

# **Porcupine Caribou Harvest Management Plan Annual Harvest Meeting 2015**

## **Porcupine Caribou Management Board Recommendations to the Parties February 2015**

### **A. PREAMBLE**

In accordance with the Harvest Management Plan (HMP), the Porcupine Caribou Management Board (Board) held the fifth Annual Harvest Meeting (AHM) February 10 and 11, 2015 in Inuvik, NT. 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 2013 and found 197,228 (95% CI = 168,667 to 225,789). This is well above the threshold for the Green Zone. The next photocensus (survey) is scheduled for summer 2015.

**1.1.2 Estimated population based on computer program:** We were unable to generate an estimate this year as harvest data was not available.

**1.1.3 Population trend:** An increasing trend is fairly apparent from 2010 to 2013 when the population increased from 169,000 to 197,000.

### **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 2013-14 was estimated by communities to be 2,919 caribou. While some harvest data was available from Inuvik and Tuktoyatuk (Inuvialuit), it was considered minimal and more harvest likely occurred. Vuntut Gwitch'in First Nation's data was a reported harvest also representing a minimum harvest. This estimate is an increase from 1,283 caribou harvested in the previous year. Slow improvements are being made in harvest reporting; however, it should be noted that low participation in a number of community harvest-reporting programs affects the confidence of the harvest estimate. This estimated Canadian harvest is about 1.5% of the 2013 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 primarily selecting bulls. Cows made up 17% percent of the estimated harvest. This percentage of cows is considered low relative to historical harvest as reported in the HMP.

**1.2.3 Hunters' needs met:** Arctic Borderlands Ecological Knowledge Co-op (ABEKC) data indicates the majority of respondents range-wide (69%) met their needs in 2012-13. There is a slightly decreasing trend for this measure long term but this is above the five-year average of 65%.

### **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 the 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. The 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:** No estimate of the calf birth rate or survival was available this year due to weather during the calving period. A calf:cow ratio of 49:100 was recorded a month after calving. This value is considered low but within historically observed rates and is the first low year in recent years of monitoring. This rate will continue to be monitored and if consecutive years of low ratios are found, greater concern is warranted.

**1.3.3 Calf survival to nine months:** Survival of calves born in 2013 was not monitored or calculated in spring of 2014.

**1.3.4 Peak of calving:** As surveys were not possible in 2014, no date of peak calving is available.

**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. The next survey is planned for fall 2016.

### **1.4 Body Condition**

**1.4.1 Average backfat:** In 2013-14 we had some of the highest reporting rates for this measure. We report for both males and females though sample size was very small for females ( $n = 3$ ). Male condition as indexed by this measure declined from the previous three years to 2.77 cm; however, this year was still within the five-year average of 3.1 cm.

**1.4.2 Hunter assessment:** Hunters participating in the caribou sampling initiative (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:** ABEKC data from 2013 indicate overall body condition was very good. There continues to be no obvious trends in the number of abnormalities.

## **1.5 Habitat**

**1.5.1 Snow conditions:** Recent data doesn't show any trends or large deviations from long-term averages. Significant ice crusts were noted in multiple locations where caribou were overwintering but most prominently in the Eagle Plains area.

**1.5.2 Major fires:** No major fires were reported in the range in 2013. Mapped data from 2014 was not yet available; however, there were no large fires.

**1.5.3 Weather and Climate:** Based on ABEKC data, icing and snow events were near average with the exception of late winter snow which was above average.

**1.5.4 Human activity:** The only major project to occur in the range in 2013-14 was the Northern Cross Yukon 3D Seismic program south of Eagle Plains. This represents a total footprint of 5.35 km<sup>2</sup>, and linear disturbances of 2,124 km (seismic lines between 1.75 and five metres in width) and 228 km of access roads (three to five metres).

## **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 13). 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. The Board will coordinate another workshop for harvest data program administrators to facilitate consistent collection and timely reporting among user communities upon request.

#### **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. Develop Native User Agreements:** 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.

**4. 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.

**5. Communicate clear messaging regarding regulations and harvesting rights:** Confusion exists around the application of hunting regulations and harvesting rights in various locations in the NWT and Yukon. The Board recommends that relevant Parties clarify matters related to regulations and harvesting rights, such as:

- PCH harvesting rights in locations where there are herd overlaps;
- Dempster Highway regulations in NWT and Yukon; and
- Gwich'in and Inuvialuit harvesting rights of all species along the Dempster Highway.

Upon request, the Board will provide assistance with the production of communication materials clarifying the above.