

***Mycena cistophila*, a new mediterranean species from Spain**

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Abstract: *Mycena cistophila*, a new species occurring in mediterranean shrubby plant communities from Spain, is described and illustrated macro- and microscopically. It is characterized by strongly decurrent gills, clavate and diverticulate cheilocystidia and its typical habitat on leaves and wood of *Cistus ladanifer*.

Zusammenfassung: Die neue Art *Mycena cistophila*, die in strauchigen mediterranen Pflanzengesellschaften in Spanien vorkommt, wird beschrieben sowie makro- und mikroskopisch illustriert. Sie ist gekennzeichnet durch stark herablaufende Lamellen, keulige und diverticulare Cheilozystiden und durch ihr typisches Habitat auf Blättern und Holz von *Cistus ladanifer*.

The Iberian mediterranean vegetation is represented, among other plants, by *Quercus* spp. such as *Q. ilex* L., *Q. suber* L., *Q. pyrenaica* WILLD., *Q. coccifera* L. and *Q. faginea* LAM., and by their associated shrub communities composed by *Cistus* spp. (e.g. *C. ladanifer* L., *C. laurifolius* L., *C. populifolius* L. and *C. albidus* L.) as well as *Helianthemum* spp. All these plant communities are mycologically very interesting as they host many mycorrhizal fungi, some of which have been described recently (e.g. *Dermocybe cistoadelpha*, MORENO & al. 1997). Besides, very interesting saprotrophic fungi fruit in these communities, though unfortunately only in very rainy periods like in autumn 1997. Within the latter fungi we may quote some other recently discovered new species such as *Marasmiellus virgatocutis* ROBICH, ESTEVE-RAVENTÓS & MORENO (ROBICH & al. 1994) and *Mycena quercophila* ESTEVE-RAVENTÓS & VILLARREAL (ESTEVE-RAVENTÓS & VILLARREAL 1997).

The new species grew in the National Park of Cabañero (Ciudad Real), located in the Autonomous Community of Castilla-La Mancha, one of three nature reserves in western Spain. The other two reserves are the Natural Parks of Monfrague and Las Villuercas (Cáceres), located in the Autonomous Community of Extremadura. Nature reserves are extremely valuable for biodiversity research in order to obtain more scientific data for a correct management and conservation of these mediterranean ecosystems.

***Mycena cistophila* MORENO & HEYKOOP, spec. nova** (Colour fig. II, figs. 1-17)

Basidiomata gregaria. Pileus 4-8 mm latus, conico-campanulatus vel hemisphaericus, hygrophanus, striatus, primo pallide cremeus vel pallide brunneus, deinde aurantiaco-brunneus vel brunneus. Lamellae 14-17 stipitem attingens, decurrentes, albidae, margine concolores. Stipes 10-20 x 1 mm, cylindraceus, flexuosus, leviter pruinosis in apice, pileo concolor, pallidior versus apicem, substrato hyphis radiantibus albis affixus. Caro alba vel stramineo-alba in pileo, tenuis, straminea vel pallide aurantiaco-brunnea in stipite. Odore saporeque nullis.

Sporae 6,5-7,35-8,5 x (3,5)-3,8-4,15-4,5 µm, ellipsoideae, leves, amyloideae. Basidia 20-27 x 5-6,5 µm, clavata, fibulata, 4-sporigera. Cheilocystidia 22-50 x 8-13 (-18) µm, hyalina, fibulata, clavata vel versiformia, apice surculis simplicibus vel ramosis, 2-6 x 1-1,5 µm munita. Pleurocystidia nulla. Trama hymenophori dextrinoida. Hyphae pileipellis -5 µm latae, fibulatae, dense diverticulatae, haud in materiam gelatinosam immersae. Hyphae stipitipellis -4,5 µm, fibulatae, diverticulatae, haud in materiam gelatinosam immersae. Caulocystidia usque 30 x 4 µm, subcylindracea, surculis munitae.

Ad folia et ligna *Cisti ladaniferis*.

