ALASKA DEPARTMENT OF FISH AND GAME
JUNEAU, ALASKA

STATE OF ALASKA
William A. Egan, Governor

DEPARTMENT OF FISH AND GAME
Walter Kirkness, Commissioner

DIVISION OF GAME
James W. Brooks, Director
Don H. Strode, Federal Aid Coordinator

BEAR STUDIES

by

Jack W. Lentfer

Volume VI
Annual Project Segment Report
Federal Aid in Wildlife Restoration
Project W-6-R-5, 6, Work Plan F

(Printed August 1965)

WORK PLAN SEGMENT REPORT
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT: W-6-R-5; W-6-R-6 TITLE: Alaska Wildlife Investigations

WORK PLAN: F TITLE: Bear Studies

JOB NOS: 1, 2, 3, 4, 5, and 6

PERIOD COVERED: January 1, 1964 to December 31, 1964

ABSTRACT

Brown-Grizzly Bear Harvest

The 1964 brown-grizzly bear kill as indicated by hides presented to Department personnel for sealing was 627. This continues the upward trend in total kill recorded since the sealing program was initiated in 1961. A greater spring kill in Southeastern Alaska and Interior-Arctic Alaska and a greater fall kill on the Alaska Peninsula and in Interior-Arctic Alaska have caused the increase in total harvest. On an area basis, 27 percent of the kill came from the Alaska Peninsula, 21 percent from the Interior-Arctic area, 19 percent each from Southeastern Alaska and the Kodiak-Afognak area, and 14 percent from Southcentral Alaska.

Statewide, in 1964, 43 percent of the bears were taken during the spring season and 57 percent during the fall season. Males made up 73 percent of the spring harvest, 61 percent of the fall harvest, and 66 percent of the combined harvest. Residents took 65 percent males and non-residents took 67 percent males. The total kill was divided equally between residents and non-residents. The Alaska Peninsula had the highest percentage of non-resident hunters, and Southeastern and Interior-Arctic regions had the lowest percentages. Statewide, non-residents had a 57 percent success ratio.

Skull and hide sizes indicated that the largest bears were killed on the Alaska Peninsula and the smallest bears were killed in the Interior-Arctic region and in Southcentral Alaska.

The incidence of rubbed hides was fairly high, 25% to 35%, in Southeastern Alaska, Kodiak-Afognak, and the Alaska Peninsula in the spring. Incidence of rubbed hides in the fall varied from 4 to 6 percent except on Kodiak where the incidence was 11 percent.

Polar Bear Harvest

In 1964, 253 polar bear hides were presented to Department personnel for sealing. This is the greatest number of polar bears harvested since the sealing program was inaugurated in 1961. Hunters based at four locations accounted for most of the harvest, as follows: Kotzebue, 38 percent; Point Hope and Barrow, 21 percent each; and Teller, 13 percent.

Non-residents took 56 percent, resident sport hunters took 35 percent, and natives took 9 percent of the harvest. Non-residents had a 92 percent success ratio.

The average distance bears were killed from shore was 82 miles for non-resident hunters, 68 miles for resident hunters, and 11 miles for native hunters.

The harvest was 76 percent males. This is slightly lower than in 1963 and slightly higher than in 1961 and 1962.

Average hide size (length plus width plus flap) for males was 18.3 feet and for females was 15.0 feet. Average size for all bears was 17.2 feet. Skull measurements (length plus width) averaged 25.4 inches for males, 21.3 inches for females, and 24.9 inches for both sexes. Hide and skull sizes for males and females combined were the same as in 1963 and were slightly greater than in 1961 and 1962.

Guides reported 1.6 bears seen per hour of flying, slightly higher than the average for the 8 previous years. Guides also reported an average litter size of 1.64; 1.52 is the reported average for the 5 previous years.

