

## HISTORY OF TRANSPLANTING BIGHORN SHEEP AND MOUNTAIN GOATS - ALBERTA

KIRBY G. SMITH, Alberta Natural Resources Service, Ste. 108, 111-54 St., Prov. Bldg., Edson, AB T7E 1T2  
J. BRAD STELFOX, Box 16, Site 3, RR 5, Tofield, AB T0B 4J0  
JOHN G. STELFOX, RR 7, C116, Desert Cove Estates, Vernon, BC V1T 7Z3

---

### BIGHORN SHEEP

A total of 459 bighorn sheep (*Ovis canadensis*) have been transplanted from Alberta to the western states and British Columbia during 24 separate captures (Table 1, Fig. 1). The earliest recorded transplant was in 1922 when 12 animals captured in Banff National Park were transported to the National Bison Range in Montana (Rognrud 1983). Following that transplant, efforts were concentrated prior to the "Depression", during the 1960's, the early 1970's and over the last 7 years (Table 1); the most recent activity coinciding with the increased involvement of sportsmen's groups such as the Foundation for North American Wild Sheep. The majority of source herds have been located in Alberta's 3 mountain National Parks (Banff, Jasper and Waterton National Parks account for 16/21 transplants). However, since 1989, bighorns have been provided from 1 provincial herd located on Cardinal River Coals Ltd. reclaimed coal mining area, resulting in 125 animals being transplanted during 4 captures (Table 1). According to these proceedings, Alberta is the only state or province not to have received bighorn sheep from other jurisdictions. All historic ranges within the province are considered to be occupied at the present time.

### MOUNTAIN GOATS

In contrast to the history of bighorn sheep transplant activity in the province, Alberta has been a net importer of mountain goats (*Oreamnos americanus*). The earliest recorded transplants occurred in 1924 when 4 and 6 animals were transplanted from Banff National Park to British Columbia and South Dakota, respectively (Table 2, Fig. 2). It wasn't until almost 50 years later (1972) that transplanting activity resumed for this species, when 7 animals were moved within west central Alberta (Table 2). Since 1986, an additional 93 mountain goats have been released in southern Alberta in an effort to restock historical range. British Columbia has provided the majority of the animals transplanted in recent times (58/93), with west central Alberta being the source of the remaining animals (Table 2).

