

CATATHELASMA

No. 3

December 2002

BIODIVERSITY of FUNGI in SLOVAKIA

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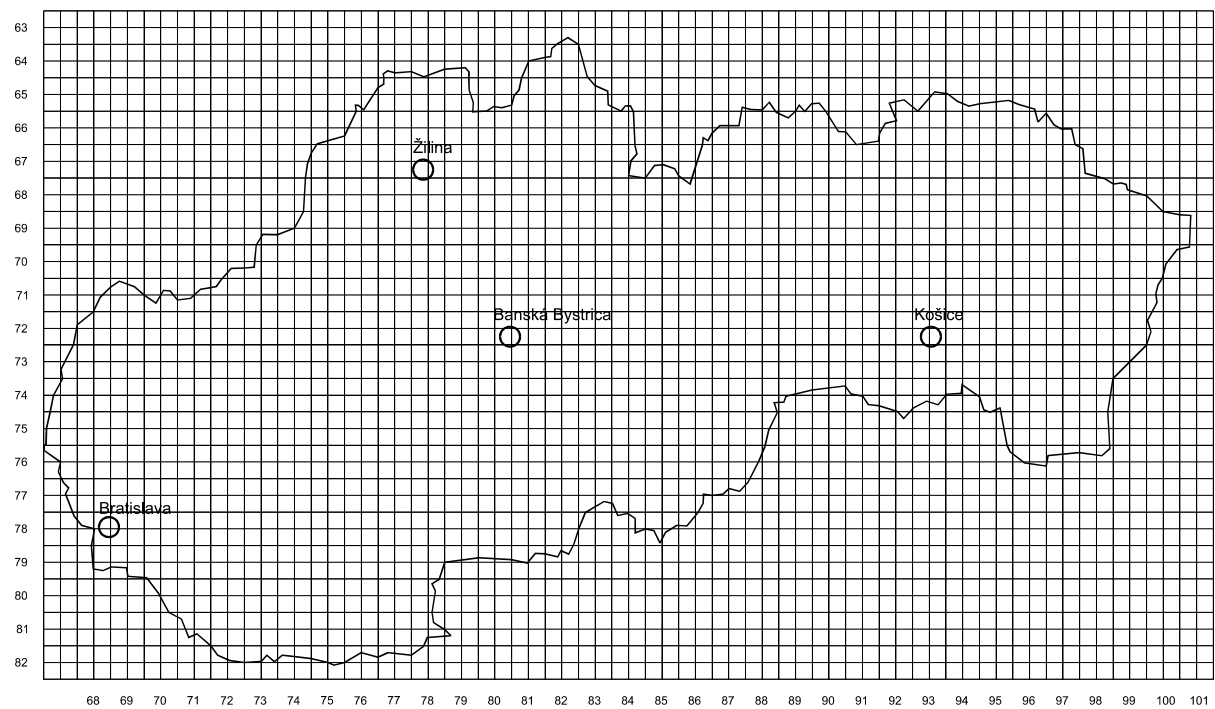
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Grid cells are bounded with geographical coordinates (longitude and latitude). Boundaries of basic grid cells - squares represent 10' long. (west to east) x 6' lat. (north to south), an area of ca 12 x 11.1 km which covers ca 133 km². The square code consists of four-digit number, a combination of two-digit designator of horizontal line and two-digit designator for vertical row. Each square can be divided (for more detailed mapping) to four quadrants 5' x 3' which are coded by letters a (NW), b (NE), c (SW), d (SE). The quadrant code consists of four-digit number (square code) and the letter of particular quadrant

ADDITIONS TO THE LISTS OF MYXOMYCESES OF SLOVAKIAPAVOL MEREĎA JR.¹**Key words:** omitted records

First checklists of Myxomycetes in Slovakia were published by Bacigálová and Lizoň (1998, 1999). Both lists were compiled by K. Bacigálová.

Unfortunately several taxa published mostly in the 19th century were overlooked and omitted in cited publications. These missing taxa are given in this paper along with relevant reference(s).

Numerous names misapplied by Bäumler, Hazslinszky, Kalchbrenner and Kmet' were revised by Moesz (1926). Abbreviations (standard forms) of author names follow Brummitt & Powell (1992).

Amaurochaete atra (Alb. et Schwein.) Rostaf.

Kalchbrenner (1865) and Hazslinszky (1877a) as *Reticularia atra*; Bäumler (1890); Saccardo (1896); Kmet' (1900); Moesz (1926, as *Amaurochaete fuliginosa*).

Arcyria abietina (Wigand) Nann.-Bremek.

Moesz (1926, as *Hemitrichia abietina*).

Arcyodes incarnata (Alb. et Schwein.) O. F. Cook

Bäumler (1890, as *Lachnobolus incarnatus*); Moesz (1926, as *Lachnobolus congestus*).

Badhamia capsulifera (Bull.) Berk.

Bäumler (1897) and Kmet' (1900) as *Badhamia hyalina*; Scherffel (1902, sec. Moesz 1926); Moesz (1926).

Badhamia utricularis (Bull.) Berk.

Kalchbrenner (1865) and Hazslinszky (1877a) as *Physarum utricularis*; Bäumler (1890, as *Badhamia hyalina*); Moesz (1926); Bäumler (1927).

Ceratiomyxa fruticulosa (O. F. Müll.) T. Macbr. var. *porioides* (Alb. et Schwein.) Lister

Hazslinszky (1877a) and Kmet' (1900) as *Ceratium porioides*.

Comatricha ellae Härk.

Záhorovská (1994).

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Craterium aureum (Schumach.) Rostaf.
Moesz (1926).

Craterium leucocephalum (Pers.) Ditmar
Hazslinszky [1877a, as *Craterium minutum*, *C. pedunculatum* (only some specimens of the collection from "Eperjes") and *C. pyriforme*]; Bäumler (1890); Bäumler (1891, as *Craterium aureum* and *C. pedunculatum* var. *albicans*); Kmet' (1900); Moesz (1926).

Craterium minutum (Leers) Fr.
Hazslinszky (1877a, only some specimens of the collection from "Eperjes") and Bäumler (1890) as *Craterium pedunculatum*; Bäumler (1903); Moesz (1926).

Craterium obovatum Peck var. *obovatum*
Bäumler (1890), Saccardo (1896), Moesz (1926), and Bánhegyi (1944) as *Badhamia rubiginosa*.

Cribraria aurantiaca Schrad.
Kalchbrenner (1865) and Hazslinszky (1877a) as *Cribraria vulgaris*; Bäumler (1897); Moesz (1926).

Cribraria cancellata (Batsch) Nann.-Bremek.
Hazslinszky (1877a) and Saccardo (1896) as *Dictydium umbilicatum*; Bäumler (1890, 1891) and Kmet' (1900) as *Dictydium cernuum*; Scherffel (1902, sec. Moesz 1926); Moesz (1926, as *Dictydium cancellatum*).

