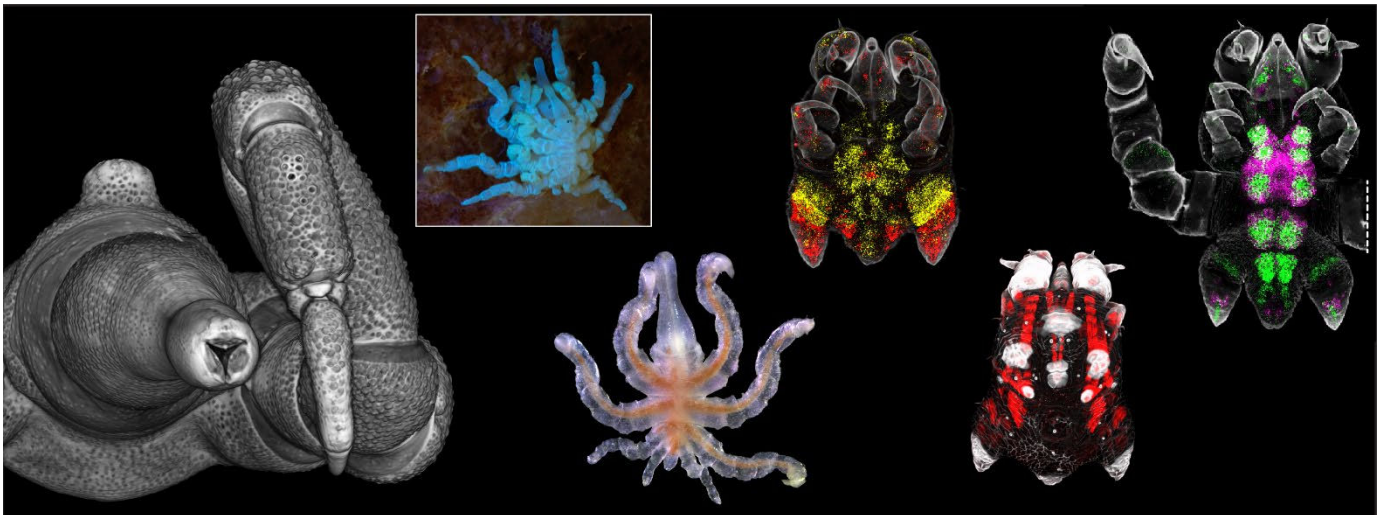


2 PhD positions in arthropod evo-devo and regeneration at the University of Vienna

This new project is fully funded by the Austrian Science Fund (FWF) and will explore key aspects of the development and regenerative abilities of the enigmatic sea spiders (Pycnogonida). Pycnogonids are the marine sister group of all other chelicerates (spiders, scorpions and relatives) and – unlike most of their chelicerate kin – undergo a pronounced indirect development with a small hatching larva and a stereotypic series of postlarval instars prior to attaining adult body organization.

Specifically, we will seek to elucidate embryonic and postembryonic body patterning in the sea spider *Pycnogonum littorale*, a species that we maintain in a long-term reproducing laboratory culture. Beyond ontogeny, regeneration experiments on postlarval instars and juveniles will aim to decipher and characterize the cellular basis of primary body axis regeneration in *P. littorale*, a unique ability of sea spiders that distinguishes them from their arthropod kin.

Apart from the laboratory culture of *P. littorale*, the project can take advantage of high-quality genomic and transcriptomic resources and of well-established protocols for a wide range of different morphological and molecular approaches (e.g., immunolabeling, in-vivo cell proliferation assays, μ CT, HCR-FISH). In addition, novel approaches will be adapted for pycnogonid developmental stages, such as single cell/nuclei sequencing.



The successful candidates will join a vibrant team of evolutionary biologists in the new University Biology Building (UBB) of the University of Vienna. The specific projects for the candidates will be individually discussed and tailored, taking personal interests into account. They will include hands-on training in a broad range of techniques that will benefit the candidates for a future career within and outside of academia.

Both PhD candidates will be enrolled at the Vienna Doctoral School of Ecology and Evolution (VDSEE; <https://vds-ecology-evolution.univie.ac.at/>), a network of more than 70 PIs and 170 PhD students with numerous joint activities.

The positions are open from March 2025, but the start date is more flexible and can be adjusted depending on the candidates' availability.

To apply for one of the positions, please include your CV, a letter of motivation, research interests, a brief description of your methods skills, and the contact data of 2 referees in a single pdf file and send it to georg.brenneis@univie.ac.at by **January 20th, 2025**.

Requirements:

- MSc degree or equivalent in Biology or a related field.
- Very good written and oral English skills
- Ability to present scientific research.
- Previous experience in either morphological (e.g., fluorescence labeling techniques), molecular (e.g., in-situ hybridization) or bioinformatic (e.g., analysis of RNAseq datasets) applications.
- Experience with the culturing and handling of small non-model invertebrates is advantageous.

We offer:

- A three-year PhD (pre-doc) contract with flexible starting time, ideally not later than spring 2025.
- A friendly and collaborative research environment at the Department of Evolutionary Biology, Unit for Integrative Zoology (<https://zoology.univie.ac.at/>).
- Outstanding research facilities and infrastructure in the new labs at the University Biology Building (UBB).
- Support from scientific and technical staff of the Department of Evolutionary Biology.
- Great network opportunities with other international research groups at University of Vienna.

We expect:

- High motivation and dedication to the project.
- Generation and analysis of scientific data related to the project. The projects of both PhD students will employ a combination of morphological, molecular and bioinformatic methods, ensuring a comprehensive training in modern evo-devo approaches.
- Openness to work and communicate in an international team.
- Willingness to tackle problems self-reliantly and in goal-oriented team work
- Potential co-supervision of BSc and MSc students in the lab.
- Writing of scientific papers together with the PI.
- Presentation of research results at international conferences and workshops.
- Participation in regular departmental and group seminars.

For further inquiries please contact the PI directly via email: georg.brenneis@univie.ac.at