



GWICH'IN RENEWABLE RESOURCES BOARD

news

Spring 2019



Photo credit: Black Fly Studios

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who we are

The **Gwich'in Renewable Resources Board (GRRB)** was established under the guidance of the Gwich'in Comprehensive Land Claim Agreement (GCLCA) to be the main instrument of wildlife, fish and forest management in the Gwich'in Settlement Area (GSA).

who we work with

The GRRB works with its co-management partners - Gwich'in Tribal Council (GTC), Government of the Northwest Territories (GNWT), Environment and Climate Change Canada (ECCC), Fisheries & Oceans Canada (DFO) - to communicate with the public and encourage conservation of renewable resources in the GSA. The GRRB works in collaboration with the four Renewable Resources Councils (RRCs) in the four communities (Inuvik, Tsiigehtchic, Fort McPherson, and Aklavik) to educate and promote sustainability of resources within the GSA.

our mission

The GRRB works in cooperation with the Gwich'in people, governments and stakeholders and in accordance with the GCLCA to effectively protect, conserve and manage renewable resources in the GSA. It does this in a respectful, transparent, communicative and inclusive manner, using the best available traditional and scientific knowledge.

our vision

The GRRB is a model of renewable resources co-management. Working with its partners, the Board plays a leadership role in ensuring that the fish, forests and wildlife of the GSA remain healthy and sustainable.

our mandate

The GRRB is the main instrument of wildlife, fish and forest management in the GSA. The Board acts in the public interest, representing all the parties to the Gwich'in Comprehensive Land Claim Settlement – the Gwich'in, the people of the Northwest Territories and all Canadians.

Amy Amos executive director

Personal Mission Statement: I lead a team of dedicated experts to implement the Board's decisions and responsibilities in accordance with the land claim agreement. I am committed to building strong relationships with respect, compassion and integrity.

I am a Nihtat Gwich'in participant who was born in Inuvik and grew up in Halifax with my father, Wallace Thompson. My mother is Susie Thompson (Linklater/Kaye) from Aklavik. I am related to the Kaye and Stewart families.

I moved back to Inuvik in January 2006 to work at the GRRB and to reconnect with my roots. I was hired as a biologist and then promoted to Executive Director in 2009.

My main job is to ensure that the Board's direction is implemented at the staff level. My job description can be broadly categorized into personnel management, financial management, Board administration and liaison activities. This newsletter is a progress report for work activities since our fall newsletter in December.

Personnel management We have Jordan Norman-Goose as our Technician until September 30, 2019. Having a full-time Technician during the fall and winter months has been helpful. Efforts to secure additional funding continue with no commitments yet.

We continue to have staff sessions and enjoy popcorn Wednesdays whenever possible. We held our staff winter party in late January 2019 at Alestine's restaurant, enjoying lots of laughs over good food. For casual assistance, we have

a remote contract in place with Chelsea Hermus for website maintenance, small administrative and communication tasks. Kristen Callaghan, previous GRRB Wildlife Biologist, was hired to help us with the "defining commercial use" file. Nick Westover was hired to develop the 2019 conservation calendar.

At the last three GRRB face-to-face meetings, we hired youth to sit as non-voting delegates with the Board. This is an effort to get youth direct exposure to the work the Board is involved in and hopefully inspire them into this field. The funding comes from the Youth Work Experience Program.

Financial management Over this reporting period, we held two Finance Committee meetings (November 1, 2018 and February 4, 2019). The Committee (Burt Hunt, Sam Bullock, Sarah Jerome and Doug Doan) asked the GRRB to review and consider its current and upcoming membership, noting that two of its current members (Burt Hunt and Doug Doan) have terms expiring in the coming fiscal year.

The midyear variance was approved and submitted for the core operations. I am pleased to report that our finances are all being managed within their budgets.

Staff serve as project leads with my oversight. They help confirm project accounting and we work together to ensure they are presented properly. So far this year, we have 26 projects that we are managing separately from the Board's core operating funding. In addition to this, we also often get travel covered for meetings and conferences we attend.

Board administration

The biggest file this reporting period is the first round of consultations to define commercial use under the *Wildlife Act*. These were held in December 2018.

The strategic plan is integrated into the Board's annual reporting template, so it forces us to focus on its objectives. The research and management priorities are also being actively pursued by staff and we offer strong letters of support

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Photo credit: Black Fly Studios





Photo credit: K. Callaghan

for any outside projects that help support any of the items on the GRRB's priority list.

The safety policy and job risk analysis document continue to be used. There are no safety incidents to report for this reporting period. There are discussions at the staff level to improve field safety protocols under the job risk analysis. I have also been doing some work to look at the potential risk and liability factors when hiring field workers to ensure we have all bases covered. We will be working with the communities on any changes and ensure everyone understands. The operating procedures manual needs

to be updated to separate policy and internal procedural items. I am trying to find the time to work on this.

Liaison and Communication

This is an ongoing effort. Some of the highlights under this category include working towards stronger working relationships with Fisheries & Oceans Canada (DFO) using our annual meeting as a platform and getting recognition for the Board's role under the Environment & Natural Resources (ENR) legislative initiative.

I continue to work with researchers and universities to promote

best practices for their research, including aligning their research with our priorities or community interests. We released a newsletter in December 2018 and continue to use our Facebook page and website as methods for communication. We received the 2019 conservation calendar in December and distributed it amongst the communities.

Our staff team continues to work hard. This is evident in their individual reports contained here in this newsletter.



Photo credits this page: S. Lord, GRRB

GRRB Board

Jozef Carnogursky
Chairperson (GRRB)



Order in Council
appointments

Nominating
Agency

Federal
government

Territorial
government

Margaret Begg
Member (GTC)



Sam Bullock
Member (GTC)



TBA
Member (GTC)

Vacant
since June
15, 2010

Burt Hunt
Member (DFO)



Doug Doan
Member (EC/CWS)



TBA
Member (GNWT)

Vacant
since
November
14, 2018

Charlie Snowshoe
Alternate (GTC)



TBD
Alternate (GTC)

Vacant
since
October
19, 2016

Sarah Jerome
Alternate (GTC)



TBA
Alternate (DFO)

Vacant
since
April 10,
2019

TBA
Alternate (EC/CWS)



Tracy Davison
Alternate (GNWT)



Photos: Black Fly Studios & GRRB

board member updates

The GRRB extends our thanks to Ron Allen (DFO Alternate), whose term expired April 10, 2019. Two other terms are expiring soon - Burt Hunt on May 8 and Doug Doan on June 13. We are hopeful that the re-appointment process is timely.

