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Options for Alaska Board of Game Findings of Amounts Necessary for Subsistence: Furbearers

by

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and

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January 2012

Alaska Department of Fish and Game **Division of Subsistence**

Symbols and Abbreviations

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols

alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

all commonly-accepted abbreviations e.g., Mr., Mrs., AM, PM, etc.

all commonly-accepted professional titles e.g., Dr., Ph.D., R.N., etc.

Alaska Administrative Code	AAC
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures):	first three letters (Jan,...,Dec)
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye-to-fork	MEF
mideye-to-tail-fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations

alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$log_{2,}$ etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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OPTIONS FOR ALASKA BOARD OF GAME FINDINGS OF AMOUNTS NECESSARY FOR SUBSISTENCE: FURBEARERS

by

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ABSTRACT

Proposals 14 and 19, submitted to the Alaska Board of Game (BOG) for consideration at its November 2011 meeting in Barrow, would have prohibited nonresident trapping and hunting of furbearers and fur animals in selected northern Alaska game management units. The BOG tabled the proposals to their January 2012 meeting and expanded their scope to include statewide populations of furbearers and fur animals outside of nonsubsistence areas. Since there has been a positive customary and traditional (C&T) use finding for these populations, and, for most of these populations, an amount reasonably necessary for subsistence (ANS) finding of "the harvestable portion," the BOG intends to reconsider the ANS findings at the January 2012 meeting. This report provides the BOG with background and options for adopting an ANS for these populations.

Key words: Alaska Board of Game, furbearer, fur animal, subsistence hunting, subsistence trapping, amounts necessary for subsistence, ANS, customary and traditional use finding, C&T.

INTRODUCTION

Proposals 14 and 19, submitted to the Board of Game (BOG) for consideration at its November 2011 meeting in Barrow, would prohibit nonresident trapping and hunting of furbearers and fur animals in game management units (GMUs) 18, 22, 23, and 26A. Cited as justification for the closures is the BOG finding that the entire harvestable surplus of the furbearer and fur animal populations of these GMUs is necessary for subsistence uses [called an "ANS" finding, codified at 5 AAC 99.025(a)(13)]. At its November meeting, the BOG tabled these proposals to the January 2012 meeting and expanded their scope to include statewide populations of furbearers and fur animals outside of nonsubsistence areas. The BOG's intent is to re-examine all findings for furbearers and fur animals for which the current ANS is the "harvestable portion." This report provides background and options for that re-examination.

Furbearing species have been used in Alaska since human habitation began, at least 10,000 years ago (Langdon 1993:6-7). Uses have always been varied, including food (selected species only); raw materials for clothing, tools, and crafts; and trade.

Alaska statute (AS) 16.05.258(a) directs the BOG to identify game populations, or portions of populations, that are customarily and traditionally taken or used for subsistence, except for those populations within nonsubsistence areas (which are defined in 5 AAC 99.015). This is called a "C&T finding." Additionally, the BOG must determine the amount of the harvestable portion of populations with customary and traditional uses that is reasonably necessary for subsistence uses [AS 16.05.258(b)].

"Subsistence uses" are defined in AS 16.05.940(33) as:

> the noncommercial, customary and traditional uses of wild, renewable resources by a resident . . . of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, and for the customary trade, barter, or sharing for personal or family consumption…

Customary trade is defined in AS 16.05.940(8) as:

> the limited noncommercial exchange, for minimal amounts of cash, as restricted by the appropriate board, of fish or game resources; the terms of this paragraph do not restrict money sales of furs and furbearers.

Regulations classify marmots, martens, mink, muskrats, river otters, and weasels as furbearers, which may only be taken under trapping regulations with a trapping license. Beavers, coyotes, foxes (red and arctic), lynx, and squirrels (red, ground, and flying) are classified as both furbearers and fur animals, meaning they may be taken, as authorized, under trapping and hunting regulations. Wolves and

wolverines are classified as both furbearers and big game, meaning they, too, may be taken, as authorized, under trapping and hunting regulations. In this report, "furbearers" refers to species classified solely as furbearers as well as those that are classified as furbearers and as either fur animals or big game.

In 2010, the BOG classified black bears as a furbearer, in addition to their classification as a big game animal. The BOG has not adopted trapping regulations for black bears; therefore, this report does not address black bears.

C&T FINDINGS AND ANS DETERMINATIONS FOR FURBEARERS

In 1997, the BOG directed the department to develop a statewide proposal for considering whether there were customary and traditional uses of furbearers and fur animals. The department presented options for these C&T findings at the October 1997 BOG meeting (as RC 16, see Appendix A). At the January 2000 statewide BOG meeting, the department presented a customary and traditional use worksheet (Appendix B). Action was deferred to the March 2000 meeting, and subsequently to the November 2000 meeting, when the BOG found that "all resident uses of furbearers and fur animals are customary and traditional uses" [5 AAC 99.025(a)(13)] outside the nonsubsistence areas.

The statewide furbearer and fur animal C&T finding included: beavers, coyotes, arctic foxes, red foxes, lynx, marmots,[1] martens[2], mink, muskrats, river otters, red squirrels, flying squirrels, ground squirrels, least weasels, short-tailed weasels, wolves, and wolverines.

In November 2000, the BOG found that furbearers pose particular complexities for establishing a single ANS because there are 4 types of common subsistence uses of furbearers:

1. Food – certain furbearers are eaten (e.g., beavers, muskrats, ground squirrels),
2. Clothing,
3. Handicrafts that are sold, and
4. Fur sales to fur buyers, an example of customary trade per state statute (see above).

The BOG recognized that furbearer harvests, and consequently ANS, vary substantially with fur prices, and determined that amounts of specific uses could be established in the future on a case by case basis when specific allocation issues between subsistence, general, and nonresident trapping (and fur animal hunting) required it. The BOG also found

> that furbearers and fur animals, in general, tend to be the focus of these uses, rather than users focusing on individual species or populations. Given this finding, the board also finds that effort on any given population varies according to its harvestable surplus. [5 AAC 99.025(a)(13)]

Meeting records also indicate that this general finding was consistent with the presumption that existing regulations (as of November 2000) provided reasonable opportunities for subsistence uses, until the BOG received regulatory proposals suggesting otherwise.

---

1. Marmots in Alaska include the hoary marmot (*Marmota caligata*), the Alaska marmot (*M. broweri*), and the woodchuck (*M. monax*; Curby, C. and A. Gunderson. [2008]. Marmot. [Alaska Wildlife Notebook Series], revised by Craig Gardner and reprinted 2008. ADF&G [Juneau] http://www.adfg.alaska.gov/static/education/wns/marmot.pdf, accessed 12/2011. Hereinafter cited as Curby and Gunderson 2008). The C&T and ANS findings at 5 AAC 99.025(a)(13)(E) and the furbearer trapping regulations at 5 AAC 84.270(12) refer to "marmot." This should be understood to refer to the 3 species of marmots in Alaska.

2 There are 2 species of martens in Alaska. The American marten (*Martes americana*) is the most common. In Alaska, the Pacific marten (*M. caurina*) is found only on Admiralty (GMU 4) and Kuiu (GMU 3) islands. The C&T and ANS findings at 5 AAC 99.025(a)(13)(F) and the furbearer trapping regulations at 5 AAC 84.270(6) refer to "marten;" this should be understood to refer to the 2 species of martens in Alaska.

Therefore, the BOG declined to establish specific ANS ranges for furbearers and fur animals at the November 2000 meeting. Current (as of January 2012) ANS findings are listed in Table 1. For all furbearers but wolves, the BOG established, in November 2000, the ANS as "the harvestable portion" of the populations of all units with C&T uses [all units except those within nonsubsistence areas; 5 AAC 99.025(a)(13)]. For wolves, the BOG has established ANS ranges for 9 units or subunits. For the remaining units, the ANS for wolves is, as with other furbearers, "the harvestable portion" [5 AAC 99.025(a)(11) and (13)].

Table 1.–Current amounts reasonably necessary findings (ANS) for furbearers.

Species	Unit[3]	ANS Finding
Beaver	All units with a harvestable portion	Harvestable portion
Coyote	All units with a harvestable portion	Harvestable portion
Fox (red and Arctic)	All units with a harvestable portion	Harvestable portion
Lynx	All units with a harvestable portion	Harvestable portion
Marmot[1]	All units with a harvestable portion	Harvestable portion
Marten[2]	All units with a harvestable portion	Harvestable portion
Mink	All units with a harvestable portion	Harvestable portion
Muskrat	All units with a harvestable portion	Harvestable portion
River otter	All units with a harvestable portion	Harvestable portion
Squirrel (red, ground, flying)	All units with a harvestable portion	Harvestable portion
Weasel (short-tailed and least)	All units with a harvestable portion	Harvestable portion
Wolf	Unit 9	10 to 28
Wolf	Unit 10 - Unimak Island only	0 to 1
Wolf	Unit 11	5 to 10
Wolf	Unit 13	8 to 24
Wolf	Unit 16B	0 to 5
Wolf	Unit 18*	5 to 20
Wolf	Unit 22*	5 to 20
Wolf	Unit 23*	10 to 30
Wolf	Unit 26A*	4 to 8
Wolf	All other units with a harvestable portion	Harvestable portion
Wolverine	All units with a harvestable portion	Harvestable portion

Source 5 AAC 99.025

1. Marmots in Alaska include the hoary marmot (*Marmota caligata*), the Alaska marmot (*M. broweri*) and the woodchuck (*M. monax*; Curby and Gunderson 2008).

2 Martens in Alaska include the American marten (*Martes americana*) and the Pacific marten (*M. caurina*).

3 In all cases, excludes nonsubsistence areas as defined in 5 AAC 99.015.

* Finding made at November 2011 Board of Game meeting, Barrow.

SEASONS, BAG LIMITS, AND REPORTING REQUIREMENTS

5 AAC 84.270 sets out seasons and bag limits for furbearers by GMU. Outside the nonsubsistence areas, the only furbearer bag limit currently in place is 30 beavers per season in GMU 8 (Kodiak Island). 5 AAC 85.056(a) sets seasons and bag limits for hunting wolves as big game. 5 AAC 85.057(a) sets

seasons and bag limits for hunting wolverines as big game. 5 AAC 85.060 sets hunting seasons and bag limits for fur animals.

Harvest reporting requirements are in place for 6 species of furbearers: beavers (selected units), lynx, martens (selected units), river otters, wolves, and wolverines (Table 2). For these species, all harvests must be sealed by an authorized representative of ADF&G. There are no reporting requirements for coyotes, foxes, marmots, mink, muskrats, squirrels, and weasels, and for beavers and martens in selected units. Therefore, time-series data on annual statewide harvests by all users (including nonresidents) are available only for the 4 species with statewide sealing requirements, while time-series data covering much of the state are available for 2 species with partial sealing requirements. Harvest data for selected years for selected communities for furbearers are also available from household surveys conducted by the Division of Subsistence and summarized in technical papers and the Community Subsistence Information System database[3]. These data were not used to develop the ANS options presented here due to the statewide scope of proposals 14 and 19.

Table 2.–Sealing requirements for furbearers.

Species	Sealing required
Fur animal/furbearers	
Beaver	Yes, in GMUs 1–11, 13–15, 17 only
Coyote	No
Fox (red and arctic)	No
Lynx	Yes, all units
Squirrel (red, ground, flying)	No
Big game/furbearers[1]	
Wolf	Yes, all units
Wolverine	Yes, all units
Other furbearers	
Marmot	No
Marten	Yes, in GMUs 1–7, 14–16 only
Mink	No
Muskrat	No
River otter	Yes, all units
Weasel (short-tailed and least)	No

1. Although black bears are classified as furbearers, there are currently no regulations authorizing the trapping of black bears.

[3] http://www.adfg.alaska.gov/sb/CSIS/

OBJECTIVES AND METHODS

This report has 2 objectives:

1. Compile data on reported harvests of populations of furbearers outside the nonsubsistence areas by area of residence of the harvesters, based on ADF&G sealing records.
2. Use these harvest data to develop options for ANS findings.

As noted above, annual harvest data through sealing records are available only for 6 species: beavers, lynx, martens, river otters, wolves, and wolverines. For these species, data for 11 years (2000–2010) have been compiled, based on reported harvests from sealing records in the department's WinfoNet database. Each annual total consists of reported harvests only. Reported totals for each year are summarized by 5 categories:

1. Harvests by residents of the unit ("local residents"),
2. Harvests by other Alaska residents ("nonlocal residents"),
3. Harvests by Alaska residents whose specific place of residence is unknown,
4. Harvests by nonresidents of Alaska ("nonresidents"), and
5. Harvests by individuals of unknown residency status.

The total harvests for categories 1 through 3 represent harvests by Alaska residents. Reported harvests for each species appear in tables 3 through 8 and figures 1 and 2. These totals exclude harvests in nonsubsistence areas: GMUs 7, 14, 15, 16A, and a portion of 20. Due the limited time available to conduct this analysis, the small portions of GMU 1 in the Juneau and Ketchikan nonsubsistence areas were not excluded from the totals, and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area were not included. These harvests are unlikely to significantly affect the ANS options presented here. Further, the totals for wolves do not include reported harvests in units for which ANS ranges have been established (see Table 1), nor do they include wolves taken as part of predation control programs. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were excluded.

For each species, reported harvests were sorted by place of residence as follows. Harvests by "local residents" include harvests by people living in the GMU in which the harvest took place. Harvests by "nonlocal residents" include harvests by other Alaska residents who live outside of the GMU in which the harvest took place. A small number of harvests by Alaska residents could not be linked to a specific Alaska community. The sum of harvests by local residents, nonlocal residents, and Alaska residents with an unknown community of residence is the total Alaska resident harvest. The fourth category is harvests by non-Alaska residents. There also were a small number of harvests that could not be attributed to a residence category. These were not included in the percentages of harvests by residence category or ranges of harvests upon which the ANS options are based.

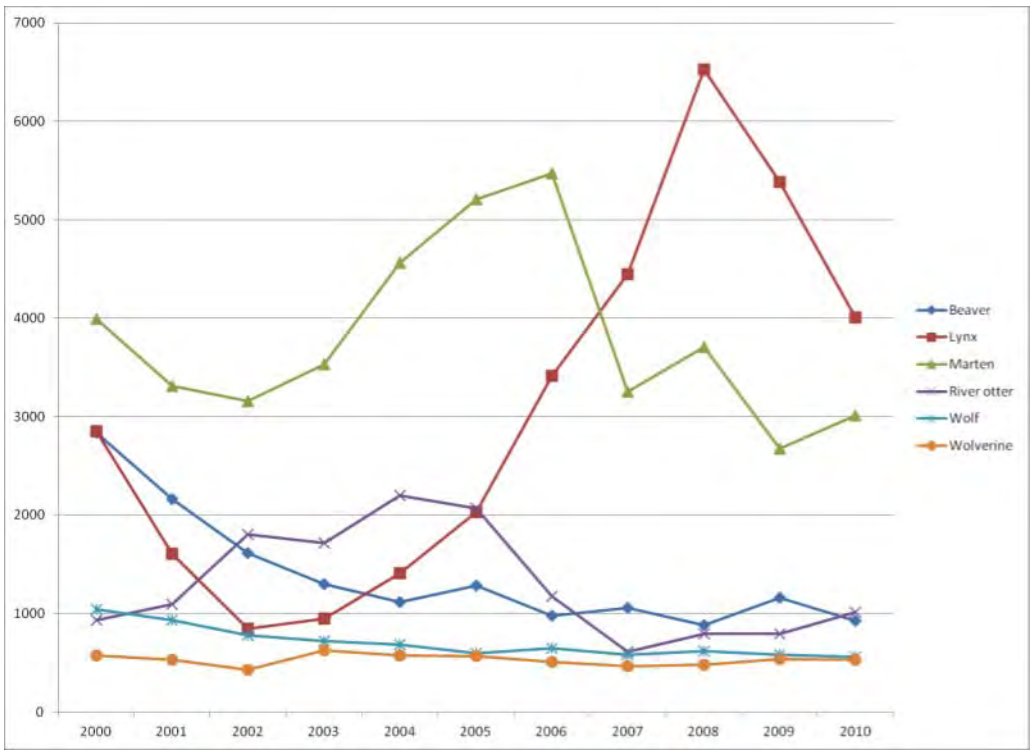

Figure 1.–Reported harvests of furbearers, 2000–2010.

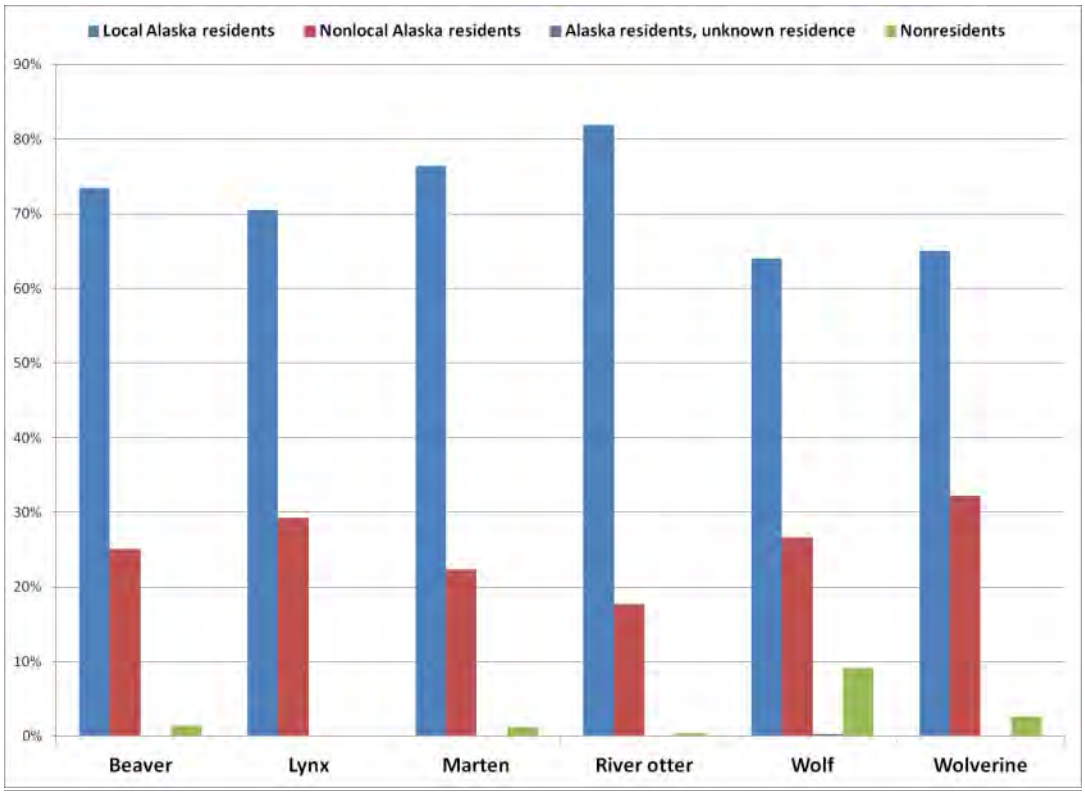

Figure 2.–Percentage of harvest of sealed furbearers by category of residence, 2000–2010.

FINDINGS: HARVEST DATA BY SPECIES

BEAVERS

Between 2000 and 2010, 15,317 beavers were sealed from areas outside the nonsubsistence areas (excluding GMUs 12, 16, and 18–26, where sealing is not required), or 1,393 per year (Table 3). Harvests ranged from a low of 883 in 2008 to a high of 2,836 in 2000. There is a downward trend in harvests over the 11 year period (Figure 1). Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 73.4% of the harvest and nonlocal residents 25.1%, for 98.6% by Alaska residents. Nonresidents took 1.4% of the beaver harvest over the 11-year period, or about 20 per year (Figure 2).

LYNX

Between 2000 and 2010, 33,472 lynx were sealed from areas outside the nonsubsistence areas, or 3,043 per year (Table 4). Harvests ranged from a low of 848 in 2002 to a high of 6,524 in 2000. Harvests show a cyclic pattern probably reflecting the cycle of lynx populations (Figure 2, Figure 3). Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 70.5% of the harvest, nonlocal residents 29.3%, and Alaskans with unknown residency 0.1%, for 99.9% by Alaska residents. Nonresidents took 0.1% of the lynx harvest over the 11-year period, or about 4 per year (Figure 1).