Kodiak Bear-Cattle Relationship

On Kodiak Island eight ranchers were running nearly 1500 cattle on nine leases at the end of 1963. Animals slaughtered in 1963 produced about 77,000 pounds of beef. The increase in cattle numbers and sale of beef, and presence of improvements and modern equipment indicate that ranching has become a financial success for at least some of the ranchers.

In 1964, 11 cattle were verified as having been killed by bears, 4 others were listed as possible bear kills, and 4 were mutilated but not killed. Approximately 20 head of cattle were reported missing; some may have been killed by bears.

The bear population in the ranching area in 1964 was sparse when compared with the population in areas adjacent to the leases. Three bears, all adult males, which had definitely killed cattle, were killed on the leases. Eight other bears were killed on the leases either by sport hunters or because they were potential predators. Of the total 11 bears killed on the leases, 8 were adult males, 2 were adult females, and 1 was a yearling male.

RECOMMENDATIONS

Continue the compulsory brown-grizzly and polar bear hide sealing program to obtain harvest information.

Make presentation of skulls as well as hides mandatory for sealing. Skulls will give less variable measurements than are obtained from hides.

Conduct denning, marking, and aging studies, and analyze reproductive tracts and population composition figures to obtain basic brown bear life history information.

On Kodiak, test the effectiveness of fencing to stop bear movement, and obtain information on bear movements, population composition and density, and character of predation on the cattle leases.

Contact biologists from other countries having polar bear populations to obtain population, harvest, and management data, and apply findings where applicable to Alaska polar bear management practices.

Design a census of polar bears in areas hunted by Alaska-based hunters.

WORK PLAN SEGMENT REPORT
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO. W-6-R-5; W-6-R-6 TITLE: Alaska Wildlife Investigations

WORK PLAN: F TITLE: Bear Studies

JOB NOS: 1, 2, 3, 4, 5 and 6

PERIOD COVERED: January 1, 1964 to December 31, 1964.

OBJECTIVES

To determine magnitude, sex and size composition, areal distribution, and chronology of the hunter harvest of brown-grizzly and polar bears.

To obtain information on the breeding biology and productivity of brown-grizzly and polar bears.

To obtain various types of life history information by marking and observing brown bears.

To investigate Kodiak bear-cattle relationships to determine the extent, timing, and character of bear predation; the number and composition of bears on the cattle leases; the overall significance of predation on the cattle industry; and the feasibility of fencing or other procedures to alleviate or lessen the conflict.

METHODS

The bear sealing program provided harvest information. By regulation brown-grizzly and polar bear hides must be presented to a member of the Department for sealing within 30 days after the date of kill. An affidavit prepared at the time of sealing attests to the location and date of kill, sex of bear, and size and condition of hide. Skulls are measured whenever possible. Men based at Kotzebue and Point Hope during the polar bear season expedited sealing and gathering of harvest information for polar bear. These men also worked with guides to obtain information on areas which were hunted, number of hours flown, and numbers and composition of bears seen. Polar bears shot elsewhere and brown-grizzly bears were sealed by various members of the Department.

Reproductive tracts were obtained whenever possible. Dr. Al Erickson at the University of Wisconsin will examine these and report findings relating to breeding biology and productivity.

On Kodiak dead cattle were examined to determine cause of death, age, sex, and physical condition. Sex and age of bears killed on the leases were determined. Aerial surveys and ground surveys along streams gave information on distribution, population composition, and direction of movement of bears on leases. Review of Bureau of Land Management records and other literature, and contact with ranchers gave an indication of the economic success and impact of bears on Kodiak cattle ranching.

Past data were analyzed and comprehensive reports were prepared for polar, brown-grizzly, and black bears.

Other work which was planned, mainly brown bear denning studies and a marking and observation program to obtain brown bear life history information, was not accomplished because of personnel changes which resulted in understaffing for much of the year.

