



The Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) is the largest freshwater ecology research institute in Germany. It is a member of the Forschungsverbund Berlin e.V. and the Leibniz-Association (www.wgl.de). The FVB manages 8 large research institutes in Berlin that have close links to all three universities in the German capital. IGB offers excellent laboratory and field facilities for interdisciplinary research, large-scale experimental facilities, and long-term research programs and data sets.

IGB invites applications for a

Master Thesis in: Connectivity in the Upper Havel lake system: effects of seasonal stratification and climate change

The position is available from February 2019 onwards.

Duties and responsibilities

Within the project CONNECT funded by the Leibniz Society, an international team of researchers investigates the role of lake-to-lake connectivity for the synchronization of ecological processes in lake meta-ecosystems. We hypothesize such synchronization to depend on water exchange among lakes, which is a consequence of water flow in connecting rivers and lake stratification induced by warming. Further, morphology of lake basins may play a role. We investigate this question using a combination of autonomous in-situ monitoring stations, periodic field sampling and remote sensing tools including satellites and airplanes. The study system is the Upper Havel in the vicinity of Fürstenberg, where we have chosen 20 connected lakes for data collection in 2019. For the assessment of connectivity between lakes – in the targeted time period and under scenarios of long-term climate change – we seek a highly motivated student interested in field work and mathematical modelling. The work will comprise (1) the compilation and analysis of available data on lake morphology and discharge in flowing sections, (2) empirical measurements of lake morphology, mixing depth and discharge using temperature profiles and acoustic Doppler velocimetry, and (3) numerical modelling of water exchange between lake basins and between the surface and deep waters on the background of current climate change trends. Team work during the field campaigns will offer opportunity to learn a variety of limnological field methods.

Requirements

We look for a highly motivated Master student (m/f/d) holding a Bachelor degree in Ecology, Environmental Sciences, Hydrology or a related field. Candidates should have experience in or a strong desire to learn ecological/limnological field methods and interest in modelling. Experience in R, Matlab, Python, or other data-oriented programming environments is a plus. Excellent verbal and written communication skills in English are required.

In keeping with the IGB's policy regarding gender equality, female applicants are particularly encouraged. Severely disabled applicants with equal qualification and aptitude are given preferential consideration.

Interested? If so, please contact: gabriel.singer@igb-berlin.de, hoelker@igb-berlin.de, kirillin@igb-berlin.de for more information. To apply, please upload complete application documents as a single pdf-file including CV, a letter of motivation, copies of relevant degrees via the IGB's (<https://www.igb-berlin.de/en/jobs>) online job-application facility (button "Apply online"). The application deadline is **15.02.2019**.

We are looking forward to your application!