



2ND INTERNATIONAL CONFERENCE
ON **BOTANY** AND **MYCOLOGY**, SOFIA

19–20 SEPTEMBER 2022, SOFIA, BULGARIA



PROGRAMME BOOK



ORGANIZERS



Cover illustrations: *Convolvulus persicus* L., Bulgaria (left, photograph by V. Vladimirov), and *Ramalina breviscula* (Nyl.) Nyl., Bulgaria (right, photograph by V.V. Shivarov).

Edited by Cvetomir M. Denchev & Vladimir Vladimirov
Institute of Biodiversity and Ecosystem Research at Bulgarian Academy of Sciences & MYCOBIOTA



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Teodor T. Denchev	Institute of Biodiversity and Ecosystem Research, Bulgaria
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Yuri Novozhilov	Komarov Botanical Institute, Russia
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Ertuğrul Sesli	Trabzon University, Turkey
Sergey Volobuev	Komarov Botanical Institute, Russia
Georgios I. Zervakis	Agricultural University of Athens, Greece



MONDAY, 19 SEPTEMBER 2022

▼ MORNING

08:40–09:00 (UTC+3) >> REGISTRATION

08:40–09:00 Registration

09:00–09:05 (UTC+3) >> OPENING CEREMONY

09:00–09:05 WELCOME: Cvetomir M. Denchev & Vladimir Vladimirov, Conference Co-Chairs

09:05–09:40 (UTC+3) >> PLENARY LECTURE

CHAIR: Vladimir Vladimirov

09:05–09:35 Marina Vynia & **Maria Panitsa**

Functional diversity of plant species on urban areas: the case study of the city of Patras (W Peloponnisos, Greece)

Followed by discussion

09:40–12:50 (UTC+3) >> SESSION 1: PLANT SYSTEMATICS, FLORISTICS, AND VEGETATION SCIENCE

CHAIR: Kiril Vassilev

09:40–09:55 **Adam Kantor**, Marek Šlenker, Karol Marhold, Terezie Mandáková, Marek Slovák & Judita Zozomová-Lihová

Phylogenomic studies of *Cardamine* (*Brassicaceae*) provide new insights into the evolution and phylogeographic history of the Balkan mountain flora

09:55–10:10 **Elina Yankova-Tsvetkova**, Svetlana Bancheva & Vladimir Vladimirov

Reproductive traits in two alpine endemic species of *Campanulaceae* in the Bulgarian flora

10:10–10:25 **Antoaneta Petrova**, Vladimir Vladimirov & Boris Assyov

The first record of a species from the *Senecio nemorensis* group (*Asteraceae*) in the Bulgarian flora

10:25–10:40 Clemens Pachschröll, Kit Tan, **Lulezim Shuka**, Margarita Lachmayer & Dieter Reich
Centaurea vlachorum (*Asteraceae*) in the Balkan Peninsula

10:40–10:55 **Karen Gil-Amaya**, Melania Fernández & Adam Karremans

Pollination ecology of *Dracula* (*Pleurothallidinae*): *D. erythrochaete* as a case of food deception in a fungal mimicry system

Followed by discussion

11:10–11:20 Break

CHAIR: Vladimir Vladimirov

11:20–11:35 **Melania Fernández**, Marco Cedeño & Jyotsna Sharma

Near-neighbor tropical epiphytic orchids keep distinct mycorrhizal communities across their distribution in Costa Rica



- 11:35–11:50 **James Lee Tsakalos**, Carlos Carmona, Stefano Chelli, Gianluigi Ottaviani, Giandiego Campetella, Sandor Bartha & Roberto Canullo
Long-term monitoring reveals contrasting above and belowground functional responses of forest understory plants to climate
- 11:50–12:05 **Zhu Zhengxue**, Stefano Chelli, James Lee Tsakalos, Nicola Puletti, Francesco Chianucci, Sandor Bartha, Roberto Canullo & Giandiego Campetella
How does understory plant diversity vary along a forest succession gradient in central Italy?
- 12:05–12:20 Danijela Stešević, Martin Magnes, Branko Anđić, Milica Stanišić-Vujačić, **Kiril Vassilev**, Momchil Nazarov, Renata Čušterevska, Vlado Matevski, Đorđije Milanović, Halil Markišić, Urban Šilc & Danka Caković
Preliminary results of the study on diversity of mesoxerophilous *Ramonda serbica* plant communities
- 12:20–12:35 **Beloslava Genova**, Momchil Nazarov, Gana Gecheva, Katerina Mincheva, Stoyan Georgiev, Nikolay Velev & Kiril Vassilev
Classification of hydrophytic and hygrophytic vegetation on the territory of Brezovo and Rakovski municipalities (Preliminary results)

