

PSATHYRELLA SUBUMBRINA A NEW SPECIES OF PSATHYRELLA
SECTION HYDROPHILAE FROM SWEDEN

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On 22 October 1983 one of us (L. O.) found at Kjugekull in the parish of Kiaby, some 15 km from Kristianstad (Sweden), three carpophores (young and mature stages) of a characteristic species of *Psathyrella*, which, because of its overall brown colours and small spores ($6.5\text{--}7 \times 4.5\text{--}5 \mu\text{m}$) belongs to section *Hydrophilae* (Kits van Waveren, 1985: 172). As we were unable to find a description of this taxon in the literature it was decided to describe it as a new species.

Psathyrella subumbrina Kits van Wav. & Örstadius, *spec. nov.* — Figs. 1–5

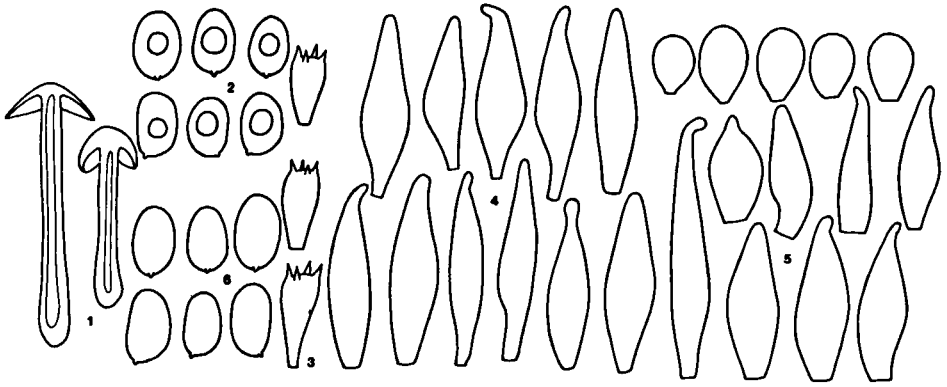
Pileus 9–13 mm latus, primo semiglobatus vel parabolicus, maturitate conico-parabolicus vel conico-convexus, striatus, obscure badius margine flavo-brunneus, colore roseo destitutus, hygrophanus, in sicco pallide brunneo-flavus. Velum crassum, albidum, e fibrillis adpressis, in margine pilei appendiculatum, in stipite, apice excepto, floccosum. Lamellae 2 mm latae, confertae, late adnatae, ferrugineae, acie albae. Stipes 15–30 \times 2–3 mm, eradicatus, basi bulbosus, apice laevis, haud striatus, cinnamomeus et pruinosis, infra apicem melleus et dense floccoso-fibrillosus, cavus. Caro pilei 1 mm crassa, concolor.

Sporae $6.5\text{--}7 \times 4.5\text{--}5 \mu\text{m}$, late ellipsoideae, haud phaseoliformes, ochraceae, poro germinativo destitutae. Basidia $17.5\text{--}30 \times 7.5\text{--}10 \mu\text{m}$, clavata. Pleurocystidia $35\text{--}50\text{--}(60) \times (9\text{--})10\text{--}15 \mu\text{m}$, numerosa, fusiformia, nonnulla submucronata, muco destitutis. Cheilocystidia pleurocystidioidea similia, $(25\text{--})32.5\text{--}45 \times 9\text{--}15 \mu\text{m}$, abundantia; cheilocystidia spheropedunculata et clavata, $12.5\text{--}20 \times 7.5\text{--}12.5 \mu\text{m}$, sparsa. Pileipellis e cellulis (sub)globosis vel ellipsoideis formata. Terrestris inter gramineas, muscos et frutices *Callunae*. — Typus: Sweden, Kristianstad, Kjugekull, 22 October 1983, L. Örstadius (holotypus L., isotypus herb. Örstadius 339–83).

