

Hydropus nitens, a new species from Austria

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Abstract: *Hydropus nitens*, collected in Austria, is proposed as a new species. Some of its characters are compared with their counterparts in *Hydropus scabripes*.

Zusammenfassung: Der in Österreich gefundene *Hydropus nitens* wird als neue Art vorgeschlagen. Einige seiner Eigenschaften werden mit jenen von *Hydropus scabripes* verglichen.

The European literature on the genus *Hydropus* is not very extensive. Of the more important publications, the following may be enumerated. MOSER (1968) proposed a new species, *Hydropus paradoxus*, and offered a key to the European species known at the time. No other key seems to have been published since. More recently, two further new species were introduced: *Hydropus moserianus* BAS (1983: 6) and *H. conicus* BAS & WEHOLT (1984: 119). An interesting series of publications was started by ROBICH (1986, 1990, 1992), describing and illustrating species of *Hydropus* which formerly were known as members of the genus *Mycena*.

When it was suspected that the species described in the present paper could be yet another new representative of *Hydropus*, the first author decided to construct a key strictly for personal use and, not in the least also, to rid himself of uncertain feelings. It should be pointed out, however, that the key is based exclusively on data taken from the literature available. It offers no other choice but to identify the present species with *Hydropus scabripes* (MURRILL) SINGER, but in the following it is shown that the latter is an altogether different species from the one here proposed as new.

***Hydropus nitens* MAAS GEEST. & HAUSKNECHT, spec. nova**[1] (Colour fig. II, figs. 1-6)

Basidiomata fasciculata. Pileus 6-17 mm latus, campanulatus, interdum papillatus, subsulcatus, translucente striatus, glaber, nitens, griseobrunneus roseolo-tinctus. Caro griseola, odore grato saporeque miti. Lamellae ca. 22 stipitem attingentes, molles, ad-

[1] Etymology: nitens, shiny, referring to the shiny surfaces of both pileus and stipe.

scendentes, 1,5 mm latae, adnatae, dente decurrentes, albae vel griseolo-albae. Stipes 15 - 45 x 1,5 - 2 mm, cavus, firmus, aequalis, cylindraceus, curvatus, magna ex parte glaber, nitens, griseobrunneus roseolo-tinctus, apice subpruinosus, basi pallidior et subtomentosus. Basidia 26-30 x 7-7,5 µm, clavata, 2- vel 3-spora, efibulata, sterigmatibus 7 µm longis praedita. Sporae 7,6-9 x 5,4-5,8 µm, inaequaliter ellipsoideae, leves, amyloideae. Cheilocystidia 50-75 x 10-18 x 5,5-7 µm, fusiformia, subcylindracea, efibulata. Pleurocystidia numerosa, similia. Trama lamellarum iodi ope brunneo-vinescens. Hyphae pileipellis 1,5-3,5 µm latae, efibulatae, leves, subgelatinosae, suco brunneolo repletae. Hyphae stipitis corticales 1,8-2,5 µm latae, efibulatae, leves; caulocystidia 130-150 x 5,5-12,5 µm, simplicia vel apice furcata, subfusiformia.

Ad lignum putridum *Piceae.*

Holotypus: Salzburg (Austria), Neukirchen/Großvened., Obersulzbachtal (MTB 8739/4), 22.7.1992, H. FORSTINGER (No. 988279-753, L); isotypus in WU 11531.

Pileus: 6-17 mm across, conical to campanulate, at times with pronounced, small papilla, slightly sulcate, translucent-striate, glabrous, shiny for the greater part, somewhat dull at the centre, at first grey-brown to brown, frequently with some greyish pink tint, then centrally darker than the marginal area which is beige-grey to pale pinkish grey-brown, hygrophanous.

Lamellae: ca. 22 reaching the stipe, tender, ascending, ca. 1.5 mm broad, ventricose, adnate, decurrent with a short tooth, white to greyish white, with concolorous edge.

Stipe: 15-45 mm long and 1.5-2 mm broad, hollow, firm, equal, terete, curved, glabrous and shiny for the greater part, delicately pruinose at the apex, grey-brown to pinkish grey-brown, usually paler below, the base covered with a thin, white tomentum.

Context: greyish. Odour somewhat fruity. Taste mild.

Spores: 7.6-9 x 5.4-5.8 µm, pip-shaped, smooth, amyloid.

