PATTERNS OF HARVEST AND USE OF MOUNTAIN GOATS ON KODIAK ISLAND, GMU 8

by Liz Williams

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EXECUTIVE SUMMARY

PATTERNS OF HARVEST AND USE OF MOUNTAIN GOATS ON KODIAK ISLAND, GMU 8

by Liz Williams

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Anchorage, Alaska

June 2003

This report presents findings of research conducted by the Alaska Department of Fish and Game (ADF&G), Division of Subsistence, about patterns of harvest and use of mountain goats by the residents of the Kodiak Archipelago (Game Management Unit 8 [GMU 8]). The project was funded through a contract with the Office of Subsistence Management (OSM) of the U.S. Fish and Wildlife Service (Cooperative Agreement #02-080 [March 2002]).

In 2000, a member of the public requested the Federal Subsistence Board (FSB) to establish a subsistence hunting season for mountain goats on federal lands in GMU 8. In order to take this action, the FSB must first determine if this wildlife population supports customary and traditional subsistence uses, following a procedure set out in regulations. The purpose of this report is to provide information for that analysis.

Mountain goats were introduced to Kodiak Island in 1952 and 1953. Since the initial transplant at Hidden Basin--Ugak Bay in the northeastern portion of the island, goats have expanded to most suitable habitat and now number approximately 1,400 animals. The first legal hunting took place in 1968. Since 1986, hunting opportunities have been awarded through a random draw (lottery) administered by the Alaska Department of Fish and Game. From 1993-2001, an average of 133 permits have been awarded annually to an average of 712 applicants. The breakdown of permit recipients from 1986-2001 by place of residence shows that 49% of these permits were issued to residents of Kodiak city and the road system, 3% to other communities within the Kodiak Archipelago, 40% to other Alaska residents, and 7% to non-residents. The residence of the remaining 1% of permit recipients is unknown. Since the 1986 drawing permit system began, the average annual harvest has been 45 goats.

The research had three purposes:

- 1. To compile existing data on the use and hunting of mountain goats on Kodiak Island
- 2. To supplement existing data through key respondent interviews with goat hunters in Kodiak city and other Kodiak Island communities and systematic survey of Kodiak Island communities with less than 100 households
- 3. To analyze these data and illustrate the criteria by which customary and traditional uses of game populations in Alaska are identified, addressing the question of how introduced game populations might be treated.

A variety of data gathering methods were used. These included key respondent interviews, mapping of hunting areas/routes, and systematic household surveys. All three of these methods were used in each community. Census and chain referral sampling designs were used depending on the size of the community being surveyed.

In communities with less than 100 households, a census sampling design was used because it was feasible to survey each consenting household. Key respondent interviews and mapping were conducted with knowledgeable and experienced goat hunters and users identified by tribal and city governments, the Kodiak Fish and Game Advisory Committee (KAC) and the Kodiak Aleutians Regional Subsistence Advisory Council (KARAC).

Local assistants conducted most of the surveys in study communities where a census sampling design was used-- Akhiok, Larsen Bay, Old Harbor and Port Lions. Consenting goat hunters in small communities were interviewed and participated in mapping. In Akhiok, Larsen Bay, Old Harbor and Port Lions, 151 households (75.5%) from a potential total of 200 were surveyed: 13 of 14 in Akhiok (93%), 19 of 32 in Larsen Bay (59.4%), 61 of 73 in Old Harbor (83.6%), and 58 of 81 households in Port Lions (71.6%). The communities of Karluk and Ouzinkie declined to participate in the study. Representatives for both communities said that goats were not an issue there because they do not occur within the local hunting areas of these communities.

In Kodiak city and the road system communities, it was not feasible to survey the entire community. Instead, a chain referral sampling design was used and 19 known goat hunters were interviewed and participated in mapping; 15 of the 19 were also surveyed.

The study included two time periods. The first was the regulatory year beginning July 2001 through the time surveys and interviews were conducted in April and May 2002. The second study period covered the "past", the period beginning with the introduction of mountain goats to Kodiak Island in 1952 and prior to July 2001.

A range of views exists among Kodiak Island community residents about whether mountain goats are or should be used for subsistence purposes. Some of the reasons listed by people who oppose a subsistence goat hunt include: because goats were introduced, they can not be a subsistence species; the harvest of goats is too difficult to be a subsistence hunt because for a "real" goat hunt, one must climb to high elevations to reach them; it is not possible to harvest enough goats to fill a freezer, individually they provide little meat; and if people in smaller communities want to hunt goats, more people should apply for permits.

Those who would like a subsistence goat hunt maintain that goats are now part of their landscape; while there may not be enough history of use to satisfy customary and traditional criteria, it is customary to hunt what is there; it is hard to develop a pattern of use for a resource that is perceived as forbidden; goats are needed to compensate for the decline in deer; and with commercial fishing declines (cash income), all potential food resources are important. Many people who would like to hunt goats but have not applied for a drawing permit cited the application cost as one reason they did not apply, not a lack of interest.

In this situation, there appear to be two diametrically opposed views, however, in reality there is much less polarity than is perceived by some members of the Kodiak Island community. The uses of GMU 8 mountain goats may be analyzed along a continuum whose extreme ends are represented by the positions listed above, those for subsistence goat hunts and those opposed. The reality is, the majority of Kodiak Island residents surveyed for this study who use or have used goats (a small minority of all residents) fall in the middle of a use continuum. For some the priority is food, for others recreation. But across the island, the meat is the most frequently used part of goats. In all communities there are people who use the meat as well as parts that are perceived as "trophies." Regardless of how they used goats, the majority of respondents stressed a concern for the continued health of the resource.

Some key study findings include:

Mountain Goat Use

- All Kodiak Island communities that participated in the study, except for Akhiok, had households that used goat in the study year: July 1, 2001-Spring 2002. Use is defined as hunting and harvesting, eating, receiving, or giving away mountain goat. The percentage of households in small communities that used goat in 2001 was: Larsen Bay 21.1%, Old Harbor 23%, Port Lions 5.2%.
- All Kodiak Island communities that participated in the study had some households that used goat in the past, the period prior to July 1, 2001. The percentage of households in small communities that used goat at least once prior to 2001 was: Akhiok 23.1%, Larsen Bay 52.6%, Old Harbor 52.5%, Port Lions 22.4%.
- In communities with less than 100 households, increased numbers of goat hunters can be loosely correlated with the migration of goats to their area.
- Sharing and receiving goat occurs in all Kodiak Island communities that participated in the study. In small communities, households with goat hunters reported sharing goat meat in 2001; in Larsen Bay, 6% shared, and in Old Harbor, 5.5% shared. No goats were reported taken by Akhiok and Port Lions hunters in 2001. In Kodiak city and road system communities, 6 of the 15 surveyed hunters reported sharing goat meat in 2001.

Length of Goat Hunt during July 1, 2001-Spring 2002

• There is a significant difference in the length of goat hunts in Kodiak city and road system and in communities with less than 100 households. In 2001, in Larsen Bay and Old Harbor goat hunts lasted one day per hunter. In Kodiak city and the adjoining road system communities, 3.7 was the average number of days for a goat hunt.

Location and Access to Goat Hunting Areas

• Throughout Kodiak Island, the majority of goat hunters hunt closest to their community of residence.

 Airplanes were the primary mode of transportation for Kodiak city and road system goat hunters. In small communities, there was not a primary mode of transportation to goat hunting areas, a variety of modes were used.

Comparison Between Current Mountain Goat Harvest and Use Survey Data and Past Harvest Survey Data

- The amount of recent use (2001) of Kodiak Island mountain goat confirms the results of previous ADF&G Division of Subsistence surveys conducted between 1982 and 1997.
- Previous and recent ADF&G Division of Subsistence surveys showed little to no use of
 mountain goat in all Kodiak Island communities. However, recent (2001) surveys
 indicated increasing interest and use in communities (Akhiok, Larsen Bay, Port Lions,
 and Old Harbor) where goat populations have become established and are easily
 accessible from the community.

Comparison Between Mountain Goat and other Species Used on Kodiak Island

- A comparison of the level of use and hunting mountain goat, deer and elk in Kodiak Island communities shows that use of mountain goat is very low when compared to use of deer and elk.
- All Kodiak communities rely heavily on deer for a large portion of their wild meat harvest.
- In communities located near the elk population, the amount of elk used is substantial but elk use is still less than deer because elk are less abundant.
- The fact that deer represent the species of highest harvest reflects their abundance. Deer have been available for a longer period of time and they are relatively easy to hunt.

Comparison of Amount of Mountain Goat Harvested on Kodiak Island with other Communities

- Compared to some other small Alaskan communities, the use of mountain goat is low in all communities on Kodiak Island.
- In Tatitlek (Prince William Sound) and Nanwalek (Cook Inlet) the percentage of households that use goat is high and there has been a consistent pattern of long-term use of the naturally occurring populations.

How Should Mountain Goat Hunting be Managed?

- On this question opinion differed significantly between Kodiak city and road system communities and communities with less than 100 households.
- In Kodiak city and road system communities, most people wanted goat management to stay as it is for the continued health of the resource.
- In communities with less than 100 households, most, but not all, people wanted goats managed for subsistence and increased local use, usually with the condition that there were enough goats and the goat population would not be harmed.

The issue of whether or not Kodiak mountain goats are solely a game or solely a subsistence species is not an isolated topic. Many factors affect people's opinions and concerns. Commercial fishery declines, an increase in local guiding, decreasing deer populations, expanding goat populations, dependence on air travel within the island, dual State-Federal management, culture change, attitudes about subsistence, and cultural differences are among the reasons why the proposal for a subsistence goat hunt is an emotional and divisive issue.

Both the Federal Subsistence Board (FSB) and the Alaska Board of Game have recognized customary and traditional uses of some introduced wildlife populations. Both boards have established subsistence hunting regulations for deer in GMU 8, and the FSB provides for subsistence hunting of elk as well.

The very small, though normal and healthy population of goats is managed by a drawing permit system which keeps goat harvest numbers low in comparison to deer harvest allocations. Generally, a resource works its way into a "traditional" pattern if it is sufficiently abundant and there is opportunity to hunt it. The situation with Kodiak goats is, in contrast to deer, that they will always be "scarce" and subject to limits on participation. There are fewer goats and their biology is different from deer, therefore, there are fewer to be hunted. Traditions may develop around available and "new" species and the ebb and flow of a mix of resources, whether they arrive via natural expansion or are introduced by humans. The small number of goats in GMU 8 and their recent availability has limited the development of traditions surrounding their use.

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CHAPTER ONE: INTRODUCTION

BACKGROUND

This report presents findings of research conducted by the Alaska Department of Fish and Game (ADF&G), Division of Subsistence, about patterns of harvest and use of mountain goats by the residents of the Kodiak Archipelago (Game Management Unit 8 [GMU 8]). The purpose of this report is not to provide a customary and traditional use determination for GMU 8 mountain goats. Rather, the purpose is to provide information for the federal U.S. Fish and Wildlife Service, Office of Subsistence Management, staff to use in preparing a customary and traditional determination analysis for presentation to the Federal Subsistence Board. The project was funded through a contract with the Office of Subsistence Management (OSM) of the U.S. Fish and Wildlife Service (Cooperative Agreement #02-080 [March 2002]). Surveys and interviews were conducted face to face at respondents' homes or other convenient locations. The study included two time periods. The first was the regulatory year beginning July 2001 through the time the surveys and interviews were conducted in April and May 2002. The second study period covered the "past", the period beginning with the introduction of mountain goats to Kodiak Island in 1952 and prior to July 2001.

The research followed procedures used in other Division of Subsistence projects. Similar projects have been conducted in more than 100 Alaska communities. Extensive resource harvest data exist for wildlife on Kodiak Island, including mountain goats. However, mountain goats have not been the sole focus of previous studies. The OSM requested the Division of Subsistence of ADF&G to conduct systematic interviews and surveys with Kodiak Island goat hunters and residents and summarize its findings in a report that will provide the data needed for a customary and traditional (c&t) use determination. This research request was made in response to companion proposals (Numbers WP02-47 a and b) submitted in 1999 by a resident of the Kodiak Island community of Port Lions to the Federal Subsistence Board. The proposals requested that the federal board reconsider its negative c&t finding for GMU 8 mountain goats and create subsistence hunting regulations for residents of Kodiak Island. Draft staff analyses prepared by the OSM recommended that action on these proposals be deferred until additional

¹ See the postscript for a summary of Federal Subsistence Board action on this topic in May 2003.

Table 1. Division of Subsistence, ADF&G, Household Surveys in Kodiak Island Borough Communities 1982-1998

	<u>198</u>	2/83	<u>19</u>	<u>86</u>	<u>19</u>	89	<u>19</u>	90	<u>19</u>	<u>91</u>	<u>19</u>	992	<u>19</u>	93	<u>199</u>	7/98	
	# of		# of		# of		# of		# of		# of		# of		# of		
Community	HHs surv.	% of comm.	Survey Totals														
Akhiok	21	77.8%	12	35.3%	10	76.9%	0	0.0%	0	0.0%	24	100.0%	0	0.0%	0	0.0%	67
Karluk	20	76.9%	19	70.4%	14	82.4%	17	89.5%	13	86.7%	0	0.0%	0	0.0%	0	0.0%	83
Kodiak	173	6.6%	0	0.0%	0	0.0%	0	0.0%	176	5.8%	100	5.7%	105	5.3%	0	0.0%	554
Larsen Bay	32	74.4%	37	71.2%	34	87.2%	35	87.5%	38	88.4%	37	88.1%	40	81.6%	26	63.4%	279
Old Harbor	77	81.9%	44	36.9%	48	51.6%	0	0.0%	42	63.6%	0	0.0%	0	0.0%	43	53.8%	254
Ouzinkie	32	45.7%	34	54.8%	35	50.7%	53	89.8%	32	58.2%	52	88.1%	61	85.9%	47	75.8%	346
Port Lions	55	61.8%	65	72.2%	36	53.7%	0	0.0%	0	0.0%	0	0.0%	45	56.3%	0	0.0%	201
Total	410		211		177		105		301		213		251		116		1,784

Note: random samples of households selected for Kodiak; for Port Lions in 1989 and 1993; for Old Harbor for 1989, 1991, and 1997; and Ouzinkie in 1989 and 1991. Kodiak 1982/83 includes Chiniak. Kodiak 1991 includes Kodiak city and road system.

Source: Scott et al. 2001

information on patterns of use of mountain goats could be compiled (Office of Subsistence Management 2002).

Quantitative information about mountain goat uses throughout Kodiak Island is located in two primary data sources. Since 1983, the Division of Subsistence, usually in partnership with local communities and regional organizations, has conducted 1,784 comprehensive household surveys covering eight study years on Kodiak Island communities (Table 1). The surveys were usually conducted face to face, primarily by local research assistants, and assessed the use patterns of all fish and wildlife resources, including mountain goats, harvested by the communities. Another data source is the hunting permit database compiled by the ADF&G Division of Wildlife Conservation since 1982 through the present, and non-computerized files of permit and harvest data from 1968-1985 (Table 2). In public meetings conducted by the U.S. Fish and Wildlife Service in several Kodiak Island communities in 2001, some local residents questioned the accuracy of the information from harvest surveys and permits in relation to goats (U.S. Fish and Wildlife Service 2001).

Additionally, there had been virtually no systematic interviewing of GMU 8 mountain goat hunters. The overall goal of this research was to respond to the issues regarding the reliability and thoroughness of available information.

Mountain goats (*Oreannos americanus*) are not indigenous to Kodiak Island. The 2002 population, estimated at approximately 1,400 animals, is the result of transplants by the US Fish

Table 2. Permit Recipients for Mountain Goat Hunting, GMU 8 by Place of Residence and Year: 1968-2001*

			Larsen	Old		Port		Other	Other	Non-	Residence	Permits
Year	Akhiok	Karluk	Bay	Harbor	Ouzinkie	Lions	Kodiak	Kodiak	Alaska	Residents	Unknown	Issued
Permits	s Allocated	l by Draw	ing 1968-19	971								
1968							11				3	14
1969							14					14
1970							14		1			15
1971											25**	25
Permits	s Allocated	by Regis	tration 1972	<u>2-1977</u>								
1972							26			2	12	40
1973						3	42			1		46
1974							15		1		42***	58
1975											66**	66
1976					1		38		5	1	3	48
1977					1	11	18			9		29
	s Allocated	by Draw	ing 1978-19	9 <u>83</u>								
1978					1	1	7				20****	29
1979				_			7				8****	15
	no data a	vailable fo	or this year	for any con	nmunity or h	unt	•				0=++++	0.0
1981							9	1	1	-	25****	36
1982							36		16	5		57
1983							39		15	3		57
	s Allocated	by Draw	ing in Areas	871, 872,	873, 874. F			y Registrat				
1984				*****4		3	44		35	4	45****	135
	s Allocated	by Tier I	l in area 87	2. Permits	Allocated by	/ Registi	ation in ar	eas 871, 8	73, 874 87	<u> 76.</u>		
1985				3		1	29*****		1	1	126****	161
Permits	s Allocated	by Draw	ing 1986-20	01.								
1986				1			65		29	2	3	100
1987						4	58		28	9	1	100
1988						4	53		31	9	3	100
1989				1		1	52		34	10	2	100
1990		1				3	40		53	3		100
1991				1			53		47	7	1	109
1992			_			1	48		46	4	4	103
1993			2	1		4	43		66	13	6	135
1994			_	2		2	50		61	10		125
1995	1		1	1			62	2	58	9		134
1996			2	1			79		70	17	1	170
1997			2	4	4	_	97	1	60	4	1	169
1998			3	3	1	2	83		67	9		168
			3			2	90		71	10		176
1999				0		^	0.0		60	40		101
2000			2	2		2	80		62 74	13		161
	<u>-</u>	<u>-</u>		2 3 27	4	2 2 36	80 90 1392	4	62 74 932	13 13 168	397	161 185 2979

Source: Alaska Department of Fish and Game, Division of Wildlife Conservation Harvest Database 1982-2001, Harvest files 1968-1981

^{*}Permit Records from 1968-1981 are from manila folders and not part of the current ADF&G Harvest Permit Database.

Some of these files are incomplete. Many addresses listed in the early years, especially 1968-1972 are Seattle post office boxes used by Coast Guard personnel who lived in Kodiak at the time. They are counted as Kodiak city residents.

^{*}Records from 1971 and 1975 contain no residency information.

^{**}No residency information available for 1971 and 1975.

^{***}Residency information only available for permitees who actually hunted.

^{****}Residency information not in file, some Kodiak city resident names recognized from previous permits.

^{*****}The high number of unknown residents in 1984 and 1985 are due to the reintroduction of registration and Tier II hunts in specific areas and are probably residents of GMU 8 but they do not appear in the database because it only contains permit recipients.

^{******}Data from files, not computerized data base. Files contained actual names of permitees and showed higher numbers than in database.

and Wildlife Service in 1952 and 1953 (Crye 2002).² Since that time, goat populations have expanded and presently occupy most of the suitable habitat on the island. They have spread from the initial transplant site at Ugak Bay to areas near Kodiak city and non-road system communities. About half the population inhabits lands within the Kodiak National Wildlife Refuge (KNWR). The first hunting was authorized by the State of Alaska in 1968, when 10 registration permits were issued and six goats harvested (Burris and McKnight 1973: 27). Since then, the Alaska Department of Fish and Game has managed hunting opportunities for mountain goats in GMU 8 through a variety of methods including drawing, registration, and Tier II hunts.³ Since 1986, hunting opportunity for mountain goats in GMU 8 has been managed exclusively through a drawing permit system because the number of potential hunters far exceeds the harvestable surplus.

Both state law (AS 16.05.258) and the federal Alaska National Interest Lands Conservation Act (ANILCA) require preferences for subsistence harvesting of wildlife populations with customary and traditional uses. The Alaska Board of Fisheries (BOF) and the Alaska Board of Game (BOG) (5 AAC 99.010) and the Federal Subsistence Board (50 CFR Part 100B. 16 [b]) have developed similar procedures for identifying fish and wildlife populations with customary and traditional subsistence uses. Applying its "eight criteria" procedure (Table 3), the Alaska Board of Game determined in 1987 that mountain goats in GMU 8 did not support customary and traditional uses [5AA, 99.025 (7)].

The State of Alaska and the federal government, depending on land ownership where the harvests take place, currently regulate subsistence hunting and fishing in Alaska under "dual management". In many areas, there are overlapping state-federal jurisdictions. The Alaska Board of Fisheries and the Alaska Board of Game, composed of members of the public appointed by the governor and confirmed by the legislature, formulate regulations for

² In A History of the Russian American Company, Tikmenev mentions the importance of "wild goats" to the food supply of Sitka (Southeast Alaska), the Russian colonial capital. Apparently wild goat meat was some of the only fresh food available in winter. He noted that circa 1806-1821, "Over thirteen wild goats were kept on Kad'iak for more than five years but they would not breed" (Tikhmenev 1978: 84). Like several other Russian agricultural pursuits on Kodiak Island, wild goat husbandry did not succeed.

³ A "Tier II" subsistence permit system is necessary when the number of participants in a subsistence fishery or hunt must be limited because the harvestable surplus of the fish stock or wildlife population is less than the amount necessary to provide for subsistence uses. Individuals are scored based on their history of use of the particular resource and availability of alternative resources; those with the highest scores receive Tier II permits.

Table 3. Eight Factors for Determining Customary and Traditional Uses of Fish and Wildlife Resources Used by the Federal Subsistence Board

A community or area must generally exhibit the following eight factors which exemplify customary and traditional use (FR 50 CFR Part 100B. 16 [b]). The Federal Subsistence Board will make customary and traditional use determinations based on an application of these eight factors. In addition, the Federal Subsistence Board will take into consideration the reports and recommendations of any appropriate regional council regarding customary and traditional use of subsistence resources.

- 1. A long-term, consistent pattern of use, excluding interruptions beyond the control of the community or area
- 2. A pattern of use recurring in specific seasons for many years
- 3. A pattern of use consisting of methods and means of harvest which are characterized by efficiency and economy of effort and cost, conditioned by local characteristics
- 4. The consistent harvest and use of fish and wildlife as related to past methods and means of taking: near, or reasonably accessible from the community or area
- 5. A means of handling, preparing, preserving, and storing fish or wildlife which has been traditionally used by past generations, including consideration of alteration of past practices due to recent technological advances, where appropriate
- 6. A pattern of use which includes the handing down of knowledge of fishing and hunting skills, values, and lore from generation to generation
- 7. A pattern of use in which the harvest is shared or distributed within a definable community of persons
- 8. A pattern of use which relates to reliance upon a wide diversity of fish and wildlife resources of the area and which provides substantial cultural, economic, social, and nutritional elements to the community or area

Source: FR 50 CFR Part 100 B. [b]

subsistence fisheries and hunts on state and privately owned lands and waters. The state boards also regulate most non-subsistence fishing and hunting (sport, personal use, and commercial fishing; general hunting) on state, private, and federal lands and waters. The Federal Subsistence Board (FSB) regulates federal subsistence fisheries and hunts on federal public lands and federally reserved waters in Alaska. The FSB makes regulations for federal subsistence fisheries and hunts and is composed of a representative from five federal agencies including the Bureau of Land Management, the National Park Service, the Bureau of Indian Affairs, the U.S. Forest Service, and the U.S. Fish and Wildlife Service, and an unaffiliated chairperson appointed by the Secretary of the Interior with the concurrence of the Secretary of Agriculture.

The state subsistence statutes of 1978 and 1986 required that the Alaska Board of Game identify those game populations that support customary and traditional uses. In 1987, the BOG reviewed a "customary and traditional" worksheet for Kodiak Island mountain goats prepared by the ADF&G Division of Subsistence, and concluded that GMU 8 mountain goats did not meet the customary and traditional criteria and were not a subsistence population on Kodiak Island. In 1991, the Federal Subsistence Board adopted the Alaska Board of Game's negative customary and traditional (c&t) findings for GMU 8 mountain goats; thus, neither state (Alaska Board of Game) nor federal (Federal Subsistence Board) regulations presently recognize subsistence uses of goats in GMU 8. Therefore, although goats inhabit state and federal land in GMU 8, hunting takes place solely under the state's general hunting regulations.

The BOG's negative c&t finding for GMU 8 mountain goat was not simply due to the non-indigenous nature of the species. There are positive c&t findings for GMU 8 deer (by both the Alaska Board of Game and the Federal Subsistence Board) and elk (by the Federal Subsistence Board), both introduced species (deer in 1924, 1930, and 1934; and elk in 1928 (Burris and McKnight 1973: 52) [see Table 4 for complete list of species introduced to Kodiak Island, Appendix A for c&t findings for other introduced species]. Similar examples can be found elsewhere in the state. There are also examples of negative findings for introduced species (e.g., some musk oxen and bison populations) in other parts of the state. A key policy question is to understand how and when introduced species or species that migrate naturally into a previously unoccupied area achieve c&t status. For the Board of Game in 1987, key factors supporting the negative c&t finding for GMU 8 goats included the recent introduction of goats, the very low levels of harvest and use, the lack of traditions associated with hunting goats, and

Table 4. List of Species Introduced to Kodiak Island Archipelago

			customary and tra	aditional finding
Species	Year Introduced	Population Status	state*	federal
Showshoe Hare	1934	harvestable population	undetermined	undetermined
Black-tailed deer	1924, 1930, 1934	harvestable population	positive	positive
Moose	1966, 1967	no remaining animals		
Mountain goat	1952, 1953	harvestable population	negative	negative
Dall Sheep	1964, 1965, 1967	no remaining animals		
Muskrat	1929	harvestable population	positive	undetermined
Beaver	1952	harvestable population	positive	undetermined
Marten	1925 (Afognak)	small population	positive	undetermined
Mink	1952	harvestable population	positive	undetermined
Raccoon	pre 1936	no remaining animals		
Red squirrel				
Afognak	1952	harvestable population	positive	no information
Kodiak Island	1952	no remaining animals		
Spruce Grouse	1957, 1959	no remaining animals		
Blue Grouse	1962, 1963, 1964	no remaining animals		
Elk	1929	harvestable population	negative	positive
Reindeer	1921	harvestable population	undetermined	undetermined

Source for information on introduced populations (except reindeer), Burris and McKnight 1973: 52-57. Source for information on reindeer, Fall and Seitz 1991: 145-146.

^{*}Statewide positive finding for furbearers: "All units with a harvestable portion" [5AAC 99.025 (13)]

the absence of evidence that goat hunting had become part of a patterned seasonal round of subsistence activities.

PURPOSES AND OBJECTIVES

The purpose of this project was to collect data on the aspects of harvest and use of mountain goats on Kodiak Island. Data were compiled and reported for all Kodiak Island communities that agreed to participate in the study. These included Kodiak city and road system communities as well as the communities of Akhiok, Larsen Bay, Old Harbor, and Port Lions. The communities of Karluk and Ouzinkie declined to participate in the study. Representatives for both communities said that goats were not an issue there because they do not occur within the local hunting areas of these two communities.

There were three aspects of this research. The first was to compile existing data on the use and hunting of mountain goats in GMU 8, Kodiak Island. The second was to supplement existing data through systematic interviewing of goat hunters and local residents. The third was to analyze these data and illustrate the criteria by which customary and traditional uses of game populations in Alaska are identified, also addressing the question of how introduced game populations might be treated in these analyses.

Research objectives included:

- 1. Compiling existing ADF&G permit data to illustrate historic participation in the drawing permit hunt and records of hunting and harvests by community of residence;
- 2. Summarizing of data from previous ADF&G Division of Subsistence household surveys to illustrate levels of use, hunting, harvesting, and sharing of mountain goats to compare with patterns for other introduced large land mammals in GMU 8 and mountain goat populations elsewhere in the state;
- 3. Conducting approximately 25-30 qualitative key respondent interviews with experienced goat hunters from communities on and off the road system to document the development of hunting patterns since hunting was authorized in the 1960s;
- 4. Mapping of areas used to hunt goats, including access routes; and

5. Completing systematic quantitative surveys with a sample of local residents to document use and harvest of mountain goats in the 2001/02 regulatory year and past history of use of this species.

Sample Goals

A variety of data gathering methods were used in each community, including key respondent interviews, mapping of hunting areas/routes/mountain goat sightings, and systematic household surveys. All three of these methods were used in each community. Census and chain referral⁴ sampling designs were used, depending on the size of the community being surveyed.

In communities with less than 100 households (Akhiok, Larsen Bay, Old Harbor and Port Lions), a census sampling design was used because it was feasible to survey each consenting household. Key respondent interviews and mapping sessions were conducted with knowledgeable and experienced goat hunters identified by ADF&G permit data, hunter referrals, tribal and city governments, the Kodiak Fish and Game Advisory Committee (KAC) and the Kodiak/Aleutians Subsistence Regional Advisory Council (KARAC).

In communities with more than 100 households (Kodiak city and road system), a chain referral design was used. It was not possible or necessary to survey either every household in Kodiak city and road system communities or a randomly selected sample large enough to be representative of the entire population. Instead, the goat hunting permit records for Kodiak city and road system communities plus past harvest surveys were assumed to provide an approximate picture of overall harvest and use levels of goats.

The KAC, the KARAC, ADF&G Kodiak staff and local governments were asked to recommend key respondents who were knowledgeable and experienced goat hunters and users to provide background and qualitative information on uses of goats. ADF&G Kodiak staff and members of the KAC compiled a list of 42 goat hunters in the Kodiak city and road system derived from recent ADF&G permit data. Pat Heitman of the Shoonaq' Tribe of Kodiak also provided names of potential interviewees in the Kodiak city road system area. Consenting key respondents were interviewed and surveyed, and participated in mapping. They were asked to identify other goat hunters who might be interested in participating and provided many referrals.

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⁴ When using a chain referral sampling design, names of potential study participants are located by referral from other participants or sources. In this study, interviewed goat hunters referred us to other goat hunters to interview.

