

BEVERLY AND QAMANIRJUAQ CARIBOU MANAGEMENT BOARD

23 May 2008

Alistair MacDonald
Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
P.O. Box 938, 5102 - 50th Avenue
Yellowknife NT X1A 2N7

Dear Mr. MacDonald:

Comments regarding EA0708-002 – Uravan Boomerang Lake South

On behalf of the Beverly and Qamanirjuaq Caribou Management Board (BQCMB), I am responding to the 2 May 2008 request by MVEIRB for further submissions describing our views about the potential impacts of the four uranium exploration projects in the upper Thelon region which are currently undergoing environmental assessment. I am submitting these comments in four separate documents as requested.

Issues of concern and recommendations from the BQCMB concerning land use applications for mineral exploration work in the upper Thelon region by Ur-Energy, Uravan and Bayswater have been described in our previous submissions to the MVLWB and MVEIRB. We expect that MVEIRB will consider all of this information during their assessment of the four upper Thelon proposals. We urge you to include a review of the full presentation made to the Ur-Energy public hearing in January 2007, including the notes provided with the Powerpoint presentation, which provided the basis for the verbal presentation that was documented in the hearing transcripts and audio recording.

This submission will provide an updated summary of the importance of the upper Thelon region to caribou, and will also focus some key points that the BQCMB wants to ensure the MVEIRB considers fully during your deliberations. Note that we have used the term "upper Thelon region", as the geographic area that is of primary interest regarding the proposed exploration activities from a caribou perspective includes caribou range in the general upper Thelon region, which is larger than both the Thelon geological basin and the upper Thelon watershed.

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Importance of the Upper Thelon Region to Caribou

An assessment of the importance of the upper Thelon region to caribou should include the following information sources:

1. Traditional knowledge held by peoples who have used the area in the past, and continue to value the region, including the Akaitcho Dene and the Athabasca Denesuline.
2. Information based on observations made by others who know and value the area (such as Alex Hall).
3. Historical and recent information from government surveys. This includes historical survey information, which was compiled and mapped by the BQCMB (<http://www.arctic-caribou.com/parttwo/mapatlas.html>), and recent surveys that have been conducted by the GNWT Department of Environment and Natural Resources (ENR).
4. Information from tracking collared caribou using satellite technology, which is being conducted by the GNWT-ENR.

The MVEIRB has received information directly from the first two sources. The BQCMB recommends that MVEIRB consider this information carefully and request additional information from the knowledge-holders if required.

The BQCMB has provided information based on the last two sources in our previous submissions to MVLWB and MVEIRB on proposals from Ur-Energy, Uravan and Bayswater, including:

- Information about seasonal use of the region by Beverly caribou based on government surveys conducted between the 1940s and the 1990s. This was described in detail (with maps) in the written submission and presentation provided by the BQCMB for the January 2007 UR-Energy hearing.
- Maps showing use of the upper Thelon region by caribou being tracked by the GNWT using GPS collars from March 2006 to November 2006. These were included in the written submission and presentation provided by the BQCMB for the January 2007 UR-Energy hearing.

Caribou locations in relation to proposed exploration areas - We will now provide updated information based on new maps and other data provided by the GNWT-ENR. The maps show use of the upper Thelon region by collared caribou during the period for which data are currently available (March 2006 – April 2008).

Data limitations: The following points should be considered when assessing this information source and viewing the maps:

- Only some of these data were available for our submission to the January 2007 Ur-Energy hearing (i.e., data from Mar/06-Nov/06), so the maps included in this submission provide additional information about range use by Beverly and Ahiak caribou.

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- The maps are based on limited information (i.e., two years of location data) for a small subset of caribou (e.g., approximately 20-25 adult female caribou). Therefore they cannot be used to identify areas that are not important caribou range; they only tell us which areas these collared caribou (and others moving with them) have used during the time period during which they have been monitored.
- The maps do not reflect the natural variation in range use by entire caribou herds over the long-term.
- This data source is being continually augmented with new data, which improves our understanding of the importance of this region to caribou.

Description of the maps: Three figures are provided in Appendix A that show monthly locations of adult female Beverly and Ahiak caribou tracked by the GNWT using GPS collars, in relation to the overlapping exploration areas proposed by Uravan and Bayswater. The figures show the same caribou location data for the same time period, but at different scales: Figure 1 provides a view of the general area that includes the exploration areas proposed by Uravan and Bayswater; Figure 2 provides a closer view focusing on the exploration areas; and Figure 4 shows a larger view of the upper Thelon region, including the southern portion of the traditional Beverly caribou calving ground.

