

# Monitoring the status of the Porcupine Caribou Herd



Prepared by the Porcupine Caribou Technical Committee and the Porcupine Caribou Management Board

## Background

The Porcupine Caribou Herd is a population of barren ground caribou that ranges across northeastern Alaska, Yukon, and northwestern Northwest Territories, providing an important source of sustenance for user communities. Cooperative monitoring and research on the herd is guided by two co-management boards in Canada and Alaska. This poster summarizes the current management program for the herd and some of the major results that have been documented for the herd since 1985.

## Management actions

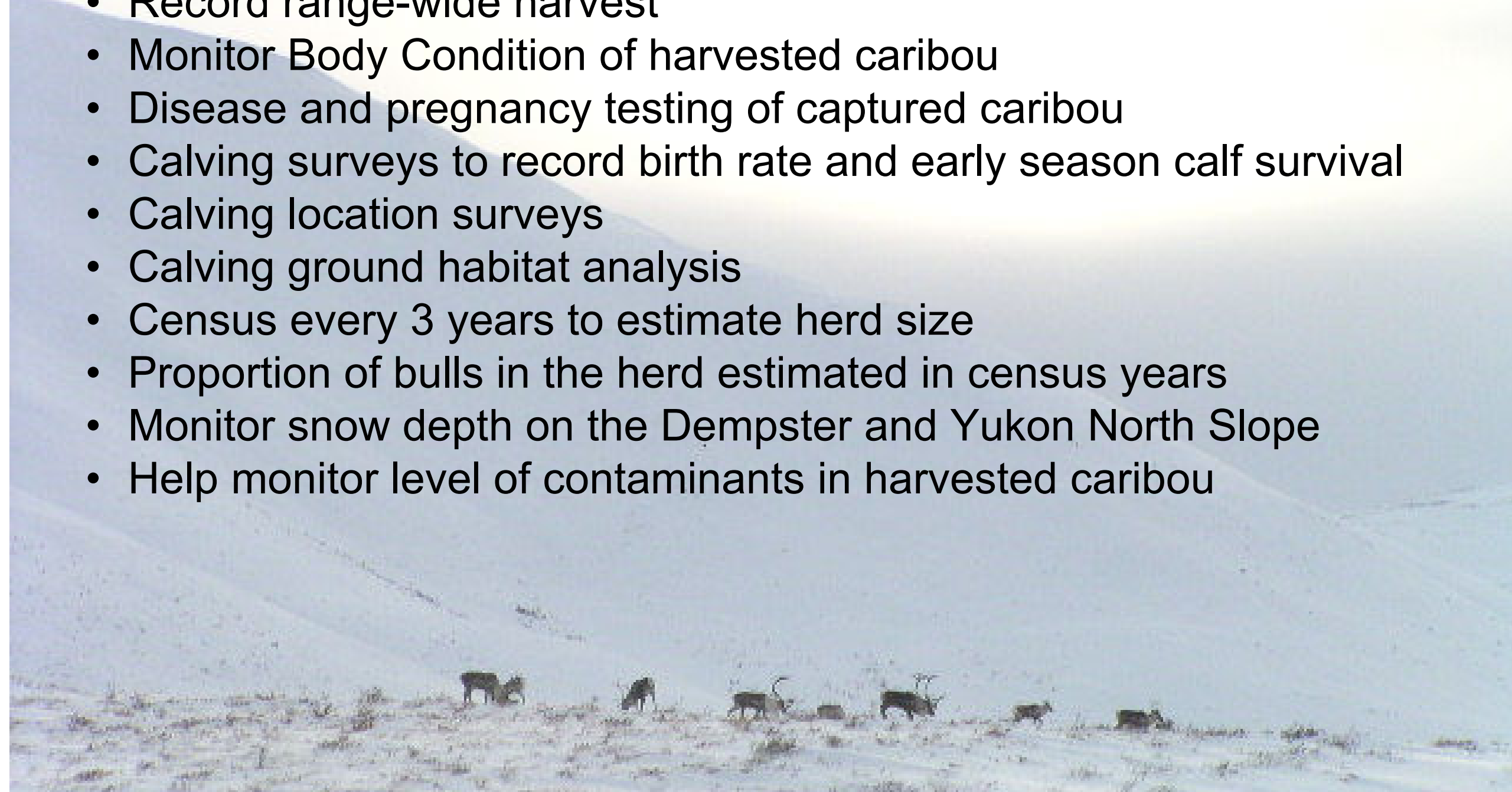
There are two co-management boards specifically responsible for the management of this herd. In Canada, we rely on the Porcupine Caribou Management Board to provide direction on management (see the PCMB posters). The International Porcupine Caribou Board was created to coordinate management across the herd's entire range.

