

Technical Paper No. 383

The Subsistence Harvest of Harbor Seals and Sea Lions in Southeast Alaska in 2012

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Alaska Department of Fish and Game
Division of Subsistence



Alaska Native Harbor Seal
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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly-accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H_A
gram	g			base of natural logarithm	e
hectare	ha			catch per unit effort	CPUE
kilogram	kg	all commonly-accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	coefficient of variation	CV
kilometer	km			confidence interval	CI
liter	L	at	@	correlation coefficient (multiple)	R
meter	m	compass directions:		correlation coefficient (simple)	r
milliliter	mL	east	E	covariance	cov
millimeter	mm	north	N	degree (angular)	$^{\circ}$
		south	S	degrees of freedom	df
Weights and measures (English)		west	W	expected value	E
cubic feet per second	ft ³ /s	copyright	©	greater than	>
foot	ft	corporate suffixes:		greater than or equal to	≥
gallon	gal	Company	Co.	harvest per unit effort	HPUE
inch	in	Corporation	Corp.	less than	<
mile	mi	Incorporated	Inc.	less than or equal to	≤
nautical mile	nmi	Limited	Ltd.	logarithm (natural)	ln
ounce	oz	District of Columbia	D.C.	logarithm (base 10)	log
pound	lb	et alii (and others)	et al.	logarithm (specify base)	log ₂ , etc.
quart	qt	et cetera (and so forth)	etc.	minute (angular)	'
yard	yd	exempli gratia (for example)	e.g.	not significant	NS
		Federal Information Code	FIC	null hypothesis	H_0
Time and temperature		id est (that is)	i.e.	percent	%
day	d	latitude or longitude	lat. or long.	probability	P
degrees Celsius	°C	monetary symbols (U.S.)	\$, ¢	probability of a type I error (rejection of the null hypothesis when true)	α
degrees Fahrenheit	°F	months (tables and figures)	first three letters (Jan, ..., Dec)	probability of a type II error (acceptance of the null hypothesis when false)	β
degrees kelvin	K	registered trademark	®	second (angular)	"
hour	h	trademark	™	standard deviation	SD
minute	min	United States (adjective)	U.S.	standard error	SE
second	s	United States of America (noun)	USA	variance	
		U.S.C.	United States Code	population	Var
Physics and chemistry		U.S. state	two-letter abbreviations (e.g., AK, WA)	sample	var
<i>all atomic symbols</i>					
alternating current	AC	Measures (fisheries)			
ampere	A	fork length	FL		
calorie	cal	mideye-to-fork	MEF		
direct current	DC	mideye-to-tail-fork	METF		
hertz	Hz	standard length	SL		
horsepower	hp	total length	TL		
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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Division of Subsistence

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ABSTRACT

This report describes the subsistence takes of harbor seals (*Phoca vitulina*) and Steller sea lions (*Eumetopias jubatus*) by Alaska Natives in Southeast Alaska in 2012, including quantity, seasons, geographic distribution, and age and sex of the harvest. Information is summarized at regional and community levels and is compared with annual takes since 1992. The research was conducted by the Alaska Native Harbor Seal Commission and the Alaska Department of Fish and Game, Division of Subsistence under contract with the National Marine Fisheries Service. Information derives from interviews conducted by local researchers with 277 of 345 households (80.3%) in 16 communities. The project received generous support from leaders of local Native governments.

During 2012, the estimated subsistence take of harbor seals in Southeast Alaska was 595 seals, with a 95% confidence range of between 465 to 818 animals. Of the take, 12.1% (72 seals) were struck and lost and 87.9% (523 seals) were harvested. Harbor seals were taken in 15 of 16 communities. Hunters reported taking males over females by 3.3 to 1 and adults (91.1%) over juveniles (8.3%) or pups (0.6%). The take of harbor seals in 2012 was the second lowest recorded in Southeast Alaska since 1992. Declining seal harvests are associated with fewer seal hunters and declining harvest rates of successful hunters in Southeast Alaska.

Though taken in historical times, sea lions currently are rarely harvested for use in Southeast Alaska. During 2012, the estimated subsistence take of sea lions in Southeast Alaska was 9 sea lions, with a 95% confidence range of between 5 to 14 animals. Of the take, 88.9% (8 sea lions) were struck and lost and 11.1% (1 sea lion) was harvested. Sea lions were taken in 2 of 16 communities. The one sea lion harvested was a male of unreported age.

Key words: Harbor seals (*Phoca vitulina*), Steller sea lions (*Eumetopias jubatus*), marine mammals, subsistence, hunting, Alaska Natives, Southeast Alaska, Angoon, Craig, Haines, Hoonah, Hydaburg, Juneau, Kake, Ketchikan, Klawock, Klukwan, Pelican, Petersburg, Saxman, Sitka, Wrangell, Yakutat

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This project would not have been possible without local support in every community where we conducted the survey. We wish to thank each tribal council and city council that facilitated our work. Heartfelt thanks are owed to the many elders and local marine mammal experts who allowed us to interview them at length about their lifelong uses and observations of sea lions and harbor seals. In addition, we are deeply indebted to the hunters who volunteered to report their subsistence harvests to local researchers. The 13 local researchers who conducted household interviews deserve to be recognized individually for their high level of interest and work: Christel Silva in Angoon; Brian Holter in Craig; Diane Stickler in Haines and Klukwan; Harlena Warford in Hoonah; Rhonda Peratovich in Hydaburg; Joel Jackson in Kake; Nadja Kookesh in Juneau; Rose Johnson in Ketchikan, Saxman, and Wrangell; James Rowan in Klawock; Royce Mattsen in Pelican; Byron Lyons in Petersburg; Vicki Bartels in Sitka; and Ray Sensmier in Yakutat.

INTRODUCTION

This report describes the subsistence takes of harbor seals (*Phoca vitulina*) and Steller sea lions (*Eumetopias jubatus*) by Alaska Natives in 16 communities in Southeast Alaska during the 2012 calendar year (Figure 1, Table 1). The report provides information on the size of the take, the seasons, the geographic distributions, and age and sex of harvested animals. The research was a collaborative effort between the Alaska Native Harbor Seal Commission (ANHSC) and the Alaska Department of Fish and Game (ADF&G) Division of Subsistence, under contract with the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA). The research was conducted in cooperation with tribal governments in the study communities. The study was part of a longer-term research program on harbor seals and sea lions in Alaska by ANHSC and ADF&G that has documented subsistence takes since 1992 (Wolfe 2001; Wolfe, Fall, and Riedel 2008, 2009a, 2009b; Wolfe, Fall, and Stanek 2002, 2003, 2004, 2005, 2006; Wolfe and Hutchinson-Scarborough 1999; Wolfe, Hutchinson-Scarborough, and Riedel 2012; Wolfe and Mishler 1993, 1994, 1995, 1996, 1997, 1998), with no surveys for 1999, 2009, and 2010.

