



## JOB POSTING: Ph.D. studentship on the James Bay ecosystem: linking primary producers to top predators

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We are seeking a motivated student for a PhD thesis project starting September, 2022 to study aspects of the overwintering beluga population of James Bay in relation to nutrients and primary production at the base of the food web. The student is to be supervised by Drs. C.J Mundy, M. Marcoux, and L. Loseto. The student's degree will be housed within the Centre for Earth Observation Science at the University of Manitoba, Winnipeg, Canada and field work will be focused on James Bay. Field work will occur closely with Cree Nations organizations who live in the region. The successful student will also become a member of the Arctic Science Partnership (<http://www.asp-net.org>), providing national and international opportunities above and beyond a standard graduate degree. The successful candidate will have a MSc degree in biological oceanography or marine biology. The studentship is fully funded over a 3-year period as part a DFO Oceans Management contract and the NSERC-funded James Bay Expedition.

James Bay remains one of the least studied water bodies in Canada despite its vast size (~68,000 km<sup>2</sup>), resident beluga whale population (>10,000 individuals), and diverse coastal ecosystems that attract millions of migratory birds each year. Hunting and fishing along the coast have helped sustain Cree populations in this area for millennia and continue to be important in communities today. Most recently, Cree governing bodies have signed a memorandum of understanding with Parks Canada for national marine conservation area feasibility studies that now encompass the entire bay. With rapid climate change during recent decades and major hydroelectric development in James Bay watersheds, updated and robust knowledge are needed for evidence-based conservation and management. To support this work, we need to answer questions such as how much marine primary production occurs within James Bay versus how much is required to support the resident beluga whale population. To help answer these questions, the student project will involve ship- and laboratory-based research combined with deployment and interpretation of oceanographic mooring sensor data, including hydrophone passive acoustic data. Fieldwork will be carried out on the *RV William Kennedy*, a jointly operated research vessel of the Arctic Research Foundation and University of Manitoba as well as via local community deployments of oceanographic moorings. Field experience on oceanographic research vessels and a knowledge base of primary production or marine mammals and bioacoustics, as well as general oceanographic techniques and programming language (e.g., Matlab) will be assets for the position.

Initial applications should be sent directly to Drs. Mundy ([cj.mundy@umanitoba.ca](mailto:cj.mundy@umanitoba.ca)) and Marcoux ([Marianne.Marcoux@dfo-mpo.gc.ca](mailto:Marianne.Marcoux@dfo-mpo.gc.ca)), including: two letters of academic reference; a copy of your University transcripts; a letter of intent (1-2 pages) briefly describing your previous research or experience and a short research proposal fitting the above thesis topic, touching on objectives/hypotheses, preferred methods, and scientific significance; and an English Language test score, such as TOEFL or IELTS, if you are an international student. Applications will be reviewed until the position is filled. For further information, please contact Dr. Mundy.

**Diversity and Immigration Statement:**

The University of Manitoba is committed to the principles of equity, diversity & inclusion and to promoting opportunities in hiring, promotion and tenure (where applicable) for systemically marginalized groups who have been excluded from full participation at the University and the larger community including Indigenous Peoples, women, racialized persons, persons with disabilities and those who identify as 2SLGBTQIA+ (Two Spirit, lesbian, gay, bisexual, trans, questioning, intersex, asexual and other diverse sexual identities). All qualified candidates are encouraged to apply; however, Canadian citizens and permanent residents will be given priority.

If you require accommodation supports during the recruitment process, please contact [UM.Accommodation@umanitoba.ca](mailto:UM.Accommodation@umanitoba.ca) or 204-474-7195. Please note this contact information is for accommodation reasons only.

**FIPPA Statement:**

Application materials, including letters of reference, will be handled in accordance with the protection of privacy provision of The Freedom of Information and Protection of Privacy (Manitoba). Please note that curriculum vitae may be provided to participating members of the search process.