

NWT Environmental Research Bulletin (NERB)



NWT Cumulative Impact Monitoring Program (NWT CIMP)

A source of environmental monitoring and research in the NWT. The program coordinates, conducts and funds the collection, analysis and reporting of information related to environmental conditions in the NWT.

NWT Environmental Research Bulletin (NERB)

A series of brief plain language summaries of various environmental research findings in the Northwest Territories. If you're conducting environmental research in the NWT, consider sharing your information with northern residents in a bulletin. These research summaries are also of use to northern resource decision-makers.

Assessing trends in caribou observations and health

Caribou are important to northern Indigenous communities. To understand changes in caribou health and abundance, this project looked at trends in caribou sightings and overall health. Data from local harvesters was provided as part of a voluntary survey in six communities; five in the Northwest Territories (NWT) and one in the Yukon (YT). Project results showed that there was a trend of fewer caribou being observed than usual each year, however individual caribou were reported as healthy.

Why is this research important?

Caribou are a key component of northern culture, diets, and ecosystems. Understanding changes to caribou populations can help inform decisions and policies related to species and habitat conservation.

What did we do?

We looked at survey data collected by the Arctic Borderlands Ecological Knowledge Society (ABEKS) between 2010 and 2020. The survey respondents included local Gwich'in and Inuvialuit harvesters in Fort McPherson, Inuvik, Aklavik, Tsiigehtchic, NWT and Old Crow, YT, although not all communities participated every year. As part of the survey, participants rated the number of caribou of different age and sex groupings observed each season as: more than usual, fewer than usual, or about the same. We combined the average ratings of all communities for each year (Figure 1). Participants were also asked to rate the overall condition of caribou observed as: Excellent, Good, Mixed, Fair or Poor. These ratings were also averaged for each community (Table 1).

What did we find?

We found that there is a trend of fewer caribou being observed than usual, particularly in the spring and summer. The last time more caribou were observed than usual was in 2015 and 2016, with highs in the fall of 2015 and the winter of 2016. The overall condition of the caribou in all years was observed to be good.

What does this mean?

The variation in the number of caribou being observed each year could be the result of either changes in population size or changes in the geographic locations of the herd from year to year. If the herd is far from communities, this may impact the amount of caribou being observed by harvesters. Fewer caribou being observed than expected may be related to fewer community members being able to meet their caribou needs.

What's next?

This information can help inform management decisions for caribou and the need for increased herd management. It can also contribute to conversations about food security and harvest management.

Recommended Reading

2021. *Assessing Trends in Caribou Harvest NWT Environmental Research Bulletin, Volume 6, Issue 35.* www.enr.gov.nt.ca/en/services/nwt-cumulative-impact-monitoring-program-nwt-cimp/nwt-environmental-research-bulletin

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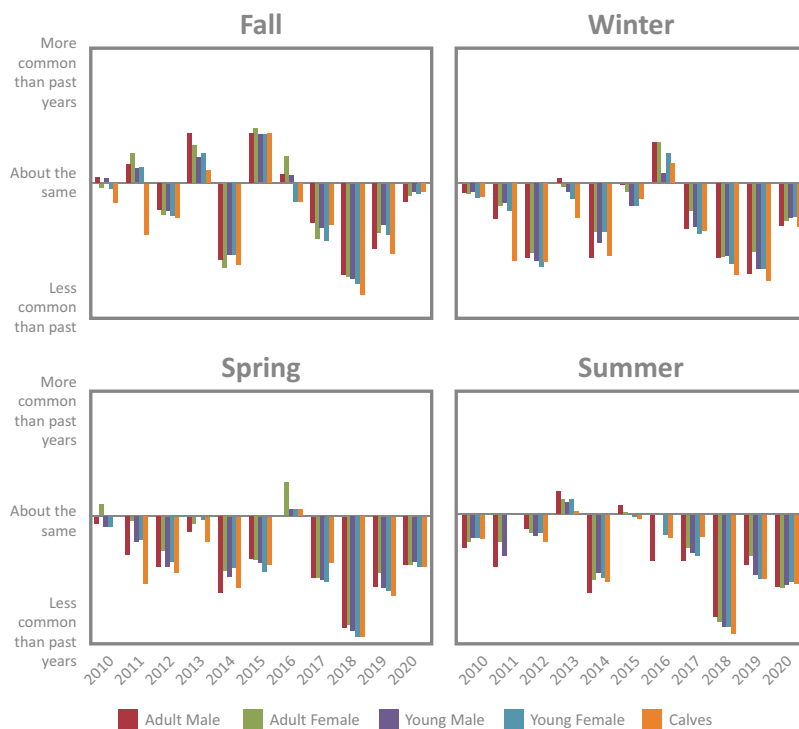


Figure 1: Caribou observations between 2010 and 2020.

Table 1 - General Condition of Caribou Observed											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Aklavik (Gwich'in)	Good	Good	Good	Good	Mixed	Mixed	-	Good	Mixed	Good	Excellent
Fort Macpherson	Good	Mixed	Good	Good	Mixed	Mixed	-	Mixed	Good	Good	Good
Inuvik (Gwich'in)	-	Mixed	Mixed	Good	Mixed	Mixed	-	Mixed	Good	Good	-
Inuvik (Inuvialuit)	Good	Good	Mixed	Mixed	Mixed	Fair	-	Mixed	Mixed	Good	Good
Old Crow	Good	Good	Good	Good	Good	Good	Good	Mixed	Mixed	Mixed	Mixed
Tsiigehtchic	Good	Good	Good	Mixed	Mixed	-	-	Good	Good	Mixed	Mixed

Note: Blank spaces indicate there weren't any responses to the relevant survey question provided by that community that year.