DALHOUSIE UNIVERSITY

OCEAN FRONTIER INSTITUTE

Ocean Frontier Institute

BECOME - Benthic Ecosystem Mapping and Engagement

Funded PhD Position:Engagement for co-design of benthic ecosystem mapping,Ocean Frontier Institute (OFI)/BEcoME

Department/Unit: Marine Affairs and School of Planning, Dalhousie University

Location: Halifax, NS

BEcoME description: BEcoME (Benthic Ecosystem Mapping and Engagement) is a major project of OFI (https://oceanfrontierinstitute.com/research/become). BEcoME aims to build a holistic understanding of the benthic ecosystem and its response to threats like climate change, to support decision-making for marine protection and resource stewardship. Activities of BEcoME focus on integrating and interpreting seafloor data collected using innovative mapping technology and contributed through local and Indigenous knowledge of the marine environment to visualize the benthic ecosystem at large and small scales.

The BEcoME project is seeking a doctoral student to work under the supervision of Dr. Claudio Aporta (Marine Affairs) and Dr. Patricia Manuel (School of Planning), co-leads of the sub-project WP 1.1: Engagement for Co-design of Benthic Ecosystem Mapping. At least one other faculty member of the project team will serve on the advisory committee. The sub-project is a collaborative undertaking among the multi-disciplinary research team and industry, community, and Indigenous organizations. Objectives are engagement for collaborative data sharing and interpretation in select case study locations in Nova Scotia; the co-production of visualizations of the benthic environments using technologically- and culturally-derived data; and the design of a framework to integrate data, information, and knowledge in a cross-cultural setting to support decision-making for marine resource stewardship.

Position Summary: The PhD student will undertake research at the intersection of social science and geographic information science or information technology, within a thematic context of exploring the nature of knowledge (scientific and local) of benthic environments in selected sites in Nova Scotia, as well as the mechanisms of knowledge and data visualization and mobilization. Research will look at how knowledge holders (scientists, industry, government, indigenous and non-indigenous fishers) relate to ocean environments, and particularly to benthic geographies and ecosystems. The research will be two-fold: 1) to explore knowledge and approaches regarding benthic ecosystems, and 2) to envision and conceptualize decision support tools or systems that could work cross-culturally and cross-sectorally with the ultimate goal of facilitating better knowledge, sustainable practices and integrated governance.

Requirements: The research context of this position is highly interdisciplinary, and the student will interact with researchers from marine affairs, planning, industrial engineering, and computer science.

The ideal candidate will hold a master's degree either in social sciences (e.g. human geography, planning, marine management, anthropology, sociology), with a demonstrated knowledge/interest in GIS and/or information technology, or master's in geomatics or computer science, with demonstrated knowledge/interest in social sciences (e.g. human geography, planning, marine management, anthropology, sociology).

Funding: 30K per year for three years. The IdPhD degree program typically takes longer than three years to complete. Students should plan for four years and will be encouraged to seek additional funding through scholarships.

Start date:
The successful candidate will enrol in the IdPhD program for the May 2021 Spring term.

Please visit the IdPhD website of the Faculty of Graduate Studies for admission requirements, application procedures and deadlines: https://www.dal.ca/faculty/gradstudies/idphd.html

Interested applicants must contact either Dr. Aporta (claudio.aporta@dal.ca) or Dr. Manuel (patricia.manuel@dal.ca) prior to the admission deadlines as the decision about which candidate will be supported must be made before submission of an application to FGS. *Early expression of interest is strongly recommended.*

Additional information: Dalhousie University is committed to fostering a collegial culture grounded in diversity and inclusiveness. The university encourages applications from Indigenous persons, persons with a disability, racially visible persons, women, persons of a minority sexual orientation and/or gender identity, and all candidates who would contribute to the diversity of our community.