

***Mycena romagnesiana* collected in the Bieszczady Mts**

HALINA KOMOROWSKA

Department of Mycology, W. Szafer Institute of Botany, Polish Academy of Sciences
Lubicz 46, PL-31-512 Kraków, h.komorowska@botany.pl

Komorowska H.: *Mycena romagnesiana* collected in the Bieszczady Mts. Acta Mycol. 45 (2): 145–150, 2010.

Mycena romagnesiana described by Maas Geesteranus (1991), is reported from two localities in Bieszczady Mts (SE Poland). Macro- and micromorphological description supplemented with the author's observations of the dry material and its colour picture are given. Drawings of microcharacters and distribution map of species in Europe are provided.

Key words: morphology, distribution, *Fagus*, Europe

INTRODUCTION

Mycena romagnesiana Maas Geest. (Agaricales, *Mycenaceae*) is a rare fungus, associated with deciduous forest, occurring especially on beech stumps and logs. A special search was made for the presence of new *Mycena* species on decaying wood of *Fagus*, especially in the mountains, between 1996-1999 and 2002-2006. The investigations were particularly intensive in nature reserves and national parks. Numerous *Mycena* specimens resembling *Mycena galericulata* as well as two specimens later identified as *Mycena romagnesiana* were collected. The majority of the specimens either were determined as *M. galericulata* (2-spored) or still remain undetermined (= cfr *M. galericulata* 2-spored but the shape of the spore is conspicuously different).

MATERIAL AND METHODS

This study is based on material collected in southern Poland (Outer Eastern Carpathians: Western Bieszczady Mts). Collections were made, documented and

preserved with standard methods, and were deposited in Herbarium (KRAM-F) in W. Szafer Institute of Botany, Polish Academy of Sciences.

Microscopic features were studied in KOH (5%) with Phloxin and using Melzer's reagent. The colours of different parts of the fruit body in exsiccates were described using the Munsell Soil Color Charts (Anonymous 2000) and Maerz Paul (1930).

The macroscopic description of the species was adapted from Maas Geesteranus (1991) and Romagnesi (1978) and supplemented with the author's observations on the dry material. Microscopic details are based on examinations of the collections presented below.

The map of distribution *M. romagnesiana* contains localities from literature reports, examined material and Internet.

RESULTS

Mycena romagnesiana Maas Geest.

Figs 1–4

Proc. Kon. Ned. Akad. Wetensch. C. 94(4): 560.1991.

Synonyms: *Mycena rugulosiceps* sensu Romagnesi in Bull. trimest. Soc. mycol. Fr. 94: 103. 1978; *Mycena orophila* Romagnesi, Doc. Mycol. 24(93): 40. 1994.

Selected descriptions: Maas Geesteranus, Proc. Kon. Ned. Akad. Wetensch. C. 88(3): 363.1985 (as *M. rugulosiceps* sensu Romagnesi), Proc. Kon. Ned. Akad. Wetensch. C. 94(4): 560.1991; Aronsen, *Mycena galericulata* in *Mycena* Page. 2003, Robich, *Mycena* D'Europa: 526 2007.

Iconography: Cetto, I Fungi dal Vero. 7: 285, fig 2749. 1993 (as *M. rugulosiceps* sensu Romagnesi); Hausknecht, Bollettino Gr. Micol. Bres. 37(1-2): 43. 1994; Robich, *Mycena* D'Europa: 527. 2007.

Pileus 20-50 mm, pale grayish, brownish to pale orange brownish, centre darker, margin paler to white, glabrous, not translucent-striate, rugulose at margin, conical to campanulate with conspicuous umbo, flattened with age, in dry specimens even depressed. *Lamellae* moderately crowded, adnexed with a tooth, broad (up to 5.5 mm), creamy white, when dry (specimens examined) darker with conspicuous white edge. *Stipe* 50-10 x 3-6 mm, bright cream, base frequently rooting, always with white tomentum, dry with shine. Smell fruity, test indistinctive, not farinaceous.

