

ALASKA DEPARTMENT OF FISH AND GAME
JUNEAU, ALASKA

STATE OF ALASKA
Keith H. Miller, Governor

DEPARTMENT OF FISH AND GAME
Wallace H. Noerenberg, Commissioner

DIVISION OF GAME
James A. Harper, Director

GOAT REPORT

by

Paul A. LeRoux

Volume X
Annual Project Segment Report
Federal Aid in Wildlife Restoration
Project W-17-1, Work Plan Q

Persons are free to use material in these reports for educational or informational purposes. However, since most reports treat only part of continuing studies, persons intending to use this material in scientific publications should obtain prior permission from the Department of Fish and Game. In all cases tentative conclusions should be identified as such in quotation, and due credit would be appreciated.

WORK PLAN SEGMENT REPORT

FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO: W-17-1 TITLE: Big Game Investigations

WORK PLAN: Q TITLE: Mountain Goat

JOB: 6 TITLE: Goat Harvest and Population Surveys

PERIOD COVERED: July 1, 1968 through June 30, 1969

ABSTRACT

Mountain goat aerial surveys were conducted on the Kenai Peninsula during July, August, and September. A total of 1,608 goats was observed. A breakdown of survey data is provided in Table 1 and a description of survey units is in Table 2. An idea for obtaining harvest information by a mail-out questionnaire was cancelled because of excessive cost.

Mountain goat surveys conducted on Kodiak Island in December indicate that this transplanted population is continuing to increase. Eleven hunters participated in a limited permit hunt and harvested six goats.

RECOMMENDATIONS

Aerial composition counts should be expanded to areas not previously covered to gain information on densities and distribution.

Two areas should be selected for intensive study. One area should be representative of a heavily hunted population and the other should be of a lightly hunted or unhunted population.

More frequent surveys of study areas should be made to determine the effects of hunting on herd status, and on kid production and survival.

Annual surveys of the Kodiak Island goat herd should be continued.

Limited permit hunting of goats should be continued on Kodiak Island.

WORK PLAN SEGMENT REPORT

FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO: W-17-1 TITLE: Big Game Investigations

WORK PLAN: Q TITLE: Mountain Goat

JOB: 6 TITLE: Goat Harvest and Population Surveys

PERIOD COVERED: July 1, 1968 through June 30, 1969

OBJECTIVES

To establish goat population trend survey areas in Southcentral and Southeastern Alaska.

To measure the annual harvest.

TECHNIQUES

Aerial surveys were conducted in July, August, and September to determine abundance, distribution and composition of mountain goat populations on the Kenai Peninsula. A Piper PA-18 aircraft was used to search pre-survey units by flying each unit following the general contours at an optimum elevation for observation. The survey route was plotted on an inch to the mile map and each observation was marked by number for future reference.

Twenty-five geographical survey units were established and searched. Lakes, rivers, sea shores, broad valleys, glaciers, and icefields were used as survey unit boundaries in an effort to reduce the influence of possible goat movements. A geographic description of each survey unit is given in Table 2.

Aerial surveys of Kodiak Island were conducted in December.

OBSERVATIONS

Surveys

Mountain goat surveys were conducted on all of the Kenai Peninsula except the coastal area between Whittier and Bainbridge Glacier, and the area around the tip of the Kenai Peninsula from Harris Bay to China Poot Bay.

A total of 1,608 mountain goats was observed, of which 1,154 were adults, 412 were kids, and 42 were unclassified. The ratio of kids to adults ranged from 12.4:100 to 175:100 and averaged 35.7:100. The very high and low ratios were the result of small samples.

December surveys on Kodiak Island indicated a minimum of 71 goats were concentrated along the western boundary of the Kodiak National Wildlife Refuge from Wild Creek to the west fork of Ugak Bay. The area of concentration is shown in Fig. 1. A summary of survey data is provided in Table 3.

Harvest

A proposed mail survey to provide an estimate of the annual harvest was cancelled because of high costs involved. An estimate of the 1969 harvest should be available from information obtained from the new harvest ticket questionnaire packet that will come into use during the 1969-70 season.

A 30-day permit season was held on Kodiak Island during September of 1968. Ten hunters and five alternates were selected by drawing. Alternates were allowed to hunt only if an original permit hunter gave up his permit. Eleven hunters participated in the hunt and harvested six goats (three males and three females). A breakdown of the harvest is provided in Table 4.

Table 1. Kenai Mountain Goat Aerial Survey - July, August, September, 1968.

Survey Unit	Adults	Kids	Uncl.	Total	Kids Per 100 Adults	Count Time	Goats/Hr.
1	48	21	0	69	43.5	1.9	36
2	60	22	0	82	36.7	1.7	48
3	50	19	0	69	38.0	1.7	40
4	153	54	0	207	35.2	1.4	148
5	49	11	0	60	22.4	1.5	40
6	6	0	42	48	-	.9	53
7	46	16	0	62	34.7	1.0	67
8	123	47	0	170	38.2	2.0	85
9	45	13	0	58	28.8	1.0	58
10	63	21	0	84	33.3	1.4	60
11	29	11	0	38	37.9	.9	42
12	26	9	0	35	34.6	.5	70
13	0	0	0	0	0	2.5	0
14	22	10	0	32	45.4	2.0	16
15	4	2	0	6	50.0	1.9	3
16	14	4	0	18	28.5	1.0	18
17	100	29	0	129	29.0	1.2	108
18	59	19	0	78	32.2	1.3	60
19	8	1	0	9	12.5	.8	11
20	18	3	0	21	16.6	-	-
21	0	0	0	0	0	-	-
22	4	7	0	11	175.0	-	-
23	93	41	0	134	44.0	-	-
24	134	54	0	188	40.3	-	-
25	0	0	0	0	0	-	-
Total	1154	412	42	1608	37.5	-	-

Table 2. Description of Kenai goat survey units.