## Research partners

The technical staff who work on the herd have formed the Porcupine Caribou Technical Committee (see below for participants). The role of this ad-hoc committee is to coordinate monitoring and research activities and to provide technical support to the parties and co-management boards.

## Current monitoring projects

- Maintain 80 to 100 conventional collars and about 10 satellite collars to document movements and distribution
- Late winter composition count to document over winter calf survival
- Check Station to record Dempster harvest
- Record range-wide harvest
- Monitor Body Condition of harvested caribou
- Disease and pregnancy testing of captured caribou
- Calving surveys to record birth rate and early season calf survival
- Calving location surveys
- Calving ground habitat analysis
- Census every 3 years to estimate herd size
- Proportion of bulls in the herd estimated in census years
- Monitor snow depth on the Dempster and Yukon North Slope
- Help monitor level of contaminants in harvested caribou



## Current research projects

- Effects of snowmachine use on vegetation in the Blackstone area
- Relating migration patterns to weather
- Update the computer population model
- Help with the Cumulative Effects Project



## Other activities

- Hunter education activities
- Manage Hart River caribou closure and Dempster snowmachine season
- Johnny Charlie scholarship
- Technical support for communities and co-management bodies
- Participate with CARMA and ABEKs

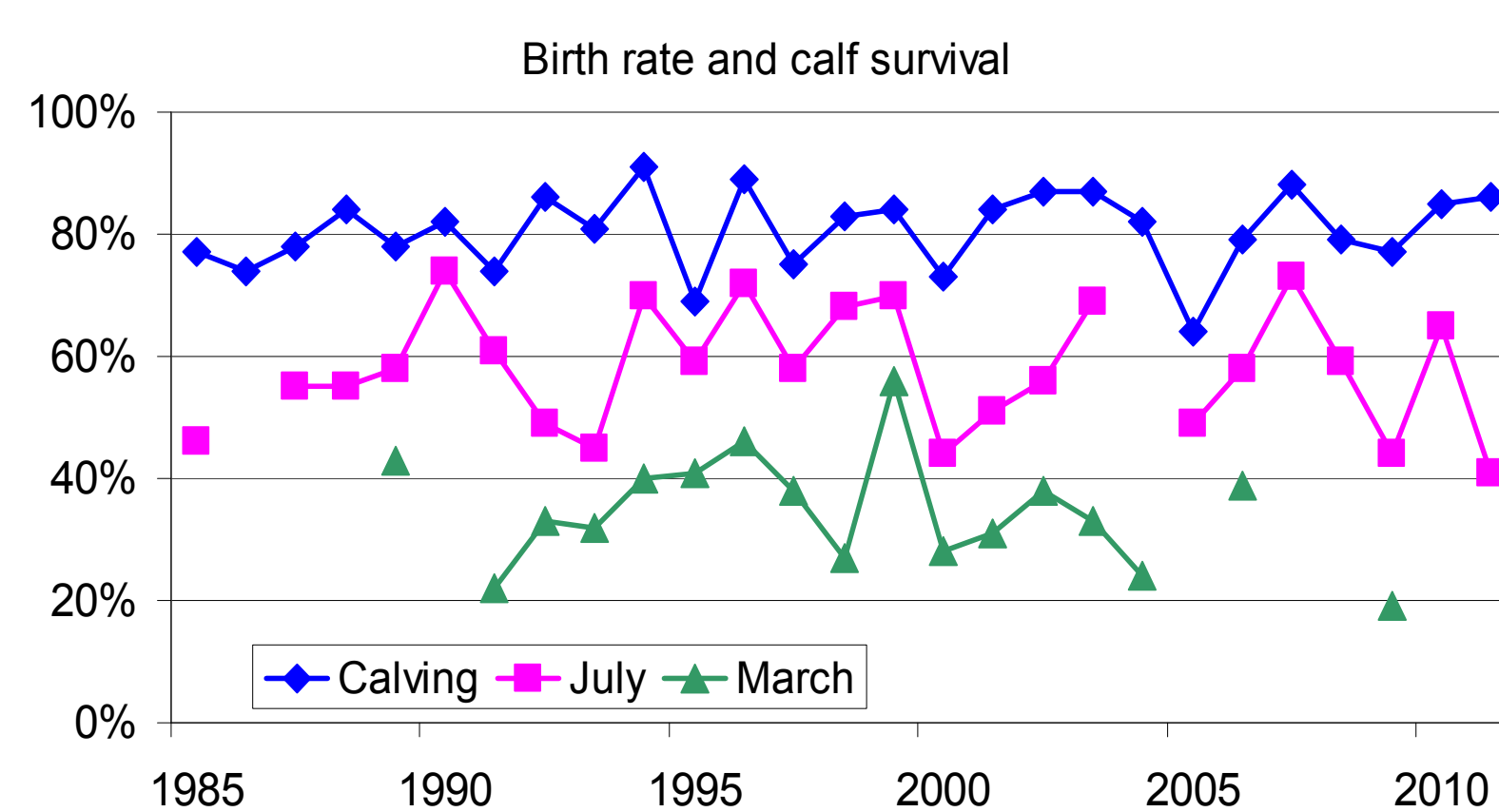
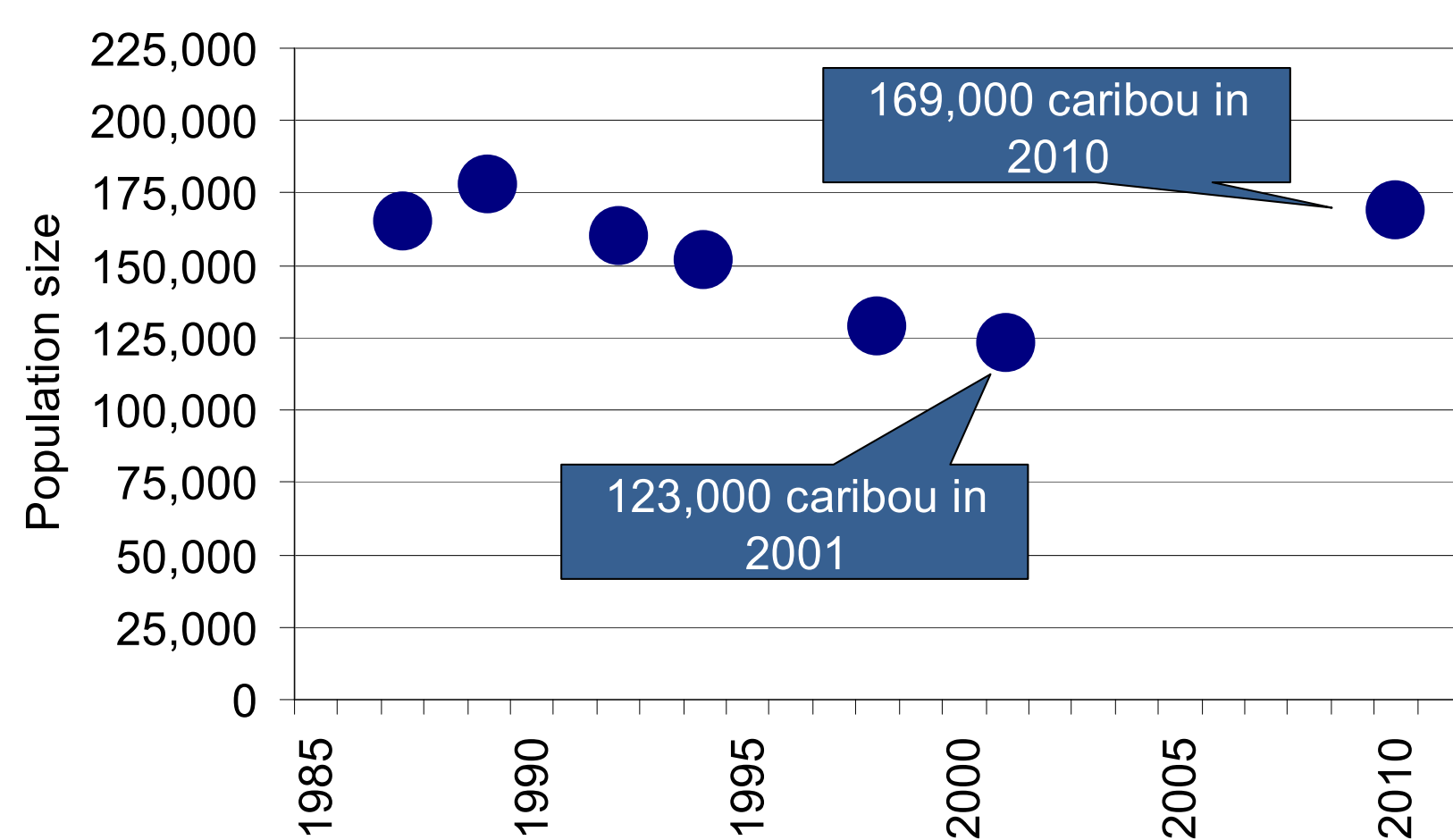
## Past research projects

