

Fort Good Hope-Déline
Barren-Ground Caribou Traditional Knowledge Study

Report by Deborah Simmons, Principle Investigator
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Collaborators	Robert Ruttan, independent ecologist Ruthann Gal, GIS specialist & Director, Aurora Research Institute (Fort Smith)
Fort Good Hope Researchers	Bella T'seleie, coordinator Lucyanne Yakeleya, linguist/advisor/interpreter Ann Marie Jackson, trainee Kayo Nitta, volunteer/archivist
Déline Researchers	Michael Neyelle, coordinator Edith Mackeinzo, archivist Julie Mackeinzo, trainee
Lead Institutional Partners	K'asho Got'ine Community Council/Cultural Institute Déline First Nation Council
Governance	Fort Good Hope and Déline Renewable Resource Councils Board of Directors, K'asho Got'ine Cultural Institute K'asho Got'ine Elders Council
Funders	Sahtu Renewable Resources Board Pipeline Readiness Office Social Sciences and Humanities Research Council (SSHRC) Aboriginal Research Fund NWT Education, Culture and Employment
Ethics Protocol Approval	Protocol #J2006:068 and #J2006:069 Human Ethics Secretariat, University of Manitoba
Research Licence	Aurora Research Institute Application #359 and #352 - Approved
Timeline	May 2006-March 2007
Scope	1. Consultation meetings with governing bodies 2. Focus group meetings to introduce study and scope out issues 3. Followup interviews 4. Transcription and translation of audio recordings 5. Dene language terminology list 6. Focus group meetings to discuss and verify findings 7. Reporting
Deliverables	Final report Community presentations, Fort Good Hope and Deline

Background and Goals

This project was originally proposed to the Sahtu Renewable Resources Board under the title *Dene and Métis Ways of Respecting the Land and Animals*. The aim was to undertake TK research in Fort Good Hope and Colville Lake, as well as research Déline following up on the previous year's pilot project in Deline; however, it eventually became clear that it would not be feasible to include Colville Lake this year – a follow-up study in Colville Lake is planned for 2007-2008. The scope of the proposal was

intentionally broad so as to allow community leadership to assist in identifying key issues. The eventual focus on barren-ground caribou stewardship emerged as people became concerned about reports of declining caribou herd numbers. The tragic loss of five people including one of the project researchers in a plane crash on August 16 was the context for linked research on burial practices as they relate to land stewardship and human-animal relationships.

The Barren-Ground Caribou TK Study is an extension of the recently inaugurated TK research program sponsored by the Sahtu Renewable Resources Board. Since 2003, the Sahtu Renewable Resources Board has recognized the importance of proactively supporting traditional ecological knowledge (TEK) research in the Sahtu Region. The Board has since funded a successful research project with the Déline First Nation entitled *Dene Ways of Respecting the Land and Animals* (June 2005). That project was strongly supported within the community, and provided an important foundation for TEK policy development. However, it is recognized that each district of the Sahtu Region possesses distinct knowledge and perspectives in relation to their traditional land base. As well, it became clear that it is necessary to focus research in order to achieve depth; as Déline elder Leon Modeste said in a recent focus group meeting, “This is only the beginning of what we know – it would take years to fully document our knowledge of this area.”

Recently, NWT Environment and Natural Resources (ENR) issued a five year barren-ground caribou management strategy (2006-2010). The strategy recognizes the immense social, cultural and economic value of barren-ground caribou to residents of the NWT, and aboriginal peoples in particular, and defines actions needed to address declines of 40 to 86 percent in herd populations over the past ten years. Management principles include recognition of aboriginal harvesting rights, and the role of traditional ecological knowledge and values in conservation practices. The Sahtu Region forms a significant portion of the ranges for both the Bluenose West and Bluenose East herds, both of which overlap the proposed pipeline route, and both of which are in a declining trend. According to the 2005 census, the Bluenose West herd declined from 98,900 in 1987 to 20,800. The Bluenose East herd declined from 104,000 in 2000 to 66,600. According to the Sahtu Renewable Resources Board harvesting survey, current harvest is at around recommended levels. However, ENR biologists are recommending a reduction in harvesting of cows (now at about 70%), and culling of predators (presentation by Alasdair Veitch, Supervisor, Wildlife Management, Déline, November 1, 2006). It is in this context that stake NWT residents and stakeholders are considering the potential impacts of pipeline development.

