



## **Joint ESENIAS and DIAS Scientific Conference 2023 and 12th ESENIAS Workshop**

### **Globalisation and invasive alien species in the Black Sea and Mediterranean regions – management challenges and regional cooperation**

**11–14 October 2023  
Varna, Bulgaria**

#### **Organised by:**

Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, Bulgaria  
(IBER-BAS)

Faculty of Agronomy, University of Forestry, Bulgaria

East and South European Network for Invasive Alien Species (ESENIAS)

Danube Region Invasive Alien Species Network (DIAS)

Institute of Oceanology, Bulgarian Academy of Sciences, Bulgaria (IO-BAS)

International Association for Danube Research (IAD)

SuEkos, Türkiye

#### **Supported by:**



Bulgarian Academy of Sciences



National Science Fund of Bulgaria  
КП-06-МНФ/34/25.08.2023



## Organising Committee

Teodora Trichkova, IBER-BAS, ESENIAS, DIAS, IAD (Chair)  
Vladimir Vladimirov, IBER-BAS, ESENIAS, DIAS (Co-chair)  
Rumen Tomov, University of Forestry, ESENIAS, DIAS (Co-chair)  
F. Güler Ekmekçi, Hacettepe University, ESENIAS (Co-chair)  
Paraskevi Karachle, HCMR, ESENIAS (Co-chair)  
Ahmet Uludağ, ÇOMÜ, ESENIAS, DIAS (Co-chair)

Elena Tsvetkova, University of Forestry, ESENIAS  
Elena Zhekova, IO-BAS  
Hristina Kalcheva, IBER-BAS, ESENIAS, DIAS, IAD  
Herdem Aslan, SuEkos  
Katrín Teubner, University of Vienna, IAD  
Kremena Stefanova, IO-BAS, IAD  
Nina Dzembekova, IO-BAS  
Petya Ivanova, IO-BAS, IAD  
Polina Nikova, IBER-BAS, ESENIAS, DIAS  
Valentina Todorova, IO-BAS  
Violeta Tyufekchieva, IBER-BAS, ESENIAS, DIAS, IAD

## Scientific Committee

Teodora Trichkova, Bulgaria (Chair)  
Vladimir Vladimirov, Bulgaria (Co-chair)  
Rumen Tomov, Bulgaria (Co-chair)  
F. Güler Ekmekçi, Türkiye (Co-chair)  
Paraskevi Karachle, Greece (Co-chair)  
Ahmet Uludağ, Türkiye (Co-chair)  
Ali Serhan Tarkan, Türkiye  
Angela Bănăduc, Romania  
Argyro Zenetos, Greece  
Baran Yoğutçuoğlu, Hacettepe University  
Barbara Stammel, Germany  
Bella Japoshvili, Georgia  
Bojan Konstantinovic, Serbia  
Bojan Simovski, R. North Macedonia  
Boris Nikolov, Bulgaria  
Dan Cogălniceanu, Romania  
Dinka Matosevich, Croatia  
Doru Bănăduc, Romania  
Elena Tricarico, Italy  
Giuseppe Brundu, Italy  
Halil Ibrahimi, Kosovo  
Hristina Kalcheva, Bulgaria  
Katrín Teubner, Austria  
Khawar Jabran, Türkiye  
Konstantin Zdraveski, R. North Macedonia  
Kremena Stefanova, Bulgaria  
Leopold Füreder, Austria  
Luis Popa, Romania  
Lyudmila Kamburska, Italy  
Mahir Kanyılmaz, Türkiye  
Marina Piria, Croatia  
Marius Skolka, Romania

Markéta Ondračková, Czech Republic  
Mehmet Ali Turan Koçer, Türkiye  
Milcho Todorov, Bulgaria  
Milka Glavendekić, Serbia  
Momir Paunović, Serbia  
Necmi Aksoy, Türkiye  
Nejc Jogan, Slovenia  
Nina Dzembekova, Bulgaria  
Oana Popa, Romania  
Paulina Anastasiu, Romania  
Pavel Jurajda, Czech Republic  
Péter Borza, Hungary  
Petra Kutleša, Croatia  
Petya Ivanova, Bulgaria  
Predrag Simonović, Serbia  
Riccardo Scalera, Italy  
Roxana Ciceoi, Romania  
Sajmir Beqiraj, Albania  
Sanja Radonjić, Montenegro  
Sasho Trajanovski, R. North Macedonia  
Sava Vrbničanin, Serbia  
Şerife Gülsün Kırankaya, Türkiye  
Simeon Lukanov, Bulgaria  
Sonya Uzunova, Bulgaria  
Stelios Katsanevakis, Greece  
Sven Bacher, Switzerland  
Sven Jelaska, Croatia  
Valentina Todorova, Bulgaria  
Violeta Tyufekchieva, Bulgaria  
Yordan Koshev, Bulgaria  
Yuriy Kvach, Ukraine  
Zdravko Hubenov, Bulgaria

