ALASKA DEPARTMENT OF FISH AND GAME

JUNEAU, ALASKA

STATE OF ALASKA
Bill Sheffield, Governor

DEPARTMENT OF FISH AND GAME
Don W. Collinsworth, Commissioner

DIVISION OF GAME
W. Lewis Pamplin, Jr., Director
Robert A. Hinman, Deputy Director

ANNUAL REPORT OF SURVEY-INVENTORY ACTIVITIES

PART VII. MOUNTAIN GOAT

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Barbara Townsend, Publications Technician

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STATEWIDE HARVEST AND POPULATION STATUS

Mountain goat populations are generally stable or increasing throughout their range in Alaska. Localized situations where harvest concentrations have affected populations exist, and management concerns are directed toward these problem areas. 1983-84 was another generally favorable winter, contributing to good survival of young.

Hunters' harvests were generally reduced in Southeastern Alaska, reflecting the influence of adverse weather. Harvests in Gulf Coast areas and Kodiak were relatively high. Greatest harvests were achieved on the Kenai Peninsula, Units 7 and 15 (135 goats) and in Unit 6 (130 goats). Statewide harvest was 596 goats. Unit breakdown of harvest is summarized below:

Unit	Harvest
1A	53
1B	42
1C	29
1D	30
4	49
5	7
6	130
7 & 15	135
8	55
11	18
13-14	48
	596

Robert A. Hinman
Deputy Director

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 1A

GEOGRAPHICAL DESCRIPTION: Ketchikan Area

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

The Subunit 1A goat population appears to be maintaining a moderately high level. The 1984-85 winter was somewhat severe, with heavy snow accumulations at the higher elevations. One spring survey indicated fewer goats but good adult:kid ratios. The lower number of goats observed was attributed mainly to poor visibility rather than to winter mortality.

Population Composition

Six survey areas were flown between 5 and 24 September 1984. Total survey time was 7.1 hours and 840 goats were seen (118 goats/hour). There were 26 kids:100 adults in the sample. Survey results are shown in Table 1. Results of spring surveys conducted during the past 4 years are shown in Table 2.

Mortality

The 1984-85 winter was moderately severe but overwinter losses appear to have been slight. The spring survey conducted in May did not indicate any substantial mortality, and of 15 radio-collared goats transplanted to Revillagigedo Island in July 1983 only one had died as of 15 May 1985.

Goat hunting in Southeast has been on a registration permit system for 5 years. For the past 3 years 2nd permits for portions of GMU's 1A and 1B have been available to those hunters who killed a goat and returned their 1st permit hunt report. Two hundred fifty-one 1st permits and 10 2nd permits were issued from the Ketchikan office for the 1984 season. For these calculations, 2nd permit holders will be considered as separate hunters. Within GMU 1A, 142 hunters killed 53 goats (34 males and 19 females) in 485 hunter days (Table 3). Success was 37% and 9.2 hunter days were expended per goat taken.

The number of hunters remained the same as for last year, but hunter success and hunter effort both indicated poorer hunting in 1984. Reasons for the decline are unknown.

All but one of the 261 hunt reports were eventually obtained. Substantial effort was involved in obtaining this level of reporting and 2 hunters were cited for late reporting.

The chronology of the 1984 harvest was similar to that of 1983. This year 62% of the harvest occurred in September, 21% in August, 11% in October, and 6% were accounted for in December.

Airplanes were again the primary means of transportation used to get to the hunting area. Eighty-one percent of the successful hunters and 65% of the unsuccessful hunters used air transport.

Boats were used by those hunters not utilizing planes. Boat transportation is primarily used later in the season when the high elevation lakes are beginning to freeze. Late season hunts from boats are generally not very successful.

The harvest was again fairly well distributed. The Chickamin River/Rudyerd Bay and Rudyerd Bay/Smeaton Bay areas each yielded 21% of the harvest while 26% came from the Unuk River/Chickamin River area. The Yes Bay/Eagle River area produced 11% of the harvest and the remainder was taken in the Boca-de-Quadra/ Portland Canal area. Only 1 goat was reported taken from the Lower Cleveland Peninsula. The Yes Bay to Eagle River harvest is lower than in past years, but the difference is primarily due to a change in assigning kill locations; harvests previously attributed to GMU 1A have been assigned to GMU 1B.

Management Summary and Recommendations

The current Subunit 1A goat population appears to be high. The harvest remains relatively low and is fairly well distributed over a wide portion of the subunit. Winter 1984-85 did not appear to have a substantial impact on the goat population.

The only problems foreseen for the goats in Subunit 1A are in the lower Cleveland Peninsula and the Quartz Hill molybdenum mine areas. The lower Cleveland Peninsula has a very low-density goat population and current USFS plans call for road building and logging in the area in the near future. Both the Quartz Hill and Cleveland Peninsula areas will need additional hunting restrictions once development activity starts.

A mountain goat transplant to Revillagigedo Island was conducted in June and July 1983. Seventeen goats were captured from the mainland areas of Subunit 1A and released in the vicinity of Swan

Lake. Composition of the release was 15 adults (4 males and 11 females) and 2 yearlings (1 male and 1 female). Radio collars which were placed on 15 of the goats have indicated only 1 known mortality as of May 1985.

PREPARED BY:

Robert E. Wood
Game Biologist III

SUBMITTED BY:

Steven R. Peterson
Acting Management Coordinator

Table 1. Subunit 1A mountain goat composition surveys, September 1984.

Area	Date	No. adults	No. kids	Total goats	Hours of survey time	No. goats observed/hr	Kids:100 adults	Survey rating
K-3	(no survey)	--	--	--	--	--	--	--
K-4	5 Sep 84	76	22	98	0.87	113	29	Good
K-5	13 Sep 84	153	46	199	1.50	133	30	Good
K-6	(no survey)	--	--	--	--	--	--	--
K-7	19 Sep 84	117	30	147	1.80	82	26	Good
K-8	(no survey)	--	--	--	--	--	--	--
K-9	24 Sep 84	138	19	157	1.37	115	14	Fair
K-10	12 Sep 84	150	47	197	1.18	167	31	Good
K-11	12 Sep 84	32	10	42	0.37	115	31	Good
Totals		666	174	840	7.09			
Means						118	26	

Table 2. Subunit 1A mountain goat spring composition surveys, 1982-85.

Area	Date	No. adults	No. kids	Total goats	Hours of survey time	No. goats observed/hr	Kids:100 adults	Survey rating
Walker/Rudyerd	13 May 82	69	15	84	1.08	78	22	Good
Rudyerd	22 Apr 83	47	13	60	1.10	55	28	Good
Walker	22 Apr 83	92	20	112	0.73	153	22	Good
Chickamin	12 May 83	44	9	55	0.97	57	20	Good
Walker	19 Apr 84	77	16	94	0.80	118	21	Good
Walker	15 May 85	46	10	56	0.75	75	22	Fair

Table 3. Subunit 1A goat harvest and hunter success, 1972-84.

