Job vacancy at the Johann Heinrich von Thünen-Institute

The Institute for Biodiversity of the Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forests and Fisheries, in Braunschweig is looking at the earliest possible date for

a bioinformatician (f / m / d)

offering a permanent position for the development of bioinformatic processing and evaluation of biodiversity data, in particular for the monitoring of biological diversity in agricultural landscapes (MonViA).
The Thünen Institute is a research facility within the portfolio of the Federal Ministry of Food and Agriculture. It develops scientific principles as decision-making aids for the federal government's agricultural, forestry, fisheries and consumer protection policy. The Institute for Biodiversity studies biological diversity and its functional importance in agroecosystems.

Agriculture is considered to be one of the main causes of the decline in biodiversity in rural landscapes. In order to be able to estimate the influence of various land uses, forms of cultivation, but also of agri-environmental policy, funding instruments on biological diversity and, to be able to make statements specific to agricultural areas, a comprehensive database is required. Since this is currently lacking in Germany, scientists from the Thünen Institute, the Julius Kühn Institute and the Federal Office for Agriculture and Food are developing a 'Monitoring of Biodiversity in Agricultural Landscapes', MonViA for short (https: //www.agrarmonitoring-monvia .de /).

An essential part of MonViA is nationwide wild bee monitoring in agricultural landscapes (wildbienen.thuenen.de) and soil microbiological monitoring based on the soil survey in agriculture (https://www.thuenen.de/de/ak/projekte/bodenzustandserhebung-landwirtschaft- bze-lw/). In doing so, we rely on pioneering molecular biological recording methods and evaluation approaches. For example, instead of the usual approach of killing of wild bees to identify their species, we are developing eDNA-based recording approaches for cavity-nesting species and the food resources they use. In addition, we are conducting a feasibility study to determine to which extent population genetic approaches are suitable for assessing the effectiveness of agri-environmental measures. In the area of microbial diversity research, changes in soil microbiomes are determined on different temporal and spatial scales in order to identify system-ecological patterns and to define optimal indicators for monitoring.

The position holder will strengthen the molecular biological area of wild bee monitoring and soil microbiological monitoring and also carry out her / his own research in bioinformatics.
Collaboration with the Technische Universität Braunschweig is possible and welcome as well as engagement in teaching.

Your tasks:
You will support existing research groups of the institute working in molecular analyses of insect and microbial communities

- in the data preparation and evaluation of data sets from high-throughput DNA sequencing, especially metabarcoding
- in the standardization of data processing and evaluation of molecular biological monitoring data
- in setting up and administering a Laboratory Information and Management System (LIMS) and taking on the curation of reference databases
- in the guidance of technical staff and supervision of students

You will develop co-operations with:

- Scientists at the institute who are already researching the biodiversity of plants, animals and microorganisms
- Bioinformaticians and other scientists from various Thünen institutes such as the Institute for Forest Genetics and the Institute for Fisheries Ecology
- other actors in biodiversity monitoring at national and European level

- As a scientist, you will publish your research results in national and international journals and present them at conferences. You will also advise the BMEL and represent it in national and international bodies on biodiversity-related issues

We expect:

- Completed university degree (Diplom, M.Sc.), preferably with a doctorate or equivalent
- Pronounced interest and enjoyment in interdisciplinary research in the field of agroecology
- Publications in international peer-reviewed journals demonstrating successful research in bioinformatics
- Familiarity with analyzing bioinformatic data generated from multiple biological groups (e.g. plants, insects, or microorganisms)
- Sound knowledge of Linux / Unix, and either Perl, Python or other programming languages
- In-depth knowledge of statistical data analysis with R
- Experience in (meta) genome assembly, quality control and annotation is desirable, including data generated by Illumina, PacBio and / or Oxford Nanopore sequencing platforms
- Self-developed codes that are publicly accessible via software repositories (e.g. Github, CRAN)

You should enjoy scientific work in an interdisciplinary context, enriching molecular biology research with your bioinformatics expertise and helping to shape independent work and processes. You should have excellent communicating skills – preferably in both German and English, enjoy working with a team and have an analytical mindset.

We offer you the opportunity to work on socially highly relevant issues at the interface between science and practice in an active and stimulating research environment. Because the professional and personal development of our employees is important to us, we offer a family-friendly work environment, flexible working time models and extensive offers of professional training and further education.

The employment relationship is based on the provisions of the collective agreement for the public service (TVöD-Bund). Payment of the remuneration is made when the collective and personal requirements according to salary group 14 TVöD are met. A part time position is also possible.

The Thünen Institute promotes professional equality between women and men and therefore expressly welcomes applications from women.

The Thünen Institute is committed to inclusion. Applications from people with severe disabilities are therefore expressly encouraged. These are given special consideration in the selection process.

If you have any questions, please do not hesitate to contact Prof. Dr. Jens Dauber (institute director, jens.dauber@thuenen.de), Dr. Petra Dieker (MonViA, Wild Bee Monitoring, petra.dieker@thuenen.de), or Prof. Dr. Christoph Tebbe (soil microbiology, christoph.tebbe@thuenen.de) will be happy to help.
Applications with a tabular curriculum vitae, a description of training and professional career, addresses for two references and relevant copies of certificates are requested electronically (as one single PDF document) by **February 28, 2022** under the reference number "**2022-007-BD**"

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

Index number: 2022-007-BD-engl