

Watch your Danube



Horst Zornig

Mr. Horst Zornig (46 yrs) is a limnologist, fish- ecologist at the PRO FISCH OG.



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

First I studied Agriculture at the University of Bodenkultur in Vienna, but I soon found out that my real Interest was Biology, so I changed to the University of Vienna where I studied Ecology. After spending six months in Finland (with the Erasmus exchange program) my interest focused on aquatic ecosystems back in Vienna I specialized in fish ecology at the Department of Limnology. During my studies and work afterwards, I changed my focus more and more to river restoration ecology, where fish are used as a biological indicator for the ecological status of river systems. Through my studies and work experience in various countries, I gained detailed knowledge about the complexity of river systems and I am glad that I can contribute to the understanding of these important ecosystems.

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

I will be a member of the fish core team; hence I will help to sample the whole Danube from Germany to Rumania. We will use the electro-fishing method and an electrified bottom trawl net, a newly developed technique for a quantitative sampling the river bottom. Especially this trawl net method will show if we can catch sturgeons, which are flagship species for the Danube.

Why is this important? What can we learn?

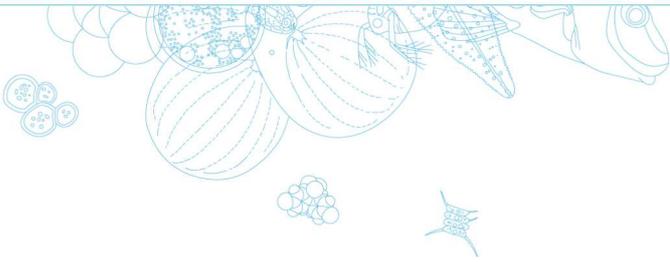
Scientific investigations in freshwater ecology of large rivers are mostly limited by the sample sizes and transboundary, interdisciplinary sampling strategies do scarcely exist. The Joint Danube Surveys provide unique opportunities to gain more detailed data about large river systems. The combined investigations of hydrologists, chemists, microbiologists, ecologists, zoologists and botanists on JDS3 provide a more comprehensive insight into the complexity of river systems and synergies between the various researchers enable the development of suitable river basin management plans. According to the EU Water Framework Directive, fish are biological indicators for the ecological status, hence the fish-ecological investigations within this survey play also an important role for reaching the quite ambitious goal to guarantee a “good water quality” for the next generations.

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

In Austria, hydro power is an important energy source and the planning and building of further hydro power plants is a very intensively discussed issue. River morphological deficits and migration barriers are the most important pressures to the Austrian fish fauna. There are 10 hydro power plants on the relatively short stretch of the Austrian Danube, and the negative effects of these anthropogenic structures on fish populations are obvious.



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Investigating the fish stocks in especially in the lower stretches in Hungary, Bulgaria and Rumania where the Danube is less impacted by man-made structures, will show the importance of undisturbed river stretches and floodplain areas for the Danube fish fauna, and will therefore help to raise awareness for river restoration efforts in my home country.

What are you looking forward to regarding the JDS3?

JDS3 is great opportunity for a fish ecologist to investigate the fish fauna along the whole Danube.. Working with international fish experts and meeting all the different national experts, exchanging our know-how will be a great experience. And last not least we will (hopefully) catch a lot of interesting fish species.