Season	No. animals M	F	Unk	Total	Percent harvest by nonresident	No. successful hunters	No. hunters	Percent hunter success	Hunters taking 2 goats
1972	23	23	2	48	0	42	117	36	6
1973	36	20	4	60	22	50	133	38	10
1974	26	19	2	47	13	37	109	34	10
1975	8	9	0	17	24	17	93	18	--[a]
1976	10	5	0	15	0	15	55	27	--
1977	19	16	2	37	14	37	80	46	--
1978	10	13	0	23	0	23	55	42	--
1979	19	10	0	29	ND	29	39	74	--
1980[b]	23	37	0	60	7	60	131	46	--
1981	36	34	0	70	27	70	158	44	--
1982[c]	41	39	0	80	23	80	162	49	1[c]
1983[c]	36	31	0	67	25	67	148	45	0
1984	34	19	0	53[d]	38	53	142	37	2[c]

[a] Bag limit reduced from 2 to 1 in 1975.

[b] Registration permit system-mandatory reporting required, starting 1980.

[c] Second permit issued to reporting, successful hunters; 2nd permits treated as separate hunters.

[d] Lower kill in 1984 vs. 1983 is primarily due to a change in assigning kill locations: harvest previously counted as Subunit 1A harvest is now assigned to GMU 1B.

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 1B

GEOGRAPHICAL DESCRIPTION: Southeast mainland from Cape Fanshaw to Lemesurier Point

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

Aerial surveys indicate that Subunit 1B goat populations are stable. Some herds receive light hunting pressure because of poor access, while those that are easily reached are subjected to heavy hunting.

Population Composition

A Piper Super Cub was used during August and September to conduct population surveys; these surveys were begun just after sunrise or late in the evening. Clear or high overcast days were usually selected for survey flights, so mountain peaks would be free from clouds. Early morning flights reduce the probability of air turbulence.

A total of 11.2 hours was spent surveying goat ranges in Subunit 1B from Dahlgren Peak to Eagle River. Only 3 survey areas were not censused. The combined fall count showed a ratio of 30 kids:100 adults (Table 1) as compared with an average of 22 kids:100 adults in 1983.

Mortality

In 1984, 420 mountain goat registration permits were issued for Hunt Area 801 (Subunits 1A and 1B). Of those hunters obtaining permits, 104 (25%) hunted mountain goats in Subunit 1B. Of these hunters, 42 (40%) killed mountain goats, compared with the 27% success rate in 1983. Females in the harvest increased to 76% (n = 32) in 1984, an increase over the 57% (n = 16) reported in 1983. Table 2 displays harvest information derived from the mandatory mountain goat registration permit system.

Several factors influence the timing of the Subunit 1B goat harvest. After September, storm systems from the southeast or north intermittently prevent air or boat travel to the goat

ranges. The hunting season is purposely long to permit hunters to take advantage of brief periods of calm, clear weather which are dispersed throughout the 5-month season.

Alpine lakes are used as floatplane landing sites until freeze-up begins in the late fall. Goats begin to utilize the spruce-hemlock forests at lower elevations once freeze-up occurs. In November and December hunters usually travel by boat to the goat ranges.

Twenty-nine percent of the harvest occurred 1-15 September, and 20% occurred 15-30 September (Table 3). Although the season was 5 months long, 76% of the kill occurred in September and October.

Sixty-four percent of the successful hunters used aircraft and killed 27 goats (64%), while 36% of the successful hunters used boats and killed 15 goats (36% of the harvest). Successful hunters using boats hunted a total of 49 days while successful hunters using aircraft hunted 84 days (Table 2).

The Horn Cliffs area, which is easily accessible by skiff from Petersburg, received 24% of the hunting pressure and contributed 7% of the harvest (Table 2). A total of 303 days of hunting effort was reported by hunters in all of Subunit 1B. Successful hunters averaged 3.2 days of hunting.

Management Summary and Recommendations

Although a 2nd goat permit was available to successful hunters, only a few obtained a 2nd permit and no one killed a 2nd goat. This regulated bag limit appears to provide additional recreational opportunity but does not appreciably increase the kill of goats.

The sex ratio of the kill continued to be distorted in the favor of females (76%), but analysis of the data (Table 2) indicates that the harvest of females was well distributed throughout the subunit, with the exception of Swan Lake. Swan Lake accounted for 21% of the total harvest and 22% of the females killed in Subunit 1B. Swan Lake received 22% of the unit's hunting pressure.

Aerial surveys should be conducted in the Swan Lake drainage after kidding season to determine the total population and the survival rate of kids. If the adult population is significantly lower than that of the previous season and/or if the kid:adult ratio is significantly lower, then an emergency closure should be implemented.

PREPARED BY:

E. L. Young
Game Biologist III

SUBMITTED BY:

Steven R. Peterson
Acting Management Coordinator

Table 1. Game Management Subunit 1B mountain goat aerial survey information for 1984.

Survey date		Area[a]	No. adults	No. kids	Total goats	Kids:100 adults	Percent kids
15 Aug	01	Dahlgren Peak	0	0	0	--	--
	02	Jamestown/					
	03	Saranac Peaks	0	0	0	--	--
	04	De Boer Lake	7	4	12	50	33
	05	Scenery Creek	4	1	5	25	20
5 Sep	06	Swan Lake	28	10	38	36	26
	07	Patterson Peaks	6	0	6	0	0
	08	S. Patterson/ Muddy River	22	3	25	14	12
	09	Rodgers Peak	36	11	47	31	23
	10	Horn Cliffs	17	1	18	6	6
	11	Thunder Mountain	14	2	16	14	13
	11A	Thunder Mountain S.	2	1	3	50	33
6 Sep	12	Wilkes Range	18	6	24	33	25
	13	Le Conte Bay/ Kakwan Point	6	3	9	50	33
	14	Shakes Glacier/ U.S. Boundary	21	6	27	29	22
7 Sep	15	Garnet Ledge/ Government Creek	6	0	6	0	0
12 Sep	16	Andrew Creek S.	4	0	0	0	0
	17	Andrew Creek N.	9	0	0	0	0
	18	Mount Flemer	5	2	7	40	29
	19	Berg Creek	3	0	0	0	0
7 Sep	21	Marten Creek	11	6	17	46	35
	22	Harding River	0	0	0	--	--
22 Aug	25	Bradfield River E.	93	28	121	30	23
21 Aug	26	Tyee Creek	52	19	71	31	27
	27	Eagle River	66	23	89	35	26
	28	Cleveland Peninsula	0	0	0	--	--
Totals			438	130	568		
Means						30	23

[a] Areas 20, 23, and 24 not sampled.

