



Arctic Institute of  
Community-Based Research  
For Northern Health and Well-Being

***Final Activity Report: Yukon Fish & Wildlife Enhancement Fund  
March 15 2016***

***Nourishing Our Future: Building on Kluane First Nations Community Food  
Security Strategy & Youth Engagement in traditions related to Fisheries and Fish  
Health in Kluane Lake***



## PROJECT ACTIVITIES

### *What activities did you complete during your project?*

#### **May 2016-March 31 2016**

- Our project team included: Heidi Swanson, University of Waterloo (primary researcher-contaminants sampling), Norma Kassi, Arctic Institute of Community-Based Research (lead community-based researcher), Nelson Zabel, University of Waterloo (graduate student), Brenda Carson (local project coordinator), Ashley Alberto, Kluane First Nation (Masters student researcher), Tookie Mercredi (camera/editor), Jared Dulac, Kluane First Nation (youth researcher and camera editor), Nadaya Johnson, Kluane First Nation (youth researcher and camera trainee), Lenita Alatini, Kluane First Nation (youth researcher), Skyler Van Lieshout, Kluane First Nation (youth researcher), Monica Johnson, Kluane First Nation (youth researcher)
  
- Youth were trained on a variety of subjects including:
  - Climate change, from an international to local perspective, including its effects on their homelands and food species - salmon, lake fish, caribou, moose, plants.
  - Understanding of long-range contaminants including persistent organic pollutants, mercury and others; including their pathways to the Arctic, bioaccumulation and potential effects on animal and fish species.
  - How to conduct community-based research in their own community. This approach of teaching was based on the 4 - R's: respect, reconciliation, reciprocity and relevance.
  - Following traditional First Nation protocols such as: how to approach an Elder or community member about the project; self-introduction in First Nations way; clear communications (keep it simple, using the community way of communication); ask and approach using respect, patience and quietness; gift giving.
  - Trained in basic communication skills to “seek and understand”; how to listen and read body language; appropriate questioning using the 5 W's & H; paraphrasing; empathize and record.
  - Trained in respectful personal conduct within their community including no substance use during the project.
  
- Throughout the summer, the youth were each given a camera after some “capturing good shots training” by Tookie Mercredi. The youth collected many photos of all the events and activities throughout the project.
  
- In July and August 2015, the project team, including field assistants (KFN citizens) sampled fish in Kluane Lake. In total, 255 samples were collected from seven species of fish: 122 Lake Trout, 76 Lake Whitefish, 31 Round Whitefish, 15 Long-nose Sucker, six Arctic Grayling, three Northern Pike, and two Slimy Sculpin samples. Gill nets were used

to catch most fish; however, samples were also collected during the Kluane Lake Fishing Derby using a rod & reel. During Harvest Camp, the project team worked with citizens and youth to sample fish for analysis. This included workshops on sampling and processing techniques. Nelson and Heidi, the University of Waterloo researchers, enjoyed teaching KFN citizens, including children and youth about aquatic insects: how to catch, sort, and identify them, as well as their ecological value and importance. Heidi and Nelson also taught KFN children and youth how fish are processed and sampled for scientific analysis, including muscle tissue, ear bones (otoliths), fins, and scales.

