

Cylindrium magnoliae



Fungal Planet 1074 – 29 June 2020

Cylindrium magnoliae A. Pintos, M. González, P. Alvarado & E. Rubio, *sp. nov.*

Etymology. The epithet refers to *Magnolia grandiflora*, the host plant from which this fungus was originally collected.

Classification — *Cylindriaceae*, *Amphisphaeriales*, *Sordariomycetes*.

Asexual morph: *Mycelium* consisting of smooth hyaline hyphae, branched and septate, 1–5 µm diam. *Conidiomata* foliicolous, 150–400 wide and 100–250 µm tall, often in scattered groups, stromatic, immersed but erumpent when moist after pushing up a flap of host tissue and revealing a whitish jelly content. *Peridium* composed of a single subepidermal inner layer of brown cells arranged as *textura angularis*, presenting paler pigmentation towards the conidiogenous region. *Ostiole* absent. *Setae* dark brown, 90–200 × 3–5 µm (length/width), smooth, dichotomously branched at the base, with 3–7 transversal septa, tapered towards the apex. *Paraphyses* hyaline, scattered between setae and conidiophores. *Conidiophores* arising from lageniform or cylindrical cells with hyaline or brownish walls at the internal wall of the peridium, formed of 21–81 µm long cylindrical cells (tapered towards the apex), septate and branched. *Conidiogenous cells* integrated, hyaline, cylindrical (tapered towards the apex), lageniform, phialidic or percurrent, 10–25 × 1–2 µm (length/width). *Conidia* hyaline, smooth, falcate, wider in the middle, tapering towards the apex, truncate at the base, measuring 34–48 × 1.5–2.5 µm (length/width), completely filled with small droplets.

Culture characteristics — (day/light 25 °C, after 2 wk): Colonies slow-growing, with sparse aerial mycelium, rounded margins, reaching 12 mm in 2 wk. On malt extract agar and potato-dextrose agar white on surface, salmon in reverse.

Typus. SPAIN, Asturias, Gijón, Jardín Botánico Atlántico, on leaves of *Magnolia grandiflora* (*Magnoliaceae*), 13 Nov. 2019, M. González (holotype FCO-Fungi 14, culture ex-type CBS 146681; ITS, LSU, *rpb2*, *tef1* and *tub2* sequences GenBank MT177212, MT177213, MT179311, MT179310 and MT179309, MycoBank MB834679; Isotype ERD-8142).

Additional materials examined. SPAIN, Asturias, Gijón, Isabel La Católica park, on leaves of *M. grandiflora*, V-2018; *ibid.*, Gijón, Jardín Botánico Atlántico, on leaves of *M. grandiflora*, IX-2018; *ibid.*, IX-2019. Gijón, urban street, on leaves of *M. grandiflora*, VI-2019; Asturias, Navia, Andrés, on leaves of *M. grandiflora*, XI-2019.

Colour illustrations. Conidiomata on host. Section of conidioma with brown setae; conidiophore; conidiogenous cells with successive percurrent proliferations (annellations); conidiogenous cells giving rise to conidia. Scale bars = 100 µm (section of conidioma), 5 µm (others).

Notes — On the basis of a combined phylogeny using ITS and 28S nrDNA data (available in MycoBank MB834679), *C. magnoliae* is probably related with *C. aeruginosum*, *C. algarvense*, and *C. purgamentum*. Lombard et al. (2015) proved that *C. aeruginosum* is phylogenetically related with the type species *C. elongatum*. Crous et al. (2018) created a new family, *Cylindriaceae* to accommodate this genus, proposing *C. algarvense* and *C. purgamentum*, and combining *C. syzygii*. Recently, the new species *C. grande* was added to the genus (Crous et al. 2019c). Morphologically, *C. magnoliae* differs from other species of *Cylindrium* because of its stromatic conidiomata, the specialised method of dehiscence, and the presence of setae and paraphyses. *Cylindrium magnoliae* does not produce a pigmented stipe or sympodial loci and lacks ramoconidia which are present in *C. purgamentum* (Crous et al. 2016). *Cylindrium grande* (Crous et al. 2019a) produces sympodial conidiogenous cells and solitary conidia, features not present in *C. magnoliae*.

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