Cribraria intricata Schrad.
Hazslinszky (1884); Bäumler (1890); Kmet' (1900); Moesz (1926).

Cribraria macrocarpa Schrad.
Bäumler (1927).

Cribraria purpurea Schrad.
Kalchbrenner (1865); Hazslinszky (1877a); Moesz (1926).

Cribraria rufa (Roth) Rostaf.
Bäumler (1890); Kmet' (1900); Moesz (1926).

Cribraria splendens (Schrad.) Pers.
Hazslinszky (1877a, as *Dictydium splendens*); Moesz (1926).

Dictydiaethalium plumbeum (Schumach.) Rostaf.
Hazslinszky (1877a, 1877b, 1877c sec. Martin & Alexopoulos 1969, as *Dictydiaethalium dissiliens* and *Ophiuridium dissiliens*); Kmet' (1900, as *Clathroptychium rugulosum*); Moesz (1926).

Diachea leucopodia (Bull.) Rostaf.

Bolla (1858), Kalchbrenner (1865) and Hazslinszky (1877a) as *Diachea elegans*; Bäumler (1890, 1891), Kmet' (1900), and Moesz (1926) as *Diachea leucopodia*.

Diderma alpinum Meyl.

Hazslinszky [1877a, as *Diderma spumarioides* (only collection from "Szepes-Olaszi")]; Moesz (1926, as *Diderma globosum* var. *alpinum*).

Diderma effusum (Schwein.) Morgan var. *effusum*

Moesz (1926).

Diderma floriforme (Bull.) Pers.

Bäumler (1890) and Kmet' (1900) as *Chondrioderma floriforme*; Moesz (1926).

Diderma niveum (Rostaf.) T. Macbr. var. *niveum*

Hazslinszky (1877a, as *Diderma complanatum*, *D. depressum* and probably also as *D. deplanatum*); Moesz (1926).

Diderma spumarioides (Fr.) Fr.

Hazslinszky (1877a, only collection from "Igló"); Bäumler (1890, as *Chondrioderma spumarioides*); Bäumler (1927); Holuby (msc.); Moesz (1926).

Diderma subdictyospermum (Rostaf.) G. Lister

Saccardo (1896, as *Chondrioderma subdictyospermum*); Moesz (1926).

Neubert & al. (1995) reported the species only from Venezuela, South Africa, India, and south-east Asia. There are only two records from Europe (both from the former Austro-Hungarian Empire) but voucher specimens are not available (Moesz 1926: 143).

Diderma testaceum (Schrad.) Pers.

Moesz (1926).

Didymium iridis (Ditmar) Fr.

Moesz (1926, as *Didymium nigripes* var. *xanthopus*).

Didymium melanospermum (Pers.) T. Macbr.

Kalchbrenner (1865), Hazslinszky (1877a), Bäumler (1890, 1891), and Saccardo (1896) as *Didymium farinaceum*; Scherffel (1902, sec. Moesz 1926); Moesz (1926); Bäumler (1927); Hruby (1932).

Didymium nigripes (Link) Fr.

Kalchbrenner (1865); Hazslinszky (1877a); Moesz (1926).

Didymium serpula Fr.

Bäumler (1927, as *Didymium complanatum*).

Enerthenema papillatum (Pers.) Rostaf.
Moesz (1926); Bäumler (1927).

Enteridium lycoperdon (Bull.) M. L. Farr var. *lycoperdon*
Kalchbrenner (1865) and Holuby (msc.) as *Reticularia umbrina*;
Hazslinszky (1877a, as *Lycogala punctata*, *Reticularia umbrina* and also
as *R. plumbea*); Hazslinszky (1879, sec. Moesz 1926), Bäumler (1890,
1891), Saccardo (1896), Kmet' (1900), Scherffel (1902, sec. Moesz
1926), Moesz (1926), and Greschik (1932) as *Reticularia lycoperdon*.

Hemitrichia serpula (Scop.) Rostaf.
Hazslinszky (1877a, as *Trichia serpula* var. *reticulata*); Moesz (1926);
Záhorovská & al. (1995, 1998).

Lamproderma carestiae (Ces. et De Not.) Meyl.
Bäumler (1890) and Kmet' (1900) as *Lamproderma columbinum*; Moesz
(1926, as *Lamproderma violaceum* var. *carestiae*).

Lamproderma columbinum (Pers.) Rostaf. var. *sessile* Lister
Hazslinszky (1877a, as *Physarum piceum*); Moesz (1926).

Lamproderma violaceum (Fr.) Rostaf. var. *dictyosporum* Lister
Moesz (1926). The name is not mentioned either in Martin & Alexopoulos
(1969) or Neubert & al. (2000).

Lamproderma sauteri Rostaf.
Kalchbrenner (1865, as *Physarum muscicola*); Hazslinszky [1877a, as
Stemonitis obtusata (only collection from "Sz.-Olaszi")]; Hazslinszky
(1884, as *Stemonitis papillata*); Moesz (1926, as *Lamproderma*
violaceum var. *sauteri*).

Lamproderma scintillans (Berk. et Britzelm.) Morgan
Bäumler (1927).

Licea variabilis Schrad.
Bäumler (1891), Kmet' (1900) and Moesz (1926) as *Licea flexuosa*.

Lindbladia tubulina Fr.
Bäumler (1890), Kmet' (1900) and Moesz (1926) as *Lindbladia effusa*.

Mucilago crustacea F. H. Wigg.
Bolla (1858), Kalchbrenner (1865), Hazslinszky (1877a), Bäumler (1890,
1891), Kmet' (1900), Holuby (msc.), and Hruby (1932) as *Spumaria alba*;
Kalchbrenner (1865) and Hazslinszky (1877a) as *Didymium physaroides*;
Hazslinszky (1878) and Holuby (msc., only collection from "Haluzice") as
Didymium cinereum; Moesz (1926) and Hruby (1932) as *Mucilago*
spongiosa.

Oligonema schweinitzii (Berk.) G. W. Martin
Bäumler (1927, as *Oligonema nitens*).

Perichaena vermicularis (Schwein.) Rostaf.
Bäumler (1927).

Physarum bivalve Pers.

Bolla (1858, as *Physarum sinuosum*); Hazslinszky (1877a, as *Angioridium sinuosum*); Hazslinszky (1884, as *Angioridium sinuosum* and also as *Didymium serpula*); Bäumler [1890, 1891 (only collection from "St.-Georgen"), as *Physarum sinuosum*]; Kmet' (1900, as *Physarum sinuosum* and also as *Didymium serpula*); Moesz (1926, as *Physarum sinuosum*).

Physarum compressum Alb. et Schwein.
Bäumler (1927).

Physarum conglomeratum (Fr.) Rostaf.
Moesz (1926).

Physarum contextum (Pers.) Pers.
Bäumler (1897, as *Amaurochaete atra*); Moesz (1926).

Physarum didermoides (Pers.) Rostaf.
Bäumler (1891, 1903); Moesz (1926).

Physarum murinum Lister
Hruby (1932).