- Body condition study
- Range use summary
- Vegetation and habitat mapping
- Genetic work
- Predation studies
- Dempster disturbance study
- Growth and development
- Diet studies
- Insect harassment studies
- Estimate of adult cow mortality
- Estimate of yearling survival
- Computer modeling of snow depth and active layer



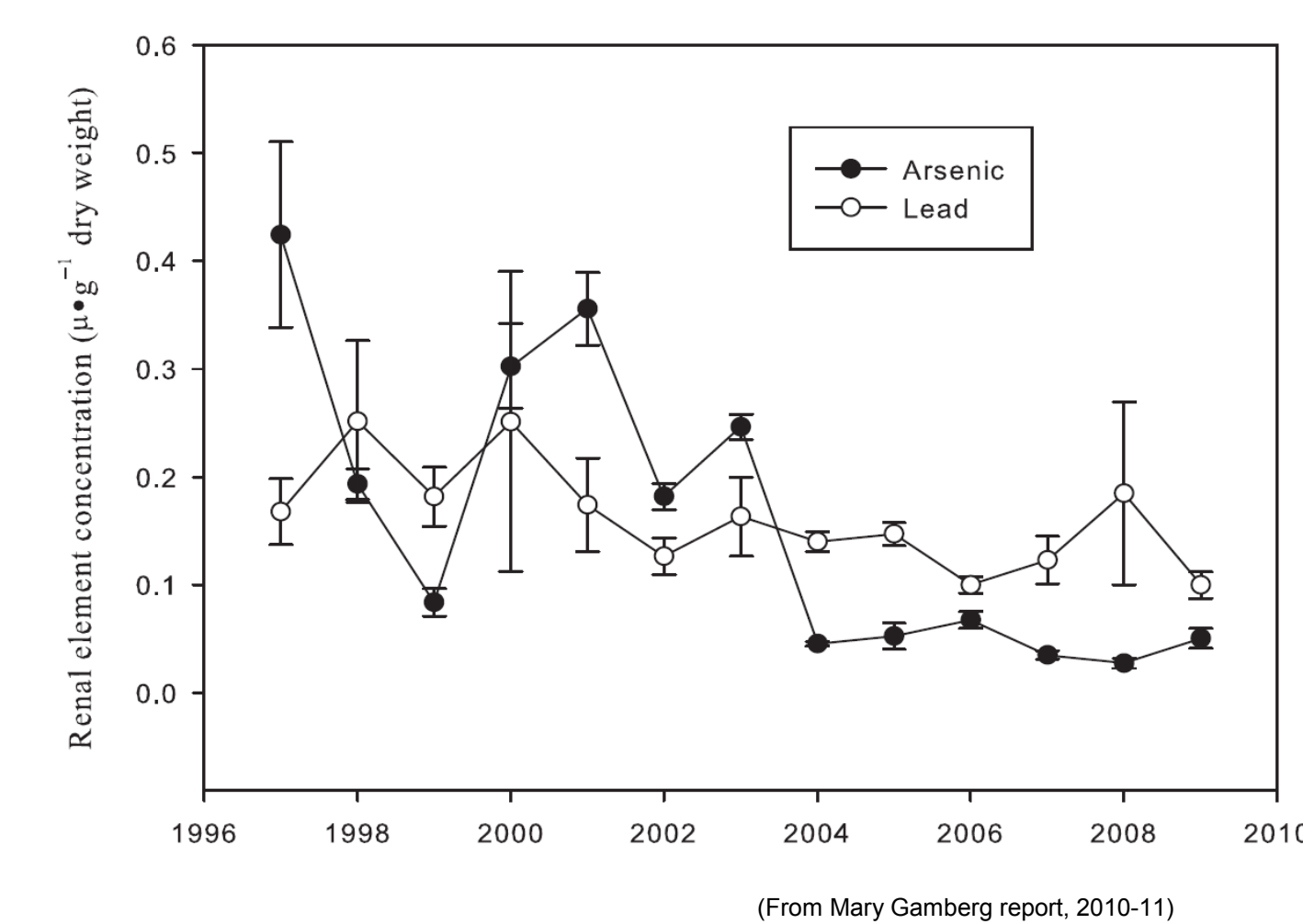
