

Rationale for Calving Ground Survey of Bathurst Caribou Herd - June 2022 or June 2023

In 2019 Wek'èezhì Renewable Resources Board approved a proposal from Tłıchǫ Government and Government of the Northwest Territories (GNWT) that included increased monitoring of the Bathurst and Bluenose-East caribou herds. This included June composition surveys to estimate the proportion of breeding females. Prior to 2019, these had been flown only in years of calving ground photo surveys and they are an integral part of those photo surveys. In June 2019 stand-alone composition surveys of the Bathurst and Bluenose-East herds were completed. In June 2020 covid restrictions prevented any flying on both calving grounds, and in June 2021 the composition surveys were flown as part of the calving photo surveys. GNWT is planning to fly composition surveys of both calving grounds in June 2022.

The June 2021 Bathurst calving ground survey was flown with challenging conditions on the east side of Bathurst Inlet. There was no separation of Bathurst and Beverly caribou in that area. Results of the fixed-wing visual flying and the composition survey indicated that most of the caribou east of Bathurst Inlet were Beverly caribou, with a portion (6 of 34 known Bathurst cow collars) of the Bathurst herd's females mixed in with these Beverly caribou. A valid estimate of Bathurst breeding females and adult females west of the Inlet was possible as there were only Bathurst collared caribou there and those collared caribou all moved south and west after the survey. An approximation of Bathurst caribou east of the Inlet was made based on relative collar numbers east and west of the Inlet. One of the key assumptions of the calving ground photo survey is that herds are separate and distinct at calving, thus a quantitative estimate of abundance can be made specific to an individual herd. This assumption did not hold east of Bathurst Inlet in June 2021.

Based on collared caribou, mixing of Bathurst and Beverly herds was more extensive in 2021-2022 than in any previous year. Only in July 2021 was there clear separation of the two herds; by mid-August mixing had begun and extensive mixing continued through the breeding season and winter to present-day (April 2022). This would suggest that mixing of Bathurst and Beverly caribou in June 2022 may be at least as extensive as in June 2021 and could be even greater. The same may well be true in June 2023. If there is mixing on both sides of the Inlet, or a large proportion of the Bathurst collared cows are on the east side mixed with much larger numbers of Beverly caribou, then a valid estimate of Bathurst breeding and adult females may not be possible. This could be the case in June 2022 or in June 2023.

GNWT's guiding rationale is to pursue a possible calving ground photo survey in June 2022 if the conditions are suitable, i.e. a large proportion of the Bathurst herd's collared cows (at least 80%) are in a well-defined area and survey blocks suitable for aerial photos can be defined. If a successful calving ground photo survey is completed in 2022, then a calving ground survey may not be conducted in 2023. If a survey is not possible in 2022, then a survey in 2023 would be attempted.

The Bathurst herd has undergone a dramatic decline, and closely monitoring is critical to support management actions aimed at conservation and recovery of the herd. Valid estimates of Bathurst breeding females and adult females may not be possible in June 2022 or 2023; if the opportunity occurs to secure valid estimates, that opportunity should be made use of.