

Public job advertisement

45,000 students and 8,000 employees in teaching, research and administration, all working together to shape perspectives for the future – that is the University of Münster (WWU). Embedded in the vibrant atmosphere of Münster with its high standard of living, the University's diverse research profile and attractive study programmes draw students and researchers throughout Germany and from around the world.

The Institute for Evolution and Biodiversity at the University of Münster, Germany, is seeking to fill the position of a

Doctoral Research Associate (Ph.D position)

Wissenschaftliche/r Mitarbeiter/in (m, f, d)

(salary level TV-L E 13, 65%)

for the externally funded project SFB/TRR 212 at the earliest possible date. We are offering a fixed-term position for 3 years.

Your tasks:

The position is part of the Collaborative Research Centre (SFB/TRR 212) entitled: A Novel Synthesis of Individualisation across Behaviour, Ecology and Evolution: Niche Choice, Niche Conformance, Niche Construction (NC³), as granted by the German Research Foundation (DFG).

This PhD projects aims to identify genetic frameworks that mediate host conformance to shifting parasitological niches. Therefore, the successful candidate will investigate how local adaptation of the Mexican cavefish, *Astyanax mexicanus*, to different parasitological niches affects its niche conformance. This will be done using a field- and lab-based approach. During the field work in Northern Mexico, different cave and river populations of *A. mexicanus* will be sampled to describe the spectrum of realized individual niches in these populations. This will include sampling and dissecting the fish, recording and analysis of various physiological and ecological parameters, and sampling and identifying the parasites of individual fish. The lab-based approach will then measure the degree of individual conformance of lab-reared cave and river populations of *A. mexicanus* by exposing fish to different field-collected parasites under controlled experimental conditions. Here, the successful candidate will use single-cell RNA sequencing (scRNAseq) to identify the genetic mechanisms that control host conformance to varying parasitological niches. Together with our collaboration partners within the SFB, this project aims to give a detailed description of the different parasitological niches in populations of *A. mexicanus* and identify the genetic framework that enables a host immune system to conform to shifting parasitological niches.

Our expectations:

We are looking for a highly motivated scientist of any nationality, who is interested in interdisciplinary work. Candidates should have the equivalent of a master degree in biology, preferentially with a focus on evolution and physiology, or related fields. A background, and ideally some experience, in any of the following areas will be useful: fish handling, dissection and care, experience with field work and willingness to stay abroad for several months per year, molecular and/or immunological skills (especially cellular assays such as flow cytometry), as well as a good understanding of statistical analysis using R. They should also have excellent communication skills and be able to work both independently and as part of a multidisciplinary team. The working language of the Institute and the lab is English, and good proficiency in spoken and written English is a requirement. Additionally, due to the prolonged stay in Mexico during the field work, good

communicational skills in Spanish are a plus. German language skills are not a requirement, but a willingness to learn is desirable.

Advantages for you:

The Institute for Evolution and Biodiversity provides a stimulating research environment with several scientific groups researching diverse topics centred on different aspects of evolution. The successful candidate will join the team of Dr. Robert Peuß, focussing on host-parasite coevolution and ecological immunology. As a part of the Collaborative Research Centre SFB/TRR 212 (https://www.uni-bielefeld.de/fakultaeten/biologie/forschung/verbuende/sfb_nc3/), the project will involve intensive collaboration with consortium partners at the Universities of Münster and Bielefeld.

The University of Münster is an equal opportunity employer and is committed to increasing the proportion of women academics. Consequently, we actively encourage applications by women. Female candidates with equivalent qualifications and academic achievements will be preferentially considered within the framework of the legal possibilities.

The University of Münster is committed to employing more staff with disabilities. Candidates with recognised severe disabilities who have equivalent qualifications are given preference in hiring decisions.

Are you interested?

Then we look forward to receiving your application, written in English, in one single pdf file by 15 December 2021. Applications should be sent to Dr Robert Peuß at robertpeuss@uni-muenster.de. Please note that we cannot consider other file formats. Applications should include 1) a cover letter with a statement of research interests and motivation (max. 1 page), 2) a CV including details about university degrees, research experience and publications, and 3) contact details of at least two referees.