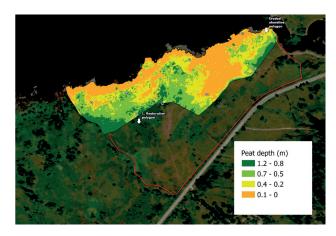
## **New IAD Expert Group: Habitat Monitoring and Conservation**



The Expert Group for Habitat Monitoring and Conservation works to enhance habitat assessment and restoration across the Danube Basin. By integrating EUNIS standards, remote sensing technologies, and key conservation frameworks such as the EU Habitats Directive and the Bern Convention, we promote consistent monitoring, data-driven conservation strategies, and regional collaboration to preserve biodiversity.

The specific Objectives and Goals are as follows:

- Develop and coordinate strategies for long-term habitat monitoring and monitoring of restoration measures, with a focus on riparian zones, floodplains, and wetlands.
- Standardisation and Validation Conduct nationalscale validation of floodplain assessment methods in collaboration with local stakeholders, refining tools for broader application across the Danube region.
- Address the current gaps in habitat assessments and promote the development and application of cost-effective remote sensing approaches in habitat monitoring.
- Implement harmonized techniques and classification systems aligned with EU directives in habitat protection and conservation in EU and non-EU countries (e.g., the Water Framework Directive, the Bern Convention of the Council of Europe, and the European Union's Habitats Directive).

- Compile and analyse habitat and species data from ongoing and past surveys to inform conservation strategies and enhance water management programs.
- Facilitate the exchange of information, tools, and experiences among projects, scientists, practitioners, and stakeholders in habitat monitoring and conservation assessment.

The Expert Group actively collaborates with universities, research institutes, NGOs, and governmental bodies across the Danube Basin. We invite scientists and practitioners working in habitat conservation and monitoring to join our efforts, fostering a dynamic network dedicated to the protection and sustainable use of aquatic and terrestrial ecosystems.

## Expert Group leader: Prof. Dr. Dušanka Cvijanović

Prof. Dr. Dušanka Cvijanović is a full professor of Ecology at the University of Novi Sad, Faculty of Sciences, Serbia, a researcher at the Minds Europe-Institute for Research Excellence and Technological Advancement, and



a leading expert in aquatic habitat monitoring, classification, and conservation. Her research focuses on integrating remote sensing and artificial intelligence into freshwater ecosystem monitoring, with specific attention to UAV photogrammetry and satellite data in wetland mosaics. She has participated in and coordinated national and EU-funded projects, including those aligned with the EU Natura 2000 network and Horizon Europe missions. Prof. Cvijanović currently leads the task in the Horizon EU 'Restore4Life' project and the EcoDalli task-force initiative. She actively contributes to the standardization of habitat monitoring methods. She fosters regional collaboration across the Danube Basin and the Western Balkans, supporting capacity-building and data harmonisation in line with EU directives.

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## New IAD Expert Group: Coastal Ecology

With my background in coastal ecology and microbial ecology, I propose to see the coastal Black Sea system as an ecotone between the Danube Delta and the marine system, involving all marine organisms, including free-living microorganisms and microorganisms associated with animals and plants. This ecotone is characterized by dynamic biogeochemical processes, shaped by both autotrophic and heterotrophic microbial metabolism, which respond to seasonal dynamics and episodic events (as highlighted in studies on oligotrophic coastal marine ecosystems).

In this context, the expert group aims to examine microbial carbon fluxes, particularly bacterial carbon demand in relation to primary production, as recent studies suggest the need for a re-evaluation of carbon cycling in seagrass systems such as *Posidonia oceanica*. The interactions between microbial communities and organic/inorganic particles further influence nutrient cycling and energy flow, underscoring the role of viruses in regulating microbial populations. Viral ecology, particularly the influence of prokaryotic viruses on microbial communications.