

Bayreuth, 03.02.2022

PhD position in Soil Ecology

We are looking for a PhD student to work with us on the BMBF BonaRes project "ORDIAmur: Overcoming replant disease by an integrated approach".

The project: Apple replant disease (ARD) is caused by repeated cultivation of apple plants in the same soil. The ARD represents a major problem in apple cultivation areas worldwide, as it leads to reduced plant growth and losses in fruit yield and quality. Severity of ARD varies across soils but the regulating factors are still poorly understood. Our subproject aims at 1) characterizing ARD severity for large data sets across a range of soil properties and including various types of management, and at 2) understanding abiotic (soil properties & climate) and biotic factors involved in ARD and evaluating site-specific ARD risk and mitigation potentials. The results will be implemented in a decision support app that allows users to assess ARD risk based on easily assessable soil and site properties, such as texture, climate, or humus content

Your responsibilities: The PhD candidate is expected to plan and carry out field work and soil sampling campaigns in various apple orchards throughout Germany. The PhD candidate will also be involved in greenhouse and field experiments for ARD severity testing. Lab work includes incubation experiments as well as measurements of basic soil properties for large sample sets (e.g. texture, pH, C/N, nutrients). The candidate is expected to conduct multivariate statistics in order to identify regulating factors of ARD severity, including own data and those acquired by project partners. A close collaboration with project partners is intended. The candidate will publish results in peer reviewed journals and present them at conferences.

Requirements: We are looking for a highly motivated candidate with a successfully completed Master's degree in Soil Science / Geoecology / Geography, or a comparable programme with a focus on soil science. Experience with field and lab work including chemical and biological analyses is desirable. The willingness to conduct field work is a prerequisite and requires a driver's license. Skills in data analysis and multivariate statistics (preferentially with R) are of advantage. Proficiency in English and very good writing skills are required. Proficiency in German is of advantage.

The fixed-term position will start in spring 2022 and is limited to three years. Payment is 65% of a E13-position. The position offers the possibility to carry out research for a PhD thesis. 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.

We are looking forward to receive your application in English or German by **06 March 2022** in electronic form as a single pdf file– including an application letter, CV, copies of records of your BSc and MSc, and contact information of one reference.

Applications and questions can be directed to Prof. Dr. Eva Lehndorff (eva.lehndorff@uni-bayreuth.de) and Dr. Nele Meyer (nele.meyer@uni-bayreuth.de).