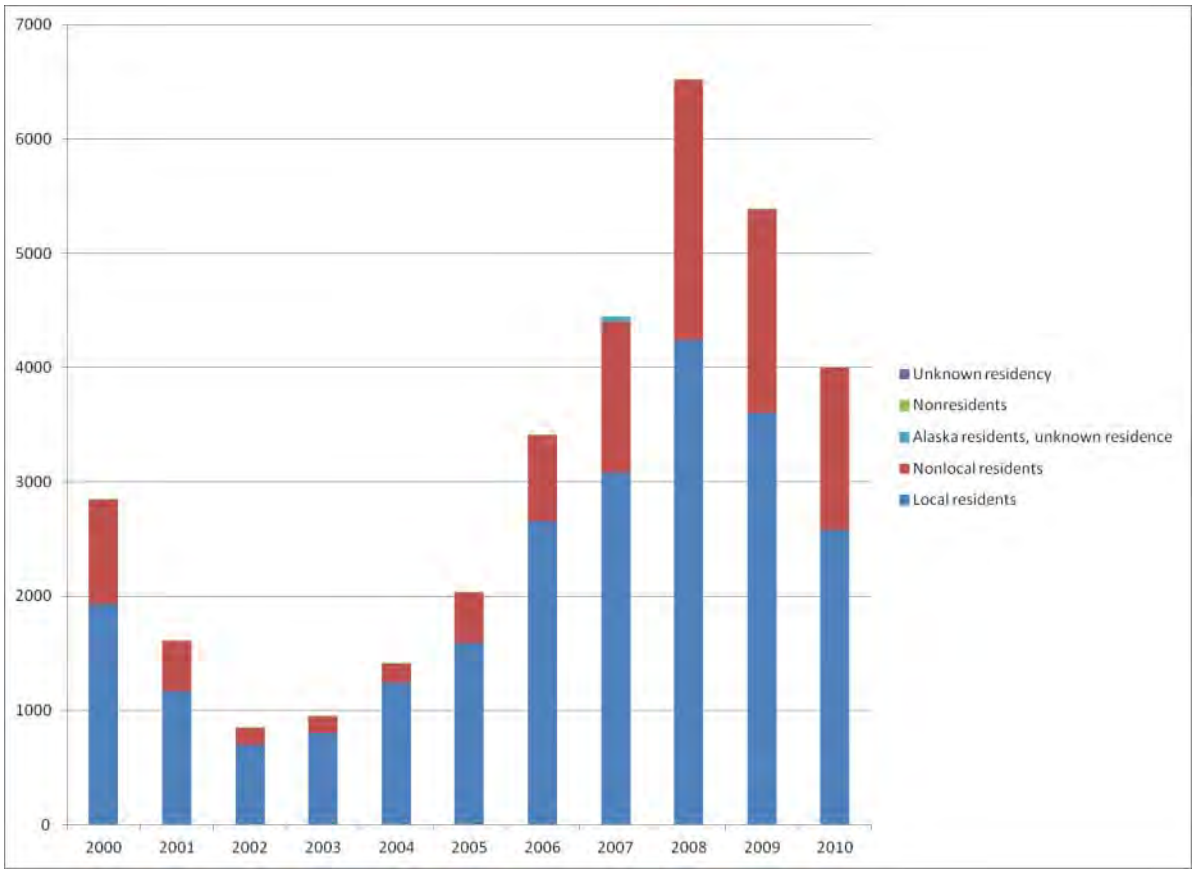

Figure 3.–Reported harvests of lynx, 2000–2010, by residency category.

Table 3.–Reported harvests of beavers, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	Beavers, number reported												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	2,258	1,643	1,035	901	808	815	696	834	679	913	667	11,249	1,022.6
Nonlocal harvest	551	467	575	373	270	440	277	211	196	237	251	3,848	349.8
Unknown state resident	0	0	0	0	0	0	0	0	0	1	0	1	0.1
Subtotal, all state residents	2,809	2,110	1,610	1,274	1,078	1,255	973	1,045	875	1,151	918	15,098	1,372.5
Nonresident harvest	27	53	3	25	41	31	2	14	8	6	9	219	19.9
Unknown resident harvest	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total harvest	**2,836**	**2,163**	**1,613**	**1,299**	**1,119**	**1,286**	**975**	**1,059**	**883**	**1,157**	**927**	**15,317**	**1,392.5**

	Percentage of harvest (known residency only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	79.6%	76.0%	64.2%	69.4%	72.2%	63.4%	71.4%	78.8%	76.9%	78.9%	72.0%	73.4%
Nonlocal harvest	19.4%	21.6%	35.6%	28.7%	24.1%	34.2%	28.4%	19.9%	22.2%	20.5%	27.1%	25.1%
Unknown state resident	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
Subtotal, all state residents	99.0%	97.5%	99.8%	98.1%	96.3%	97.6%	99.8%	98.7%	99.1%	99.5%	99.0%	98.6%
Nonresident harvest	1.0%	2.5%	0.2%	1.9%	3.7%	2.4%	0.2%	1.3%	0.9%	0.5%	1.0%	1.4%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

Table 4.–Reported harvests of lynx, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	Lynx, number reported												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	1,932	1,164	700	803	1,244	1,595	2,654	3,074	4,244	3,605	2,582	23,597	2,145.2
Nonlocal harvest	914	441	146	144	163	434	755	1,332	2,273	1,773	1,416	9,791	890.1
Unknown state resident	0	0	0	0	0	1	0	40	0	0	0	41	3.7
Subtotal, all state residents	2,846	1,605	846	947	1,407	2,030	3,409	4,446	6,517	5,378	3,998	33,429	3,039.0
Nonresident harvest	3	1	2	3	3	3	7	0	7	3	7	39	3.5
Unknown resident harvest	0	0	0	0	0	0	0	0	0	4	0	4	0.4
Total harvest	**2,849**	**1,606**	**848**	**950**	**1,410**	**2,033**	**3,416**	**4,446**	**6,524**	**5,385**	**4,005**	**33,472**	**3,042.9**

	Percentage of harvest (known residency only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	67.8%	72.5%	82.5%	84.5%	88.2%	78.5%	77.7%	69.1%	65.1%	67.0%	64.5%	70.5%
Nonlocal harvest	32.1%	27.5%	17.2%	15.2%	11.6%	21.3%	22.1%	30.0%	34.8%	32.9%	35.4%	29.3%
Unknown state resident	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.1%
Subtotal, all state residents	99.9%	99.9%	99.8%	99.7%	99.8%	99.9%	99.8%	100.0%	99.9%	99.9%	99.8%	99.9%
Nonresident harvest	0.1%	0.1%	0.2%	0.3%	0.2%	0.1%	0.2%	0.0%	0.1%	0.1%	0.2%	0.1%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

MARTENS

Between 2000 and 2010, 41,886 martens were sealed from areas outside the nonsubsistence areas (excluding GMUs 17–26, where sealing is not required), or 3,808 per year (Table 5). Harvests ranged from a low of 2,677 in 2009 to a high of 5,470 in 2006. Fur prices and local abundance may account for differences between years. There was no discernible trend over the 11-year period, although total harvests rose in the mid 2000s and then dropped in 2007 (Figure 2). Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 76.5% of the marten harvest and nonlocal residents 22.4%, for 98.8% by Alaska residents. Nonresidents took 1.2% of the marten harvest over the 11-year period, or about 45 per year (Figure 1).

RIVER OTTERS

Between 2000 and 2010, 14,188 river otters were sealed from areas outside the nonsubsistence areas, or 1,290 per year (Table 6). Harvests ranged from a low of 611 in 2007 to a high of 2,199 in 2004. The wide range of harvests may reflect fur prices or local abundance. Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 81.9% of the harvest, nonlocal residents 17.6%, and Alaskans of unknown residence <0.1%, for 99.6% by Alaska residents. Nonresidents took 0.4% of the river otter harvest over the 11-year period, or about 6 per year (Figure 1).

Table 5.–Reported harvests of martens, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	Martens, number reported												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	2,706	2,508	2,534	2,804	3,720	3,939	4,277	2,708	2,646	1,991	2,189	32,022	2,911.1
Nonlocal harvest	1,226	800	620	731	815	1,121	994	545	1,027	674	816	9,369	851.7
Unknown state resident	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Subtotal, all state residents	3,932	3,308	3,154	3,535	4,535	5,060	5,271	3,253	3,673	2,665	3,005	41,391	3,762.8
Nonresident harvest	57	5	5	0	28	147	199	1	34	12	7	495	45.0
Unknown resident harvest	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total harvest	**3,989**	**3,313**	**3,159**	**3,535**	**4,563**	**5,207**	**5,470**	**3,254**	**3,707**	**2,677**	**3,012**	**41,886**	**3,807.8**

	Percentage of harvest (known residence only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	67.8%	75.7%	80.2%	79.3%	81.5%	75.6%	78.2%	83.2%	71.4%	74.4%	72.7%	76.5%
Nonlocal harvest	15.5%	12.1%	9.8%	10.3%	9.0%	10.9%	9.3%	8.4%	13.9%	12.6%	13.6%	22.4%
Unknown state resident	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Subtotal, all state residents	98.6%	99.8%	99.8%	100.0%	99.4%	97.2%	96.4%	100.0%	99.1%	99.6%	99.8%	98.8%
Nonresident harvest	1.4%	0.2%	0.2%	0.0%	0.6%	2.8%	3.6%	0.0%	0.9%	0.4%	0.2%	1.2%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

Table 6.–Reported harvests of river otters, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	River otters, number reported												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	834	946	1,548	1,379	1,780	1,669	886	459	632	646	839	11,618	1,056.2
Nonlocal harvest	89	141	252	332	408	396	280	144	155	139	165	2,501	227.4
Unknown state resident	0	0	0	0	1	0	0	0	0	0	2	3	0.3
Subtotal, all state residents	923	1,087	1,800	1,711	2,189	2,065	1,166	603	787	785	1,006	14,122	1,283.8
Nonresident harvest	7	5	4	7	10	2	7	8	0	7	5	62	5.6
Unknown resident harvest	0	0	0	0	0	0	0	0	4	0	0	4	0.4
Total harvest	**930**	**1,092**	**1,804**	**1,718**	**2,199**	**2,067**	**1,173**	**611**	**791**	**792**	**1,011**	**14,188**	**1,289.8**

	Percentage of harvest (known residency only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	89.7%	86.6%	85.8%	80.3%	80.9%	80.7%	75.5%	75.1%	80.3%	81.6%	83.0%	81.9%
Nonlocal harvest	9.6%	12.9%	14.0%	19.3%	18.6%	19.2%	23.9%	23.6%	19.7%	17.6%	16.3%	17.6%
Unknown state resident	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
Subtotal, all state residents	99.2%	99.5%	99.8%	99.6%	99.5%	99.9%	99.4%	98.7%	100.0%	99.1%	99.5%	99.6%
Nonresident harvest	0.8%	0.5%	0.2%	0.4%	0.5%	0.1%	0.6%	1.3%	0.0%	0.9%	0.5%	0.4%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

WOLVES

Between 2000 and 2010, 7,739 wolves were sealed from areas outside the nonsubsistence areas where specific ANS ranges have been established [GMUs 9, 10 (Unimak Island only), 11, 13, 16B, 18, 22, 23, and 26A], or 704 per year (Table 7). These totals do not include wolves sealed as part of predation control programs. Harvests ranged from a low of 557 in 2010 to a high of 1,042 in 2000. Harvests appear to have declined over the 11-year period (Figure 2). Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 64.0% of the harvest, nonlocal residents 26.6%, and Alaskans with unknown residency 0.3%, for 90.9% by Alaska residents. Nonresidents took 9.1% of the wolf harvest over the 11-year period, or about 64 per year (Figure 1). As a big game species as well as a furbearer, wolves may be taken with a hunting license, which likely accounts for the higher percentage of nonresident harvest than for other furbearers.

WOLVERINES

Between 2000 and 2010, 5,822 wolverines were sealed from areas outside the nonsubsistence areas, or 529 per year (Table 8). Harvests ranged from a low of 429 in 2002 to a high of 626 in 2003. Harvests of wolverines appear to be relatively stable over the 11-year period compared to other furbearers (Figure 2). Deleting harvests for which the residency of the harvester is unknown, local residents accounted for 65.0% of the harvest, nonlocal residents 32.2%, and Alaskans with unknown residence 0.1%, for 97.3% by Alaska residents. Nonresidents took 2.7% of the wolverine harvest over the 11-year period, or about 14 per year (Figure 1). As a big game species as well as a furbearer, wolverines may be taken with a hunting license, which likely accounts for the slightly higher percentage of nonresident harvest than for other furbearers other than wolves.

Table 7.–Reported harvests of wolves, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	Wolves, number reported												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	650	638	511	477	460	369	359	326	411	375	371	4,947	449.7
Nonlocal harvest	308	233	185	189	157	168	208	177	148	160	126	2,059	187.2
Unknown state resident	0	3	1	0	0	1	2	1	5	1	7	21	1.9
Subtotal, all state residents	958	874	697	666	617	538	569	504	564	536	504	7,027	638.8
Nonresident harvest	84	54	83	56	64	57	82	80	53	41	51	705	64.1
Unknown resident harvest	0	2	1	0	0	0	0	1	0	1	2	7	0.6
Total harvest	**1,042**	**930**	**781**	**722**	**681**	**595**	**651**	**585**	**617**	**578**	**557**	**7,739**	**703.5**

	Percentage of harvest (known residency only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	62.4%	68.8%	65.5%	66.1%	67.5%	62.0%	55.1%	55.8%	66.6%	65.0%	66.8%	64.0%
Nonlocal harvest	29.6%	25.1%	23.7%	26.2%	23.1%	28.2%	32.0%	30.3%	24.0%	27.7%	22.7%	26.6%
Unknown state resident	0.0%	0.3%	0.1%	0.0%	0.0%	0.2%	0.3%	0.2%	0.8%	0.2%	1.3%	0.3%
Subtotal, all state residents	91.9%	94.2%	89.4%	92.2%	90.6%	90.4%	87.4%	86.3%	91.4%	92.9%	90.8%	90.9%
Nonresident harvest	8.1%	5.8%	10.6%	7.8%	9.4%	9.6%	12.6%	13.7%	8.6%	7.1%	9.2%	9.1%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

Further, the totals for wolves do not include reported harvests in units for which ANS ranges have been established (see Table 1), nor do they include wolves taken as part of predation control programs.

Table 8.–Reported harvests of wolverines, in numbers of animals, and percentage of harvest, by residency category, 2000–2010.

	Wolverines, number harvested												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Grand total	Annual mean
Local harvest	349	331	279	439	363	382	332	302	265	365	378	3,785	344.1
Nonlocal harvest	206	180	136	166	196	175	167	146	207	160	136	1,875	170.5
Unknown state resident	0	0	0	0	0	0	0	0	1	1	1	3	0.3
Subtotal, all state residents	555	511	415	605	559	557	499	448	473	526	515	5,663	514.8
Nonresident harvest	22	16	14	21	13	12	9	13	8	15	13	156	14.2
Unknown resident harvest	0	3	0	0	0	0	0	0	0	0	0	3	0.3
Total harvest	**577**	**530**	**429**	**626**	**572**	**569**	**508**	**461**	**481**	**541**	**528**	**5,822**	**529.3**

	Percentage of harvest (known residence only)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Annual mean
Local harvest	60.5%	62.8%	65.0%	70.1%	63.5%	67.1%	65.4%	65.5%	55.1%	67.5%	71.6%	65.0%
Nonlocal harvest	35.7%	34.2%	31.7%	26.5%	34.3%	30.8%	32.9%	31.7%	43.0%	29.6%	25.8%	32.2%
Unknown state resident	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.2%	0.1%
Subtotal, all state residents	96.2%	97.0%	96.7%	96.6%	97.7%	97.9%	98.2%	97.2%	98.3%	97.2%	97.5%	97.3%
Nonresident harvest	3.8%	3.0%	3.3%	3.4%	2.3%	2.1%	1.8%	2.8%	1.7%	2.8%	2.5%	2.7%
Total harvest	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Notes These totals do not include harvests in nonsubsistence areas (GMUs 7, 14, 15, 16A, and a portion of 20) and any harvests in the small portion of Unit 15 that is outside the nonsubsistence area. Uniform coding units (UCUs) within GMU 20 that are within the Fairbanks Nonsubsistence Area were also excluded However, due to limited time, harvests from the small portions of GMU 1 inside the Juneau and Ketchikan nonsubsistence areas were included although these harvests are unlikely to significantly affect the ANS options presented here.

ANS OPTIONS

Following are 4 options for BOG findings on the ANS for furbearers and fur animals, including a "no action" option.

1. **Take no action** on the present ANS findings. For all but selected populations of wolves for which ANS ranges have been established, taking no action would leave the ANS at 100% of the allowable harvest, meaning that all the available harvest is needed for subsistence uses and no other uses may be allowed [AS 16.05.258(b)(3)]. This "no action" option may require closing trapping of furbearers and hunting of fur animals to nonresidents, as proposed in proposals 14 and 19 and as amended by the BOG to apply statewide, outside nonsubsistence areas.
2. Adopt ANS amounts on a statewide level as a **percentage of the harvestable surplus** taken by Alaska residents. If conservation or allocation issues arise in the future, more specific findings can be made. The BOG has already found that all uses of furbearers and fur animals by Alaskans are subsistence uses. Therefore, the percentage of the harvestable surplus needed for subsistence is the percentage taken by Alaskans.
3. Adopt ANS ranges in **numbers of animals** for each species at statewide level. These ranges will likely need to be wide to accommodate annual fluctuations in harvests, as per earlier BOG findings. Because sealing record data are lacking for most species, this option can only be applied to selected species.
4. **Address each species at the GMU or some other more specific level**. This option will require additional data analysis, requiring additional staff time for preparation. Findings could be developed at regularly scheduled BOG meetings over the next regulatory cycle, or a special meeting of the BOG.

OPTION 2. ANS AS A PERCENTAGE OF TOTAL HARVESTS BY ALASKA RESIDENTS

Suboption 2A. ANS = the average statewide percentage of the total harvest of all furbearers and fur animals taken by Alaska residents over the 11-year period (2000–2010), rounded to the nearest 1%, other than 100%.

This percentage would pertain to every furbearer species. Under this suboption, the ANS finding would be "99% of the harvestable portion" (Table 9). The ANS finding could be either 1) for all furbearers and fur animals as a group, except for those populations for which specific ANS ranges have been established (presently just certain populations of wolves); or 2) each species of furbearers and fur animals listed separately, except for those populations for which specific ANS ranges have been established (presently just certain populations of wolves).

Table 9.–Reported numbers harvested and estimated percentage of harvest, by Alaska residents and nonresidents, of beavers, lynx, martens, river otters, wolves, and wolverines, 2000–2010.

	Alaska residents		Nonresidents	
	Number	Percentage	Number	Percentage
Beavers	15,098	98.6%	219	1.4%
Lynx	33,429	99.9%	39	0.1%
Martens	41,391	98.8%	495	1.2%
River otters	14,122	99.6%	62	0.4%
Wolves	7,027	90.9%	705	9.1%
Wolverines	5,663	97.3%	156	2.7%
All	116,730	98.6%	1,676	1.4%

Suboption 2B. ANS = the average statewide percentage of the total harvest taken by Alaska residents for each furbearer species over the 11 year period, rounded to the nearest 1%, other than 100%.

This percentage pertains to each furbearer species for which sealing is required (Table 2). For those furbearers for which sealing is not required, the average for the 6 species combined could be used (similar to Suboption A for these species).

The ANS findings would be as follows:

Beavers:	99% of harvestable portion
Lynx:	99% of harvestable portion
Martens:	99% of harvestable portion
River otters:	99% of harvestable portion
Wolves:	91% of harvestable portion (except those units with specific ANS ranges)
Wolverines:	97% of harvestable portion
Coyotes:	99% of harvestable portion
Foxes:	99% of harvestable portion
Marmots:	99% of harvestable portion
Mink:	99% of harvestable portion
Muskrats:	99% of harvestable portion
Squirrels:	99% of harvestable portion
Weasels:	99% of harvestable portion

OPTION 3. ESTABLISH A STATEWIDE ANS RANGE FOR EACH SPECIES

ANS = range of reported harvests by Alaska residents statewide over the 11-year period.

As summarized in Table 10, these reported ranges are as follows:

Beavers:	875–2,809 (the range does not include all units)
Lynx:	846–6,517
Martens:	2,665–5,271 (the range does not include all units)
River otters:	603–2,189
Wolves:	504–958 (based on units without specific ANS findings)
Wolverines:	415–605

Table 10.–Range of reported harvests of furbearers, and mean harvests, 2000–2010.

