

Hymenotorrendiella communis



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Hymenotorrendiella communis* Crous & P.R. Johnst., sp. nov.Etymology.* Name refers to the common occurrence of this species.Classification — *Helotiaceae*, *Helotiales*, *Leotiomyces*.

Apothecia scattered on leaves, at times aggregated in clusters of 2–3, erumpent, stipitate, arising from a subepidermal brown stroma. *Disc* plane to convex, greyish brown to olivaceous, smooth, 0.4–1.0 mm diam. *Receptacle* cupulate, usually darker than the hymenium, bearing dark brown setae. *Stipe* central, smooth, brown, 0.2–0.6 mm high, 180–200 µm diam. *Setae* 40–100 per apothecium, 150–300 µm long, smooth, dark brown, thick-walled, multiseptate, tip subobtusely rounded (2.5–3 µm diam), swollen at base, 9–15 µm diam. *Asci* cylindrical-clavate, apex conical-rounded, apical mechanism bluing slightly in Melzer's reagent, croziers present, 8-spored, 90–115 × 7–9 µm. *Ascospores* fusoid, aseptate, tapering towards ends, guttulate, hyaline with mucoid caps at each end, (16–)20–21(–22) × (3.5–)4 µm. *Paraphyses* simple or branched near base, obtuse, hyaline, somewhat inflated, 2.5–3 µm diam at apex.

Culture characteristics — Colonies flat, spreading, with even smooth margin and sparse to moderate aerial mycelium, covering dish after 2 wk at 25 °C. On MEA surface cinnamon with patches of hazel, reverse sienna to umber. On PDA surface amber to ochreous, reverse amber. On OA surface ochreous with patches of cinnamon.

Typus. AUSTRALIA, New South Wales, La Trobe State Forest, on leaf litter of *Eucalyptus bicostata* (*Myrtaceae*), 30 Nov. 2015, P.W. Crous, HPC 1871 (holotype CBS H-24367, culture ex-type CPC 32835 = CBS 146703; ITS sequence GenBank MT373382.1, MycoBank MB835413).

Notes — The phylogeny and morphology of *Torrendiella* and *Hymenotorrendiella* was discussed in detail by Johnston et al. (2014). Although the name *Torrendiella eucalypti* has commonly been used for the species occurring on *Eucalyptus* leaf litter (Crous et al. 2006), Johnston et al. (2014) showed that the type of *T. eucalypti* occurred on fallen phylloides of an *Acacia* sp. (Tasmania, Australia), which then became the type species of the new genus *Hymenotorrendiella*. However, this resulted in the common endophyte and saprobe occurring on eucalypt leaf litter not having a name. Several collections from *Eucalyptus* leaf litter were investigated in the present study, and two taxa were found to be present. The first, described here as *H. communis*, occurred in a clade with isolates from Australia, Colombia, Spain, and South Africa. Morphologically, however, the South African isolates differ from others in this clade based on macromorphology. Apothecia have shorter stalks, 100–200 µm high; setae vary from 60–80 per apothecium, but are much shorter, and wider than those from other collections in this clade, being 70–150 µm long, with obtuse apices, 4(–5) µm

Colour illustrations. *Eucalyptus* along roadside in La Trobe State Forest, where *H. communis* was collected. Apothecia with setae; cupulate receptacle with setae; asci; seta; ascus; ascospores. Scale bars: cupulate receptacle = 200 µm, all others = 10 µm.

diam, and slightly inflated bases, 4–7 µm diam. *Asci* are similar however, being 85–110 × 6–8 µm, as well as ascospores, (15–)19–21(–23) × (3.5–)4 µm. *Hymenotorrendiella communis* can be distinguished from the second species, *H. indonesiana* (ascospores 17–25 × 3–4 µm), which occurs in Indonesia, by its shorter and wider ascospores.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Hymenotorrendiella indonesiana* (as *Torrendiella eucalypti*; strain 4876, GenBank FR668015.1; Identities = 522/527 (99 %), 5 gaps (0 %)), *Hymenotorrendiella andina* (as *Torrendiella andina*; strain PRJ SA193, GenBank KJ606682.1; Identities = 447/459 (97 %), no gaps), and *Hymenotorrendiella madsenii* (as *Torrendiella madsenii*; voucher PDD 58572, GenBank AY755336.1; Identities = 420/433 (97 %), 1 gap (0 %)).

Hymenotorrendiella indonesiana* Crous & P.R. Johnst., sp. nov.Etymology.* Name refers to Indonesia, the country from which it was collected.

Description, Illustration & Discussion — See Crous et al. (2006), Stud. Mycol. 55: 61. 2006.

Typus. INDONESIA, on *Eucalyptus urophylla* leaf litter, Mar. 2004, M.J. Wingfield (holotype CBS H-18041, single-ascospore cultures ex-type, CPC 11049 = CBS 115326, CPC 11050–11051; ITS, LSU and SSU sequences GenBank DQ195787.1–DQ195789.1, DQ195799.1–DQ195800.1 and DQ195810.1–DQ195811.1, MycoBank MB835414).

Notes — Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence of CPC 11049 had highest similarity to *Hymenotorrendiella andina* (as *Torrendiella andina*; strain PRJ SA193, GenBank KJ606682.1; Identities = 480/501 (96 %), 7 gaps (1 %)), *Hymenotorrendiella eucalypti* (voucher PDD 70105, GenBank MH578483.1; Identities = 470/495 (95 %), 7 gaps (1 %)), and *Hymenotorrendiella cannibalensis* (as *Torrendiella cannibalensis*; strain ICMP 18818, GenBank JN225947.1; Identities = 475/502 (95 %), 9 gaps (1 %)). The ITS sequences of CPC 11049, 11050 and 11051 are identical (498/498 bp). Closest hits using the **LSU** sequence of CPC 11049 are *Endoscypha perforans* (voucher PDD 102231, GenBank MK039717.1; Identities = 851/860 (99 %), no gaps), *Hymenotorrendiella madsenii* (as *Torrendiella madsenii*; strain PRJ D672, GenBank KJ606676.1; Identities = 817/829 (99 %), no gaps), and *Roesleria subterranea* (strain CBS 201.25, GenBank MH866343.1; Identities = 839/853 (98 %), no gaps).

Supplementary material**FP1057 & 1058-1** Additional materials examined - *Hymenotorrendiella communis***FP1057 & 1058-2** Additional materials examined - *Hymenotorrendiella indonesiana***FP1057 & 1058-3** The first of 28 equally most parsimonious trees obtained from a phylogenetic analysis of the *Hymenotorrendiella*

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