The “Bayswater exploration areas” are the mapsheets listed by Bayswater in their project descriptions (Sec. 2.2) as the areas in which they plan to conduct mineral exploration under the land use permits. The “Uravan permit areas” are the areas identified in Uravan’s project description (Figure 2) as “land use permit areas”.

Range use by collared caribou: Figures 1 and 2 show that during the period March 2006 to April 2008, collared Beverly and Ahiak caribou primarily used the proposed Uravan and Bayswater exploration areas in April-May and August-October. This provides further evidence to support the historic survey data for Beverly caribou, which showed that the area is a key migration route for this herd during both spring and fall. Data from surveys and tracking collared caribou both illustrate that the proposed exploration areas have also been used regularly by caribou, both in the past and recent years, as late summer-fall (August-September) and rutting range (October).

Figures 1 and 4 also show that collared caribou spent most of the winter months (November to mid-March) in areas to the west and south of the proposed Uravan and Bayswater exploration areas, and that they began moving into the exploration area from the west in late March. This also provides further evidence to support the historic survey data, which showed that Beverly caribou wintered over a large area from southern NWT to northern Saskatchewan, including the area just to the south and west of the proposed exploration areas.

Additional information - Alex Hall has also observed and documented use of the proposed exploration areas by large numbers of caribou in the 1990s during July and

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August, indicating its importance as post-calving and summer range. He has also observed that the area has not been used as much by caribou during the last few summers. This is consistent with the data from collared caribou, which shows no use of the project area by collared caribou during the month of July in both 2006 and 2007, as the animals were still farther north.

Figure 3 (Appendix A) is a graph that shows the movement rates of the collared cow caribou for 12-hour periods, based on the data from March 2006 to April 2008. It confirms the expectation that the distances travelled by collared cows would be relatively high for the following periods:

- mid-April to end of May, spring migration
- early July to mid-August movements to post-calving and summer range
- mid-September to late November, including fall migration/rut and movement to winter range.

Figure 3 also shows that the distances travelled by collared cows were relatively low for the following periods:

- in June, during calving and immediate post-calving periods
- from mid-August to mid-September
- from December to March.

Mid-August to mid-September is an important period when cows and calves are fairly stationary, likely in response to lower insect harassment levels. As we have said in previous submissions, it is critical that disruption of feeding be minimized during this period. Continuous feeding is required for good growth and survival of calves through the coming winter, and also determines whether cows will be in good enough shape to breed in the fall and maintain their fetus through the winter.

Issues Related to Impacts on Beverly and Ahlak Caribou Herds

We would like to reiterate the importance of considering all of the following specific issues during assessment of the potential impacts of the exploration activities proposed by Uravan and Bayswater in the upper Thelon region. (For details please see our 7 Apr/08 response to the Evidence Transfer and Scoping Questions and other previous submissions.)

- ***Disturbance during spring migration***, especially April-May
- ***Disturbance during late summer-fall period***, especially mid-August to mid-September
- ***Disturbance from low-level flights***, including airborne geophysical surveys, especially during spring migration and late summer (mid-August to mid-September)
- ***Cumulative effects of disturbance*** from multiple exploration projects occurring within the same small area in the upper Thelon region, which has already been occurring for some time as a result of previous year's exploration activities conducted by Uravan, Bayswater, and Ur-Energy.

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Note that Ur-Energy has applied for a land use permit to operate an exploration camp in Nunavut, from which they plan to conduct exploration in the upper Thelon region in the NWT.

- **Cumulative effects of disturbance** from upper Thelon exploration *in combination* with the effects of disturbance from ongoing exploration and development on the Beverly calving and post-calving areas in Nunavut and on winter range in Saskatchewan.

Note that applications for work to support mineral exploration on the Beverly calving and post-calving areas in Nunavut during spring and summer 2008 have been made by Uravan, Bayswater, Cameco, and Matrix Aviation. This represents new potential impacts to both Beverly and Ahiak caribou (which pass through the Beverly calving area during spring migration and during post-calving), in addition to exploration activities which are ongoing on the calving and post-calving areas. Ongoing work includes both activities that are below the permitting threshold and that for which permits have been issued in previous years.