## Conference Overview

Globalisation, in the context of biological invasions, is the increased movement of species, both intentional and unintentional, around the world. This happens through different vectors and pathways related to trade, tourism, transport, including shipping, corridors, etc. Introduction and establishment of the invasive alien species (IAS) is one of the most significant threats to biological diversity, in addition to their adverse ecological, social and economic impact. There are several instruments developed and applied to manage introduction pathways and to mitigate the impact of already established and widespread IAS at global, EU, regional and national levels, e.g. Convention on Biological Diversity, Ballast Water Management Convention, EU Regulation 1143/2014 on IAS, and EU Strategy for the Danube Region. However, managing IAS, especially in coastal and marine environments, poses many challenges, such as early detection of their presence, assessment of their impact, selection and application of effective measures.

One of the regions most affected by IAS is the Mediterranean Sea. According to recent publications (Katsanevakis et al. 2016, Costello et al. 2021, Zenetos et al. 2022, Tsirintanis et al. 2022), it has the highest number of alien species globally – over 1000 marine alien species introduced, more than 750 with established populations and more than 75 IAS with significant adverse effects on native biodiversity, ecosystem services and human health. The number of alien species in the Black Sea region is also comparatively high, e.g. the marine species reaching 156 in Ukraine, 74 in Bulgaria, and 54 in Romanian part (Skolka M. 2023). Moreover, the rate of introduction and establishment of alien species in those seas and associated regions (freshwater and terrestrial environments) is accelerating.

Networking and regional cooperation in different scales is crucial for the management of IAS and can facilitate the implementation of existing IAS instruments in order to protect biodiversity and ecosystems.

This conference is the fifth one organised jointly in frames of the networks ESENIAS and DIAS, focusing on the topic: ‘Globalisation and invasive alien species in the Black Sea and Mediterranean regions – management challenges and regional cooperation’. It will again highlight the importance of regional cooperation for finding innovative solutions to IAS issues.

The conference aims at:

- Update on current ESENIAS and DIAS project activities and outcomes
- Exchange of information on other IAS related initiatives carried out in the region, such as national and local monitoring programmes, risk assessments, pathway analyses and action plans, control and eradication projects, management plans and national strategies, citizen science activities and responsibilities, data planning and management
- Discuss and propose innovative approaches and solutions to implementation of IAS research and management strategies at regional level
- Enhance cooperation and networking among scientists in the ESENIAS and DIAS regions and with other networks, organisations and projects in order to build capacity and raise awareness on IAS.

## Scientific Topics

- 1. Invasive alien species traits and trends** – invasive alien species introduction and spread, biological and ecological traits; characteristics of recipient environment; invasive alien species and climate change; viruses, bacteria and other small organisms as IAS
- 2. Vectors and pathways for invasive alien species introductions and spread** – analysis, prioritisation, action plans
- 3. The Danube River as invasive alien species corridor** – priority species for the Danube Region, impact on threatened species, specificity of biological invasions in the Lower, Middle and Upper Danube River sections
- 4. Invasive alien species impact** – impact on biodiversity and ecosystem services, impact on human health, safety and the economy; pests and pathogens; adverse impact on protected areas, endangered species and habitats
- 5. Invasive alien species prevention and management** – early detection and rapid eradication, surveillance systems; risk assessment and horizon scanning; control and containment measures; restoration of damaged ecosystems; education, citizen science, strategies, policy and legislation
- 6. Management and sharing of IAS data** – IAS networks and information systems, databases, data planning and management
- 7. Other topics** – general aspects related to the quality of the aquatic and terrestrial environments and associated biological communities, which may influence the introduction and spread of IAS, as well as the application of prevention and management measures.