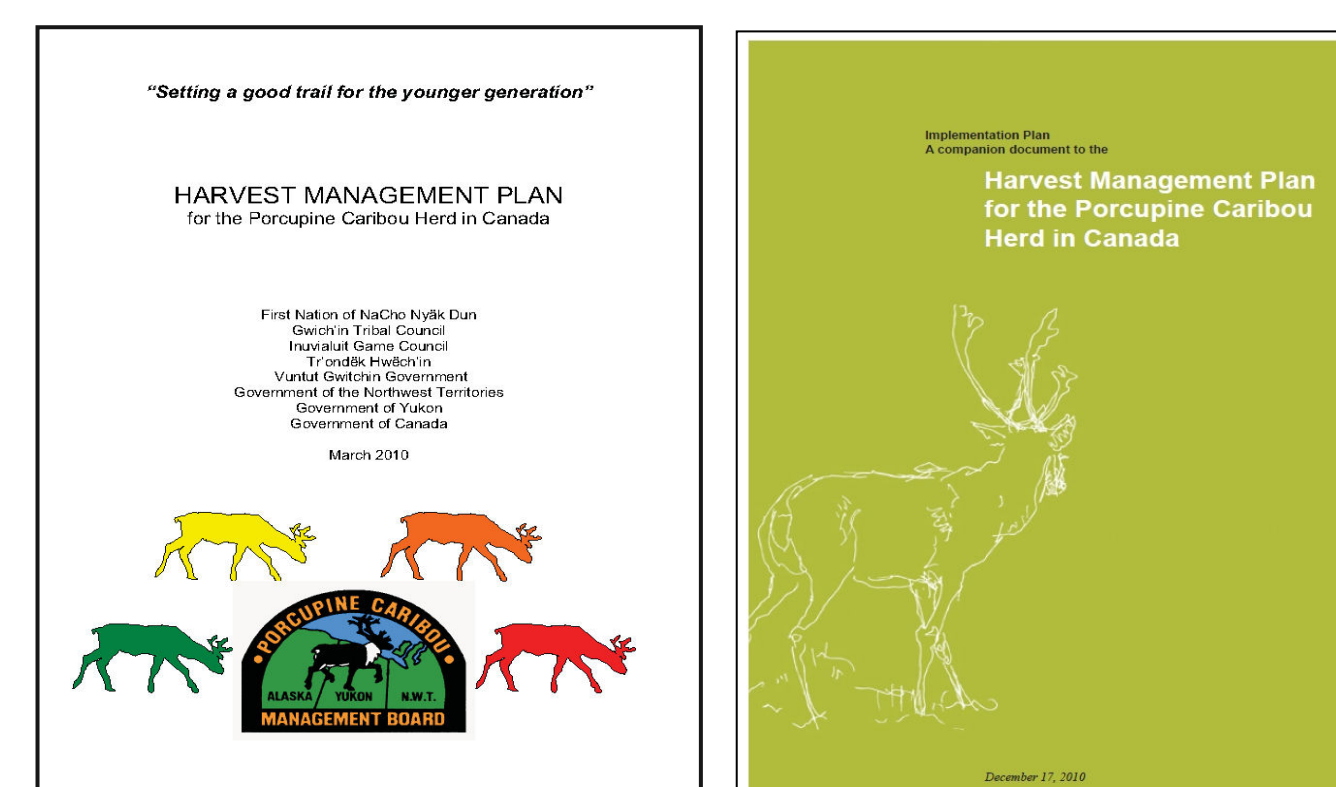
## Current status

After 7 years of trying, biologists were able to do a census in 2010. The herd appears to have recovered from the decline and numbered 169,000 caribou. Biologists will attempt another census in 2013. If successful this estimate will allow us to understand the trend of the population which is currently unknown.



