



**ALFRED-WEGENER-INSTITUT**  
HELMHOLTZ-ZENTRUM FÜR POLAR-  
UND MEERESFORSCHUNG



The Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI) is a member of the Helmholtz Association (HGF) and funded by federal and state government. AWI focuses on polar and marine research in a variety of disciplines such as biology, oceanography, geology, geochemistry and geophysics, thus allowing multidisciplinary approaches to scientific goals.

## **Master of Science Project "Impact of heatwaves on microbial communities"**

### **Background**

Microbial communities in summer are more balanced and kept in check by grazers compared to spring bloom microbial communities. Blooms, if they occur, are rather rare and short lived. How this balance is changing with progressing climate change, and especially with heatwaves which are gaining in intensity and frequency is not yet known. To tackle this key scientific challenge, we compare ambient in situ conditions with a "heat wave" scenario mimicking occasionally occurring anomalous heat events in the North Sea. Within this Master thesis the candidate will focus on the influence of grazing on the microbial community composition. Is there a selective grazing on specific bacterial groups? Does the grazing preference shift to different prey bacteria under the influence of a heatwave?

### **Tasks**

To answer these questions, samples will be analyzed by Fluorescence-In-Situ-Hybridization and automated counting at the Max-Planck-Institute (Bremen), and combined to sequencing and taxonomic data gained at the Alfred-Wegener-Institute.

### **Requirements**

- You should be enrolled at a University in a cursus of microbiology, or aquatic biology/ecology

### **Further Information**

The place of employment will be **Bremen**.

Work time: flexible

Start: as soon as possible

### **You are interested?**

Then please send us your application with Cover letter and CV (with all documents merged into one PDF file) by e-mail to: **Dr. Cédric Meunier** ([cedric.meunier@awi.de](mailto:cedric.meunier@awi.de))

*For any further information, please contact Dr. Bernhard Fuchs ([bfuchs@mpi-bremen.de](mailto:bfuchs@mpi-bremen.de)), Dr. Inga Kirstein ([inga.kirstein@awi.de](mailto:inga.kirstein@awi.de)), and Dr. Cédric Meunier ([cedric.meunier@awi.de](mailto:cedric.meunier@awi.de))*