

### Editorial

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*Dear Readers,*

Our association, the IAD, presents ongoing research from various fields highlighting the huge diversity, the interdisciplinary approaches and the amazing potential of this group of scientists from all over the Danube River Basin, working on an impressive number of specific topics. And many of these topics have a clear societal relevance and have the potential to shape future processes and developments. The contributions to this issue of our journal show the broad range of work devoted to different topics of relevance for the Danube River and its Basin.

Cristian Coman, working at the Institute of Biological Research (Cluj-Napoca), explores the critical role of antibiotics and related resistance in aquatic environments, and the Danube Delta in special. A methodological guide worked out on the basis of national and international cooperation shall support more and better research for this topic not so apparent to the public, but highly important for sustaining best possible water quality.

Adrian Stanica of GeoEcoMar (Bucharest) and his very international group of co-authors report about the achievements of an EU funded project: Danube macroregion: Capacity building and Excellence in River Systems (DANCERS), focusing on the development of new instruments and tools for environmental research in the Danube Region and the Black Sea System. Establishing a new regional research infrastructure is in process, and new educational programmes aim to build a network of involved institutions for a more efficient exchange of knowledge within the Danube Basin.

Gertrud Haidvogel and Martin Schmid (Vienna/Klagenfurt) used results of hydromorphology, fish diversity and pollution collected during the JDS 3 – Danube River Survey to describe aspects of socio-natural history in the Danube River Basin. The authors show that not so much in the 19<sup>th</sup> century, but rather in the 20<sup>th</sup> century intensive flood



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Photograph: ÖWAV*

protection programmes were implemented, which resulted in a very considerable loss in 'active floodplain', i.e. the riparian land area still reached by flood events. The historical approach helps to understand the consequences of river regulation, and finally puts a light on the conceptions what type of 'nature' should be conserved.

Lubomir Adamec (Trebson) introduces us to a rare and very special group of aquatic plants, the bladderworts. Some of their physiological processes, e.g. the net photosynthetic rate, are among the most intensive recorded so far for aquatic plants, and their way of acquiring nutrients by catching small animals in bladders is a very rarely found way in the plant world. As most of the bladderwort species are highly endangered strict conservation of this group of aquatic plants and preserving their habitats is an undisputable requirement.

The presented topics illustrate the important role of science and show its potential in reaching societal aims basin-wide. Some of these topics are of high relevance for the current EUSDR process and are well linked to specific project activities in the Danube River basin.

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## Hydrological catchment of the River Danube

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