

## ***Mycena dobraensis*, a new species of section *Filipedes* (Agaricales, Tricholomataceae) from Eastern Austria**

GIOVANNI ROBICH  
c/o Museo Civico di Storia Naturale  
1730 S. Croce  
I-30135 Venezia, Italy  
Email: robich@aliceposta.it

ANTON HAUSKNECHT  
Fakultätszentrum für Botanik der Universität Wien  
Rennweg 14  
A-1030 Wien, Austria  
Email: ahausknecht.oemg@aon.at

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**Abstract:** *Mycena dobraensis*, a member of sect. *Filipedes*, is described as new. Delimitation to related taxa is discussed exhaustively. A colour plate and microscopical drawings are given.

**Zusammenfassung:** *Mycena dobraensis*, ein Vertreter der Sektion *Filipedes*, wird neu beschrieben. Die Abgrenzung zu nahestehenden Taxa wird ausführlich diskutiert. Eine farbige Abbildung und Mikrozeichnungen werden gegeben.

The Naturwald Dobra, situated nearly in the centre of the Waldviertel (Lower Austria), is one of the last small forest areas in Lower Austria without influence of men since more than 100 years. Therefore, a large number of lying, decaying stems and logs as well as rotting material of deciduous trees (predominantly *Fagus*, *Acer* and *Tilia*) can be encountered. In this area, many interesting *Agaricales* have been found up to now [e.g., *Clitocybe subbulbipes* MURRILL, *Entoloma gerriae* NOORDEL., *E. allochrom* NOORDEL., *Lepiota hystrix* F. H. MÖLLER & J. E. LANGE, *Psathyrella spintrigeroides* P. D. ORTON, *Rhodotus palmatus* (BULL.: FR.) MAIRE, and two up to now unnamed taxa of *Pluteus* – see KRISAI-GREILHUBER 1997 and HAUSKNECHT & al. 2006].

In October 2007, the second author collected a *Mycena* species growing on a very rotten log of hardwood which turned out to be an undescribed taxon of sect. *Filipedes* close to *M. graminicola* ROBICH and *M. phoenicis-canariensis* ROBICH.

***Mycena dobraensis* ROBICH & HAUSKN., spec. nova** (Figs. 1, 2)  
Mycobank MB 512496

**Latin description:** Pileus 12-21 mm latus, conico-expansus, hemisphaericus centro appanato, striatus, siccus, flavo-ochraceus. Lamellae L = 28-30, adnatae, flavidae, deinde leviter incarnatae. Caro odore spermatico. Stipes 25-50 × 1-2 mm, flavus, basin

versus sordide flavus vel brunneo-griseolus. Sporae 7,5-9(-10) × 5,5-6,5 µm, late ellipsoideae, nonnulli subamygdaliformes, amyloideae. Basidia 4-sporigera, 20-23 × 8,5-10 µm, clavata. Cheilocystidia 20-68 × 10-22 µm, clavata, subcylindrica vel sphaeropedunculata, apice surculis simplicibus tenuibus 1-2 × 1 µm praedita. Pleurocystidia 36-55 × 14-25 µm, cheilocystidiis similia. Hyphae pileipellis 3-8,5 µm latae, diverticulatae, surculis simplicibus vel ramosis 1-4 × 1-2 µm praeditae. Hyphae corticis stipitis 1,5-5 µm latae, diverticulatae, praeditae surculis simplicibus 1-4 × 1 µm, caulocystidia 1,5-5 µm lata, diverticulata, surculis simplicibus 1-4 × 1 µm. Gregarius ad truncum valde putridum (*Acer, Fagus*).

**Holotypus:** Austria, Niederösterreich, Krems (Land), Rastenfeld, Naturwald Dobra (MTB 7458/1), 10. 10. 2007, A. HAUSKNECHT (WU 28528; isotypus in herbario MCVE 18127).

**Etymology:** named after the type locality.

### Characters:

**Pileus:** 12-21 mm wide, conico-campanulate, conical-expanded, hemispherical with appanate centre, hygrophanous, striate, dry; the margin undulate, crenulated; yellow-ochre, yellow, fading to pale ochre-whitish.