The sample size for Kodiak city and road system was designed to include approximately 15-20 participants. Survey data were analyzed using Statistical Package for the Social Sciences.

METHODS

Consultations and Approvals

ADF&G Division of Subsistence staff made a formal presentation of the research plan, "Patterns of Harvest and Use of Mountain Goats on Kodiak Island, Game Management Unit 8", to the KARAC on March 18, 2002, at its meeting in Kodiak. A draft of the research plan was distributed and discussed with KARAC members and members of the state's Kodiak Fish and Game Advisory Committee (KAC). The Division of Subsistence notified members of both the KARAC and the KAC. Members of the KAC were notified of this presentation by mail. The ADF&G Kodiak Division of Wildlife Conservation staff and members of the KAC attended the March 18, 2002, presentation of the research plan. Division of Subsistence staff requested and received from the KARAC and the KAC suggestions and recommendations regarding people to interview for this project.

In communities with over 100 households (Kodiak city and road system), no formal request for approval to conduct the study was attempted. In communities with fewer than 100 households-- Akhiok, Larsen Bay, Karluk, Old Harbor, Ouzinkie and Port Lions-- tribal and city governments were asked to review the research plan and approve the request to conduct the study in their community. Letters requesting approval were sent in early March 2002 and followed up with a phone call. Akhiok, Larsen Bay, Old Harbor and Port Lions consented to participate in the study. Karluk and Ouzinkie declined, in writing, to participate in the study.

Confidentiality and Informed Consent

The research was conducted in conformance with the Division of Subsistence research ethics policy, which emphasizes voluntary participation by individuals, informed consent, and providing study results to the communities in which the research was conducted. Confidentiality of information shared with researchers was critical to the success of the project. All individual and household-level data are confidential.

Survey Instruments

Two primary data gathering procedures were used. These included formal interviews using a standard survey instrument and a less-structured key respondent interview with a mapping component. The survey form and the key respondent interview questions were similar to those used in other division studies (Appendix B contains a sample of the form). All interviews were conducted face-to-face, most frequently in respondents' homes, although other locations were used if so desired by the respondent. The survey instrument was not designed for self-administration, so in no case was a form left with a household to fill out on their own.

Fieldwork Procedures

Once a list of interested and available mountain goat hunters was prepared by the KAC, KARAC, the Shoonaq' Tribe of Kodiak, and ADF&G Kodiak staff, and approvals of the study were secured from smaller communities, two field visits to Kodiak Island were planned. Liz Williams of the Division of Subsistence in Anchorage traveled to Kodiak Island on April 8-19, 2002 and May 6-15, 2002. Both trips included interviews in the Kodiak city area and in the smaller communities. In the Kodiak city area, Liz contacted goat hunters from the list, described the project, the purpose of the interviews, and emphasized the confidentiality of all information shared. Interviews with goat hunters were primarily held at the homes of the hunters, but also at the ADF&G bunkhouse dining room. The majority of interviews lasted for one hour or less and all included mapping and key respondent interview questions listed in Appendix C. The majority of the Kodiak city and road system households also were surveyed.

In communities with less than 100 households, Liz contacted the village council office upon arrival and hired a local assistant recommended by the council. Liz and the local assistant sought assistance from the council and city offices in obtaining a current list of occupied houses. Local assistants received training and the Division of Subsistence training manual for field workers. Training included a description of project goals and the survey form, the importance of recording respondent comments on surveys, tracking sheet procedures, voluntary participation, and confidentiality of information shared. Training continued "on-the-job"; the local assistant made phone calls and appointments with people on the list and worked with Liz on the first few surveys. This enabled both researchers to see how people responded to the questions and how to effectively communicate the purpose of the project. Once the local assistant was ready to work

alone, Liz made appointments with hunters and conducted key respondent interviews at their homes or places of business. Liz and each local researcher kept active logs of the households in all communities. Attempts to contact each household were logged with a check mark for attempted contact, survey completed, refused, no contact, and a blank space so local researchers could record why a household was not occupied (traveling, moved, hospitalized etc.) Surveys generally took half an hour to complete. The majority of interviews lasted for one hour or less and all included mapping and key respondent interview questions.

On the first trip, (April 8-April 19), Liz spent 5.5 days in the Kodiak city area, 2 days in Akhiok and 4 days in Old Harbor. In the Kodiak city area, Liz conducted 11 interviews with hunters and coordinated with ADF&G Kodiak staff to review older, non-computerized, goat harvest records. These records are not included in the computerized harvest database currently maintained by ADF&G. In Akhiok, no local assistant was available so Liz conducted all Akhiok surveys and there were no goat hunters to interview. In Old Harbor, Liz and the local assistant conducted many surveys together and Liz interviewed five goat hunters. Because of the large numbers of households in Old Harbor, surveys continued after Liz's departure. The original local assistant resigned for medical reasons and another was hired.

On the second trip, Liz spent six days in the Kodiak city area, 3.5 days in Larsen Bay and 4 days in Port Lions. In the Kodiak city area, Liz conducted eight interviews with hunters and coordinated with ADF&G Kodiak staff and continued reviewing non-computerized goat harvest records. In Larsen Bay, a local assistant was hired at the recommendation of the council and trained in the same way as the local assistant in Old Harbor. After completing several surveys together, the local assistant continued to do surveys while Liz conducted three key respondent interviews with hunters. In Port Lions, because of the large number of households, two local assistants were hired and trained. Five goat hunters were interviewed in Port Lions. Surveys continued after Liz's departure and were mailed in by the local assistants when complete.

Pat Petrivelli, of the USFWS, OSM, made a separate visit to Kodiak Island and conducted a few key respondent interviews in the Kodiak city and road system area and in Old Harbor with hunters who were out of town during Liz's visit.

Supplemental Field Notes

Many respondents (including non-mountain goat users) provided supplemental information, including their opinions about goat management-harvest regulations, and/or their observations of mountain goat populations in their community area. This kind of information provided a context within which to interpret subsistence harvest data, especially in the case of mountain goats, which are legally taken only by drawing permit. Observations can also be used by other agency programs for analyzing and interpreting their data. Supplemental information was recorded in a section for notes on the survey form.

Mapping Methods and GIS Analysis

Key respondents were asked to map the areas where they have hunted goats and/or attempted to hunt goats on Kodiak Island, the transportation routes used to access these hunting areas and the locations of their goat harvests by year. Mountain goat sightings by hunters and non-hunters were also mapped. Mountain goat sightings in and around Kodiak city were not mapped because the locations of goats in this area are fairly well known. Mapping of sightings was emphasized in areas where goats have recently arrived and are still expanding. Respondents recorded their information with color pens on clear acetate overlaying a map of Kodiak Island. These data were compiled in a GIS system and analyzed by land status (federal vs. non-federal ownership) and place of residence. On the survey instrument, the designated goat hunting units where goats were harvested or where harvests were attempted were recorded as well as goat sightings. The questions on the survey instrument were divided into two time periods: (1) the regulatory year, July 1, 2001, through the time of the survey, spring 2002, and (2) the period from the introduction of the goats in 1952 up to July 1, 2001. When mapping hunting routes and sightings, the time periods were not divided. The purpose of the mapping was not necessarily to document use history but to show the proximity of goat populations and goat hunts in relation to the residence community of survey respondents. Respondents were encouraged to be as specific as possible when marking their hunting routes or areas of goat sightings. One color was used for a goat hunt, another for a goat sighting. Different symbols were used for hunters to indicate a hunting route, a base camp, a goat actually killed, or a kill by another person in which the respondent assisted.

Table 5. Sample Achievement, Patterns of Harvest and Use of Mountain Goats on Kodiak Island, GMU 8, Division of Subsistence, ADF&G, Household Survey, Spring 2002

Community	Initial <u>Est HHs</u>	Non-HH Discovered	Total <u>HH</u>	Sampled <u>HH</u>		# HH Not Contacted	# HH <u>Refused</u>	Percent Refused
Akhiok	18	4	14	13	92.9%	1	0	0.0%
Larsen Bay	36	4	32	19	59.4%	8	0	0.0%
Old Harbor	81	8	73	61	83.6%	11	1	1.4%
Port Lions	93	12	81	58	71.6%	21	2	2.5%

Initial Est HHs = Number of households estimated in a community based on census data Non-HH Discovered = Vacant, seasonal, or otherwise unoccupied houses in a community Total HH = Number of occupied households in a community Sampled HH = Number of occupied households that participated in survey

Sample Achievement

As noted earlier, in communities with less than 100 households (Akhiok, Larsen Bay, Old Harbor and Port Lions), a census sampling design was used because it was feasible to survey each consenting household. In communities with more than 100 households, (Kodiak city and road system communities), a chain referral design was used. Because it was not possible or necessary to survey every household in Kodiak city and road system communities, the sample size for Kodiak city was planned to include approximately 15-20 participants.

Nineteen households in the Kodiak city and road system communities were interviewed and participated in mapping; 15 of the 19 were also surveyed. This met the sample goal of 15-20 participants from this area. As reported in Table 5, in Akhiok, Larsen Bay, Old Harbor and Port Lions, there were a total of 200 potential households to survey. One hundred and fifty-one total households were interviewed for a 75.5 percent sample of the estimated households in these communities. As shown in Table 5, the following interviews were completed: 13 of 14 households in Akhiok (93%), 1 household could not be contacted and there were no refusals; 19 of 32 households in Larsen Bay (59.4%), 8 households could not be contacted and there were no refusals; 61 out of 73 in Old Harbor (83.6%), 11 households could not be contacted and there was 1 refusal; 58 out of 81 households in Port Lions (71.6%) 21 households could not be contacted and 2 households refused. The occupants of the households that could not be contacted were either traveling, at school, hospitalized, fishing, had moved to another

community for work, or were long-term seasonal residents who only spend the summer in the community. In small communities, key respondent interviews were conducted with no households in Akhiok because no goat hunters were identified in the community. In Larsen Bay, interviews were conducted in 3 households with goat hunters, 2 of these households contained 2 goat hunters. In Old Harbor, interviews were conducted with 7 households, one of which contained 2 goat hunters. In Port Lions, interviews were conducted with 5 goat-hunting households. In Larsen Bay, Old Harbor and Port Lions, not all households with goat hunters were interviewed because several were unavailable to participate.

DATA MANAGEMENT

Data Coding

Responses to all survey questions were converted into a set of numeric codes for expedient data entry and analysis. Liz Williams reviewed all surveys for accuracy and coded them. Kurt Kamletz of the data management unit in Anchorage reviewed the surveys. Then the forms were passed to Jessie Mallery in the Anchorage regional office for data entry.

Data Analysis

Data were entered for analysis using the SPSS (Statistical Package for the Social Sciences) computer program. Each survey was entered twice, to insure accuracy, into a Microsoft Access database. The survey results of the four communities with less than 100 households (Akhiok, Larsen Bay, Old Harbor, and Port Lions) are representative of the entire community and are therefore presented together in tables. Survey results for the Kodiak city and road system communities are not representative of the entire community and only reflect the characteristics of the sample of the 19 hunters who participated in the study. In most, but not all cases, the results of the Kodiak surveys are reported separately from those of the other four communities. Additionally, of the 19 hunters interviewed in the Kodiak city and road system area, only 15 were surveyed. The other four were not surveyed because 2 refused the survey (but not the interview) and 2 were called away on emergencies during the interview.

The responses to one set of questions on the survey were not analyzed due to problems with survey administration. These data included the second part of three separate questions: "How often do you or members of your household use goat?" "Have you or members of your

household hunted mountain goat in the past?", and "Have you or members of your household harvested goat in the past?" The second part of the question was: 2-3 times per year, once per year, every few years, once. The original intent of the question was to learn how often people actually use, hunt and harvest goat but this question proved confusing for survey respondents and local researchers. Most people said they only use goat when they get a permit or when someone gives it to them but were not sure how to respond. Some people thought the question meant how often they eat goat when they get one or some. There was a little suspicion among a few respondents that this question was designed to trick them into admitting the taking of illegal goats. Because of the various interpretations and because most people said it just did not make sense, since they can only hunt goats when they have a permit, the question was eliminated from data analysis. In addition to this final report, the quantitative results of this study will appear in the next version of the Division of Subsistence Community Profile Database.

REPORT ORGANIZATION

The remaining chapters of this report are as follows. Chapter Two contains a short description of the economy and environment of the study area. This is followed by study findings on demography. Chapter Three presents a discussion of the study results regarding mountain goat harvests and uses. Chapter Four compares the current study results for Kodiak Island with previous Kodiak Island harvest surveys, data from the c&t determinations of other introduced species on Kodiak Island and a comparison of data from communities that use indigenous mountain goats as a subsistence resource. Chapter Five includes discussion and observations from all participating communities on mountain goat use, mountain goat users, and mountain goat management on Kodiak Island. Chapter 6 is the conclusion.

CHAPTER TWO: KODIAK ISLAND ENVIRONMENT, COMMUNITY ECONOMIES AND DEMOGRAPHY

The Kodiak Island region includes the city of Kodiak, the settlements connected by road to the city (Chiniak, Women's Bay, Kodiak Coast Guard Station) and the six remote communities with permanent year-round populations located at Akhiok, Karluk, Larsen Bay, Old Harbor, Ouzinkie and Port Lions. During commercial fishing seasons, the island population usually increases dramatically with the influx of nonresident fishermen, fish processing workers, and service industry employees (Schroeder et al 1987: 431). In recent years, however, several of the commercial fisheries of Kodiak Island have declined for multiple reasons. The most devastating factor has been the influx of low-priced farmed salmon into U.S. and international seafood markets. The price for wild Alaska salmon has plunged and impacted the economies of many of Alaska's coastal communities. Kodiak Island communities are no exception; all have been negatively affected.

ENVIRONMENT

Kodiak Island is about 100 miles long, 60 miles wide and encompasses an area of approximately 3,500 square miles. Almost two thirds of the island, approximately 2,300 square miles, is the Kodiak National Wildlife Refuge. The total area for the Kodiak Island archipelago is approximately 5,000 square miles including Afognak, Shuyak, Raspberry, Spruce, and Sitkalidak islands, the Trinity Islands and smaller islands. The Kodiak Mountains reach heights of over 4,000 feet on the main island. Land surface is characteristically steep and rugged and shows the effect of major glaciation. Afognak and Shuyak Islands and the northern portion of Kodiak Island are forested at low elevations with Sitka spruce. Most of the southern half of Kodiak Island is covered with grasses and areas of high brush at low elevations. Throughout the island group, high elevations are snow-covered through all or most of the year and because of this, are areas of low biotic productivity (Schroeder et al 1987: 431).

The bays and fjords of the island group and the surrounding shelf areas comprise some of the world's most productive fishing grounds with crab, salmon, herring, shrimp and bottom fish the fisheries of greatest commercial importance. A large number of marine fish, marine mammals, shellfish and anadromous and freshwater fish are available for noncommercial harvest, and major use of these resources is made by island residents.

The maritime climate, land topography, and vegetative patterns of the Kodiak Island group create ecological conditions that have encouraged the rapid expansion of ungulate populations introduced into the area. In particular, deer are an important resource throughout the island group. Elk have become an important species for hunters on Afognak and Raspberry islands and goat and feral reindeer are significant species for hunters in limited areas.

In fact, until recently, marine resources have been the most important subsistence fish and game resources available to Kodiak Island residents. Seal, sea lion, salmon, halibut, clams, sea urchins and other intertidal resources made up most of the subsistence harvest. Whale meat, fat, and skin were important subsistence dietary items until commercial whaling reduced whale populations to very low levels. Because of the island's ecological isolation, indigenous land mammals were limited to brown bear, red fox, river otter, ermine, little brown bat, and tundra vole. Although Kodiak is neither a major nesting area for migratory waterfowl nor an important stopping point on waterfowl flyways, both freshwater and saltwater bird species have been important in subsistence diets (Schroeder et al 1987: 436).

Wildlife species successfully introduced to Kodiak Island in this century have changed hunting patterns and become major sources of meat and fat in subsistence diets. Refer to Table 4 for a list of species introduced to Kodiak Island. Black tailed deer were introduced to the northern part of the archipelago in 1924 to provide "increased recreational hunting" and an "additional food supply" for island residents and they gradually extended their range southward (Burris and McKnight 1973: 150). Deer became available in major numbers to the communities of Old Harbor, Akhiok, Karluk, and Larsen Bay only in the last 35 years. Elk were introduced on Afognak Island in 1929 and may be extending their range to include Kodiak Island. Mountain goat, Dall sheep, snowshoe hare, beaver, and red squirrel are other game species that have been introduced but not all successfully. Reindeer and herding techniques were introduced in 1921 and a small herd of feral reindeer remains on the southern part of Kodiak Island. Attempts to establish a moose population were not successful (Schroeder et al 1987: 431, 436).

ECONOMIES

Kodiak city and road system communities

Kodiak city and road system communities depend heavily on the seafood industry. Other activities that stimulate the economy include the largest U.S. Coast Guard Station and the Kodiak Launch Facility, the first non-federal satellite launch complex in the U.S. (DCED 2002) (Kodiak Chamber of Commerce 2002). Several sources of wage employment, both government and private sector are available in the road system area. In recent years, the service sector of Kodiak city's economy has grown substantially with the arrival of several national retail chains. There are numerous locally owned lodges and sport fishing, hunting, and wildlife viewing businesses. Kodiak city and road system has an ethnically diverse population. In addition to Alaska Natives (Alutiq) and European-Americans, the seafood industry has attracted substantial Filipino, Hispanic and Pacific Islander populations (U.S. Bureau of the Census 2000). Many people in Kodiak city and road system communities use subsistence resources.

Other Communities

In the smaller Kodiak Island Borough communities, the primary source of cash income is from commercial fishing. The economies of the communities that participated in this study are described below, using information from the Alaska Department of Community and Economic Development (DCED) Community Profile Database and observations made in the field during this study (DCED 2002).

Akhiok

In Akhiok, the majority of the community relies on subsistence resources. Five people have commercial fishing permits and cash employment is limited to a small number of government and seasonal jobs. One resident rents kayaks to visitors. There is no store in Akhiok.

Larsen Bay

In Larsen Bay, a large portion of the community relies on subsistence resources for food. Seventeen residents have commercial fishing permits. Currently, cash employment is limited to a small number of government and seasonal jobs. In the past, many residents worked at Kodiak Salmon Packers which has been in operation in Larsen Bay since 1911. Due to low salmon prices, the cannery did not operate in 2002 (Loy 2002). Not only did this reduce the amount of wage employment in the community but local fishers had to find a new buyer for their fish. Several local residents own and operate sport hunting and fishing lodges.

Old Harbor

In Old Harbor, most people use subsistence resources. Thirty-two people have commercial fishing permits. Several residents have tourism related businesses including sport hunting, fishing and wildlife viewing excursions, lodges, and a café. There is also a locally owned store in Old Harbor. Wage employment includes government work and some private sector employment.⁵

Port Lions

In Port Lions, many residents depend on subsistence resources. Twenty-four residents have commercial fishing permits. Wage employment includes government jobs, employment at a nearby logging camp, seasonal and some private sector work. There are several lodges and bed and breakfasts, some of which provide sport hunting, fishing, and wildlife viewing excursions. Some, but not all, are locally owned. There is a locally owned store in Port Lions.

DEMOGRAPHY

Table 6 presents information on the demographic characteristics of the communities with less than 100 households collected during this study. Information on the Kodiak city and road system communities was not collected. These findings can be compared with selected results from the 2000 federal census in Table 7. The differences in the population estimates may be attributed to the fact that this study included only year-round, and not short term, residents.

⁵ For more information on the subsistence, history, and ethnography of Old Harbor, see Craig Mishler's report, *Black Ducks and Salmon Bellies* (Mishler 2001). Mountain Goats are not mentioned in this report, probably because of very low levels of harvest and use compared with other species such as salmon and deer.

Table 6. Demographic Characteristics of Study Communities with less than 100 Households, 2002

Characteristics	Akhiok	Larsen Bay	Old Harbor	Port Lions
	4.0		0.4	
Sampled Households	13	19	61	58
Number of Households in the Community	14	32	73	81
Percentage of Households Sampled	92.9%	59.4%	83.6%	71.6%
Household Size				
Mean	2.92	2.84	2.97	2.59
Minimum	1	1	1	1
Maximum	7	8	8	7
Sample Population	38	54	181	150
Estimated Community Population	40.92	90.95	216.61	209.48
Length of Residency - Household Heads				
Mean	46.38	27.21	39.56	24.50
Minimum	22.00	5.00	2.00	1.00
Maximum	74.00	69.00	71.00	38.00
Alaska Native Households (either head)				
Surveyed HH				
Number	13	17	57	44
Percentage	100.0%	89.5%	93.4%	75.9%
Estimated Population	100.070	00.070	JJ.470	70.070
Number	14.00	28.63	68.21	61.45
Percentage	100.0%	89.5%	93.4%	75.9%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

Table 7. Demographic Characteristics of Households, 2000 Census Data

Characteristics	Akhiok	Larsen Bay	Old Harbor	Port Lions	Kodiak City & Road System	Kodiak Coast Guard Station
Number of Households in the Community	25	40	79	89	2,271	492
Household Size Mean	3.20	2.88	3.00	2.88		
Estimated Community Population	80	115	237	256	7,074	1,840
Alaska Native Households (either head) Estimated Population)					
Number Percentage	69 86.3%	90 78.3%	173 73.0%	162 63.3%	663 10%	0 0

Source: U.S. Census Bureau, Census, 2000 Summary File 1.

CHAPTER THREE: KODIAK ISLAND MOUNTAIN GOAT HARVEST AND USE

REGULATORY CONTEXT

Currently (2003), all mountain goat hunting on Kodiak Island, GMU 8, is regulated by drawing permit and is managed by ADF&G. Interested applicants must complete a drawing permit application, submit it by a deadline and pay a \$5.00 fee for each choice of goat hunting unit, with a maximum of three choices (see Appendix D). Results are determined by random computer drawing (see Appendix E). Results are announced in late May and the season is from September 1-October 31 and is subject to closure by Emergency Order. Taking of males is encouraged although either sex may be harvested legally. For the past three years, 1999-2001, successful hunters were required to report in person to the ADF&G Kodiak office within 10 days of kill and provide horns to ADF&G for measuring. As of the hunting year 2002/03, this is no longer a requirement. Successful hunters must return their permit to ADF&G within 10 days of the kill. Unsuccessful hunters and those who did not hunt are required to report by mail within 15 days of the end of the season. In 2000-01, 161 GMU 8 mountain goat hunting permits were issued (Van Daele and Crye 2002: 136).

INTRODUCTION OF GOATS AND REGULATORY HISTORY

Today, there are approximately 1,400 goats on Kodiak Island. Mountain goats are not indigenous to Kodiak Island but were introduced in the early 1950's. Sportsmen, the Alaska Game Commission, and the U.S. Fish and Wildlife Service were proponents of stocking Kodiak Island with mountain goats and first proposed a plan to do so in 1948. It was thought that "easier rugs or roasts" needed to be available to more people and in more places throughout Alaska (Nelson 1953: 1). The "Stocking Mountain Goat on Kodiak Island" project was funded in 1950 through USFWS Federal Aid funds (Nelson 1953: 1). Once the project began, the capture of mountain goats proved extremely difficult and dangerous. Additionally, animals did not always survive the stress of capture. In 1952, 8 goats were captured. Six of these were from the Kenai Peninsula, 5 males and 1 female (the female died upon release). Two more goats, a male and a female were captured near Eagle River. All 8 were released at Hidden Basin, Ugak Bay, Kodiak

Island. The following year, 10 goats, 9 females and 1 male, were captured near Seward and also released at Hidden Basin, Ugak Bay on Kodiak Island (Nelson 1953: 6). The first goat hunting season was authorized in 1968 when the population reached 71. There has been a hunt every year since. For the first two years, 1968 and 1969, there was a harvest limit of 10 goats (Burris and McKnight 1973: 27). Fifty years of conservative wildlife management has led to a goat population that is dispersed throughout the island. The following is a chronology of GMU 8 Mountain Goat management. For a detailed, year-by-year chronology of GMU 8 mountain goat management see Appendix F.

1952-53

Mountain Goats introduced to Kodiak Island at Hidden Basin, funded by USFWS Federal Aid (Nelson 1953: 1-6).

1968

First GMU 8 Mountain goat hunt, 10 permits by drawing (Van Daele 2001: 1).

1970

The number of drawing permits is increased to 15 (Van Daele 2001: 1).

1972

Registration hunts replace drawing (Van Daele 2001: 1).

1973

ADF&G Mountain Goat Management Policy statement:

The Alaska Department of Fish and Game recognizes the Constitutional Mandate of the State of Alaska to manage mountain goats on the sustained yield principle for the benefit of the resource and the people of the state...The Department recognizes there are many uses of mountain goats, that present priorities may not be the priorities of the future, and that management plans must consider all uses. The Department recognizes recreation as the most important use of mountain goats. Recreational uses include: sport hunting in its various forms; observation,...and wilderness experience...(ADF&G 1973:21)

1975

Kodiak ADF&G biologists recommend closing Crown Mountain area to hunting due to goat population decline. The cause of the decline is suspected to be over harvest of females and higher harvest success rates than in other areas because of easy access. The area is accessible by road and boat (Smith 1977: 68).

1977-78

Kodiak ADF&G biologists recommend dividing areas of Kodiak inhabited by goats into discrete units with a specified number of permits depending on the population in each area (Smith 1977: 76). This is the beginning of GMU 8 goats being managed on a sub-group basis (Smith 1980: 76). Goat hunt permits revert to drawing permits and goat hunt areas 871, 872, 873 and 874 are designated (Van Daele 2001: 2).

1978

State's first subsistence law passed. Once sustained yield achieved, customary and traditional uses of species for subsistence are allowable and have a preference over other uses.

1980

ANILCA, Alaska National Interest Lands Conservation Act, mandates a rural subsistence priority for rural residents on federal public lands. The state has the option to provide this priority; otherwise federal agencies will manage subsistence on federal lands.

"Harvest quota of 15 goats eliminated" (Van Daele 2001: 3).

1984-85⁶

"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" (Smith 1986a: 35).

1985-86

"Hunt No. 872 was classified as a Tier II subsistence hunt, open only to residents meeting certain qualifications of dependence on wild game for food. Ten of 25 permittees reported hunting during the 1-31 October season; hunter success was 86%. Six goats including two males and 4 females were taken" (Smith 1986b: 35).

"Hunt Nos. 871, 873, 874 and 876 were open by registration permit....The season was regulated by Emergency Order...The change from a drawing permit to a registration permit hunt in 1985 resulted in numerous inexperienced goat hunters going afield. A competitive atmosphere developed, caused by crowded hunting conditions in registration hunt Nos. 871, 873 and 874. The high hunter density resulted in less selectivity. Reports of herd shooting and wanton waste were common. A potential over harvest was averted by inclement weather during the opening week and an early closure by emergency order. Hunt areas, 871, 873 and 874 have good access and the allowable harvest quota is usually less than 10 goats per hunt. To minimize the potential for over harvest and to reduce hunter density, a return to restricted participation hunts are also recommended for hunt

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⁶ In 1985, the Alaska Supreme Court decision in the Madison case eliminated the rural subsistence preference in state regulations. The BOG determined that all wildlife populations that are used primarily for food should be regulated as subsistence hunts. This precluded managing the GMU 8 goat hunt under a drawing permit system in 1985 only. The 1986 state subsistence statute restored a rural preference and as noted in Chapter 1, in 1987 the BOG made a negative c&t finding for GMU 8 goats which again allowed the drawing permit hunt.

areas 872 and 876 because restrictions in the other hunt areas would cause crowding and potential over harvest" (Smith 1986b: 35).

1986

"In 1986 the board opted to allow hunting by drawing permit only because of excessive harvests during 1984 and 1985 with registration permit hunts. A drawing permit hunt with 100 permits was in effect from 1986..." (Smith 1992: 97).

"A return to drawing permits for goat hunting on Kodiak Island resulted in increased selectivity by hunters and a more uniform distribution of hunting effort. ...High harvests were largely due to expansion of the legal hunt area (Hunt 876) and the liberalization of permit requirements in 1984 and 1985...Although Terror Lake has been used for access since the inception of goat hunting in 1968, the hydroelectric project has enhanced floatplane access by extending Terror Lake 3km and by creating a new reservoir in the alpine pass between Kizhuyak and Terror Rivers. Road access for hunters between Kizhuyak Bay and Terror Lake was also created although vehicular traffic has been prohibited. Goat hunters made frequent use of these project features in 1984-86 seasons. Declining goat productivity and the apparent stabilization and decline in the number of goats in northwest Ugak-Kizhuyak Bay drainage occurred simultaneously with construction. However, no direct mortality attributable to project activity or features was noted" (Smith 1988: 45).

1986

New state subsistence law enacted by the legislature limits subsistence to rural residents.

1988

"The goat population appears to be stable in northern Kodiak Island and increasing in the southwestern part of the island. Goats are now found in most major drainages, with the exception of extreme western Kodiak Island where there is little suitable habitat... Sightings of goats in Uyak Bay drainage indicated that the population in southwestern Kodiak Island continued to increase...Habitat suitability for goats declines toward the southwestern part of Kodiak Island although increasingly frequent sightings of goats indicate the population is slowly increasing there (Smith 1990: 83-85).

1989

McDowell Decision. The Alaska Supreme Court determined the state subsistence law was unconstitutional because it excluded urban residents from subsistence harvests.

1990

Federal management of customary and traditional subsistence hunts begins on federal public lands.