The general geographic distributions of harbor seals and sea lions in Alaska are shown in figures 2 and 3 (from Burns et al. 1985). The use of harbor seals and sea lions by Alaska Natives for food and raw materials has a long tradition in Alaska, its origins predating historical contact and continuing to the present. The Alaska Native groups using harbor seals include the Aleut of the Aleutian Islands; the Alutiiq and Eyak of the Pacific Gulf coast; the Tlingit, Haida, and Tsimshian of the Southeast archipelago; and the Yup'ik of Southwest Alaska. The Dena'ina of Cook Inlet occasionally use harbor seals. The primary users of sea lions are the Aleut of the Aleutian Islands and Pribilof Islands and the Alutiiq in certain communities of Kodiak Island and the Gulf of Alaska. Sea lions are used more occasionally by Tlingit, Haida, Tsimshian, and Yup'ik groups. Subsistence products derived from harbor seals and sea lions include oil, meat, and skins (Wolfe and Mishler 1993).

This report is organized in several sections. The “Methodology” section describes the methods used to collect information. Two sections, “The Subsistence Take of Harbor Seals in 2012” and “The Subsistence Take of Sea Lions in 2012,” present information on the takes of harbor seals and sea lions in Southeast Alaska, summarized by community and region. The “Discussion” section includes interpretations of the 2012 survey year, and summaries of harvest patterns from previous survey years starting in 1992. Appendix A contains a copy of the survey instrument used in household interviews with marine mammal hunters for this project. Appendix B contains subsistence takes of harbor seals and sea lions by year and community in Southeast Alaska. Appendix C contains detailed materials on the subsistence takes of harbor seals and sea lions by community in 2012.

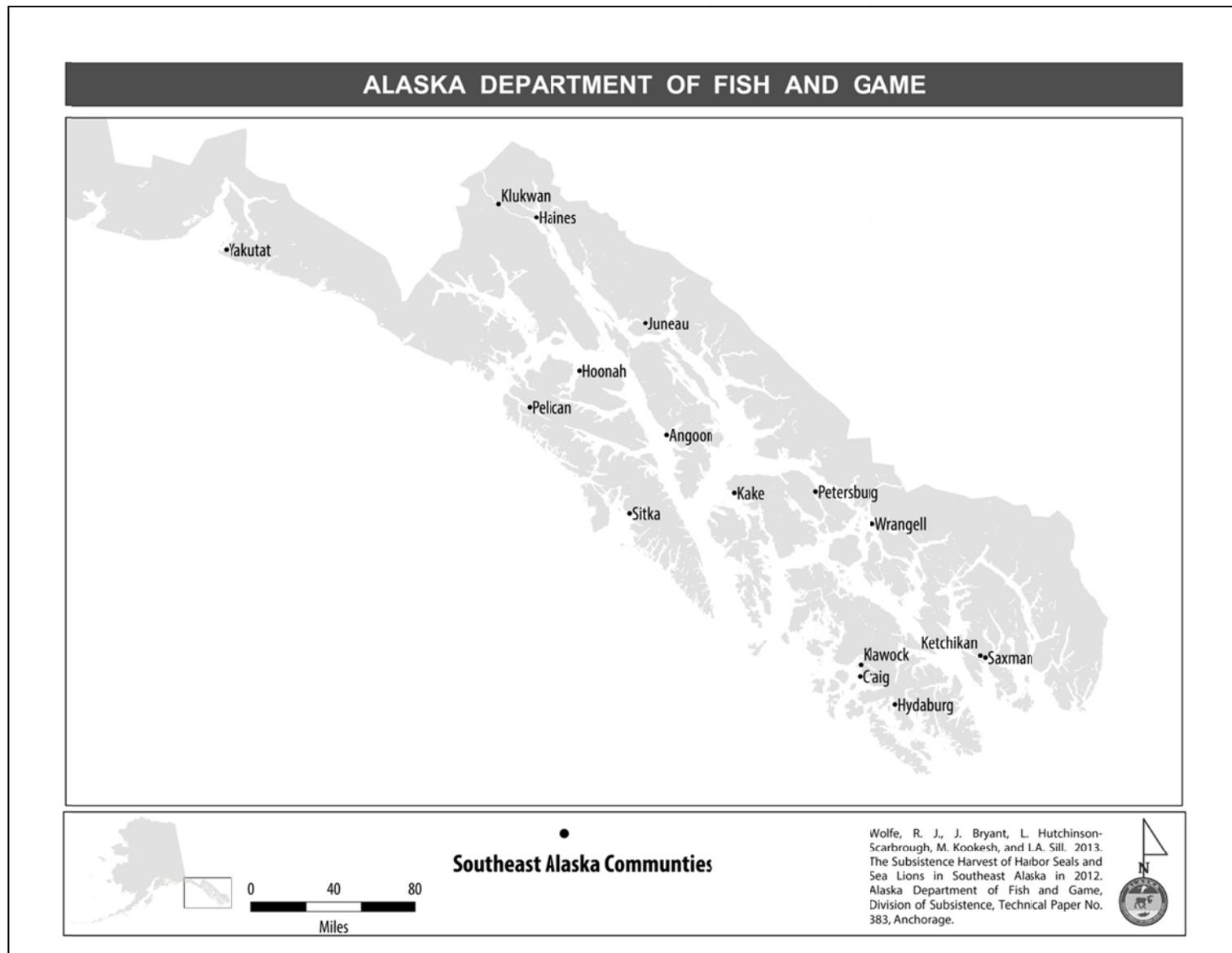


Figure 1.—Map of study area and communities.

