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Hemimycena gracilis in Bosnia and Herzegovina

Dusko Trivič¹, Pietro Voto²

¹<https://www.facebook.com/dusko.trivic.9>

²Via Garibaldi 173, I-45010 Villadose (RO), Italy; ORCID 0000-0003-1922-1324 - pietrovoto@libero.it

*Corresponding author: pietrovoto@libero.it

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Abstract: A collection of *Hemimycena gracilis* is reported from the Bosnian region with a morphology-based description and photographs of basidiomes *in situ* and most relevant microcharacters.

INTRODUCTION

This interesting collection posed some difficulty in the identification process as two species seemed equally possible candidates. Since there apparently seemed to be a conflict between the keys of the two papers we used for reference, Antonín & Noordeloos (2004) and Malysheva & Morozova (2009), we finally decided to follow Antonín & Noordeloos (2004). As far as we know, this is the first report from the Balkans.

MATERIALS AND METHODS

The basidiomes were photographed in habitat; the micro characters were studied on fresh material in Congo red. All images are by D. Trivič.

TAXONOMY

Hemimycena gracilis (Quéél.) Singer
Annales Mycologici **41**(1/3): 121 (1943)





Macroscopic characters

Pileus 2 – 3 mm broad, convex, distinctly umbonate in some specimens, margin at first inflexed and finally applanate, white then possibly greyish toward centre.

Lamellae distant, 10 – 11, sometimes intermixed with 1 lamellula, well-developed, adnate then subdecurrent, weakly arcuate, white; edge concolorous.

Stipe 4 – 12 × 0.2 – 0.6 mm, at first somewhat swollen at base and tapering toward apex, then cylindrical, white, pubescent, base naked or surrounded by a white mycelial felt on the substrate.

Context not analyzed.

Microscopic characters

Basidiospores 8.0 – 11.0 × 2.5 – 3.3 μm, oblong to narrowly amygdaliform in side view, apex somewhat tapering, thin-walled, hyaline, not amyloid.

Basidia 18 – 22 × 5 – 7 μm, clavate, 4-spored.

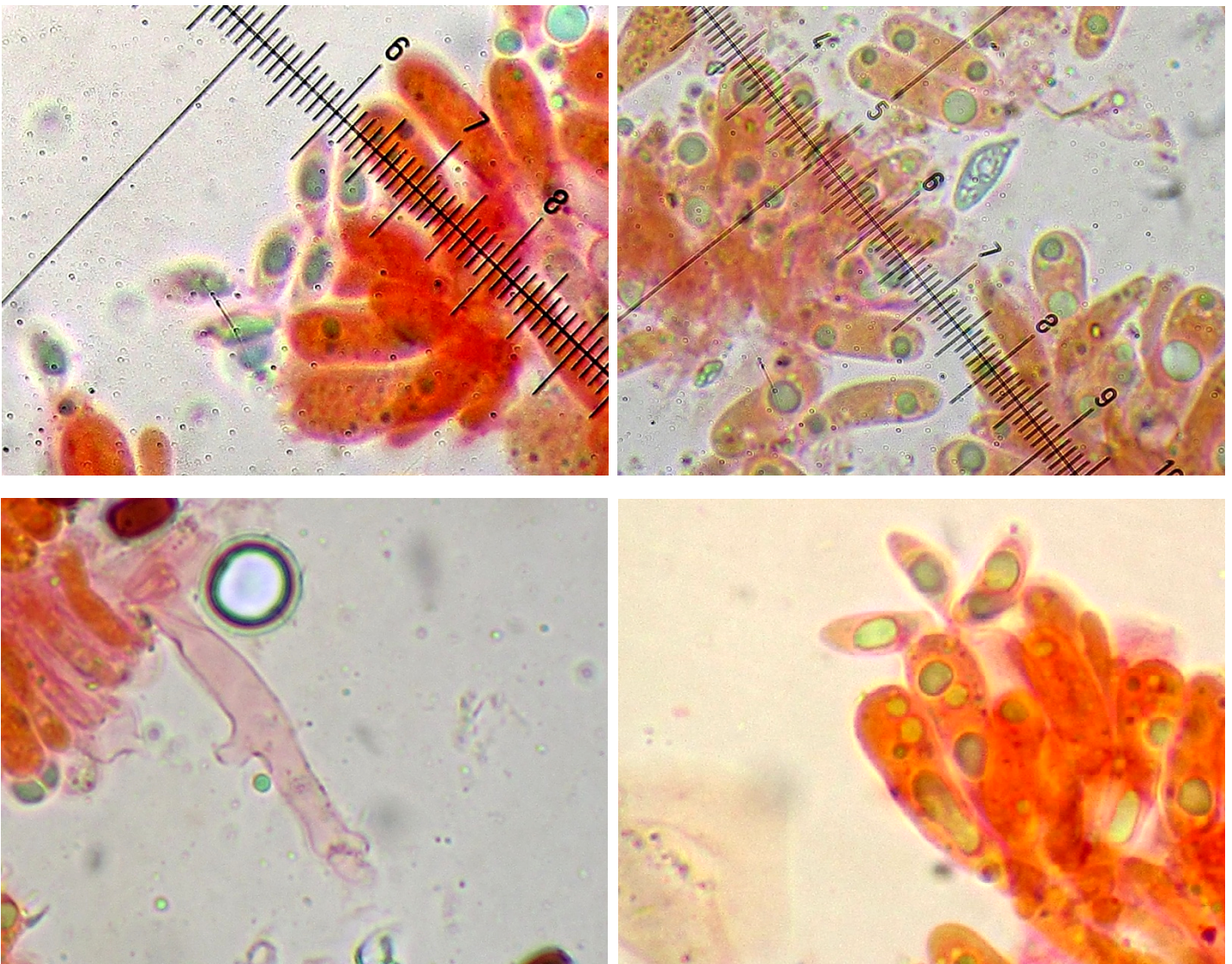
Cheilocystidia 11 – 22 × 3 – 5 μm, (irregularly) cylindraceous to narrowly utriform, apex often swollen, sometimes weakly thick-walled. *Pleurocystidia* not found.

