

**SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD (NWMB)**

Regular Meeting No. RM 002- 2020

FOR

Information:

Decision:

Issue: ***Amendment of the Total Allowable Harvest (TAH) for Baffin Island Caribou (BIC), 2020***

Background:

The 2014 survey of Baffin Island caribou was an unquestionable feat in its magnitude. However, the QWB and HTOs have repeatedly questioned the estimates produced from the survey. The QWB and HTOs have also requested revisions of the Total Allowable Harvest based on their intimate understanding of Baffin caribou through Inuit Qaujimagatuqangit. Given two very different conclusions about the status of the population from two different knowledge systems, is it equitable for one type of knowledge to dominate future decisions about harvesting this critical food and cultural resource of Inuit? Because of their ancestral knowledge and almost daily experiences with Baffin Island caribou, Inuit are well aware of the risks associated with harvesting, and it is the Inuit who should balance the risks between current harvesting and future population recovery, as Inuit and their ancestors on Baffin Island have done effectively for 1,000s of years. The QWB and the HTOs represent all Inuit who harvest these caribou in balancing the inherent risks.

In 2018, J. Ringrose provided information on the sex and age of caribou during GN surveys on some of Baffin Island during 2015-18. In spring 2017 and 2018, surveys were completed on northern, west central and southern Baffin Island. The overall results for these areas were similar in the two years. During spring, calves, sometimes called short yearlings, are almost 1 year old and are usually assumed to become recruited into the adult population. In spring 2017 and 2018, 16% and 17% of the classified caribou, respectively, were short yearlings on Baffin Island, excluding Prince Charles island.

Based largely on Inuit Qaujimagatuqangit, Ferguson et al (1998) estimated that the abundance of Baffin Island caribou increased at least 8% annually from about 1940 to 1993, after a previous cyclical decline. Inuit are seeing expanding distributions of caribou in areas where they had not seen caribou for several to 30 years. Lichen forage on many parts of the island is recovering well. With these changes observed by Inuit and 16-17% short yearlings among caribou during spring on Baffin Island, the QWB believes that it is reasonable to conclude that the population is increasing by at least 8% annually during the current phase of the population cycle.

Based on IQ, HTOs have consistently stated that the 2014 survey estimate was too low. Several important factors probably influenced the survey estimate, including but not limited to observer fatigue and loss of sight-image during a survey that lasted more than a month, probably leading to an underestimate. Observer fatigue could have been significant since the 4 crews flew 53,548 km on transect, plus additional ferrying distances. Individual observers may have surveyed for 2 or more days without seeing a caribou, making maintenance of a sight-image very difficult. The 2014 survey estimated 315 caribou on northern Baffin Island (CI: 159-622). Then during a sex-age classification in fall 2017, 316 caribou were counted on northern Baffin Island. It seems

highly unlikely that such a survey could have seen almost 100% of the caribou on northern Baffin Island.

In the opinion of the QWB, the above issues suggest that the estimate was a serious underestimation of the population in 2014. Therefore, going forward the QWB recommends that a more reasonable basis for estimating future TAHs would be: 1) the upper limit of the 2014 estimate's confidence interval, excluding Prince Charles Island (i.e., 4,350), and 2) a reasonable 8% annual rate of increase, unless the proportion of short yearlings declines in future.

In addition, since 2015 the harvest has been and remains focused on adult males. This concerns Inuit as it may impact the social interactions and environmental resiliency of Baffin Island caribou over the long term. Nevertheless, according to GN biologists, harvesting of primarily males should not impact the population's productivity.

Given all those factors, at an 8% rate of increase from approximately 4,350 caribou in 2014, the adult population is likely to be about 6,900 caribou in spring 2020, excluding Prince Charles Island. A harvest of up to 325 caribou would be about 4.7% of this population, less than the anticipated rate of increase. If up to 35 of them are females, it should leave at least 3,000 cows to produce calves for 2021.

Consultation:

On a continuing basis, the QWB, the HTOs and their predecessors have consulted with local Inuit about Baffin Island caribou since the organizations were first formed.

Recommendation:

The QWB recommends that the TAH for harvesting of caribou on Baffin Island beginning in July 2020 should be set at 325, with up to 35 of those being females. The 35 tags for females should also be available for the harvesting of males.

Prepared by: Michael Ferguson, Qikiqtaaluk Wildlife Board

Date: May 4, 2020