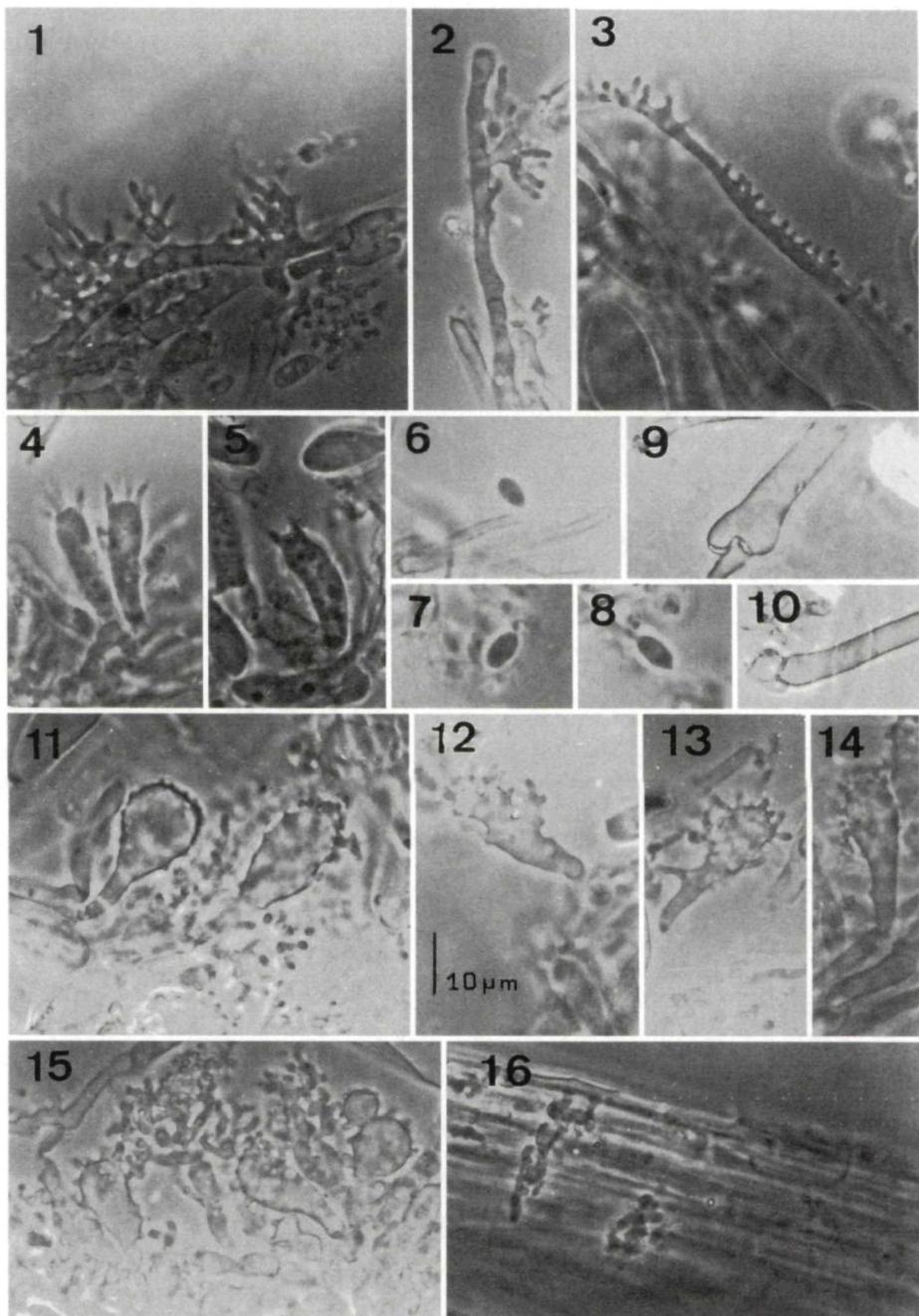
Holotypus: Spain, Ciudad Real, National Park of Cabañeros, on leaves and wood of *Cistus ladanifer*, 4. 12. 1997, leg. G. MORENO, R. GALÁN & J. CHECA AH 19708. Isotypus in herbario MAAS GEESTERANUS (L).

