

Dimorphiopsis brachystegiae



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Dimorphiopsis Crous, *gen. nov.*

Etymology. Named after its dimorphic conidiomata.

Mycelium consisting of pale to brown, septate, branched, smooth, 2–3 µm diam hyphae, at times with intercalary chlamydospore-like cells. Conidiomata vary from immersed pycnidia to superficial sporodochia, opening by irregular rupture of wall, globose to irregular; conidiomatal wall not clearly distinguishable, consisting of globose, aseptate, medium brown cells that are densely aggregated but not clearly attached, forming conidia inwardly towards centrum of conidioma. *Conidio-*

genous cells dissolving early, aggregated, hyaline to pale brown, smooth, ampulliform to globose, 4–6 × 4–5 µm, with inconspicuous terminal, phialidic openings. *Conidia* solitary, pale brown when immature, becoming dark brown, roughened to warty, golden to dark brown, medianly 1-distoseptate, thick-walled, ellipsoid, constricted at septum, with obtuse ends, and flattened basal scar.

Type species. *Dimorphiopsis brachystegiae*.
Mycobank MB805832.

Dimorphiopsis brachystegiae Crous, *sp. nov.*

Etymology. Named after the host from which it was collected, *Brachystegia*.

Originally isolated as a coelomycetous fungus from leaves of *Brachystegia spiciformis*. *Mycelium* consisting of pale to brown, septate, branched, smooth, 2–3 µm diam hyphae, at times with intercalary chlamydospore-like cells. In culture conidiomata immersed in agar or superficial (sporodochial), opening by irregular rupture of wall, up to 400 µm diam, globose to irregular; conidiomatal wall not clearly distinguishable, consisting of globose, aseptate, medium brown cells that are densely aggregated but not clearly attached, forming conidia inwardly towards centrum of conidioma. *Conidiogenous cells* dissolving early, aggregated, hyaline to pale brown, smooth, ampulliform to globose, 4–6 × 4–5 µm, with inconspicuous terminal, phialidic openings. *Conidia* solitary, pale brown when immature, becoming dark brown, roughened to warty, golden to dark brown, medianly 1-distoseptate, thick-walled, ellipsoid, constricted at septum, with obtuse ends, and flattened basal scar, 1 µm diam, (8–)9–10(–11) × (6–)7(–8) µm.

Culture characteristics — Colonies spreading, erumpent, with no aerial mycelium, and smooth, lobate margins. On OA, PDA and MEA greenish black; colonies reaching 20 mm diam after 2 wk at 25 °C.

Typus. ZAMBIA, -16.46045 27.52961, on leaves of *Brachystegia spiciformis* (*Fabaceae*), 28 Mar. 2013, *M. van der Bank* (holotype CBS H-21430, culture ex-type CPC 22679, 22680 = CBS 136422, ITS sequence GenBank KF777160, LSU sequence GenBank KF777213, MycoBank MB805833).

Notes — It is debatable if this odd fungus is a coelomycete or hyphomycete. On PNA it is a hyphomycete with sporodochia on sterile pine needles, but a coelomycete with immersed conidiomata in the water agar. As we could not locate a description of any morphologically similar fungus, we describe it here as new.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the LSU sequence are *Lophiostoma quadrisporum* (GenBank AB619011; Identities = 814/860 (95 %), Gaps = 3/860 (0 %)), *L. fuckelii* (GenBank GU385192; Identities = 851/900 (95 %), Gaps = 3/900 (0 %)) and *L. alpigenum* (GenBank GU385193; Identities = 850/901 (94 %), Gaps = 4/901 (0 %)). Only distant hits were obtained with species of *Lophiostoma* using the ITS sequence, e.g. *L. macrostomum* (GenBank EU552140; Identities = 511/635 (80 %), Gaps = 45/635 (7 %)), *L. fuckelii* (GenBank EU552139; Identities = 488/606 (81 %), Gaps = 46/606 (7 %)) and *L. arundinis* (GenBank AJ496633; Identities = 464/577 (80 %), Gaps = 31/577 (5 %)).

Colour illustrations. *Brachystegia spiciformis* in Zambia (photo credit: Olivier Maurin). Conidiomata on OA, conidiogenous cells and conidia. Scale bars = 10 µm.

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