

### **4.3 Foothills mountain goats**

*Section author: Jeff Kneteman*

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 surveys are to collect data on population trends, distribution and herd composition, and to monitor the status of these mountain goat herds.

#### **4.3.1 Survey methods**

The survey area is comprised of seventeen mountain complexes and one canyon complex in the forested foothills (Figure 4). We surveyed 12 complexes from 2 - 6 July 2008 using a Bell 206 Jet Ranger 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 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. Normally, all flights occurred from 0600 - 1100 h and 1600 - 2200 h during the goats' most active periods. 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.

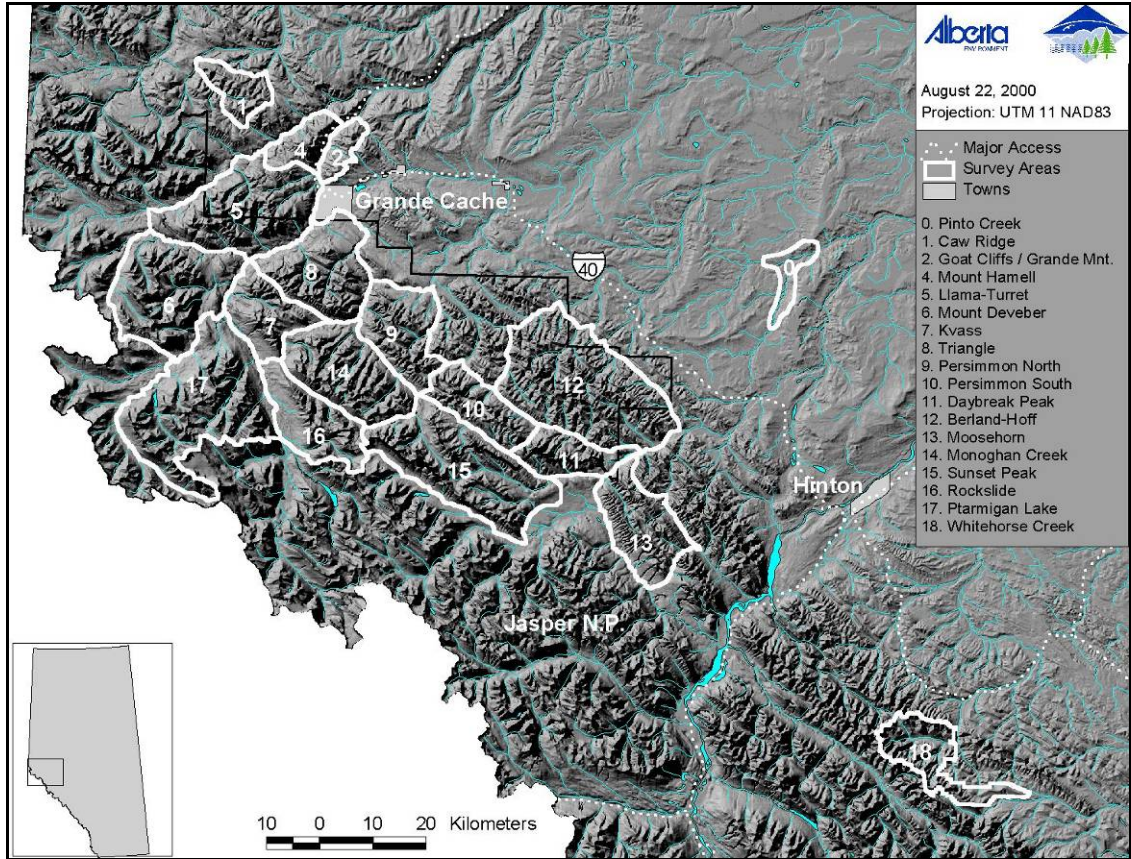


Figure 4. Location of the foothills mountain goat survey in Alberta.

### 4.3.2 Results

We observed a total of 501 goats (380 adults, 25 yearlings, 96 kids, no unclassified) with ratios of 25 kids/100 adults and 7 yearlings/100 adults (Table 4). Both ratios were less than the long-term indices for six complexes surveyed annually 20 times between 1979 and 2008.

Total counts of goats on individual complexes in 2008 exceeded long-term averages in two of 12 complexes surveyed (Llama-Turret, South Persimmon), was less than long-term averages on seven complexes (Caw Ridge, Goat Cliffs, Mt. Hamel, Deveber, Moosehorn, Monaghan, Sunset Peak), and approximated the long-term average on three complexes (North Persimmon, Daybreak, Rockslide).

Three complexes (Llama-turret, South Persimmon and Daybreak) exceeded total goats counted in the most recent previous survey, while total goats were less than the most recent survey on seven complexes (Caw Ridge, Mt. Hamel, Deveber, North Persimmon, Moosehorn, Sunset Peak, Rockslide), and approximated the most recent survey on two complexes (South Persimmon and Daybreak).

Table 4. Mountain goat observations within each mountain complex in 2008.

<b>Complex</b>	<b>Total</b>	<b>Adult</b>	<b>Yearling</b>	<b>Kid</b>
Caw Ridge	64	47	2	15
Goat Cliffs	36	27	0	9
Mt. Hamel	42	35	1	6
Llama-Turret	109	85	5	19
Deveber	41	28	1	12
North Persimmon	49	37	4	8
South Persimmon	36	26	3	7
Daybreak	30	26	2	2
Moosehorn	1	1	0	0
Monaghan	49	37	5	7
Sunset Peak	5	4	0	1
Rockslide	39	27	2	10
<b>Total</b>	<b>501</b>	<b>380</b>	<b>25</b>	<b>96</b>