

**SUBMISSION TO THE**  
**NUNAVUT WILDLIFE MANAGEMENT BOARD**

**FOR**

**Information:**

**Decision: X**

**Issue:**

Research Funding Proposal: ***Disparity on the Estimated Number of Caribou on Southampton***

**Background:**

Caribou became extinct on Southampton Island in the 1950's, and were re-introduced to the island in 1967. The population has increased rapidly since that time. An aerial survey conducted in July 1995 resulted in an estimate of 18,275 caribou (not including calves) on the island. The main management concern has been that the numbers of caribou are increasing so rapidly that they might deplete their food supplies, thus resulting in a population crash. Therefore, the Department of Resources, Wildlife and Economic Development has encouraged increased harvest of this herd, both for the economic benefit of Coral Harbour and to stabilize the growth rate of the herd.

Domestic harvest of caribou by Coral Harbour residents is estimated to be less than 2000 annually. There is a commercial quota of 4500 caribou. The NWMB decided, at the request of the Aiviit HTA, to increase this quota from 4000 to 4500 in May 1996. The majority of the commercial harvest is taken in a controlled hunt in the spring, in which caribou are butchered at a portable meat plant, inspected by federal meat inspectors and exported to southern markets. Commercial harvests were 2770 in 1995 and 3200 in 1996. In addition there is a sport hunting quota of 60 caribou.

The Aiviit HTA does not accept the results of the 1995 aerial survey. They do not believe in or understand the basic premise of the survey: that the total number of caribou can be estimated by actually seeing and counting caribou on a relatively small proportion of the island. Consequently, they have noted that the number of caribou actually seen in the survey is far lower than the population estimate, and consider this to be a disparity. In my opinion, there has obviously been a lack of communication and understanding between DRWED and the HTA over survey methodology and results.

The HTA is concerned that the current population estimate may be too high, and that the actual population may not be able to support the planned commercial harvest of 4500 caribou. Consequently, they wish to carry out a snowmobile-based survey to attempt to count the total number of caribou on the island. The proposed study will take place in December 1996 and will be managed, planned and carried out by the Aiviit HTA. The results of the survey will be used by the HTA to recommend commercial harvest levels for 1997.

	96/97
REQUESTED FROM NWMB:	7.5 <sup>1</sup>
FUNDING BY APPLICANT:	7.5
FUNDING BY OTHERS:	4.0
(DRWED)	
TOTAL	19.1

<sup>1</sup>The HTA has requested that NWMB provide at least this amount. If NWMB provides more, the HTA contribution will be reduced accordingly.

#### **Evaluation:**

1. The HTA has not provided a study design. I am therefore unable to comment on the validity of the study design. However, the apparent objective of counting all the caribou on Southampton Island using this methodology is virtually impossible to achieve. It is therefore likely that the total count will be lower than both the 1995 aerial survey estimate and the true population, unless the same animals are counted many times.
2. This situation has apparently arisen because of a lack of confidence in and understanding of the survey methods employed by DRWED. The proposed survey will not solve this problem, because DRWED will probably not accept the HTA survey results except as a minimum estimate of the number of caribou on the island. Efforts should be made to increase the cooperation and understanding between the two parties.
3. The main management objective for this herd has been to increase harvests to stabilize the growth of the herd, thereby avoiding a population crash. Thus a small overharvest at this time would not be a bad thing. DRWED plans to carry out another aerial survey this June, which should help determine the present status of the herd.

#### **Consultations:**

Aiviit HTA, Robert Mulders, DRWED Caribou Biologist, Arviat.

#### **Recommendations:**

The survey should be supported, under the following conditions:

1. The Aiviit HTA should seek expert advice in designing the survey.

2. The Aiviit HTA should invite DRWED personnel to participate in the survey, as observers, in order to enhance the understanding and trust between the two parties.
3. DRWED must begin consultations with the Aiviit HTA regarding the proposed 1997 aerial survey. The HTA should be fully involved in the design, planning and conduct of the survey. If the two parties cannot reach an understanding over this issue, then there is no point in carrying out the survey.

**Prepared By:**

Daniel Pike,  
Director of Wildlife Management.

**Date:**

December 3, 1996.



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