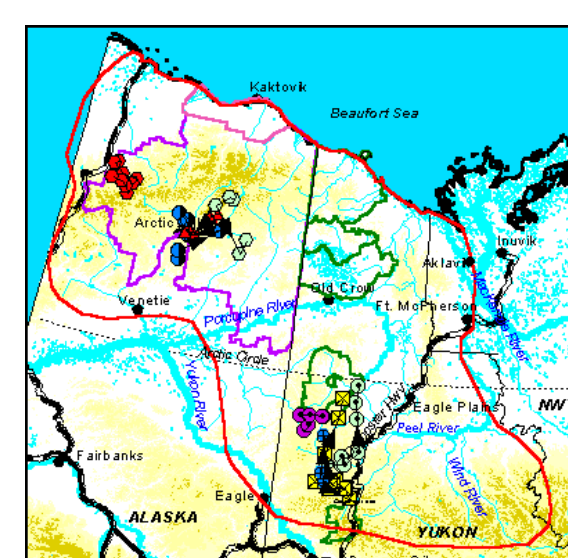
Calf survival monitoring is ongoing. Several March composition counts in recent years were canceled due to overlap with other herds.

Much work has been done in support of the Harvest Management Plan (see other posters). We continue to provide support to communities to implement the HMP. Ultimately we need to estimate the total herd harvest for management purposes.

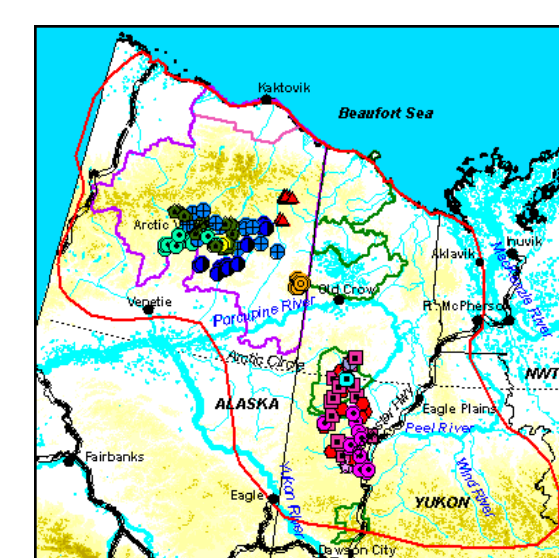


Mary Gamberg's monitoring has found that in general, contaminant levels in caribou are at low levels and have been relatively stable over time.

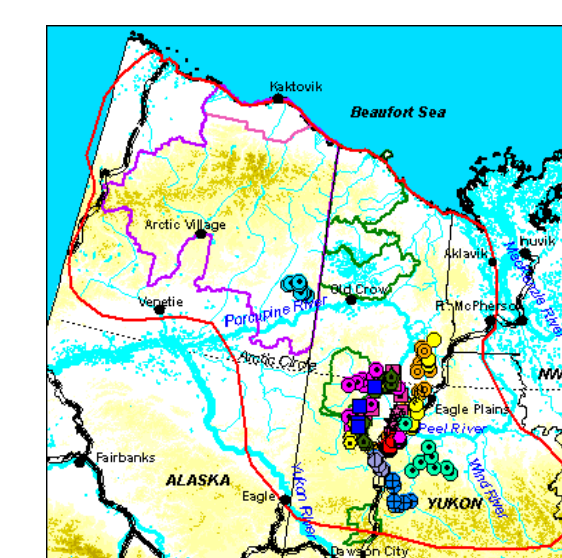
Annual range use and migration patterns vary year to year. Radio collars are invaluable in documenting where caribou travel and which ranges they use each season. It is important to know if there are changes in range use over time.



Winter 2002-03



Winter 2003-04



Winter 2004-05



For more information on any of these projects, please contact one of the members of the Porcupine Caribou Technical Committee

Alaska Department of Fish and Game, Arctic National Wildlife Refuge (U.S. Fish and Wildlife Service), Canadian Wildlife Service, Government of the Northwest Territories, Government of Yukon, Gwich'in Renewable Resources Board, Ivavik National Park, University of Alaska Fairbanks, U.S. Geological Survey, and Vuntut National Park