

Porcupine Caribou Management Board Minutes of Meeting

May 18-20, 2017

Old Crow, Yukon

In attendance

Members/Staff

Joe Tetlich, Chair
Phillip Kaye, Gwich'in Tribal Council
Harold Frost, Vuntut Gwitchin
Nicole McCutchen, Government of Yukon
Ian McDonald, Government of Canada
Marsha Branigan, Government of the Northwest Territories
Jackie Clarke, Nacho Ny'ak Dun (Alternate)
Kirby Meister, Government of Yukon (Alternate)
Deana Lemke, Executive Director
Matthias Lemke, Assistant

Presenters/Guests

Mary Teya, Elder, Fort McPherson
Mike Sutor, Environment Yukon
Shannon Stotyn, PCTC Co-Chair
Jason Caikoski, PCTC Co-Chair
Kai Breithaupt, PCMB summer student

Welcome and Opening Prayer

The meeting was called to order at 2:30 p.m. and Elder Mary Teya said an opening prayer.

Chief Bruce Charlie welcomed the Board to Old Crow. He thanked the Board for holding the meeting in Old Crow and expressed appreciation on behalf of the Gwich'in people for PCMB's work.

Review Agenda

The agenda was reviewed by the Board and accepted.

Motion to accept agenda
Moved by Marsha Branigan
Seconded by Phillip Kaye
Carried

Review Minutes

The minutes of the February 13, 2017 Board meeting were reviewed and approved.

Motion to accept Minutes of the February 13, 2017 Board meeting as distributed

Moved by Marsha Branigan

Seconded by Ian McDonald

Carried

Chair's Update

Joe Tetlichi updated the Board on his recent activities as follows:

- Attended an Alaska Board of Game meeting in Fairbanks on February 18-19, 2017
- Participated in a youth culture camp in Old Crow on April 25, 2017
- Attended and presented at a Caribou Celebration hosted by Yukon Conservation Society in Whitehorse on April 21, 2017
- Attended the COSEWIC meeting of wildlife management boards in Whitehorse on April 22, 2017, along with the Executive Director
- Attended the Conference of Management Authorities – SARC meeting in Fort Smith, NT on May 2-4, 2017. This meeting focused on the barren-ground caribou (BGC) assessment and designation in the NWT. The Porcupine caribou herd was separated from the rest of the BGC herds and was not included in the threatened assessment. This assessment is not part of the federal or COSEWIC process.
- Met with Deputy Minister of Environment and Natural Resources, GWNT in Yellowknife on May 5, 2017
- Met, along with Executive Director, with CPAWS in Whitehorse on May 16, 2017 to discuss issues related to caribou management and habitat protection

Administrative and Financial Update

Deana reviewed the Board's action items and their status. Responses to the Annual Harvest Meeting recommendations were reviewed. Bobbi Joe Greenland, who was in attendance, noted that a letter from GTC will be forthcoming.

The financial variance report of the past fiscal year was reviewed with the Board, and Deana provided an overview of the draft budget for the current fiscal year. The auditor for the 2016-17 fiscal year was appointed.

Motion to appoint M. McKay as the financial auditor for 2016-17 fiscal year.

Moved by Ian McDonald

Seconded by Nicole McCutchen

Carried

Deana provided an update on recent activities as follows:

- Attended UFA Board information session on March 9 and 10, 2017
- Attended, along with Joe Tetlich and Billy Storr, the Caribou Celebration hosted by Yukon Conservation Society on April 21, 2017 at the Beringia Centre. A table with promotional items from the Board was set up, along with harvest management information displays.
- Attended Yukon Fish and Wildlife Management Board's meeting on April 26, 2017 and presented a summary of the 2017 Annual Harvest meeting and highlights of the Board's recent activities.
- Attended the PCTC meeting on May 3 and 4, 2017

Caribou management traditional knowledge

Elder Mary Teya expressed her desire to share and pass on the traditional knowledge that she has gained from living on the land. She related that she was fortunate to have a father who lived on the land and had experience as a good traditional hunter and provider, as was her husband.

They had to respect everything on the land. Caribou, moose, beaver, muskrat, and ducks were all used for food, and were treated with respect. The fur and all parts of the animals were used. Traditional mothers taught children to respect the men who provided for their families. Mary related that they always looked forward to her father coming home after hunting, knowing that he would have good food for the family to eat. They were taught how to handle the caribou that was brought home for them. They never wasted any of the meat – even the caribou legs were used.