Our Board members are busy working in many different areas, including the following:

Committees/Working Groups:

- Advisory Committee for Cooperation on Wildlife Management (ACCWM)

- Integrated Fisheries Management Plan (IFMP) Steering Committee
- NWT Board Forum
- Conference of Management Authorities (CMA)

Meetings/Training:

- Wildlife Act Working Group meeting
- Environment and Natural Resources (ENR) Legislative Review Technical Working Group meeting, Yellowknife
- ACCWM Annual Status Meeting, Yellowknife
- Fisheries & Oceans Canada (DFO) Annual Meeting
- NWT Board Forum, Inuvik

- DFO meeting, Winnipeg
- Defining Commercial Use
- Protected Areas Act revisions with ENR
- ENR Legislative Initiative
- NWT Board Forum Planning
- CMA meeting, Inuvik
- Porcupine Caribou Management Board meetings

Applications for interest in a federal GRRB Board Member seat have now closed. Thank you to all those who applied! Anyone interested in become a Board member is encouraged to approach the nominating agencies (GTC, DFO, EC, GNWT).



February 2019 Board Meeting

The GRRB held its winter face-to-face Board meeting in Inuvik from February 5-7. We hired two youth (Jarvis Mitchell and Brayden Koe, pictured right) with Youth Work Experience funding to attend, to try to engage youth in the decision-making process of the Board and hopefully promote their interest in this field.

"We discussed topics brought forward from the regional RRCs (Renewable Resource Councils) and GRRB, along with public concerns and organization presentations. I learned Gwich'in ideas and how to formally present myself in a public setting. I enjoyed hearing from the GRRB, bringing ideas forward and learning new things to make me a better young leader." - Brayden Koe

"I listened to many people talk about how they can involve youth and how they are still trying to get funding for youth to get experience with the work they do. I learned about ways they are trying to preserve animals and make sure the herd is healthy before hunting." - Jarvis Mitchell

Rat River Working Group (RRWG) harvest recommendations were discussed and Robert Charlie was appointed as the new RRWG Chairperson. Fisheries & Oceans Canada (DFO)'s new Regional Director General provided an explanation of the new Arctic Region. DFO staff discussed proposed regulatory amendments to the Fishery (General) Regulations and the (draft) National Fishery Monitoring Policy.

The Board moved to support 4% harvest of the Bluenose-West caribou herd and to formalize a request to have

the Gwich'in allocation be increased from 3 to 4%. They also approved the change in the status of the Bluenose-East caribou herd from orange to red. These recommendations have been forwarded to ENR and we are awaiting a reply.

The Board recommends that the Porcupine Caribou Management Board (PCMB) maintain the Green Zone designation, promote traditional management practices and continue to promote harvester and community conservation and education initiatives. This recommendation was forwarded to the PCMB at their annual harvest meeting in Inuvik on February 12, presented by Amy Amos with Janet Boxwell and Édouard Bélanger as staff technical support.

Community consultations on defining commercial use of wildlife happened in December. This was driven by concerns brought to the Board that people were selling too much meat. Funding for the next two fiscal years has been confirmed. In 2019-20, we are planning a facilitated regional workshop (tentatively scheduled for July) to draft a first draft of a regulation to define commercial use. We will be in touch with the



Photo credit: J. Norman-Goose, GRRB

communities. In 2020-21, we plan to do community consultations on the draft regulations, aiming to have a final regulation ready for adoption during that fiscal year.

Funding requests were presented for Wildlife Studies Fund monies. \$46,000 in allocations were approved (page 17). The Board also approved the GRRB's 2019/20 operating budget and workplan.

Board chair Jozef Carnogursky invited the RRCs to speak directly to the Board during the RRC and Public Session. The Board received excellent feedback and information.



GRRB Board Members. Photo credit: Black Fly Studios

Édouard Bélanger

wildlife biologist
since June 2017

Management Planning

Commercial Use of Wildlife Meat Consultation In 2017, a motion was passed at the Regional Renewable Resource Councils (RRCs) meeting for the GRRB to define commercial use of wildlife meat. Amy took the lead on this file and Kristen Callaghan was hired as a consultant to help with the consultation process. I helped Amy with various decision-making and made sure that the equipment needed for the consultations was ready in time.

I participated in the consultation in the four communities during the first week of December, mostly providing visual help during the meetings (i.e. felt board with comments on sticky notes). There will be another round of consultation in the next fiscal year.

Research Dall's Sheep Research Project Last year, the Dall's Sheep (Divii) Research Project officially

started with a total of 13 cameras installed around Black Mountain.

Last fall, my energy was spent applying for funding for the next fiscal year. I continue planning the various fieldwork for the project. This includes snowmobiling in March and on-the-land observations of Dall's sheep in the summer. We plan to camp in the Northern

Richardson mountains for a total of ten days to observe Dall's sheep. This would include two community members and two youth as well as the GRRB wildlife biologist and possibly another biologist. I have begun to work on ways of analyzing the pictures that will come from the remote cameras.

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Photo credit: Black Fly Studios

