

PHD STUDENT “MICROBIAL PLASTIC DEGRADATION IN CONTRASTING MARINE ENVIRONMENTS”

The department of Marine Microbiology and Biogeochemistry (MMB; department chair prof. dr. J.S. Sinninghe Damsté), is looking for an exceptional and highly motivated PhD student with a background in biogeochemistry, organic geochemistry and/or microbial ecology. You will support our research on the potential of microbial plastic degradation in the ocean.

LOCATION: ROYAL NIOZ TEXEL
VACANCY ID: 2017 – 067
CLOSING DATE: October 15th, 2017

THE PROJECT

The present era of massive anthropogenic environmental change has put the ocean under pressure. Of particular concern for the marine realm, is the ongoing pollution with synthetic plastic debris, most importantly comprised of items that are small in size (so called micro plastics). Plastic debris impacts marine organisms and ecosystems in multifaceted ways and is generally considered as inert in the environment. Plastic particles in marine sediments were even suggested to become a new marker horizon for the Anthropocene epoch. Yet, recent research suggests that specialised microbes can utilise at least some plastic types as a carbon source.

To further assess the longevity and fate of plastic litter in the marine realm, we need to test for the potential of microbial plastic degradation. We furthermore need to unravel degradation pathways and to identify plastic-degrading microbes.

For this, we will trace plastic-derived carbon into degradation products and microbial biomass across a broad range of environmental conditions. Different analytical tools will be applied to meet the project goals, including incubation experiments in the environment and under controlled laboratory conditions, isotope probing/tracing assays as well as lipid biomarker and genetic analyses.

THE CANDIDATE

Are you a highly motivated young researcher with an MSc degree in biogeochemistry, organic geochemistry and/or microbial ecology? Do you have a keen interest in frontier-based research in an interdisciplinary scientific environment? Do you have experience with experimental work? Are you interested in applying biogeochemical, organic geochemical and molecular tools in the laboratory and in the field? Apply and join our research team.

In your PhD project, you will learn to understand and apply state-of-the-art analytical techniques and research concepts to cross the boundaries of classical scientific disciplines. Since you will work in an international and interdisciplinary research environment it is essential that your oral and written English skills are good.

Field expeditions and sojourns at the laboratories of scientific partners are being planned and will be part of your research.

CONDITIONS

We are offering a 4-year full-time position with a pension scheme, a yearly 8% vacation allowance, a year-end bonus and flexible employment conditions. Working conditions are based on the Collective Labour Agreement of Research Centres (WVOI). The position will be located on Texel. Cost of relocation and help with housing is provided by the Royal NIOZ.

MORE INFORMATION:

For additional information about this vacancy, please contact [dr. Helge Niemann](#).

For additional information about the procedure, please contact [Jolanda Evers](#) (senior HR advisor).