

Myrotheciomyces corymbiae



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***Myrotheciomycetaceae* Crous, fam. nov.**

Classification — *Myrotheciomycetaceae*, *Hypocreales*, *Sordariomycetes*.

Conidiomata superficial on media, solitary conidiophores to sporodochia, with crystalline to white or orange conidial mass; with or without basal stroma. Conidiophores, hyaline, smooth to warty, unbranched to branched, subcylindrical, with terminal and lateral conidiogenous cells. *Conidiogenous cells* hyaline, smooth, phialidic, or with retrogressive conidiogenesis. *Conidia*

aggregated in slimy mass, 0–1-septate, hyaline, smooth, fusoid-ellipsoid, apex subobtusate, base truncate, unthickened.

Type genus. *Myrotheciomyces* Crous.
Mycobank MB825408.

Notes — The family *Myrotheciomycetaceae* presently includes *Emericellopsis*, *Leucosphaerina*, *Myrotheciomyces* and *Trichothecium*.

***Myrotheciomyces* Crous, gen. nov.**

Etymology. Name reflects a similarity to the genus *Myrothecium*.

Conidiomata superficial on media, sporodochial, round to irregular, white with slimy orange conidial mass, surrounded by a loose hyphal network; basal stroma giving rise to densely aggregated conidiophores, hyaline, smooth to warty, excessively branched, subcylindrical, with terminal and lateral conidiogenous cells. *Conidiogenous cells* hyaline, smooth, fusoid-

ellipsoid, curved with prominent taper in upper third to a phialidic apex, with minute collarette. *Conidia* solitary, aggregated in slimy mass, hyaline, smooth, thick-walled, granular, aseptate, fusoid-ellipsoid, apex subobtusate, base truncate, unthickened.

Type species. *Myrotheciomyces corymbiae* Crous.
Mycobank MB825409.

***Myrotheciomyces corymbiae* Crous, sp. nov.**

Etymology. Name refers to *Corymbia*, the host genus from which this fungus was collected.

Conidiomata superficial on media, sporodochial, round to irregular, 200–400 µm diam, white with slimy orange conidial mass, surrounded by a loose hyphal network; basal stroma giving rise to densely aggregated conidiophores, hyaline, smooth to warty, excessively branched, subcylindrical, up to 150 µm long, 3–5 µm diam, with terminal and lateral conidiogenous cells. *Conidiogenous cells* hyaline, smooth, fusoid-ellipsoid, curved with prominent taper in upper third to a phialidic apex, 2 µm diam, with minute collarette, 20–27 × 4–5 µm. *Conidia* solitary, aggregated in slimy mass, hyaline, smooth, thick-walled, granular, aseptate, fusoid-ellipsoid, apex subobtusate, base truncate, 2 µm diam, unthickened, (13–)16–18(–20) × (5–)6 µm.

Culture characteristics — Colonies spreading, with moderate aerial mycelium and even margin, covering dish after 2 wk at 25 °C. On MEA surface ochreous, reverse luteous. On PDA surface pale luteous, reverse amber. On OA surface ochreous to saffron.

Typus. AUSTRALIA, New South Wales, Dyraba, Dyraba plantation, S28°47'20.5" E152°49'03", on leaves of *Corymbia variegata* (*Myrtaceae*), 14 Mar. 2015, A.J. Carnegie (holotype CBS H-23583, culture ex-type CPC 33206 = CBS 144420, ITS and LSU sequences GenBank MH327801.1 and MH327837.1, MycoBank MB825410).

Notes — Morphologically, the present collection resembles species accommodated in the *Myrothecium* complex. The *Myrothecium* generic complex was recently treated by Lombard et al. (2016), none of which cluster with the fungus from *Corymbia*, which is allied to hypocrealean isolates identified as *Trichothecium*, *Niesslia* and *Leucosphaerina*. The new genus, *Myrotheciomyces*, is therefore introduced to accommodate the fungus occurring on *Corymbia*.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the ITS sequence had highest similarity to *Niesslia exilis* (GenBank MG826991.1; Identities = 552/636 (87 %), 56 gaps (8 %)), *Trichothecium ovalisporum* (GenBank NR_111321.1; Identities = 539/623 (87 %), 52 gaps (8 %)) and *Trichothecium roseum* (GenBank EU552162.1; Identities = 546/638 (86 %), 44 gaps (6 %)). Closest hits using the LSU sequence are *Niesslia exilis* (GenBank MG826794.1; Identities = 854/866 (99 %), 1 gap (0 %)), *Trichothecium roseum* (GenBank JX458860.1; Identities = 773/786 (98 %), no gaps) and *Leucosphaerina indica* (GenBank AF096194.1; Identities = 854/869 (98 %), 2 gaps (0 %)).

Colour illustrations. *Eucalyptus* trees; conidiomata sporulating on pine needle agar (scale bar = 400 µm), conidiogenous cells and conidia (scale bars = 10 µm).

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