In exsiccates pileus strong brown, e.g., 7.5YR 5/6 to 4/6; 14L11 and 14L12. Stipe distinctly paler than pileus, brownish yellow, yellowish brown, maple 10YR 6/6; 6/8 or 5/6 and 11F4. *Lamellae* darker than 10YR 6/8 (Fig. 1a, b).

Basidia clavate, 4-spored, clamped, with sterigmata, ca 6.5 µm long (Figs 2a, 3a). *Spores* 8.1-9.4 x 5.8-6.3 µm, pip-shaped, smooth, amyloid. *Cheilocystidia* 35-54 x 9-18 µm (Figs 2b, 3b), forming a sterile band, fusiform to clavate, subcapitate, clamped, covered with few or more rod-shaped projections. *Pleurocystidia* absent. Lamellar trama vinaceous in Melzer's reagent.

Hyphae of pileipellis 2.5-4.5 µm wide, clamped, smooth or sparsely covered with low warts or short, cylindrical excrescences, with a thin gelatinous layer (Fig. 2c). *Hyphae* of the cortical layer of the stipe 1.5-2.7 µm wide, clamped, smooth or very sparsely diverticulate, not gelatinized (Fig. 3d).

HABITAT. In the mountains, gregarious, on a decayed stump of *Fagus*.



Fig. 1. Dry specimens of *Mycena romagnesiana*: a – KRAM F-48316; b – KRAM F-48317. Scale bars = 1 cm.