It is widely recognized that the Dene people of the Sahtu Region have applied their traditional knowledge to sustainable stewardship of caribou herds since time immemorial. This knowledge is a valuable resource for communities in determining management practices. The study also demonstrated the dynamic nature of Dene knowledge production, involving dialogue among community members and with scientists to interpret known information about caribou, including human-caribou and predator-caribou relationships, and other factors affecting caribou habitat, health, migration patterns, and numbers. Caribou-human relationships have always been of considerable concern in the Sahtu Region as an indicator of both ecological and community health. This includes the human responsibilities to be stewards of caribou habitat, and to maintain traditional practices for being respectful to caribou.

Baseline information about caribou-human relationships are embodied in old time stories, and Dene people have been working out ways to understand social and environmental change against this benchmark. In the words of Déline First Nation author George Blondin, “Many younger Dene no longer live the traditional life, but they know it and understand its values. They try to use this heritage in their



Alfred Masuzumi

work, and to maintain control over the changes that affect our land and people. They are creating Dene lives in new ways” (1990). Oral histories also provide information about the caribou herds dating back long before scientific research was initiated in the region, providing another benchmark for understanding changes in the herd. Dene terminology, grammar, narrative structures, and placenames are analysed as indicators of socio-ecological relationships.

Although Dene people and scientists may agree on research data, they have differed in their interpretation of the data. In particular, declining caribou numbers may not be seen as significant if the herd remains generally fat and healthy.

Goals

Goals

1. To explore Dene ways of identifying and addressing change in caribou populations.
2. To build community skills and capacity for research and decision-making in caribou management.
3. To provide tools and venues for transfer and mobilization of Dene knowledge within the communities and in resource management processes.

Guiding Principles

The SRRB is guided by its Mission “to assist communities with the management of wildlife and habitat for the benefit of the people of the Sahtu Settlement Area; it is the responsibility of the SRRB and all other affected parties to unite to protect, conserve, and manage, in a cooperative spirit, all renewable resources within the Sahtu Settlement Area in a sustainable manner to meet or exceed the needs of the public today and in the future for generations to come.” The SRRB is required to consult with Renewable Resources Councils, which are mandated by the Sahtu Dene and Métis Comprehensive Land Claim Agreement “to promote local involvement in conservation, harvesting studies, research and wildlife management in the community.” The Barren-Ground Caribou TK study aims to address the interconnected mandates of the SRRB and Renewable Resources Councils, and to respect research principles established in participating communities.



Figure 1: Fort Good Hope Focus Group participants, February 2, 2007. Credit: Ann Marie Jackson.

The only participating community with formally established Research Guidelines is the Déline First Nation (2004); this document is currently in the process of revision. Principles are defined as the values that guide our work together. The following six principles underpin the community vision for research.

Déline First Nation Research Principles

- Dene people participate in all aspects of research.

- Research is conducted according to Dene values and guidelines.
- People are made aware of how research will benefit them.
- Volunteer participation is encouraged.
- Dene knowledge is used as a resource in all research.
- Dene language is used as a starting point for research.

Subject to review by Fort Good Hope partners, the Déline principles are being used to guide the study in that community as well.

Methodology

The research is designed according to a particular adaptation of the Participatory Action Research methodology (Déline Ethics Committee 2003; Caine, Salomons and Simmons 2005, Fletcher 2003, Ryan and Robinson 1990, 1992; Johnson and Ruttan 1993), with a process that draws from traditional Dene modes of knowledge production, and balances academic research objectives with capacity building and practical community objectives in a post-land claim era. Research Guidelines are reviewed and expanded through the research and learning cycle. Program design is streamlined and is coordinated with ongoing community activities where possible to keep research burden to a minimum; this is essential in a small community. Recognizing the busy schedule imposed by the demands of local governance and participation in resource management, advisory responsibilities are allocated to existing First Nation, Elders and Renewable Resources Councils.

The research is qualitative, oriented to identification and assessment of indicators; thus sample size is kept relatively small in keeping with community research capacity and objectives. Existing oral history recordings and documentation are used wherever possible. Participation of women and youth is sought for each survey, recognizing their specific knowledge and contributions. Traditional Dene modes of collectively assessing, analysing and verifying observations and experience from all sources (including scientific information and interpretations) form the main basis of the research process, with interviews providing supplementary detail as needed. Thus research is inherently *dialogic*; dialogue is promoted among genders and age groups, and between TK holders and scientists.



Figure 2: Déline Focus Group meeting, January 16, 2007. Credit: Bruce Kennv.


