4.2 Southern Mountain Goats

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Surveys to determine the status of the Southern Continental Divide (north of Waterton Lakes National Park to the Crowsnest Pass) mountain goat population have been implemented on 22 occasions since the first program in 1979. During the 1979 program, only the complexes along the eastern (Alberta) side of the Continental Divide were surveyed. Commencing in 1980 and continuing during all subsequent years, entire mountain complexes on both sides of the divide have been surveyed (Fig. 4.2.1.). With a growing population, a hunt was initiated in 2001 with a small number of licenses issued in three goat management areas. In 2008, the survey objectives were to obtain a minimum count of goats to determine population status and trend, to classify all goats by sex and age to facilitate population analysis and provide an assessment of herd production and recruitment, and to map goat sightings to provide population status information on a regional basis.

4.2.1 Survey Methods

Mountain complexes along the Continental Divide were searched over a 4-day period from June 26 – 29, 2007 (Fig. 4.2.1). All surveys were conducted during the morning period to take advantage of peak animal activity, using a Bell 206 helicopter flown at air speeds ranging from 50 to 100 km/h. In some instances, coverage of the goat range was accomplished by conducting a single flight near timberline, but a large portion of the survey area required a second flight at a higher elevation to provide complete coverage of extensive mountain faces, particularly in high goat density areas.

The left front passenger (navigator) was responsible for maintaining the proper flight course, and assisting with classification of goats to sex and age categories. Two observers occupying the rear seat provided continuous side observation, with the right passenger recording wildlife numbers and GPS locations. All goats observed were classified into standard age categories of adult, yearling or kid. We did not correct for sightability, therefore overall counts should be considered as minimum estimates and direct comparisons of survey results among years may be difficult. Weather conditions for the 4-day survey were excellent.

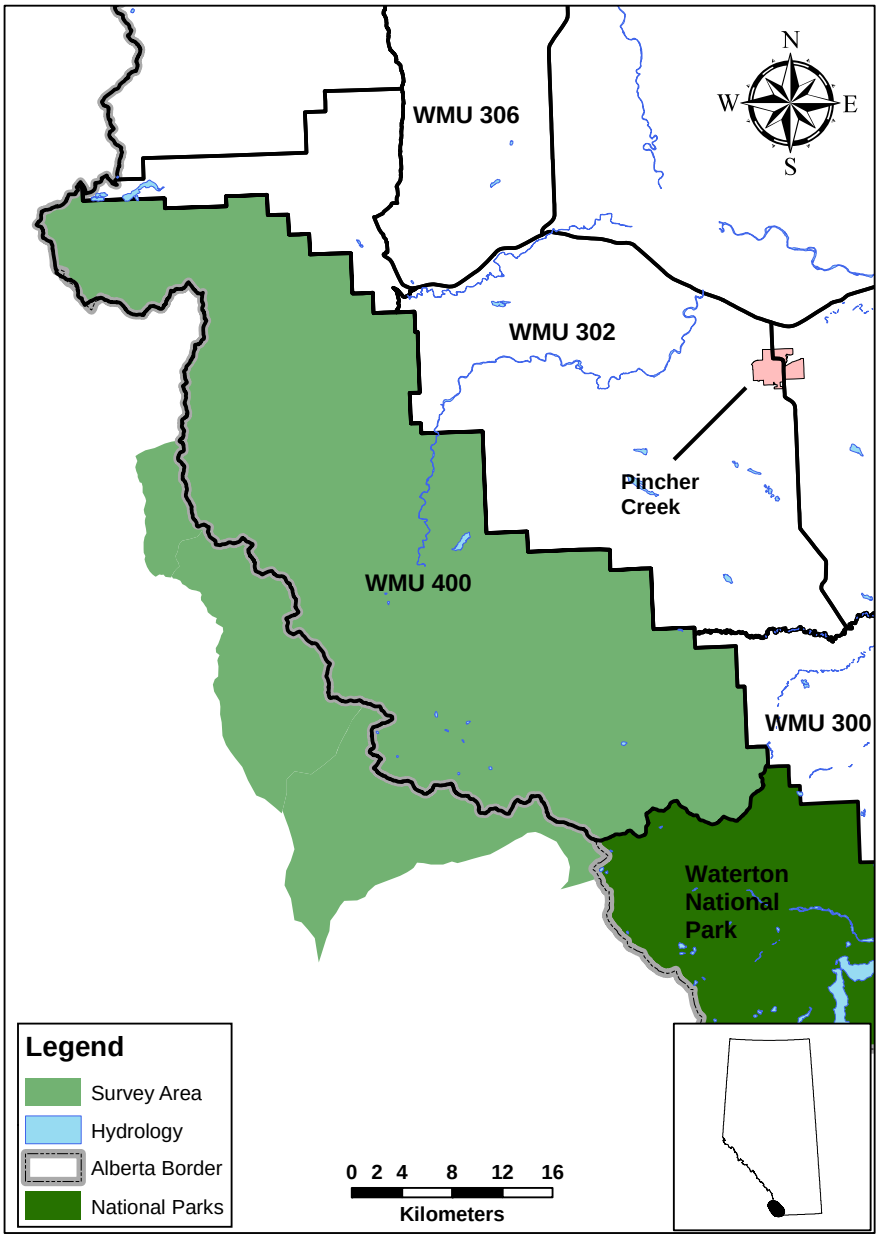

Figure 4.2.1. Location of the Southern Mountain Goat Survey Area in Alberta.