		Range				Mean	
		Low		High			
Beavers	All harvests	883		2,836		1,393	
	Residents only	875		2,809		1,373	
	Nonresidents only[a]	2	0.2%	41	3.7%	20	1.4%
Lynx	All harvests	848		6,524		3,043	
	Residents only	846		6,517		3,039	
	Nonresidents only[a]	0	0.0%	7	0.3%	4	0.1%
Martens	All harvests	2,677		5,470		3,808	
	Residents only	2,665		5,271		3,763	
	Nonresidents only[a]	0	0.0%	199	3.6%	45	1.2%
River otters	All harvests	611		2,199		1,290	
	Residents only	603		2,189		1,284	
	Nonresidents only[a]	0	0.0%	10	1.3%	6	0.4%
Wolves	All harvests	557		1,042		704	
	Residents only	504		958		639	
	Nonresidents only[a]	41	5.8%	84	13.7%	64	9.1%
Wolverines	All harvests	429		626		529	
	Residents only	415		605		515	
	Nonresidents only[a]	8	1.7%	22	3.8%	14	2.7%

Note Includes harvests in areas outside of nonsubsistence areas where sealing of harvests is required.

a. Percentage = portion of total reported harvest taken by nonresidents.

However, because the sealing program for beavers and martens does not include the entire state (see Table 2), sealing data alone cannot be used to develop statewide estimates of the number of these species harvested by Alaskans annually. For these species, further analysis of household survey data collected by the Division of Subsistence would need to occur to develop estimated ranges for the state. The same limitation applies to species without sealing programs. For these species, alternatives to Option 3 include: 1) using Option 2A or Option 2B; 2) taking no action (Option 1), which leaves the current ANS at 100% of the allowable harvest; or 3) making no ANS finding (repealing the current finding) until an estimate can be developed based on household surveys.

For the 4 species for which sealing record data can support developing a statewide range of harvests, the following ANS ranges would be established, rounding to the nearest 100 animals:

Lynx:	800–6,500
River otters:	600–2,200
Wolves:	500–1,000 (except where specific ranges have been established)
Wolverines:	400–600
All other species:	99% of the harvestable portion, **OR**
	100% of the harvestable portion, **OR**
	No finding

OPTION 4. UNIT-BY-UNIT ANS RANGE

Until furbearer harvests can be estimated at this level using a combination of sealing data and household survey data, the department recommends not applying this option, except when conservation or allocation issues arise in the future, as has been the BOG's practice with wolves. This recommendation is consistent with the approach the BOG endorsed at its November 2000 meeting. Implementation of this option will require a substantial investment of staff time to develop harvest estimates for each furbearer population by unit, with the potential for up to about 390 separate ANS findings (21 GMUs outside nonsubsistence areas and 19 furbearer species, minus those wolf populations for which specific ANS ranges have been made). Combining GMUs and species would reduce the necessary number of ANS findings under this option.

REFERENCE CITED

Langdon, S. J. 1993. The Native people of Alaska. Third edition. Greatland Graphics, Anchorage.

APPENDIX A: RC 16, ANS OPTIONS PRESENTED DURING OCTOBER 1997 BOARD OF GAME MEETING

Appendix A.–RC 16, Customary and traditional use findings of furbearers, options for the Board of Game, 1997, presented as RC 16.

BOG Oct 1997 RC16

Customary and Traditional Use Findings of Furbearers
Options for the Board of Game, 1997

The board has never made a formal finding regarding subsistence trapping of furbearers. State regulations for "trapping" are simply silent on the question of whether they are subsistence, general, or nonresident trapping regulations. This means that customary and traditional use findings are still pending for "furbearers" – animals subject to taking with a trapping license, including beaver, coyote, fox (arctic, red), lynx, marten, mink, weasel (least short-tailed), muskrat, land otter, squirrel (red, flying, ground), marmot (Alaska, hoary), woodchuck, wolverine, and in part, wolf (findings have been made for wolf in certain units) (see Table 1). The following are options for the Board of Game to address this situation.

Option 1. Status Quo With General Presumptions
Option 1 is for the Board of Game to do nothing, maintaining the "status quo" in regulation. The general presumption would be that current state regulations, though silent on the question of subsistence-general-nonresident trapping, do provide for subsistence trapping patterns in Alaska.

Option 2. Make C&T Findings for Furbearers With General Presumptions
Option 2 is for the Board of Game to make customary and traditional use findings for furbearers, with certain general presumptions. Under this option, the general presumptions would be that "subsistence trapping" (as well as "general trapping" and "nonresident trapping") exist with possibly some named exceptions. The Board would hear information from the department on trapping patterns as a whole in areas where there are state trapping regulations. The Board would then make findings that subsistence trapping, general trapping, and nonresident trapping exist and are provided for in regulation, with certain named exceptions. Exceptional wildlife populations/areas would be identified and addressed individually. Under this approach, time is spent on the exceptions, rather than on the whole.

The gaps in the C&T findings could be addressed with the following two motions directed toward areas outside the nonsubsistence areas listed in 5 AAC 99.015:

> "There is a customary and traditional use of:
>
> 1. furbearers (excluding wolf) in GMUs 1 - 6, 8 - 13, 15C, 16B, 17-26, except for...
>
> 2. wolf in GMUs 1, 3 - 5, except for..."

The Board would then make a finding that current trapping regulations are presumed to provide for subsistence uses, until proposals are received suggesting otherwise. Changes in regulation under this option would be the following:

> 1. Two columns would be created in 5 AAC 84.270. In areas with customary and traditional uses, the columns would be "Resident Open Season (Subsistence and General Trapping)" and "Nonresident Open Season". This parallels the structure used for game hunting, such as in 5 AAC 85.015. In nonsubsistence areas and areas without customary and traditional uses, the columns would be "Resident Open Season (General Trapping Only)" and "Nonresident Trapping".
>
> 2. Positive findings for "furbearers" would be listed in 5 AAC 99.025.

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As part of the general findings above, the Board is required by statute to address the amount of furbearers reasonably necessary for subsistence uses. Furbearers pose particular complexities for establishing a single amount because there are four types of common subsistence uses of furbearers – food (certain furbearers are eaten), clothing, crafts that are sold, and sale of furs to fur buyers (an example of customary trade). It is difficult assigning a single amount necessary for subsistence uses given the multiple uses of furbearers. In this case, the board might consider making a general finding that the amount of furbearers reasonably necessary for subsistence uses substantially varies with fur prices. Amounts for specific uses will be established on a case by case basis when specific allocation issues between subsistence/general and nonresident trapping require it. This general finding would be consistent with the presumption that current regulations provide for subsistence trapping, until proposals are received suggesting otherwise.

Option 3. Make C&T Findings for Furbearers Without General Presumptions

Option 3 is for the Board of Game to make customary and traditional use findings for furbearers, without any general presumptions. Under this option, the board would examine furbearers on an area-by-area, population-by-population basis. The Board would hear information from the department on trapping patterns for distinct furbearer populations and areas and make separate findings for each. These deliberations could be scheduled several ways: (1) when each region comes up in the Board cycle, (2) when the area and population is raised by a trapping proposal, or (3) during a special session focused on customary and traditional uses of furbearers.

The gaps in the C&T findings could be addressed with the following set of motions directed toward the areas outside the nonsubsistence areas listed in 5 AAC 99.015:

"There is/is not a customary and traditional use of:

1. beaver in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
2. coyote in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
3. fox in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
4. lynx in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
5. marten in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
6. mink in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
7. weasel in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
8. muskrat in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
9. land otter in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
10. squirrel in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
11. marmot in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
12. woodchuck in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
13. wolverine in GMUs ...[e.g., 1 - 6, 8 - 13, 15C, 16B, 17-26]
14. wolf in GMUs 1, 3 - 5 "

The procedure for making changes in regulation and findings on reasonable opportunity would be similar to those listed above for Option 2.

TABLE 1. SUMMARY OF ALASKA BOARD OF GAME CUSTOMARY AND TRADITIONAL USE FINDINGS

Findings: Y = Positive; N = Negative; o = No Findings Made as Yet
Blank Cells Indicate That Species Is Not Present In the Unit or Subunit.
Cells With a Dash Mark Indicate the Unit's Wildlife Population is in a Non-Subsistence Area.

	1A	1B	1C	1D	2	3	4	5	6A	6B	6C	6D	7	8	9A	9B	9C	9D	9E	10	11	12	13A	13B	13C	13D	13E	14A	14B	14C	15A	15B	15C	16A	16B
Bison													-								N							-	-	-	-	-		-	
Black Bear			Y						Y	Y	Y	Y	-															-	-	-	-	-		-	
Brown Bear							Y	Y	N	N	N	N	-	N	N	Y	N	N	Y		N	N	N	N	N	N	N	-	-	-	-	-	N	-	N
Caribou													-		Y	Y	Y	Y	Y	Y	Y	(1)	Y	Y	Y	Y	Y	-	-	-	-	-	-	-	
Dall Sheep													-								Y	N				N		-	-	-	-	-	N	-	N
Deer	Y	Y	Y		Y	Y	Y	Y					-	Y														-	-	-	-	-		-	
Elk					N								-	N														-	-	-	-	-		-	
Goat			Y								Y	Y	-	N							N					N		-	-	-	-	-	Y	-	
Moose		Y		Y				Y	N	N	N	N	-		Y	Y	Y	N	Y		Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-	Y	-	Y
Musk Oxen													-															-	-	-	-	-		-	
Wolf					Y				Y	Y	Y	Y	-		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	-	-	-	-	-		-	Y
Grouse													-								Y		Y	Y	Y	Y	Y	-	-	-	-	-	Y	-	Y
Ptarmigan													-								Y		Y	Y	Y	Y	Y	-	-	-	-	-	Y	-	Y
Other Small Game (2)													-															-	-	-	-	-		-	
Furbearers (3)													-															-	-	-	-	-		-	
Porcupine													-															-	-	-	-	-		-	
Cormorant													-															-	-	-	-	-		-	
Snowy Owl													-															-	-	-	-	-		-	

(1) Nelchina/40-mile herds, positive; Chisana herd, negative.
(2) Hares (snowshoe, arctic), ducks (except sea ducks), sea ducks and mergansers, geese (cackling Canada, other Canada, whitefronted, snow, brant, emperor), sandhill crane, and snipe
(3) Animals subject to taking with a trapping license: beaver, coyote, fox (arctic, red), lynx, marten, mink, weasel (least, short-tailed), muskrat, land otter, squirrel (red, flying, ground), marmot (Alaska, hoary), woodchuck, wolf, and wolverine.

TABLE 1. SUMMARY OF ALASKA BOARD OF GAME CUSTOMARY AND TRADITIONAL USE FINDINGS

Findings: Y = Positive; N = Negative; o = No Findings Made as Yet
Blank Cells Indicate That Species Is Not Present In the Unit or Subunit.
Cells With a Dash Mark Indicate the Unit's Wildlife Population is in a Non-Subsistence Area.

	17A	17B	17C	18	19A	19B	19C	19D	20A	20B	20C	20D	20E	20F	21A	21B	21C	21D	21E	22A	22B	22C	22D	22E	23	24	25A	25B	25C	25D	26A	26B	26C
Bison								N				N																					
Black Bear	N	N	N																														
Brown Bear	Y	Y	Y	Y	Y	Y	Y						N		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y								
Caribou	Y	Y	Y	Y	Y	Y	Y	Y	-	-		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	Y
Dall Sheep									N	N	N	N	N	N											Y		Y	Y	Y	Y	Y	Y	Y
Deer																									Y	Y	Y				Y	Y	Y
Elk																																	
Goat																																	
Moose	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y			Y	Y	Y	Y
Musk Oxen				N																													
Wolf	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Grouse												Y								Y	Y	Y	Y	Y	Y								
Ptarmigan												Y													Y								
Other Small Game (2)																																	
Furbearers (3)																																	
Porcupine																																	
Cormorant																																	
Snowy Owl																																	

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(3) Animals subject to taking with a trapping license: beaver, coyote, fox (arctic, red), lynx, marten, mink, weasel (least, short-tailed), muskrat, land otter, squirrel (red, flying, ground), marmot (Alaska, hoary), woodchuck, wolf, and wolverine.

APPENDIX B: CUSTOMARY AND TRADITIONAL USE WORKSHEET, FURBEARERS, BOARD OF GAME JANUARY 2000 MEETING

Appendix B.–Customary and traditional use worksheet, furbearers, prepared for the Board of Game for their January 2000 meeting.

EIGHT CRITERIA WORKSHEET: FURBEARERS

Prepared for the Alaska Board of Game by the Division of Subsistence, Alaska Department of Fish and Game, January 2000

SPECIES: Furbearers, including beaver, coyote, fox (arctic, red), land otter, lynx, marmot (Alaska, hoary), marten, mink, muskrat, squirrel (red, flying, ground), weasel (least, short-tailed), wolf, and wolverine.

GMU/SUBUNIT: In the following units, outside of the nonsubsistence areas listed in 5 AAC 99.015:

(A) Beaver	Units 1-6, 8-9, 11-13, 15C, 16B, 17-26
(B) Coyote	Units 1-6, 9-13, 15C, 16B, 17-26
(C) Fox	Units 1-6, 8-13, 15C, 16B, 17-26
(D) Lynx	Units 1-6, 8-13, 15C, 16B, 17-26
(E) Marmot	Units 1-6, 8-13, 15C, 16B,17-26
(F) Marten	Units 1-6, 8-9, 11-13, 15C, 16B, 17-26
(G) Mink	Units 1-6, 8-13, 15C, 16B, 17-26
(H) Muskrat	Units 1-6, 8-13, 15C, 16B,17-26
(I) Land otter	Units 1-6, 8-13, 15C, 16B, 17-26
(H) Squirrel	Units 1-6, 8-13, 15C, 16B, 17-26
(I) Weasel	Units 1-6, 8-13, 15C, 16B, 17-26
(J) Wolf*	Units 1-6, 9-13, 15C, 16B, 17-26
(K) Wolverine	Units 1-6, 8-13, 15C, 16B, 17-26

*Note: The board has found customary and traditional uses of wolf in GMUs 2, 6, 9 - 13, 15C, 16B, 17-26 outside of nonsubsistence areas. Findings for wolf in other areas are pending.

BACKGROUND DEFINITIONS:

- In Alaska statutes, the definition of "subsistence uses" includes "clothing", "the making and selling of handicraft articles out of inedible by-products of fish and wildlife resources taken for personal or family consumption", and "customary trade", as well as "food", "shelter", "fuel", "tools", "transportation", "barter", and "sharing"(AS 16.05.940(32)).
- The sale of furs and furbearers is exempted from "minimal amounts" limits placed on "customary trade", which is defined as "the limited noncommercial exchange, for minimal amounts of cash, as restricted by the appropriate board, of fish or game resources; the terms of this paragraph do not restrict the money sales of furs and furbearers" (AS 16.05.940(8)).
- The sale of animal skins by a trapper or a hunter who has legally taken the animal, and the purchase of animal skins for one's own use, is not defined as "fur dealing", which means "engaging in the business of buying, selling, or trading in animal skins"(AS 16.05.940(17)).

1. Length and consistency of use (a long-term consistent pattern of noncommercial taking, use, and reliance on the game population that has been established over a reasonable period of time of not less than one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the game caused by migratory patterns)

Furbearers have been harvested for their furs, and in some cases for food, for hundreds of years in Alaska, continuing up to the present time. At historic contact, furs and skins were used for clothing and other crafted items within all indigenous cultural groups in Alaska. During the late

1

20th century, furs continue to be used, though primarily in handicraft specialty clothes for local use (including ruffs, hats, mitts, footwear, parkas, and trim), in handicraft items sold as arts and crafts, and as pelts sold to fur buyers. Certain furbearers are used for human food, including beaver and muskrat, and in some cases, lynx, ground squirrel, marmot, and mink, depending on the area. Carcasses also are used as dog food and trapping bait.

Alaska's fur resources drew Euroamerican trading companies to Alaska by the mid 1700s, including Russian, Spanish, British, and eventually American companies (Novak et al. 1987; Zagoskin 1967). In most areas, the post-contact fur trade was built upon traditions of harvesting and trading furs and handicraft items between indigenous groups that had existed for centuries before that (Clark 1981:586, 595; Murphy and Steward 1956). The volume of particular furs harvested has fluctuated over time depending on furbearer population levels, local demand for furs and handicraft items, and fur prices on export markets. Under territorial and state jurisdictions, seasons have been generally open for furbearer harvests in the areas they occur, with regulations allowing for local use and distribution of fur products through sharing, trade, and sale of handicrafts.

The records of the number and types of furs harvested in Alaska are incomplete, but they provide a general picture of harvest patterns. Table 2 presents a partial record of furs traded from Alaska, beginning with records in 1743 (Novak et al. 1987; IAFWA 1993). Eleven of the thirteen furbearers are part of the historic record (squirrel and marmot are missing). Tables 3 to 8 summarize the pelts of beaver, lynx, marten, land otter, wolf, and wolverine sealed as part of the state's sealing program from 1979-1998. Only some pelts require sealing; even with these, ADF&G staff estimate that as few as 10 percent of harvests in some areas of the state are sealed some years. Table 1 presents an estimate of the total annual furbearer harvest by residents of rural areas, derived from household surveys conducted in selected communities and years during the mid-1980s to mid-1990s, expanded to unsurveyed places (ADF&G 1999). Based on household surveys, the annual harvest of furs by residents of rural areas during the past decade is estimated to be about 20,000 beaver, 400 coyote, 15,400 fox, 2,400 lynx, 40 marmot, 32,500 marten, 12,400 mink, 44,500 muskrat, 3,100 land otter, 8,600 squirrel, 1,000 weasel, 1,100 wolf, and 900 wolverine. The confidence limits around these estimates is about +/-58 percent. Additional animals are harvested in nonsubsistence areas, according to fur sealing records from the past decade (800-1,400 beaver, 50-700 lynx, 500-800 marten, 150-300 land otter, 160-250 wolf, and 40-70 wolverine) (Tables 3-8). Harvests by community are presented in Table 9.

2. Seasonality (a pattern of taking or use recurring in specific seasons of each year)

The harvest season for furbearers commonly is linked to the uses made of the animal by the harvester. Furbearers are commonly harvested during winter and spring at times when pelts are considered prime by fur buyers, in order to increase their sale value. Furbearers are also commonly harvested at other times (including late fall and late spring/early summer) for local uses, such as for food and for making handcrafted items for local use and sale, when pelt primeness is less important. To illustrate local seasonal variation, Figure 1 presents harvest periods reported by residents of selected communities in several areas. For instance, harvest periods at Kwethluk in the western region were reported as follows: beaver (mid-August to mid-October, mid-November to early June), fox (late October to mid-April), land otter (late August to early April), muskrat (late August though December, mid-April to early June), and ground squirrel (mid-August to early October, late March to late-May). As shown in Figure 1, seasons in other areas show local variations.

3. Means and Methods of Harvest (a pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost)
At historic contact, depending on the species, furbearers were harvested with set facilities such as deadfall traps, snares, and basket traps, and also by hunting. Additional methods were introduced and adapted after historic contact, including the use of steel leg-hold and body traps, steel snares, wire screened basket traps, and rifles. Types of sets, bait, and traps vary by area and species. For instance, methods used along the Kuskokwim include pole sets of small leg-hold traps for marten; ground sets of larger traps for wolverine, fox, and lynx; drowning snares for beaver; conibear, leg-hold, and basket traps for mink and otter; hole sets of small leg-hold traps for ground squirrel; and .22 caliber rifles for muskrat and marmot (Stokes 1985, Coffing 1991). Before historic contact, access to fur areas was by foot, boat, and dog traction, depending on the species, season, and area. During the late 20th century, other efficient means and methods were commonly used to access harvest areas, including snowmachines, ATVs, and boats, and less frequently, trucks and planes. Sleds commonly hold supplies and the catch.

4. Geographic Area (the area in which the noncommercial, long-term, and consistent pattern of taking, use, and reliance upon the game population has been established)
Furbearers are typically harvested in areas surrounding a harvester's residence. As examples, Figures 2, 3, and 4 illustrate trapping areas and lines for Huslia in 1981-83, for the Western Susitna Basin in 1984, and for Minto in 1960-84 (Marcotte 1986; Stanek 1987; Andrews 1988). In some cases, harvest areas are periodically accessed from the home community, while in other cases harvesters use camps and cabin sites outside the home community to check lines. In some regions, harvests of certain species (such as muskrat, ground squirrel, and marmot) occur at seasonal camps distant from the community. In some parts of Alaska, customary usufruct rights to trapping lines are negotiated, enforced, and transferred through local convention. In other places, exclusive access rights are not locally recognized and furbearers are harvested from common-use areas. Alaska has no legal registration system for traplines or trapping areas.

