

18,275 ± 1,450

3) Caribou Population Ecology on Southampton Island³

In order to assess the current commercial caribou quota on Southampton Island and address the concerns of Coral Harbour residents about a possible decline in caribou abundance, the GNWT Department of Resources Wildlife and Economic Development (RWED) conducted an aerial census of caribou on Southampton Island and on adjacent White Island.

Results:

An aerial survey conducted in July 1995 provided a conservative estimate of 18,275 ± 1,450 caribou. A snowmobile survey conducted by the Aiviit HTO in December 1996 arrived at an estimate of 16,344 caribou (6,435 sighted, plus 9,909 missed).

With the participation of two Aiviit HTO members (Mr. Willy Nakoolak and Mr. Charlie Saviakjuk) and Wildlife Officer Mr. Ian Ellesworth, a total of 65 hours were flown with a Cessna 337 aircraft between June 16-26, 1997. Following a two day distribution survey, portions of the island were subdivided (stratified) into smaller blocks for more detailed coverage. Flying at an altitude of 400', observers counted all yearling or adult caribou within 1300' (400m) along systematic transects on either side of the aircraft. Good weather and the clear contrast of bleached caribou against a relatively snow-free background provided for excellent survey conditions. Although the survey data needs to be checked, the current results estimate a caribou population of 29,146 ± 1,766 (C.V. = 0.061). The estimate for White Island is 944 ± 145 (C.V. = 0.153). Both of these estimates exclude newborn calves.

As the Aiviit HTO had already started their summer break, it was not possible to meet with the board to review these survey results in June. Instead, the Aiviit HTO asked that a written summary of this survey be forwarded to their board. With the aid of posters and support from RWED staff, it is hoped that Mr. Willy Nakoolak might take an active role in relaying survey results and methodology to Coral Harbour residents.

Winter data on body condition and calf survival rates are still being analysed. Lacking the botanical expertise of Mr. Jean-Pierre Ouellet, the 17 vegetation exclosures on Southampton Island will not be evaluated this summer. This analysis is now rescheduled for July 1998. Once a new Regional Biologist is hired for the Keewatin region, further discussions can be held between RWED staff and the Aiviit HTO to coordinate field work and to discuss the framework of a caribou management plan for Southampton Island.

The latest estimate of herd size (29,148) would suggest that although patterns of caribou distribution may be changing, this ungulate population is still increasing in size. Management of this insular population will undoubtedly require that, amongst other possible options, a strategy of high domestic and commercial utilization be continued until the growth of this herd can be stabilized.

³Update prepared by: Wildlife and Fisheries Division, Yellowknife HQ and Keewatin Region

4) High Arctic Polar Bear Population Inventory⁴

The project is now in its final year of mark recapture work in the Lancaster Sound, Norwegian Bay and Kane Basin polar bear populations. Spring field work was successfully completed with more than 400 bears being captured and tagged. The incidence of recaptured bears (those tagged during previous years' work) indicated that the intensity of population sampling was good. After proofing for errors, the data will be analysed to provide estimates of population size and sustainable harvest for the three populations. These results will be used as a basis for revisions to the current Memorandums of Understanding (MOU).

The MOU's will be revised through a process of community consultation in scheduled to take place in late fall/ winter. Final revisions will be presented to NWMB as recommendations for regulation changes for the 1998/99 hunting season. Two issues are expected to arise as a result of the completion of this study: (1) Changes in quotas for the communities of Grise Fiord, Resolute Bay and Arctic Bay, and (2) Changes in population boundaries. With respect to item 1), it is unknown at this point how the new quota recommendations will differ from current quotas. In the case of item 2), evidence from the recent inventory work and observations by hunters suggest that the Jones Sound area (near Grise Fiord) may form part of a discrete sub-population containing a very limited numbers of bears. All available information, including harvest sex/age composition, tag returns, satellite collar data and traditional knowledge will to be extensively reviewed to examine the possibility of separating Jones Sound from the large Lancaster Sound population, within which it is currently included. Most of Grise Fiords polar bear quota comes from the Lancaster Sound population and a large proportion of these tags are filled by hunters taking bears in Jones Sound. The designation of this area as a separate, but small and isolated, population would present the issue of significant quota reductions for Grise Fiord.

The issue of Kane Basin, another small population used by Grise Fiord, is also expected to arise as a result of the inventory work. Preliminary results suggest that this population is extremely small and is being over-harvested. Observations by hunters from Grise Fiord, RWED biologists and information from the Greenland authorities suggest that Greenland hunters are utilizing this population extensively.

⁴Update prepared by: Wildlife and Fisheries Division, Nunavut HQ