4.2.2 Results

We observed 218 mountain goats during the survey, including 149 adults, 46 kids, 25 yearlings, and no unclassified (Table 4.2.1.). Classification of age classes resulted in reproduction and recruitment rates of 31 kids/100 adults and 17 yearlings/100 adults.

The 2008 survey count of 218 is 11% greater than the survey conducted in 2007, however the 2008 count is 12% lower than the all-time high of 248 goats observed during 2005 (Fig. 4.2.2). Recruitment rates in 2008 were down from the 2007 survey when 37 kids/100 adults were recorded, although 31 kids/100 adults is consistent with the long-term average (1980-2007). The number of yearlings per adult during the 2008 survey (17 yearlings/100 adults) has decreased from 2007 (27 yearlings/100 adults) and is below the long-term average.

Table 4.2.1. Mountain goat observations within each mountain complex in 2008.

Complex	**Total**	**Adult**	**Yearling**	**Kid**
O-Alberta	29	24	1	4
Upper West Castle	7	4	0	3
B-BC	59	34	9	16
Q-Alberta	33	22	7	4
C-BC	25	20	1	6
R-Alberta	51	38	4	9
D-BC	14	7	3	4
N.end Divide to CNP	0	0	0	0
Overall Total	**218**	**149**	**25**	**46**

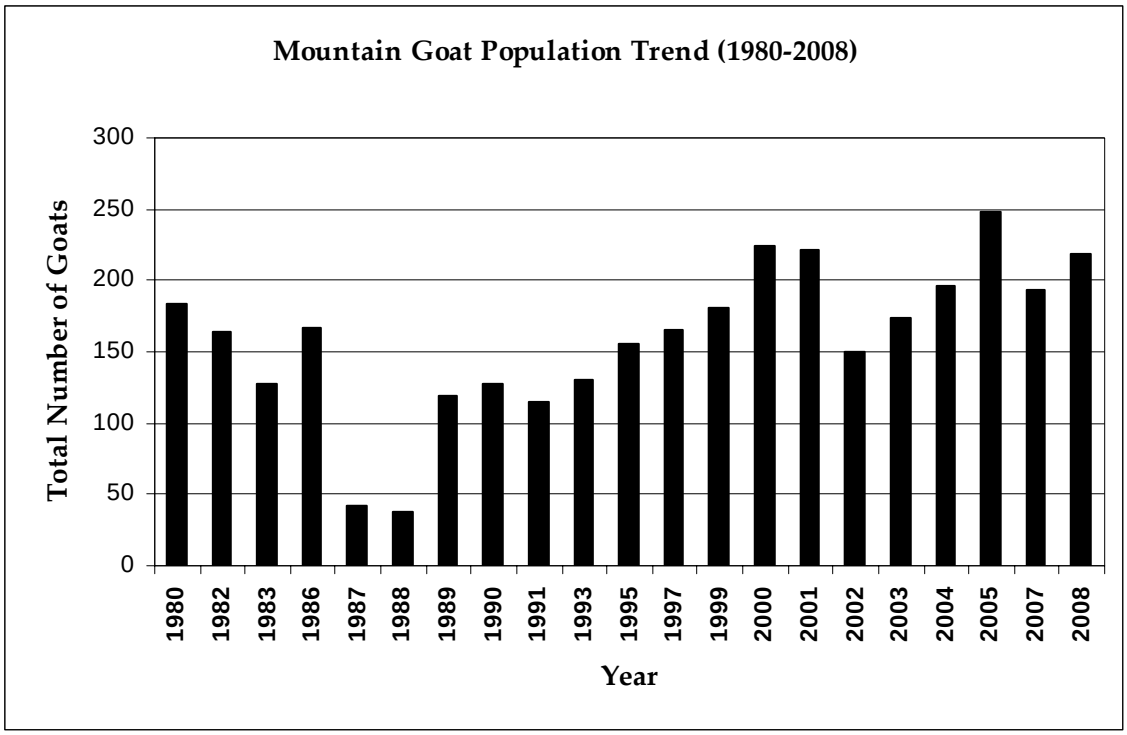

Figure 4.2.2. Southern Continental Divide mountain goat minimum population count trend, 1980 to 2008. Note: surveys conducted in 1987 and 1988 were incomplete.