- By hiring local fishers, the youth researchers learned to set gill nets, check the nets, how to take the fish out of the net, how to put the alive fish out respectfully, the names of each fish, dissected the fish for analysis, and also prepared fish for food for community luncheons. During Harvest Camp, Nelson and Randy Johnson a local fisherman took the KFN youth researchers out on Kluane Lake to set gill nets. Approximately 76 fish were caught in two days. All were processed for sampling and most were filleted for elders and community lunches.
- Every August, the KFN government organizes a cultural camp in a traditional area where families and others including non-members, are welcomed. The camp is a time to focus on harvesting and preparing local food species, plants for medicines, and reconnecting with their culture. KFN no longer get salmon in their area, so they bring in salmon from British Columbia, which they dry, can and preserve. They also dry and preserve meat, and make sausages from either bison or moose. If there are no berries, KFN will bring in fruit from the Okanagan and will can and preserve the fruit. Families do many Southern Tutchone & Tlingit cultural activities together at Harvest Camp, such as beading, carving, teaching by living, sharing, and educating their youth. Everyone on the project team contributed to the activities at Harvest Camp, such as fish cutting, drying and jarring, dry-meat making, sausage-making etc. Harvest Camp is a time when everyone is happy and have so much fun, visiting, and telling stories. It is an unforgettable experience for the youth.
- Nine interviews were completed at Harvest Camp. The youth researchers participated and conducted the interviews, where for example, they gained local knowledge of where the best spots on Kluane Lake are to fish for various species. The interviews will contribute to a film ***Nourishing Our Future*** (a component of the project funded by KFN and Dän Keyi Renewable Resources Council-to be completed June 2016) and in the final community reports.
- In November and December, the project team attempted to sample Lingcod. Unfortunately, we did not get any Lingcod, due to no ice in November and unstable ice conditions in December, when Lingcod are traditionally harvested. We experienced firsthand again, the impacts climate change is having on our northern communities. We gave it a good try in January on the ice and made holes in the ice in various places on

Kluane Lake where the Elders told us to try. The Elders told us “good luck catching any now, they are balling up now in the shallow water near the creeks”. While we did make an effort to harvest some Lingcod samples, we did not catch any.

- In February, professional photographer Mark Kelly, at Kluane Lake School, led a Photovoice project with the students. Five students aged 5-8; two teachers and the principle participated. The students were asked to photograph three things that can be eaten from the land, and three things that are considered healthy lifestyle. A slideshow of the images was prepared and will be presented back to the community at a community event in April 2016.
- By the end of March 31, we will have all the results of the fish sample analyses. Lake Trout and Lake Whitefish samples were selected for some preliminary analysis that was reported at the Northern Contaminants Program Results Workshop in December (see attached poster). So far, it is a “good news” story, with mercury levels very low in Kluane Lake fish. The remaining analyses will include stable isotope, mercury, trace metals, fatty acids, and organochlorine pesticides.
- From March 28<sup>th</sup> to April 1<sup>st</sup>, three youth researchers will go to the University of Waterloo and University of Western to experience firsthand how to do contaminant and nutrient analysis in a research lab. They will be able to analyze fish from their own lakes. This experience will be filmed and included as a part of the ***Nourishing Our Future*** film.

### ***How did your activities contribute to your goals and objectives?***

All in all, the project went as planned and we met our objectives.

- Engaged youth in local fishing practices and discussion to ensure long-term capacity for stewardship of local fishery resources.
- Ensured local traditional knowledge of fishing locations, seasons, methods, and preparation was passed from Elders to Youth.
- Discussed potential climate change impacts affecting access to local traditional foods.
- Built capacity of local Yukon students and community members in western science research practices, such as analysis of fish age and growth.
- Enabled understanding of Elders, youth, and community members regarding where contaminants in fish come from, how they can build up in fish, and what the potential risks and benefits of eating fish are.
- Promoted consumption of locally harvested traditional foods, including fish.
- Reported back to the community (more to come once the final analyses results are completed at the end of March-a community event is planned for April 21-22<sup>nd</sup>).

***Note any variances to your goals objectives or work plan and explain why they occurred.***

This project was supported from three different funding sources and included a breadth of activities. There were some variances with respect to timing and completion of activities. This was largely due other happenings in the community, climate and weather conditions (i.e. poor ice conditions), as well as the timeline of one component of the project not finishing until June 2016. We are unable to complete our final community reports and the *Nourishing Our Future* film prior March 15<sup>th</sup> because of the different project component timelines and we will share everything with YFWET as they are completed (will be finished no later than June 30 2016).

***Explain how the results of your work contributed to the protection, enhancement or restoration of fish, wildlife or their habitat?***

For many years, Kluane First Nation has not been able to harvest any salmon from their waters. The community now has reassurances that in Kluane Lake, their “fish remains healthy and good to eat”. This brings a renewed understanding and reinforcement, especially for the young people about how important it is for the protection and long-term stewardship of the local fishery. The samples that were collected now form an excellent foundational database on Kluane Lake fish, including historical information, health, changes in lake chemistry, contaminant and nutrient levels, etc.

