and Habitats Directives, Bonn Convention, Bern Convention and the Convention on the Biological Diversity.

The activities foreseen in pillars 1 & 2, targeting harmonization of aquatic research activities in the Danube Region and fostering excellence in research, facilitate the provision of sound scientific evidence concerning the status and the evolution of aquatic ecosystems across the Danube Region. Transferring such knowledge at local and regional policy level also in the future is crucial for informed decisions about water management.

To foster this ecosystem knowledge transfer, we plan to:

- enhance IAD's role and contribution to policy level (ICPDR, EUSDR, EC) by developing relevant projects, continuing and extending our work in different expert groups and informing on state-of-the-art scientific results,
- enhance dissemination of scientific results to policy stakeholders and the wide public via books and scientific articles, the IAD Bulletin Danube News, policy notes or other communication materials,
- create specific programs addressing several key groups of stakeholders, as experience exchanges, trainings, participation in joint field trips and scientific projects, aiming to raise awareness on the importance of aquatic biodiversity conservation

To conclude: Many aspects of research on the Danube River Basin were stimulated by IAD scientists over the last decades. In future, IAD will not only continue these studies, but will also dedicate more attempts to assemble individual research outcomes in order to obtain an integrative picture of the status of this river system and to better contribute to its conservation. Balancing a healthy river system on the one hand, and its sustainable use on the other, is a challenge that we should try to overcome together, so we can preserve the Danube ecosystem also for the generations to come.

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The challenge of Invasive Alien Species

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Since 2008, I have been an active member of IAD, and in 2017, I became the head of a newly established expert group on Invasive Alien Species (IAS). By creating such an expert group, IAD has reacted to an important threat to biodiversity in the Danube River Basin (DRB).

The introduction and spread of IAS in the DRB have increased recently. As a result, the biodiversity and ecosystems are affected, and adverse socio-economic effects and impact on human health have been reported. However, still there are many gaps related to the IAS distribution, magnitude of impact, pathways of introduction and spread, and other issues. In response to this growing concern and the necessity of cooperation and coordinated actions at regional level, in 2014, the IAD together with the Priority Area 06 of the EU Strategy for the Danube Region and other organisations initiated the establishment of the **Danube Region Invasive Alien Species Network (DIAS)**. Furthermore, to strengthen the scientific multidisciplinary approach related to IAS, in 2017, IAD established the **Invasive Alien Species Expert Group** as one of the current 12 IAD expert groups. Thus, IAD helps to reach the targets of DIAS, which comprise: 1) sharing of knowledge; 2) formulating a strategy and work plan to efficiently tackle the issue of IAS in the Danube Region; 3) considering and cooperating with existing European and global IAS networks and organisations; 4) developing individual but coordinated projects in the single regions; and 5) promoting the transfer of know-how and expertise to actors on all administrative levels in a transnational context.

Currently, the IAD Invasive Alien Species Expert Group and DIAS collaborate closely in activities such as:

- Implementation and development of joint projects: Danube-IASapp (2016-2017), Danube IAS Corridor (ongoing), Danube IAS Corridor 2 (2019), Alien CSI (2018–2022);
- Organisation and participation in scientific conferences and forums: Joint ESENIAS and DIAS scientific con-



Figure 1: Participants of the ESENIAS & DIAS Conference 2019 , photo: Milcho Todorov

ferences (Sofia 2017, Bucharest 2018, Ohrid 2019); IAD conferences (Sibiu 2016, Smolenice 2018), and other events;

- Joint publications: abstract books and proceedings, guides on IAS, articles in peer review journals, and leaflets; and
- Development of the DIAS strategy and work plan.

In the future, with the support of IAD, we envisage to continue and further develop the research activities and at the same time to integrate more effectively the knowledge and management tools related to IAS in the Danube Region. This will include improved exchange of information and tools between scientists and managers, consideration of successes and challenges for different management options and improved collaboration on IAS between authorities and different stakeholder groups in transboundary and transnational context. In the frame of IAD, we envisage also to collaborate more actively with the responsible European and regional authorities (EU Strategy for the Danube Region, Danube Commission, Sava Commission) and IAS networks (ESENIAS), in order to facilitate the implementation of the DIAS strategy and European legislation related to IAS at regional level.

In this respect, IAD offers an important and effective platform for cooperation as well as exchange and spread of knowledge and tools on IAS among scientists, authorities and stakeholders concerned with the biodiversity preservation in the Danube Region. Personally, through my membership and work within IAD throughout the years, I have gained valuable international scientific and organisational experience and skills, had the opportunity to meet and work with wonderful scientists and experts from the Danube countries, and received full support for my research ideas and activities.

IAD for the Blue Heart of Europe



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The Blue Heart of Europe is threatened by a heart attack caused by the aggressive development of mini-hydropower plants on streams and small rivers in the region (by 300% in the last two years), en-

dangering the whole dense network of pristine rivers which host many threatened and endemic species in this part of the Danube subregion. Diverting water away from the river through pipelines, leaving behind empty channels where rivers have been, will directly lead towards losing one of the most important natural river gems of the whole Danube catchment, but also of the entire continent.

Water resources are shared across borders, going far beyond any national interests. This implies a much wider regional approach to environmental protection and the crucial conservation of biodiversity. Within the Western Balkans, this need has increased due to difficult time for society and the scientific community in the recent past. Nevertheless, management efforts and initiatives addressing these issues are extremely rare in the Mid-