

# COMMUNITY-BASED SAMPLING PROGRAM TO ASSESS CARIBOU HEALTH IN NUNAVIK

Julie Ducrocq<sup>1</sup>, Stéphane Lair<sup>1</sup>, Susan Kutz<sup>2</sup> and Manon Simard<sup>3</sup>

<sup>1</sup>Centre québécois sur la santé des animaux sauvages / Canadian Cooperative Wildlife Health Centre. Faculté de médecine vétérinaire, Université de Montréal, St-Hyacinthe, Québec, Canada.

<sup>2</sup>Faculty of veterinary medicine, University of Calgary, Calgary, Alberta, Canada.

<sup>3</sup> Nunavik Research Center, Makivik Corporation, Kuujuaq, Nunavik, Canada.



## CARIBOU OF NUNAVIK

- Nunavik is the northern part of the province of Quebec and the home to one of the largest caribou populations worldwide. This migratory caribou population is divided into two main herds:
  - George River herd (≈ 385 000 animals)
  - Leaf River herd (≈ 628 000 animals)
- Caribou represent an essential food source as well as being a cultural resource for the Inuit. Besides being hunted year-round, caribou subsistence hunts are usually concentrated during the fall and spring migrations.

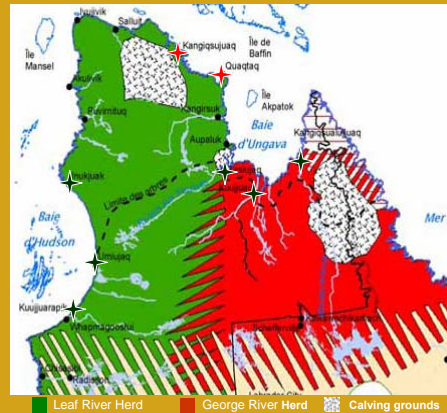
## OBJECTIVE

- The primary objective of this program is to actively involve Inuit communities of Nunavik in the health monitoring of Quebec's two migratory caribou herds in order to:
  - Assess their general health status;
  - Develop competence within northern communities by involving local hunters and working in collaboration with the Nunavik Research Center (NRC) based in Kuujuaq.
- This project was inaugurated in September 2007 and is scheduled to end in September 2009.

## METHODOLOGY

- Selected hunters from Inuit communities in proximity to at least one of two caribou herd migration routes were invited to attend a caribou sampling training workshop. To date two workshops have been conducted:
  - One was held in the spring in Kuujuaq and Inukjuak (May 4-7, 2008);
  - One was held in the fall in Kuujuaq, Kangiqsuajuq, Inukjuak, Umiujaq and Kuujuaaraapik (September 22 - October 3, 2008).
- Financial compensation was given to each hunter that attended the workshop and allocated for each sampled caribou;
- Assigned coordinators from each village are responsible for sending the samples to the NRC for subsequent triage and storing. Samples are afterwards shipped to the Centre Québécois sur la Santé des Animaux Sauvages located at the Université de Montréal for further analysis.

## SELECTED INUIT COMMUNITIES



## PRELIMINARY RESULTS (as of November 2008)

INUIT COMMUNITIES	# hunters trained Fall 2008	# hunter trained Spring 2008	Total # of hunters	# sampled caribou
Kuujuaq	6	4	10	4
Tasiujaq	3	3	6	-
Kangiqsuajuq	-	4	4	-
Inukjuak	4	3	7	20
Umiujaq	2	3	5	-
Kuujuaaraapik	-	4	4	-
<b>Total</b>	<b>15</b>	<b>21</b>	<b>36</b>	<b>24</b>

## ADVANTAGES ASSOCIATED WITH COMMUNITY-BASED SAMPLING

- Opportunistic sampling;
- Communities cover a large geographical sampling area;
- Direct exchange of local traditional knowledge during workshops;
- Transfer the caribou herd health results back to communities;
- Competency development and skill refinement.

## WHAT HAS WORKED

- Objective related to the number of hunters trained was met (15 hunters/seasonal workshop);
- Very good collaboration with community coordinators in order to find hunters and organize local workshops;
- The presence and leadership of the NRC greatly facilitated the implantation of the program;
- Sampling kits distributed amongst trained hunters (200 in total).

## WHAT ARE THE LIMITING FACTORS

- Weather conditions, activities in the villages, migration routes and caribou availability influence the number of samples obtained;
- To the present, the program has generated only a small number of samples, which limits the level of health assessment;
- Incomplete sampling kits returned;
- NRC personnel availability.

## WHAT IS PLANNED FOR 2009

- Spring workshops in Kangiqsuajuq and Quaqtaq; \*
- Increase the number of sampling kits given to participating hunters;
- Meet with trained hunters from all the participating communities to get their feedback;
- Remind hunters of the caribou sampling procedures;
- Find solutions to low numbers of sampled caribou.

**ACKNOWLEDGEMENTS:** The authors wish to extend their thanks to CARMA for the financial support and to the Nunavik Research Center, their regional coordinators and all present and future caribou hunters that have or will participate to this project.

