
Anthostomella pinea

Fungal Planet 53 – 23 December 2010

Anthostomella pinea Crous, *sp. nov.*

Anthostomellae formosae similis, sed ascosporis majoribus, (15–)16–18 (–19) × (6–)7–8 µm, distinguitur.

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

Ascomata immersed, solitary, ostiolar region papillate, black, shiny, globose, up to 300 µm diam, with central periphysate ostiolar canal, up to 30 µm; wall consisting of 3–4 layers of brown *textura angularis*. *Paraphyses* hyaline, septate, branched, with rounded ends, 3–4 µm wide, intermingled among asci, exceeding them in length. *Asci* 8-spored, subcylindrical, 70–140 × 5–6 µm, stipitate, unitunicate, with a bluntly rounded apex, apex not staining in Meltzer's reagent. *Ascospores* (15–)16–18(–19) × (6–)7–8 µm, uniseriate, ellipsoid to gibbose, smooth-walled, with a central guttule, consisting of a larger brown cell, 12–16 µm long, and a smaller, hyaline, basal dwarf cell, 2–3 µm long and 3 µm wide; with straight germ slit in middle of the spore, not covering the whole length of the spore; immature ascospores with mucoid sheath, up to 4 µm wide, but the sheath is not persistent, disappearing at maturity.

Culture characteristics — (in the dark, 25 °C): Colonies on oatmeal agar, potato-dextrose agar and malt extract agar cream to white, with moderate aerial mycelium; surface somewhat woolly, margins feathery; reverse cream. Colonies reaching 12 mm diam after 7 d, remaining sterile.

Typus. France, Rente de Mars, next to the Autogrill along the A31, 47°25.342'N 005°10.258'E, on needles of *Pinus* sp., 17 July 2010, *P.W. Crous*, CBS-H 20486 holotype, cultures ex-type CPC 18388, 18387 = CBS 128205, ITS sequence of CPC 18387 GenBank HQ599578, MycoBank MB517531.

Notes — Lu & Hyde[1] treat several species of *Anthostomella* that occur on *Pinaceae*, and need to be compared to this taxon. However, based on its ascospore dimensions and basal dwarf cell, the germ slit that does not cover the whole length of the spore, asci that do not stain in Meltzer's reagent, and lack any visible apical apparatus, the present collection appears to represent a novel species, described here as *A. pinea*. A megablast search in GenBank using the ITS sequence was mainly uninformative; mostly unnamed sequences such as '*Sordariomycetes* sp.' and '*Xylaria* sp' were obtained. The closest named hits were obtained with *Anthostomella conorum* (GenBank EU552099; Identities = 578/681 (85 %), Gaps = 54/681 (7 %)) and *Anthostomella proteae* (GenBank EU552101; Identities = 561/660 (85 %), Gaps = 44/660 (6%)).

Colour illustrations. Needles of *Pinus* sp.; ascomata on needle; asci with ascospores. Scale bars = 10 µm.

Reference. [1]Lu B, Hyde KD. 2000. A world monograph of Anthostomella. Fungal Diversity Research Series 4: 1–376.

Pedro W. Crous & Johannes Z. Groenewald, CBS-KNAW Fungal Biodiversity Centre, P.O. Box 85167, 3508 AD Utrecht, The Netherlands; e-mail: p.crous@cbs.knaw.nl & e.groenewald@cbs.knaw.nl