1991

"The road-accessible drainages near Kodiak city, where goats occur at low density, were closed to hunting to provide for viewing opportunity. Much of the southern Kodiak Island goat range which had been closed to facilitate colonization into suitable habitat was opened

to hunting in 1991...October harvests exceeded those in Sept every year except 1990...aircraft were the predominant transportation method...In 1991, the Board adopted a department recommendation to open hunting by drawing permit in part of southern Kodiak Island where the goat population was increasing. Two new permit hunts were created, [D875, D877], and drawing permits increased to 125...Wounding loss and illegal harvest contribute additional mortality equivalent to 10% of the reported harvest...Much of the area recently opened to hunting is extremely difficult to access; and further liberalization of hunting regulations may be justified if the goat population continues to increase" (Smith 1994: 107-110) (Crye 2002: 4).

1991-1992

Federal Subsistence Program develops.

1995-1996

Board of Game authorizes a new drawing permit area DG478 (Van Daele 1998: 114).

1997-99

"...Unconfirmed reports of a goat on Uganik Island" (Van Daele 2000: 117)

1997-99

"Recent alterations in goat populations and ranges have prompted us to investigate changing some of the hunt area boundaries. Before acting on any of these changes, however, we will discuss them with the local Advisory Committee, staff from KNWR and other interested parties. We have reached a pivotal point in goat management on Kodiak as the population now occupies most, if not all, suitable habitat and populations in most areas continue to increase. We should consider shifting our emphasis from encouraging range expansion and increased densities to limiting the population to provide sustained hunting opportunities while maintaining habitat quality. We must also consider the relationship between hunting, habitat, and goat viewing opportunities...and develop socially and biologically acceptable ways of balancing these potentially conflicting factors" (Van Daele and Crye 2000: 120-121).

2000-2001

"In 2000, the Federal Subsistence Regional Advisory Council received a proposal to consider Kodiak Island goats as a "customary and traditional" resource, and to open the entire refuge to subsistence goat hunting by registration permit. Acceptance of this proposal would have significant impacts on our current goat management system and we intend to work closely with refuge staff to analyze and address these concerns" (Van Daele and Crye 2002: 136).

"During the past decade, goats expanded beyond the newly discovered pockets of suitable habitat and moved into areas not normally considered prime goat range" (Van Daele and Crye 2002: 135-136).

"Kodiak National Wildlife Refuge staff has expressed interest in better understanding goat habitat needs and impacts of goats on refuge habitats" (Van Daele and Crye 2002: 137).

"In the winter of 2000, the majority of the mountain goat hunt boundaries were expanded to encompass the entire island of Kodiak. Before acting on these changes, we discussed them with our local air charter operators, the local Advisory Board, and the Kodiak National Wildlife Refuge. Portions of the population which were previously protected, were hunted for the first time in the fall of 2001" (Van Daele and Crye 2002: 138).

"Conclusions and Recommendations: Explore regulatory innovations within the State system to satisfy the requests of residents of remote villages for increased goat hunting opportunities (Van Daele and Crye 2002: 138).

2001-2002

New hunt area DG479 opens (Van Daele 2002: 135).

PARTICIPATION IN MOUNTAIN GOAT HARVESTS AND USES

Table 2, in Chapter 1 shows the residence of permit recipients. This database has been maintained since 1982. Information prior to 1982 is in written form in manila folders and is not included in the computerized database (the data from 1971, 1975, and 1980 are missing). Information from this period that does exist was hand tallied and in several cases is incomplete. The information about the early hunts provides an approximate picture of permit distribution by residence from 1968-1981. The residences of permit recipients have been divided into 9 categories. Each community with less than 100 households is listed (including those that did not participate in this study): Akhiok, Karluk, Larsen Bay, Old Harbor, Ouzinkie, and Port Lions. Kodiak city and road system are listed as one category. "Other Kodiak" includes non-community residences in places such as Amook Island and Afognak Island. The other categories include other Alaska Residents, Non-Residents, and Unknown Residents.

For the period of 1968-2001, Kodiak Island residents received a minimum of 1,483 permits from a total of 2,979 permits. This is an average of 45 permits per year excluding 1980 for which data are not available, and 50% of all permits issued. Other Alaska residents received 932 permits (31%), and non-Alaska residents received 168 permits (5%) (Figure 1, Table 2). Residency data for the remaining permit holders are not available.

The database shows that residents of Kodiak city and road system communities received a minimum of 1,392 permits during the period 1968-2001. Port Lions was second with 36 for the same period. This is expected since both communities are situated very close to the area

Figure 1. Percentage of GMU 8 Goat Hunting Permits Issued by Place of Residence, 1968 through 2001

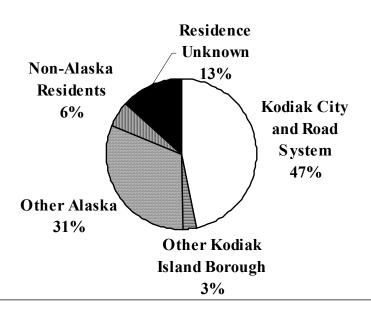
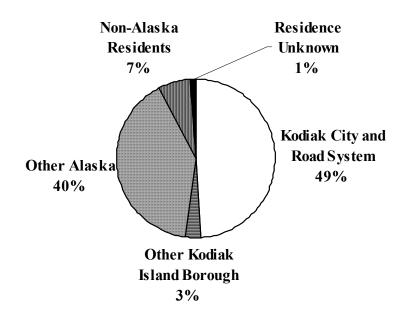


Figure 2. Percentage of GMU 8 Goat Drawing Permits Issued by Place of Residence, 1986 through 2001



where the goats were introduced. Old Harbor residents have received 27 permits and Larsen Bay residents have received 18 permits. The number of permits for Old Harbor and Larsen Bay has increased as goats have expanded southwestward. Residents of Akhiok have received one permit. As for the communities that declined to participate in the study, one resident of Karluk and four residents of Ouzinkie received permits between 1968-2001 (Table 2).

The permit records indicate the first year a community began receiving permits and the number of permits the community received each year: Kodiak city and road system, since 1968 with an average of 43 permits per year; Port Lions since 1977 with an average of 1 permit per year; Old Harbor since 1984 with an average of one permit per year; Larsen Bay 1983 with an average of 1 permit per year; Akhiok since 1995 and has received 2 permits, Ouzinkie since 1977 and has received 2 permits, Karluk received one permit in 1990.

Since 1986, all permits have been issued by drawing. As shown in Figure 2 (also see Table 2), of the 2,135 permits awarded from 1986 through 2001, 49% have been issued to Kodiak city and road system residents, 3% to other borough residents, 40% to other Alaska residents and 7% to non-residents of the state. Residency data are unavailable for 1% of the permittees.

Data concerning permits issued (Table 2) can be compared with the records of permit applicants (Table 8)⁷. However, note that the figures in Table 2 show permit recipients from 1968-2001. Table 8 only covers the period 1993-2001 because applicant data from prior years are not available. Since 1993, there has been an annual average of 354 applicants from Kodiak city and road system, one applicant from Akhiok, no applicants from Karluk, 6 applicants from Larsen Bay, 7 applicants from Old Harbor, less than one applicant from Ouzinkie, 8 applicants from Port Lions, and 3 applicants from other Kodiak areas. There has also been an average of 277 applicants from other parts of Alaska and 57 non-resident applicants.

Mountain Goat Use: Past and Present

According to the survey results shown in Table 9, from the four communities with less than 100 households, all the communities except for Akhiok had households that used goat in the

⁷ Applicants may apply for up to 3 hunt areas, although they may receive only one permit. In Table 8, duplicate applications for individuals have been removed.

Table 8. Number of Applicants for Goat Permits for GMU 8 by Place of Residence, 1993 through 2001

Place of Residence of Applicant	1993	1994	1995	1996	1997	1998	1999	2000	2001	Total	Annual Average	Percent of Total
Akhiok	0 (0 (← (0 (0 (0 (0 (0 (0 0	← (0.1	
Karluk Larsen Bay	о п	⊃ œ	0 ~	o 6	o 4	o 0	0 ~	⊃ ∞	0 ^	0 55	0.0 6.1	
Old Harbor	4	9	4	12	∞	6	9	2	7	61	6.8	
Ouzinkie	0	0	0	0	0	_	0	0	0	_	0.1	
Port Lions	7	12	7	2	4	10	15	0	_	9/	8.4	
Village Subtotal	13	26	19	27	16	22	28	22	21	194	21.6	3.0%
Kodiak City and Road Other Kodiak	182	217	434	351 3	328 5	435 3	366	402	468	3,183	353.7 2.6	
Kodiak Borough Subtotal	196	244	460	381	349	460	397	424	489	3,400	377.8	53.1%
Other Alaska	233	241	289	307	232	277	290	309	311	2,489	276.6	38.9%
Non Residents	39	48	22	81	26	22	99	29	53	516	57.3	8.1%
Total	468	533	806	769	637	794	753	792	853	6,405	711.7	

Note: number of individual applicants, not applications. Individuals may apply for up to 3 hunt areas.

Source: Data Files, Division of Wildlife Conservation, ADF&G

Table 9. Percentage of Households Using or Harvesting Mountain Goats

		<u>U</u> :	se Goats	in 2001/02?		Use	Goats in	Prior Years	s?
	Total	Ye	<u>s</u>	<u>No</u>		Ye:	<u>s</u>	<u>No</u>	<u>)</u>
Community	<u>HHs</u>	# of HHs	<u>%</u>	# of HHs	<u>%</u>	# of HHs	<u>%</u>	# of HHs	<u>%</u>
Akhiok	14	0	0%	14	100%	3	23.1%	11	76.9%
Larsen Bay	32	7	21.1%	25	79%	17	52.6%	15	47.4%
Old Harbor	73	17	23%	56	77%	38	52.5%	35	47.5%
Port Lions	81	4	5.2%	77	95%	18	22.4%	63	77.6%

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

study year, July 1, 2001-Spring 2002, and all communities had some households that used goat in the past, the period prior to July 1, 2001. Use is defined as hunting and harvesting, eating, receiving, or giving away mountain goat. Old Harbor and Larsen Bay households showed the highest percentage of goat use for both time periods. Survey data indicate 23% of Old Harbor households and 21.1% of Larsen Bay households used goat in the study year. These communities have also used goat more frequently than others in the past. In Old Harbor, 52.5% and in Larsen Bay 52.6% of the community households report using goat at least once in the past.

Kodiak city and road system is not listed in the table because a community-wide (census) sample was not taken. However, of the 19 people interviewed there, 15 were also surveyed. Of the 15 hunters surveyed, 9 used goat in the survey year (2001-2002) and 14 used goat in the past.

Goat Use and Hunting Patterns During July 1, 2001 through Spring 2002

Table 10 illustrates goat use according to categories listed in the definition of "use" mentioned above. These categories include: hunting and harvesting, eating, receiving or giving away mountain goat. Two subcategories are listed below the "receive" category, *from other households* and *from non-local hunters. From other households* indicates that a household received goat from another household in their community or a neighboring community--someone they know. *From non-local hunters* indicates a hunter not from their community or a neighboring community; someone the receiving household may or may not know, who was in the area primarily for a hunt and shared goat with the household.

Table 10. Mountain Goat Use and Hunting Patterns during July 1, 2001-Spring 2002

<u>Use Type</u>	Akh	niok	Larse	en Bay	Old F	larbor	Port	<u>Lions</u>	road system*
	#	%	#	%	#	%	#	%	#
Total households	14		32		73		81		15
Use	0	0%	7	21%	17	23%	4	5%	9
Hunt	0	0%	2	5%	2	3%	0	0%	6
Harvest	0	0%	2	5%	2	3%	0	0%	5
Receive	0	0%	5	16%	14	20%	4	5%	4
from another household	0	0%	5	16%	11	15%	3	3%	0
from non-local hunters	0	0%	0	0%	4	5%	1	2%	4
Give away	0	0%	2	5%	4	5%	0		6
# of Hunters	0		3		4		0		9
Goats Harvested	0		2		2		0		5

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002.

In two communities with less than 100 households, Old Harbor and Larsen Bay, goats were used by approximately 20% of surveyed households. Port Lions residents also used goat but to a lesser degree, probably since no Port Lions residents harvested goat during 2001-2002. No hunts, harvests, or uses were reported from Akhiok in 2001-02.

The amount of use in the Kodiak city and road system sample is very high because the sample included goat hunters only. However, it is important to show that the patterns of sharing and receiving goat that are active in small communities also are active in Kodiak city and road system.

Use of goats for arts and crafts was not covered by the survey or key respondent questions. However, some respondents mentioned this type of use. One household in Kodiak city displayed arrowheads carved from goat bone that were bound to shafts with goat sinew. One Kodiak household reported making fishing flies with goat hair and another made soap with goat fat. A Kodiak city road system household reported that their young son used to sew various types of fur including goat. In Port Lions, one household also mentioned using goat hair to make fishing flies.

^{*}These data are not representative of the entire Kodiak city and road system community, only the sample of 15 hunters surveyed, only 9 of the 15 hunted goats in 2001.

Distribution of Goat Part Usage

One common opinion among all communities surveyed was that goat meat tastes good. However, goat meat is not the only part of the goat that is used. The question on the survey about which parts of a goat people used included: hide, head, meat, horns, fat, heart, guts, liver, other and skin. It became apparent that the skin is not tanned or used separately, as is the case with other species, and this category was removed.

Tables 11 and 12 clearly reveal that in all communities meat is the highest use category for goat, followed by hide and then head for a trophy. The goat heart is eaten in Kodiak city and road system households as well as in several of the smaller communities.

Length of Hunt

The length of goat hunts differed significantly in Kodiak city and road system and communities with less than 100 households (Table 13). In Larsen Bay and Old Harbor, goat hunts averaged one day per hunter. In Kodiak city and the adjoining road system communities, 3.7 was the average number of days for a goat hunt. In Akhiok and Port Lions there were no goat hunters surveyed who hunted during July 1, 2001 and Spring 2002.

Part of the reason for the difference in the length of hunts may be related to transportation. Hunters were asked what modes of transportation they used when goat hunting and could list more than one. In all communities, most hunters (except two in Old Harbor who only walked) reported walking/hiking and also using some form of motorized transportation.

Another aspect of the difference in the length of hunts is proximity. In some of the smaller communities, goat hunting areas are almost literally "in the backyard" and do not require a lot of travel time. Many, though not all, goat hunting areas near Kodiak city and road system are accessible only by air.

<u>Transportation 2001</u>

Because many of the goat hunting areas near Kodiak city and road system are accessible only by air, many hunters from this area use charter aircraft to reach their hunt site (Table 14). Usually a few extra days must be included in the schedule because of the variable of weather.

Table 11. Percentage of Households in Communties with Less than 100 HH Using Goats July 2001-Spring 2002 Including Parts Used

	Total	HH	Ising Goats	Hide	(D)	Head		Meat	<u>at</u>	Horns	SI	Fat		Heart		Guts		Liver		Other	er
Community	王	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Akhiok	4	0		0		0		0		0		0		0		0		0		0	%0:0
Larsen Bay	32	7	22%	7	%9	7	%9	7	22%	7	%9	7	%9	7		0		0		0	%0.0
Old Harbor	73	17	23%	7	3%	_	1%	17	23%	_	1%	0		_	1%	0		_	1%	0	%0.0
Port Lions	81	4	2%	0		0		4	2%	0		0		0		0		0		0	%0.0

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

Table 12. Goat Part Usage by Percent in Kodiak city and road system during July 2001-Spring 2002

	Total	HH Using	g Goats	Hide	ē	Head	ad	Meat	at at	Horns	<u>su</u>	Fat		Heart	Ţ	Guts	(0)	Liver	_	Other*	∍r*
	王	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Kodiak city and road																					
system	15	6		က		က		6		2		_		7		0		0		7	

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

*Other included bones and sinew.

**Kodiak city and road system data are not representative of the entire Kodiak city and road system communities, only the sample of 15 hunters surveyed.

Of the 15, only 9 hunted in 2001.

Table 13. Number of Days Spent Goat Hunting,
Per Community, Household and Hunter, July 2001-Spring 2002

	Akhiok #	Larsen Bay #	Old Harbor #	Port Lions #	Kodiak city and road system #
Days Hunted					
per community	0	2.0	3.0	0	33.0
per hunting hh	0	2.0	1.5	0	5.5
per hunter	0	1.0	1.0	0	3.7

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002.

Table 14. Transportation used for Goat Hunting in July 1, 2001- Spring 2002

Community	# of Hunting	Fo	<u>ot</u>	Pla	<u>ine</u>	<u>A</u> T	<u>V</u>	Bo	<u>at</u>	Othe	er**
	Households	#	%	#	%	#	%	#	%	#	%
Akhiok	0	0	0%	0	0%	0	0%	0	0%	0	0%
Larsen Bay	1	1	100%	1	100%	0	0%	1	100%	0	0%
Old Harbor	3	3	100%	0	0%	0	0%	1	33%	0	0%
Port Lions	0	0	0%	0	0%	0	0%	0	0%	0	0%
Kodiak city/											
road system*	5	5	100%	3	60%	1	0%	1	20%	2	40%

^{*}Only 5 of the 15 Kodiak city/road system households hunted in 2001-2002, most had hunted in prior years.

Hunters could name more than one mode of transportation.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence,

Household Survey, Spring 2002.

^{**}The "other" type of transportation used was a car.

Because weather is such an important factor, it not only affects the number of days hunters allot for their hunt, it also affects which part of the season they use for their hunt. In most ADF&G Survey and Inventory reports, October is the month with the highest incidence of hunts. This was also the case with the households surveyed for this study. Although there is less daylight, the weather is more suitable for goat hunting in October. Figure 3 illustrates the monthly incidence of goat hunts island-wide for the period of July 1, 2001-Spring 2002⁴.

Goat and Other Resources

In an attempt to learn more about goat hunts and how these efforts affect other hunting activities, hunters were asked if a successful goat hunt reduced or eliminated other hunting efforts (Table 15). The response was virtually unanimous in all communities: goat hunting did not reduce or eliminate other hunting efforts. Only one hunter in Kodiak city said that his successful goat hunt kept him from going for a deer.

Hunters were also asked if they harvested other resources while they were hunting goat. Some hunters were emphatic that when they are hunting goat, that is all they are after. Others seemed to take a more opportunistic view of the hunt and said they would take what they came upon. Most commonly they came upon deer. A few hunters took both a goat and a deer. Some just took one or the other, depending on what was available. Other resources harvested during goat hunts are shown in Table 16.

Goat Use and Hunting Patterns Prior to July 1, 2001

Respondents were asked about their past use, or historic hunting and harvest of mountain goats. Table 17 shows that all communities with less than 100 households have some history of goat use. All survey respondents from Kodiak city and road system had a history of goat use. This was not unexpected since they were selected due to their interest in or knowledge of goat hunting and use.

Since their introduction, mountain goats have migrated, first north, then south, then southwest from their original point of transplant at Hidden Basin. Table 18 shows the percentage of households in each community with less than 100 households that have a member who has

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⁴ Although October is the month most people hunt goats, in 2001, more hunters than usual skipped hunting in September because of the terrorist attacks that occurred September 11, 2001 (Van Daele 2002).



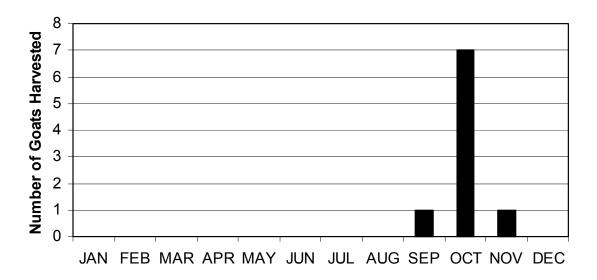


Table 15. Did A Successful Goat Hunt Ever Reduce or Eliminate other Hunting Efforts?

	Number of		
Community	Hunters	Yes	No
Akhiok	0	0	0
Larsen Bay	3	0	3
Old Harbor	13	0	13
Port Lions	11	0	11
Akhiok	0	0	0
Kodiak city/			
road system	15	1	14

Division of Subsistence Household Survey, Spring 2002.

Table 16. Other Resources Harvested While Hunting Goat (Ever)

verte- Birds and				0 0		
				0		
	Sea lions	0	0	_	0	0
	Seals	0	0	7	0	0
	Greens	0	0	0	0	0
	Berries	0	0	0	0	0
Other	Fish	0	0	_	0	0
	Salmon	0	0	0	0	0
	핅	0	0	0	0	0
	Deer	0	0	4	7	~
ш	Bear		0	0	0	0
# of	Hunters	0	7	Ξ	∞	15
	Community	Akhiok	Larsen Bay	Old Harbor	Port Lions	Kodiak city/ road

*Kodiak city and road system data are not representative of the entire Kodiak city and road system community, only the sample of 15 hunters surveyed.

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring, 2002

Table 17. Historic Use of Mountain Goats, Prior to July 1, 2001.

Community	# Estimated	Household	s Ever Used
	Households	#	%
Akhiok	14	3	23%
Larsen Bay	32	17	53%
Old Harbor	73	38	52%
Port Lions	81	18	22%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002.

Table 18. Historic Hunting of Mountain Goats, Prior to July 1, 2001.

	Estimated	Households	Ever Hunted
Community	Households	#	%
			_
Akhiok	14	0	0%
Larsen Bay	32	3	11%
Old Harbor	73	13	18%
Port Lions	81	11	14%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002.

Table 19. Historic Harvest of Mountain Goats, Prior to July 1, 2002

	Estimated	Households Eve	er Harvested
Community	Households	#	%
Akhiok	14	0	0%
Larsen Bay	32	3	11%
Old Harbor	73	10	13%
Port Lions	81	10	12%

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002.

ever hunted goats. The numbers of goat hunters in these communities can be loosely correlated with the migration of goats to their area. The highest percentage of households with goat hunters is in Old Harbor, 21%. Goats reached areas near Old Harbor in the mid 1970's-early 80s (Figure 4).

Port Lions also has a relatively high percentage of goat hunters (19%) and goats came close to Port Lions in the early 1980's. Goats moved toward the Larsen Bay area between the 1980's and the late 1990s where goat hunting effort has been lower. However, there may have been pioneer goats in these areas earlier as one Larsen Bay resident reported receiving goat from a person in her community in the 1970s. Although no goat hunters currently live in Akhiok, residents report seeing goats nearby while they are out hunting other species. According to permit data, one former resident took a goat in the mid 1990's. Most Akhiok respondents could not remember when they first saw goats in their area but one person said they first observed them in the mid 1980s. The longest history of goat hunts is in Kodiak city and road system, beginning with the first hunt in 1968.

There is a history of goat harvests in all communities with less than 100 households. Table 19 shows that, among the smaller communities, Old Harbor and Port Lions lead in the number of households that harvested goats prior to July 1, 2001. Numerous households in Kodiak city and road system have harvested goats since 1968.

Correlation of First Year of Goat Use with Hunting in Local Goat Hunt Units Accessed

Respondents were asked to indicate the first and most recent year they used, hunted and harvested goat. In comparing Table 20 with Figure 4 there appears to be a correlation between first year of use in a community and the approximate time goats migrated to their area. Table 21, which shows the numbers of permits awarded to residents in each community according to survey data, also illustrates this progression.

Overall Mountain Goat Harvest Trends

Table 22 depicts mountain goat harvest quantities by year and by residence. Since hunting began in 1968 (through 2001), the average annual harvest was 28 goats. Since the 1986 drawing permit system began, the average annual harvest has been 45 goats. These data also show that as the goat population increased and moved southwestward, interest in goat hunting first increased in the southwestern communities of Old Harbor and Larsen Bay and then in Akhiok. Goat harvests island-wide have steadily increased since they peaked in 1984 when a registration hunt was opened in unit 876.

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...53% of the total harvest (Smith 1986: 35).

According to permit data, this was the first year residents of Old Harbor received (4) permits. In 1985 the goat hunt in areas 871, 873, 874, and 876 was administered by Tier II permit. Because of increased access, this hunt came close to an over harvest according to local biologists (Smith 1986b: 35). The number of goats harvested declined overall for several years but by 1996, surpassed previous high harvest records. The continued health and colonization of the goat population has made it possible for harvest numbers to increase every year and still maintain population goals. Figure 5 illustrates the increase in goat harvests by community of residence. Figure 6 shows place of residence of successful harvesters since 1968.

Transportation Prior to July 1, 2002

Transportation for goat hunts in the past differs significantly between Kodiak city and road system hunters and hunters in communities of less than 100 households. The primary

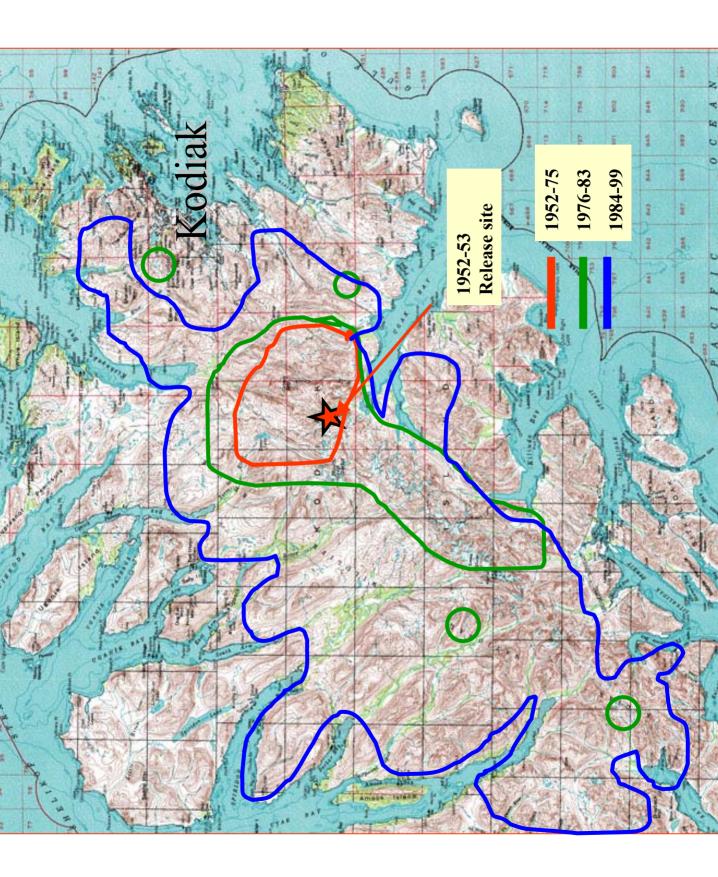


Table 20. Time Ranges of Goat Use, Hunting, and Harvest by Community as Reported in Household Surveys Conducted Spring, 2002

Community	First Year Goat Used in Community	Most Recent Year Goat Used by Community	First Year Goat Hunted by Community	Most Recent Year Goat Hunted by Community	First Year Goat Harvested By Community	Most Recent Year Goat Harvested by Community
Akhiok	1991	0	0	0	0	0
Larsen Bay	1972	2001	1996	2001	1996	2001
Old Harbor	1980	2001	1982	2001	1982	2001
Port Lions Kodiak city	1977	2002	1977	1997*	1975	1997
and road						
system	1965	2001	1969	2001	1969	2001

*There have been permit recipients in Port Lions more recently than 1997. However, they were not available to participate in this survey.

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

Table 21. Kodiak Mountain Goat Hunting and Harvest of Surveyed Households by Hunting Unit and Community up to Spring 2002

LOCATION Hunted Hunte			Akhiok ¹		Le	Larsen Bay ²	7	Ō	Old Harbor ³	.3	<u> </u>	Port Lions ⁴		Kodiak C	Kodiak City/ Road System ⁵	System ⁵
Off 2001- 2001- 2001- 2002- 2001- 2002- 2001- 2001- 2001- 2001- 2001- 301-01- skr ntn.6 ntn.6 ntn.6 ntn.6 ntn.6 ntn.6 ntn.6 ntn.6 ntn.6 asin aske nver nver <t< th=""><th>H</th><th></th><th>Harvest</th><th>Hunted</th><th>Hunted</th><th>Harvest</th><th>Hunted</th><th>Hunted</th><th>Harvest</th><th>Hunted</th><th>Hunted</th><th>Harvest</th><th>Hunted</th><th>Hunted</th><th>Harvest</th><th>Hunted</th></t<>	H		Harvest	Hunted	Hunted	Harvest	Hunted	Hunted	Harvest	Hunted	Hunted	Harvest	Hunted	Hunted	Harvest	Hunted
2002 2002 Jul-01 2002 2002 Jul-01 or		-100	2001-	Prior to	2001-	2001-	Prior to	2001-	2001-	Prior to	2001-	2001-	Prior to	2001-	2001-	Prior to
intn. ⁶ ntn. ⁶ asin Lake ⁶ iver ay ⁸ ad ad		2002	2002	Jul-01	2002	2002	Jul-01	2002	2002	Jul-01	2002	2002	Jul-01	2002	2002	Jul-01
inth. 6 Int	7.1												2	1	1	7
ntn. ⁶ asin lake ⁶ iver iver ay ⁸ ad	Creek/															
asin Lake ⁶ iver iver ay ⁸ ad ad	ır Mntn. ⁶															
asin Lake ⁶ iver asin shert and ad	72															8
asin Lake [®] iver iver ay ⁸ ad ad	ا Mntn.															
asin ake ⁶ liver iver ay ⁸ liver ad ad	73												9	2	1	9
iver iver av single ad ad a single are a single	n Basin															
iver	ror Lake ⁶															
iver7 2 2 1 1 1 1 ay 8 ad ad	74															4
ay 8 1 1 1 1 1 1 ad ad ad	k River															
ay ⁸ ak ⁸ ad	7.5						2									1
ad ad	ır River ⁷															
ay ⁸ iak ⁸ ad	9,				1	1		2	2	4						2
iak ⁸ ad	a Bay ⁸															
SW Kodiak ⁸ DG 478 South Road System DG 479 North Road	22						1	1	1	2			1			2
DG 478 South Road System DG 479 North Road DG 479	kodiak ⁸															
South Road System DG 479 North Road	8.4													7	3	2
System DG 479 North Road North Road	Road															
DG 479 North Road	ш															
North Road	62															
	Road															
System	m,															

Goats began to occupy areas around Akhiok in the late 1980s and early 1990s (Fig. 4). First year of community use: 1991 (survey data); 1995 (permit data).

