



PhD position in aquatic microbial ecology (m/f/d)

In the frame of the DFG-project “PycnoTrap” on microbial aggregate degradation and carbon cycling in aquatic ecosystems we are inviting applications for a PhD position in close collaboration with a second PhD position in lake physics. The successful candidate will be part of an interdisciplinary international team with German and Siberian lakes as primary research objects. The PhD study will be focused on microbial dynamics of organic matter driving the aggregation and degradation of organic particles in thermally stratified inland waters. The approaches encompass molecular tools for analysis of microbial community composition and functions and biochemical methods to quantify organic matter sinking and turnover. The study will be performed in close collaboration with the physics and biogeochemistry teams of the project allowing for intense knowledge exchange between different scientific disciplines and researchers. The workplace is at department III (Experimental Limnology) in Stechlin-Neuglobsow (80 km north of Berlin) with frequent visits of the IGB in Berlin, where the physics team is located. Several medium-term visits to remote sites in Siberia are envisaged as part of the field work.

Inland waters such as lakes and reservoirs play a substantial role in the transport and transformation of both terrestrial and autochthonous organic carbon. The key internal pathway for aquatic carbon dynamics, i.e. sinking of particulate organic matter (POM), strongly depends on microbial degradation and vertical density stratification of the water column. Yet, the integral quantitative effects of microbial activities and water column stratification on POM transformation remain largely unknown. This project aims to shed light on the changing role of water column density gradients for POM sinking behaviour and hence its impact on microbial carbon cycling in inland waters.

Your tasks:

- Test and apply molecular tools such as metagenomics and – transcriptomics to study microbial dynamics on particles.
- Perform lab and field experiments on microbial particle degradation along vertical profiles.
- Perform mesocosm experiments to link particle and microbial dynamics using imaging systems (together with physics PhD).
- Analysis and interpretation of molecular, microbiological and biogeochemical data to quantify microbial POM turnover.
- Preparation of manuscripts and publication of project results.
- Collaborate and exchange data with the physics PhD to support model development.

Your profile

- MSc degree in limnology, microbiology, molecular biology or a related field of environmental sciences
- Competencies in evaluation and interpretation of molecular and microbiological datasets (bioinformatics skills are useful)
- Demonstrated skills in work on experiments and microbiology and biochemical data analysis methods
- Knowledge in aquatic microbial ecology and genetics
- Ability to perform intense lab- and fieldwork
- Experience in modelling would be useful but is not required
- High proficiency oral and written English skills including scientific writing
- Collaborative teamworker and good communication skills are essential

Our offer

Salary is paid according to the German salary scheme for the public sector (TVöD Bund) on a 65% level. The task is a fulltime position. Funding for this position is available for 3 years with tentative starting date on 01 May 2021.

We foster your **career development** by providing qualification and training opportunities. We actively support the reconciliation of work and family life. Applicants are treated equally regardless of gender. Qualified women are particularly encouraged to apply. Severely disabled applicants with equal qualification and aptitude will be given preferential consideration.

Are you interested?

We look forward to receiving your application with the usual documents (letter of motivation indicating research interests and experience, CV, certificates/references, publication list) by **15. March 2021**. Please state the job reference number 11/2020 and apply exclusively via our recruitment platform at www.igb-berlin.de/en/jobs.

Questions regarding the position can be directed to Hans-Peter Grossart by e-mail (hgrossart@igb-berlin.de).

“Research for the future of our freshwaters” is the mission of the **Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB)**. The IGB is Germany’s largest and one of the leading international research centres for freshwaters. We seek to understand the fundamental processes governing freshwaters and their communities. Our research findings help to tackle global environmental changes and to develop measures for sustainable water management. The IGB is a diverse and inspiring place to work and conduct research. We promote individual development at every career level and stand for lively exchange and cooperation. With more than 350 employees and guests from all over the world, we conduct research at five locations in Berlin and at Lake Stechlin (Brandenburg). IGB closely collaborates with numerous national and international universities and other partners in science and society and is a member of the **Leibniz Association**, which connects 96 independent public research institutes in Germany. www.igb-berlin.de