

University of Innsbruck (UIBK) is the largest and most important public research and education institution in western Austria. Located in the heart of the Alps, UIBK offers the best conditions for successful research and teaching, and international rankings confirm the University's leading role particularly in Environmental Science. The Department of Ecology (<https://www.uibk.ac.at/ecology/>) has a long tradition of investigating aquatic systems dating back to 1930. Given the strategic geographical position of the University of Innsbruck in the Alps, current research is aimed at the Alpine space offering a large diversity of ecosystems and scientific challenges. Interdisciplinary science is a principle of the Department, which consists of three sections: Alpine Freshwater Ecology, Terrestrial Ecosystem Research and Landscape Ecology, Animal and Molecular Ecology. With the newly founded working group Fluvial Ecosystem Ecology (FLEE), the leader Prof. Dr. Gabriel Singer aims to establish a research focus on Alpine river ecology and biogeochemistry.

The Department of Ecology at UIBK offers a:

Postdoc position “Chemical diversity of organic matter in river networks”

Fluvial ecosystems are an important element in the global carbon cycle metabolizing large amounts of terrigenous organic matter (tOM). While fluxes are frequently estimated globally, research on the underlying processes is concentrated at the local ecosystem scale. The **ERC Starting Grant Project FLUFLUX** (“Fluvial Meta-Ecosystem Functioning: Unravelling Regional Ecological Controls Behind Fluvial Carbon Fluxes”) aims to develop a deeper mechanistic understanding of fluvial carbon fluxes by investigating ecological processes at the intermediate ‘regional’ scale of the ‘fluvial network’. In particular, respiration of tOM is hypothesized to be an interactive product of organismic diversity and resource diversity, which both follow conspicuous patterns in river networks. In the related **H2020-project DRYVER** (“Securing biodiversity, functional integrity and ecosystem services in drying river networks”) we specifically investigate how the linkage between these two aspects of biodiversity in rivers react to fragmentation by intermittent flow.

To complement our team of river ecologists we search for a motivated **Aquatic Biogeochemist** interested and ideally also experienced in **ultra-high resolution mass-spectrometric analysis of natural dissolved organic matter** (DOM). Samples have been and will be collected in several river networks across Europe and laboratory-based artificial systems. Research tasks most importantly include developing measurement and data processing routines for non-targeted screening as well as for targeted analysis of specific DOM compounds on an Orbitrap-MS/MS system, which is available in a dedicated metabolomics laboratory with various LC and IC front ends. The candidate should also be ready to contribute to diverse biogeochemical field work during sampling expeditions to various European river networks in Austria, Hungary, Croatia and Albania. Planned publications revolve around characterization and dynamics of dissolved organic matter in river networks. Other contributions to the team's research depend on expertise.

We search for a highly motivated researcher holding a doctoral degree in relevant disciplines (Ecology, Limnology, Environmental Sciences, Ecohydrology, Geochemistry) with experience/motivation in stream/river ecosystem ecology and biogeochemistry. Excellent English is mandatory. Experience in UHR mass spectrometry is highly sought, of advantage are further programming skills and knowledge in microbial ecology and molecular biological techniques. We offer a minimum 2-year position in a socially cohesive international team of river-loving ecologists working hard to make a difference for our environment with creative research. The position can be filled anytime from November 2020 onwards. Salary will be according to standard remuneration of the Austrian Science Fund. The position will be filled upon identification of a strong candidate. UIBK is an equal opportunity employer.

For more information and to apply contact **Dr. Gabriel Singer** at UIBK (gabriel.singer@uibk.ac.at). Feel free to contact anyone in the team (<https://www.uibk.ac.at/ecology/flee/>) to learn about (y)our work atmosphere. Submit your application via email including a CV, a brief letter of motivation indicating experience and research interests/ideas, contact details of two referees and copies of pertinent degree certificates.