



SUBMISSION TO THE
NUNAVUT WILDLIFE MANAGEMENT BOARD
FOR

Information:

Decision: X

Issue: Dolphin and Union Caribou Harvest Management

Background:

Abundance Surveys:

- The Dolphin and Union (DU) caribou herd is a genetically unique and small herd (historically 20,000 to 30,000 animals) that is important for the subsistence of several Kitikmeot communities and communities in the northeastern Northwest Territories.
- Population estimates derived from coastline abundance surveys indicate that the DU caribou herd declined by 88% from the 1997 estimate of 34,558 (30,275-38,841, 95% CI) to the 2018 estimate of 4,105 (2,931-5,759, 95% CI) (Figure 1).
- Climate-related changes, timing of the sea-ice freeze-up, predation, harvest, shipping, and competition with other species are considered to be the main threats to the DU caribou herd.
- The report for the 2018 survey was shared with stakeholders on May 20, 2020, and feedback received indicated that the survey area should be expanded, and that more traditional knowledge should be incorporated into future surveys.
- In response, the 2020 survey was planned and the survey area was extended based on input from local knowledge holders.

Additional Research:

- A Traditional Knowledge study conducted from 2018 to 2020 indicates the herd recently experienced a drastic decline. The results from this study and another Traditional Knowledge study conducted in 2003 indicate that there have historically been significant declines in DU caribou.
- The harvest of DU caribou in Nunavut was estimated to be between 250 and 400 caribou per harvesting season between 2015 and 2017.
- In 2016 there was a Fall Composition survey and in 2017 there was a Spring Composition survey to monitor population demographics.
- The 2015-2017 demographic indicators were consistent with a population decline:

- The pregnancy rate of female collared caribou was 88% in 2015 and 2016.
- The fall 2016 composition survey indicated a low calf:cow ratio of 25 calves/100 cows.
- The spring composition survey (2017) results indicated low over-winter survival with a calf:cow ratio of 11 calves/100 cows.
- In 2018, the Kugluktuk and Cambridge Bay Hunters and Trappers Organizations (HTOs) supported the collaring of 50 female DU caribou; 47 females and 3 male caribou were collared.
- By fall of 2020, only four collared animals remained, and a collaring program was initiated for spring 2021.

Management:

- In November 2017, the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) reassessed DU caribou as Endangered.
- In June 2020, the Minister of Environment sent a letter to the Nunavut Wildlife Management Board (NWMB) requesting a Ministerial Management Initiative for the DU caribou, as per s.5.3.25 of the *Nunavut Agreement*.
- In July 2020, the NWMB sent a letter to the Minister of Environment indicating that they were not able to make a decision at this time and an Interim decision should be made, as per s.5.3.24 of the *Nunavut Agreement*.
- In August 2020, Cabinet approved an interim Total Allowable Harvest (TAH) of 42 caribou for the DU herd, to be implemented immediately and to remain in place until the NWMB was able to complete a full review and make a new decision on the TAH.
 - The interim TAH of 42 represented a 1% harvesting rate of the population estimate. This was a precautionary harvest level due to uncertainty of the status of the herd from 2018 to 2020 and was consistent with the harvest rate of neighboring caribou herds.
- A consultation took place in October 2020 to discuss the 2018 results and interim TAH.
- The NWMB reviewed the interim decision to implement a TAH of 42 caribou for the DU caribou herd, at their December 2020 meeting.
 - The board passed a resolution to increase the interim TAH to 105 caribou, representing a 2.55% harvest, based on recommended changes to the harvest limits expressed by co-management partners during consultation and in writing directly to the NWMB.
- A TAH of 105 was implemented in January 2021 and remains in place for the herd across its range in Nunavut.

Current Status:

- Although it is not the sole factor influencing population size, with the population abundance low, the risk posed by overharvest is significant and could result in

continued population decline. Managing the harvest during a population low could slow down the rate of decline and support recovery.

- A new population survey was carried out from October 23-November 2, 2020. The survey was planned with input from all the relevant stakeholders.
 - There was consensus among stakeholders on the design, which incorporated historical data, collar locations and local knowledge.
 - Local HTO and community representatives participated in the survey.
- Results of the 2020 survey produced an estimate of 3,815 (95% CI = 2,930-4,966, CV = 13%), consistent with the declines detected by the 2018 survey.
- In April 2021, 36 DU caribou were collared. Stakeholders were involved in the planning process, and an HTO representative was present for every capture.
- Research projects on wolf and grizzly bear have begun in the Kitikmeot (e.g., sample collection programs, grizzly bear survey) to address recommendations of the NWMB approved Management Plan and community concerns.
- The current “Support for Active Harvesters Program”, which provides financial support for wolf hunters, has resulted in an increase in harvesting of wolves and other carnivores.