**Lamellae:** L = 28-30, l = 1-3, adnate, moderately distant, a bit broad, first yellowish, later with incarnate hue, lamellar edge concolorous.

**Stipe:** 25-50 mm long, 1-2 mm thick, hollow, curved, smooth, shining; yellow, towards the base dirty yellow or with brownish-greyish hue.

**Context:** with spermatic smell when bruised.

**Spores:** 7.5-9(-10) × 5.5-6.5 µm, widely ellipsoid, some amygdaliform, others subglobose, hyaline, thin-walled, amyloid.

**Basidia:** 4-spored, 20-23 × 8.5-10 µm, clavate.

**Clamp connections:** present.

**Cheilocystidia:** 20-68 × 10-22 µm, clavate, subcylindrical to sphaeropedunculate, for the most part with long basal prolongation, apically covered by thin, simple excrescences 1-2 × 1 µm; cheilocystidia distributed over the whole lamellar length.

**Pleurocystidia:** frequent, 36-55 × 14-25 µm, similar to cheilocystidia.

**Hyphae of the pileipellis:** 3-8.5 µm wide, yellow in Melzer's reagent, diverticulate, with simple and a few branched excrescences, 1-4 × 1-2 µm, covered by a very thin layer of glutinous matter (making the observation difficult).

**Hyphae of the stipe:** cylindrical, in the cortex 1.5-5 µm wide, yellow in Melzer's reagent, diverticulate, covered by simple excrescences 1-4 × 1 µm; terminal elements similar, 1.5-5 µm wide, diverticulate, covered by excrescences 1-4 × 1 µm; in the trama up to 28 µm wide, pseudoamyloid (vinaceous brown) and metachromatic (violet).

**Hyphae of pileus trama and lamellae:** pseudoamyloid (vinaceous).

**Habitat:** gregarious on very rotten log of hardwood (*Acer, Fagus*).

### Notes:

The macroscopical description was done by the collector; the microscopical characters were described by the first author based on herbarium material.

