Postdoctoral research assistant position in Arctic marine ecology and modelling

Project
Arctic and subarctic Ecologically and Biologically Significant Areas usually comprise strong pelagic-benthic coupling. Currents, nutrient recycling, primary production, as well as excretion from pelagic zooplankton and fish all contribute to carbon export at depth which, in turn, is exploited by the benthic fauna. On Arctic and subarctic shelves, this export is limited by shallow depths, but is greater in deeper areas with warmer nutrient-rich waters. Hence, the advection of deep ocean water in the numerous glacial troughs crossing the continental shelves likely provides favourable habitats for pelagic and benthic organisms. In contrast to submarine canyons, the importance of glacial troughs for harbouring biodiversity hotspots remains largely unknown, especially in Arctic regions.

We seek a highly motivated postdoc to lead a project on the importance of glacial troughs in Arctic and subarctic regions. The successful candidate will:

1) Use large datasets comprising seafloor mapping and imagery, acoustic-trawl surveys, paleoceanography, and moorings to quantify the abundance and biodiversity of pelagic and benthic organisms in glacial troughs;

2) Develop a coupled biophysical model based on general circulation models to forecast changes in abundance and biodiversity in Arctic and subarctic troughs.

These objectives will be supported by both existing datasets and opportunities to collect new data aboard Canada’s research icebreaker CCGS *Amundsen* [www.amundsen.ulaval.ca/home.php](http://www.amundsen.ulaval.ca/home.php).

The Postdoctoral Research Assistant will join the laboratories of Drs. Maxime Geoffroy and Evan Edinger at Memorial University and will work in close collaboration with experts from Fisheries and Oceans Canada, Natural Resources Canada, the Nunatsiavut Government, the University of Bergen (Norway), the University of New Brunswick, and the Farallon Institute (USA).

Qualifications

- A PhD in ecological modelling, marine ecology, biology, oceanography, or a related discipline.
- Abilities to develop biophysical models.
- A strong publication record in relevant fields.
- Experience with seafloor mapping, fisheries acoustics, benthic ecology, Arctic ecology, or paleoceanography will be considered an asset.
**Application:** Interested candidates must send a cover letter and CV to Dr. Maxime Geoffroy [Maxime.Geoffroy@mi.mun.ca](mailto:Maxime.Geoffroy@mi.mun.ca) and Dr. Evan Edinger [eedinger@mun.ca](mailto:eedinger@mun.ca).

**Deadline:** 31 January 2022

**Salary and duration:** 55,000 CAD per year for two years.

**Start date:** Flexible but aiming for spring 2022.