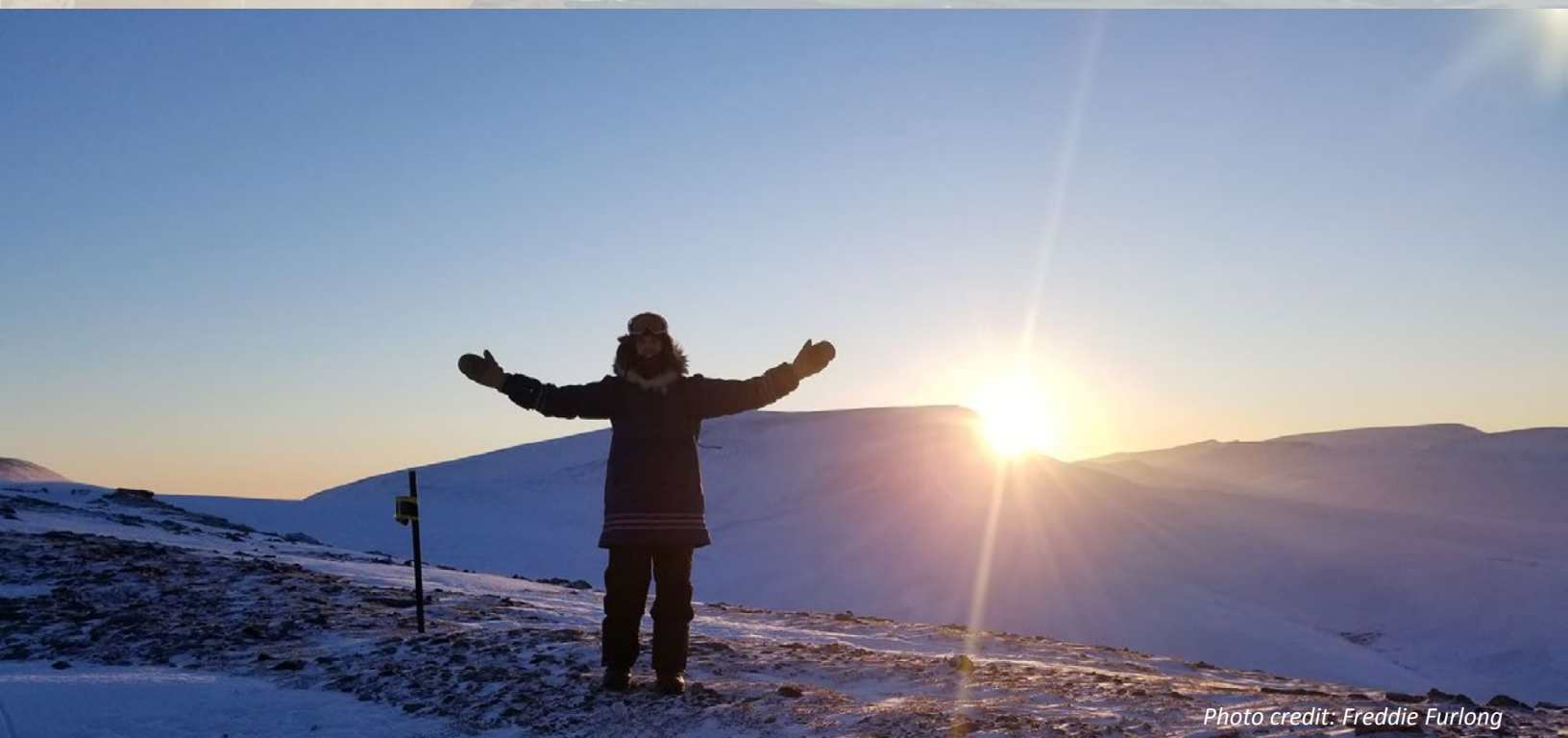


Photo credit: Freddie Furlong

Technical Advice **Advisory Committee for Cooperation on Wildlife Management (ACCWM) and Barren-Ground Caribou** I provided the GRRB with advice concerning the Cape Bathurst and Bluenose-West herd status and different management actions that derive from these statuses.

General I reviewed several proposed projects in the GSA and Wildlife Studies Fund applications as part of my usual duties. I also helped Amy for the definition of commercial use venture that the GRRB is taking on. I will likely help her quite a bit with that file in the future. I provided advice on outfitting of muskox and the outfitting zone.

Liaison North American Caribou Workshop In late October/early November, I participated in the North American Caribou Workshop in Ottawa. This conference gathers more than 500 researchers, students, managers, First Nations representatives and more. I co-presented a PowerPoint with the Wek'éezhii RRB on the ACCWM on Cape Bathurst, Bluenose-West and Bluenose-East caribou herds and how six organizations co-manage these herds. I did some networking and kept up with the "caribou world" by attending several other presentations.

General Liaison I participated in the Regional RRCs meeting in Tsiigehtchic. I presented an update on the wildlife files in the GSA and discussed concerns from the communities.

Other Personal In my personal time, I went into the Northern Richardson mountains by Skidoo and quad to see wildlife (caribou, moose, muskox). I went to the muskrat camp (Jeremy Brammer's project) to take footage of what they are doing on the land.

I hunted and camped close to Caribou Lake around Christmas.

I spent some time in Québec after the North American Caribou Workshop, where I hunted white-tailed deer.

The main chapter from my master's thesis on Torngat caribou was published in the Journal of Wildlife Management.

Photo credit: É Bélanger, GRRB



Janet Boxwell
renewable resources
manager since August 2010

Research and Monitoring I coordinate GRRB research and management priorities in consultation with staff, Renewable Resource Councils (RRCs) and co-management partners and maintain a record of the research interests of the communities.

I am working with Amy to develop a Research page on the GRRB website for the benefit of researchers wishing to conduct their work in the GSA. We anticipate that this will help clarify GRRB and community expectations of researchers and will improve time and efficiency in responding to their applications.

Liaison Communication I consult with RRCs, government, researchers and co-management partners on a regular basis regarding research and management priorities, GRRB policies and harvest studies and applications for research or development within the GSA.

Gwich'in Tribal Council (GTC) The GTC is a signatory to the Porcupine Caribou Management Agreement. I provide technical support by analyzing Porcupine caribou harvest monitoring data for the GTC Porcupine caribou harvest report. I am in regular contact with representatives of the GTC Lands Department, providing GRRB input into proponent applications for access to Private Lands, community concerns regarding development and harvest monitoring program updates.

Gwich'in Harvest Data Collection Study: Harvest Monitoring Program Ongoing activities for this program include developing the budget, seeking sources of funding and providing overall program



Photo credit: Black Fly Studios

coordination and support to the RRCs. The Government of the Northwest Territories (GNWT) Environment and Natural Resources (ENR) Department provided three years of funding, from 2017-2020. The funding enables us to continue delivering the program and to conduct activities promoting harvester participation.

Last fall, I worked with the NWT Geomatics office in Inuvik to evaluate different data management applications and software to use for the Harvest Monitoring Program to increase the efficiency of data collection and the accuracy of data analysis. In February, the Board decided to focus on increasing harvester participation now and to adopt new technology as program needs are identified.

With that objective in mind, the GRRB hosted a Harvest Monitoring Workshop in March. I worked with Amy to organize the Workshop and Robert Charlie was our facilitator. The GRRB management goal for the harvest monitoring program is to better understand population

trends. However, we want to better understand the monitoring goals of the communities and how to improve our program to better reflect those goals.

The next Harvest Survey will be taking place in the communities in June. We look forward to your participation and to your comments on the program. Enjoy safe goose hunting this spring!

Education/Youth I manage the GRRB Youth Work Experience Program, coordinating applications and connecting youth with GRRB staff. In 2018, fourteen youth assisted staff in environmental DNA sampling on the Arctic Red River, small mammal trapping, the annual hare pellet count along established transects, installation of bat echolocation detectors and environmental education activities in GSA schools.

