

Public job advertisement

45,000 students and 8,000 employees in teaching, research and administration, all working together to shape perspectives for the future – that is the University of Münster. Embedded in the vibrant atmosphere of Münster with its high standard of living, the University's diverse research profile and attractive study programmes draw students and researchers throughout Germany and from around the world.

The Institute of Landscape Ecology at the University of Münster, Germany, is seeking to fill the position of a

Doctoral Research Associate **in ecosystem acclimation to escalating atmospheric and soil dryness** *Wissenschaftliche/r Mitarbeiter/in* **(salary level TV-LE 13, 65%)**

at the earliest possible date. We are offering a fixed-term part-time position (65% FTE) for 3 years. Full-time employees are required to teach 4 hours per week during the semester.

Project description:

Atmospheric and soil dryness have a strong influence on the exchange of greenhouse gases between terrestrial ecosystems and the atmosphere. With climate change, the frequency and intensity of extreme dryness that limits ecosystem ecophysiological functioning are increasing. However, the cascading effect on the ecosystems, the memory from past events, and the level of ecosystem acclimation to increased dryness are not clear. This project aims to quantify and understand the effect of more frequent and more intense atmospheric and soil dryness on the carbon uptake of natural ecosystems (e.g., forests, peatlands) based on ecosystem-level gas flux observations. The primary focus will be on testing statistical methods for quantifying ecosystem memory and acclimation and discovering the underlying causal networks in ecosystem-atmosphere exchange processes.

Your tasks:

- *This position is tied to working towards a doctorate*
- Work with measured meteorological and greenhouse gas observations accessible from regional and global networks (FLUXNET, ICOS, AmeriFlux, OzFlux)
- Use remotely sensed products for auxiliary soil and vegetation traits
- Develop statistical methods to identify single and compound extreme dryness events, and quantify acclimation, ecosystem memory and the underlying causal networks
- Analyse data, present results, and publish in peer-reviewed journals.

The student will join the Biosphere-Atmosphere Interaction (BAI) group within the Institute of Landscape Ecology (ILÖK) in the Faculty of Geosciences of the University of Münster and collaborate closely with the existing network of the group.

Our expectations:

- a Master's degree (or close to completion) in environmental sciences, atmospheric or climate science, geoinformatics, data science (with a focus on statistical methods and data analysis), or a closely related field and with strong interest in working with ecological big data
- good statistical skills
- good computer programming skills (e.g., Python, R, MATLAB)
- good communication skills and ability to work in a team
- high interest in contributing to the teaching of the BAI group

German language skills are not required but would be advantageous. However, good written and spoken English is mandatory.

We offer:

- A stimulating and supportive working environment
- Access to state-of-the-art research facilities
- Opportunities for professional development and implementing own ideas
- Access to a wide interdisciplinary research network and opportunities to collaborate with ETH Zürich

The University of Münster strongly supports equal opportunity and diversity. We welcome all applicants regardless of sex, nationality, ethnic or social background, religion or worldview, disability, age, sexual orientation or gender identity. We are committed to creating family-friendly working conditions.

We actively encourage applications by women. Women with equivalent qualifications and academic achievements will be preferentially considered unless these are outweighed by reasons which necessitate the selection of another candidate.

Information about the Biosphere-Atmosphere Interaction group can be found here:

<https://www.uni-muenster.de/BAI/>. Questions regarding the position should be directed to Prof.

Mana Gharun mana.gharun@uni-muenster.de

If you are interested, please send a letter of motivation, CV, copies of BSc and MSc certificates (and transcripts), and contact details of two referees via email to:

Prof. Dr. Mana Gharun

mana.gharun@uni-muenster.de

You are kindly asked to send us your application electronically in a single PDF file. Please note that other electronic file formats cannot be considered. Application deadline: 5 December 2023.