

ON A NEW SPECIES OF MYCENA FROM SPAIN

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Mycena calceata Robich, collected at L'Estartit in Spain in November 1993, during the Mycological Days of the European Confederation of Mediterranean Mycology, is described as new to science. It belongs to section *Insignis*, characterized by the radiating hairs at the base of the stipe, large spores and growing on thin rotting branches of *Quercus suber* (Cork oak) in mediterranean forest.

Viene descritta *Mycena calceata* spec. nov. raccolta nel mese di novembre 1993, in occasione delle Giornate Micologiche della Confederazione Europea Micologia Mediterranea svoltesi in L'Estartit, Spagna.

Mycena calceata Robich, spec. nov. — Fig. 1

Pileus 8 mm latus campanulato expansus, glabrescens, pruina alba conspersus, pellucido-striatus, fusco-cremeus, disco obscuriori, circa marginem dilute cremeo pallescentem. Lamellae subconfertae, leviter ventricosae, venis connexae, adscendentes, arcuatae, adnatae, albidae. Caro alba. Stipes 5 cm longus, 1.5 mm crassus, subaequalis, cavus, fragilis, laevis, nitens, superne aquoso-cremeus, deorsum aquosocinereus, albo-pruinatus, basi insiticius densis pilis radiantibus praeditus. Solitaria supra ramulos *Quercus suberis* putrescentibus in terra.

Sporae 5.5–8 × 11–13.5 µm, ellipsoideae, amyloideae. Basidia 12–13 × 37–45 µm, 4-sporea, clavata. Cheilocystidia 6–20 × 20–50 µm, versiformia, abnormia, vel clavata, apice inflata, surculisque crassis instructa, ramosa, fusiformia, laevia, base pedunculata. Pleurocystidia nulla. Pileipellis hyphae cylindricae, in materia gelatinosa immersae, 1.5–3 µm latae, diverticulis simplicibus vel ramosis munitae. Hyphae stipitis corticales laeves, 1–3 µm latae, gelatinosae. Caulocystidia cylindracea, 2–5 × 50–130 µm, sparsis surculis obtectae. Fibulae nullae.

Holotypus: *MCVE n. 397*. Leg. G. Robich, 17.XI.1993, St. Pol de la Bisbal, Gerona, Spain.

Etymology: *calceatus*, furnished with a shoe, in reference to the basal disc.

Pileus 8 mm across, campanulate-applanate, with broad low umbo, glabrescent, pruinose, translucent-striate for half the radius, cream-brown, light grey-brown, dark brown at disc, margin light cream, pallescent. Lamellae, L = 19, l = 1, not crowded, slightly ventricose, somewhat intervenose, ascending-arcuate, adnate, whitish, with white edge. Flesh thin, white, grey under pileal cortical layers, smell and taste unrecorded. Stipe 1–2 × 50 mm, almost cylindrical, slightly tapering from base to apex, hollow, fragile, smooth, shining, watery, watery-cream above, then watery-grey, white pruinose below, base insititious with thick radiating hairs.

Spores 5.5–8 × 11–13.5 µm, elongated-cylindrical, ellipsoid, with opaque content, a few with large guttae, amyloid. Basidia 12–13 × 37–45 µm, 4-spored, clavate, sterigmata, 9–10 µm long (a few basidia 5-spored, 13.5 × 46 µm). Cheilocystidia 6–20 × 20–50 µm, versiform, irregularly-shaped or clavate with thickened tip or coarse apical bumps



Fig. 1. *Mycena calceata*. A. Spores; B. cheilocystidia; C. hyphae of pileipellis; D. hyphae of stiptipellis.

with two or three elongated excrescences, forked, fusiform, smooth, with pedicellate base, mixed with basidia and basidioles on the gill edge. Pleurocystidia none.

Pileipellis an ixocutis of smooth, cylindrical hyphae, yellow in Melzer's reagent, embedded in a gelatinous layer, branched, clamped, 3–10 µm wide, suprapellis made up of thinner, 1.5–3 µm wide hyphae with simple or branched diverticulae, 1–1.5 × 5–15 µm, thickly tangled into coralloid masses, tramal hyphae cylindrical to inflated, 11–27 µm wide. Subhymenial layer made up of subglobose, elongated-globose and cylindrical hyphae 3–5 × 3–16 µm. Hyphae of trama of stipe cylindrical, pseudoamyloid, vinaceous reddish-brown and metachromatic, 6–24 µm wide. Stipitipellis an ixocutis of smooth, 1–3 µm wide cylindrical hyphae, yellow in Melzer's reagent, not metachromatic, embedded in a gelatinous layer, with slightly enlarged tips, 2–5 × 50–130 µm, with sparse diverticula in the form of bumps and excrescences. Hyphae of pilei- and hymenophoral trama pseudoamyloid, reddish-brown in Melzer's reagent. Clamps none.

Habitat & distribution – Solitary on thin rotting branches of *Quercus suber* (Cork oak) in mediterranean forest. Only known from the type-locality in Spain.

Collection examined. Spain, St. Pol de la Bisbal (Carretera de Calonge), La Bisbal, Gerona, 17.XI 1993, G. Robich (MCVE 397).

A misjudgment of the significance of the thick, radiating hairs at the base of the stipe coupled with the fragility of the latter, and some other characters, first induced me to place this taxon in section *Fragilipedes* (Fr.) Quél., among the clampless species (Maas Geesteranus, 1988: 46, Key 3). After reading a draft of the present work, Dr. R.A. Maas Geesteranus, whom I thank wholeheartedly both for confirming that the species was as yet undescribed and for his valuable suggestions, informed me that the new taxon fitted in perfectly with section *Insignes* Maas G. which at the moment included five American and two European species.

Section *Insignes* Maas G. includes species having, among other characters, 4-spored basidia (only one is 2-spored), pileus and stipe hyphae embedded in a gelatinous layer and clamps, generally growing on pine needles on the ground. On the contrary, the possible presence of plentiful and noticeable fibrils, either radiatingly disposed or forming more or less thick mats at stipe base appears to have uncertain diagnostic value: "generally covered with fibrils at the base" (Maas Geesteranus, 1989: 343–344). The spore size of *Mycena calceata*, much larger than those of the other 4-spored species of the section, is a major character. As a matter of fact, it is well known that spore size in a 2-spored form is always larger than that of a 4-spored form. Only the spore size of *Mycena corrugans* Maas G. is much larger than that of *Mycena calceata*, but only because the former is 2-spored (or rarely 3-spored). Also the thick radiating hairs at the base of the not radiating stipe is an uncommon character for the species now included in the section, being this character described only for *Mycena roriduliformis* (Murrill) Dennis "unite to form comparatively few, coarse, stiff, radiating strands" and for *Mycena mitis* Maas G. "basi fibrillis radiantibus albis substrato affixus" (Maas Geesteranus, 1992: 469). In addition *Mycena mitis* and *Mycena corrugans* grow on *Quercus* leaves on the ground and at the base or on roots of *Calamagrostis epigeios* respectively, while *Mycena calceata* grows on thin branches or twigs of *Quercus suber* on the ground. All these species grow under broad-leaf trees, by contrast all the American species of section *Insignes* were collected under conifers. Finally *Mycena calceata* is the first clampless species of the section.

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