Neodevriesia coryneliae
Fungal Planet 256 – 10 June 2014

Neodevriesia coryneliae Crous & A.R. Wood, sp. nov.

Etymology. Named after the fungal genus from which it was isolated, Corynelia.

Restricted to ascomata of Corynelia uberata on Afrocarpus leaves. Description on SNA: mycelium consisting of branched, septate, brown, 2–3 µm diam hyphae. Conidiophores arising from hyphae, erect, long, flexuous, unbranched, 100–400 × 6–10 µm, 6–25-septate, brown, verruculose, thick-walled, bearing an apical conidiogenous apparatus; conidiophore base lacking rhizoids. Ramoconidia fusoid-ellipsoidial, brown, 8–10 × 3–4 µm, brown, finely roughened, hila truncate, 1–1.5 µm diam, not thickened nor darkened; 1–3 apical loci giving rise to short, branched chains (–7) of conidia that have 1–3 apical loci; intermediate conidia brown, finely roughened, fusoid-ellipsoidial, 8–10 × 3–4 µm; apical conidia ellipsoid, brown, finely roughened, 6–8 × 3–4 µm, hila 1 µm diam, not thickened, nor refractive. Conidia ellipsoid, brown, finely roughened, 6–8 × 2–3 µm, remaining attached in chains and appearing red-brown when mounted in lactic acid.

Culture characteristics — Colonies reaching 5 mm diam after 2 wk at 22 °C. On MEA surface erumpent with sparse aerial mycelium and uneven margin; olivaceous-grey, also in reverse. On OA olivaceous-grey. On PDA pale olivaceous-grey, reverse olivaceous-grey.

Typus. SOUTH AFRICA, Western Cape Province, Knyansa, Garden Route National Park, Velbroeksdrad picnic site, Diepwalle Forest, S33°56’ E23°09’, on Corynelia uberata on leaves of Afrocarpus falcatus (Podocarpaceae), 1 July 2013, A.R. Wood (holotype CBS H-21713, culture ex-type CPC 23534 = CBS 137999; ITS sequence GenBank KJ869154, LSU sequence GenBank KJ869211, TEF sequence GenBank KJ869239, TUB sequence GenBank KJ869250, MycoBank MB808937).

Notes — The genus Neodevriesia was introduced by Quaedvlieg et al. (2014) to accommodate several foliicolous, saprobic or plant pathogenic taxa, now representing the Neodevriesiaceae, which Ruibal et al. (2009, 2011) referred to as ‘Teratosphaeriaceae 2’. Neodevriesia coryneliae is the first member of the genus known to be mycophytic. In culture it proved to be extremely slow-growing, which is possibly indicative of its unique ecology.

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are Teratosphaeria knoxdaviesii (GenBank EU707865; Identities = 535/573 (93 %), Gaps = 11/573 (1 %)), Devriesia lagerstroemiae (GenBank GU214634; Identities = 525/565 (93 %), Gaps = 11/565 (1 %)) and Devriesia fraseriae (GenBank HQ599602; Identities = 525/571 (92 %), Gaps = 14/571 (2 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are Devriesia xanthorrhoeae (GenBank HQ599606; Identities = 759/773 (98 %), no gaps), Devriesia shakazului (GenBank KC005797; Identities = 758/773 (98 %), no gaps) and Devriesia hilliana (GenBank GU214414; Identities = 758/773 (98 %), no gaps).

TEF. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the TEF sequence is Devriesia pseudoamericana (GenBank HM177416; Identities = 119/128 (93 %), no gaps).

TUB. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the TUB sequence are Coniothyrium zuluense (GenBank AY244392; Identities = 282/348 (81 %), Gaps = 18/348 (5 %)), Teratosphaeria tinara (GenBank FJ532027; Identities = 280/347 (81 %), Gaps = 20/347 (5 %)) and Teratosphaeria foliensis (GenBank FJ532015; Identities = 279/348 (80 %), Gaps = 22/348 (6 %)).