

PhD – Rapid Evolution in Communities

We invite prospective candidates for a four-year **PhD Studentship funded by ERC grant of Jan Hrcek** to explore exciting questions on the interface of population genetics and community ecology.

It is increasingly clear that evolution can be rapid, with important traits changing within a few generations. But we are only beginning to understand the consequences of this eco-evolutionary process for dynamics of host – parasite interactions and stability of entire communities. We ask how rapid evolution impacts maintenance of diversity in communities and maintenance of genetic variation in populations - processes which have been mostly studied separately.

To address these questions, our collaborative project uses a novel experimental community model system of wild *Drosophila* species and their parasitoids from tropical Australia. We are able to perform multigenerational laboratory microcosm experiments and track eco-evolutionary dynamics in fine detail. The candidate will use a combination of the following approaches: laboratory experiments on rapid evolution, and maintenance of species diversity and genetic variation in communities, experimental evolution, population genomics, eco-evolutionary modelling, and field surveys of *Drosophila* - parasitoid food webs in Australian tropical rainforest. The specific PhD projects will result from a discussion between the candidate and the supervisor. The candidate will take part in the fieldwork in Australia, probably already in the second half of 2024.

The successful applicant will join the Laboratory of Experimental Ecology [<http://lab.hrcek.net>] at the Biology Centre, Czech Academy of Sciences, Ceske Budejovice, Czech Republic, under the supervision of Dr Jan Hrcek. The laboratory is a multinational team of postdocs, PhD students and technicians. The applicant will thus have the opportunity to work extensively with other team members. The laboratory obtained prestigious high-level funding for five years (ERC Consolidator grant) and therefore can provide substantial resources and support for exceptional research. The laboratory is part of a dynamic international centre for research in species interactions.

Together with the PhD student we will choose a co-supervisor from current international collaborators (listed at the bottom of [<http://lab.hrcek.net/people.html>] page) or start new collaborations. The position will include a research stay abroad.

The deadline for applications is **5th January 2024**. The position can start from March 2024 onwards. The student will receive a salary which comfortably covers living expenses in the Czech Republic. The working language is English and applicants from all countries are eligible. A MSc degree is required to enter PhD in Czech Republic. Following experience is an advantage:

- Research experience with laboratory experiments
- Experience with population genetics or molecular ecology
- Experience in eco-evolutionary dynamics or population genetic modelling
- Driving licence and fieldwork experience

To apply please send one document comprising a motivation letter, CV, and contact details for two references to Jan Hrcek [janhrcek@gmail.com].