

Job Announcement ref. #02-23003

The Senckenberg Gesellschaft für Naturforschung (SGN) was founded in 1817 and is one of the most important research institutions around biological diversity. At the eleven locations throughout Germany, scientists from over 40 nations conduct cutting-edge research on an international scale. Senckenberg am Meer in the port city of Wilhelmshaven is the northernmost institute. It cooperates with important research institutions in German marine research as well as colleges and universities. Located directly on the North Sea, the Wilhelmshaven site also offers local recreation in unspoiled nature as well as a wide range of cultural activities.

The **Senckenberg Gesellschaft für Naturforschung** headquartered in Frankfurt am Main invites applications for a DFG funded project at its site **Deutsches Zentrum für Marine Biodiversitätsforschung (DZMB)**, section **Meeresbotanik**, in **Wilhelmshaven**

**Post Doc position in
„Expansion of the space by protists: recent speciation,
phenotypic plasticity and adaptations to salinity“**

(full time / part-time options available)

For successful biodiversity conservation it is important to clearly recognize current diversity and understand how new biodiversity generates. A key process that ultimately generates the diversity of life is known as speciation. Today our comprehension of this phenomenon is based mainly on the studies of well-known multi-cellular model systems. Little is known about speciation in unicellular eukaryotes (protists), one of the most diverse groups of organisms on Earth. We intend to study a flock of closely related protists initially described from the Baltic Sea, which are important primary producers in coastal waters. *Prorocentrum micans*-like dinoflagellates thrive in different marine and brackish habitats. Preliminary data suggest that respective populations are currently undergoing speciation. For some lineages the main driver could be local adaptation to salinity variation. We hypothesize that divergent adaptation of the *P. micans* like populations are explained by this process rather than by phenotypic plasticity.

The aims of this project are to determine the phylogenetic structure of this group of closely related taxa, to evaluate current species boundaries, and to assess specific physiological adaptations (in particular to salinity) on the transcriptome level of these closely related protists in the context of their evolution. The overall goal is to obtain a comprehensive data set for the widespread dinoflagellate *P. micans* complex that ultimately will provide a better understanding of dinoflagellate diversification and speciation.

The project will involve 1) RNA sequencing and transcriptome analyses of multiple strains from different habitats, 2) description and comparison of their morphological features, 3) experimental studies to characterize adaptations to different salinities and 4) determination of their ecological niches in the field.

Your tasks

- RNA extraction and purification for transcriptome sequencing
- Bioinformatic analyses of transcriptome data
- Annotation of sequences, analyses of sequence structures and differential expression analyses
- Field sampling, in collaboration with the project partners
- Analysis and interpretation of data
- Writing manuscripts
- Optional: culturing *Prorocentrum* strains; ecophysiological culture experiments

Essential skills and qualifications

- PhD in Biology or Genetics
- documented experience in molecular phylogenetic approaches
- documented experience in bioinformatic analyses of transcriptomes
- documented experience with comparative analysis of gene expression
- experience of designing, running, and analyzing experiments
- excellent time and project management skills, including setting targets for milestones and adhering to deadlines
- strong interpersonal skills to coordinate with project team members from several institutes
- data management & statistic analyses skills
- excellent English skills, spoken and written

Desirable skills

- programming skills (e.g. Python)
- experience with microscopy
- microalgal culturing experience
- experience in population genetics

We offer

- an attractive and interesting job in a globally recognized research institution
- independent work in an international, motivated and professional environment
- flexible working hours - support with childcare or caring for family members (certified by the "audit berufundfamilie") - a company badge with free admission to numerous municipal museums and the Senckenberg museums - a collectively agreed special annual payment - collectively agreed vacation entitlement - company pension plan

Place of employment:

Wilhelmshaven

Working hours:

Full time / part time options are available (minimum 75%)

Type of contract:

Start is ideally in November 2023, or as soon as possible thereafter. You will receive a fixed-term contract for three years.

Salary:

According to the collective agreement of the State of Hesse (pay grade E 13, TV-H)

SENCKENBERG

world of biodiversity

Senckenberg is committed to diversity. We benefit from the different expertise, perspectives and personalities of our staff and welcome every application from qualified candidates, irrespective of age, gender, ethnic or cultural origin, religion and ideology, sexual orientation and identity or disability. Applicants with disabilities (“Schwerbehinderung”) will be given preferential consideration in case of equal suitability. Senckenberg actively supports the compatibility of work and family and places great emphasis on an equal and inclusive work culture.

You would like to apply?

Then please send your complete and informative application documents (**as a single PDF-file**):

- a cover letter detailing research interests and experience (max. one page)
- a detailed CV
- copies of your transcripts / academic certification
- contact details of two potential academic referees
- copies of up to three representative publications documenting your methodological expertise

by **September 25, 2023** to recruiting@senckenberg.de, **quoting the reference number #02-23003**, or please apply on our homepage using the online application form:
[Apply Online | Senckenberg Society for Nature Research](#)

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Für specific questions regarding this role please contact Dr. Mona Hoppenrath (after September 4): mona.hoppenrath@senckenberg.de

For more information about the Senckenberg Gesellschaft für Naturforschung please go to: www.senckenberg.de.