



Přírodovědecká
fakulta
Faculty
of Science

Jihočeská univerzita
v Českých Budějovicích
University of South Bohemia
in České Budějovice

A PhD position at the University of South Bohemia

Restorations of plant-pollinator networks in species rich meadows of White Carpathians

Full-time position

University of South Bohemia, Faculty of Science is seeking a highly motivated **PhD student** to join a 4-year project (2024-2028) aiming to understand how pollinator biodiversity, plant-pollinator interactions and pollinator services change in response to grassland restoration and landscape context. This involves developing and implementing observational and experimental research in reference and restored grasslands, specifically utilizing the large-scale restorations that have occurred in White Carpathians over the past 30 years. The research is a part of transnational Biodiversa project aimed at developing a standardized protocol for monitoring plant-pollinator interactions and pollination as a significant ecosystem service.

Project background

Pollinators and the plants they pollinate form an intimate and intricate web of relationships that helps bind ecosystems together. The EU Pollinators Initiative calls for the development of cost-effective monitoring of essential pollinators (wild bees, butterflies, hoverflies, moths, rare and threatened pollinator species) across the EU using standardised methods. Interactions of plants and pollinators however need to be monitored simultaneously to understand how they change in time and space.

Standardized European monitoring of plant-pollinator interactions (Biodiversa project SEPMI) aims to develop and optimize the protocol of automated monitoring. We will use new, non-lethal technology to capture images of pollinators on flowers in the field using time-lapse cameras and deep learning to identify pollinators. Scientific outputs include quantification of the abundance and diversity of four orders of pollinating insects across a variety of ecological gradients, such as land use, restoration, altitude, fragmentation and ecological succession. This novel approach will be compared with the traditional transect sampling.

Field location

White Carpathian Mountains are famous for their extremely species-rich grasslands and large-scale restoration activities (for more information look at <https://ser-insr.org/news/2017/12/29/grassland-restoration-in-the-white-carpathian-mountains>).



Responsibilities

- Co-planning and organization of an observational and experimental research
- Collect data on plant communities, pollinator communities, interactions, pollen transfer, and plant reproductive success
- Identification of pollinating insects to species level
- Statistical analysis of trends in biodiversity, network metrics, pollination services, plant reproductive success
- Produce three publications for scientific journals
- Disseminate research results during international events and seminars
- Be an active member of the working group

Required skills of PhD candidate

- a MSc. degree in the relevant field (Biology, Ecology etc.)
- ability to work well with a diverse, team-oriented working group
- creative problem-solving skills
- experience in planning and organizing ecological research studies
- experience collecting field data on plants, pollinators, interactions and plant reproductive success is an asset
- experience in identification of pollinating insects to species level is an asset
- experience pinning and curating insect collections is an asset
- experience with R programming language, especially with ecological statistical methods is an asset
- fluency in English, both written and spoken with excellent communication skills
- **driving license valid in the European Union is needed**

About the employer

The position will be based at the Department of Biology of Ecosystems at the Faculty of Sciences of the University of South Bohemia in České Budějovice. The project will be co-supervised by a leader of SEPPI project, prof. Tiffany Knight from German Center for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig in Leipzig (Germany).

Salary

Salary on the basis of local standards, including health insurance and social advantages. A PhD. candidate – monthly 14 860 CZK netto (i.e. 50% salary) + 12 000 CZK net state scholarship, 322,000 CZK net annual income (~12900 EUR). The cost of living in the Czech Republic can be found at <https://www.studyin.cz/live-work/living-costs/>.

Further particulars

This position would ideally start in March 2024, latest start in May 2024 and will last for four



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years (i.e. March 2028, depending on the start date).

Ceske Budejovice is a medium-sized town ca. 150 km south of Prague with 100,000 inhabitants, a relaxed atmosphere, and a growing community of foreign scientists at the University and the Biology Centre. Both the town and the surrounding countryside provide numerous opportunities for research and leisure activities. Living costs are low by international standards. Courses of Czech language are provided for foreign staff to reach a basic level of proficiency in everyday situations.

Closing date: open until filled

Information

For additional information please contact:

Assoc. Prof. Jana Jersakova

jersa@prf.jcu.cz

Application

Prepare a **cover letter** explaining your interest in the position including overview of your skills and experience relevant to the position.

Add a **curriculum vitae** including a publication list (3 pages maximum). Send **your completed application in a single pdf file** to the principal investigator (jersa@prf.jcu.cz). Call for applications open until the position is filled. Preference will be given to applications received by **9. March 2024**. After pre-selection, an on-line interview will be organized.