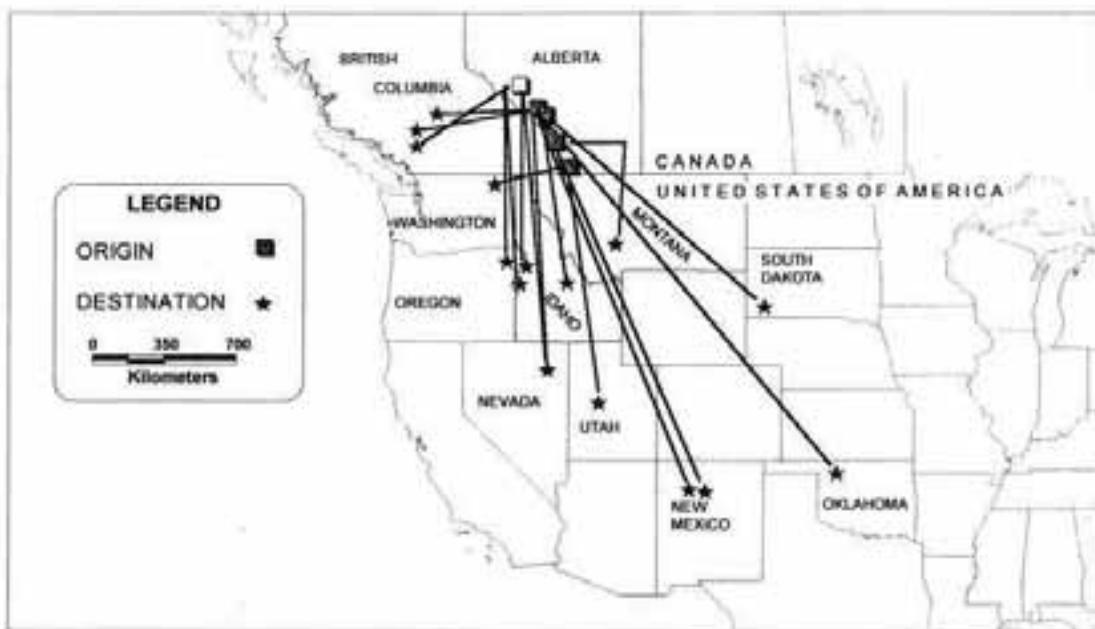


Fig. 1. Translocations of bighorn sheep from Alberta, 1922 - 1995

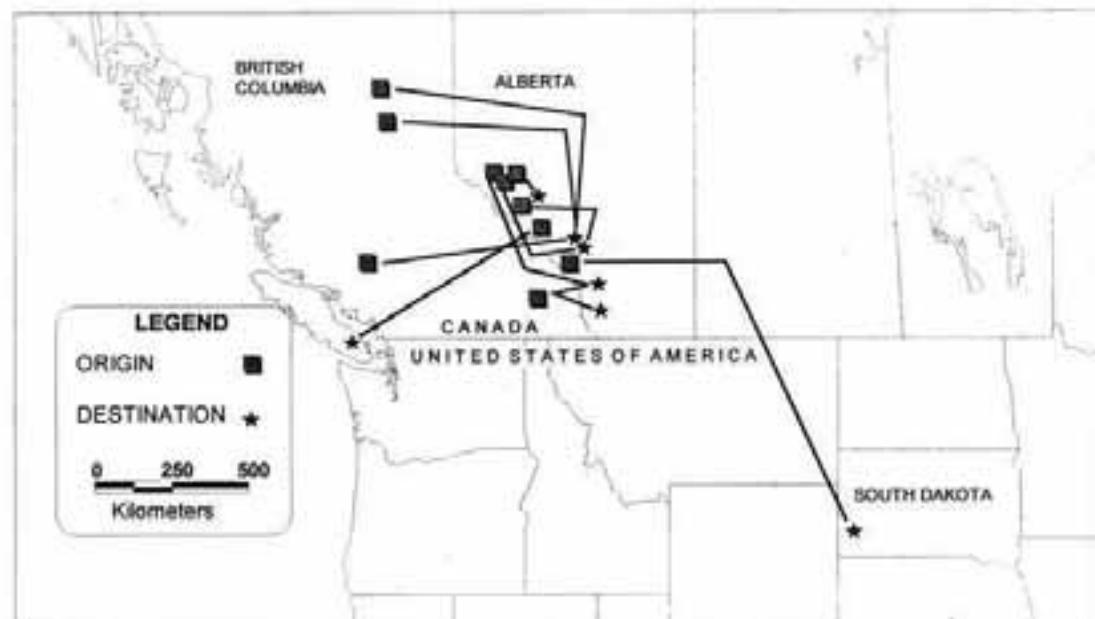


Fig. 2. Translocations of mountain goats to and from Alberta, 1924 - 1995

Table 1. Rocky Mountain bighorn sheep transplanted from Alberta, 1922-1995.

Year	No.	Origin	Destination	Reference
1922	12	Banff NP	Mt. Bison Range, Montana	Rognrud 1983
1927	49	Banff NP	Spences Bridge (Thompson R.), B.C.	Stelfox & Stelfox 1993
1927	50	Banff NP	Squax, near Chase, B.C.	Stelfox & Stelfox 1993
1928	14	Banff NP	Wichita Mtns., Oklahoma	Stelfox & Stelfox 1993
1932	6	Banff NP	Pecos Wilderness, NM	Sand 1967
1940	3	Banff NP	Sandia Mtns., New Mexico	Sand 1967
1941	3	Banff NP	Sandia Mtns., New Mexico	Sand 1967
1942	3	Banff NP	Sandia Mtns., New Mexico	Sand 1967
1961	12	Sheep R.	South Dakota	Wishart 1961
1964	10	Banff NP	Turkey Creek, New Mexico	Sand 1967
1965	15	Banff NP	Pecos Wilderness, NM	Sand 1967
1966	20	Waterton Lakes NP	Box Elder Canyon, Utah	Utah Wildl. Resources files
1968	10	Banff NP	Wheeler Peak, New Mexico	Larsen 1970
1970	12	Jasper NP	Fraser Canyon, B.C.	Stelfox & Stelfox 1993
1970	24	Banff NP	Challis Nat. Forest, ID	Stelfox & Stelfox 1993
1970	26	Banff NP	Box Elder Canyon, Utah	Utah Wildl. Resources files
1971	20	Jasper NP	Upper Hell's Canyon, Oregon	Stelfox & Stelfox 1993
1971	20	Jasper NP	Lostine River, Oregon	Woody 1971
1972	18	Waterton Lakes NP	Hall Mt., Washington Johnson 1983	
1973	7	Waterton Lakes NP	Fort Wingate, NM	Sandoval 1978
1989	20	Cadomin	Ruby Mountains, Nevada	Alberta Nat. Res. Serv. files
1990	25	Cadomin	Ruby Mountains, Nevada	_____
1992	31	Cadomin	Ruby Mountains, Nevada	_____
1995	49	Cadomin	Snake River, Oregon	_____
TOTAL	459			

Table 2. Mountain goat transplants in Alberta, 1924-1995.