Physarum notabile T. Macbr.
Hazslinszky (1877a, as *Didymium squammulosum*); Moesz (1926, as *Physarum connatum*).

Physarum nutans Pers.
Kalchbrenner (1865); Hazslinszky (1877a, as *Didymium nutans*); Hazslinszky (1878, as *Didymium melanopus*); Hazslinszky (1884, as *Physarum spadotrichum*); Bäumler (1890, as *Physarum leucophaeum* and probably also as *Tilmadoche nutans* α . *propria* and *T. nutans* β . *rigida*); Kmet' (1900, as *Tilmadoche nutans*); Scherffel (1902, sec. Moesz 1926); Moesz (1926, as *Physarum album*); Bäumler (1927); Hruby (1932).

Physarum psittacinum Ditmar
Bäumler (1927).

Physarum sulphureum Alb. et Schwein.
Bäumler (1927).

Physarum viride (Bull.) Pers. var. *aurantium* (Bull.) Lister
Hazslinszky (1877a, as *Physarum viride*); Moesz (1926); Svrček (1964,
as *Physarum aurantium*).

Stemonitis splendens Rostaf.
Moesz (1926).

Trichia alpina (R. E. Fr.) Meylan
Hazslinszky (1877a, as *Trichia circumscissa*); Hazslinszky (1884, as
Trichia varia); Bäumler (1891, as *Hemiarocyria serpula*); Moesz (1926, as
Trichia contorta var. *alpina*); Wichanský (1962, 1963).

Trichia persimilis P. Karst.
Hazslinszky (1877a, as *Trichia chrysosperma* var. *aurantiaca*); Moesz
(1926).

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Pavol Merea ml.: Doplnky k zoznamom pravých slizoviek Slovenska. *Catathelasma* (3): 3-9, 2002.

Do zoznamov pravých slizoviek Slovenska, ktoré boli publikované v knižnej a CD-ROM verzii práce "Zoznam nižších a vyšších rastlín Slovenska" je potrebné doplniť 58 taxónov, ktorých výskyt na Slovensku bol už v literatúre udávaný, avšak pri príprave uvedených zoznamov nebol zohľadnený.

BOOK NOTICES

PAVEL LIZOŇ & KAMILA BACIGÁLOVÁ

J. P. Lindsey & K. K. Nakasone (eds.). 2001. **A celebration of over 50 years in mycology. A tribute to Robert Lee Gilbertson.** Harvard Pap. Bot. 6: 1-222. ISSN 1043-4534. (orders: papers@oeb.harvard.edu)

First part of the 2001 July issue of a publication published by the Harvard University Herbaria was dedicated to a well-known American polyporologist, emeritus professor of the University of Arizona, Robert 'Gil' Gilbertson. New genus *Gilbertsonia* Parmasto (Polyporaceae) and 19 infrageneric new taxa, incl. *Laetiporus gilbertsonii* Burds. and *Carbomyces gilbertsonii* N. S. Weber & Trappe, were described. Unfortunately Mike Larsen, who initiated this Festschrift in honor of his major professor, passed away before his wish was fulfilled.

[more about Gil at ag.arizona.edu/PLP/faculty/gilbertson.html and lsb380.plbio.lsu.edu/gil/gil.festschrift]

Hyeon-Dong Shin & Jeong-Dong Kim. 2001. **Cercospora and allied genera from Korea.** 302 pp., National Institute of Agricultural Science and Technology Suwon, Korea. Price not indicated (for exchange contact the author at hdshin@mail.korea.ac.kr).

One hundred and twenty seven taxa of Cercosporae (Hyphomycetes), covering *Cercospora* (48), *Cercosporella* (2), *Distocercospora* (1), *Mycovellosiella* (4), *Neoramularia* (2), *Passalora* (6), *Phacellium* (1), *Phaeoisariopsis* (1), *Phaeoramularia* (4), *Pseudocercospora* (40), *Pseudocercosporella* (5), *Ramularia* (13), *Stenella* (1) and *Stenellopsis* (1) on 151 species host plants, are reported from Korea.

Full description and detailed illustrations are given for each species with brief description of respective diseases and their symptoms. Taxonomic characters used for classifying *Cercospora* and allied genera mainly follow Braun's concepts and are based on caespituli, mycelium, stromata, conidiophores and conidial morphology. Entries have also data on synonyms, hosts and records in Korea, specimens examined and geographic distribution, and taxonomic notes.

GENUS VERPA¹SOŇA RIPKOVÁ²**Key words:** Morchellaceae, *V. bohemica*, *V. conica*, distribution, Slovakia

Verpa Sw. (incl. *Ptychoverpa* Boud.) is treated, together with the genera *Disciotis* Boud. and *Morchella* Dill. & Pers. (incl. *Mitrophora* Lév.), in the family Morchellaceae (Korf 1973). Taxa of *Disciotis* have cup-shaped apothecia becoming fully expanded and lobed when mature. Fruit-bodies of *Morchella* and *Verpa* are always stalked and they differ in the shape of the cup: irregularly costate surface with rounded or elongated pits separated by sterile ribs in *Morchella* and smooth or veined cap in *Verpa*.

Verpa bohemica (Krombh.) J. Schröt. is easily recognised by two-spored asci and furrowed hymenial surface. The specific name *bohemica* was accepted as the name in current use (Häffner 1991) here even Moravec (1967) preferred *Morchella (Ptychoverpa) gigaspora* Cooke, treated by Šebek (1973) as *Mitrophora gigaspora* (Cooke) Šebek.

Verpa conica (O. F. Müll.) Sw. differs from *V. bohemica* in having eight-spored asci. In 2001 I have collected a specimen with eight-spored asci and convoluted and brain like hymenial surface corresponding with a variety reported as *V. digitaliformis* var. *cerebriformis* J. Moravec & Svrček (Moravec, 1967) and/or *V. cerebriformis* (J. Moravec & Svrček) Šebek (Šebek, 1973). I follow Häffner (1991) who does not believe in reliability of those characters for delimitating a different taxon because of the presence intermediate forms.

Distributional data of *V. bohemica* and *V. conica* are based on voucher specimens held in BRA (Slovak National Museum, Bratislava) and SLO (Department of Botany, Faculty of Natural Sciences, Comenius University, Bratislava) and my own recent collections.