Basidia: 26-30 x 7-7.5 µm, slender-clavate, 2- and 3-spored, clampless, with sterigmata 7 µm long.

Cheilocystidia: 50-75 x 10-18 x 5.5-7 µm, strongly protruding, forming a sterile band (lamellar edge homogeneous), fusiform, less frequently subcylindrical, apically broadly rounded, clampless. Pleurocystidia: numerous, similar.

Lamellar trama: weakly brownish vinescent in MELZER's reagent.

Hyphae of the pileipellis 1.5-3.5 µm wide, clampless, more or less granular to smooth, somewhat gelatinized, with brownish intracellular pigment, terminal cells and pileocystidia not observed. Hyphae of the cortical layer of the stipe 1.8-2.5 µm wide, clampless, smooth, terminal cells (caulocystidia) 130-150 x 5.5-12.5 µm, slender-fusiform, apically frequently mucronate to rostrate.

Habitat: fasciculate on decayed stump of *Picea*.

Material studied (aside from type): Niederösterreich, Göstling/Ybbs, Hochtal, Leckermoor, fasciculate on stump of *Picea*, 22.7.1989, W. KLOFAC (WU 8441).

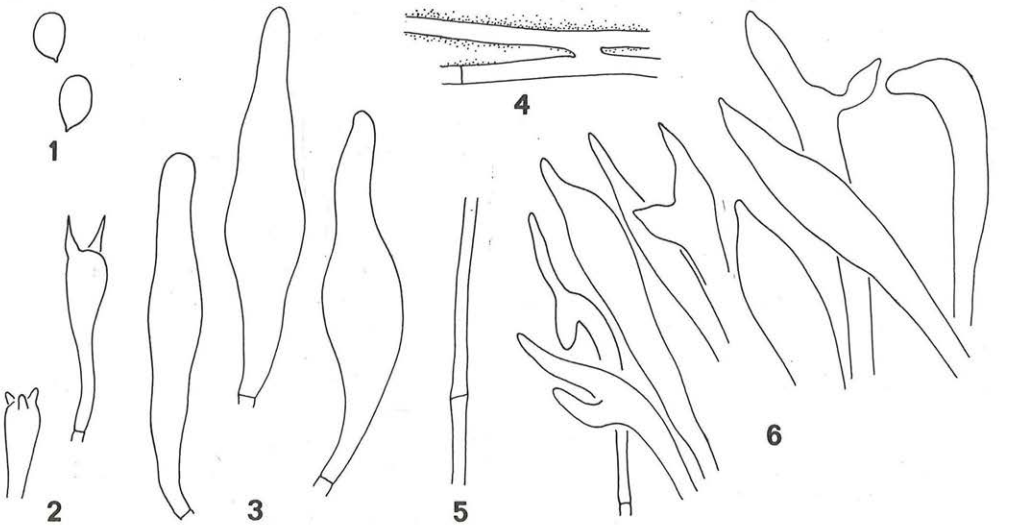
All macro- and microscopical characters of the above collection are identical with the type, with the exception of the basidia being 4- (2-, 3-)spored.

Hydropus nitens belongs to sect. *Floccipedes* KÜHNER ex SINGER. SINGER (1982: 14, 112, 113) subdivided this section into three subsections and, on account of its cha-

racters (amyloid spores, absence of pseudocystidia), *H. nitens*, like the type species *H. scabripes*, belongs to subsect. *Spurii* KÜHNER ex SINGER.

Hydropus scabripes, which in the early stages of the investigation had been mistaken for the present species, was first described by MURRILL (1916: 331, as *Prunulus*) from North America and subsequently redescribed by A. H. SMITH (1936: 426 and 1947: 236; as *Mycena*), KÜHNER (1938: 517, as *Mycena*), MALENÇON & BERTAULT (1975: 302, as *Mycena*), ROBICH (1986: 196, as *Hydropus*), SENN-IRLET (1987: 172, as *Hydropus*). Whereas MURRILL (1916) stated that the colour of the pileus of his type material was avellaneous (which is a fairly pale, yellowish brownish colour), all later descriptions mention very dark shades, ranging from very dark grey-brown to almost black. Whether these descriptions actually refer to the true *Prunulus scabripes* will not be discussed in the present paper. Although pileus colour is certainly a factor of importance, data on microscopic elements carry definitely more weight since these are considered to get less influenced, if at all, by environmental conditions.

