



INTERNATIONAL ASSOCIATION FOR DANUBE RESEARCH

Scientific Report 2017

The activity of the IAD expert groups focuses on acquiring scientific knowledge to fill in some of the existing gaps and on fostering the dialogue with the policy makers and stakeholders from the Danube River Basin, with the aim to promote environmental conservation.

Science – Policy interactions

The dialogue with policy makers was fostered mainly in the frame of the cooperation with the International Commission for the Protection of the Danube Region (ICPDR) and the contribution to the implementation of the EU Strategy for the Danube Region (EUSDR).

The IAD provided input to ICPDR Expert Groups in several fields: River Basin Management, Hydromorphology, Alien Invasive Species, Sturgeon conservation, contributing also to the preparation of the Joint Danube Survey 4 or during the ICPDR Standing Working meeting or the Ordinary Meeting in December 2017.

In the frame of the EU Strategy for the Danube Region, IAD contributes mostly via the Danube Sturgeon Task Force (DSTF) and the Danube network for Invasive Alien Species (DIAS). Currently, in the EUSDR there are 4 flagship projects where IAD members are involved: Sturgeon 2020 (EUSDR PA 6), Danube: Future (EUSDR PA 7), DREAM (EUSDR PA 7), DANUBIUS (EUSDR PA 7).

Several activities were organized or attended by DSTF in 2017. One of the key elements was the development of the EIB TA grant to strengthen DSTF organization and foster the implementation of Sturgeon 2020 Program – this contract highlighted the need to establish a legal entity for DSTF in order to accelerate the implementation of Sturgeon 2020, as well as the need to urgently launch in-situ research and ex-situ conservation to preserve the genetic pool of Danube sturgeons. To enhance connectivity with the Black Sea stakeholders, DSTF attended the meeting of the GFCM Working Group for the Black Sea (Constanta) to present the program Sturgeon 2020 and seek for synergies. In December 2017, DSTF presented the status of implementation of the Action Plan for the conservation of the Danube Sturgeons (SAP, 2005) to the Steering Committee of the Bern Convention. Considering that Sturgeon 2020 Program requires interlinkages with all the EUSDR PAs, DSTF contributed to the Steering Group meetings of PAs 4 and 6, to the joint meeting of PA4 – PA5 (Mosonmagyaróvár, HU), PA3 (Bucharest, RO) and to the event organized by PA4 – PA5 – PA6 during the 6th EUSDR Forum in Budapest in October 2017 to raise awareness on connections between sturgeon conservation and the activities of these areas.

In 2017, in cooperation with the East and South European Network for Invasive Alien Species (ESENIAS) and IBER – BAS, DIAS organized a scientific conference on ‘Networking and regional cooperation towards Invasive Alien Species Prevention and Management in Europe’ (Sofia, Bulgaria), and a training on the ‘Impact of invasive alien species on biodiversity and ecosystem services in extreme environments’, in cooperation with Reykjavik University, Iceland. The elaboration of DIAS strategy to prevent and manage the IAS in the Danube Region is under development.

Through their activities, the IAD members contribute to the implementation of the EU environmental directives and international conventions devoted to biodiversity conservation, such

as Water Framework Directive, Birds and Habitats Directives, Bonn Convention, Bern Convention, Convention on the Biological Diversity, etc.

Projects with IAD participation

Projects are an important tool for the implementation of EU environmental policies and nature conservation actions. Therefore, the IAD members are involved in the implementation of different scientific projects in the Danube Region, and develop jointly various project proposals.

They participate actively in several flagship projects of the EU Strategy for the Danube Region and numerous international projects, such as: Sturgeon 2020, DREAM, Danube: Future, Danubius RI, DanubeParks connected, AQUACROSS, MARS, River Ecosystem Service Index (RESI), MONDAU, MARSPLAN Black Sea, ResponSEable, SCENT, FLOODSERV, RISE (Integrated platform for land and water monitoring based on remote and in situ measurements), ESMERALDA (Enhancing ecosystem services mapping for policy and decision making), ECOPOTENTIAL (Improving future ecosystem benefits through earth observations), INTER-STREAM (impact of water scarcity on aquatic ecosystems), Compensation of Negative Climate Change Impacts on Water Supply and Ecosystems, Quality and Assessment of Surface Water, Transboundary waters cooperation Czech Republic – Austria, ESENIAS – TOOLS (tools supporting the management of alien species in BG), IBBIS (improving the Bulgarian biodiversity information system), Danube – IASpp (data collection with a smartphone application developed by JRC).

Additional cooperation is developed with the support of the Academies of Sciences from the Danube countries (e.g. the bilateral project funded by the Hungarian and Bulgarian Academies or the Youth Academic Project funded by the Bulgarian Academy) or by bilateral programs between the research organizations (e.g. the bilateral research program between the Univ. of Osijek Croatia and Univ. of Nis, Serbia).

IAD experts also support national authorities by preparing and implementing projects in line with the local or regional policy, such as the projects developed in support of the Danube Delta Biosphere Reserve Administration concerning the revision of the management plan, monitoring system and hydraulic modelling in the Danube Delta, improvement of hydrological conditions in different aquatic systems, improvement of the conservation status for endangered species and habitats, development of a monitoring station for migratory fish, etc.

Several project applications were submitted in 2017 by IAD members and answers are expected in 2018, such as ELEDAN (e-learning tools for environmental education), MEASURES (establishment of ecological corridors for long distance migrants), TRANS DANUBE PLASTIC (reducing plastic pollution in the DRB), DriDivers (assessment of impact of hydromorphological and land use changes on aquatic biota).

Involvement of citizens in activities related to hazard identification and risk modelling is on-going via the establishment of Citizen Observatories.

The CEEPUS Network EcoManAqua Network - Ecology and Management of aquatic ecosystems in Central, East and Southeast Europe, establishing a transnational education network linking 14 universities and 6 silent partners in 10 countries was established in 2017

The IAD members are involved also in education activities, such as coordination of PhD programs and master theses in the affiliated universities, environmental education activities and presentations on nature conservation topics during public events.

Editorial activities and publications

Dissemination of scientific information to experts, policy stakeholders and the wide public represent another important part of IAD activity.

The IAD Bulletin, Danube News, represent an important communication tool of the scientific information towards the wide public. It includes short articles on significant achievements in the aquatic research carried out in the Danube Basin, but also policy notes presenting relevant aspects for the region. Two Danube News issues were published in 2017 (DN 35 and DN 36) and are available for download on the IAD website (www.iad.gs).

A synthesis about the long-term restoration of Alte Donau lake, an oxbow lake of the Danube River near Vienna, as well as a book on aquatic plants in the Danube River, from the source to the mouth and in some tributary regions, are under preparation.

Scientific articles emerging from the research activities carried out in the Danube Basin have been published in 2017. A selection of the most relevant titles will be available on the IAD website, with links included for download.