Ph.D. position in insect-microbe coevolution



Laboratory of Insect Symbiosis Supervision: Thomas Bourguignon and Aleš Buček Institute of Entomology, Biology Centre in České Budějovice, Czechia

Location: Institute of Entomology, České Budějovice, Czechia Starting date: May 2024 (negotiable) Application deadlines: March 14, 2024

Termites host diverse symbiotic communities in their guts consisting of protists, archaea, and bacteria. Termite colonies also host inside their nests diverse arthropods - particularly rove beetles (Staphylinidae: Aleocharinae). The Ph.D. project will focus on the study of this tripartite termite-beetle-microbe association, which evolved many times independently but has never been investigated.

The successful candidate will use phylogenetics and comparative genomics of bacterial symbionts of both termites and termitophiles to study the coevolution between termites, their microbes, and their termitophilous beetles. We already generated sequence data for a large number of termites, termitophilous beetles, and the non-termitophilous relatives of beetles and have extensive collections of preserved specimens, which will give the Ph.D. candidate a head start with their analyses. Collection of additional specimens is encouraged if the successful candidate wants to do fieldwork.

We require

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

We offer

- supportive research environment with an international community situated in a green campus of the most bicycle-friendly city in Czechia
- starting monthly <u>net</u> 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 countries in Western Europe)
- participation in international collaborations (especially Japan)

The following previous experience will be seen favorably:

Evolutionary biology | termite and/or beetle taxonomy | R/Python/Bash | wet lab experience with next-generation sequencing | bioinformatics and next-generation sequence data analysis | phylogenetics

Apply by sending a single pdf including a motivation letter (~ 1 page), CV, and contact information for two reference persons (one of them preferably a previous supervisor) to Thomas Bourguignon (<u>Thomas.bourgui@gmail.com</u>) and Aleš Buček (<u>ales.bucek@entu.cas.cz</u>). Inquiries for further details are welcome.