I also coordinate staff participation in career fairs, education and public outreach programs. Staff attended career fairs at Chief Julius School in

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Fort McPherson last fall, at Moose Kerr School in Aklavik in March and the East Three School in April. Staff will attend the Science Rendezvous hosted by the Aurora Research Institute (ARI) in May, to feature the research and scientific work of the GRRB.

I have been managing the Traditional Management Practices Educational Media Products Project in partnership with the Gwich'in Department of Cultural Heritage (DCH). Gwich'in interns Arlyn Charlie and Dannika Peterson from DCH video-interviewed elders about traditional harvesting practices and created educational videos to be uploaded to social media platforms. I secured additional funding from the Gwich'in Land Use Planning Board for wages from December 2018 to March 2019 so that this work can be completed.

The videos were premiered for Grade 9-12 students at Chief Julius School in April to positive feedback. The 'Gwich'in Elders Speak' trailer is now online: <https://www.facebook.com/GwichinCulturalHeritage/videos/306798456607107> Keep your eyes open for the next videos in the series!

Technical Advice Technical and Working Groups I work closely with the Porcupine Caribou Management Board (PCMB) and the Technical Committee to generate the GTC Porcupine caribou harvest report and maps. The PCMB Annual Harvest Meeting was held in Inuvik in February. For more information on PCMB, check their website at www.pcmb.ca or look for them on Facebook.

I represent the GRRB as a board member of the Arctic Borderlands Ecological Knowledge Society (ABEKS), a community-based monitoring program that collects observations about animals, plants and the land from active land users to monitor and assess changes in the range of the Porcupine Caribou Herd. ABEKS held a Gathering in Aklavik in February that focused on researchers' use of ABEKS data and on the transition of elements of the program to the communities. I am exploring ways to use the data collected by ABEKS for GRRB management purposes. For more information on ABEKS, visit their website: www.arcticborderlands.org

With the ARI and the Firelight Group, I am providing input on a regional Indigenous Mapping Workshop to be delivered to community members in the fall of 2019.

Regulatory Review As reviewers who comment on regulatory applications, the GRRB has a positive working relationship with regulatory boards such as the Gwich'in Land and Water Board (GLWB), the Mackenzie Valley Land and Water Board (MVLWB) and other co-management boards, such as the Gwich'in Land Use Planning Board (GLUPB), on matters of common interest. GNWT and the regulatory boards operating in the GSA co-hosted a resource management workshop in Inuvik from February 26-28. The workshop provided an opportunity to share knowledge, ideas and experiences on existing co-management processes established under the GCLCA and the *Mackenzie Valley Resource Management Act*.

With staff from the GLUPB and the GLWB, I attended a presentation on 'Developing a Mining and Minerals Framework in the GSA' hosted by the GTC in April and provided input concerning the GRRB role in mining development.

In April, I joined staff from the GLUPB and the GLWB to meet with Yukon government representatives who are conducting initial engagement with GSA communities concerning the Dempster highway fibre line. They shared initial project plans and wanted more information concerning meaningful engagement processes here in the GSA. The GRRB encourages proponents to engage with staff and the communities early in the process and prior to the formal permit application to save time and money once applications are submitted for review.



Kaytlin Cooper

species at risk biologist since January 2015

As Species at Risk Biologist, I work with local communities, Renewable Resource Councils (RRCs) and governments (both Federal and Territorial), assisting with species assessments and listings, developing management plans and recovery strategies and administering species at risk programs and research projects (science and Traditional Knowledge) in the Gwich'in Settlement Area (GSA).

Management Planning Since our last newsletter, I have attended several National Boreal Caribou Knowledge Consortium teleconferences. I am a member of several working groups, including the Habitat Restoration Working Group, Monitoring Working Group, Health and harvest sub-group and Indigenous Knowledge Circle. A face-to-face meeting involving all groups under the Consortium will occur June 4-6 in Ottawa.

The Conference of Management Authorities (CMA) held its winter meeting in Inuvik in February. Topics of discussion included the NWT



Photo credit: Black Fly Studios

Species at Risk Stewardship Program, boreal caribou, barren-ground caribou, amphibians and bats, along with other species not found in the GSA - such as wood bison, Peary caribou and hairy brya (a plant). There was also a one-day workshop discussing a review of the federal *Species at Risk Act* and its relevance to the *NWT Species at Risk Act*.

In early March, I attended a workshop in Yellowknife where representatives from all of the NWT wildlife management boards, land use planning boards, land and water boards and indigenous governments met to develop a framework for boreal caribou range planning in the NWT. The range plan framework will broadly outline how each region can manage disturbances such as development and fire, to ensure that boreal caribou continue to be self-sustaining. To do this, critical habitat, (the habitat needed for a species to survive, which for boreal caribou is 65% undisturbed habitat) must be protected. A consultation meeting will be held in Inuvik in May and will involve GRRB staff and Board members, Gwich'in Land and

Water Board, Gwich'in Land Use Planning, Gwich'in Tribal Council and Renewable Resource Council members from each GSA community. It will also be open to the public. A detailed range plan for the GSA will be created in a few years.

Research Bat data has been provided to Environment & Natural Resources (ENR) and will be analyzed.

Funding from the NWT Species at Risk Stewardship Program was provided for the GRRB and the Gwich'in Tribal Council (GTC) Department of Natural Heritage to take video footage, audio recordings and photographs of species at risk and scientific research fieldwork being carried out by GRRB biologists. The pictures and recordings will be used to produce a variety of social media products: podcasts, videos, photo posts, etc. These posts and podcasts will educate GRRB and GTC Department of Natural Heritage audiences about the species in question and the research carried out to conserve and manage them. The project will have direction from Gwich'in youth and GRRB biologists.

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Photo credit: K. Cooper, GRRB

The educational materials will be shared through the GRRB's YouTube channel and via other social media, including Facebook.

Technical Advice Since our last newsletter, I have reviewed and provided comments to the territorial government on the species status reports for bumble bees and northern mountain caribou and the recovery strategy for barren-ground caribou. I also provided updates on how GRRB has implemented the actions in the amphibian management plan and boreal caribou recovery strategy.

I provided information to the federal government in response to a Committee on the Status of Endangered Wildlife in Canada (COSEWIC) preliminary review of Candidate Species request for data on lesser yellow-legs and grey cheeked thrush. I also responded to data requests for the revised status report for the short-eared owl and reviewed the status report for the Hudsonian godwit. I reviewed a federal progress report on steps taken to protect critical habitat for boreal caribou. I reviewed the final version of a journal article titled *Coproducing actionable research for conserving Canada's boreal birds by building*



Photo credit: J Norman-Goose, GRRB

respectful partnerships. Amy and I are two of the co-authors.