- **Habitat loss**, especially loss of important migration habitat and key water crossings.
- **Contamination** that may be accumulated through the lifetime of caribou as they migrate through their seasonal ranges, and from year to year as the number of contaminated sites increases.

Caribou and Culture

It appears that a somewhat artificial separation has been made between wildlife harvesting and the cultural value of the Thelon Basin. The BQCMB believes that protection of caribou and culture are not separate issues, as the cultural importance of the upper Thelon region is tied inextricably to its importance as a major migration route for caribou. Caribou and the harvest of caribou have played a key role for millenia in the traditional lifestyles and culture of the Aboriginal peoples who use and value the upper Thelon region. This fundamental relationship between caribou and Aboriginal cultures, and the need to ensure that it is maintained, should be paramount among the issues considered during these environmental assessments.

The Precautionary Principle

We again recommend application of the Precautionary Principle, and argue that it is needed even more now than during the environmental assessment of the UR-Energy permit application. This is because little meaningful progress has been made to address the key issues which existed at that time, including the following:

- **Land use planning** – We have received one letter from INAC (Dec/07) stating that an upper Thelon land and resource management process would be implemented. We have seen no evidence of any progress and have not been involved in this process. Progress must be made toward resolving these issues.
- **Assessment of cumulative impacts**
 - INAC provided some information to MVEIRB regarding plans for an upper Thelon cumulative effects study over a year ago, which included work

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- related to caribou. We have seen no evidence of any progress and have not been involved in this process.
- GNWT-ENR has initiated a caribou and cumulative effects modeling study that will focus initially on Bathurst caribou and mines. No results will be available for some time, and it is unclear if or how they will provide information useful for assessing the cumulative effects of exploration activities on Beverly and Ahiak caribou.
 - Two INAC-led cumulative effects processes that have been underway in the NWT for many years, the Cumulative Impact Monitoring Program and the Environmental Management Framework (previously the Cumulative Effects Assessment and Management Framework), have not yet developed a means to monitor or assess the cumulative effects of exploration activities on caribou.
 - As we have said before, the spatial boundary for assessment of cumulative impacts on caribou should include the entire year-round ranges of the Beverly and Ahiak barren-ground caribou herds. Similarly, the spatial boundary for assessment of cumulative impacts on caribou harvest and caribou-related aspects of Aboriginal cultures should include the caribou ranges as well.
 - ***Aboriginal rights and conflicts with the free-entry system*** - It is clear that Aboriginal rights and consultation issues have not yet been resolved for Aboriginal peoples who have traditionally used the upper Thelon region, and that the Akaitcho Dene and Athabasca Denesuline remain opposed to mineral exploration and development in the upper Thelon region. The BQCMB believes that this situation must be resolved before additional mineral exploration occurs in the upper Thelon region.

EA Hearings

More information on the movements and range use patterns of collared caribou will be available as time progresses. The BQCMB and GNWT can provide updates if required to MVEIRB. Other than that, the BQCMB would have little new information to offer at a public hearing. However, if people of Lutsel K'e want an opportunity to speak directly to MVEIRB at public hearing(s), the BQCMB would support that request.

In conclusion, it appears that no real changes relevant to caribou have been made in the circumstances under which the assessments of uranium exploration in the upper Thelon region are being conducted. The main meaningful changes apparent to the BQCMB are that:

- There is ongoing and increasing uncertainty regarding the status and health of the Beverly and Ahiak caribou herds.
- The potential for cumulative effects of mineral exploration and development on Beverly and Ahiak caribou are increasing, as predicted.

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- The difficulties involved in developing a regional land use plan and conducting a regional caribou cumulative effects study for the Beverly and Ahiak herds will increase over time, unless some key land use decisions are made soon.

Recommendations:

- 1) Land use permits should not be issued to Uravan or Bayswater to allow them to continue their exploration work in the upper Thelon region.
- 2) Public hearings for the Uravan and Bayswater EAs should be held if Lutsel K'e requests them.
- 3) Efforts to develop a land use plan for the upper Thelon region should be increased. All stakeholders should be involved.
- 4) Efforts should be intensified to address the recommendations made by the BQCMB for the UR-Energy EA regarding cumulative effects assessment for caribou and range-wide conservation planning for caribou.
- 5) If a land use permit is issued to Uravan or Bayswater for any of their proposed exploration activities in the upper Thelon, permit conditions must address the following:
 - No exploration work should be conducted in the areas proposed for exploration by Uravan and Bayswater during spring migration (mid-March to end of May).
 - If cows and calves approach the project areas, mitigation measures must be implemented to reduce disruption to feeding from July to September.
 - Exploration activities should be completed by the end of September, to avoid disturbance during the rutting period.
 - Exploration activities should not occur along the Thelon river, as caribou will be crossing the river at numerous places other than at designated crossings (This condition should also be included for tourism reasons.)