DISTRIBUTION OF VERPA BOHEMICA

Slovenský kras: 7390d: Slovacia merid., carstus Jihoslov. kras, in valle Zádielská dolina, humi sub *Popul. tremulae*, 300 m n. m. 28. IV. 1987, leg. S. Bukovanský (BRA). Malé Karpaty: 7570c: Slovacia occid., Malé Karpaty, Dolné Orešany, loc. „Predné Šišoretné“, in silva frondosa (*Quercus*, *Malus*, *Pyrus*), cca 550 m n. m. 12. 4. 1999, leg. I. Kautmanová (BRA). 7768a: Slovacia, montes Malé Karpaty, in colle „Svätý vrch“, 2,5 km situ oient. a pago Marianka (distr. Bratislava - vidiek),

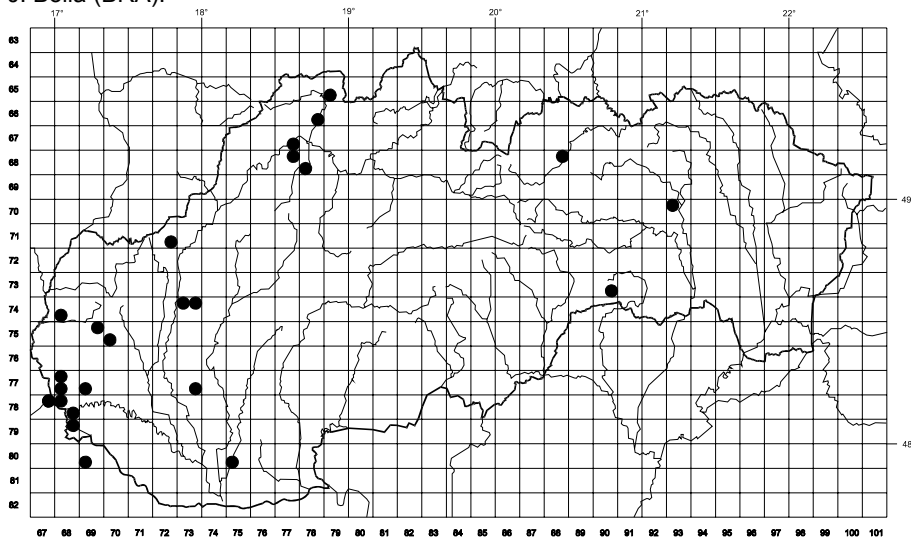
¹ Presented at the workshop Biodiversity of fungi in Slovakia 1 (Bratislava, June 9, 2001)

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sub *Populus tremulis*, 370 m n. m. 12. IV. 1987, leg. J. Sand (BRA). 7768a: Slovacia, montes Malé Karpaty, Q 68/77, 1,5 km SV od obce Marianka, miestna časť Na Fuskovom, okr. Blava [the city of Bratislava] - vidiek, pod osikami v miešanom lese (dub, osika, klen), 270 m n. m. 16. 4. 1988, leg. J. Sand (BRA). 7768a: Slovacia, montes Malé Karpaty, Q 7768, 1,5 km SV od obce Marianka, loc. „Na Fuskovom“ okr. Bratislava - vidiek, pod osikami v miešanom lese (dub, baza, osika), 300 m n. m. 26. 3. 1989, leg. & det. J. Sand (BRA). 7768a: Slovacia, montes Malé Karpaty, Q 77/68, in loco „Na Fuskovom“, 1,5 km situ septentrione–orientalis a pago Marianka clivo montis „Svätý vrch“ (distr. Bratislava - vidiek), sub *Populus tremulis*, 270 m n. m. 13. 4. 1991, leg. J. Sand (BRA). 7768a: Slovacia, montes Malé Karpaty, Q 77/68, in collis monte Svätý vrch, loc. „Na Fuskovom“, 1,5 km situ sept.–orientalis a pago Marianka, distr. Bratislava - vidiek, in stratu foliorum deicodorum *Pop. tremulorum*, 280 m n. m. 29. 3. 1992, leg. J. Sand (BRA). 7768a: Slovacia, montes Malé Karpaty, Q 77/68, in colle „Svätý vrch“, 1,5 km situ orient. a pago Marianka loc. „Na Fuskovom“, distr. Bratislava - vidiek, in silva mixta (*Acerus*, *Quercus*, *Carpin.*) sub *Populus tremulis*, 270 m n. m. 13. 4. 1993, leg. J. Sand (BRA). 7768c: Slovacia, montes Malé Karpaty, in colle „Cimbal“, 2,7 km situ merid.–orient. a pago Záhorská Bystrica (pars urbis Bratislava), sub *Ceraso avia*, 360 m n. m. 18. IV. 1987, leg. J. Dobiš & L. Hagara (BRA). 7768c: Bratislava - Záhorská Bystrica, in colle „Holý vrch“, sub *Crataego*, 240 m n. m. 14. IV. 1991, leg. L. Hagara (BRA). 7867b: Slovacia occid., Malé Karpaty, urbs Bratislava, ad terram in silva in clivo montis Devínska Kobyla prope vicum Devín. 29. III. 1981, leg. V. Volf (BRA). 7867b: Slovacia merid.–occid., montes Malé Karpaty, in colle „Devínska Kobyla“ 2,5 km situ septent. a vico Devín (pars urbis Bratislava), ad calcem, in dumeto (*Ligustrum*, *Crataegus*, *Quercus*, *Corylus*), 230 m n. m. 19. IV. 1987, leg. L. Hagara (BRA). 7867b: Slovacia occid., Bratislava, Devínska Kobyla, loc. Dúbravská hlavica, in silva frondosa, sub *Fraxinus*, cca 350 m n. m. 19. 4. 1998, leg. J. Verčík (BRA). 7868a: Blava [the city of Bratislava], Žel. Studienka. 24. apr. 1962, leg. I. Fábry (BRA). 7868a: Slovakiae, Bratislava, za Železnou studienkou, listnatý riedky les, na zemi. 14. apr. 1971, leg. I. Fábry (BRA). 7868a: Slovacia occid., Malé Karpaty, Bratislava, lokalita Dúbravská Hlavica, v tráve pod *Cerasus avium*. 9. 4. 1995, leg. L. Varjú (BRA). Považský Inovec: 7473a: Slovacia occid., mont. Považský Inovec, prope Piešťany, haud procul aestivam Sĺňava, ad terram sub *Populus tremul.*, 170 m n. m. 22. IV. 1987, leg. J. Ptáček (BRA). 7473b: Považský Inovec, úpätie Marháto na južnej strane pri Nitrianskej Blatnici, listnatý les, na lesnej čistine, 400 m n. m. 25. 4. 1993, leg. P. Škubla (BRA). Strážovské vrchy: 6777d: Slovaca, Dolný Hríčov prope Žilina, humi sub arb. frondosi (*Sorbus*, *Populus*), 400 m n. m. 5. V. 1983, leg. Z. Chalánek (BRA). 6877b: Slovaca, Súľov, prope Pov. Bystica, humi in silva mixta (*Picea*, *Alnus*, *Populus tr.*), 500 m n. m. 14. V. 1980, leg. Z. Chalánek (BRA). 6878c: Slovaca, prope Rajecké Teplice, horto publica humi, sub *Popul. term.* 450 m n. m. 9. V. 1968, leg. J. Kuthan (BRA). Veľká Fatra: 8069c: Slovacia centralis, montes Veľká Fatra, 0,5 km situ occid. a pago Sklabiňa (distr. Martin), sub *Prunus spinosis*, cca 540 m n. m. 11. V. 1985, leg. L. Hagara (BRA). Biele Karpaty: 7172d: Slovensko, Biele Karpaty, cca 1,5 km SVV od kostola v obci Zemianske Podhradie, na lesnej ceste pod *Padus avium*, cca 400 m n. m. 3. 5. 2001, leg. J. Ripka (SLO). Kysucké