Followed by discussion

12:50–13:50 (UTC+3) >> BREAK

12:50–13:50 Lunch Break

▼ AFTERNOON

13:50–15:00 (UTC+3) >> POSTER SESSION 1: PLANT SYSTEMATICS, FLORISTICS, AND VEGETATION SCIENCE

CHAIR: Daniella Ivanova

- P1 **Mihaela Beshkova**, Borislava Gyosheva, Detelina Belkinova, Stefania Klayn & Ivan Botev
Comparison of phytoplankton community structure between sites with different macrophyte communities in three Bulgarian shallow water bodies
- P2 **Nadja Ognjanova-Rumenova** & Ivan Botev
Rare and endangered epilithic diatoms from high mountain lakes, the Rila National Park, Bulgaria
- P3 **Anatoliy Levanets** & Sanet Janse van Vuuren
First record of the genus *Triplastrum* (*Desmidiaceae*, *Zygnematophyceae*) in Mozambique
- P4 **Daniella Ivanova**
Chromosome numbers of some rare and threatened ferns in Bulgaria
- P5 **Georgi Kunev**, Gabriela Petrova & Kalina Pachedjieva
First report on the occurrence of *Minuartia globulosa* (*Caryophyllaceae*) in Bulgaria
- P6 **Elina Yankova-Tsvetkova** & Rozalia Nikolova
On the reproductive biology of *Arctostaphylos uva-ursi* (*Ericaceae*)



- P7 **Donald Shuka**, Abdulla Diku & Kit Tan
Three new *Centaurea* species for Albania (Korça district)
- P8 **Stoyan Stoyanov** & Yulian Marinov
Cirsium eriophorum (Asteraceae), a new record for the Bulgarian flora
- P9 **Vladimir Vladimirov**, Stoyan Stoyanov & Svetlana Bancheva
The first report of a species of European Community interest in the Bulgarian flora:
Colchicum arenarium (Colchicaceae)
- P10 **Antoaneta Petrova**, Irina Gerasimova, Diana Venkova & Rossen Vassilev
Dactylorhiza incarnata in Bulgaria: Distribution and population size
- P11 **Georgi Kunev**
New chorological records on some representatives of Bulgarian vascular flora
- P12 **Nikolay Velez**, Borislav Grigorov, Stoyan Georgiev, Momchil Nazarov, Beloslava Genova & Kiril Vassilev
Plant communities dominated by invasive alien species

15:00–15:20 (UTC+3) >> SESSION 2: APPLIED BOTANY

CHAIR: Dessislava Dimitrova

- 15:00–15:15 **Werther Guidi Nissim**, Emily Palm & Massimo Labra
New insights for a sustainable use of phytoremediation for brownfield clean-up
Followed by discussion

15:20–15:40 (UTC+3) >> POSTER SESSION 2: APPLIED BOTANY

CHAIR: Boriana Sidjimova

- P13 **Ivanka Semerdjieva**, Tzenka Radoukova, Valtcho Zheljazkov, Iva Dincheva & Daniela Borisova
Chemical profile of *Pinus sylvestris* L. leaf essential oil in Bulgaria
- P14 Milena Nikolova, **Elina Yankova-Tsvetkova**, Tatyana Stefanova, Marina Dimitrova & Strahil Berkov
Exudate compounds of *Primula veris* leaves and their biological activity
- P15 **Svetlana Bancheva**, Natale Badalamenti & Maurizio Bruno
The essential oil composition of the endemic plant species *Centaurea vandasii* and chemotaxonomy of section *Phalolepis* (Asteraceae)