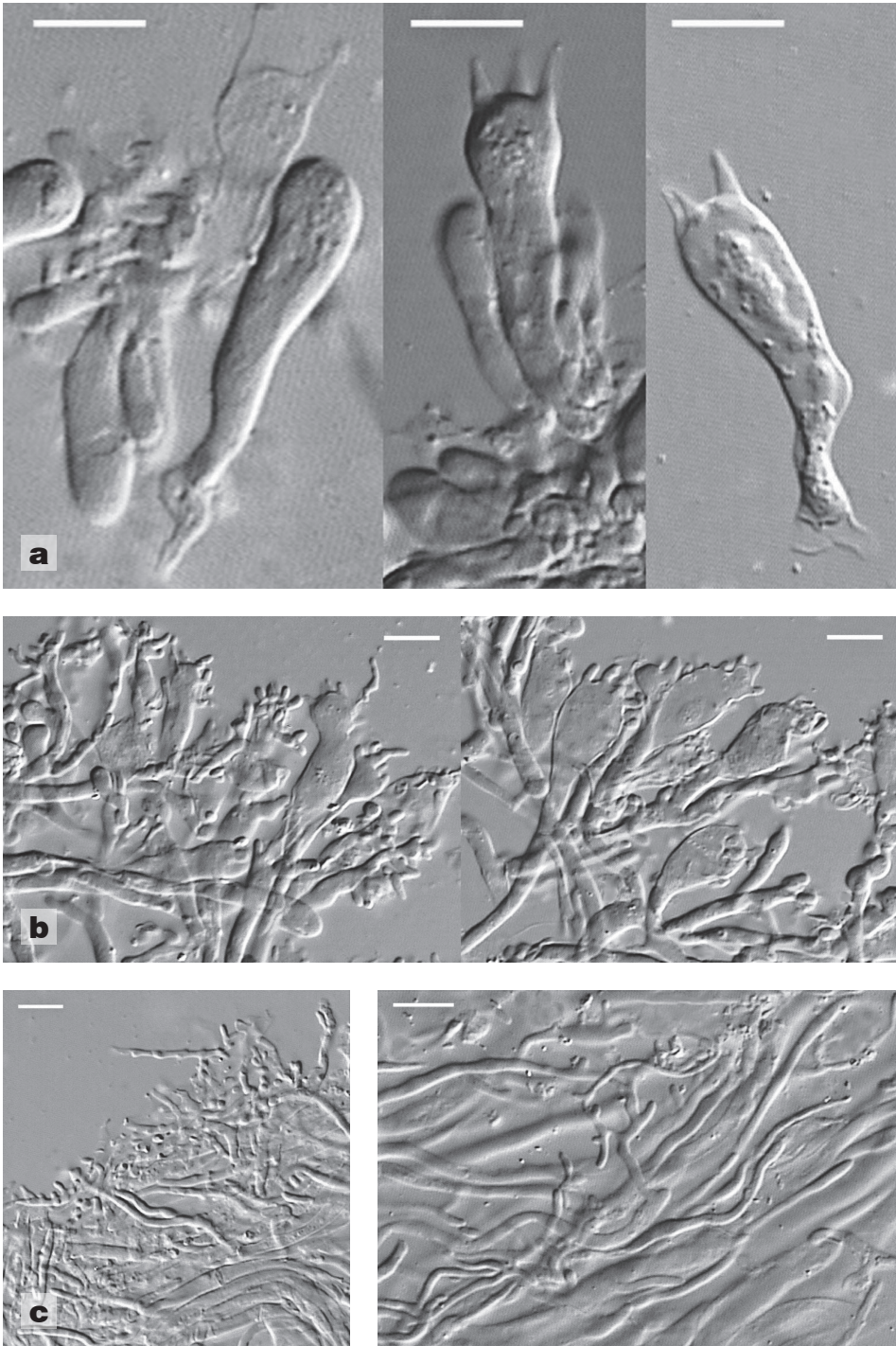


Fig. 2. *Mycena romagnesiana* (KRAM F-48317): a – basidia; b – cheilocystidia; c – hyphae of pileipellis. Scale bars = 10 μ m.

