

Carleton University GE3LS Newsletter Q1 2022

Eeyou Istchee Fishing Derby Survey

The Carleton University FISHERIES team (Stephan Schott, Johann Strube) together with Stephanie Varty (Eeyou Marine Region Wildlife Board), Emily Sinave (Cree Nation Government) and Kia Marin (Concordia University) are designing a survey of participants of fishing derbies in Eeyou Istchee. The survey, which has been discussed at the February 2022 Eeyou Istchee Research Advisory Board, will inquire about motivations to attend derbies, views on derbies, preferences for diverse types of derbies, and their contribution to food security and fishing activities for Cree communities in Eeyou Istchee. The research team also plans to interview the derby organizers about the history, target audience, and goals of their derbies. For inquiries regarding the fishing derby survey, contact Johann Strube (Johann.strube@carleton.ca) or Stephan Schott (stephan.schott@carleton.ca).

North American Indigenous Fishing Tourism Survey

Stephan Schott and Johann Strube of the Carleton University FISHERIES team are designing a North America wide survey with recreational anglers on their interest to visit Northern Indigenous communities for fishing tourism. This survey will gauge the economic potential for Northern Indigenous communities to participate in the fishing tourism industry. The research will also involve focus groups (group interviews) in Cree First Nations in Eeyou Istchee (and potentially other FISHERIES partner communities) about the risks and opportunities of fishing tourism as perceived by the communities. For inquiries regarding the tourism survey, contact Johann Strube (Johann.strube@carleton.ca) or Stephan Schott (stephan.schott@carleton.ca).

Understanding the benefits and risks of online platforms for fish and wildlife monitoring in Northern, Indigenous communities

Several online platforms (such as SIKU, Trailmark, inReach/Nunaliit, SMART Collect, etc) promise to support fish and wildlife monitoring and management in Canada's North. FISHERIES researchers Johann Strube, Stephan Schott, and Emmelie Paquette of Carleton University are developing a study to better understand the long-term risks and opportunities of such software for Indigenous communities. After an initial survey and comparison of the different platforms used in the North, the research is likely to involve interviews with select software developers, software users, and critics of such online technology. The goal of this study is to provide Northern Indigenous communities with a framework to evaluate different online platforms for environmental management and provide software developers with best practices and experiences to design services that maximize benefits to Northern communities while



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minimizing the risk to the continued transmission and evolution of Indigenous Knowledge. The research team is currently developing the proposal for this study for discussion in upcoming Research Advisory Board and Inuit Hunters and Trappers Organizations/Association meetings. For inquiries regarding this study, contact Johann Strube (Johann.strube@carleton.ca) or Stephan Schott (stephan.schott@carleton.ca).

Harvest Study – Continuing work in Gjoa Haven and running a pilot in Taloyoak

A Harvest study in its past, and current iterations aims to document with people of Gjoa Haven and as of the fall of 2021 also with people in Taloyoak the economic and social environments impacting harvest activities, and how it impacts country food harvesting and fishery development. We also intend to learn about how climate change impacts the success and safety of harvesting experiences. With our diverse team of partners, we plan to co-design and conduct research while creating local capacity in biomonitoring and providing valuable information for hunters' support programs and local and regional food security and sovereignty strategies. John Bryan, Emmelie and Stephan presented an overview of their study and technology in a Weather and Society Workshop in March 2022.

(Partners and collaborators – Dr. Stephan Schott, Dr. Jacqueline Chapman, Emmelie Paquette, Dr. Stephan Schott Brent Puqiqnak, James Qitsualik and Simon Okpakok, Gjoa Haven Hunters and Trappers association, Taloyoak Hunters and Trappers Association, Jimmy Oleehatik, Peter Aqqaq, John Bryan Idlout and our colleagues at the Carleton Geomatics and Cartographic Research Center at Carleton University)

Food security workshops -

The FISHERS team has partnered up with GN Health and the Kitikmeot Inuit Association to assist with the implementation of The Kitikmeot 2020-2030 Health & Food Security Action Plan and the creation of an Inuit Food System & Knowledge Hub in the Kitikmeot region. Originally, we had planned to host the first workshop in October 2021, which unfortunately was postponed to February 2022 and then finally to May 3-5 2022 due to arising COVID-19 complications. In lieu of the postponed workshops, we have invited key actors from each of the five Kitikmeot communities and Hunters and Trappers Organizations (Gjoa Haven, Taloyoak, Cambridge Bay, Kugaaruk, and Kugluktuk) to attend a virtual meeting to begin a conversation around food security and food sovereignty in preparation for the workshop in May. During these meetings,