Source: Alaska Department of Fish and Game, Division of Subsistence, Household Survey, Spring 2002

² Goats began to occupy areas around Larsen Bay in the 1980s, and maybe by the mid 1970s (Fig. 4). First year of community use: 1972 (survey data); 1993 (permit data).

³ Goats began to occupy areas around Old Harbor from the mid 1970s to early 1980s (Fig. 4). First year of community use: 1980 (survey data); 1984 (permit data). ⁴ Port Lions is near the orginal transplant site. Goats moved closer in the 1970s (Fig. 4). First year of community use: 1977 (survey data); 1973 (permit data).

⁵ Goats transplanted nearby in 1952 and 1953 (Fig. 4). First year of community use: 1965 (survey data); 1968 (permit data).

⁶ Units DG 471, 472, and 473 are near the goat transplant site of 1952-53. These goat hunt units are near Kodiak City and Port Lions, and are used by hunters

from both communities (Figs. 8 & 9).

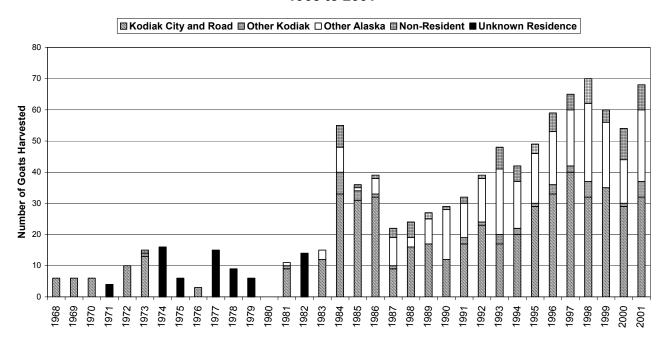
 $^{^7\,}$ Unit DG 475 near Larsen Bay is used by Larsen Bay hunters (Fig. 11). $^8\,$ Units DG 476 and 477 are near Old Harbor and used by Old Harbor hunters (Fig. 10).

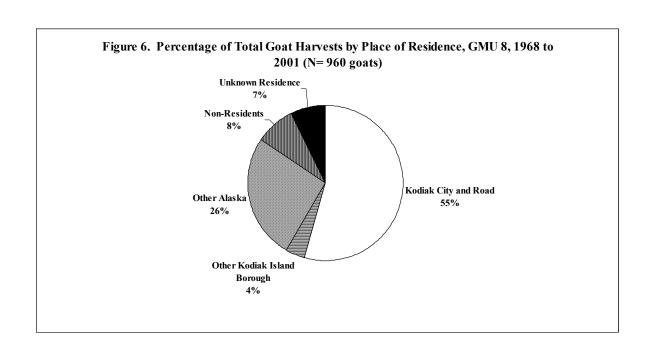
Table 22 . Harvests of Mountain Goats, Game Management Unit 8 (Kodiak Island), 1968 to 2001, by Place of Residence of Hunter *

	Total	9	9	9	4	10	15	16	9	3	15	6	9	No data	11	14	15	22	36	39	22	24	27	29	32	39	48	42	49	29	65	20	09	54	68	960
Unknown	Residence				4			16	9		15	6	9			14																				70
Non	Residents						-											7	_	_	က	2	2	-	2	1	7	2	က	9	2	∞	4	10	8	80
Other	Alaska														_		က	∞	_	2	တ	3	8	16	11	14	21	15	16	17	18	25	21	14	23	249
Other	Kodiak														_																					1
Kodiak City	and Road	9	9	9		10	13			3					o		12	33	31	32	o	16	17	12	17	23	17	20	29	33	40	32	32	29	32	522
	Port Lions						-											က		_	_				1	1	က					_				12
	Ouzinkie																																			0
	Old Harbor																	4	က						1			2		-	2	က		-	2	19
	Larsen Bay Old Harbor																													2		-			3	9
	Karluk																																			0
	Akhiok																												_							1
	Year	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Totals

Source: Alaska Department of Fish and Game, Division of Wildlife Conservation, Harvest Permit Database 1982-2001 Harvest Permit Files 1968-1985 *Data from 1968-1981 are from pager files, data from 1982-2001 are from database.

Figure 5. Harvests of Mountain Goats, GMU 8, by Place of Residence, 1968 to 2001





difference is the predominant use of airplanes by Kodiak city and road system area hunters (Table 23).

Locations of Mountain Goat Harvests Since 1968

Figure 7 shows current goat hunting units and GMU 8 Land Status. Figures 8, 9, 10, and 11 are maps of respondents' goat hunting routes and goat sightings by community. These maps indicate that across the island, most people hunt goats closest to their community of residence. Although there were no goat hunters in Akhiok during this study, Figure 12 shows that goats have migrated beyond the boundaries in Figure 4 and now are very close to this community. Respondents were asked to specify which hunting units they have used to hunt and harvest goat in the most recent year and in the past. Table 21 also illustrates that most survey respondents hunt in the area closest to their community of residence.

Comparison Between Current Harvest Survey Data and Past Harvest Survey Data

Table 24 and Figure 13 show patterns of goat use documented in previous ADF&G surveys conducted in Kodiak Island communities with the addition of data collected during this 2001 study. According to surveys conducted between 1982-1997, goat use was first reported in Old Harbor in 1982, Port Lions in 1986, and Larsen Bay in 1993. The frequency of goat use shown in past surveys is very similar to the results of the 2001 survey results for the small communities with less than 100 households; Old Harbor is the highest user, followed by Port Lions and Larsen Bay. Kodiak city and road system shows the highest amount of goat use in both past and current surveys. The amount of recent use (2001) confirms the results of past surveys that show increasing interest and use in communities (Port Lions, Larsen Bay and Old Harbor) where goat populations have become established and are easily accessible from the community.

Comparison Between Goat and other Species Used on Kodiak Island

The level of interest in using and hunting goat, deer and elk in Kodiak communities is shown in Table 25 and Figure 14. It is clear that all Kodiak communities rely heavily on deer for a large proportion of their wild meat harvest. The elk harvest is less substantial but is a source of meat in most Kodiak communities except for Akhiok and Karluk, which are located far from the

Table 23. Transportation Used for Goat Hunts Prior to July 1, 2002

Community	# of Hunting	Fo	<u>ot</u>	Plai	ne_	<u>A</u> T	V	Bo	<u>at</u>	<u>Oth</u>	er
	Households	#	%	#	%	#	%	#	%	#	%
Akhiok	0	0	0%	0	0%	0	0%	0	0%	0	0%
Larsen Bay	2	2	100%	1	50%	1	50%	2	100%	0	0%
Old Harbor	11	7	64%	0	0%	4	36%	5	45%	0	0%
Port Lions	8	3	38%	1	13%	1	13%	6	75%	0	0%
Kodiak City	14	14	100%	13	93%	5	36%	8	57%	0	0%

Source: Alaska Department of Fish and Game, Division of Subsistence,

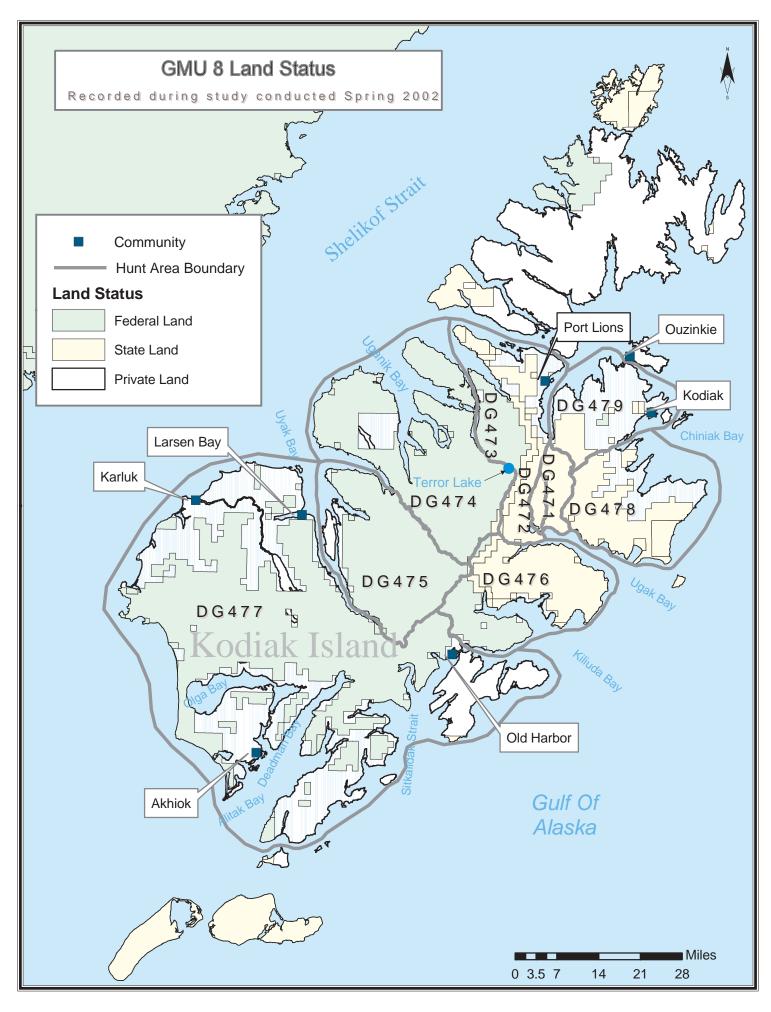
Household Survey, Spring 2002

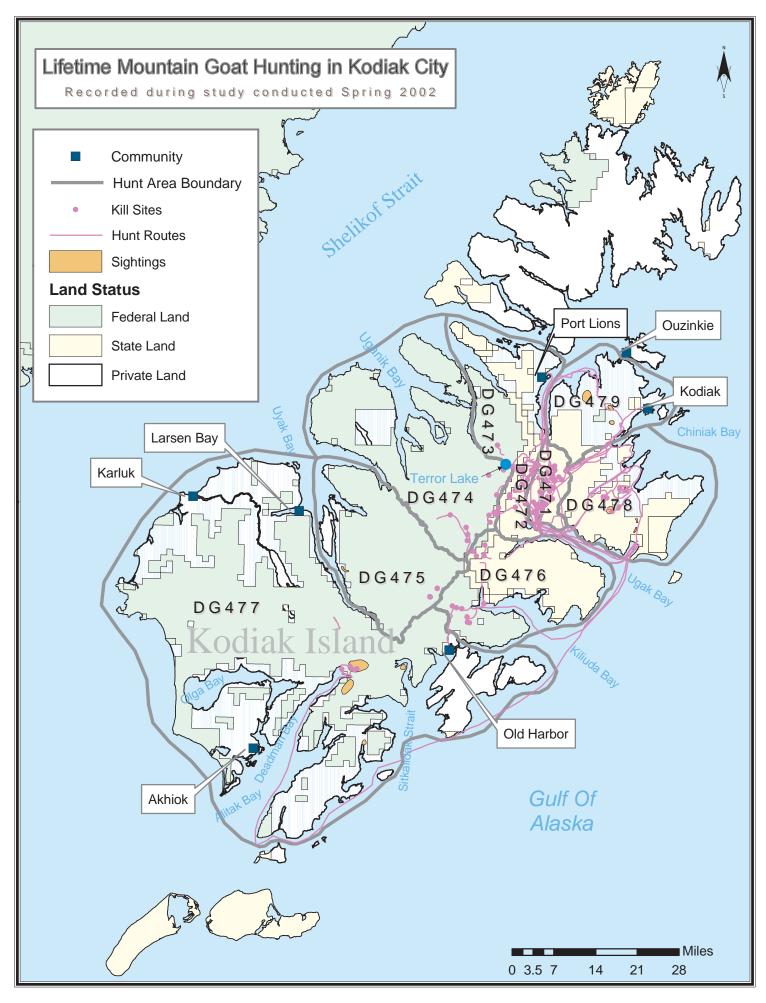
elk population. Since elk are hunted on Afognak Island, the communities closest to this area, Ouzinkie and Port Lions, show the highest incidence of use. The fact that deer represent the species of highest harvest reflects the fact that they are much more abundant than other wildlife species. They also have been available for a long period of time and are relatively easy to hunt. In communities that are located near the elk population, the amount of elk used is comparable to deer, but elk use is still less because they are less abundant and historically, regulations for elk hunts have been more restrictive than those for deer.

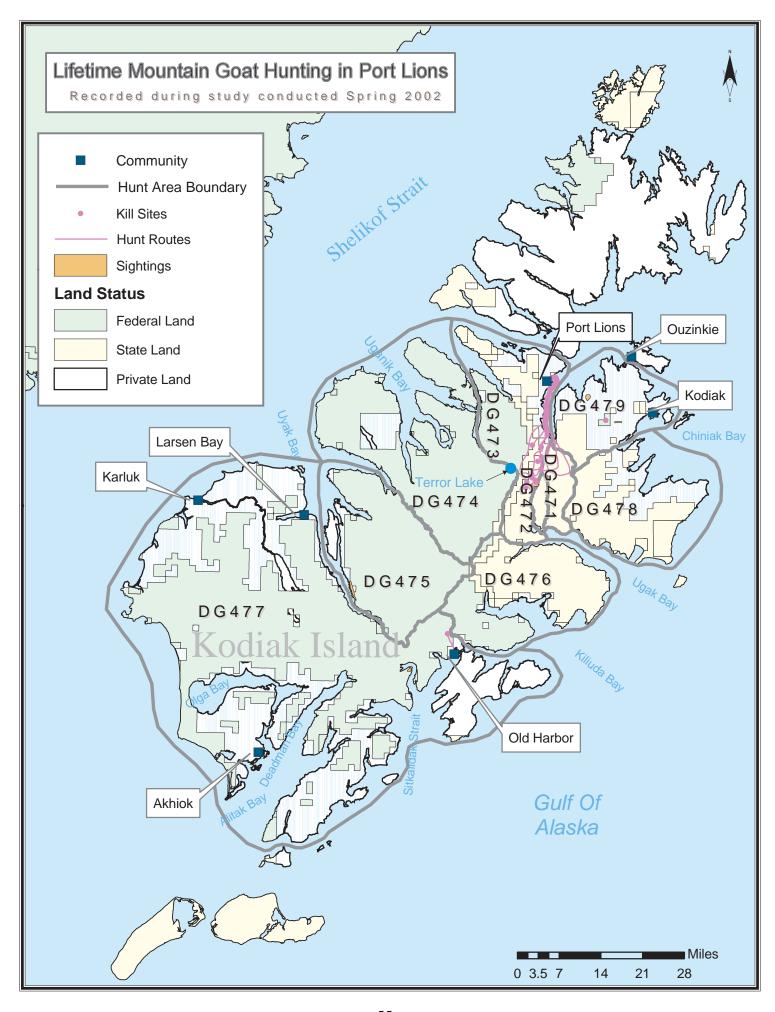
Comparison of Amount of Mountain Goat Harvested on Kodiak Island with other Communities

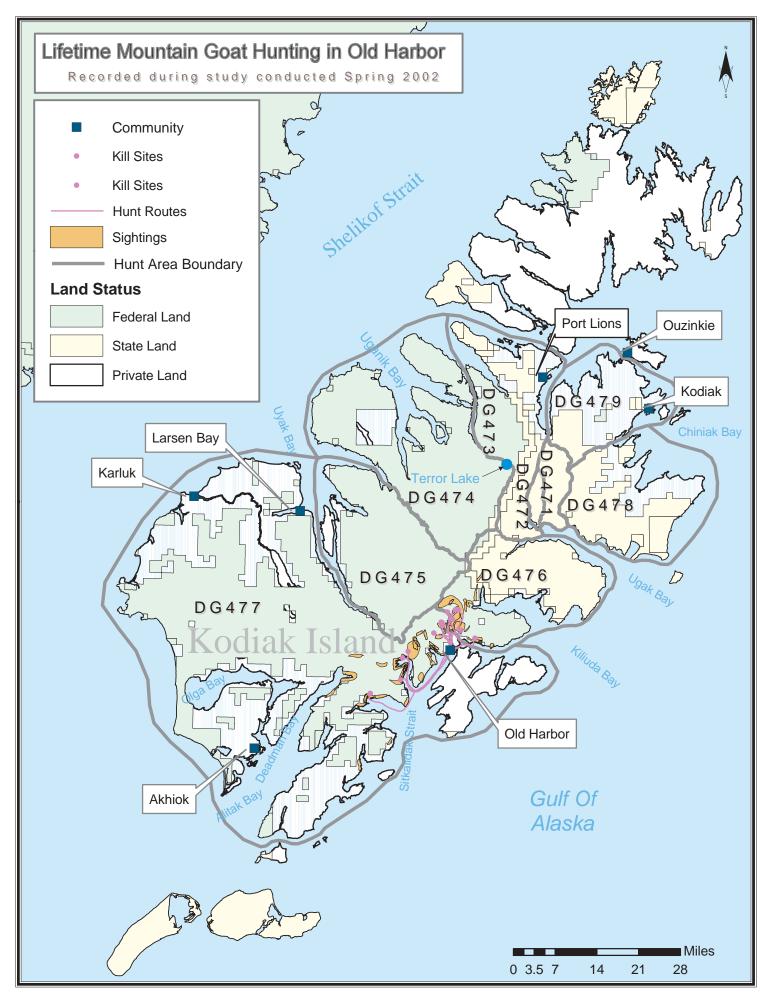
Compared to the amount of deer and elk that are part of the wild meat harvest, the amount of goat harvested on Kodiak Island appears very low. Table 26 and Figure 15 illustrate the amount of goat used in other communities in Cook Inlet and Prince William Sound. In Tatitlek and Nanwalek especially, the percentage of households using goat is high and use has been consistent over a period of years. These survey data indicate in 1987 in Nanwalek, 39.4% of the households used goat and in 1991, 41.4% of households used goat. In Tatitlek, in 1988, 52.4% of households used goat and in 1991, 42.10% of households used goat. The high percentages of households in Nanwalek and Tatitlek that use goat represent peak use years in a long-term pattern of consistent goat use.

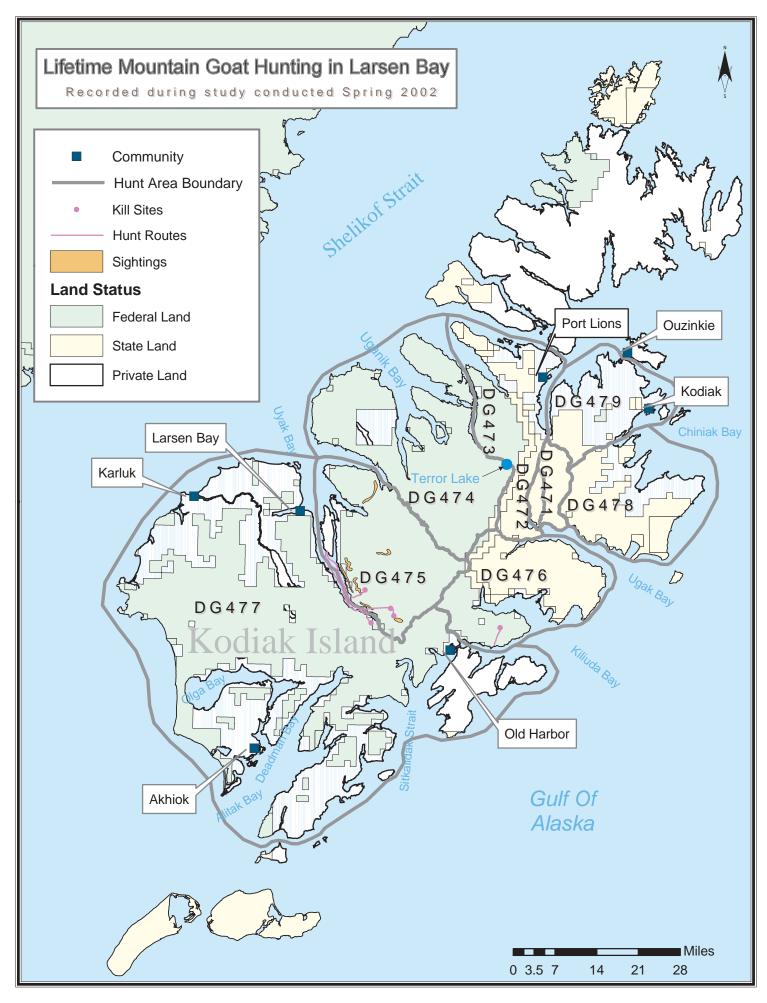
Recent interest in goat hunting in the remote communities of Kodiak Island is definitely attributable to the fact that goats have migrated to these areas and have become part of the











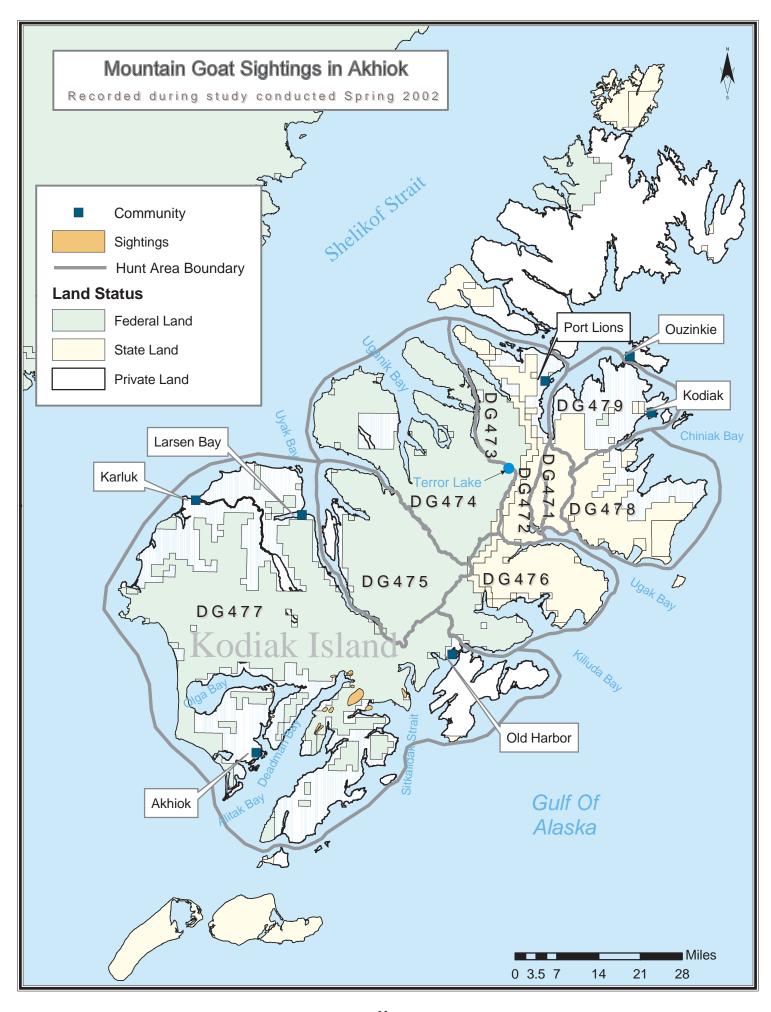


Table 24. Uses and Harvests of Mountain Goats, Kodiak Island Borough (GMU 8) Communities

		l P	ercentaç	e of Ho	useholds	; l		Number	of Hous	eholds	-	Est. No.
Year	Community	<u>Use</u>	Hunt	Harv.	Rec.	Give	Use	Hunt	Harv	Rec.	Give	Harvested
1982	Akhiok	0.0		0.0		[0		0	0	0	
1986	Akhiok	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1989	Akhiok	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1992	Akhiok	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
2001	Akhiok	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1982	Chiniak	0.0		0.0		ļ	0		0	0	0	0
1982	Karluk	0.0		0.0		į	0		0	0	0 0	0
1986	Karluk	0.0	0.0	0.0	0.0	0.0	0	0	0	0		
1989	Karluk	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1990	Karluk	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1991	Karluk	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1982	Kodiak City	1.9		0.6		į	47		15			16
1991	Kodiak City	4.0	0.0	0.0	3.0	0.0	75	0	0	56	0	0
1992	Kodiak City	4.0	0.0	0.0	2.0	0.0	70	0	0	35	0	0
1993	Kodiak City	4.8	1.9	1.9	2.9	2.9	96	38	38	58	58	38
1991	Kodiak Coast Guard	6.5	3.2	3.2	6.5	3.2	11	5	5	11	5	5
1991	Kodiak Road	3.9	0.0	0.0	3.9	0.0	45	0	0	45	0	
1982	Larsen Bay	0.0		0.0		į	0		0	0	0	
1986	Larsen Bay	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	0
1989	Larsen Bay	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1990	Larsen Bay	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1991	Larsen Bay	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1992	Larsen Bay	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1993	Larsen Bay	2.5	0.0	0.0	2.5	0.0	1	0	0	1	0	0
1997	Larsen Bay	3.8	0.0	0.0	3.8	3.8	2	0	0	2	2	0
2001	Larsen Bay	21.1	5.3	5.3	15.8	5.3	7	2	2	5	2	2
1982	Old Harbor	1.3		1.3		į	1		1	0	0	
1986	Old Harbor	4.5	2.3	2.3	2.3	0.0	5	3	3	3	0	
1989	Old Harbor	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1991	Old Harbor	4.8	2.4	2.4	2.4	2.4	3	2	2	2	2	2
1997	Old Harbor	16.3	7.0	7.0	9.3	9.3	13	6	6	7	7	
2001	Old Harbor	23.0	3.3	3.3	19.7	4.9	17	2	2	14	4	2
1982	Ouzinkie	0.0		0.0		ļ	0		0	0	0	0
1986	Ouzinkie	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1989	Ouzinkie	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1990	Ouzinkie	0.0	0.0	0.0	0.0	0.0		0	0	0	0	
1991	Ouzinkie	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1992	Ouzinkie	1.9	0.0	0.0	1.9	0.0	1	0	0	1	0	
1993	Ouzinkie	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1997	Ouzinkie	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1982	Port Lions	0.0		0.0		ļ	0		0	0	0	
1986	Port Lions	6.2	1.5	1.5	4.6	1.5	6	1	1	4	1	
1989	Port Lions	0.0	0.0	0.0	0.0	0.0	0	0	0	0	0	
1993	Port Lions	4.4	2.2	2.2	4.4	2.2	4	2	2	4	2	2
2001	Port Lions	5.2	0.0	0.0	5.2	0.0	4	0	0	4	0	0

Source: ADF&G Community Profile Database, based on household surveys (Scott et al. 2001)
Blank cells indicate data not available.

