External Job Announcement
Reg.-Nr. 5-8114/21-D

iDiv German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig

Sachsen-Anhalt

MLU-BioDivFund

Martin Luther University Halle-Wittenberg (MLU) invites applications for the following position:

Doctoral Researcher (m/f/d) on the project "Wild bee body size and wing fluctuating asymmetry as response traits to anthropogenic disturbance in agriculturally dominated landscapes in Saxony-Anhalt"

(starting date: November 2021, limited to 3 years, 65 percent of a full-time employment, salary will be up to Entgeltgruppe 13 TV-L if the personal requirements and tasks are fulfilled, work place will be located at MLU Halle)

Research topic: "Wild bee body size and wing fluctuating asymmetry as response traits to anthropogenic disturbance in agriculturally dominated landscapes in Saxony-Anhalt"
The project is funded by the Federal State of Saxony-Anhalt (MLU-BioDivFund). The program seeks to expand biodiversity research to new interdisciplinary research fields, which will be done in close cooperation with the German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig as well as with the universities Friedrich Schiller University Jena (FSU) and University of Leipzig (UL) and the Helmholtz Centre for Environmental Research (UFZ).

Body size is an ecologically important trait, linked to metabolism, life-history and dispersal as well as a major determinant of ecological networks. In bees, body size influences dispersal, foraging range and behavior and consequently pollination. Body size variation is very common in bees and is largely determined by environmental factors such as temperature and the abundance and quality of floral food resources that are provided to the developing larvae. This project has three aims: 1) to investigate how body size and its intraspecific variability varies in 10 bee species already sampled across 10 years of observation in 6 sampling sites in central Germany that differ in their habitat heterogeneity, proportion of semi-natural and agricultural cover, biotic and abiotic factors; 2) to study the susceptibility of the same 10 bee species to spatio-temporal changes in environmental quality, by measuring their wing fluctuating asymmetry (FA), an established method for measuring phenotypic responses to environmental stress (such as resource limitation, thermal stress, pesticides); 3) to provide direct support for patterns of body size variation observed through the correlational approach used for aims 1 and 2, by using experimental bumble bee colonies, placed across a gradient of anthropogenic disturbance.

The MLU-BioDivFund researchers will be integrated in a stimulating network of excellence. They will become enrolled in yDiv, the Graduate school of iDiv, which involves an international qualification program, an interdisciplinary PhD advisory committee (PAC) and unique offers to meet, study and discuss with figureheads in biodiversity research.

Tasks:

- Task 1: to measure and analyze bee body size variation in relation to variation in temperature and in land use.
- Task 2: to measure and analyze bee wing fluctuating asymmetry in relation to environmental stressors.
- Task 3: to experimentally test, using experimental bumble bee colonies, the effect of anthropogenic disturbance on body size.

Supervision and assistance will be provided by a Joint MLU/UFZ PhD Advisory Committee (PAC), combining empirical and theoretical expertise. The candidate will have to submit her/his 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 has to be accepted or published at the time of thesis submission. The work will also include scientific exchange with other working groups and presentations on international conferences.

Requirements:

- Master or equivalent degree in a project-related field (e.g. ecology, evolution, environmental sciences)
- Good ecological knowledge and great interest with regard to bee biodiversity research
- Good quantitative and statistical skills (using R statistical software)
- Experience in bee taxonomy and ecology
- Fluent in English communication in writing and speaking
- Driving license (class B)
- A clear drive to do science
- Flexible and well organized
- Willingness to work under potentially uncomfortable field conditions. Field work experience would be advantageous
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The Martin Luther University Halle-Wittenberg gives priority to applications from severely disabled candidates with equivalent qualifications. Women are particularly encouraged to apply.
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. Antonella Soro (antonella.soro@zoologie.uni-halle.de) and/or Dr. Panagiotis Theodorou (panagiotis.theodorou@zoologie.uni-halle.de).

Submission deadline is 20 August 2021. Selected candidates will be invited to the online joint recruitment symposium taking place on the 29th of September 2021.

All applications should include:

- Cover letter in English describing motivation for the project, research interests and relevant experience
- complete curriculum vitae including names and contact details of at least two scientific references
- digital copy of MA/BA/Diploma certificates
- all document should be submitted as one single pdf file.

Kindly send your application, quoting **the reference number 5-8114/21-D** to **both** Dr. Antonella Soro (antonella.soro@zoologie.uni-halle.de) and Dr. Panagiotis Theodorou (panagiotis.theodorou@zoologie.uni-halle.de).

The position is offered with reservation of possible budgetary restrictions. Application portfolios will not be returned, application costs will not be reimbursed.