

A NEW SPECIES AND NEW SECTION OF *MYCENA*  
FROM COSTA RICA

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*Mycena seclusa* is newly described from the lowland rain forests of Costa Rica; it is the type species of the new section *Seclusae*.

In this paper, we report on a new species of *Mycena* which is very common in the lowland tropical rain forest around La Selva Biological Station and Reserve, Costa Rica. See Ovrebo & Baroni (1988) for a description of the site.

As implied by the specific epithet, the species exhibits a combination of features separating it from any other member of *Mycena*, which justifies the erection of a new section.

*Mycena seclusa* Maas G. & Ovrebo, *spec. nov.* — Fig. 1

Basidiomata dispersa. Pileus 4–12 mm latus, late convexus vel applanatus, centro aetate depressus, sulcatus, striatus, quasi glaber, siccus, griseus, centro plerumque albidus. Caro tenuis, odore chlorinoideo. Lamellae 22–27 stipitem attingentes, molles, adscendentes, liberae, albae, margine concolores. Stipes 10–34 × c. 1 mm, cavus, fragilis, aequalis, cylindraceus, siccus, levis, glaber, basi tamen minute puberulus, albus, e disco basali natus.

Basidia 15–18 × 8–9 μm, late clavata, 4-sporigera, fibulata. Sporae 6.5–9 × 4–5.5 μm, inaequilateraliter ellipsoideae, leves, amyloideae. Cheilocystidia 13.5–27 × 8–11 μm, clavata atque apice late rotundata vel fusiformia atque apice rostrata, fibulata, levia. Pleurocystidia nulla. Trama lamellarum iodi ope brunneovinescens. Hyphae pileipellis 1.8–2.5 μm latae, fibulatae, haud in materiam gelatinosam immersae, leves vel surculis raris munitae; cellulae terminales 30–60 × 8–14.5 μm, fusiformes, clavatae, ellipsoideae, surculis cylindraceis 1.8–3.5 × 0.5 μm instructae. Hyphae stipitis corticales 1.8–2.5 μm latae, fibulatae, leves, haud in materiam gelatinosam immersae, stipitis basi caulocystidiis levibus 14.5–100 × 4.5–13.5 μm praeditae.

Corticola et lignicola.

Holotypus: *Ovrebo 2115* (L, No. 991.343-731).

Etymology: *seclusus*, separated, in reference to the combination of features separating this species from the other members of the genus.

Basidiomata scattered. Pileus 4–12 mm across, broadly convex to plane, with age centrally depressed, sulcate from edge of disc to margin, striate, appearing glabrous, dry, opaque, the striae medium grey, paler between the striae, often whitish at the centre. Context thin, translucent grey, with chlorine-like odour. Lamellae 22–27 reaching the stipe, tender, ascending, up to 1 mm broad, free, white, with entire to fimbriate, concolorous edge; lamellulae numerous but not in distinct tiers. Stipe 10–34 × c. 1 mm, hollow, fragile, equal, terete, dry, smooth, glabrous for the greater part, translucent white, minutely puberulous below, springing from an unobtrusive, glabrous disc 1 mm across.

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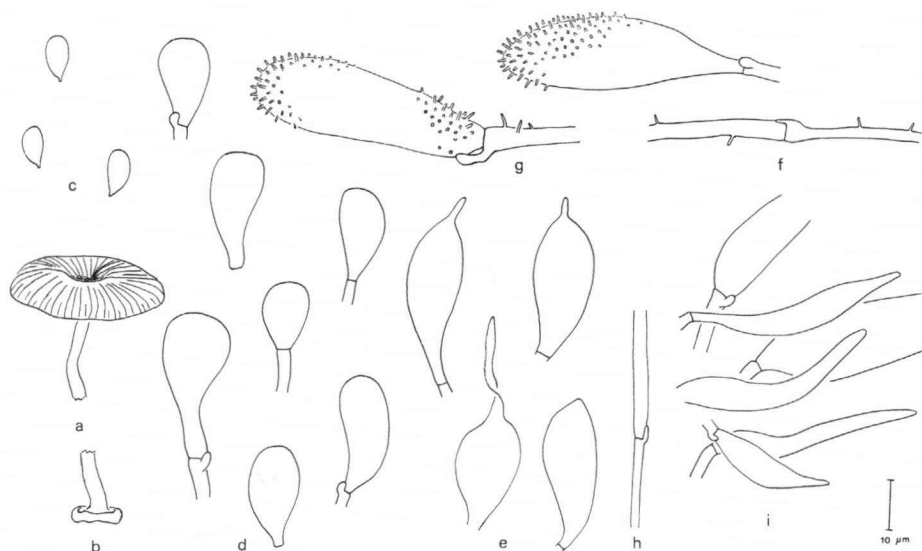


Fig. 1. *Mycena seclusa*. a. Habit; b. basal disc and part of the stipe; c. spores; d. cheilocystidia; e. cheilocystidia near the pileus margin; f. hypha of the pileipellis; g. terminal cells; h. hypha of the cortical layer of the stipe; i. caulocystidia. (Figs. a, b,  $\times 5$ ; all others,  $\times 700$ ; bar = 10  $\mu\text{m}$ .)

