



Caribou Update:

How will caribou harvest data be collected?

July 2012

A major piece of information needed in wildlife management is harvest data. In the *Harvest Management Plan for the Porcupine Caribou Herd in Canada* (HMP) all Parties agreed to collect rigorous and verifiable harvest data, regardless of what the caribou population size is, so that it is possible to calculate a total herd harvest in Canada. The data will be used to assess the total harvest rate on the herd to assist in making appropriate management recommendations at the Annual Harvest Meeting and to incorporate the harvest estimate into computer population models.

First Nation and Inuvialuit hunters in the range of the herd are no strangers to reporting harvest data. The Inuvialuit Harvest Study and the Gwich'in Harvest Study — both in the NWT — ran for about 10 years in the 1990s. A few years ago, the Gwich'in Renewable Resources Board reinstated its harvest data program. Yukon First Nations participated in the Yukon First Nation Harvest Study, also in the 1990s, and have been collecting harvest data on their own for many years. By signing the HMP, all Parties have agreed to share their data with the Porcupine Caribou Management Board for management purposes.

The Implementation Plan for the HMP describes the minimum requirements of harvest data to be submitted to the Board every year. Each Party's harvest data reporting program is operated independently but the information collected is standardized.

Data recorded will be at minimum:

- User Group and community
- Date of harvest (at least month and year)
- Number of bulls, cows and unknown sex taken
- Total caribou taken
- Location of harvest (Grid in NWT, Subzone in Yukon)
- Total number of hunters on the list
- Number of active harvesters that were contacted
- Number of active harvesters that were interviewed

The program design is a stratified sampling method that will provide an estimated number of caribou harvested, with an associated measure of precision of those estimates. Estimates will be generated for cows and bulls separately, with caribou of unknown sex being treated as cows. The timeframe for a caribou harvest year runs from calving to calving, or June 1 to May 31 of the following year.

NWT Gwich'in, Inuvialuit and Vuntut Gwitchin will use a voluntary stratified sampling interview method semi-annually to estimate harvest by their beneficiaries/citizens. Government of the Northwest Territories will estimate harvest by NWT licensed hunters using a voluntary stratified sampling method using multiple mail-out surveys. The First Nation of NaCho Nyäk Dun, Tr'ondëk Hwëch'in and Government of Yukon (licensed hunters) will assume that 100 percent of their hunters report and they will submit total reported harvest. Each user group will be treated as a separate stratum for the calculations.

The most complicated programs are the community programs which will estimate harvest. These Parties need to separate, or stratify, their data by community, as well as stratify their hunters into active or very active "types" based on their hunting activity.

Since it is very unlikely that all hunters will be interviewed, the average harvest reported by hunters who are interviewed will be applied to those hunters who were not interviewed. Program administrators will strive to interview as many of their hunters as possible so that the estimate is as precise as possible.

Each year, the estimates from all Parties will be summed and the level of precision will be calculated. This number becomes the total estimated caribou harvest in Canada that will be considered by the Porcupine Caribou Management Board each year at the Annual Harvest Meeting.

Each of the Parties has their own set of challenges to overcome. For example, one common challenge is to increase hunter participation rates in the programs. Another common issue facing communities is trying to capture the harvest by beneficiaries who live outside of the community. The NWT Parties have a complication that Yukon Parties do not have: their beneficiaries are spread out in as many as four communities. This greatly increases the cost of their data-collection programs.

More thought and discussion is needed on how to meet the "verifiable" requirement in the "rigorous and verifiable harvest data" part of the program.

On February 7 to 9, 2012, the Porcupine Caribou Management Board hosted the second Annual Harvest Meeting in Dawson City. For the first time ever, the Board had some harvest data from all main User Groups in the same year to consider. The data submitted indicates that during the 2010-11 hunting season, hunters took a minimum of 1,720 caribou with about 9.5 percent of the reported caribou being cows or unknown sex animals.

For more information, please visit PCMB's Web site at www.taiga.net/pcmb or contact Deana Lemke at (867) 633-4780, fax 393-3904 or e-mail pcmb@taiga.net



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