

# **Porcupine Caribou Harvest Management Plan Annual Harvest Meeting 2014**

## **Porcupine Caribou Management Board Recommendations to the Parties February 2014**

### **A. PREAMBLE**

In accordance with the Harvest Management Plan (HMP), the Porcupine Caribou Management Board (Board) held the fourth Annual Harvest Meeting (AHM) February 11 to 12, 2014 in Dawson, Yukon. The Board convened a two-day meeting to gather input and deliberate on the harvest management recommendations for the Porcupine Caribou Herd (PCH).

This report presents the Board's recommendations and rationale to the Parties regarding the harvest management zone and associated management actions that should apply to the herd over the coming year. Also included are other related concerns raised during the meeting and the recommendations from the Board regarding those concerns.

### **B. RECOMMENDED HARVEST MANAGEMENT ZONE AND HARVEST MANAGEMENT ACTIONS**

The Board recommends that the Porcupine Caribou Herd be considered in the Green Zone (above 115,000 caribou).

Consistent with the Green Zone harvest management actions (HMP, page 20), the Board recommends that:

- Harvest only the amount needed;
- Licensed hunters receive a maximum of two bull tags;
- Shooting will be accurate and wounded animals will be retrieved; and
- Parties will collect rigorous and verifiable harvest data, to be provided for the Annual Harvest Meeting.

### **C. RATIONALE FOR BOARD RECOMMENDATIONS**

The HMP identifies a suite of indicators that the Board should consider in determining the status of the herd (see HMP, page 19). The following provides an overview of the available information used to support the Board's deliberations regarding the harvest management assessment, and determination of the Colour Zone, and the associated harvest management recommendations.

## **1. Harvest Management Assessment — Review of Indicators**

### **1.1 Population Size and Trend**

**1.1.1 Population Size by Photocensus (survey):** The primary consideration is the population estimate. A photocensus (survey) was successfully conducted in 2010, the estimate being 169,000 – well above the lower threshold for the Green Zone. Another photocensus (survey) was conducted in 2013 and preliminary results indicate the herd is well above threshold for the Green Zone; however, final results have not yet been confirmed. The next photocensus (survey) is scheduled for summer 2015.

**1.1.2 Estimated population based on computer program:** The new Caribou Estimator provided an estimate of 173,000  $\pm$  25,000. This computer-generated population estimate will be compared to the estimate from the photocensus (survey) when available. The model results indicate likelihood of Green Zone is 100%.

**1.1.3 Population trend:** Since the final 2013 estimate is not available, the population trend cannot be determined but the preliminary results indicate stable or increasing since 2010.

### **1.2 Harvest**

**1.2.1 Total harvest:** The Porcupine Caribou Technical Committee (PCTC) was able to estimate a total harvest for the herd in Canada with data submitted by the Parties; however, there is still some data missing. Based on the information provided by the Parties, Canadian harvest for 2012-13 was estimated by communities to be 1,283 caribou, not including Inuvik or Tuktoyatuk Inuvialuit data. This estimate is down from 1,850 caribou harvested in the previous year, Low participation in a number of community harvest-reporting programs affects the confidence of the harvest estimate. This estimated Canadian harvest is less than one percent of the 2010 population estimate. Based on the information provided it was felt current Canadian harvest is not a major concern.

**1.2.2 The percentage of cows in the harvest:** Results from harvest data reporting indicate harvesters continue to reduce cow harvest and are selecting primarily bulls. Cows made up 14% percent of the estimated harvest.

**1.2.3 Hunters' needs met:** Arctic Borderlands Ecological Knowledge Co-op data indicates the majority of respondents range-wide (61%) met their needs in 2012.

Data from harvest activities in 2012-13 was not available prior to the AHM. However, the Parties, with the exception of Vuntut Gwitchin, indicate that many hunters have not met their needs for caribou in 2012-13. Lack of caribou availability lowered harvest opportunities.

