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Bayceer

Bayreuth Center of Ecology  
and Environmental Research

## PhD position in Soil Ecology

December 12, 2018

### Warming effect on carbon cycling in an alpine forest soil

We invite applications for a PhD position in an Austrian-German (FWF/DFG) research project on 'Decadal forest soil warming: Effects on soil carbon and nutrient dynamics and GHG efflux'. The position is limited to three years and should start on March or April 2019. The salary is in accordance with the German Public Service salary scale (TV-L E13) with 65% of the regular working hours.

The Achenkirch soil warming experiment is located in the northern Alps (Austria) and is worldwide one of the few ongoing long-term global warming experiments. The overall goal of the project is to assess how soil warming affects cycling and losses of carbon and nutrients in a temperate calcareous forest soils.

The responsibility of the PhD student will be to study the turnover of soil organic carbon and fine roots in the experimental plots at Achenkirch using radiocarbon ( $^{14}\text{C}$ ) as a powerful tool. Radiocarbon signatures will be implemented in existing models to assess the long-term impact of soil warming on changes in soil respiration, turnover and stocks of soil carbon. Modelling will be supervised by Dr. Carlos Sierra (Theoretical Ecosystem Ecology, Max-Planck Institute for Biogeochemistry). Further tasks of the PhD student include the quantification of ectomycorrhizal growth and fungal biomass, identification of ectomycorrhizal fungi, chemical and isotopic analysis of seepage.

#### Qualifications

- Successfully completed Master's degree in ecology, environmental sciences, geoecology, soil science or similar
- Experience in lab work or ecological modelling
- Experience in working with soils, roots, or fungi is desirable
- Proficiency in English and very good writing skills

The project will be based at the University of Bayreuth and in part at the Max-Planck Institute for Biogeochemistry, Jena. A technician (50% of regular working hours) will support the field and laboratory work. The doctoral researcher will benefit from interdisciplinary cooperation with the project partners from the University of Vienna and the BFW/BOKU Vienna. The University of Bayreuth is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply as they are underrepresented in this field. Disabled persons with equivalent aptitude will be favored.

Please send your application with documents (application letter, CV, copies of records of your BSc and MSc, documents showing research experience if applicable, and contact information of a reference) in electronic form as a single pdf-file to Prof Dr. Werner Borken (werner.borken@uni-bayreuth.de). Review of applications will start on February 1, 2018, and will continue until the position is filled.