Thank-you for the opportunity to provide additional information and recommendations for this environmental assessment. Please contact me if you would like to discuss these comments from the BQCMB.

Sincerely,

[original signed by]

Leslie Wakelyn
BQCMB Biologist

cc: Jerome Denechezhe, BQCMB Chairperson
Deborah Johnson, BQCMB member for GNWT

Figure 1: Monthly GPS Collared Caribou Cow Locations from Ahlak and Beverly Herds (March 2006 – April 2008) (GNWT Unpublished data)

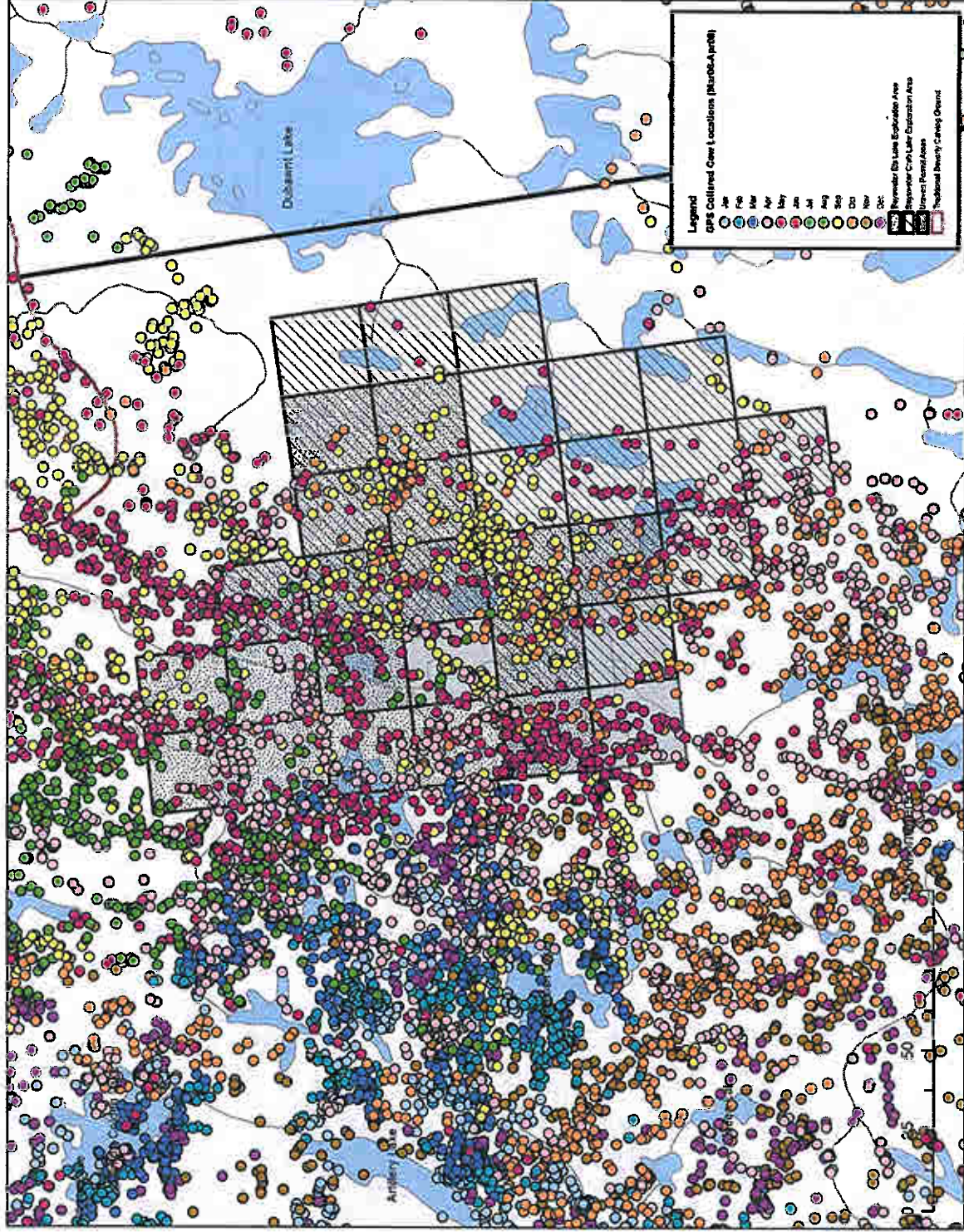


Figure 2: Monthly GPS Collared Caribou Cow Locations from Ahiak and Beverly Herds (March 2006 – April 2008) at a smaller scale (GNWT Unpublished data)

