



Three Ph.D. studentships and one postdoctoral position

Biodiversity and evolution of plant-pollinator interactions

We are seeking three highly motivated Ph.D. students and one postdoc to join a project assessing studies of plant-pollinator relationships in tropical and temperate environments. The research is focused on changes of general characteristics of pollination networks with environmental gradients, as well as on case studies of selected pollination systems. All 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 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 and Institute of Botany, Czech Academy of Sciences. The fieldworks will be performed in **Cameroon** and/or **Czech Republic**. We have more than ten years continuous experience with various field projects in Cameroon. All senior members of our team have also worked in field in the Czech Republic since their studies.

Offered for all positions

- attractive scientific topic in an established international team
- sufficient financial and logistical sources for the projects (currently we hold three large projects for pollination research)
- 240,000 CZK net annual income for the Ph.D. students (combination of scholarship and salary) or 360,000 CZK net annual income for the post-doc (salary), plus various student/employee bonuses; both incomes sufficiently cover living expenses in the Czech Republic (the national average net income is ca. 260,000 CZK annually)

Required for all positions

- enthusiasm in nature and ecological science
- ability to work as a team member, but also being independent
- fluency in English, both written and spoken

Desirable (but not necessary) for all positions

- previous experience of collaboration in scientific projects evidenced by a (co)authorship of research papers or conference contributions

All applicants will send a **structured CV, contacts for three referees, and a cover letter stating their previous work, qualification** (especially all field experience and less usual field/laboratory techniques) **and motivation** to our group email insectcommunities@gmail.com. Each application for the Ph.D. studies will include information to which position(s) it is related, one application for more positions is acceptable if the specific interests are described in the motivation letter. Any questions should be sent to the same email as well. The review of applications will begin on **20th February 2018** and will continue until the position has been filled. Selected applicants will be interviewed through Skype in the first ten days of March 2018. The Ph.D. positions are available from **October 2018**, the postdoctoral position from **early summer 2018**.

#1 Ph.D. position: Pollination networks in fragmented Afromontane grasslands

The main aim of this project is to reconstruct pollination networks in fragmented open habitats in Cameroonian mountains (Mount Cameroon and Bamenda Highlands). For these purposes, we use direct collecting and observations of visitors of all currently flowering plant species in communities, as well as video-recording of these interactions. Our aim is to reconstruct plant-pollination networks in grasslands on the whole community level under different seasonal, isolation and community composition conditions, and to disclose factors responsible for shaping of these interactions networks. The results will be directly comparable with similar dataset originated from the Czech Republic by the same sampling protocols allowing us to compare pollination networks in tropical and temperate regions. The student will be jointly supervised by [Dr. Robert Tropek](#) and [Dr. Štěpán Janeček](#).

Required for this position

- a MSc degree in biology or related fields (in summer 2018 at the latest)
- ability to lead a field research in challenging conditions of tropical environments

Desirable (but not necessary)

- reasonable knowledge of insects and/or plants
- experience with standard entomological sampling methods
- basic knowledge of French

#2 Ph.D. position: Organization of Afrotropical plant-bird pollination communities

The aim of the project is to study plant-bird interactions along the tropical altitudinal gradient of Mount Cameroon in different seasons, filling the knowledge gap in the Afrotropics. The main target is to gain complex plant-bird interaction matrices together with explanatory matrices related to abundance of flowers, energy supply, plant-bird morphological trait matching, and spatio-temporal overlap of interacting organisms. The project includes both traditional observation of bird-plant interactions and DNA analyses of pollen loads from bird bodies. We expect that the PhD student will be responsible mainly for the pollen collection in the field and the following DNA analyses in our laboratory. The student will be jointly supervised by [Dr. Štěpán Janeček](#), [Dr. David Hořák](#), and [Dr. Robert Tropek](#).

Required for this position

- a MSc degree in biology or related fields (in summer 2018 at the latest)
- ability to lead a field research in challenging conditions of tropical environments
- experience with molecular methods

Desirable (but not necessary)

- experience with field ornithology and/or botany
- experience with any next generation sequences approaches
- basic knowledge of French

#3 Ph.D. position: Plant-pollinator interactions along a temperate altitudinal gradient

The aim of the project is to study changes in plant-pollinator networks in seminatural temperate forests along an altitudinal gradient in the Czech Republic. Pollination networks will be reconstructed in several different elevations of the Giant Mts. using standardised video-recording of all flowering plant species in communities. We will focus on analyses of changes of the plant-visitor networks along the altitude, but also with season. The results will be directly comparable with the similar dataset being currently sampled on Mount Cameroon by the same sampling protocols allowing us to compare pollination networks in tropical and temperate regions. The student is expected to join the tropical networks sampling as well. The student will be jointly supervised by [Dr. Robert Tropek](#) and [Dr. Štěpán Janeček](#).

Required for this position

- a MSc degree in biology or related fields (in summer 2018 at the latest)
- high communication and organisation skills

Desirable (but not necessary)

- experience with plants and/or insects

Postdoc position: Changes of pollination networks characteristics along various environmental gradients

The postdoc will be collaborating on several our projects from both tropical and temperate regions. She/he should be mainly responsible for the network analyses and comparisons of various datasets of plant-pollinator interactions on the community level. Nevertheless, she/he is expected to join also other aspects of our pollination research based on her/his skills, including field sampling, samples identification, measuring and analyses etc. She/he will have an opportunity to join our field sampling in both Cameroon and Czechia. The postdoc will be jointly led by [Dr. Robert Tropek](#) and [Dr. Štěpán Janeček](#).

Required for this position

- a Ph.D. degree in the relevant field (in early spring 2018 at the latest)
- advanced skills in ecological networks statistical analyses
- enthusiasm for statistical revealing of ecological enigmas
- reasonable publication record

Desirable (but not necessary)

- reasonable knowledge of insects or plants
- experience with trophic interactions research