Pileipellis composed of a cutis with short to long, slender, irregularly cylindrical diverticula.

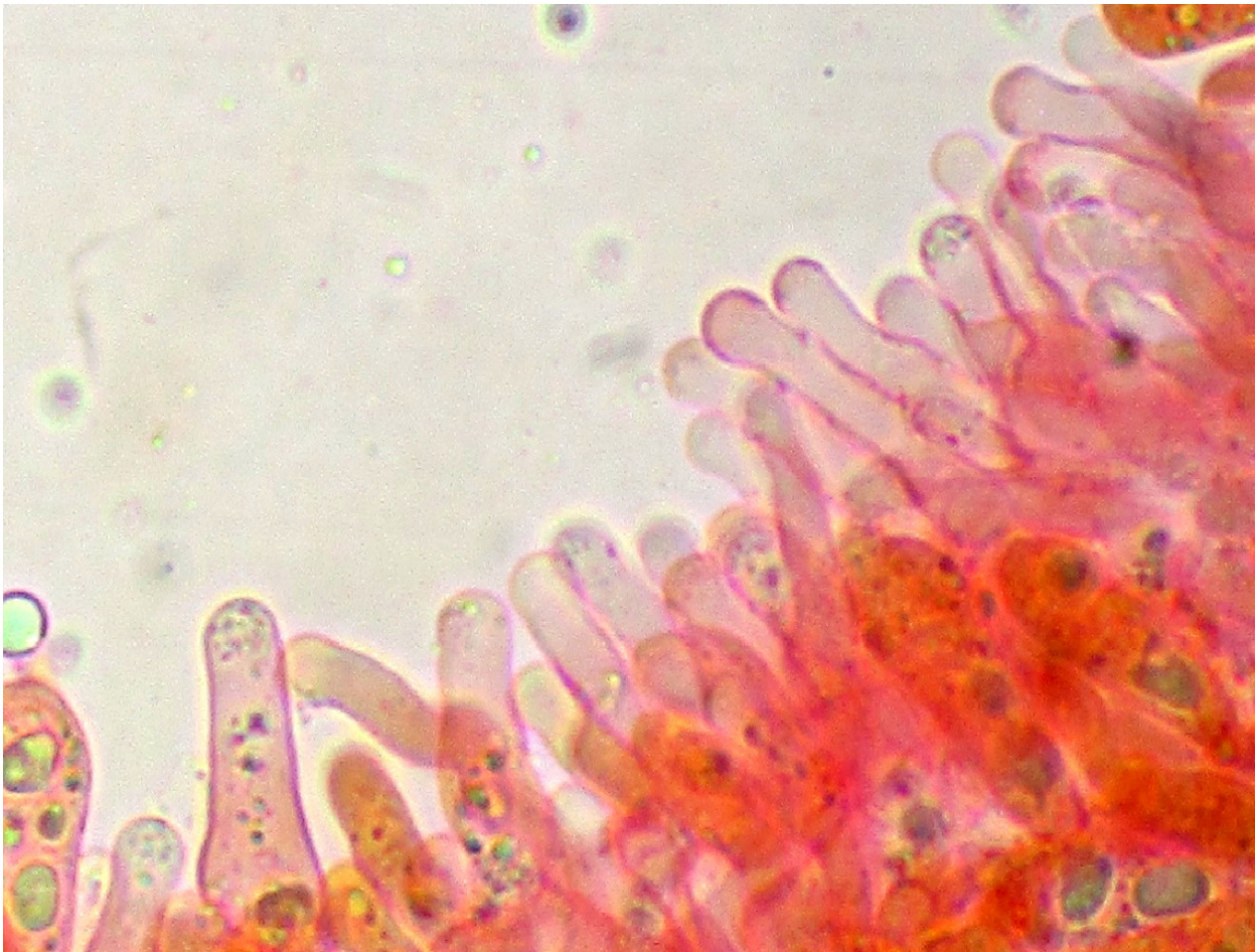
Caulopellis similar to the pileipellis.