Table 2. Hunter transport and location of hunting effort for mountain goats in Subunit 1B, 1984.

Area	Means of transport: Boat — No. days	Boat — Harvest M	Boat — Harvest F	Airplane — No. days	Airplane — Harvest M	Airplane — Harvest F	Total harvest
Area Not Reported	--	--	--	9	0	2	2
Swan Lake	--	--	--	37	2	7	9
Patterson Peaks	--	--	--	4	0	2	2
Horn Cliffs	8	1	1	1	0	1	3
Thunder Mountain				2	0	1	1
LeConte Bay/ Kakwan Point	11	0	4				4
Shakes Glacier/ U.S. Boundary	6	1	1	1	1	0	31
Andrew Creek N.	4	0	1				1
Mount Flemer				11	2	1	3
Berg Creek	4	1	1				2
Marten Creek				4	0	1	1
Harding River	5	0	1				1
Tyee Creek				8	1	2	3
Eagle River				4	0	1	1
Cleveland Peninsula	11	0	3	3	1	2	6
Totals	49	3	12	84	7	20	42

Table 3. Chronology of mountain goat harvest in Subunit 1B, 1984.

Period	Goats taken		Sex		Percent by month
	n	%	Male	Female	
1-15 August	5	12	3	2	
16-31 August	1	2	1	--	15
1-15 September	12	29	3	9	
16-30 September	8	20	2	6	49
1-15 October	4	10	--	4	
16-31 October	7	17	1	6	27
1-15 November	0	0	--	--	5
16-30 November	0	0	--	--	5
1-15 December	2	5	--	2	
16-31 December	0	0	--	--	5
Totals	41	100	10	31	100

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 1C

GEOGRAPHICAL DESCRIPTION: Southeast mainland from Cape Fanshaw to the latitude of Eldred Rock

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

Survey results indicated goat populations were stable in most areas. However, surveys conducted in the Chilkat Range on William Henry Mountain found few goats in the area compared with past surveys. In 1972, 37 goats (including 4 kids) were observed there. A survey in 1978 revealed 19 goats including 5 kids; in 1984, 6 goats including 3 kids were observed.

Population Composition

Mountain goat aerial surveys were flown in a portion of the Chilkat Range and along the mainland coastal mountains near Juneau between the Eagle and Gilkey rivers. In the Chilkat area, 99 goats (18 kids and 81 adults) were observed. The ratio of kids:100 adults was 22. In the Eagle-Gilkey area, 13 kids and 48 adults were seen (27 kids:100 adults ratio).

Mortality

Goat hunting in Subunit 1C has been conducted under 2 registration permit hunts since 1980 (Table 1). During 1984, 25 goats (13 males and 12 females) were killed in Hunt Area 803; 52% of the goats were males. Hunters spent 183 days hunting goats in this area in 1984, averaging 3.0 days per hunter. The success rate was 35%. Of the 25 animals taken, 18 were killed in the Tracy Arm and Endicott Arm areas. Sixteen goats were taken by Alaska residents and 9 were killed by nonresidents.

The 1984 goat harvest in Hunt Area 802 was 4 animals: 2 males and 2 females. Twenty-one hunters spent 52 days in the field, averaging 2.5 days per hunter.

In Subunit 1C, 235 days were spent hunting goats; 29 animals were taken (15 males and 14 females). The number of goats killed per day hunted was 0.12 animals, compared with 0.13 animals per hunter day in 1983.

Management Summary and Recommendations

Mountain goat populations are believed to be stable in Subunit 1C, but they are below previously recorded levels in most areas. Some areas where hunter pressure would most likely cause undesirable harvest levels have been closed. The area between the Eagle River/Eagle glacier and the Taku Glacier has been closed to hunting since 1983.

Formal surveys had not been flown in the Chilkat Range since 1978. The portions surveyed south of Endicott River in 1984 indicated that goat populations were below previously recorded levels for at least some areas. For the William Henry Mountain area, 6 goats were observed in 1984, compared with 18 goats in 1978 and 37 in 1972. On the other hand, surveys on Mt. Young, located immediately north of Endicott River, indicated that the population was at least stable. The kids:100 adult ratio was 27 in the Mt. Young area, 100 in William Henry Mt. area, and 14 in the Nun Mt. to Pt. Couverden area. Although most of the Chilkat area receives little hunter pressure, some segments of this population may require protection against overharvesting. Surveying of logging roads is now occurring along the southwest corner of the Chilkat Range. If hunter access and pressure increase here, season restrictions may be necessary.

The Eagle River to Gilkey River population seems to be stable. This population inhabits the only portion of Hunt 802 that is located along the Juneau road system and opened to goat hunting in 1984. The harvest and hunter success rate was acceptable and slightly higher than in 1983. The kids:100 adult ratio increased from 19 kids:100 adults in 1983 to 27 kids:100 adults in 1984.

The remainder of Subunit 1C should be closely monitored for changes in hunter pressure and goat population levels.

PREPARED BY:

David W. Zimmerman
Game Biologist II

SUBMITTED BY:

Sterling Eide
Regional Supervisor

Table 1. Mountain goat registration permit hunt data for Subunit 1C, southeastern Alaska, 1984.

Hunt No.	Year	No. permits issued	No. hunters	No. days hunted	Chronology of harvest					Harvest				Hunter success	Success/ unit of effort
					Aug	Sep	Oct	Nov	Total	M	F	Unk	Total		
802	1980	117	34[b]	67	--	-[c]	6	2	8	2	4	2	8	23.5	0.12
	1981	111	44[b]	87	--	--	6	3	9	3	6	0	9	20.5	0.10
	1982	101	53[b]	124	--	--	5	6	11	4	6	1	11	20.8	0.09
	1983[d]	29	8	13	--	--	1	0	1	0	1	0	1	12.5	0.08
	1984	33	21	52	--	--	4	0	4	2	2	0	4	19.0	0.08
803	1980	140	47	166	6	7	7	8	28	9	8	11	28	59.6	0.17
	1981	129	46	129	1	2	6	13	22	8	14	0	22	47.8	0.17
	1982	140	67	189	6	0	5	21	32	16	16	0	32	47.8	0.17
	1983	203	94	322	5	9	13	14	41	23	17	1	41	43.6	0.13
	1984	169	62	183	4	9	2	10	25	13	12	0	25	40.3	0.14

[a] Number of goats taken per day hunted.

[b] Includes 2 hunters who had permits for Hunt No. 803 but hunted in Hunt No. 802.

[c] No season.

[d] The area between Eagle River and Taku Glacier (about two-thirds of the hunt area) was closed by emergency order for the entire season.

Table 2. Game Management Unit 1C goat harvest statistics for 1972-84 derived from hunter reports from the harvest ticket system (1972-79) and the registration permit system (1980-84).

