

SUBMISSION TO THE NUNAVUT WILDLIFE MANAGEMENT BOARD

FOR

Information: X

Decision:

Issue: Brief update on DFO Science Arctic Char Program in Nunavut, 2018-19.

Background:

In the past, Fisheries and Oceans Canada (DFO) Science provided an update on the Emerging Fisheries Program and other Science programs currently operating in Nunavut e.g. Narwhal Aerial Survey, Offshore Trawling Survey. The NWMB Board stated that they appreciated these updates in this format. For this meeting we are providing information on our current Stock Assessment Arctic Char Programs.

Current Situation:

General:

All Arctic Char Stock Assessment research is completed in collaboration with local HTOs and fishers. We have been successful at creating research projects that are beneficial to both local communities, local fisheries and DFO, by collaborating on research from the proposal stage. We have annual face-to-face meetings with the HTOs and communities and we keep in regular email and phone contact throughout the year. We strive to have as many local people trained to conduct research as possible, including hiring Environmental Technology Program (ETP) graduates and students. We hope to continue our efforts in more communities as the desire for Arctic Char fishery development grows across the territory.

Cumberland Sound 2018:

DFO Science has provided Science Advice on 9 stocks in Cumberland Sound. We have two stocks currently undergoing baseline/stock assessment data collection. This year we were able to complete full stock assessments data collection on Anaktuaq and Kanayuktuk. Both of these stocks are in year 3 of 5 for research and will undergo a review process and Science Advice at the completion of the five years of data collection. All samples have been shipped to Winnipeg for storage and processing.

Kivalliq 2018:

We were able to collect some samples from the fishery this summer through Plant Sampling. We did not reach the target number of samples we wished for, but we have started the conversation and collaboration. We had personnel from Resource Management and Science attend the Kivalliq Wildlife Board Annual General Meeting in Rankin Inlet to start the discussion with HTOs about data collection for the purpose of fishery development.

Qikiqtarjuaq 2018:

The objective of this project is to monitor stocks in Qikiqtarjuaq commercial fishing areas by collecting relative abundance and biological data utilizing the skills and knowledge of the local community and fishermen and provide science-based advice for management. The project is aimed to promote commercial fisheries development while ensuring conservation and sustainability of resources. Last year data was collected in December 2017 and January 2018, 584 fish were sampled from three locations to study their relative abundance and biological indicators including size and age structure and sex ratio. Aging is currently underway and data will be analysed when aging is complete. A consultation meeting with the HTO and fishers is planned in November 2018 to finalise 2018-2019 sampling program.

Cambridge Bay 2018:

Commercial harvesting occurred at 5 sites (Ekalluktok, Paliryuak (Surrey), Halokvik (Thirty-Mile) Jayko, and Lauchlan (Byron Bay) rivers) in 2018. This is the first time the Lauchlan River has been harvested since 2008. The Integrated Fisheries Management Plan (IFMP) working group with support from NWMB agreed upon a conservative quota of 5,000 kgs for this fishery. After five years of data collection, an assessment will be completed to assess the impact of the 5,000 kg quota on that fishery.

Fishery Site (Common Name)	Commercial Quota Kg, round weight	Targeted Quota Kg, round weight	2018 Commercial Harvest Kg, round weight	2018 % Landed
Ekalluk (Wellington)	20,000	14,061	13,808	98
Halokvik (30-Mile)	5,000	5,000	4,997	100
Jayko	17,000	10,433	9,644	92
Paliryuak (Surrey)	9,100	9,100	8,792	97
Lauchlan R. (Byron Bay)	9,100	5,000	3,917	78
Grand Total	60,200	48,493	41,158	85

Annual post-season IFMP Working Group meeting is being planned for this fall. The EHTO, DFO, Kitikmeot Foods, commercial fishers, elders and other resource users will review the success of the commercial Arctic Char fishery, and discuss any conservation and compliance concerns. Agenda items will specifically include a review of the Lauchlan River Conservation Harvest Plan discussion, logbook compliance, and the importance of catch-per-unit effort in determining the sustainability of Lauchlan River Char, and DFO Science review and plans for the coming year.

The Cambridge Bay commercial fishing plant sampling program (fishery-dependent sampling) was once again successful providing DFO with biological data and samples from 200 Arctic char for each commercially fished waterbody.

DFO successfully conducted fishery-independent sampling of 200 Arctic char at the Lauchlan River in early July to coincide with the commercial harvest of char from this system. Both fishery-dependent and –independent data will be vital for an assessment of the health of this fishery planned for 2023 (requires minimum of 5 years of data collection).

The acoustic tagging work (part of the Ocean tracking Network) is in its sixth year. This year our marine acoustic equipment was recovered and redeployed and 30 Arctic char were also tagged at the Lauchlan River.

We also employed the Vemco Positioning System (VPS) in two lakes near the community of Cambridge Bay. This system involves the use of many receivers that will triangulate precise fish positions during spawning and overwinter for Arctic Char and Lake Trout and will be key in identifying critically important habitats.

A complete summary and review of Science research programs will be presented at the annual post-season IFMP Working Group meeting later this fall.

Pond Inlet 2018:

Currently there is Stock Assessment research happening in Pond Inlet to support the newly developing Arctic Char fishery. We have completed 4 out of 5 years of research on Koluktoo Bay and Satuut. We are working on getting the otoliths aged from both our samples and the fisher's samples, both which are necessary for any analysis and Science advice. We know this is a mixed-stock fishery and to be prepared for the upcoming Science Advice process we are proposing to conduct mixed-stock fishery analysis looking at natal streams. We are proposing to begin this research next summer (2019), but maybe limited by internal resources. We will be working closely with the Mittimatalik HTO and fishers to ensure that is research is collaborative and supportive of fishery development.

Sylvia Grinnell 2018:

The Sylvia Grinnell Arctic Char research completed year 4 of 5 in the summer. We collected biological data from 156 fish, conduct a few creel surveys and ran the DIDSON sonar for 9 weeks to capture information on the Arctic Char migration throughout the open ice season. Due to excess rain and thus river swelling in August, we were not able to place the DIDSON sonar in the same location as previous years, this may impact footage analysis. We were able to hire 5 Inuit field assistants through the HTO contract and DFO positions, of which most were Environmental Technology Program (ETP) graduates or current students. We are hoping to complete this research project next summer and attempt to duplicate the DIDSON effort this year.

Consultations:

DFO Central & Arctic Region and Eastern Arctic Area

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