



Vlaams Instituut voor de Zee vzw
Flanders Marine Institute

VACANCY

Researcher colonization of ecosystem engineers in coastal natural and artificial habitats

SITUATION

For 20 years, the Flanders Marine Institute (VLIZ) has been strengthening the accumulation of marine knowledge and the excellence of marine scientific research in Flanders. VLIZ is a coordination and information platform, a focal point for marine and coastal research, which also serves as an international contact point for marine science. Important activities are national and international networking, information and data management, scientific communication for policy and industry, education and the general public, and logistical support of marine research. Since 2017, the institute also initiates, promotes and executes innovative and multidisciplinary marine research, and this at the service of, in collaboration with or complementary to Flemish and international marine research groups.

To strengthen its research capacity, VLIZ is hiring 14 new colleagues in its Research Department. Join our multidisciplinary team in Oostende at the Belgian coast and be part of a new wave of marine research in Flanders. You will work in a unique institute in which your science will be supported by state-of-the-art data systems and services, research infrastructure, science communication and an extensive marine library. Moreover, VLIZ is part of a wide network of Belgian and international marine research groups, offering many opportunities for scientific collaboration.

In addition to these open positions, VLIZ sets up a recruitment reserve for potential temporary jobs. Opportunities may arise for the following profiles: ecological modeler, environmental data analyst/modeler with experience in R, marine biologist/taxonomist, molecular ecologist, marine geologist. Candidates with such a profile are encouraged to make a spontaneous application.

For each function, VLIZ considers enthusiastic involvement, open servitude, excellent professionalism and integrity as important characteristics.

RESEARCHER COLONIZATION OF ECOSYSTEM ENGINEERS IN COASTAL NATURAL AND ARTIFICIAL HABITATS

Ecosystem engineers such as bivalves (*Mytilus edulis*, *Magallana gigas*, *Ostrea edulis*) or polychaetes (*Lanice conchilega*) form reef structures that enhance habitat heterogeneity and biodiversity in coastal ecosystems and can provide relevant ecosystem services such as sediment stabilization or wave attenuation, contributing to coastal protection. The settlement of planktonic larvae of these species is a crucial phase in the colonization of both soft and hard substrates. By studying the early phase of colonization, VLIZ aims to investigate a crucial aspect in the re-vitalization of coastal environments with these important ecosystem engineers.

Within this context, VLIZ wants to address the following research questions:

- 1) How do shape and material of hard substrate influence the colonization with target species for coastal protection?
- 2) How and to what extent do early colonizers (e.g. biofilm or motile benthic organisms) of artificial hard substrates limit or facilitate early colonization and survival of target species?
- 3) What are the environmental boundary conditions in the dynamic coastal zone for the formation of sustainable colonies of ecosystem engineers on newly available substrates?
- 4) How and to what extent do thriving nearby colonies support the establishment and sustainment of new colonies at neighbouring sites?

This project will be performed in collaboration with Flemish and international research groups. There will be a focus on experimental approaches in controlled laboratory conditions and in the field. Environmental boundary conditions and connectivity/dispersion among colonies will require ecological modelling.

To develop this project, VLIZ hires a researcher in its Research Department.

MAIN RESPONSIBILITIES

- To plan and perform a research project on understanding the colonization of substrates by ecosystem engineers in coastal and shallow subtidal environments. This involves the planning and performance of experiments, sample and data processing, data analysis and modelling;
- To take initiative to discuss planning and report progress to the head of the research unit and collaborating scientists;
- To write high quality research manuscripts for submitting to peer-reviewed scientific journals;
- To supervise BSc and MSc students for job student, internship or thesis work;
- To interact and collaborate with colleagues at VLIZ to increase interdisciplinarity in various research projects;
- To possibly contribute to aspects of research and innovation projects in collaboration with partners from the Blue Economy;
- To present research at national and international conferences;
- To network at national and international level with other (marine) scientists;
- To contribute to events organized by the Department or the Institute, such as the VLIZ Marine Science Day.



PROFILE

- MSc in Exact or Applied Sciences, including biology, ecology and (bioscience) engineering, with an interest in experimental ecology;
- Experience with experimental research with aquatic invertebrates is a plus;
- Experience with mathematical modelling is a plus;
- Critical and creative;
- Scientifically integer;
- Open minded and taking initiative;
- Passionate scientist, willing to learn new skills and develop excellent research;
- Strong interpersonal skills, a motivated team player;
- Willing to work in an international context;
- Good oral and written English communication skills;
- Academic writing skills are a plus;
- Knowledge of statistics;
- Knowledge of marine ecology, community ecology or hydrology in coastal systems is a plus.

ADDITIONAL INFORMATION

For more information concerning this vacancy, please contact:

- Pascal Hablützel, head of the research unit Nature Changes & Solutions
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- Michiel Vandegehuchte, Research Director VLIZ
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OUR OFFER

- We offer a challenging job in the dynamic environment of VLIZ
- A contract of two years as researcher, which will be followed by a new two-year contract in case of a positive evaluation. The salary follows the salary scales of scientific personnel in the Flemish Government. Through collaboration with academic research groups, the research may lead to a PhD at a Flemish University.
- Fringe benefits: holiday pay, end-of-year bonus, meal vouchers, hospitalization insurance, bike allowance, free public transport for home-work commuting and an attractive holiday arrangement.

DOES THIS VACANCY APPEAL TO YOU?

Send in your cover letter and CV until May 15th 2019 (23:00 CEST):

- By post: Jan Mees, General director VLIZ, InnovOcean site, Wandelaarkaai 7, 8400 Oostende
- By mail: jobs@vliz.be with subject "14 NCS - Vacancy Coastal Ecosystem Engineers"



Contact us by telephone on +32 (0)59 34 21 30.

VLIZ promotes equality and diversity in the workplace. You will be recruited based on competencies. Qualities of people are decisive, regardless of gender, religion, ethnic origin, age, sexual orientation or any disability.

PROCEDURE

Based on the received motivation letters and CVs, a select group of candidates will be invited for a job interview. You will be informed by email. The job interviews take place in the offices of VLIZ.

Employment can start immediately after the job interview and ideally not later than 1st October 2019.

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