# CONFERENCE PROGRAMME

**11th October 2023**

09.30 – 10:00 **Opening of the registration**

10:00 – 10:30 **Opening of the conference and welcome of participants**

Dr. Teodora Trichkova, Chair ESENIAS and DIAS

Dr. Vladimir Vladimirov, Director of IBER-BAS

Dr. Kremena Stefanova, Vice Director of IO-BAS

Academician Julian Revalski, President of the Bulgarian Academy of Sciences

Mr. Julian Popov, Minister of Environment and Water

## Session 1

**Chairs: F. Güler Ekmekçi, Rumen Tomov**

### **Keynote presentation 1**

10:30 – 11:00 **Ana Cristina Cardoso, Eugenio Gervasini, Chiara Magliozzi** – European Alien Species Information Network at the interface between science and policy

### **Keynote presentation 2**

11:00 – 11:30 **Teodora Trichkova, Bela Csanyi, Marius Skolka, Yuriy Kvach, Petya Ivanova, Hristina Kalcheva, Momir Paunović** – Contribution of regional networks (ESENIAS, DIAS, IAD) to the invasive alien species management: Danube River Basin case study

### **Keynote presentation 3**

11:30 – 12:00 **Liliana Aurelia Bădulescu, Roxana Ciceoi, Mihaela Iordăchescu, Silviu Ionut Beia, Ramona Popescu** – Regional cooperation for early detection of invasive alien species in East and South European countries

12:00 – 12:15 **Coffee break**

## Session 2

**Chairs: Valentina Todorova, Marian Tudor**

12:15 – 12:30 **Kalina Stoyanova** – Invasive alien species: policies and measures at global, European and national level

12:30 – 12:45 **Teodora Trichkova, Rumen Tomov, Yordan Koshev, Eliza Uzunova, Vladimir Vladimirov et al.** – Development of action plans on the priority pathways of unintentional introduction and spread of invasive alien species in Bulgaria

12:45 – 13:00 **Marina Piria, Ivan Špelić, Ana Štih Koren, Ana Gavrilović, Tena Radočaj, Neven Iveša, Petra Burić, Dragica Šalamon** – Non-native fish species of isolated ponds and canals along the Adriatic Sea coastline that may threaten native turtle communities

13:00 – 14:00 **Lunch break**

### Session 3

**Chairs: Marina Piria, Sashto Trajanovski**

#### **Keynote presentation 4**

14:00 – 14:30 **Paraskevi K. Karachle** – Can there be a bright side of (marine) IAS?

#### **Keynote presentation 5**

14:30 – 15:00 **Marius Skolka** – List of the invasive marine species in the western part of the Black Sea

15:00 – 15:15 **Kremena Stefanova, Elitsa Stefanova, Ivelina Zlateva** – Review of *Mnemiopsis leidyi* last twenty years trend, variability and distribution pattern along the Bulgarian Black Sea coast

15:15 – 15:30 **Polyxeni Kourkoutmani, Evdoxia Iliadou, Christodoulos Rados, Evangelia Michaloudi** – Day-night pattern of the non-indigenous copepod *Pseudodiaptomus marinus* Sato, 1913 in Thessaloniki Bay, North Aegean Sea, Greece

15:30 – 15:45 **Coffee break**

### Session 4

**Chair: Cristina Preda**

15:45 – 16:00 **Valentina Todorova, Marina Panayotova, Valentina Doncheva** – Distribution and impact on benthic habitats of the non-native invasive species *Rapana venosa* in the Bulgarian Black Sea

16:00 – 16:15 **Alexander Varigin** – Asian date mussel *Arcuatula senhousia* captures estuarine habitats in Ukrainian Black Sea waters

16:15 – 16:30 **Gökhan Ballıkaya, Mehmet Aydın** – Threat or benefit? An alien species *Diadema setosum* (Leske, 1778) in the Mediterranean Türkiye

16:30 – 16:45 **Merve Karakus, İsmal Dal, Meltem Buğdaycı Kanlı** – Investigation of the growth characteristics of the pufferfish (*Lagocephalus sceleratus* Gmelin, 1989) in Antalya Bay, Mediterranean Sea

16:45 – 17:00 **Coffee break**

17:00 – 18:30 **Poster Session 1**

**12th October 2023**

### Session 5

**Chair: Katrin Teubner**

#### **Keynote presentation 6**

09:30 – 10:00 **Fitnat Güler Ekmekçi, Şerife Gülsün Kırankaya, Baran Yoğurtçuoğlu** – When beauty becomes pesty: the potential impacts of invasive ornamental fish species in Anatolia, Türkiye

### **Keynote presentation 7**

10:00 – 10:30 **Sasho Trajanovski, Biljana Budzakoska Gjoreska, Sonja Trajanovska, Konstantin Zdraveski** – Lake Prespa (North Macedonia) – Horizon scanning for invasive and alien species using AS-ISK tool

