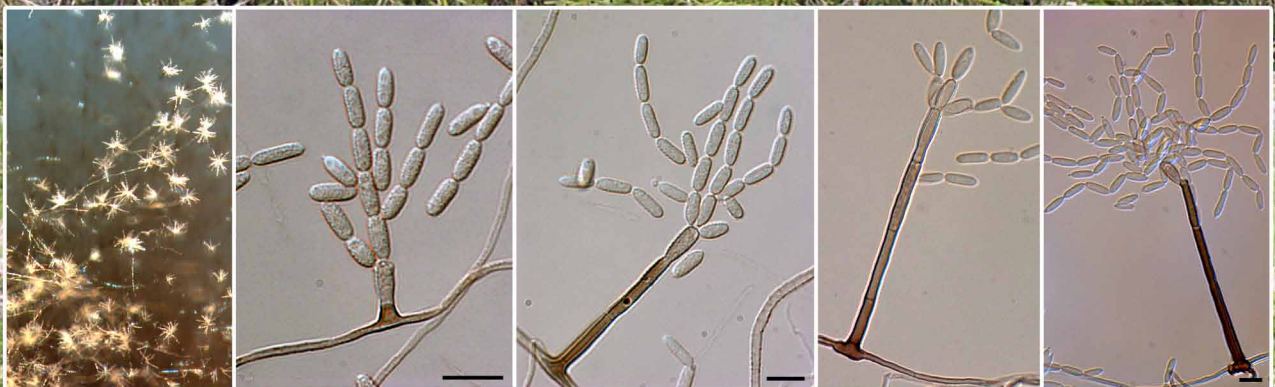


Pseudopenidiella piceae



Fungal Planet 120 – 4 June 2012

***Pseudopenidiella* Crous & Koukol, gen. nov.**

Etymology. Named after its morphological resemblance to the genus *Penidiella*.

Mycelium consisting of pale brown, finely verruculose, branched, septate hyphae. *Conidiophores* dimorphic: *microconidiophores* reduced to conidiogenous cells on hyphae, visible as slight thickenings on hyphal cells, somewhat erumpent, pale brown, apex truncate. *Macroconidiophores* subcylindrical with slight apical taper, pale brown to brown, erect, solitary on hyphae, unbranched, with one basal septum, or multi-septate, base somewhat swollen, lacking rhizoids, smooth, but becoming

verruculose towards apical conidiogenous cell. *Conidiogenous cells* terminal, obtusely rounded to clavate, finely verruculose, pale brown; loci apical, 1–3 per conidiogenous cell, inconspicuous, somewhat flattened, truncate. *Ramoconidia* pale brown, finely verruculose, subcylindrical to fusoid-ellipsoid, aseptate, giving rise to branched chains of conidia. *Conidia* finely verruculose, pale brown, subcylindrical to ellipsoid, aseptate; hila inconspicuous, truncate, not thickened nor darkened.

Type species. *Pseudopenidiella piceae*.
MycoBank MB800382.

***Pseudopenidiella piceae* Crous & Koukol, sp. nov.**

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

On synthetic nutrient-poor agar. *Mycelium* consisting of pale brown, finely verruculose, branched, septate, 1.5–2 µm diam hyphae. *Conidiophores* dimorphic: *microconidiophores* reduced to conidiogenous cells on hyphae, visible as slight thickenings on hyphal cells, somewhat erumpent, pale brown, up to 3 µm high, apex truncate 1 µm diam. *Macroconidiophores* subcylindrical with slight apical taper, pale brown to brown, erect, solitary on hyphae, unbranched, with one basal septum, or up to 8-septate, base somewhat swollen, up to 5 µm diam, lacking rhizoids, smooth, but becoming verruculose towards apical conidiogenous cell, up to 150 µm tall, 3–4 µm wide. *Conidiogenous cells* terminal, obtusely rounded to clavate, finely verruculose, pale brown, 9–12 × 3–4 µm; loci apical, 1–3 per conidiogenous cell, inconspicuous, somewhat flattened, truncate, 0.5–1 µm diam. *Ramoconidia* pale brown, finely verruculose, subcylindrical to fusoid-ellipsoid, aseptate, 8–12 × 2–3 µm giving rise to branched chains of conidia (–7). *Conidia* finely verruculose, pale brown, subcylindrical to ellipsoid, aseptate, (6–)7–9(–10) × (2.5–)3 µm; hila inconspicuous, truncate, not thickened nor darkened, 0.5–1 µm diam.

Culture characteristics — (in the dark, 25 °C after 3 wk): Colonies erumpent, spreading, with moderate aerial mycelium, and feathery margins, reaching 25 mm diam. On MEA surface greyish sepia, reverse fuscous black; on OA greyish sepia; On PDA greyish sepia, margin fuscous black, reverse fuscous-black.

Typus. CZECH REPUBLIC, Šumava National Park, Forest under Kostelní vrch Hill near Srní, N49°3'57.088" E°1327'33.881", needle litter of *Picea abies*, 11 Nov. 2007, leg. P. Baldrian, isol. O. Koukol, holotype CBS H-20964, cultures ex-type CPC 19969 = CBS 131453 = CCF 4180, ITS sequence GenBank JX069868 and LSU sequence GenBank JX069852, MycoBank MB800383.

Notes — *Pseudopenidiella* is distinct from *Cladosporium* in not having the coronate-type scars on its conidial hila or conidiogenous cells. It is reminiscent of *Digitopodium*, but distinct in that it lacks rhizoids, has ramoconidia, and has aseptate conidia. In having penicillate conidiophores *Pseudopenidiella* is similar to *Penidiella*, but again distinct in having aseptate conidia, and

Colour illustrations. *Picea abies* at Šumava National Park; conidiophores sporulating on synthetic nutrient-poor agar; conidiophores giving rise to conidial chains. Scale bars = 10 µm.

lacking darkened, somewhat thickened scars on its conidial scars and hila (Crous et al. 2007b, Bensch et al. 2012).

A megablast search of NCBI's GenBank nucleotide database using the ITS sequence did not reveal any close hits; the only hit with some degree of coverage and identity was with '*Cladosporium* sp. EXP0486F' (GenBank DQ914668; Identities = 425/480 (89 %), Gaps = 27/480 (6 %)), which was obtained from *Elaeocarpus dentatus* litter in New Zealand (Collado et al. 2007) using a dilution-to-extinction technique, but is unrelated to the true *Cladosporium* spp. (*Cladosporiaceae*). Closest hits using the LSU sequence yielded highest similarity to species of *Heliocephala*, e.g. *Heliocephala zimbabweensis* (GenBank HQ333481; Identities = 817/914 (89 %), Gaps = 24/914 (3 %)) and species of *Fusicladium*, e.g. *Fusicladium carpophilum* (GenBank EU035426; Identities = 812/917 (89 %), Gaps = 34/917 (4 %)) and *Metacoleroa dickiei* (GenBank DQ384100; Identities = 814/923 (88 %), Gaps = 38/923 (4 %)).