Figure 13. Percentage of Households Using Mountain Goat, Kodiak Island Borough Communities

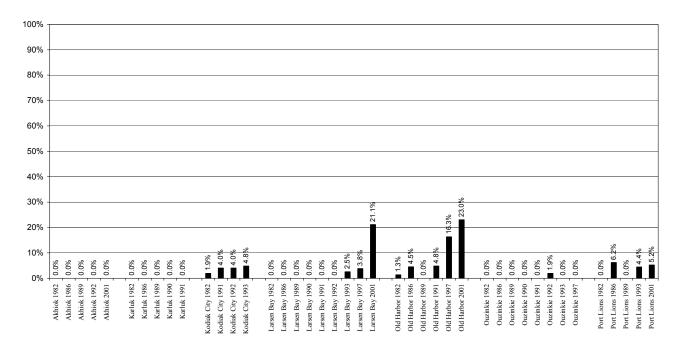


Figure 14. Percentage of Households Using Goats, Elk, or Deer, Most Recent Comprehensive Survey Year, Kodiak Island Borough Communities

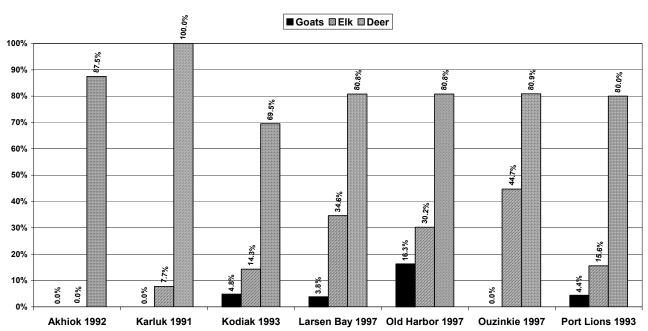


Table 25. Uses and Harvests of Mountain Goats, Deer, and Elk, Kodiak Island Borough (GMU 8) Communities

		Percentage of Households														
<u>Year</u>	<u>Community</u>		<u>Use</u>			<u>Hunt</u> -			<u>Harvest</u>			Receive			<u>Give</u>	
		Goat	<u>Deer</u>	Elk	<u>Goat</u>	<u>Deer</u>	<u>Elk</u>	Goat	<u>Deer</u>	<u>Elk</u>	Goat	<u>Deer</u>	<u>Elk</u>	<u>Goat</u>	<u>Deer</u>	<u>Elk</u>
1982	Akhiok	0.0	95.2	0.00				0.0	90.50	0.00						
1986	Akhiok	0.0	58.3	0.00	0.0	58.30	0.00	0.0	50.00	0.00	0.0	16.70	0.00	0.0	41.70	0.00
1989	Akhiok	0.0	100.0	0.00	0.0	70.00	0.00	0.0	70.00	0.00	0.0	60.00	0.00	0.0	60.00	0.00
1992	Akhiok	0.0	87.5	0.00	0.0	70.80	0.00	0.0	66.70	0.00	0.0	45.80	0.00	0.0	41.70	0.00
2001	Akhiok	0.0			0.0			0.0			0.0			0.0		
1982	Chiniak	0.0	88.2	11.80		58.80		0.0	58.80	0.00						
1982	Karluk	0.0	95.0	0.00				0.0	80.00	0.00						
1986	Karluk	0.0	100.0	0.00	0.0	57.90	0.00	0.0	47.40	0.00	0.0	78.90	0.00	0.0	68.40	0.00
1989	Karluk	0.0	100.0	0.00	0.0	71.40	0.00	0.0	71.40	0.00	0.0	71.40	0.00	0.0	71.40	0.00
1990	Karluk	0.0	94.1	0.00	0.0	58.80	0.00	0.0	52.90	0.00	0.0	70.60	0.00	0.0	41.20	0.00
1991	Karluk	0.0	100.0	7.70	0.0	69.20	0.00	0.0	61.50	0.00	0.0	76.90	7.70	0.0	76.90	0.00
1982	Kodiak City	1.9	82.6	14.80		49.70		0.6	40.00	3.20						
1991	Kodiak City	4.0	75.0	19.00	0.0	49.00	6.00	0.0	38.00	3.00	3.0	53.00	17.00	0.0	25.00	4.00
1992	Kodiak City	4.0	70.0	13.00	0.0	40.00	5.00	0.0	26.00	1.00	2.0	45.00	11.00	0.0	23.00	2.00
1993	Kodiak City	4.8	69.5	14.30	1.9	40.00	3.80	1.9	26.70	1.00	2.9	48.60	13.30	2.9	23.80	1.90
1991	Kodiak Coast Guard	6.5	51.6	6.50	3.2	61.30	0.00	3.2	45.20	0.00	6.5	19.40	6.50	3.2	9.70	0.00
1991	Kodiak Road	3.9	72.4	21.10	0.0	60.50	13.20	0.0	40.80	1.30	3.9	40.80	18.40	0.0	21.10	3.90
1982	Larsen Bay	0.0	93.8	3.10				0.0	62.50	0.00						
1986	Larsen Bay	0.0	83.8	24.30	0.0	51.40	8.10	0.0	45.90	8.10	0.0	56.80	21.60	0.0	24.30	5.40
1989	Larsen Bay	0.0	94.1	2.90	0.0	58.80	0.00	0.0	52.90	0.00	0.0	58.80	2.90	0.0	47.10	0.00
1990	Larsen Bay	0.0	91.4	0.00	0.0	60.00	0.00	0.0	60.00	0.00	0.0	57.10	0.00	0.0	37.10	0.00
1991	Larsen Bay	0.0	86.8	13.20	0.0	55.30	2.60	0.0	55.30	0.00	0.0	60.50	13.20	0.0	52.60	0.00
1992	Larsen Bay	0.0	81.1	2.70	0.0	54.10	0.00	0.0	51.40	0.00	0.0	43.20	2.70	0.0	45.90	0.00
1993	Larsen Bay	2.5	90.0	7.50	0.0	65.00	0.00	0.0	57.50	0.00	2.5	62.50	7.50	0.0	57.50	2.50
1997	Larsen Bay	3.8	80.8	34.60	0.0	61.50	11.50	0.0	57.70	11.50	3.8	38.50	26.90	3.8	34.60	7.70
2001	Larsen Bay	21.1			5.3			5.3			15.8			5.3		
1982	Old Harbor	1.3	96.1	1.30				1.3	85.70	0.00						
1986	Old Harbor	4.5	95.5	9.10	2.3	75.00	4.50	2.3	75.00	4.50	2.3	63.60	4.50	0.0	50.00	0.00
1989	Old Harbor	0.0	85.4	2.10	0.0	54.20	0.00	0.0	52.10	0.00	0.0	66.70	2.10	0.0	39.60	0.00
1991	Old Harbor	4.8	92.9	21.40	2.4	47.60	4.80	2.4	45.20	2.40	2.4	71.40	19.00	2.4	54.80	7.10
1997	Old Harbor	16.3	74.4	30.20	7.0	55.80	9.30	7.0	53.50	9.30	9.3	27.90	20.90	9.3	53.50	9.30
2001	Old Harbor	23.0			3.3			3.3			19.7			14.8		
1982	Ouzinkie	0.0	90.6	9.40				0.0	59.40	0.00						
1986	Ouzinkie	0.0	76.5	32.40	0.0	55.90	14.70	0.0	52.90	5.90	0.0	38.20	29.40	0.0	23.50	5.90
1989	Ouzinkie	0.0	57.1	28.60	0.0	37.10	17.10	0.0	31.40	8.60	0.0	31.40	20.00	0.0	14.30	11.40
1990	Ouzinkie	0.0	71.7	58.50	0.0	45.30	17.00	0.0	43.40	11.30	0.0	39.60	49.10	0.0	32.10	11.30
1991	Ouzinkie	0.0	90.6	43.80	0.0	65.60	12.50	0.0	59.40	3.10	0.0	37.50	40.60	0.0	40.60	12.50
1992	Ouzinkie	1.9	84.6	32.70	0.0	55.80	9.60	0.0	51.90	0.00	1.9	51.90	32.70	0.0	34.60	5.80
1993	Ouzinkie	0.0	88.5	9.80	0.0	59.00	3.30	0.0	55.70	1.60	0.0	59.00	8.20	0.0	54.10	1.60
1997	Ouzinkie	0.0	80.9	44.70	0.0	55.30	8.50	0.0	46.80	6.40	0.0	51.10	38.30	0.0	40.40	10.60
1982	Port Lions	0.0	78.2	14.50				0.0	63.60	0.00						
1986	Port Lions	6.2	83.1	55.40	1.5	64.60	29.20	1.5	60.00	24.60	4.6	40.00	32.30	1.5	33.80	18.50
1989	Port Lions	0.0	52.8	27.80	0.0	41.70	16.70	0.0	30.60	11.10	0.0	25.00	19.40	0.0	22.20	8.30
1993	Port Lions	4.4	80.0	15.60	2.2	57.80	2.20	2.2	55.60	2.20	4.4	42.20	13.30	2.2	40.00	4.40
2001	Port Lions	5.2			0.0			0.0			5.2			0.0		
Carrage	· ADE&G Community	Destile F) - 4 - b			رم امامام			1.0004)	Diamira	المصالما			: - - -		

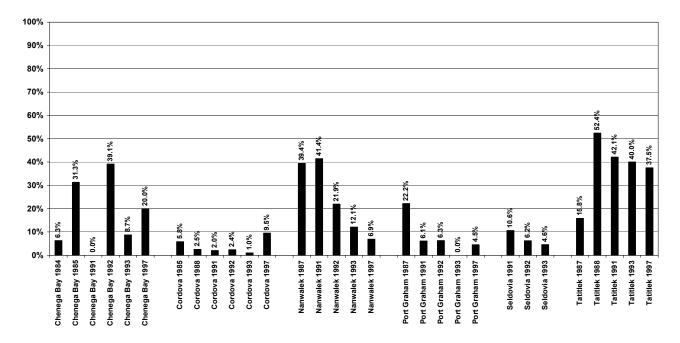
Source: ADF&G Community Profile Database, based on household surveys (Scott et al 2001). Blank cells indicate data not available.

Table 26. Uses and Harvests of Mountain Goats, Cook Inlet and Prince William Sound Communities

	_								
	-						Number	Lbs. Per	Lbs Per
Year	Community	Using	Hunting	Harvesting	Receiving	Giving	Harvested	HH	Capita
1984	Chenega	6.3	37.5	6.3	6.3	6.3	2.0	9.1	2.5
1985	Chenega	31.3	12.5	6.3	25.0	6.3	2.0	9.1	2.5
1989	Chenega	38.9	11.1	11.1	27.8	16.7	2.0	8.1	2.3
1990	Chenega	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0
1991	Chenega	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0
1992	Chenega	39.1	0.0	0.0	39.1	13.0	0.0	0.0	0.0
1993	Chenega	8.7	4.3	0.0	8.7	4.3	0.0	0.0	0.0
1997	Chenega	20.0	6.7	6.7	20.0	6.7	1.0	4.8	1.7
1985	Cordova	5.8	3.9	1.5	4.4	0.5	17.0	1.1	0.4
1988	Cordova	2.5	1.1	0.9	1.6	0.9	8.0	0.7	0.3
1991	Cordova	2.0	0.0	0.0	2.0	1.0	0.0	0.0	0.0
1992	Cordova	2.4	2.4	0.0	2.4	0.0	0.0	0.0	0.0
1993	Cordova	1.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0
1997	Cordova	9.5	5.5	4.0	5.5	3.6	39.0	3.5	1.1
1987	Nanwalek	39.4	12.1	3.0	36.4	6.1	1.0	2.2	0.6
1989	Nanwalek	15.2	6.1	0.0	15.2	6.1	0.0	0.0	0.0
1990	Nanwalek	5.7	2.9	2.9	2.9	2.9	1.0	1.4	0.3
1991	Nanwalek	41.4	10.3	0.0	41.4	6.9	0.0	0.0	0.0
1992	Nanwalek	21.9	12.5	6.3	15.6	9.4	3.0	4.5	1.1
1993	Nanwalek	12.1	9.1	0.0	12.1	0.0	0.0	0.0	0.0
1997	Nanwalek	6.9	0.0	0.0	6.9	3.4	0.0	0.0	0.0
1987	Port Graham	22.2	9.3	3.7	20.4	5.6	2.0	2.7	0.9
1989	Port Graham	6.3	0.0	0.0	6.3	0.0	0.0	0.0	0.0
1990	Port Graham	4.3	4.3	0.0	4.3	0.0	0.0	0.0	0.0
1991	Port Graham	6.1	6.1	2.0	4.1	2.0	1.0	1.5	0.5
1992	Port Graham	6.3	6.3	0.0	6.3	0.0	0.0	0.0	0.0
1993	Port Graham	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0
1997	Port Graham	4.5	0.0	0.0	4.5	0.0	0.0	0.0	0.0
1991	Seldovia	10.6	3.0	1.5	9.1	1.5	2.0	1.1	0.4
1992	Seldovia	6.2	4.6	1.5	4.6	3.1	2.0	1.1	0.4
1993	Seldovia	4.6	1.5	1.5	3.1	4.6	2.0	1.1	0.4
1987	Tatitlek	15.8	5.3	0.0	15.8	0.0	0.0	0.0	0.0
1988	Tatitlek	52.4	23.8	9.5	47.6	9.5	3.0	6.9	1.9
1989	Tatitlek	4.5	0.0	0.0	4.5	0.0	0.0	0.0	0.0
1990	Tatitlek	0.0	23.5	0.0	0.0	0.0	0.0	0.0	0.0
1991	Tatitlek	42.1	21.1	21.1	26.3	21.1	6.0	15.3	3.8
1993	Tatitlek	40.0	20.0	15.0	25.0	15.0	6.0	14.5	4.2
1997	Tatitlek	37.5	25.0	18.8	18.8	18.8	5.0	13.6	4.5

Source: Scott et al. 2001





landscape. There is also the factor of declining deer populations. As illustrated in Table 25 and Figure 14, deer is a substantial component of the wild food diet of many people on Kodiak Island. Recent high mortality of deer due to severe winters has strongly impacted the deer population in GMU 8. Biologists on Kodiak Island estimate there may have been 50% mortality of deer during the winter of 1998-1999 (Van Daele 2001). However, across the island, another factor was cited as a cause of deer population decreases. Increasing sightings of charter boats with what are perceived to be "off island" clients taking their full limits of deer is a concern for some island residents.

CHAPTER FOUR: OVERVIEW OF USE PATTERNS OF MOUNTAIN GOATS IN THE STUDY COMMUNITIES

In order to elucidate harvest and use patterns of GMU 8 goats, study results are summarized below in the context of the federal customary and traditional criteria (see Table 3)

1. A long-term consistent pattern of use, excluding interruptions beyond the control of the community or area.

Kodiak city and Road System Communities

The community with the longest history of harvest and use of mountain goats is Kodiak city and the road system. Since the hunt opened in 1968, residents of Kodiak city have hunted goats; the first goats were harvested in 1968 at Wild Creek and Terror Lake.

Some of the first goat hunting families in Kodiak city participated in this study. The son of a family that first hunted in 1969 has taken 9-10 goats (he is not sure anymore exactly how many he has taken). There are many others and their names appear repeatedly in the early permit records and today many of them still live in Kodiak city and apply for drawing permits. Other Kodiak city/road system study participants were more recent arrivals to the community. Seventeen (of 19) have hunted goats on multiple occasions. Many said that if they don't get a permit themselves, they accompany a friend or relative who did. While goat hunting is important to hunters in Kodiak city and road system, four years of surveys reveal that the number of deer users greatly exceeds the number of goat users. According to surveys of Kodiak city road system residents conducted in 1982, 1991, 1992, and 1993 (Table 25, Figure 14), shows 70-83% of the community used deer compared to 2-5% who used goats.

One surveyed family started hunting goats in the 1970's and the primary hunter has gone on 9 different goat hunting trips. This hunter has used boats, cars, airplanes and hiked on his various hunts. He was not always the shooter on the hunts but went as part of a group:

If five of us went hunting, we didn't shoot five goats under the old registration system because it takes 2 guys to pack a goat out. So we have taken 8 goats collectively. I took three on 9 different trips...The permits were issued by registration when we first started hunting. You could just go to ADF&G and register. Since the drawing started, I have applied for a permit every year...My family grew up on game meat. It was not a question of whether or not we like it,

it was what we were eating. We all grew up hunting so whenever we get the chance, all of my kids grew up hunting, girls and boys. The boys still live here. Last year, my son's wife helped pack his goat. Her pack weighed 75 pounds.

Another Kodiak city/road system hunter started to hunt goats in the early 1970s.

I think I've killed 5-6 maybe 7 goats here and I started hunting in 1972, '73, '74. You could just go. The only goat were up Wild Creek and Crown Mountain. How I got there? Went through Saltery Cove and then hiked in. Used a four wheel drive vehicle, there were no ATV's then. I remember when the Sportsmen's Association helped fund it. Put the goats on the Island. So people who make claims they have been subsisting off goats for years, false claims. You know local people here helped fund these goats to put in, they weren't put in by Fish and Game. People put them in themselves. But Fish and Game has done a good job managing them.

One study participant who was born and raised in Kodiak city has hunted with a friend for 25 years. Their first goat hunt was in 1987 and they have gone on two other goat hunts together. Another participant, also born and raised in Kodiak city, went on his first goat hunt when he was 14. His older brother took him on that hunt and he has been on three other trips. A few years ago, this participant's son received a permit and his uncle (dad's older brother mentioned above) went with him on his first goat hunt. A son of one of the earliest goat hunters in Kodiak city said he had hunted goats since 1971. He hunted with his dad, his dad's friends and has taken 6 or 7 total goats over the years. In one Kodiak city household, three generations of goat hunters participated in the study. The youngest had taken his first goat in 2001, the family harvested its first goat in 1969.

Communities with Less than 100 households

Goat hunting is important to many current and prospective goat hunters in Port Lions. There is a clear contrast between the number of goat users and the number of deer users through four years of surveys. Surveys of residents during 1982, 1986, 1989, and 1993 (Table 25, Figure 14) show 50-83% of the community used deer, 14-55% used elk, and only 2-5% used goats.

The first time Port Lions residents appear in the permit records is 1973. In 1977, two members of one family hunted together and have done so in subsequent years. Like the residents of Kodiak city and road system, they hunted in the area that was closest to them and at the time,

the only area inhabited by goats, near Terror Lake. Another goat hunter from Port Lions hunted in the same area more recently in 1994. In reference to unit # 473 he said,

It is the closest area to us and it's the one we usually [use], the locals here will put in to draw for and it is just east of Terror Lake. It is the closest for us, rather than going to the other side or...all those inland places.

Past and current surveys in Old Harbor show an interest in goats. However, compared to deer, goat use is low. Surveys of residents during 1982, 1986, 1989, 1991, and 1997 (Table 25, Figure 14) show 74-96% of the community used deer, 1-30% used elk, compared to 1-16% who used goats. In Old Harbor, the study participant who had used goat earliest said she first used it in 1980 when she received some from another household in her community. More than one person reported seeing goats since the late 1970s. One hunter said he took a goat in 1985 and wasn't sure if he had registered or not. According to the permit records, the first permit for an Old Harbor resident was in 1984, and a resident of Old Harbor guided a non-resident goat hunt near Old Harbor in 1985. Another hunter said his first goat hunt was with older people in the 1980's as a child during the registration hunt.

You used to just walk into Fish and Game and they would give you a permit and off you went. I was probably 14 or something like that, way back. I think I was with JS or KR, or one of them, one of them old elders.

Had they hunted goat before?

No, I don't think so, not that I know of. We just went because we had the opportunity to go and they changed it, put you in a drawing, now you've got to draw for them.

How were the elders at getting up there?

Good. Because these were bear guides that I was with, they were bear hunters for all their lives since they were little...

How did they like getting a goat?

They liked it.

Were they real interested in goats?

No, nobody was really interested in them. But they took meat when they got it...I'm sure the people from the lower 48 when they would come up here they had bear and goat permits so they...because the bear guides, the old guys, they would bring goat meat back with them from their hunting.

What would they do with it?

Give it away to people.

Was it divided any certain way?

No, they would just take whatever the hunter didn't want. The bear guide gave it to people who wanted it.

A fairly young hunter, 33, has never hunted goats but remembered eating goat meat when he was a child.

Just once when ever they had the registration hunts and they brought them down, you know when they get drawn for the hunt, the people around the village get one, that is the only way we get them.

He remembers seeing goats while out hunting other animals since he was about 14 (approximately 1980).

Another hunter said in 1982 he was on a sea lion hunting trip when he saw a convenient goat down low. He took that one but said he never harvested another one illegally because he did not want to push his luck. He has eaten goat meat a few times over the years when people shared it with him. One hunter said it didn't matter how long goats had been around, if he had done it "yesterday" it was part of his culture.

There is increasing interest in hunting goats in Larsen Bay. However, compared to deer and other resources, goat use is low. Surveys of residents in 1982, 1986, 1989, 1990, 1991, 1992, 1993 and 1997 (Table 25, Figure 14) show 81-94% of the community used deer and 3-35% used elk, compared to 2.5-4% who used goats.

In Larsen Bay, one participant reported first using goat in 1972 when she received it from another household in the community. She wasn't sure where the goat was harvested. She wanted to know when goats were legal by registration so she could calculate the approximate date. The first permit, according to ADF&G records, went to a Larsen Bay resident in 1993. A young resident, age 22, said his dad hunted goat once or twice when he was a child. Another

resident had a similar comment. He said "once in a blue moon" the elders would ask somebody to go out and get a goat. When asked if the elders ever worried about the hunter being cited, he said they did not worry, "it was just a subsistence thing, they probably didn't even take the hide or the horns and it was probably a low one at the head of the bay".

In Akhiok, one resident received a permit in the mid 1990s but there were no permit recipients or goat hunters at the time of the study and no respondents remembered any long-term resident ever hunting goats. Most people said no one from Akhiok had ever hunted goats. Several respondents said this did not indicate a lack of interest,

If we could get goats, we'd get them. If people say we are not using them it doesn't mean we don't want to use the goats. But, because it is illegal to hunt them, we don't hunt them. If we were able to get a subsistence hunt, there's a lot of people here that would go out and actively hunt them. We wouldn't take that much. I don't think we'd deprive the sport hunters in any way.

Residents of Akhiok have not reported any goat or elk use on past surveys in 1982, 1986, 1989, or 1992 (Table 25). Several residents reported goat use in the past during this study. There is a very high percentage of deer use. During the survey years, 60-100% of Akhiok residents reported using deer. Although they did not participate in the current study, the amount of deer and elk use in Karluk and Ouzinkie is of interest. Surveys were conducted in Karluk in 1982, 1986, 1989, 1990 and 1991. No residents reported goat use but 94-100% reported deer use and one year 8% reported using elk. In Ouzinkie, surveys were conducted in 1982, 1986, 1989, 1990, 1991, 1992, 1993 and 1997. In 1992, 2% of the community reported goat use. Over the entire survey period, 57-91% reported using deer and 9-60% reported using elk. (Table 25).

Goat and Deer Populations

The low use of goat compared to deer, island-wide, is not surprising. There are simply fewer goats than deer. Even though deer populations have recently crashed, the 2001 population estimate for deer is 40,000. The current population estimate for goats, a species that is thriving, is 1,400.

According to the naturalist, Douglas Chadwick, goats differ in many ways from most other game species and should not and cannot successfully be managed the same way:

To begin with, mountain goats grow and reproduce more slowly than most hoofed game species. Female deer on average range first breed as yearlings and regularly produce twins...females of the larger chervils--elk and moose--also occasionally breed as yearlings. Mountain goat females...almost never have been found to breed before two-and-a-half years of age, even under optimum conditions where herds were introduced to unoccupied food rich areas...in various studies of introduced herds...we find evidence of mountain goat females routinely failing to mature until three-and-a-half years of age, once a population fills its range to carrying capacity.

Among deer, elk, and moose populations, well over three-quarters of the mature females may be expected to deliver young most years. For goats, the percentage is more like 50 to 65 or possibly 70. Twinning is rare in most goat populations, though it does increase somewhat in association with light winter conditions.

One of the fundamental tenets of his [a game manager's] profession is that healthy wildlife populations produce a "harvestable surplus". And harvesting...actually stimulates the production of young by surviving females because they have less competition from within the herd for available food and other resources and therefore are more likely to stay strong, healthy, and able to carry fetuses to term. This is referred to as compensatory productivity or just compensation. In the case of the northern hoofed mammals, generally hunted in autumn, it is all supposed to work out to where shooting merely removes the same percentage of animals as would ordinarily die over winter, plus an extra percentage that is made up for by high birth rates in the spring....It helps if the hunted animal has evolved to exploit successional, or changing habitats. Brush fields and young forests for example, nurture deer...while marshes grow moose...Sooner or later a brush field will be replaced by an open forest, then by a closed forest, while the marsh will fill in to become a meadow...Fires, changing water channels, and other disturbances meanwhile will be creating new sites for shrubs and swampy vegetation elsewhere. The deer, moose and other successional species must be able to colonize and rapidly expand to fill those sites if they are to compete successfully as a species. Consequently their common adaptive strategy is to produce and disperse large numbers of offspring.

It also helps if the animal has evolved with consistently high levels of predation, for this too usually assures that it will have a high potential rate of population increase as a way of coping with environmental demands...it helps a great deal...if those natural predators have been eliminated...enabling man to partly mimic their role....this is the situation for most common game animals, a wolfless, cougarless...deer population is an ideal candidate for cropping...if unharvested, it will suffer overpopulation instead, leading to overuse of its range and starvation...[Cropping does not] apply well to prey species occupying unusual or sensitive niches--like the mountain goat. Cliff ledges, alpine and subalpine meadows...are...climax communities.

Just as they have no overwhelming need to scatter abundant offspring to take advantage of shifting range opportunities, [mountain goats] need not produce a population excess to satisfy a gamut of predators on top of other sources of mortality...the opposite is correct; the more or less predator-immune [goat] lives within a dominance hierarchy that operates as a population control mechanism, vital in helping avoid overuse of slow-growing permanent home ranges...social behavior in conjunction with winter conditions, not habitat transition or predators, regulate mountain goat numbers naturally...The need to harvest [goats] to prevent overpopulation and overgrazing doesn't exist (Chadwick 1983: 166-169).

2. A pattern of use recurring in specific seasons for many years.

The seasonal harvest of mountain goats has been directed from the start by Alaska Board of Game regulations for fall, September at first and then September and October. The few illegal goats that were mentioned during the study were taken during this time except for one reported taken in November.

Kodiak city and road system communities

As noted in the discussion of the first criterion, most Kodiak city/road system hunters interviewed for this study have hunted goats on multiple occasions. This is especially true for families that have resided in Kodiak city since the time of the first hunts. Most of these families hunted as often as they could when the registration hunts were available and have continued to participate as much as possible through the drawing permit process. Several people mentioned they prefer to hunt as late as possible because goat hides are best as winter approaches.

Communities with Less than 100 households

The same appears true for the remote communities. Including a few goats that were mentioned as taken without a permit, with the exception of one harvested in November, most goats taken in communities with less than 100 households were taken in the fall. One person said fall is the best time,

Because that is when the meat is better. Right now (spring) you wouldn't want to take one because they are having young ones, and you wouldn't want to mess with them until in the fall, or like in August if you see one, the meat should be good, they should be nice and fat, you don't want to get one that is skinny. Too tough.

Another person noted seeing accessible goats during fall sea lion hunting.

We hunt sea lion right in here in the fall time and I always see goats up on the mountain back here, half way up.

3. A pattern of use consisting of methods and means of harvest which are characterized by efficiency and economy of effort and cost, conditioned by local characteristics.

Figures 8, 9, 10, 11 (maps) illustrate that most study respondents hunt in the areas closest to their community of residence.

Kodiak city and road system communities

The primary mode of access for Kodiak city and road system hunters has been airplanes (Van Daele and Crye 2002: 137) but boat, car, ATV, and hiking have also been used extensively. One of the long-time resident Kodiak city hunters has gone on nine goat hunting trips, all of them in the areas closest to Kodiak city: Hidden Basin, Wild Creek and Crown Mountain. Even his more recent hunts are all near Kodiak city. In some cases, airplanes were the only way to access these areas but in other cases, he has used a car and a boat. Another long-time Kodiak city hunter expressed a similar tendency (See Tables 14 and 23).

When they started the permit areas, I only hunted the areas that I could hunt close by. I know they have expanded their range to the road system and Old Harbor. I never put in for those areas because I don't want to go down there.

One Kodiak city hunter who did go "down there" is a fisherman with a boat who had a friend with a cabin in the area, which was an incentive.

Communities with Less than 100 households

As noted above, Figures 9, 10, and 11 show that in communities with less than 100 households residents hunt in the areas closest to their community. Most people in remote communities don't use airplanes to access goat hunting areas. Boats, ATV's and sometimes just hiking were the primary modes of transportation.

In Akhiok, there has been one permit recipient and there were no goat hunters in the community at the time of the study. All surveyed households said no one from Akhiok had hunted goat before. When asked why no one applies for the permits, one respondent said,

It's more of a subsistence lifestyle. You go out, you know, when you need meat, you go and get it. You don't have to wait for somebody to draw your name out of a hat... Goats, we'd like to get them but we kinda don't get them because we're just not supposed to--but if we could, you know where there are places we can go that we know that we can access these areas and get them pretty easy.

In Port Lions, a goat hunter talked about hunting near the community and their practice of alpine hunting for deer, not far from goat ranges.

We are looking at the areas that are adjacent to our villages...Well, we do a lot of alpine hunting in the early fall for deer so it is not anything that we are not used to. So we do go up, right on the top looking for deer...

One family of Larsen Bay hunters flew to a nearby community to hunt with friends but used the commuter air service to get there, not a charter specifically for a hunt. Upon arrival, they went with friends in a skiff to their goat hunting area. When asked to map her goat hunt, a resident of Larsen Bay said they have never hunted near Kodiak city, just closest to where they live. In response to the question, "How does goat hunting compare with other hunting that you do?", a Larsen Bay goat hunter said,

Same...as bear hunts or deer hunting. Except nobody is foolish enough to go 3,000 feet up to shoot a deer and have to carry it all the way back...I'm a beach hunter.

In Old Harbor, a person who has a fear of heights said he would like to shoot a goat on the beach.

Yeah, if I see one that is kind of low, I'll probably, if I was subsistence hunting, I would probably go after it. I ain't going to go after it, just too tough. I mean its got to be in an easy place if I am going to hunt it for subsistence. Easy access so I can bring everything down, not waste any meat. I ain't going to shoot an animal if I'm going to have to leave him up there, that is no good.

Would they be good during the time when they are on the beach?

Well, not on the beach but lower and a little easier access where you could pretty much roll them down so you could get the whole animal down.

One hunter talked about goats coming down in the evening but said that it is not necessarily a good time to hunt them.

You would be stupid to hunt a goat in the coming evening time. You'd have to clean it and it wouldn't be right. Wait, do it at noon and you have lots of time, five hours to get out and everything.

Several people in Old Harbor mentioned that they see accessible goats while they are out harvesting other animals.

Up here, well you just see in your glass, you look in there and you can see them. We are just going up there when we are fishing in the fall, sport fishing.

Wintertime, yeah I've run into goats up in here when we are deer hunting. Well, there is a lagoon, it is in Three Saints Bay up in there. I've run into them while we are deer hunting, they are high in the snow...Sometimes they are way down.

You can always count on going to Deadman Bay and we're always seeing them in the spring when we are down there herring fishing...Three Saints Bay, pretty much in the spring early winter, they are down next to the beach.

Yeah, they have moved down further, I fish on the south end so I see them down in Deadman Bay, Olga Bay.

You just use the resources when you are in the area I think.

Like right now, February-March, excellent time. Because I go into Three Saints and I get rockfish and cod to eat. I sit there and there is basically mountains-mountains and there is water and the goats jump on the beach and you can shoot a goat.

I went up halibut fishing in the bay here this springtime, they are around in this Barling Bay, they're down low in the bay

From my house, I've seen them here, spring and fall. I also see them crossing the stream here. I go up here with my four wheeler in the wintertime, say December and have seen them down here, in spring and fall I watched them from my house over here. I'm out fishing or hunting around the mountains here in the north Sitkalidak Straits I see them, fall probably November, October, winter time.

When asked what time of year goat hunting would be best, one hunter said,

I'd say the spring because they are down lower and you don't have to go all the way up into the rocky cliff mountains and stuff:

4. The consistent harvest and use of fish or wildlife as related to past methods and means of taking near or reasonably accessible from the community or area.

The information presented under Criterion 3 pertains here as well.

5. A means of handling preparing, preserving, and storing fish or wildlife which has been traditionally used by past generations...

All respondents, island-wide, reported handling, preparing, and storing goat just like any other type of wild meat such as deer or elk. With only a few exceptions, most respondents said it generally takes two people to transport a goat from the field to home.

Kodiak city and road system

A long time Kodiak city hunter explained his preparation of goat meat as follows,

We cook it the same as we cook any other game meat. We butcher it the same: steaks, roast, grind, chunks.

