

Delegated Aerial Ungulate Surveys 2007/08 Summary



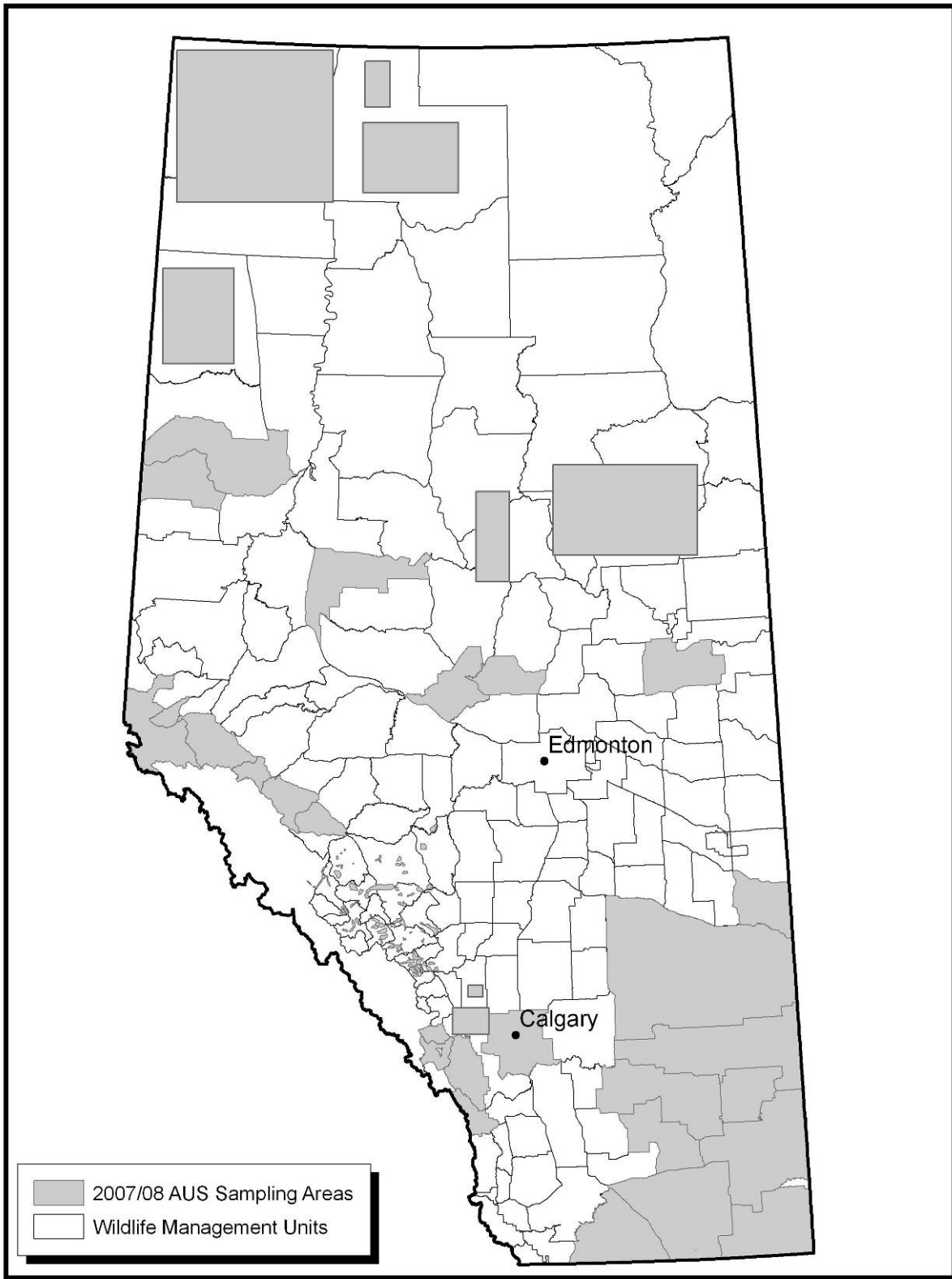
Conserving Alberta's Wild Side

Background

Alberta Conservation Association (ACA) uses levies on hunting and fishing licenses to collect and analyze population inventory data that can be used by Alberta Sustainable Resource Development (ASRD) in setting hunting and fishing seasons and regulations. Aerial ungulate surveys (AUS) are the primary method used to determine population status and trends for ungulates (big game) in Alberta, and therefore are an integral component for setting hunting regulations. Beginning in 2007, ACA became an active partner in the AUS program, and now works collaboratively with ARSD to plan and conduct surveys and to summarize survey data. ASRD continues to set provincial priorities for survey locations, and uses these survey data in the management of ungulate populations. A portion of the overall survey plan is delegated to ACA for delivery (D-AUS) in collaboration with ASRD. During the 2007/08 fiscal year, ACA funded and delivered 28 surveys in 54 management areas across Alberta. These surveys included summer range trend surveys for pronghorn antelope (*Antilocapra americana*) and mountain goats (*Oreamnos americanus*), winter range trend surveys for bighorn sheep (*Ovis canadensis*), bison (*Bison bison*) and elk (*Cervus elaphus*), random stratified block surveys for moose (*Alces alces*), white-tailed deer (*Odocoileus virginianus*) and mule deer (*Odocoileus hemionus*), and recruitment surveys for caribou (*Rangifer tarandus*). This report briefly summarizes results from the 2007/08 surveys. A full report and individual survey results can be found on the ACA website:

<http://www.ab-conservation.com/>

Survey Areas



Summary of Survey Results

MOOSE

We collected moose population information in five wildlife management areas from December 2007 to February 2008. When compared to results from the last time each unit was surveyed, the estimated number of moose increased in one unit (WMU 507) and decreased in two units (WMU 359, 526). No change was detected in the remaining two units (WMU 360, 505).