10:30 – 10:45 **Şerife Gülsün Kirankaya, Baran Yoğurtçuoğlu, Fatma Demir, Havva Özer, Fitnat Güler Ekmekçi** – Ecological monitoring of feral populations of two ornamental fish species in the Upper Euphrates (Türkiye)

10:45 – 11:00 **Bella Japoshvili, Madona Varshanidze, Levan Mumladze** – Trends of invasive species investigation in Georgia

11:00 – 11:15 **Yuliia Kutsokon, Volodymyr Yuryshynets, Yuriy Kvach** – Alien fish species and their parasites of a small river (the Zdvyzh River, Dnieper River basin, Ukraine)

11:15 – 11:30 **Polina K. Nikova, Milcho Todorov, Teodora Trichkova** – Pathways of introduction and spread of a recent invader *Micropterus salmoides* (Lacépède, 1802) in Bulgaria

11:30 – 11:45 **Coffee break**

### **Session 6**

**Chair: Marija Smederevac-Lalić**

### **Keynote presentation 8**

11:45 – 12:15 **Katrin Teubner** – Alien plankton species and macrophytes introduced to Danubian countries over decades and their significance for freshwater ecology

12:15 – 12:30 **Chiara Magliozzi, Eugenio Gervasini, Ana Cristina Cardoso** – Spatiotemporal trends of Invasive Alien Species of Union concern in the Danube catchment

12:30 – 12:45 **Konstantin Zdraveski, Sasho Trajanovski, Biljana Budzakoska Gjoreska, Sonja Trajanovska** – Capitalising on invasive alien species for revenue generation and biodiversity conservation in national parks: A comprehensive global analysis

12:45 – 13:00 **Cristina Preda, Laura Abraham, Tim Adriaens, Lissa Breugelmans, David A. Clarke, Lina M. Estupinan-Suarez, Louise Hendrickx, Cang Hui, Katelyn T. Faulkner, Miguel Fernandez, Alexis Joly, Sabrina Kumschick, Ward Langerhaert, Matilde Martini, Melodie McGeoch, Daniyar Memedemin, Joe Miller, Damiano Oldoni, Henrique M. Pereira, Tim Robertson, Duccio Rocchini, Hanno Seebens, Yanina V. Sica, Heliana Teixeira, Maarten Trekels, Toon Vandaele, John R. Wilson, Tsungai A. Zengeya, Peter Desmet, Jasmijn Hillaert, Quentin Groom** – Introducing the B-cubed project in the context of biological invasions

13:00 – 14:00 **Lunch break**

### **Session 7**

**Chair: Antoaneta Petrova**

### **Keynote presentation 9**

14:00 – 14:30 **Vladimir Vladimirov, Ana Petrova** – Alien species of vascular plants first reported for Bulgaria after 2000

- 14:30 – 14:45 **Paulina Anastasiu, Athanasios Alexandru Gavrilidis, Viorica Iulia Miu, Mihăiță Iulian Niculae, Ioana-Minodora Sîrbu, Laurențiu Rozyłowicz, Nicolae Manta** – Updated distribution in Romania of alien plant species of European Union concern
- 14:45 – 15:00 **Markola Saulic, Ivica Djalovic, Darko Stojicevic, Dragana Bozic, Sava Vrbnicanin** – Invasive weed species in Arable Soil Seed Bank in Serbia
- 15:00 – 15:15 **Roxana Ciceoi, Oana Venat, Elena Ștefania Ivan, Vasilica Luchian, Minodora Gutue, Mala-Maria Stavrescu-Bedivan** – Gojiberry - an invasive host plant for an invasive mite
- 15:15 – 15:30 **Preslav Enchev, Yancho Zarev, Ina Kojuharova, Iliana Ionkova** – Searching for beneficial uses of the invasive plant *Phytolacca americana*

15:30 – 15:45 **Coffee break**

### **Session 8**

**Chairs: Paulina Anastasiu, Vladimir Vladimirov**

- 15:45 – 16:00 **Vladimir Vladimirov, Antoaneta Petrova** – New and noteworthy records of alien vascular plants from the Black Sea Coast floristic region of Bulgaria
- 16:00 – 16:15 **Oleksandr L. Savytskyi** – Problems of invasive alien species of Nyzhnyosulsky National Natural Park

16:15 – 17:15 **Poster Session 2**

17:15 – 17:30 **Coffee break**

17:30 – 18:30 **Poster Session 2 (Cont.)**

19:30 **Conference dinner**

## **13th October 2023**

### **Session 9**

**Chairs: Bella Japoshvili, Evangelia Michaloudi**

#### **Keynote presentation 10**

09:30 – 10:00 **Mahir Kanyılmaz, Derya Özcan, Elvan Tercan, Mustafa Altuğ Atalay** – Aquatic invasive non-native species in Türkiye: What has been learned so far?

