

PhD student (f/m/d)

Application deadline: July 1st 2021

The Technical University of Braunschweig, Zoological Institute – Evolutionary Biology, invite applications for a PhD student position in amphibian conservation physiology and ecotoxicology.

The project

Amphibians are at the forefront of the worldwide biodiversity crisis due to disturbances associated with anthropogenic global change. Exposure to sublethal environmental stressors increases the stress-hormone level but might also affect morphology, physiology, and immune functioning with important carry-over effects to performance, health, and survival. In global change reality, amphibians at all life stages are exposed to simultaneously occurring stressors.

The proposed project aims to clarify the role of sublethal environmental stressors in amphibian declines. In particular, this project will investigate short- and long-term responses to thermal stress and nitrate pollution by analyzing morphological, physiological, endocrinological, immunological, and genetic biomarkers as suitable proxies for stress. The study will focus on a common, but slowly declining anuran species, the common frog (*Rana temporaria*) and help assessing the future threat of *R. temporaria* in the face of global change.

The study is based on three consecutive components: (A) a meta-analysis, studying the empirical knowledge on the interactive effects of aquatic contaminants and temperature on amphibians, (B) a field study over three years, focusing on the impact of different nitrate contaminations on stress-hormone levels in larval and adult *R. temporaria*, and (C) a laboratory study, investigating the effects of temperature fluctuations and nitrate pollution on various biomarkers of stress during and after metamorphosis.

Your responsibilities

- Execution of the project including writing of a cumulative dissertation.
- Independent work in the laboratory and in the field.
- Carrying out short- and long-term laboratory experiments.
- Publication of project results in scientific journals, presentations at international and national conferences.

Your profile

- A scientific degree in biology, environmental sciences, or a comparable discipline (M. Sc./diploma), preferable a zoological discipline.
- Aim to work on a cumulative dissertation towards a doctoral degree.
- Knowledge/experience in animal husbandry.
- High motivation and reliability to work in a team.
- Self-sufficiently carrying out experiments and statistical analyses, preferably with R software.
- Excellent knowledge of German (fluent) and English, verbally and in writing.
- Of advantage are: European class B driving license, field work experience, knowledge in herpetology.

We offer

- Diverse, challenging, and exciting work in an international working environment.

- Part-time employment for 3 years. The employment contract will be based on the collective agreement for the public service (TVöD).
- Remuneration according to salary group E13 TVöD (65%).
- Possibility for internal side-projects.
- Participation in higher education teaching activities (bachelor- and masters-thesis projects).
- A start at the earliest possible date.

Women will be considered in accordance with the Equal Opportunities Act of Lower Saxony (Niedersächsisches Gleichberechtigungsgesetz – NGG NDS). The TU Braunschweig is committed to inclusion. Applications from people with disabilities are therefore expressly welcome and given special consideration in the selection process.

Your application

Please send your complete application, particularly a CV, and copies of relevant certificates (e.g. school and university degrees, qualified job references), preferably by e-mail to k.ruthsatz@tu-bs.de (one single PDF file, max. 10 MB, other file formats will not be accepted). The deadline for receipt of applications is July 1st 2021.