1.5–4 µm, aseptate, unbranched, pale to dark brown, smooth. *Conidiogenous loci* 1–2 µm diam, unthickened, not darkened. *Conidia* cylindrical to subcylindrical, mostly slightly curved, occasionally straight, 20–60 × 1.5–3 µm, apex rounded, base obconically truncate to truncate, 2–7-septate, hilum neither thickened, nor darkened, 1.5–3 µm diam, eguttulate, subhyaline, smooth.

Culture characteristics — Colonies on PDA and MEA circular, up to 32 mm diam after 17 d at 25 °C; flat with a raised centre of dense velvety aerial mycelium, evenly pale olivaceous grey; reverse olivaceous grey at the edges and dark grey; colonies sterile.

Typus. BRAZIL, Minas Gerais, Viçosa, Infectarium of the Departamento de Fitopatologia – Universidade Federal de Viçosa, on leaves of *Prunus persica* (*Rosaceae*), 30 May 2015, W.S. Lisboa INF 68 (holotype VIC 44083, culture ex-type COAD 2073, ITS and *act* sequences GenBank KX793125 and KX793124, MycoBank MB821107).

Notes — *Pseudocercospora* is the second largest genus of cercosporoid fungi containing fungi which were originally placed in *Cercospora* but have conidia which are generally pigmented and have hila which are unthickened and not darkened. They are often found causing leaf spots on a wide range of plant hosts, including several crop species of economic importance (Crous et al. 2013, Bakhshi et al. 2014, Silva et al. 2016). There are two species of *Pseudocercospora* described on *Prunus persicae*, namely *Pseudocercospora pruni-persicicola* and *P. prunicola*. The former has wider and longer conidia, 20–90 × 3–4 µm, than *P. angularis* (Hsieh & Goh 1990), and the latter has larger stromata (15–50 × 75 µm) and smaller conidiogenous cells, 5–15 × 3–4 µm (Braun & Mel'nik 1997). DNA information (*act*) is available only for *P. prunicola*, but *P. angularis* is phylogenetically clearly distinct.

A megablast search of NCBI's GenBank nucleotide database of the closest ITS sequences yielded *Pseudocercospora norchiensis* as the closest option (GenBank EF394859; Identities = 545/546 (99 %); Gaps = 1/546 (0 %)). For *act* the highest similarity was found for *P. brackenicola* (GenBank KT037606; Identities = 209/214 (98 %); no gaps). A phylogenetic tree was constructed with the *act* region (known to better explain molecular affinities in this group of fungi) and, together with morphological data justified the proposition of a new species to accommodate the fungus found on *Prunus persica*.



Phylogenetic tree inferred from a Bayesian analysis based on *act* sequences. The analysis was performed with 10 M generations in MrBayes v. 3.2.1. The Bayesian posterior probability values are indicated at the nodes. The tree was rooted to *Passalora eucalypti*. The specimen representing the new species is highlighted in bold face.

Colour illustrations. *Prunus persica* plant at the Infectarium of the Universidade Federal de Viçosa (Viçosa, state of Minas Gerais, Brazil) showing leaf spot symptoms to which *Pseudocercospora angularis* was associated; close-up of the angular, diamond-shaped yellow spots leading to tissue necrosis; sporodochia bearing tufts of conidia; stromata bearing conidiogenous cells and conidia. Scale bars = 20 µm.

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