

Philipps



Universität
Marburg

At the **Faculty of Geography**, the research group Ecological Plant Geography offers a part-time position (65 % of regular working hours) for 3 years starting **01-09-2016** or as soon as possible, for a

Scientific Researcher (PhD student)

Salary and benefits are according to a public service position in Germany, pay scale E 13 TV-H.

Within the scope of the assigned duties the position will offer the possibility of independent scientific research which can be used for further qualification.

The successful candidates will work within the German Research Foundation (DFG)-funded Project "Climate-change effects on bryophyte carbon balances in the warm tropics: a rainforest experiment complemented by simulation modelling". Your focus will lie on the **development and use of the simulation model**. Your tasks will include contributing in the planning and set-up of the field experiment (ca. 4 months in La Selva, Costa Rica), developing, implementing and testing a moss carbon-balance model, ecophysiological measurements on bryophytes (hydration kinetics, gas exchange), data analysis, coordinating your activities with those of your project colleague, and the preparation of several scientific publications.

The project is supervised by Jun.-Prof. Dr. Maaike Bader (University of Marburg) and Prof. Dr. Gerhard Zotz (University of Oldenburg).

Mosses are conspicuously rare in most lowland tropical forests. The high temperatures and consequent quick drying and short photosynthetic activity may well be responsible for this. This would imply adverse effects of further warming. In an experiment in the tropical rainforest epiphytic mosses will be exposed to climate-change simulations (warming, increased CO₂ and changed moisture regime) in open-top chambers. Your colleague will study how these changes affect the growth and survival of the bryophytes and what physiological processes play a role (second position advertised under number fb19-0006-wmz-2016). You will develop a model to calculate moss carbon balances based on climatic data. The primary goals of the model are to explain the responses observed in the field experiment and to predict further climate-change responses of tropical bryophytes. Beyond that, with this model you can help to lay the basis for a wide range of future applications in climate-change research and biogeographical applications.

The successful applicants will hold an MSc-degree (with very good results) or equivalent in Biology or a related relevant discipline and have an interest and, preferably, practical experience in plant ecophysiological research, plant-growth or carbon-exchange modelling, informatics and programming (e.g. in R), and data analysis (statistics). Experience with fieldwork in the tropics is beneficial. Further requirements include a creative, analytical and critical mindset, the ability to work independently and to help further develop the project, good communication skills, the willingness to carry out fieldwork in Costa Rica, and good English

oral and writing skills. Knowledge of Spanish is beneficial.

More information about both positions can be obtained from Jun.-Prof. Dr. Maaïke Bader (maaïke.bader@geo.uni-marburg.de).

We support women and particularly invite them to apply. Applicants with children are welcome - the Philipps-University is certified as a family friendly university. A reduction of working time is possible. Applicants with a disability as described in SGB IX (§ 2 Abs. 2, 3) will be preferred in case of equal qualifications. Application and interview costs cannot be refunded.

Please send your application (including a motivation letter in English, curriculum vitae and contact details of two potential referees) mentioning registration number fb19-0007-wmz-2016 only as a single PDF file to maaïke.bader@geo.uni-marburg.de before June 24th 2016.