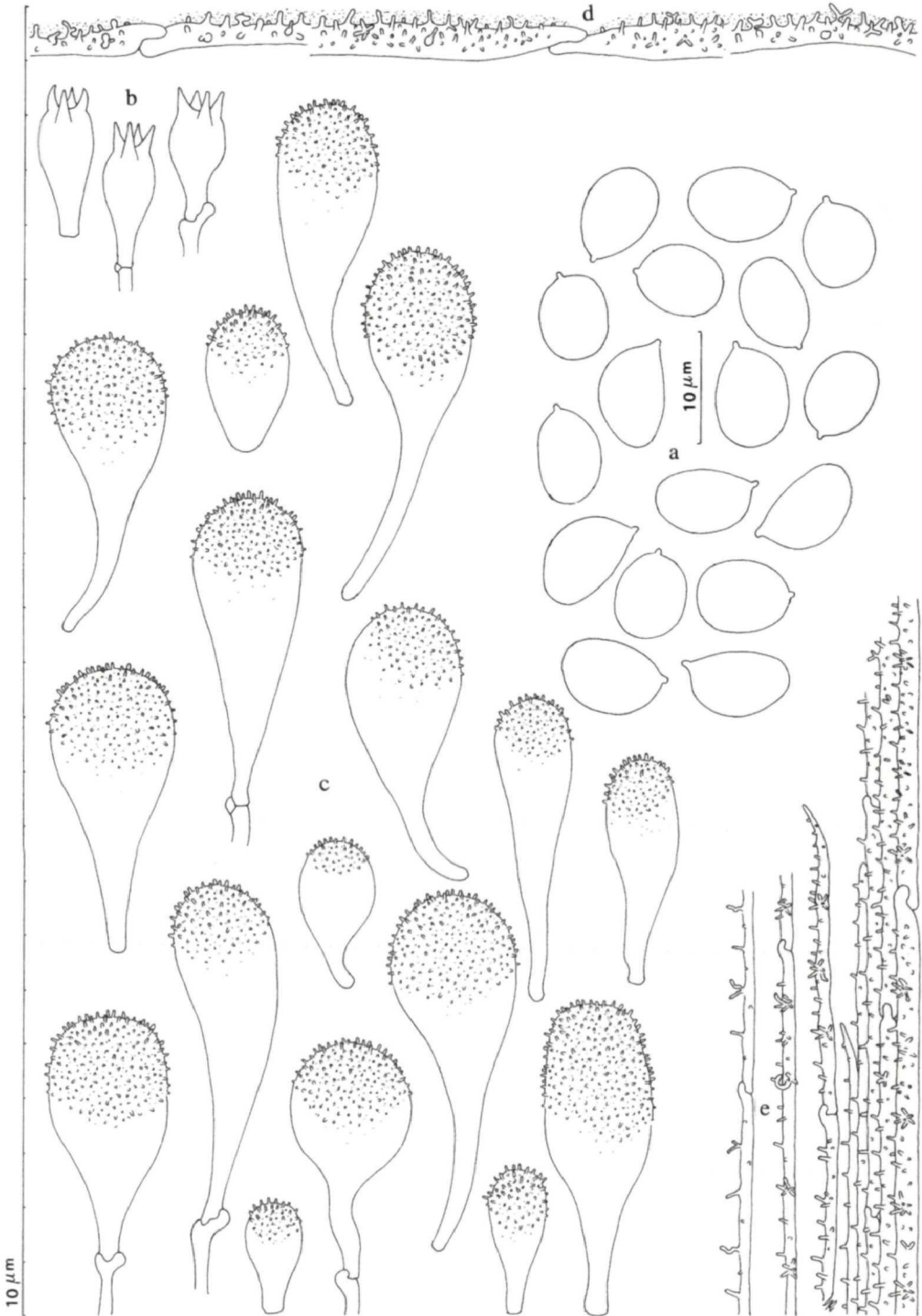


Fig. 1. *Mycena dobraensis* (holotype). a spores, b basidia, c cheilo- and pleurocystidia, d hyphae of the pileipellis, e cortical layer of the stipe.



## Discussion

The microscopical characters are indicative of placing *Mycena dobraensis* in sect. *Filipedes* (MAAS GEESTERANUS 1984). With its coloured pileus without bright yellow, olivaceous, green or ivory hues, the widely ellipsoid to subglobose spores with a length of less than 10 µm, the cheilocystidia more than 50 µm long and presence of pleurocystidia, it has to be compared with *Mycena graminicola* (ROBICH 2003: 169) and *M. phoenicis-canariensis* (ROBICH 2005: 292).

*Mycena graminicola* grows gregarious or subcespitate in groups with numerous basidiocarps on the ground, among residues and roots of rotten weed. It differs from *M. dobraensis* by clear brown, watery clear brown to dirty brown pilei, lamellae L = 20-24, being white, then pale grey-white, a stipe pale grey-white or watery grey, smaller, globose or widely ellipsoid spores 5.5-7.5(-8) × (4-)4.5-5.5(-6) µm, and caulocystidia 4-8 µm wide.

*Mycena phoenicis-canariensis* grew cespitose on a living trunk of a palm (*Phoenix canariensis*) and on rotten log of *Quercus ilex*, respectively (leg. A. BIDAUD & J. CAVET, 31. 10. 2007, Cucuruzzu, Corsica, France). It differs from *M. dobraensis* by whitish to brown, very clear pilei, for a long time translucently striate with darker, brown to clear brown striae, the centre watery brown to brown, lamellae L = 16-22 white or whitish in the dorsal zone, the stipe apically watery whitish or watery greyish, becoming watery purplish grey or watery grey with purplish hue; widely ellipsoid to subglobose spores (6.5-)7.5-8.5 × (5.5-)6-7.5 µm and hyphae of the pileipellis 3-11 µm wide covered by simple and branched excrescences up to 20 µm long.

