UNIVERSITÄT BAYREUTH

Evolutionary Animal Ecology Bayreuth

PhD Candidate wanted! Fully funded 3-Year PhD position - novel & exciting research on the evolution of family life

We are inviting applications for a fully funded 3-year position as a PhD candidate to join us in in Bayreuth (65% TV-L E13, DFG-funded). The goal of the project is to answer important open **questions on the role of social and individual immunity in early social evolution** using *Nicrophorus* burying beetles. These fascinating insects offer an ideal model system to study family life and social immunity due to their complex parental care behaviors and ability to control the surrounding microbes.

With this project you will work to better understand how offspring in these family systems adjust to the quality of their social environment in terms of 1) presence and absence of parental care and 2) microbial pressure, and to what degree parental immune efforts determine these offspring adjustments to the family environment. The PhD candidate will design and conduct novel experiments based on our previous work to investigate a) how offspring and parents invest into immune defense to alleviate microbial threats and maintain the nursery environment, b) the molecular underpinnings of the environment-dependent offspring phenotypes using RNAseq and transcriptome analyses, and c) which elements of the social environment determine changes in offspring investments.

Application requires a recent master's degree in biology or a related field. The successful applicant should have a background in evolutionary biology and/or behavioral ecology and be highly motivated to conduct rigorous and well documented experimental studies. Good skills in biostatistics (e.g., R) or a high motivation to learn & improve statistical knowledge are important. Previous experience with RNAseq and/or bioinformatics is useful, but not required.

The department of Evolutionary Animal Ecology offers a modern, dynamic, and supportive research environment with extensive experience in experimental design, insect rearing, and molecular analyses (link). The University of Bayreuth features a strong interdisciplinary framework for research and has recently been ranked in the top 10 percent of young universities worldwide (link). Bayreuth itself is a bustling University town with a rich history nestled in scenic Upper Franconia, featuring numerous opportunities for outdoor activities and cultural exploration (link).

Interested candidates are asked to send applications (in English) as single-file .PDF attachments containing a letter of motivation (max. 1 page), a *curriculum vitae* (with grades of B.Sc and M.Sc or equivalent), a summary of the Master thesis (max. 500 words), and the E-Mail addresses of 2-3 potential referees. Send your application to Max Körner at maximilian.koerner@uni-bayreuth.de

The deadline for applications is 22.12.23. Ideal starting date is March 2024 but later starts are possible!