



**Technische Universität Berlin**



## **Research Assistant - 0.67 working-time - salary grade E13 TV-L Berliner Hochschulen**

**Faculty VI - Planning Building Environment, Institute of Ecology / Soil Science**

**Reference number:** VI-511/25 (starting at 01/02/26 / for 36 months / closing date for applications 12/12/25)

### **About us:**

We are looking for a research-oriented individual with a strong affinity for both fieldwork under challenging conditions and precise laboratory work in the DFG project 'CINCA - Climate change Impacts on Nutrient and Carbon Allocation in soils of maritime Antarctica'. As part of this project, you will investigate the effects of climate change on different types of vegetation in Antarctica. The aim is to gain a more comprehensive understanding of environmental processes in maritime Antarctica by closely integrating geomorphological and soil science perspectives. The work consists of extensive fieldwork in Antarctica, including soil sampling and measuring greenhouse gases, and soil analysis in the laboratory at TU Berlin. Field sampling will be carried out in close cooperation with project partners from Czechia.

A central component of your research will be the investigation of biogeochemical processes at the interface between vegetation and soil – particularly in the context of lab-scale incubation experiments. The main focus will be on the dynamics and allocation of carbon, nitrogen and phosphorus between plants and soils. In addition to classic soil science analyses, you will use state-of-the-art spectromicroscopic imaging techniques, including  $\mu$ CT measurements of soil structure in combination with measurements of biogeochemical parameters. You will contribute significantly to a deeper understanding of the effects of climate change on biogeochemical cycles in Antarctic vegetation-soil systems. Ideally, you will have experience in incubation experiments, physical soil fractionation, and the analysis and evaluation of soil organic matter.

As a research assistant in the Department of Soil Science (Prof. Dr. Carsten Müller) at the Institute of Ecology at TU Berlin, we will support you in developing your skills at TU Berlin by providing an excellent scientific environment, hands-on project experience, international networking in science, regular supervision, specific training in scientific skills, and support for your long-term career prospects.

### **Your responsibility:**

- Planning and conducting field work in Antarctica, in particular sampling soil and vegetation and measuring climate-relevant gases
- Laboratory analyses in Berlin to characterise soil samples, including physical soil fractionation, analysis of soil organic matter and isotopic as well as elemental analyses
- Conducting incubation experiments to investigate biogeochemical processes at the interface between vegetation and soil
- Application of spectroscopic and spectromicroscopic methods (e.g.  $\mu$ CT, NanoSIMS) to analyse and link soil structure with chemical soil properties
- Analysis and interpretation of data relating to the effects of climate change on matter cycles in vegetation-soil systems in Antarctica
- Collaboration with international project partners, particularly from Czechia, Denmark and Sweden, to integrate geomorphological and soil biogeochemical measures and processes
- Presentation of research results at national and international conferences and publication in scientific journals

### **Your profile:**

- Successfully completed university degree (Master, Diplom or equivalent) in soil science, geoecology, environmental sciences, biogeochemistry, plant ecology or a related field
- A thematic focus that brings synergies with the tasks and topics mentioned, as well as in-depth knowledge of soil science and biogeochemical processes, especially at the vegetation–soil interface
- Confident use of chemical soil analyses (e.g. C/N analysis, elemental analysis, isotope measurements)
- Willingness to spend several weeks in Antarctica
- Experience in data analysis and statistical evaluation of scientific data, ideally with R or Python
- Very good written and spoken English; knowledge of German is an advantage but not essential
- Initial practical experience in the design, implementation and evaluation of scientific experiments, in particular incubation experiments for trace gas analysis (ideally as part of your thesis) are desirable
- Enjoyment of participating in expeditions to polar regions as well as in planning and conducting fieldwork, ideally under extreme environmental conditions (Antarctica) advantageous
- Experience with 3D data processing and image analysis desirable
- Enjoyment of cutting-edge research, creativity, perseverance and teamwork desirable
- High level of self-organisation and responsibility, as well as the ability to work independently, in a structured and goal-oriented manner advantageous
- Scientific communication skills (written and oral) desirable

**How to apply:**

Please send your application, **quoting the reference number**, together with a cover letter that highlights your motivation to apply, CV, degree certificates and, if applicable, 2 references, combined into a single PDF file (max. 4 MB) **by email** only to Bettina Jander at: **[bewerbung@boku.tu-berlin.de](mailto:bewerbung@boku.tu-berlin.de)**.

If the application requirements are not met, your application will not be considered.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: [https://www.abt2-t.tu-berlin.de/menue/themen\\_a\\_z/datenschutzerklaerung/](https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/).

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

The vacancy is also available on the internet at:  
<https://www.jobs.tu-berlin.de>

