

In the scope of the interdisciplinary research project “Blick in die Zukunft (BLIZ): Wechselwirkungen zwischen Gesellschaft, Landnutzung, Ökosystemleistungen und Biodiversität in Bayern bis 2100” funded by the Bavarian Climate Research Network (“bayklif”) of the Bavarian State Ministry, we invite applications for a

## PhD position in biodiversity modelling under environmental change

(TV-L/60%), limited for 36 months

### Your profile

- Full university degree (Diploma/M.Sc.) in biology, geo-ecology, environmental science or a related discipline
- Sound knowledge in mechanistic modelling and scientific programming (e.g. Matlab, R, C++ or Julia)
- Ability to write scientific manuscripts, communicate concepts and results in fluent English
- Good communication skills and the ability to work in a team

### Tasks

You will be a team member of the recently started interdisciplinary research project “BLIZ”. Together with partners from the TUM, University of Regensburg and FAU Erlangen, you investigate the dynamics of terrestrial biodiversity in Bavaria. The project will focus on the spatiotemporal dynamics of populations and communities of terrestrial plants. Study systems will take account recognized biotopes and natural areas in Bavaria and model development as well as ecophysiological calibration will be done in close collaboration with partners at TUM and University of Regensburg. With the model, you will investigate the feedbacks between terrestrial plant biodiversity and socio-economic systems (land-use change) in a changing climate and their uncertainties. The main goal of the project is to develop adaptation strategies to maintain sustainable ecological systems and to avoid tipping points. Specific tasks of the PhD position are (1) to develop and apply process-based models for terrestrial plants at the landscape (focal landscapes) and regional (entire state of Bavaria) scales, (2) to simulate impacts of land-use and climate change on important native species and relevant invasive species, and (3) to evaluate potential risks for biodiversity and develop sustainable management strategies. The doctoral thesis will be done as a series of English manuscripts.

### Our offer

- Stimulating working environment and an interdisciplinary research team
- A salary in accordance to the position for the duration of the employment
- JMU 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 short summary of research interests, detailed CV with list of publications, complete certificates, grades, and the contact of two potential referees as soon as possible until the 1<sup>st</sup> June preferentially in the form of **a single pdf-file** to Prof. Juliano Sarmiento Cabral ([juliano.sarmiento\\_cabral@uni-wuerzburg.de](mailto:juliano.sarmiento_cabral@uni-wuerzburg.de)). For further inquiries, please contact directly Prof. Juliano Sarmiento Cabral

- For more information, see [www.bayklif-bliz.de](http://www.bayklif-bliz.de) or [www.cctb.uni-wuerzburg.de/research/ecosystem-modeling/](http://www.cctb.uni-wuerzburg.de/research/ecosystem-modeling/)