

Harzia cameroonensis



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Harzia cameroonensis Crous & Jol. Roux, *sp. nov.*

Etymology. Named after the country where it was collected, Cameroon.

Foliicolous. Mycelium consisting of hyaline, smooth, branched, septate hyphae, 3–4 µm diam. *Conidiophores* dimorphic. *Microconidiophores* erect, cylindrical, straight or curved, mostly unbranched, hyaline, smooth, 3–8-septate, 30–200 × 3–4 µm. *Microconidiogenous cells* terminal or lateral, having swollen vesicles that are aspergillus-like, globose to somewhat clavate, elongated, hyaline, smooth, 6–8 µm diam, covered in ampulliform, hyaline phialides, 7–10 × 2.5–3.5 µm; apex 1.5 µm diam, with minute, non-flared collarettes. *Microconidia* hyaline, smooth, aseptate, ellipsoid to clavate, apex obtuse, tapering to truncate base, 2–5 × 1.5–2 µm. *Macroconidiophores* terminal or lateral on hyphae, 1–4-septate, branched or not, frequently aggregated, giving rise to clusters of conidia, subcylindrical, hyaline, smooth, 10–50 × 5–7 µm. *Macroconidiogenous cells* hyaline, smooth, terminal and lateral, subcylindrical to ampulliform, 7–15 × 5–8 µm, with a terminal separating cell, 3–10 × 3–5 µm; with rhexolytic separation, leaving a non-flared collarette on the conidiogenous cell. *Macroconidia* solitary, globose to obovoid, guttulate, hyaline and smooth when young, becoming brown, thick-walled (2 µm diam), warty and ridged with age, developing a basal transverse septum, (18–)26–36(–40) × (15–)25–32(–36) µm; basal marginal frill hyaline, not flared, cylindrical, 3–10 µm long; basal hilum truncate, 4–6 µm diam; conidia 1-septate, with transverse septum (2–3 µm thick) developing 3–10 µm from hilum, with visible central pore in septum.

Culture characteristics — Colonies covering the dish within 2 wk, with moderate aerial mycelium; on MEA surface and reserve cinnamon; on PDA surface and reverse buff; on OA surface buff to honey.

Typus. CAMEROON, Mount Cameroon campsite, unknown creeper plant host, 24 Oct. 2012, J. Roux (holotype CBS H-21428, culture ex-type CPC 22065, 22066 = CBS 136420, ITS sequence GenBank KF777163, LSU sequence GenBank KF777216, MycoBank MB805830).

Notes — *Harzia cameroonensis* is a typical species of *Harzia*, with sympodially branched, hyaline superficial mycelium, brown conidia and a *Proteophiala* synasexual morph. *Harzia* is distinguished from *Olpitrichum* (which also has a *Proteophiala* synasexual morph), by having conidia separated by means of a separating cell. Of the three species of *Harzia* presently known, *H. cameroonensis* is distinct based on its larger, 1-septate conidia (Domsch et al. 2007). Although *Harzia* has been linked to *Melanconium* sexual morphs (Goh et al. 1998), the genus may well be polyphyletic, and more collections are required to resolve its phylogeny.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Sphaerodes fimicola* (GenBank AY015628; Identities = 820/843 (97 %), Gaps = 1/843 (0 %)), *Melanospora brevirostris* (GenBank AY015627; Identities = 820/843 (97 %), Gaps = 1/843 (0 %)) and *Sphaerodes quadrangularis* (GenBank GQ354530; Identities = 825/853 (97 %), Gaps = 1/853 (0 %)). Closest hits using the ITS sequence had highest similarity to *Harzia acremonioides* (GenBank HQ698593; Identities = 579/618 (94 %), Gaps = 20/618 (3 %)) and *Sphaerodes fimicola* (GenBank JQ034510; Identities = 441/494 (89 %), Gaps = 31/494 (6 %)). The GenBank sequence of *Harzia acremonioides* (GenBank HQ698593) also contained 491 nucleotides of LSU sequence; a similarity of 99 % (502/505 nucleotides) was observed between our sequence and this combined ITS/LSU sequence. Unfortunately, it was not possible to compare the complete length of our LSU sequence (853 nucleotides) with the corresponding complete LSU sequence of *Harzia acremonioides*.

Colour illustrations. Mount Cameroon campsite; mycelium giving rise to macroconidiophores with macroconidia of *H. cameroonensis*, and microconidiophores and microconidia of a *Proteophiala* synasexual morph. Scale bars = 10 µm.

Pedro W. Crous & Johannes Z. Groenewald, CBS-KNAW Fungal Biodiversity Centre, P.O. Box 85167, 3508 AD Utrecht, The Netherlands; e-mail: p.crous@cbs.knaw.nl & e.groenewald@cbs.knaw.nl
Jolanda Roux, Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria, Private Bag X20, Pretoria, 0028, South Africa; e-mail: jolanda.roux@fabi.up.ac.za