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we are asking the representatives from the community to discuss the 6 priorities outlined under the Health and Food Security section of the Kitikmeot Economic Development Implementation Planning Forum's Statement of Regional Priorities. To date, four of the five communities have joined for a lively interactive discussion about experiences, challenges and desired goals related to the 6 priorities. From these meetings, we were able to identify important topics to discuss at the workshops and flag ideas for further discussion and information provision.

(Partners and collaborators - Dr. Stephan Schott, Chantal Langlois RD, Dr. Johann Strube, Dr. Martine Dorais, Marianne Falardeau-Cote, Emma Wood, and our partners in the Kitikmeot communities)

Bringing together IK of fish ecology, Inuit priorities, and genomics to learn about the sustainability of select sites of potential fisheries, and associated populations

We (Dr. Stephan Schott, Emmelie Paquette and Dr. Johann Strube) work with Dr. Jean-Sebastien Moore's (Laval University; alongside Xavier Dallaire, Dr. Anne Bellmans) team and GN Fisheries and Sealing (Zoya Martin, Amber Giles, Jose Atienza) and Sivummut Solutions (Jimmy Jacquard and Nicole Hill) to better understand the sustainability and reliability of commercial fisheries surrounding Taloyoak. We will learn from Elders and active hunters (men and women) about the socio-economic attributes of successful commercial fisheries – articulating what is needed for safe, and cost-effective fishing and use of commercial sites, and how to balance food security and commercial fishing. In addition, we will learn from Elders and active hunters about local fish populations and their movement within regional waters to inform Moore's lab's genetic analysis of Arctic Char samples collected by local harvesters. Together, this information will articulate Inuit priorities, supported by science and indigenous knowledge, for the sustainable management of fisheries in their community. An IQaluk training camp is planned for the fall of 2022 as part of a 5-year training program for commercial local fishers.

Sahtú Dene ts'ı́łı́ FISHERS Partnership

In summer 2021, we started the process for validating past and current work which is a necessary component of any research or monitoring process that accesses Dene (ts'ı́łı́) knowledge. At the same time we started participating in the regional Nę K'ə Dene Ts'ı́łı́ (Living on the Land) Forum meetings. In December 2021 the partners (Walter Bezha and Grace Martin) co-presented at the ArcticNet annual scientific meeting.



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We are currently updating a report and manuscript based on DFO-led research with D l n  knowledge holders that took place ten years ago. The team is planning to meet in D l n  this summer to validate this work with the D l n   ekw  h   ue he Working Group prior to its publication. We are also planning summer 2022 fieldwork and workshop activities focused on community harvesting, DFO monitoring, and Atlas development. The atlas will be a community-owned interactive, user-friendly online tool in which knowledge holder observations, stories, and perspectives will be stored and spatially communicated. We will hold a workshop to train youth and other members from the community on how to enter and protect data.

Other activities planned for 2022 include co-development of a data sharing agreement, conference presentations at the 4WFSC North America and ArcticNet, and a Carleton PhD thesis proposal defence. Throughout 2022 and beyond we continue to summarize and validate existing data for the knowledge synthesis report and digital atlas and facilitate knowledge exchange across a variety of formats and venues.

Partners and collaborators: Walter Bezha D l n   ehdzo Got'ine (Elders Council) D l n  Got'ine Government, Edward Reeves D l n   ehdzo Got'ine (Renewable Resources Council), D l n   ekw  h      h  (Caribou and Fish) Working Group D l n   ehdzo Got'ine (Renewable Resources Council), Ben Dosu  ehdzo Got'ine Gots'  N ked , Catarina Owen  ehdzo Got'ine Gots'  N ked , Deborah Simmons  ehdzo Got'ine Gots'  N ked  (Saht  Renewable Resources Board), Louise Chavarie (Norwegian University of Life Sciences), Kimberly Howland, Yamin Janjua (Fisheries and Oceans Canada) Grace Martin, Johann Strube, Stephan Schott (Carleton University)

Special Thanks

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We are grateful for the relationships and knowledge we are building together as we learn from each other in the research process.