Dene is the language of research, and Dene terminology, grammar, and narrative structure are analysed as components of research data. While TK is the starting point for identifying research questions and process, linkages between TK and science are an aspect of research design. Survey scope is limited to ensure rich results. A routine cycle of training, research activities, planning and evaluation meetings and public presentations ensures that expectations are clear and stress on the community minimized. Training includes both TK (Dene culture, economy, social organization, language, concepts), and academic components. The project is product-oriented, aiming to provide community educational tools as an outcome of research within the research period. Clear evaluation criteria are established and utilized annually to ensure learning and adaptation through the research process.

Process/Methods

This project builds upon the Fort Good Hope/Colville Lake Traditional Environmental Knowledge Pilot Project sponsored by the Dene Cultural Institute (DCI) during 1989-1993 (Johnson and Ruttan 1993), and the more recently the SRRB-Déline First Nation pilot project *Dene Ways of Respecting the*

Land and Animals (2004). These two projects were reviewed and evaluated as part of research design for the current study, including interviews with lead researchers and discussions at community research design meetings:

Project Design: Review and Evaluation of Previous Studies

<i>Dene Cultural Institute Fort Good Hope/Colville Lake TEK Pilot Project, 1989-1993</i>	
Strengths	Weaknesses
<ul style="list-style-type: none"> • The community research training process. • Dialogue with scientists (anthropologist Martha Johnson and ecologist Robert Ruttan). • Collaborative process of the research team. • Opportunity for broader dialogue (including an international conference held on the land near Fort Good Hope). (B. T'seleie 2007; A. Masuzumi 2006) 	<ul style="list-style-type: none"> • Lack of community ownership (Johnson and Ruttan 1993). • Capacity/training: Research coordinators were not resident in the community, and availability to spend time in the community providing training and research support was limited (Johnson and Ruttan 1993). • Scope: time and resources did not permit full reporting on each of the four selected indicator species. • Research design: The length and structured components of the interview guide were not fully adapted to Dene modes of knowledge production (Masuzumi 2006). • Documentation: Interview transcriptions were English only, and summary (Johnson 2006). • Archiving: Original transcripts and audio recordings are currently not traceable in any community or regional archive (K'asho Got'ine Community Council, Dene Cultural Institute, and NWT Archives consultations, 2006-2007). • Product: No plain language community educational tools produced by which the community could benefit from the research over the longer term, leaving a sense that knowledge had been "stolen" (K'asho Got'ine Cultural Institute/Elders Council 2006). • Continuity/sustainability: Although the project report included an extensive list of recommendations, no plans were made to for future studies (no follow-up occurred until 2004-2005).
<i>Sahtu Renewable Resources Board-Déline TK Project, 2004-2005</i>	
Strengths	Weaknesses
<ul style="list-style-type: none"> • Transcription of existing oral history materials in Dene language and English, with supplementary interviews. • Bilingual pamphlet for community use. (Déline 2005) • Continuity/sustainability: the SRRB maintained commitment to supporting TK studies in each community of the Sahtu Region; this commitment was renewed with the commissioning of a three year TK research framework, 2007-2010 (Simmons 2007). 	<ul style="list-style-type: none"> • Capacity/training: No scientific research support for community researcher; no training provided; only one community researcher participating – no team approach. • Research design: lack of time and resources for collective community discussion, analysis, and verification. • Funding/time constraints: Delays due to lack of external support led to last minute time pressures (the project had to be completed in 2 months). (Jane Modeste-Goulet 2006)

SRRB Project Design: Solutions

- Community ownership: In place of creating a separate Advisory Committee for the project, partnerships are established with existing community institutions (First Nation Councils, Elders

Councils, Renewable Resources Councils, Cultural Institutes). These bodies are provided with opportunities to participate in project design, verification and analysis.

- **Capacity/training:** A model project approach was adopted. The program was initiated in communities with the highest capacity level (including community researcher capacity and workspace). The catalyst for the Déline and Fort Good Hope projects was the level of initiative already taken to establish research institutions, the Déline Knowledge Centre and the K'asho Got'ine Cultural Institute. Colville Lake had already taken initiative in organising its own caribou survey, so was considered the priority candidate for participation during Year 2 of the project. Successes are presented annually at regional meetings as a model for research in other communities.