By fortunate coincidence, the type material of *Prunulus scabripes* turned out to be under investigation by Dr C. BAS (Rijksherbarium) who kindly showed his spore measurements and unpublished drawings of microscopical elements. Based on his data it is now possible to differentiate *H. nitens* from *H. scabripes*.



Figs. 1-6. *Hydropus nitens* (holotype; L). - 1. Spores. - 2. Basidia. - 3. Cheilocystidia. - 4. Hyphae of the pileipellis. - 5. Hypha of the cortical layer of the stipe. - 6. Caulocystidia. - All figs. x 700.

Table 1. *Hydropus nitens* versus *H. scabripes*

	Caulocystidia	Spores	Cheilocystidia
H. nitens	1. slender-fusiform 2. broadest in the upper half 3. apically mucronate to rostrate 4. long-stalked	7.6-9 x 5.5-5.8 µm	fusiform
H. scabripes type	1. lageniform, mixed with clavate smaller ones 2. broadest in the lower half 3. apically broadly rounded 4. short-stalked to sessile	9.8-11.2(-12.9) x 5.5-6.8 µm	lageniform or utriform

The most striking difference between the two species is in their caulocystidia, but it is felt that it must be left to Dr BAS to publish his own drawings of these structures, pictures of which have never been shown before.

A further feature of *H. nitens* which, perhaps with the exception of *H. subalpinus* (V. HÖHNEL) SINGER, does not seem to be known in any other European member of *Hydropus* is the pinkish shade observed in several of the otherwise grey-brown pilei.

The specific epithet *scabripes* clearly indicates that MURRILL (1916) found his specimens to have rough stipes but, of course, it is possible that with age the latter may become as glabrous and shiny as those in *H. nitens*.

If, as may well be the case, SMITH's (1947) conception of *Hydropus scabripes* does not conform with the true *scabripes*, the latter is probably a rare species, as yet not found since the type. SMITH and KÜHNER exchanged dried specimens, and both came to the conclusion that these represented the same species. It tells in favour of KÜHNER's sagacity, however, to call that species *Mycena scabripes* sensu SMITH.

Thanks are due to Dr C. BAS (Rijksherbarium, Leiden) for permission to consult his unpublished drawings of the type of *Prunulus scabripes*, as well as to use his spore measurements.

References

BAS, C., 1983: A new European species of *Hydropus*, *H. moserianus*, spec. nov. - Sydowia **36**: 6-10.
— WEHOLT, Ø., 1984: *Hydropus conicus*, a new species from Norway. - Persoonia **12**: 119-122.
KÜHNER, R., 1938: Le Genre *Mycena* (FRIES). - Encycl. mycol. 10. - Paris: Lechevalier.
MALENÇON, G., BERTAULT, R., 1975: Flore des champignons supérieurs du Maroc. II. - Rabat.
MOSER, M., 1968: Über eine neue Art aus der Gattung *Hydropus* (KÜHN.) SING. - Z. Pilzk. **34**: 145-152.
MURRILL, W. A., 1916: *Galactopus* et *Prunulus*. - North Amer. Flora **9**/5: 310-352.
ROBICH, G., 1986: Alcuni *Hydropus* delle nostre regioni, I. Contributo. - Boll. Gruppo Micol. G. Bresadola **29**:196-202.
— 1990: Alcuni *Hydropus* delle nostre regioni. II. Contributo. - Rivista Micol. **33**: 314-321.
— 1992: Alcuni *Hydropus* delle nostre regioni. III. Contributo. - Rivista Micol. **34**: 155-158.
SENN-IRLET, B. J., 1987: Ökologie, Soziologie und Taxonomie alpiner Makromyzeten *(Agaricales, Basidiomycetes)* der Schweizer Zentralalpen. - Dissertation, Universität Bern.
SINGER, R., 1982: *Hydropus* (*Basidiomycetes - Tricholomataceae - Myceneae*). - Flora Neotrop. Monogr. **32**.
SMITH, A. H., 1936: Studies in the genus *Mycena*, III. - Mycologia **28**: 410-430.
— 1947: North American species of *Mycena*. - Univ. Mich. Stud., Scient. Ser. **17**.