FINDINGS

Brown-Grizzly Bear Harvest

The sport hunting kill of brown-grizzly bears as indicated by hides presented to Department personnel for sealing for calendar year 1964 was 627, of which 269 (43 percent) were killed during the spring season, and 358 (57 percent) were killed during the fall season. This continues the upward trend in the statewide harvest which has been recorded since the sealing program was started in 1961. The average kill during the 3 preceding years was 529, with a high kill of 567 in 1963. On an area basis in 1964, 27 percent of the kill came from the Alaska Peninsula, 21 percent from the Interior-Arctic area, 19 percent each from Southeastern Alaska and the Kodiak-Afognak area, and 14 percent from Southeastern Alaska and the Kodiak-Afognak area, and 14 percent from Southcentral Alaska. Southeastern Alaska, Kodiak and Afognak, and the Alaska Peninsula, Southcentral Alaska, and Interior and Arctic Alaska furnished nearly 80 percent of the fall harvest. This decrease in bears taken in the fall on Kodiak, and increase in bears taken in the fall in Southcentral Alaska follows the pattern of recent years. The reduction in fall hunting on Kodiak is probably because of a short season and unavailability of other species to hunt. The greater fall kill as compared to the spring kill in Southcentral Alaska is because most southcentral management units are closed to spring hunting and a certain segment of hunters kill bears in the fall incidental to hunting for other species. The increase in the statewide harvest from 1961 to

1964 is because of substantially higher kills in Southeastern Alaska in the spring, and slightly higher kills in the Interior-Arctic area in the spring and Alaska Peninsula in the fall. The increase in harvest from 1961 and 1962 to 1964 is because of substantially higher spring kills in Southeastern and Interior-Arctic Alaska, and substantially higher fall kills on the Alaska Peninsula and in the Interior-Arctic region.

On a statewide basis sealing documents indicated that males made up 73 percent of the spring harvest, 61 percent of the fall harvest, and 66 percent of the combined harvest. Sealing forms also indicated that residents took 65 percent males and non-residents took 67 percent males. The sex of approximately half the bears which were killed was determined by persons working primarily with bears. The sex ratio of this varified group and the non-verified group is about the same for bears killed by residents. However, the non-resident segment of the harvest sealed by persons working with bears contains about 15 percent fewer males than the non-resident segment sealed by other personnel. Thus the non-resident kill may be composed of more females than indicated by sealing documents. The ratio of males to females was higher in the spring than in the fall in all areas except Kodiak. A greater percentage of males are normally harvested in the spring since hunting starts when the first bears, generally males, emerge from hibernation.

On a statewide basis non-residents killed 50 percent of the bears. The Alaska Peninsula had the greatest percentage of non-residents, 68 percent, and Southeastern and the Interior-Arctic regions had the lowest percentages, 34 and 38 percent, respectively. Most areas had a greater percentage of the kill taken by non-residents in the fall than in the spring. Tags required by non-residents prior to hunting provide a non-resident success figure; of 551 hunters who purchased non-resident brown-grizzly tags, 315 (57 percent) were successful in killing a bear. Table 1 presents harvest data for spring and fall seasons by area, type of hunter, and sex of bear.

The Alaska Peninsula provided the largest bears. Average hide size (length plus width plus flap) for males was 16.4 feet and for females was 14.0 feet. Comparable measurements for Kodiak-Afognak were 15.5 and 14.1 feet and for Southeastern Alaska were 14.5 and 12.5 feet. Southcentral Alaska male hides measured 13.1 feet and female hides measured 12.1 feet. Interior-Arctic hides averaged 13.2 feet for males and 12.0 feet for females. It is difficult to draw meaningful size comparisons with past years when measurements from both sexes were lumped and sex ratios from all areas were lumped. Table 2 lists average hide size by area, type of hunter, season, and sex of bear. Skulls from 172 bears were measured. As with hide sizes, skulls indicated that the largest bears were killed on the Alaska Peninsula and the smallest bears in Interior-Arctic and Southcentral Alaska. The average size (length plus width) for Alaska Peninsula skulls was 26.4 inches for males and 23.1 inches for females. Comparable measurements for Kodiak and Afognak were 24.3 and 22.1 inches and for Southeastern Alaska were 23.8 and 21.5 inches. South-central Alaska male skulls averaged 21.6 inches and female skulls averaged 20.7 inches. Interior and Arctic skulls averaged 22.7 and 19.1 inches for males and females. As with the hides it is difficult to compare skull measurements with measurements of past years since in past years measurements from both sexes and sex ratios from all areas were lumped. Table 3 lists average skull size by area, type of hunter, season, and sex of bear.