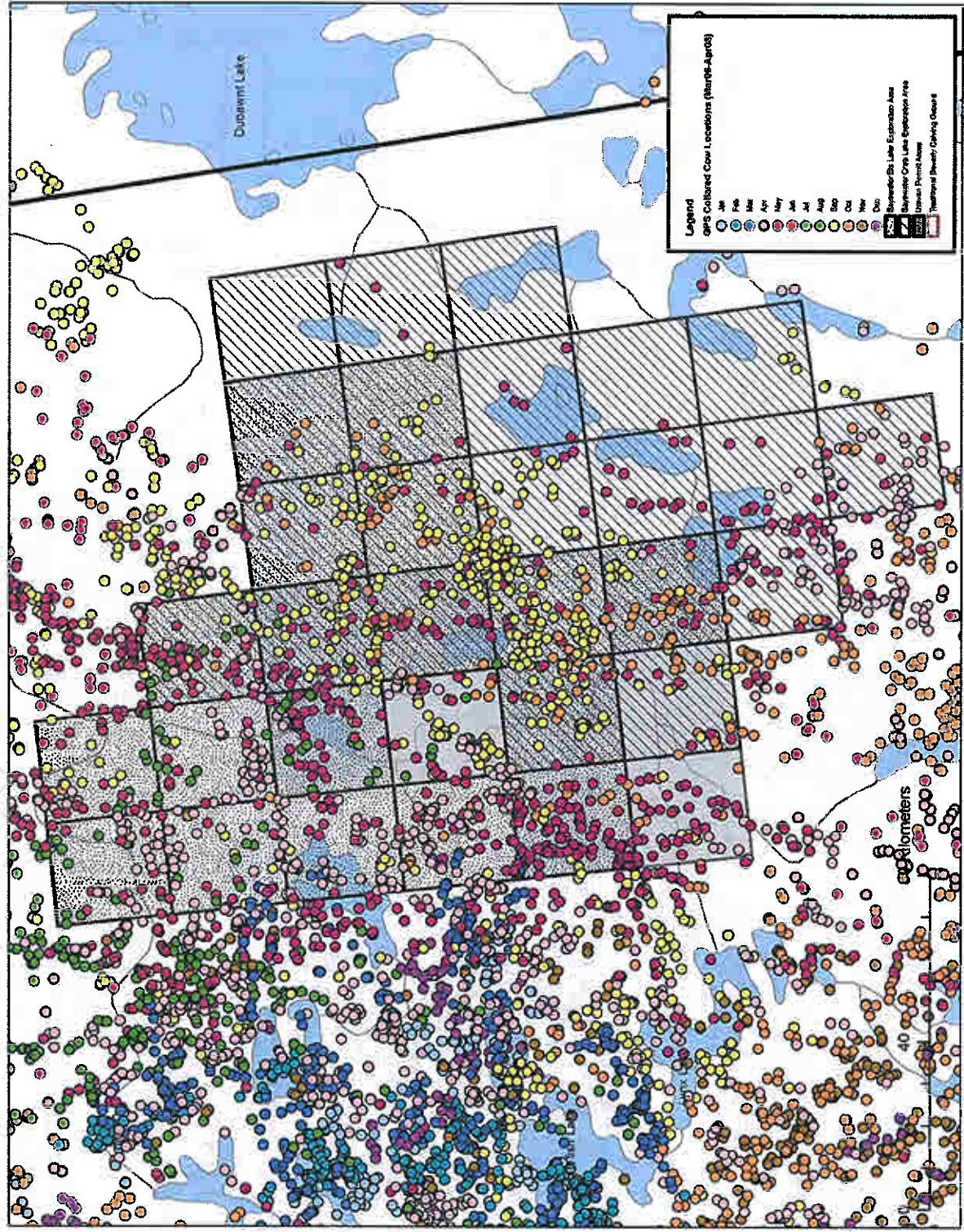


Figure 3: 12 Hour Movement Rates of GPS Collared Caribou Cows from Ahiak and Beverly Herds (March 2006 – April 2008) (GNWT Unpublished data)