5. Means of Handling, Preparing, Preserving, and Storing (a means of handling, preparing, preserving, and storing of game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate)
The pattern of handling furs during the late 20th century varied by the use of the fur. Some furs are processed locally by trappers for sale to fur buyers. Other furs are processed locally for handicraft items. Still others are sent to commercial tanning companies for processing for local use. Initial processing of furs involve skinning, fleshing, drying, and stretching on boards (Stokes 1985:196). After drying, imperfections are repaired by sewing and a second stretching commonly done. Pelts are commonly stored in cool, dry places, bundled by lots, and sold to fur buyers. Furs retained for local use are "tanned" using customary procedures that vary by place, but typically involve rubbing or working soap into the pelt, scraping, and breaking down fibers in the hide. Master patterns are used for cutting pieces for sewn articles. Styles of hats, ruffs, parkas, mitts, shoes, and other handicrafted items vary locally. Several different skins are commonly incorporated into items. Certain furbearers are prepared fresh or dried for food, including beaver and muskrat, and in some areas, lynx, ground squirrel, marmot, and mink.

6. Intergenerational Transmission (a pattern of taking or use that includes the handing down of knowledge of hunting skills, values, and lore from generation to generation)
Trapping is commonly learned by young boys accompanying relatives on trapping trips during periods of moderate weather (Stokes 1985:183; Andersen 1996). Many boys gain trapping experience setting and maintaining small lines with a few traps near the community, which are checked after school. Longer groomed trapping areas are commonly checked by partners or family members who learn from the main owner. Rights to use an established line are commonly

transferred across generations in a family or between partners. While trapping knowledge is typically learned through families, in some areas trapping associations have been established as local institutions for the development and promotion of trapping standards and values.

7. Distribution and Exchange (a pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift-giving)

Furs and other products from furbearers are commonly shared and exchanged. The percent of households using, harvesting, giving, and receiving furbearers are shown in Table 10, based on household surveys for selected communities and years. Harvesters commonly dispose of furbearer products through several channels – some are used by the harvesters' family, others are given and sold locally as pelts or finished products, and others are sold to fur buyers (Wolfe 1991). For example, surveyed households in Kwethluk sold somewhat less than a quarter of their furbearer harvests in 1986, with most furbearers used locally for clothing, crafts, and food (Coffing 1991:181), as follows:

	Sold	Not Sold	Eaten	Dog Food
Beaver	25%	75%	54%	27%
Mink	0%	100%	38%	56%
Otter	23%	77%	33%	23%
Muskrat	26%	74%	37%	63%
Red Fox	16%	84%	0%	0%

As a contrasting example, most furbearers were sold by surveyed households in Fort Yukon in 1987 (Sumida and Andersen 1990:37, 57), as follows:

	Sold	Not Sold	Eaten	Dog Food
Beaver	83%	17%	16%	32%
Mink	100%	0%	0%	--
Otter	100%	0%	0%	--
Muskrat	92%	8%	22%	4%
Red Fox	96%	4%	0%	--
Marten	97%	3%	0%	--
Lynx	100%	0%	3%	20%

Furs may be sold to itinerant fur dealers, local fur cooperatives, or shipped by mail to fur dealers. Markets for furs vary over time. In the early 1990s, the primary export market were as follows: beaver (U.S., Canada, Italy), lynx (U.S., Canada, Japan), marten (U.S., Japan, Italy), mink (Italy, Spain, China), muskrat (U.S., Canada), otter (China), red fox (U.S., Canada), wolf (most sold in Alaska), wolverine (most sold in Alaska) (Andersen 1993:32). Markets for some furs, such as wolf, ground squirrel, marmot, and wolverine, are primarily within Alaska.

8. Diversity and Economic, Cultural, Social, and Nutritional Elements (a pattern that includes taking, use, and reliance for subsistence purposes upon a wide diversity of fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life)

Taking furbearers commonly is part of a diverse annual cycle of harvest activities in rural areas (Wolfe 1991). Furbearers are part of a larger mix of resources taken seasonally in communities supported by "mixed, subsistence-cash economies", where harvesting wild foods provides a major part of the community's food supply (Andersen 1993; Stanek 1987; Sumida and Andersen 1990; Wolfe 1991) . Furbearers generally represent somewhat less than ten percent by weight of the wild foods consumed in a community. The furs taken are commonly used in clothing that enable persons to successfully survive in severe winter conditions. Some fur products are

considered superior to purchased substitutes. Furs commonly are taken winter and spring when major food harvest activities are relatively low. Local clothing styles and ceremonial regalia commonly incorporate furs as trim and other components, and are used to identify social and cultural groups. During winter, trapping occurs as part of multipurpose trips that produce furs, wood for heating and construction, and some fresh meat and fish for humans and dogs. Studies have shown that most trappers' net earnings were modest during the mid-1980s to mid-1990s (Andersen 1993; Stanek 1987; Sumida and Andersen 1990; Wolfe 1991) – on the order of hundreds of dollars per year. However, the additional income was commonly important for households with low annual incomes, and the income came at times of the year when seasonal employment was typically low.

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Fig. 1. Examples of Furbearer Harvest Periods for Selected Alaska Communties

Source: Key Respondent Interviews, Division of Subsistence, ADF&G

LEGEND: X (Harvesting Occurs), x (Harvesting Occasionally Occurs)

Minto, Interior Region, ca. 1960-84

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	XXXX	XXXX	XXXX	XXxx	xx						xxxx	xxxx
Fox	xxxx	xxxx									xxxx	xxxx
Land otter	xxxx	xxxx	xxxx	xx							xxxx	xxxx
Lynx	xxxx	xx									xxxx	xxxx
Marten	XXXX	XXXX									XXXX	XXXX
Mink	xxxx	xxxx									xxxx	xxxx
Muskrat	xxxx	xxxx	XXXX	XXXX	XXXX	xx					xxxx	xxxx
Wolf	xxxx	xxxx	xxxx								xxxx	xxxx

Source: Andrews (1988:66)

Nikolai, Interior Region, ca. 1983

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	xXXX	XXXX	XXXX	XXXX	XXXX	XXxx	xxxx	xxxx	xxxx	x		xx
Fox	XXXX	XXXX	XXX							X	XXXX	XXXX
Land otter	XXXX	XXXX									XXX	XXXX
Lynx	XXXX	XXXX	XXX								XXX	XXXX
Marten	XXXX	XXXX									XXX	XXXX
Mink	XXXX	XXXX									XXX	XXXX
Muskrat				xx	XXXX	Xxx						
Wolf	XXXX	XXXX	XXXX					xx	xxxx	xxxx	xxxx	xXXX

Source: Stokes (1985:77)

Fort Yukon, Interior Region, ca. 1987

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	xxxx	xxXX	XXXX	xxxx							xx	xxxx
Muskrat		X	XXXX	XXXX	xxxx	xxxx						
Other furbearers	XXXX	XXXX	XXXX								XXXX	XXXX
Squirrel (ground)						XXXX	XXXX	XXXX	XXXX	xxxx		
Squirrel (red)	XXXX	XXXX	XXXX							xx	XXXX	XXXX

* Harvests in 1986-87 included lynx, marten, fox, mink, otter, weasel, wolf, and wolverine

Source: Sumida and Andersen (1990:24, 38)

Kwethluk, Western Region, ca 1980s

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	xxXX	XXXX	XXXX	XXXX	XXxx	x		xXX	XXXX	xxx	xxX	XXXX
Fox	XXXX	XXXX	XXXX	xxx						x	XXXX	XXXX
Land otter	xxxx	XXXX	XXxx	x				x	xxxx	xxxx	XXXX	XXXX
Mink	xxxx	XXXX	xxx							x	XXXX	XXXx
Muskrat				xXX	XXXx	x		xx	xxxx	xxxx	XXXx	xxxx
Squirrel (ground)			x	xXXX	Xxx			XXX	XXXX	x		

* Other furbearers harvested included wolf, wolverine, lynx, marten, marmot, and weasel

Source: Coffing (1991:62, 178)

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Fig. 1. Examples of Furbearer Harvest Periods for Selected Alaska Communties

Source: Key Respondent Interviews, Division of Subsistence, ADF&G

LEGEND: X (Harvesting Occurs), x (Harvesting Occasionally Occurs)

Togiak, Southwest Region, ca. 1983

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	xxxx	XXXX	XXXX	XXxx	xxxx		xxxx	xxXX	XXXX	XXXX	xxxx	xxxx
Fox	XXXX	XXXX	XXXX								XX	XXXX
Land otter	XXXX	XXXX	XXXX	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	XXXX	XXXX
Marmot	xxxx	xxxx	xxxx	xxxx								xx
Mink	XXXX	XXXX	XXXX									
Muskrat	XXXX	XXXX	XXXX	XXXX	XX						XX	XXXX
Squirrel (ground)				XXXX	XXXX	XX						
Weasel	xxxx	xxxx	xxxx	xxxx								xx
Wolverine	xxxx	xxxx	xxxx	xxxx							xx	xxxx

Source: Wolfe et al (1984:327-328)

Yakutat, Southeast Region, ca. 1984

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	XXXX	XXXX	XXXX	XXX							XXX	XXXX
Fox	XXXX	XX									XXX	XXXX
Land Otter	XXXX	XX									XXX	XXXX
Lynx	XXXX	XXXX	XXXX	XXXX	XX						XXX	XXXX
Marten	XXXX	XX									XXX	XXXX
Mink	XXXX	XX									XXX	XXXX
Wolf	XXXX	XXXX	XXXX	XX						XXX	XXXX	XXXX
Wolverine	XXXX	XX									XX	XXXX

Source: Mills and Firman (1986:59)

Upper Yentna, Southcentral Region, ca. 1982

	J	F	M	A	M	J	J	A	S	O	N	D
Beaver	XXXX	XXXX	XXXX	xxxx	xxxx	xxxx	xxx				XXX	XXXX
Coyote	XXXX										XXX	XXXX
Fox	XXXX	XXXX										
Land Otter	XXXX	XXXX									XXX	XXXX
Lynx	XXXX	XXXX	XX								XXX	XXXX
Marten	XXXX	XXXX	XXXX								XXX	XXXX
Mink	XXXX	XXXX									XXX	XXXX
Muskrat				XX	XXXX	XXXX	X					
Squirrel (flying)	XXXX	XXXX	XXXX							XXXX	XXXX	XXXX
Squirrel (red)	XXXX	XXXX	XXXX							XXXX	XXXX	XXXX
Weasel	XXXX	XXXX									XXX	XXXX
Wolf	xxxx	xxxx	xx								xx	xxxx
Wolverine	XXXX	XXXX									XXX	XXXX

Source: Fall, Foster, and Stanek (1983:22)

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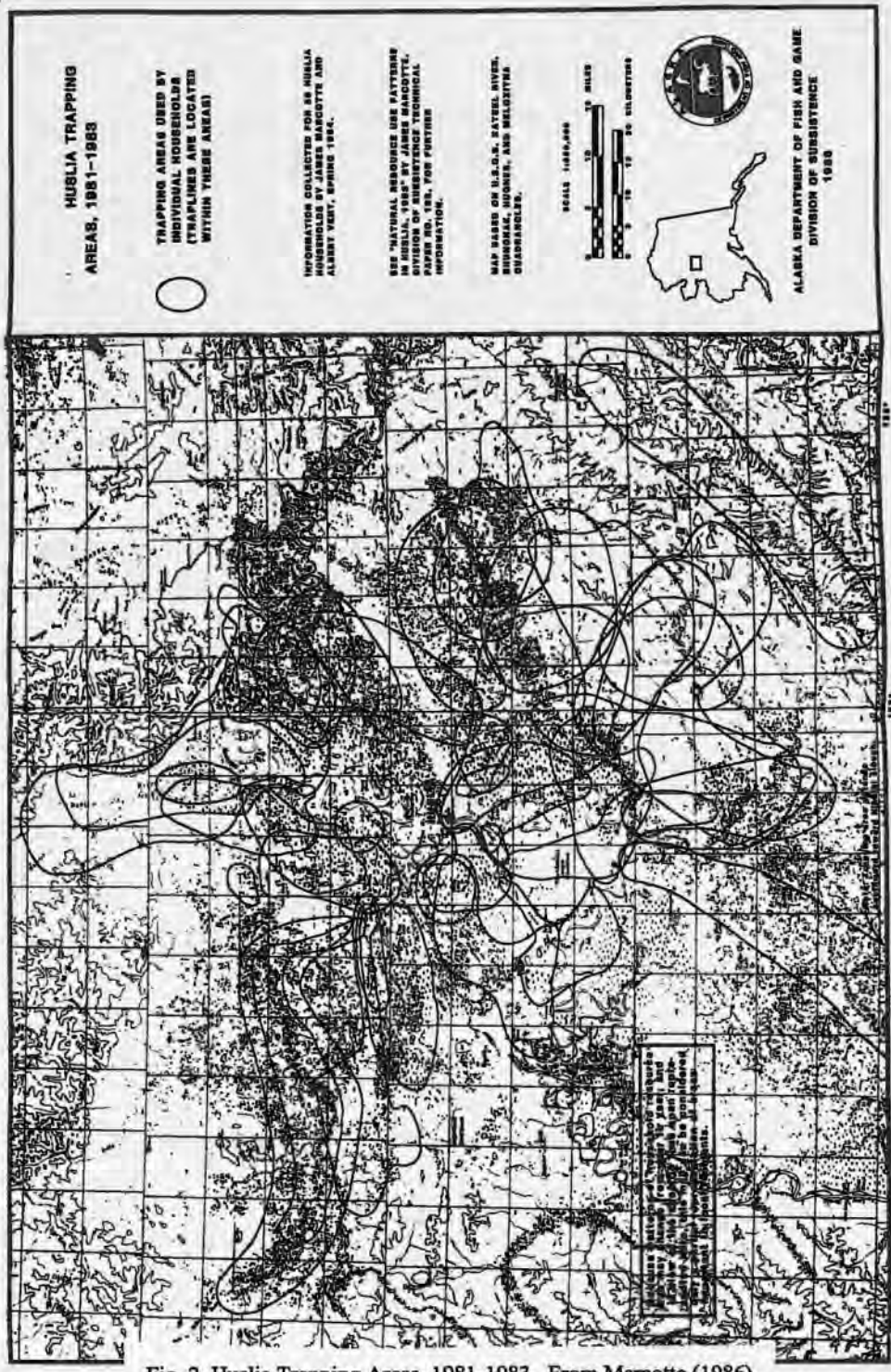
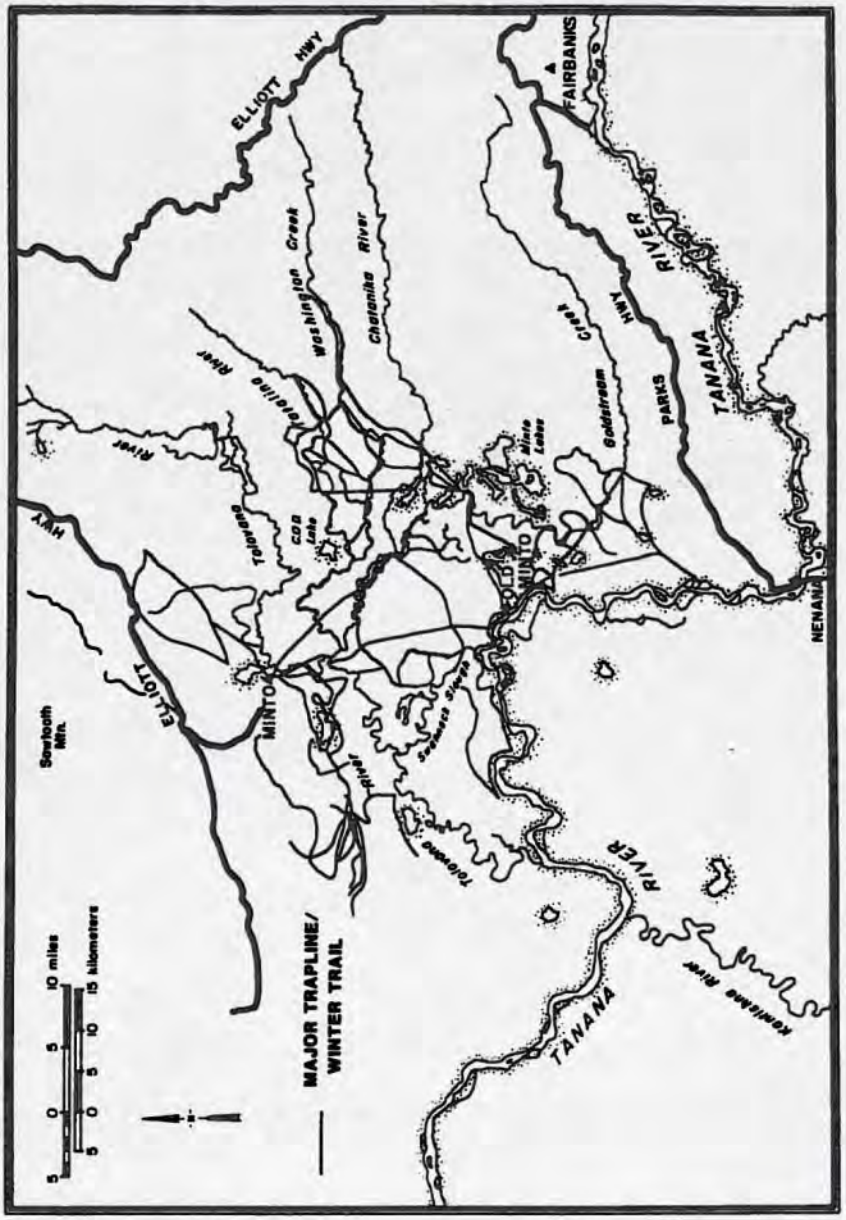


Fig. 2. Huslia Trapping Areas, 1981-1983. From Marcotte (1986).



Selected Traplines Used by Minto Trappers, 1960-84.

Fig. 3. Selected Traplines Used by Minto Trappers, 1960-84. From Andrews (1988).

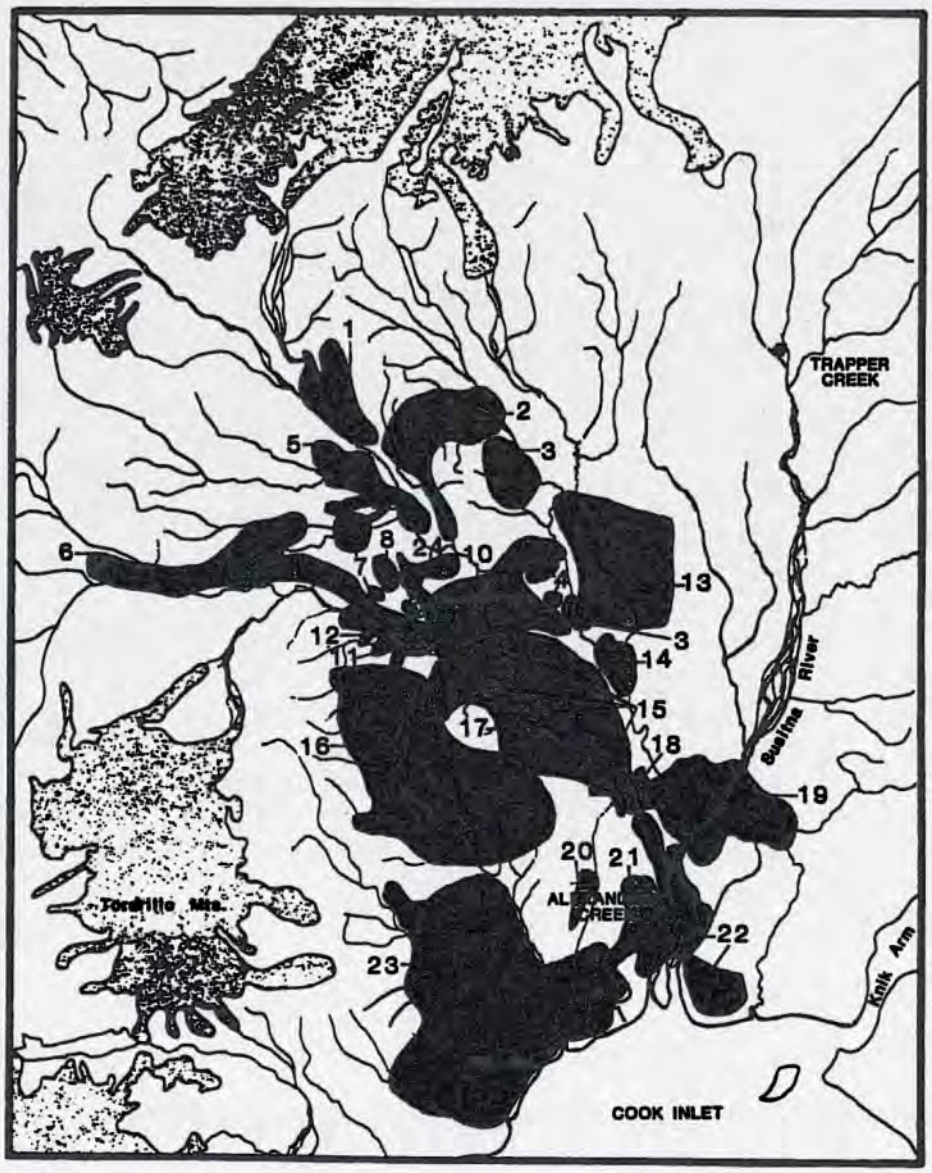


Fig. 4. Contemporary Trapping Areas, Western Susitna Basin, 1984. Note that Small, Often Recreational Trapping Areas Commonly are Incorporated within the Boundaries of about 8 Large (>100 sq. miles) Trapping Areas. (see text for explanation)

From Stanek (1987).