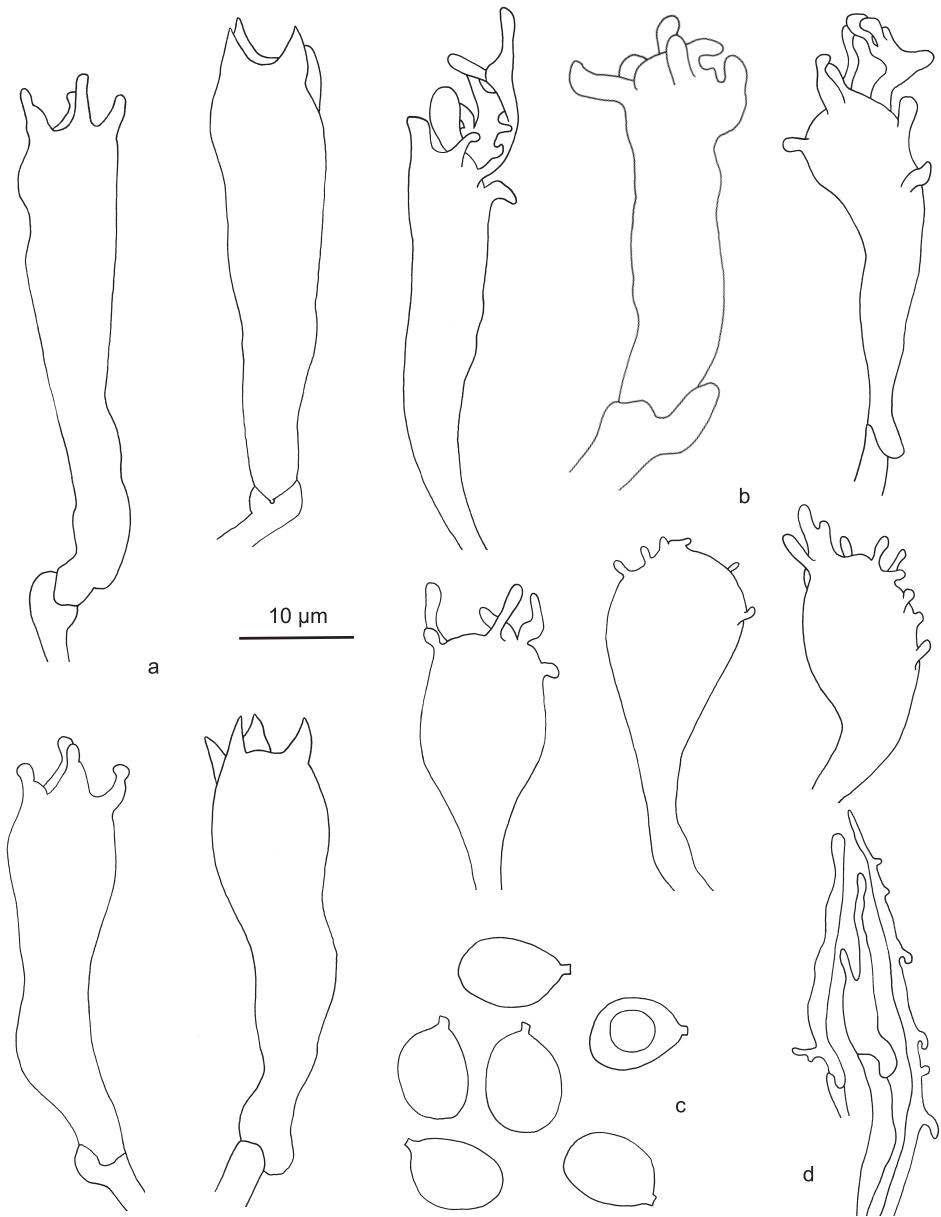


Fig. 3. *Mycena romagnesiana* (KRAM F-48317): a - basidia; b - cheilocystidia; c - spores; d - hyphae of corticial layer of the stipe. Scale bars = 10 µm.

EXAMINED MATERIALS. Bieszczadzki National Park: **1.** NE slopes of Rabia Skała, ca 2.5 km from peak, alt. ca 800-900 m, on stream Tarnica, *Dentario glandulosae-Fagetum*, on stump of *Fagus*, leg. W. Wojewoda, 23.09.1996, KRAM F-48316; **2.** Dolina Prowcza valley, between Brzegi Górne and Nasiczne, ca 3 km NE of Brzegi Górne, alt. ca 700-800 m beech forest (? *Luzulo luzuloides-Fagetum*), on stump of *Fagus*, leg. H. Komorowska, 24.09.1996, KRAM F-48317.

