



**PhD Position available at the Zoological Institute & Museum
University of Greifswald, Germany**

Comparative biology of silk use in spiders

A **Doctoral Researcher (f/m/d) (Wiss. Mitarbeiter*in) (65% TV-L 13)** position is available in the EU funded project *Melding behavioural ecology and biomaterials research to track the evolution of mechanical super-performance of spider silk composites (SuPerSilk)* led by Dr. Jonas Wolff. The position is **fixed to a term of 3 years**, starting in October 2022 or later.

About us: The newly founded Evolutionary Biomechanics lab is headed by Dr. Jonas Wolff. We are explorers of the diversity of shapes and functions of animal life. A core theme is to understand how structures evolve and work that are not grown, but arise from animal construction behaviour and secretion processes. Other current projects include the evolution of ant-mimicry, long-distance dispersal of arachnids in the Southern Ocean and the evolutionary history of Gondwanan rainforest spiders.

About the project: Using the functional diversity of spider silks as a model system the EU-funded project *SuPerSilk* aims to explore how biological materials with outstanding properties evolutionary originate. A special focus is to understand how changes in spinning behaviour, spinning apparatus structure and the functional differentiation of silk glands have affected the evolution of novelties in silk material properties. With this we not only want to lay the foundation for a new research direction, but also generate ideas for the development of new tailored fibre based materials with unprecedented mechanical properties.

Our offer: The position offered provides you with an exciting and diverse, fully funded opportunity to pursue a PhD and to build an interesting profile and strong track-record. You will investigate how and in which behavioural contexts different spider species use distinct silk glands of their spinning apparatus. Being embedded into an excellence project you will benefit from the close collaboration within a creative and vibrant team of researchers from different disciplines, working on other aspects in the same system in parallel. Your well-being and personal development is important to us and thus we strive to create a friendly and fun working environment, with accessible supervisors, flexible working hours, annual leave, training and mentoring options.

Your tasks:

Research within the EU-funded project *SuPerSilk*:

- Comparative morphological studies of the spider spinning apparatus (dissection, light and electron microscopy, micro-computed tomography)
- Microscopy of silk structures (threads, webs, cocoons)
- Behavioural observations and experiments in the lab and in the field
- Data analyses (morphometric analyses, statistical tests, phylogenetic comparative methods)
- Planning and carrying out domestic and overseas field trips for the purpose of animal collection and observation
- Organization of the animal husbandry needed for the project
- Writing of scientific papers in English and presentation at international congresses

Your profile:

- You have a higher degree in biology or a related discipline (Master of Science or equivalent), with majors in zoology and evolutionary biology

- You are passionate about biodiversity and have solid knowledge of the diversity and morphology of arthropods
- You have very good written and oral English communication skills
- You are able to work independently, careful, responsible and reflected, and to generate own ideas
- You are curious and open to learn new techniques and to develop new experimental approaches
- You are skilled in fine dissection and working with living animals

In addition, it is advantageous if:

- You have good knowledge of statistical approaches and a basic knowledge of the program R
- You have experience in the husbandry of invertebrates
- You have a talent in organizing and management
- You have some field work experience
- You have made some first experiences in scientific publishing

About Greifswald: Founded in 1456, the University of Greifswald is one of the oldest universities in Germany and the Baltic Sea Region. With its core research topic *Environmental Change: Responses and Adaptation*, a concentration of expertise in organismic biology and a cutting-edge research infrastructure it provides an excellent intellectual environment to build a research career in evolution and ecology.

Greifswald's location in the coastal landscape of islands and lagoons of the Baltic Sea makes it very attractive for bird watching, water sports, cycling and hiking. Surrounded by nature, with a historic city centre, a richness in cultural events, excellent cycling infrastructure and direct train connections to the metropolises of Berlin and Hamburg, Greifswald offers a great quality of life.

The position is open to all persons, irrespective of gender. We aim to increase the proportion of women in areas in which they are underrepresented. Applications from women are particularly welcome and will be treated with priority if they have the same qualifications and as long as there are no clear reasons, which make a fellow applicant more suitable. Severely disabled applicants with the same qualifications will be considered with preference.

Please send your application with all usual documents (cover letter, CV, scans of degree certificates, contact details of two referees, scientific publications if available) **via email (single pdf-file)** with reference to the job advertisement number **22/Wi08** by **8 August 2022** to:

University of Greifswald
Zoological Institute and Museum
Dr. Jonas Wolff
Loitzer Str. 26
17489 Greifswald

E-Mail: j.wolff@uni-greifswald.de

Please contact me (j.wolff@uni-greifswald.de) if you have any questions regarding the position or project.

For more information on me (the PI) and my activities:

ResearchGate: <https://www.researchgate.net/profile/Jonas-Wolff-2>

Twitter: [@jonas_o_wolff](https://twitter.com/jonas_o_wolff)

Link to the official job announcement (in German): <https://www.uni-greifswald.de/universitaet/information/stellenausschreibungen/wissenschaftliches-personal/stellenausschreibung/n/wissenschaftlicher-mitarbeiterin-zoologisches-institut-und-museum-22-wi08/>

Legal notes:

According to § 68(3) PersVG M-V, the Staff Council will only be involved in staff matters of the academic or artistic staff on request.

Please only submit copies of your application documents as they cannot be returned.

Unfortunately, application costs (e.g. travel expenses for interviews) will not be reimbursed by the State of Mecklenburg-Vorpommern.

Please note that by submitting your application, you provide your consent pursuant to data protection law for our processing of your application data. Further information about the legal bases and the use of your data can be found here:

<https://www.unigreifswald.de/universitaet/information/stellenausschreibungen/oeffentliche-stellenausschreibungen/hinweise-zum-datenschutz/hinweise-zum-datenschutz/>