

Developing local research capacity for the monitoring of marine resources near Pond Inlet, Nunavut

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As a resident of Mittimatalik (Pond Inlet) all my life, I have been noticing changes in weather, sea ice, marine mammals, land wildlife and fishes. My experience at Nunavut Arctic College's Environmental Technology Program made me question what I see out there (my observations) and it made me realize that there is some changes that we cannot tell just by our "naked" eye and that we, as Inuit, need to seek more to find out the unnoticeable things impacting our environment. As Inuit, country food is our main resource all year round and we especially need to know if the animals that we hunt or fish are being affected. There is a need to do more testing of our food in the North, the scientific way, in order to find out. I usually say that "there can't be any science done in the North if you don't have any indigenous knowledge". I believe that there should be more young Inuit becoming researchers/scientists as we can speak the local language and because we know the land and where the best places are to go hunt and fish.

I wanted to start my own research project on arctic char, seals, and narwhals, to find out if they are being affected not only by "climate changes" but also by human activities. There is especially more and more ships passing through in front of our community and going to the iron ore mine port in Milne Inlet which, on its own, is likely already affecting marine mammals and arctic chars. Through the oceans, the Arctic is also connected to all other regions of the world and can carry and bank contaminants that can be absorbed by wildlife and Inuit.

In this presentation, I explain how I got started with my research project and provide some preliminary results of my work. Back in 2015/2016, I started, with the help

of ARCTICConnexion for mentorship and other partners, a project on arctic char looking at body condition and mercury levels during winter when we do a lot of fishing in lakes. I compared fishes collected from two lakes close to Milne Inlet to fishes from two lakes located away from there. The samples that I collected were sent down to University of Waterloo for aging fishes and to measure mercury levels. Here I present the results from these analyses. In the spring of 2016, and in spring and fall of 2017, I started a similar project on ringed seals looking at body condition, metal and trace contaminants and Persistent Organic Pollutants, and also at infectious disease with the help of a veterinarian from UPEI. I have just submitted the samples to lab analysis and I'm still going to collect more samples this winter and meet with local hunters and elders to learn what they have to say about seals and chars, human activities, and contaminants. I am grateful to the people who helped me in my community and to my mentors.