

2008 Clearwater Area elk

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The elk, also known as wapiti, is one of the most prized of Alberta's wild ungulates due to its appearance, size, large antlers and social behaviour. With continued growth of human populations and activities, public interest regarding elk have become numerous and diversified (Fish & Wildlife Division 1997). Elk provide a significant hunting opportunity, both for recreational and subsistence hunting. In addition, elk are an important source of food for predators, especially wolves. In the Clearwater Area, long-term trend surveys, hunter success and general public perception suggest that elk are currently experiencing a new phase of decline. As a result, detailed winter range surveys are conducted each year to continue to monitor population trends.

Study area

Elk winter ranges in the Clearwater Area are bordered to the west by Banff and Jasper national parks, to the north by the Yellowhead and Brazeau Counties and to the south by the Panther and the Dormer-Sheep Forest Land Use Zones (Figure 5). This area is comprised of a mix of upper-foothill, montane and subalpine habitats (from east to west), with several large river valleys characterized by riparian habitats and meadows. The area includes some unique habitat including a high elevation rough-fescue grassland (Ya-Ha Tinda) in the southwest portion, a plain characterized by mild winters west of Lake Abraham (Kootenay Plains), and a extensive forested area (the R11 Forest Management Area) with unique management characteristics. There is very little agriculture or human settlement in the area covered by elk winter ranges, and the level of forestry and energy industries is low in the western portion of the area, but moderate to high in the eastern portion.

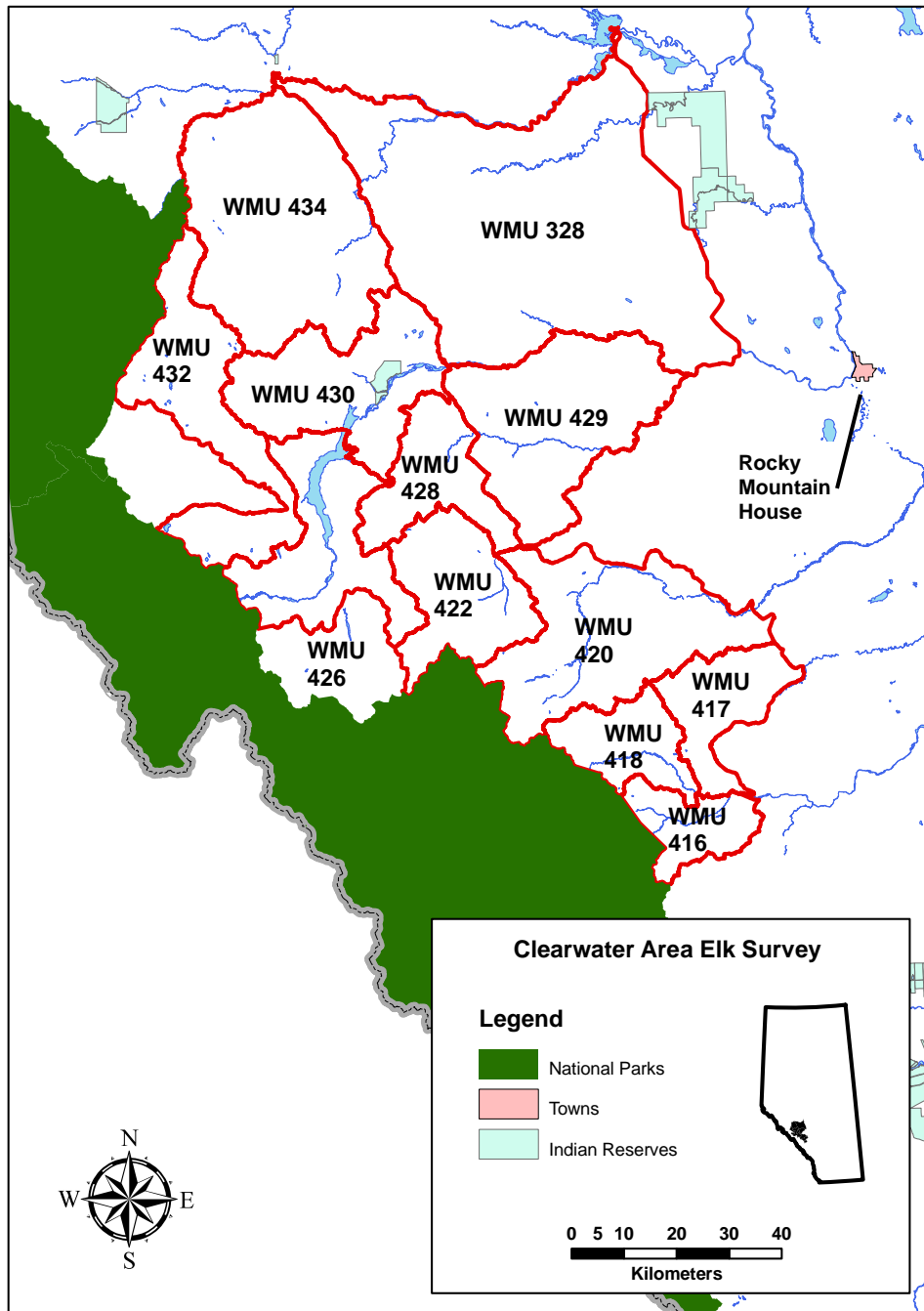


Figure 5. Location of the Clearwater Area elk survey in Alberta.

Survey methods

Known elk winter ranges were flown with a Bell 206 helicopter during January 23-24, 2008. The flight crew consisted of a pilot and three passengers: a navigator/observer up

front, an experienced observer right-rear, and an observer left-rear. Each range was searched by the helicopter crew and all elk seen were counted. When elk tracks were observed, the survey team searched the area intensively in an attempt to locate and count the elk. We did not correct for sightability, therefore overall counts should be considered to be minimum estimates. Air speed during flights was approximately 130 kph at an altitude of 200 m above ground. Ranges within Jasper and Banff national parks were not surveyed.

All elk were counted and a GPS location recorded; males were identified if antlers were present, but most individuals were antlerless at the time of the survey. In addition, all other ungulates observed during the survey (sheep, moose, deer and horses) were counted and classified by sex and age, whenever possible.

Results

Survey conditions were good, with 100% snow cover and light winds. All elk winter ranges in the Clearwater Area were surveyed, except ranges 18 (O'Chiese Natural Area) and 19 (Sand Creek, northeast of Brazeau Canal) because of heavy fog late in the day on January 24. Visibility of other ranges was unaffected.

In total, 800 elk were observed during the survey. Because of the large number of antlerless bulls, the sex ratio was not determined. Results of the 2008 survey and comparisons to 2007 are reported in Table 4. In 2008, many tracks were found in the Elk Creek winter range, but no animals were observed. In addition, the survey crew observed a total of 463 bighorn sheep, 72 feral horses, 39 deer and 87 moose.

Table 4. Number of elk seen on winter ranges within the Clearwater Area during annual surveys conducted in 2007 and 2008.

Winter Range	# of Elk Observed	
	2007	2008
Ya Ha Tinda Ranch	598	408
Upper Clearwater River	43	142
South Ram River	5	76
Ranger Creek	0	33
Elk Creek	39	1
Rough Creek	0	1
North Saskatchewan River	125	25
Nordegg	0	14
Kootenay Plains	13	90
Blackstone River	0	10
Brazeau River	5	0
Total	828	800

Literature Cited

Fish and Wildlife Division. 1997. Management plan for elk in Alberta (Draft). Alberta Environmental Protection, Natural Resources Service, Edmonton, Alberta, Canada.