

*Dothiora aloidendri* & *Hantamomyces aloidendri*



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***Dothiora aloidendri* Crous, sp. nov.**

*Etymology.* Name refers to the host genus *Aloidendron* from which it was isolated.

Classification — *Dothioraceae*, *Dothideales*, *Dothideomycetes*.

*Conidiomata* pycnidial, globose, black, glabrous, erumpent, 200–350 µm diam, aggregated in dense clusters, forming a superficial layer on agar, exuding a creamy conidial mass. *Conidiophores* reduced to conidiogenous cells lining the inner cavity, hyaline, smooth, ampulliform to doliform, phialidic, 6–9 × 5–7 µm. *Conidia* solitary, straight, subcylindrical, aseptate, guttulate, hyaline, smooth, thin-walled, apex obtuse, tapering at base to truncate hilum, 1–1.5 µm diam, (10–)12–13(–14) × (3–)4 µm.

Culture characteristics — Colonies flat, spreading, with sparse to moderate aerial mycelium and smooth, lobate margin, reaching 40 mm diam after 2 wk at 25 °C. On MEA surface sepia, reverse isabelline; on PDA surface iron-grey, reverse olivaceous-grey; on OA surface olivaceous-grey.

*Typus.* SOUTH AFRICA, Western Cape Province, Namaqualand, on leaves of *Aloidendron dichotomum* (*Asphodeloideae*), 2018, P.W. Crous, HPC 3039 (holotype CBS H-24419, culture ex-type CPC 38535 = CBS 146775, ITS, LSU, *tef1* and *tub2* sequences GenBank MW175347.1, MW175387.1, MW173123.1 and MW173138.1, MycoBank MB837839).

Notes — Species of *Dothiora* commonly form *Dothichiza* and hormonema-like morphs in culture (Crous & Groenewald 2016, 2017), as observed in *D. aloidendri*.

***Hantamomyces* Crous, gen. nov.**

*Etymology.* Name refers to the Hantam district where it was collected, Nieuwoudtville, Northern Cape Province, South Africa.

Classification — *Ophiocordycipitaceae*, *Hypocreales*, *Sordariomycetes*.

*Conidiophores* arising from superficial hyphae, erect, solitary, cylindrical, pale brown, smooth, branched, septate. *Conidiogenous cells* integrated, pale brown, smooth, subcylindrical; conidiophores with terminal conidiogenous region with den-

***Hantamomyces aloidendri* Crous, sp. nov.**

*Etymology.* Name refers to the host genus *Aloidendron* from which it was isolated.

*Mycelium* consisting of hyaline, smooth, branched, septate, 2.5–3.5 µm diam hyphae. *Conidiophores* arising from superficial hyphae, erect, solitary, cylindrical, pale brown, smooth, branched, septate, up to 200 µm tall, 2.5–3 µm diam. *Conidiogenous cells* integrated, pale brown, smooth, subcylindrical; conidiophores with terminal conidiogenous region with 1–2 denticulate loci, 1 × 1 µm, with separating cell leaving minute collarette; one locus in basal region above septum, and second locus if present below apical septum, 10–30 × 2.5–3 µm, but conidiogenous cells giving rise to next cell in zigzag fashion (sympodial), appearing like a drawn out rachis. *Conidia* hyaline, smooth, guttulate to

*Colour illustrations.* *Aloidendron dichotomum* growing along the mountain ridge. Left column *D. aloidendri*. Conidiomata on SNA; conidiogenous cells giving rise to conidia; conidia. Right column *Hantamomyces aloidendri*. Conidiophores giving rise to chains of conidia; conidia. Scale bars = 10 µm.

Based on a megablast search of NCBI's GenBank nucleotide database, the closest hits using the **ITS** sequence had highest similarity to *Dothiora europaea* (strain EXF-12400, GenBank MK460357.1; Identities = 448/469 (96 %), two gaps (0 %)), *Dothiora sorbi* (strain CBS 742.71, GenBank KU728514.1; Identities = 554/591 (94 %), four gaps (0 %)), and *Dothiora elliptica* (strain CBS 736.71, GenBank KU728502.1; Identities = 489/522 (94 %), two gaps (0 %)). Closest hits using the **LSU** sequence are *Dothiora infuscans* (strain FMR 16326, GenBank NG\_066397.1; Identities = 782/792 (99 %), no gaps), *Dothiora oleae* (strain CBS 472.69, GenBank MH871116.1; Identities = 844/856 (99 %), no gaps), and *Neophaeocryptopus cytisi* (strain MFLUCC 14-0970, GenBank NG\_059643.1; Identities = 826/838 (99 %), one gap (0 %)). Closest hits using the **tef1** sequence had highest similarity to *Dothiora oleae* (strain CBS 235.57, GenBank KU728587.1; Identities = 195/200 (98 %), one gap (0 %)), *Dothiora viburnicola* (strain CBS 274.72, GenBank KU728591.1; Identities = 195/203 (96 %), no gaps), and *Dothiora bupleuricola* (strain CBS 112.75, GenBank KU728579.1; Identities = 194/201 (97 %), three gaps (0 %)). Closest hits using the **tub2** sequence had highest similarity to *Dothiora phillyreae* (strain CBS 473.69, GenBank KU728629.1; Identities = 503/618 (81 %), 21 gaps (3 %)), *Dothiora maculans* (strain CBS 299.76, GenBank KU728621.1; Identities = 470/569 (83 %), 27 gaps (4 %)), and *Dothiora oleae* (strain CBS 152.71, GenBank KU728625.1; Identities = 495/609 (81 %), 32 gaps (5 %)).

ticulate loci and with separating cell leaving minute collarette; conidiogenous cells giving rise to next cell in zigzag fashion (sympodial), appearing like a drawn out rachis. *Conidia* hyaline, smooth, fusoid, tapering towards both ends to truncate hilum with minute marginal frill and conidia occurring in long, unbranched chains, forming a mucoid droplet with age.

*Type species.* *Hantamomyces aloidendri* Crous.  
MycoBank MB837840.

granular, fusoid, not to slightly constricted at median septum, tapering towards both ends to truncate hilum with minute marginal frill, scar 1 µm diam, at times somewhat darkened, with conidia occurring in long, unbranched chains, forming a mucoid droplet with age; conidial chains with conidia attached to one another by minute separating cell, with collarette developing at each end, 1–3-septate, (15–)17–18(–20) × (3.5–)4(–5) µm.

Culture characteristics — Colonies erumpent, spreading, with moderate aerial mycelium and smooth, even margin, reaching 20 mm diam after 2 wk at 25 °C. On MEA, PDA and OA surface dirty white, reverse buff.

*Typus.* SOUTH AFRICA, Western Cape Province, Nieuwoudtville, on leaves of *Aloidendron dichotomum* (*Asphodelaceae*), 2018, P.W. Crous, HPC 3020 (holotype CBS H-24432, culture ex-type CPC 38655 = CBS 146814, ITS and LSU sequences GenBank MW175348.1 and MW175388.1, MycoBank MB837841).

(for Notes see Supplementary material page FP1125 & 1126; and for tree on Supplementary material page FP1141)