As a member of the NWT Wildlife Care Committee, I provide technical advice on wildlife handling applications and review wildlife handling reports and other documents. Recent applications include collaring boreal and barren-ground caribou, wolf research and monitoring, snow geese banding, shorebird (lesser yellow-legs) monitoring, polar bear survey and falconry. I also review research and development applications on behalf of the GRRB from the perspective of impacts on species at risk.

As GRRB alternate member to the Species at Risk Committee, attended a meeting in Fort Simpson in April to assess the status of several bee species in the NWT. One of the species under review, the gypsy cuckoo bumble bee, occurs in the GSA. This bee was assessed as Data Deficient, meaning more information and surveys are required to be able to determine if it is at risk. More information can be found at <https://www.nwtspeciesatrisk.ca/news/sarc-assesses-three-bumble-bee-species>

Liaison I attend RRC meetings in the communities when possible, including the Regional RRC meeting every January, which was in Tsiigehtchic this year. The NWT Wildlife Care Committee had its yearly teleconference in January. I am involved in face-to-face meetings and teleconferences for the Conference of Management Authorities (CMA) and the Species at Risk Committee (SARC). In June and September 2018 and February 2019, I participated in teleconferences for the Convention on International Trade in Endangered Species, an international agreement between governments with the aim to ensure that the survival of wild animals and plants is not threatened by international trade.

Professional Development

I participated in a webinar training session in February called Assessment of Impacts and Restoration Solutions for Caribou Habitat in the Boreal Forest.

This winter, in Amy's absence, I was acting Executive Director for a week each in December and February.



Photo credit: K. Cooper, GRRB

Sarah Lord

fisheries & forestry biologist January 2017

Management Planning

Fisheries Management The Integrated Fisheries Management Plan (IFMP) for Dolly Varden (western Arctic form) is being updated. A final draft is being circulated and will be sent to the IFMP Steering Committee for approval in June.

The Rat River Working Group (RRWG) meeting was held in Inuvik on March 4, 2019 and the West Side Working Group meeting on March 5 in Aklavik. These working groups manage the Dolly Varden char stocks that are fished in the Mackenzie Delta and Beaufort Sea. Ongoing efforts in monitoring, research and management of these stocks have helped their population increase and we hope this trend continues. The RRWG heard updates on the important work done by the char monitors, community harvest monitors, DFO Fisheries Management, DFO Science and Species at Risk staff and made decisions about the recommended



Photo credit: Black Fly Studios

voluntary safe harvest level for the 2019 fishing season. RRWG will hold community meetings in Fort McPherson and Aklavik in June to communicate the fishing plan to the public and share the latest news about the char.

Research I offer my support to researchers at many different organizations for projects that address GRRB research priorities.

Mackenzie Delta Historical Water Levels I participated in the development of a proposal for paleoreconstruction of historical water levels in the Mackenzie Delta with Dr. Jennifer Galloway (Geological Survey of Canada). Federal core funding was approved on December 17. A funding decision from ArcticNet is still pending. Fieldwork is scheduled to begin in summer 2020 for a five-year funding cycle.

Mercury Concentrations in Fish in the GSA I did the preliminary data visualization for mercury concentrations in fish in the GSA that were collected by the previous

GRRB Fisheries Biologist in the fall of 2016. I have reviewed draft Figures produced by the GNWT, but GNWT has not yet released a final version of their communications materials. They hope to do so in the near future.

eDNA sampling In March and April, I met with Renewable Resource Councils in Aklavik, Fort McPherson, and Tsiigehtchic to report back on the environmental DNA sampling I did in summer 2018 in the Rat River, Vittrekwa River and Arctic Red River headwaters to map new Dolly Varden habitat. It will take several years for the DFO genetics lab to process all of the samples we collected, but preliminary results are promising.

Community-Based Whitefish Monitoring I continue to provide logistical and administrative support for this project with scientists from Simon Fraser University and the University of Maine. In December, I helped facilitate travel and funding for two youth participants, Arlyn Charlie and Richard Stewart, to co-present research results at the ArcticNet Scientific Meeting in

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Photo credit: Nathan Bristow,
Moose Kerr School



Photo credit: S. Lord, GRRB

December in Ottawa, along with harvester Abe Stewart and researchers Emma Hodgson and Rachel Hovel. I also assisted with writing the Wildlife Studies Fund proposal for the 2019-20 fiscal year, which was successfully funded. These funds will support youth and elders from Fort McPherson in sampling whitefish in the upper Peel River this coming summer. In March, Emma and I travelled to Aklavik, Tsiigehtchic and Fort McPherson to report back on the project results so far and discuss ideas for the future. We held community meetings, visited the schools, spoke on the radio and visited with harvesters who are involved in the project. We are excited for what is planned for the summer!

Anticipated Work In addition to data analysis and reporting on these projects, I am working with Environment and Natural Resources (ENR) Waters Division to help address “orange scum” concerns reported in the Peel and Arctic Red Rivers over the last few summers. ENR Waters Division is planning a community tour in May or June to discuss ideas to address this concern. They are using satellite imagery to map the locations and dates when this has happened before and to see if it is happening more frequently now than in the past.

Technical Advice & Liaison I provide technical advice to the Board about the ongoing review of changes to the *Fisheries Act*, which has been a long process with many different components. This past winter I reviewed DFO consultation papers on the Fishery Monitoring Policy and on Stock Rebuilding Regulations and drafted briefing notes for the GRRB in January. The Board’s response was submitted to DFO in February.

I will continue to review proposed regulations and policies stemming from proposed changes to the *Fisheries Act* as DFO develops them. DFO expects royal assent on the bill by June 2019.

The territorial government (GNWT) is also reviewing some important pieces of environmental legislation. GRRB has been involved the later stages of the Technical Working Group process as GNWT drafts a *Protected Areas Act*, *Environmental Rights Act* and revises the *Forest Act*. In December, I drafted a letter to the ENR Minister regarding the GRRB’s concerns with the draft Acts and the process to date. There has been a lot of correspondence and discussion. I have supported Board members Ron Allen and Margaret Begg in taking the lead on this file and have drafted several briefing notes and letters. The three Acts have now all been tabled. The GNWT is hoping that these bills are passed before the end of this year.

I inform researchers about research and management needs in our region and connect them with resources in the GSA. I work with scientists in the territorial and federal governments, and in Canadian and US universities. I remain active in the GRRB Occupational Health & Safety Committee. Wildlife Biologist Édouard Bélanger and I plan to review and provide input to improve our current field safety forms before this summer’s field season.