Table A. Furbearer Harvest Estimates by Source of Information

Source: Household Surveys in Subsistence Areas (mid-1980s to mid-1990s) (See Tables 1 and 9)

	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine
Estimate	20,130	405	15,397	2,365	40	32,530	12,405	44,523	3,124	8,653	1,040	1,086	873
Low*	8,455	170	6,467	993	17	13,663	5,210	18,700	1,312	3,634	437	456	367
High*	31,805	640	24,328	3,737	63	51,397	19,601	70,346	4,936	13,672	1,643	1,715	1,380

** Low and high confidence range about the estimate (+/- 58%) due to potential household sampling error.*

Source: Records of Pelts Exported from Alaska (1980-96) (See Table 2)

	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine
Mean	7,864	213	5,531	2,084	–	22,051	11,186	13,159	1,666	–	415	1,046	572
Low*	3,570	83	963	574	–	5,424	2,794	898	1,127	–	248	682	389
High*	17,090	490	15,535	5,652	–	36,053	26,184	85,220	2,389	–	678	1,600	937

** Low and high years*

Source: Records of Pelts Sealed by Residents of Subsistence Areas (See Tables 3-8)

	Beaver (84-98)	Coyote	Fox	Lynx (79-98)	Marmot	Marten	Mink	Muskrat	Otter, Land (79-98)	Squirrel	Weasel	Wolf (79-98)	Wolverine (79-98)
Mean	6,403	–	–	1,922	–	–	–	–	1,476	–	–	871	500
Low*	1,993	–	–	523	–	–	–	–	860	–	–	486	329
High*	15,111	–	–	5,604	–	–	–	–	2,210	–	–	1,269	777

** Low and high years*

Table 1. Furbearer Harvests in Alaska, by Residents of Game Management Units with Subsistence Uses

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine
1	2	26	12	0	0	211	139	0	16	0	26	26	26
2	323	0	6	0	0	2,666	349	0	96	0	17	259	0
3	87	0	0	0	0	651	738	0	148	0	0	0	0
4	23	0	158	0	0	1,163	797	0	84	352	1	0	0
5	18	4	0	7	0	76	58	0	11	7	11	69	43
6	73	10	0	0	0	49	188	0	59	0	27	0	18
8	75	0	452	0	0	102	0	0	265	19	182	0	0
9	734	46	1,011	92	0	35	404	16	328	113	8	89	53
10	0	0	372	0	0	0	4	0	6	25	0	0	0
11	25	50	184	106	3	176	45	607	16	58	63	14	21
12	66	46	341	57	0	3,319	198	4,490	12	111	106	34	50
13	312	151	633	280	7	1,327	225	1,177	43	673	209	113	55
15	0	2	0	0	0	0	0	0	12	69	14	0	0
16	42	0	7	0	0	12	3	0	1	21	8	0	0
17	4,074	7	815	10	0	619	398	263	500	886	0	73	44
18	7,557	0	6,207	34	0	1,082	8,139	26,756	1,084	2,253	133	19	2
19	1,936	0	242	128	0	4,265	147	50	145	2	0	14	80
20	1,140	52	357	126	9	3,753	198	804	57	138	75	29	23
21	1,528	0	304	119	0	2,790	14	189	96	0	51	60	7
22	242	0	1,449	0	0	0	6	629	39	1,152	26	40	22
23	127	0	721	0	0	38	28	1,847	50	300	13	148	239
24	663	1	401	406	0	2,565	0	484	33	0	0	17	30
25	1,010	5	1,250	798	0	6,606	327	7,126	23	1,692	46	44	66
26	74	5	477	202	21	1,025	0	85	1	781	23	37	94
Total	20,130	405	15,397	2,365	40	32,530	12,405	44,523	3,124	8,653	1,040	1,086	873
Low*	8,455	170	6,467	993	17	13,663	5,210	18,700	1,312	3,634	437	456	367
High	31,805	640	24,328	3,737	63	51,397	19,601	70,346	4,936	13,672	1,643	1,715	1,380

** Low and high confidence range about the estimate (+/- 58%) due to potential household sampling error.*

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Table 2. Furs Traded from Alaska, 1743-1996

Sources: Novak et al (1987) Furbearer Harvests in North America, 1600-1984, ADF&G Records, and IAFWA (1993) U.S. Fur Harvest (1970-92) and Fur Value (1974-1992) Statistics by State and Region

Year	Beaver	Coyote	Fox	Lynx	Marten	Mink	Muskrat	Land Otter	Sea Otter	Weasel	Wolf	Wolverine
RUSSIAN PERIOD												
1743									600			
1744			2,000						600			
1745			2,000									
1746			2,240						1,670			
1747									320			
1748			3,001						362			
1749			2,760						1,098			
1750			1,080						522			
1751												
1752			1,900						820			
1753									1,920			
1754			7,044						790			
1755			1,304						3,250			
1756												
1757									7,690			
1758			2,869						2,978			
1759			1,813						5,652			
1760												
1761									2,444			
1762			3,538					18	5,057			
1763			186						4,119			
1764			582						3,036			
1765												
1766			2,892					70	2,350			
1767												
1768			4,695						1,655			
1769			1,045						1,440			
1770			3,081						6,835			
1772			4,367						1,415			
1773			1,187						2,701			
1774			1,130			19			2,460			
1775			4,886					86	1,904			
1777			1,861						3,857			
1778			1,127			39,500			444			
1779			6,215					155	5,352			
1780			1,584						936			
1781			5,417					1	3,700			
1782			310						270			
1784			609						965			
1785			8,615					640	5,272			
1786			8,940					147	5,413			
1787			183						1,388			
1789	138		7,819					1,385	7,725			
1791			4,850						61,420			
1792			4,969					852	4,502			
1793			946						760			
1795	290		5,389					1,115	4,562			
1797	175		482					8	555		5	
1798	1,075		14,238	31	430	192		2,212	8,714		5	10

Table 2. Furs Traded from Alaska, 1743-1996

Sources: Novak et al (1987) Furbearer Harvests in North America, 1600-1984, ADF&G Records, and IAFWA (1993) U.S. Fur Harvest (1970-92) and Fur Value (1974-1992) Statistics by State and Region

Year	Beaver	Coyote	Fox	Lynx	Marten	Mink	Muskrat	Land Otter	Sea Otter	Weasel	Wolf	Wolverine
1799									1,200		5	
1800									2,000		5	
1801									2,000		5	
1802			8,295					223	1,479		5	
1803	7,985		19,726	513	7,230	470		3,764	20,277		5	229
1806			9,589	85	300	138		1,342	5,269		5	
1807	2,943		6,003	72	354	46		430	2,893		5	168
1808	84		2,247	867	2,306	124		814	2,799		5	112
1809	90		80						1,466		5	
1810			7,855			29		521	6,198		5	1
1811			2,856			7		84	90		5	
1812			6,827	83	452	32		26	6,096		5	102
1813												46
1814	5,272		4,901	34	1,397	122		354	6,118		5	12
1815	2,732		7,651	38	1,287	85		1,901	5,654		5	185
1816	220		2,333		40			147	2,120		5	
1817	1,960		1,195	25	1,346			571	1,017		5	45
1818	5,868		9,632	237	957	892		1,775	2,185		5	118
1819	2,014		3,315	4	215	1,365		707	3,106		5	142
1820	4,300		1,873		160	1,300		550	602		5	37
1821	4,483		12,039	368	824	486	214	654	2,532		9	63
1822	1,950		5,285	62	281	714	214	1,371	826		9	20
1823-40 ave/yr	7,365		7,117.5	191	712	714	214	1,371	1,129		9	74
1841	12,000		7,117.5	191	712	714	214	1,371	1,129		9	74
1842	7,499		7,117.5	191	609	714	214	1,371	1,129		9	74
1843-62 ave/yr	7,499		6,243	337	609		313	3,455	1,295		1	
AMERICAN PERIOD												
1934		439	42,714	723	4,866	57,858	133,312	3,897		14,278	757	279
1935	11,138	297	36,630	1,338	3,314	60,501	127,901	3,224		19,279	642	260
1936	25,046	1,098	39,501	2,421	1,306	44,016	153,772	3,235		11,012	904	290
1937	1,882	1,330	41,043	2,089	16,969	52,436	231,842	3,007		8,453	730	369
1938	30,889	1,355	34,150	2,130	9,237	39,866	291,140	2,892		9,755	640	248
1939	31,397	1,507	39,129	2,750	1,287	42,883	417,442	2,759		13,828	405	228
1940	14,630	2,080	24,035	1,698	9,626	43,702	453,300	2,804		9,895	444	326
1941	20,606	1,208	28,536	781	707	31,782	511,805	2,188		8,580	599	232
1942	12,071	460	21,280	639	240	53,060	267,356	2,821		11,280	464	161
1943	15,146	376	13,736	713	8,182	33,705	212,352	1,547		3,892	351	92
1944	8,516	797	15,433	990	13,352	61,038	142,530	2,772		5,508	418	87
1945	9,553	474	16,001	922	453	31,339	152,542	1,721		5,967	290	108
1946	18,929	389	12,308	601	2,670	64,837	137,656	3,354		6,629	286	157
1947	27,349	900	11,746	883	13,172	42,772	182,969	2,609		4,815	490	157
1948	16,353	173	3,819				139,456					
1949	23,394	355	5,665	854	14,141	39,348	142,843	2,287		8,801	477	369
1950	19,095	800	6,020	680	8,200	28,000	198,000	2,660		6,740	1,070	490
1951	17,506	600	5,006	900	9,500	22,000	261,000	2,400		8,000	782	500
1952	18,617	459	2,890	600	6,350	39,200	163,000	2,950		5,230	1,153	350
1953	15,163	410	3,205	900	5,500	25,000	138,000	2,340		3,000	585	400
1954	17,455		2,075	3,100	7,000	27,700	110,000	3,100		3,300		300
1955	16,140		1,130	2,900	4,200	11,100	45,000	2,300		3,000		350

Table 2. Furs Traded from Alaska, 1743-1996

Sources: Novak et al (1987) Furbearer Harvests in North America, 1600-1984, ADF&G Records, and IAFWA (1993) U.S. Fur Harvest (1970-92) and Fur Value (1974-1992) Statistics by State and Region

Year	Beaver	Coyote	Fox	Lynx	Marten	Mink	Muskrat	Land Otter	Sea Otter	Weasel	Wolf	Wolverine
1956	14,350		1,510	2,200	3,650	35,000	84,000	3,300		1,500	900	200
1957	24,484		1,140	1,500	2,710	15,200	100,000	3,890		2,200	1,080	350
1958	14,712	24	1,362	605	2,368	10,437	43,289	1,657		2,207	227	213
1959	24,000		2,581	782	3,286	20,640	132,530	3,681		1,993	171	198
1960	25,000		2,800	900	5,000	30,000	91,000	3,500		1,700	720	292
1961	15,000	50	1,550	1,100	4,500	9,000	36,000	1,200		1,400	140	175
1962	20,000	250	2,500	2,500	8,000	22,000	85,000	3,000		1,000	750	450
1963	14,046	69	2,200	4,700	6,200	23,000	49,000	2,300		1,500	800	250
1964	9,200	200	2,998	3,957	8,869	15,623	33,000	2,781		945	750	500
1965	11,326		3,530	6,190	7,500	15,200	27,100	3,960		1,240	1,350	660
1966	12,000		2,000	3,000	8,000	15,000	25,000	4,000		1,200	1,850	700
1967	13,285		3,750	1,590	7,180	12,100	48,600	3,380		2,270	1,700	240
1968	9,500	300	4,500	2,000	6,000	10,000	40,000	2,000		1,000	1,045	250
1970	3,920		6,100	1,400	8,100	7,200	16,900	1,500		600	635	
1971	5,952		4,050	3,200	8,400	3,420	16,600	2,000		560	1,335	548
1972	10,864		7,100	5,130	8,700	7,680	31,900	2,570		1,700	1,071	946
1973	8,400		16,920	8,970	17,970	10,700	40,280	2,540		2,470	970	1,037
1974	7,250		6,621	3,846	11,730	6,750	8,000	2,074		972	1,090	805
1975											1,243	984
1976	11,033		15,868	2,252	22,711	14,704	59,065	3,355		1,120	1,076	939
1977	8,023	234	7,720	2,027	29,000	11,025	47,069	2,193		908	864	883
1978	5,423	150	15,462	2,382	35,819	12,750	39,983	1,960		1,765	855	730
1979	12,765	143	14,774	2,731	36,076	10,487	59,546	2,200		2,189	633	69[illegible]
1980	11,341	150	14,901	3,408	36,053	22,120	85,220	2,381		338	740	56[illegible]
1981	8,129	150	15,535	5,221	33,705	25,028	23,918	1,834		248	682	630
1982	6,654	150	7,228	5,652	30,481	14,350	11,525	1,591		447	818	767
1983	6,991	150	8,457	3,132	24,913	26,184	6,734	1,918		501	729	601
1986	17,090	215	4,021	1,235	27,407	5,021	8,731	1,869		437	798	633
1987	16,367	145	5,464	1,049	27,153	10,008	10,244	2,389		407	1,097	547
1988	9,470	157	4,696	1,198	30,061	7,657	7,382	1,618		528	855	471
1989	6,740	83	1,306	1,300	20,534	9,128	898	1,314		645	934	453
1990	5,290			1,246							1,100	507
1991	7,443	490	4,798	2,087	23,519	8,850	7,855	1,379		678	1,209	937
1992	3,570	266	2,799	1,408	6,887	11,126	4,713	1,250		283	1,114	418
1993	4,995	468	4,163	1,225	11,889	4,194	10,101	1,127		348	1,600	496
1994	4,493	215	1,236	807	9,538	2,794	2,587	1,393		263	1,483	629
1995	3,614	196	963	574	5,424	4,162	3,084	1,506		280	1,251	389
1996	5,776	150	1,864	1,719	21,156	5,977	1,233	1,749		409	1,280	531
Mean 80-96	7,864	213	5,531	2,084	22,051	11,186	13,159	1,666		415	1,046	572
High	17,090	490	15,535	5,652	36,053	26,184	85,220	2,389		678	1,600	937
Low	3,570	83	963	574	5,424	2,794	898	1,127		248	682	389

Sources: Novak, Milan, Martyn E. Obbard, James G. Jones, Robert Newman, Annie Booth, Andrew J. Satterthwait Greg Linscombe (1987) Furbearer Harvests in North America, 1600-1984, Supplement to Wild Furbearer Manage and Conservation in North America, Ministry of Natural Resources, Ontario.
U.S. Fur Harvest (1970-92) and Fur Value (1974-1992) Statistics by State and Region. International Association and Wildlife Agencies, 1993.

Table 3. Beaver Pelts Sealed in Alaska, 1984-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																										
Year	1AC	7	14	15	16A	20AB	1BD	2	3	4	5	6	8	9	10	11	12	13	16B	17	18	19	20CD EF	21	22	23	24	25	26	Unk.	Non-Subsistence Areas	Subsistence Areas	TOTAL
1984	75	37	292	172	172	375	4	233	57	14	1	34	147	227	0	21	44	90	217	1,660	1,888	703	311	719	1	36	254	334	0	0	1,123	6,795	7,918
1985	42	57	469	185	253	1,141	39	379	64	4	6	61	243	362	0	56	6	218	196	1,468	2,624	1,598	703	1,843	5	34	646	482	0	0	2,147	11,037	13,184
1986	160	78	366	134	269	994	122	411	67	5	8	103	96	598	0	46	55	330	379	2,818	4,155	1,868	902	1,842	9	56	913	528	0	0	2,001	15,111	17,112
1987	93	54	290	78	126	1,214	21	354	125	4	8	30	88	867	0	21	18	306	272	3,021	4,768	1,378	610	1,713	58	79	514	446	0	0	1,855	14,701	16,556
1988	29	10	218	41	157	711	21	103	36	5	3	2	35	249	0	24	15	183	221	970	3,247	1,061	370	1,121	19	30	316	313	0	0	1,166	8,344	9,510
1989	44	65	154	29	35	478	83	406	48	8	4	20	78	257	0	11	14	160	119	1,266	2,118	513	117	299	34	64	282	178	0	0	805	6,079	6,884
1990	22	69	155	67	67	372	2	172	25	4	3	66	57	211	0	17	19	135	109	1,097	1,135	376	341	442	11	37	388	190	0	0	752	4,837	5,589
1991	57	34	227	33	34	620	0	257	80	11	8	61	79	388	0	4	40	181	194	1,189	1,447	513	308	413	44	7	127	125	0	0	1,005	5,476	6,481
1992	21	38	258	94	21	369	0	64	37	0	1	23	65	259	0	5	38	227	69	463	817	139	105	249	15	5	109	72	0	0	801	2,762	3,563
1993	77	80	236	93	39	748	3	204	55	0	9	44	68	201	0	0	36	225	48	676	679	230	214	432	42	10	320	90	0	0	1,273	3,586	4,859
1994	29	56	162	32	21	611	2	161	25	8	0	46	29	187	0	12	20	274	45	1,050	478	188	228	417	17	28	147	133	0	0	911	3,495	4,406
1995	74	87	286	81	56	278	0	281	26	0	4	48	50	86	0	18	14	272	13	453	624	80	129	294	14	48	248	89	0	0	862	2,791	3,653
1996	41	102	280	107	98	772	43	291	44	0	1	91	38	122	0	24	27	233	88	877	1,246	421	293	613	64	40	654	197	0	0	1,400	5,407	6,807
1997	96	71	244	95	71	587	22	249	56	0	7	80	42	92	0	0	22	191	42	363	1,019	203	178	480	56	6	405	107	0	6	1,164	3,626	4,790
1998	27	67	142	65	35	482	0	117	35	2	3	31	43	85	0	1	1	181	36	436	321	54	148	257	27	3	151	54	0	7	818	1,993	2,811
Mean	59	60	252	87	97	650	24	245	52	4	4	49	77	279	0	17	25	214	137	1,187	1,758	608	330	742	28	32	365	223	0	1	1,206	6,403	7,608
High	160	102	469	185	269	1,214	122	411	125	14	9	103	243	867	0	56	55	330	379	3,021	4,768	1,668	902	1,843	64	79	913	528	0	7	2,147	15,111	17,112
Low	21	10	142	29	21	278	0	64	25	0	0	2	29	85	0	0	1	90	13	363	321	54	105	249	1	3	109	54	0	0	752	1,993	2,811
%Diff	87%	90%	70%	84%	92%	77%	100%	84%	80%	100%	100%	98%	88%	90%	0%	100%	98%	73%	97%	88%	93%	97%	88%	86%	98%	96%	88%	90%	0%	100%	65%	87%	84%

