

Devriesia imbrexigena



Fungal Planet 151 – 20 December 2012

***Devriesia imbrexigena* A.J.L. Phillips & M.L. Coutinho, sp. nov.**

Etymology. Name derived from the Latin word for tile (*imbrex*) relating to the habitat where it was found.

On half-strength potato-dextrose agar. *Mycelium* immersed or superficial, consisting of dark brown, branched, septate, 4–5 µm diam hyphae. *Arthroconidia* brown, smooth, barrel-shaped or globose, thick-walled, irregular, (5–)7–9(–10) × (4.5–)5–6(–6.5) µm, occurring in branched chains, buds arising at intervals along the chain. *Chlamydospores* intercalary or terminal, thick-walled, brown, 5–6.5 × 4.5–5 µm.

Culture characteristics — (In the dark, 25 °C after 4 wk): Colonies spreading with mostly appressed mycelium and lobate margins, reaching 35 mm diam, olivaceous to brown.

Typus. PORTUGAL, Sintra, Palácio da Pena, on glazed decorative tiles in association with *Trebouxia* sp. (*Chlorophyta*), 29 Oct. 2011, M.L. Coutinho (holotype LISE 96109, culture ex-type CAP1373), ITS sequence GenBank JX915746, LSU sequence GenBank JX915750, MycoBank MB801761.

Additional material examined. Same collection: CAP1371, ITS sequence GenBank JX915745, LSU sequence GenBank JX915749; CAP1374, ITS sequence GenBank JX915747, LSU sequence GenBank JX915751; CAP1375, ITS sequence GenBank JX91574, LSU sequence GenBank JX915752.

Notes — *Devriesia* is paraphyletic (Frank et al. 2010), comprising at least four lineages, three of which are distantly related to *D. staurophora*, the type species of the genus. In the LSU phylogeny *Devriesia imbrexigena* clusters in one of these lineages, but not with the typical cluster of soil-inhabiting, heat resistant strains. In the nutrient-poor habitat where *D. imbrexigena* was found it seems to derive nutrition by parasitizing algae that colonise tiles (Coutinho et al. 2012).

A megablast search of NCBI's GenBank nucleotide sequence database with the LSU sequence revealed highest similarities to *Devriesia hilliana* (GenBank GU214414; Identities = 913/920 (99 %), Gaps = 0/920 (0 %)), *Passalora* sp. (GenBank GQ852622; Identities = 912/920 (99 %), Gaps = 0/920 (0 %)) and *Devriesia queenslandica* (GenBank JF951168; Identities = 911/920 (99 %), Gaps = 0/920 (0 %)). Closest hit with the ITS sequence is *Teratosphaeria capensis* (GenBank JN712501; Identities = 436/471 (93 %), Gaps = 12/471 (3 %)), followed by *Devriesia* sp. (GenBank HQ914861; Identities = 434/476 (91 %), Gaps = 14/476 (3 %)) and *Devriesia lagerstroemiae* (GenBank GU214634; Identities = 427/471 (91 %), Gaps = 15/471 (3 %)).

Colour illustrations. Pena National Palace, Sintra, Portugal. Branched chain of arthroconidia, buds developing on the chain of arthroconidia, multiple buds, detail of a budding cell. Scale bars = 5 µm.

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