Another Kodiak city hunter butchers a goat just like a deer and generally prefers young goats but when he had a chance to take a large one, he had to can it and it was okay; otherwise it was too tough. One goat hunter said he likes to hunt as late in the season as possible so the meat will stay cool. A Kodiak city hunter who has his goat cut at a slaughter house also stressed the importance of keeping the meat very clean and keeping all animal hair away from the meat. He said he hangs it for a long time and removes the hide right away to keep the meat cool.

Communities with Less than 100 households

Although no one currently in Akhiok has hunted goats, one respondent said,

Nobody wants heads. Heads and hides, that's the part you should be leaving in the field and taking the meat home.

In Port Lions, a goat hunter said he likes to let the meat sit for 3 days before putting it away. In Larsen Bay, a couple that hunted goats together said most of their cuts come out like blocks because,

Wife:...we had to block out where the bullets hit and where they didn't so we wouldn't lose more of the meat than we already had by killing in the beginning but the backstrap all came out very nice so we had some good breakfast steaks...

Husband: When you shoot those you can't just take all the bloody meat and then when it is all shot up, you just salvage all the meat you can. And these things, you have to shoot them a lot.

Another Larsen Bay goat hunting household said,

You know, goat meat is the only meat you can take right off an animal and eat fresh. There is no smell, it is just amazing.

In Old Harbor, goat preparation methods were similar to those in other island communities:

The same way you cook deer, you roast it or you fry it or you bake it ...whatever, stew...

When asked if any certain part of a goat is better, another respondent from Old Harbor said,

I imagine the tender loins are good. The front shoulders got a lot of the meat on it. They got more meat on the front shoulder than they do the hind quarters.

6. A pattern of use which includes the handing down of knowledge of fishing and hunting skills, values and lore from generation to generation.

Kodiak city and road system communities

In Kodiak city and road system communities, several families that participated in the study have hunted goats and taught their children to hunt goats. Nearly everyone, Island-wide, has said that there are a few differences but goat fits in with the rest of their hunting repertoire.

One Kodiak city hunter discussed the importance of learning the nuances of goat hunting from others...

In all the years we goat hunted, we never lost a goat that we didn't recover and there's plenty of people that have because they are inexperienced. They shoot them in a place where the goat falls off the cliff. You've got to be real careful about that. As far as, certainly, I've passed on knowledge to all my kids about hunting but that is because that is what our family does. Not just because we are in the guide business, but because that is the way I grew up.

In the family mentioned earlier with three current generations of goat hunters, the grandfather explained why he never shot a goat once he started taking his sons hunting,

Why am I taking them hunting if I am going to do the shooting? So I take them [and] they shoot, that is how they learn. If they wouldn't shoot, I wouldn't take them.

A young man who grew up in Kodiak city listening to his father tell stories about goat hunting ended up guiding a goat hunting trip even though he had never hunted goat before [he had hunted and guided hunts for other animals on Kodiak]. He said he felt comfortable guiding the hunt because he had heard the stories so many times he felt like he had hunted goat, he knew the area well, and the client agreed to it.

Communities with Less than 100 households

In Port Lions, a hunter who has not drawn his own goat permit hunted once with his dad who has been drawn twice. When the dad hunted for the first time, he got a big, older nanny and the meat was tough. When the son went with his dad on the dad's second hunt, they went after something different,

When we went out, we didn't go after the biggest one, we went after one that he could have mounted and have it look nice and it was a lot better tasting [a younger goat].

When asked how he learned to hunt for goats, a hunter in Larsen Bay responded,

I've grown up hunting...everything. For everybody pretty much. We used to have a lot of elders here, I mean _____, you would get a sea lion a month for her, a few

seals a month, she'd eat beaver, she ate duck head soup. She'd get hungry for a goat, you'd go whack her a goat.

Wasn't she worried about people getting arrested?

No, she always had me convinced that a young kid growing up can't get in trouble, "I'll protect you".

He added,

Well, with any animal, you get to know it. Any animal is the same to hunt.

While conducting surveys in Old Harbor, many respondents asked me if I had talked with three or four hunters who are known goat hunters. These hunters know where to find goats and often invite younger people to hunt with them and help pack the meat out. One of these hunters said he first hunted goat with elders as a teenager. A family member received a permit last year (2000) and he went with that person to help pack. They take kids hunting but don't let them go up on the rocks where it is slippery. They said they are trying to get people interested,

...especially the younger kids, 13 and 14 years old, I'm telling them to fill that stuff out and ask your mom and them for money and you don't need a hunting license to get a permit, you go.

Another Old Harbor goat hunter said he, too, tries to encourage younger people to apply to hunt goats and to go with him when he goes.

7. A pattern of use in which the harvest is shared or distributed within a definable community of persons.

Sharing of goat meat occurs in all Kodiak Island communities that harvest goat. Almost all communities describe goat as a special treat, not something that you expect to get often. This is because of the relatively low number of goats, limitations of the drawing permit system and also because a goat does not yield a large amount of meat. The differences in sharing among the various communities are subtle but specific.

Kodiak city and road system communities

In a Kodiak city road system community, a long-time goat hunter described his view of sharing,

We would share meat with somebody that wanted to taste goat meat.

And all the people on the hunt, would they want some of the meat or would they just go?

It would be a combination of...sometimes they would. Some people don't like game meat, some aren't interested, others are.

Has anyone ever shared with you?

I don't know that I ever asked anybody for some. I got a chunk from the one my son shot last year. But, no, we've never had a shortage of meat in our freezer so there would be no reason for me to ask somebody.

Another road system hunter said he liked goat meat,

Except that one. The old one, I made into sausage. I gave some to an old timer. Every time I see him he says not to bring anymore, his dog wouldn't eat it. We canned it, it was good and tender, made it into sausage with deer and other game.

He also had a system with his long-time hunting buddy.

Before they had the permits, I'd get one and he'd get one...If he's got a permit and I didn't [when the drawing system started] then I'd go in and help him and we'd pack it out. If I'd get one and he didn't, we'd share it because it is good meat.

One road system hunter goes and hunts with others because he hasn't drawn his own permit. He likes the meat and if he helps, he gets some of the meat, otherwise he is "always mooching it".

A goat hunter, originally from Prince William Sound, said in his experience there usually isn't enough goat to share much...

You don't get goat from people, they don't give it out. The amount isn't that much, not like moose. I probably have gotten some over the years but not memorable enough to remember. I would take it but I am kind of particular about how to handle it. If it was good, I would take as much as they would give. We

have given canned [goat] away to some friends of ours who are Mexican because they prepare some kind of dish and they thought that was a pretty big deal.

A multi-generational family seconded the view that "sometimes, people are pretty stingy with goat" and said they gave a little meat to close friends. Two Kodiak city guides/transporters said they regularly receive goat meat from clients, usually from the lower 48. Another guide who hunts goat for himself said he doesn't like the organs but brings them out because he knows elderly people who enjoy heart and liver. "Goat is special, you don't get it everyday" was the opinion of a Kodiak city hunter who gives goat to people who need meat.

A long-time Kodiak city goat hunter who has lived for extensive periods in rural Alaska offered this perspective on wild food sharing.

I trade stuff. I gave a friend a front shoulder of a goat. I think I owed him or he gave me some salmon. But it is not really part of my culture. The cultural thing is really funny. It depends on what kind of economy you are in. When I lived in the Arctic we would always hear that white men were stingy and selfish and didn't give stuff away and Native folks shared. I took some cultural anthropology too and your culture adapts you to survive in your environment and if I'm living on Island and me and 3 guys go out and get a bowhead or a walrus, I'm going to share. Next year when I'm not lucky and the guy on the corner gets it, then he is going to share it. I really don't' think there are certain humans that are more spiritual and caring than this other group. It might be so, I just think people and their economy and their culture is just what it is and I live in Kodiak city so there are times when I do share and I do trade. I have done that but it is not an established tradition for me. Sometimes I just want to give people stuff because they are my friends—if I have an abundance and, I only like to give it to people I know are going to enjoy it because I know some people are like oh, thanks, so I give it to someone who will really appreciate it.

Communities with less than 100 Households

In Port Lions, a person who hunts goat fairly frequently said,

I kind of just shared it around with friends, good friends, and didn't give a lot of it away because both my wife and I really enjoyed it. We like it, we really love it, it is good meat.

Another Port Lions goat hunter who harvested a goat [in another community] said he shared his goat with other people. When asked if younger people were the most interested he said no, the older people were the most interested and took it.

In Larsen Bay, a novice goat hunter split her goat with an experienced friend who helped her hunt and pack. A different Larsen Bay hunter who hunted near Old Harbor explained her dilemma,

There is not near enough. When I get one, when I got my goat and you see the	u
too because in, I have a lot of family over there too and in	_,
everybody wanted my goat. So I took a hindquarter and a back strap and gav	e,
the rest to and let himI said, " give some of it out". Wel	l,
#@%&! A goat, it is gone, boom.	

Respondents in Old Harbor said goat meat is commonly shared. As mentioned in criterion 1, in the past, local bear guides would bring goat meat back and share it. One person said there are hunters who do not eat goat but they get it for people who want to eat it. In Akhiok, although people there hadn't hunted goat, some had received it from residents of Old Harbor. I asked an Old Harbor goat hunter about this and he said,

If they ask for it and they have it, yeah, they just give it to them if you have it in your freezer.

I pretty much know on the goats [about community harvests] there was like, so far every year somebody has gotten a goat permit [in Old Harbor]. The meat is gone the minute we get down there... it is gone. People just take it, [snaps fingers]. I take what I want and people would come by and it would be gone instantly. Man they like it, it doesn't go to waste. They like it better than steak.

A long-time Old Harbor goat hunter, when asked how goats are used there said,

Everybody shares their goats, everybody shares what is harvested, everybody is allowed a piece, not any different than a seal or sea lion.

8. A pattern of use which relates to reliance upon a wide diversity of fish and wildlife resources of the area and which provides substantial cultural, economic, social and nutritional elements to the community or area.

In all Kodiak Island communities many people rely on a wide variety of fish and wildlife resources. In Kodiak city, many people moved there specifically to live that type of lifestyle. For most study respondents who were born and raised in Kodiak city and/or in the communities with less than 100 households, harvesting wild food is a central aspect of their lives.

Kodiak city and Road System Communities

A Kodiak city hunter recalled a meeting of the Federal Subsistence Board.

In 1990 when the feds said we are going to take over subsistence management, they said Kodiak wasn't a subsistence community and the entire town showed up and said we all live on fish and game.

Goat hunters sometimes take other species while hunting goat as this Kodiak city hunter recalled,

We've shot deer while we are hunting goat, nice big trophy bucks depending on how many people...[were there to pack].

Several hunters commented that they apply for a goat and a bear permit in the same area to possibly combine the hunts. Many of these hunters compared goat, elk and deer meat. Most of them said elk was their favorite meat, deer is what they eat most often and goat is a special treat. Two hunters talked about the quality of wild meat as opposed to the "chemical, hormone" laden, "inferior" product found in the grocery store. Almost every hunter has a hunting partner or family member they hunt with frequently. Some hunters said half the time, the actual harvest doesn't matter as much as being out on the land which is an important recreational activity for them.

Communities with less than 100 households

Some people have said that goat hunters would probably pass several deer on the way to goat habitat and therefore, goats really aren't a subsistence species. When asked what he thought about this comment, one Port Lions hunter said,

Well, if I was going for a goat, I don't think I would want to pack another deer.

What about people who say they can eat deer, they don't need goat?

Well, um, I thought goat tasted pretty good.

A resident of Port Lions who fishes near Alitak said he had tried to hunt reindeer a few years ago during fishing with no luck.

We tried, we couldn't get them. We went up here and hiked up and they just ran.

In response to a question about deer and marine mammal use, a Port Lions hunter said they don't use them like they used to

But just because people don't use them, we don't want to lose them. You just never know. You never know when you are going to need to depend on something like that. I would think the land, the deer are, you don't have to jump in the skiff and run out there and look for them, you can wander on back in the woods somewhere and run into one.

An Akhiok hunter said when the deer population got low, people turned to other resources,

We would kind of leave them alone, let their population grow again, try to ease off on them and then go after seal, we eat more of other stuff in order to let the deer grow back. We go after a few subsistence crab, and people, they stock up on salmon in the fall and halibut.

When asked which was more important, marine mammal hunting or deer, an Akhiok hunter explained his priorities.

When it is deer season, we usually get deer and at the same time, if the elders or anybody in the village says they want a seal, we'll bring seal back too. I don't think there is any real preference one over the other. At the time, what you feel like eating.

In Old Harbor, one elder described his favorite food.

Fish is my favorite, cod fish...I like codfish, salmon is my favorite. I've taken salmon out of a creek, spawned out, and I take him and I fillet him, skin him and I boil some octopus and grind it up with octopus and onion, make fish patties, oh that is so good!

A goat hunter talked about the preferences of the people who ask him to bring them goat meat.

Some people like it better than deer like I said. They'd rather have goat than deer maybe because of what they eat and stuff up higher.

Another goat hunter described a hunting trip by boat with several relatives. During this trip they took a goat and other types of animals.

...we got seal, we got deer, and we got crab and fish...you get what you can.

He added his opinion about the effects of fish and wildlife harvest regulations.

I don't really care who planted the animals, if they were indigenous to the land or whether they were planted, it doesn't matter. If there is a resource out there whether it be indigenous to the land or whether is has been planted, and there is a group of sport hunters claiming fame that they should own those and not allow subsistence, the local people which reside next to the resources and not allow them to go and get some subsistence hunts I think is bs. I can go on and on about that issue forever. I believe that the Native peoples, the rural people have lost enough access to resources and when you see the increase of social problems and low self esteem and pride, it has been these kinds of practices that have been detrimental to it. I really believe that, I believe by taking some of their practices away that the end result is a failing group of people. I mean that there's more social problems, more substance abuse, more family violence, more increase of alcohol, and everything that goes with it.

One young hunter told about his grandfather's multi-tasking while out on the land.

My grandfather was one of the herders [of introduced reindeer]. They corralled them here in the spring for the calves and then walked them back up into here for winter time. My grandpa was the mail man from Akhiok. He'd walk to Karluk, then Larsen Bay every month delivering mail. He just walked, he would go from Akhiok to Alitak to the mail boat and pick the mail up. Walk to Karluk, walk to Larsen Bay. He was also trapping and doing stuff at the same time. There's barabara's all the way up there. He just followed old bear trails. I think he learned the trails by doing the reindeer.

This hunter had never hunted goats. When asked if he had the opportunity to hunt a goat and if so, would he go out specifically for goat or would he just happen to see one and take it, he responded

It is just like subsistence, you go out and you get what resources are there, whatever's there at the time you're out there you harvest it because that is your usage, if there is a seal out there then you get a seal, if there's deer or ducks then you get those. You just use the resources when you are in the area I think.

CHAPTER FIVE: THE CONTEXT OF THE GOAT ISSUE: PERCEPTIONS

In the 1994 study, "Alaska Voters, Alaska Hunters, and Alaska Non-Resident Hunters: Their Characteristics and Attitudes Towards Wildlife", the ADF&G Division of Wildlife Conservation surveyed a wide spectrum of people to identify how they value and perceive wildlife in Alaska. One of the significant points quantified in this study was that many categories of wildlife users which are often perceived of as opposites, are not mutually exclusive categories at all. In fact, while wildlife viewers and hunters are sometimes perceived and portrayed as being on opposite sides, this study showed, for example, that many wildlife viewers are hunters and many hunters enjoy wildlife viewing (Miller and McCallum 1994: A109).

The same can be said for the results of the present study of "Patterns of Harvest and Use of Mountain Goats on Kodiak Island". When the purpose of the study was described to people around Kodiak Island, there were many different reactions. One person said, "How can you do a customary and traditional determination on something we are not allowed to take?" Another person said, "Why is this even an issue? Goats are a trophy animal, that is it." These comments represent the extremes of a highly dynamic continuum of beliefs, attitudes, values, and worldviews regarding mountain goats and the value and quality of life on Kodiak Island.

People across the island have definite perceptions of different types of user categories. Some people said there is no longer any such thing as a real subsistence lifestyle in any Kodiak community. Many people believe that all trophy/sport hunters, mostly from outside, take only the head and horns of game animals and leave meat to waste in the field. Other people think some sport hunters masquerade as subsistence hunters in order to get "easy" trophy animals and are not going on "real" goat hunts.

Interestingly, the reality is that everyone who participated in the study expressed concern for the continued health of the goat population. There are subsistence hunters who have their non-trophy quarry mounted. The majority of self-described trophy hunters eat and relish goat meat. Sport hunting guides can also be subsistence users, and everyone seems to be a wildlife watcher. "Trophy" hunters and subsistence users enjoy providing hormone-free meat for their families. Nearly everyone intensely enjoyed being out, on land and water, whether they were stalking goats on a rocky outcrop or watching them frolic on the beach from a boat. One self-

described trophy hunter who does not like to eat goat meat wants to be buried where his favorite herd lives.

A major division in perspectives and uses of mountain goats might be expected between the Kodiak city and road system communities and the more remote communities. No point of view was universally held in any community. Predominating opinions varied about how increased local access to goat hunts should be handled. The majority of people, island-wide, agreed that some type of increased goat hunting opportunities for the communities of less than 100 households would be acceptable.

The issue of Kodiak mountain goats is not an isolated topic. Many factors affect people's opinions and concerns. Commercial fishery declines, an increase in local guiding, declining deer populations, expanding goat populations, dependence on air travel within the island, dual State-Federal management, culture change, attitudes about subsistence, and cultural differences are a few of the factors that have made mountain goats an emotional and divisive issue.

<u>Island-Wide Declines in Income due to Commercial Fishery Declines Lead to more Sport Guides</u>

As noted in Chapter 2, Kodiak Island's economy is based primarily on the seafood industry, especially salmon. Declining fish prices in recent years due to the influx of farmed salmon in U.S. markets has strongly affected the Kodiak Island economy. In response to the downturn in fishing, some people have refitted their fishing boats for use as transport or charter boats. This has occurred in most Kodiak communities, excluding some of the very small communities. This change isn't just a switch from one job to another. In many ways it appears to be an economically forced value shift. Residents in several of the smaller communities were ambivalent about the increase in local guiding enterprises. One person believed the local guide businesses in his community were the only ones who benefited from increasing numbers of sport hunters. He feels that trophy hunters decrease opportunities for subsistence hunters. During conversations about goats, fishing often came up. Comments from surveys in small communities follow:

A lodge owner in a small community who used to be a commercial fisher and who now transports hunters talked about trophy hunting:

You don't see any trophies hanging in my house here. You won't see them in our lodge either because I am not a trophy hunter, never have been. We haven't, you

know we didn't start getting trophy hunters into this Alaska state until the [outsiders] started coming in here and trophy hunting for money.

Locals are having second thoughts [about fishing]. Heck we used to only get \$2.00 a pound for reds, now it is down to 45 cents a pound. I heard that is what their offer is going to be this year. I think that is the price they used to pay for pinks in the old days. One time we had it made when they were paying a \$1 a fish. Right now they are paying 11 cents a pound for pinks, you can't even get a dollar off it.

In another small community, a woman said, there were no good fishing jobs locally. She would like to see goats become a subsistence resource because all potential sources of food should be available to local people without jobs.

In Kodiak city and the road system, one person commented on the rise of local charter businesses.

The fishing boat thing has been a big deal. Since fishing has gone down there has been more and more people [in Kodiak city] that have said, hey, I'm going to take a load of hunters out from October to December...[a small community] is getting big time into this hunter trip thing too. If you are going to do subsistence, see I don't know.

A Kodiak city road system goat hunter explained his view of the situation,

In recent years, there are a few more of the guys [in small communities] have gotten interested in trophy hunting. There are now lodges in the villages, there is some of those guys I have been told have goat heads on their walls...interest has spread. But those people, there's a number of people in [small communities] that in the last 10 years they have gone from commercial fishermen to sport fishing guides. They've now gotten into the guide business. So they've, they're becoming more focused on visitor service, recreation type activities that they make their living from. [Some of them] want to shoot a goat to put the head on the wall...

The Decline of Deer

The Kodiak Island deer population has declined dramatically over the last several years. Some residents and most resource managers attribute the decline to harsh winters. However, some people in every community believe that over harvest by "Off-Island" sport hunters may be responsible. The ADF&G draft Unit 8 Deer Management Report of March 2001, states,

Winter severity increased in 1997 and during the winter of 1998/99 the Unit 8 deer population experienced its greatest decline in history.... The winter of 1998-99 was one of the most severe on record. Snowfall was only slightly above normal, but persistent cold temperatures prevented snow from melting, retarded spring green up and increased thermal stress on the deer. The net result was one of the largest winter mortality events ever seen in Unit 8. Exact data are not available but biologists both with the department and KNWR estimate that at least 50% of the deer succumbed to the harsh winter weather (Van Daele 2001a: 1-2).

This report presents a breakdown of hunter residency and success. For the 1999-2000 regulatory year, Kodiak Island residents comprised 37% of deer hunters and other Alaska residents were 43% of the deer hunters. Both of these numbers were down from previous years. Non-residents were 20% of the deer hunters, an increase from the five year average of 12% (Van Daele 2001a: 5). The report also notes that transport methods for deer hunters have changed: "In the past decade, the preferred transport method has shifted from aircraft to boats. Charter boats have become increasingly common throughout the archipelago, prompting conflicts with local hunters in some areas (Van Daele 2001a: 6).

Goat hunters who were interviewed about goat hunting repeatedly made comments about the decline of deer. One resident of a small community said:

I got my three deer this winter, right on the trails back here but...before when I was younger, you could just go on the beaches and find as many deer as you wanted.

Another resident had a different opinion,

A couple of years in a row were really, really sad looking, especially in this area for deer. The population is way down, It seems like we have made more trips and come back with no meat...Well see one of the problems here is the ferry comes in and then it seems like during the peak time of the deer hunting season you have got three, four different groups of bikers coming off of there and you know, we've got 3 or 4 deer per hunter or tags and multiply that times 3 or 4 groups, 3-4 to a group and figure four or eight trips of that on the ferry and what does that take out of here? It takes quite a little bit from one little area...

The whole idea [about the goat hunt] the whole intent here is shortage of deer in this area...at least we'd have something to go after.

Well, most of the time [there are deer around] but there are times when we have had some bad years, pretty rough winters and it killed a lot of deer. Springtime you can see dead carcasses here and there.

We are trying to tell the fish and game, trying to lower the limits on those people coming in from the outside because if they keep that up it is going to deplete our deer...driving them to extinction, if we don't put a limit. For us, we just take what we need, we don't go after our bag limit, we just know how much we can handle. I've just thought about it. If they get rid of one source of our dietary food we might have to go back to something else, we might even have to go back to bear meat too, if we lose our one species or two.

We get quite a bit of them, [charter boats] we get charter boats that come all the way from Homer, they come out during the deer season.

I'm concerned about crab boats that come down here deer hunting. When they are leaving they have 30-40 deer hanging right on deck...We have always been taught you don't take more than you need, don't abuse what the land has to offer. So we go out and we take what we need, it is used, it is put to use. But one boat, what could they possibly do with that much deer? A lot of it I know has to do with the cold winters we've had several years in a row because we found a lot of dead deer along the beach. But I think overharvesting, man, it has just been..and we don't know if they're just mainly taking the bucks. I think they just overdo it.

I wouldn't mind it if they allowed us to go subsisting for goats. You never know what might happen to the deer, maybe we might have to turn to goat one of these days. When I was raised we were brought up on bear meat. After Fish and Game or whoever found out there was a lot of money to be made in that they cut us off and then opened it up for these bear hunters.

In Kodiak city and road system, there were similar comments and various other opinions:

It is really aggravating me. They got charter boats. Some of these deer hunters. I hate it, I charter a plane way down here, it is really expensive and the reason I go all the way down here is because I have a chance of getting a really big buck. Then what do you see--a charter boat with six guys and they are living on this nice boat. We are in a tent on the beach, we are not mobile. And they're just going, "Lets go blast them" and they go and there is a big buck--bang!

[deer]...they fluctuate with the climate. Harvest is not impact, it is the

climate...Deer is your main thing and everything else is a little add on. 30s

I haven't been happy with the management of deer. I think they really have missed it on that. Too many taken in certain areas. They should have

complicated the regulations even more...it is blatantly obvious where there is and isn't deer.

Perception: "Trophy" is an Inherent Goat Trait

Throughout the study, when the issue of subsistence goat hunts came up, many people responded as if the concept were impossible, that goats are a "trophy animal" and could not be considered anything else. This is in spite of the fact that goats are hunted for subsistence in other areas of coastal Alaska and have been for generations. There are, however, misunderstandings about subsistence and subsistence uses. A good illustration is the following passage from Douglas Chadwick's book, A Beast the Color of Winter,

A friend who is a hunting guide once gave me a sample of mountain goat meat. It took a lot of chewing, but I found the flavor better than I had expected after hearing others describe it. As a rule, older goats tend to be too tough and gamy to suit most palates. Nevertheless, the older and bigger a goat is, the more value it holds for the average mountain hunter. This is because Oreamos is widely regarded as a trophy game animal, though it has never had the status among trophy seekers of the more impressively crowned--and tastier--bull elk or sheep ram.

Even when the hunters were native Americans, the beast was probably sought as much for its horns, fashioned into ornaments and implements, and for its woolly pelt as its meat. It seems not to have been hunted very heavily in any case, save possibly by certain groups in coastal territories where the goats so often range to rather low elevations (Chadwick 1983: 164).

This passage implies that Native Americans were similar to trophy hunters when using mountain horns for implements and the hide for blankets. The author does not acknowledge that using these items was not a "trophy use" but a subsistence use for items that were culturally and economically important.

The majority of comments about the "trophy" only aspect of mountain goats were from Kodiak city but they were also heard in communities of less than 100 households. In Kodiak city and road system one person said, "Goats as food is bull!" This comment probably had to do with the trophy aspect of the animal and also with the relatively small, amount of meat available from a goat.

Several Kodiak city road system hunters had similar opinions,

The idea of a subsistence goat hunt is bogus. Subsistence is when you can't afford this so you are taking an animal.

This hunter compared the idea of a subsistence goat hunt to his trip to the Koyukuk River to hunt moose which cost \$2,000.

It is a hard animal to hunt, that is why it is a trophy when you get one and it means a lot to get one because it takes a lot of work to do it.

For subsistence hunting, I don't think they should be subsistence, I mean goat is a sport animal! Some of the stories I told you, who is going to run up a mountain and do all the stuff I did to get a goat?

In a smaller community, one hunter said,

If subsistence was open I wouldn't have a problem getting a little one. You don't have that option, when you get drawn, you make it a big one and they are always tough so I always grind it into hamburger.

Perception: "Real Goat Hunts"

Some Kodiak Islanders hold strong views as to what constitutes a "real" goat hunt. One reason the idea of a subsistence goat hunt seems so outrageous to some is that the "sport hunt ethic" of goat hunting involves a rigorous hike up a mountain that often may take more than one day. Many people describe it as grueling and dangerous. Some people seem to consider taking a goat any other way as almost cheating or lazy. However, residents of small communities, said they would only be interested in a goat that was easily accessible; it wasn't worth it go to the top of a mountain to get an animal. This difference in opinion illustrates a difference in values associated with goats and hunting animals in general. The following comments from Kodiak city and road system residents and smaller communities show that a wide range of views is held in all communities,

One person in a Kodiak city road system community said,

They [residents of smaller communities] just want easy goats. They want them when they are down low and to me, that is not goat hunting.

Another Kodiak city road system community hunter described his view of goat hunting.

First of all, it is not a meat hunt. Do we eat the meat? Yes, we eat it all. We don't go on a goat hunt to fill the freezer. The economics of it, in most cases, the cost of flying in here, to bring 100 pounds of goat meat home, that is a big, big, big stretch to try to justify...

A hunter from Kodiak city who has taken approximately 7 goats since the early 1970's provided his view of goat hunting,

There are not very many people really that need to do subsistence if you would take it as a literal term. There is nobody in Kodiak that has to have that goat for food but then again I think subsistence is more of an experience rather than a financial necessity. I'd much prefer, I like to take the animal, I like the experience of it. But then I like to be able to feed my kids something that is completely free of steroids and that stuff...I would certainly take a goat, if I had the opportunity to take one on the beach for a meat source solely because I do that with deer. The goats have been more of an experience.

I don't think it is justified. I'm not a researcher to know what all this cultural and traditional is because I'm up there with a handmade hickory bow trying to hunt a goat. That to me is more traditional than any of that other stuff.

In Prince William Sound, people shoot goats when the snow comes [December]. They take snow machines to the base of the hill. No local person would get out in an airplane and hunt goats. There was a lot of goats there. Outsiders would come in but locals would wait until later to get them.

In one small community, a goat hunter shared his perspective on goat hunts in his area he thinks are too easy,

No airplane access. Because they are flying on top of the mountains and dropping people off in the mountains. One of my friends was up there goat hunting and he was like, pretty mad. A supercub landed and dropped a bunch of stuff off and then went back and got guys and dropped them off... make them walk... make them hike.

Perception: "Sport Hunters Waste Meat and Only Use the Hide and the Horns"

The perception of sport and trophy hunters as meat wasters was heard frequently throughout the study in communities of less than 100 households. Undoubtedly, seeing some "Off-Island" hunters come in and leave meat behind is something people may have witnessed. However, in some cases, it appears to be a perception that has been attached to all hunters who take the head and hide as well as the meat and other edible parts.

There is enough goats for everybody, especially the trophy hunters. I heard them say when they go hunting the meat is left in the field anyway, they just take the hide and the horns and whatever it is they are after.

Anyway, most of the people that are getting goat permits are head hunters. They're not taking the meat, they are giving it away or...

You know, there's a lot of guys that come here and I don't really like it. They get a deer and they just want the cape and the horns, they don't want nothing else but they give the meat to us. But still though, I still don't like it. If they could do that and go somewhere else and get away with it and not be watched, they would probably leave the whole animal and just take the head...

