Fusicladium peltigericola
Fusicladium peltigericola Crous & Diederich, sp. nov.

Conidiophora solitaria, erecta, subcylindrica, recta vel geniculata-sinuosa, non ramosa, 1–4(–7)-septata, 10–40(–90) × 3–4 μm, brunnea, laevia. Cellulae conidiogenae terminales, brunnea, laevia, sympodialiter proliferantes, subcylindricae, 10–30 × 3–4 μm; cicatrices conidiales planae, inconspicuae vel leniter fuscatae, sed non refractae et non incassatae, 2–2.5 μm diam. Ramoconidia in 1–3 seriebus, subcylindrica, in medio unieuseptata, (27–)33–40(–65) × 4(–5) μm; conidia intercalaria et terminalia, subcylindrica, mediobrunnea, subtile verruculosa, 0–1-euseptata, (18–)25–33–40(–5) μm.

Etymology. Named after the lichen host from which it was collected, Peltigera rufescens.

Cellulae conidiogenae terminales, brunnea, laevia, sympodialiter proliferantes, subcylindricae, mediobrunnea, subtile verruculosa, 0–1-euseptata, (27–)33–40(–65) μm diam hyphae. Conidiophores solitary, erect, subcylindrical, straight to geniculose-sinuous, unbranched, 1–4(–7)-septate, 10–40(–90) × 3–4 μm, brown, smooth. Conidiogenous cells terminal, brown, smooth, proliferating sympodially, subcylindrical, rarely straight, mostly geniculate-sinuosus, 10–30 × 3–4 μm; scars flattened, inconspicuous to somewhat darkened, but not refractive, not appearing thickened, 2–2.5 μm wide. Ramoconidia in 1–3 series, subcylindrical, medianly 1-euseptate, relatively thick-walled, medium brown, finely verruculose, basal hilum flattened, somewhat darkened, 2–2.5 μm wide, with one to several sympodial, apical loci; frequently with lateral branch up to 10 μm long, 3–4 μm wide, (27–)33–40(–65) × 4(–5) μm; older ramoconidia at times developing up to 3 septa; intercalary and terminal conidia subcylindrical, medium brown, finely verruculose, apex obtusely rounded or flattened, proliferating in sympodial fashion to form short chains of conidia, 0–1-euseptate: septum mostly in upper third of conidium, (18–)25–33–40(–5) × (3.5–)4(–5) μm; hila flattened, 2–2.5 μm wide, somewhat darkened, not thickened.

Culture characteristics — (in the dark, 25 °C): Colonies on oatmeal agar spreading, with dense, moderate aerial mycelium and lobate, smooth to feathery margins; colonies reaching 15 mm diam after 1 mo; surface olivaceous-grey to fuscous-black.

Types. Luxembourg, Lamadelaine, in a disused quarry, on terricolous Peltigera rufescens, over galls induced by Hawksworthiana peltigericola, May 2008, P. Diederich, CBS-H 20467 holotype, culture ex-type CPC 15252 = CBS 128296, ITS sequence GenBank H2359979, MycoBank MB517552.

Notes — The genus Fusicladium is recognised as anamorph of Venturia1–3. Presently no Fusicladium species are known from lichens, nor are there any DNA sequence data of similar species currently deposited in GenBank. The closest sister taxa in GenBank based on the ITS sequence are Fusicladium betulae (GenBank FJ839641; Identities = 459/464 (99 %), Gaps = 2/464 (0 %)), Venturia tremulae var. tremulae (GenBank EU035475; Identities = 704/712 (99 %), Gaps = 4/712 (0 %)) and Venturia ditricha (GenBank EU035466; Identities = 704/712 (99 %), Gaps = 4/712 (0 %)). Morphologically F. peltigericola is distinct from all taxa treated in the recent monograph by Schubert et al.2 based on the combination of characters, namely its large, subcylindrical ramoconidia that become up to 3-septate, and its terminal conidia that become 1-septate in the upper third of the conidium. Although F. peltigericola was isolated from a Peltigera thallus colonised with Hawksworthiana peltigericola (which could not be cultivated), there was no conclusive macroscopic proof that F. peltigericola is lichenicolous. However, conidia isolated from the thallus took up to 2 wk to germinate, and grew extremely slowly for the first few months, suggesting that there may be an association with P. rufescens. Further collections would be required, however, to clarify its ecology.

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Colour illustrations. Peltigera rufescens; conidiophores with conidigenous cells giving rise to conidia. Scale bars = 10 μm.