### **1.3 Population dynamics**

**1.3.1 Adult cow survival:** The PCTC reported that there was no estimate of adult survival in 2013. 2011-12 was reported as 0.879 which is higher than 2003 to 2006 period (0.825). The herd's population trend is sensitive to small changes in cow survival and our current monitoring program will detect only large changes. PCTC is assessing how to monitor continuously and make this indicator more useful for annual monitoring.

**1.3.2 Calf birth rate and early calf survival:** The PCTC reported a slightly higher than average calf birth rate in 2013 (0.86 in 2013, compared to the 24-year average of 0.81).

**1.3.3 Calf survival to nine months:** Survival of calves born in 2012 was not calculated due to mixing of the PCH with the Central Arctic Herd in 2013.

**1.3.4 Peak of calving:** The PCTC reported that 2013 peak of calving was around June 4 slightly later than expected. The majority of cows made it to the Yukon coastal plain for calving in 2013 (Ivvavik National Park and east of the Babbage).

**1.3.5 Bull ratio:** In 2010 the rut count results showed 57 bulls per 100 cows. Another rut count was conducted in 2012 but results were biased and unreliable. The survey was cancelled in 2013 due to PCH mixing with Central Arctic Herd.

### **1.4 Body Condition**

**1.4.1 Average backfat:** The analysis of data from the Caribou Sampling Initiative (CSI), based on a low sample size, showed an average of 3.98 cm of backfat in bulls in the fall. This is slightly higher than the five-year average, which is 3.2 cm.

**1.4.2 Hunter assessment:** Hunters participating in the CSI program reported that harvested caribou are generally in very good shape. The sample size continues to be low; therefore, harvester participation should continue to be encouraged.

**1.4.3 Health:** Arctic Borderlands Ecological Knowledge Co-op data from 2012 indicate overall body condition was good and there were average abnormalities. Data from 2013 was not available yet.

## **1.5 Habitat**

**1.5.1 Snow conditions:** Recent data doesn't show any trends or large deviations from long-term averages.

**1.5.2 Major fires:** No major fires were reported in the range in 2012. Mapped data from 2013 was not yet available; however, there were no large fires.

**1.5.3 Weather and Climate:** Based on ABEKC data, 2010 had more icing and snow events compared to 2011. Interviews from 2013 are not yet available.

**1.5.4 Human activity:** Numerous concerns were raised regarding human activity in the range of the herd (e.g. oil and gas activity; mining exploration; impacts resulting from the construction of the road to Tuktoyaktuk). As part of the Cumulative Effects (CE) project, a Resource Selection Function analysis done with winter range satellite collar data from 1985 to 2012 indicates a strong avoidance of the Dempster and weak avoidance of low-use human features (i.e. seismic lines, winter road, well sites). PCMB will further discuss the monitoring of human activity in the future based on the results of CE project.

## **2. MANAGEMENT ACTIONS**

The Board recommends management actions consistent with the Green Zone, as outlined in the HMP (page 20) as follows:

- Harvest only the amount needed;
- Licensed hunters receive a maximum of two bull tags;
- Shooting will be accurate and wounded animals will be retrieved; and
- Parties will collect rigorous and verifiable harvest data, to be provided for the Annual Harvest Meeting.

**2.1 Harvest only the amount needed:** In the Green Zone, Aboriginal harvest is not restricted. Cows and bulls may be harvested (HMP, page 12). Consistent with the HMP, the Board recommends no restrictions be placed on caribou harvesting by Aboriginal hunters.

Although cows may be taken under the recommended management actions, the Board continues to encourage a bull-dominated harvest where possible since harvesting bulls has less of an impact on the herd than harvesting cows (see HMP, page 24).

**2.2 Licensed hunters receive a maximum of two bull tags:** Management of licensed harvest is clearly laid out in the HMP. The Board, therefore, recommends no changes.

**2.3 Shooting will be accurate and wounded animals will be retrieved:** The Board recommends the continuation of hunter education and awareness programs conducted by the Parties as outlined as Essential Requirements of the Plan on pages 27 and 32 of the HMP. To this end, the Board intends to continue to work in a coordinating role with the Parties on communication and hunter education initiatives including promoting the use of rifle scopes while hunting.

