
Inocybe corsica

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Inocybe corsica Esteve-Rav., Pancorbo & G. Moreno, *sp. nov.*

Etymology. Name refers to the island of Corsica (Corse), where the samples were collected.

Classification — *Inocybaceae*, *Agaricales*, *Agaricomycetes.*

Basidiomata agaricoid and stipitate. *Pileus* 10–25 mm, at first conical-campanulate, then convex to plano-convex, broadly umbonate to subumbonate, slightly hygrophanous; margin straight, regular to hardly wavy with age, fissurate at times, velipellis not present; colour yellow ochraceous (Mu 10YR 6/8, 7/6) when young or moistened, from uniform to light ochraceous in the centre (Mu 10YR 8/2) in some basidiomata; surface radially fibrillose, smooth, not rimose, slightly striated towards the margin in adult basidiomata, with greasy aspect, not sticky when moist. *Lamellae* moderately crowded (L = 35–45; l = 1–2), free to adnate, ventricose, initially whitish, becoming pale grey to beige, then pale brown, edge concolourous, entire to finely crenulate. *Stipe* 22–40 × 3–4 mm, straight to curved towards base, bulbous to bulbous-napiform, not marginately bulbous; colour whitish, becoming beige to ochraceous with age (Mu 10YR 8/2; 7/3); surface densely pruinose along the entire surface. *Cortina* absent. *Context* fibrose, whitish, concolourous to the stipe surface. *Smell* herbaceous, *taste* not recorded. *Colour of exsiccatum* ochre-brownish (pileus and stipe), not blackening. *Spores* (8.0–)8.7–*9.7*–10.9(–12.2) × (5.4–)6.7–*7.7*–8.7(–9.1) µm, Qm: (1.0–)1.09–*1.25*–1.42(–1.7) (n = 193 / N = 2), mostly subisodiametric to sometimes subheterodiametric, distinctly nodulose (though exceptionally sub-entolomatoid) under the optical microscope, provided with 7–10 distinct knobs variable in height (1.3–2.3 µm high), yellowish, apicula distinct. *Basidia* (24–)27–*34.8*–41(–49) × (10.9–)11.3–*13.2*–15.8(–17.1) µm; Qm: (1.81–)2.0–*2.6*–3.2(–3.4), 4-spored, rarely 2-spored, clavate, sterigmata 2.5–7 µm long. *Lamella edge* practically sterile, composed by numerous protruding hyaline to brownish cheilocystidia mixed with abundant mostly hyaline to brownish clavate paracystidia. *Pleurocystidia* abundant, (38–)45–*58.1*–72(–80) × (11.3–)12.7–*16.5*–21.2(–22.4) µm, Qm: (1.78–)2.5–*3.6*–4.8(–5.6), (n = 110 / N = 2), broadly lageniform to rarely fusiform, hyaline or with brownish content, base often attenuate but not pedicellate, rather crystalliferous at the apex, walls (1.0–)1.2–*1.6*–2.2(–2.4) µm thick, reaching –3 µm at the apex, hyaline to hardly yellowish in 10 % NH_4OH. *Cheilocystidia* numerous, (43–)47–*58.2*–73(–79) × (11.0–)13.3–*16.5*–20.3(–22.7) µm, Qm: (2.21–)2.7–*3.5*–4.8(–7.1), similar in size and shape to pleurocystidia. *Stipitipellis* a cutis of parallel hyphae (3.5–)4.3–*6.0*–7.9(–10.3) µm, bearing numerous caulocystidia along the entire length of the stipe, (45–)49–*63.2*–83(–90) × (8.3–)8.8–*12.2*–15.8(–16.8) µm, Qm: (3.8–)4.0–*5.2*–7.6(–8.4) (n = 73 / N = 2), more slender but similar in shape to hymenial cystidia, mixed with numerous clavate to subcylindrical hyaline paracystidia. *Pileipellis* a cutis formed by parallel cylindrical cells, 4.5–13 µm wide, somewhat constricted at septa, showing minute pale yellow ochraceous pigment, minutely encrusting and also diffuse intracellular. *Lamellar trama* of parallel hyphae, 6–16 µm broad, showing diffuse yellowish intracellular pigment. *Clamp connections* abundant in all tissues.

Habitat & Distribution — Gregarious in acidic soil; in humid and herbaceous areas, next to willows (*Salix atrocinerea*), in somewhat muddy and nitrified soils; the collecting area is located in a Mediterranean environment of holm oak (*Quercus ilex* subsp. *ilex*) and cork oak (*Quercus suber*) mixed forest. No sequence similar to the ones generated from our material are available in GenBank.

Typus. France, Corsica, Corti, Saint-Jean, Maison San Giovanni, N42°17'38.04" W9°10'04.61", 427 m a.s.l., along a ditch on mossy and wet ground, near *Salix atrocinerea*, with some *Juncaceae* and *Rosa* sp. scrub, close to *Quercus suber-Q. ilex* subsp. *ilex* forest, in acidic sandy soil, 8 Nov. 2019, *F. Pancorbo*, *A. Altés*, *G. Moreno* & *F. Esteve-Raventós* (holotype AH 51900, ITS and LSU sequences GenBank MZ308644 and MZ308646, MycoBank MB 839085).

Additional material examined. Same location, date, habitat and collectors, AH 55201 (paratypus), ITS and LSU sequences GenBank MZ308645 and MZ308647).

Notes — Colour codes are taken from Munsell (1994), terminology follows Vellinga (1988) and Kuyper (1986). *Inocybe corsica* is probably a species of Mediterranean distribution linked to *Salicaceae* (found under *Salix atrocinerea*), of humid and waterlogged areas in acidic soils; macroscopically it resembles several species of the *Xanthomelas* clade (Esteve-Raventós et al. 2015, Vauras & Larsson 2016, Bandini et al. 2019, 2020) because of its medium-small size, and is characterised by the presence of a non-marginate napiform bulb and flesh that does not blacken markedly with age or desiccation. Our analyses of the ITS region (Supplementary Fig. 1) show that *I. corsica* nests in the well supported *I.* sect. *Marginatae* clade (ML-BS 98 %, BPP 1), within which it forms a clade together with a sequence of *I. diabolica* (ML-BS 95 %, BPP 0.98). The two sequences of *I. corsica* obtained are identical and form a fully-supported clade (ML-BS 100 %, BPP 1). From the group of species linked to the *Salicaceae*, both *I. salicis* (= *I. straminipes*) and *I. lacunarum* (Vauras & Larsson 2016), show different spores, provided with numerous (17–22) prominent knobs (Kühner 1955); another species bound to *Salix* and *Populus* and discovered in Japan is *I. populea*, very close to *I. salicis* in morphological features but showing an indistinctly marginate to claviform stipe base and smaller cystidia (Kobayashi & Courtecuisse 2000).

(text continues on Supplementary material page FP1360)

Colour illustrations. France, Corsica, Corti, Saint-Jean, Maison San Giovanni, *Salix atrocinerea* with *Quercus suber* in muddy and mossy soil, near a dirt road, locality where the samples were collected. Basidiomata; pleurocystidia; cheilocystidia; caulocystidia at stipe base; spores under optical microscope; spores under SEM (bottom right). Scale bars = 50 µm (cystidia), 10 µm (spores), 2 µm (spores under SEM).

Supplementary material

FP1360 Phylogenetic tree.

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