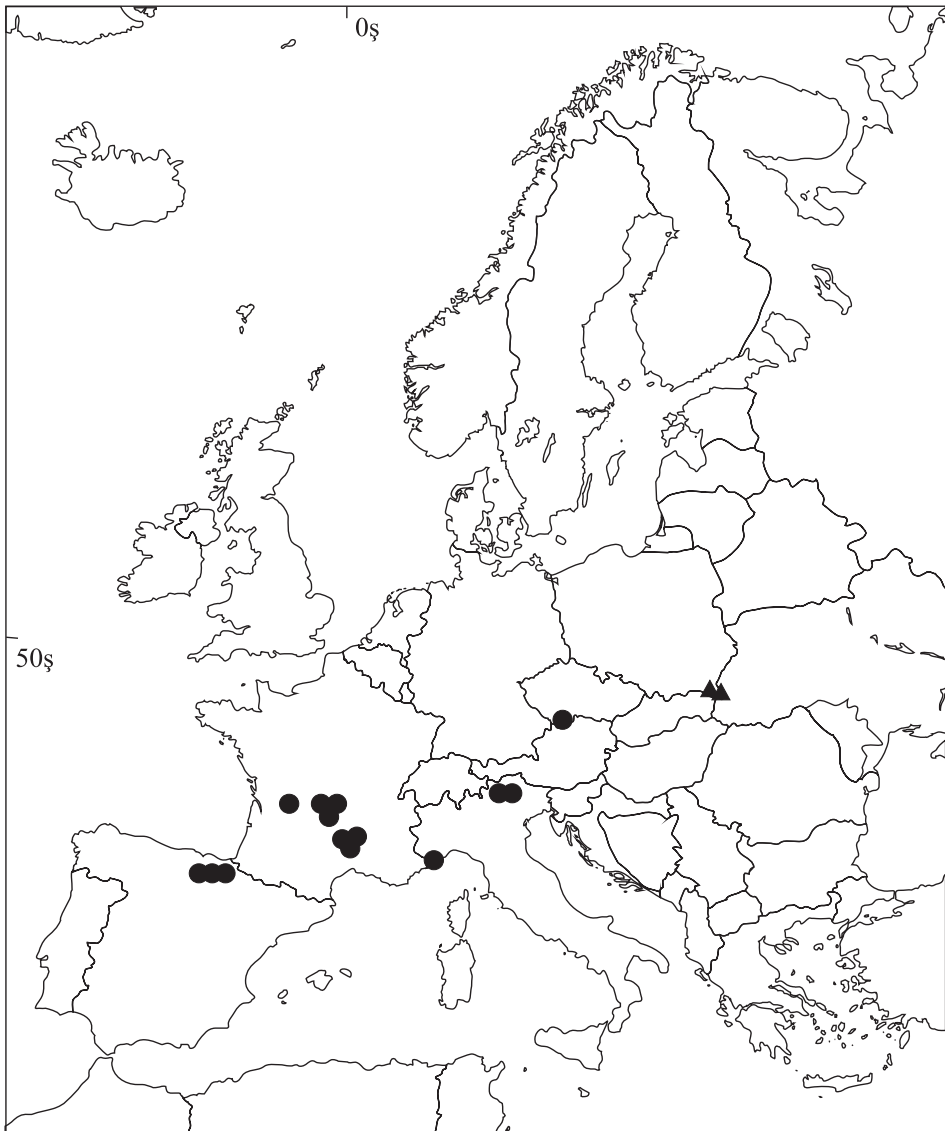


Fig. 4. Distribution of *Mycena romagnesiana* in Europe: ● – previously known localities, ▲ – new locality in Poland.

DISTRIBUTIONS. The species known only in Europe (Fig. 4). It has been reported from France, Italy and Spain (Romagnesi 1978; Maas Geesteranus 1985, 1992 – as *M. rugulosiceps* sensu Romagnesi 1991, 1992a; Hausknecht 1994; Robich 2007). Additional information available on-line suggests that it was also collected in the Czech Republic (- [www....2009](#)), and Austria (without locality – data not available (- [http: .. 2009](#)) and was recorded at 4 localities in France (- [PDF] Liste ...2008).

FINAL REMARKS

Mycena romagnesiana is a rather rare species in Poland and other European countries. Based on literature resources this species is known to be connected with beech wood and can be found in mountains. This means that its distribution may be determined by climate and the occurrence of old natural forests. Further investigations are necessary, especially in the Western Tatra massive and in Sudety Mts.

Macroscopically, the present species is easily mistaken with more variable *M. galericulata*. Both species are clearly differentiated only by microscopic characters. *M. romagnesiana* is 4-spored, hyphae of the pileipellis are sparsely covered with rounded warts, hyphae of the stipeipellis are smooth or with very sparse cylindrical excrescences, while spores are broader and shorter than spores of *M. galericulata*. Perhaps even better than the ornamentation of hyphae of the pilei- and stipeipellis, the shape of the cheilocystidia may serve to distinguish both species. Cheilocystidia of *M. romagnesiana* have fewer excrescences than those of *M. galericulata*.

