

# The 45<sup>th</sup> IAD Conference

## Innovative solutions and cooperation to protect and restore biodiversity and ecosystems in the Danube River Basin

9–12 April 2025 Sofia, Bulgaria

## Organised by:

Institute of Biodiversity and Ecosystem Research, BAS (IBER-BAS)

Climate, Atmosphere and Water Research Institute, BAS (CAWRI-BAS)

General Secretariat of the International Association for Danube Research (IAD)

Danube Region Invasive Alien Species Network (DIAS)

Union for Conservation of Nature - Bulgaria (UCNB)

## Supported by:

International Association for Danube Research (IAD)

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### **Conference Overview**

The Danube River is the second largest river in Europe and the world's most international river, passing through 10 countries and four capitals, while 19 countries share the Danube River Basin (DRB). The Danube River Delta is the largest river delta wetland in Europe. The DRB is well known for its diverse landscapes, ecosystems and habitats, and unique flora and fauna, including the sturgeon species of high conservation concern at a global level. However, recent reports show that the Danube River is one of the top ten world's most threatened rivers with many ecosystems degraded and habitats and species lost. The main pressures to DRB identified are hydromorphological alterations, pollution by organic substances, nutrients and hazardous substances, owing to river engineering, hydropower plants, navigation projects, agriculture, etc. Growing threats are also the introduction of invasive alien species, sediment balance alteration, pollution with macro- and microplastics and effects of climate change as droughts or floods, water scarcity and extreme events.

Major instruments have been developed to address these issues at European and regional levels. The EU Biodiversity Strategy for 2030 (2020) aims at protecting and restoring nature, including improvement and widening of the network of protected areas, restoring freshwater and soil ecosystems, reducing pollution and addressing invasive alien species. The landmark Nature Restoration Law (2024) provides on restoration of terrestrial, coastal and freshwater ecosystems (art. 4) and restoration of the natural connectivity of rivers and natural functions of the related floodplains (art. 9). Together with other EU legislation, they support the EU's international commitments under the Kunming-Montreal Global Biodiversity Framework (2022), aiming to halt and reverse biodiversity loss by 2030. At regional level, these issues are addressed within pillar 2 of the European Union Strategy for Danube Region (EUSDR): *Protecting the Environment in the Danube Region*, in particular, under priority areas: PA4, 5 and 6.

Many projects, actions and measures have already been implemented at DRB and further restorations are planned to improve river morphology, reduce the impacts of impoundements and hydropeaking, restore river continuity for fish migration, reconnect wetlands and floodplains, etc. Restoration of natural and semi-natural ecosystems complements the protection of ecosystems to secure water, food and health, while enhancing biodiversity and mitigating climate change and adapting to its impact. Restoration is most effective when coordinated across key stakeholders (scientists, local communities, national authorities, managers, etc.) and implemented at large scales. Therefore, transborder and transnational cooperation is crucial for implementation of protection and restoration measures in the Danube River Basin.

Recognising the importance of cooperation for protection and restoration of biodiversity and ecosystems, EU launched new Missions under 'Horizon Europe research and innovation programme 2021–2027'. The EU Mission 'Restore our Ocean and Waters by 2030' aims to protect and restore the health of freshwater and marine ecosystems through research and innovation, citizen engagement and blue investments. To achieve its objectives, the Mission has established area-based 'lighthouses' in key European sea and river basins, serving as hubs for innovation and cooperation. The Danube Lighthouse projects develop concrete innovative and holistic solutions and approaches to the major challenges in the DRB. The Danube Lighthouse includes EcoDaLLi as the Coordination and Support Action (CSA) and Innovation Actions (IAs), such as: DANUBE4all, DALIA, DaWetRest and Restore4Life.

The International Association for Danube Research (IAD) was founded in 1956 with the aim of promoting and coordinating activities in the fields of limnology, water management, water protection and sustainable development in DRB. Thirteen countries are members of IAD. Participants represent scientists of various expertises, such as biology, chemistry, hydrology, geology, geography, climatology, etc. IAD provides education and training, supports the exchange of information and ideas, as well as mobility of scientists to foster cooperation and knowledge transfer within 12 expert groups. Since 1998, IAD is an observer and active participant in the work of the International Commission for the Protection of the Danube River (ICPDR). IAD is a founder and active member of EUSDR PA6 task forces: Danube Sturgeon Task Force (DSTF), Danube River Invasive Alien Species Network (DIAS) and Danube Landscape Task Force. IAD is a partner in three recently approved EU Horizon projects: DANSER, SWIM, and SoS2Learn. Every second year IAD organises a scientific conference.

The Bulgarian section of IAD (IAD – Bulgaria), represented by the Bulgarian Academy of Sciences (BAS), has been actively involved in IAD since the establishment of the organisation. Through the years, scientists from IBER-BAS and former Institute of Zoology have led the expert groups on Zooplankon, Zoobenthos and Invasive Alien Species. Currently, IAD members are from IBER-BAS, Institute of Oceanology, BAS, CAWRI-BAS, Geological Institute, BAS, Sofia University, University of Forestry, and Institute of Fisheries and Aquaculture, Plovdiv. Until now, IAD – Bulgaria has hosted 4 scientific conferences of IAD: Sofia 1966, Sofia 1976, Varna 1990, and Sofia 2014.

The 45th IAD Conference organised by IAD – Bulgaria will provide a forum for the presentation of long-term multidisciplinary research and activities on various topics, highlighting the importance of building innovative solutions and cooperation to protect and restore biodiversity and ecosystems in the Danube River Basin.

#### We dedicate this conference to the memory of our beloved IAD colleagues and friends Dr. Angela Curtean-Bănăduc (Romania), Dr. Artem Liashenko (Ukraine) and Ing. Ivan Botev (Bulgaria)!

