



Reference number 394/2020

DOCTORAL RESEARCHER (M/F/D) ON THE PROJECT: “FUNCTIONAL DIVERSITY OF SOIL ORGANISMS” (P8G-2)

Fixed term of 3 years

65% of a full-time position

Planned remuneration: salary group 13 TV-L

Place of work: Leipzig

Leipzig University seeks to fill the following position at the **German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena- Leipzig**, in Leipzig from 1 June 2021.

Background

The DFG-funded International Research Training Group GRK 2324 **TreeDi - Tree Diversity Interactions: The role of tree-tree interactions in local neighbourhoods in Chinese subtropical forests** (www.treedì.de) invites applications for the position of a doctoral researcher in the **TreeDi project 8**.

Project description

Plant diversity determines soil microbial biomass and the structure of soil communities and, therefore, ecosystem functioning in grasslands. Evidence from forest ecosystems is scarce, although tree diversity may also increase ecosystem functioning. The underlying mechanisms are however poorly understood. Multifunctionality approaches suggest that positive biodiversity effects occur in forests when functions are not strongly correlated, pointing to the importance of the dissimilarity of species, identity effects, and interactions between single species. In addition, it is suggested that functional dissimilarity promotes ecosystem functioning when embedded in a complex environment (e.g. high resource complexity), as different niches can be exploited/occupied. Studying the functional dissimilarity of interaction partners may therefore provide a generalizable framework to link biodiversity to ecosystem functions.

The aim of the project is to investigate whether (1) dissimilarity of tree species pairs increases functional diversity of soil microorganisms and soil nematodes, (2) more complex environments steepen this slope, and (3) increased functional diversity of soil organisms results in increased biomass of microorganisms and nematodes (consumer biomass).

The project is supervised by Dr Simone Cesarz (Head of laboratory of Experimental Interaction Ecology at iDiv / Leipzig University; simone.cesarz@idiv.de) and Professor Nico Eisenhauer (Professor for Experimental Interaction Ecology at iDiv / Leipzig University, nico.eisenhauer@idiv.de).

Tasks

- Determining the functional diversity of microorganisms
- Determining the functional diversity of free-living soil nematodes
- Measuring consumer biomass (microorganisms and nematodes).

The doctoral researcher will team up with the fellow on the Chinese side. Supervision and assistance will be provided by a Joint German-Chinese PhD Advisory Committee (PAC), combining empirical and theoretical expertise. All TreeDi fellows will have to submit their PhD thesis as a cumulative thesis, comprising at least three chapters in the form of first-author papers in international peer-reviewed journals, of which at least one paper must have been accepted or published by the time of thesis submission. TreeDi fosters early experience in autonomous research, and thus encourages team members to become engaged in synthesis, making use of available data from previous projects. Moreover, the work will also include scientific exchange with other working groups, participation in the TreeDi qualification programme, and presentations at international conferences.

Requirements

- Master's or equivalent degree in a project-related field (e.g. ecology, environmental sciences)
- Very good ecological knowledge and great interest in forest biodiversity research
- Good quantitative and statistical skills in R are essential
- A solid soil biological/ecological background is advantageous
- Fluent in English (written and spoken). Knowledge of German and/or Chinese is an advantage

- A clear drive to do science
- Motivated to be a proactive team player in an international research consortium
- Flexible and well organised, hands-on mentality
- Applicants must be prepared to spend substantial periods (approx. 2–4 months per year) in China for fieldwork, lab visits and courses
- Willingness to work under subtropical field conditions. Field work experience would be advantageous.

Kindly send your application, quoting the reference number 394/2020, via our application portal at <https://apply.idiv.de>. While we prefer applications via this portal, hard-copy applications may also be sent to:

German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig
HR Department
Puschstr. 4, 04103 Leipzig

The deadline for submissions is 14 February 2021. Selected candidates will be invited to the online joint recruitment symposium taking place in March 2021 (22–23 March 2021).

All applications should include:

- Cover letter in English describing the applicant’s motivation for the project, research interests and relevant experience
- Complete curriculum vitae including names and contact details of at least two scientific referees
- Digital copy of master’s/bachelor’s/diploma certificates.

Queries concerning the application process should be directed to Dr Stefan Trogisch (stefan.trogisch@botanik.uni-halle.de); for project-related questions, please contact Dr Simone Cesarz (simone.cesarz@idiv.de). Severely disabled persons are encouraged to apply and will be given preference in the case of equal suitability. Please note that applying by email is not entirely secure and may pose a privacy risk. The sender assumes full responsibility.

iDiv is committed to establishing and maintaining a diverse and inclusive community that collectively supports and implements our mission to do great science. We will welcome, recruit, develop, and advance talented staff from diverse genders and backgrounds.

Privacy information

The personal data contained within your application documents or obtained during the interview will be processed exclusively for the purposes of the selection process for the position advertised. The legal basis for such data processing is Section 11(1) of the Saxon Data Protection Implementation Act (SächsDSDG) in conjunction with the EU General Data Protection Regulation (GDPR). The controller for the application process within the meaning of the GDPR is the addressee of the application, as specified in the respective advertisement. When processing your application, your personal data will be passed on within Leipzig University to

- *members of the selection committee*
- *the human resources management teams*
- *the Commissioner for Equal Opportunities*
- *the Disability Officers and*
- *if necessary, the Staff Council*

as part of their organisational or statutory responsibilities.

Your personal data will be erased no later than six months after completion of the selection process. In accordance with the GDPR, subject to the relevant statutory requirements you have the following rights vis-à-vis the addressee of the application with regard to your personal data: right of access (Art. 15 GDPR); right to rectification of inaccurate personal data (Art. 16 GDPR); right to erasure (Art. 17 GDPR); right to restriction of processing (Art. 18 GDPR); and right to object to processing (Art. 21 GDPR). If you have any questions, please contact the Data Protection Officer at Leipzig University (office: Augustusplatz 10, 04109 Leipzig). You also have the right to lodge a complaint with the Saxon Commissioner for Data Protection.