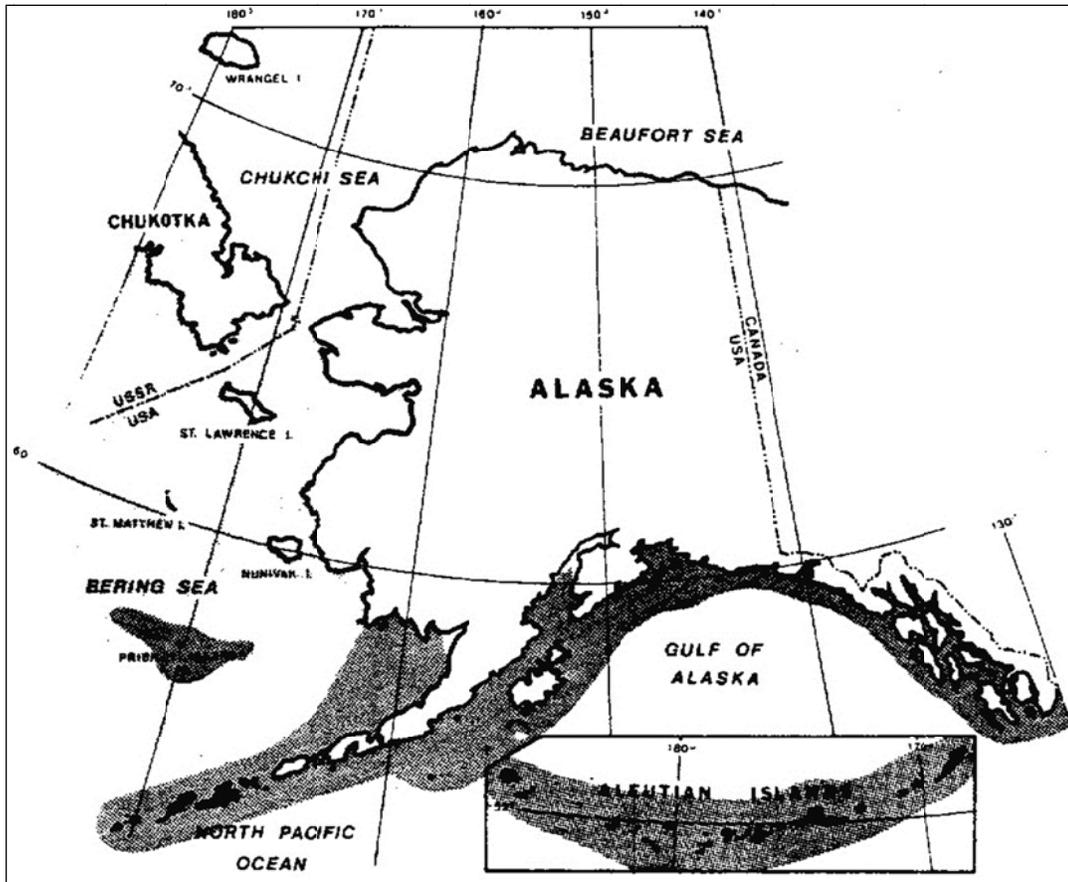


Figure 2.—General distribution of Steller sea lions (*Eumetopias jubatus*) in Alaska.

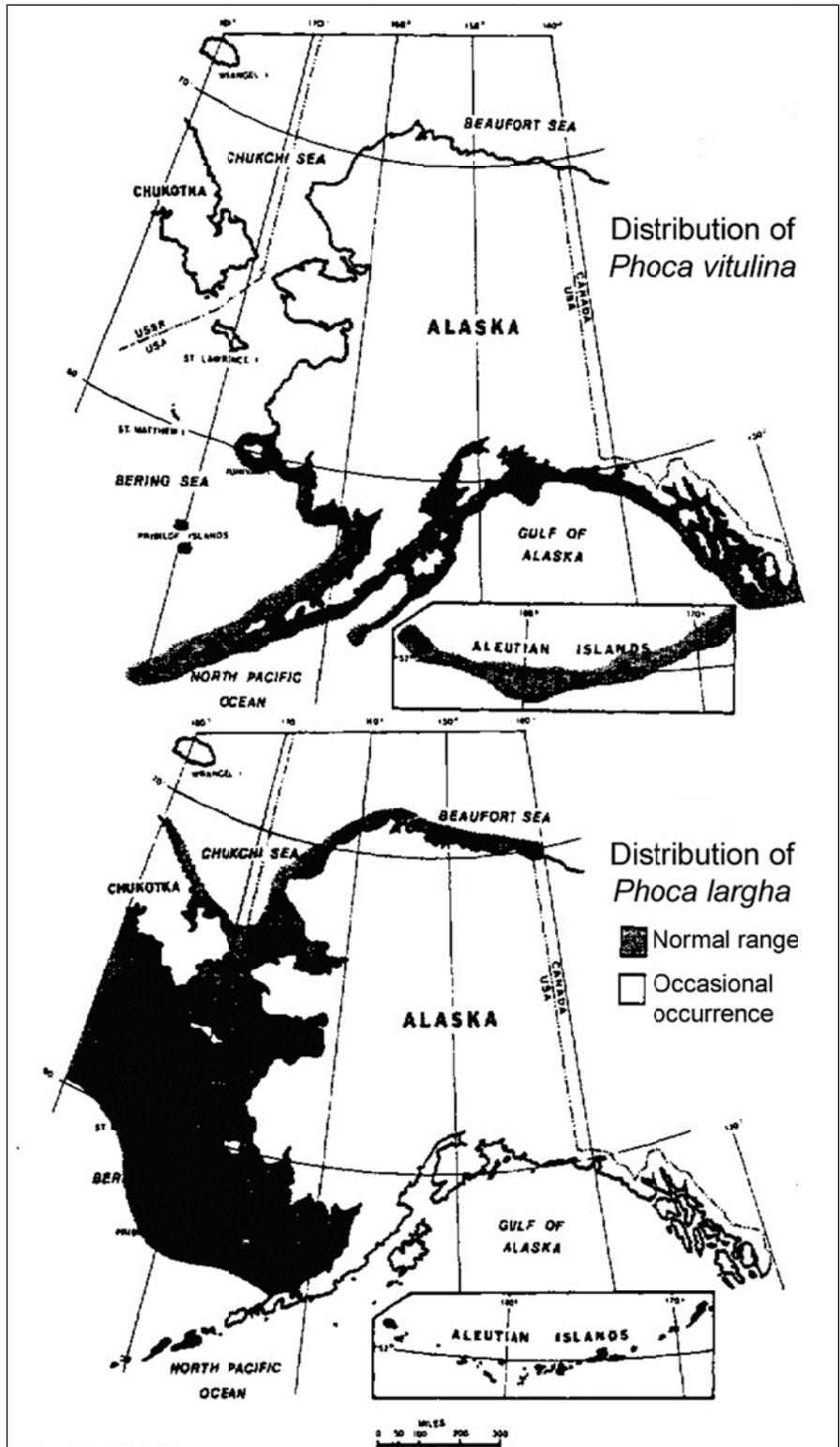


Figure 3.—General distribution of harbor seals (*Phoca vitulina*) and spotted seals (*Phoca largha*) in Alaska.

METHODOLOGY

Information on the subsistence takes of harbor seals and sea lions was collected through interviews with persons in 277 Alaska Native households in 16 communities in Southeast Alaska (Table 1). The survey instrument administered in household interviews was similar to one used since 1992, originally developed in consultation with the Rural Alaska Community Action Program (RurAL CAP) and the Indigenous People's Council for Marine Mammals (IPCoMM) (see Appendix A). Hunters and household heads were asked to recall the numbers of harbor seals and sea lions taken by household members during each month over the past year. The survey contained questions that pertained to harvest numbers, struck and lost animals, age of animals, and sex of animals. The survey also asked whether the household used, harvested, received, or gave away harbor seals or sea lions during the last year. Interviews were conducted by 13 local researchers supervised by a regional coordinator, Matt Kookesh of Southeast Rural Consulting, under contract with ANHSC. Surveys were administered in January 2013 and covered the period from January through December 2012.

Since its inception in 1992, seal harvest monitoring has been a collaborative effort with Alaska Native hunters and organizations. During the first year of the study, a number of Native governments, Native leaders, and associations with interests in harbor seal and sea lion management were contacted to obtain suggestions about project design, including the Alaska Federation of Natives, the Aleutians East Borough, Aleutian-Pribilof Islands Association, Bristol Bay Native Association, Central Council of Tlingit and Haida Indian Tribes of Alaska, Cook Inlet Region, Inc., IPCoMM (meeting through RurAL CAP), Kodiak Area Native Association, and the North Pacific Rim (now named Chugachmiut). RurAL CAP and IPCoMM served as the formal technical oversight organizations for the first 5 years of the project through a subcontract with the Division of Subsistence. Since 1997, formal technical oversight for the project has been provided by the ANHSC.

