

## PhD position (TU MÜNCHEN)

Bewerbungsfrist: k.A.

We invite applications for a

### PhD position in Ecological Synthesis of Biodiversity Effects on Ecosystem Services

#### Background

In the last decades there has been enormous progress in understanding how land use/land cover, biodiversity, or climate affect ecosystem service provisioning, i.e. the goods and services that mankind receives from ecosystems. However, studies have shown that there is a wide variety of responses of different ecosystem services to changes in different drivers. Such heterogeneous results need a combination of experimental and big data approach, i.e. ecological synthesis. Ecological synthesis can integrate data on biodiversity, ecosystem functions, ecosystem services, and their drivers such as land use using statistical tools to generate quantitative insights that are both general and robust. As part of the recently started research project “Drivers of Ecosystem Services in Heterogeneous Landscapes (ECOSERV), funded by the TUM International Graduate School of Science and Engineering ([www.igsse.gs.tum.de](http://www.igsse.gs.tum.de)), the successful candidate will use data from projects in Germany and Brazil to answer the questions: (1) For which ecosystem services are negative trade-offs particularly eminent? (2) What is the potential for ecosystem multifunctionality? (3) Can biodiversity predict ecosystem service provisioning on landscape scale?

#### Your profile

- Full university degree (Diploma/M.Sc.) in biology, ecology or a related discipline.
- Strong background in statistical modeling in R.
- Interest in biodiversity, ecology, community ecology, ecosystem functioning.
- Fluent in English, in reading and writing.
- We expect the candidate to have good communication skills and the ability to work in a team.

#### Tasks

You will become a team member of the ECOSERV research group, which consists of PhD-students in the Terrestrial Ecology Research Group at TUM ([toek.wzw.tum.de](http://toek.wzw.tum.de)) and several members of the landscape ecology group of Prof. Jean Paul Metzger at the University of São Paulo, Brazil (<http://ecologia.ib.usp.br/lepac/>). You will investigate trade-offs between ecosystem services and analyse limits and possibilities for the maximization of ecosystem multifunctionality by analysing data from one of the largest and longest-running biodiversity experiments worldwide ([www.the-jena-experimen.de](http://www.the-jena-experimen.de)) and related projects.

#### Our offer

- Stimulating working environment and an interdisciplinary and international research team.
- A stipend of €2000 per month. The contract for the position will be limited to 36 months
- A 3-month-visit to the landscape ecology group in São Paulo, Brazil.
- TUM is an equal opportunity employer. Qualified women are therefore particularly encouraged to apply. Applicants with disabilities are treated with preference given comparable qualification.

#### Contact

Please send your application, including a cover letter, a detailed CV, contact information of two referees, and your master thesis (or equivalent) as soon as possible (applications are accepted until the position is filled) in the form of a single pdf-file to Sebastian T. Meyer ([sebastian.t.meyer@tum.de](mailto:sebastian.t.meyer@tum.de)). Appointment date is as soon as possible. For further inquiries, contact Dr. Sebastian T. Meyer or Prof. Wolfgang W. Weisser ([wolfgang.weisser@tum.de](mailto:wolfgang.weisser@tum.de)).