Beskydy: 6579c: Slovaca, Oščadnica prope Čadca, in silva frondosa (*Tilia*, *Populus tremula*), 500 m n. m. 27. IV. 1974, leg. J. Kuthan (BRA). Kysucká vrchovina: 6678d: Slovaca, Povina prope Žilina, in silva mixta (*Populus trem.*), 400 m n. m. 27. IV. 1974, leg. J. Kuthan (BRA). Levočské vrchy: 6888b: Strážky, pod osikami. 2. V. 1963, leg. E. Končeková (BRA). Šarišská vrchovina: 7093a: Slovacia, regio tumulosa Šarišská vrchovina, loco „Kvašná voda“ dicto 6 km situ merid.–occid. oppido Prešov, in *Fageto-Carpineto*, 430 m n. m. 30. IV. 1988, leg. J. Humeňanský (BRA). Borská nížina: 7468c: Slovacia occid., Záhorská nížina, Veľké Leváre, lužný les. 18. IV. 1980, leg. A. Dermek (BRA). 7569b: Slovacia occid., Záhorská nížina, Plavecké Podhradie, pod hlohmi (*Crataegus oxyacantha*). 27. IV. 1980, leg. P. Chlouba (BRA). Podunajská rovina: 7769c: Slovacia occid., Podunajská nížina, ad terram in silva Šúrsky les dict. prope pag. Jur pri Bratislave, sub. arb. *Populus* sp., 130 m n. m. 19. IV. 1979, leg. P. Lizoň & J. Kubička (BRA) [as *Verpa conica*]. 7769c: Slovacia, planitia Podunajská rovina, in reservatio „Šúr“ (pars „Panónsky háj“) cca 3 km situ merid. a pago Jur pri Bratislave (distr. Bratislava - vidiek), Q 69/77, in dumeto (*Prunus spinosa*, *Crataegus*), 130 m n. m. 10. IV. 1988, leg. L. Hagara. (BRA). 7769c: Slovacia occid., Podunajská rovina, obec Svätý Jur, lokalita PR Jurský Šúr. 11. 3. 1995, leg. L. Varjú (BRA). 7867b: Slovensko, Podunajská nížina, Bratislava - Devín, Sedláčkov ostrov, podcelok g, 48° 10' 13"–48° 09' 45" sev. z. š., 16° 59' 13"–16° 59' 55" vých. z. d.; na opadanke pod *Salix alba*, 135–140 m n. m. 9. 4. 1997, leg. S. Jančovičová (SLO). 7867b: Ibidem, podcelok h, na opadanke pod *Populus nigra*, 26. 4. 1998. 7868d: Slovacia, planitia Podunajská rovina, ad ripam dextram fluminis Dunaj in urbe Bratislava (pars Petržalka), cca 4 km situ merid. infra pontem „Most hrdinov Dukly“, sub *Populus tremula*, 130 m n. m. 12. IV. 1987, leg. J. Sand (BRA). 7868d: Slovacia, Podunajská nížina, 4 km V od obce Petržalka (Bratislava V.), v tlejúcom listnatom podklade pod topoľom bielym (*Populus alba*), 150 m n. m. 24. 3. 1989, leg. J. Sand (BRA). 7968b: Slovacia, planitia Podunajská rovina, in luco humido ad ripam dextram fluminis Dunaj in urbe Bratislava (pars Jarovce), sub *Populus tremulis*, 125 m n. m. 15. IV. 1987, leg. L. Hagara (BRA). 7968b: Slovacia, Podunajská nížina, 2 km SV od obce Jarovce, okr. Bratislava V., lužný les, pod vrbami a osikami, cca 150 m n. m. 2. 4. 1988, leg. J. Sand (BRA). 7968b: Slovacia, planitia Podunajská rovina, Q 68/79, prope vicum Jarovce (pars urbis Bratislava), ad riparium dextram fluminis Dunaj, sub *Populus tremulis* in luco fluviali, 130 m n. m. 6. IV. 1988, leg. & det. L. Hagara (BRA). 7968b: Slovacia, planitia Podunajská rovina, Q 68/79, in luco fluviali inter vicos Petržalka et Jarovce (prope brachium „Chorvátske rameno“) ad marginem merid. urbis Bratislava, sub *Populus termulis*, 135 m n. m. 10. IV. 1988, leg. L. Hagara (BRA). 7968b: Slovacia, Podunajská nížina, Za Slovnaftom, háj Bôrové, 135 m n. m. 22. V. 1994, leg. V. Kabát (BRA). 7968b: Slovacia occid., Podunajská rovina, ob. Bratislava, lok. Jarovecké rameno, 130 m n. m. 12. 3. 1995, leg. L. Varjú (BRA). 8075c: Slovakiae, Podunajská nížina, loco Bajč prope urb. Hurbanovo, in silva mixta. 23. IV. 1973, leg. E. Futó (BRA). Nitrianska pahorkatina: 7773d: Slovacia merid., depresus Podunajská nížina, in loco „Plešiny“ dicto, cca 2,5 km situ orientali ab oppido Sládečkovce (distr. Nitra), 170 m n. m. 14. 4. 1985, leg. P. Škubla (BRA). 7773d: Slovacia merid., depresus Podunajská nížina, in loco Plešiny dicto cca 2,5 km situ orientali ab oppido

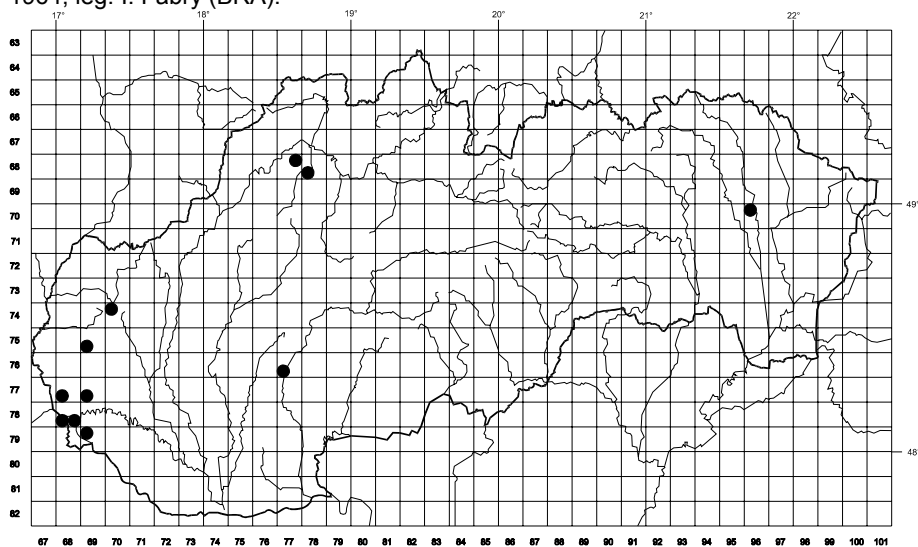
Sládečkovce (distr. Nitra), in silva frondosa, 170 m n. m. 14. 4. 1985, leg. P. Škubla (BRA). ?: Slovacia orient., Veľká Poľana, distr. Humenné, coemeterium local., humi sub *Fraxinis juven.*, 300 m n. m. 2. V. 1990, leg. J. Terray (BRA). ?: Eperies [the town of Prešov], ?. Mai, F. Hazslinszky (BRA). ?: In Insularis Insula Csallóköz [Žitný ostrov island], inter *Ulmus*, 28. Marzii 1866, leg. J. Bolla (BRA). ?: In Insularis ad Posonium [the city of Bratislava], 5. Aprilio 1876, leg. J. Bolla (BRA). ?: In Insularis ad Posonium [the city of Bratislava], 3. Marzii 1873, leg. J. Bolla (BRA).