Basidia 15–18  $\times$  8–9  $\mu\text{m}$ , broadly clavate, 4-spored, clamped (difficult to recover in sections). Spores 6.5–9  $\times$  4–5.5  $\mu\text{m}$  (average  $\times$  = 7.78  $\times$  4.86  $\mu\text{m}$ ,  $Q = 1.41$ –1.91; average  $Q = 1.6$ ), pip-shaped, smooth, amyloid. Cheilocystidia 13.5–27  $\times$  8–11  $\mu\text{m}$ , in places forming a sterile band, (a) near the middle of the lamella clavate, clamped, sessile to stalked, thin-walled, smooth, apically broadly rounded, (b) near the margin of the pileus fusiform, apically rostrate, with the apical part 4.5–18  $\times$  2–3.5  $\mu\text{m}$ . Pleurocystidia absent. Lamellar trama made up of subparallel hyphae 4–10  $\mu\text{m}$  wide, thin-walled, smooth, hyaline, brownish vinescent in Melzer's reagent (but rather more brownish than vinaceous). Pileipellis a cutis of repent hyphae which are 1.8–2.5  $\mu\text{m}$  wide, clamped, not embedded in gelatinous matter, smooth or with rare cylindrical excrescences, terminated by inflated cells 30–60  $\times$  8–14.5  $\mu\text{m}$ , fusiform, clavate or ellipsoid, apically and mostly on the upper surface sparsely to densely covered with evenly spaced, cylindrical excrescences 1.8–3.5  $\times$  0.5  $\mu\text{m}$ . Hypoderm consisting of parallel hyphae with much inflated cells up to 25  $\mu\text{m}$  wide. Hyphae of the cortical layer of the stipe 1.8–2.5  $\mu\text{m}$  wide, clamped, smooth, not embedded in gelatinous matter; caulocystidia near the base of the stipe 14.5–100  $\times$  4.5–13.5  $\mu\text{m}$ , clustered or not, slender-conical to sublageniform, thin-walled, smooth, apically 1.5–4.5  $\mu\text{m}$  wide.

Corticolous and lignicolous, found on large logs of dicotyledonous trees that are decaying but still firm, but also occasionally on the wood of planks lining many of the trails throughout the reserve.

A very common fungus at La Selva.

*Material examined.* COSTA RICA: Heredia Prov.: La Selva Biol. Station and Reserve, near Puerto Viejo: Sendero Oriental, 6 July 1986, *Ovrebo 2115* (holotype; L, No. 991.343-731), 28 May 1991, *Ovrebo 3206* (USJ) & 11 May 1992, *Ovrebo 3235* (L, No. 991.343-739); Sendero El Surá, 16 July 1986, *Ovrebo 2207* (USJ); Sendero Hartshorn, 10 July 1986, *Ovrebo 2147* (USJ); Sendero Holdridge, 28 July 1989, *Ovrebo 2804* (F); Camino Experimental Sur, 13 May 1991, *Ovrebo 3038* (CSU).

Singer described two species from the South American area that require a closer look. His *Mycena costaricensis* (Singer & Gomez P., 1982: 41) can be readily dismissed on account of its subglobose spores  $4.5-6.3 \times 4.5-5.5 \mu\text{m}$  and its cheilocystidia which are stated to be "ad apicem setulis 5-6  $\mu\text{m}$  longis subdigitaliformibus ornatis."

The second species, *Mycena multicaudata* (Singer, 1973: 44), has several features in common with *M. seclusa*, such as a convex pileus with depressed centre, free or almost free white lamellae, a chlorinaceous odour, a white stipe, and occurrence on wood of dicotyledonous trees. The differences, however, are in the pileus of *M. multicaudata* which is golden brown, papillate in the central depression and squamulose; in the 'pilose' cheilocystidia; in the hyphae of the pileipellis which emit 'hairs' of the kind as seen in *Crinipellis*; and in the hyphae of the stipe cortex which produce similar 'hairs'.

A chlorine-like odour is not common in *Mycenas*, but it is quite possible that, as is the case in the present species, it is not apparent in freshly picked specimens; it is easily detected upon opening the wax paper in which the specimens have been kept.

This odour together with such characters as basal disc, smooth cheilocystidia, smooth caulocystidia and strikingly spinulose terminal cells of the hyphae of the pileipellis constitutes a combination not seen in any other species of the genus *Mycena*. It warrants the erection of a new section which, with much doubt, may be seen as remotely related with section *Polyadelphia* Sing. ex Maas G. (Maas Geesteranus, 1986: 159).

### *Mycena* section *Seclusae* Maas G. & Ovrebo, *sect. nov.*

Basidiomata parva. Pileus siccus, sulcatus, griseus. Caro tenuis, odore chlorinoideo. Lamellae molles, liberae, albae. Stipes fragilis, siccus, glaber, albus, basi minute puberulus, e disco basali natus.

Basidia clavata, 4-sporigera, fibulata. Sporae inaequilateraliter ellipsoideae, leves, amyloideae. Cheilocystidia clavata vel fusiformia, levia. Pleurocystidia nulla. Trama lamellarum iodi ope brunneovinescens. Hyphae pileipellis fibulatae, levia vel sparse diverticulatae, cellulis terminalibus inflatis spinulosisque praeditae. Hyphae stipitis corticales fibulatae, leves, stipitis basi caulocystidiis levibus munitae.

Corticola et lignicola.

Species typica: *Mycena seclusa*.

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