

2 PhD positions (UNIVERSITÄT OLDENBURG)

Bewerbungsfrist: 08.09.2017

The project POSER (POpulation Shift and Ecosystem Response - Krill vs. Salps), funded by the Federal Ministry of Research and Culture of Lower Saxony (MWK) and located at the Institute for Chemistry and Biology of the Marine Environment (ICBM), Carl-von-Ossietzky University Oldenburg, offers:

2 PhD positions in Marine Ecology Research 3 years (TVL-E13 / 65%)

January 1st 2018 to December 31st 2020

POSER aims to understand the consequences of krill stock decline and the increase of salp populations due to anthropogenic warming in the western Atlantic sector of the Southern Ocean for plankton community structure, biodiversity and biogeochemical cycles. Our overall goals are as follows: 1) investigating the role of krill and salps in controlling productivity (through the (re)cycling of macronutrients), export (carbon flux) and microbial food web composition and 2) investigating the role of krill and salps in controlling iron (Fe) biogeochemistry in Fe limited oceanic waters. To achieve these goals, field samplings and on-board experiments will be performed on a research cruise on the R/V Polarstern in 2018 in different sections of the study area, which will be complemented with mathematical modeling. The interdisciplinary approach will allow predicting the causal effect of climate induced environmental changes on a) the population dynamics of key players in the pelagic system (krill, salps) and b) the consequences of an abundance shift of these organisms on the lower trophic food web, on nutrient stoichiometry, and carbon flux. Given the important role of the Antarctic food web in the global ocean, our project has large societal relevance enabling us to predict consequences of global warming for the Southern polar ocean.

Profile of the PhD candidate #1: The first PhD position focuses on the consequences of the shift from krill to salps for nutrient stoichiometry and microbial food web dynamics, including bacteria, phytoplankton and microzooplankton. We are looking for a candidate holding an outstanding academic university degree in Marine Environmental Science, Ecology or a closely related subject. The candidate must have a strong background in ecological principles and expertise in experimental ecology, DNA-based molecular techniques, statistical data analysis, and good writing skills. Additionally, experience in organizing and conducting experimental work on research cruises, in handling phyto- and zooplankton organisms and in investigating trophic interactions involving nutrient cycling / ecological stoichiometry is required. The successful candidate will be embedded in the working group 'Planktology' of the ICBM (Wilhelmshaven) and will be supervised by Dr. Stefanie Moorthi and Prof. Helmut Hillebrand.

Profile of the PhD candidate #2: The second PhD position focuses on the consequences of the shift from krill to salps for the biological carbon pump (e.g. fecal pellet production, sinking rates, estimation of degradation processes in relation to quality of ingested food). The successful candidate is expected to have an outstanding academic university degree in marine biology and should have skills in analytical techniques, experimentation/maintenance of marine organisms, and preferably analytical skills in physiology and molecular biology. The position requires the ability to manage month-long research expeditions and to work self-reliant on the project. The successful candidate will be embedded in the working group 'Biodiversity and Biological Processes in Polar Seas', headed by Prof. Dr. Bettina Meyer in close cooperation with the Helmholtz Young Investigator Group 'SeaPump' at AWI, Marum, and University of Bremen, headed by Dr. Morten Iversen.

It is expected that both candidates are willing and capable to perform marine expeditions within the course of the project. The international nature of the project requires fluency in spoken and written English and good presentation and publication skills. Candidates should have a strong interest in multidisciplinary research and great enthusiasm for scientific work, as well as good team spirit because a close cooperation with all working groups is required.

The Carl von Ossietzky University Oldenburg is dedicated to increase the percentage of female employees in the field of science. Therefore, female candidates are strongly encouraged to apply. In accordance to § 21 Section 3 NHG, female candidates with equal qualifications will be preferentially considered. People with disabilities will be given preference if equally qualified.

Please send your application for the respective PhD position including a motivation letter, copies of your certificates, a list of your publications, a CV, and the names and addresses of two referees preferably via e-mail as a single pdf-file not exceeding 10 MByte to:

Position #1: Dr. Stefanie Moorthi (stefanie.moorthi@uni-oldenburg.de)

Position #2: Prof. Dr. Bettina Meyer (b.meyer@uni-oldenburg.de)

(Carl von Ossietzky Universität Oldenburg, Postfach 2503, 26111 Oldenburg)

All applications must be submitted by **September 8th 2017**. Our ideal starting date would be January 1st 2018.