Etymology: *cistophila* from Latin *Cistus* and *philum*, referring to its fructification on *Cistus*.

Basidiomata gregarious. Pileus 4-8 mm in diam., conical-campanulate to hemispherical, hygrophanous, translucently striate, first pale cream to pale brown, then becoming orange-brown to brown, context white to strawish-white. Gills 14-17, strongly decurrent, whitish, lamellar edge concolorous, with lamellulae. Stipe 10-20 x 1 mm, cylindrical, flexuose, slightly pruinose, especially at the apex, concolorous with the pileus, paler at the apex, attached to the substratum by a whorl of radiating white fibrils, context thin, strawish to pale orange-brown. Odour and taste not distinctive.

Spores 6,5-7,35-8,5 x (3,5)-3,8-4,15-4,5 µm, Q = 1,55-1,78-2,11(-2,14) (n = 26), ellipsoid, smooth, amyloid (Figs. 6-8). Basidia tetrasporic, 20-27 x 5-6,5 µm, broadly clavate (Figs. 4-5), sterigmata -4 µm in length. Cheilocystidia 22-50 x 8-13(-18) µm, hyaline, predominantly broadly clavate but variable in shape, covered with simple (warts) or ramified excrescences 2-6 x 1-1,5 µm (Figs. 11-15). Pleurocystidia absent. Hymenophoral trama dextrinoid, consisting of hyphae -5 µm in diam. Clamp-connections present (Figs. 9-10). Hyphae of the pileipellis consisting of cylindrical hyphae, -5 µm wide, with clamp-connections, not embedded in gelatinous matter, covered with simple (1-2,5 x 1 µm) or more or less ramified excrescences 2-12 x 1-1,5 µm, forming dense coraloid masses (Figs. 1-3). Hyphae of the stipitipellis -4,5 µm wide, with clamp connections, not embedded in gelatinous matter, densely covered with warts or excrescences -8 x 2 µm. Caulocystidia scattered, subcylindrical, -30 x 4 µm, present mainly at the upper part of the stipe (Fig. 16).

Habitat: Very frequent on leaves and wood of *Cistus ladanifer*. (Observed in rainy years).



Figs. 1-16. *Mycena cistophila*, holotype. 1-3 hyphae of the pileipellis; 4-5 basidia; 6-8 spores; 9-10 clamp-connections; 11-15 cheilocystidia; 16 stipitipellis with caulocystidia.

Material examined: Spain: Ciudad Real, National Park of Cabañeros, on leaves and wood of *Cistus ladanifer*, 4. 12. 1997, leg. G. MORENO, R. GALÁN & J. CHECA, AH 19708 (Holotype, isotype in L).

Observations: *Mycena cistophila* is a typical member of section *Polyadelphia* SINGER ex MAAS GEEST., where it keys out (MAAS GEESTERANUS 1986) near *M. lohwagii* SINGER and *M. herbarum* SINGER which are however easily separable from the present taxon. The principal differences between these two species and *M. cistophila* are given in Table 1.

Table 1. Comparison between *Mycena lohwagii*, *M. herbarum* and *M. cistophila*

	<i>M. lohwagii</i>	<i>M. herbarum</i>	<i>M. cistophila</i>
Habit	basidiomata densely cespitose	basidiomata scattered	basidiomata gregarious
Pileus colour	white with yellow-brownish centre	white	orange-brown to brown
Gills	ascending, adnate to sub-decurrent	adnate to decurrent with a tooth	strongly decurrent
Stipe colour	blackish grey at the apex, yellowish brownish or with olivaceous tints elsewhere	white	orange-brown to brown
Spores	9.9-7.7 x 4.7-5.2 µm	5.8-7.5 x 3.2-4 µm	6.5-8.5 x (3.5-)3.8-4.5 µm
Habitat	on fern rhizomes	on dead stems and leaves of <i>Calamagrostis</i> , <i>Cirsium</i> and <i>tus</i> ferns	on leaves and wood of <i>Cistus</i>

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