Table 1.–Sampling methodology by community, harbor seal and sea lion surveys, Southeast Alaska, 2012.

Region and community	2010 U.S. Census estimated		Identified household universe ^a	Surveyed households	Percentage households surveyed
	Native population	Type of design			
Angoon	348	Chain Referral	37	33	89.19%
Craig	240	Chain Referral	23	13	56.52%
Haines	192	Chain Referral	12	11	91.67%
Hoonah	399	Chain Referral	39	28	71.19%
Hydaburg	290	Chain Referral	13	11	84.62%
Juneau	3,692	Chain Referral	21	9	42.86%
Kake	385	Chain Referral	17	15	88.24%
Ketchikan	1,345	Chain Referral	11	9	81.82%
Klawock	365	Chain Referral	29	23	79.31%
Klukwan	76	Chain Referral	8	8	100.00%
Pelican	30	Chain Referral	6	5	83.33%
Petersburg	207	Chain Referral	27	27	100.00%
Saxman	208	Chain Referral	10	7	70.00%
Sitka	1,493	Chain Referral	43	43	100.00%
Wrangell	384	Chain Referral	13	8	61.54%
Yakutat	237	Chain Referral	36	27	75.00%
Total for Southeast Alaska	9,891		345	277	80.29%

^a For Chain Referral communities, the "Identified Household Universe" is smaller than the total number of Native households.

During 2012–2013, the ANHSC received funding directly from NMFS and entered into a cooperative agreement with the Division of Subsistence to jointly conduct the harvest assessment project. The ANHSC provided a project coordinator, local researchers, and an analyst for writing the final report. The Division of Subsistence provided data analysis.

Support for monitoring has been solicited from local Native governments or leaders of local government entities for each community where surveys were conducted. During the first project year in 1992, contacts were made with representatives of all the entities listed in Table 2. Local governments have been extremely helpful during the course of the project, especially by identifying Native households, potential local researchers, and marine mammal experts in the communities.

The project was designed to protect the identities of surveyed participants. Marine mammal hunters and other respondents were informed that interview participation was voluntary. Respondents were told that their identities would be kept confidential in reports presenting the information. Permission to administer the household harvest survey was asked of each individual respondent, face-to-face at the person's home or during an initial phone contact. At this time, the purpose of the project was described. If a person declined to participate in the study, the person was thanked for his or her time and a survey was not conducted. Persons who were interviewed as part of the harvest survey were not paid. Most marine mammal hunters generously offered their assistance to the study.

Locally-hired researchers supervised by the regional coordinator collected the information on subsistence takes of sea lions and harbor seals during 2012. Newly-hired local researchers received in-person training at a two-day workshop in Juneau in October 2012. Local researchers worked with the regional coordinator through telephone, e-mail, fax, and the mail. Local researchers performed tasks such as updating community lists of households and hunters, implementing household sampling regimes, administering household surveys during the yearly cycle, data proofing of surveys and survey tracking forms, and mailing surveys and tracking sheets for data entry and analysis. The regional coordinator performed tasks such as obtaining formal support for the project from Native organizations, recruiting and selecting local hires, developing household sampling regimes, training and supervising local researchers, proofing survey data, and consulting local researchers to resolve data questions in preparation for data entry and analysis. Entering and analyzing data for a centralized database was done by ADF&G staff.

Households were selected using chain referral sampling (Table 1). Sampling designs and expansion methods were similar to those used the first study year, as described in Wolfe and Mishler (1993:17–19). For chain referral communities, the sampling universe comprised all households with marine mammal hunters (based on past or potential activities), as identified by key respondents and other surveyed hunters in the community. For this study, 80.29% of identified households (277 of 345 households) were contacted and interviewed. This is a relatively high sampling fraction for studies using survey methodologies that rely upon voluntary participation by surveyed households. The non-response rate was due primarily to logistical problems in contacting households, rather than refusals to participate.

In Appendix C, the statistical analysis presents harvest data in 3 different tables for each community. In the first table, the unexpanded reported take is presented for each community, representing actual animals reported harvested and struck and lost by surveyed hunters, with no fractions of animals. The second table presents the takes of surveyed hunters expanded to include unsurveyed hunters. In this expansion, the proportions of the seasonal takes of the surveyed households are preserved, so takes with unknown months exist in the table. The expansion treats each community as a separate sampling universe. Fractions of animals commonly result from the expansion, which are rounded to the nearest tenth. The third table presents a seasonally-adjusted expanded take: takes with unknown months are assigned to months based on the proportion of the known take. The numbers in this third table form the basis for the numbers in the report narrative. The calculation of the confidence range around the estimate follows the method in Cochran (1977:5.13, 5.15). In this process, the unexpanded reported take (that is, the known take) is used as the lower range for a community if it is higher than the statistically-calculated lower take estimate.

Table 2.—Community organizations in Southeast Alaska contacted during the first year of the project in 1992.

Community	Government/Organization
Angoon	City of Angoon Angoon Community Association
Craig	Shaan-Seet, Inc. City of Craig Craig Community Association
Haines	Chilkat Indian Association
Hoonah	Hoonah Indian Association Hoonah Traditional Council
Hydaburg	Haida Corporation Hydaburg Cooperative Association City of Hydaburg
Juneau	Tlingit and Haida Central Council Sealaska Auke Tribe Council Alaska Native Brotherhood/Alaska Native Sisterhood Douglas Indian Association
Kake	Organized Village of Kake City of Kake
Ketchikan	Ketchikan Indian Community
Klawock	Klawock Cooperative Association Klawock Heenya Corporation
Klukwan	Chilkat Indian Village
Pelican	Tlingit and Haida Indians of Pelican Pelican Community Council City of Pelican
Petersburg	Petersburg Indian Association
Saxman	Organized Village of Saxman City of Saxman
Sitka	Sitka Tribe of Alaska Alaska Native Brotherhood
Wrangell	Wrangell Cooperative Association
Yakutat	Yakutat Tlingit Tribe Yak-Tat Kwaan Alaska Native Brotherhood/ Alaska Native Sisterhood

THE SUBSISTENCE TAKE OF HARBOR SEALS IN 2012

In 2012, hunters in Southeast Alaska took an estimated 595 harbor seals for subsistence uses, with a 95% confidence range of between 465 to 818 animals. Of the subsistence take, 12.1% (72 harbor seals) were struck and lost, and 87.9% (523 harbor seals) were harvested (Table 3).

Harbor seals were taken in all communities except Klukwan in 2012 (Table 4). Takes in communities that harvested seals ranged from 3 seals in Saxman to 255 seals in Yakutat. Harbor seals commonly were distributed between households in a community. For example, in Angoon 78.8% of surveyed households reported that they used harbor seals, while 45.5% harvested harbor seal (Table 4).

