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MYCENA TENUISPINOSA (FUNGI, AGARICALES), A SPECIES NEW TO POLAND

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Abstract. *Mycena tenuispinosa* J. Favre is reported for the first time from Poland. The species is described and illustrated, and the variability of its micromorphological characters is briefly discussed.

Key words: *Mycena tenuispinosa*, micromorphology, Western Carpathians, Poland, Europe

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INTRODUCTION

Mycena tenuispinosa J. Favre belongs to the section *Basipedes* (Fr.) Quél. of the genus *Mycena* (Pers.: Fr.) Gray, including species characterized by small, watery-whitish, watery-greyish pilei, covered with a separable, gelatinous pellicle. Lamellae are distant and attached to a small pseudocollarium surrounding the stipe apex. The presence of a pubescent basal disc at the base of the stipe is another characteristic feature of this section. Cheilocystidia are diverticulate or clavate and covered with sparse excrescences. Four species belonging to sect. *Basipedes* are known to occur in Europe (Maas Geesteranus 1983, 1991; Maas Geesteranus & Winterhoff 1985). Among them, the most common, *Mycena stylobates* (Pers.: Fr.) P. Kumm., is also frequent in Poland. The second species, *M. mucor* (Batsch: Fr.) Gillet, is quite often encountered, while the remaining two species, *M. tenuispinosa* J. Favre and *M. rhenana* Maas Geest. & Winterh., are very rare in Europe and have not been reported from Poland so far. Robich (2003) includes three other European species in the section *Basipedes*: *M. aciculata* (A. H. Sm.) Desjardin & E. Horak (= *M. longiseta* Höhn. *sensu* Kühner, Smith, Maas Geesteranus see Desjardin & Horak 2002), the lamellae of which do not form a pseudocollarium at the stipe apex; *M. bulbosa* (Cejp) Kühner and *M. clavularis* (Batsch: Fr.) Sacc. For each of those three, Maas Geesteranus (1983) created new sections.

The most outstanding feature of *M. tenuispinosa* is the presence of acute spinules on the pileus surface. The spinules are built up of erect hyphae similar to those building the pileipellis, and are totally different from those present in the pileipellis of *M. aciculata* and closely related taxa in which they are in the form of thick-walled setae.

Mycena tenuispinosa was described from Switzerland by Favre (1957). It was also reported from Germany (Kreisel 1987; Krieglsteiner 1991; Maas Geesteranus 1991), Italy (Robich 2003), Slovakia (Škubla 2003) and the Netherlands (Veerman 2004). Our finding in Poland extends its known distribution to the east of Europe.

DESCRIPTION AND DISCUSSION

Mycena tenuispinosa J. Favre (Figs 1 & 2)

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Description of the Polish specimens: Pileus up to 3 mm in diameter, hemispherical, convex, watery-white, slightly darker, watery-greyish at center, translucently striate, surface covered with separable gelatinous pellicle and white hairs visible with lens. Lamellae distant, *ca* 13, reaching the pseudocollarium. Stem filiform, 2–3 cm long, watery-white, pruinose especially at lower part, base swollen, forming small, pubescent basal disc. Spores ellipsoid, some of them slightly broadened toward base at face view, 8.5–9.0 × 4.5–5.5 μm, amyloid. Basidia 4-spored, 17–21 × 7–8 μm, cylindrical. Cheilocystidia numerous, forming sterile band at gill edge, clavate or ovoid, 12–19 × 6–10 μm, apex sparsely covered with cylindrical excrescences 4–8 × 1 μm. Pleurocystidia not seen. Pileipellis built up of 3–7 μm wide hyphae densely covered with cylindrical, unbranched excrescences 2–7 × 1 μm. Lower layer 80–120 μm thick, built up of loosely arranged, irregular hyphae embedded in gelatinous matter. Hairs in the form of erect conical fascicles built up of a few clustered hyphae, similar to those of the pileipellis, covered by 2–5 μm long excrescences. Hymenophoral trama dextrinoid, violet-brown in Melzer's reagent. Stipitipellis built up of smooth hyphae, 3–5 μm in diameter. Caulocystidia present in lower part of stipe, cylindrical, 100–250 μm long, 8–9 μm wide at base, narrowing towards apex, rarely forked. Clamps present, scattered.