## **Scientific Topics**

- **1.** Biodiversity from microbial communities to water birds and mammals, status and future trends for aquatic species and habitats, biotic processes, soil diversity
- **2.** Protected areas and biodiversity conservation, ecological corridors, protection and rehabilitation of Danube sturgeons, soil restoration and protection
- **3.** Ecosystem functions and services from source to delta, restoration and sustainable use of biological resources, ecosystem management
- **4.** Wetlands and floodplains ecology and restoration, reconnection to the Danube River, constraints and perspectives
- **5.** The Danube River Delta and coastal ecosystems challenges, restoration and management
- 6. Riparian landscapes diversity, protection, management and planning
- 7. Hydromorphological alterations and habitat changes mitigation and restoration of hydrological regime and river morphological conditions, river connectivity, habitat management

- **8.** Water quality, from nutrients to toxins pollution by organic substances, nutrients, hazardous substances, and macro- and microplastics; chemical and biological monitoring, including eDNA; sediment quality and balance alterations; integrated water management
- **9.** Invasive alien species priority species and pathways of introduction and spread, impact, prevention and management, restoration of damaged ecosystems
- **10.** Climate change (droughts, floods, water scarcity, extreme events, etc.) and land-use change impacts on aquatic ecosystems, mitigation and climate change adaptation in the Danube River Basin
- **11.** The human dimension rivers as socio-ecological systems; long-term socio-ecological research and environmental history; sustainable development and public participation in the Danube and Black Sea Region
- 12. Cooperation and innovative solutions to protect and restore biodiversity and ecosystems in the Danube River Basin policy, projects and networks, Danube and Black Sea Lighthouse, education and training, information systems and databases, data planning and management
- 13. Other topics related to the Danube River Basin.

#### **Important Information**

The official language of the conference will be English.

Authors are invited to submit papers related to one or more of the scientific topics given above. Each presentation should indicate the most appropriate topic. The scientific presentations will be oral or poster.

All contributions will be reviewed by the Scientific Committee. The Scientific Committee reserves the right to change the form of presentation (oral/poster) in case of thematic consideration or timing.

#### Publications

Abstracts accepted for presentation will be published in a **Book of Abstracts**. Further information on publications will be available soon.

#### Registration

The registration form can be downloaded from the Conference website: <u>http://www.iber.bas.bg/sites/default/files/IAD45/</u> Please, send your filled form to: <u>iad.bulgaria@gmail.com</u>

#### **Abstract Submission**

The abstract form can be downloaded from the Conference website: <u>http://www.iber.bas.bg/sites/default/files/IAD45/</u> Abstracts prepared according to the instructions for publishing should be sent to: iad.bulgaria@gmail.com

#### **Registration Fees**

All participants must pay registration fee prior to arrival at the Conference. Registration fee includes: attendance to the scientific sessions, coffee breaks, conference materials and Book of Abstracts.

Participant	<b>Registration</b> Fees (in Euro)	
IAD members	120	
Non-members	150	
IAD students	50	
Other students	80	

#### Bank transfer details:

#### **For payment in EURO:**

Receiver: IBER-BAS Registration number 175905652 VAT: BG175905652 IBAN: BG 17 UNCR 7630 3400 0010 60 (EUR) BIC: UNCRBGSF Bank: UNICREDIT BULBANK AD **Reason for payment:** IAD conference and name of participant (first and family name)

#### For payment in BGN (Leva):

Получател: ИБЕИ-БАН ЕИК: 175905652 VAT: BG175905652 IBAN: BG 44 UNCR 9660 3120 7187 11 (BGN) BIC: UNCRBGSF Bank: UNICREDIT УниКредит Булбанк АД **Reason for payment:** IAD conference and name of participant (first and family name)

#### **Key Dates**

Early registration25 February 2025Final registration and abstract submission:21 March 2025

For the early registration participants are required only to express their interest to participate and send a working title of their contribution/s by email: <u>iad.bulgaria@gmail.com</u>

#### Venue

Park Hotel Moskva 25 Nezabravka Str., Sofia https://parkhotelmoskva.net/en/

#### **Transport from/to Venue**

Information about transport will be available soon.

#### Accommodation

Accommodation is **not included** in the registration fee of the conference. Participants should contact the hotel directly to check availability and to pay for the room.

Hotel at the conference venue:

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Park Hotel Moskva, 25 Nezabravka Str., Sofia <u>https://parkhotelmoskva.net/en/</u>

Type of room	Number of	Type of beds	Price in	Price in
	guests		Euro	BGN
Single room	1 guest	king-size bed / 2 separate beds	49.00	95.00
Double room	2 guests	king-size bed / 2 separate beds	72.00	140.00
Junior suite	1 or 2 guests	2 separate beds, living room	80.00	156.00
Junior suite	3 guests	2 separate beds + 1 additional bed, living room	103.00	202.00
Panorama suite	1 or 2 guests	king-size bed / 2 separate beds, living room	90.00	176.00
Panorama suite	3 guests	2 separate beds + 1 additional bed, living room	108.00	212.00

The price includes: 1 night stay, breakfast, tourist insurance, tourist tax and 9% VAT. Please use the following Promo (Bonus) code for the reservation: **IAD45** 

Other hotels/accommodations can be found on international booking platforms and national tourist information services:

https://www.booking.com/ www.visitbulgaria.net www.hostelworld.com

#### Excursion

The excursion will be organised on 12th April 2025. Information about the excursion will be available soon.

#### Further information will be available at the Conference website.

#### **Contacts:**

iad.bulgaria@gmail.com For registration and submission of abstracts.

Conference website: http://www.iber.bas.bg/sites/default/files/IAD45/

IAD website: <u>https://www.danube-iad.eu/</u>