



**Figure 6.** Winter buds (turions) of *Utricularia vulgaris* are round-shaped, condensed storage organs (numerous individual leaves sitting on an extremely shortened axis), size up to 25mm. Usually they overwinter on the bottom of water bodies, while the rest of shoots decays during the winter period. In the spring time, turions rise to the water surface, where higher light intensities and warmer water are available.

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## Highlights of the 41<sup>st</sup> IAD conference “Tributaries as Key Elements in Sustainable Management of the Danube River Basin” and the CEEPUS Network

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The IAD would like to thank the organizers of the 41<sup>st</sup> international IAD conference held at the “Lucian Blaga” University of Sibiu, Romania, Angela and Doru Banaduc, and their team for the perfect organization and the great time all IAD members enjoyed.

From 13<sup>th</sup> to 16<sup>th</sup> September, 2016, more than 60 scientists and representatives of the Danube River Basin have met in Sibiu at the 41<sup>st</sup> international IAD conference with the guiding topic “Tributaries as Key Elements in Sustainable Management of the Danube River Basin”. There was general agreement that research is the basis for environmentally sound and sustainable decisions by managers and politicians. IAD as a well-established network of experts active since 1956 in the Danube region can bridge the gap from science to management and implementation, mainly lying within the responsibility of the ICPDR, where the tools for the implementation of the EU WFD and the new EU Danube Strategy are elaborated.

At the conference topics ranging from biodiversity, connectivity, ecosystem functions, ecosystem services, climate change effects, restoration, and management with special emphasis on the WFD, had been addressed in more than 70 presentations. The political dimension and implication for the Danube Region had also been discussed by high level representatives from Hungary and the EUSDR. The keynote lectures covered the role of biological water quality elements, the use of water resources, the EUSDR and the status of the sturgeon in the Danube River System. Topics

of the scientific sessions presented during the week ranged from significant water management issues in the DRB, like various aspects of pollution and hydromorphological alterations and experiences in the WFD assessment, to issues addressed in the EUSDR priority areas 1, 2, 4, 6 and 7.

The 41<sup>st</sup> international IAD conference is well in line with the successful past of 60 years of IAD and highlighted the sensitive issues with regard to the Danube and its tributaries as key elements and future challenges for particular sub-catchments and their contribution to the whole region. The worldwide dimension of global change including temperature increases, alteration in hydromorphology, hydropower development, eutrophication and invasive alien species are some of the selected topics presented at the conference. A key effort for the future is the consideration of sustainable development of society, including economic, ecologic and social aspects of development and environmental history as tools to meet these challenges by understanding the past and integrating societal and economical aspects in sustainable development perspectives. Still, the interplay of ecology, economy and social aspects is not addressed in equal manners in current management approaches. Thus, new scientific approaches and more interaction with stakeholders might be needed to bridge these gaps. A resolution based on the results of the conference was approved and has been published on the website of IAD ([www.iad.gs](http://www.iad.gs)).

Further details can be found on the website of the organizers (<http://conferences.ulbsibiu.ro/conf.iad/html/index.php>). Printed copies of the extended abstracts and the book of abstracts are available from the organizers at the “Lucian Blaga” University of Sibiu.

## The new CEEPUS network in aquatic ecosystem research and management had started in 2016.

A new umbrella network within the CEEPUS (Central European Exchange Program for University Studies) program started in 2016/17. The CEEPUS program „EcoResNet - Aquatic ecosystem research: interdisciplinary challenges and management issues in inland waters and coastal environments and their catchments“, involves 14 universities and six additional academic partners from nine countries in educational activities in the field of interdisciplinary aquatic ecosystem research. The CEEPUS is built on existing networks for scientists like the IAD (International Association for Danube Research, [www.iad.gs](http://www.iad.gs)) as well as on the university network CASEE. Topics are well in line with targets of successfully established EUSDR flagship projects such as conservation of endangered species, exploring sustainable ecosystem service and sustainable development by enhanced interdisciplinary and participative cooperation, developing innovative research infrastructure to meet future challenges in the field. The majority of the states with partner universities in the Danube region already support a diversity of programs related to aquatic sciences and river basin management in the field of natural and engineering sciences as well as environmental humanities, in particular environmental history. Recent EU projects (EU FP7 project Dancers) identified major shortcomings in joint programs related to integrated river basin management for example. As pointed out in literature there is no coherent network related to training in aquatic sciences, water management and sustainable development in South East Europe. Progress in addressing the multi-layered environmental

challenges within the Danube River basin and adjacent regions, including issues related to floodplain management and research also in sites outside the Danube River basin requires further aligning of economic, environmental and educational policies, advancing the EU Bologna Process across the region, and the development of dedicated training programs that combine technical and relational skills and foster a broader cooperation between research and educational institutions.

### CEEPUS Objectives in a nutshell

The CEEPUS network aims to address major challenges for inland and coastal waters and their management in East and South East Europe by an enhanced interdisciplinary cooperation of universities and research institutions in the frame of EUSDR initiatives and well-established scientific networks as well as intensified collaboration with various stakeholders regarding the key issues outlined in the Danube River Basin Management Plan as well as for other river basin of partners in the network, and to improve the scientific excellence in the region. A key aspect of the CEEPUS network will be to support activities and aims of several EUSDR flagship projects (Danube:Future, Danubius-RI, DREAM and Sturgeon2020).

More detail about the network and the mobility activities can be found at this link: <https://www.ceepus.info/public/network/network.aspx#nbb> (CIII-AT-1101-01-1617 Umbrella network EcoResNet). Coordinator: Thomas Hein at BOKU – University of Natural Resources and Life Sciences, Institute of Hydrobiology and Aquatic Ecosystem Management, Vienna, Austria

## News and Notes

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**Following the decision of the Jury the Austrian Committee ‘Danube Research’ (AC-IAD) donated again the ‘Reinhard Liepolt Award for Danube Research’ (RLA). Laureates of the call 2015 (awarded: Sept. 2016):**

- Aaron Lechner – Shoreline configurations affect dispersal patterns of fish larvae in a large river (Lechner et al. 2014, ICES Journal of Marine Science. Doi:10.1093/icesjms/fst139 [RLA]; (and other Danube related publications)
- Domenico Savio – Bacterial diversity along a 2600 km river continuum (Savio et al. 2015, Environmental microbiology 17, 4994-5007 [RLA];

**Scientific Appreciation Award – Diploma/Master Theses [SAA-RLA]:**

- Markus Anibas – Choriotope-Analyse an der Donau – Schotterbänke im Einflussbereich des Kraftwerks Freudenau – 15 Jahre nach dem Einstau

(Choriotope-Analysis at the Danube – Gravel banks influenced by the Hydro-Power Plant Freudenau 15 years after impoundment) [SAA-RLA];

- Nadine Ebm – The diet of *Neogobius melanostomus* (Pallas, 1814) in the area of hydropower plant Freudenau (Danube River) [SAA-RLA].

**Special achievements award AC-IAD:**

- Georg A. Janauer was awarded the ‘RLA in recognition of long-time special achievements in the field of limnological research of the Danube River’.

**On behalf of the IAD Board Meeting held in Sibiu at the 41<sup>st</sup> IAD Conference**

Two new country representatives have been approved during the IAD board meeting in Sibiu and are welcomed in the IAD board:

- **New Czech country representative:** Dr. Petr Paril, affiliated to the Masaryk University Brno, following Prof. Jan Helesic
- **New country representative of Romania:** Dr. Eng. Grigore Baboianu, present-day Governor of the Danube Delta Biosphere Reserve, following Prof. Dr. Marian-Traian Gomoiu.