Seals were taken during all months in 2012, with peaks in takes in March, May, and October, and with the lowest takes in December, January, April and June (Figure 4) (the monthly data for 2012 excludes Yakutat, where the month of harvest was not systematically collected). This resembles the general seasonal pattern in Southeast Alaska since 1992, which presents dual peaks in harvests in spring and fall, and relatively low harvests during summer (Figure 5). Seasonal hunting patterns of each community are shown in the tables and figures of Appendix C.

Hunters reported harvesting male harbor seals over female harbor seals by a ratio of about 3.3 to 1 (321 males to 96 females of harvests with reported sex). Hunters also reported harvesting substantially more adult harbor seals (462 adults, 91.2%) than juveniles (42 juveniles, 8.2%) or pups (3 pups, 0.6%) (Table 5). Overall, adult females (82 animals) comprised about 20.4% of the total harbor seal harvest whose age and sex was reported in 2012. Hunters did not report the sex for 20.4% of the harvest or the age for about 3.1% of the harvest. The age and sex are also unknown for animals that were struck and lost. A further analysis of age and sex composition is found in the “Discussion” section.

Surveyed households were asked to make subjective assessments of harbor seal population trends in their hunting areas during 2012 (Table 6). The survey asked, ‘During 2012, did you observe any changes to harbor seal numbers in your area?’ with four possible answers provided: ‘Increase,’ ‘Decrease,’ ‘No Change,’ or ‘Didn’t Observe.’ Hunters split on this question, with 55.0% observing an ‘increase,’ 35.0% observing a ‘decrease,’ and 10.0% reporting ‘no change’ (Table 6). Most hunters reported an ‘increase’ in Craig, Hoonah, Hydaburg, Klawock, and Petersburg. Most hunters reported a ‘decrease’ in Angoon, Kake, and Sitka. Most hunters in Yakutat reported ‘stable’ numbers of harbor seals.

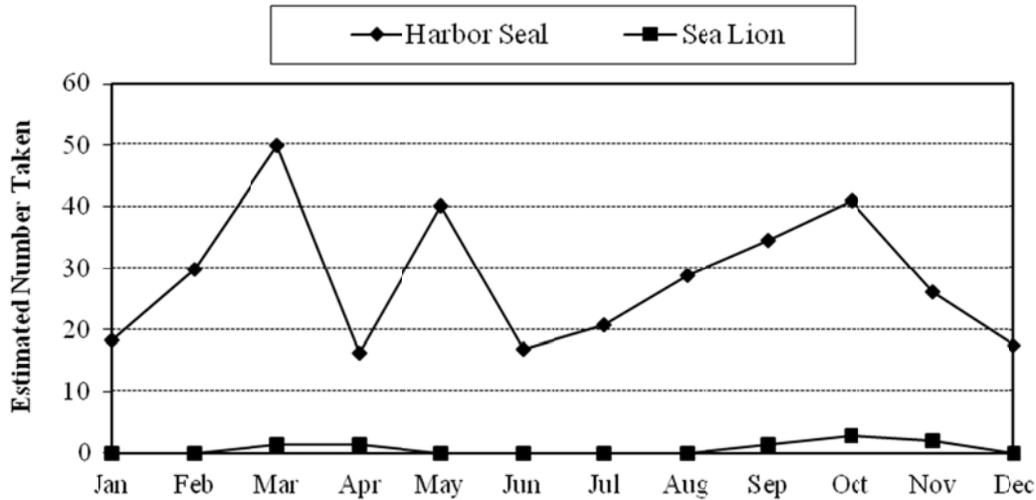
The assessments for 2012 can be compared with observed trends from other surveys during 2000, 2004, and 2008, when surveyed households were asked, “Compared to 5 years ago, has the harbor seal population where members of your household have hunted ‘increased,’ ‘remained stable,’ ‘declined,’ ‘do not know,’ or ‘not applicable (do not hunt)’?” As shown in Table 7, reports of ‘stable’ seal populations were relatively fewer in 2012 (10.0%) compared with previous assessed years: 46.3% (2000), 41.6% (2004), and 32.3% (2008). Compared with previous assessments, more hunters reported seal populations as either ‘increased’ or ‘declined.’

Table 3.—Estimated subsistence takes of harbor seals (*Phoca vitulina*), Southeast Alaska, 1992–2008, 2012.

Year	Estimated total			Lower and upper confidence range for total take
	Harvest	Struck and lost	Total take	
1992	1,481.3 88.7%	189.4 11.3%	1,670.7 100.0%	1,351–2,077
1993	1,425.0 88.2%	190.0 11.8%	1,615.0 100.0%	1,393–2,012
1994	1,348.5 89.9%	151.4 10.1%	1,499.9 100.0%	1,250–1,872
1995	1,719.1 91.0%	170.9 9.0%	1,890.0 100.0%	1,547–2,454
1996	1,641.6 88.4%	216.3 11.6%	1,857.8 100.0%	1,674–2,317
1997	1,343.4 85.7%	224.1 14.3%	1,567.4 100.0%	1,291–2,000
1998	1,414.0 87.5%	202.4 12.5%	1,616.4 100.0%	1,470–1,835
2000	1,209.7 88.9%	151.4 11.1%	1,361.1 100.0%	1,064–1,767
2001	1,019.9 86.7%	155.9 13.3%	1,175.7 100.0%	941–1,459
2002	877.0 87.1%	129.8 12.9%	1,006.8 100.0%	829–1,295
2003	945.1 88.4%	123.7 11.6%	1,068.8 100.0%	840–1,512
2004	743.0 87.9%	102.3 12.1%	845.3 100.0%	698–1,091
2005	545.5 86.0%	88.7 14.0%	634.2 100.0%	565–782
2006	592.7 83.8%	114.8 16.2%	707.6 100.0%	611–909
2007	585.7 89.6%	68.2 10.4%	653.8 100.0%	535–881
2008	533.9 89.9%	60.1 10.1%	593.9 100.0%	501–822
2012	523.1 87.9%	71.8 12.1%	595.0 100.0%	465–818

Table 4.—Estimated subsistence harbor seal harvest, take, and use in Southeast Alaska communities, 2012, with confidence intervals and statistical ranges.

