

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

**Scientist (m/f/d)**

for the development of metabarcoding methods to analyse wild bees and their parasites as well as trap nest material and pollen.

The research is part of the collaborative project 'Monitoring farmland biodiversity'. The position is limited to a fixed term, three (3) year employment in compliance with § 2 (1) S. 2 Wissenschaftszeitvertragsgesetz and is to be filled as soon as possible.

To obtain a comprehensive assessment of the status and trends of biodiversity in agricultural landscapes in Germany, an interdisciplinary team of scientists from 12 specialized institutes of the Thünen- and the Julius-Kühn Institutes, as well as the Information and Coordination Centre for Biological Diversity of the Federal Agency for Agriculture and Food is developing a farmland biodiversity monitoring scheme (<https://www.thuenen.de/en/bd/fields-of-activity/monitoring/>).

In agricultural landscapes, wild bees overtake important ecosystem services such as pollination. In addition, they can serve as indicators for landscape complexity and can be used for the evaluation of agri-environmental schemes. In particular, pollen and other environmental material in trap nests allow a detailed insight on the impact of land-use and pesticide applications on wild bee populations and therewith also on ecosystem functions and services.

The main task of the position is to develop molecular methods for the analysis of pollen and environmental material from trap nests and to integrate these approaches into the farmland biodiversity monitoring scheme.

**Job description:**

- Design and implement molecular methods for the determination of species and estimation of species abundances (e.g. wild bees, plants, parasites, pathogens) from trap nests:
  - a) develop and optimize protocols, techniques and workflows of Next Generation Sequencing (NGS) of mixed samples (metabarcoding) in accordance with existing approaches
  - b) develop quantitative molecular methods for estimations of species abundances (qPCR)
- Validate molecular methods based on high-quality biodiversity data sets
- Design the integration of NGS and qPCR based methods to monitoring programmes and Citizen Science projects
- Publish and communicate results in scientific journals and at international and national conferences

**Your profile:**

- PhD (or equivalent professional experience) in landscape ecology, agroecology, environmental science, biology, or a closely related field
- Experience with NGS methods, qPCR, and molecular methods
- Very good knowledge in bioinformatics and multivariate statistics
- Very good knowledge of R
- Experience in the analysis of pollen and other environmental samples, preferably in an agro-ecological context
- Interest in methods development
- Interest in agricultural and environmental topics
- Ability to work independently and strong capacity for interdisciplinary teamwork
- Strong communication skills
- Candidates should be fluent in English (written and spoken), German language skills are desirable

We offer 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 project promotes the collaboration and interaction with experts from national and international research organisations. 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) and includes comprehensive health, social, and pension insurances. The salary is according to category 13 TVöD. Part time employment is also possible.

The Thünen Institute promotes the professional equality of women and men and is thus especially interested in applications from women.

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

Please contact Prof. Dr. Jens Dauber (phone: +49 531 596 2501) for enquiries about the position.

Applicants should submit a cover letter, curriculum vitae, and copies of relevant certificates in a single pdf file. Electronic submission is preferred. E-mail all application material (subject **19-163-BD**) no later than **15.06.2019** to

[bd@thuenen.de](mailto:bd@thuenen.de)

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Informations about Artikel 13 DSGVO: [www.thuenen.de/datenschutzhinweis-bewerbungen](http://www.thuenen.de/datenschutzhinweis-bewerbungen).