



# **Core Team Profiles**

## **Graf Wolfram**

Mr. Graf Wolfram (53 yrs) is a Hydrobiologist at BOKU University of Natural Resources and Life Sciences in Vienna

## What did you study, when, where and most importantly: why?

I studied biology at the University of Vienna and focused during my PhD on freshwater biology, especially on benthic invertebrates. To understand the diversity of aquatic insects and the complexity of relationships between organisms and their environmental conditions was and is a big challenge for me. After my basic university studies I became employed at the University of Natural Resources and Life Sciences in Vienna where a wide variety of different topics –mostly associated with applied sciences like assessment procedures - and aquatic habitat types enlarged my experiences. So I started on mountainous streams and landed at rather big rivers as the Danube, and I got never bored until now.

#### What will your role be on board of the JDS3 ships?

I will not be on board but will more or less represent a non-playing captain position

#### Why is this important? What can we learn?

Benthic invertebrate investigations during JDS3 will be very divers and tangle a bundle of topics dealing with distribution of species, habitat preferences, invasive species, genetics, interspecific relationships, river typology etc. One of the main questions will be: How can we contribute to strengthen biodiversity issues and stop species loss a phenomenon observed in nearly all European rivers. Ecosystem functioning of big streams is very complex and detailed basic studies are needed to disentangle various factors like hydrology, morphology, nutrients, pollution, and organismic reactions.

#### What is an important gain from JDS3 specifically for your country of origin?

For Austria one central question concerns the biological assessment according to the WFD of large rivers in general and specifically the Danube. Large rivers are problematic regarding sampling methods and due to the multiple stressed conditions the development of assessment systems are difficult. JDS-programmes enlarge our experiences in every field and lead to a better understanding of stressor-biotic interactions. One central question is of course what can be done to re-establish more natural conditions to ensure sustainably ecosystem services within the Danubian catchment as national approaches alone will not be successful.



# Watch your Danube





### What are you looking forward to regarding the JDS3?

To find new methodological and analytical approaches and to detect new insights of large river functioning. The exchange between scientists of various field of hydrobiology is a unique privilege, which cannot be overestimated. And finally, who knows which surprises the Danube has in store for us?

Anything else? Something important you think should be mentioned on your profile?

We have to accept that aquatic systems are among the most vulnerable on earth. In the case of the Danubian catchment human pressures have altered them since several hundreds of years leading to a high loss of biodiversity. It is now to find a balance between human and other biota needs. Only a profound knowledge of cause-effect chains and the implementation of proposals based on river expeditions like the JDS3 can lead to a higher equilibrium between ecology and economics.