
Calycina cortegadensis

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Calycina cortegadensis De la Peña-Lastra, P. Alvarado & Requejo, *sp. nov*.

Etymology. The epithet refers to the place where it was found (Illa de Cortegada, Parque Nacional Marítimo-Terrestre de las Islas Atlánticas, Galicia, Spain).

Classification — *Hyaloscyphaceae*, *Helotiales*, *Leotiomycetes*.

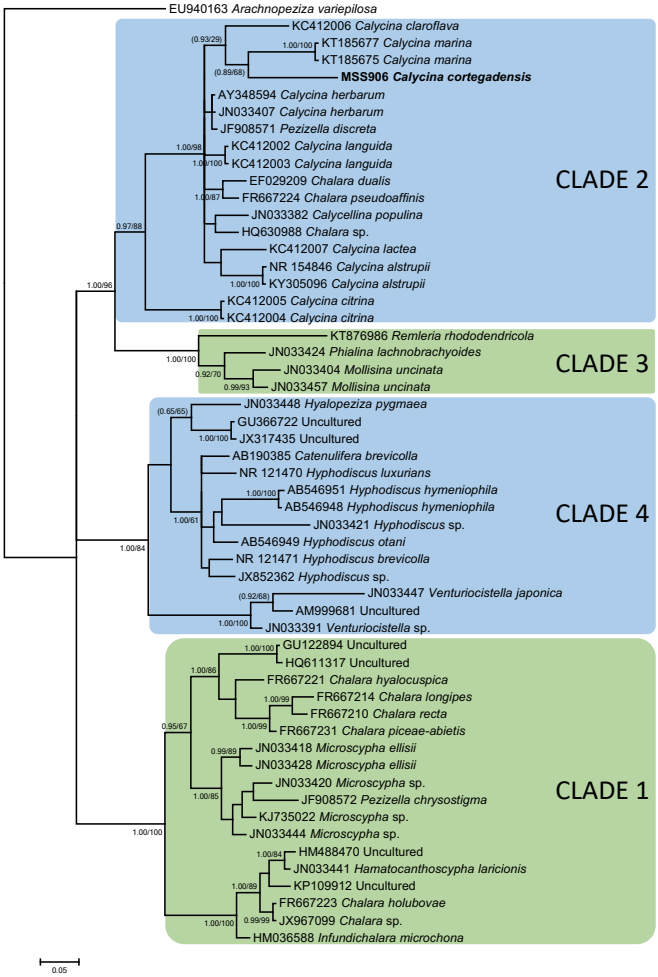
Apothecia solitary to gregarious (–5), with a short but stout stipe, disc flat to slightly concave, finely pruinose, 0.1–0.4 cm diam when dry, 0.2–0.5 cm upon rehydration; translucent brown to pale yellowish brown when fresh, beige brown to bluish brown when dry; margin elevated, occasionally slightly incurved due to hairs, pruinose, white when dry; receptacle concolorous with the disc or slightly paler, furfuraceous, pruinose when dry. Flesh concolorous with the disc too, or slightly paler. Not hygrophanous. *Asci* containing 8 uniseriate to biseriate spores, (40–)42–48(–53) × 3.5–4.5(–5) µm, cylindrical to subcylindrical, with a simple septum at the base and a conical or obtuse apex, with a small apical ring structure of the *Calycina*-type, slightly bluish to brownish red in Lugol´s solution (IKI: 1 % I_2; 3 % KI). *Ascospores* ellipsoid with obtuse apices, hyaline, smooth, with one drop at each end (about 0.5 µm diam), aseptate, about 4–6.5(–7.5) × 2–2.8; 5.2 ± 0.6 × 2.3 ± 0.3, Q_n = 2.5 (n = 36) µm after death. *Paraphyses* filiform, unbranched, 1.75–2(–3.7) µm diam, not exceeding the length of asci, with a rounded apex and abundant small vacuoles, sometimes presenting several septa at the base, *Ectal excipulum* composed of parallel, slightly interwoven hyphae of (4.5–)5.5–7(–10) µm diam, brown coloured with bluish tinges. The terminal cells of the calycle edge are hyphoid, with rounded apices of up to 9 µm wide. *Medullary excipulum* arranged as a *textura porrecta*, with disordered, interwoven gelatinized elements.

Distribution — Currently known only from the type location in north-western Spain.

Phylogeny — The analysis of ITS rDNA suggests that the specimen found in Cortegada represent a distinct lineage of *Calycina* (clade 2 in Han et al. 2014). No significant phylogenetic relationships with other species of this genus could be inferred, but sub-significant values (PP 0.89, BP 68) suggest a putative relation with *C. marina*.

Typus. Spain, Galicia, Pontevedra, Parque Nacional de las Islas Atlánticas de Galicia, Illa de Cortegada, N42°36'59.65" W8°46'59.22", 9.4 m asl, several apothecia found together on a living twig of *Castanea sativa*, 22 Dec. 2017, *S. De la Peña-Lastra* (holotype MSS906, ITS and LSU sequences GenBank MN017444 and MN017503, MycoBank MB831334).

Notes — *Calycina cortegadensis* is characterised by its apothecia with an apical disc furfuraceous-pruinose but lacking external hairs, its yellowish beige to bluish brown tones when dried, and its spores measuring 4–6.5(–7.5) × 2–2.8 µm. The recently proposed lichenicolous species *C. alstrupii* has similar spore dimensions, (5–)5.8(–7) × (1.5–)2.03(–2.5) µm, but those of *C. cortegadensis* can be as short as 4 µm. In addition, the apical ring of asci in *C. corticatensis* becomes slightly blue to reddish brown in Lugol, and young ascomata of *C. alstrupii* are yellowish cream to pale orange (Suija & Motiejūnaitė 2017). Other species similar to *C. alstrupii* such as *C. venceslai* and *C. langida* can be found in the same locality, but they have different spore dimensions and lack the beige-brown to bluish brown tones when dry (Suija & Motiejūnaitė 2017). The putative phylogenetic relationship with *C. marina* is not supported by any shared ecological or morphological trait, since *C. marina* fruits over seaweed, develops pulvinate ascocarps, has spores 8–13 × 3.3–4(–4.5), and claviform to capitate multiseptate paraphyses (Baral & Rämä 2015).



50 % majority rule ITS rDNA consensus phylogram of genus *Calycina* and related clades in the family *Hyaloscyphaceae* (Han et al. 2014) obtained in MrBayes from 4 725 sampled trees. Nodes were annotated if supported by ≥ 0.95 Bayesian PP (left) or ≥ 70 % ML BP (right). Non-significant support values are exceptionally represented inside parentheses.

Colour illustrations. Location where *C. cortegadensis* was collected on Cortegada Island. Ascomata in different developmental stages; asci and paraphyses, ascospores, terminal cells of the calycle edge, medullary excipulum; apothecia section. Scale bar = 10 µm.

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