SPECIMENS EXAMINED. S POLAND, WESTERN CARPATHIANS, Beskid Mały Mts, surroundings of Wadowice, *ca* 2 km SE of Andrychów, Inwałd – 'Wapiennik', alder forest with *Ulmus glabra*, *Fraxinus excelsior* and *Corylus avellana*, on fallen branch of *Corylus*, 15 June 2006, *leg. P. Chachuła* (KRAM F-55698).

Specimens from Poland differ slightly from the type collection (Favre 1957) as well as from another well-illustrated one from Italy (Robich 2003). The differences concern mainly the number

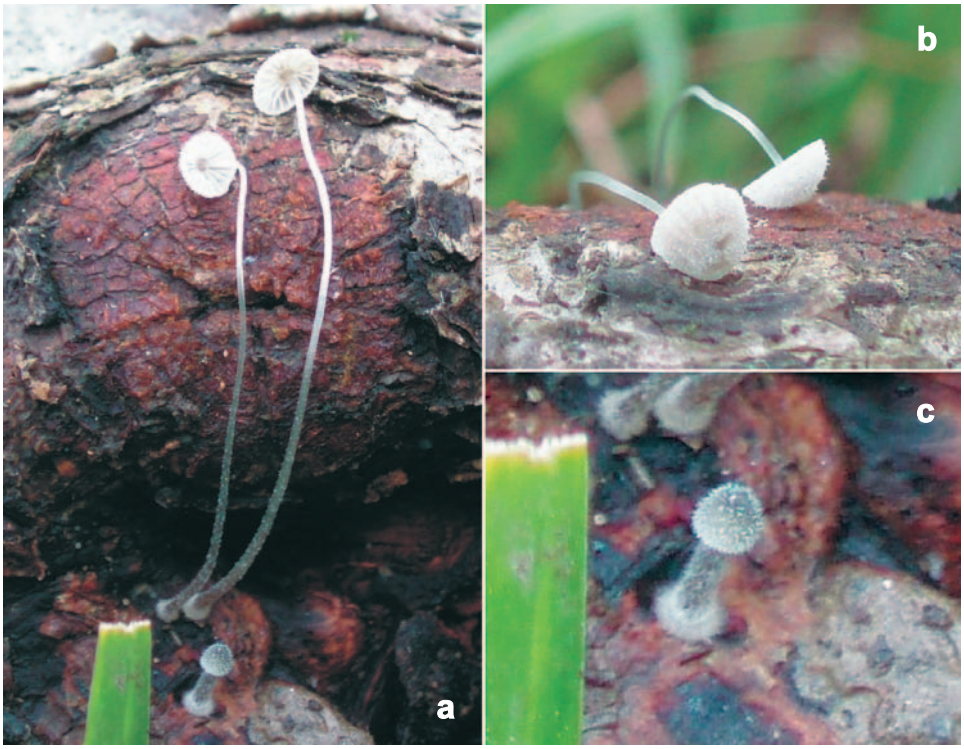

Fig. 1. *Mycena tenuispinosa* J. Favre: a – fruitbodies growing on a branch of *Corylus*, b – caps with visible hairs on their surfaces, c – young fruitbody; photo: P. Chachuła.