Cap 9–13 mm, at first semiglobose to paraboloid, at maturity conico-paraboloid to conico-convex, striate up to 1/3 from margin, at centre dark reddish brown (Mu. 2.5 YR 3/4; 10 R 3/4), in a narrow zone round centre paler (Mu. 2.5 YR 5/4), further down towards margin becoming yellowish brown (Mu. 7.5 YR 5/6, 6/6), in marginal area pale yellowish brown (Mu. 10 YR 7/6), hygrophanous, drying out to pale brownish yellow (Mu. 7.5 YR 7/6, 8/6), rugulose, micaceous, without pink. Veil whitish, strongly developed, forming on cap adpressed bundles or patches of fibrils up to 1/2–2/3 from margin, increasing in number towards margin, in early stages forming at margin conspicuous c. 1 mm broad denticles, flocci or appending rags, forming on stem a dense flocculose scaly layer, at upper end without annular zone but rather sharply delimited from smooth upper about 1/4 part of stem, downwards running right to its base. Gills c. 2 mm broad, crowded, ascending, rather broadly adnate, in early stages pale brown (Mu. 10 YR 8/4, 7/6), at maturity reddish brown (Mu. 5 YR 5/3, 5/4), paler towards

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Figs. 1–5. *Psathyrella subumbrina*. — 1. Mature and young carpophore $\times 0.5$. — 2. Spores $\times 1212$. — 3. Basidia $\times 575$. — 4. Pleurocystidia $\times 575$. — 5. Cheilocystidia $\times 575$.

Fig. 6. *Psathyrella umbrina*. Spores $\times 1212$.

margin, with white, minutely fimbriate edge. Stem 15–30 \times 2–3 mm, straight, cylindrical but base distinctly bulbous, not rooting, hollow, in non-striate smooth upper (c. 1/4) part yellowish brown (Mu. c. 10 YR 6/4), lower down under the flocculose veil pale brown (Mu. c. 10 YR 7/3), extreme apex coarsely pruinose. Flesh of cap in centre 1 mm thick, concolorous; smell indistinct. Trama of 'washed' gill distinctly coloured in NH_4OH 10%, in basal half pinkish brown, in peripheral half paler (Mu. 10 YR 6/2). Spore print not recorded.

Spores 6.5–7 \times 4.5–5 μm (mean values 6.7 \times 4.5 μm : 1 collection), in face view broadly ellipsoid, in profile adaxially flattened, not phaseoliform, in water and NH_4OH 10% yellow with slight reddish hue (Mu. 7.5 YR 6/6), in KOH 5% pale sordid olivaceous yellow (Mu. 2.5 Y 6/4), not opaque, with large central oily drop, without germ pore, with distinct hilar appendix. Basidia 17.5–30 \times 7.5–10 μm , clavate, 4-spored. Pleurocystidia 35–50(–60) \times (9–)10–15 μm , numerous, fusoid, with short and broad pedicel, thin-walled, colourless, with often bent, submucronate and very thin-walled apex. Marginal cells: pleurocystidioid cheilocystidia (25–)32.5–45 \times 9–15 μm , abundant, the majority densely packed, intermixed with a small number of spheropedunculate or clavate cells, 12.5–20 \times 7.5–12.5 μm ; all cells thin-walled and colourless. Hymenophoral trama in NH_4OH 10% sub micr. strongly pigmented from membranal pigment with many yellow and often distinctly thickened hyphal septa and numerous minute encrustations, particularly in basal half. Pileipellis a 3–4 cells deep layer of globose and subglobose, colourless cells, 15–30 μm in diam., and ellipsoid cells, 15–50 \times 15–30 μm . Veil consisting of chains of narrow to very broad, colourless, thin-walled cells, 15–50 \times 8–35 μm , constricted at both ends.

Habitat & distribution. — Terrestrial, solitary in pasture-land among *Calluna vulgaris* and moss. Known only from type locality.

Collection examined. — Sweden, Kiaby, Kjugekull, 15 km from Kristianstad, 22 October 1983. *L. Örstadius* (holotype L; isotype herb. Örstadius 339–83).

This species is very close to *P. umbrina* from which it differs by its habit, its thick and distinctly bulbous stem, its strongly developed and in early stages conspicuously

appendiculate veil and its differently shaped spores. The latter difference hardly finds its expression in the figures for the spore sizes ($6.5-7 \times 4.5-5 \mu\text{m}$, mean values $6.7 \times 4.5 \mu\text{m}$ for *P. subumbrina* against $(6.5-7-8.0 \times 4.5-5 \mu\text{m}$, mean values $6.9-7.3 \times 4.6-4.8 \mu\text{m}$ for *P. umbrina*), but becomes quite clear at first sight of their pictures (Figs. 2, 6) The spores of *P. subumbrina*, moreover, are provided with a rather striking central oil-drop.

REFERENCE

- KITS VAN WAVEREN, E. (1985). The Dutch, French and British species of *Psathyrella*. *Persoonia* Suppl. 2: 1-300.