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Table 4. Lynx Pelts Sealed in Alaska, 1979-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																											
Year	1AC	7	14	15	16A	20AB	1BD	2	3	4	5	6	8	9	10	11	12	13	16B	17	18	19	20CD EF	21	22	23	24	25	26	Unk.	Non-Subsistence Areas	Subsistence Areas	TOTAL
1979	0	0	5	13	0	0	1	0	0	0	0	0	0	141	0	53	92	36	6	25	62	215	347	58	257	406	279	707	2	0	18	2,685	2,703
1980	0	0	2	3	0	0	0	0	0	0	1	0	0	118	0	57	138	40	1	40	46	171	362	118	86	299	427	1,086	4	2	5	2,996	3,001
1981	0	3	7	20	0	0	0	0	1	0	0	1	0	61	0	57	214	122	2	17	50	281	654	480	478	481	779	1,433	10	55	30	5,176	5,206
1982	0	4	21	44	0	0	39	0	0	0	5	0	0	98	0	136	211	205	6	25	65	144	924	357	807	281	893	1,576	9	23	69	5,604	5,673
1983	1	2	6	31	4	147	14	0	0	0	3	1	2	25	0	111	151	136	6	12	23	53	221	126	432	84	427	1,027	2	0	191	2,858	3,049
1984	1	2	15	28	0	97	1	0	0	0	0	1	0	52	0	76	83	48	1	29	23	30	127	124	154	29	162	621	3	0	143	1,564	1,707
1985	0	15	8	47	2	125	1	0	0	0	2	2	0	45	0	22	73	23	0	8	13	33	123	164	23	45	202	517	2	3	197	1,301	1,498
1986	0	23	6	53	0	90	1	0	0	0	0	7	0	51	0	16	80	9	6	13	11	27	124	66	18	17	127	489	0	0	172	1,062	1,234
1987	0	0	0	7	0	79	0	0	0	0	0	2	0	10	0	0	72	1	0	1	10	37	97	71	3	0	95	552	1	0	86	952	1,038
1988	0	1	0	4	0	111	0	0	0	0	10	0	0	12	0	1	70	0	0	1	17	23	126	34	4	0	76	708	0	0	116	1,082	1,198
1989	0	1	0	2	0	140	0	0	0	0	6	0	0	12	0	0	77	1	0	1	7	25	207	16	3	0	113	705	0	0	143	1,173	1,316
1990	0	0	13	1	0	107	0	0	0	0	0	0	0	15	0	38	134	111	0	2	4	18	179	17	2	0	138	491	4	0	121	1,153	1,274
1991	0	0	15	0	0	316	7	0	0	0	0	0	0	26	0	108	174	123	1	5	4	35	389	70	5	1	159	648	1	0	331	1,756	2,087
1992	1	1	11	2	2	187	27	0	0	0	0	4	0	47	0	57	232	130	1	18	18	32	271	26	10	0	111	216	3	0	204	1,203	1,407
1993	5	0	10	3	2	193	8	0	0	0	9	0	0	58	0	19	123	81	2	12	4	18	130	47	2	6	123	367	4	0	213	1,013	1,226
1994	1	0	0	4	0	69	0	0	0	0	5	0	0	47	0	16	87	78	0	28	8	49	89	22	4	1	35	253	3	0	74	725	799
1995	0	0	0	2	0	50	0	0	0	0	5	0	0	24	0	9	42	71	0	7	13	11	76	7	1	3	30	224	0	0	52	523	575
1996	0	18	3	34	0	146	4	0	0	0	2	1	0	36	0	37	170	200	0	7	47	23	167	35	5	0	25	805	0	0	201	1,564	1,765
1997	0	31	2	116	0	364	0	0	0	0	0	0	0	24	0	51	342	380	1	13	39	8	464	28	2	0	34	797	0	6	513	2,189	2,702
1998	0	21	4	130	0	583	0	0	0	0	0	0	0	38	0	96	306	241	1	9	26	9	382	28	7	0	40	667	12	2	738	1,864	2,602
Mean	0	6	6	27	1	140	5	0	0	0	2	1	0	47	0	48	144	102	2	14	25	62	273	95	115	83	204	694	3	5	181	1,922	2,103
High	5	31	21	130	4	583	39	0	1	0	10	7	2	141	0	136	342	380	6	40	65	281	924	480	807	481	779	1,576	12	55	738	5,604	5,673
Low	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	42	0	0	1	4	8	76	7	1	0	25	216	0	0	5	523	575
%Diff	100%	100%	100%	100%	100%	100%	100%	0%	100%	0%	100%	100%	100%	93%	0%	100%	88%	100%	100%	98%	94%	97%	92%	99%	100%	100%	97%	86%	100%	100%	99%	91%	90%

Table 5. Land Otter Pelts Sealed in Alaska, 1979-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																										
Year	1AC	7	14	15	16A	20AB	1BD	2	3	4	5	6	8	9	10	11	12	13	16B	17	18	19	20C DEF	21	22	23	24	25	26	Unk.	Non-Subsistence Areas	Subsistance Areas	TOTAL
1979	0	5	19	28	0	0	195	225	54	172	2	117	347	137	3	4	8	23	64	140	303	61	69	57	14	18	54	10	0	3	52	2,080	2,132
1980	0	8	21	48	0	0	135	138	90	169	4	31	402	145	0	4	6	25	42	166	596	58	31	72	3	29	46	10	0	8	77	2,210	2,287
1981	0	5	33	41	0	0	91	108	77	184	4	45	281	151	0	3	6	18	48	184	387	85	29	61	7	9	11	10	0	14	79	1,813	1,892
1982	0	2	11	35	0	0	95	116	67	185	1	38	214	205	0	0	6	40	31	204	171	62	24	35	5	8	7	3	0	0	48	1,497	1,545
1983	96	7	32	45	7	24	20	180	44	117	4	36	146	120	0	5	4	68	20	165	596	58	24	100	12	8	31	7	0	0	211	1,744	1,955
1984	94	19	50	46	4	8	18	193	136	167	1	34	187	144	0	3	1	19	29	221	477	80	12	69	6	5	20	11	1	0	221	1,834	2,055
1985	105	11	38	53	20	33	15	141	51	146	2	56	249	67	0	4	2	29	21	107	258	77	19	54	10	5	13	15	0	0	280	1,341	1,601
1986	95	7	37	31	12	34	19	62	45	162	3	182	111	164	0	5	4	36	54	188	389	72	37	64	5	12	22	13	0	0	216	1,649	1,865
1987	140	9	11	27	14	38	58	166	103	186	1	198	142	220	0	3	10	16	33	265	582	80	19	67	1	16	25	5	0	0	239	2,196	2,435
1988	64	1	8	17	11	43	17	92	54	119	0	74	87	139	3	2	2	23	36	145	577	54	21	46	0	6	9	4	0	0	144	1,510	1,654
1989	112	12	24	16	6	22	21	154	70	149	0	37	96	78	1	4	1	5	14	117	321	46	9	29	2	4	9	3	1	0	192	1,171	1,363
1990	119	22	10	21	7	13	22	40	46	65	1	59	80	84	0	0	1	19	8	156	333	38	4	44	1	6	5	1	0	0	192	1,013	1,205
1991	89	12	26	22	5	28	3	43	69	131	1	89	144	151	0	1	6	23	17	103	285	43	12	47	2	3	11	6	0	0	182	1,190	1,372
1992	73	5	13	38	1	20	19	66	14	149	6	74	91	104	0	1	8	24	13	84	381	27	3	14	6	3	6	7	0	0	150	1,100	1,250
1993	120	21	35	51	2	32	24	108	82	63	7	43	68	65	0	0	0	42	29	95	125	34	11	35	9	0	19	1	0	0	261	860	1,121
1994	157	5	30	14	1	18	28	232	56	82	4	78	91	70	0	3	6	61	6	129	208	18	10	36	11	6	4	6	0	0	225	1,145	1,370
1995	80	16	35	53	12	42	6	198	23	187	2	103	139	73	0	12	4	58	4	83	316	6	7	40	1	0	18	9	0	0	238	1,289	1,527
1996	123	18	40	54	11	49	26	94	67	100	0	106	126	118	0	9	5	38	18	194	467	42	11	50	9	7	41	6	0	7	295	1,541	1,836
1997	137	2	39	38	17	25	37	186	47	226	10	76	147	74	0	0	1	27	7	83	397	16	11	24	8	10	21	2	0	0	258	1,410	1,668
1998	81	2	21	33	5	15	13	267	33	143	4	27	155	60	0	1	4	16	7	38	113	6	9	10	7	6	1	3	0	5	157	928	1,085
Mean	84	9	27	36	7	22	43	139	61	144	3	75	165	118	0	3	4	31	25	143	364	48	19	48	6	8	19	7	0	2	185	1,476	1,661
High	157	22	50	54	20	49	195	267	136	226	10	198	402	220	3	12	10	68	64	265	596	85	69	100	14	29	54	15	1	14	295	2,210	2,435
Low	0	1	8	14	0	0	3	40	14	63	0	27	68	60	0	0	0	5	4	38	113	6	3	10	0	0	1	1	0	0	48	860	1,085
%Diff	100%	95%	84%	74%	100%	100%	98%	0%	90%	0%	100%	86%	83%	73%	0%	100%	100%	93%	94%	86%	81%	93%	96%	90%	100%	100%	98%	93%	100%	100%	84%	61%	55%

Table 6. Wolf Pelts Sealed in Alaska, 1979-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																											
Year	1AC	7	14	15	16A	20AB	1BD	2	3	4	5	6	8	9	10	11	12	13	18B	17	18	19	20C DEF	21	22	23	24	25	26	Unk.	Non-Subsistence Areas	Subsistence Areas	TOTAL
1979	0	6	4	35	0	0	34	10	16	0	10	0	0	19	0	6	34	57	42	25	0	44	77	79	1	16	49	61	15	3	45	598	643
1980	0	10	3	32	0	0	36	35	12	0	2	1	0	23	0	16	20	46	21	8	0	46	101	49	6	43	61	63	29	4	45	622	667
1981	0	12	7	50	0	0	28	22	14	0	6	1	0	18	1	8	27	52	20	18	1	50	140	43	4	18	33	69	39	5	69	617	686
1982	0	4	16	41	0	0	39	15	16	0	11	1	0	13	0	27	30	89	12	41	5	32	132	90	4	46	41	44	5	0	61	693	754
1983	45	11	13	45	0	41	10	27	17	0	10	2	0	18	0	33	23	118	12	7	0	41	69	54	5	46	45	47	6	0	155	590	745
1984	24	5	6	42	9	83	14	43	7	0	16	3	0	54	0	38	22	127	10	43	3	110	40	158	12	65	56	71	13	0	149	905	1,054
1985	26	13	10	53	0	81	22	18	10	0	6	1	0	24	6	9	45	70	2	13	1	40	53	45	5	18	29	51	18	0	183	486	669
1986	29	19	3	30	0	43	20	39	10	0	13	3	0	34	4	15	37	84	9	28	4	75	52	101	8	33	38	57	13	5	124	682	806
1987	31	3	3	22	0	54	19	55	9	0	8	10	0	37	2	27	21	110	5	79	11	142	70	130	24	93	67	49	20	0	113	988	1,101
1988	26	2	1	16	1	67	10	45	10	0	7	4	0	58	6	25	19	32	6	24	17	110	44	79	21	84	77	27	41	0	113	746	859
1989	44	3	2	19	4	66	25	32	22	0	13	6	0	38	1	24	18	84	6	30	4	134	57	116	43	54	32	38	25	0	138	802	940
1990	18	3	2	6	3	67	16	66	19	0	7	4	0	26	3	37	73	144	2	19	1	128	100	91	31	41	53	69	66	0	99	996	1,095
1991	36	2	3	7	2	124	10	86	51	0	12	6	0	91	3	30	31	117	3	38	4	112	61	66	54	62	85	71	41	0	174	1,034	1,208
1992	47	3	10	16	4	106	11	105	26	0	5	3	0	33	0	33	52	95	4	22	7	35	95	64	27	88	92	85	66	0	186	928	1,114
1993	50	6	7	23	1	259	28	103	48	0	12	2	0	71	0	17	75	179	11	53	6	84	160	66	34	48	91	68	91	0	346	1,247	1,593
1994	47	7	22	13	2	116	18	89	54	0	19	0	0	29	0	35	27	160	26	121	6	186	84	89	32	53	88	83	70	0	207	1,269	1,476
1995	54	17	24	25	1	116	7	99	40	0	9	5	0	35	0	11	47	123	14	37	9	83	135	73	29	73	107	62	39	0	237	1,037	1,274
1996	24	9	19	21	5	146	12	131	59	0	26	12	0	39	0	19	35	139	21	52	40	115	128	108	23	63	89	63	43	0	224	1,217	1,441
1997	34	7	16	17	2	90	12	79	41	0	3	5	0	78	0	11	38	135	15	90	31	62	95	66	20	14	55	38	9	0	166	895	1,061
1998	27	12	28	37	10	139	17	91	34	0	7	6	0	85	0	36	62	168	24	74	15	109	66	104	39	28	36	26	41	3	253	1,071	1,324
Mean	28	8	10	28	2	79	19	60	26	0	10	4	0	41	1	23	37	106	13	41	8	87	88	84	21	48	61	57	35	1	154	871	1,026
High	54	19	28	53	10	259	39	131	59	0	26	12	0	91	6	38	75	179	42	121	40	186	160	158	54	93	107	85	91	5	346	1,269	1,593
Low	0	2	1	6	0	0	7	10	7	0	2	0	0	13	0	6	18	32	2	7	0	32	40	43	1	14	29	26	5	0	45	486	643
%Diff	100%	89%	96%	89%	100%	100%	82%	0%	88%	0%	92%	100%	0%	86%	0%	84%	78%	82%	95%	94%	100%	83%	75%	73%	98%	85%	73%	69%	95%	100%	87%	62%	60%

Table 7. Wolverine Pelts Sealed in Alaska, 1979-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																										
Year	1AC	7	14	15	16A	20AB	1BD	2	3	4	5	6	8	9	10	11	12	13	16B	17	18	19	20C DEF	21	22	23	24	25	26	Unk.	Non-Subsistance Areas	Subsistence Areas	TOTAL
1979	0	17	17	9	0	0	20	0	1	0	3	13	0	64	1	23	18	81	55	47	13	56	57	37	20	25	30	77	9	1	43	651	694
1980	0	10	8	9	0	0	10	0	1	0	2	7	0	39	0	13	29	34	26	40	6	37	71	33	15	19	46	47	10	4	27	489	516
1981	0	8	14	5	0	0	17	0	1	0	3	7	0	72	0	16	11	60	36	38	6	63	52	41	9	48	25	55	17	2	27	579	606
1982	0	10	13	7	0	0	20	1	2	0	1	10	0	68	0	21	39	96	26	52	9	63	91	75	18	34	47	95	6	1	30	777	807
1983	5	8	12	8	0	24	21	0	1	0	2	6	0	51	0	27	21	50	38	14	3	58	33	32	34	44	36	55	14	0	57	540	597
1984	10	16	11	4	0	24	18	0	3	0	2	12	0	50	0	32	21	56	23	57	8	60	39	59	20	36	18	63	4	0	65	581	646
1985	9	8	16	5	0	33	5	0	5	0	0	6	0	36	0	10	23	33	12	26	3	40	35	57	38	39	38	45	14	0	71	465	536
1986	11	11	7	10	3	22	24	0	2	0	2	16	0	70	0	9	32	42	34	40	8	52	32	30	27	66	20	58	8	1	64	573	637
1987	9	14	8	8	0	20	15	0	1	0	1	7	0	74	0	11	19	27	23	44	5	70	25	34	30	39	22	44	20	0	59	511	570
1988	10	12	10	14	2	15	18	0	0	0	0	11	0	64	0	7	15	17	13	46	6	27	31	23	16	40	23	46	6	0	63	409	472
1989	8	7	8	12	4	7	16	0	0	0	0	8	0	76	0	12	10	25	9	30	3	44	33	24	21	17	22	54	10	0	46	414	460
1990	15	11	16	10	0	9	13	0	2	0	3	10	0	70	0	13	14	35	8	50	9	56	21	23	32	28	17	51	13	0	61	468	529
1991	9	16	8	3	2	23	6	0	2	0	0	10	0	92	0	10	27	36	19	53	6	56	39	30	31	38	30	54	5	0	61	544	605
1992	4	11	9	5	1	18	15	0	1	0	2	19	0	45	0	5	13	32	12	10	13	43	15	9	26	38	10	45	17	0	48	370	418
1993	3	9	13	8	0	29	7	0	0	0	2	16	0	58	0	7	22	34	12	26	4	32	25	43	24	19	29	50	24	0	62	434	496
1994	14	13	5	12	6	19	12	0	1	0	9	19	0	69	0	11	20	35	22	55	4	105	30	28	12	16	29	55	24	0	69	556	625
1995	13	13	10	17	2	7	11	0	1	0	4	19	0	27	0	4	7	31	8	34	7	37	12	15	10	30	27	22	23	0	62	329	391
1996	6	18	9	16	3	20	19	0	2	0	12	25	0	38	0	4	14	45	25	58	19	67	23	31	25	42	28	41	20	0	72	538	610
1997	8	10	13	9	1	17	11	0	3	0	3	15	0	52	0	24	15	34	12	49	20	37	32	14	31	18	20	23	16	2	58	431	489
1998	6	12	6	5	1	16	9	0	0	0	3	17	0	36	0	6	23	28	14	27	3	42	12	16	23	12	28	18	29	2	46	348	394
Mean	7	12	11	9	1	15	14	0	1	0	3	13	0	58	0	13	20	42	21	40	8	52	35	33	23	32	27	50	14	1	55	500	555
High	15	18	17	17	6	33	24	1	5	0	12	25	0	92	1	32	39	96	55	58	20	105	91	75	38	66	47	95	29	4	72	777	807
Low	0	7	5	3	0	0	5	0	0	0	0	6	0	27	0	4	7	17	8	10	3	27	12	9	9	12	10	18	4	0	27	329	391
%Diff	100%	61%	71%	82%	100%	100%	79%	0%	100%	0%	100%	76%	0%	71%	0%	88%	82%	83%	85%	83%	85%	74%	87%	88%	76%	82%	79%	81%	86%	100%	63%	58%	52%

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Table 8. Marten Pelts Sealed in Alaska, 1991-1998
By Year and Game Management Unit
Source: Furbearer Sealing Records, ADF&G

	NONSUBSISTENCE AREAS						SUBSISTENCE AREAS																										
Year	1AC	7	14	15	16A	20A B	1BD	2	3	4	5	6	8	9	10	11	12	13	16B	17	18	19	20C DEF	21	22	23	24	25	26	Unk.	Non-Subsistence Areas	Subsistence Areas	TOTAL
1991	654	24	0	2	0	0	78	700	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	680	807	1,487
1992	196	32	6	0	14	0	51	575	72	494	20	0	0	0	0	0	0	23	116	0	0	0	0	0	0	0	0	0	0	0	248	1,351	1,599
1993	100	33	12	0	13	0	198	656	177	407	41	0	0	0	0	0	0	12	90	0	0	0	0	0	0	0	1	0	0	0	158	1,582	1,740
1994	333	110	28	0	21	0	231	1,043	101	241	290	0	0	0	0	0	0	41	76	0	0	1	0	0	0	0	0	0	0	0	492	2,024	2,516
1995	400	102	53	0	79	0	173	1,121	210	767	116	0	0	0	0	0	0	32	150	0	0	0	0	0	1	0	0	0	0	0	634	2,570	3,204
1996	503	58	102	1	130	0	343	1,052	265	1,559	103	0	0	0	0	0	0	40	452	0	0	1	0	9	0	0	0	0	0	0	794	3,824	4,618
1997	371	50	138	2	53	0	407	1,076	274	679	229	0	0	0	0	0	0	84	244	0	0	0	0	16	0	0	0	0	0	0	614	3,009	3,623
1998	473	55	28	0	109	0	402	555	222	559	134	0	0	0	0	0	0	77	332	0	0	1	0	8	0	0	0	0	0	0	665	2,290	2,955
Mean	379	58	46	1	52	0	235	847	165	592	117	0	0	0	0	0	0	39	183	0	0	0	0	4	0	0	0	0	0	0	536	2,182	2,718
,High	654	110	138	2	130	0	407	1,121	274	1,559	290	0	0	0	0	0	0	84	452	0	0	1	0	16	1	0	1	0	0	0	794	3,824	4,818
Low	100	24	0	0	0	0	51	555	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	158	807	1,487
%Diff	85%	78%	100%	100%	100%	0%	87%	50%	100%	98%	100%	0%	0%	0%	0%	0%	0%	100%	100%	0%	0%	100%	0%	100%	100%	0%	100%	0%	0%	0%	80%	79%	68%

* Note: Marten sealing required only in Units 1 - 7, 13E, and 14 - 16 (5 AAC 92.170)

