

*Dematiocladium celtidicola*



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***Dematiocladium celtidicola*** Crous, M.J. Wingf. & Y. Zhang ter, *sp. nov.*

*Etymology.* Named after the host genus from which it was collected, *Celtis*.

*Setae* unbranched, flexuous, 200–400 × 12–20 µm, arising from pseudoparenchymatous cells in a basal stroma or microsclerotia (ascomatal initials?), adjacent to cells that give rise to conidiophore stipes; setae yellow-brown, smooth to finely roughened, thick-walled, basal cell rounded and well-defined; stipe becoming thinner walled towards the acute apex; apical cell sometimes becoming fertile, setae extending beyond the conidiophores. *Conidiophores* consisting of a stipe, a penicillate arrangement of fertile branches, and rarely, an extension of the stipe, signifying continued growth and eventual branching of the stipe and secondary penicillate conidiophores. *Stipe* septate, hyaline, smooth, arising from tightly arranged pale to medium brown pseudoparenchymatous cells in a basal stroma, 40–150 × 4–5 µm. *Conidiogenous apparatus* 30–40 µm long, 40–50 µm wide; branches hyaline, smooth, 1–2-septate; primary branches subcylindrical to more swollen and doliiform to ellipsoid, 10–15 × 5–10 µm; additional branches (up to 2), 10–15 × 5–7 µm; terminal branches producing 1–6 phialides. *Phialides* elongate doliiform to reniform or subcylindrical, straight to slightly curved, aseptate, 10–20 × 3–4 µm; apex with minute periclinal thickening and inconspicuous collarette. *Conidia* cylindrical, rounded at both ends, straight, hyaline, (31–)35–38(–43) × 3(–3.5) µm, 1-septate, lacking a visible abscission scar, held in parallel clusters by colourless slime. *Chlamydospores* globose, 15–25 µm wide, thick-walled, red-brown, forming microsclerotia.

*Culture characteristics* — Colonies reaching 50 mm diam after 2 wk at 22 °C. On MEA spreading, with sparse aerial mycelium and smooth, even margins; surface with concentric circles of orange and ochreous, reverse apricot. On OA orange. On PDA surface and reverse orange, outer region amber.

*Typus.* CHINA, Beijing, Great Wall of China, N40°21'36.8" E116°00'52.2", on leaves of *Celtis bungeana* (*Ulmaceae*), 1 Sept. 2013, P.W. Crous, M.J. Wingfield & Y. Zhang (holotype CBS H-21716, culture ex-type CPC 23617 = CBS 138002; ITS sequence GenBank KJ869157, LSU sequence GenBank KJ869214, MycoBank MB808941).

*Notes* — The genus *Dematiocladium* was introduced to accommodate a cylindrocladium-like fungus growing on *Celtis tala* in Argentina, characterised by having pigmented setae (Crous et al. 2005). Due to its penicillate conidiophores and cylindrical, hyaline conidia, the genus *Dematiocladium* resembles *Calonectria* (= *Cylindrocladium*) (Lombard et al. 2010) and genera in the *Cylindrocarpon* complex (Chaverri et al. 2011, Cabral et al. 2012), but is distinct in that it has dematiaceous stipes dispersed among its conidiophores.

Although *D. celtidis* was collected from leaf litter of *Celtis tala* in Argentina, *D. celtidicola* was associated with leaf spots on living leaves of *Celtis bungeana* in China, suggesting that it could be a potential plant pathogen. Inoculation studies would be required, however, to prove this assumption.

*ITS.* Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence are *Heliscus submersus* (GenBank HQ897796; Identities = 524/559 (94 %), Gaps = 13/559 (2 %)), *Glionectria tenuis* (GenBank EF495240; Identities = 519/556 (93 %), Gaps = 21/556 (3 %)) and *Gliocladiopsis sagariensis* (GenBank JQ666063; Identities = 505/541 (93 %), Gaps = 21/541 (3 %)).

*LSU.* Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Dematiocladium celtidis* (GenBank AY793438; Identities = 869/876 (99 %), no gaps), *Gliocephalotrichum bulbilium* (GenBank JQ666076; Identities = 891/903 (99 %), no gaps) and *Neonectria ramulariae* (GenBank HM042435; Identities = 878/890 (99 %), no gaps).

*Colour illustrations.* Symptomatic *Celtis bungeana* next to the Great Wall, China; conidiophores, setae and conidia in culture. Scale bars = 10 µm.

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