Pseudodactylaria xanthorrhoeae
Fungal Planet 694 – 20 December 2017

**Pseudodactylariales** Crous, ord. nov.

MycoBank MB823468.

**Pseudodactylariaceae** Crous, fam. nov.

MycoBank MB823469.

Classification — Pseudodactylariaceae, Pseudodactylariales, Sordariomycetes.

**Pseudodactylaria** Crous, gen. nov.

*Etymology.* Name refers to its morphological similarity to the genus Dactylaria.

*Mycelium* consisting of hyaline, smooth, branched, septate hyphae. *Conidiophores* erect, hyaline, smooth, subcylindrical, straight to flexuous, unbranched, thick-walled, 1–3-septate, 20–50 × 4–5 μm. *Conidiogenous cells* terminal, integrated, subcylindrical with apical taper; apical part forming a rachis with numerous aggregated cylindrical denticles; scars cicatrized, not thickened nor darkened, refractive if viewed from above. *Conidia* solitary, aggregating in slimy mass, fusoid-ellipsoid, hyaline, smooth, surrounded by a thin mucilaginous sheath, prominently guttulate, medially 1-septate, apex subobtuse, base truncate, somewhat refractive.

*Type species.* Pseudodactylaria xanthorrhoeae Crous.

MycoBank MB823411.

Notes — *Pseudodactylaria* resembles species of Dactylaria (hyaline conidiophores and septate, hyaline conidia formed on denticles; De Hoog 1985), but can be distinguished by having 1-septate conidia encased in a mucoid sheath, which is absent in species of *Dactylaria* s.str. Furthermore, *Pseudodactylaria* represents an undescribed family and order, which are also introduced here as Pseudodactylariales and Pseudodactylariaceae, respectively.

Based on a megablast search using the ITS sequence, the closest matches in NCBI’s GenBank nucleotide database were distant hits with unidentified Sordariomycetes and Pseudoobrytis terestris (GenBank KF733463; Identities 496/562 (88%), 18 gaps (3%)), Cer cophora solaris (GenBank KX719148; Identities 498/566 (88%), 25 gaps (4%)) and Cer cophora sulphurella (GenBank AYS87913; Identities 497/568 (88%), 25 gaps (4%)). The highest similarities using the LSU sequence were Dactylaria hyalotunicata (GenBank EU107298; Identities 826/835 (99%), 2 gaps (0%)), Melanocarpus albomyces (GenBank JQ067902; Identities 790/835 (95%), 2 gaps (0%)) and Achaetomium strumarium (GenBank AY681170; Identities 786/833 (94%), 3 gaps (0%)).

**Pseudodactylaria xanthorrhoeae** Crous, sp. nov.

*Etymology.* Name refers to Xanthorrhoea from which this fungus was collected.

*Mycelium* consisting of hyaline, smooth, branched, septate, 2–3 μm diam hyphae. *Conidiophores* erect, hyaline, smooth, subcylindrical, straight to flexuous, unbranched, thick-walled, 1–3-septate, 20–50 × 4–5 μm. *Conidiogenous cells* terminal, integrated, subcylindrical with apical taper, 15–30 × 3–4 μm; apical part forming a rachis with numerous aggregated cylindrical denticles, 1–3 × 1 μm; scars cicatrized, not thickened nor darkened, refractive if viewed from above. *Conidia* solitary, aggregating in slimy mass, fusoid-ellipsoid, hyaline, smooth, surrounded by a thin mucilaginous sheath, prominently guttulate, medially 1-septate, apex subobtuse, base truncate, 1–1.5 μm diam, somewhat refractive, (20–)22–27–33 × (3–)3.5–4 μm.

*Culture characteristics.* — Colonies erumpent, spreading, surface folded, with moderate aerial mycelium and smooth, lobate margins, reaching 20 mm diam after 2 wk at 25 °C. On MEA and PDA surface amber to isabelline, reverse isabelline. On OA surface amber to isabelline, reverse hazel.

*Type.* AUSTRALIA, New South Wales, Nullica State Forest, on Xanthorrhoea sp. (Asphodelaceae), 29 Nov. 2016, P.W. Crous (holotype CBS H-23302, culture ex-type CPC 32430 = CBS 413414, ITS and LSU sequences GenBank MG389064 and MG389117, MycoBank MB823412); additional culture CPC 32714.

*Notes.* — *Pseudodactylaria* resembles species of Dactylaria (hyaline conidiophores and septate, hyaline conidia formed on denticles; De Hoog 1985), but can be distinguished by having 1-septate conidia encased in a mucoid sheath, which is absent in species of *Dactylaria* s.str. Furthermore, *Pseudodactylaria* represents an undescribed family and order, which are also introduced here as Pseudodactylariales and Pseudodactylariaceae, respectively.

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**Pseudodactylaria hyalotunicata** (K.M. Tsui et al.) Crous, comb. nov. — MycoBank MB823413