Community	Harbor seal harvest per capita	Native households harvesting harbor seal	Native households using harbor seal	Harvest	Struck and lost	Total take	Total take		
							Confidence interval (± %)	Lower range estimate	Upper range estimate
Angoon	0.13	45.5%	78.8%	44.8	12.3	57.2	16.2%	51.0	66.5
Craig	0.11	46.2%	69.2%	26.5	3.5	30.1	45.3%	17.0	43.7
Haines	0.10	18.2%	18.2%	19.6	0.0	19.6	38.0%	18.0	27.1
Hoonah	0.09	39.3%	85.7%	34.8	5.6	40.4	28.5%	29.0	51.9
Hydaburg	0.02	27.3%	63.6%	4.7	0.0	4.7	43.0%	4.0	6.8
Juneau	0.01	44.4%	44.4%	25.7	4.7	30.3	76.7%	13.0	53.6
Kake	0.06	66.7%	100.0%	23.8	4.5	28.3	19.9%	25.0	34.0
Ketchikan	0.02	22.2%	55.6%	22.0	0.0	22.0	59.1%	18.0	35.0
Klawock	0.08	60.9%	65.2%	29.0	2.5	31.5	18.5%	25.7	37.4
Klukwan	0.00	0.0%	12.5%	0.0	0.0	0.0	0.0%	0.0	0.0
Pelican	0.20	80.0%	100.0%	6.0	0.0	6.0	25.3%	5.0	7.5
Petersburg	0.03	14.8%	100.0%	6.0	9.0	15.0	0.0%	15.0	15.0
Saxman	0.01	14.3%	42.9%	2.9	0.0	2.9	107.4%	2.0	5.9
Sitka	0.03	55.8%	88.4%	46.0	3.0	49.0	0.0%	49.0	49.0
Wrangell	0.01	12.5%	25.0%	3.3	0.0	3.3	121.6%	2.0	7.2
Yakutat	0.96	40.7%	100.0%	228.0	26.7	254.7	48.2%	191.0	377.5
Total				523.1	71.8	595.0	37.5%	464.7	818.0



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Harbor seal	18.4	29.9	49.8	16.3	40.1	16.9	20.7	28.8	34.7	41.0	26.2	17.4
Percentage	5.4%	8.8%	14.6%	4.8%	11.8%	5.0%	6.1%	8.5%	10.2%	12.1%	7.7%	5.1%
Cumulative percentage	5.4%	14.2%	28.8%	33.6%	45.4%	50.4%	56.5%	64.9%	75.1%	87.2%	94.9%	100%

Figure 4.—Seasonally adjusted takes of harbor seals and sea lions in Southeast Alaska (excluding Yakutat), 2012.

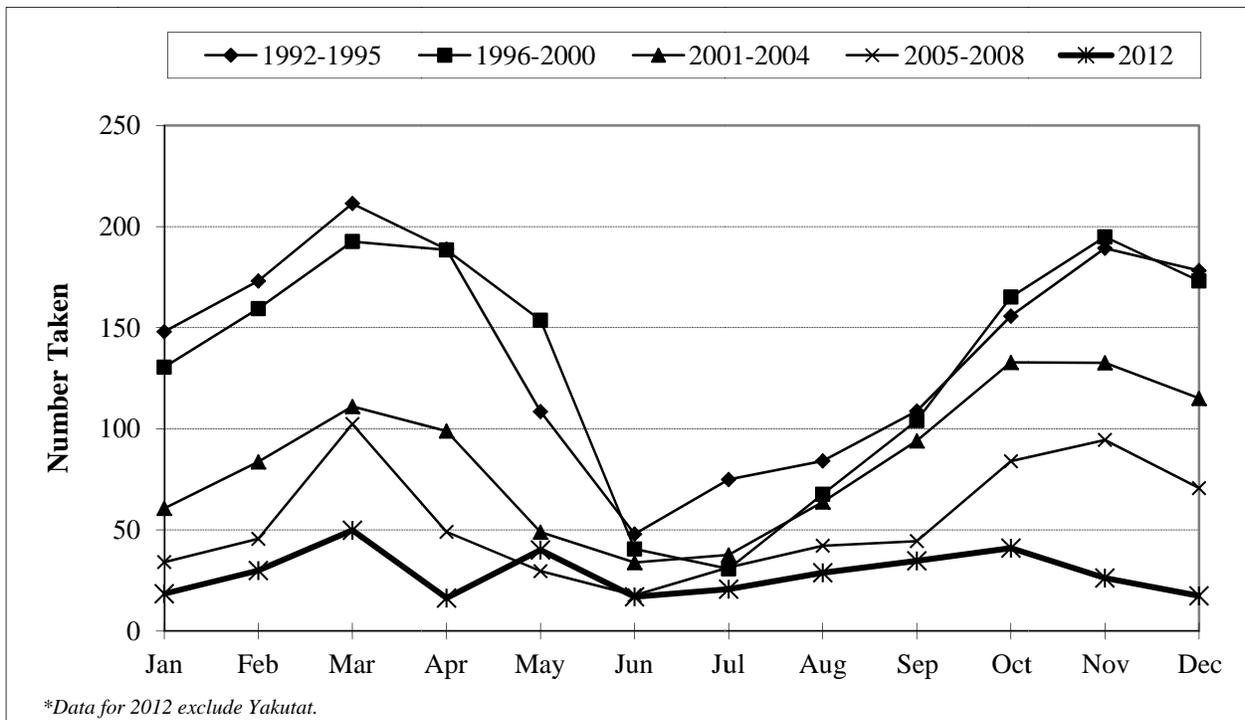


Figure 5.—Mean seasonally adjusted takes of harbor seals in Southeast Alaska, 1992–1995, 1996–2000, 2001–2004, 2005–2008, and 2012.

