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Exophiala tremulae* W. Wang, sp. nov.Exophialae pisciphilae* similis, sed conidiis minoribus, 3–4 × 1–1.5 µm.**Etymology.** Named after its host species, *Populus tremuloides*.

Hyphae smooth, straight to toruloid, up to 1.5 µm wide. *Conidiophores* monilioid, branched, smooth, up to 30 µm long (Fig. a, b). *Conidiogenous cells* annellidic (Fig. b–e), arising from conidiophores or directly from vegetative hyphae (Fig. a, b), ellipsoidal to ampulliform (Fig. b, d, e), 2.2–6 × 1.5–2 µm, annellides elongated (Fig. d, e), 8 × 1.3 µm. *Conidia* cylindrical, rounded at the apex, truncate at the base, hyaline, smooth, 0–1-septate (Fig. b–d), 3–4 × 1–1.5 µm. *Seta*-like hyphae and chlamydospores absent. *Teleomorph* unknown.

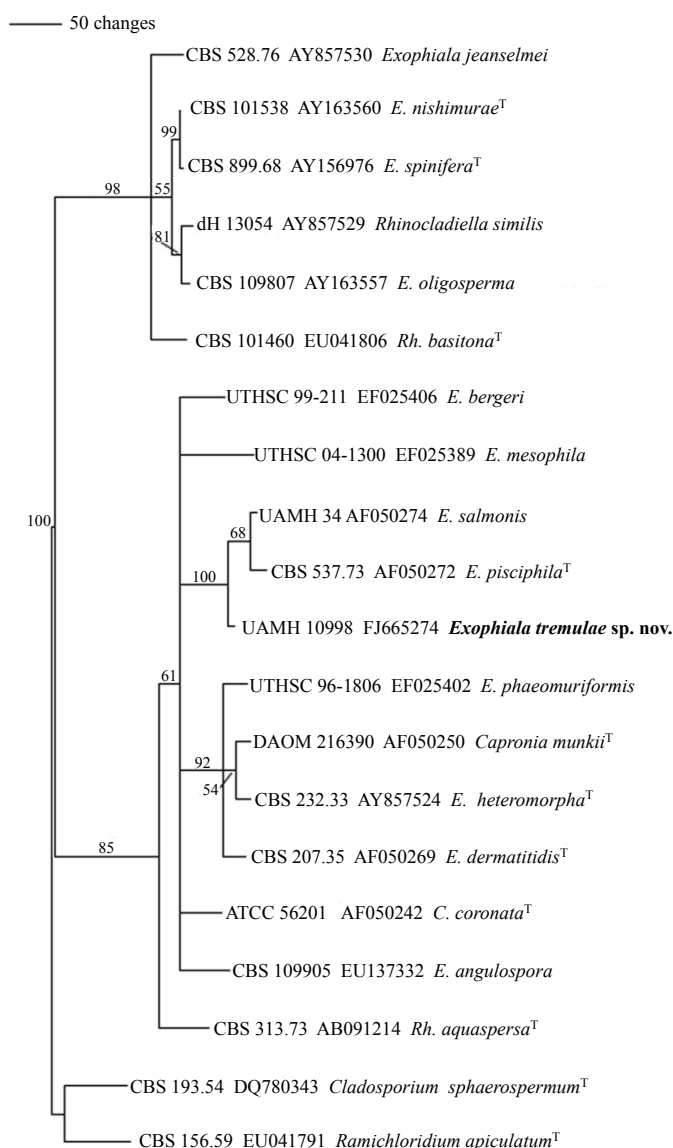
Culture characteristics — Colonies on 2 % potato-dextrose agar (PDA) at 22 °C after 14 d were 10–15 mm diam, velvety to floccose, olivaceous to greyish black, aerial hyphae humped, pale brown at the centre, reverse olivaceous to black. Colonies on 2 % malt extract agar (MEA) and cereal agar (25 g Pabulum™ Mixed Cereal baby food (Mead Johnson & Co., Pittsburgh, PA, USA), 5 g select agar (Invitrogen, Carlsbad, CA, USA), 1 L dH₂O) grew faster (15–20 mm diam at 22 °C after 14 d) while growth was slower on Sabouraud's agar and V-8 juice agar (only 10 mm diam at 22 °C after 14 d). Sporulation occurred on MEA and oatmeal agar after about 1 mo of incubation. Yeast-like growth occurred on PDA after 7 d.

Known distribution — Only from the type locality.

Typus. CANADA, Alberta, Edmonton, Lamont, alt. c. 664 m, from roots of apparently healthy 5–7-year-old *Populus tremuloides* sapling, 23 June 2004, W. Wang, holotype UAMH 10998, ITS sequence GenBank FJ665274 and LSU sequence GenBank JF951155, MycoBank MB519208.

Notes — *Exophiala tremulae* tested negatively for phenol-oxidase and positively for gelatinase and cellulase. It was unable to break down casamino acids but acidified the media as indicated by the yellow colour formation in the agar. This suggests that *E. tremulae* could act as a saprobe of primary incidence (Munk 1957). The ecological role of *E. tremulae* is presently still unknown. BLASTn results of the ITS sequence showed that *E. tremulae* had a high similarity to *E. pisciphila* (94 % identical) and *E. salmonis* (96 % identical).

Colour illustrations. *Populus tremuloides* stand in Alberta, Canada. a. Toruloid hyphae and conidiophores; b. conidiogenous cells (arrows) and conidia (arrow head); c. annellide (arrow); d. annellations (arrow); e. an elongated annellide (arrow). — Scale bars: a = 20 µm; b = 1.5 µm; c, d = 2 µm; e = 1 µm.



Single most parsimonious tree (TL = 880; CI = 0.651; RI = 0.568; HI = 0.349) obtained from a heuristic search with 1 000 random taxon additions of an ITS sequence alignment with PAUP v4.0b10 (Swofford 2003), showing the relationship between *Exophiala tremulae* sp. nov. and other related *Capronia* spp., *Exophiala* spp., and *Rhinodadiella* spp. The scale bar shows 50 changes, and bootstrap support values over 50 % from 1 000 replicates are shown at the nodes. The species described here is printed in **bold** face. Ex-types were flagged with 'T'. GenBank, ATCC, CBS, DAOM, dH, UAMH, and UTHSC accession numbers are also indicated. The tree was rooted to *Cadosporium sphaerospermum* and *Ramichloridium apiculatum*. The alignment and tree is available in MycoBank (Accession MB519208).