Polish Botanical Journal

50(2), 2005

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NEW AND RARE CHRYSOPHYCEAN STOMATOCYSTS FROM THE BRYOPHYTE SPRING IN THE TATRA NATIONAL PARK, POLAND

Jolanta Piątek

Abstract. During investigation of a soft-water bryophyte spring on the western slope of Mały Kościelec Mt. in the Tatra National Park in Poland, eleven chrysophycean stomatocysts were found. Three morphotypes are new to science, one is new to Europe, three are new to Poland, and the remaining four have already been reported from other Polish locations. The stomatocysts are illustrated with SEM micrographs and described according to International Statospore Working Group (ISWG) guidelines.

Key words: Stomatocysts, chrysophytes, new morphotypes, taxonomy, spring vegetation, Tatra National Park, Poland

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Polish Botanical Journal 50(2): 117–137, 2005

THE GENUS *BOLBOSCHOENUS* (CYPERACEAE) IN POLAND

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Abstract. Presented here is the first revision of Polish *Bolboschoenus* (Asch.) Palla (Cyperaceae), recognizing four species in Poland: *B. laticarpus* Marhold, Hroudová, Zákravský & Ducháček, *B. maritimus* (L.) Palla, *B. planiculmis* (F. Schmidt) T. V. Egorova, and *B. yagara* (Ohwi) Y. C. Yang & M. Zhan. The paper provides a key for identification of *Bolboschoenus* species, and covers morphology, variability, distribution, habitat and chromosome numbers. Three species, *B. laticarpus*, *B. planiculmis* and *B. yagara*, are reported from Poland for the first time.

Key words: *Bolboschoenus,* taxonomy, variability, habitat, distribution, chromosome number, Poland

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Polish Botanical Journal 50(2): 139–143, 2005

CHROMOSOME NUMBERS OF POLISH *HIERACIA* (ASTERACEAE)

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Abstract. Chromosome numbers are given for the following species of *Hieracium* L. from Poland: subgenus *Hieracium* – *H. barbatum* Tausch (2n = 27), *H. bupleuroides* C. C. Gmelin (2n = 36), *H. laevigatum* Willd. (2n = 27), *H. laurinum* Arvet-Touvet (2n = 18), *H. sabaudum* L. (2n = 27, 36), *H. umbellatum* L. (2n = 18), *H. villosum* Jacq. (2n = 36); subgenus *Pilosella* (Hill.) Gray – *H. lactucella* Wallr. (2n = 18), *H. schultesii* F. W. Schultz (2n = 36). The chromosome number of *H. barbatum* is published for the first time. The diploid number is reported for the first time for *H. laurinum*. Except for *H. umbellatum* and *H. villosum*, the chromosome counts are reported for the first time from Poland.

Key words: Asteraceae, *Hieracium*, chromosome numbers, karyotypes, Poland

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Polish Botanical Journal 50(2): 145–151, 2005

VANKYA VAILLANTII (USTILAGINOMYCETES) ON *SCILLA* IN CENTRAL EUROPE

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Abstract. The paper describes and illustrates *Vankya vaillantii* (Tul. & C. Tul.) Ershad on *Scilla vindobonensis* Speta subsp. *vindobonensis*, *Scilla vindobonensis* subsp. *borhidiana* Z. Kereszty and a hexaploid population of *S. bifolia* agg. from Austria, Hungary and Slovakia. Some information on spore characters of *Vankya*

vaillantii from different host plants is provided. The taxonomy and distribution of this smut fungus in Central Europe are discussed.

Key words: *Vankya*, Urocystaceae, smut fungi, *Scilla bifolia* agg., Central Europe

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Polish Botanical Journal 50(2): 153–158, 2005

TAXONOMY AND DISTRIBUTION OF *MICROBOTRYUM PINGUICULAE*, A SPECIES OF SMUT FUNGI NEW FOR THE CARPATHIANS

Marcin Piątek, Wiesław Mułenko, Jolanta Piątek & Kamila Bacigálová

Abstract. *Microbotryum pinguiculae* (Rostr.) Vánky on *Pinguicula alpina* L., a rarely collected smut fungus belonging to the genus Microbotryales in the class Urediniomycetes, is reported for the first time from the Carpathians as well as from Poland and Slovakia. The species is described and illustrated by a drawing of infected plants and SEM micrographs of spores. *Microbotryum pinguiculae* is a very rare fungus parasitizing various species of *Pinguicula* (Lentibulariaceae). It is known from Europe, Asia and North America, where it shows a true arctic-alpine type of distribution. Taxonomically its generic position is not completely stabilized and needs further studies employing modern techniques (e.g., molecular, ultrastructural).

Key words: *Microbotryum*, *Pinguicula alpina*, smut fungi, Microbotryales, Urediniomycetes, Carpathians, Poland, Slovakia

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Polish Botanical Journal 50(2): *159–161*, *2005*

TETRAPLODON MNIOIDES (BRYOPSIDA, SPLACHNACEAE) IN THE TATRA NATIONAL PARK (POLAND)

Beata Cykowska

Abstract. Six new records of the coprophilous altimontane moss species *Tetraplodon mnioides* (Sw. *ex* Hedw.) Bruch & Schimp. are provided for the Polish Tatra Mts in the Western Carpathians. The ecology and current distribution of the species in the Tatras National Park is described.

