

**From:** Marie Clément  
**Subject:** PhD position - Integrating scientific and local ecological knowledge for capelin stock management at Memorial University

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#### Ph.D. Opportunities

Integrating scientific and local ecological knowledge towards improving capelin stock management

In partnership with Duke University, the Centre for Fisheries Ecosystems Research (CFER) at Memorial University is seeking candidates to undertake a multidisciplinary PhD project aimed at incorporating scientific and local ecological knowledge and the findings of an observer network towards improving policies and management practices for the sustainability of capelin fisheries and conservation. This PhD project is part of a larger research project entitled "Integrating genomics, phenotypes and local ecological knowledge towards improving capelin stock management in Canadian Atlantic and Arctic waters". Despite capelin's economic, social and ecological value in Canada, its populations remain largely unknown, particularly in northern regions. We will rigorously document population structures, biological characteristics and population dynamics for capelin in the boreal, subarctic and Arctic regions of eastern Canada, and will document the connectivity between capelin stocks in Canadian and Greenland waters. To achieve these goals, we will fully integrate the most recent developments in population genomics (objective 1) with phenotypes and life history information (objective 2), and local ecological knowledge (LEK) and observer networks (objective 3).

Under the co-supervision of Drs. Grant Murray (Duke University) and Marie Clément (Memorial University), the successful candidate will be responsible for developing objective 3 (LEK and observer network) in Labrador and the Quebec Lower North Shore. The successful candidate will be working in close collaboration with indigenous communities, fishers, industry, non-profit organizations, and the provincial and federal governments as well as with Drs. Louis Bernatchez (Université Laval) and Pascal Sirois (Université du Québec à Chicoutimi), whose research groups are responsible for the genetic and phenotypic components of this project.

**LOCATION:** The candidate will be stationed at Memorial University, at either the CFER of the Marine Institute in St. John's, NL, or at the Labrador Institute in Happy Valley-Goose Bay, NL, depending on preference. Field work will be conducted in Labrador and the Quebec Lower North Shore.

**QUALIFICATION:** The position is open to all candidates holding an M.Sc. degree in biology, environmental or social sciences, but a strong background in biological sciences will be a significant asset, as will experience in conducting semi-structured interviews, using ArcGIS, and working in a northern context or with indigenous communities.

**STIPENDS:** \$20,000/ year for 3 years. Funding, including travelling for conducting research has been secured. Students are encouraged to apply for applicable scholarships.

**ANTICIPATED START DATE:** January 2017 or April 2017

To apply, email a cover letter describing your research interests, your

curriculum vitae and the names of three references to  
marie.clement@mi.mun.ca or grant.murray@duke.edu