



## Summary

The Beverly and Qamanirjuaq Caribou Management Board (BQCMB or the "Board") was founded in 1982 to bring representatives of communities and governments together at regular meetings to ensure sustainable use<sup>1</sup> of the Beverly and Qamanirjuaq herds of barren-ground caribou. The Board has evaluated the potential negative effects of some development activities on caribou and their habitat, but it needed a system to (a) access information on past use of range by caribou, (b) evaluate the sensitivity of caribou and their habitats, and (c) assess the potential negative impacts of land use activities<sup>2</sup> proposed for the range of Beverly and Qamanirjuaq caribou. Production of this report and a map atlas on computer disk (CD-ROM) are the first steps towards developing such a system.

The first task was to obtain information on past distribution and movements of Beverly and Qamanirjuaq caribou from government files and reports, enter it in a computerized geographic information system (GIS), and produce maps showing range (geographic areas) used by these caribou herds over many years. The principal information sources were surveys conducted by government agencies between 1940 and 1995, and locations of satellite-monitored caribou<sup>3</sup> from 1993-1997.

A year in the life of caribou was divided into seven *life cycle periods* (for example, spring migration, early winter), and past distribution and movements of Beverly and Qamanirjuaq caribou were mapped for each of these periods. Generalized black-and-white maps, which summarize all information compiled to date, are provided in Appendix A of this report. A CD-ROM is also being produced that includes many colour maps showing more details about range use by caribou during each life cycle period, and information on the hundreds of data files used to produce the maps. The maps and other information on the CD should be used for resource management planning or impact assessment work on the range of Beverly and Qamanirjuaq caribou.



Protecting caribou and their habitat from human disturbance is a goal of the BQCMB.

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The relative sensitivity of caribou to disturbance during each life cycle period was rated by BQCMB biologists. Preliminary ratings were also developed for the sensitivity of range used by caribou during these periods. These ratings were combined to produce a *caribou-range sensitivity rating*, which can be used as a general guide for assessing potential negative impacts of land use activities on caribou and caribou range at particular times of the year. Board biologists are currently developing a system for assessing potential impacts using these sensitivity ratings and the maps of caribou range use provided in the map atlas on CD-ROM.

Although a large amount of information was gathered and used to produce the maps in this report (Part 1) and in the map atlas on CD-ROM (Part 2), there is much additional information that could be added in the future, based on local knowledge<sup>4</sup> of people living in communities on the caribou range, and numerous unmapped descriptions of caribou distribution in reports and government files. Users of these reference materials should (a) consider local knowledge when determining which areas are important for caribou, and (b) be aware that just because caribou have not been recorded in certain areas in the past does not mean that those areas are not used by caribou or do not provide important caribou habitat.

<sup>1</sup> Sustainable use of caribou herds is use that does not reduce opportunities for use by future generations.

<sup>2</sup> The BQCMB uses the terms "development activities" and "land use activities" to describe human actions that may have long-term negative effects on caribou herds or their range. These activities are primarily associated with resource development, and do not include subsistence hunting or trapping.

<sup>3</sup> Satellite-monitored caribou wear radio-collars that are tracked by satellites, so their locations can be observed by biologists from a distance.

<sup>4</sup> Local knowledge of caribou distribution and movements includes knowledge held by elders, hunters, and other experienced residents of communities who traditionally depended on caribou (traditional knowledge), and knowledge held by other people familiar with the land and the caribou herds.