Table 9. Furbearer Ha[illegible]s in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Gustavus	Est	1	0	0	0	0	0	10	3	0	0	0	0	0	0	Hoonah
Haines	96	1	0	17	8	0	0	119	76	0	8	0	17	17	17	
Hyder	Est	1	2	0	0	0	0	13	14	0	3	0	0	0	0	Kake
Klukwan	96	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Meyers Chuck	87	1	0	0	0	0	0	3	3	0	1	0	0	0	0	Kake
Skagway	Est	1	0	9	4	0	0	66	42	0	4	0	9	9	9	Haines
Total GMU		**1**	**2**	**26**	**12**	**0**	**0**	**211**	**139**	**0**	**16**	**0**	**26**	**26**	**26**	
Coffman Cove	Est	2	13	0	0	0	0	192	18	0	3	0	0	10	0	Craig
Craig	97	2	112		4	0	0	1,613	155	0	28	0	0	84	0	
Edna Bay	Est	2	0	0	0	0	0	8	6	0	5	0	0	0	0	Port Protection
Hollis	Est	2	10	0	0	0	0	147	14	0	3	0	0	8	0	Craig
Hydaburg	97	2	0		0	0	0	49	33	0	8	0	0	0	0	
Kasaan	Est	2	2	0	0	0	0	31	3	0	1	0	0	2	0	Craig
Klawock	97	2	149		0	0	0	97	63	0	34	0	17	129	0	
Point Baker	96	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Port Protection	96	2	0	0	0	0	0	8	6	0	5	0	0	0	0	
Thorne Bay	Est	2	31	0	1	0	0	449	43	0	8	0	0	23	0	Craig
Whale Pass	Est	2	5	0	0	0	0	71	7	0	1	0	0	4	0	Craig
Total GMU		**2**	**323**	**0**	**6**	**0**	**0**	**2,666**	**349**	**0**	**96**	**0**	**17**	**259**	**0**	
Kake	96	3	10	0	0	0	0	75	85	0	17	0	0	0	0	
Petersburg	Est	3	44	0	0	0	0	328	371	0	74	0	0	0	0	Kake
Wrangell	Est	3	33	0	0	0	0	248	281	0	56	0	0	0	0	Kake
Total GMU		**3**	**87**	**0**	**0**	**0**	**0**	**651**	**738**	**0**	**148**	**0**	**0**	**0**	**0**	
Angoon	96	4	0	0	0	0	0	0	0	0	7	0	0	0	0	
Elfin Cove	Est	4	0	0	0	0	0	1	0	0	0	0	0	0	0	Hoonah
Game Creek CD	96	4	0	0	0	0	0	24	9	0	19	48	1	0	0	
Hoonah	96	4	0	0	0	0	0	25	7	0	0	0	0	0	0	
Pelican	Est	4	0	0	0	0	0	4	1	0	0	0	0	0	0	Hoonah
Port Alexander	Est	4	0	0	2	0	0	10	8	0	1	3	0	0	0	Sitka

Table 9. Furbearer Harvests in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Sitka	96	4	23	0	156	0	0	927	736	0	57	301	0	0	0	
Tenakee Spring	84	4	0	0	0	0	0	10	29	0	0	0	0	0	0	
Whitestone Logging	96	4	0	0	0	0	0	162	7	0	0	0	0	0	0	
Total GMU		4	23	0	158	0	0	1,163	797	0	84	352	1	0	0	
Yakutat	84	5	18	4	0	7	0	76	58	0	11	7	11	69	43	
Total GMU		5	18	4	0	7	0	76	58	0	11	7	11	69	43	
Chenega Bay	92	6	0	0	0	0		0	1	0	3		0	0	0	
Cordova	93	6	73	9	0	0		45	182	0	9	0	27	0	18	
Tatitlek	88	6	0	1	0	0		4	5	0	47		0	0	0	
Total GMU		6	73	10	0	0	0	49	188	0	59	0	27	0	18	
Akhiok	89	8	0		8						0		0			
Chiniak	82	8	18		37						18		110			
Karluk	89	8	0		4						5		2			
Kodiak City	91	8	0		75			56			94	19				
Kodiak Road	91	8			137			46			31		31			
Larsen Bay	89	8	6		28						26		9			
Old Harbor	82	8	24		120						59		12			
Ouzinkie	86	8	9		18						27		18			
Port Lions	93	8	18		25						5		0			
Total GMU		8	75	0	452	0	0	102	0	0	265	19	182	0	0	
Chignik Bay	89	9	0		3	0			1	0	3	0	2	0	0	
Chignik Lagoon	84	9	5		49	0			14	0	6	0		0	1	
Chignik Lake	89	9	0		5	0			7	0	1	0	0	8	5	
Egegik	84	9	0		20	0			5	0	20	0		0	0	
Igiugig	92	9	48	4	46	8			68	0	48	0	2	1	2	
Iliamna	91	9	25	3	21	0		0	3	0	12	13		20	0	
Ivanof Bay	84	9	0		10	0			0	0	0	0		0	0	
King Cove	92	9			67	0			19		8	0	0	0	4	

Table 9. Furbearer Ha[illegible] in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
King Salmon	83	9	45		176	11			45		37			9	6	
Kokhanok	92	9	73	4	27	11			23	2	9	82	4	0	12	
Levelock	88	9	208	9	34	1		1	48	0	31	0	0	11	6	
Naknek	83	9	12		5	0			0		5			0	0	
Nelson Lagoon	Est	9	1	0	64	0	0	0	0	0	3	0	0	0	1	Port Heiden
Newhalen	91	9	78	25	62	4		11	97	14	23	0		38	5	
Nondalton	83	9	206		10	3		23	0		3	10		0	0	
Pedro Bay	96	9	0	1	0	0		0	0	0	0	0	0	0	1	
Perryville	84	9	0		22	0			66	0	5	0		0	0	
Pilot Point	87	9	24		141	26			3	0	96	7		2	4	
Port Alsworth	83	9	2		44	10		0	0	0	0	0		0	0	
Port Heiden	87	9	2		101	0			0	0	4	0		0	2	
Sand Point	92	9			10	0			0		0	0	0	0	0	
South Naknek	92	9	0	0	10	0			0	0	6	0	0	0	0	
Ugashik	87	9	5		84	18			5	0	8	1		0	4	
Total GMU		**9**	**734**	**46**	**1,011**	**92**	**0**	**35**	**404**	**16**	**328**	**113**	**8**	**89**	**53**	
Akutan	90	10	0		0			0	0							
Atka	94	10			5											
False Pass	88	10	0		105	0			4		6	25				
Nikolski	90	10	0		3			0	0							
Saint George	94	10			0											
Saint Paul	94	10			62											
Unalaska	94	10			197											
Total GMU		**10**	**0**	**0**	**372**	**0**	**0**	**0**	**4**	**0**	**6**	**25**	**0**	**0**	**0**	
Chistochina	82	11	0	6	37	10	3	6	0	61	10	3	24	1	1	
McCarthy Road	87	11	7	19	3	0	0	44	7	36	2	50	21	1	4	
Nabesna Road	82	11	11	20	79	94	0	51	38	25	4	5	0	10	16	
Slana Homestead S	87	11	0	0	62	0	0	39	0	485	0	0	8	0	0	
South Wrangell	87	11	7	5	3	2	0	36	0	0	0	0	10	2	0	
Total GMU		**11**	**25**	**50**	**184**	**106**	**3**	**176**	**45**	**607**	**16**	**58**	**63**	**14**	**21**	

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Table 9. Furbearer Harvests in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Chisana	87	12	0	3	30	2	0	26	0	0	0	0	0	4	4	
Northway	87	12	0	0	108	32	0	676	160	3,484	12	2	0	0	0	
Tanacross	87	12	5	4	14	0	0	303	1	13	0	0	0	4	0	
Tetlin	87	12	8	0	6	0	0	41	10	507	0	0	0	0	0	
Tok	87	12	53	39	183	23	0	2,273	27	486	0	109	106	26	46	
Total GMU		**12**	**66**	**46**	**341**	**57**	**0**	**3,319**	**198**	**4,490**	**12**	**111**	**106**	**34**	**50**	
Cantwell	82	13	7	0	31	7	0	1	1	13	0	0	0	2	7	
Chase	86	13	25	0	7	0	0	19	5	0	2	32	11	0	0	
Chitina	82	13	0	4	0	17	0	35	9	0	0	0	1	2	2	
Copper Center	87	13	4	1	13	0	0	11	0	0	0	33	24	0	0	
East Glenn-Lk L	82	13	0	9	0	217	0	35	9	22	0	247	0	0	0	
Gakona	87	13	23	36	60	0	0	311	24	17	2	5	36	17	1	
Glennallen	82	13	0	16	26	26	0	0	26	0	0	26	0	5	5	
Gold Creek	86	13	0	0	0	0	0	0	0	0	0	12	0	0	0	
Gulkana	87	13	8	6	6	6	0	32	11	132	2	0	8	6	6	
Hurricane-Broad Pa	86	13	9	0	14	0	0	27	12	0	0	0	6	2	3	
Kenny Lake	87	13	2	12	8	0	0	120	14	0	0	27	8	6	10	
Lake Louise	82	13	0	1	36	3	0	18	14	47	15	0	2	5	0	
Mentasta	82	13	25	4	7	4	1	15	15	72	1	29	3	1	4	
Mentasta Pass	87	13	4	0	11	0	0	74	6	0	1	0	1	9	7	
Paxson	87	13	94	4	114	0	0	67	12	40	10	0	9	2	0	
Sheep Mountain	82	13	0	0	0	0	0	144	0	11	0	42	0	0	0	
Slana	87	13	6	8	105	0	0	25	19	63	1	0	23	15	2	
Slana Homestead N	87	13	53	0	22	0	0	0	0	0	4	0	0	0	0	
Sourdough	87	13	2	4	9	0	0	2	0	2	0	0	3	7	0	
Tazlina	87	13	27	25	29	0	0	74	13	24	2	14	7	7	0	
Tonsina	87	13	12	15	25	0	6	167	27	5	3	0	14	24	8	
West Glenn Highwa	87	13	4	3	83	0	0	147	8	62	0	164	53	3	0	
Chickaloon	82	13	7	3	27	0	0	3	0	667	0	42	0	0	0	
Total GMU		**13**	**312**	**151**	**633**	**280**	**7**	**1,327**	**225**	**1,177**	**43**	**673**	**209**	**113**	**55**	

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Table 9. Furbearer Ha[illegible] in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Nanwalek	93	15	0	0	0	0	0	0	0	0	0	9	0	0	0	
Port Graham	92	15	0	0	0	0	0	0	0	0	0	4	7	0	0	
Seldovia	93	15	0	2	0	0	0	0	0	0	12	56	7	0	0	
Total GMU		**15**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**69**	**14**	**0**	**0**	
Alexander Creek	Est	16	16	0	5	0	0	12	3	0	1	21	7	0	0	Chase
Tyonek	83	16	26	0	2	0		0	0	0	0		1	0	0	
Total GMU		**16**	**42**	**0**	**7**	**0**	**0**	**12**	**3**	**0**	**1**	**21**	**8**	**0**	**0**	
Aleknagik	89	17	145	6	84	0		179	46	0	32	83		0	10	
Clark's Point	89	17	50	1	17	0		0	0	0	13	0		0	0	
Dillingham	84	17	709		108	0		370	113	41	86	0		23	14	
Ekwok	87	17	343		29	0		10	9	1	17	0		0	0	
Koliganek	87	17	499		118	3		54	26	10	49	0		47	11	
Manokotak	85	17	464		128	2			58	59	82	246		1	2	
New Stuyahok	87	17	814		41	0		6	15	19	35	0		0	2	
Portage Creek	Est	17	16	0	5	0	0	0	2	2	3	9	0	0	0	Manokotak
Togiak	Est	17	939	0	259	4	0	0	117	119	166	498	0	2	4	Manokotak
Twin Hills	Est	17	95	0	26	0	0	0	12	12	17	50	0	0	0	Manokotak
Total GMU		**17**	**4,074**	**7**	**815**	**10**	**0**	**619**	**398**	**263**	**500**	**886**	**0**	**73**	**44**	
Akiachak	Est	18	608	0	226	0	0	0	100	278	82	358	0	0	0	Kwethluk
Akiak	Est	18	338	0	126	0	0	0	55	154	45	199	0	0	0	Kwethluk
Alakanuk	80	18	167		261			103	939	5,344	116					
Atmautluak	Est	18	202	0	20	0	0	0	651	54	7	0	0	0	0	Nunapitchuk
Bethel	Est	18	365	0	136	0	0	0	60	167	49	215	0	0	0	1/16 Kwethluk
Chefornak	Est	18	72	0	92	0	0	0	42	35	3	0	8	0	0	Tununak
Chevak	Est	18	126	0	162	0	0	0	74	61	4	0	13	0	0	Tununak
Chuathbaluk	83	18	158		27	19		137	6	0	4			2	2	
Eek	Est	18	280	0	215	0	0	0	128	17	25	70	0	0	0	Quinhagak
Emmonak	80	18	39		239			0	189	2,533	11			1	0	

Table 9. Furbearer Harvests in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Goodnews Bay	Est	18	232	0	178	0	0	0	106	14	20	58	0	0	0	Quinhagak
Hooper Bay	Est	18	176	0	227	0	0	0	104	85	6	0	19	0	0	Tununak
Kasigluk	Est	18	370	0	36	0	0	0	1,193	100	13	0	0	0	0	Nunapitchuk
Kipnuk	Est	18	94	0	121	0	0	0	56	45	3	0	10	0	0	Tununak
Kongiganak	Est	18	59	0	76	0	0	0	35	28	2	0	6	0	0	Tununak
Kotlik	80	18	100		1,092			0	848	5,504	92					
Kwethluk	86	18	715		266				117	327	96	421				
Kwigillingok	Est	18	55	0	71	0	0	0	32	27	2	0	6	0	0	Tununak
Marshall (Fortuna L	Est	18	14	0	86	0	0	0	68	907	4	0	0	0	0	Emmonak
Mekoryuk	Est	18	33	0	42	0	0	0	19	16	1	0	3	0	0	Tununak
Mountain Village	80	18	168		432			0	210	5,500	126					
Napakiak	Est	18	399	0	148	0	0	0	65	182	54	235	0	0	0	Kwethluk
Napaskiak	Est	18	418	0	155	0	0	0	68	191	56	246	0	0	0	Kwethluk
Newtok	Est	18	45	0	58	0	0	0	27	22	2	0	5	0	0	Tununak
Nightmute	Est	18	38	0	48	0	0	0	22	18	1	0	4	0	0	Tununak
Nunapitchuk	83	18	338		33				1,091	91	12					
Oscarville	Est	18	64	0	24	0	0	0	10	29	9	38	0	0	0	Kwethluk
Pilot Station	Est	18	26	0	159	0	0	0	126	1,687	7	0	0	1	0	Emmonak
Pitkas Point	Est	18	7	0	43	0	0	0	34	456	2	0	0	0	0	Emmonak
Platinum	Est	18	37	0	28	0	0	0	17	2	3	9	0	0	0	Quinhagak
Quinhagak	82	18	555		425				253	33	49	139				
Russian Mission	Est	18	289	0	102	15	0	842	0	0	27	0	35	14	0	Holy Cross
Saint Marys (Andrea	Est	18	23	0	141	0	0	0	111	1,493	6	0	0	1	0	Emmonak
Scammon Bay	Est	18	76	0	98	0	0	0	45	37	3	0	8	0	0	Tununak
Sheldon Point	80	18	26		237			0	266	976	66					
Toksook Bay	Est	18	87	0	112	0	0	0	52	42	3	0	9	0	0	Tununak
Tuluksak	Est	18	450	0	167	0	0	0	74	206	60	265	0	0	0	Kwethluk
Tuntutuliak	Est	18	252	0	25	0	0	0	813	68	9	0	0	0	0	Nunapitchuk
Tununak	86	18	56		72				33	27	2		6			
Total GMU		**18**	**7,557**	**0**	**6,207**	**34**	**0**	**1,082**	**8,139**	**26,756**	**1,084**	**2,253**	**133**	**19**	**2**	
Aniak	Est	19	172	0	29	21	0	149	7	0	4	0	0	2	2	1/4 Chuathbaluk

Table 9. Furbearer Ha[illegible] in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Crooked Creek	Est	19	380	0	40	0	0	1,392	49	0	49	0	0	0	30	Sleetmute
Lake Minchumina	Est	19	21	0	1	3	0	43	0	5	1	0	0	0	0	Galena
Lime Village	Est	19	51	0	2	1	0	6	0	0	1	2	0	0	0	Nondalton
Lower Kalskag	Est	19	342	0	59	41	0	297	13	0	9	0	0	4	4	Chuathbaluk
McGrath	Est	19	100	0	4	14	0	208	2	26	6	0	0	2	1	1/2 Galena
Nikolai	Est	19	47	0	2	6	0	97	1	12	3	0	0	1	0	Galena
Red Devil	Est	19	103	0	11	0	0	377	13	0	13	0	0	0	8	Sleetmute
Sleetmute	83	19	277		29	0		1,015	36	0	36			0	22	
Stony River	Est	19	95	0	10	0	0	348	12	0	12	0	0	0	8	Sleetmute
Takotna	Est	19	26	0	1	4	0	55	1	7	2	0	0	1	0	Galena
Upper Kalskag	Est	19	321	0	55	39	0	278	12	0	8	0	0	4	4	Chuathbaluk
Total GMU		**19**	**1,936**	**0**	**242**	**128**	**0**	**4,265**	**147**	**50**	**145**	**2**	**0**	**14**	**80**	
Anderson	87	20	19	2	116	2	0	247	14	0	7	120	0	0	0	
Dot Lake	87	20	4	0	1	8	0	83	3	0	0	0	3	0	1	
Eagle	Est	20	9	7	31	4	0	380	5	81	0	18	18	4	8	Tok
Healy	87	20	107	43	117	10	9	100	17	7	0	0	33	10	0	
Healy Lake	Est	20	4	0	1	8	0	78	3	0	0	0	3	0	1	Dot Lake
Manley Hot Sprl	Est	20	112	0	9	10	0	348	11	25	4	0	0	1	2	Tanana
McKinley Park Villag	87	20	55	0	8	17	0	36	0	21	4	0	0	4	1	
Minto	84	20	147		20	4		299	26	569	16		18	1	0	
Nenana	82	20	227		20	23		769	75		9			2	3	
Rampart	Est	20	77	0	6	7	0	237	7	17	3	0	0	1	1	Tanana
Tanana	87	20	379		29	34		1,175	37	84	14			5	6	
Total GMU		**20**	**1,140**	**52**	**357**	**126**	**9**	**3,753**	**198**	**804**	**57**	**138**	**75**	**29**	**23**	
Anvik	91	21	271		153	4		123			12		11	20		
Galena	85	21	314		11	43		650	6	80	20			6	3	
Grayling	91	21	221		22	0		265			10		7	13		
Holy Cross	91	21	271		96	14		791			25		33	13		
Kaltag	Est	21	114	0	4	16	0	236	2	29	7	0	0	2	1	Galena
Koyukuk	Est	21	59	0	2	8	0	122	1	15	4	0	0	1	1	Galena

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Table 9. Furbearer Harvests in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Nulato	Est	21	161	0	6	22	0	333	3	41	10	0	0	3	2	Galena
Ruby	Est	21	93	0	3	13	0	192	2	24	6	0	0	2	1	Galena
Shageluk	91	21	25		7	0		78			2		0	0		
Total GMU		**21**	**1,528**	**0**	**304**	**119**	**0**	**2,790**	**14**	**189**	**96**	**0**	**51**	**60**	**7**	
Brevig Mission	89	22	0		0	0		0	0	3	0	6	0	0	6	
Diomede	Est	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
Elim	Est	22	26	0	121	0	0	0	0	13	2	67	2	4	0	Golovin
Gambell	Est	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
Golovin	89	22	12		56	0		0	0	6	1	31	1	2	0	
Koyuk	Est	22	25	0	117	0	0	0	0	13	2	65	2	4	0	Golovin
Nome	Est	22	78	0	365	0	0	0	0	39	7	202	7	13	0	1/4 Golovin
Saint Michael	Est	22	0	0	112	0	0	0	0	195	0	0	0	0	0	Stebbins
Savoonga	Est	22	0	0	0	0	0	0	0	0	0	0	0	0	0	
Shaktoolik	Est	22	19	0	89	0	0	0	0	10	2	49	2	3	0	Golovin
Shishmaref	95	22	0		31	0	0	0	6	12	19	485	6	0	9	
Stebbins	80	22	0		170			0	0	295	0					
Teller	Est	22	0	0	0	0	0	0	0	3	0	6	0	0	6	Brevig Mission
Unalakleet	Est	22	66	0	309	0	0	0	0	33	6	171	6	11	0	Golovin
Wales	93	22	0		4				0	0	0	29		0	1	
White Mountain	Est	22	16	0	74	0	0	0	0	8	1	41	1	3	0	Golovin
Total GMU		**22**	**242**	**0**	**1,449**	**0**	**0**	**0**	**6**	**629**	**39**	**1,152**	**26**	**40**	**22**	
Ambler	Est	23	7	0	39	0	0	3	1	121	3	14	1	3	5	Kotzebue
Buckland	Est	23	10	0	21	0	0	0	3	10	0	37	0	34	31	Deering
Deering	94	23	4		8				1	4	0	14		13	12	
Kiana	Est	23	9	0	24	0	0	0	2	3	2	12	0	10	26	Kotzebue
Kivalina	92	23			21	0			2	3	2	10	0	9	23	
Kobuk	Est	23	2	0	13	0	0	1	0	39	1	4	0	1	2	Kotzebue
Kotzebue	91	23	65		364	0		24	8	1,141	24	129	8	24	49	
Noatak	94	23	0		12				2	0	2	0		14	10	
Noorvik	Est	23	13	0	73	0	0	5	2	230	5	26	2	5	10	Kotzebue