Mary explained that she came to Old Crow by dog team in 1960 from Fort McPherson with her husband and uncle, Johnny Charlie. In 1985 and again in 1995 she came to Old Crow by skidoo. Her people still use the traditional names of the rivers, mountains, and geographical features.

She stated that this past winter not many caribou were available, so those people who did get some shared it. She noted that sometimes there has been misuse of caribou and she hopes that those responsible will try to do better in the future.

In closing, Mary said that it is up to all of the elders to teach young people and give their knowledge to them, so that they will know what to do when hard times come along. One day she will not be here, but she will know that she did her part to pass on her traditional knowledge and experience.

Herd Update

Government of NWT Update

Marsha Branigan provided the following update:

- Both Tracy Davison and Marsha Branigan attended the recent PCTC meeting in Whitehorse.
- The funding agreement between GNWT and PCMB has now been signed for 2017-18 core funding.
- Work on Native User Agreements will be supported; the amount of financial support still needs to be determined.
- Many caribou were harvested on the North Slope in December 2016, and 101 samples were provided for the body-condition study.

Government of Yukon Update

Mike Sutor provided the following update:

- Calf survival monitoring and a corresponding survey will be conducted on the calving grounds this summer. Satellite location information will be analyzed to predict calving locations.
- A photocensus will be attempted, facilitated by Jason Caikoski at Alaska Department of Fish and Game.
- Summer student Kai Breithaupt will be included on various projects.
- A check station is planned on the lower Dempster this fall if caribou show up there.
- A rut survey is planned for October, depending on where the caribou are.
- Body-condition monitoring of cows is planned, as is lichen mapping.

In response to a question from Ian McDonald regarding the use of VHF collars, Mike explained that VHF collars will be faded out next year.

COSEWIC barren-ground caribou designation

The Board sent a letter to parties recommending that PCMB take a coordinating role in the national recovery strategy for barren-ground caribou. A number of positive responses to the Board's letter have been received. However, Trondek Hwech'in (TH) replied that they do not agree with the PCH being included in the BGC designation and they are awaiting a legal opinion on the process of designation.

The Board discussed the development of a herd management plan for the PCH, regardless of what happens with the COSEWIC designation. It was decided that the Board will wait for the other parties to reply, and will send a response to TH. The matter will be revisited at the fall meeting.

ACTION 17-3: Send a letter to TH thanking them for their response, stating that the Board will await their further reply, pending receipt of TH's legal opinion.

Herd management planning — gap analysis

Shannon Stotyn presented an overview of existing and available knowledge, documentation, plans, processes and agreements related to the PCH and its habitat, and compared this to what is required in a herd management plan.

The following are key gaps identified:

Species Information

- Traditional knowledge on distribution and herd size
- Habitat modelling to identify selected habitats (lacking information on lichen cover and quality)
- Importance of different seasons needs to be updated based on new information

Threats

- Disturbance
 - Assessment of disturbance using zone of influence (ZOI)
 - Fine-scale response to existing disturbance (continue remote camera work)

Population and Distribution Objectives

- Develop population objectives that are quantifiable, biological and scientifically sound

Broad Strategies and General Approaches to Meet Objectives

- Habitat management (lacking seasonal RSFs with disturbance variables)

Critical Habitat

- Range-wide habitat quality (lacking info on lichen cover/quality within the range)

It was noted that Canada provided funding for TK research for the boreal caribou recovery plan but there has been no mention about doing the same for a barren-ground caribou recovery plan.

Shannon stated that incorporating TK into the plan in a meaningful way will be a challenge but this will be a critical part.

A comprehensive gap analysis will be completed before the fall PCMB meeting, at which time the topic will be revisited.

Jason Caikoski explained that the PCH is not considered threatened in the United States so there may be an issue with allocating resources toward a PCH gap analysis and doing work related to a national recovery plan in Canada. It may be possible to get support for filling general knowledge gaps but not specifically for gap analysis related to a recovery plan.

Mike Sutor stated that most of the work regarding the filling of gaps is underway but the TK component needs the most work. While this falls outside of PCTC's role, Mike would like to help facilitate it and hopes to get direction from the Board regarding this.

