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Inocybe huijsmanii in Bosnia and Herzegovina

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Key words:	Abstract: Based on morphological data, Inocybe huijsmanii, an old
Agaricomycetes	species of Kuyper (1986) recently revisioned by Bandini, Oertel &
Agaricales	Eberhardt (2021), is reported for the first time from Bosnia, and most
Inocybaceae	probably from the entire Balkan region, with a brief description and
	colour images of the basidiomes in situ and the main microcharacters.

MATERIALS AND METHODS

The basidiomes were photographed in habitat; the micro characters were studied on fresh material in ammonia for the picture of the pleurocystidium, in Congo red for all other characters. All images by the author.

TAXONOMY

Inocybe huijsmanii Kuyper

Persoonia, Suppl. 3: 134 (1986)

Macroscopic characters

Pileus 7.5 - 18.0 mm broad, conical-convex then broadly convex, umbonate, margin involute to straight, smooth, glabrous, with age radially innately fibrillose, when fresh very pale lilaceous, then yellowishochraceous at centre and whitish to sometimes pale pinkish-lilac outside centre.



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Lamellae subdistant 25 - 32, with 1 to 2 tiers of lamellulae, adnate, subventricose to ventricose little, at first whitish then brownish grey; edge whitish, fimbriate.

Stipe $13 - 25 \times 0.7 - 1.6$ mm, cylindrical, straight to somewhat flexuous, colour pale brownish ochraceous below a whitish tomentose-fibrillose covering, towards apex with a faint lilac shade, scarcely pruinose only near the apex.



Context with an indistinct smell.

Microscopic characters

Basidiospores (8.10) 8.35 – 9.69 (10.22) × (4.81) 4.86 – 5.50 (6.00) μ m, on average 9.00 – 9.10 × 5.15 – 5.25 μ m, Q = (1.5) 1.6 – 1.9 (2.0), on average 1.75; in front view elliptic to navicular, in side view amygdaliform with a sometimes bulging dorsal side to adaxially flattened, sometimes with a suprahilar depression, apex rounded to conical or papillate; smooth; germ pore sometimes visible as a small callus.

Basidia 20.8 – 30.8 × 7.8 – 12.3 μ m, 4-spored, clavate.

Pleurocystidia 50.0 – 70.0 × 10.0 – 18.0 μ m, mainly utriform to subutriform or subfusiform, neck mostly elongate and more often somewhat tapering than cylindrical; apex obtuse to rounded, crystalliferous; walls slightly thickened up to about 1 μ m, greenish-yellowish in 5% KOH.

Cheilocystidia similar to the pleurocystidia, intermixed with small paracystidia.

Caulocystidia similar to the pleurocystidia, only present at the extreme apex of the stipe.

Clamp connections present.



Spores in Congo red



Pleurocystidia. Left: in Congo red, right: colour in ammonia

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Left: pleurocystidia. Right: caulocystidia. In Congo red

Collections examined and Habitat: Bosnia and Herzegovina, Prijedor, Ljubija, Brisevo village; gregarious, in a mixed wood of hornbeam (*Carpinus sp.*), lime (*Tilia sp.*) and maple (*Acer sp.*), 8 and 19 June 2024, *legit D. Trivič*, in pers. herb.

NOTES

Inocybe huijsmanii is characterized by small basidiomes with sometimes a light covering of a pale pinkishlilac velipellis on the pileus and sometimes lilaceous tints at the stipe apex. With the vanishing of this veil, which went almost unnoticed in this collection, the pileus appears whitish to alutaceous. Other characteristics are almost thin-walled cystidia, medium spore size, and scarcity of caulocystidia. The subpapillate spore apex is also reported by Bandini, Oertel & Eberhardt (2021) and Kuyper (1986).

The spore size in this collection falls on the lower end of the expected range [(8.0) $8.5 - 10.5 \times 5.0 - 6.0 \mu m$, on average $9.1 - 10.1 \times 5.2 - 5.8 \mu m$, Q = 1.6 - 1.9, on average 1.7 - 1.8 (Kuyper 1986, protolog); $8.6 - 10.7 \times 4.4 - 5.8 \mu m$, on average $9.6 \times 5.2 \mu m$, Q = 1.6 - 2.2, on average 1.9 (Bandini, Oertel & Eberhardt 2021, paratype revision)].

Bandini, Oertel & Eberhardt (2021) studied unsequenced isotypes of *I. bolbitioides* Carteret & Reumaux and *I. gypsea* Carteret & Reumaux. In both cases they found longer spores and consequently a higher quotient (on average $10.8 \times 5.4 \mu m$, Q = 2.0 and $11.0 \times 5.4 \mu m$, Q = 2.0, respectively). However, as they found presence of 2-spored basidia they comment that a synonymy with *I. huijsmanii 'cannot entirely be excluded'*.

I. huismanii is very similar to *I. bellidiana* Bandini, B. Oertel & U. Eberh. which shares the pale coloured pileus. However, its spores are more characteristically bulgy on the dorsal side and somewhat shorter ($6.8 - 10.1 \times 4.3 - 6.0 \mu m$) resulting in a lower quotient (1.4 - 2.1, on average 1.7), and cystidia feature a partly tapering and seldom elongate apex (Bandini, Oertel & Eberhardt 2021). Also, this species has close lamellae (ca. 40 - 50) which is a sensible difference versus the subdistant lamellae of *I. huijsmanii* (25 - 35 in the protolog, 25 - 32 in this collection).

kuyper (1986) commented that probably *I. huismanii* is confused with the common *Inocybe griseolilacina* J.E. Lange; however, this taxon differs by a less smooth pileus surface and thicker-walled cystidia (Bandini, Oertel & Eberhardt 2021).

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