

*Pleopassalora acaciae*



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***Pleopassalora acaciae* Crous & J. Edwards, sp. nov.**

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

**Classification** — *Mycosphaerellaceae*, *Capnodiales*, *Dothideomycetes*.

**Leaf spots** mostly epiphyllous, rarely amphigenous, irregular, dark brown, 1–2 mm diam, turning pale grey in centre with age. **Conidiomata** pycnidial, solitary, immersed, breaking through the epidermis by irregular rupture, 100–200 µm diam; wall of 3–6 layers of medium brown *textura angularis*, exuding a slimy conidial cirrus. In culture sporulating via large dark brown to black sporodochia, producing a dark brown conidial mass. On OA: **Stroma** consisting of brown, verruculose cells that give rise to aggregated conidiophores. **Conidiophores** medium brown, verruculose, subcylindrical, 0–1-septate, 15–20 × 4–7 µm. **Conidiogenous cells** terminal, verruculose, medium brown, subcylindrical, proliferating sympodially and percurrently, 7–15 × 4–7 µm. **Conidia** solitary, medium brown, verruculose, subcylindrical, apex obtuse, base truncate, 4–5 µm diam with marginal frill; hilum unthickened not darkened, 5–8-septate, (30–)40–52(–55) × (5–)6(–7) µm.

**Culture characteristics** — Colonies flat, spreading, surface folded, with moderate aerial mycelium and feathery, lobate margins, reaching 8 mm diam after 2 wk at 25 °C. On MEA surface olivaceous grey, reverse iron-grey. On PDA surface pale olivaceous grey, reverse olivaceous grey. On OA surface olivaceous grey.

**Typus.** AUSTRALIA, Victoria, Narbethong, on leaves of *Acacia obliquinervia* (*Fabaceae*), 6 May 2007, S. Morley (holotype CBS H-23096, cultures ex-type VPRI 40697 = CPC 28354 = CBS 142533, ITS, LSU and *actA* sequences GenBank MG386026, MG386082 and MG386134, MycoBank MB823367).

**Additional material examined.** AUSTRALIA, New South Wales, Nullica State Forest, on leaves of *Acacia falciformis*, 29 Nov. 2016, P.W. Crous, specimen CBS H-23316, culture CPC 32718 = CBS 143451, ITS sequence GenBank MG386027.

**Notes** — Beilharz et al. (2004) introduced *Passalora perplexa* to accommodate a pleomorphic cercosporoid fungus causing a prominent leaf spot disease of *Acacia crassicaarpa* in Australia and Indonesia. *Passalora perplexa* has subsequently been relegated to *Pleopassalora*, which is phylogenetically distinct from *Passalora* s.str. (Videira et al. 2017). *Pleopassalora acaciae* (occurring on *Acacia obliquinervia* in Australia) is morphologically distinct from *P. perplexa* (Type 1 conidia in sporodochia; 20–35 × 3–6 µm, (1–)3(–4)-septate; Beilharz et al. 2004), by producing medium brown conidia in slimy masses, 5–8-septate, 35–55 × 5–7 µm.

Based on a megablast search using the ITS sequence, the best matches were '*Passalora*' *loranthi* (GenBank EU514280; Identities = 493/505 (98 %), 7 gaps (1 %)), followed by *Exutisphaerella laricina* (GenBank EU167595; Identities = 526/542 (97 %), 5 gaps (0 %)), *Phaeocercospora juniperina* (GenBank KC870045; Identities 507/522 (97 %), 3 gaps (0 %)) and *Passalora sequoiae* (as *Mycosphaerella laricina*; GenBank GU214667; Identities = 524/540 (97 %), 2 gaps (0 %)). Based on the LSU sequence, the best matches were with *Pleopassalora perplexa* (GenBank GU214459; Identities 833/833 (100 %), no gaps), '*Passalora*' *loranthi* (GenBank KP895892; Identities 832/832 (100 %), no gaps) and *Phaeocercospora colophospermi* (GenBank NG\_042683; Identities 830/833 (99 %), no gaps). The megablast search using the *actA* sequence only yielded most similar results with less than 91 % similarity and belonging to *Pseudocercospora* and *Ramularia*, for example. The highest similarities using the *actA* sequence were with species of *Mycosphaerellaceae*, for example *Pseudocercospora cruenta* (GenBank JQ325012; Identities 516/583 (89 %), 15 gaps (2 %)), *Zasmidium commune* (GenBank KY979857; Identities 509/583 (87 %), 12 gaps (2 %)) and *Ramularia glennii* (GenBank KJ504433; Identities 454/504 (90 %), 9 gaps (1 %)).

**Colour illustrations.** Leaves of *Acacia* sp.; conidiomata sporulating on OA, conidiophores and conidia. Scale bars = 10 µm.

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