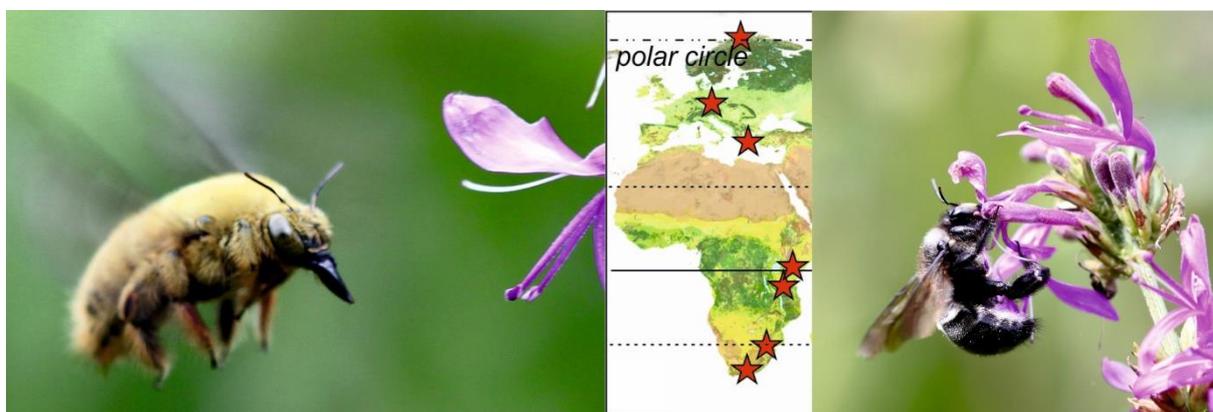


A Ph.D. studentship on plant-pollinator interactions

Latitudinal patterns in specialization of wild bees: Metabarcoding of pollen loads along a cross-continental gradient

We are seeking a highly motivated Ph.D. student to join a project assessing studies of plant-pollinator relationships in tropical and temperate environments. The new team members will process already collected data and material, as well as actively participate on field sampling (at least two larger expeditions during the study/work) of data and their subsequent processing in collaboration with international specialists. The length of the study is 4 years, the length of the postdoc is two and half years.



The project will contribute to the elementary question of ecology, biogeography and evolution: Are niches of tropical species narrower than species in higher latitudes? Within the large project PI-ed by Robert Tropek, the Ph.D. project will perform a cross-continental study of latitudinal patterns of specialisation in plant-pollinator interactions. It will combine modern Next Generation Sequencing metabarcoding of pollen loads from wild bees, the most important pollinators in terrestrial ecosystems, with a standardised observational sampling of interactions at a whole-community level. Our group has already established seven study sites from temperate and subtropical South Africa, through the Afrotropics, up to Mediterranean, temperate and subarctic European ecosystems. From each study site and two study seasons, the student will metabarcode DNA from pollen loads of bees and compare them with the reference libraries established during the project. The results will be combined with the other parts of the project, mainly an intensive video-recording of plant-pollinator interactions and detailed information on individual plant pollination systems and reproduction strategies, all performed by the other members of our study group. Altogether, the project will not only describe the latitudinal patterns in plant-pollinator interactions, but also crucially contribute to our understanding to the responsible mechanisms.

The successful applicants will be supervised within the multi-disciplinary team (www.insect-communities.cz) at the **Faculty of Science, Charles University, Prague, Czech Republic**, with a close collaboration with the Institute of Entomology, Czech Academy of Sciences. The fieldworks will be performed in **Africa** and/or **Europe**. We have more than ten years continuous experience with various field projects in several African countries, with local collaborators in all covered countries. The Ph.D. thesis will be supervised by Dr. Robert Tropek (<http://www.insect-communities.cz/team/robert-tropek/>), and officially advised by Dr. Štěpán Janeček (<https://scholar.google.com/citations?user=0OygDbwAAAAJ&hl=en>) and Dr. Paolo Biella, University of Milano-Bicocca (<https://scholar.google.com/citations?hl=en&user=R5RPqaQAAAAJ>).

Offered

- attractive scientific topic in an established international team
- sufficient financial and logistical sources for the projects (currently we hold two large grant projects for pollination research)
- 312,000 CZK net annual income (combination of scholarship and salary), plus various student/employee bonuses; such income sufficiently covers living expenses in the Czech Republic (the national average net income is ca. 360,000 CZK annually)

Required

- enthusiasm in nature and ecological science
- **a MSc degree in biology or related fields** (in summer 2022 at the latest)
- ability to work as a team member, but also being independent
- fluency in English, both written and spoken

Desirable (but not necessary) for the position

- previous experience of collaboration in scientific projects evidenced by a (co)authorship of research papers or conference contributions
- previous experience with field and/or lab work
- previous experience with insects and/or plants

All applicants will apply for the position online through <http://www.stars-natur.cz/>. The deadline for application is the **13th March 2022**, the successful candidate will be selected in April. The position is available from the beginning of 2022/2023 academic year, i.e. from the 1st October 2022.