The earliest reported kills were during the third week in April on Kodiak and the Alaska Peninsula. The earliest peak of kill was in the Arctic-Interior region followed by Kodiak-Afognak and the Alaska Peninsula, and then Southeastern Alaska. The early kill in the Interior-Arctic is probably because of hunting by late-season polar bear hunters. The late peak in Southeastern Alaska reflects the late season closing date of June 30 as compared to May 31 on Kodiak and the Alaska Peninsula. During the fall season a high percentage of the harvest occurred in Southcentral and Interior-Arctic Alaska immediately after seasons opened in various management units on either August 20 or September 1. The kill was distributed more evenly throughout the fall on Kodiak and Afognak, the Alaska Peninsula, and in Southeastern Alaska. The latest

Table 1. Alaska brown-grizzly bear harvest by area, type of hunter, and sex of bear, 1964.

	Resident			Non-Resident			Total					
Area	Male	Female	Sex Unknown	Male	Female	Sex Unknown	Male	Female	Both Sexes	% of Total Kill	% Male	% Non-res.
Southeastern												
Spring	34	10	4	16	6	0	50	16	70	26	76	31
Fall	20	10	1	10	8	0	30	18	49	14	63	37
Total	54	20	5	26	14	0	80	34	119	19	70	34
Kodiak-Afognak												
Spring	26	20	2	24	16	2	50	36	90	33	58	47
Fall	7	1	0	15	5	0	22	6	28	8	79	71
Total	33	21	2	39	21	2	72	42	118	19	63	53
Alaska Peninsula												
Spring	20	6	1	37	8	2	57	14	74	28	80	64
Fall	16	13	0	38	24	5	54	37	96	27	59	70
Total	36	19	1	75	32	7	111	51	170	27	69	68
Southcentral												
Spring	3	0	0	1	0	0	4	0	4	1	100	92
Fall	17	20	0	30	16	3	47	36	86	24	57	57
Total	20	20	0	31	16	3	51	36	90	14	59	56
Interior-Arctic												
Spring	20	2	1	7	1	0	27	3	31	12	91	26
Fall	32	24	2	25	15	1	57	39	99	28	59	41
Total	52	26	3	32	16	1	84	42	130	21	65	38
Statewide												
Spring	103	38	8	85	31	4	188	69	269	100	73	45
Fall	92	68	3	118	68	9	210	136	358	100	61	54
Total	195	106	11	203	99	13	398	205	627	100	66	50
Percent Male		65%			67%							

Table 2. Average hide size (length plus width plus flap), in feet, of Alaska brown-grizzly bear harvest, 1964.