Jason explained that the criteria used to decide whether or not a species is threatened are very different in the United States. It is based on the risk of extinction. Since caribou in the different herds are genetically the same, it is unclear how barren-ground caribou as a whole would be considered.

Nicole McCutchen stated that Government of Yukon is interested in looking at options and costs for the development of a strategy. Nothing has been budgeted this year but it would be advisable to have input into next year's budget cycle. Budgeting for next fiscal year will be completed in November. She noted that smaller projects, if they can be completed by March, may be funded on short notice if other projects are underspent.

Marsha Branigan stated that Government of the Northwest Territories would consider supporting a one-time project, similar to the work done on polar bears. The specific needs for the project would need to be identified for discussion and approval.

Mike suggested talking to Megan Williams to find out what the community's gaps in TK are. He felt that this needs to be a collaborative effort, to meet both the Board's and the community's needs, and that TK would do a good job of filling some gaps in the currently available scientific data.

Marsha related that 77 people were interviewed for the polar bear project; they had a lot of knowledge, and documenting all of it is challenging in one interview.

PCTC Update

Shannon Stotyn provided an overview of the following points about work planning which were considered at the May 3 and 4, 2017 PCTC meeting:

- The Committee looked at updating the five-year plan for monitoring and considered ways to improve the methodology of current surveys.
- The first draft of the maps for the *Sensitive Habitats Report* was reviewed.
- A female adult survival analysis using GPS will be undertaken in Alaska, along with how GPS data can be used to predict calving locations.

- Database options were discussed. User-friendly, updatable database options are needed. PCTC has been asked to look for options within their agencies.
- US Fish and Wildlife Service has provided \$200,000 for a multi-year harvest monitoring study in the PCH range in Alaska. Hollice Twitchell will be moving forward with this.

Jason Caikoski explained that this funding is in the form of a tribal wildlife grant. The funding would go to appropriate tribes, who would in turn administer the harvest program. He stated that this type of project needs key people in the community to make it successful. Mike Suitor agreed that individuals with skills and knowledge will be needed to provide guidance and help make this program successful.

Deana Lemke noted that Hollice would like Joe Tetlich to go to the communities with him. Jason stated that Joe's and the Board's expertise would be highly valuable, as Alaska has not done a very good job of working with communities to get harvest data so far.

- PCTC's workplan has been updated with timelines and priorities. It will be provided to Deana.
- Improving communication at the AHM regarding the indicators was discussed at the PCTC meeting. They would like to make it better.

Mike Suitor led a discussion about PCTC's feedback regarding cumulative effects (CE). He noted that the Board has consistently maintained that CE need to be considered whenever new oil and gas projects are proposed. Don Russell's model was considered as an option to evaluate CE. Mike explained that PCTC is not comfortable with using Don's model as the main/only tool for evaluating the CE related to the PCH. He also stated that the Board's objective, requirements and main concerns around CE need to be more specific. For example, is the concern a decrease of the herd or a shift in the herd's distribution?

All agreed that it is extremely challenging to measure the CE on a BGC herd with such a wide range. None of the PCTC members are confident that a useful CE model can be created because of the complexities involved. Due to the high amount of variability and uncertainty that has to be factored into the model, the output may prove the uncertainty of whether there will be a negative effect on the herd. Uncertain or vague results could be used against conservation efforts.

It was noted that the previously discussed gap analysis has to be completed before CE issues can be adequately addressed.

Nicole McCutchen and Ian McDonald stated that focusing on CE may not be the right approach at this time, because of the uncertainty around measuring it and the relatively small amount of disturbances in the PCH's range.

Marsha Branigan noted that it would be very helpful if the *Sensitive Habitats* report ranked the criteria for certain habitats in terms of importance and sensitivity.

After further discussion, the Board agreed to focus on developing a structure and a list of documented priorities that will be considered when evaluating future industrial development in the range of the herd. The Board is interested in seeking guidance and input from individuals in other jurisdictions who have already dealt with significant amounts of disturbance — e.g. northern BC and NWT — about best management practices regarding the assessment or mitigation of potential impacts of industrial development. The CE working group will begin considering this.

ACTION 17-4: Send a letter to Government of Yukon's Oil and Gas branch to request the document developed regarding caribou best management practices.