15:40–16:35 (UTC+3) >> SESSION 3: PLANT CONSERVATION

CHAIR: Iva Doycheva

- 15:40–15:55 **Lukas Petrulaitis** & Zigmantas Gudžinskas
Silent invasion of *Cornus sanguinea* subsp. *australis* in Lithuania
- 15:55–16:10 **Antoaneta Petrova**, Diana Venkova, Irina Gerasimova & Rossen Vassilev
Population dynamic of a population of *Dactylorhiza kalopissii* with analyses of *in situ* conservation activities
- 16:10–16:25 **Vladimir Vladimirov**, Alexander Tashev & Nikolay Tashev
The invasive alien species of *Heracleum* in the Bulgarian flora: current distribution and eradication options
Followed by discussion



16:35–17:15 (UTC+3) >> POSTER SESSION 3: PLANT CONSERVATION

CHAIR: Nikolay Velev

- P16 **Daniella Ivanova**, Valeri Georgiev & Sonya Tsoneva
Marsilea quadrifolia L.: recent observations on its distribution, threats and conservation measures in Bulgaria
- P17 **Vladimir Trifonov** & Vladimir Vladimirov
New data about the distribution of *Arenaria filicaulis* (*Caryophyllaceae*) in the Bulgarian flora
- P18 **Pavel Kopecký**, Lucie Koblrová, Jan Brus, Martin Duchoslav & Petr Smýkal
Is there a relationship between the bird vetch (*Vicia cracca*) seed dormancy level and the environment of original habitat?
- P19 **Svetlana Bancheva**, Ivan Kafedzhiev & Malina Delcheva
Current data on the distribution of *Centaurea wagenitziana* (*Asteraceae*) in Bulgaria
- P20 **Maria Panitsa**, Panayiotis Trigas, Ioannis P. Kokkoris, Konstantinos Kougioumoutzis, Maria Tsakiri, Koumoutsou Eleni, Alexandros Papanikolaou, Antonios Iatrou & Grigorios Iatrou
Plant Micro-Reserve Network planning on the Greek mainland: PMR within the protected areas of Chelmos-Vouraikos Management Unit (N Peloponnisos, Greece)
- P21 **Vladimir Vladimirov** & Alexander Tashev
Invasive alien vascular plants in the NATURA 2000 habitat 'Fixed coastal dunes with herbaceous vegetation (grey dunes)' (h2130): a case study from Bulgaria



TUESDAY, 20 SEPTEMBER 2022

▼ MORNING

09:00–09:40 (UTC+3) >> SESSION 4: FUNGAL TAXONOMY AND PHYLOGENY

CHAIR: Cvetomir M. Denchev

- 09:00–09:15 **Ichen Tsai** & Marco Thines
Spotlight on *Rhipidiales*, a ubiquitous but neglected order of complex oomycetes
- 09:15–09:30 **Teodor T. Denchev**, Martin Kemler & Cvetomir M. Denchev
Molecular and morphological evidence reveals a new smut fungus, *Microbotryum waldsteinianum* (*Microbotryaceae*), on *Silene waldsteinii* (*Caryophyllaceae*) from Bulgaria
- Followed by discussion

