

MINIMUM POPULATION ESTIMATE AND LIMITING FACTORS FOR NORTH CASCADE GRIZZLY BEARS^{TWS}

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The trans-border North Cascades grizzly bear population in northern Washington (WA) and southern British Columbia (BC) is classified as Threatened in the U.S. (US Fish & Wildlife Service 1993) and sensitive in adjacent BC (BC Ministry of Environment, 1995). This population has been protected on both sides of the international border for decades but has not recovered despite protection. How many grizzlies, if any, are on the US side is unknown. We must determine the number and sex ratio of grizzly bears present in the North Cascades to determine if the population has any chance of natural recovery. We will use DNA hair-snag methods to test several hypotheses within a 2,000 km² area of the northernmost part of the US Cascades: 1) Are grizzly bears present in the North Cascades Ecosystem; 2) What is the minimum and estimated number of grizzlies in the North Cascades; 3) Are female grizzlies present and what are the minimum estimated numbers. This information will be used in conjunction with that obtained in BC on a 2,400 km² area just north of the border to determine minimum population size for a 4,200 km² trans-border region. Our DNA hair-snag data will also be used to test hypothesis 4) What is limiting population growth and recovery in the North Cascades (lack of bears, lack of females, inbreeding, lack of vertebrate food, sexually motivated infanticide). This information will be used to formulate a scientifically based recovery plan for the North Cascades Grizzly Bear Ecosystem. Poster.