

## **Funded PhD opportunity in Arctic fish ecology**

Fisheries represent a key and rapidly expanding sector of Canada's northern economy. However, there are many unresolved questions on how environmental changes affect the distributions, dynamics, and productivity of plankton and pelagic fishes that together support commercially harvested fish species. The 'ArcticFish' project aims to address knowledge gaps in pelagic ecosystems within a collaborative research and training environment via the application of established (e.g. continuous plankton recorder, trawls, nets) and state-of-the-art technology in fisheries science (e.g. broadband acoustics, environmental DNA) to improve our understanding of Arctic fish ecology.

We seek a highly motivated PhD student to lead a project on pelagic fish in the Canadian Arctic and Greenland waters. The successful candidate will:

- 1) Quantify the summer distribution of mesopelagic fish and zooplankton using fisheries acoustic and environmental data;
- 2) Characterize the seasonal vertical migrations of mesopelagic fishes and zooplankton using moored echosounders;
- 3) Map the distribution of zooplankton prey along Canada's Northwest Passage using fisheries acoustic, continuous plankton recorder, and net data.

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 successful candidate will be registered in the PhD program in Fisheries Sciences offered at the Marine Institute of Memorial University of Newfoundland in St. John's, Canada [www.mi.mun.ca/programsandcourses/programs/fisheriessciencedoctorofphilosophyphd/](http://www.mi.mun.ca/programsandcourses/programs/fisheriessciencedoctorofphilosophyphd/).

The successful applicant will benefit from collaborations with experts from the Greenland Institute of Natural Sciences, University of St. Andrew's, Laval University, Marine Biological Association of the United Kingdom, and other allied researchers, industrial partners, and students within both the 'ArcticFish' project and the wider ArcticNet Network of Centres of Excellence of Canada (<http://www.arcticnet.ulaval.ca/>).

Interested candidates must meet the prerequisites for admission to the Marine Institute's Ph.D. program in Fisheries Science and have a background in oceanography, biology, marine ecology or a related discipline from a recognized institution. Experience in fisheries acoustics, fish ecology, trophic interactions, and spatial dynamics will be considered assets. To apply, please send a cover letter, curriculum vitae and copies of university transcripts by email to both Dr. Maxime Geoffroy [Maxime.Geoffroy@mi.mun.ca](mailto:Maxime.Geoffroy@mi.mun.ca) and Dr. Jonathan Fisher [Jonathan.Fisher@mi.mun.ca](mailto:Jonathan.Fisher@mi.mun.ca) by 24 May, 2019.