

Job announcement ref. #02-21006

For over 200 years the Senckenberg Gesellschaft für Naturforschung (SGN) represents one of the most relevant institutions investigating nature and its diversity. Currently, scientists from more than 40 countries across 11 locations in Germany conduct research in the fields of biodiversity, earth system analysis and climate change. The institute Senckenberg am Meer with the departments Marine Research and German Centre of Marine Biodiversity Research (DZMB) is located in Wilhelmshaven and is the northernmost location of our association. Within SGN, the Senckenberg am Meer Institute in Wilhelmshaven explores the interactions between marine biodiversity and geology, climate, and society.

Within an integrated multi-partner project called iSeal "Trans- and interdisciplinary Social-ecological network analysis based on long-term monitoring, experimental data and stakeholders' Senckenberg invites applications for a

Post-Doc Position (m/f/d)
(100 %)

Post-Doctoral scientist will be responsible for the coordination of a workpackage leading with understanding the influence of non-native species (neobiota) on the community structure and food webs functioning on natural habitats and aquaculture in the German Wadden Sea.

The project, funded by the BMBF is part of the DAM (Deutsche Allianz für Meeresforschung) Mission "Protection and Sustainable use of Marine Areas". With the iSeal project, Senckenberg will study the influence of non-native marine species on the ecosystems and its functions in the Wadden Sea area. We aim at describing and understanding changes in the blue mussel beds communities over the past 20 years and assess the changes in the food webs promoted by invasive species. We will describe the current food webs using Ecological Network Analysis at natural mussel beds and compare them to aquaculture smart farms. Together with stakeholders (environmental agencies, blue mussel producers), we aim at proposing a set of thresholds and indicators for monitoring the effect of non-native species on natural communities and smart farms for the European Water Framework Directive using a co-design approach. The outcomes of the research will inform stakeholders and policy makers at German and the European scale.

Your tasks:

- To analyse existing time-series data on macrofauna community composition from 20 years monitoring of blue mussel beds. Describe community shifts and tipping points in relation to non-native species and environmental factors and model the effect of community shifts using ENA
- To describe the current food web at natural mussel beds and compare with the food web at smart farms longlines. Focus on the effects of non-native filter feeding species like Pacific Oyster and Amphipods (*Caprella mutica*, *Jassa marmorata*, etc) as competitors of the blue mussel and how they affect production and survival
- To measure abundance, biomass, respiration, egestion and production of key non-native species to contribute these feeding compartments to the ENA models
- To assess the presence of non-native species in smart farms and natural mussel beds using morphological and genetic methods (metabarcoding, eDNA) and to develop a monitoring strategy that can serve as early warning system
- To coordinate the dialogue with stakeholders and project outreach (e. g. webportals, policy briefs)

Your profile:

- PhD in Biology, Ecology, Environmental Sciences, or related fields
- Understanding of biodiversity and nature conservation in Germany and European scale
- Experience with biodiversity databases and analyses
- Familiar with statistical language R
- Familiar with food web modelling approaches e.g. ENA, SIAR
- Interest into interdisciplinary research collaboration
- Interest in basic and applied research including interactions with policy and stakeholders
- Very good written and oral communication skills in English
- At least basic reading and oral communication skills in German

What is awaiting you?

- An interesting and relevant task in a large interdisciplinary research team
- Becoming a member of dynamic team at Senckenberg am Meer specialized in marine biodiversity and geology interactions
- The possibility to build and extend your network with scientists at an international level and to attend national and international conferences
- Flexible working hours – annual special payment – company pension scheme – Senckenberg badge for free entry in museums in Frankfurt, the zoo, botanical garden and Palmengarten – leave of 30 days/year – a job ticket subsidy for public transport

Salary and benefits are according to a full-time public service position in Germany (TV-H E13, 100 %). **The contract should start as soon as possible and will end at November 30th, 2024.**

The Senckenberg Research Institutes support equal opportunity of men and women and therefore strongly invites women to apply. Equally qualified handicapped applicants will be given preference. The place of employment is in Wilhelmshaven, Germany.

Please send your application, mentioning the reference of this job offer (**ref. #02-21006**) before **December 12th, 2021** by e-mail (attachment in a single pdf document) and including a letter outlining your suitability and motivation, detailed CV, list of publications, and contact details of two potential references to **recruiting@senckenberg.de** or use our online application form on our homepage www.senckenberg.de

For scientific enquiries please contact pedro.martinez@senckenberg.de
cc achim.wehrmann@senckenberg.de

