

In the Department of Biogeography, Department of Environmental Sciences at Trier University, the following position is available at the next possible date.

Postdoctoral Researcher (m/f/d) in Genomics of Mating Trait Evolution

(TV-LE13, 100%, 24 months)

We offer a 24-month full-time postdoc position in the DFG-funded project “Detecting the genomic imprints of extreme sexual selection - Genetic architecture of SSD and male self-sacrificial traits in a sexually cannibalistic widow spider”. You will work in the lab of [Henrik Krehenwinkel](#) in the Department of Biogeography at Trier University in Germany. You will be working on a project aimed at identifying the genomic basis of mating traits in two sister species of black widow spider, which, though very recently diverged, show pronounced differences in their morphology and mating behavior. The Australian *Latrodectus hasselti* is distinguished by obligate sexual cannibalism, special male morphological adaptations to prolong survival while being consumed by females, and pronounced sexual size dimorphism. *Latrodectus katipo*, its sister species from New Zealand, lacks these traits. The two species can be readily intercrossed, and phenotyped F2 and backcrosses of the species will be available for this project. Using the crosses, we aim to identify the genetic basis of these sexually selected morphological and behavioral traits. Your task will be the assembly of a reference genome for the target species and QTL analysis based on low-coverage genome sequencing. Working together with a PhD student, you will also be involved in the analysis of brain gene expression analysis. The project is conducted in close collaboration with the labs of [Jutta Schneider](#) at the University of Hamburg and [Cor Vink](#) at the University of Canterbury in New Zealand.

Applicants should hold a PhD and university degree (Diploma/Master or equitable), have a keen interest in evolutionary biology and experience in evolutionary genomics, ideally involving QTL mapping and RNA sequencing analysis.

This is a pure research position and does not involve teaching duties.

Severely disabled applicants who are equally qualified for the position will be given preference. Details on the use of personal data can be found in the data privacy statement in Article 13 DSGVO on our homepage.

Please send your application (letter of motivation, CV, transcripts and the names of two references) as a PDF document in English or German language to Henrik Krehenwinkel (krehenwinkel@uni-trier.de) by February 15th, 2023. Any project-related questions can also be addressed to Henrik Krehenwinkel.