Photo credit: D. Burquist

Jordan Norman-Goose technician to March 2019

I was born and raised in Inuvik. I enjoy being active and being outdoors. I find myself diligent about the work I take on and am determined to finish something once I have started it.

I graduated from the East Three Secondary School at Inuvik in May 2016. The following fall, I applied for and enrolled in the Environment & Natural Resources Technology Program (ENRTP) here in Inuvik - a two-year diploma program offered at the Aurora College. I graduated from that course in May 2018. Through ENRTP, I have enhanced my personal knowledge of not only the land, animals and plants but also my traditional knowledge of travelling, hunting and fishing. This course allowed me to combine both traditional and scientific knowledge together and exercise that knowledge in real scenarios.

My main priority this fall/winter was to assist the staff with their projects and take on tasks given to me. I participated in education projects and programs. I coordinated some projects, which allowed me to exercise my leadership skills. This fall/winter, I completed the following tasks:

- Maintenance around the office, storage units and Sea Can
- Maintenance on the GRRB motorized equipment (boat, Skidoo, etc.)
- Reception duties (answering phones, scanning papers)
- Office work (file management, library database)
- GRRB equipment inventory
- Bat detector battery change and retrieval
- Fort McPherson Career Fair
- Taii Trigwatsi Program



Photo credit: Black Fly Studios

- Ceremony in Aklavik - November
- Muskrat project with Jeremy Brammer at Jackfish Creek - November
- Emotional Intelligence training in Yellowknife - November (see page 16)
- Arctic Net Conference in Ottawa as an observer for GRRB - December (see next page)
- Commercial Use Consultations GSA tour - December
- Regional RRC Meeting in Tsiigehtchic - January
- Skidoo trip to Black Mountain - Dall Sheep Project - January
- GIS work with the Gwich'in Land Use Planning Board (GLUPB) - January
- February GRRB meeting

I have worked with the GRRB for three consecutive summers as Tech Trainee and was promoted to full-time Technician this summer. This fall/winter was very busy and interesting. I got to travel out of the GSA for professional development and participated as an observer at Arctic Net in Ottawa in December. I toured in the GSA for meetings, career fairs, consultations and ceremonies.

I spoke in public for the first time on a microphone in Aklavik at the Taii Trigwatsi Program Ceremony. During the regional RRC meeting, I gave a presentation to the RRCs on my work with the GRRB this summer and fall.

I am very thankful that the GRRB hired me on as a full-time Technician this summer and gave me the opportunity to enhance my experience in this field of work. I will be working with the GRRB until the end of September!

Until my position ends, I will be cleaning up the warehouses and working with the Skidoo. I will be doing GIS work with Sue at the GLUPB and doing fieldwork with Édouard, our Wildlife Biologist.

I would like to thank the staff at the GRRB so much for hiring me again this summer and for the great experiences during my time here! I have grown professionally and personally working full-time here at the GRRB.

Mahsii Cho!





ArcticNet conference in Ottawa, December 2018 L to R: Richard Stewart, Jordan Norman-Goose, Rachael Hovel, Abe Stewart, Jeremy Brammer, Karen Dunmall, Emma Hogdson, Arlyn Charlie

Conference Report | ArcticNet Jordan Norman-Goose

In December, I was fortunate enough to attend to the ArcticNet conference in Ottawa as an observer. During this conference researchers, Inuit, First Nations, Métis, Northern Community representatives, government and non-government organizations, students and industry stakeholders were attending and or presenting on Arctic research.

One of the highlights for me was seeing some Gwich'in participants present the whitefish-monitoring program with the researchers. One youth (Arlyn Charlie) and one elder (Abe Stewart) presented back-to-back. Abe spoke about how good it is to collaborate with researchers and indigenous peoples and about the samples collected. Arlyn spoke about why he is interested in working with the researchers, other youth and Elders. It was a very interesting and insightful presentation. All the pictures and meaningful words they shared altered my perspective on indigenous youth involvement in research. It was a proud moment

for me, a young Gwich'in man, to see my fellow people speaking about these projects taking place on our homelands and explaining how it benefits the wildlife, their habitats and us as Gwich'in people. For them to be doing this in a place so far away from home and doing it with so much confidence and pride made the information they shared that much more rewarding to hear. Seeing other projects that are being conducted in our region made me more aware of and interested in what exactly is happening here, what this gathered information is being used for and how it can benefit Gwich'in people.

Another presentation that caught my eye was "Communicating Science: Using ArcGIS Story Map as a tool to educate and facilitate knowledge transfer" by Davonna

Kasook. She used a timeline of photos, satellite photos and coastal erosion data to present the damages of coastal erosion in Tuktoyaktuk over many years. The presentation demonstrated how important it is to incorporate Geographic Information Systems (GIS) for educational purposes. It is user-friendly and can be used by anyone. There are multiple ways to display and show different content.

By attending the conference, I gained knowledge and understanding of research projects taking place in the Arctic. I heard research interests from multiple people in the Arctic. I enjoyed travelling to a completely new place where I haven't been before, meeting people from around the Arctic and beyond and sightseeing in Ottawa during my free time.



Photo credit: Heather Ashthorn, ABEKS

Cheryl Greenland office administration and finances

since February 2009

I am a Nihtat Gwich'in Participant from Inuvik. I was born and raised here in Inuvik. I am responsible for file management, payroll, and all financial entries.

I keep track of staff time records. I also cover our reception desk and maintain the front office area.

I assist with the development of the Conservation Calendar each year by providing community event dates. I also helped distribute the 2019 Conservation Calendar. Of course, it turned out beautifully this (and every) year!

I continue to be involved in the Finance Committee. I ensure that



Photo credit: Black Fly Studios

the reports are ready for the meeting dates. We try to have them one week before the meeting. I work closely with Amy during these times to prepare the financial reports.

In my safety role, I participate in Safety Committee meetings and offer advice on any safety concerns around the office.

Workshop Report | Emotional Intelligence Jordan Norman-Goose

In November 2018, Cheryl Greenland, Janet Boxwell and I traveled to Yellowknife for a two-day "Emotional Intelligence" (EQ) course at the Aurora College North Slave Campus. The objectives were to define emotional intelligence, then describe how it relates to personal and organizational success, create greater self-awareness and apply tools to increase your own emotional intelligence, as well as that of others.

Emotional Intelligence is a set of social and emotional skills that influence the way we recognize and express ourselves, establish and sustain social relationships, manage challenges and use emotional information in an effective and meaningful way. Our emotions are in every aspect in our lives, from our health to our perceptions, how we make decisions big and small and how we do business.

