

Cladophialophora multiseptata



Fungal Planet 211 – 26 November 2013

Cladophialophora multiseptata Madrid, Cano, Najafz., de Hoog,
C. Silvera & Crous, *sp. nov.*

Etymology. Named after the often multiseptate arthroconidia produced by the fungus in culture.

Hyphae septate, branched, pale olivaceous to pale olivaceous-brown, smooth to asperulate, thin-walled, 2–4 µm wide, often constricted at the septa, with anastomoses. *Conidiophores* micronematous, mononematous, septate or aseptate, simple, mostly subcylindrical, pale brown to pale olivaceous-brown, thin-walled, smooth to asperulate, length indeterminate, 2–4 µm wide, releasing the conidia schizolytically. *Conidiogenous cells* intercalary, lateral or terminal, subcylindrical to fusiform, 6–13 × 3–5 µm. *Conidia* 0–1-septate, pale olivaceous to brown, smooth to asperulate, thin-walled, mostly ellipsoid to fusiform, rarely subglobose to globose, 4.5–18 × 3–5 µm, with non-thickened, non-darkened scars, forming coherent, simple or branched, terminal or lateral, acropetal chains. *Arthroconidia* intercalary, pale brown to brown, subcylindrical, mostly 1–11-septate, 18–149 × 3–4.5 µm. *Sexual morph* not observed.

Culture characteristics — Colonies on PDA after 21 d attaining 3 mm at 15 °C, 9 mm at 25 °C and 9–11 mm at 30 °C, not growing at 35 °C, velvety, strongly convoluted at the centre, radially folded, olive-grey with olivaceous-black, slightly lobate margin; reverse black, no exudates or soluble pigments observed.

Typus. SPAIN, Alicante Province, Carrascal de la Font Roja Natural Park, from soil, 23 Jan. 2007, coll. R. Silvera & G. Etchart, isol. H. Madrid (holotype IMI 397931, culture ex-type IMI 397931 = FMR 10591 = CPC 23682 = CBS 136675, ITS sequence GenBank HG003668, LSU sequence GenBank HG003671, MycoBank MB804080).

Notes — *Cladophialophora* is a species-rich genus in the *Chaetothyriales*. It includes several clinically-relevant taxa which cause phaeohyphomycosis, chromoblastomycosis and mycetoma in vertebrates (de Hoog et al. 2000, Badali et al. 2008). *Cladophialophora* also includes saprobes occurring in soil and on plant debris, endophytes and some species associated with plant disease (Crous et al. 2007b, de Hoog et al. 2007). The genus is characterised by the production of acropetal chains of globose to elongate blastoconidia with scars which usually are neither thickened nor darkened. The type species, *C. carrionii* occasionally also produces phialides (de Hoog et al. 2000).

BLAST searches revealed that the ITS sequence of *C. multiseptata* (GenBank accession HG003668) shows relatively high percentage identities to those of *C. chaetospora* (EU035405 and others, 94–95 % identical), *C. boppii* (EU103997 and others, 91–92 % identical), *C. carrionii* (EU137266 and others, 89–90 % identical) and *C. yegresii* (EU137322 and others, 89 % identical). *Cladophialophora multiseptata* can be distinguished from its closest relatives by the abundant production of septate intercalary arthroconidia in culture.

Colour illustrations. Sampling area in Carrascal de la Font Roja National Park; Colony on PDA after 21 d at 25 °C, conidiogenous cells and chains of elongate conidia; conidiogenous cells and a chain of subglobose to globose conidia; arthroconidia. Scale bars = 5 µm.

Hugo Madrid, Sybren de Hoog & Pedro Crous, CBS-KNAW Fungal Biodiversity Centre, P.O. Box 85167, 3508 AD Utrecht, The Netherlands; e-mail: h.madrid@cbs.knaw.nl, s.hoog@cbs.knaw.nl & p.crous@cbs.knaw.nl
José F. Cano-Lira & C. Silvera, Mycology Unit, Medical School and IISPV, Universitat Rovira i Virgili (URV), Sant Llorenç 21, 43201-Reus, Spain; e-mail: jose.cano@urv.cat & carolina.silvera@urv.cat
Javad Najafzadeh, Department of Parasitology and Mycology, and Cancer Molecular Pathology Research Center, Ghaem Hospital, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran; e-mail: NajafzadehMJ@mums.ac.ir