

ON THE INTERPRETATION OF *PSATHYRELLA MURCIDA* AND  
*P. FUSCA*

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A description is given of *Psathyrella murcida* (Fr.) Kits van Wav. ss. auct. It is argued that the original description by Fries represents another species. A better name for the large species occurring on beech wood could be *P. fusca* (Schum.) A. Pears. ss. Lge.

*Psathyrella murcida* (Fr.) Kits van Wav. ss. auct.

Pileus 20–65 mm, paraboloid, conico-convex, normally not applanate; margin straight, sometimes wavy; surface often radially rugose, when young dark brown to dark reddish brown (Mu. 5 YR 3/3, 3/4, 7.5 YR 3/4; Munsell, 1975), in mature specimens strongly brown, reddish yellow (Mu. 5 YR 5/8, 7.5 YR 5/8), at first striate at margin, then up to 2/3 from margin, pallescent on drying to pale ochraceous, cream or alutaceous; veil when young white, rather copious in a few mm narrow zone at margin and as flocci halfway up, but fugacious and soon disappearing. Gills rather broadly adnate, ventricose, distant to subcrowded, at first pale brown, then greyish brown, margin paler or white flocculose, often underlined with red (can be checked sub micr. as a yellow line). Stem 30–120 × 3–11 mm, equal, towards base clavate or even attenuated, whitish, apex pruinose striate, veil often present as a fugacious fibrillose zone at the middle part of the stem, best seen when turning the stem to the proper light, downwards silky fibrillose, hollow. Smell and taste banal. Spore print dark brown with a purple tinge. Spores 8.5–12 × 5–6.5 μm, in front view regularly ellipsoid, in profile slightly flattened on one side, subamygdaliform, not phaseoliform, germ pore distinct, in water yellowish red (Mu. 2.5 YR 5/8, 5 YR 5/8). Basidia 18–30 × 8–10 μm, 4-spored. Pleurocystidia 40–70 × 10–18 μm, few to numerous, obtusely fusiform to lageniform, sometimes forked at apex, hyaline. Cheilocystidia 25–50 × 8–16 μm, numerous, obtusely fusiform, apex sometimes elongated into a rostrum, intermixed with numerous vesiculose or clavate paracystidia, walls yellow or hyaline. Pileipellis composed of irregularly shaped globose, obovate, or ellipsoid, hyaline cells, 20–50 μm broad, 2–4 cells deep. Pileitrama made up of yellow pigmented hyphae with few encrustations. Hyphae of hymenophoral trama normally less pigmented. Cells of veil hyaline, 10–120 × 2–10 μm, cylindrical, clamped. Clamps numerous at hyphae of stem.

**H a b i t a t.**—In *Fagus* forest, terrestrial, among leaves or attached to fallen branches, obviously avoiding too acidulous soil, scattered to gregarious.

**D i s t r i b u t i o n.**—Widespread, known to occur in Scandinavia and Central Europe, rare, June to November.

This description is based on 14 collections from Sweden, Austria, and Germany. *Psathyrella murcida* is recognized by its large size, the veil characteristics, the often red underlined gill margin, the large, regular and rather pale spores, the shape of cystidia, and the preference

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or exclusive appearance in *Fagus* forest. *Psathyrella tephrophylla* and *P. phegophila* (= *Drosophila fusca* ss. Romagn.) differ in having darker spores and utriform pleurocystidia. *Psathyrella fusca* ss. Kits van Waveren (1985) and Enderle (1987) differs in having smaller spores and differently shaped pleurocystidia. *Psathyrella impexa*, often found in *Fagus* forest, has usually smaller carpophores, strongly developed veil, smaller and darker spores.

The above description of *P. murcida* agrees well with those given by Kits van Waveren (1985) and Kühner & Romagnesi (1953). The characteristic veil at cap margin and stem seen by me in several collections from Sweden was evidently partly overlooked by the Dutch and French authors, maybe depending on the scarcity of material seen by them. Kits van Waveren saw only dried specimens from a single collection. At that state the fugacious veil has disappeared.

Romagnesi considered *Drosophila murcida* to be a large species of *Fagus* forest. 'Chap. 3–5–9 cm; st. 6.5–13 cm × 2.5–7 mm', i.e. in agreement with my measurements. Kits van Waveren gave the following sizes: 'Cap 15–35 mm ... Stem 55–110 × 3.5–6 mm.' In the same paper (l.c.: 220) he considered *Psathyrella murcida* to be one of three species on beech wood having large basidiocarps.

By Ricken (1915) the cap of *Psathyra murcida* is called 'oliv-schwärzlich', a colour hardly known in *Psathyrella*. This, however, is not so remarkable, as also his figures of the dark brown species *P. fibrillosa* and *P. spadiceogrisea* contain olivaceous tinges. Except for the veil Ricken's description agrees with mine.

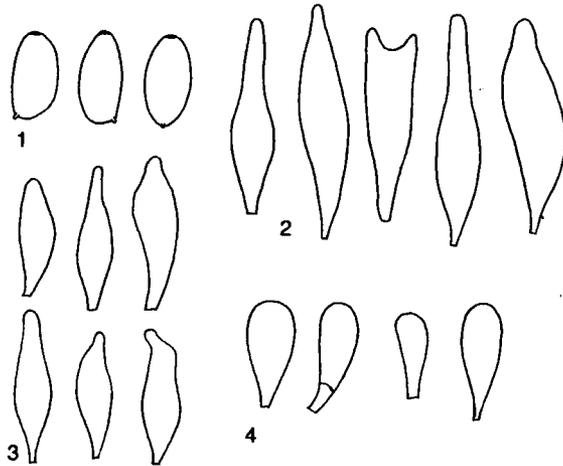
In the short description of *Drosophila murcida* by Bon (1974) he pointed out 'cette espèce ... possède un anneau ... fugace', a statement verifying my observations.

