

Study specifics

Region: North Slope

Study area: 5243 km²

DNA stations: 107 (7 km x 7 km)

Bears collared: 60

Project partners:

- Aklavik HTC
- Wildlife Management Advisory Council (North Slope)
- Government of Yukon
Department of Environment
- Parks Canada

Yukon North Slope Grizzly Bear Project 2004-2010

Project objectives

This project was designed to obtain up-to-date population data for grizzly bears in the Yukon North Slope. Data gathered helped estimate:

1. Population size
2. Reproductive rates
3. Survival rates
4. Population growth rate

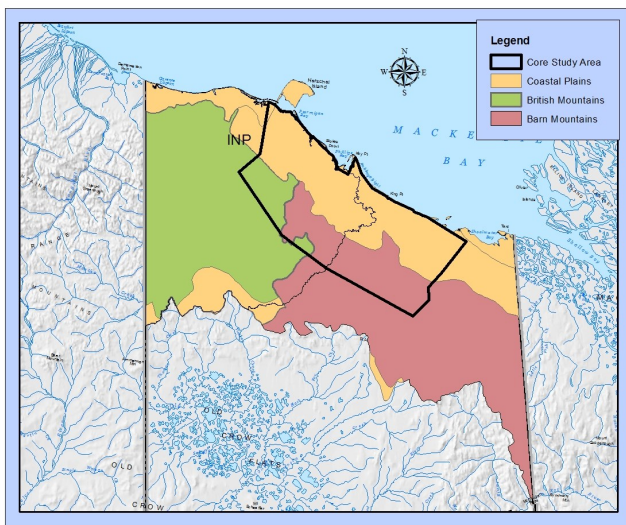
Project overview

This project used two methods to gather information for North Slope grizzly bears:

1. Population size was estimated using grizzly bear DNA collected from hair snagged at baited hair stations in 2006 and 2007. The DNA from these hair samples identifies individual bears. The number of times an individual bear's hair was snagged is analyzed relative to all other grizzly bear hair snagged. The higher number of different samples, the larger the population.
2. Sixty bears were collared and tracked during this study. Collar data from these bears and their cubs also helped calculate survival rates, reproductive rates and population growth rates.

Study area

The Yukon North Slope is divided into ecodistrict groups, represented by the coloured regions. The core study area is marked with the black outline. For this study, we referenced the ecodistrict groups for spatial-specific capture data.



Key findings

Reproduction: Collared females produced 43 cubs in 21 litters over the six-years of the project (2004-2010).

Most common litter size was 2 cubs (67 per cent) per litter.

Of female bears tracked, the average age of first reproduction was 10 years.

For more information, please contact

Your regional biologist or:

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Species technician

Population Estimate: The population of Yukon North Slope grizzly bears appears to be stable. Adult survival is high, however, cub and yearling survival is low.

Area	Low estimate (95% confidence interval)	High estimate (95% confidence interval)
Core study area*	87 (72–106)	104 (85–128)
Ivvavik National Park (INP)	211 (173–258)	298 (224–395)
Entire Yukon North Slope	290 (235-358)	431 (349-532)

Natural survival rates were high for adults (≈ 1.0) and lower for cubs (0.46 for cubs of the year and 0.34 for yearlings).

Bear density was not uniform over the study area. Densities were higher in specific ecodistricts and in the presence of calving caribou. This explains some of the range in population estimate.