09:40–10:30 (UTC+3) >> POSTER SESSION 4: FUNGAL TAXONOMY AND PHYLOGENY

CHAIR: Boris Assyov

- P22 **Teodor T. Denchev**, Cvetomir M. Denchev & Martin Kemler
New records of caryophyllaceous plant-parasitic members of *Microbotryum* (*Microbotryaceae*) from Greece
- P23 **Teodor T. Denchev** & Cvetomir M. Denchev
Contribution to the smut fungi (*Ustilaginomycetes*) of Greece
- P24 **Dóra Varga**, Dániel G. Knapp, Gábor M. Kovács & Bálint Dima
Amanita sect. *Vaginatae* in Hungary: morphology, phylogeny and taxonomic revision
- P25 **Anatoliy Levanets**
Rare orange tropical *Agaricus trisulphuratus* and *A. crocopleus* (*Agaricaceae*): global distribution and new records
- P26 **Elias Polemis**, Vassiliki Fryssouli, Georgios Konstantinidis, Triantafyllos Tsambazis, Boris Assyov, Georgios Koutrotsios & Georgios I. Zervakis
Rare species of the family *Boletaceae* in Greece: four new records and notes on six additional taxa of particular conservation interest
- P27 **Boris Assyov**, Teodor T. Denchev & Cvetomir M. Denchev
New species for the Bulgarian mycobiota from *Sphagnum*-mires
- P28 **Boris Assyov**, Teodor T. Denchev & Cvetomir M. Denchev
New species of *Lactarius* and *Lactifluus* (*Russulaceae*, *Russulales*) for the Bulgarian mycobiota
- P29 **Boris Assyov**, Monica Slavova, Teodor T. Denchev & Cvetomir M. Denchev
Ombrophila morthieriana found in habitats with *Pinus peuce* in Bulgaria
- P30 **Cvetomir M. Denchev**, Veselin V. Shivarov & Teodor T. Denchev
Estimation of the species number of lichenized and lichenicolous fungi in Bulgaria



10:30–10:50 (UTC+3) >> POSTER SESSION 5: FUNGAL CONSERVATION

CHAIR: Teodor T. Denchev

- P31 **Veselin V. Shivarov**, Cvetomir M. Denchev & Teodor T. Denchev
Towards a Red List of lichenized fungi in Bulgaria
- P32 **Veselin V. Shivarov**, Cvetomir M. Denchev & Teodor T. Denchev
Conservation status assessment of *Teloschistes chrysophthalmus* (*Teloschistaceae*,
Lecanoromycetes) in Bulgaria
- P33 **Boris Assyov**, Monica Slavova, Teodor T. Denchev & Cvetomir M. Denchev
Comparison of diversity of larger fungi in natural stands and artificial plantations of
the Balkan endemic *Pinus peuce*

10:50–11:10 (UTC+3) >> SESSION 6: SUSTAINABLE USE OF PLANTS AND FUNGI

CHAIR: Milena Nikolova

- 10:50–11:05 **Dessislava Dimitrova**, Yulia Bosseva & Teodora Ivanova
East vs. West wild and semi-cultivated leafy greens in Bulgaria
Followed by discussion

11:10–11:20 (UTC+3) >> POSTER SESSION 6: SUSTAINABLE USE OF PLANTS AND FUNGI

CHAIR: Teodora Ivanova

- P34 **Vanya Boneva**, Dessislava Dimitrova & Neli Grozeva
Layered Pelin Wine from Zmeyovo – Diversity of herbs and their sustainable use

11:20–11:40 (UTC+3) >> POSTER SESSION 7: CURRENT RESEARCH PROJECTS IN BOTANY AND MYCOLOGY

CHAIR: Elina Yankova-Tsvetkova

- P35 **Vladimir Trifonov** & Vladimir Vladimirov
Effectiveness of selected protected areas in the Eastern Rhodope Mts, Bulgaria, for
the protection of vascular plant species of conservation concern
- P36 **Stoyan Stoyanov**, Boryana Sidjimova, Vladimir Vladimirov, Nikolay Velev, Rayna
Natcheva, Daniella Ivanova, Svetlana Bancheva, Malina Delcheva, Ina Aneva, Peter
Dimov, Boryanka Traykova, Peter Zhelev, Antoaneta Petrova, Diana Venkova, Irina
Gerasimova & Rossen Vassilev
Implementation of *in situ* and *ex situ* conservation measures for 29 plant species of
high conservation concern in the Bulgarian flora
- P37 **Svetlana Bancheva** & Vladimir Vladimirov
Establishment of a National center for *ex situ* conservation and propagation of
endangered plant species from the Bulgarian flora and a visitor center at the Bo-
tanical Garden of the Bulgarian Academy of Sciences

11:40–12:00 (UTC+3) >> CLOSING CEREMONY

12:00 (UTC+3) >> END OF THE CONFERENCE