**2.4 Parties will collect rigorous and verifiable harvest data, to be provided for the Annual Harvest Meeting:** The Board was encouraged with the significant progress in harvest data collection and reporting. All Parties submitted some harvest data to the Board. As collecting harvest data under the HMP is still a relatively new activity for some Parties, it is understandable that there will be challenges to overcome to ensure the data is rigorous, verifiable, analyzed and reported consistently. All Parties reiterated their commitment under the HMP to collect and report harvest data. The Board will coordinate another workshop for harvest data program administrators to facilitate consistent collection and timely reporting among user communities.

#### **D. RECOMMENDATIONS REGARDING OTHER CONCERNS**

**1. Incorporate local hunter and traditional knowledge into process:** The Board values both scientific and local hunter and traditional knowledge to inform its deliberations. The Board notes a lack of local hunter and traditional knowledge available for consideration during this process; therefore, user communities and appropriate Parties are urged to provide more local hunter and traditional knowledge for the Board to consider in its recommendations (see Appendix B to AHM Operating Procedures). The Board encourages Parties to use the suggested outline forwarded by the Board to provide local hunter and traditional knowledge to be considered at the AHM. The Board appreciates that some Parties have brought a small delegation of community members to the AHMs who provide traditional knowledge.

**2. Coordinate workshop on computer modelling:** The Board considers computer models to be among the valuable risk-management and decision-support tools. Once the new computer models have been completed, the Board will coordinate a workshop with Parties to review the models and its input data. The workshop will discuss the applications and limitations of computer models, as well as the need for accurate harvest data. The computer models will be made available following the workshop.

The Board will work on developing information materials clarifying the role of computer models in decision making.

**3. Finalize summary of historical harvest data collection efforts:** The Board recommends that Yukon First Nations provide all known historic harvest data within the range of the Porcupine Caribou Herd. Recent attempts to collect this data from Yukon First Nations have been unsuccessful.

**4. Develop Native User Agreements:** Following completion of the historical harvest data report, the Board recommends that relevant Parties work toward the timely development of Native User Agreements, pursuant to the HMP Implementation Plan. The Board has offered to assist with the coordination of a meeting of the appropriate Parties to discuss the development of the Native User Agreements.

**5. Encourage hunter participation in programs:** Low hunter participation in some communities reduces confidence in harvest estimates and trend in caribou body condition. The Board recommends that Parties encourage their hunters to participate in harvest-data collection and body-condition monitoring programs.

**6. Encourage hunter education programs:** The Board continues to hear concerns regarding harvesters shooting into the herd while hunting, and hunting mature bulls during the rut, resulting in meat wastage. The Board encourages Parties to develop hunter education initiatives informing harvesters of proper hunting practices.

**7. Monitoring human activities in range of the herd:** The Board heard many concerns regarding potential development in the range of the herd. Giving rise to these concerns are increased oil and gas exploration activity in the Eagle Plains area and the opening of the Peel Watershed area to exploration. The Board also heard concerns regarding increased activity due to the construction of the road to Tuktoyaktuk and additional access to the herd following the completion of the road.

The Board recommends that the responsible Parties provide measures of human disturbance annually to include in our status report (e.g. linear disturbance, number of new well sites, number of new kilometres of road, volume of Dempster Highway traffic, changes in mineral leases or claims, statistics related to fuel hauls to Old Crow, road closure duration).

**8. Address safety concerns related to increased grizzly bear/hunter interactions:** The Board continues to hear concerns regarding an increase in human/bear interactions, resulting in hunter safety issues. Studies may be required to better understand this grizzly bear population and how it may affect Porcupine Caribou harvesting (human/bear conflict). The GRRB is running a pilot program to better understand this issue and work with harvesters. The Board recommends that the Parties continue to discuss how to address this matter.

**9. Clarify Yukon outfitting and special guiding license provisions:** Several questions were raised around non-resident harvest of Porcupine Caribou in Yukon. The Board recommends that YG provide a summary of information to explain how non-resident harvest of the herd is managed.