

PHD STUDENT “NEXT-GENERATION SCIENCE FOR MICROBIAL BIODEGRADATION STANDARDS”

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 microbial ecology, microscopy, molecular biology, and bioinformatics. You will support our research on the fate of biodegradable plastics in the ocean.

LOCATION: ROYAL NIOZ TEXEL
VACANCY ID: 2017 – 070
CLOSING DATE: OCTOBER 15th, 2017

THE PROJECT

Biodegradable and compostable plastics hold promise for combating the rising unpopularity of plastic litter that plagues our environment, but the fate of even "environmentally-friendly" and renewably sourced plastics is poorly understood in many environments, particularly open ocean and coastal waters. While the marine environment is not a dumping ground for garbage, recent studies estimate that between 4.8 and 12.7 million metric tons of plastic accidentally enters the ocean each year.

All plastic that ends up in the ocean is rapidly colonized by microbes and forms what is often referred to as the "Plastisphere". Microbial members present in the Plastisphere exhibit biogeographic variations, so the ability of some microbes to biodegrade plastic in the marine setting will depend on a suite of factors that needs to be systematically studied, preferably with a customized set of defined microbes.

To this end we will quantify and metabolically characterize the ability of defined microbial consortia to colonize and biodegrade a suite of different biobased plastics in a variety of marine environments starting with the original consortium that lead to the first ASTM Marine Biodegradation Standards and developing optimized consortia for different temperatures and habitats as needed. This project will require a suite of field, laboratory, and computational biology skills that will be honed and developed as part of this exciting PhD project.

THE CANDIDATE

The candidate for this position must hold an MSc degree in Microbiology, Molecular Biology or Microbial Ecology or related fields and be highly organized, motivated, and fluent in oral and written English. Applicants must be able and willing to join cruises for weeks at a time. Candidates with bioinformatics and programming skills will be given higher priority.

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. Linda Amaral-Zettler](#).

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

Learn more about the department of Marine Microbiology and Biogeochemistry [here](#).