

*Cercophora vinosa*



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***Cercophora vinosa* A.N. Mill. & J. Fourn., sp. nov.**

*Etymology.* The specific epithet refers to the purple colour in the outermost layer of the ascomal wall.

*Classification* — *Lasiosphaeriaceae*, *Sordariales*, *Sordariomycetes*.

*Ascomata* subglobose to broadly obpyriform with a stout conical to hemispherical neck, 420–670 µm diam × 420–650 µm high, erumpent through a thick, felty yellowish grey subiculum spreading widely over the substrate, gregarious to loosely clustered, more rarely in contact; underlying wood discoloured greyish brown or unaltered, not stained purple; subiculum encrusted with sand particles, composed of pale brown, septate hyphae 1.5–3.5 µm wide, thin- to moderately thick-walled; neck papillate, broadly conical to rounded, sometimes undifferentiated, 80–170 µm high, ostiolate, black, roughened or obscurely sulcate. *Ascomatal wall* 34–56 µm thick on sides and at base in longitudinal section, slightly thicker at apex, roughened, dark purple gradually turning blackish, pseudoparenchymatous, leathery, 3-layered: outermost layer 10–15 µm thick, present on upper half of ascomata, fugacious, composed of several rows of thin-walled, hyaline, angular cells containing a purple substance that slightly fades in 10 % KOH and dissolves in chloral-lactophenol; middle layer 20–30 µm thick, composed of independent clusters of subcarbonaceous opaque cells, breaking into small angular plaques upon pressure but lacking a network of hyphae connecting the plaques as in cephalothecoid walls; inner layer 14–22 µm thick, composed of flattened, thin-walled subhyaline cells. *Ascomatal apex* periphysate. *Centrum* hyaline to yellowish. *Paraphyses* filiform, 4.5–8 µm wide at base and occasionally slightly moniliform, tapering to 2–2.5 µm wide above asci, hyaline, thin-walled, abundant, septate, unbranched, persistent. *Asci* unitunicate, cylindrical, 320–380 × 19–23 µm, spore-bearing part fusoid-ventricose, apex rounded, long-stipitate, stipe 100–160 µm long, often slightly sinuous, with eight bi- to triseriate ascospores, apical ring double, refractive, 2.7–3 µm wide × 1–1.2 µm high, inamyloid, staining in blue Waterman ink, subapical globule absent. *Ascospores* cylindrical, (54.5–)60.5–73.5(–79.5) × (3–)4–6(–7) µm (66.7 × 5 µm), straight to slightly sigmoid, geniculate in lower quarter, hyaline, aseptate, densely guttulate; bipolar appendages (27–)35–56 µm long, lash-like, 3–4 µm wide at base, centrally attached on ascospores ends, readily staining in blue Waterman ink and in aqueous nigrosin, sometimes granular at base, persistent; ascospore becoming differentiated into an apical swollen head and a basal tail while inside the ascus; head ellipsoid, 15.5–19 × 8–9 µm, usually 1-septate, remaining hyaline, rarely pigmented; tail 41–50 × 4–5 µm, obscurely 2–4-septate, hyaline, the lower end swelling upon germination; germinating from upper and

lower ends, more rarely laterally before being released. *Asexual morph*: Hyphae largely undifferentiated, 1.5–5 µm wide, thin-walled, hyaline to pale brown. *Conidiogenous cells* phialides, commonly produced from pale brown hyphae as single terminal or several lateral phialides, delimited by a basal septum, monophialidic or polyphialidic, cylindrical to obpyriform, 9–18 × 2.5–4 µm at widest part, mostly pale brown, constricted below the collarette, 1–1.5 µm just below the collarette; collarette short, slightly flaring, inconspicuous, same colour as phialide. *Conidia* subglobose to pyriform, truncate at base, 2.5–4.5 × 1.5–2.5 µm (3.3 × 2.2 µm), hyaline.

*Culture characteristics* — Colonies (of holotype) slow-growing on all media, covering the PDA plates in 8 wk, 25–30 mm diam after 8 wk on the WA and CMA plates, downy to silky on WA and CMA, subfelty on PDA, hyaline on WA, hyaline to greyish yellow (4B3) on CMA, brown (5F8) and becoming greyish red (7B5) at plug on PDA; margin even or wavy, appressed, hyaline on WA and CMA, becoming olive brown (4F8) on PDA; reverse same as the mat.

*Typus.* FRANCE, Ariège, Castelnau-Durban, Artillac stream, down-stream from the marble quarry, c. 410 m elev., on decorticated branch of *Salix* sp., 8 cm diam, partly submerged, 22 July 2014, J. Fournier, JF 14067 (holotype ILLS 79802, cultures ex-type ANM Acc#840-1, -2, -3, -4, -5, deposited in CBS, ITS-LSU sequence GenBank KX171944, beta-tubulin sequence GenBank KX171942, MycoBank MB816935).

*Other material examined.* FRANCE, Ariège, Montségur, Le Lasset stream flowing at the village, 880–890 m elev., on submerged decorticated wood of *Populus* sp., soc. *Amniculicola lignicola*, 16 Nov. 2014, J. Fournier (JF 14156); Illier, Laramade, Videssos stream, 630 m elev., on submerged wood of *Fraxinus excelsior*, 25 Nov. 2014, J. Fournier (JF 14163); Rimont, Paletès, Peyrau brook, c. 400 m elev., on submerged wood of *Alnus glutinosa*, 4 Dec. 2014, J. Fournier (JF 14170).

*Notes* — *Cercophora vinosa* is distinguished by its ascomata that possess a distinct purplish colour in the outermost wall layer, asci with a double ring but lack a subapical globule, long ascospores with lash-like appendages and aquatic habitat. Only two other species of *Cercophora* are known to have violet-coloured ascomata, *C. septentrionalis* and *C. caerulea*. Although these species also possess asci with a double ring but no subapical globule and ascospores with long, lash-like appendages, both have shorter ascospores (38–43 µm and 43–48 µm, respectively) and occur on dung. The ascomata in *C. septentrionalis* are covered by brown, flexuous hairs, whereas a distinct dark purple to blackish blue subiculum surrounds the ascomata in *C. caerulea* (Lundqvist 1972). *Cercophora vinosa* occurs in a well-supported clade with *C. solaris* in which it shares only a cephalothecoid-like ascomal wall and lack of a subapical globule (Catania et al. 2011).

For phylogenetic tree, see MycoBank.

*Colour illustrations.* France, background photo of Artillac stream in the Ariège region of south-western France; ascomata and ascomal section, ascomal wall, ascus, ascospores, phialides, colony on CMA. Scale bars = 100 µm (ascomata and ascomal section), 10 µm (ascomal wall, ascus, ascospores and phialides), 10 mm (colony on CMA plate). (Photos: Jacques Fournier).