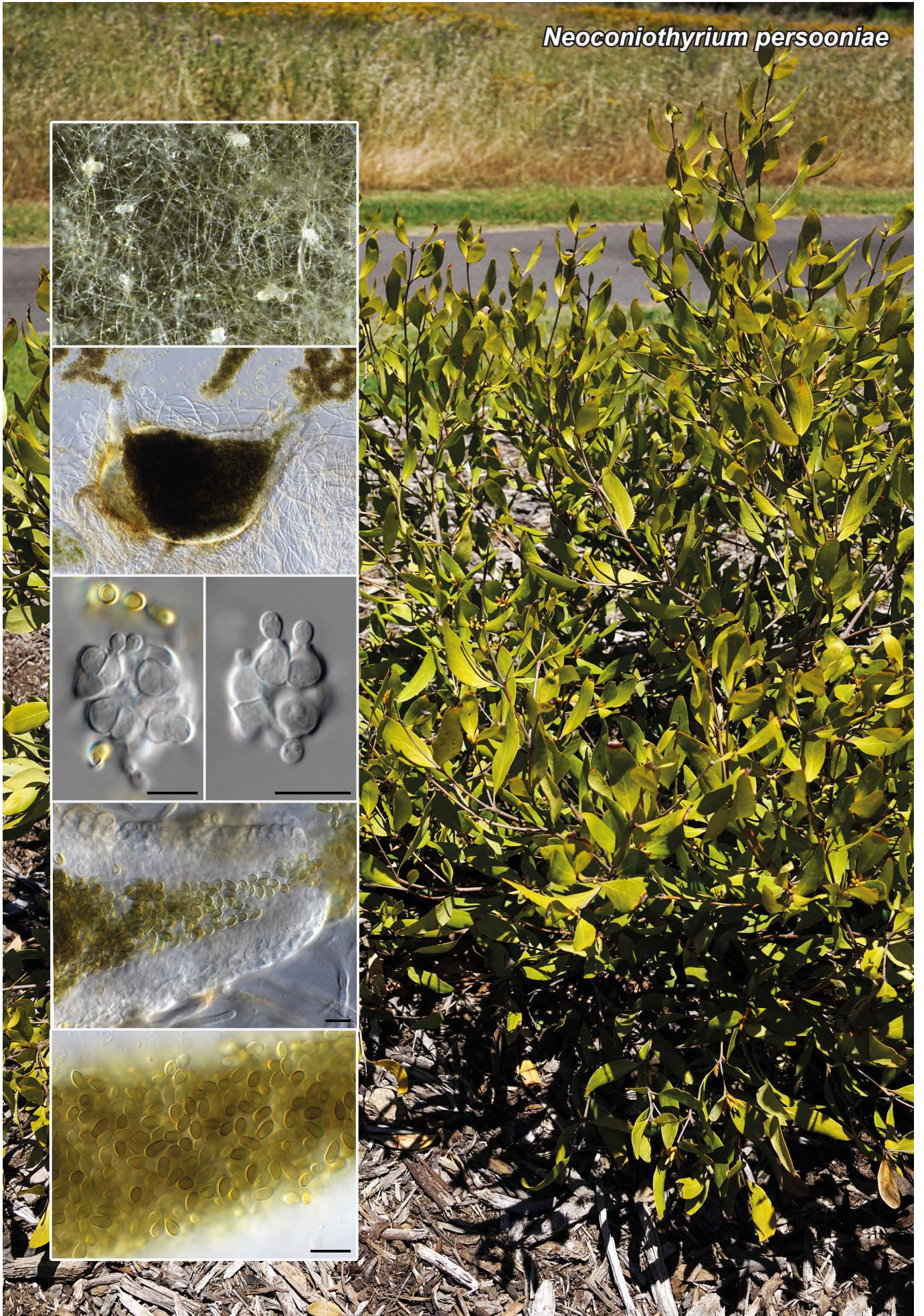


Neoconiothyrium persooniae



Fungal Planet 673 – 20 December 2017

Neoconiothyrium Crous, gen. nov.

Etymology. Name refers to *Coniothyrium*, a morphologically similar genus.

Classification — *Coniothyriaceae*, *Pleosporales*, *Dothideomycetes*.