AREA	RESIDENT				NON-RESIDENT				TOTAL				
	Male		Female		Male		Female		Male		Female		Both Sexes
	Size	n	Size	n	Size	n	Size	n	Size	n	Size	n	Size
Southeastern													
Spring	14.0	33	10.9	10	15.6	12	14.0	5	14.5	45	11.9	15	13.8
Fall	14.3	18	13.1	10	14.5	8	13.7	3	14.4	26	13.2	13	13.9
Total	14.1	51	12.0	20	15.3	20	13.9	8	14.5	71	12.5	28	13.8
Kodiak-Afognak													
Spring	15.1	25	13.4	20	15.2	24	14.3	15	15.1	49	13.8	35	14.8
Fall	15.4	7	16.0	1	16.7	15	15.9	5	16.3	22	15.9	6	16.2
Total	15.1	32	13.5	21	15.8	39	14.7	20	15.5	71	14.1	41	14.9
Alaska Peninsula													
Spring	15.9	20	13.3	6	17.0	35	14.3	10	16.6	55	13.9	16	15.9
Fall	15.8	13	13.6	11	16.2	35	14.3	21	16.1	48	14.1	32	15.3
Total	15.9	33	13.5	17	16.6	70	14.3	31	16.4	103	14.0	48	15.7
Southcentral													
Spring	13.9	3	-	0	12.7	1	-	0	13.6	4	-	0	13.6
Fall	13.3	18	12.0	21	12.9	28	12.2	16	13.1	46	12.1	37	12.3
Total	13.3	21	12.0	21	12.9	29	12.2	16	13.1	50	12.1	37	12.3
Interior-Arctic													
Spring	13.7	20	11.6	2	14.6	8	13.4	2	13.9	28	12.5	4	14.3
Fall	13.0	32	11.9	22	12.7	24	11.9	16	12.8	56	11.9	38	12.5
Total	13.2	52	11.9	24	13.2	32	12.1	18	13.2	84	12.0	42	12.8

Table 3. Average skull size (length plus width), in inches, of Alaska brown-grizzly bear harvest, 1964.

AREA	RESIDENT				NON-RESIDENT				TOTAL				
	Male		Female		Male		Female		Male		Female		Both Sexes
	Size	n	Size	n	Size	n	Size	n	Size	n	Size	n	Size
Southeastern													
Spring	23.4	7	22.0	1	24.2	3	20.7	2	23.6	10	21.1	3	23.0
Fall	23.7	8	23.0	1	24.5	2	21.0	1	23.9	10	22.0	2	23.6
Total	23.6	15	22.5	2	24.3	5	20.8	3	23.8	20	21.5	5	23.3
Kodiak-Afognak													
Spring	23.1	10	22.5	8	24.2	14	22.0	9	23.7	24	22.2	17	23.1
Fall	23.9	1	21.8	1	25.2	9	21.8	4	25.6	10	21.8	5	24.3
Total	23.6	11	22.4	9	24.6	23	21.9	13	24.3	34	22.1	22	23.4
Alaska Peninsula													
Spring	26.2	5	none		27.3	20	22.7	3	27.1	25	22.7	3	26.6
Fall	24.6	3	22.0	2	25.5	13	24.7	2	25.3	16	23.3	4	24.9
Total	25.6	8	22.0	2	26.6	33	23.5	5	26.4	41	23.1	7	25.9
Southcentral													
Spring	19.9	1	none		none		none		19.9	1	none	19	19.9
Fall	21.3	4	21.1	4	22.2	5	19.8	2	21.8	9	20.7	6	21.3
Total	21.0	5	21.1	4	22.2	5	19.8	2	21.6	10	20.7	6	21.3
Interior-Arctic													
Spring	23.4	7	none		23.3	4	none		23.4	11	none		23.4
Fall	23.8	2	19.1	4	21.7	10	none		22.0	12	19.1	4	21.3
Total	23.5	9	19.1	4	22.1	14	none		22.7	23	19.1	4	22.1

reported kill occurred during the first week of December on the Alaska Peninsula. Table 4 presents more detailed information on the brown-grizzly kill chronology.

During the spring season 27 percent of the bears were rubbed and during the fall season 5 percent were rubbed. The incidence of rubbed hides was fairly high, 25 to 35 percent, in Southeastern Alaska, Kodiak-Afognak, and the Alaska Peninsula in the spring. There were no rubbed hides from the Interior or Arctic Alaska in the spring and not enough hides from Southcentral Alaska to provide a meaningful comparison with other areas. Incidence of rubbed hides in the fall varied from 4 to 6 percent except on Kodiak where the incidence was 11 percent. Table 5 lists numbers of rubbed and unrubbed hides by season and area.