This course allowed me to be more aware of how I use my emotions in certain settings (whether it be professional or personal) and helped me learn to better control and manage my emotions and stress in situations that can provoke impulsive behaviour.



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Wildlife Studies Fund Applications 2019/20

Researchers requesting support for the 2019-2020 fiscal year submitted written Wildlife Studies Fund (WSF) applications to the Board. They gave presentations on their proposals at the February Board meeting.

The Board supported the following project proposals:

Arctic Borderlands Community Ecological Monitoring: Data Sharing for Co-management Heather Ashthorn, ABEKS (Arctic Borderlands Ecological Knowledge Society) Each year, Arctic Borderlands communities document ecological change by conducting lengthy interviews with local experts; people who are spending a lot of time on the land. The answers they give are recorded in a database which may be used to help communities contribute local knowledge to decision-making. In 2017, we hired a researcher to look for correlations between ABEKS caribou data and other, scientific data. This gives the PCMB a tool for use of local knowledge in decision making. We will continue this work in 2019.

Mackenzie Delta Muskrat Monitoring Program *Application for Youth Funding* Jeremy Brammer (Environment and Climate Change Canada) Residents of Aklavik, Inuvik, Tsiigehtchic and Fort McPherson have reported concerns that muskrat populations have declined in the Mackenzie Delta. Muskrats have been an important source of food and income and changes in their numbers are concerning.

In this study, we will survey muskrat densities across the Delta and their rates of growth and survival around

Jackfish Creek. We will compare densities, growth rates and survival of muskrat populations today with those documented in studies from 1953 to 1976.

Arctic Salmon: Coordination and Logistics Karen Dunmall (DFO) The Arctic Salmon program is a successful community-based project that monitors changes in the relative abundance and geographic distribution of different species of Pacific salmon in the GSA via voluntary reporting and provision of samples from subsistence harvests. In recent years, samples received have exceeded all expectations but in 2018, very few salmon (less than 50) were harvested. It is important to document these year-to-year changes to better understand the variables influencing distributional shifts of salmon northward and the relative abundances.

This project will develop and test a coordinated Arctic Salmon sampling effort in the GSA for 2019/20. Funding will support a salmon coordinator position in Inuvik and salmon handlers in each community in the GSA, as well as shipping within the GSA, equipment (i.e. freezers) and supplies (i.e. coolers) to facilitate transport and storage of salmon.

Community-Based Whitefish Monitoring *Application for Youth Funding* Rachel Hovel (University of Maine) This project expands our understanding of whitefish biology. From fish sampled in 2017, we learned what areas the fish use during their lives (the ocean and Peel, Arctic Red and Mackenzie Rivers). Even though all 2017 fish measured were caught in the Peel, none had spent time there earlier in life. However, local knowledge states that the Peel River is good whitefish habitat and that fish spawn there,

so are there whitefish farther up the Peel River that spend more time there during their lives? Are they a separate population?

To address this, our 2019 project objectives are to (1) continue monitoring whitefish at fish camps and (2) sample whitefish and water in the upper Peel watershed in Yukon. This summer we will work with youth at existing fish camps again to learn how to take whitefish measurements and spend time with their elders on the land.

Dall's Sheep Research Project *Application for Youth Funding* Édouard Bélanger (GRRB) The goal of this project is to monitor population changes in Dall's sheep annually by collecting traditional knowledge and scientific information on recruitment, ratio of ewes:nursery, classification of males, habitat changes, predation and other variables that are known to affect population size.

This information will assist the GRRB, Gwich'in RRCs, ENR, Yukon Government and other partners listed on the Dall's sheep management plan in monitoring the population.

GRRB Youth Work Experience Program and Summer Student Supplement *Application for Youth Funding* Janet Boxwell (GRRB) Through the Summer Student and Youth Work Experience Programs, GRRB staff have opportunities to bring youth with them into the field to provide them with work experience opportunities in wildlife, fisheries, forestry and education projects that are undertaken by GRRB staff. This will help foster a lifelong interest in conservation and may encourage Gwich'in youth to pursue renewable resource careers.

2018 Research Update Fisheries & Oceans Canada (DFO)

Highlights of population studies on Dolly Varden from the Rat River in 2018

Harvest Monitoring The annual Rat River Harvest Monitoring Program occurred between August 4 and September 10, 2018 at three monitoring locations: Big Eddy (John and Tyler Carmichael), mouth of Rat River (Billy Wilson) and Destruction City (Selwyn Kay). The data collected in this program is used to assess the population status. Monitors recorded daily catches and river conditions and took biological samples (length, weight, sex/maturity, ear bones) from 224 char. The monitors reported that fishing conditions were not ideal due to high amounts of debris in the water.

Ocean Habitats DFO released a small number of satellite tags that were attached to Rat River Dolly Varden. The fish were tracked to the southern extent of the sea ice in mid-July. The large majority of detections in the Beaufort Sea were in shallow depths of the water column (less than 4 metres).

Fall Seining Two day-trips were made by helicopter at the end of September to use a seine net to catch, tag and release char at the Fish Hole. The tagging study provides biological information to characterize spawning and non-spawning char and data to estimate population size. The tagging crew included Gwich'in technicians from Aklavik, GRRB Biologist Sarah Lord and DFO biologists. Many char were observed at the Fish Hole. The project encountered a total of 767 sea-run fish in the seine net, 500 of which were tagged.