Microscopical reexamination of herbal material of *Mycena galericulata*, from beech wood especially, may supply new localities of *M. romagnesiana* in Poland.

Acknowledgements. The author is most grateful for valuable comments to Prof. Władysław Wojewoda and anonymous reviewer for careful reading of this text and improving its quality. Studies were supported by the State Committee for Scientific Research (KBN: 6 PO4C 096 08) and the Ministry of Science and Higher Education (grant no. 3 PO4G 024 22).

REFERENCES

- Anonymous 2000. Munsell Soil Color Charts, Revised washable edition. Munsell Color.
- Aronsen A. 2003. *Mycena galericulata* (In:): *Mycena* Page. <http://home.online.no/~araronse/Mycena/Mycekey/galericulata.htm> (20 November 2009). Accessed on 20.01.2010.
- Hausknecht A. 1994. Due rare specie di *Mycena* nel Trentino. Boll. Grup. Micol. Bresad. Trento. 37 (1–2): 30–44.
- Maas Geesteranus R.A. 1985. Conspectus of the Mycenae of the Northern Hemisphere 4. Proc. Kon. Ned. Akad. Wetensch. C. 88 (3): 339–369.
- Maas Geesteranus R.A. 1991. Studies in Mycenae. Proc. Kon. Ned. Akad. Wetensch. C. 94 (4): 545–571.
- Maas Geesteranus R.A. 1992. Mycenae of the North Hemisphere 2: 83–113. 1992.
- Maas Geesteranus R.A. 1992a. Mycenae of the North Hemisphere 1: 365–391. 1992.
- Maerz A. & Paul M.R. 1930. Dictionary of Color. First edition. McGraw-Hill Book Company, Inc. New York, 207 pp.
- Robich G. 2007. *Mycena* D'Europa. Associazione Micologica Bresadola. Fondazione Centro Studi Micologici, Trento, 728 pp.
- Romagnesi H. 1978. Quelques espèces méconnues ou nouvelles de macromycètes –VI. Bull. Sac. trimest. Mycol. Fr. 94: 97–107.
- <http://zipcodezoo.com?Fungi/M/Mycena%5Fromagnesiana>. Accessed on 20.01.2010
- [PDF] Liste des espèces récoltées lors du stage fédéral F.M.B.D.S à Saint-Jean-la-Vêtre du 25 au 28.09.2008 (January 2009). Accessed on 20.01.2010
- www.mzm.cz/Botanika/search.html?datum; Accessed on 20.01.2010

Mycena romagnesiana zebrana w Bieszczadach

Streszczenie

Przedstawiono *Mycena romagnesiana* Maas Geest., takson nowy dla Polski. Został on opisany niedawno przez Maas Geesteranusa (1991).

Prowadząc badania nad rodzajem *Clitocybe* w różnych częściach Polski (szczególnie w rezerwatach i parkach narodowych, w ramach projektów badawczych w latach 1996-1999 i 2002-2006) starano się zebrać ten gatunek. Sądzono, że i w Polsce powinien rosnąć. Wiadomo, że zbierany był w europejskich górach, na drewnie buka, a świeże okazy są podobne do *M. galericulata*.

Zgromadzono bogaty materiał okazów *Mycena*, podobnych do *M. galericulata*, z buczyn w zachodniej Polsce, z Roztocza i Karpat. Po identyfikacji okazało się, że tylko 2 okazy zebrane na dwóch stanowiskach w Bieszczadach należą do *M. romagnesiana*. Większość została zidentyfikowana jako *M. galericulata* 2 sporowa. Część okazów ciągle pozostaje jeszcze nieoznaczona (są podobne do gatunku jak wyżej, ale mają inne zarodniki).

Przedstawiono krótką charakterystykę makro- i mikromorfologii dokumentując je zdjęciami i rysunkami. Rozmieszczenie stanowisk, z literatury, uzupełnione własnymi danymi i z Internetu, zestawiono na mapie Europy.