

# Doctoral position (m/f/d) nutrient cycling and carbon storage in grazed systems

20.04.2023

The Livestock Systems research group at the TUM School of Life Sciences in Freising is recruiting a PhD student (m/f/d) to work on nutrient cycling in grazed livestock systems. The aim of our group is to improve the understanding of the trade-offs between production, mitigation and conservation in livestock-based systems, and to identify innovative mechanisms to aid landscape-level management of these systems. We conduct modelling studies and generate empirical datasets for selected livestock systems in East Africa, and in the subtropics of Latin-America that are under-represented in global studies. This doctoral research project will study productivity grasslands and key links to nutrient cycling, carbon sequestration and species diversity. The field work will take place in the dry forest ecosystem of the Gran Chaco of Argentina, in collaboration with researchers from CONICET, the Argentinean national research council.

## Your tasks:

will be to test hypotheses on the role of grazing intensity, plant species, and livestock type on the functioning of grasslands and potential contributions to carbon removal and GHG emissions.

## What we expect from you:

- University degree (MSc.) in Agricultural Science, Ecology, Biology, Environmental Science, or related fields.
- Thorough understanding of the processes determining grassland productivity and their biogeochemistry.
- Interest and experience conducting experimental research in livestock and grassland systems and interest in interdisciplinary approaches.
- Experience in modelling biological or agricultural systems, with programming skills (R, Python, or Matlab) is desirable.
- Good language (written and spoken English) and excellent presentation skills.
- Ability to work in a team, with effective interpersonal communication skills.
- Willingness to assist with the supervision of BSc, and MSc-level research.

## Our offer

We offer an interesting and challenging job in a motivating and expanding international team at the Chair of Livestock Systems of TUM. The chair has a broad network of collaborators across Europe (e.g. Lancaster University, The University of Manchester, Wageningen University, University Giessen, Göttingen University, GFZ Potsdam, University of Galway), Africa and the Americas. The Chair of

Livestock Systems is newly established at TUM and includes several postdocs, PhD students, and technical staff. The team works on various topics, including multi-scale analyses of productivity, nutrient and water cycling in livestock systems, grassland restoration, GHG emissions from livestock systems, and global changes impacts on crop-livestock systems. Freising is a charming University city in the vicinity to the vibrant city of Munich, very well connected by train (ca. 30 minutes), and a perfect starting point to explore the Bavarian Alps and the rest of Germany.

Working hours are flexible and remuneration is in accordance with TUM regulations (TV-L E13 65%). Severely disabled persons will be given preference in the case of essentially equal suitability and qualifications. The position is for three years to complete the PhD programme. TUM aims to increase the proportion of female candidates; applications from female candidates are therefore particularly encouraged.

## Contact

Please send your application with a short letter of motivation conveying your interest and suitability for the position, CV, certificates and the contact details of two references to Technical University of Munich, Chair of Livestock Systems, Liesel-Beckmann Straße 4, 85354 Freising, Tel: +49 (0)816171 5483, Email: [office.lsys@tum.de](mailto:office.lsys@tum.de) by **19.05.2023**. If you are applying by email, please send all documents as a single PDF document.

When applying for a position at the Technical University of Munich (TUM), you will be submitting personal data. Please refer to our data protection information in accordance with Art. 13 of the General Data Protection Regulation (DSGVO) <http://go.tum.de/554159> regarding the collection and processing of personal data in the context of your application. By submitting your application, you confirm that you have taken note of the TUM data protection information.

Please direct questions about the position to Prof. Mariana Rufino ([mariana.rufino@tum.de](mailto:mariana.rufino@tum.de)).

More information about the Livestock Systems Research Group can be found at [www3.ls.tum.de/lsys/](http://www3.ls.tum.de/lsys/)