Consultations:

- In-person consultations in spring 2020 to discuss the 2018 survey results were delayed due to COVID-19.
- On June 8, 2020, the affected HTOs and the Kitikmeot Regional Wildlife Board (KRWB) were notified that an interim TAH of 42 would be forthcoming.
- A teleconference was held on June 18, 2020, to discuss the 2018 survey results, Traditional Knowledge Study results, Health Monitoring updates, and the DOE management recommendations.
- An in-person consultation was held on October 8, 2020, in Cambridge Bay where the 2018 survey results and the Interim TAH were discussed. Presentations were also given by the University of Calgary researchers on results of the Traditional Knowledge study and the health monitoring.
- At the consultation, DOE representatives committed to make collaring a priority for the next year and to inform the Minister of Environment of the request for an increase in the TAH to a 2% harvesting rate.
- An in-person/phone-in consultation was held on September 16, 2021, to discuss the 2020 survey results, 2021 collaring results, and management recommendations. The recommendation to keep the TAH at 105 was well received by stakeholders. All co-management partners were pleased with the GN's efforts on the 2020 survey, and 2021 collaring.

Recommendations:

- The management goal of the DU caribou herd is to avoid further declines in the population and allow for recovery. Caribou population abundances are dependent on harvest, environmental conditions, predation, and extreme weather events. Overharvest of the herd could result in continued population decline.
- Based on the current population estimate, all available scientific information, and Traditional Knowledge/*Inuit Qaujimajatuqangit*, the GN is recommending maintaining the current TAH of 105.
- An adaptive management approach is recommended including regular monitoring to advise changes to harvest restrictions so that actions reflect population size and trajectory. The DOE will continue to work with communities and co-management partners to continue close monitoring of this important caribou herd.
- DOE believes that by ensuring the harvest is set to a sustainable level using the measures noted above we can help support a recovery of Dolphin and Union caribou.

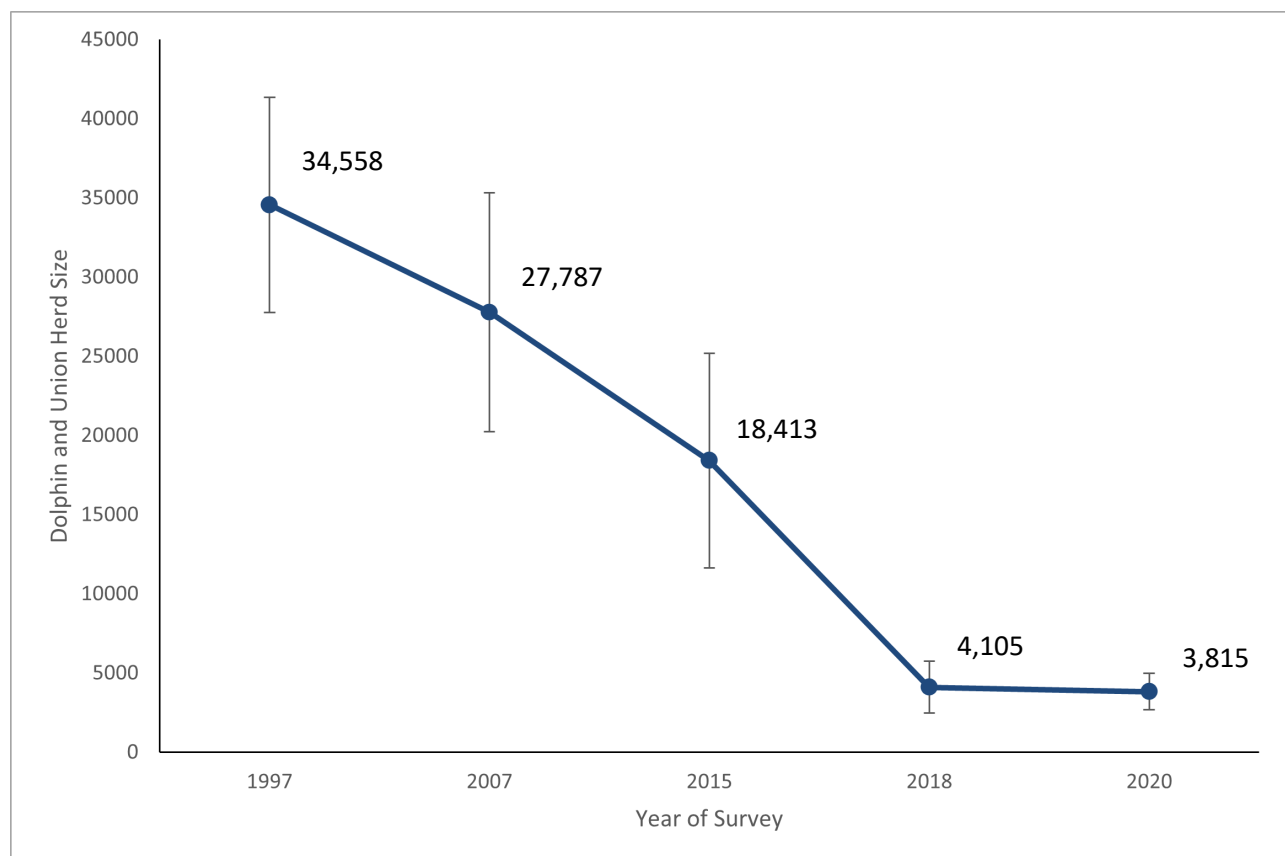


Figure 1: Dolphin and Union population estimates derived from aerial abundance surveys in 1997, 2007, 2015, 2018 and 2020