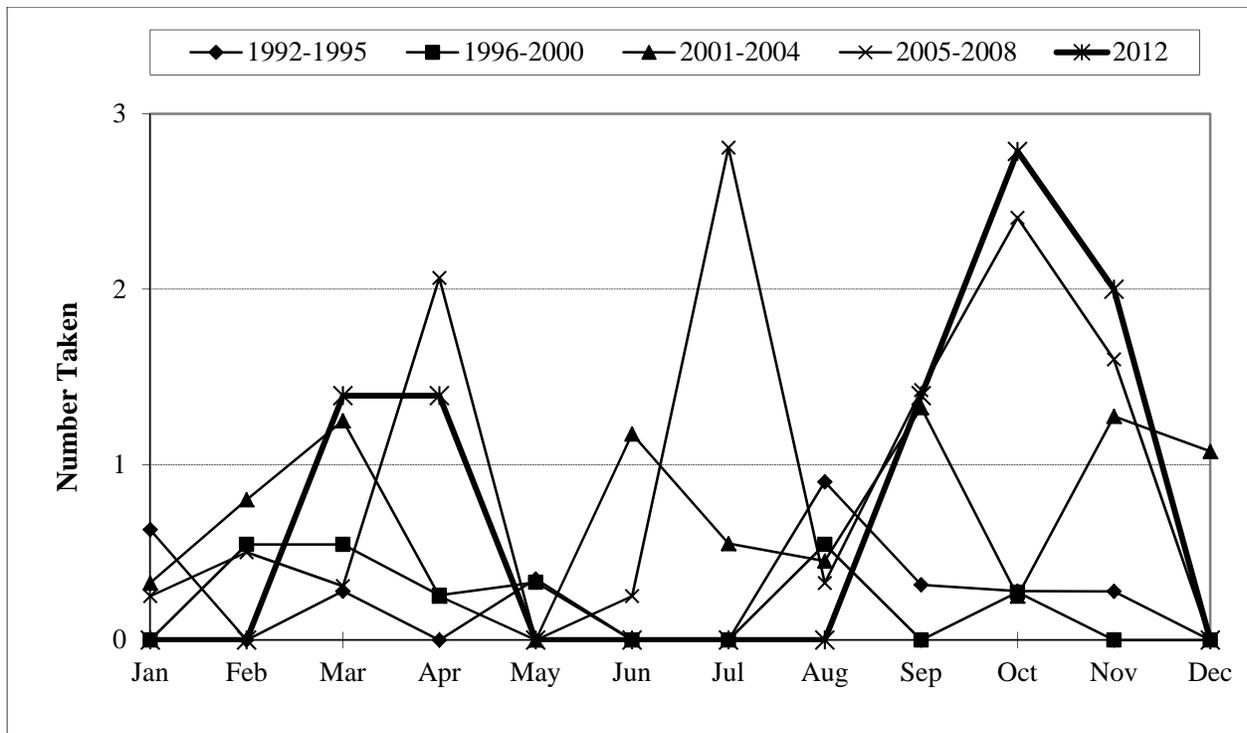


Figure 6.—Mean seasonally adjusted takes of sea lions in Southeast Alaska, 1992–1995, 1996–2000, 2001–2004, 2005–2008, and 2012.

Table 5.—Age and sex composition of subsistence harbor seal harvests in Southeast Alaska, 2012.

	Male	Female	Unknown sex	Total
Adult	277.7	81.7	103.0	462.3
Row percent	60.1%	17.7%	22.3%	100.0%
Column percent	86.6%	85.5%	96.4%	88.4%
Juvenile	29.1	9.8	2.8	41.7
Row percent	69.8%	23.6%	6.6%	100.0%
Column percent	9.1%	10.3%	2.6%	8.0%
Pup	1.0	2.0	0.0	3.0
Row percent	33.3%	66.7%	0.0%	100.0%
Column percent	0.3%	2.1%	0.0%	0.6%
Unknown Age	13.0	2.0	1.1	16.1
Row percent	80.6%	12.4%	7.0%	100.0%
Column percent	4.1%	2.1%	1.0%	3.1%
Total	320.8	95.5	106.8	523.1
Row percent	61.3%	18.3%	20.4%	100.0%
Column percent	100.0%	100.0%	100.0%	100.0%

Table 6.– Southeast Alaska hunters’ assessment of local harbor seal population changes, 2012

Community (Hunters)	Increased	Remained stable	Declined
Angoon (7)	28.6%	0.0%	71.4%
Craig (6)	66.7%	0.0%	33.3%
Haines (2)	50.0%	0.0%	50.0%
Hoonah (14)	92.9%	0.0%	7.1%
Hydaburg (3)	100.0%	0.0%	0.0%
Juneau (2)	100.0%	0.0%	0.0%
Kake (10)	0.0%	10.0%	90.0%
Ketchikan (4)	0.0%	50.0%	50.0%
Klawock (14)	100.0%	0.0%	0.0%
Klukwan (0)	0.0%	0.0%	0.0%
Pelican (4)	50.0%	0.0%	50.0%
Petersburg (11)	90.9%	0.0%	9.1%
Saxman (1)	0.0%	0.0%	100.0%
Sitka (12)	25.0%	0.0%	75.0%
Wrangell (1)	100.0%	0.0%	0.0%
Yakutat (9)	0.0%	77.8%	22.2%
All communities (100)	55.0%	10.0%	35.0%

Table 7.– Southeast Alaska hunters’ assessment of local harbor seal population changes compared to previous years (based on four surveys).

Assessment years	Increased	Remained stable	Declined	Survey year
Comparing 2000 with 1995	43.6%	46.3%	10.1%	2001
Comparing 2004 with 1999	29.9%	41.6%	28.5%	2005
Single year (2008)	46.2%	32.3%	21.5%	2008
Current year (2012)	55.0%	10.0%	35.0%	2013

THE SUBSISTENCE TAKE OF SEA LIONS IN 2012

In 2012, hunters in Southeast Alaska took an estimated 9 sea lions for subsistence uses, with a 95% confidence range of between 5 to 14 animals (Table 8). Of the 2012 subsistence take, 1 sea lion was harvested (11.1%) and 8 animals were struck and lost. Sea lions were taken in two communities (Hoonah and Sitka) by three hunters (Table 9). In addition, sea lion products were used in Ketchikan (Table 9).

Sea lions were reported taken during spring (March-April) and fall (September-November) (Figure 6). The one animal harvested was a male sea lion of unknown age (Table 10). Seasonal hunting patterns of communities are depicted in the tables and figures of Appendix C.

Historically, sea lions were taken in Southeast Alaska for food and material products (especially for skins and for whiskers used in ceremonial regalia). Currently, most hunters of harbor seals report that sea lions are left alone. Overall, sea lion harvests have been relatively few in Southeast Alaska in recent decades (Table 8).

Surveyed households were asked to make subjective assessments of sea lion population trends in their hunting areas during 2012 (Table 11). The survey asked, "During 2012, did you observe any changes to sea lion numbers in your area?" with four possible answers provided: "Increase," "Decrease," "No Change," or "Didn't Observe." The one successful harvester of sea lions reported that sea lion populations had increased in his hunting area. This assessment for 2012 can be compared with observed trends of hunters from surveys during 2000 and 2004 (Table 12), when surveyed households were asked, "Compared to 5 years ago, has the sea lion population where members of your household have hunted 'increased,' 'remained stable,' 'declined,' 'do not know,' or 'not applicable (do not hunt)'?" Because fewer hunters offered opinions in the most recent surveys (2008, 2012), hunter observations of current trends in sea lion populations are difficult to compare with assessments from earlier years.

Table 8.—Estimated subsistence takes of sea lions (*Eumetopias jubatus*), Southeast Alaska, 1992–2008, 2012.

Year	Estimated Total			
	Harvest	Struck and lost	Total take	Confidence range
1992	5.2 <i>81.3%</i>	1.3 <i>20.3%</i>	6.4 <i>100.0%</i>	5–12
1993	0.0 <i>0.0%</i>	1.1 <i>100.0%</i>	1.1 <i>100.0%</i>	1–2
1994	3.5 <i>76.1%</i>	1.1 <i>23.9%</i>	4.6 <i>100.0%</i>	4–7
1995	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0–0
1996	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0–0
1997	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0–0
1998	3.3 <i>43.4%</i>	4.4 <i>57.9%</i>	7.6 <i>100.0%</i>	7–11
2000	2.3 <i>100.0%</i>	0.0 <i>0.0%</i>	2.3 <i>100.0%</i>	2–4
2001	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0.0 <i>0.0%</i>	0–0
2002	7.0 <i>100.0%</i>	0.0 <i>0.0%</i>	7.0 <i>100.0%</i>	5–14
2003	2.3 <i>33.3%</i>	4.6 <i>66.7%</i>	6.9 <i>100.0%</i>	6–11
2004	4.6 <i>39.0%</i>	7.2 <i>61.0%</i>	11.8 <i>100.0%</i>	8–21
2005	0.0 <i>0.0%</i>	19.0 <i>100.0%</i>	19.0 <i>100.0%</i>	19–19
2006	2.5 <i>19.8%</i>	10.1 <i>80.2%</i>	12.6 <i>100.0%</i>	10–22
2007	0.0 <i>0.0%</i>	6.1 <i>100.0%</i>	6.1 <i>100.0%</i>	5–10
2008	1.7 <i>17.7%</i>	8.0 <i>83.3%</i>	9.6 <i>100.0%</i>	8–17
2012	1.0 <i>11.1%</i>	8.0 <i>88.9%</i>	9.0 <i>100.0%</i>	5–14

Table 9.—Estimated subsistence sea lion harvest, take, and use in Southeast Alaska communities, 2012, with confidence intervals and statistical ranges.