Year	Chronology of harvest								Sex composition				No. of hunters	Hunter success	Success/ unit of effort
	Aug	Sep	Oct	Nov	Dec	Jan	Unk	Total	M	F	Unk	% M			
1972[a]	18	10	7	8	4	17	6	70	36	34	0	51	149	40.3[b]	--
1973	30	32	11	21	17	--[c]	1	112	56	56	0	50	177	52.5[d]	--
1974[f]	19	18	7	15	30	--	5	94	40	51	3	44	159	44.0[e]	--
1975	7	8	20	15	13	--	5	68	42	25	1	63	138	49.3	--
1976	2	0	12	5	16	--	6	41	13	28	0	32	107	38.3	--
1977	8	8	0[g]	8[g]	3[g]	--	3	30	19	9	2	68	72	41.6	--
1978	3	3	6	17	--[c]	--	6	35	24	11	0	69	80	43.8	--
1979	7	3	13	15	--	--	0	38	21	17	0	55	65	58.5	--
1980	6	7	13	10	--	--	0	36	12	12	12	50	81	44.4	0.16
1981	1	2	12	16	--	--	0	31	11	20	0	36	90	34.4	0.14
1982	6	0	10	27	--	--	0	43	20	22	1	48	120	35.8	0.14
1983	5	9	14	14	--	--	0	42	23	18	1	56	102	41.2	0.13
1984	4	9	6	10	--	--	0	29	15	14	0	52	83	34.9	0.12

[a] Bag limit for seasons 1972-74 was 2 goats.
[b] Based on 60 successful hunters, 10 of whom took 2 goats each.
[c] Season closed.
[d] Based on 93 successful hunters, 19 of whom took 2 goats each.
[e] Based on 70 successful hunters, 24 of whom took 2 goats each.
[f] Bag limit for seasons 1975-83 was 1 goat.
[g] Revised in 1979 from figures reported in Table 2 of the 1978 Survey-Inventory Report for Subunit 1C.

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 1D

GEOGRAPHICAL DESCRIPTION: Upper Lynn Canal

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

Only 1 sex and age composition survey was conducted in Subunit 1D during this period. The Skagway area (Registration Hunt No. 804) was surveyed 1.1 hours on 26 July 1984. Forty goats, 13(33%) of which were kids, were enumerated for an average of 36.4 goats per hour. A kids:100 adults ratio of 48.1 was determined from this effort. Table 1 documents the results of composition counts in the 804 area since 1980. The drastic decline in goats observed between 1981 and 1983 (no survey was conducted in 1982) precipitated a closure of the hunting season for 1984 and 1985. An apparent 12% growth in this herd and a 60% increase in the kids:100 adults ratio was documented between 1983 and 1984. It is interesting to note that survey results between these 2 years show a constant number of adults but an increase in the kid segment of the population.

Mortality

Three hundred thirty-eight hunters applied for Hunts No. 805 and 806 (Appendix A). Two hundred twenty (65%) did not hunt, 85 (25%) hunted successfully, and 30 (9%) killed goats. Three hunters did not return their permits. The 85 unsuccessful hunters spent a total of 213 days hunting (mean = 2.5 days/hunter).

Twelve male and 18 female goats were taken by 1 nonresident and 29 resident hunters in 43 days of hunting effort (mean = 1.4 days/hunter). Twenty-six goats were taken north of the Haines Highway and Katzehin River (Hunt No. 805) and 4 came from south of the highway and river (Hunt No. 806). The number of goats harvested, by month, was as follows: August, 1 (3%), September, 10 (33%), October, 6 (20%), November, 11 (37%), and December, 2 (7%). Transportation methods used by successful hunters were boat (60%), highway vehicle (32%), and horse (8%).

The 1984 harvest of 30 goats was 14% below the 1973-83 mean of 35 and 21% below the 1975-83 mean (38 goats). The recent success rate of 26.0% is in line with rates of the previous 4 years (mean = 28.4), but in contrast with the 10-year (1973-83) average mean of 38.6.

Management Summary and Recommendations

The Alaska Board of Game, during its spring 1984 meeting, closed the Skagway area hunt (Hunt No. 804) due to low goat numbers, high hunter participation, and short seasons typically lasting 1 or 2 days. This closure will be effective during the 1985 season as well. Survey efforts from 1984 and 1985 will provide data when the Game Board next considers mountain goat seasons in spring 1986.

The harvest of 59% female goats in 1984 contrasts with the 1973-83 mean of 44% and the 1979-83 5-year mean of 40%. Because this level of female harvest may indicate hunters were finding few larger males and thus were taking females, careful attention should be given to the sex ratio in the 1986 harvest. If an apparent trend is developing toward a high harvest of the female segment of the Subunit 1D population, a more restrictive management scheme should be considered.

No changes in season or bag limit are recommended at this time.

PREPARED BY:

W. Bruce Dinneford
Game Biologist III

SUBMITTED BY:

Steven R. Peterson
Acting Management Coordinator

Table 1. Historical mountain goat survey data, Subunit 1D, Hunt Area 804, 1980-84.

Year	No. of kids	No. of adults	Kids:100 adults	Total goats	Count time (hrs)	Goats/ hour
1980	31	60	52	91	1.60	56.9
1981	22	73	30	95	1.60	59.4
1982[a]	--	--	--	--	--	--
1983	5	26	19	31	0.55	56.4
1984	13	27	48	40	1.10	36.4

[a] No surveys conducted.

Appendix A. Residence and success status for Subunit 1D mountain goat permittees, 1984.

Success status/ Hunt No.	Resident	Nonresident	Total
Did not hunt:			
805	118	2	120
806	98	2	100
Totals	216	4	220
Unsuccessful:			
805	48	4	52
806	29	4	33
Totals	77	8	85
Successful:			
805	25	1	26
806	4	0	4
Totals	29	1	30
Nonrespondents:			
805	2	0	2
806	1	0	1
Totals	3	0	3

Appendix B. Historical Subunit 1D mountain goat harvest, 1973-84.

Year	Male	Female	Unknown	Total	No. hunters	Success rate (%)
1973	44	39	3	86	109	78.9
1974	25	29	0	54	90	60.0
1975	21	12	1	34	77	44.2
1976	8	9	0	17	65	26.2
1977	15	9	1	25	69	36.2
1978	7	10	0	17	52	32.7
1979	14	8	0	22	40	55.0
1980	11	10	9	30	103	29.1
1981	24	19	0	43	127	33.9
1982	13	11	1	25	103	24.3
1983	20	14	0	34	130	26.2
1984	12	18	0	30	115	26.1

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 4

GEOGRAPHICAL DESCRIPTION: Admiralty, Baranof, Chichagof, and adjacent islands

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

No data available.

Population Composition

No data available.

