



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](http://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.

We seek well qualified, motivated applicants for a

## PhD (m/f/d)

on the topic **“Using isotopes to assess effects of land use change on ecohydrological fluxes”**.

This project will investigate how new techniques in isotope hydrology can be used to inform the ways in which vegetation can be best managed to protect water supplies. The project aims to better quantify the influence of distinct land-use types on water partitioning and storage dynamics across spatio-temporal scales. You will apply high-resolution isotopic monitoring techniques in soil-plant system to reveal ecohydrological interactions by quantifying the heterogeneity in spatio-temporal patterns of “green” (evaporation and transpiration) and “blue” (groundwater recharge and runoff) water fluxes in mixed land use landscapes.

Importantly, the project will use stable isotopes as fingerprints of water to understand sources, pathways and ages of waters involved in water partitioning. The research programme will involve specific stable isotope tracer methodologies for field testing and appropriate experiments to investigate the ecohydrology of landscapes. The successful candidate will undertake practical field work in test catchments over a minimum of a full hydrological year combining in-situ techniques with synoptic sampling. The project will generate data appropriate for integration within modelling frameworks, data analysis and application of tracer-aided hydrology models.

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, soil 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](mailto:d.tetzlaff@igb-berlin.de)). The successful candidate will join an interdisciplinary team working on landscape ecohydrological research questions: <https://www.igb-berlin.de/en/tetzlaff>.

The position is available from **January or February 2020** and is limited to 3 years.

Salary is paid according to the TVöD Bund (65 % 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](mailto: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 **8<sup>th</sup> November 2019** via the IGB's (<http://www.igb-berlin.de/en/jobs>) online job-application facility (button “Apply online”).

**We are looking forward to your application!**