In 1990 I received material of *Psathyrella murcida* collected in Germany by Erhard Ludwig, Berlin and Frieder Gröger, Warza. Enclosed Ludwig sent me a beautiful water-colour painting typically illustrating the fibrillose zone of the veil at stem. The following sizes were given for the specimens 'Hut 2.2–6 cm ... Stiel 4–9 × 0.4–0.7 cm.'

The conclusion must be that *P. murcida* in the sense of modern authors has a sturdy habit and a well developed but fugacious veil. Unfortunately this is in contrast to the original description by Fries (1821) in *Systema Mycologicum*: '*A. murcidus*, pileo subcarnoso convexo obtuso spadiceo expallente, lamellis adnatis umbrinis, stipite nudo glabro. Admodum fragilis. Stipes 3–4 unc. longus, 1 lin. crassus, non pruinatus. Pileus valde obtusus, humidus striatus subspadiceus, siccus laevis alutaceus, raro rosellus, 1½ unc. usque latus. Lam. planae, subdistantes, segmentum circuli referentes, margine concolori. In fageto umbroso reperi. Oct. (v. v.).'

As we can see from this description, Fries considered *Agaricus murcidus* to be a very fragile, slender species with a cap up to about 38 mm broad. The stem is said to be about 75–100 mm long and 2 mm thick. Fries placed *A. murcidus* in the vicinity of *A. gracilis* and *A. corrugis*. 'Stipite nudo glabro ... non pruinatus' disagrees with the present day conception of *Psathyrella murcida*. In *Epicrisis* (Fries, 1838) and *Hymenomycetes* (Fries, 1874) no more important information is given. In *Monographia* (Fries, 1857), however, he added in italics 'Stipes ... fuscus', an information not in accordance with the white stipe of our *P. murcida*.

The conclusion must be that Fries, when describing *Agaricus murcidus*, had another species in mind than *Psathyrella murcida* ss. modern auct. It seems necessary to find another



Figs. 1–4. *Psathyrella fusca* (Schum.) A. Pears. ss. Lange (Örstadius 251-84). — 1. Spores ( $\times 1250$ ). — 2. Pleurocystidia ( $\times 500$ ). — 3. Cheilocystidia ( $\times 500$ ). — 4. Paracystidia ( $\times 500$ ).

name. Looking for it in older literature my attention was drawn to Schumacher's (1803) *Agaricus fuscus*: '*A. fuscus*, solitarius, pileo subcarnoso primo campanulato demum explanato convexiusculo vertice umbrino marginem versus fusco, substriato; lamellis carne pilei 5 pl. latoribus postice lato adnatis subangulatis; stipite sublongo cylindrico basi curvato albido sericeo, cavo amplo. In frustulis dejectis ligniputridi. Jul. Caro pilei umbrino-albida, stipitis alba. Pileus 2 poll. latus. Stipes sub 3 poll. longus, 3 lin. crassus.'

Indeed, the greater part of Schumacher's description could apply to many *Psathyrellas*, but the dimensions of cap and stem fit few species of the genus in Europe. The cap is said to be '2 poll. latus', about 54 mm, and the stem '3 poll. longus, 3 lin. crassus', about  $80 \times 7$  mm, i.e. in agreement with our *Psathyrella murcida*.

Unfortunately, however, the epithet 'fusca' nowadays has been used for at least three different species. *Drosophila fusca* ss. Romagn. is the same as *Psathyrella phegophila*. *Psathyrella fusca* ss. Kits van Wav. and ss. Enderle has fruit-bodies of medium sizes, spores about  $7-9 \times 4-5.5 \mu\text{m}$  and often utriform pleurocystidia. *Psathyra fusca* ss. Lange (1939) is apparently another species, in fact Lange's description agrees well with the one given by me for *Psathyrella murcida* above. From his description I quote: 'Cap 3–5.5 cm ... edge (= cap margin) at first set with arachnoid evanescent white fibrils ... Stem ... 7–8 cm  $\times$  7 mm ... Spores  $9-10 \times 5 \mu$  ... cystidia ... often somewhat bottle shaped.' Lange considered *Psathyra fusca* to be 'not at all rare in beech woods' of Denmark, a similar observation done by me in the beech woods of Sweden, but I incorrectly called my finds *Psathyrella murcida*. It should be added that Lange did not mention the epithet 'murcida'.

*Psathyrella fusca* ss. Pearson (1952) and ss. Engel & al. (1983) also have large fruit-bodies and spores. *Psathyrella murcida* in the original meaning is not in accordance with the modern

interpretation. Since it is not possible to interpret the description of *Agaricus murcidus* Fr. with certainty and no type material is in existence, the name is proposed to be rejected.

Although Lange's interpretation of *Agaricus fuscus* seems to be reasonable, we cannot deny the fact that Schumacher's description could apply to some other large *Psathyrellas*.

Therefore the best solution would be to reject also the often misapplied name *Agaricus fuscus* as a nomen dubium. But, not having carefully checked older literature for another name, I refrain from describing a new species in this paper.

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