Mortality

Registration Hunt No. 815 required that all persons hunting goats on Baranof Island obtain a permit. This system has been in effect since 1976. In 1984, 322 permits were issued, and 143 of those permittees actually hunted and took 49 goats. Examination of horns of specimens brought in by hunters (not a legal requirement of Hunt 815) showed the average male to be 5.2 years of age ($\underline{n}$ = 29) with 8.7 inch (22.1 cm) horns ($\underline{n}$ = 26) while females were 5.7 years of age with 8.4 inch (21.3 cm) horns ($\underline{n}$ = 12). Much of the Unit 4 harvest normally occurs early in the season. In 1984 the fall weather was quite inclement and undoubtedly affected the harvest results. Historic survey and harvest data are given in Table 1.

Management Summary and Recommendations

Recent harvests represent about 15% of the observed population. Experiences elsewhere with mountain goat harvests of this magnitude indicate this level may be excessive. However, survey data indicate that ample numbers of young enter the population annually, replacing those removed through harvest, and allowing for increases and/or replacement of natural losses.

The 1982 survey suggests the population is still increasing. Therefore, the regulations covered by Registration Hunt No. 815 seem appropriate for the population.

If funds are available, an aerial survey should be conducted in 1985.

No change in season or bag limit is recommended.

PREPARED BY:

Loyal J. Johnson
Game Biologist III

SUBMITTED BY:

Steven R. Peterson
Acting Management Coordinator

Table 1. Mountain goat survey and harvest data, Game Management Unit 4, 1923-84.

Date	Survey data: Total goats	Goats/ hour	No. kids	No. adults	Kids:100 adults	Data source (aircraft type)	Harvest data: Total kill	M	F	No. hunters	Data source
1923	18 goats introduced										
1937	41				ND[a]	Alaska Game Commission	--	--	--	--	--
1954	263	ND	41	222	18.5	USF&WS	--	--	--	--	--
Sep 1960	116	38.4	26	90	28.9	Merriam-ADF&G	--	--	--	--	--
Sep 1961	118	ND	20	98	20.4	Merriam-ADF&G	--	--	--	--	--
Sep 1970[b]	154	ND	15	139	10.8	Courtright-ADF&G (Helio Courier)	16	ND	ND	48	Hunter interview
Sep 1970	121	--	13	108	12.0	Courtright-ADF&G (Helio Courier)	0	--	--	75	Hunter interview
1971	--	--	--	--	--	--	20	ND	ND	ND	
1972	--	--	--	--	--	--	10	5	5	50	Harvest ticket
Sep 1973	253	36.1	50	203	24.6	Johnson-ADF&G (Piper PA-18)	24	11	13	45	Harvest ticket
1974	--	--	--	--	--	--	10	7	3	39	Harvest ticket
Aug 1976[c]	242	62.0	47	195	24.1	Johnson-ADF&G (Piper PA-18)	28	18	10	100	Harvest ticket Regist. permit
1977	541	73.1	148	393	37.7	Johnson-ADF&G (Hughes 500 Helicopter)	40	22	18	97	Regist. permit
1978	--	--	--	--	--	--	32	17	14 (1 unk)	85	Regist. permit
1979[d]	397	79.4	76	321	23.7	Johnson-ADF&G (Hughes 500 Helicopter)	59	30	27 (2 unk)	151	Regist. permit
1980[e]	473	70.9	106	367	28.9	Johnson-ADF&G (Alouette II Helicopter)	49	25	23 (1 unk)	147	Regist. permit
1981	--	--	--	--	--	--	74	30	44	211	Regist. permit

Table 1. Continued.

Date	Survey data: Total goats	Goats/ hour	No. kids	No. adults	Kids:100 adults	Data source (aircraft type)	Harvest data: Total kill	M	F	No. hunters	Data source
1982[c]	506	76.9	84	422	19.7	Johnson-ADF&G (Alouette II-Helicopter)	75	42	33	221	Regist. permit
1983	ND	ND	ND	ND	ND	--	61	33	28	212	Regist. permit
1984	ND	ND	ND	ND	ND	--	49	34	15	143	Regist. permit

[a] Data not available.

[b] Incomplete coverage.

[c] North of Vodopad River only.

[d] North of Medvejie Lake-Baranof River only.

[e] North of Lake Dianne only.

MOUNTAIN GOAT

SURVEY-INVENTORY REPORT

GAME MANAGEMENT UNIT: 5

GEOGRAPHICAL DESCRIPTION: Cape Fairweather to Icy Bay, Eastern Gulf Coast

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

Sex and age composition surveys were conducted in portions of Game Management Unit 5 during the current year (Table 1). On 22 September 1984, a 1.1-hour aerial survey was conducted from the west side of Harlequin Lake to Mt. Pinta. A total of 57 goats, 15 of which (26%) were kids, was enumerated in this area. Survey efforts in the same area on 18 September 1983 provided a count of 45 goats (36% kids) in 0.9 hours. A reduction in total goat numbers, and in percent kids in this area was documented in the current year. Because of the continued low number of goats observed west of Harlequin Lake, the area draining into Harlequin Lake and the Ahrnklin River watershed was closed by emergency order on 11 October. The closure remained in effect through the rest of the hunting season.

On 31 August 1984, the Chaix, Karr, and Samovar Hills in Subunit 5B were surveyed. In the Chaix Hills, 108 goats (27, or 25%, kids) were enumerated in 0.8 hours; this compares with 66 goats (12, or 18%, kids) on 19 August 1983. The 1984 Karr Hills survey yielded a count of 138 goats (33, or 24%, kids) in 0.6 hours; the 1983 count was 87 goats (15, or 17%, kids) in 0.6 hours. Thus, an apparent 48% increase in total goat numbers was found in these areas in 1984, along with 6% more kids in the same survey time. The Samovar Hills survey enumerated 31 goats, 7 (23%) of which were kids, in 0.4 hours. This was the 1st survey for this area.

Another previously unsurveyed area was flown on 2 August 1984. Eastern Subunit 5A, bordered by Gateway Knob, the Alsek Glacier, and the Canadian border, was surveyed in 2.2 hours, resulting in a total count of 35 goats (7, or 20%, kids). Most animals were located on the east side of the Alsek River, within about 5 miles of the Alsek Basin.

On 24 July 1984 the area between Doame River and Grand Plateau glacier (which includes the Deception Hills) was flown in 0.7 hours; 58 goats (11, or 19%, kids) were observed. The 1983 count (18 September) was 52 goats, 12 (23%) of which were kids. Goat numbers in the Deception Hills are probably stable.

Mortality

A total of 17 nonresident and 59 resident hunters applied for mountain goat registration permits in Unit 5 in 1984. Forty-five permittees did not hunt, while 20 unsuccessful hunters spent 67 days afield (range = 1-7, mean = 3.4). Two nonresident and 5 resident successful hunters (26% of those permittees who hunted) took 2 males, 4 females, and 1 goat of unknown sex in an average of 3.0 days. One resident hunter did not return his permit.