WMU	Population Estimate (+/- Confidence Limits)	Density (#/km ²)	Bulls/100 cows	Calves/100 cows
359	1709 (263)	0.52	18	25
360	2964 (453)	0.62	17	39
505	564 (134)	0.3	19	49
507	1253 (238)	0.45	23	59
526	2707 (390)	0.38	19	37

WT DEER

We conducted white-tailed deer surveys in five wildlife management areas from December 2007 to February 2008. When compared to results from the last time each unit was surveyed, the estimated number of deer increased in WMU 359, 360, and 526. No information was available for comparison to previous survey data for the remaining units.

WMU	Population Estimate (+/- Confidence Limits)	Density (#/km ²)	Bucks/100 does	Fawns/100 does
200	5738 (1664)	2.11	--	--
359	865 (255)	0.26	14	44
360	5096 (922)	1.06	26	51
502	6051 (1858)	1.79	17	75
526	2325 (632)	0.33	40	72

MULE DEER

We collected mule deer population information in seven wildlife management areas from December 2007 to February 2008. When compared to results from the last time each unit was surveyed, the estimated number of deer increased in WMU 360 and decreased in WMU 359 and 526. No information was available for comparison to previous survey data for the remaining units.

WMU	Population Estimate (+/- Confidence Limits)	Density (#/km ²)	Bucks/100 does	Fawns/100 does
104	1392 (306)	1.35	70	67
106	729 (187)	0.24	45	38
118	2808 (576)	1.42	35	44
200	3688 (1033)	1.36	--	--
359	3016 (383)	0.91	22	23
360	876 (259)	0.18	44	53
526	5429 (907)	0.76	48	62

ELK

We conducted minimum herd counts for elk in twenty-two areas from January to February 2008. In those areas where past count information was readily available, observed numbers were higher in seven areas and lower in four. The methods used for these elk surveys do not allow for conclusions to be drawn on whether these are significant population changes or not, but instead show broad trends over time.

Unit	Total Count	Bulls/100 cows	Calves/100 cows
WMU 212	913	n/a	n/a
WMU 310	324	21	13
WMU 312	979	31	29
WMU 314	293	12	n/a
WMU 404	254	28	16
WMU 406	171	34	15
WMU 408	187	20	11
WMU 410	160	n/a	n/a
BVPP*	67	n/a	n/a
PLPP*	6	n/a	n/a
WMU 526	239	n/a	n/a
Ya Ha Tinda Ranch	408	n/a	n/a
Upper Clearwater River	142	n/a	n/a
South Ram River	76	n/a	n/a
Ranger Creek	33	n/a	n/a
Elk Creek	1	n/a	n/a
Rough Creek	1	n/a	n/a
North Saskatchewan River	25	n/a	n/a
Nordegg	14	n/a	n/a
Kootenay Plains	90	n/a	n/a
Blackstone River	10	n/a	n/a
Brazeau River	0	n/a	n/a

* BVPP = Bow Valley Provincial Park; PLPP= Peter Lougheed Provincial Park

BIGHORN SHEEP

We collected minimum herd counts for sheep in eleven areas from January to February 2008. In those areas where past count information was readily available, total numbers observed were lower in WMU 437-444. The methods used for these sheep surveys do not allow for conclusions to be drawn on whether these are significant population changes or not, but instead show broad trends over time.

Unit	Total Count
WMU 437	96
WMU 438	276
WMU 439	25
WMU 440	346
WMU 442	255
WMU 444	151
Cardinal River	
Coals & Greg River	941
Resources Mines	
WMU 404	182
WMU 406	263
WMU 408	249
WMU 410	67

MOUNTAIN GOAT

We conducted minimum herd counts for goats in eight areas in July 2007. The total numbers observed were lower as compared to the last survey in 2005 but were within the long-term average. The methods used for goat surveys do not allow for conclusions to be drawn on whether these are significant population changes or not, but instead show broad trends over time.

Area	Total Count
Complex O	20
Complex Upper West Castle	4
Complex B	51
Complex Q	20
Complex C	19
Complex R	46
Complex D	32
Complex N. End Divide to CNP*	1

* CNP= Crowsnest Pass

PRONGHORN ANTELOPE

We surveyed antelope in eight antelope management areas (AMA) in July 2007. Population estimates and densities were comparable to observations made in 2006.

Unit	Population Estimate (Density; #/square km)
AMA A	880 (0.48)
AMA B	2620 (0.44)
AMA C	4140 (0.89)
AMA D	1260(0.93)
AMA E	2020 (0.67)
AMA F	3950 (0.53)
AMA G	2390 (0.29)
AMA H	1690 (0.1)

BISON

Minimum herd counts have been conducted annually for bison in the Hay Zama area since 1994. An additional 22 groups and 87 bison were observed in March 2008 as compared to the previous survey in 2007. The methods used for bison surveys do not allow for conclusions to be drawn on whether these are significant population changes or not, but instead show broad trends over time.

# of Groups	# of Bison			% Calves^b
	Adults^a	Calves	Total	
63	593	59	652	9

^a - "Adults" includes yearlings

^b - % Calves = calves/total population x 100

WOODLAND CARIBOU

We conducted minimum herd counts for caribou in eight areas in March 2008. No information was available to compare results to previous surveys.

Area	Total Count
Caribou	
Mountains	119
Chinchaga	177
ESAR*	116
Nipisi	42
Red Earth	110
Slake Lake	44
WSAR*	130
Yates	139

* ESAR = East Side Athabasca River; WSAR = West Side Athabasca River

For more information on aerial wildlife surveys, check our website: <http://www.ab-conservation.com/>