

## 2 PhD fellowships in beetle systematics and evolution

The Department of Zoology at the Faculty of Science, Charles University in Prague is offering 2 PhD scholarships at Martin Fikáček research group (partly seated at Department of Entomology, National Museum in Prague) to start in late summer 2015. Both projects are part of the European Union Marie Skłodowska-Curie Innovative Training Network Program that funded BIG4 ('Biosystematics, Informatics and Genomics of the 4 big insect groups') international cross-disciplinary training consortium. Each PhD position is for 3-4 years with very competitive salary for first three years (gross income 2,600 € per month), additional family allowance for married students, and sufficient research funds; the last (optional) year the university will cover the basic salary of ca. 900 € per month.

**The application deadline is March 1, 2015.** When applying please choose between both projects (specify in your application with project you want to work with, or list them in order of your priority). Please send the application to the supervisor of the offered fellowships (M. Fikáček: [mfikacek@gmail.com](mailto:mfikacek@gmail.com)) and/or to the head of the Entomology Group (J. Prokop: [jakub.prokop@natur.cuni.cz](mailto:jakub.prokop@natur.cuni.cz)).

### Projects

Projects vary in scope and methods, but any of them involve combination of classical methods of systematics with innovative techniques and approaches. Both involve travels and field work, they are as follows:

**1. The Life on the Island: leaf-litter insect fauna as a bioindicator of long and short term evolutionary change** (co-advised by A. Solodovnikov, University of Copenhagen, and R. Leschen, New Zealand Arthropod Collection)

The aim of the project is to examine the evolution, biogeography and conservation of the beetle fauna in New Zealand, with a special focus on leaf-litter species (family Hydrophilidae as the main model group). The project will consist of sampling lineages across New Zealand to produce a comprehensive hypothesis for community assembly at deeper and shallower time intervals. Phylogenetic data will be coupled with niche-modelling to determine geological, glacial and ecological factors responsible for current distributions.

**2. Understanding the biodiversity boom in terrestrial hydrophilid beetles** (co-advised by F. Ronquist, Swedish Museum of Natural History, and Andrew Short, University of Kansas)

The aim is to resolve the genus-level systematics and reasons of high species and morphological diversity of the tribe Megasternini, the youngest yet the most diverse group of the family Hydrophilidae. The project focuses on performing the phylogenetic analysis, exploring the impact of geography, habitat and morphological shifts on the diversification rate of this tribe and providing identification tools (molecular and morphology-based) for further studies within the group.

### Qualifications and eligibility

Applicants from any country of the world are accepted, but good English skills are mandatory. A MSc or equivalent degree in a relevant field is required. Due to specific requirements of the Marie Skłodowska-Curie Program applicants should not hold PhD degree and, at the time of enrollment in the PhD program in the Czech Republic should have less than 4 years of research experience (counted as time of employment in research since receiving a degree allowing enrollment in the PhD program). Additionally, at the time of recruitment applicants must not have resided or carried out his/her main activity (work, studies, etc.) in the Czech Republic for more than 12 months in the 3 years before his/her recruitment for the PhD project.

### Job description

Your key tasks as a PhD student are:

- manage and carry out your research project including field work

- pass PhD courses
- write scientific articles and your PhD thesis
- participate in BIG4 ITN training events and international congresses
- stay at a research institution(s) abroad for a few months
- participate in the beetle collection management and other research, curation or teaching related work conducted by the Department of Entomology, National Museum in Prague

### **Procedures**

An assessment committee will be appointed to evaluate the applications, with Martin Fikáček hosting the positions being a member of this committee. The applicants will be notified of the composition of the committee, and once their applications are evaluated they will receive written feedback from the committee with the right to send additional comments. Short listed applicants will be interviewed by phone or Skype by Martin Fikáček and the final selection of the successful candidates will be made by him in collaboration with assessment committee. The main criterion for selection will be the research potential of the applicants. Successful candidates will then be requested to formally apply for enrolment as a PhD student at the PhD school at the Department of Zoology, Faculty of Science. Please contact M. Fikáček ([mfikacek@gmail.com](mailto:mfikacek@gmail.com)) for detailed information on the PhD programme of the Charles University.

### **Application**

Application should include:

- your letter of motivation
- CV including your e-mail address and other contact data as well as contact details of 1-3 referees who already know you as a student or employee
- list of publications including submitted or in press papers, if any.
- Transcript of MSc diploma or equivalent.

For any questions concerning the projects, BIG4, PhD programme of the Charles University or living conditions in Prague/Czech Republic, please contact Martin Fikáček ([mfikacek@gmail.com](mailto:mfikacek@gmail.com))