***If you were to do the project again what would you do differently?***

Everything went as planned with this project and we are very proud of it. If we could control funding structures and requirements regarding reporting to be in synch, that would be helpful in the future.

## **COMMUNICATIONS**

***What did you do to ensure your results were shared with the appropriate groups, people or governments?***

- Met with Chief & Council during proposal stage to develop proposal and ensure it reflected their needs.
- Reported mid-term to all groups involved (YFWET, DKRRC, Chief & Council meetings).
- Ongoing communication and one-on-one discussions with people in the community.
- Poster presentation at General Assembly.
- CBC radio interview with Chief Alatini and Norma Kassi.
- Yukon News newspaper article on preliminary results on mercury.
- Presentation and poster session at the April 21<sup>st</sup> – 22<sup>nd</sup> 2016 meeting in Burwash along with researchers involved (upcoming).
- Final project results will be shared at the 2016 KFN General Assembly.

- We have a large set of photos documenting the various activities. These will be used in all final reports and when reporting the project back to the community.

***Note how you recognized the Enhancement Trust and/or its mandate?***

- YFWET logo on all reports as partners.
- Acknowledged YFWET publically at community meetings.
- Credits in the upcoming 20-minute documentary-to be released in June 2016.

***Identify any communication materials, strategies or techniques that you used to promote your project and its objectives?***

- Reports-midterm and final
- Promotion of community based strategies
- Ongoing communication in the community (including talking with Elders, training of youth, etc.)
- Hiring locally –coordinator, fishers, students, videographer, cooks
- Handouts at poster sessions
- *Nourishing Our Future* film, which will be launched locally, territorially, nationally and internationally in 2016.
- YFWET will get copies of all reports to the various partners on related projects, including a copy of the film and access to any photos in AICBR’s library.

Task Description	Task Timeline		Who Will Perform The Task	What is the anticipated outcome and how will it be evaluated	Completed
	Start	Finish			
Recruitment of Local Coordinator	May 1, 2015	June 1, 2015	KFN in partnership with AICBR	Local coordinator recruited June 1, 2015	✓
Recruitment of Youth, Elder, and Fisher Participants	June 15, 2015	July 15, 2015	Local Coordinator	Participants recruited July 15, 2015 <i>(Recruitment in July &amp; August)</i>	✓
Harvest Camp – Collection of Lake Trout and Lake Whitefish, western science sampling of fish, traditional preparation of fish for eating as part of educating all youth at Harvest camp and/or Cultis camp.	July 2015	Aug 2015	Coordinator, Youth, Fishers, Elders, AICBR, UWaterloo	Fish collections successful, youth training in both western science and TK re: assessment of fish health and preparation for eating.	✓
TK Interviews (at harvest camp);	Aug 3, 2015	Aug 10, 2015	Youth researchers, N. Kassi	Eight TK interviews completed re: fishing locations and timing, understanding of fish health, fish preparation, seasonal changes in fish availability, etc. <i>(Harvest Camp August 23-28-nine interviews)</i>	✓
Knowledge sharing and capacity building related to how contaminants get into northern lakes and the risks and benefits of eating fish, as well as potential impacts from climate change on local food sources.	Aug 3, 2015	Aug 10, 2015	H. Swanson (UWaterloo), AICBR, Elders	Understanding and empowerment of Youth, Elders, and others related to choosing safe fish food sources, stewardship of these essential resources, and ongoing promotion of consuming traditional foods in the community <i>(Harvest Camp August 23-28-nine interviews)</i>	✓
Youth preparation of projects and reporting to community; finalization of TK interview results.	Aug 11, 2015	Sept 30, 2015	Youth researchers (support from Elders, Coordinator, AICBR, H. Swanson)	Reporting of learning activities, 'take-home' messages, and new skills to each other and to community (KFN). <i>Photovoice slideshow and community presentation-April 2016.</i>	✓ <i>(to be completed April 2016 with other community events)</i>

SAMPLE PHOTOS











