Job vacancy at the Johann Heinrich von Thünen-Institute

The Institute of Biodiversity at the Johann Heinrich von Thünen-Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries, in Braunschweig is offering a full-time position (currently 39 hours per week) for a

Postdoc researcher (f/m/d)

for the development of bioinformatic data processing and analyses for the wild bee monitoring in agricultural landscapes. The term of the position is three years, full time. The employment is designed to develop own scientific qualifications, e.g. with the aim of taking over scientific leadership and management tasks in federal or state institutions. The term of employment is regulated by §2 (1) S. 2 Wissenschaftszeitvertragsgesetz.

Agriculture is considered to be a major factor for biodiversity decline in agricultural landscapes. In order to assess the effects that different land use types, management practices, as well as agri-environmental schemes have on biological diversity and to make statements relating specifically to agricultural areas, there is a need for a comprehensive data basis. Germany currently has no comprehensive data describing the status and trends of biodiversity in agroecosystems. Therefore, scientists of the Thünen-Institute, the Julius Kühn-Institute and the Federal Office for Agriculture and Food, are developing a Monitoring of biodiversity in agricultural landscapes ('Monitoring der biologischen Vielfalt in Agrarlandschaften', MonViA; https://www.agrarmonitoring-monvia.de/en).

A central aspect of MonViA is the conceptualisation of a nationwide wild bee trend monitoring. We employ pioneering and non-lethal detection methods. Instead of, as is customary, killing wild bees for species identification, we develop eDNA-based detection methods for cavity nesting species and their nesting resources. Beyond that, we are testing the suitability of using population genetic approaches for the evaluation of agri-environmental schemes.
The successful applicant will support the molecular biological part of the wild bee monitoring.

Your tasks:

- Bioinformatic processing and analysis of HTS-data, especially DNA metabarcoding data (wild bees, solitary wasps, parasitoids and pollen) as well as SNP data
- Standardisation of data processing and analysis for a nationwide wild bee monitoring
- Development of an interactive online analysis tool for DNA-based wild bee monitoring
- Assistance in the development and implementation of a Laboratory Information and Management System (LIMS)
- Writing of scientific publications
- Presentation of results at international and national meetings and conferences, as well as project-related working groups and MonViA meetings
- Cooperation with actors of biodiversity monitoring schemes at national and European level
- Writing of reports

Your profile:

- University degree (M.Sc., Univ.-Diploma) in biology, environmental science, (bio-)Informatics or closely related fields
- A PhD in one of those fields
- Profound knowledge in High Throughput Sequencing (HTS), (q)PCR and molecular methods
- Very good knowledge in bioinformatics and multivariate statistics
- Very good knowledge in R
- Experience in data processing and analysis of HTS-data
- Profound knowledge in Linux/Unix, possibly also in Perl, Python or another programming language
- Ability to work independently and a strong capacity for cooperation and teamwork

- Candidates should speak English fluently and have very good writing skills in English
- Knowledge and experience in relation to databases (e.g. PHP, SQL) and web hosting (HTML, JavaScript) are an advantage
- Candidates should be fluent in English (written and spoken) and have basic knowledge of the German language

We offer the possibility to work in an active and stimulating scientific environment on questions of high relevance at the intersection between basic and applied life science and agriculture. The Thünen-Institute offers a family-friendly environment, flexible working hours and the possibility for further training and qualification.

The employment is governed by the Wage Agreement for Public Services (TVöD-Bund). Compensation is according to category 13 TVöD. Part time employment is possible.

The Thünen Institute promotes the professional equality of women and men.

Severely disabled applicants with equal qualification will be given particular consideration. Only minimal physical aptitude is expected from them.

Please contact Dr. Petra Dieker (phone: +49 531 596 2586, petra.dieker@thuenen.de) for enquiries about the position.

Applicants should submit a cover letter, curriculum vitae, details of two references and copies of relevant certificates. Electronic submission is preferred. E-Mail all application material (**subject 2021-015-BD**) no later than **28. February 2021** to

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Informations about Artikel 13 DSGVO: www.thuenen.de/datenschutzhinweis-bewerbungen.