#### **Keynote presentation 11**

10:00 – 10:30 **Halyna Morhun, Tomasz Rewicz, Michał Grabowski** – Taxonomic status of the Azov-Black Sea populations of the supralittoral genus *Cryptorchestia* (Amphipoda: Talitridae) with remarks of other Ukrainian talitrids

#### **Keynote presentation 12**

10:30 – 11:00 **Mehmet Ekmekçi, Sukran Acikel** – Interacting systems approach to water resources management for sustaining aquatic ecosystems for native fish species

11:00 – 11:15 **Teodora Trichkova, Rumen Tomov, Vladimir Vladimirov, Milcho Todorov, Elena Tsvetkova, Violeta Tyufekchieva, Hristina Kalcheva,**



**Polina K. Nikova** – BioBlitz surveys on invasive alien species in Sofia and Varna Regions: collection of data and raising of public awareness

11:15 – 11:30 **Lyubomir Kenderov, Mihail Iliev, Ilya Gyonov, Nikolay Yanev, Zdravko Hubenov, Plamen Mitov, Teodora Trichkova, Vesela Evtimova, Eliza Uzunova, Tihomir Stefanov, Nesho Chipev, Albena Alexandrova, Vladimir Bozukov, Ralica Sabeva, Stefan Velev, Docho Dochev** – Presenting the project ‘Complex ecosystem study of the aquatic area of the Underwater Petrified Forest Natural Phenomenon, Sozopol Bay’ related to biodiversity shift in the Black Sea

11:30 – 11:45 **Coffee break**

### **Session 10**

**Chairs: Marga Grădilă, Rumen Tomov**

#### **Keynote presentation 13**

11:45 – 12:15 **Rumen Tomov** – Alien species in European horticulture – what we do not know?

12:15 – 12:30 **Marius Skolka, Dan Cogălniceanu, Daniyar Memedemin, Ovidiu Drăgan, Cristina Preda** – Climate changes and invasive alien species in Romania – the *Corytucha* case

12:30 – 12:45 **Oleksandr Tsybul'skyi, Oleksandr Stryhun, Petro Chumak** – Monitoring and distribution of the Emerald Ash Borer *Agrilus planipennis* Fairmaire, 1888 (Coleoptera, Buprestidae) in the urbocenoses of Kyiv, Ukraine

12:45 – 13:00 **Rumen Tomov, Tsvetelina Vasileva** – The invasion of *Neodryinus typhlocybae* (Ashmead) (Hymenoptera: Dryinidae) in Sofia Region

13:00 – 14:00 **Lunch break**

### **Session 11**

**Chairs: Lidija Velkova-Jordanoska, Teodora Trichkova**

14:00 – 14:15 **Mariya Kaschieva, Tatiana Dimitrova, Irina Pavlova** – Forest pedagogy in the context of invasive species control

14:15 – 14:30 **Geanina Fănar, Miruna Vizireanu, Ovidiu Drăgan, Sabina Vlad, Raluca I. Băncilă, Silviu O. Petrovan, Laurențiu Rozyłowicz, Dan Cogălniceanu** – Nesting ecology of the red-eared sliders – *Trachemys scripta* in an urban environment, Romania

14:30 – 14:45 **Marian Tudor, Daniyar Memedemin** – Changes in the microhabitat preferences of the steppe viper (*Vipera ursinii moldavica*) from the Danube Delta as a result of the invasion and spread of the invasive species *Xanthium orientale* subsp. *italicum*

14:45 – 15:00 **Polina K. Nikova, Maria Kachamakova, Yordan Koshev** – First documented records in the wild of American mink (*Neogale vison* von Schreber, 1776) in Bulgaria

15:00 – 15:15 **Milica Jaćimović, Dušan Nikolić, Gorčin Cvijanović, Željka Višnjić-Jeftić, Stefan Skorić, Marija Smederevac-Lalić** – Results of selective removal of the black bullhead (*Ameiurus melas*) in two different lentic systems

15:15 – 15:30 **Oxana Munjiu** – Study of invasive benthic crustaceans in the Republic of Moldova