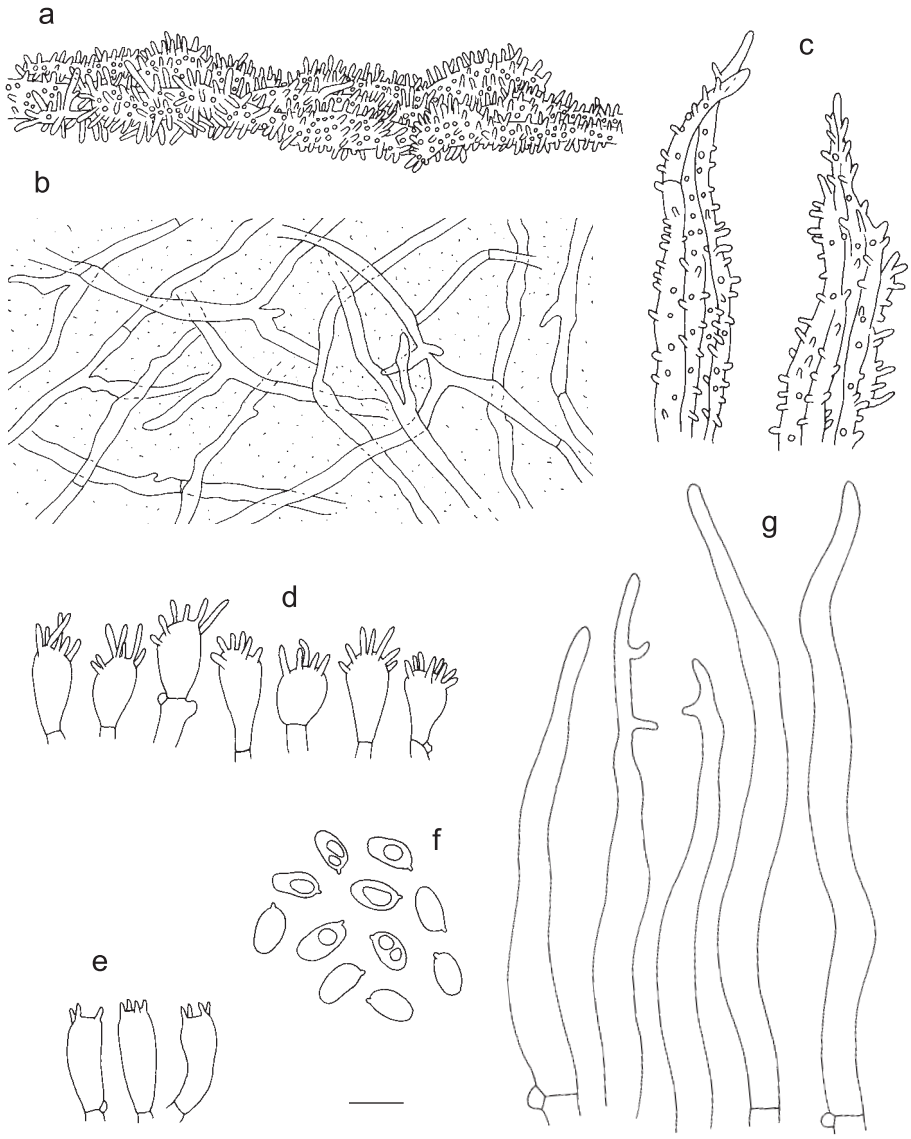

Fig. 2. *Mycena tenuispinosa* J. Favre: a – pileipellis, b – subpellis, c – clustered hyphae building a hair on pileus, d – cheilocystidia, e – basidia, f – spores, g – caulocystidia; scale bar = 10 μm (drawings made with the aid of a drawing tube).

and size of excrescences covering the hyphae of the pileipellis and hairs (Table 1). Both Favre (1957) in the description of the type collection and Robich (2003) describe the hyphae of the pileipellis as well as the hyphae forming hairs as densely covered by very short excrescences. The exact length of the projections is not mentioned in the text, but in the drawings they are shown to be the same length and width, meaning that they are *ca* 1.0–1.5 μm long. The Polish collection is characterized by much longer excrescences which cover more densely the hyphae of the pileipellis (Fig. 2a). The differences are not large and should probably be considered within the variability of the species. A hair illustrated in a color microphotograph by Robich (2003) is almost identical

Table 1. Comparison of micromorphological characters of *Mycena tenuispinosa* from three descriptions.

Character \ Reference	Favre 1957	Robich 2003	Present studies
Cheilocystidia	clavate, excrescences short, 2–3 µm	clavate or subpyriform, excrescences 1–7(9) × 0.5–1 µm	clavate or ovoid, excrescences, 4–8 × 1 µm
Hyphae of pileipellis	5–6 µm in diam., covered with short excrescences (dimensions not provided, but very short in picture)	2–4 µm in diam., terminal hyphae 2–7 µm, covered with short excrescences (dimensions not provided, but very short in picture)	3–7 µm in diam., covered with cylindrical excrescences 2–7 µm long
Excrescences on hyphae composing hairs	dimensions not provided, but very short in picture, *ca* 1 µm long	dimensions not provided, in drawing very short, in color photo seems considerably longer	2–5 µm long

with those found in the Polish collection (Fig. 2c). Inconsistently, however, the drawing of a hair in the same book differs considerably and is more similar to that provided by Favre (1957). The macroscopic features of all three collections are almost identical, so no doubt the specimens belong to the same species.

The Polish collection was found on a fallen branch of *Corylus avellana*. The fungus has most often been reported from *Alnus* wood (Favre 1957; Maas Geesteranus 1991; Robich 2003), but also from moss-covered bark of *Salix* (Maas Geesteranus 1991), and wood of (probably) *Quercus* and *Castanea*; it was also found (on litter?) under *Larix* and *Tilia* (Kreisel 1987). Apparently the fungus is not substrate-specific.

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