

GEOMAR Helmholtz Centre for Ocean Research Kiel is a foundation under public law jointly financed by the Federal Republic of Germany (90%) and the State of Schleswig-Holstein (10%). It is one of the internationally leading institutions in the field of marine research.

Through our research and our commitment to the transfer of knowledge and technology, we contribute significantly to the preservation of the function and protection of the ocean for future generations.

The research unit 'Experimental Ecology' investigates how coastal ecosystems respond to climate change. We are particularly interested in how benthic foundation species such as macroalgae, corals and bivalves cope with summer heat wave mortality and whether heat tolerant genotypes that currently exist at low frequencies are selected by intense heat waves. Ultimately, we want to use information on adaptive potential in models to better predict geographic range shifts of important foundation species and their associated communities under various climate change scenarios. We utilize unique outdoor mesocosm systems (Kiel Outdoor Benthocosms, KOBs) to experimentally select from thousands to millions of genotypes within complex communities and couple these experiments with field studies.

An important model species in our research unit is the macroalga *Fucus vesiculosus*. *F. vesiculosus* forms extensive meadows in temperate coastal habitats and has a very limited dispersal potential, leading to strong genetic differentiation along coastlines. We have recently succeeded in mass-fertilization of hundreds of genotypes and rearing of juvenile algae in mesocosms under different thermal scenarios. We now want to study selection dynamics in such experiments and understand genomic targets of selection & to phenotype heat-resistant survivors. While we have expertise in phenotyping of algae and experimental ecology, we are looking for a scientist with evolutionary genomics expertise to complement our team.

The research unit 'Experimental Ecology' of the research division 3: 'Marine Ecology' is offering a

## **Scientist (m/f/d) position in 'Evolutionary genomics of algal heat tolerance'**

starting on 1<sup>st</sup> November 2024.

### **Job Description**

The successful candidate will (i) work towards creating a high-quality chromosome-level *F. vesiculosus* genome (in cooperation with the international *Fucus* community), (ii) conduct selection experiments in collaboration with the Experimental Ecology team (mainly: Melzner & Weinberger labs), (iii) investigate genomic targets of selection in heat-resistant genotypes, (iv) model heat survival of *F. vesiculosus* along the distribution range in response to different climate change scenarios. We encourage the successful candidate to develop an independent research profile and explicitly aim to hire a scientist with an ambition to establish her/his own group via e.g. the DFG Emmy Noether or EU ERC programs.

### **Qualification**

Required Qualifications:

- A PhD/doctoral degree in biology or life sciences
- Strong bioinformatic skills or strong thermal tolerance modeling skills demonstrated

- through peer-reviewed scientific publications as first author
- Strong statistical skills using R

Desirable qualifications:

- Molecular biology laboratory experience
- Genome or transcriptome assembly experience
- Experience working with macroalgae demonstrated through peer-reviewed scientific publications
- Experimental breeding and local adaptation research experience
- Car driving license

**At a workplace, directly on the Kiel Fjord with many leisure and recreational opportunities, we offer you:**

- Good conditions for work-life balance: We offer, among other things, the possibility of mobile working and individual working time arrangements, vacation courses for the children of our employees, and good support in finding a place in a daycare center at the Kiel site
- Support services for professional and personal life situations
- An exciting work environment with the opportunity to provide important impetus for the development of sustainable solutions
- Exciting topics in an international environment
- Work in the field of marine and climate research, a forward-looking area with social significance
- 30 vacation days + additional time off at Christmas Eve and New Year's Eve
- Company pension plan and capital-forming benefits

The position is available for four years. The salary depends on qualification and could be up to the class 13 TVöD-Bund of the German tariff for public employees. This is a full-time position. The position can be split. The fixed-term contract shall comply with Section 2 Paragraph 1 of The Act of Academic Fixed-Term Contract (German WissZeitVG).

GEOMAR Helmholtz Centre for Ocean Research Kiel seeks to increase the proportion of female scientists and explicitly encourages qualified female academics to apply. GEOMAR is an equal opportunity employer and encourages scientists with disabilities to apply. Qualified disabled applicants will receive preference in the application process.

Please send your application for this post **not later than 9<sup>th</sup> August 2024** under the following link:

[Online application](#)

As soon as the selection procedure has finished, all your application data will be removed according to data protection regulation.

For further information regarding the position and research unit please contact Prof. Dr. Frank Melzner ([fmelzner@geomar.de](mailto:fmelzner@geomar.de)).

However, we will answer all your questions if you send us an e-mail to [bewerbung@geomar.de](mailto:bewerbung@geomar.de). In doing so, please refer to the keyword "algal heat adapt".

For further information on GEOMAR Helmholtz Centre for Ocean Research Kiel or the

Helmholtz Association, please visit [www.geomar.de](http://www.geomar.de) or [www.helmholtz.de](http://www.helmholtz.de).

GEOMAR is committed to an objective and non-discriminatory personnel selection. Our job advertisements address all people. We expressly renounce the submission of application photos.



The TOTAL E-QUALITY award is presented to GEOMAR for efforts in terms of human resource management aimed at providing equal opportunity.