

2009 Wildlife Management Unit 439 – 446 mountain goats



Section authors: Jeff Kneteman and Shevenell Webb

Kneteman, J., and S. Webb. Wildlife Management Unit 439 – 446 mountain goats. 2012. Pronghorn antelope. Pages 15-18. *In: M. Ranger and S. Webb. Delegated big game surveys, 2009/2010 survey season. Data Report, D-2011-001, produced by the Alberta Conservation Association, Sherwood Park, Alberta, Canada.*

Extensive annual surveys for mountain goats have been conducted in Willmore Wilderness Park and adjacent areas since 1974. With permission from the Superintendent of Jasper National Park, the survey area was expanded (beginning in 1979) to include mountain complexes straddling the Jasper Park boundary. The objectives of annual goat surveys in WMU 439 – 446 (Figure 1) are to collect data on population trends, distribution and herd composition, and to monitor the status of these mountain goat herds.

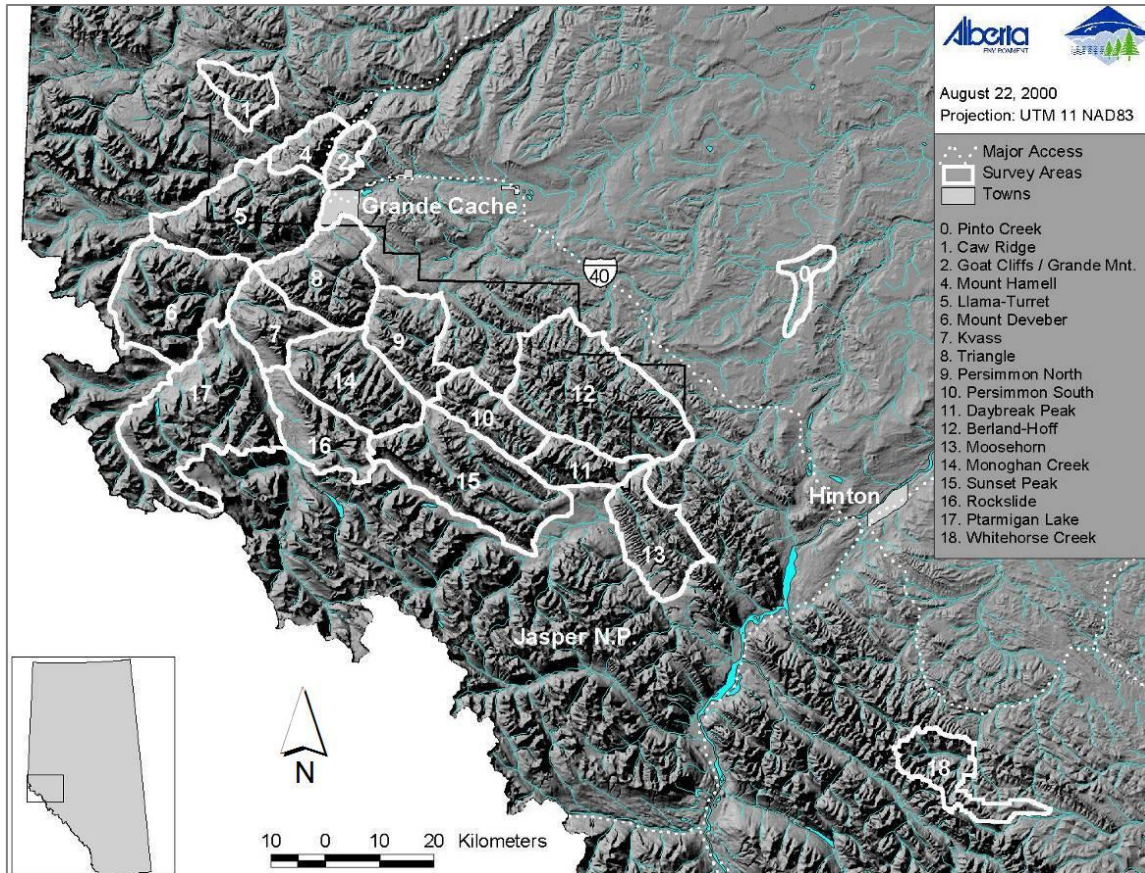


Figure 1. Location of the Wildlife Management Units 439 – 446 mountain goat survey in Alberta.

