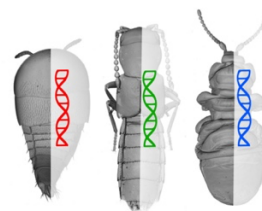


PhD position in genomic and phenotypic evolution of convergently adapting insect lineages



Group of Evolutionary Entomology (Aleš Buček)
Faculty of Tropical AgriScience, Prague, Czechia
<https://bucek.ftz.czu.cz>



Location: Czech University of Life Sciences, Prague, Czechia

Starting date: September 2023 (earlier start negotiable)

Application deadlines: Applications will be evaluated until the end of April 2023.

Organisms often evolve similar adaptations to similar environments in the process of convergent evolution. Such observations suggest that the trajectory of phenotypic evolution is amenable to predictions. Whether the genomic trajectories of convergent organisms are also - in principle - predictable is unclear due to the scarcity of genomic evidence from convergent organismal groups. To answer this fundamental evolutionary question, we are using a model system consisting of **rove beetles (Staphylinidae: Aleocharinae)** and **scuttle flies (Phoridae)** that adapted more than twenty times repeatedly to live in symbiosis with **termites**.

The successful candidate will use phylogenetic methods, comparative analyses of X-ray microtomographic reconstructions of phenotypes, and optionally comparative genomics to infer the trajectories of convergent adaptations. We already generated a series of genome assemblies, large datasets of microtomography data, and have extensive collections of preserved specimens, which will give the PhD candidates a head start with their analyses while they will collect additional data.

We require

- curiosity and enthusiasm about evolutionary questions
- excellent written and spoken communication ability in English
- MSc degree in biology, bioinformatics, or related fields

We offer

- supportive research lab situated within a green campus of a dynamic university <30min from the center of the energetic city of Prague
- starting monthly net compensation based on previous experience ~ 1,000-1,200 EUR consisting of student scholarship and salary, competitive within Czechia (note that the living cost is generally lower in Czechia compared to the western Europe); bonuses for publications
- participation in international collaborations (Germany, Japan)

We seek candidates with some of the following previous experience (but do not require it):

Evolutionary biology | insect taxonomy | programming | wet lab experience with next-generation sequencing | bioinformatics and next-generation sequence data analysis | phylogenetics | X-ray microtomography and morphometry

We also encourage and offer support to candidates willing to further strengthen their research profile by applying for independent funding, such as Marie Curie fellowship (deadline September 2023).

Apply by sending a single pdf including motivation letter (~ 1 page), CV, and contact information for two reference persons (one of them preferably previous supervisor) to Aleš Buček (buceka@ftz.czu.cz).

Inquiries for further details are welcome.