

Montagnula cylindrospora



Fungal Planet 1094 – 29 June 2020

***Montagnula cylindrospora* Valenz.-Lopez, Cano, Guarro & Stchigel, sp. nov.**

Etymology. From Latin *cylindris-*, cylindrical, and *-sporum*, spore, because of the shape of the conidia.

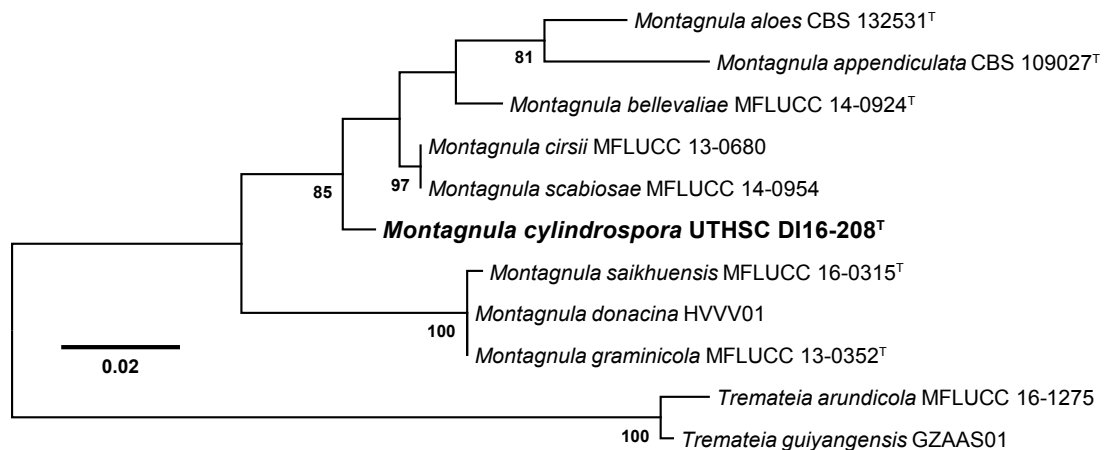
Classification — *Didymosphaeriaceae*, *Pleosporales*, *Dothi-deomycetes*.

Hyphae pale brown to brown, smooth- and thin-walled, septate, 2–5 µm wide. *Conidiomata* pycnidial, brown to dark brown, solitary, superficial (on oatmeal agar, OA), globose to subglobose, 160 × 110–150 µm, covered by brown, asperulate, septate setae of 33–65 µm long and 3.5–5 µm wide at the base, pycnidial wall of *textura angularis*, 2–4-layered, 15–40 µm thick, composed of brown to dark brown, flattened polygonal cells of 5–10 µm diam, neck absent, ostiolate. *Conidiogenous cells* phialidic, ampulliform to doliiform, hyaline, smooth-walled, 4 × 3.5 µm. *Conidia* aseptate, hyaline, smooth- and thin-walled, cylindrical, sometimes slightly curved, 3–5 × 1.5–2 µm, guttulate.

Culture characteristics — Colonies on OA reaching 50 mm diam after 7 d at 25 ± 1 °C, flattened, white (M. 5A1; Kornerup & Wanscher (1978) to dark blond (M. 5D4); reverse yellowish brown (M. 5E4). Colonies on malt extract agar (MEA) reaching 40 mm diam after 7 d at 25 ± 1 °C, floccose, white (M. 5A1) to brownish grey (M. 5C2); reverse orange white (M. 5A2) to brownish grey (M. 5C2). NaOH spot test negative. Crystals absent. Optimal, minimum and maximum temperatures were 25, 5 and 37 °C, respectively.

Typus. USA, Texas, Dallas, from a human skin sample, 2006, *D.A. Sutton* (holotype CBS H-24341, ex-type living cultures CBS 146572 = UTHSC DI16-208 = FMR 13698; ITS, LSU, *tub2*, *rpb2* and *tef1* sequences GenBank LT796834, LN907351, LT796914, LT796994 and LT797074, MycoBank MB834472).

Notes — This fungus differs from all known species of *Montagnula* by the *in vitro* formation of a coelomycetous asexual morph, and by the absence of a sexual morph (Tennakoon et al. 2016, Valenzuela-Lopez et al. 2017). Based on a megablast search of NCBI's GenBank nucleotide database, the closest hit using the LSU sequence is *Montagnula cirsii* strain MFLUCC 13-0680 (GenBank KX274249; Identities = 876/879 (99 %), no gaps). Closest hit using ITS sequence is *Montagnula scabiosae* type strain MFLUCC 14-0954 (GenBank NR_155378; Identities = 502/520 (97 %), 6 gaps). The closest hit using the *tub2* sequence is *Montagnula saikhuensis* strain MFLUCC 16-0315 (GenBank KU743216; Identities = 418/478 (87 %), no gaps). The closest hit using the *rpb2* sequence is *Montagnula opulenta* strain AFTOL-ID 1734 (= CBS 168.34) (GenBank DQ677984; Identities = 869/947 (92 %), 4 gaps). The closest hit using the *tef1* sequence is *Bimuria novae-zelandiae* type strain AFTOL-ID 931 (= CBS 107.79) (GenBank DQ471087; Identities = 902/950 (95 %), 2 gaps).



Maximum likelihood (ML) tree obtained from ITS of our isolate and sequences retrieved from GenBank. Alignment and tree building were performed by MEGA v. 6.06 (Tamura et al. 2013). The ML bootstrap support values (≥ 70 %) are provided at the nodes. *Tremateia arundicola* MFLUCC 16-1275 and *Tremateia guiyangensis* GZAAS01 were used as outgroup. The new species proposed in this study is indicated in **bold**. † represents ex-type strains of the species used in this analysis.

Colour illustrations. Dallas, Texas, USA (image credit: Carol M. Highsmith); colony on OA after 14 d at 25 ± 1 °C, pycnidium under the dissecting microscope, pycnidium, conidiogenous cells, conidia. Scale bars = 10 µm.

Nicomedes Valenzuela-Lopez, Mycology Unit, Medical School and IISPV, Universitat Rovira i Virgili (URV), Sant Llorenç 21, 43201 Reus, Tarragona, Spain; and Unidad de Microbiología, Departamento de Tecnología Médica, Facultad de Ciencias de la Salud, Universidad de Antofagasta, Av. Universidad de Antofagasta 02800, Antofagasta, Chile; e-mail: nicomedes.vl@gmail.com
 Alberto M. Stchigel, Josep Guarro & José F. Cano-Lira, Mycology Unit, Medical School and IISPV, Universitat Rovira i Virgili (URV), Sant Llorenç 21, 43201 Reus, Tarragona, Spain; e-mail: alberto.stchigel@urv.cat, josep.guarro@urv.cat & jose.cano@urv.cat