15:30 – 15:45 **Coffee break**

15:45 – 16:45 **Poster Session 3**

16:45 – 18:00 **12th ESENIAS Workshop**

- Awarding of best oral/poster presentations – one free publication in NeoBiota and two free zoological publications in Acta Zoologica Bulgarica

## POSTERS

### Poster Session 1

(17:00 – 18:30 h, 11.10.2023)

**Chair: Sasho Trajanovski**

- P1.01: Leonid Svetlichny, Larysa Samchyshyna** – Asian calanoid copepod *Sinodiaptomus sarsi*: three years after the first appearance in the Nyvky Park pond (Kyiv, Ukraine)
- P1.02: Volodymyr Tytar** – An ecological niche model for the invasive mud snail, *Potamopyrgus antipodarum*, with special reference to Ukraine
- P1.03: Vera Nikolić, Rajko Roljić, Zlatko Nedić, Dubravka Škraba Jurlina, Vojislav Sokolović, Tamara Kanjuh, Ana Marić, Predrag Simonović** – New distribution record of *Faxonius (Orconectes) limosus* Rafinesque, 1817 in Lake Čelije, Serbia
- P1.04: Violeta Tyufekchieva, Emilia Varadinova, Yanka Vidinova, Vesela Evtimova, Galia Georgieva, Milcho Todorov, Rabia Soufi, Lyubomir Kenderov, Teodora Trichkova** – Invasive alien species of benthic macroinvertebrates in Bulgarian rivers: results within the validation of the typology and classification system of the surface water bodies
- P1.05: Vesela Evtimova, Emilia Varadinova, Violeta Tyufekchieva, Galia Georgieva, Yanka Vidinova, Milcho Todorov, Lyubomir Kenderov, Rabia Soufi, Teodora Trichkova** – Invasive alien species of benthic macroinvertebrates in Bulgarian reservoirs
- P1.06: Anzhelika Sylaieva, Tetiana Novosolova, Yulia Gromova, Alexander Protasov** – Biological invasion in water technoecosystems in long term period

**Chairs: Vesna Djikanović, F. Güler Ekmekçi**

- P1.07: Ana Marić, Goran Žikić, Tamara Kanjuh, Vojislav Sokolović, Vera Nikolić, Dubravka Škraba Jurlina, Predrag Simonović** – First record of black carp *Mylopharyngodon piceus* in Serbia
- P1.08: Sergey Afanasyev, Olena Hupalo, Nataliia Tymoshenko, Olena Lietytska** – Alien fishes in the Upper Tisa River (Ukraine): reasons of appearance and invasion paths
- P1.09: Ovidiu Dragan, Dan Cogalniceanu, Laurentiu Rozyłowicz** – Invasive fish species distribution in Romanian freshwaters
- P1.10: Ana Marić, Vera Nikolić, Tamara Kanjuh, Vojislav Sokolović, Dubravka Škraba Jurlina, Predrag Simonović** – Do non-native fish species now predominate in the River Danube in the National Park “Djerdap”?
- P1.11: Dušan Nikolić, Milica Jaćimović, Srđan Subotić** – Relationships of otolith size to fish size – a study on pumpkinseed (*Lepomis gibbosus*) from Topola reservoir (Serbia)

- P1.12: Vesna Djikanović, Katarina Jovičić, Srdjan Subotić, Milica Jaćimović, Dušan Nikolić** – Intestinal content analyses of pumpkinseed *Lepomis gibbosus* (Linnaeus, 1785) in five small reservoirs – central Serbia
- P1.13: Lidija Velkova-Jordanoska, Stojmir Stojanovski, Dijana Blazekovikj-Dimovska** – Investigation of histopathological alteration in liver and gills of non-native species *Lepomis gibbosus* in Lake Prespa
- P1.14: Sabina E. Vlad, Ovidiu Drăgan, Noé Ferreira-Rodríguez, Ana Maria Drăgan, Florina Stănescu, Raluca Ioana Băncilă, Dan Cogălniceanu** – How does the public perceive fish removal from alpine lakes? A case study from the Romanian Carpathians

**Chair: Sava Vrbnicanin**

- P1.15: Mykola Kozyr, Liubov Gubar** – New locations of *Lepidium virginicum* L. on the territory of Ukraine
- P1.16: Liubov Gubar, Sergei Kochnov** – Study of populations of the invasive species *Cenchrus longispinus* (Hack.) Fernald of the flora of Ukraine
- P1.17: Raisa Matyashuk, Liubov Gubar, Iryna Tkachenko** – Spontaneous distribution of introducers as an example the landscape art park-monument “Feofaniya”
- P1.18: Roxana Ciceoi, Silviu Ionut Beia, Elena Ștefania Ivan, Violeta Alexandra Ion** – Mycotoxigenic fungi perspectives under the climate change context

