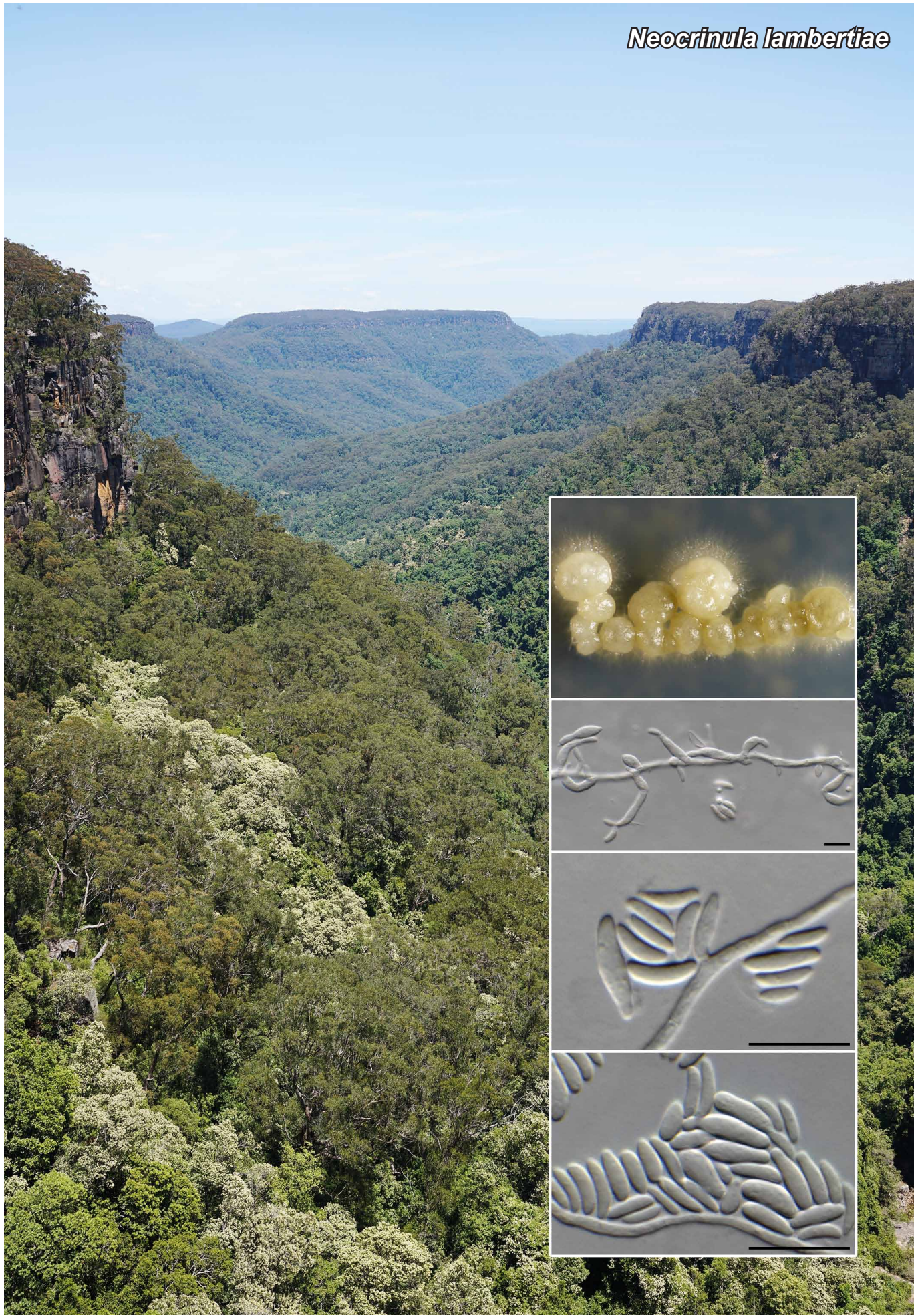


Neocrinula lambertiae



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***Neocrinulaceae* Crous, fam. nov.**

Classification — *Neocrinulaceae*, *Helotiales*, *Leotiomyces*.