I don't feel it is right that they just allow outsiders to come in and take the meat or the hide and whatever. I never did believe it was fair that the big game hunters are allowed to come in and take the head, the skull and the hide and leave everything else. And the laws are just about jammed to us sideways, backwards and you name it to take everything out that we could possibly do. So, something is out of balance.

Trophy Billy or Tender Meat?

While often perceived as an "either/or" proposition, the majority of people who responded to the study use the meat of the goat as well as a part that is considered a trophy. There are those who only use the meat and those who only use the hide and head but the majority of people fall in both categories, or the single category of user. Comments from Kodiak city and road system and the smaller communities illustrate this point.

From the Kodiak city and road system:

I wanted a big billy and to have it mounted but I didn't get one. Goat meat is excellent. It is different from deer. We slow cook it and it is tender. We don't make burger we use the whole animal, back strap--chicken fried goat and great stew. Lots of people don't want to hunt goat but they like it.

It is not like we think about it like, my freezer is empty I need to go get a goat, it is not like something that we have to have every single year. They are basically a trophy animal and in a lot of cases, not something you need to go kill because your freezer is empty. All the goat I've eaten is real mild. It tastes nothing like deer. Goat is real mild; not strong. All the animals here are so free from the things that are in what you get in the store. Goat meat is good. We eat it every chance we get.

The thought of using mountain goat to stock up on food is kind of like using bald eagle eggs or something. It is not going to be very efficient in my estimation although I understand people are opportunistic. The guy I shot this one with [referring to mount on the wall], the first thing he did was measure the horns and say, "Oh, it is only 9.5 inches". A trophy is 10 inches. For me, the beauty is the shaggy white fur and they are cool, muscular animals, they live in high places.

Our hunting, our purpose for hunting was sport activity, looking for a trophy billy and some cases any mature goat, most of the time looking for a decent billy. It is just about being able to find that good animal and take it. It is not so much about heads on the wall. The goats that we shot, I still have the horns from them, got the hides tanned, at least two of the heads were mounted by non-residents who hunted with us.

In communities with less than 100 households, more people expressed a preference for small goats but there were also those who looked for big goats and some who had goats, large and small, mounted and on display.

There is only one person [in this community] who saves antlers on the deer they get. Other than that they take all the meat they can. All the meat they get is for subsistence and no trophy hunting.

If subsistence was open, [for goats] I wouldn't have a problem getting a little one. You don't have that option, when you get drawn, you make it a big one and they are always just tough so I always grind it into hamburger but I don't put any fat in it. Just lean hamburger and ANY way you cook that you would cook store bought beef, alright? It is ten times better.

She was like 8 or 9, it was a nanny goat. She was 9 and 3/8 or 5/8...Just short of where I could have got in the record book. I shared it with the guy that went out, we split it 50/50.

If you are going to shoot one to eat you don't want to shoot a big old billy, you want to shoot one that is kind of medium sized. It wouldn't be so tough. The meat would be a lot better because it is smaller. The big animals seem to be a little tough.

...some of the people that hunt them, they don't [eat them], they just get them for the people that want to eat them. Some people like them better than deer because they don't get down in the kelp and stuff on the beach. It is getting easier to get these [goats] I think because there's getting so many of them...

I usually don't look for a trophy when I go there, I shoot the first one I see. If it is a female with a young one I'll leave it alone but if it is by itself, I'll harvest it.

What time of year, if there was a subsistence hunt on goat, what time of year would you like to get one?

For safety wise, I'd say the spring. Because they are down lower and you don't have to go all the way up into the rocky cliff mountains and stuff.

Do you think a lot of people that live here would want to hunt goat for the trophy too?

Subsistence wise? You know mostly that's what a lot of them put in for registration (permit) that is basically what the goat is targeted for, registration (permit) the hide, their horns, In a sense, yeah you are thinking both ways to harvest the meat and harvest the hide and the horns, just like the deer you know. If you go out deer hunting, you're looking for a big deer with big horns, you get a lot of meat out of a big deer.

Why mount them when you can see them in your backyard? Same thing with bear, they ask me why don't you kill a bear and keep the hide. Why put it on my wall when I could look out my window.

I don't think it could turn into a normal year-round food. My impression is that they don't hunt them, they are too hard to get, they don't taste very good.

If I do kill it is for food purposes only, I don't care about the trophy on my wall, that don't mean nothing to me. Of course, as part of the culture, you utilize as much as you could of the whole animal, so that's not saying that the subsistence hunters shouldn't be allowed to do that. They should be able to do anything they want with their furs or anything, any part of the animal if they want to have it mounted so let them have it mounted, you know what I mean?

I think he got one in 1994, my dad did, it was a big nanny and it wasn't too good. When we went out, we didn't go after the biggest one, we went after one that he could have mounted and have it look nice and it was a lot better tasting.

One goat hunter in a small community had a goat head on his dining room wall. When asked what size it was he said,

It is a little billy, he's just a three year old or something like that.

Pilots and Perceptions of Many Goats

There is a perception Island-wide that goats are abundant. Part of this perception is related to the fact that most people in communities with less than 100 households have to fly frequently across the island. According to some accounts, observing goats while flying is not just a matter of luck; instead, some pilots intentionally use routes that will take them over goat country. During the study, while flying back from a community off the road system, the plane flew closer to the mountains than usual and provided an excellent view of tracks winding all over the tops of ridges. When we landed, I asked the pilot if he had observed any goats. He said no, but he was looking for them because the area over which we had flown had recently been opened for goat hunting.

A goat hunter, former pilot, and study participant who lives in a Kodiak city road system community used to be a pilot and said,

I flew air taxi for a long time. It was neat to see the goats' progression down the Island. I enjoyed looking for the goats. There are cuts you could go through that are not normal travel routes and you could see them.

Other Kodiak city goat hunters had these opinions,

In the last 4-5 years, down low here, right now, you can see goats from the road at Kalsin Bay. They are a lot more visible now and people think there is a lot more of them, there is probably really less. They are along the periphery, they have dispersed from their original concentration and seem to be hanging out in lower, more visible elevations. On my first hunt 10-12 years ago it was very green. In later years, there has been less vegetation, the snow lasts longer now, the snow pack sits.

In smaller communities, several people mentioned seeing goats while flying with a pilot who pointed them out,

Sometimes you can ask the pilot, hey you know if there are any goats around here, and if he has the time, he will fly around and show you. They just like spotting them.

Another person reported seeing goats while flying from Kodiak city to her community. She said the pilot flew over an area specifically so they could see goats and said not to say anything about seeing them there. She said she thinks it might be because a man who built a cabin in the area has been taking hunters out for goats.

...we flew last fall from the head of Zachar Bay down to Koniag Lake, we saw over 400 of them.

You know there's plenty of goats, there is a lot of animals. Seems like they are increasing all the time, the population seems to be growing. In Kodiak, that area that you fly in, you see herds and you never used to see goats there. You fly and just see them running just before you get into Kodiak.

There's more and more goats. There is Barling Bay, there were 25 goats down with the deer on the beach. On the sides, below, down. These ones right here, these are on the beach. These are real close. I see hundreds of them out here. That is just by plane. They are on all of these hills.

They go down to the beaches too, all the way to the beach. I never really saw that [before] so I know there's getting more and more because if they are going down to the beaches that is telling you that they are eating all their food up high and they've got to go lower and lower, they are getting more and more. There are getting more and more goats.

._____

There is goats galore in the middle of the island there... I mean I have a hard time believing that there is only a thousand animals on the island because when you fly...[you see a lot] Personally, I don't see what would destroy that population of those animals, I see them growing and growing.

Perception: "If You Don't Get a Permit When You Need Meat, You Go Out and Get It"

When talking about the drawing permit system for goats and hunting seasons in general, some people in communities with less than 100 households said they try to stay within the law but don't hesitate to take what they need when they need it. A couple of people acknowledged taking a goat illegally when they came upon one. Some people expressed fear of enforcement as a reason they don't take illegal goats.

There was an expectation by a few that this study might yield exaggerated harvest reports of illegal goats as a possible attempt to turn goats into a customary and traditional species. At least one or two illegal goats were acknowledged in all study communities including Kodiak city and road system, except for Akhiok. The low number of reports of illegal goats did not appear to be information intentionally withheld as people spoke freely about taking other species illegally.

In regard to goats, one person said,

I've personally never seen one on the beach because I would have shot it.

I would like to shoot one up there but I'm afraid, you know, of getting in trouble.

I'm not a real big hunter. I hunt to provide food legal or illegal.

One person, who lists deer as his favorite food said,

We've gotten deer in the summer time if we are tired of fish and want something else.

We've been gathering sea gull eggs for 5,000 years and we ain't going to stop because of some fine print on paper. That is just part of growing up out here, come this time of the year, seagull eggs are coming out. It's not like there is a shortage of them.

Another respondent said he wanted people to be able to take goats legally, just in case they needed them,

... it is not to a point where it is a matter of survival but I'm saying that there may be a day come, you see, that is why we are working now to try to make this thing happen. If there is a day coming that we've got to depend on them [goats] whether it is by law or not by law people are going to take them whether...they're going to take them. For crying out loud so let's make it legal.

Reliance on Introduced Species

As noted in Chapter 2, there has been a shift in subsistence patterns on Kodiak Island from marine mammals to an emphasis on introduced terrestrial mammals. Table 25 and Figure

14 illustrate the importance of deer in every community on the island. Even prior to transplants of wildlife species on Kodiak Island, this process had begun during the Russian period.

In one small community, a family said they eat more deer than the limit allows. They said they eat it every day and their kids won't eat beef.

I hear a lot of [positives] and negatives about a subsistence hunt. People say well it shouldn't be subsistence because it hasn't, it was introduced to the island not like the bear, fox and stuff. So was the deer, the deer was introduced but we have subsistence rights to it. Now they're working on the birds and eggs, for us to subsistence hunt the birds later on in the year. I would like to see it go through but then there's other people like hunters that come up, do their hunts, and registration for them and pay to do their registration. I see their point of it too. I don't know. I would like to see it pass, I would like to see a subsistence goat hunt.

It is Traditional to Take What is Available

In communities of less than 100 households, several people opined that although goats may not meet the customary and traditional criteria, it is traditional to take what presents itself on the landscape.

I don't really care who planted the animals if they were indigenous to the land or whether they were planted, it doesn't matter. If there is a resource out there, whether it be indigenous to the land or whether it has been planted, and there is a group of sport hunters claiming fame that they should own those and not allow subsistence, the local people, which reside next to the resources and not allow them to go and get some subsistence hunts I think is baloney.

Would you go out specifically for goat, if it were a subsistence hunt, how do you think it would work?

It is just like subsistence, you go out and you get what resources are there you know, whatever's there at the time you're out there you harvest it, because that is your usage, if there is a seal out there then you get a seal, if there's deer or ducks then you get those. You just use the resources when you're in the area, I think.

A hunter in another community said,

Why can't we use them if they are there?

Permit Issues

In all communities opinions varied on the issue of drawing permits. The commonality throughout all communities and individuals is that everyone would like to get drawn more often.

In Kodiak city and road system communities, many current goat hunters were around when all they had to do to hunt goats was obtain a registration permit and they could hunt every year.

According to one long time hunter,

When we got these permits, the reason that ADF&G could continue to manage a two month season by registration permit, meaning anybody could walk in and get a permit and go goat hunting is because not very many people did it. They just weren't interested. So, the few of us that were doing it could do it every year, we could do it several times a year if we wanted to which we did.

I have lived in Kodiak since 1984. I haven't drawn a permit since...but have managed to finagle my way into some other hunts. My son has drawn four in a row but didn't use them because he had to go back to school...I like the drawing permit, it gives everybody equal and fair access to it. I think there ought to be some reserved for residents of Alaska. Kodiak ought to be, it is our Island, yeah, but I think there should be a statewide preference. I think that is fair and reasonable. I would like to see Alaskans have some rights to it.

They are increasing the number of permits when they can and why push it when they are doing well.

I have had good experience with the permit system. I don't try for the more popular areas either...There is not a whole lot of people that want these areas. Most are going to be Crown Mountain, Terror Lake. The area closer to town is a lot harder to get permits. I don't put it for those.

My buddy at work gets one every year. Some people have strategies, I put my wife in too. I like what they do, ADF&G. The stats are on the front of the application. The staff is helpful. Take people who were drawn last year out and the draw from those who didn't and work down from there. Rotating fairness, maybe another can of worms...Total randomness is fair but it could be more fair.

If something like this had been implemented maybe we wouldn't have to do this registration stuff.

In smaller communities, similar issues related to permits were reported, as well as others that were not mentioned in Kodiak city and road system communities.

In one community, a hunter said money was an aspect of why people there haven't hunted for goats,

I don't know, since they had to pay for the goat hunt, they don't go after them but for subsistence I would just like to go to give it a shot, I know it is hard work...

Do many people here apply for the permits to hunt them?

No, no that hasn't been open to us, nobody wants to pay to go hunting goats, they are so hard to get.

Another person said,

I tried once a couple of years ago and you just don't...a drawing. I don't know how it is, do you pick them out of a hat or what. I don't know, you just never get drawn. On the other hand, there are some other people that do it for the first time and get drawn the first time.

In another community, one family was worried that many people get permits and then don't use them. They were especially annoyed with people from other places who apply for and obtain permits in areas near their community and then decide not to use them because it is too far away or too expensive, indirectly keeping locals from a better chance at that permit.

I have a comment on that, you have to fly in to town to get your paperwork, to show your license and all of that [horns], you have to actually be, like you do for bear permits, and that is really expensive...[some people]...Can't afford it.

So, if people mail in their permit application, you still have to go into town to show your license?

You have to fly in with your goat head and they measure it and tell you the age. But a lot of them don't even have money to put in. Like the \$5 choices, they don't have the money to, they are low income. And a lot of them don't understand how to fill stuff out, the paperwork. A lot of them, I have to help them. Show them what to do. I am trying to get a lot of people interested, especially the younger kids, 13 and fourteen years old I'm telling them fill that stuff out and ask your

mom and them for money and you don't need a hunting license to get a permit, you go.

If you don't hunt or use goat, why don't you?

Probably because it is, first of all, I'm not that keen on filling out state permits, for a drawing state drawing on permits and stuff you know.

If you don't hunt or use goat, why don't you?

Me, basically because it is a drawing, hard to get it, that is basically it. I tried applying for it. Just like the bear and the elk, I never got either all my life. There's some people that just get them every year, the same people, it is strange. I was told a specific way to fill those out too (goat permit application) I just didn't. A fish and game person, he said it was pretty specific...I was there in the Anchorage building, and I said I needed help filling it out. ... Now I see that they put a sample on the back of how to fill it out.

Goat Management Suggestions

One of the last questions on the survey was, "How would you like goat hunting to be managed?" On this question, significant differences in opinion were noted between Kodiak city and road system communities and communities with less than 100 households. In Kodiak city and road system communities, most people wanted goat management to stay as it is for the continued health of the resource. In communities with less than 100 households, most, but not all, people wanted goats managed for subsistence and increased local use, usually with the condition that there were enough goats and the goat population would not be harmed.

In Kodiak city and road system communities, there were many views,

I know one thing, they are trying to stave off federal management of goats and I'm totally in favor of that. I don't think the feds have any need to be involved. The proposed compromise, that makes sense. I admire ADF&G, I think they do a real good job.

I'm in favor of the proposed compromise only because I don't want to see it go subsistence. I'd go every year if we could and the problem is, there is about 700 other guys in the community that would go too if they could. The resource can't handle that. The other thing is that there are access issues and some places are really accessible and that is where the goat hunting would take place.

Subsistence goats, if it would be advantageous to everyone ok but I don't think the harvest numbers should increase. I don't know how you would keep track of that under subsistence regulations. I could see harvesting a few more but I would be very leery of allowing people to harvest goats from easily accessible locations. I'd make it more, you can only take a goat from here to here but not these in case they go down to a bay or something. All these go down to Hidden Basin and there are houses there and people would get in their skiffs and go get them... I don't know, I don't know if it is a good idea to have ADF&G do subsistence or not because what you are going to have is guys from Anchorage that are going to come down on a deer hunt in a boat and they are going to be the ones taking the subsistence goats. It is not going to provide many opportunities for local people to go out and take subsistence goats.

Opinions in Smaller Communities

Several people said they would like for goats to be managed like subsistence bear hunts. One person said she would like to see an allotment for each community based on the goat population in the area. One goat hunter said she didn't think there was any difference between the permit system and the "subsistence thing" because through both there are many people that get permits who don't use them and that frustrates her.

I think the subsistence is a great deal because you aren't going to hurt the population but if there was any kind of ...ANY kind of feeling in the air that this might endanger or hurt the goats, I would be totally against it... I like it being a subsistence animal. I think the subsistence animal they ought to do it, like the bear. Go a month before a month after.

One hunter worried about the longevity of the registration hunt. He is concerned that if the registration hunts are based on the numbers of leftover goats after the permit harvest each year, then the number of leftover goats might begin to decrease. Another small community resident considered the notion of a subsistence goat hunt as being ridiculous. He said the State put goats on Kodiak as a game animal, not subsistence. He said he would love for goats to be managed for subsistence but continued, "that is not what they are here for."

Several people were adamant about goats remaining strictly a trophy animal. A couple of people didn't want them hunted at all by anyone because they are so "beautiful" and live in such a difficult area, they would prefer to have them there to watch.

One thing that is important to me is that when we were trying to establish a subsistence hunt, that that is just what it is, a subsistence hunt. I don't want to in

any way increase opportunities for sport hunters. There is enough of them out there in the drawing hunt. To carry them over into a subsistence hunt-there's just too many people out there.

Another resident said wanted to see the permit system stay in place because he fears goats would be over harvested and he thinks they are "neat" animals to watch.

A woman in a small community said she too enjoys watching the goats. She said in the past year she lost her mother and was divorced. Sometimes she rides her bike (atv) up into the hills and sits below the goats and they make her feel relaxed.

CHAPTER SIX: CONCLUSION

In 2000, a member of the public requested that the Federal Subsistence Board (FSB) establish a subsistence hunting season for mountain goats on federal lands in GMU 8. In order to take this action, the FSB must determine that this wildlife population supports customary and traditional subsistence uses, following a procedure set out in regulations. In 2002, the Division of Subsistence of ADF&G, at the request of the federal Office of Subsistence Management of the USFWS, conducted research on patterns of use and harvest of mountain goats on Kodiak Island (GMU 8) to assist in addressing this issue. A systematic survey of 151 households in four nonroad connected communities was administered, as well as open-ended interviews with 15 key respondents (goat hunters) in these four communities and 19 key respondents in Kodiak city and the road-connected area. In addition, maps of hunting areas were prepared and permit records examined.

Mountain goats were introduced to Kodiak Island in 1952 and 1953. Since the initial transplant at Hidden Basin--Ugak Bay in the northeastern portion of the island, goats have expanded to most suitable habitat and now number 1,400 animals. The first legal hunting took place in 1968. Over the entire history of the Kodiak Island goat hunt, 1968-2001, approximately 2,979 goat hunting permits have been issued.

From 1993-2001, an average of 133 permits have been awarded annually to an average of 712 applicants. The breakdown of permit recipients from 1986-2001 by place of residence shows that, 49% of these permits were issued to residents of Kodiak city and the road system, 3% to other communities within the Kodiak Archipelago, 40% were issued to other Alaska residents, and 7% went to non-residents. The residence of the remaining 1% of permit recipients is unknown. Since the drawing permit system began in 1986, through 2001 approximately 133 permits were issued per year and the average annual harvest was 45 goats. The number of goat harvests and permits awarded have increase as goats spread across the island and the population increased.

The permit records indicate the first year a community began receiving permits and the number of permits the community received each year: Kodiak city and road system, since 1968 an average of 42 per year; Port Lions since 1975 an average 1 permit per year; Old Harbor, since 1984 an average one permit per year; Larsen Bay, since 1993 an average 1 permit per year;

Ouzinkie, since 1977 and has received 2 permits in that time; Akhiok, since 1995 has received 1 permit in that period; and Karluk received one permit in 1990.

Prior findings of research by the Division of Subsistence are consistent with the permit records. Systematic household surveys beginning in 1982 found very little to no uses or harvests of goats in the six off the road communities. In Kodiak city, 5 percent or less of households used goats in any study year. The findings of this study examining goat hunting in 2001 are consistent with these earlier findings. There appears to be a gradual, modest increase in uses of goats in Old Harbor and Larsen Bay as the population has become more accessible to local hunters. Akhiok has yet to begin using goats but residents are interested because they see them when they are out hunting other species such as sea lion and deer. Residents of Karluk and Ouzinkie have not expressed interest in goats because, as they put it, there are none in their area

Overall, the patterns and uses of mountain goats are similar throughout Kodiak Island. In all communities, the primary part of the goat that is used is the meat and in all communities, at least some residents also harvest "trophy" parts such as the head, the hide and the horns. Sharing of goat meat occurs in all surveyed communities. The quantity of sharing varies from community to community, probably depending on how many permits residents of that community received. There are, however, some differences. The difference in modes of transportation between Kodiak city and road system communities and smaller communities is significant. In Kodiak city and road system communities, aircraft is the primary form of transportation. Although many Kodiak city road system hunters use boats and hike/atv in, these are the predominant forms of transportation in smaller communities. This appears to be because people in smaller communities are hunting for goats in easily accessible areas. As road system hunt units are opened, this is increasingly the case in Kodiak city as well. One point of view is that spending a large amount of money to charter an aircraft to hunt a goat indicates that goats are too expensive to be categorized as a subsistence resource animal. However, the fact that residents of smaller communities are not flying in to get goats indicates that people are using less expensive means to arrive at goat hunting areas, sometimes while out hunting other species.

The length of goat hunts may also indicate a notable difference between Kodiak city road system goat hunters and those in smaller communities. Many Kodiak city goat hunters describe the experience of being out on the land and in "God's country" when they hunt goats. The average length of hunt for Kodiak city hunters was 3 days. In smaller communities, the average

goat hunt lasted for 1 day. This too, indicates a convenience or efficiency factor in smaller communities that may not be an issue for residents of Kodiak city who take a longer time for a hunt experience.

Both the Federal Subsistence Board and the Alaska Board of Game have recognized customary and traditional uses of some introduced wildlife populations. Both boards have established subsistence hunting regulations for deer in GMU 8, and the FSB provides for subsistence hunting of elk as well. Hunting for these populations dates to the early 1950s (Burris and McKnight 1973). Use of deer is extremely common in all Kodiak communities (Table 25), while elk are widely used in communities near their range. When compared to deer and elk, goat use is minimal throughout Kodiak Island.

The difference between the amount of goat use and use of other species is foremost a matter of biomass (Smith 2002 personal communication). There are simply far fewer goats than there are deer. Additionally, although they have spread across the island, goats were introduced in the 1950s; deer and elk were introduced in the 1920s. The very small, though normal and healthy population of goats, drives the system of management, a drawing permit system, that intentionally keeps goat harvest numbers low in comparison to deer hunts. Generally, a resource works its way into a "traditional" pattern if it is sufficiently abundant and there is opportunity to hunt it. The situation with Kodiak goats is that they will always be "scarce" and subject to limits on participation, unlike deer. There are less goats and their biology is different from deer, therefore, there are less to be hunted. Traditions may develop around available and "new" species and the ebb and flow of a mix of resources, whether they arrive via natural expansion or are introduced by humans. The small number of goats and their recent availability has limited the development of traditions surrounding their use.

A range of views exists among Kodiak Island community residents about whether mountain goats are or could be used for subsistence purposes. Some of the reasons listed by people who oppose a subsistence goat hunt include: because goats were introduced, they can not be a subsistence species; they are too difficult to be a subsistence hunt because one has to climb to high elevations to reach them (for a "real" goat hunt); it is not possible to hunt enough of them to fill a freezer, individually they provide little meat; and if people in smaller communities want to hunt goats, then more people should apply for permits.

Those who would like a subsistence goat hunt maintain that goats are now part of their landscape; while there may not be enough history of use to satisfy customary and traditional criteria, it is customary to hunt what is there; it is hard to develop a pattern of use for a resource that is perceived as forbidden; goats are needed to compensate for the decline in deer; and with commercial fishing declines (cash income), all potential food resources are important.

Many people who would like to hunt goats but haven't applied for a permit, cited the cost as one reason they haven't applied--not lack of interest. They expressed concern about spending money to apply to hunt an animal they may not get. There is also confusion about the expense of having to personally take the horns to Kodiak city, as regulations required in the past, if they successfully harvest an animal. They expressed a lack of faith in getting drawn. There appears to be misunderstanding and confusion about the drawing system in all communities, but especially in smaller communities whose residents may feel they have less access to the Fish and Game office to personally ask questions.

In this situation, there appear to be two diametrically opposed views. However, as noted in Chapter 5, in reality there is much less polarity than is perceived. In 1980, the Division of Subsistence formulated recommendations regarding subsistence hunts to assist the Board of Fisheries and the Board of Game in implementing the new subsistence law passed in 1978. The purpose of the recommendations was to facilitate Board decisions regarding customary and traditional uses of species on "an area by area, case-by-case basis". One of the recommendations, "Characterization of Subsistence Use" requested "the Boards to recognize that while subsistence is characterized as the direct uses or barter of Alaska wild resources, customary and traditional uses actually vary greatly area-by-area, species by species and over time" and should be "analyzed along a continuum" (ADF&G 1980: 3).

The uses of GMU 8 mountain goats may be analyzed along a continuum whose extreme ends are represented by the positions listed above, those for subsistence goat hunts and those opposed. The reality is, the majority of Kodiak Island residents surveyed for this study who use or have used goats (a small minority of all residents) fall in the middle of a use continuum. For some the priority is food, for others recreation. But across the island, the meat is the most frequently used part of goats, in all communities there are people who use the meat as well as parts that are perceived as "trophies." Finally, the majority of respondents stressed a concern for the continued health of the resource.

POSTSCRIPT

After proposals WP03-21a and WP03-21b were submitted to the Kodiak/Aleutians Federal Subsistence Regional Advisory Council in 2000, a committee was formed in an effort to create a local solution to the goal of increasing local goat hunting opportunities. The joint Kodiak Fish and Game Advisory Committee-Kodiak/Aleutians Federal Subsistence Regional Advisory Council working group developed a proposal which was submitted to the Alaska Board of Game for consideration at the March 7-17, 2003 meeting in Anchorage. Proposal 110 included increasing the amount of drawing permits and initiating local registration hunts to follow the drawing permit hunting season. Registration hunt permits would be issued in the village nearest each hunt unit and Kodiak city registration hunts would be an archery hunt only. The original end date of the proposed registration hunt was December 5. The Board of Game carried the proposal with an amendment to change the end date of the proposed registration hunt to December 15.

Following the Board of Game action, the Kodiak Aleutians Federal Subsistence Regional Advisory Council voted to recommend that the Federal Subsistence Board reject proposals WP03-21a and WP03-21b at the March 20, 2003 KARAC meeting in Kodiak. The Council recognized that rejection of the proposals would allow the implementation of the local solution created by the joint Kodiak Fish and Game Advisory Committee-Kodiak/Aleutians Federal Subsistence Regional Advisory Council working group adopted by the Board of Game. The local solution provided a mountain goat harvest opportunity to all island communities, whereas the federal staff customary and traditional use recommendation would not have provided a harvest opportunity to those communities that did not have as strong a goat harvest record as other communities. The Council added that the recommendation to reject the proposals does not prohibit the Council or anyone else from submitting a federal customary and traditional use proposal for Kodiak Island mountain goats at a later date.

The Federal Subsistence Board consented to reject proposals WP03-21a and WP03-21b at the May 20-22, 2003 meeting in Anchorage. The customary and traditional status of Kodiak Island mountain goats was not changed; it is still negative under both state and federal regulations.

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APPENDIX A:
State and Federal C&T Status of Introduced Species Across Alaska

	HISTORIC				STATE	FEDERAL
SPECIES	RANGE?	LOCATION	GMU	YEAR	STATUS*	STATUS
BISON	NO	COPPER RIVER	13	1950	NO	NO
BISON	NO	DELTA	20	1928	NO	NO
BISON	NO	CHITINA	11	1962	NO	NO
BISON	NO	FAREWELL	19	1965	NO	NO
CARIBOU	YES	KENAI PENINSULA	15	1966	NO	NO
ELK	NO	KODIAK/AFOGNAK	8	1929	NO	YES
MOOSE	NO	COPPER RIVER DELTA	6	1949	NO	YES
MOOSE	NO	BERNER'S BAY	1	1958	NO	YES
MTN. GOAT	NO	KODIAK	8	1952	NO	NO
MUSK OX	NO	NUNIVAK ISLAND	18	1935	NO	NO
MUSK OX	NO	NELSON ISLAND	18	1967	NO	NO
MUSK OX	YES	BARTER ISLAND	26	1969	NO	YES
MUSK OX	NO?	SEWARD PENINSULA	22	1970	NO	YES
MUSK OX	YES?	CAPE THOMPSON	23	1970	NO	YES
BEAVER	NO	KODIAK/AFOGNAK	8	1925	UNDET	UNDET
CARIBOU	NO	ADAK ISLAND	10	1958	UNDET	UNDET
DEER	NO	PRINCE WM. SOUND	6	1916	YES	UNDET
FOX	NO	ALEUTIAN ISLANDS	10	1913	UNDET	UNDET
HARE	NO	KODIAK/AFOGNAK	8	1934	UNDET	UNDET
MARTEN	NO	PRINCE OF WALES ISLAND	2	1934	UNDET	YES
MARTEN	NO	BARANOF ISLAND	4	1934	UNDET	UNDET
MARTEN	NO	CHICHAGOF ISLAND	4	1949	UNDET	UNDET
MTN. GOAT	NO	BARANOF ISLAND	4	1923	UNDET	YES
MUSKRAT	NO	KODIAK	8	1925	UNDET	UNDET
CARIBOU	YES	NUSHAGAK PENINSULA	17	1987	YES	YES
DEER	NO	KODIAK/AFOGNAK	8	1924	YES	YES
DEER	NO	YAKUTAT	5	1934	YES	YES

^{*}FROM ALASKA GAME REGULATIONS NO. 30, 1989, EXCEPT GMU 6 DEER, A POSITIVE FINDING FOR WHICH WAS MADE IN 1997.

