

**Postcards from the PostDoc, Stephanie Boudreau: My first three months (January through March 2013) as part of the Fish-WIKS crew.**

I began working with the Fish-WIKS research group in January 2013 and met many of the Steering Committee a few days later during the annual meeting, which took place January 16-18, in Halifax. My contribution to Fish-WIKS will be to map out the present-day structure and function of fisheries governance and management in Canada. As a fisheries ecologist by training, I was quickly immersed in a brand new world of policy, political and social science.

During the Steering Committee meeting, I was asked to draft a paper defining key concepts for the project as several of us were struggling with what a "knowledge system" is, among other concepts. Stephen Crawford (Fish-WIKS Steering Committee member) from the University of Guelph had joined us for a short time by phone, and in addition to follow up e-mails, we learned that he and Jeji Varghese (also a Fish-WIKS Steering Committee member) had been working on a literature review of "knowledge systems" with their postdoctoral researcher, Jeri Parrent. We combined an opportunity to meet in person with one to attend their annual Symposium, this year titled, "Traditional Knowledge & Cultural Perspectives on the Environment" (<http://www.enviroscisymposium2013.com/>).

I traveled to Guelph from February 1 to 5, 2013. The Symposium took place on February 2, 2013. Three of the Fish-WIKS Steering Committee presented (or co-authored) talks at the Symposium, so in addition to Stephen and Jeji, I was fortunate to be able to meet Deborah McGregor (University of Toronto and a Fish-WIKS Steering Committee member) as well. The Symposium was an ideal introduction to traditional knowledge and indigenous knowledge systems. I also met three more of the speakers, Henry Lickers (Environmental Science Officer at Mohawk Council of Akwesasne, Department of the Environment), Anthony (Tony) Chegahno (member of the Chippewas of Nawash Unceded First Nation and helped to establish U of Guelph's "Learning on the Land" program), and endnote speaker Clayton Thomas-Muller (First Nations activist on environmental and economic justice). Some of the take-aways were; that traditional knowledge is something that you do (i.e. walking in the forest with others etc...) rather than something you possess (i.e. writing about traditional ecological knowledge and moving it out of the natural environment), and it incorporates past, present, and future.

I spent the next few days working with Stephen and Jeji (and Jeri) where we discussed the research project, investigated definitions and explanations of key concepts, and my research objective and work plan. One of the key take-aways from Steve was that the Canadian Government has a duty to have meaningful consultation with indigenous people. Jeji counselled to be aware (and careful) of knowledge extraction rather than knowledge sharing and to keep the knowledge in context. The key concepts we discussed were "knowledge systems" and "(western) science" in accordance with Stephen and Jeji's research. Regarding my work, Stephen helped me to refine my research goals. With the understanding that the overarching research goal of Fish-WIKS is to improve the role of indigenous knowledge and western knowledge systems in

Canadian fisheries governance, my goal is to map out the structure and function of fisheries governance in Canada by: (1) describing fisheries governance in Canada in general (i.e. namely the Department of Fisheries and Oceans, DFO), (2) understand the roles of knowledge systems in fisheries governance in Canada, and (3) identify opportunities for improving roles in knowledge systems in fisheries governance. First steps are to do my homework and consult the experts before moving into semi-structured interviews.

While I was making plans to go to Guelph, Janelle Kennedy (Fish-WIKS Steering Committee member) sent word of an opportunity for a "southern" member of Fish-WIKS to travel to Repulse Bay to attend and observe part of a course put on by Nunavut Arctic College (NAC) called "Working in Research". Janelle and her Government of Nunavut (GN) co-worker in Rankin Inlet, Sarah Arnold (Fisheries Sector Specialist, Kivalliq Region), had approached Maureen Doherty, NAC Community Programs Coordinator, to leverage funds for the 2 week course, with the goal of training potential research assistants and students, and to learn more about the fisheries and approaches to harvesting, in Repulse Bay. Janelle had mentioned during the annual meeting in January that if I were to write about Repulse Bay in a knowledgeable way (i.e. in the primary literature) without having come to the Hamlet or met the residents, the community would not be supportive of my work. In lieu of a graduate student (who has yet to be recruited) I was pleased to be offered the opportunity to visit in their stead and return to "the south" to share what I've learned with the research team. Repulse Bay has sincerely embraced Fish-WIKS and has tackled and modified the project themes with great enthusiasm through the guidance of the co-community coordinators, Denise Malliki and Lucy Tegumiar.

My trip to Nunavut took place March 18 to 27, 2013. Nunavut has a population that is 80% Inuit and through the *Nunavut Land Claims Agreement* (1993, *NLCA*), they manage their fisheries (and harvests) through a co-management board called the Nunavut Wildlife Management Board ([NWMB](#)). I spent the first few days in Iqaluit to talk with some of the co-management partners and take advantage of speaking with the people whose work I was learning about through documents and websites. I spoke with Anna Magera, Fisheries Management Biology with the NWMB, Wayne Lynch, Director, Fisheries and Sealing Division with the GN, and Janelle Kennedy, Senior Science Advisor, Fisheries and Sealing Division, GN.

