



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.

The IGB seeks well qualified, motivated applicants for a

PhD in Ecohydrology (m/f)

on the topic

“Investigating ecohydrological feedbacks on age of water storage and fluxes in landscapes”

Water follows two fundamental pathways in the landscape: “blue water” fluxes, which recharge groundwater and drain to rivers, are critical for human water supplies; and “green water” fluxes through evapotranspirations which sustains plant growth but is not available for water supply. The overarching goal of this interdisciplinary PhD project is to understand the role of plants on this partitioning of water at the interface of atmosphere–vegetation–land/surface and the effects on groundwater recharge.

The research programme will involve specific stable isotope tracer methodologies for field testing and appropriate experiments to investigate the ecohydrology of landscapes; undertaking practical field work in test catchments over a minimum of a full hydrological year and synoptic sampling; generation of data appropriate for integration within a modelling framework; data analysis and application of tracer-aided hydrology models. The planned methods are: (i) hydrometeorological and ecohydrological monitoring of different soils and vegetation units in areas of different landuse to quantify evaporation, transpiration, recharge fluxes using isotope-based techniques; (ii) integration of field data into physically-based tracer-aided hydrological models. Importantly, the project will use stable isotopes as fingerprints of water to understand sources, pathways and ages of waters involved in water partitioning. The studentship will provide strong interdisciplinary training that will integrate ecohydrological field monitoring, tracer sampling and multi-scale modelling studies. The student will also receive training in other aspects of scientific working such as scientific result dissemination, writing journal articles for publication and conference presentations.

We seek dynamic and motivated applicants with a first class degree (Master, Diplom or equivalent) in hydrology, ecohydrology, environmental sciences, environmental engineering, or a related field. Fluency in English is a requirement. Experience in statistical and/or numerical analyses, GIS analyses, and/or environmental tracer applications would be advantageous. Potential students should give an indication of their research interests and will be required to submit a CV with their application.

Supervisors: Prof Doerthe Tetzlaff (*IGB and HU Berlin*), Prof Chris Soulsby (*Uni Aberdeen, Scotland*). Host organization: IGB Berlin and HU Berlin. Please address enquiries to Prof. Doerthe Tetzlaff (d.tetzlaff@igb-berlin.de).

The position is available from **01/06/2018** and is limited to 3 years.

Salary is paid according to the TVöD Bund (75 % position). 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.

Enquiries or questions should be directed to **Professor Doerthe Tetzlaff** (030/64181-661, d.tetzlaff@igb-berlin.de)

Please upload complete application documents as a single pdf-file including CV, a letter of motivation, copies of relevant degrees and contact details of two referees as soon as possible but no later than **1st March 2018** via the IGB's (www.igb-berlin.de/en/jobs) online job-application facility (button “Apply online”).

We are looking forward to your application!