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Malé Karpaty: 7470a: Slovakiae, Malé Karpaty, ad terram prope pag. Prievaly. 7. V. 1973, leg. A. Horváthová (BRA) [as *Verpa digitaliformis*]. 7569c: Kuchyňa, distr. Bratislava - vidiek, in loco "Vývrat" dicto, in dumeto (*Crataegus*), 360 m n. m. 12. V. 1991, leg. J. Sand (BRA). 7569c: Kuchyňa, Vývrat, distr. Bratislava - vidiek, sub *Populis tremulis* in ambulacro, 370 m n. m. 12. V. 1991, leg. L. Hagara (BRA) [as *Verpa bohémica*]. 7768c: Slovacia merid.-occid., montes Malé Karpaty, in dumeto (*Crataegum*, *Prunus spinosa*) in colle „Cimbal“ 2,7 km situ merid.-orient. a vico Záhorská Bystrica (pars urbis Bratislava), 300 m n. m. 8. V. 1987, leg. L. Hagara & A. Halvoník (BRA). Strážovské vrchy: 6877b: Slovaca, Súľov, prope Pov. Bystrica, ad marginem silvae mixtae inter muscos, 500 m n. m. 14. V. 1980, leg. Z. Chalánek (BRA). 6878c: Slovaca, prope Rajecké Teplice, in silva mixta, ad terram calcaream, 450 m n. m. 9. V. 1968, leg. J. Kuthan (BRA) [as *Verpa digitaliformis*]. Štiavnické vrchy: 7677c: Slovacia occid., Kozárovce, Skala, pod hlohmi, ružami a trnkami, 390 [237] m n. m. 20. 4. 1995, leg. E. Lisická (BRA). Ondavská vrchovina: 7096a: Slovakia orient., Ondavská vrchovina, in silva frond. (ad rivulum) loco Dubina dict. cca 3 km situ orient. a pago Kvakovce (distr. Vranov n. T.). 3. IV. 1992, leg. S. Adamčík (BRA).

Podunajská rovina: 7769c: Slovacia, planitia Podunajská rovina, in dumeto (*Crataegus, Rosa, Cornus, Pyrus, Prunus*) in reservatio "Šúr" (pars "Panónsky háj") 2,5 km situ merid. a pago Jur pri Bratislave (distr. Bratislava - vidiek), 130 m n. m. 9. V. 1987, leg. L. Hagara (BRA). 7769c: Slovacia, rezervácia Jurský Šúr, pod hlohmi, drienkou a bazami, 3 km V od obce Vajnory, okr. Bratislava II., cca 160 m n. m. 22. 4. 1988, leg. J. Sand (BRA). 7769c: Slovacia occid., Bratislava, Jurský Šúr, in silva frondosa (*Populus, Alnus*). 30. 3. 1994, leg. I. Kautmanová (BRA). 7769c: Slovacia, Podunajská nížina, Panónsky háj, Z od Čiernej vody, 155 m n. m. 14. IV. 1994, leg. V. Kabát (BRA). 7868c: Slovacia occid., Bratislava, Petržalka, loc. Pečenský les dicto, in silva frondosa (*Populus*). 3. 4. 1994, leg. J. Bojnanský (BRA). 7868d: Biskupice pri Dun. 2. máj 1965, leg. Meszárosová (BRA) [as *Verpa digitaliformis*]. 7868d: Slovensko, Podunajská nížina, Bratislava - Podunajské Biskupice, S od Biskupického ramena, JZ od Slovnaftu a. s.; lesný porast (*Acer, Cornus, Fraxinus, Padus, Populus, Quercus, Salix, Swida, Ulmus*) 48° 06' 37" sev. z. š., 17° 10' 03" vých. z. d. (WGS 84), na opadanke pod *Acer campestre, Cornus mas, Quercus* sp., 135 m n. m. 19. 4. 2001, leg. S. Jančovičová (SLO). 7868d: Ibidem, 3. 5. 2001. 7969a: Kalinkovo. 10. máj 1964, leg. I. Fábry (BRA).



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Ptychoverpa Boud. *Česká Mykol.* 21: 74-77.
Šebek, S. 1973. Naše chřapáčovité a smržovité houby. Oblasní muzeum,
Poděbrady.

Soňa Ripková: Rod *Verpa*. *Catathelasma* (3): 11-16, 2002.

V rode smřkovec (*Verpa*) sa uvádzajú dva druhy, smřkovec český (*V. bohemica*) a smřkovec náprstkovitý (*V. conica*). Rozšírenie obidvoch druhov je zhodnotené podľa dokladov v slovenských zbierkach.

BOOK NOTICES

PAVEL LIZOŇ

S. B. Pointing & K. D. Hyde. 2001. **Bio-exploitation of filamentous fungi**. [i]-ix, 1-367, Fungal Diversity Press, Honk Kong. ISBN 962-85677-2-1. (orders: Fungal Diversity Press, Dept. of Ecology & Biodiversity, The University of Hong Kong, Pokfulam Rd., Hong Kong, China; kdhyde@hkucc.hku.hk)

The focus of this exciting new book is on identifying existing and potential applications for filamentous fungi. Selected topics at the forefront of current fungal biotechnology research, namely bioactive compounds and agricultural applications, are covered in depth by acknowledged experts in their field. Other emerging fungal technologies such as bioremediation are also reviewed, together with associated subjects such as the ownership of the genetic resources.

G. de Notaris. 2001. **Sferiacei Italici. Centuria II. Transcrizione commentata della bozza autografa inedita**. In: Scritti e documenti 27 of the Accademia Nazionale delle Scienze detta dei XL; edited by A. Graniti, L. Zucconi & C. Ciccarone. [1]-114 and CD-ROM, Mycotaxon, Ithaca. ISBN 0-930845-12-9. € 65 + postage (orders: Accademia Nazionale delle Scienze detta dei XL, Via L. Spallanzani 7, IT-00161 Roma, Italy; biblioteca@accademixl.it; fax +39-06-44250871).