I learned that there are several different fishery types; traditional subsistence, traditional commercial, community-based non-traditional commercial, and offshore non-traditional commercial (turbot and shrimp), and that these fisheries are managed in absence of Nunavut-specific DFO fisheries regulations, continuing with those for the Northwest Territories (NWT) instead. What I took away the most from these conversations was the importance of char (Figure 1) to the Inuit people as every community has access to the fish and therefore the species has incredible cultural significance and tends to be managed differently than other finfish. Additionally, there is a lot of debate around the setting Basic Needs Levels (BNLs), defined in the *NLCA* as the "level of harvesting by Inuit" and "the first demand on the total allowable harvest", with respect to whether commercial harvests on top of subsistence are to be included in

the BNL. There are additional questions around different approaches to managing the stock (scientific versus traditional). With respect to knowledge systems, when proposals to modify management plans (i.e. from DFO) are submitted to the NWMB, it must contain the best western science, community knowledge, record of community consultations, and Inuit Qaujimajatuqangit (IQ, Inuit traditional knowledge). This all goes to public hearings for important decisions and the NWMB makes its decisions based on the best available information and forwards their request to the Fisheries Minister. Since returning to Dalhousie, I have also had a phone call with Christopher Lewis, Fisheries Management Biologist with DFO. I have one more co-management partner to reach out to, the Birth Right organization, Nunavut Tunngavik Incorporated. However, on the whole, by reading Article 5 (and some of 15) of the *NLCA* and the above conversations, I feel confident that I have learned the essentials of how fisheries are managed in Nunavut and how knowledge systems are incorporated.



**Figure 1:** An Arctic char (*Salvelinus alpinus*) caught by Laurent Kringayark of Repulse Bay.

On March 21st, I flew to Repulse Bay to sit in on the final day of the "Working in Research" Course on Friday, March 22. I met the 10 adult learners, including our community coordinator Lucy, the course instructor, Jack Hicks, and Maureen Doherty (see a photo and summary by Maureen [here](#)). What the students appreciated most from the course was learning about research proposals and how to write one, empowering them to propose their own work within the community. A Fish-WIKS workshop was planned for Monday and Tuesday (March 25-26) for those who wish to practice their new skills and knowledge (**Figure 2**). Sarah Arnold arrived on Saturday to host the workshop and Lucy, Sarah, and I worked together on Sunday in preparation. Lucy had contacted Elders and hunters to be interviewed, and had hired a translator (Inuktitut-English), in addition to having sample questions for the students to ask the Elders, prepared by Sarah and I, translated to Inuktitut (syllabics).



**Figure 2:** Fish-WIKS workshop participants at the Repulse Bay NAC campus. Left to Right, kneeling: Stephanie Boudreau, James Kopak Jr., Semi Malliki, Honore Aglukka, Romeo Kopak, and Sarah Arnold. Standing: Gary Gibbons, Sata Kidlapik, Charlie Tinashlu, Cecelia Alaralak, James Kopak Sr., Johnny Tagornak, Lucy Tegumiar, and Bernadette Kopak. (Absent: Jeela Akumalik, Anthony Ullikataq, and Laurent Kringayark)

The first day of the workshop, the students prepared their questions and workstations to include maps and images of wildlife. In the afternoon, they interviewed two different Elders' as part of a group. This was a wonderful event to witness. The students took the task to heart and it was inspiring to observe them interviewing their Elders in their first language of Inuktitut. What this meant for Sarah and I unfortunately was that we only caught pieces of the conversations through the translator, Marie Kringuk, as we moved between the groups. On the second morning, we helped the students to organize the responses to their questions and prepare a presentation to give to the workshop attendees and members of the public who would join us in the afternoon. The Elders and a member of the local Hunter and Trapper Organization returned to provide feedback and additional information. Most of the student groups had provided Sarah and I with outlines of their presentations and results in English, and we also learned any additional information presented or discussed throughout the afternoon through the translator. Through the interviews and presentations we learned that char is also very important to the people of Repulse Bay, in addition to marine mammals, namely seals, narwhal, and bowhead whale. The bowhead whale

hunt was closed for many years in Nunavut and reportedly only one of the Elders, Semi Malliki, was old enough to remember it taking place. In recent years however, it has been reinstated through the *NLCA* and Repulse Bay has harvested three bowhead whales (Figure 3). On the whole, I am beginning to appreciate the world view of the Inuit and the unique situations in Nunavut, in terms of its remoteness, management through the *NLCA*, and the lack of Nunavut specific fisheries regulations. In particular, establishing new fisheries not covered under the previous NWT regulations or the *NLCA* would be a challenge without guidelines and regulations. Yet, consultation, and both western science and Inuit knowledge systems are important and mandatory pieces of the management framework, any new Federal fisheries regulations would need to take this into account.



**Figure 3:** Three bowhead whale skulls in Repulse Bay.

Presently, I am finalising my work plan, and have several pieces of my deliverables in progress. Completing the "key concepts" working paper is my first priority as it is the jumping off point for the research group. With a few months under my belt, the stage has been set to make good progress in the year to come.