Mike reviewed the process for expressions of interest in oil and gas development and explained which parcels of land are currently being considered. There will be a public meeting in Old Crow on June 14, 2017 regarding this. After that, a decision will be made on whether or not the process should continue. If it does, then it will go out to public consultation, at which point the Board can provide input.

Northern Contaminants Program

Mary Gamberg explained that the Northern Contaminants Program (NCP) is a federal program that started in 1988. The presence of toxic elements such as cadmium, cesium-137, and mercury are being measured in animals. Marine mammals are a greater concern; contaminants in the terrestrial system are much lower.

Distribution of contaminants is a global issue. The contaminants being measured via the NCP mostly originate in the south from industrial processes and are transported through the atmosphere and settle in the arctic in what is referred to as the arctic sink.

Caribou kidneys are used for cadmium studies. Mary acknowledged Mike Suitor and Martin Kienzler for their pivotal role in helping to get PCH samples for her studies. Porcupine caribou cadmium levels are comparable to levels in other parts of the world. The Finlayson caribou herd had much higher levels, which sparked interest in conducting more studies. The cause was found to be related to the caribou's diet. The Finlayson herd eats a lot of willows. Willows accumulate cadmium when they grow in cadmium-rich soil; therefore, all animals in that area that eat willows have a high level of it because the area is high in cadmium.

Cadmium affects human kidney function. While levels in mammals are a concern worth measuring, smoking is much worse for human health. If a person smokes, they have a much higher absorption rate and, depending on how much they smoke, may have a higher concentration of cadmium in their body.

Cesium-137 is not routinely measured. However, specific testing took place and it was determined that no increase of Cesium-137 in caribou resulted from the nuclear incidents at Chernobyl and Fukushima. The remaining presence of Cesium-137 in the arctic originates from weapons testing during the 1960s.

Mary noted that there are new, emerging contaminants to be concerned about, such as fluorinated and brominated compounds. These originate from brominated flame retardants and products made with fluorinated compounds such as Teflon and Scotchguard. Studies suggest that these contaminants cause cancer, neurobehavioural changes, developmental effects, and liver, immune and thyroid effects.

Mary pointed out that mercury is the most critical concern for arctic animals. Using graphs, she demonstrated that cows tend to have a higher concentration than bulls, and that the amount of mercury measured seems to follow a cycle. The possible cause of this cycle is still being analyzed. Most mercury comes from lichens. Pregnant cows transfer some mercury to the fetus. In high enough concentrations, this could cause learning disabilities for the calf.

While thresholds for mercury in animals and humans have been established, some scientists are now uncertain whether any level of mercury can be considered safe.

In conclusion, Mary was happy to relate that contaminants data collected from the Porcupine caribou herd was pivotal in helping to create the *Minamata Convention on Mercury* via the United Nations Environment Program. This global treaty includes China, and aims to protect human health and the environment from the adverse effects of mercury. It enters into force on August 17, 2017.

PCH range mapping

To demonstrate the challenge of defining the range of a particular species, Jason Caikoski showed a range map for mule deer which did not include Alaska, and then explained that a mule deer was recently killed in a highway collision near Fairbanks, Alaska.

To develop an updated range map for the PCH, GPS location data from 1999 to 2015 was analyzed to determine the core range. This was deemed insufficient because the data was temporally biased. Therefore, it was supplemented by digitizing older data found in scientific reports from the 1970s.

The methodology for the development of updated range boundaries is clearly documented in a report and is therefore repeatable and defensible.

A discussion took place around supplementing the range boundaries with traditional knowledge by requesting input from First Nations or using caribou data from existing TK projects.

The Board decided that the range map should be sent to Parties with a cover letter explaining that an updated map was needed due to the variety of outdated and inaccurate range maps that are in circulation. The letter will explain that the map is based on available scientific data. If any Party has verified TK that can be used to supplement the map, it can be used if provided.

ACTION 17-5: Send the updated range map to Parties with a cover letter providing an explanation of how the boundaries were determined and the input that is being sought.

Caribou cookbook

The future distribution, printing and promotion and potential costs and profits related to the cookbook, *Vadzaih – cooking caribou from antler to hoof*, was discussed.

Some members expressed concern about others profiting from the sale and distribution of the book, while others supported the wider distribution of the book to additional communities such as Inuvik, Fort McPherson, and Aklavik.

