

Report Summary

Baffin Island Caribou Composition Summary Report 2015- 2018

Local hunters, trappers, and community members began identifying a suspected decline in the caribou population on the island in the mid to late 1990s. In 2014 the Government of Nunavut, Department of Environment (DOE) conducted aerial surveys on Baffin Island, Melville Peninsula and surrounding islands to estimate the abundance. It was estimated that 4,652 caribou, inhabited the Baffin Island and ancillary islands. As a result of the reduced number of caribou on Baffin Island, an eight-month moratorium was put in place on January 1, 2015 followed by a Total Allowable Harvest (TAH) of 250 bull caribou. As a result of the TAH allocation and low abundance the DOE has conducted fall and/or spring aerial composition surveys from 2015-2018.

The objectives were; 1) Determine the vigor of the population based on productivity and demographic composition; i.e. what proportion of the population are young bulls, old bulls, cows, yearlings, and calves. 2) Determine the trajectory of productivity of the population based on the demographic composition; and with spring composition results, determine if an index of calf productivity and overwinter survival suggests an increasing or decreasing trend. 3) Monitor bull ratios to insure that the bull only harvest is not reducing bulls to a proportion that could interfere with rutting success. 4) Build a database with which to estimate the current population trend through demographic modeling, utilizing all demographic composition data to project a trend from the 2014 population estimate. 5) Inform on management discussions regarding current TAH levels.

We observed 911 total caribou (bulls, cows, yearlings, and calves) in the fall of 2015, 1,266 in the spring and 901 in the fall of 2016, 1,514 in the spring and 316 in the fall of 2017 and 1,433 in the spring of 2018.

In North Baffin calf to cow ratios were variable in the fall from 2015 to 2017. The spring calf to cow ratio increased from 2017 to 2018. A reduction in the number of bulls was observed between the fall of 2016 and 2017 which suggests a potential impact on bulls within the North Baffin as a result of the bull only harvest allocation.

In Central Baffin the calf ratio in the spring increased from 2016 to 2018. The ratio of bulls to cows in the fall of 2015 was 74bulls:100 Cows.

A decrease in fall calf ratio was observed in South Baffin between 2015 and 2016. An increase in calf ratios was observed in spring from 2016 to 2018. The ratio of bulls to cows in South Baffin in fall declined from 2015 to 2016.

A notable observation was the decrease in caribou observations on Prince Charles Island from 655 in the spring of 2017 to a total of 302 in the spring of 2018. In addition to the reduced number of observed caribou in 2018, many caribou were observed in poor body condition and in a few instances dead caribou were observed. This follows similar die-offs observed in the winter of 2015/2016 where 47 dead caribou were discovered.