Volume includes 104 fungal species by de Notaris, whose names are brought up to date. Most of the original specimens were traced and many types were identified. Enclosed CD-ROM has reproductions of the original manuscript and drawings.

RUSSULA GLOBISPORASLAVOMÍR ADAMČÍK¹**Key words:** distribution, macromycetes, morphology, fungi

Russula glogispora (J. Blum) Sarnari is weakly known but well-defined and wide spread taxon. Its occurrence in Slovakia was not reported until now, even under the older misapplied names *R. bresadolana* Singer, nom. inval. or *R. maculata* var. *bresadoliana* Romagnesi, nom. inval. It is caused by two reasons. The name *R. glogispora* was introduced recently (Sarnari 1998) and formerly it was treated only as a variety of *R. maculata* (Romagnesi 1967). The second reason was mild or moderately acrid taste of its flesh, which is not a character typical for the *Russula* section *Maculantinae* Romagn. (the section is delimited by acrid taste, yellow spore print, presence of non incrustated pileocystidia and prevailingly red tints on the cuticle of pileus). The mild taste was probably a reason, why the specimens collected in Slovakia and recovered in herbarium BRA was misidentified.

Determination of a herbarium material of the species is relatively easy, because such large spores with long, thick, isolated spines occurs only in a few of species of the genus *Russula*. The combination of this character with numerous non-incrustated pileocystidia occurs only in the two species: *R. gigasperma* Romagn. and *R. adulterina* Fr. *R. adulterina* have brown, greenish and violaceous tints on the cuticle of pileus, flesh not changing colour after bruising (in *R. glogispora* it turns to yellow-brown) and it grows in coniferous forests, therefore ultimate confusion with *R. glogispora* is not liable. *R. gigasperma* grows in deciduous forests and could have similar colour as *R. glogispora* (it differs also in flesh, which does not turns yellow-brown). *R. glogispora* is very variable in colour of cuticle of pileus and it can vary from bright red to purpurlish or vinaceous on the margin and cream, yellow or rusty in the centre of the pileus. The fruitbodies with brownish, purple of vinaceous tints could be misidentified as *R. gigasperma*. Therefore, I have confirmed my determination of specimens from Slovakia by observing of the terminal cells of generative hyphae of cuticle of the pileus. The terminal cells of the hyphae of were not diverticulate like in *R. gigasperma* and they have different shape. The terminal cells of *R. glogispora* are attenuate and that of *R. gigasperma* are shorter and mostly cylindrical. Similar large spores as *R. glogispora* have also *R. straminea* Malençon, the species described from evergreen oak forest of Maroko, which has cream coloured pileus without red tints and different shape of terminal cells of generative hyphae in cuticle of the

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pileus. However according to Sarnari (1998), an European collections labelled as *R. straminea* are probably misidentified to *R. globispora*. The most similar species is macroscopically *R. maculata*, which has similar coloured cuticle of pileus, flesh turning yellow-brown and taste sometimes also moderately acrid to mild. *R. maculata* differs from *R. globispora* by smaller spores and the spines often connected by line connections or merged into the crests.

Some traditionally used characters are redefined or modified, especially micromorphological characters of the spores and the pileus epicutis. The number of spines, line connections, amyloid punctations and contact connections were observed in a circle of 3 µm diameter on the spore surface in the upper plane of focus. Width, length and shape of the terminal cells of the pileus epicutis were observed on the margin and in the centre of the pileus. All characters observed on the fruitbodies have been described by Adamčík and Marhold (2000). All micromorphological characters were observed with an oil-immersion lens at a magnification of 1.600×. Basidia, pleurocystidia and generative hyphae of cuticle of the pileus were observed in a solution of Congo Red in ammonia (1 ml of 25% ammonia dissolved in filtrated solution of 1.5 g of Congo Red and 50 ml of distilled water), spores were observed in Melzer's reagent (Melzer 1945), pileocystidia were observed in a solution of sulphovanillin (1 g of vanillin dissolved in 6 ml of distilled water and 5 ml of concentrated sulphuric acid). For micromorphological characters, in the in brackets are extreme values and outside the brackets are 10 and 90 percentiles. Quocient of length and width of the spores are labelled with the letter "Q".

Russula globispora (J. Blum) Bon, *Docum. Mycol.* 65: 55, 1986

Neotypus: [France] „n° 56-104, in Herb. Romagnesi 61-60 (PC)“ [design. by Sarnari, *Genere Russula in Europa* 1: 700, 1998]

≡ *Russula maculata* var. *globispora* Blum, *Bull. Soc. Mycol. France* 68: 232, 1952.

? = *Russula fuscescens* Velenovský, *České houby*: 149, 1920.

? = *Russula carmelensis* Moser, Binyamini & Aviz., *Trans. Brit. Mycol. Soc.* 68: 376, 1977.

[*Russula bresadolana* Singer, *Rev. Mycol. (Paris)* 1: 84, 1936; nom. inval.]

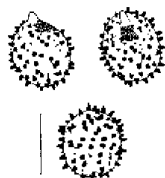
[*Russula maculata* var. *bresadoliana* Romagnesi, *Les Russules d'Europe et d'Afrique du Nord*: 875, 1967; nom. inval.]

Misidentifications:

Russula maculata auct. non Quél.: Cooke, *Handb. Brit. Fungi*, Ed. 2: 322, 1883.

? *Russula straminea* auct. non Malençon: Marxmüller, Bull. Soc. Mycol. France 109: 165, 1993; Bertault, Bull. Soc. Mycol. France 92-4: 26, 1978.

Pileus² 6-9 cm, fleshy and compact to firm, convex to plano-convex in mature stage, sometimes irregular, weakly deep but distinctly depressed in the centre, obtuse on the margin, smooth or tuberculate-striate to 1 cm on the margin; almost yellowish in the centre and with orange, coppery-red and reddish tints on the margin, rather pale, sometimes purplish-brick, with superposition of purple and coppery-ochre; cuticle adnate, separable only on the margin, smooth and shining. **Stipe** 4.5-5 × 1.2-1.6 cm, cylindrical, weakly curved or inflated on the base, solid, then becoming hole in the upper part and cottony-stuffed in the lower part, white, more or less yellowish-brown variegated on the base, also after bruising turning yellowish-brown (such as in *R. maculata*); the surface wrinkled, rather distinctly pruinose above. **Flesh** thick, firm, white or slightly yellowing, smell slightly acid-fruity or negligible in fresh, taste completely mild or moderately acrid in the lamellae. **Lamellae** rather thin, moderately distance, few forked in comparison with *R. maculata*, adnexed, segmentiform, obtuse towards the margin, 5-10 mm wide, nice buttercup yellow, then bright orange-yellow, concoloured on the edge, grossly intervenose. **Spore print** bright yellow (IVd).