Polar Bear Harvest

In 1964, 253 polar bear hides were presented to Department personnel for sealing. This is the greatest number of polar bears harvested since the compulsory sealing program was inaugurated in 1961; the annual kill during this period has averaged 181.

Non-residents took 142 (56 percent), resident sport hunters took 88 (35 percent), and natives took 23 (9 percent) bears. Percentages are similar to those of the 1963 harvest. Non-residents in 1964 took about 12 percent more of the total harvest than they did in 1961 and 1962. The 142 bears killed by 155 hunters buying non-resident tags gives a non-resident success figure of 92 percent.

The sex composition was 193 (76 percent) males, 58 (23 percent) females, and 2 of unknown sex. Non-residents took 87 percent males and resident sport hunters and native hunters each took 70 percent males. Except for the native kill, these composition figures are similar to those of the past 4 years; the native kill shows a higher percentage of males than in previous years.

Hunters based at four locations accounted for most of the harvest as follows: Kotzebue, 38 percent; Point Hope and Barrow, 21 percent each; and Teller, 13 percent. Colville River, Wainwright, Diomede, and King Island hunters each took 2 percent or less of the harvest.

The average distance that polar bears were killed from shore, usually as reported by guides, was 32 miles for non-resident hunters, 68 miles for resident hunters, and 11 miles for native hunters. Table 6 presents harvest data by area, hunter type, and sex composition of bears.

Table 4. Brown-grizzly kill chronology data by weekly periods, 1964.

	SPRING			FALL		
Area	Earliest kill	Period of greatest kill (80%+)	Latest kill	Earliest kill	Period of greatest kill (80%+)	Latest kill
Southeastern	May 6-12	May 20-June 16	June 24-30	Sept. 1-7	Sept.1-Oct.12	Nov.24-30
Kodiak-Afognak	Apr. 15-21	Apr. 29-June 2	May 27-June 2	Sept. 1-7	Oct.27-Nov.9	Nov.10-16
Alaska Peninsula	Apr. 15-21	Apr. 29-June 2	June 3-9	Sept. 1-7	Sept.1-Oct.2	Dec.1-7
Southcentral	May 13-19	1/	June 10-16	Sept. 1-7	Sept.1-28	Oct. 27-Nov. 2
Interior-Arctic	Apr. 22-28	Apr. 22-May 12	June 10-16	Aug. 23-31	Aug. 23-Sept. 28	Nov.17-23

1/ Sample too small to be meaningful.

Table 5. Hide condition of brown-grizzly bears sealed in 1964.

Area	No. Rubbed	No. Unrubbed	% Rubbed
Southeastern			
Spring	19	43	31
Fall	3	44	6
Kodiak-Afognak			
Spring	30	56	35
Fall	3	25	11
Alaska Peninsula			
Spring	17	52	25
Fall	4	82	5
Southcentral			
Spring	1	3	25
Fall	3	81	4
Interior-Arctic			
Spring	0	31	0
Fall	5	89	5
Statewide			
Spring	67	185	27
Fall	18	321	5

The average hide size (length plus width plus flap) for males was 18.3 feet and for females was 15.0 feet. The average size for all bears was 17.2 feet. This is the same as the average hide size in 1963 and is slightly larger than in 1961 and 1962. Skull measurements (length plus width) were obtained for 146 (58 percent) of the bears. Males averaged 25.4 inches and females averaged 21.3 inches. The average size for all bears was 24.9 inches. Hide and skull sizes for males and females combined were the same as in 1963 and were slightly greater than in 1961 and 1962. Bears killed by non-residents were larger than bears killed by residents.

The greater distance of bears from shore, greater percentage of males, and larger size of bears in the non-resident harvest as compared to the resident harvest all indicate the greater selectivity for larger bears which guides employ for their higher-paying non-resident hunters.

