Diaporthe passifloricola
Diaporthe passifloricola Crous & M.J. Wingf., sp. nov.

Etymology. Name refers to Passiflora, the plant genus from which this fungus was collected.

Classification — Diaporthaceae, Diaphorales, Sordariomycetes.

Conidiomata (on pine needle agar; PNA) pycnidial, solitary, black, erumpent, globose, to 250 μm diam, with short black neck, exuding creamy droplets from central ostioles; walls consisting of 3–6 layers of medium brown textura angularis. Conidiophores hyaline, smooth, 2–3-septate, branched, densely aggregated, cylindrical, straight to sinuous, 20–50 x 3–4 μm. Conidiogenous cells 7–20 x 1.5–2.5 μm, phialidic, cylindrical, terminal and lateral with slight taper towards apex, 1–1.5 μm diam, with visible periclinal thickening; collarette not observed. Paraphyses not observed. Alpha conidia aseptate, hyaline, smooth, guttulate, fusoid-ellipsoid, tapering towards both ends, apex subobtuse, base subtruncate, (6–7.5(–9)) x 2.5(–3) μm. Gamma conidia not observed. Beta conidia spindle-shaped, aseptate, smooth, hyaline, apex acutely rounded, base truncate, tapering from lower third towards apex, curved, (20–)22–25(–27) x 1.5(–2) μm.

Culture characteristics — Colonies covering dish after 2 wk at 25 °C, with even, smooth margins, and fluffy aerial mycelium. On MEA surface dirty white, reverse luteous to ochreous. On OA surface dirty white. On PDA surface dirty white, reverse saffron.

Typus. MALAYSIA, Kota Kinabalu, on leaf spots of Passiflora foetida (Passifloraceae), May 2015, M.J. Wingfield (holotype CBS H-22626, culture ex-type CPC 27480 = CBS 141329; ITS sequence GenBank KX226292.1, LSU sequence GenBank KX228343.1, his3 sequence GenBank KX228367.1, tub2 sequence GenBank KX228387.1, MycoBank MB817057).

Notes — On ITS Diaporthe passifloricola is 98 % (556/567) similar to D. miriciae (BRIP 56918a; GenBank KJ197284.1) and 90 % (466/519)–93 % (402/430) similar to five sequences of ‘Phomopsis’ tersa deposited on GenBank (e.g., KF516000.1 and JQ585648.1). The his3 sequence is 100 % (380/380) identical to D. absenteum (LC3564; GenBank KP293559.1) and 99 % (378/380) to the sterile Diaporthe ‘sp. 1 RG-2013’ (LGMF947; GenBank KC343687.1), whereas the tub2 sequence is 99 % (513/517) to the sterile Diaporthe ‘sp. 1 RG-2013’ (LGMF947; GenBank KC344171.1) and 99 % (589/595) to D. miriciae (BRIP 56918a; GenBank KJ197264.1). Although alpha conidia of D. miriciae are similar in size ((6–)7.5(–9) x 2.5(–3) μm), beta conidia are larger (20–35 x 1.0–1.5 μm) and conidiophores are shorter (10–20 x 1.5–3 μm) (Thompson et al. 2015). Other species previously reported from Passiflora include D. passiflorae (conidia 14–20 x 1.5–2 μm; Crous et al. 2012a) and ‘Phomopsis’ tersa (conidia 6.5–7.5 x 2.5 μm) (Sutton 1980). ‘Phomopsis’ tersa has alpha conidia of similar dimensions, but has much larger conidiomata (to 650 μm diam), shorter conidiophores (to 15 μm long) and lacks beta conidia (Sutton 1980).

Colour illustrations. Flower of Passiflora foetida; conidiomata sporulating on PNA, conidiophores, beta and alpha conidia. Scale bars: conidiomata = 250 μm, all others = 10 μm.