Questions arose about whether the Board should be responsible for printing and distributing books, and whether or not other organizations should be distribution points for the book — for example the John Tizya Centre, band offices or RRCs.

It was suggested that a limited number of free copies be distributed to appropriate organizations, and to have a process by which more can be ordered, if desired.

Jason Caikoski related that Alaska Department of Fish and Game has an educational and outreach program with its own funding for printing a variety of material related to hunting and wildlife. The material is printed in-house and distributed appropriately. He explained that if PCMB gave permission for ADFG to print the cookbook, there would be no cost to PCMB and that it would not be sold, just distributed at no charge. The Board agreed to make a high-quality PDF of the cookbook available and let ADFG distribute it in Alaska.

It was also agreed that the cookbook should continue to be used as educational material to promote use of all parts of the caribou. Therefore, the Board should continue to have some printed copies on hand.

Since VGG was a key sponsor of the cookbook, the Board agreed that a discussion should be had with Megan Williams to determine VGG's position and goal regarding distribution of the cookbook.

ACTION 17-6: Executive Director to meet with VGG's Heritage manager, Megan Williams, to discuss future distribution of the cookbook.

Arctic Borderlands Ecological Knowledge Society (ABEKS)

Deana Lemke informed the Board that WMAC (North Slope) approved funding for ABEKS for only one more year. ABEKS inquired about PCMB's potential involvement in terms of future funding and support.

A discussion took place regarding PCMB's mandate and potential role in ABEKS. Since the Board has its own mandate for which it receives funding through specific agreements, it is not a funding organization.

It was noted that PCMB has identified several important priorities that need to be worked on. The continued implementation and coordination of the Harvest Management Plan needs to be the key focus of the Board. The upcoming leadership role in responding to the SARA designation will be significant as well. The Board is, and should continue, doing a good job focusing on the PCMA mandate, and the Board's limited resources should be focused on these core activities.

Concern was expressed about the potential absence of ABEKS data in the AHM assessment. It is unclear how the gap would be filled or the data replaced.

Joe Tetlichich stated that it would be good to see how RRCs and HTC's are responding to this concern.

The Board noted that there are systematic issues with the ABEKS organizational structure and process. Concerns that were raised previously have not been addressed, which is why the funding is not being continued. While the data is valuable, it is essential that the structure and processes are improved.

Ian McDonald suggested that in the future the Board should look at which data are actually needed. Shannon Stotyn agreed, stating that it would be useful to get more clarity around the TK requirements respecting PCTC's annual reporting responsibility at the AHM. She reiterated that the Board should ask for the specific TK data that are needed to make decisions about the status of the herd.

Deana Lemke related that Donna Hurlburt from COSEWIC faces similar challenges when trying to obtain and incorporate TK into decisions. Donna's position is that the communities need to take responsibility for providing it.

Joe noted that whether one talks to one or 20 harvesters in a community, all will be able to tell you what the circumstances around caribou in their community were during the past year; they will all say the same thing; it is a shared knowledge in the community.

Form a working group to begin discussing the Board's actual TK requirements and consider the topic at PCMB's fall meeting. Working group members to be: Nicole McCutchen; Ian McDonald; Harold Frost; Marsha Branigan; Shannon Stotyn; Mike Suitor; Billy Storr; Charles Pokiak; and Deana Lemke.

The Board is interested in specific reasoning why WMAC (NS) has decided to discontinue support and requested the Executive Director to meet with the WMAC (NS) chair to discuss this further.

***ACTION 17-7: Executive Director meet with WMAC (NS) Chair
Lindsay Staples regarding the future vision for ABEKS.***

Next Meeting and Closing Prayer

The next PCMB meeting will be held in Fort McPherson on September 26 and 27, 2017. Key topics for this meeting will be gaps regarding recovery strategy requirements, CE, TK requirements, and TK survey questions. Marsha Branigan and Kirby Meister also suggested holding a rifle sighting workshop or something similar in conjunction with the meeting.

The next Annual Harvest Meeting will be held on February 13 and 14, 2018 in Dawson City, Yukon.

Joe Tetlichy offered a closing prayer and the meeting was adjourned at 11:25 a.m. so Board members could continue to participate in the Caribou Days activities in the community which included an event lead by the Board.