Three of these mountain goats were harvested from Subunit 5B (2 from Chaix Hills and 1 from Riou Bay); 4 goats came from Subunit 5A (2 from Tanis Mesa, 1 from Akwe Lake, and 1 from Nunatak Fiord).

The harvest of 7 goats is only 41% of the 1972-83 average take of 17 goats for GMU 5 (Appendix A). Two-thirds fewer hunters went after goats in 1984 compared with 1983 (27 compared with 41), and of those hunting, a lower percent were successful (26% versus 56%).

Management Summary and Recommendations

Survey results from 1984 indicate kid recruitment was good, with the possible exception of the Harlequin Lake and Deception Hills herds. In these areas, the percentage of kids counted during aerial efforts declined from 1983; however, this decline could reflect inherent variability in the surveys from year to year. Because the area is easily accessible to hunters, the Harlequin Lake herd should be monitored closely to prevent overharvest. Potential roading east of the Dangerous River presents the same problem for other goat herds in the Brabazon Mountains.

No changes in season or bag limit are recommended at this time.

PREPARED BY:

W. Bruce Dinneford
Game Biologist III

SUBMITTED BY:

Steven R. Peterson
Acting Management Coordinator

Table 1. Results of summer composition counts of mountain goats, Game Management Unit 5, 1984.

Date	No. adults	No. kids	Total goats	Kids:100 adults	Count time (hrs)	Goats/ hour	Survey area
24 Jul	47	11	58	23.4	0.7	87.9	Deception Hills
2 Aug	27	7	34	25.9	1.2	28.3	Canadian Border-Alsek Glacier
2 Aug	1	0	1	0	0.7	1.5	Novatak Glacier-Canadian Border
2 Aug	0	0	0	0	0.3	0	Gateway Knob-Novatak Glacier
31 Aug	24	7	31	29.2	0.4	77.5	Samovar Hills
31 Aug	105	33	138	31.4	0.6	237.9	Karr Hills
31 Aug	81	27	108	33.3	0.8	138.5	Chaix Hills
22 Sep	42	15	57	53.7	1.1	51.8	Mt. Pinta-West side Harlequin Lake
Total	327	100	427	30.6	5.8	73.6	

Appendix A. Historical GMU 5 mountain goat harvest, 1972-84.

Year	Male	Female	Unknown	Total
1972	18	13	1	32
1973	10	3	0	13
1974	14	5	0	19
1975	10	3	0	13
1976	4	3	0	7
1977	4	2	0	6
1978	2	8	0	10
1979	12	6	1	19
1980[a]	ND	ND	ND	24
1981	12	8	0	20
1982	8	5	1	14
1983	13	10	0	23
1984	2	4	1	7
Average	8	5	<1	16

[a] Error on hunter report form, sex ratio indeterminate.

MOUNTAIN GOAT

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 6

GEOGRAPHICAL DESCRIPTION: Prince William Sound and North Gulf Coast

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit:

See Hunting Regulations No. 25.

Population Status and Trend

Mountain goat populations in Unit 6 appear to be stable at moderate densities, except for the area from Copper River to Bering Glacier where small isolated herds are well below the desired level.

Population Composition

Three hundred twenty-two goats were counted from Icy Bay to Cape Yakataga (Subunit 6A) during a survey flown on 4 August. Kids accounted for 25% of the observed population. Survey conditions were excellent.

Mortality

The mountain goat harvest in Unit 6 was 130 animals. Of these goats, 119 were reported killed in Hunt Area No. 879 and the remainder (11) were reported killed in Hunt No. 830. A detailed summary of the goat harvest since 1976, by hunt area, is presented in Table 1.

Goat Hunt 879, which includes most of Subunits 6A, 6C, and 6D, was a registration permit hunt. Six hundred fifty-one permits were issued. The reported harvest included 76 males, 42 females, and 1 of unknown sex. Chronology of the harvest was: August, 37; September, 28; October, 29; November, 4; December, 7; and January, 14.

Goat Hunt No. 830, the southwest portion of Subunit 6D from Tiger Glacier south, consisted of an early drawing permit hunt (10 August-30 September season) followed by a registration permit hunt (15 October-30 November season). Forty-five permits were issued for the drawing hunt and 6 goats were reported taken. Twenty-six permits were issued for the registration hunt, and 5 goats were reported taken.

Subunit 6B and the western portion of Subunit 6A (Copper River to Bering River) were closed to goat hunting.

Management Summary and Recommendations

This year's harvest of 130 goats was similar to the 9-year average of 126 animals. The percent of males taken (66%) was slightly above the 9-year average (62%).

Examination of kill data, by unit area (Table 1), indicates the distribution of harvest was normal with the exception of the Valdez Arm to Rude River area. For the 2nd year, the harvest in that area was well above average.

The goat population between Cape Yakataga and Icy Bay appears to be healthy with a fairly high percent of kids in the herd.

The Unit 6 goat populations appear to be withstanding current harvest levels without detrimental affects. No changes in seasons or bag limits are recommended.

PREPARED BY:

Julius L. Reynolds
Game Biologist III

SUBMITTED BY:

Leland P. Glenn
Survey-Inventory Coordinator

Table 1. Unit 6 mountain goat harvest by area and year, 1976-84.

Unit/ area	Area description	1976	1977	1978	1979	1980	1981	1982	1983	1984	Average
6-01	East of Suckling Hills to Icy Bay	6	6	17	18	19	29	14	17	24	16.7
6-02	Bering Lake-Burg Lake area	11	7	5	12	3	1	0	0	0	4.3
6-03	Suckling Hills	0	3	4	3	1	a	a	a	a	2.2
6-04	Ragged Mountain	9	7	6	5	1	a	a	a	a	5.6
6-05	Goat Mountain	a	a	a	a	a	a	a	a	a	a
6-06	Rude River to Copper River	10	10	10	9	9	10	16	13	6	10.3
6-07	Valdez Arm to Rude River	28	30	34	24	41	48	42	69	57	41.4
6-08	Valdez area	6	10	20	23	17	19	29	23	19	18.4
6-09	Port Wells to Columbia Glacier	11	9	8	6	8	0	5	8	2	6.3
6-10	Unit 6, unknown	12	13	8	11	4	2	1	1	7	6.6
6-11	Whittier-Port Wells	6	0	0	2	3	8	0	0	0	2.1
6-12	Kings Bay to Cape Fairfield	24	14	23	20	14	11	11	7	15	15.4
Totals		123	109	135	133	120	128	118	138	130	126.0

[a] Not open to hunting.