Year	No.	Origin	Destination	Reference
1924	4	Banff NP	Shaw Ck. Game Reserve, Vancouver Is., B.C.	Stelfox & Stelfox 1993
1924	6	Banff NP	Black Hills, S. Dakota	Richardson 1971
1972	7	Goat Cliffs (Grande Cache), AB	Shunda Mountain (Nordegg), AB	Quaedvleug et al. 1973
1986	2	Caw Ridge (Grande Cache), AB	Picklejar Lakes, (Highwood Range), AB	Smith 1986
1987	9	"	South Livingstone Range, AB	Smith 1987
1988	2	"	"	Ross 1992
1992	2	Mount Hamell (Grande Cache), AB	"	Ross 1992
1993	21	Cayocosh Range, Lilloet, B.C.	Picklejar Lakes, (Highwood Range), AB	Jorgenson 1996
1993	1	"	South Livingstone Range, AB	_____
	4	White River, B.C.	"	_____
1994	6	"	"	_____
1995	10	Klingzut, B.C.	Head Mt., Highwood Range, AB	_____
	10	Moose Mt., B.C.	"	_____

Table 2. Continued.

Year	No.	Origin	Destination	Reference
10	Mount Hamell (Grande Cache), AB	Nihahi Ridge, (Highwood Range), AB	—	—
10	Cline River (near Nordegg), AB	*	—	—
6	White River, B.C.	Barnaby Ridge, AB	—	—
Total	115			

## LITERATURE CITED

- Johnson, R. L. 1983. Mountain goats and mountain sheep of Washington. Washington Dept. Game, Olympia, Biol. Bull. 18. 196pp.
- Jorgenson, J. T. 1996. Preliminary results of using transplants to restock historically occupied mountain goat range. Bienn. Symp. North. Wild Sheep & Goat Counc. 10: (these proceedings).
- Larsen, P. A. 1970. Bighorn sheep population estimates and harvest information. Prog. Rep. New Mexico Dep. Game and Fish, Aid in Wildl. Restor. Proj. W-93-R11. Job 1 Santa Fe, NM. 10pp.
- Quaedvleig, M. T., G. Gunderson, and A. Cook. 1973. Goat transplant, 1972. Completion Rept., Proj. W-4-72. Alberta Fish & Wildl. Div., Edmonton. 32pp.
- Richardson, A. H. 1971. The Rocky Mountain goat in the Black Hills. South Dakota Dep. Game, Fish and Parks. Bull. No. 2. 25pp.
- Rognrud, M. 1983. Final report - general restocking in Montana. 1941-1982. Federal Aid Project W-5-D.
- Ross, I. 1992. Mountain goat reintroduction project: final report. Alberta Fish and Wildlife Services, Calgary. 43pp.
- Sand, J. L. 1967. Bighorn Sheep. Pages 69 - 82 in New Mexico Wildlife Management. New Mexico Department of Game and Fish, Santa Fe.
- Sandoval, A. V. 1987. Funds assist desert bighorns, mountain bighorns. New Mexico Wildl. 32:9-12.
- Smith, K. G. 1986. Progress report of mountain goat capture and transplant activities in Alberta during 1986. Alberta Fish & Wild. Div., Unpubl. Rept., Edson. 28pp.
- \_\_\_\_\_. 1987. Mountain goat transplant program. Alberta Fish & Wild. Div., Unpubl. Rept., Edson. 12pp.
- Stelfox, J. B., and J. G. Stelfox. 1993. Distribution in: Hoofed mammals of Alberta. J. B. Stelfox (ed), Lone Pine Publishing, Edmonton, AB. 241pp.
- Wishart, W. E. 1961. Bighorn roundup. Alberta Land, Forest & Wildlife. Vol. 3 (6):4-17.
- Woody, N. 1971. General bighorn sheep files. Warden Service, Canada Parks Service, Jasper, Unpubl. Rept.