

Faculty of Environmental Sciences

At the **Department of Forest Sciences, Institute of Soil Science and Site Ecology** the **Chair of Soil Resources and Land Use** invites applications for a

Research Associate / PhD student

(Subject to personal qualification, employees are remunerated according to salary group E 13 TV-L)

The position is part of a DFG funded project "Linking the composition of dissolved organic matter and nutrient cycling in streams of temperate forested catchments" starting **October 1, 2021** and entails 65% of the fulltime weekly hours with the chance to obtain further qualification (e.g. PhD). We offer a contract until May 31, 2024 with the option of extension. The period of employment is governed by the Fixed Term Research Contract Act (WissZeitVG).

Tasks: Dissolved organic matter (DOM) is an important component of the carbon (C) and nutrient cycles in terrestrial and aquatic systems. Changing environmental conditions with more frequent and intense storm and drought events strongly influence the dynamics of DOM with unknown effects on important ecological functions of DOM as its role in C and nutrient cycling. Changes in DOM composition because of changes in its source (e.g. surface organic and subsurface mineral soil horizons) have not been linked to the role of DOM for nutrient cycling. Therefore, the project focuses on complex interactions at the interface of terrestrial and aquatic ecosystems controlling amount, composition and functionality of DOM in streams. DOM composition along the soil-water-continuum will be linked to nutrient pulse addition experiments in the streams determining whether DOM serves mainly as a C, N or P source for microorganisms. Long-term monitoring sites in the Ore Mountains (Czech and German) are the base of the project. Methods of different complexity will be combined to determine the composition of organic matter in soils and water (fluorescence, infrared, mass, and NMR spectroscopy).

Requirements: We are looking for a highly motivated PhD student with a master university degree (or equivalent) in earth or natural sciences (e.g., Biogeochemistry, Soil Sciences, Earth Sciences, Environmental Sciences, Aquatic Ecology) or related subjects and strong knowledge in the dynamics of organic matter in natural systems. Experiences in field and lab work and a driving license are required. The potential candidate should have experience in biogeochemical analyses. As this project is a joint effort with the Czech Geological Service and the Global Change Research Institute of the Czech Academy of Sciences in Prague and collaboration partners in Spain, Europe and the US, the potential PhD candidate is expected to work in intensive collaboration with our partners including internships at these institutes for several months. Excellent knowledge of spoken and written English and excellent communication skills are expected.

We offer an inspiring international and interdisciplinary atmosphere with state-of-the-art analytical tools to determine DOM composition.

For further information please contact Prof. Dr. Karsten Kalbitz by e-mail: karsten.kalbitz@tu-dresden.de.

Applications from women are particularly welcome. The same applies to people with disabilities. Please submit your application by **August 12, 2021** (stamped arrival date applies) by e-mail including CV, motivation letter, a summary of your master thesis (if already completed) and the names (affiliation, telephone, e-mail) of two references via the TU Dresden SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf document to karsten.kalbitz@tu-dresden.de or to **TU Dresden, Fakultät Umweltwissenschaften, Fachrichtung**

Forstwissenschaften, Institut für Bodenkunde und Standortslehre, Professur für Bodenressourcen und Landnutzung, Herrn. Prof. Dr. Karsten Kalbitz, Pienner Str. 19, 01737 Tharandt. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>