## Poster Session 2

(16:15 – 18:30 h, 12.10.2023)

**Chair: Paraskevi K. Karachle**

- P2.01: Nadezhda Todorova, Gabriele Jovtchev, Svetla Gateva, Miroslav Rangelov** – Black Sea coastal sulfate reducing bacteria (SRB) and their potential influence on benthic anaerobic zone dynamics
- P2.02: Martha Syrri, Paraskevi K. Karachle, Polyxeni Kourkoutmani, Evangelia Michaloudi** – Presence of the non-indigenous copepod *Pseudodiaptomus marinus* Sato, 1913 in the stomach content of *Sardina pilchardus* (Walbaum, 1792)
- P2.03: Stela Ruci, Ermira Milori, Sajmir Beqiraj** – *Callinectes sapidus* population in the coastal lagoons of Adriatic Sea in Albania
- P2.04: Simge Bozkaya, Sule Gurkan, Ertan Taskavak** – A preliminary study on the body indexes of the red cornetfish *Fistularia petimba* Lacepède, 1803 from Taşucu gulf offshore (Mersin, eastern Mediterranean)
- P2.05: Ioannis Keramidas, Athanassios C. Tsikliras, Argyro Zenetos, Aikaterini Dogrammatzi, Paraskevi K. Karachle** – Risk assessment of two siganid species in the Greek seas

**Chairs: Paulina Anastasiu, Vladimir Vladimirov**

- P2.06: Svetoslava Terzieva, Neli Grozeva** – Morphological characteristics of invasive species of genus *Amaranthus* L. in Bulgaria
- P2.07: Elena Bulakh, Tetiana Dvirna, Liudmyla Zavialova, Oksana Kucher, Aleksandr Orlov, Vira Protopopova, Myroslav Shevera** – *Portulaca oleracea* aggregate (Portulacaceae Juss.) in Ukraine: modern state of investigation
- P2.08: Vladimir Vladimirov** – *Bidens subalternans* (Asteraceae), a new alien species to the Bulgarian flora
- P2.09: Vladimir Vladimirov, Alexandar Tashev** – *Rhus typhina* (Anacardiaceae), a new alien species in the Bulgarian flora

- P2.10: Antoaneta Petrova, Diana Venkova, Boris Assyov, Rossen Vassilev** – Notes on the current distribution and population size of non-native *Claytonia sibirica* in Bulgaria
- P2.11: Dimcho Zahariev** – *Opuntia humifusa* (Raf.) Raf. (Cactaceae) in three new floristic regions in Bulgaria
- P2.12: Boris Baranovski, Lina Karmyzova, Iryna Ivanko, Alla Kulik, Volodymyr Fedenko** – The adventive flora of the steppe zone of Ukraine
- P2.13: Petya Boycheva, Mariya Kaschieva** – Alien and invasive plant species in natural habitat 62C0 “Ponto-Sarmatian steppes” in the Northern Black Sea coast, Bulgaria
- P2.14: Daniyar Memedemin, Paulina Anastasiu, Marius Skolka, Dan Cogalniceanu** – Alien plant species in alpine areas – a case study in Southern Carpathians
- P2.15: Rossen Vassilev, Antoaneta Petrova, Boris Assyov, Atanas Tanev** – Ornamental escapes and citizen science – the example of *Campanula lactiflora*
- P2.16: Oleksander Shynder, Vitalii Kolomiichuk, Myroslav Shevera** – Monitoring of invasive potential of ergasiophytes in botanical gardens and dendrological parks of the Ukrainian CIS-Black Sea Region
- P2.17: Lyudmila Lyubinska, Ilya Vlasov** – The rare species *Echinops exaltatus* Schrad and invasive plants
- P2.18: Necmi Aksoy, Ahmet Uludağ, İlhan Üremiş** – Threat of bamboo taxa invasion to natural ecosystems: A case study from Türkiye
- P2.19: Nataliia Miroshnyk, Tetiana Grabovska, Olga Tertychna** – Alien plant species in forest shelterbelts: impact on biodiversity, the need for risk management
- P2.20: Dessislava Gyurova, Todor Karakiev, Nikola Doykin, Vladimir Vladimirov** – Giant hogweed (*Heracleum mantegazzianum*) in Vitosha Nature Park, Bulgaria – distribution, control methods and site clean-up
- P2.21: Liudmyla Zavialova, Vitalii Kolomiichuk, Myroslav Shevera, Sergiy Panchenko, Vira Protopopova, Oksana Kucher, Viktoria Smago** – The main trends of post-entry regeneration of vegetation cover of Ukraine
- P2.22: Marga Grădilă, Valentin Marius Ciontu, Raluca Monica Cristea, Daniel Jalobă** – Efficacy of postemergence herbicides in control of *Ambrosia artemisiifolia* L. (Common ragweed) in maize crop
- P2.23: Sava Vrbnicanin, Dragana Božić, Djordje Bastajić, Teodora Tojić, Dejan Nedeljković** – Response of ragweed to nicosulfuron and imazamox
- P2.24: Zornitsa Zherkova, Neli Grozeva, Mima Todorova** – Analysis of organic acids of purslane (*Portulaca oleracea* L.) at various locations in Bulgaria