With the same characters as mentioned above but with spores longer than 10 µm the new species has to be compared with *Mycena pinus-rigidae* ROBICH (ROBICH 1999: 78) and *M. rebaudengoi* ROBICH (ROBICH 2000: 321).

*Mycena pinus-rigidae* differs by weakly umbonate pilei with reddish brown or dark brown colours, sooty or blackish on the umbo, thin lamellae, L = 16-19, pink-grey and cream-grey with white lamellar edge, forming a pseudocollarium, decurrent with little tooth, context with smell of iodoform, watery brown-red stipe becoming watery dark brown, spores from largely ellipsoid to subglobose 9.5-10.5 × 6-8 µm, larger basidia 22-32 × 10-12 µm with 2 and 4 sterigmata, wider, shorter cheilocystidia 24-50 × 11-30 µm and pleurocystidia 25-35 × 12-15 µm, hyphae of the pileipellis with simple and branched excrescences up to 18 µm long and hyphae of the stipe cortex 1.5-3.5 µm wide; furthermore, it grows on the ground, on litter of needles (*Pinus rigida*) with some grass, characters being very different from *M. dobraensis*.

*Mycena rebaudengoi* has pilei 5-13 mm wide, cream-white to brown-white with pink hues and dark brown or blackish brown centre, differing from our new species also by lamellae L = 16-19, grey-white with pale yellow hue, concolorous to white lamellar edge, context with slight smell of radish, watery grey stipe becoming watery yellow-grey below, wider spores (5.5-)6-7.5 µm, larger cheilo- and pleurocystidia (24-80 × 12-37 µm), the hyphae of the pileipellis being 6-18(-22) µm wide, caulocystidia 5-10 µm wide and up to 110 µm long, microscopical hairs with thin walls, 20-130 × 2-3.5 µm, and fasciculate growth on leaves and twigs on the ground in mixed forests (*Carpinus betulus*, *Fagus* and *Quercus pubescens*).



Fig. 2. *Mycena dobraensis* (holotype). – Phot. A. HAUSKNECHT.

From outside of Europe the following taxa have to be compared: *Mycena scotina* MAAS GEEST. & DE MEIJER (MAAS GEESTERANUS & DE MEIJER 1997: 38) is a species in sect. *Filipedes* collected in Paraná (Brazil) with pilei up to 8 mm wide, not striate, white-pruinose, almost blackish brown, lamellae  $L = 12$ , decurrent with small tooth, white with greyish tints, stipe 0.4 mm thick, for the most part greyish brown, grey-brown below, spores  $5.4\text{--}5.6\ \mu\text{m}$  wide, basidia 2-spored, cheilocystidia  $15\text{--}45 \times 9\text{--}27\ \mu\text{m}$ , pleurocystidia absent, hyphae of the pileipellis  $7\text{--}11.5\ \mu\text{m}$  wide and growth single on rotten logs of dicyledoneous trees, altogether characters very different from *M. dobraensis*.

*Mycena austrofilopes* GRGUR. var. *austrofilopes* (GRGURINOVIC 2003: 114) and var. *roseobrunnea* (GRGURINOVIC 2003: 117) are two other taxa of sect. *Filipedes* described from Australia. The first one differs by brownish orange or shining brown to brown pilei up to 34 mm wide, lamellae tightly adnate or decurrent with weak tooth 3 mm wide, orange-white, orange-grey, greyish-brownish or brown-orange, stipe smooth or weakly striate, pale or orange-grey apically, then shining brown to greyish brown towards base, ellipsoid spores,  $7.3\text{--}13.5\ \mu\text{m}$  long, basidia with two sterigmata,  $18\text{--}40 \times 6.3\text{--}12.7\ \mu\text{m}$ , cheilocystidia  $18.6\text{--}57.1 \times 6\text{--}24.3\ \mu\text{m}$  and absence of pleurocystidia; it grows on litter of leaves of *Eucalyptus* spp., rarely under *Pinus radiata* and *Nothofagus cunninghamii*. The second one, var. *roseobrunnea*, differs by brownish orange, greyish pink or reddish brown pilei.

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