1. The area bounded on the north by East Fork Creek, on the west by the Seward highway, on the south by Seward Highway and Upper Trail Lake, and on the east by Johnson Creek and Bench Creek.
2. The area bounded on the north by Turnagain Arm, on the east and south by the Seward Highway and on the west by Six-mile Creek.
3. The area bounded on the north and west by the Seward Highway and Bench Creek, and on the south and east by the Alaska Railroad.
4. The area bounded on the north by Portage Creek and Portage Lake, on the west by the Alaska Railroad, on the south by Moose Creek, and on the east by the ice field from the head of Moose Creek to Portage Lake.
5. The area bounded on the north by Trail Creek and Moose Creek, on the west by Upper and Lower Trail Lake, on the south by Ptarmigan Creek; Ptarmigan Lake and a line from Ptarmigan Lake to Lower Paradise Lake, and on the east by the north fork of Snow River from Lower Paradise to the glacier.
6. The area bounded on the west by the Alaska Railroad, on the north by Ptarmigan Creek and Ptarmigan Lake, on the east by the trail from Ptarmigan Lake to Paradise Valley and on the south by the same trail to the Alaska Railroad.
7. The area bounded on the east by the north fork of the Snow River from the glacier to its confluence with the south fork of the Snow River, on the south by the south fork of the Snow River to its headwaters, then along a line to the south end of Nellie Juan Lake, then southeast along the valley to Ellsworth Glacier, on the east by Ellsworth Glacier to Crown Peak, and on the north by a line from Crown Peak curving north, and east along the glacier toward Nellie Juan River, then across the valley to the unnamed glacier coming in from the north, then along the ice field to the head of the north fork of Snow River.
8. The area bounded on the west by Resurrection Bay and the Alaska Railroad, on the north by the south fork of Snow River, and on the east by a line from Nellie Juan Lake to Ellsworth Glacier, then along Ellsworth Glacier to Day Harbor.
9. The area draining into Resurrection River from the south, from the glacier above Paradise Creek to Resurrection Bay, and the area draining into Resurrection Bay from the west, from Resurrection River to Bear Glacier.

Table 2 (cont.) Description of Kenai goat survey units.

10. The area lying within the boundary formed by the Seward Highway from Seward to Kenai Lake, then along Kenai Lake to Porcupine Island, then along a line from Porcupine Island to Upper Russian Lake, then along the Forest Service boundary to the Seward Highway.
11. The area draining into salt water between Bear Glacier and Aialik Glacier.
12. The area draining into the Resurrection River from the southwest from the glacier above Paradise Creek to its headwaters and the drainage into Russian River above Upper Russian Lake from the east.
13. The area lying within the boundary formed by the Seward Highway from Lawing to the junction of the Sterling Highway, then along the Sterling Highway to Broad View Guard Station, then along Kenai Lake back to Lawing.
14. The area lying within the boundary formed by the Resurrection Pass trail from Hope to Cooper Landing, then along the Sterling Highway to the junction with the Seward Highway, then along the Seward Highway to the junction of the Hope Road, then along the Hope Road to Hope.
15. The mountainous area west of Count Unit 14 and north of the Sterling Highway.
16. The area draining into the Skilak River from the east and the Russian River above Upper Russian Lake from the west.
17. The area draining into salt water between Ellsworth Glacier and Excelsior Glacier.
18. The area draining into salt water between Excelsior Glacier and Bainbridge Glacier.
19. The area draining into salt water between Aialik Glacier and Northwest Glacier.
20. The area lying within the boundary formed by Kenai Lake from Porcupine Island to the Kenai River, then down the Kenai River to the mouth of the Russian River, then up Russian River to Upper Russian Lake, then along a line from Upper Russian Lake to Porcupine Island.
21. The area lying within the boundary formed by Skilak Lake, Harding Ice Field, Skilak River, Skilak Glacier, Killey Glacier, and Killey River.
22. The area lying within the boundary formed by the Harding Ice Field, Killey River, Killey Glacier, Tustumena Glacier, and Glacier Creek.

Table 2 (cont.) Description of Kenai goat survey units.

23. The area draining to the west between Tustumena Glacier; and Kachemak Glacier, Bradley Lake, and Bradley River.
24. The area draining to the west between Kachemak Glacier and Bradley Lake, Bradley River, Wosnesenski Glacier, and the river flowing from Wosnesenski Glacier.
25. The area lying within the boundary formed by the Kenai River from the mouth of the Russian River to Skilak Lake, then along Skilak Lake to Skilak River, along Skilak River to Pothole Lake, then a line northeast to Russian River and down Russian River to its confluence with the Kenai River.

Table 3. Maximum count of goats on Kodiak Island, 1965-1968.

YEAR	ADULTS	KIDS	%	TOTAL
1965	22	13	37	35
1966	38	16	30	54
1967	39	19	33	58
1968	57	14	20	71

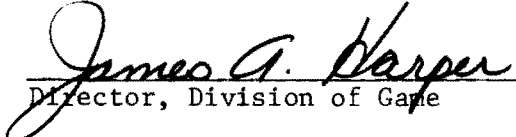
Table 4. Date, sex, age and location of goats harvested on Kodiak Island, 1968.

SPECIMEN NO.	DATE	SEX	AGE	LOCATION
01	1 September	F	7	Wild Creek
02	1 September	M	8	Terror Lake
03	10 September	M	2	Terror Lake
04	1 September	M	7	Terror Lake
05	20 September	F	6	Terror Lake
06	2 September	F	12	Wild Creek

PREPARED AND SUBMITTED BY:

APPROVED BY:

Paul A. LeRoux
Game Biologist


Director, Division of Game