More than one researcher is hired in each community, and experienced researchers are paired with younger new researchers to allow for a team approach. Research support is provided by a social scientist, five professional linguists (academic and community-based, in Déline and K'asho Got'ine dialects), and two natural scientists. In each community, efforts are made to ensure that at least one individual living in the community over a long term period was available to provide ongoing support and leadership. Training was adapted to specific objectives of community researchers.

- **Scope:** In order to achieve depth and ensure completion of quality products within the project timeline and budget, the two year project was focused on a single indicator species (barren-ground caribou). Rather than the multi-indicator approach, knowledge about human relationships with barren-ground caribou are being analysed to monitor ecological, social and cultural health.
- **Research design:** Dene methods of knowledge production were adapted for the study, including semi-structured procedures of collective information sharing and analysis in focus groups as the starting and end points. Existing documented TK and scientific information are presented in developing research questions. Individual (or household) interviews are (semi)structured to supplement focus group discussions. Qualitative methods of interview analysis are used, and results are verified in focus groups.
- **Documentation:** Focus groups and interviews are limited in number proportional to time and resources available for full transcription of audio recordings, including terminology.
- **Archiving:** This was identified as a critical issue. The Principle Investigator coordinated training at the NWT Archives for Déline and Fort Good Hope community researchers. Equipment has been purchased for digitizing old cassette recordings, and a customized archive database has been provided to the community research centres. Subject to information sharing protocols controlled by the partnering First Nation Councils, transcripts and audio recordings will be archived in the community and at the NWT Archives.
- **Funding/time constraints:** A multi-year funding framework was sought from the SRRB and the Social Sciences and Humanities Research Council of Canada. The project budget ensures that there are resources available for collaborating scientists to stay for extended periods in the communities, and to employ at least two community researchers for the duration of the project. The timeline also



Figure 3: Déline researchers Michael Neyelle and Edith Mackeinzio. Credit: Julie Mackeinzio

accounted for the prospect that community researchers are juggling this project with other committee work, jobs, or contract responsibilities, so must often work flexible hours.

- **Products:** These are adapted to community interests, capacity and objectives, as well as funding constraints. The minimum objective is production of a community booklet, as well as a larger book project over the long term. In Fort Good Hope, initiative has already been taken to acquire professional video equipment, and training in videography has been provided by the National Film Board. The project trainee aims to enter film school, and there was a strong interest in video-taping elders as part of the project.
- **Continuity/sustainability:** efforts are being made to provide for follow-up projects at local and/or regional scales, and to develop TK research frameworks toward integrated outcomes at both scales. The study aims for long term sustainability in adopting a qualitative approach based on small scale projects that gradually expand in relation to community objectives, capacity and funding.

Information Sharing Protocol

As this research involves face-to-face semi-structured focus groups and interviews among community members, research participants are not anonymous. The community researcher explain to participants in Dene language that sessions are being audio recorded (and where relevant, mapped), and will potentially form part of communication products for the community and for the broader public, since the purpose of the research is to document Dene knowledge for use in decision-making at local, regional and territorial levels. The terms of participation outlined in locally developed consent procedures specify that only information that the participant has approved for sharing will be documented and included in published materials. The researchers and anyone contracted to transcribe or edit the interviews are asked to sign a confidentiality form to ensure that the participant has an opportunity to approve all the interview materials before they are shared in the community or the broader public. The participant's name will be attached to any published information that they have consented to share. This will allow community members and other researchers to follow up with the participants in subsequent phases of research (with appropriate community approvals and participant consent).

Communications

Plain language oral and written communication of research process and results are now a required condition of community based research. Community researchers are primarily responsible for oral communications in the local Dene language dialect, with support from scientists. Written communications include posters, newsletters, and for longer term use, booklets. Where relevant, results are spatially represented on maps.

Conferences, workshops and peer reviewed academic publications are also prioritized as a way of obtaining feedback and building awareness of the research within a wider context. Where possible, community researchers and/or representatives of partnering community organisations are invited to collaborate in oral and written presentations outside as well as within the community.

Evaluations

Evaluation processes are facilitated by the Principle Investigator on a regular basis in meetings with community and science researchers, in focus group meetings, in meetings with community partners, and in community public meetings. Criteria by which process and results are measured are:



Figure 4: Fort Good Hope Focus Group Meeting, January 30, 2007.
Credit: Ann Marie Jackson.