MOUNTAIN GOAT

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNITS: 7 and 15

GEOGRAPHICAL DESCRIPTION: Kenai Peninsula

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit

See Hunting Regulations No. 25

Population Status and Trend

Mountain goat surveys conducted from 1968 through the late 1970's have indicated a downward trend in population size, particularly in areas where goat and Dall sheep ranges overlapped. Since 1980, survey data have indicated an increasing trend in goat population size. I believe this upward trend is due to a recent series of mild winters and reduced hunting pressure. The density of mountain goats in most count areas is thought to be near carrying capacity.

Population Composition

Only 2 goat count areas south of Kachemak Bay were surveyed in 1984. Two hundred thirty-nine goats, including 182 adults and 57 kids, were observed. The kid:adult ratio was 31:100, and kids made up 24% of the sample.

Mortality

Hunters killed 135 goats, a 34% increase over the previous year's harvest of 101. Composition of the harvest was 93 males (70%), 40 females (30%) and 2 of unknown sex. Sixty-five goats were killed during the early-season drawing permit hunts. Twenty-three hundred eighty-six applications were received for 355 available drawing permits. Mild weather during the late-season registration permit hunts contributed to a higher rate of hunter success. During the late-season hunts, 389 permits were issued and 70 goats were killed.

Management Summary and Recommendations

The Kenai Peninsula mountain goat population has increased over the past 6 years and appears to be at a high level. Since 1982, the goat harvest has been controlled by both the drawing and registration permit hunt systems. These permit hunt systems distribute hunting pressure by setting harvest quotas for each of

30 hunt areas. They also allow for maximum hunter participation while protecting more accessible populations from overharvest. I recommend this management system be continued and adjustments to harvest quotas made when population data indicate a change is warranted.

PREPARED BY:

Ted H. Spraker
Game Biologist III

SUBMITTED BY:

Leland P. Glenn
Survey-Inventory Coordinator

MOUNTAIN GOAT

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 8

GEOGRAPHICAL DESCRIPTION: Kodiak and adjacent islands

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit:

See Hunting Regulations No. 25.

Population Status and Trend

Post-kidding surveys conducted in June 1984 yielded a total of 253 goats, a slight increase over the 231 goats counted in a June 1983 survey. The mountain goat population on Kodiak Island appeared to be stable to slightly increasing during this reporting period. A total of 203 goats was observed in hunt areas 871, 872, and 873 during a 2-hour aerial survey in August. Those figures compare closely to the 213 goats counted in those hunt areas in August 1983.

Population Composition

Results from the 3 composition surveys conducted during this reporting period are presented in Table 1. A post-kidding survey was conducted by helicopter in June 1984. In August 1984 a summer distribution survey was conducted by fixed-wing aircraft and in March 1985 a winter distribution survey was conducted by helicopter. The post-kidding and winter distribution surveys were part of an ongoing study of the impacts of the Terror Lake hydroelectric project. Those surveys included the Kizhuyak, Terror, and Ugak Bay drainages, but the summer survey included only Kizhuyak and Ugak drainages.

The ratio of 31 kids:100 adults observed in both the post-kidding and summer distribution surveys was comparable to that noted in previous years. The ratio of kids observed during the 1985 winter distribution survey (25:100) was lower than had been noted during similar surveys in 1983 (39:100) and 1984 (38:100).

Mortality

Hunters killed 55 goats, including 32 males, 20 females, and 3 of unknown sex during the 1984 hunting season. Seventy-eight of 135 permittees reported hunting and hunter success was 71%. The mean age of the 32 males was 4.0 years (range = 1.2-7.3 years). The mean age of the 20 females was also 4.0 years (range = 0.2-10.3 years).

A new registration permit hunt (Hunt No. 876) allowed hunting in parts of the Uganik Bay, Kiliuda Bay and Sitkalidak Strait drainages which had previously been closed to goat hunting. The harvest from this area was 29 goats, including 16 males, 12 females, and 1 of unknown sex, representing 53% of the total harvest. Distribution of the harvest from the drawing hunt areas was as follows: Hunt No. 871, 5 goats; Hunt No. 872, 12 goats; Hunt No. 873, 7 goats; and Hunt No. 874, 2 goats.

Management Summary and Recommendations

Opening a new registration permit hunt and increasing the number of drawing permits resulted in a record harvest of 55 goats. The highest previous harvest was 16 goats in 1974. Unusually good fall weather was a major factor contributing to high hunter success. Several small, high lakes in the registration hunting area were ice-free, facilitating access by floatplane. The harvest of 28 goats in the registration hunt (No. 876) was much higher than had been expected. Previous surveys in that area indicated the population was relatively small and widely dispersed.

The 1984 harvest in Hunt No. 876 was probably excessive. Composition surveys should be done in that area on an annual basis to monitor productivity and population trends. A harvest quota should be set after completing these surveys.

PREPARED BY:

Roger B. Smith
Game Biologist III

SUBMITTED BY:

Leland P. Glenn
Survey-Inventory Coordinator

Table 1. Mountain goat composition surveys flown on Kodiak Island, 1984-85.

Survey dates	No. adults	No. kids	Total goats	Kids: 100 adults	% Kids
11-12 June 84	193	60	253	31:100	24
27 August 84	155	48	203	31:100	24
13-16 March 85	110	28	138	25:100	20

MOUNTAIN GOAT

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 11

GEOGRAPHICAL DESCRIPTION: Wrangell Mountains

PERIOD COVERED: 1 July 1984-30 June 1985

Season and Bag Limit:

See Hunting Regulations No. 25.

Population Status and Trend

The Wrangell Mountains goat population appears to be increasing. One hundred ninety-three goats were counted in the MacColl Ridge, Hawkins Glacier, and McCarthy count areas. On MacColl Ridge, the count was 52 goats, up from the 1983 count of 44 goats. The Hawkins and McCarthy count areas had a combined total of 141 goats, an increase over the previous count of 123 goats observed during surveys in 1981.

Population Composition

One hundred sixty-three adults and 30 kids were observed during aerial surveys of 3 trend count areas. The ratio of kids:adults was 18.5:100. This compares with previous kid:adult ratios of 16:100 obtained in 1983 (4 count areas, 87 goats) and 29:100 obtained in 1982 (2 count areas, 58 goats).

Mortality

Hunters killed 18 goats, including 9 males and 9 females, during the 1984 season. Fifty-two out of 73 permittees reported hunting; the success rate was 35%. The most popular method of transportation reported by hunters was aircraft (65%), followed by highway vehicles (25%) and horses (10%).

Management Summary and Recommendations

Population estimates and trends are difficult to obtain for mountain goats. Fluctuations in count data often reflect aerial survey conditions and timing rather than population changes. Overall, trend count figures suggest mountain goat numbers are slowly increasing in the more favorable habitats. This population growth may be the result of increased survival due to a series of mild winters since 1980.

Both the numbers of mountain goats harvested and the number of hunters increased again in 1984. Hunting pressure has now increased to the level observed prior to implementing the permit system (1980). Overharvesting readily accessible goats remains a possibility. The kill in these areas, therefore, should be monitored throughout the season.

