

Study specifics

Region: Southern Lakes, Yukon

Study area: 7,859 km²

DNA stations: 169 (7 km x 7 km)

Bears with collars: 39

Population estimate:

82 bears, (95% CI 69-97)

Yukon Southern Lakes Grizzly Bear Project

2012 – 2013

Project objectives

This project was designed to develop science-based bear population estimates for the Southern Lakes region.

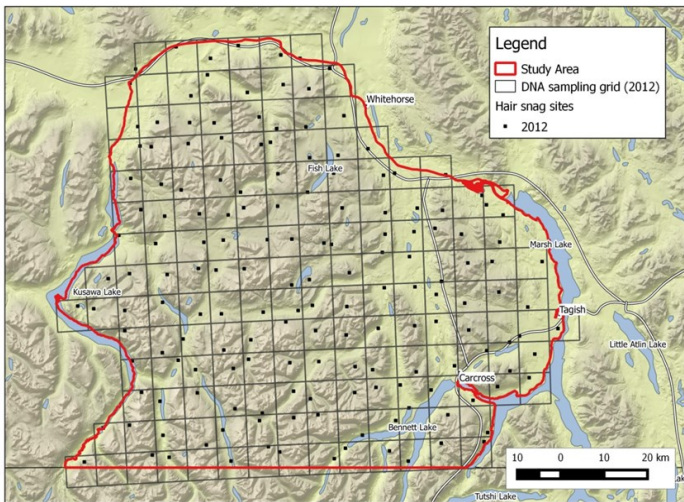
Project overview

Primary data came from hair snares operated in June and July of 2012 and 2013. DNA data was extracted from hair samples collected at the snares, and was used to develop individual capture histories for analysis.

This data was supplemented by telemetry data from GPS-collared bears. Thirty nine collared bears were tracked during this study; 15 bears were collared between 2012 and 2013.

Study area

The red outline defines the study area for the Yukon Southern Lakes bear project. Boundaries followed natural barriers to bear movement, where possible.



Methods

A hair snare station was placed in each 7 km x 7 km square. Snare stations consisted of a single strand of double-strand barbwire, suspended in a triangular shape around trees or rebar poles. Liquid lures were chosen to attract bears to the site without providing a reward. Stations were set up in mid-June and visited four times, finishing when the berry season ended, when bears had yet to finish shedding their summer coat.

For more information, please contact

Your regional biologist or:

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Key findings

Based on our analysis, our conservative estimate of the number of bears in the study area is 82 (95% confidence interval of 69-97), or a density of about 11 bears per 1,000 km² (95% confidence interval of 9-13 bears per 1,000 km²). More bears were found at higher elevations (18.5 bears/1,000 km² above 1,250 m compared to 6.2 bears/1,000 km² below 1,250 m). It is noteworthy that elevations above 1,600 m were sampled less intensively and human impacts are greater at lower elevations.

Previous grizzly bear population estimates derived from expert opinion estimated 144 bears in the study area (~19 bears/1,000 km²); this is higher than this science-based estimate of 82 bears (~11 bears/1,000 km²). It's difficult to tell if that means a decline in the number of bears because of the different ways the estimates were obtained and the decades between estimates. The results of this study do suggest that ecoregion-based estimates need to be adjusted for the more populated and developed areas in Yukon.