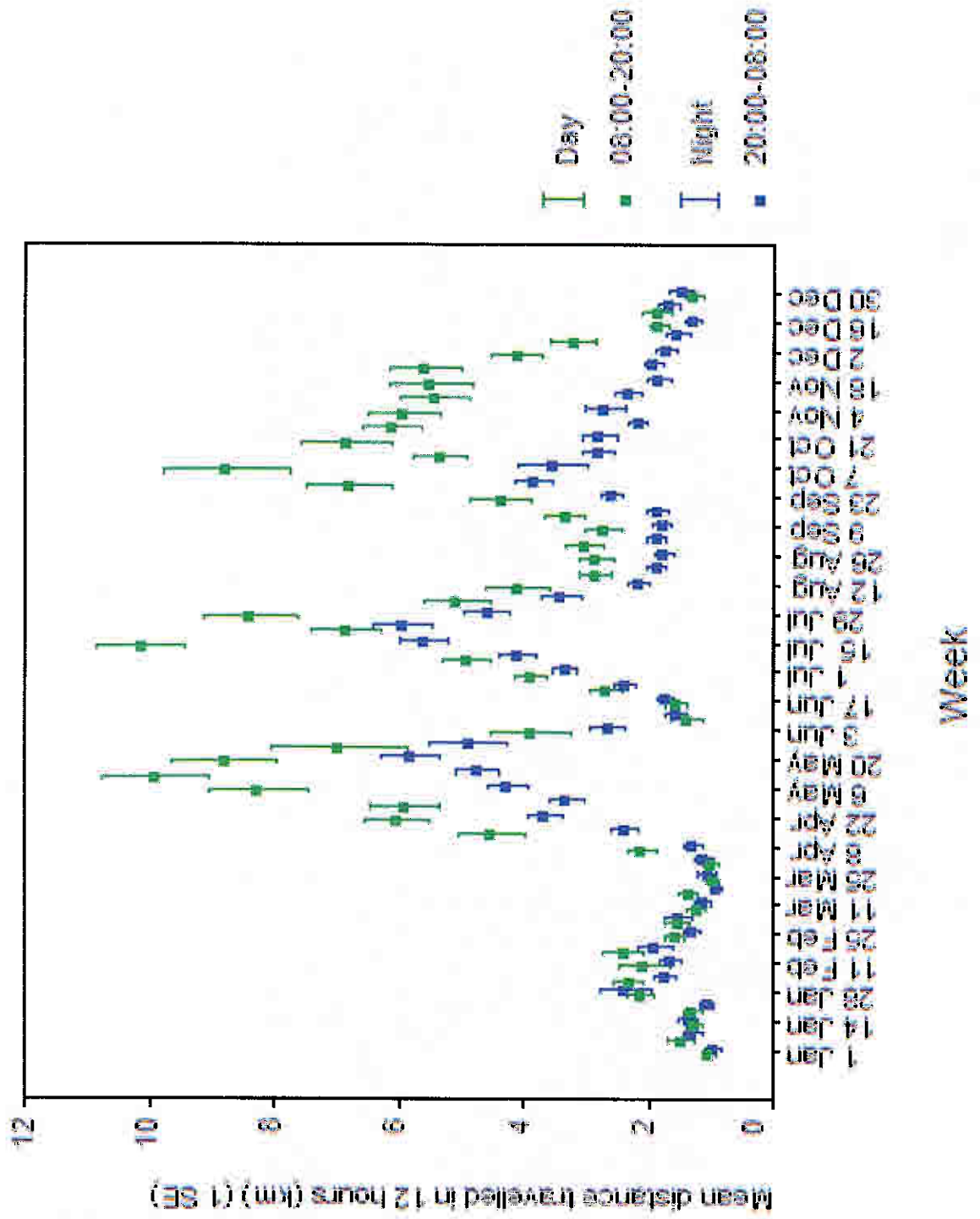


Figure 4: Monthly GPS Collared Caribou Cow Locations from Ahiak and Beverly Herds (March 2006 – April 2008) within the Caribou Range (GNWT Unpublished data)