Five polar bears, all killed by natives, were taken prior to February 6. The earliest sport kill was on about February 6. The bulk of the harvest, 82 percent, occurred between March 13 and April 30. Approximately 12 percent occurred prior to March 13 and 6 percent after April 30. The latest sport kill was on about May 7. The season closed May 10. Hunting at Barrow, as indicated by bears taken, began about a month later than at Kotzebue, Teller, and Point Hope.

As in past years, guides furnished information on number and composition of bears seen. The number of bears seen per hour of flying was 1.6. This is slightly higher than the average for the 8 previous years. Of 178 sows with cubs which were reported, 66 had 1 cub, 109 had 2 cubs, and 3 had 3 cubs. Only three of these litters were cubs of the year, one each of one, two, and three cubs. All other cubs were reported as yearlings or two-year-olds. The average size for litters of all ages was 1.64 as compared with the average of 1.52 reported for the previous 5 years.

Kodiak Bear-Cattle Relationship

Cattle have been on Kodiak Island since 1794 under private management; the Federal government has administered cattle grazing leases since 1927. Available records indicate that the number of cattle on northeast Kodiak has more than doubled during the last 11 years and the number of leases has not increased. Records also show that pounds of beef from slaughtered cattle, although fluctuating from year to year, shows an upward trend. At the end of 1963 eight

Table 6. Alaska polar bear harvest by hunter type, sex composition, and area, 1964.

Area	Resident		Non-resident		Native		TOTAL					
	Male	Female	Male	Female	Male	Female	Male	Female	Both Sexes	% of Total Kill	% Male	% Non-Resident
Kotzebue	16	7	67	5	1		84	12	96	38	88	75
Teller	11	3	18	2			29	5	34	13	85	59
Point Hope	16	10	15	1	6	5	37	16	53	21	70	30
Barrow	9	15	20	7			29	22	53[1/]	21	55	55
Colville River	1	0	4	1			5	1	6	2	83	83
Wainwright					5	1	5	1	6	2	83	0
Diomede					2		2		2	1	100	0
King Island					2	1	2	1	3	1	70	0
Sub-total	53	35	124	16	16	7	193	58	253[1/]	100	77	56
Total	88 == 35%		142[1/] =56%		23 = 9%							

1/ Includes 2 bears of unknown sex killed by non-residents.

ranchers were running nearly 1500 cattle on nine leases. Animals slaughtered in 1963 produced about 77,000 pounds of beef. The increase in cattle numbers and sale of beef and presence of improvements and modern equipment indicate that ranching has been a successful financial enterprise for three of the ranchers on a long-term basis. Two of the ranchers appear to be building substantial herds and making necessary improvements to successfully raise cattle. The remaining three ranchers have neither made improvements nor increased their livestock numbers to a degree that would indicate financial success.

In 1964, 11 cattle were verified as killed by bears, 4 others were possibly killed, and 4 were mutilated but not killed. Approximately 20 head of cattle were lost and believed by the ranchers to have been killed by bears; this, of course, was not determined since the carcasses were not located. No segment of the cattle population appeared to be more vulnerable than any other segment. In addition to the direct losses of cattle to bears, ranchers expended time and effort in attempting to control bears, and in checking on cattle when bear predation was suspected.

Aerial surveys and track counts on salmon streams in 1964 indicated that the bear population on the leases was sparse compared to areas adjacent to the leases. Bears on the leases were found more commonly along the edge of the leases toward the Refuge and in relatively remote areas away from human activity. Eleven bears were known to have been killed on the active leases. Three were killed by sport hunters; eight were killed by ranchers and Game Department personnel as predators or potential predators. Of these eight, three, all adult males, were determined to have definitely killed cattle. Of the total 11 bears killed on the active leases, 8 were adult males, 2 were adult females, and 1 was a yearling male. Predation occurred between April 30 and August 5, always in or near protective cover.

SUBMITTED BY:

Jack W. Lentfer
Game Biologist

APPROVED BY:

Don H. Steele
Federal Aid Coordinator

James A. Brooks
Director, Division of Game