

Pseudocercospora casuarinae



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***Pseudocercospora casuarinae* Crous & R.G. Shivas, sp. nov.**

Conidiomata sporodochialia, ad 600 µm diam. et 200 µm procera. Conidiophora brunnea, ramosa, pluriseptata, ad septa constricta vel non constricta, ad 200 µm procera, 3–5 µm lata. Cellulae conidiogenae terminales vel laterales, integrae, subcylindraceae, pallide brunneae, laeviae, 15–30 × 3–4 µm. Conidia pallide brunnea, laevia vel delicate verruculosa, subcylindracea, 3–6-septata, (15–)20–27(–35) × (4–)5(–6) µm.

Etymology. Named after the host from which it was collected, *Casuarina cunninghamiana*.

Conidiomata sporodochial, developing on needles with red-band needle disease; conidiomata on malt extract agar erumpent, dark brown, dense, up to 600 µm diam, and 200 µm high; basal cells of dense, dark brown textura intricata, giving rise to cylindrical, brown, finely verruculose conidiophores that are branched, multi-septate, constricted at septa or not, up to 120 µm tall, 3–5 µm wide, becoming pale brown toward apex, terminating in conidiogenous cells. *Conidiogenous cells* terminal or lateral, integrated, subcylindrical, pale brown, smooth, proliferating sympodially, apex rounded or truncate, fertile locus, 15–30 × 3–4 µm. *Conidia* pale brown, smooth to finely verruculose, subcylindrical to clavate, with rounded apex, tapering from the middle towards a truncate base, 3–6-septate, (15–)20–27(–35) × (4–)5(–6) µm; hila neither thickened nor darkened.

Colour illustrations. Beach at Cape Tribulation, Daintree Reserve; colony on malt extract agar; aggregated conidiophores with conidiogenous cells giving rise to conidia. Scale bars = 10 µm.

Culture characteristics — (in the dark, 25 °C, after 2 wk): Colonies spreading, erumpent with sparse aerial mycelium, folded surface, and even, lobate margins; colonies reaching up to 8 mm diam. On oatmeal agar iron-grey with patches of pale olivaceous-grey, forming a diffuse red pigment in the agar; on malt extract agar iron-grey on surface and reverse; on synthetic nutrient-poor agar pale olivaceous-grey.

Typus. AUSTRALIA, Queensland, Cape Tribulation, between Cape Tribulation and Daintree Reserve, Thornton Beachfront Cafe, 16°10'25.7"S 145°26'26.9"E, on needles of *Casuarina cunninghamiana*, 9 Aug. 2009, P.W. Crous & R.G. Shivas, CBS-H 20499 holotype, cultures ex-type CPC 17348, 17347 = CBS 128218, ITS sequence of CPC 17347 GenBank HQ599603 and LSU sequence of CPC 17347 GenBank HQ599604, MycoBank MB517547.

Notes — A megablast search of GenBank using the LSU sequence retrieved numerous sequences identical to that of *P. elaeodendri*, e.g. *P. madagascariensis* (GenBank GQ852651), *P. zerkovae* (GenBank GU253850) and *P. weigeliae* (GenBank GU253847). Based on DNA sequence data of the ITS region, *P. casuarina* (on *Casarinaceae*) is closely related to *P. elaeodendri* (on *Celastraceae*) (GenBank GU980950). *Pseudocercospora elaeodendri* differs in having larger conidia (15–95 × 2.5–4 µm, 3–11-septate) than *P. casuarina*.

Reference. ¹Deighton FC. 1976. Studies on Cercospora and allied genera. VI. Pseudocercospora Speg., Pantospora Cif. and Cercoseptoria Petr. Mycological Papers 140: 1–168.

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