Caulocystidia somewhat flexuously cylindrical, not tapering at apex.

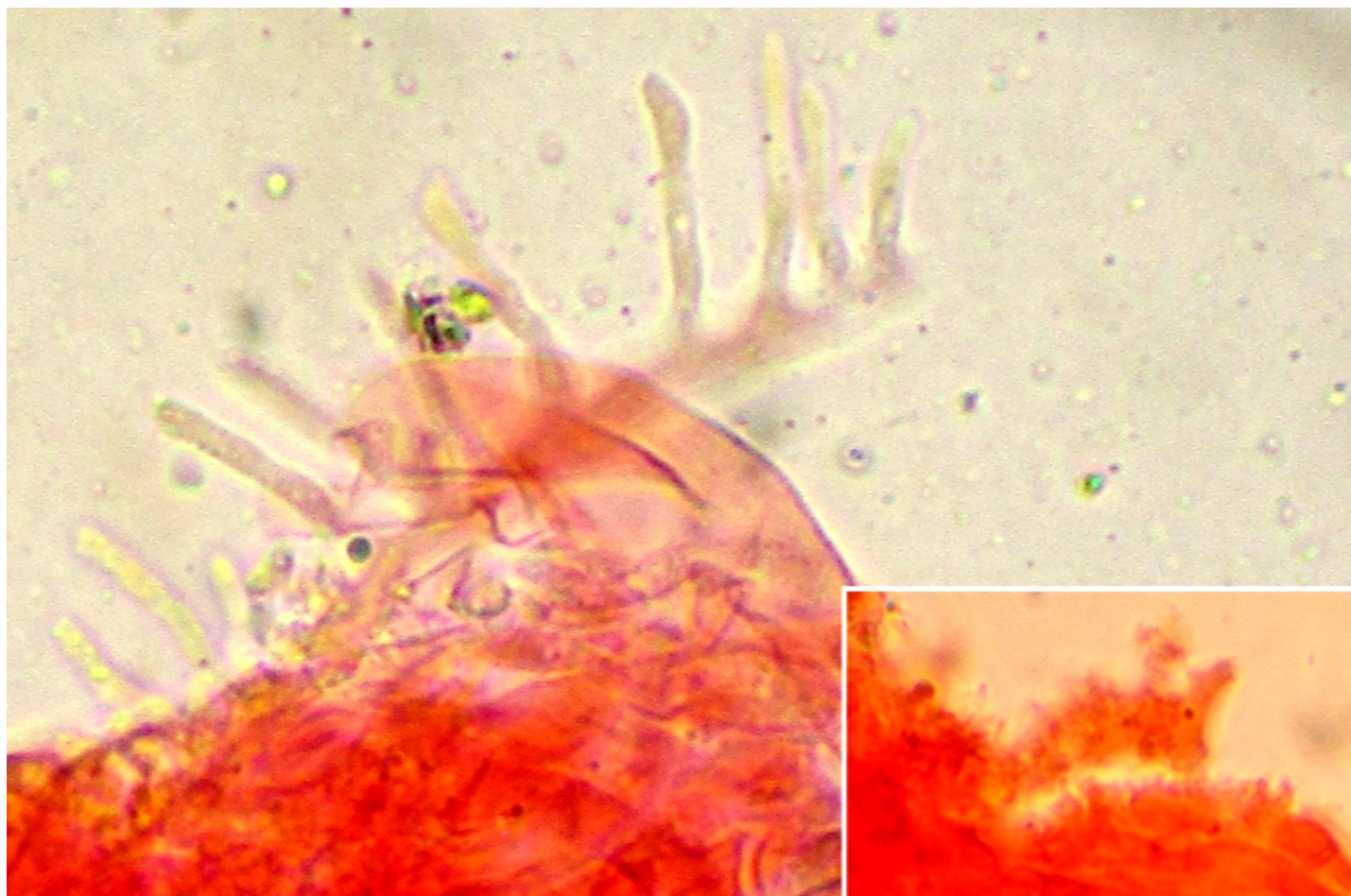
Clamp connections present.