Conidiomata superficial, ellipsoid to obpyriform, solitary, with 1–2 papillate ostioles; conidiomata hyaline on agar, becoming pigmented during sporulation; wall of 3–6 layers of thick-walled cells; surface with or without setae. *Conidiophores* reduced to

conidiogenous cells lining the inner cavity, hyaline, smooth, doliiform to ampulliform, phialidic, with periclinal thickening or percurrent proliferation. *Conidia* solitary, hyaline to medium brown, smooth to finely verruculose, ellipsoid to subclavate or subcylindrical, 0–1-septate.

Type species. *Neoconiothyrium persooniae* Crous.
MycoBank MB823385.

Neoconiothyrium persooniae Crous, sp. nov.

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

Sporulating on OA. *Conidiomata* superficial, ellipsoid to obpyriform, 100–200 µm diam, solitary, with 1–2 papillate ostioles, 10–15 µm diam; conidiomata hyaline on agar, becoming pigmented during sporulation, but wall of 3–6 layers of thick-walled cells, hyaline *textura angularis*. *Conidiophores* reduced to conidiogenous cells lining the inner cavity, hyaline, smooth, doliiform to ampulliform, phialidic, with periclinal thickening or percurrent proliferation, 5–8 × 4–5 µm. *Conidia* solitary, medium brown, finely verruculose, ellipsoid to subclavate, aseptate, becoming cylindrical and at times 1-septate, apex subobtuse, base bluntly rounded, (5–)6–7(–8) × 3(–4) µm.

Culture characteristics — Colonies erumpent, spreading, with moderate aerial mycelium and smooth, lobate margins, covering the dish after 1 mo at 25 °C. On MEA surface pale mouse grey, reverse dark mouse grey. On PDA surface and reverse mouse grey. On OA surface mouse grey.

Typus. AUSTRALIA, New South Wales, Australian Botanic Garden, Mount Annan, on leaves of *Persoonia laurina* subsp. *laurina* (*Proteaceae*), 25 Nov. 2016, P.W. Crous (holotype CBS H-23277, culture ex-type CPC 32021 = CBS 143175, ITS and LSU sequences GenBank MG386041 and MG386094, MycoBank MB823386).

Notes — *Neoconiothyrium persooniae* is phylogenetically related to *C. multipora* (De Gruyter et al. 2013) and *C. hakeae* (Crous et al. 2016a), which in turn cluster apart from *Coniothyrium* s.str., and clearly represent a distinct genus. Morphologically, however, this clade appears to be quite variable, as in *C. hakeae* the conidiomata are covered in setae (absent in *C. persooniae*), and the conidia are globose to broadly ellipsoid and aseptate. In contrast, conidia are initially ellipsoid and aseptate, becoming cylindrical and 1-septate in *C. persooniae*. Phylogenetically, they cluster together as sister genus to *Ochrocladosporium*.

Based on a megablast search using the ITS sequence, the closest matches in NCBI's GenBank nucleotide database were *Leptosphaeria proteicola* (GenBank JQ044439; Identities 455/482 (94 %), 7 gaps (1 %)), *Querciphoma carteri* (GenBank KF251209; Identities 524/572 (92 %), 16 gaps (2 %)), *Hazlinszkyomyces aloes* (GenBank NR_137821; Identities 536/591 (91 %), 16 gaps (2 %)) and *Ochrocladosporium elatum* (GenBank EU040233; Identities 536/588 (3 %), 30 gaps (5 %)). The highest similarities using the LSU sequence were *Coniothyrium hakeae* (GenBank KY173490; Identities 821/833 (99 %), no gaps), *Ochrocladosporium elatum* (GenBank EU040233; Identities 836/850 (98 %), 1 gap (0 %)) and *Coniothyrium telephii* (GenBank LN907332; Identities 839/855 (98 %), no gaps).

Neoconiothyrium hakeae (Crous & Barber) Crous, comb. nov.
— MycoBank MB823387

Basionym. *Coniothyrium hakeae* Crous & Barber, *Persoonia* 37: 347. 2016.

Neoconiothyrium multiporum (V.H. Pawar et al.) Crous, comb. nov. — MycoBank MB823388

Basionym. *Phoma multipora* V.H. Pawar et al., *Trans. Brit. Mycol. Soc.* 50: 260. 1967.

Synonym. *Coniothyrium multiporum* (V.H. Pawar et al.) Verkley & Gruyter, *Stud. Mycol.* 75: 24. 2012.

Colour illustrations. *Persoonia laurina* subsp. *laurina*; conidioma sporulating on SNA, conidiogenous cells and conidia. Scale bars = 10 µm.

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