Survey methods

The survey area is comprised of seventeen mountain complexes and one canyon complex in the forested foothills of WMU 439 - 446 (Figure 1). We surveyed 11 complexes from 2 – 3, 15 – 17, and 27 July 2009 using a Bell 206B helicopter flown counter-clockwise around each mountain complex between timberline and ridge top. Air speed ranged from 120 – 150 km/h. The left front passenger navigated, observed and plotted checkpoints on a 1:250,000 scale topographic map. GPS locations were recorded for each group of goats. The two rear passengers observed and recorded species classification and numbers onto field data sheets. When herd size and/or location made classification difficult for observers or dangerous for mountain goats, the helicopter landed at a distance of approximately 0.8 km and we classified goats using a 20 – 45X variable spotting scope. Flights typically occurred between 0600 – 1100 h and 1600 – 2200 h during the goats' most active periods. Exact survey flight paths vary from year to year; thus,

comparison of overall counts between years is cautioned and should only be considered as a long term trend. We did not correct for sightability; therefore, overall counts should be considered as minimum population estimates.

Results

We observed a total of 492 goats (328 adults, 23 yearlings, 60 kids, and 81 unclassified) with ratios of 18 kids/100 adults and 7 yearlings/100 adults (Table 1). Kid to adult ratios were less than the average and yearling to adult ratios were equal to the average for the six mountain complexes surveyed most frequently between 2001 and 2009 (Table 2).

Total counts of goats on individual complexes in 2009 exceeded long-term averages in 3 of 11 complexes surveyed (Berland-Hoff, Caw Ridge and Llama-Turret); were less than long term averages on 7 complexes (Daybreak, Deveber, Goat Cliffs, Monaghan, Moosehorn, Mt. Hamel and Rockslide); and approximated the long-term average on 1 complex (North Persimmon).

In 2009, six complexes (Berland-Hoff, Caw Ridge, Deveber, Goat Cliffs, Moosehorn and Mt. Hamel) exceeded total goats counted in 2008, while total goats were less than the most recent survey on 4 complexes (Daybreak, Llama-Turret, Monaghan, and Rockslide) and approximated the most recent survey on 1 complex (North Persimmon).

Table 1. Mountain goat population counts within each mountain complex of Wildlife Management Unit 439 - 446 in 2009.

Complex	Adult	Yearling	Kid	Unclassified	Total
Berland-Hoff	14	2	2	0	18
Caw Ridge	15	0	1	81	97
Daybreak	14	1	4	0	19
Deveber	38	3	5	0	46
Goat Cliffs	35	1	6	0	42
Llama-Turret	77	7	16	0	100
Monaghan	25	1	5	0	31
Moosehorn	6	2	2	0	10
Mt. Hamel	45	2	7	0	54
North Persimmon	39	4	8	0	51
Rockslide	20	0	4	0	24
Total	328	23	60	81	492

Table 2. Total mountain goat population counts for six mountain complexes (Caw Ridge, Daybreak, Goat Cliffs, Llama-Turret, Moosehorn and Mt. Hamel) flown on a consistent basis in Wildlife Management Unit 439 - 446, 2001 - 2009.

Year	Number of Mountain Goats				
	Adults	Yearling	Kid	Unclassified	Total
Jul. 2009	192	13	36	81	322
Jul. 2008	221	11	51	0	283
Jul. 2007	236	21	40	9	306
Jul. 2006	-	-	-	-	-
Jul. 2005	269	31	63	5	368
Jul. 2004	299	17	63	5	384
Jul. 2003	-	-	-	-	-
Jul. 2002	302	15	75	9	401
Jul. 2001	223	20	70	43	356

“-” = all six mountain complexes were not surveyed during this year, so combined trend counts are not comparable.