No changes in current hunting regulations were recommended.

PREPARED BY:

Robert W. Tobey
Game Biologist III

SUBMITTED BY:

Leland P. Glenn
Survey-Inventory Coordinator

MOUNTAIN GOAT

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 13 and 14

GEOGRAPHICAL DESCRIPTION: Talkeetna Mountains and Northwestern Chugach Mountains

PERIOD COVERED: July 1, 1984-June 30, 1985

Season and Bag Limit

See Hunting Regulations No. 25.

Population Status and Trend

Aerial surveys for mountain goats were conducted only in Subunit 14C of the northwestern Chugach Mountains (Fig. 1). Four hundred forty-two goats were counted during 7 hours of flight time. This count was the highest recorded for this area since data collection began in 1967. These count data also show a 31.5% increase in goats observed compared with a 6-hour survey in 1982 in which 336 goats were counted.

Population Composition

Composition of 442 goats observed in Subunit 14C was 325 (73.5%) adults and 117 (26.5%) kids. In comparison, 260 adults (77%) and 76 kids (23%) were observed during a comparable survey in 1982. Count data suggest a 25% increase in adult population size since 1982.

Mortality

Permit reports from 178 hunters indicated that 48 goats (27% success rate) were killed during the hunting season. Forty-four of these goats, including 26 males and 18 females, were killed in the northwestern Chugach Mountains in southeastern Subunits 14A and northeastern 14C (Fig. 1). One hunter reported that he hunted unsuccessfully in Subunit 14B. Four goats, 3 males and 1 female, were killed in the Talkeetna Mountains in northern Subunit 14A. This area, normally closed to goat hunting, was opened briefly and then closed by emergency order.

The ages of 39 goats were estimated to the nearest whole year by counting horn annuli. The mean age of 25 males was 5.4 years (range 1-14 years), and the mean age of 16 females was 3.4 years (range 1-7 years).

Management Summary and Recommendations

The lack of adequate goat surveys in the Talkeetna Mountains and the remainder of the northwestern Chugach Mountains (excluding Subunit 14C) prevent acceptable population evaluation. Despite this lack of population information, hunting for goats of either sex occurred in Subunits 14A and 14B. However, Subunit 13D remained closed to goat hunting because population data were not available. This inconsistency in management policies was identified. I recommend, therefore, that goat seasons in Subunits 14A and 14B be closed until population information is collected and evaluated. Goat surveys within Subunit 14C are adequate and suggest the population is increasing. Below normal temperatures and above average snow depths in late spring, however, may have increased the rate of mortality on young.

PREPARED BY:

Herman J. Griese
Game Biologist II

SUBMITTED BY:

Leland P. Glenn
Survey-Inventory Coordinator

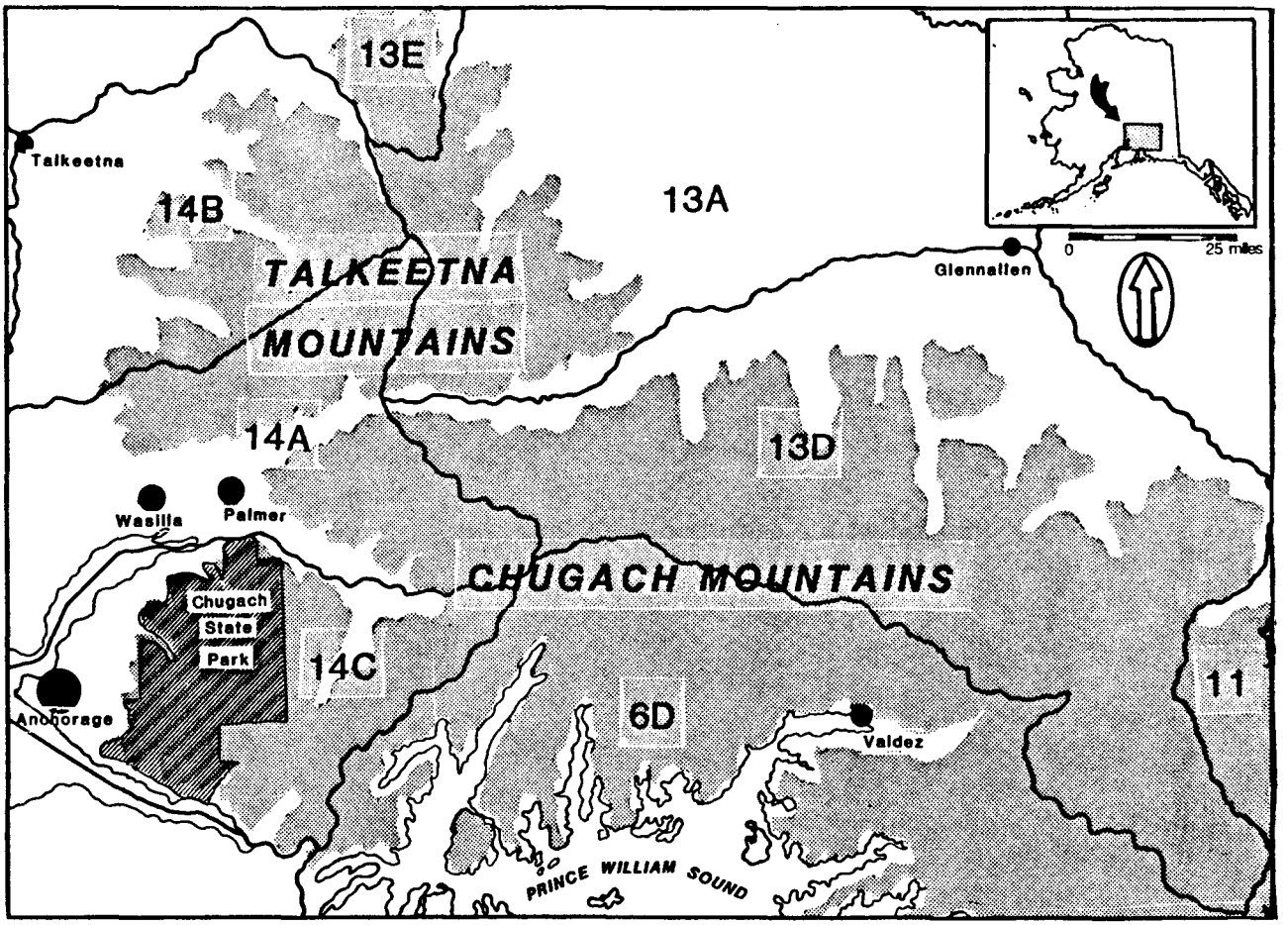

Fig. 1. Subunit boundaries within the Talkeetna and northwestern Chugach Mountains.