



Fungal Planet 58 – 23 December 2010

Exophiala encephalarti Crous, sp. nov.

Exophialae placitae similis, sed conidiis minoribus, (3–)4–5(–6) × (2–)2.5(–3) μm, discernitur.

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

Mycelium consisting of smooth, septate, brown, branched, 2–3 μm diam hyphae. *Conidiophores* mostly reduced to conidiogenous cells, or with a supporting cell. *Conidiogenous cells* pale brown, smooth, reduced to conidiogenous loci, 0.5 μm wide, or ampulliform to doliiform, 5–7 × 1.5–2.5 μm; proliferating 1–2 times percurrently near apex. *Conidia* aseptate, (3–)4–5(–6) × (2–)2.5(–3) μm, ellipsoid, hyaline, smooth, guttulate, widest in middle, apex obtuse, tapering to a subtruncate base, 0.5 μm wide.

Culture characteristics — (in the dark, 25 °C, after 1 mo): Colonies on oatmeal agar slimy, lacking aerial mycelium, with diffuse margins, greyish-sepia. On potato-dextrose agar flat, spreading, with sparse aerial mycelium and feathery margins; surface olivaceous-grey with iron-grey margins; reverse iron-grey; colonies reaching 15 mm diam.

Typus. SOUTH AFRICA, Western Cape Province, Kirstenbosch Botanical Garden, on leaves of *Encephalartos transvenosus*, 27 Feb. 2009, P.W. Crous, CBS-H 20491 holotype, cultures ex-type CPC 16282, 16281 = CBS 128210, ITS sequence of CPC 16281 GenBank HQ599588 and LSU sequence of CPC 16281 GenBank HQ599589, MycoBank MB517537.

Notes — Based on the LSU sequence of *Exophiala encephalarti*, a megablast search of the NCBI's GenBank nucleotide database reveals the closest neighbours to be *Brycekenrickomyces acaciae* (GenBank FJ839641; Identities = 852/880 (97 %), Gaps = 10/880 (1 %)), *Exophiala placitae* (GenBank EU040215; Identities = 845/885 (96 %), Gaps = 16/885 (1 %)) and *Sarcinomyces petricola* (GenBank FJ358249; Identities = 814/854 (96 %), Gaps = 16/854 (1 %)), all in *Chaetothyriales*. Morphologically it resembles other species of *Exophiala*¹, though phylogenetically, it appears to represent a distinct lineage.

Colour illustrations. *Encephalartos* plants growing in Kirstenbosch Botanical Garden; hyphae with conidiogenous cells giving rise to conidia. Scale bar = 10 μm.

Reference. ¹Crous PW, Schubert K, Braun U, Hoog GS de, Hocking AD, Shin H-D, Groenewald JZ. 2007. Opportunistic, human-pathogenic species in the Herpotrichiellaceae are phenotypically similar to saprobic or phytopathogenic species in the Venturiaceae. *Studies in Mycology* 58: 185–217.