

# Population Dynamics of Migratory Caribou in Nunavik/Nunatsiavut

## Summary

### Project Leader(s)

Côté, Steeve

Migratory caribou are still abundant in northern Québec and Labrador, where they are central to the economy and traditional life of northern peoples. They are also economically important for a major outfitting industry, much of it involving Aborigines. Scientific and Aboriginal Traditional Knowledge, however, indicate that populations of migratory caribou undergo drastic changes over several decades. Caribou herds are declining almost everywhere in Canada, and the factors responsible for those declines are poorly known. Caribou also face threats from expanding resource-extraction industries and from climate change. A major preoccupation is that warmer weather may delay the freeze-up of hydroelectric reservoirs, possibly disrupting migration routes or mass drownings if caribou attempt to cross on thin ice. Through the cooperation of government agencies, Aboriginal groups and industry partners we are combining existing long-term data, monitoring of known-age caribou with satellite collars, satellite-derived information on plant productivity and small-scale climate manipulations to establish how climate and population density affect the food resources of caribou, their habitat use, choice of calving site, body growth and condition, recruitment and age-specific survival. These are the most important factors currently thought to affect caribou abundance and distribution in the Arctic. We are also addressing the effects of industrial activities on caribou ecology and quantifying the impact of caribou on vegetation in key seasonal ranges. In addition to identifying the factors responsible for changes in population density and distribution, our work will provide managers and Aboriginal Peoples with new tools to monitor the demography of caribou and therefore improve their conservation in the face of climate change.

## People

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