

Annelosympodiella juniperi



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***Annelosympodiella* Crous & Assefa, gen. nov.**

Etymology. Named after its morphological similarity to the genus *Annelosympodia*.

Conidiomata sporodochial on leaflets, arising from an erumpent brown stroma, consisting of brown, subcylindrical cells. *Conidiophores* densely aggregated, subcylindrical, brown, verruculose to warty, rejuvenating percurrently, septate. *Conidiogenous cells* integrated, terminal, brown, verruculose, proliferating percurrently with irregular annellations, and long, brown, tubular

collarettes. Sympodial scars are also visible on the tubular collarette, circular, thickened, darkened and refractive, suggestive of sympodial proliferation. *Conidia* solitary, brown, verruculose to warty, guttulate, subcylindrical to narrowly obclavate, straight to curved, euseptate; hilum truncate, thickened and slightly darkened.

Type species. *Annelosympodiella juniperi*.
Mycobank MB808928.

***Annelosympodiella juniperi* Crous & Assefa, sp. nov.**

Etymology. Named after the host genus from which it was isolated, *Juniperus*.

Conidiomata sporodochial on leaflets, arising from an erumpent brown stroma, 50–100 µm diam, 30–50 µm high, consisting of brown, subcylindrical, 5–15 × 3–4 µm cells. *Conidiophores* densely aggregated, subcylindrical, brown, verruculose to warty, rejuvenating percurrently, 1–4-septate, 25–50 × 4–7 µm. *Conidiogenous cells* 10–30 × 4–5 µm, integrated, terminal, brown, verruculose, proliferating percurrently with irregular annellations, and long, brown, tubular collarettes. Sympodial scars are also visible on the tubular collarette, circular, thickened, darkened and refractive, suggestive of sympodial proliferation. *Conidia* solitary, brown, verruculose to warty, guttulate, subcylindrical to narrowly obclavate, straight to curved, 4–9-euseptate, (30–)40–55(–70) × (5–)6(–7) µm; hilum truncate, thickened and slightly darkened, 4–5 µm diam.

Culture characteristics — Colonies reaching 7 mm diam after 2 wk at 22 °C, surface folded, erumpent, with even, smooth margins and sparse aerial mycelium. On PDA surface olivaceous-grey, reverse iron-grey. On OA surface olivaceous-grey. On MEA surface and reverse olivaceous-grey. Cultures were sterile.

Typus. ETHIOPIA, Addis Ababa, Mangadishu Forest, N8°58'01.8" E38°32'56.4", on needles of *Juniperus procera* (*Cupressaceae*), 25 June 2013, P.W. Crous & A. Assefa (holotype CBS H-21706, culture ex-type CPC 23276 = CBS 137992; ITS sequence GenBank KJ869147, LSU sequence GenBank KJ869204, MycoBank MB808929).

Notes — Two genera have thus far exhibited this strange mode of percurrent and sympodial proliferation (with darkened, thickened scars), namely *Annelophragmia* (Ellis 1971) and *Annelosympodia* (McTaggart et al. 2007). *Annelophragmia* has erect, brown synnemata, and is clearly distinct. *Annelosympodia* has superficial fascicles, no sporodochia, lacks a stroma, does not have long, prominent collarettes, and has 0–1-septate conidia. *Annelosympodiella* is thus introduced as a third genus in this complex, to accommodate the fungus occurring on *Juniperus* in Ethiopia. Two species with similar conidial morphology are known from *Juniperus*, namely *Passalora juniper* and *P. sequoia*, but they have a distinct conidiogenesis (Braun et al. 2013). Phylogenetically, *Annelosympodiella* is a sister genus to *Ramichloridium*, though it is phylogenetically distinct (Arzanlou et al. 2007).

ITS. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Ramichloridium strelitziae* (GenBank EU041803; Identities = 557/624 (89 %), Gaps = 26/624 (4 %)), *Pallidocercospora ventilago* (GenBank KF777177; Identities = 538/603 (89 %), Gaps = 26/603 (4 %)) and *Mycosphaerella crystallina* (GenBank JQ732911; Identities = 554/621 (89 %), Gaps = 27/621 (4 %)).

LSU. Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Ramichloridium biverticillatum* (GenBank EU041853; Identities = 834/853 (98 %), no gaps), *Periconiella velutina* (GenBank EU041838; Identities = 820/842 (97 %), no gaps) and *Penidiella nectandrae* (GenBank EU019275; Identities = 825/848 (97 %), no gaps).

Colour illustrations. *Juniperus* stand in Mangadishu Forest, Ethiopia; conidioma, conidiophores and conidia in vivo. Scale bars = 10 µm.