

Project description

In 2016, the *Coastal Habitat Comprehensive Research Project* was initiated to better understand the current state of a marine plant important to migratory waterfowl, eelgrass *Zostera marina*, and the impact on Canada Geese along the eastern coast of James Bay. The Cree in the Eeyou coastal communities have long emphasized the importance of healthy eelgrass in shaping the stopover sites of migratory waterfowl, especially Canada Geese (short necks) and Atlantic Brant. From 2016 to 2021, to monitor eelgrass and Canada geese populations, researchers and land users in Waskaganish, Eastmain, Wemindji and Chisasibi sampled eelgrass at different locations (<https://www.eeyoucoastalhabitat.ca/>). For summer 2023, researchers and lands users will team up to continue to monitor eelgrass in the 4 communities using a sampling protocol developed in the *Coastal Habitat Comprehensive Project*, from July 13 to August 15, 2023. The team aims to visit sites in all four communities to survey eelgrass condition throughout the coastline and to continue our ongoing monitoring program which includes eelgrass measurements at the bed scale, on shoots and environmental characterization. This program involves observing and making small collections of eelgrass by snorkeling or SCUBA diving, collecting water and subtidal surface sediments, and measuring underwater light levels using moorings in 2 traplines (CH33 and CH34). Caroline Fink-Mercier will coordinate the eelgrass sampling and Mélanie Santo, Kaleigh Davis and a UBC post-doc (to be hired) will assist in the sampling. Mary O'Connor and Fanny Noisette will also be present for part of the time.

In parallel, other researchers will visit traplines to better understand goose habitat enhancement. Habitats enhancement was one of the follow up projects that the Cree land users emphasized during consultations. The McGill post-doctoral researcher, Frédéric LeTourneux, and UBC research associate, Julián Idrobo, along with Mélanie Leblanc (Niskamoon Wildlife Biologist Researcher) and Manuelle Landry-Cuerrier (McGill research coordinator), will visit two communities (Chisasibi, Wemindji) in August and engage with land users interested and/or experienced in habitat enhancement. The McGill post-doctoral researcher field activities will mainly consist of documenting past enhancement efforts, including their strengths and limitations, identifying opportunities for future enhancement work, and assisting with the implementation of any on-going habitat enhancement initiatives. Small-scale field-based observations of geese using a spotting scope will also be conducted (method used in 2019 in CH33 and CH34 by M. Leblanc). Some monitoring equipment, like an automatic recording unit, might be tested in the field. Julián Idrobo will also consult with land users from each trapline about activities and practices that could improve waterfowl harvest productivity (e.g., no hunting zones, noise management). The information gathered during the summer-fall season will provide elements to co-develop objectives for an adaptive management plan to enhance waterfowl harvest with Cree land users.