- **Ownership:** Level of community support, initiative in participation, in-kind contributions to the project, leadership in guiding the project, and planning for follow-up projects.
- **Capacity/training:** Extent to which self-identified training objectives (including academic objectives) by both experienced and trainee community researchers are met; level of community researcher's ability to work independently; enhancement of literacy in Dene and English languages; community researcher employability post-project; expansion of community partner(s)' capacity to administer and lead the project.
- **Scope:** Scope of research is proportional to capacity of both community researchers and community participants, and gains in momentum or leads toward gradual expansion (rather narrowing or fizzling out). Results are detailed enough to provide a rich resource for analysis.
- **Research design:** Compatibility of research design with Dene culture enhances confidence and interest levels of community researchers and research participants. Research is structured to provide for communities to eventually become relatively independent in determining research priorities, identifying the need for and obtaining any necessary scientific support, and conducting analysis of research results.
- **Documentation:** Transcriptions and verification of all interview and focus group recordings, including Dene language terminology are complete by the end of the research cycle.
- **Archiving:** Audio recordings, maps and transcripts are archived in digital format, and incorporated in a searchable database; copies are safely stored in trust by the First Nation Council and NWT Archives.
- **Communications:** Community members are aware of the project and have had opportunities to provide input and feedback; opportunities for dialogue are provided including elders, active harvesters and youth of both genders, and between community members and scientists. At least one opportunity has been provided for community researcher collaboration in a conference presentation and in an academic publication.
- **Product:** At least one plain language community education tool is produced including Dene language terminology and concepts by the end of the research cycle (this is scheduled for the 2007-2008 fiscal year as a synthesis of three community projects. Research results are made available to the broader public.
- **Continuity/sustainability:** The project evolves and/or merges into follow-up projects at the local level led by a community organization. A long term research space is dedicated to the research team. Outside resource people maintain continuity of participation and support of the project over at least three years.



Figure 5: Dora Vital and ecologist Dr. Micheline Manseau, Deline. Credit: Bruce Kenny.

Activity Report

Fort Good Hope	
Date	Activity
July 20	K'asho Got'ine Cultural Institute and Elders Council consultation meeting.
July 20	Interview with Elders Council President and former Dene Cultural Institute researcher Alfred Masuzumi
August 16	Plane crash and loss of 5 Fort Good Hope individuals, including Alfred

Fort Good Hope	
Date	Activity
	Masuzumi.
August 20	Burial ceremonies and land stewardship: sharing circle
August 23	Follow-up interview: Dora Lafferty
August 24	Follow-up interview: Frank Pierrot
January 23-26	Caribou Summit, Inuvik (representatives from Fort Good Hope)
January 30 (morning)	Renewable Resources Council-Elders Council consultation meeting
January 30 (aft)- February 2 (morning)	Focus group meetings
February 2-7	Follow-up activities; focus group notes; interview questionnaire development; presentations to K'asho Got'ine Council and Elders Council; coordination of Fort Good Hope contingent to workshops at the NWT Archive.
February 2-March 31	Follow-up interviews and transcription; coordination with research team.
March 23-31	Robert Ruttan research visit; focus group meeting; preparation of community booklet; reporting.

Déline	
Date	Activity
January 16 (morning)	Renewable Resource Council consultation meeting
January 16 (aft)- 19 (morning)	Focus group meeting; research visit by Micheline Manseau
January 19-March 31	Follow-up activities; coordination with research team; focus group notes; interview questionnaire development; presentation to Déline First Nation; coordination of Deline contingent to workshops at the NWT Archive.
February 14-16	Archiving workshop, NWT Archive
February 16	Simmons presentation to SRRB; meeting with Renewable Resources Council representatives (Norman Wells)
March 23-31	Robert Ruttan research visit; focus group meeting; preparation of community booklet; reporting.

Regional Activities (Fort Good Hope and Déline)	
Date	Activity
January-March	Digital TK mapping project: coordination of software adaptation.
February 8	Meeting with SRRB Executive Director Jody Snortland
February 14-16	Archiving workshop, NWT Archive
February 16	Simmons presentation to SRRB; meeting with Renewable Resources Council representatives (Norman Wells)
February 16	Meeting with Fort Good Hope-Deline research teams (Yellowknife)
February 16-21	Project evaluation
March 21	Meeting with Sahtu GIS office re traditional place names maps
March 21-23	Presentation to Dene Cultural Institute conference "Integrating TK into Environmental Assessments and Regulatory Processes in the NWT" (see appended)
March 26	Meeting with Ruthann Gal re digital mapping project
March 28-31	Concluding focus group meeting/interviews