
Phoma tamaricicola

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Phoma tamaricicola Wanasinghe, Camporesi, E.B.G. Jones & K.D. Hyde, *sp. nov.*

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

Saprobic on dead herbaceous branches. *Sexual state*: *Ascomata* 120–150 µm high, 170–210 µm diam ($\bar{x}$ = 132 × 196 µm, n = 10) slightly erumpent, solitary, scattered, hardly removed from the host substrate, dark brown to black, coriaceous. *Peridium* 10–20 µm wide at the base, 20–25 µm wide in sides, thick, comprising 6–8 layers, outer layer heavily pigmented, thick-walled, comprising blackish to dark brown cells of *textura angularis*, inner layer composed of hyaline thin-walled cells of *textura angularis*. *Hamathecium* comprising numerous, 2.3 µm (n = 30) wide, filamentous, branched, septate, pseudoparaphyses. *Asci* (70–110) × (10–20) µm ($\bar{x}$ = 14.5 × 95 µm, n = 40), 8-spored, bitunicate, fissitunicate, cylindrical to cylindric-clavate, pedicellate, thick-walled at the apex, with a minute ocular chamber. *Ascospores* (15–20) × (7–10) µm ($\bar{x}$ = 18 × 9 µm, n = 50), overlapping 1–2-seriate, muriform, mostly ellipsoidal, 4–6 transversely septate, with 3–4 vertical septa, constricted at the septa, initially hyaline, becoming yellowish brown at maturity, conical and narrowly rounded at the ends, without a mucilaginous sheath. *Asexual state*: *Conidiomata* superficial or immersed in the agar, dark brown to black, clothed with white hyphal projections, 0.5–1.5 mm diam, simple, or complex with several merging cavities. Conidiomatal wall composed of a 30–45 µm thick outer layer and a 35–60 µm thick inner layer of *textura angularis* cells. *Conidiogenous cells* (4–7 × 3–4 µm) discrete, assembled into protruding masses of cells, or integrated in very compact conidiophores. *Conidia* (4–7 × 2.5–3.5 µm) narrowly ellipsoidal or short-cylindrical, straight or slightly curved, rounded at both ends, 1-celled, with 1–2 small, polar guttules, and with thin and smooth walls that are hyaline at secession, becoming light brown.

Culture characteristics — Colonies on PDA reaching 30–35 mm diam in 21 d, with abundant, fluffy grey aerial mycelium on surface, reverse smoke-grey.

Known distribution — On dead branches of *Tamarix gallica* (*Tamaricaceae*), Italy.

Typus. Italy, Forlì-Cesena Province, Ravaldino in Monte, dead and hanging branches of *Tamarix gallica*, 15 Jan. 2014, *E. Camporesi* (holotype MFLU 14-0333, ex-type living culture = MFLUCC 14-0602, ITS sequence GenBank KM408753, LSU sequence GenBank KM408754, SSU sequence GenBank KM408755, MycoBank MB810072).

Colour illustrations. Ravaldino in Monte, Italy. Ascomata on host substrate, section of ascoma, asci, ascospores, colonies on PDA; section of conidiomata, conidiomatal wall and conidia. Scale bars = 20 µm.

Notes — Species belonging to the genus *Phoma* are important plant pathogens (de Gruyter et al. 2009, Aveskamp et al. 2010, Wijayawardene et al. 2014) and characterised by 'hyaline, unicellular conidia that may become septate due to secondary septation, phialidic, ampulliform to doliiform conidiogenous cells and (sub)globose, glabrous to pilose or setose, pseudoparenchymatous or scleroplectenchymatous pycnidia' (de Gruyter et al. 2010).

Phoma was shown to be highly polyphyletic, and molecular based studies have shown that species are scattered throughout the *Pleosporales* (de Gruyter et al. 2009, 2010, 2013, Aveskamp et al. 2010), with *Phoma herbarum* clustering in *Didymellaceae* as the type species of *Phoma* (de Gruyter et al. 2013).

ITS. Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the LSU sequence had highest similarity to *Ascochyta pisi* (GenBank DQ678070; Identities = 888/890 (99 %), no gaps), *Peyronellaea prosopidis* (GenBank KF777232; Identities = 887/890 (99 %), no gaps) and *Coniothyrium prosopidis* (GenBank KF777205; Identities = 887/890 (99 %), no gaps).

ITS. Based on a megablast search of NCBIs GenBank nucleotide database, the closest hits using the ITS sequences are *Microsphaeropsis proteae* (GenBank JN712497; Identities = 517/523 (99 %), Gaps = 1/523 (0 %)), *Phoma macrostoma* (GenBank HM036611; Identities = 514/519 (99 %), no gaps) and *Phoma herbarum* (GenBank FN868459; Identities = 518/525 (99 %), Gaps = 3/525 (0 %)).

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