Mycelium consisting of branched, septate, hyaline to brown, smooth to verruculose hyphae. *Conidiomata* sporodochial or synnematos, hyaline to brown, consisting of densely aggregated conidiophores. *Conidiophores* hyaline to brown, smooth to verruculose, subcylindrical, branched, septate. *Conidiogenous cells* phialidic, with periclinal thickening, cymbiform to

ampulliform or subcylindrical, hyaline, smooth. *Conidia* solitary, hyaline, smooth, granular, aggregating in slimy mass, aseptate, fusoid-ellipsoid, prominently curved, apex subobtuse, base bluntly rounded to truncate.

Type genus. *Neocrinula* Crous.
Mycobank MB823467.

***Neocrinula lambertiae* Crous, sp. nov.**

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

Mycelium consisting of branched, septate, hyaline, smooth, 2–2.5 µm diam hyphae. *Conidiomata* erumpent sporodochia, up to 350 µm diam, consisting of densely aggregated conidiophores. *Conidiophores* hyaline, smooth, subcylindrical, branched, multiseptate, up to 70 µm tall, 2–3 µm diam, frequently reduced to conidiogenous cells. *Conidiogenous cells* phialidic, with periclinal thickening, cymbiform to ampulliform or subcylindrical, hyaline, smooth, 7–15 × 2–3 µm. *Conidia* solitary, hyaline, smooth, granular, aggregating in slimy mass, aseptate, fusoid-ellipsoid, prominently curved, apex subobtuse, base bluntly rounded, (4–)7–8(–10) × 2(–3) µm.

Culture characteristics — Colonies erumpent, spreading, with sparse aerial mycelium and feathery, lobate margins, reaching 5 mm diam after 2 wk at 25 °C. On MEA and PDA surface and reverse pale luteous. On OA surface dirty white.

Typus. AUSTRALIA, New South Wales, Fitzroy Falls, Morton National Park, on leaves of *Lambertia formosa* (*Proteaceae*), 26 Nov. 2016, P.W. Crous (holotype CBS H-23285, culture ex-type CPC 32211 = CBS 143423, ITS and LSU sequences GenBank MG386049 and MG386102, MycoBank MB823398).

Notes — *Neocrinula* was recently introduced for a synnematal fungus occurring on *Xanthorrhoea* in Australia (Crous et al. 2017a). *Neocrinula lambertiae* differs from *N. xanthorrhoeae* in the sense that it does not form synnemata, but rather forms sporodochia in culture (although solitary conidiophores when observed on the host *in vivo*). The fact that synnemata and solitary conidiophores could occur in the same genus as has been noted by Videira et al. (2016) in the *Ramularia* generic complex. The phialidic mode of conidiogenesis, and hyaline, aseptate, fusoid-ellipsoid conidia are the same, suggesting that *N. lambertiae* represents the second species of the genus.

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were *Neocrinula xanthorrhoeae* (GenBank KY173414; Identities 489/517 (95 %), 2 gaps (0 %)), *Claussenomyces kirschsteini* (GenBank KY689628; Identities 470/532 (88 %), 12 gaps (2 %)) and *Davidhawksworthia illicicola* (GenBank KU728517; Identities 461/520 (89 %), 16 gaps (3 %)). The highest similarities using the LSU sequence were *Neocrinula xanthorrhoeae* (GenBank KY173505; Identities 874/887 (99 %), no gaps), *Encoeliopsis rhododendri* (GenBank KX090801; Identities 798/840 (95 %), 13 gaps (1 %)) and *Davidhawksworthia illicicola* (GenBank KU728555; Identities 820/864 (95 %), 13 gaps (1 %)).

Colour illustrations. Fitzroy Falls; conidiomata sporulating on SNA, conidiophores and conidia. Scale bars = 10 µm.

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