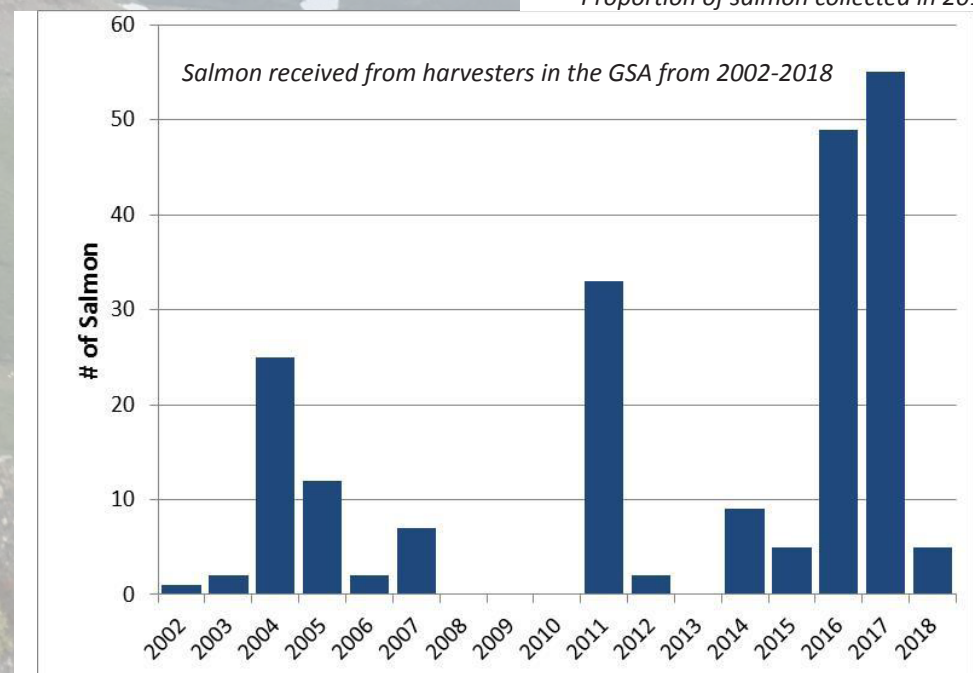
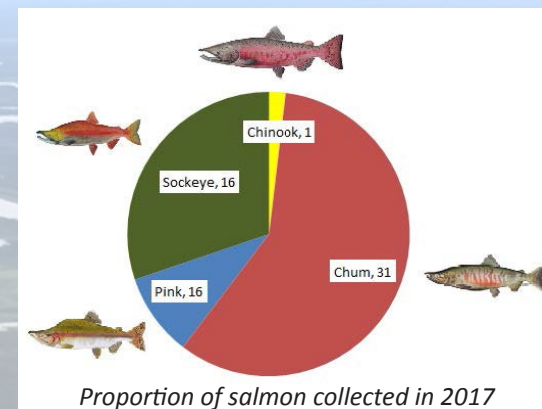
Rat River monitor John Carmichael at his camp Photo credit: Tyler Carmichael

We presented all of the results from the population studies at the last Rat River working group meeting in March.

Arctic Salmon Project

The Arctic Salmon Project has monitored the occurrence of Pacific Salmon in the GSA since 2002. DFO is trying to determine if the number of Pacific salmon is increasing in the GSA due to range expansion or climate change. The results indicate that the number of salmon collected by harvesters is increasing, but the number harvested varies a lot from year to year. Chum salmon is the most common species harvested,

although considerable numbers of Pink, Sockeye and Chinook are also harvested. Please visit <https://www.facebook.com/pg/arcticsalmon> for more information on the Arctic Salmon Project.



Jamieson Wright (L) and Graham McDonald (R)
holding seine net with char at Fish Hole
Photo credit: Colin Gallagher, DFO

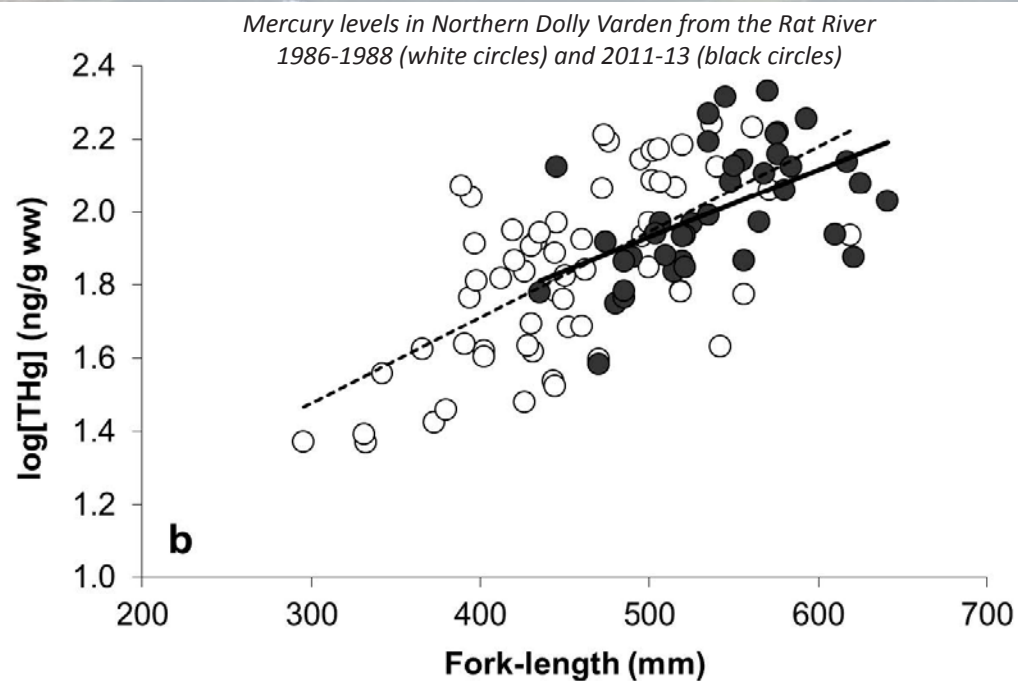


Summary of mercury in Dolly Varden research

DFO studied the total mercury concentrations in Northern Dolly Varden collected between 1986-1988 and 2011-2013. In general, the concentrations are quite low. Variation observed among locations was not related to any particular river system or location. Different life history types (sea-run, residual, isolated) exhibited different absolute levels of mercury, with those of sea-run fish being highest. However, there was considerable difference in the size and age among the three types. For fish that were the same age and size in the three groups (standardization to a common size of 218mm fork length and age of four years), residual fish had the highest mercury concentration (76 nanograms per gram of wet

tissue), followed by isolated fish (37 nanograms) and finally sea-run fish (8 nanograms). For more information

on this study, contact Dr. Jim Reist (James.Reist@dfo-mpo.gc.ca).



GET IN TOUCH!

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upcoming events

Conference of Management Authorities May 16-17
Yellowknife, NT

Harvest Data Survey
June

Nature Day - Grade 3 in GSA Schools
June

National Boreal Caribou Knowledge Consortium June 4-6
Ottawa, ON

Arctic Development Expo
June 10-12
Inuvik, NT
www.arcticdevelopmentexpo.com

National Indigenous Peoples Day
June 21

GRRB Fall Board Meeting
September 10-11
Tsiigehtchic, NT



Photo credit: Black Fly Studios



Please call your RRC for monthly meeting times:

Ehdiitat RRC (Aklavik)
867-978-2336

Tetlit RRC (Fort McPherson)
867-952-2330

Gwichya RRC (Tsiigehtchic)
867-953-3608

Nihtat RRC (Inuvik)
867-777-6650