Table 9. Furbearer Ha[illegible] in Alaska, by Game Management Unit and Community

(Source: Household Survey Estimates, Division of Subsistence, ADF&G)

Place	Survey Year	GMU	Beaver	Coyote	Fox	Lynx	Marmot	Marten	Mink	Muskrat	Otter, Land	Squirrel	Weasel	Wolf	Wolverine	Assumptions
Point Hope	Est	23	0	0	47	0	0	0	5	7	5	23	0	20	52	Kivalina
Selawik	Est	23	16	0	92	0	0	6	2	287	6	32	2	6	12	Kotzebue
Shungnak	Est	23	0	0	8	0	0	0	1	0	1	0	0	9	6	Noatak
Total GMU		**23**	**127**	**0**	**721**	**0**	**0**	**38**	**28**	**1,847**	**50**	**300**	**13**	**148**	**239**	
Allakaket-Alatna	82	24	256		99	150		1,195		140	4			2	4	
Bettles-Evansville	82	24	14	1	25	38		193		16	0			0	9	
Hughes	82	24	113		47	63		470		47	5			0	7	
Huslia	83	24	275		222	143		644		276	24			15	7	
Wiseman	Est	24	5	0	8	12	0	63	0	5	0	0	0	0	3	Bettles-Evansville
Total GMU		**24**	**663**	**1**	**401**	**406**	**0**	**2,565**	**0**	**484**	**33**	**0**	**0**	**17**	**30**	
Arctic Village	Est	25	107	0	119	78	0	573	31	579	3	156	4	5	6	Fort Yukon
Beaver	85	25	46		122	72		724	39	856	0	258		0	4	
Birch Creek	Est	25	13	0	34	20	0	203	11	240	0	72	0	0	1	Beaver
Central	Est	25	3	2	9	1	0	114	1	24	0	5	5	1	2	Tok
Chalkyitsik	Est	25	92	0	102	67	0	490	26	495	2	133	3	4	5	Fort Yukon
Circle	Est	25	4	3	13	2	0	161	2	34	0	8	8	2	3	Tok
Fort Yukon	87	25	507		562	369		2,709	145	2,736	12	735	18	22	28	
Stevens Village	84	25	14		40	26		432	8	950	1			0	4	
Venetie	Est	25	225	0	249	163	0	1,200	64	1,212	5	326	8	10	12	Fort Yukon
Total GMU		**25**	**1,010**	**5**	**1,250**	**798**	**0**	**6,606**	**327**	**7,126**	**23**	**1,692**	**46**	**44**	**66**	
Anaktuvuk Pass	Est	26	74	5	133	202	0	1,025	0	85	0	0	0	0	48	Bettles-Evansville
Atqasuk	Est	26	0	0	14	0	0	0	0	0	0	3	4	1	3	Wainwright
Barrow	89	26			50						0	17	0	0	1	
Kaktovik	92	26			47		21		0		0	133	0	3	9	
Nuiqsut	93	26			203		0		0			336	10	31	19	
Point Lay	87	26			0		0					285		0	7	
Wainwright	89	26			30						1	7	9	2	7	
Total GMU		**26**	**74**	**5**	**477**	**202**	**21**	**1,025**	**0**	**85**	**1**	**781**	**23**	**37**	**94**	

Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
01	1987	Gustavus	11.80	10.00	1.80	0.00
01	1983	Haines	21.80	18.40	3.40	2.70
01	1987	Haines	16.20	11.20	5.20	0.00
01	1996	Haines	6.50	5.40	1.10	1.10
01	1987	Hyder	15.20	15.20	0.00	0.00
01	1983	Klukwan	27.30	27.30	0.00	0.00
01	1987	Klukwan	4.60	0.00	4.60	0.00
01	1996	Klukwan	12.90	12.90	6.50	3.20
01	1987	Metlakatla	0.90	0.90	0.00	0.00
01	1987	Meyers Chuck	30.00	30.00	10.00	0.00
01	1987	Saxman	0.00	0.00	0.00	0.00
01	1987	Skagway	8.70	4.10	4.70	2.10
02	1987	Coffman Cove	9.20	9.20	0.00	0.00
02	1987	Craig	15.00	12.90	4.30	4.30
02	1997	Craig	6.40	5.20	1.70	2.90
02	1987	Edna Bay	40.00	40.00	0.00	15.00
02	1987	Hollis	6.00	6.00	0.00	0.00
02	1987	Hydaburg	0.00	0.00	0.00	0.00
02	1997	Hydaburg	5.90	5.90	0.00	0.00
02	1987	Kasaan	7.10	7.10	7.10	7.10
02	1984	Klawock	5.60	5.60	0.00	0.00
02	1987	Klawock	2.20	2.20	0.00	0.00
02	1997	Klawock	4.70	4.70	0.00	1.90
02	1987	Point Baker	5.30	0.00	5.30	0.00
02	1996	Point Baker	6.30	0.00	6.30	0.00
02	1987	Port Protection	8.00	4.00	4.00	0.00
02	1996	Port Protection	12.00	4.00	8.00	0.00
02	1987	Thorne Bay	25.30	25.30	0.00	0.00
02	1987	Whale Pass	33.30	33.30	0.00	5.60
03	1987	Beecher Pass	20.00	20.00	0.00	0.00
03	1985	Kake	2.90	2.90		
03	1987	Kake	0.00	0.00	0.00	0.00
03	1996	Kake	4.10	4.10	0.00	0.00
03	1987	Petersburg	6.40	6.40	0.00	0.00
03	1987	Wrangell	1.80	1.00	0.90	0.00
04	1984	Angoon	0.00	0.00	0.00	0.00
04	1987	Angoon	0.70	0.00	0.70	0.00
04	1996	Angoon	2.70	2.70	1.40	0.00
04	1987	Elfin Cove	7.70	7.70	0.00	0.00
04	1996	Game Creek	41.70	41.70	8.30	8.30
04	1987	Hoonah	11.10	11.10	0.00	0.00
04	1996	Hoonah	2.60	2.60	0.00	0.00
04	1987	Pelican	10.00	10.00	0.00	1.20
04	1987	Port Alexander	20.50	17.80	5.70	2.70
04	1987	Sitka	2.70	2.70	0.00	0.00

Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
04	1996	Sitka	4.30	3.20	1.50	1.20
04	1984	Tenakee Springs	4.20	4.20	0.00	0.00
04	1987	Tenakee Springs	16.10	16.10	0.00	0.00
04	1996	Whitestone	12.50	12.50	0.00	0.00
05	1984	Yakutat	16.00	16.00	2.00	2.00
05	1987	Yakutat	5.20	4.40	4.40	0.00
06	1984	Chenega Bay	25.00	12.50	18.80	6.30
06	1985	Chenega Bay	50.00	50.00	18.80	12.50
06	1989	Chenega Bay	5.60	0.00	5.60	0.00
06	1990	Chenega Bay	0.00	0.00	0.00	0.00
06	1991	Chenega Bay	5.60	5.60	0.00	5.60
06	1992	Chenega Bay	17.40	17.40	4.30	13.00
06	1993	Chenega Bay	13.00	13.00	0.00	8.70
06	1985	Cordova	31.60	31.60	9.70	7.80
06	1988	Cordova	25.00	21.30	4.80	3.80
06	1991	Cordova	22.80	18.80	5.00	5.90
06	1992	Cordova	14.60	12.20	2.40	4.90
06	1993	Cordova	22.10	17.30	7.70	6.70
06	1987	Tatitlek	26.30	26.30	5.30	0.00
06	1988	Tatitlek	19.00	14.30	4.80	4.80
06	1989	Tatitlek	9.10	4.50	4.50	4.50
06	1990	Tatitlek	11.80	11.80	0.00	5.90
06	1991	Tatitlek	5.30	5.30	0.00	0.00
06	1993	Tatitlek	10.00	10.00	0.00	0.00
06	1991	Valdez	12.00	10.00	4.00	3.00
06	1992	Valdez	12.00	9.00	3.00	2.00
06	1993	Valdez	8.60	2.90	8.60	0.00
06	1990	Whittier	3.40	3.40	1.10	2.30
08	1982	Akhiok	4.80	4.80		
08	1986	Akhiok	0.00	0.00	0.00	0.00
08	1989	Akhiok	20.00	20.00	0.00	0.00
08	1992	Akhiok	8.30	4.20	4.20	4.20
08	1982	Chiniak	35.30	29.40		
08	1982	Karluk	25.00	25.00		
08	1986	Karluk	10.50	10.50	0.00	0.00
08	1989	Karluk	14.30	14.30	0.00	0.00
08	1990	Karluk	17.60	17.60	0.00	0.00
08	1991	Karluk	15.40	15.40	0.00	15.40
08	1982	Kodiak City	24.50	18.10		
08	1991	Kodiak City	15.00	11.00	6.00	4.00
08	1992	Kodiak City	13.00	8.00	6.00	3.00
08	1993	Kodiak City	20.00	13.30	11.40	5.70
08	1991	Kodiak Road	18.40	18.40	3.90	5.30
08	1982	Larsen Bay	18.80	15.60		
08	1986	Larsen Bay	24.30	16.20	10.80	2.70

Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
08	1989	Larsen Bay	17.60	14.70	2.90	8.80
08	1990	Larsen Bay	8.60	8.60	5.70	8.60
08	1991	Larsen Bay	28.90	15.80	15.80	7.90
08	1992	Larsen Bay	24.30	16.20	10.80	5.40
08	1993	Larsen Bay	22.50	15.00	10.00	10.00
08	1982	Old Harbor	29.90	23.40		
08	1986	Old Harbor	18.20	13.60	9.10	4.50
08	1989	Old Harbor	8.30	6.30	4.20	2.10
08	1991	Old Harbor	19.00	9.50	11.90	9.50
08	1982	Ouzinkie	53.10	40.60		
08	1986	Ouzinkie	44.10	38.20	11.80	11.80
08	1989	Ouzinkie	8.60	5.70	2.90	2.90
08	1990	Ouzinkie	18.90	17.00	1.90	1.90
08	1991	Ouzinkie	15.60	12.50	3.10	6.30
08	1992	Ouzinkie	21.20	19.20	3.80	5.80
08	1993	Ouzinkie	18.00	9.80	9.80	6.60
08	1982	Port Lions	30.90	25.50		
08	1986	Port Lions	12.30	10.80	3.10	3.10
08	1989	Port Lions	16.70	11.10	5.60	8.30
08	1993	Port Lions	28.90	24.40	6.70	15.60
09	1984	Chignik Bay	10.50	10.50	0.00	0.00
09	1989	Chignik Bay	20.00	17.10	2.90	5.70
09	1991	Chignik Bay	6.70	3.30	3.30	0.00
09	1984	Chignik Lagoon	11.80	11.80	0.00	0.00
09	1989	Chignik Lagoon	13.30	13.30	0.00	0.00
09	1984	Chignik Lake	43.50	30.40	21.70	13.00
09	1989	Chignik Lake	33.30	28.60	19.00	14.30
09	1991	Chignik Lake	33.30	20.80	16.70	20.80
09	1984	Egegik	44.00	40.00	12.00	20.00
09	1983	Igiugig	100.00	100.00		
09	1992	Igiugig	80.00	80.00	20.00	30.00
09	1983	Illamna	25.00	25.00		
09	1991	Illamna	47.80	39.10	21.70	21.70
09	1984	Ivanof Bay	16.70	16.70	0.00	0.00
09	1989	Ivanof Bay	57.10	42.90	14.30	28.60
09	1992	King Cove	9.30	9.30	4.00	4.00
09	1983	King Salmon		25.60		
09	1983	Kokhanok	78.90	78.90	5.30	
09	1992	Kokhanok	72.20	63.90	55.60	55.60
09	1988	Levelock	66.70	48.10	40.70	40.70
09	1992	Levelock	50.00	43.30	13.30	36.70
09	1983	Naknek		15.40	3.80	
09	1987	Nelson Lagoon	7.70	7.70	0.00	0.00
09	1983	Newhalen	63.60	63.60		
09	1991	Newhalen	80.80	69.20	46.20	38.50

Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
09	1983	Nondalton	76.20	76.20	4.80	
09	1982	Pedro Bay	29.40	29.40	11.80	
09	1996	Pedro Bay	7.70	7.70	0.00	0.00
09	1984	Perryville	40.00	25.00	15.00	10.00
09	1989	Perryville	37.00	22.20	18.50	14.80
09	1987	Pilot Point	88.20	88.20	17.60	11.80
09	1983	Port Alsworth	46.20	46.20		
09	1987	Port Heiden	29.70	27.00	5.40	5.40
09	1992	Sand Point	23.10	15.40	7.70	2.90
09	1983	South Naknek		23.80	9.50	
09	1992	South Naknek	37.10	22.90	20.00	8.60
09	1987	Ugashik	80.00	80.00	0.00	20.00
10	1990	Akutan	12.00	8.00	4.00	4.00
10	1994	Atka	3.60	3.60	0.00	0.00
10	1988	False Pass	15.00	15.00	0.00	5.00
10	1990	Nikolski	7.10	7.10	7.10	7.10
10	1994	Saint George	0.00	0.00	0.00	0.00
10	1994	Saint Paul	2.40	2.40	0.00	0.00
10	1994	Unalaska	3.70	3.50	0.30	0.80
11	1982	Chistochina	72.70	72.70		
11	1987	Chistochina	39.30	35.70	14.30	21.40
11	1982	McCarthy Road	61.50	61.50		
11	1987	McCarthy Road	64.70	58.80	11.80	11.80
11	1982	Nabesna Road	75.00	75.00		
11	1987	Nabesna Road	58.30	58.30	0.00	8.30
11	1987	Slana Homestead S	52.90	47.10	11.80	29.40
11	1982	S Wrangell Mt	66.70	66.70		
11	1987	S Wrangell Mt	28.60	28.60	0.00	0.00
12	1987	Chisana	50.00	50.00	0.00	16.70
12	1982	N Wrangell Mt	100.00	100.00		
12	1987	Northway	91.10	84.40	22.20	31.10
12	1987	Tanacross	77.80	74.10	18.50	29.60
12	1987	Tetlin	89.70	79.30	25.50	44.10
12	1987	Tok	42.70	42.20	8.20	3.60
13	1982	Cantwell	48.80	48.80		
13	1986	Chase	47.10	47.10	11.80	5.90
13	1982	Chitina	52.20	52.20		
13	1987	Chitina	50.00	44.40	5.60	5.60
13	1982	Copper Center	29.60	29.60		
13	1987	Copper Center	38.70	27.10	24.10	3.80
13	1982	East Glenn Hwy	60.00	60.00		
13	1987	East Glenn Hwy	14.90	14.90	3.40	3.40
13	1982	Gakona	52.20	52.20		
13	1987	Gakona	46.40	46.40	7.30	2.90
13	1982	Glennallen	27.50	25.50		

Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
13	1987	Glennallen	8.40	8.40	0.00	4.10
13	1986	Gold Creek	40.00	40.00	0.00	0.00
13	1982	Gulkana	41.70	36.10		
13	1987	Gulkana	55.00	50.00	15.00	10.00
13	1986	Hurricane-Brd Pass	25.00	25.00	12.50	0.00
13	1982	Kenny Lake	25.00	25.00		
13	1987	Kenny Lake	27.80	27.80	4.90	2.40
13	1982	Lake Louise	61.50	61.50		
13	1987	Lake Louise	11.80	11.80	0.00	0.00
13	1982	Lower Tonsina	87.50	87.50		
13	1982	Matanuska Glacier	26.70	26.70		
13	1982	Mentasta	63.20	63.20		
13	1987	Mentasta	58.30	54.20	12.50	29.20
13	1987	Mentasta Pass	60.00	60.00	0.00	10.00
13	1987	Paxson	57.10	57.10	0.00	14.30
13	1982	Paxson-Sourdough	40.00	40.00		
13	1982	Sheep Mountain	33.30	33.30		
13	1982	Slana	50.00	50.00		
13	1987	Slana	36.40	36.40	9.10	13.60
13	1987	Slana Homestead N	37.50	25.00	12.50	12.50
13	1987	Sourdough	44.40	44.40	0.00	11.10
13	1987	Tazlina	22.50	22.50	1.90	7.70
13	1982	Tonsina	46.70	40.00		
13	1987	Tonsina	39.80	39.80	1.00	17.70
13	1987	West Glenn Hwy	16.00	16.00	2.50	6.00
15	1987	Nanwalek	3.00	3.00	0.00	0.00
15	1989	Nanwalek	3.00	3.00	0.00	0.00
15	1990	Nanwalek	0.00	0.00	0.00	0.00
15	1991	Nanwalek	3.40	0.00	3.40	0.00
15	1992	Nanwalek	12.50	9.40	3.10	0.00
15	1993	Nanwalek	6.10	3.00	3.00	3.00
15	1987	Port Graham	3.70	3.70	0.00	1.90
15	1989	Port Graham	2.10	2.10	0.00	0.00
15	1990	Port Graham	2.20	2.20	0.00	0.00
15	1991	Port Graham	10.20	4.10	6.10	2.00
15	1992	Port Graham	4.20	2.10	2.10	0.00
15	1993	Port Graham	2.00	0.00	2.00	0.00
15	1982	Seldovia		2.90	100.00	
15	1991	Seldovia	4.50	4.50	0.00	1.50
15	1992	Seldovia	4.60	4.60	0.00	0.00
15	1993	Seldovia	4.60	4.60	0.00	3.10
16	1983	Tyonek		20.00	12.50	7.50
17	1989	Aleknagik	78.90	57.90	42.10	52.60
17	1989	Clark's Point	64.70	47.10	29.40	29.40
17	1984	Dillingham	34.60	19.60	24.80	6.50

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Table 10. Furbearer Sharing in Alaska: Percent of Households Which Used, Harvested, Received, or Gave Furbearers, by Surveyed Community, Year, and GMU

Source: Household Survey Estimates, Division of Subsistence, ADF&G

GMU	Year	Community	Used	Harvested	Received	Gave
17	1987	Ekwok	79.30	58.60	41.40	34.50
17	1987	Koliganek	92.90	71.40	50.00	50.00
17	1985	Manokotak	96.30	87.00	59.30	66.70
17	1987	New Stuyahok	82.50	72.50	57.50	45.00
18	1986	Kwethluk		67.50	57.30	45.10
18	1986	Tununak	93.90	51.50	48.50	30.30
20	1987	Anderson	20.50	20.50	0.00	1.10
20	1987	Dot Lake	73.30	53.30	20.00	13.30
20	1987	Healy	34.40	33.20	5.80	7.40
20	1987	McKinley Park	6.30	6.30	3.10	1.60
20	1984	Minto		84.40		
20	1987	Tanana	79.50	41.00	52.20	32.00
21	1985	Galena	63.50	45.90	35.10	16.20
22	1984	Brevig Mission	75.00	64.30	21.40	35.70
22	1989	Brevig Mission	33.30	26.70	6.70	13.30
22	1982	Golovin	90.00	85.00	45.00	35.00
22	1989	Golovin	60.60	51.50	27.30	18.20
22	1989	Shishmaref	42.90	23.80	23.80	14.30
22	1995	Shishmaref	31.10	31.10	6.70	20.00
22	1993	Wales	19.00	19.00	0.00	9.50
23	1994	Deering	37.80	29.70	18.90	16.20
23	1992	Kivalina	43.50	35.50	21.00	25.80
23	1986	Kotzebue	45.00	17.20	31.80	9.80
23	1991	Kotzebue	28.00	17.00	15.00	8.00
23	1994	Noatak	20.60	11.80	8.80	10.30
24	1983	Allakaket/Alatna		73.30		
24	1984	Allakaket/Alatna		62.50		
24	1983	Bettles/Evansville		28.60		
24	1984	Bettles/Evansville		34.40		
24	1983	Huslia		78.60	17.90	19.60
25	1985	Beaver		83.90	45.20	48.40
25	1987	Fort Yukon	87.50	67.70	62.00	52.90
25	1984	Stevens Village		73.30		
26	1985	Kaktovik	59.50	52.40	23.80	31.00
26	1986	Kaktovik	46.80	40.40	29.80	19.10
26	1992	Kaktovik	46.80	38.30	19.10	21.30
26	1985	Nuiqsut	65.00	57.50	12.50	22.50
26	1993	Nuiqsut	53.20	41.90	17.70	27.40
26	1987	Point Lay	34.90	29.20	17.80	20.20