APPENDIX B

ALASKA DEPARTMENT OF FISH AND GAME, DIVISION OF SUBSISTENCE U.S. FISH AND WILDLIFE SERVICE

The purpose of this project is to learn more about the patterns of harvest and use of mountain goats on Kodiak Island. The Alaska Department of Fish and Game Division of Subsistence is conducting the study with the assistance of local researchers. The U.S. Fish and Wildlife Service Office of Subsistence Management is funding this project. Interviews are voluntary and individual and household information is confidential.

The study is being done in response to a proposal to the Federal Subsistence Board. The proposal requests the Federal Subsistence Board to reconsider Management requested the ADF&G Division of Subsistence to do this research and summarize its findings in a report that will provide the information its 1991 negative customary and traditional finding for Kodiak Island mountain goats and create subsistence hunting regulations for residents of the Kodiak Island Borough. A staff analysis by the U.S. Fish and Wildlife Service Office of Subsistence Management recommended that action on this proposal be delayed until more information on uses of mountain goats could be collected. The U.S. Fish and Wildlife Service Office of Subsistence needed for another customary and traditional determination of Kodiak Island mountain goats.

Date Date						
Interviewer					YESNO	
Community HHID I	HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD?	ETHNICITY?	WHAT IS THE LONGEST EITHER HEAD OF HOUSEHOLD HAS LIVED IN THIS COMMUNITY?	DO YOU/HOUSEHOLD LIVE HERE YEAR ROUND?	* DID YOU OR OTHER MEMBERS OF YOUR HOUSEHOLD HUNT, HARVEST, USE, EAT, RECEIVE OR GIVE AWAY MOUNTAIN GOAT FROM KODIAK ISLAND BETWEEN (JULY 2001-MAY 2002)?	*HAVE YOU OR OTHER MEMBERS OF YOUR HOUSEHOLD EVER HARVESTED, USED, EATEN, RECEIVED OR GIVEN AWAY MOUNTAIN GOAT

If the answer to one or both of the *starred questions above is **yes**, go to the next page.

If the answer to both of the *starred questions is no, skip to the last page.

MOUNTAIN GOAT USES IN GMU 8 JULY 2001-MAY 2002

BETWEE	N JULY 2001	I AND MAY:	BETWEEN JULY 2001 AND MAY 2002 DID YOU OR OTHE	THER MEMBERS OF YOUR HOUSEHOLD	JSEHOLD		HOW MANY PEOPLE
							IN THIS HH
GMU 8	USE? HUNT?	HUNT?	HARVEST?	DID YOU RECEIVE GMU 8 GOAT FROM?	8 GOAT FROM?	GIVE AWAY?	HUNTED?
GOAT	GMU8 GOAT GMU8GOAT	GMU8GOAT	GMU 8 GOAT	ANOTHER HOUSEHOLD	SPORT HUNTERS	GMU 8 GOAT	GMU 8 GOAT
211600000							

HOW DID YOU GET TO YOUR GOAT HUNTING AREA DURING JULY 2001-MAY 2002?

. ОТНЕК	
BOAT	
ATV	
PLANE	
FOOT	

(select only one above, the primary type of trans. used)

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HOW MANY DAYS DURING JULY 2001-MAY 2002 DID YOU AND/OR MEMBERS OF YOUR HOUSEHOLD HUNT FOR GOAT?

		JUNE UNKNOWN						
		JUNE						
MARK		MAY						
, PLEASE I	Ŀ.	APR.						
-MAY 2002	RVESTEDI	MAR.						
JULY 2001	MBERS HAI	FEB.						
OLD FROM	HOLD MEN	JAN.						
HOUSEHO	OR HOUSE	DEC.						
BY YOUR	UOY HTNO	NOV.						
MALE FOR EACH MOUNTAIN GOAT HARVESTED BY YOUR HOUSEHOLD FROM JULY 2001-MAY 2002, PLEASE MARK	ER THE MC	OCT.						
IN GOAT H	BOX UND	SEPT.						
H MOUNTA	INSHADED	AUG.						
FOR EACH	X IN THE U	JULY						
MALE	of FEMALE X IN THE UNSHADED BOX UNDER THE MONTH YOU OR HOUSEHOLD MEMBERS HARVESTED IT.	UNK.						
#	of	MG	1	2	3	4	5	

WHICH PARTS OF MOUNTAIN GOAT DID YOU USE JULY 2001-MAY 2002?

AIDE HEAD	MEAT	N N N N	HORNS	FAT	HEART	GUTS	LIVER	OTHER

PAST USE OF MOUNTAIN GOAT IN GMU 8 (BEFORE JULY 2001)

HAVE YOU OR MEMBERS OF YOUR HOUSEHOLD USED MOUNTAIN GOAT IN THE PAST?	HOLD USED MOUNTAIN GOAT II	N THE PAST?	YES NO	
IF YES, WHEN WAS THE FIRST YEAR?	, ala	DID YOU HARVEST	and/or F	RECEIVE [
IF YES, WHEN WAS THE LAST YEAR?]IQ	DID YOU HARVEST	and/or F	RECEIVE
HOW OFTEN DO YOU OR MEMBERS OF YOUR HOUSEHOLD USE GOAT?	2-3 TIMES PER YEAR	ONCE PER YEAR	EVERY FEW YEARS	ONCE
HAVE YOU OR MEMBERS OF YOUR HOUSEHOLD HUNTED MOUNTAIN GOAT IN THE PAST? IF YES, WHEN WAS THE LAST YEAR? IF YES, WHEN WAS THE LAST YEAR?	HOLD HUNTED MOUNTAIN GOA	T IN THE PAST?	YES NO	
HOW OFTEN DO OR MEMBERS OF YOUR HOUSEHOLD HUNT GOAT?	2-3 TIMES PER YEAR	ONCE PER YEAR	EVERY FEW YEARS	ONCE
HOW HAVE YOU AND/OR MEMBERS OF YOUR YOUR GOAT HUNTING AREA IN THE PAST?	JR HOUSEHOLD ARRIVED AT	FOOT PLANE	ATV BOAT	ОТНЕК
HAVE YOU OR MEMBERS OF YOUR HOUSEHOLD HARVESTED GOAT IN THE PAST? IF YES, WHEN WAS THE FIRST YEAR? IF YES, WHEN WAS THE LAST YEAR?	HOLD YES NO			
HOW OFTEN HAVE YOU OR MEMBERS OF YOUR HOUSEHOLD HARVESTED GOAT?	2-3 TIMES PER YEAR	ONCE PER YEAR	EVERY FEW YEARS	ONCE
, in in it.	i din i			

IF YOU TOOK A GOAT LAST YEAR, (BEFORE JULY 2001) DID IT AFFECT WHETHER OR NOT YOU HUNTED OTHER ANIMALS? WHAT OTHER RESOURCES DID YOU HARVEST WHILE YOU WERE HUNTING GOAT? LARGE LAND MAMMALS Drown bear 213000000	O _Z	WHY DID YOU HUNT GOAT LAST YEAR? (JULY 2001-APRIL 2002)
ORE JULY 2001) T AFFECT WHETHER OR NOT HUNTED OTHER ANIMALS? T OTHER RESOURCES DID YOU HARV WERE HUNTING GOAT? GE LAND MAMMALS 210800000		
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elk 211400000		
FISH		
salmon 110000000		
other 12000000		
PLANTS AND BERRIES,		
berries 601000000		
greens/mushrooms 602000000		
MARINE MAMMALS		
harbor seals 300806000		
sea lions 301200000		
FURBEARERS 220000000		
MARINE INVERTEBRATES 50000000		
BIRDS AND EGGS 400000000		

Community_

Patterns of Harvest and Use of Mountain Goats on Kodiak Island, Game Management Unit 8

MAPPING OF KODIAK MOUNTAIN GOAT HUNTING AND HARVEST PRESENT AND PAST

	Where did you hunt goat du JULY 2001-MAY 2002?	nunt goat during :MAY 2002?	Where did you harvest goat during JULY 2001-MAY 2002?	rvest goat during MAY 2002?	Where have you hunted goat in the past?	hunted goat in ast?
Location	HUNTED Y/N	MAPPED Y/N	HARVEST Y/N	MAPPED Y/N	HUNTED Y/N	MAPPED Y/N
DG 471						
Wild Creek/						
Center Mountain						
DG 472						
Crown Mountain						
DG 473						
Hidden Basin						
East Terror Lake						
DG 474						
Uganik River						
DG 475						
Zachar River						
DG 476						
Kiliuda Bay						
DG 477						
Southwest Kodiak						
DG 478						
South Road						
System						
DG 479						
North Road						
System						
ОТНЕК						
отнек						

Patterns of Harvest and Use of Mountain Goats on Kodiak Island, Game Management Unit 8

MAPPING OF KODIAK MOUNTAIN GOAT SIGHTINGS

WHERE DO YOU SEE GOATS? PLEASE LIST SPECIFIC PLACES AND TIMES OF YEAR.

Location	TIME OF YEAR	FIRST YEAR YOU SAW THEM THERE	MAPPED Y/N
DG 471			
Wild Creek/			
Center Mountain			
DG 472			
Crown Mountain			
DG 473			
Hidden Basin			
East Terror Lake			
DG 474			
Uganik River			
DG 475			
Zachar River			
DG 476			
0/4 50			
Kiliuda Bay			
DG 477			
Southwest Kodiak			
DG 478			
South Road			
System			
DG 479			
North Road			
System			
ОТНЕК			
отнек			

KODIAK MOUNTAIN GOAT SURVEY SUMMARY

HOW DO YOU THINK GOAT HUNTII	HOW DO YOU THINK GOAT HUNTING IN GMU 8 SHOULD BE MANAGED?
IF YOU DON'T HUNT OR USE GOAT, WHY DON'T YOU?	T, WHY DON'T YOU?
DO YOU HAVE OTHER QUESTIONS	DO YOU HAVE OTHER QUESTIONS, COMMENTS, OR CONCERNS ABOUT SUBSISTENCE THAT YOU'D LIKE TO SHARE WITH US?
INTERVIEW SUMMARY:	Please write down any comments, opinions, ideas or other information that does not show up on the survey form.
Community	

APPENDIX C

Key Respondent Questions

Key respondent interviews included the following topics but discussions were open and other topics were included by respondents:

Please tell about experiences related to goats

- When, where, how did they first observe goats
- When, where (see below) did they first hunt goats
- How did they learn to hunt goats
- How does goat hunting compare with other kinds of hunting
- Experience with drawing permit system
- Other hunters or former hunters in the community
- How are goats used in the community
- How should goat hunting in GMU 8 be managed

APPENDIX D

2003-2004 INDIVIDUAL DRAWING PERMIT APPLICATION Applications will NOT be DEPARTMENT USE ONLY
Amount Submitted DEADLINE MAY 31, 2003 accepted over the counter. **APPLY EARLY!** Mail to: If you provide a daytime phone number (8-5 AST) **ADF&G Drawing Permits** we will attempt to contact you and resolve appli-P.O. Box 228080 cation errors only when practical and if time permits. Anchorage, AK 99522-8080 IMPORTANT SEX See back for instructions (see below to apply by internet)
You must answer NUMBERS 1-10 for the application to be accepted! Drivers License OR State Identification Number STATE NUMBER PHONE NUMBER (M-F, 8-5 AST) 1. DATE OF BIRTH (MONTH - DAY - YEAR) 3. LAST NAME 2. FIRST NAME 4. MAILING ADDRESS 5. CITY 7. COUNTRY 8. ZIP CODE 6. STATE 10. ALASKA HUNTING LICENSE (CHOOSE ONLY ONE--A, B, or C) (A) 9. RESIDENCY (CHOOSE ONLY ONE) -OR-B. Applied for license- not yet received Alaska Hunting License Number Resident--current Alaska resident -ENTER SIGNATUREor resident by starting date of hunt SIGNATURE -OR-Alaska resident under B. Nonresident Regulation requires license purchase BEFORE 16 years of age applying for drawing permits. Proof of purchase Nonresident Alien -ENTER AGEwill be required before permits are issued. (Must be at least 10 yrs. old by start of hunt) (Country: Required only if you are applying for hunts 11. IBEP* CERTIFICATION NUMBER identified Certified Bowhunters Only *International Bowhunter Education Program Use the spring Drawing Supplement to list hunt numbers TO APPLY OVER THE INTERNET: FALL (1 choice per season) SPRING www.state.ak.us Nonresident Kodiak Bear apply with credit card (click hunters using \$5 DB 1 \$5 DB S registered guides online fish and game licenses) \$5 or 10 ALL other 2nd Choice 3rd Choice 1St Choice download application (click on hunters wildlife and fish, go to permits) \$ \$5 DB \$5 DB Bear \$5 DB REMEMBER: (\$5 each hunt choice) \$5, 10 or 15 d Use only hunt numbers listed in the Moose \$5 DM 2003-04 Drawing supplement. \$5 DM \$5 DM \$ (\$5 each hunt choice) s Apply for the same hunt number only \$5, 10 or 15 once on all (individual, party, or Bison \$10 D I internet) applications combined. \$10 DI \$10 D I S C Apply for no more than 3 different (\$10 each hunt choice) C Apply for no more than 3 different hunts per species on all (individual, party, \$10. 20 or 30 or internet) applications combined. Mt. Goat \$5 DG \$5 DG \$5 DG \$ 3 If you applied for Koyukuk moose during the winter application period, those (\$5 each hunt choice) \$5, 10 or 15 choices count as part of your 3 total hunt Elk \$5 DE \$5 DE \$5 DE choices allowed for the year. \$ (\$5 each hunt choice) z If you won a 2002-03 permit, you are \$5, 10 or 15 ineligible for that hunt this year. m If you apply by internet, do not apply Caribou \$5 DC DC \$ \$5 DC \$5 by mail for the same hunts. (\$5 each hunt choice) Applications postmarked after May \$5, 10 or 15 31st or received after June 10th will be Muskox \$ \$10 DX returned to sender. \$10 DX \$10 DX (\$10 each hunt choice) **PAYMENT INFORMATION (DO NOT SEND CASH)** \$10, 20 or 30 **Expires** ☐ MC # Total # of \$5 hunts applied for = ____ x \$5.00 = ____ Visa# Total # of \$10 hunts applied for = ____ x \$10.00 = ___ Check or money order

Providing false information on this application is subject to a maximum penalty of either a \$5000 fine or 1 year imprisonment, or both, per 5AAC92.020, 5AAC92.062, AS16.05.420, AS16.05.925 and AS11.56.210. If requested by ADF&G or Fish & Wildlife Protection to provide additional information to support answers on your application, you must comply or you will be cited.

Signature.

(payable to State of Alaska)

Grand Total = _

2003-2004 INDIVIDUAL DRAWING PERMIT APPLICATION INSTRUCTIONS

Drivers License OR State Identification Number

Enter the state abbreviation and number of your driver's license or state ID card.

1. Date of Birth <Required> Enter your date of birth.

Example: MM DD YY Aug. 15, 1972 08 15 72

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11/14/31/95/61/16/9	0 08-15-1972	907 555 555
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AMCHORAGE	IIIII AK KISA	99999
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	(<u>사 건강 </u>	L.B. Applied for Demon-sort yet received ENTER SIGNATURE:
A IX Resident-current Alaska sensions or resident by starting class of heri	1 1/2/3/9/5/6/7	
B. Horesident	OR-	annuale.
	C 18 years of age	Regulation requires bosons purchase BEFORE
C	-ENTER AGE-	applying for drawing periods. Proof of purchases will be required before periods are because
THE PERTAPOSTON MANGER		ared only if you are applying for hunte
TO BE THE PERSON OF THE PERSON		of and Associated Barries and are Arch.

Daytime Phone Number

Enter your daytime phone number where you may be reached Monday-Friday 8:00am-5:00pm (Alaska Daylight Time). If a phone number is provided on the application form, an attempt will be made to contact you to resolve correctable errors, only when practical and if time permits.

2-8 Personal Information

<Required>

PRINT your first name, middle initial and last name exactly as it appears on your hunting license. Be sure to include Jr., III, etc. after your last name. Use only capital letters. If there are not enough boxes, continue in the blank space below name.

- Your personal information is required in order to mail application results.
- All applicants will be notified by mail within 15 days of the completed drawing.

9. Residency <Required>

Choose <u>one</u> category and place an X in the appropriate box defining your resident status in Alaska.

- A. Resident: Current resident (see below) or complete your residency requirement before the first day of the hunt.
- B. Nonresident: United States citizen who is not a resident of Alaska.
- C. Nonresident Alien: Citizens of a foreign country who are not residents of the United States.

Resident: is a person (including an alien) who is physically present in Alaska with the intent to remain indefinitely and make a home here, and has maintained that person's domicile in Alaska for the 12 consecutive months immediately preceding the start of the hunt. (AS16.05.940(26)).

KODIAK BROWN BEAR HUNTS

have a maximum of 3 choices.

Nonresident applicants applying for guided Kodiak Brown Bear hunts have only 1 choice per season. Residents and nonresidents accompanied by 2nd degree kindred relatives

10. Alaska Hunting License <Required>

Choose one category and fill in the required information.

A. Enter your Alaska hunting license number. It can be either the current year's license or next year's license.

-OR-

- B. If you have ALREADY purchased a license by mail or over the internet, and have not yet received it, sign in the box. You MUST have purchased a license, either by mail or over the internet, prior to applying for drawing permits. A copy of your license, showing date of purchase, may be required.
 -OR-
- C. If you are under 16 years of age and do not require a hunting license, enter your current age. You must be 10 years old by the starting date of the hunt.

11. Bowhunter Certification Number

You must have obtained your International Bowhunter Education Program (IBEP) certification in order to apply for hunts that have been restricted to bowhunting (archery) only. If you are applying for any of these hunts, enter your certification number.



100 Series Bear Hunt Numbers -- Kodiak Bear Hunts

Nonresident hunters using a registered guide may apply for 1-Fall and/or 1-Spring hunt.

20

200 Series Bear Hunt Numbers--Kodiak Bear Hunts

Residents & Nonresidents hunting with a 2nd degree kindred relative (See definition below).



300-900 Series Bear Hunt Numbers--All other bear hunts.

ALL Hunters

Maximum Total 3 Bear hunts

2nd Degree Kindred: a relative who is an Alaska resident over 19 years of age and is your: father, mother, brother, sister, son, daughter, spouse, grandparent, grandchild, brother- or sister-in-law, stepfather, stepmother, stepsister, stepbrother, stepson, or stepdaughter.

TO APPLY OVER THE INTERNE WWW.state.ak.us		: SPANG DANN Canadamiliosis Suc		UT TO LIST HANT NO	MOCEA
apply with credit cord (click ordine lieb and game (corner)	at "	karters subsy registered publics	1 80 at		S
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Check or money order	Card #	AND THE PERSON	Total # of \$10 has	n appled to - 🔏 1190:	0 +2(/
(payable to State of Alaska)	Separation			Grand Total	• £

Determine the amount necessary to pay for your selected hunts and include a check or money order, or fill in the credit card information and sign. **DO NOT SEND CASH**.

APPENDIX E

STATEWIDE:

Home - What's New! - Site Index - Search - Contact Us

How Does the Random Drawing Work?

There are 3 types of permit hunts: drawing, registration, and Tier II. Only drawing permit hunts require fees and are awarded by lottery.

All drawing permit applications are entered into a computer database. Once entered, each application is carefully checked for 18 potential problems such as duplicate applications for the same hunt, correct hunt numbers, date of birth, hunting license information, etc.

The computer then randomly assigns a number to each hunt on each valid application. The random number is referred to as your "draw number." Party hunt applications receive one draw number for each hunt. That is, both applicants on the party hunt application receive the same draw number per hunt, so if that number is drawn, both party members receive a permit.

Permits are awarded to applicants with the lowest randomly assigned draw numbers up to the number of permits allocated for that particular hunt. If five permits are to be awarded for a particular hunt, the five permits will be given to the first five lowest draw numbers until the total permit allocation is awarded. For example, if four of the five permits have been awarded, and a party application has the next random number, the party application will be skipped. This is because there is only one permit left available, and two permits would have to be awarded for a party application (one for each member of the party). The permit will instead be awarded to the next individual applicant whose number is selected.

After all permits have been tentatively assigned for a particular big game species, the listing is gone through to identify whether any individual has been selected for two permits for that same species. When this occurs, the individual is awarded a permit based upon their first, second or third choice of hunts on the permit application. The other permit is then made available to the first individual applicant with the next lowest draw number.

Alternate lists are used in a few specific hunts to maximize hunting opportunity. The alternate list is generated from all remaining (unselected) applicants using the draw order already assigned in the original random draw. If the applicant originally drawn does not notify the department of intent to hunt by the date required, the next applicant(s) on the alternate list will be offered a permit, until all permits have been awarded.

How can I improve my chances of being drawn for a permit?

- *Apply early!* By applying early, there is more time to verify your application and provide you with an opportunity to correct any error. If you provide a daytime (8-5 ADT) phone number, an attempt will be made to resolve application errors when practical and as time permits.
- Prior to applying for drawing permit hunts, you must obtain or have applied for an Alaska hunting license. Your Social Security number is required information on the drawing permit application.
- Read the drawing permit hunt application instructions carefully (the instructions are included with the application form). Fill out your application accurately, and submit the correct amount of money with each application.

In 1999 about 3,500 hunt applications of the 82,000 submitted were rejected. The most common errors were applying for more than 3 hunts per species, missing or invalid hunting license information, duplicate applications for the same hunt, incorrect or missing residency information, and applications for a hunt which had been won in the previous year. In addition, hunt applications of one party member were invalidated due to errors of the other party member.

- Apply for a maximum of three hunts per species. Note: you may apply for a total of three hunt choices per big game species, and the chance of winning a permit for a particular species usually increases with each additional hunt applied for. For example, 17% of the hunters who applied for only one caribou hunt number won a permit, while 33% of the hunters who applied for two caribou hunt numbers won a permit, and 46% of those who applied for three caribou hunts won a caribou permit.
- Apply for less popular hunts (see the table on the bottom of the Drawing Permit Hunt Supplement for the odds of being drawn for any particular hunt).

Back to the **Permit Hunts** webpage.



Wildlife Conservation Home | Top of Document

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APPENDIX F

MOUNTAIN GOAT HUNTING SEASONS

GAME MANAGEMENT UNIT 8

REGULATORY

YEAR AREA SEASON BAG LIMIT

Initial proposal for transplanting goats on Kodiak Island came from Sportsman's Organizations, Alaska Game Commission, and the U.S. Fish & Wildlife Service

1948

In 1952-53, 18 goats (7 males, 11 females) captured on the Kenai Peninsula and released at Ugak Bay

1952-67 Unit 8 No open season No open season

Goat hunting allowed, a harvest quota of 10 animals is announced

1968-70 Unit 8 Sept. 1 - 30 One goat, up to 10 permits and 5 alternate

permits by public drawing. Successful hunters are required to present the forward

portion of the lower jaw.

Number of drawing permits increased

1970-71 Unit 8 Sept. 1 - 30 One goat, up to 15 permits by public drawing.

Successful hunters are required to present the

forward portion of the lower jaw.

Number of drawing permits increased and hunting season expanded, harvest quota increased to 15 animals

1971-72 Unit 8 Sept. 1 – Oct. 30 One goat, up to 25 permits by public drawing.

Successful hunters are required to present the

forward portion of the lower jaw.

Permit hunt change from drawing to registration

1972-74 Unit 8 Sept. 1 – Oct. 30 One goat, up to 15 goats by registration

permit to be closed by field announcement. Successful hunters are required to present the

forward portion of the lower jaw.

Hunting not permitted east of a line from Saltery Creek north to Crag Point, Successful hunters required to present horns, and Emergency Order closes goat season on Oct. 14, 1974 when the harvest quota of 15 goats was achieved.

1974-75 REGULATORY	Unit 8	Sept. 1 – Oct. 30	One goat, up to 15 goats by registration permit to be closed by field announcement. Successful hunters are required to present their goats' horns and the forward portion of the lower jaw for inspection when they report to Game Division after the hunt.
YEAR	AREA	SEASON	BAG LIMIT

In 1976, the area draining west and south into Hidden Basin Creek from Crown Mountain and the area draining east and south into Wild Creek from Crown Mountain between the mouth of Hidden Basin Creek and the mouth of Wild Creek was closed to hunting due to low composition counts.

1975-76 Unit 8 Sept. 1 – Oct. 30

One goat, up to 15 goats by registration permit to be closed by field announcement. Successful hunters are required to present their goats' horns and the forward portion of the jaw for inspection when they report to Game Division after the hunt.

Lower Jaw requirement eliminated.

1976-77 Unit 8 Sept. 1 – Oct. 30

One goat, up to 15 goats by registration permit to be closed by field announcement. Successful hunters are required to present their goats' horns and the forward portion of the jaw for inspection when they report to Game Division after the hunt.

Emergency Order closes season on September 28, 1977 when the har

Unit 8 1977-78 Sept. 1 – Oct. 30 One goat, up to 15 goats by registration permit to be closed by field announcement. See 5 AAC 81.055 and separate permit supplement. Successful hunters are required to present their goats' horns for inspection when they report to Game Division after the hunt.

Drawing permits reestablished, Creation of 4 goat hunt areas 871, 87

1978-79 Unit 8 Sept. 1 – Oct. 30

One goat, up to 15 goats by drawing permit (29 permits issued) to be closed by field announcement. See 5 AAC 81.055 and separate permit supplement. Successful hunters are required to present their goats' horns for inspection when they report to Game Division after the hunt.

Number of permits increased.

1979-80 Unit 8 Sept. 1 – Oct. 30 One goat, up to 15 goats by drawing permit (31 permits issued) to be closed by field announcement. See 5 AAC 81.055 and separate permit supplement. Successful hunters are required to present their goats' horns for inspection when they report to Game Division after the hunt.
--

REGULATORY
MEAD

SEASON BAG LIMIT AREA YEAR

Number of permits increased, boundary changes made to permit areas 872 & 871, season extended by 1 day

1980-81 Unit 8 Sept. 1 – Oct. 31 One goat, up to 15 goats by drawing permit

(36 permits issued) to be closed by field announcement. See 5 AAC 81.055 and separate permit supplement. Successful hunters are required to present their goats' horns for inspection when they report to Game Division after the hunt.

Harvest quota of 15 goats eliminated

1981-82 Unit 8 Sept. 1 – Oct. 31 One goat by drawing permit only; 36 permits

will be issued. See 5 AAC 81.055 and separate drawing permit hunt supplement.

Permit area 874 boundary is extended southward (1983)

1982-84 Unit 8 Sept. 1 – Oct. 31 One goat by drawing permit only; 57 permits

> will be issued. See 5 AAC 81.055 and separate drawing permit hunt supplement.

Registration hunt established, boundary lines changed in permit areas 873 & 874, creation of permit area 876

1984-85 Unit 8; permit areas Sept. 1 – Oct. 31 One goat by drawing permit only: up to 100

871, 872, 873, & 874 drawing permits will be issued for specific

areas.

1984-85 Unit 8; permit area Sept. 1 – Oct. 31 One goat by registration permit only; an 876

unlimited number of registration permits will

be issued for specified areas.

Subsistence (Tier II) hunt established, elimination of all drawing hunts, boundary lines changed in permit areas 874 and 876, 5AAC 81.055 repealed 7/5/85, *Emergency Order issued delaying the goat hunting season until Oct. 1st, *Emergency Order issued Oct. 9, 1985 closed hunt areas 871,873, & 874 after Oct. 10th

1985-86	Unit 8; Crown Mountain (permit area 872)	Sept. 1 – Oct. 31*	One goat by tier II permit only; 20 permits will be issued.
1985-86	Unit 8; permit areas 871, 873, 874, & 876	Sept. 1 – Oct. 31*	One goat by registration permit only.

Subsistence and registration hunts abolished, drawing permits only hunts, hunting season shortened by 5 days

1986-87 Unit 8 Sept. 6 – Oct. 31 One goat by drawing permit only; 100 permits will be issued.

REGULATOR

Y

Y YEAR	AREA	SEASON	BAG LIMIT			
Season lengtl	Season lengthened					
1987-89	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 100 permits will be issued.			
Guide require	ment for nonresid	dent goat hunters	3			
1989-90	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 100 permits will be issued.			
Creation of two new hunt areas D875 and D877, boundary lines changed in hunt areas D874 and D876, number of permits increase.						
1991-92	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 125 permits will be issued.			
Number of pe	rmits decrease					
1992-93	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 111 permits will be issued.			
Number of permits increase						
1993-94	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 143 permits will be issued.			

Permit number ch Elimination of sea	· ·	eries to the DG400 series nun at horns.	nbers, number of permits decrease,			
1994-95	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 135 permits will be issued.			
Number of pe	ermits increase	e, addition of hunt ar	ea DG478			
1995-96	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 141 permits will be issued.			
Number of pe	ermits increase	e				
1996-97	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 175 permits will be issued.			
Number of pe	ermits decreas	e				
1997-99	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 168 permits will be issued.			
	REGULATOR					
Y YEAR	AREA	SEASON	BAG LIMIT			
Number of permits increase						
1999-2000	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 175 permits will be issued.			
Number of permits decrease						
2000-2001	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 160 permits will be issued.			
Number of permits increase, new hunt area DG 479, & expansion of existing						
hunt areas						
2001-2002	Unit 8	Sept. 1 – Oct. 31	One goat by drawing permit only; 195 permits will be issued.			