Key words: mosses, *Tetraplodon mnioides*, distribution, ecology, Tatra National Park, Tatra Mts, Carpathians, Poland

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Polish Botanical Journal 50(2): 163–184, 2005

THE GENUS *LEPRARIA* (LICHENIZED ASCOMYCOTA) IN THE BESKID SĄDECKI MTS (WEST CARPATHIANS, S POLAND)

Martin Kukwa & Lucyna Śliwa

Abstract. A comprehensive analysis of the species diversity and distribution of *Lepraria* Ach. in part of the Polish Carpathians is presented. The treatment is based

on morphological and chemical examination of a large collection of the genus originating from the Beskid Sądecki Mts. Thirteen species occur in the region: *L. borealis* Lohtander & Tønsberg, *L. caesioalba* (de Lesd.) J. R. Laundon, *L. crassissima* (Hue) Lettau, *L. diffusa* (J. R. Laundon) Kukwa, *L. eburnea* J. R. Laundon, *L. elobata* Tønsberg, *L. incana* (L.) Ach., *L. jackii* Tønsberg, *L. lobificans* Nyl., *L. membranacea* (Dicks.) Vain., *L. neglecta,* (Nyl.) Erichsen, *L. rigidula* (de Lesd.) Tønsberg and *L. vouauxii* (Hue) R. C. Harris. Distribution maps are provided for all species, and their habitat requirements and general distribution in Poland and the Carpathians are discussed. New records for several Carpathian regions are supplied.

Key words: *Lepraria*, distribution, habitat, Beskid Sądecki Mts, Carpathians, Poland

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Polish Botanical Studies 50(2): 185–207, 2005

PARASITIC MICROFUNGI OF THE TATRA MOUNTAINS. 1. TAPHRINALES

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Abstract. A list of species and the distribution of the members of Protomycetaceae and Taphrinaceae (Taphrinales, Ascomycota) in the Tatra Mts are given. Noted in the area were 20 species of fungi parasitizing 33 species of plants, including 4 species of the genus *Protomyces* Unger on 16 host plants, 3 species of the genus *Protomycopsis* Magn. on 4 species of host plants, and 13 species of the genus *Taphrina* Fr. on 14 species of host plant.

Key words: Protomycetaceae, Taphrinaceae, Ascomycota, Western Carpathians, Tatra Mts, Slovakia, Poland

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Polish Botanical Journal 50(2): 209–212, 2005

PARASITIC MICROFUNGI OF THE TATRA MOUNTAINS. 2. *PSEUDOCERCOSPORELLA TATRENSIS* SP. NOV. ON *ACONITUM FIRMUM* SUBSP. *FIRMUM*

Wiesław Mułenko & Kamila Bacigálová

Abstract. *Pseudocercosporella tatrensis* Mułenko & Bacigálová *sp. nov.* is described and illustrated from living leaves of *Aconitum firmum* Rchb. subsp. *firmum* collected in the Tatra National Park (Western Carpathians, Poland). The new species is discussed and compared with other species occurring on members of the plant family Ranunculaceae.

Key words: mycobiota, new species, mitosporic fungus, hyphomycetes, Poland

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Polish Botanical Journal 50(2): 213–219, 2005

VAUCHERIA DICHOTOMA AND BACTERIA IN THE SULPHURIC SALINE HABITATS OF THE OWCZARY RESERVE (CENTRAL POLAND)

Jolanta Piątek & Marcin Piątek

Abstract. The occurrence of *Vaucheria dichotoma* (L.) C. Agardh and two sulphuric and halophilous bacteria, *Thiocystis violacea* Vinogradskij and *Thiothrix annulata* Molisch, in the Owczary Reserve in central Poland is briefly discussed. All three organisms are described and illustrated. *Vaucheria dichotoma* and *Thiocystis violacea* are considered to be facultative halophytes, while *Thiothrix annulata* probably should be treated as an obligatory halophyte.

Key words: *Vaucheria*, bacteria, sulphuric-salt spring, marsh, Owczary Reserve, Poland

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Polish Botanical Journal 50(2): 221–224, 2005

PLUTEUS AURANTIORUGOSUS (FUNGI, AGARICALES) IN POLAND

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Abstract. The paper reviews the localities of *Pluteus aurantiorugosus* (Trog) Sacc. in Poland and presents a new one from the Mazovia region.

Key words: agaricoid fungi, *Pluteus aurantiorugosus*, distribution, Poland

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Polish Botanical Journal 50(2): 225–231, 2005

IN SITU INOCULATION OF LARCH WITH THE THREATENED WOOD-DECAY FUNGUS *FOMITOPSIS OFFICINALIS* (BASIDIOMYCOTA) – EXPERIMENTAL STUDIES

Jacek Piętka & Andrzej Grzywacz

Abstract. Pilot studies aimed at devising methods of active *in situ* protection of *Fomitopsis officinalis* (Vill.: Fr.) Bond. & Sing. are described. Thirty healthy larches in the Rudka Sanatoryjna Nature Reserve and 20 larch stem sections in an open area of the Mińsk Forest District were inoculated with larch wood overgrown with *F. officinalis* mycelium. This trial of artificial infection can be considered successful, as live mycelium of *F. officinalis* was recorded from cut test trees and 14 stem sections three years after the experiment began.

Key words: active protection, tree inoculation, *in vitro* culture, PCR-RFLP

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EPIGLOEA MEDIOINCRASSATA (EPIGLOEACEAE, NON-LICHENIZED ASCOMYCOTA), A SPECIES NEW TO POLAND

Beata Cykowska & Adam Flakus

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