

The *Chair of Nature Conservation and Landscape Ecology* at the **University of Freiburg** invites applications for a **PhD position** to carry out research on “**Sex determination and biomass allocation in response to habitat quality**”. The position is anticipated to start on 1 January 2020 (or as soon as possible) and is fixed-term for 36 months (until 31 December 2022). Payment is subjected to the German standard tariff (50% TVL13).

Project description

Changes in habitats do not only affect species diversity but also population structure within species. Evolutionary theory suggests that the ratio of females to males in offspring of sexually reproducing species responds to resource availability. In resource-poor habitats, it is expected that the share of the less costly sex (in insects usually males) increases, which may skew sex ratios and consequently affect population viability. Hymenoptera are due to their haplodiploid sex determination system exceptionally suitable organisms for studying sex ratios. The PhD student will investigate solitary bees and wasps with trap nests along a habitat gradient near Freiburg and test if local habitat quality influences resource allocation and sex ratios. Food resources will be quantified and foraging efficiencies will be measured. Furthermore, already existing data from a diverse geographical context will be synthesized. Taken together, this project at the interface of ecology, entomology and evolutionary biology will reveal if and how habitat quality influences sex ratios, which could be one mechanism for why insect populations are declining.

Your profile

- Excellent MSc in a relevant field (e.g. biology, ecology, conservation, entomology, evolution)
- Strong experience with statistical data analyses in R
- Interest in entomology and cross-disciplinary research
- Ability to work independently in the field and laboratory
- Experience with scientific writing in English; scientific working language is English; German language skills are required for field work
- Valid driving license class B
- Technical affinity (electronics, computer) is advantageous, as for parts of the experiments custom-made hardware will be build
- Basic knowledge of GIS systems is beneficial

The University of Freiburg intends to increase the number of female academic staff members and therefore specifically invites applications by women. Among equally qualified applicants women will receive preferential consideration. Disabled persons with equal qualifications will be preferably employed.

Please submit your application in a single PDF document (maximum 5 MB) **no later than 22 November 2019** to Dr. Michael Staab (michael.staab@nature.uni-freiburg.de), who may also be contacted for further information. Your application should include cover letter, short summary of research interests and experiences, CV, certificates, 1 page summary of the MSc thesis, and contacts of two potential referees. Interviews will tentatively be conducted at 9 December 2019. Note that the position is pending final funding approval and that application costs cannot be reimbursed.