

Bezerromyces gobabebensis



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***Bezerromyces gobabebensis* Crous, sp. nov.**

Etymology. Name refers to the Gobabeb Namib Research Institute, Namibia.

Classification — *Bezerromycetaceae*, *Bezerromycetales*, *Dothideomycetes*.

Ascomata separate, pseudothecial, globose, brown, 200–300 µm diam, covered in brown setae, flexuous, septate, verruculose with obtuse ends, up to 300 µm tall, 5–7 µm diam at base; wall of 6–8 layers of brown *textura angularis*. *Pseudo-paraphyses* intermingled among asci, hyaline, smooth, septate, anastomosing, 2.5–3 µm diam, hyphae-like. *Asci* bitunicate, 8-spored, subcylindrical to slightly clavate with a well-defined ocular chamber and foot cell, 80–100 × 18–20 µm. *Ascospores* bi- to triseriate, fusoid-ellipsoid, ends subobtuse, constricted at septum just above median, and widest above this septum, transversely 3–6-septate, 2–4 oblique and vertical septa; initially hyaline, becoming brown with age, guttulate, (23–)28–31(–35) × (8–)9 µm.

Culture characteristics — Colonies flat, spreading, with moderate aerial mycelium and smooth, lobate margin, reaching 20 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface and reverse olivaceous grey.

Typus. NAMIBIA, Gobabeb Namib Research Institute, on leaves of unidentified succulent, growing in gravel plains of Central Namib Desert, 20 Nov. 2019, P.W. Crous, HPC 3097 (holotype CBS H-24489, culture ex-type CPC 38934 = CBS 146977, ITS, LSU and *tef1* (second part) sequences GenBank MZ064426.1, MZ064483.1 and MZ078249.1, MycoBank MB 839514).

Notes — *Bezerromyces gobabebensis* clusters as a new species sister to a clade along with *Xiliomyces brasiliensis* (sterile *Dothideomycetes*) and species of *Bezerromyces* (Bezerra et al. 2017). Based on these data, and the morphology of *B. gobabebensis*, we have chosen to expand the circumscription of *Bezerromyces* to also include the genus *Xiliomyces*. A new name is proposed below, because the epithet *brasiliensis* is already occupied.

Colour illustrations. Namib Desert. Ascomata on OA; asci and pseudo-paraphyses; ascospores. Scale bars = 300 µm (ascomata), 10 µm (all others).

***Bezerromyces pseudobrasiliensis* Crous, nom. nov.** MycoBank MB 839515

Basionym. *Xiliomyces brasiliensis* J.D.P. Bezerra et al., Mycol. Progr. 16: 304. 2016 '2017'.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Bezerromyces pernambucoensis* (strain URM7412, GenBank KX470391.1; Identities = 510/542 (94 %), 11 gaps (2 %)), *Bezerromyces brasiliensis* (strain CBS 141545, GenBank NR_153463.1; Identities = 510/542 (94 %), 11 gaps (2 %)) and *Xiliomyces brasiliensis* (strain CBS 141536, GenBank NR_153464.1; Identities = 508/542 (94 %), 11 gaps (2 %)). Closest hits using the LSU sequence are *Bezerromyces pernambucoensis* (strain URM7412, GenBank KX518624.1; Identities = 803/810 (99 %), two gaps (0 %)), *Xiliomyces brasiliensis* (strain CBS 141536, GenBank NG_069377.1; Identities = 788/795 (99 %), two gaps (0 %)) and *Bezerromyces brasiliensis* (strain CBS 141545, GenBank NG_069376.1; Identities = 801/809 (99 %), two gaps (0 %)). Closest hits using the *tef1* sequence had highest similarity to *Xiliomyces brasiliensis* (strain URM7413, GenBank KX518633.1; Identities = 428/439 (97 %), no gaps), *Bezerromyces pernambucoensis* (strain URM7412, GenBank KX518632.1; Identities = 424/439 (97 %), no gaps) and *Bezerromyces brasiliensis* (strain URM7411, GenBank KX518631.1; Identities = 424/439 (97 %), no gaps).

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