PhD Position, Doctoral Research Associate
University of Greifswald, Germany

A researcher position suitable for conducting a PhD project is available at the Zoological Institute and Museum of the University of Greifswald in the Uhl lab.

https://zoologie.uni-greifswald.de/struktur/abteilungen/allgemeine-und-systematische-zoologie/

The position is funded for three years by the German Research Foundation (DFG) at the salary level E 13 TV-L (65%). The **ideal starting date is September 1st, 2026.**

One of the research fields investigated in the Uhl lab are animal reproductive strategies in an evolutionary context and anatomical and functional aspects related to reproduction and sexual selection. The position is linked to a DFG funded project on **"Sperm uptake and release in male spiders: a functional, biomechanic and neurobiological perspective".**

Background: Animals with internal fertilization have evolved diverse structures for sperm transfer from males to females. These include spermatophores deposited externally and taken up by females, as well as specialized body parts, such as penes connected to testes. Some species have developed secondary sperm transfer devices and use modified appendages. Sperm transfer structures are highly complex and species-specific, and go beyond simple sperm delivery. This complexity makes the male genitalia important for species identification and for evolutionary biology research on sexual selection, sexual conflict, and speciation. Our research project aims to elucidate the mechanisms of sperm uptake and transfer in male spiders that use specialized palpal organs (POs). Despite nearly two centuries of observation, the functioning of spider POs remains unclear. Focusing on two species representing major spider clades, the project will employ advanced imaging techniques, biomechanical testing, and experimental manipulations to investigate the following: 1. Structural and material properties of POs, including sclerites, membranes, and sperm-bearing spermophors. 2. Roles of muscles, hemolymph pressure, glandular secretions, and innervation in sperm uptake. 3. Dynamics of sperm release from PO to female during mating. The project combines expertise in spider mating behavior, ultrastructural anatomy, and functional morphology of copulatory organs in the Uhl lab (Greifswald) with state-of-the-art methods of micromechanics in the Gorb lab (Kiel). The candidate will work closely together with another candidate working on complementary aspects in the Gorb lab. By elucidating the intricate mechanisms of sperm transfer in spiders, this study will significantly advance our understanding of arachnid reproductive biology and may inspire novel technological applications in microfluidics and related fields.

Your tasks:

- Plan and execute experiments to understand the dynamics of sperm uptake and release
- Generate and analyse morphological data from a range of microscopy techniques (Cryo-SEM, FE-SEM and TEM) to investigate the functional morphology of sperm transfer organs in male spiders.
- Investigate general and species-specific differences using a comparative approach
- Collaborate with project partners, particularly with associated PhD candidate at Uni Kiel
- Coordinate a team of student helpers
- Publish results in scientific journals and present the work at scientific conferences on the national and international level.

Your profile:

- A master's degree or equivalent in biology or other biology-oriented disciplines.

- A strong motivation to unravel the details of sperm storage and release mechanisms
- Experience and interest in overarching questions (reproductive strategies to biomechanical functioning)
- Experience and skills in independent scientific work, ideally conducted using morphological methods and imaging (SEM, TEM, CT).
- Comfortable when working in a team and good communication skills
- Reliability and skills in project management
- Fluent in English, both written and spoken.

Advantages for you:

- You will work on a state-of-the-art research project in an internationally recognized research laboratory with an excellent infrastructure and a friendly atmosphere.
- You closely work together with another group of experts and thus expand your network
- You will be able to participate in conferences and workshops
- University of Greifswald offers participation in a qualification program to gain additional qualifications during your doctoral studies.
- Greifswald is a historic city on the Baltic Sea coast in north-east Germany. Its large student population contributes to a vibrant and dynamic social atmosphere. Greifswald offers a high standard of living with affordable costs, with most destinations reachable by bicycle.

How To Apply:

To apply for the position, please provide the following materials as a single PDF file via email to Prof. Dr. Gabriele Uhl (Gabriele.uhl@uni-greifswald.de), quoting the job reference number 26/Wi07. The **application deadline is June 15, 2026**.

- A letter of motivation detailing your research interests, relevant skills, and experience.
- A Curriculum Vitae, including a list of scientific contributions such as publications or congress contributions.
- Academic transcripts and degree certificates
- Contact details of two professional referees, e.g., previous supervisors or mentors.
- We are committed to fostering a diverse and inclusive academic community.
- We particularly welcome applications from international students and candidates from all backgrounds.
- For further information, informal inquiries may be directed to Gabriele Uhl.

Please note that by submitting your application, you consent to the processing of your application data by us in accordance with data protection regulations. Further details on the legal basis and use of data can be found here. https://www.uni-greifswald.de/en/university/information/jobs/current-vacancies/information-about-data-protection/

Please address questions to:

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