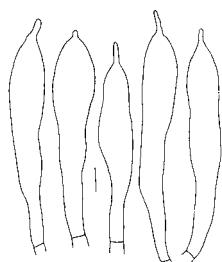


Spores³: (9.6-)10.2-11.8(-13.6)⁴ × (8.8-)9.2-10.5(-10.7) μm (average 11 × 9.7 μm), Q = (1.03-)1.08-1.16(1.27) (average 1,12), the spines (0.8-)0.9-1.2(-1.3) μm (median 1) long, obtuse, relatively thick, sparse (3-7 spines in the in the circle of diameter 3 μm in the upper plane of focus), isolated or occasionally merged. **Basidia** 43-60(-64.5) × 14-17.5 μm.

² Because no fresh material was available from Slovakia macromorphological characters are those presented by Romagnesi (1967).

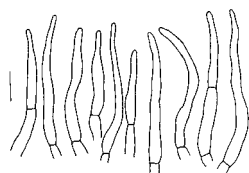
³ Micromorphological characters based on specimens collected by J. Kuthan in Bukovské vrchy Mts.

⁴ The numbers in the brackets are extreme values and outside of brackets are 10 and 90 percentiles.

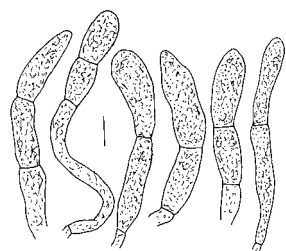


(←) **Pleurocystidia** (72-)83.5-103(-108) × (12-)12.5-17(-18.5) μm (average 92.5 × 15 μm) clavate or rarely spindle shaped.

(↓) **Pileocystidia** with (1-) 2-4 cells⁵ the terminal cells (14.5-)21.5-41.5(-46.5) × (6-)6.5-11.5(-12.5) μm (average 32.5 × 9 μm), clavate, broadly clavate to utriform, rarely spindle-shaped, obtuse or occasionally acute on its tips.



(↓↓) **Terminal cells of generative hyphae** on the margin of cuticle of the pileus (19-)23.5-48(-52) × 3-4(-4.5) μm (average 36 × 3.5 μm), prevailingly attenuate, but rarely also subulate or spindle-shaped, in the terminal part narrowed to 1,5-2 μm.



Habitat and distribution: growing under various deciduous trees, such as *Quercus*, *Fagus*, *Betula*, *Castanea*. Wide spread and probably fairly common in Europe, known from Italy (Sarnari, 1998), Finland (Knudsen & Stordal, 1992), France (Romagnesi, 1967, Reumaux, Bidaud & Moëne-Loccoz, 1996), Germany (Einhellinger, 1987), Great Britain

(Cooke, 1889) and probably also in other countries of Europe.

Specimens examined: [Slovakia] Slovenské rudohorie Mts., Revúcka vrchovina Mts., Za Peklom, beech forest S from the town of Revúca, alt. ca 315 m, 30.VI.2001, 7.VIII.2001, 12.X.2001, Blanár (SAV). – [Malé Karpaty Mts.] Bratislava - Železná Studienka, 12.VII.1961, Fábry (BRA, as *R. adulterina*). – mont. Bukovské vr., prope Zboj d. Humenné, terr. nat. munit. "Stinská" et in clivo collis analog. humi sub Fagis, alt. 950-1000 m, Kuthan (BRA, as *R. aurora*).

NOTES

My observations on the material of *R. globispora* from Slovakia differs from former published descriptions (Romagnesi 1967, Sarnari 1998) in size of the terminal cells of generative hyphae of epicutis of the pileus and number of septae of pileocystidia. Both Romagnesi and Sarnari indicated just 2-3.5 μm thick terminal cells of the generative hyphae, when I observed 3-4(-4.5) μm thick terminal cells. Thickness of

⁵ Only number of the cells with distinct reaction to sulphurvanillin was observed, the reaction disappears in basal part of the pileocystidia.

pileocystidia of the Slovak collections is in the range of values estimated by the both authors (Sarnari indicate rather thinner pileocystidia). However according to Sarnari, the pileocystidia are 0-2 septate and also Romagnesi shows such unseptate pileocystidia on the accessory figure (Romagnesi 1967, fig. 1075 and 1077 on the page 876). In the Slovak collections, such unseptate pileocystidia (with only one cell with distinct reaction to sulphurvanillin) was very rare, and on the other hand the pileocystidia with 3 septae (4 cells) was rather frequent. Considering large range of different deciduous trees associated with this species and the above mentioned differences in the structure of cuticle of the pileus, I can not exclude a possibility, that *R. globispora* in present sense contain of two different taxa. This question could be answered just after detail study on numerous herbarium and fresh material.

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Slavomír Adamčík: *Russula globispora*. *Catathelasma* (3): 17-21, 2002.

Russula globispora, druh ľahko určiteľný mikroskopicky za pomoci veľkých výtrusov v kombinácii s inými znakmi *Russula* sek. *Maculantinae*, bol objavený v materiáli zaslanom D. Blanárom z Revúckej vrchoviny. Revízia náhodne vybraných položiek z Prírodovedného múzea v Bratislave potvrdila, že tento druh bol v minulosti na Slovensku už zbieraný a dokladovaný pod inými menami.

FORAYS and MEETINGS

14th Congress of European Mycologists

September 22-27, 2003, Crimea, Ukraine

The location of this Congress will be Katsiveli, near Yalta, Crimea's lovely seaside resort. The centre is a modern purpose-built retreat for senior members of the Ukrainian Academy of Sciences. Congress is organized by M.G. Kholodny Botanical Institute and D.K. Zabolotny Institute of Microbiology & Virology (National Academy of Sciences of Ukraine), and supported by The Darwin Initiative, The Royal Society, and CABI Bioscience.

More info at www.biodiversity.ac.psiweb.com/14cem/index.htm.

21st European Cortinarius Foray

September 28 - October 4, 2003, Podbanské, northern Slovakia

The foray is organized by the Slovak Mycological Society in co-operation with the association Journées Européennes des Cortinaires. Institute of Botany and Slovak National Museum – Natural History Museum are supporting institutions.

The village of Podbanske is situated in the western part of the Tatras National Park, ca 20 km north-east of the city of Liptovský Mikuláš. Hotel Permon, where the participants will stay, is one of the finest in the High Tatras satisfying even the most demanding visitors. Accommodation is provided in single, double, 3-bed room, and suites (all with TV set, radio, telephone, mini-bar and refrigerator). Food services are provided in the hotel restaurant with wide assortment of Slovak cuisine meals and house specialities. Hotel facilities include swimming pool, recondition services, bowling hall, tennis court and night club. Foray participants will use a spacious working room for their mycological investigations (microscopes, dryers, display area) and a conference hall for lectures and presentations.

Those who would like to receive information brochure with detailed program and a registration form should pre-register by sending their name, postal and e-mail addresses to botumyko@savba.sk (subject: JEC21, pre-registration)

More information will be posted on web sites www.jec-cortinarius.org and www.fungi.sav.sk/sms.

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