### Poster Session 3

(15:15 – 16:30 h, 13.10.2023)

**Chairs: Marga Grădilă, Rumen Tomov**

- P3.01: Alexandr Vasiliev** – Discoveries of non-native Araneae (Arachnida) and Simuliidae (Diptera) species in the Republic of Moldova
- P3.02: Rumen Tomov** – First report of *Cupressatia siskiyou* gall midge in Bulgaria
- P3.03: Rumen Tomov, Boryana Plashkova** – Presence of the Asian walnut moth, *Garella musculana* (Erschov, 1874) (Lepidoptera, Nolidae), in Sofia Region, Bulgaria
- P3.04: Constantina Chireceanu, Andrei Teodoru, Ioana Florescu** – Invasive *Auchenorrhyncha* species in vineyards from Romania
- P3.05: Boryana Plashkova, Gergana Mladenova** – The relationship between the center of origin and plant host preferences of pest insects on vegetable crops in Bulgaria
- P3.06: Teodora Popova, Dimitar Semerdjiev, Rumen Tomov** – Study of the microflora of the ladybug *Harmonia axyridis* in order to assess its role as a carrier of pathogenic microorganisms

- P3.07: Roumiana Todorova** – Disease control of invasive insects in Europe
- P3.08: Manana Kereselidze, Daniela Pilarska, Nika Guntadze, Andreas Linde, Ann Hajek** – Preliminary results of *Halyomorpha halys* infection with the microsporidium *Nosema maddoxi* under laboratory conditions
- P3.09: Danail Takov, Marek Barta, Teodora Toshova, Daniela Pilarska, Danail Doychev** – Pathogenicity of the fungus *Metarhizium pemphigi* against invasive hemipteran species *Oxycarenus lavaterae* under laboratory conditions
- P3.10: Rositsa Davidova, Viktor Vasilev, Ivaylo Ivanov** – Mite fauna (Acari: Acariformes and Parasitiformes) in nests of Passerine species in Northeastern Bulgaria
- P3.11: Mzia Kokhia, Oleg Gorgadze, Manana Lortkipanidze, Madona Kuchava** – Earthworms of Georgia and their biodiversity
- P3.12: Ivan Rusev** – Range expansion of golden jackal (*Canis aureus*) in the Tuzlivski Lymany National Nature Park, Ukraine

**Chair: Marina Piria**

- P3.13: Hristina Kalcheva** – Apply of purple phototrophic bacteria for resource recovery from organic waste in European countries – a review of the COST Action ‘PURPLEGAIN’
- P3.14: Ruslan Martinov** – Economic costs of biological invasions
- P3.15: Marina Piria, Ivan Špelić, Vedran Car** – Possibilities of non-native species detection and monitoring by using unmanned aerial system imagery
- P3.16: Tetyana Aliksieieva, Svitlana Belokon, Denis Radionov** – Biological monitoring of natural freshwater sources
- P3.17: Laurentiu Rozyłowicz, Raluca I. Bancila, Viorel D. Popescu, Andreea Nita, Marian D. Mirea, Steluta Manolache** – Hierarchical methods for alien species data collection

**14th October 2023**

**Conference excursion**  
**(10:00 – 17:00 h)**

The participants will visit Aladzha Monastery (<https://www.archaeo.museumvarna.com/en/other/2>), the palace of Romanian Queen Marie (<https://www.dvoreca.com/>), and the Botanical Garden in Balchik Town.