Above: spores; bottom left: a clamp connection, bottom right: basidia



Above: cheilocystidia; below: caulocystidia



Pileipellis and pileocystidia

Collection examined and habitat: Bosnia and Herzegovina, Banja Luka, Prijedor, along the bank of the river Sana, gregarious on small debris of *Salix* sp. among rotting stalks and leaves of *Sparganium erectum*, 28 July 2024, legit D. Trivič, in pers. herb. Basidiomes of the minute ascomycetes *Orbilina sarraziniana* Boud. were present on the same debris together with *H. gracilis* and are visible in the first image.

NOTES

Because it lacks fusoid to capitate pileocystidia and awl-shaped to flabelliform or setiform caulocystidia, and because it has oblong spores this Bosnian collection falls inside key four in the monograph by Antonín & Noordeloos (2004). A purely white cuticle made of a diverticulate cutis, well-developed lamellae, clamped and 4-spored basidia, long and narrow spores are the other essential morphological characters featured by *Hemimycena gracilis*.

This species was also described in the past by the ambiguous name *Hemimycena pithya* (Breitenbach & Kränzlin 1991) and was also known from North America by the posterior synonym *Hemimycena immaculata* (Peck) Watling. *Omphalia tenuispora* Velen. is another synonymized old name (Antonín & Noordeloos 2004).

Searching the literature for modern descriptions of *Hemimycena gracilis*, we found one from Spain in Merino Alcántara (2017). Other older descriptions are reported in Antonín & Noordeloos (2004).

Hemimycena gracilis is keyed out beside *Hemimycena persimilis* (Redhead) Antonín & Noordel in both papers we used for the identification process: Antonín & Noordeloos (2004) and Malysheva & Morozova (2009).

It seems no relevant difference in spore size can be adopted for the distinction between these two taxa (see the variability in spore size reported by Antonín & Noordeloos 2004 in the notes to *H. gracilis*) although, on the contrary, Malysheva & Morozova (2009) distinguish them precisely on a different spore size.

Antonín & Noordeloos (2004, dichotomous step) distinguish them by rather broad, clavate-diverticulate pileocystidia of *H. persimilis* versus slender, (sub) lageniform to subutriform pileocystidia of *H. gracilis*. In our collection pileo- and caulocystidia are distinctly slender.

We note that Antonín & Noordeloos (2004), while not giving them any taxonomic relevance in the key dichotomy, mention a slight wall thickening of the cheilocystidia of *Hemimycena gracilis*, not reported for *H. persimilis*, and the presence of pleurocystidia in the latter, not cited for the former. In our material we observed some slight wall thickening at the apex of cheilocystidia and could not find any pleurocystidia.

We note also that, though giving no mention to it, Antonín & Noordeloos (2004: fig. 32) draw an occasional 'cap' surmounting the apex of a cheilocystidium; we found and photographed what appears to be a mucilaginous cap at the top of a caulocystidium and occasional congophilic inclusions at the apex of some cheilocystidia.

The common *Hemimycena candida* (Bres.) Singer grows on stems of *Symphytum officinale* and has different, often apically tapering cheilo-, pileo- and caulocystidia.

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