Community	Sea lion harvest per capita	Native households harvesting sea lion	Native households using sea lion	Harvest	Struck and lost	Total take	Total take		
							Confidence interval (± %)	Lower range estimate	Upper range estimate
Angoon	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Craig	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Haines	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Hoonah	0.00	0.0%	0.0%	0.0	7.0	7.0	73.8%	5.0	12.1
Hydaburg	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Juneau	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Kake	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Ketchikan	0.00	0.0%	11.1%	0.0	0.0	0.0	0.0%	0.0	0.0
Klawock	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Klukwan	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Pelican	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Petersburg	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Saxman	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Sitka	0.00	2.3%	2.3%	1.0	1.0	2.0	0.0%	2.0	2.0
Wrangell	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Yakutat	0.00	0.0%	0.0%	0.0	0.0	0.0	0.0%	0.0	0.0
Southeast Alaska				1.0	8.0	9.0	57.3%	7.0	14.1

Table 10.—Age and sex composition of sea lion harvests, Southeast Alaska, 2012.

		Male	Female	Unknown Sex	Total
Adult		0.0	0.0	0.0	0.0
	Row percent	0.0%	0.0%	0.0%	0.0%
	Column percent	0.0%	0.0%	0.0%	0.0%
Juvenile		0.0	0.0	0.0	0.0
	Row percent	0.0%	0.0%	0.0%	0.0%
	Column percent	0.0%	0.0%	0.0%	0.0%
Pup		0.0	0.0	0.0	0.0
	Row percent	0.0%	0.0%	0.0%	0.0%
	Column percent	0.0%	0.0%	0.0%	0.0%
Unknown Age		1.0	0.0	0.0	1.0
	Row percent	100.0%	0.0%	0.0%	100.0%
	Column percent	100.0%	0.0%	0.0%	100.0%
Total		1.0	0.0	0.0	1.0
	Row percent	100.0%	0.0%	0.0%	100.0%
	Column percent	100.0%	0.0%	0.0%	100.0%

Table 11.–Southeast Alaska hunters’ assessment of local sea lion population changes, 2012.

Community (harvesters)	Increased	Remained stable	Declined
Angoon (0)	0.0%	0.0%	0.0%
Craig (0)	0.0%	0.0%	0.0%
Haines (0)	0.0%	0.0%	0.0%
Hoonah (1)	100.0%	0.0%	0.0%
Hydaburg (0)	0.0%	0.0%	0.0%
Juneau (0)	0.0%	0.0%	0.0%
Kake (0)	0.0%	0.0%	0.0%
Ketchikan (0)	0.0%	0.0%	0.0%
Klawock (0)	0.0%	0.0%	0.0%
Klukwan (0)	0.0%	0.0%	0.0%
Pelican (0)	0.0%	0.0%	0.0%
Petersburg (0)	0.0%	0.0%	0.0%
Saxman (0)	0.0%	0.0%	0.0%
Sitka (0)	0.0%	0.0%	0.0%
Wrangell (0)	0.0%	0.0%	0.0%
Yakutat (0)	0.0%	0.0%	0.0%
All communities	100.0%	0.0%	0.0%

Table 12.–Southeast Alaska hunters’ assessment of local sea lion population changes compared to previous years (based on four surveys).

Assessment years	Increased	Remained stable	Declined	Survey year
Comparing 2000 with 1995	41.8%	5.5%	52.7%	2001
Comparing 2004 with 1999	66.7%	16.7%	16.7%	2005
Single year (2008)	0.0%	100.0%	0.0%	2008
Current year (2012)	100.0%	0.0%	0.0%	2013

HUNTING PARTICIPATION AND SUCCESS

In 2012, about 171 households hunted for harbor seals in Southeast Alaska (Table 13). Of these, 140 households (81.5%) reported having success in harvesting one or more harbor seals (Table 13). About 18.5% of hunting households were unsuccessful in harvesting a seal in 2012.

There have been declines in the numbers of households hunting and harvesting seals in Southeast Alaska. The count of harvesters in 2012 (140 households) was the second lowest since the seal survey began in 1992, the trend discernible in Table 13 and Figure 7. From 1992 to 2001, the counts of households harvesting harbor seals ranged between 246 and 310 households each year (Table 13). The period after 2001 saw a substantial decline in the counts of households harvesting seals in Southeast Alaska, from about 246 households (in 2001) to 140 households (in 2012) (Figure 7). Since 2001, the counts of harvesters have ranged between 138 and 205 households each year (Table 13). Since about 1997, there have been no discernible trends in the percentage of unsuccessful households, ranging between 6.3% (in 2000) to 18.5% (in 2012), with an average of about 11.5% each year (Table 13, Figure 7).

In 2012 there were 4 households that reported hunting for sea lions in Southeast Alaska, with 1 household successful (Table 13). This is consistent with relatively low hunting efforts for sea lions documented by previous surveys. Since 1992, the counts of households that hunted for sea lions have ranged between zero and 8 households in Southeast Alaska. The counts of successful households have ranged between zero and 5 households each year. The percentage of unsuccessful households has varied considerably, from 100% (1993, 1996, 2005, and 2007) to 0% (1998, 2000, 2002). For years between these extremes, the average percentage of unsuccessful households has averaged 42.7% of households who reported hunting for sea lions.

Table 13.—Alaska Native households hunting and harvesting of harbor seals or sea lions, Southeast Alaska, 1992–2008, 2012.

Year	Harbor seals			Sea lions		
	Households hunting	Households harvesting	Success rate	Households hunting	Households harvesting	Success rate
1992	326	278	85.3%	4	3	66.8%
1993	336	261	77.7%	1	0	0.0%
1994	468	256	54.7%	5	4	74.5%
1995	394	267	67.8%	0	0	0.0%
1996	397	261	65.7%	1	0	0.0%
1997	290	249	86.0%	0	0	0.0%
1998	321	298	92.8%	2	2	100.0%
2000	331	310	93.7%	2	2	100.0%
2001	280	246	88.0%	0	0	0.0%
2002	225	205	91.5%	2	2	100.0%
2003	227	188	82.9%	3	2	66.0%
2004	188	175	93.1%	8	5	55.7%
2005	169	149	88.2%	5	0	0.0%
2006	173	158	91.5%	5	3	50.0%
2007	171	148	86.1%	5	0	0.0%
2008	158	138	87.1%	3	2	61.6%
2012	171	140	81.5%	4	1	26.3%

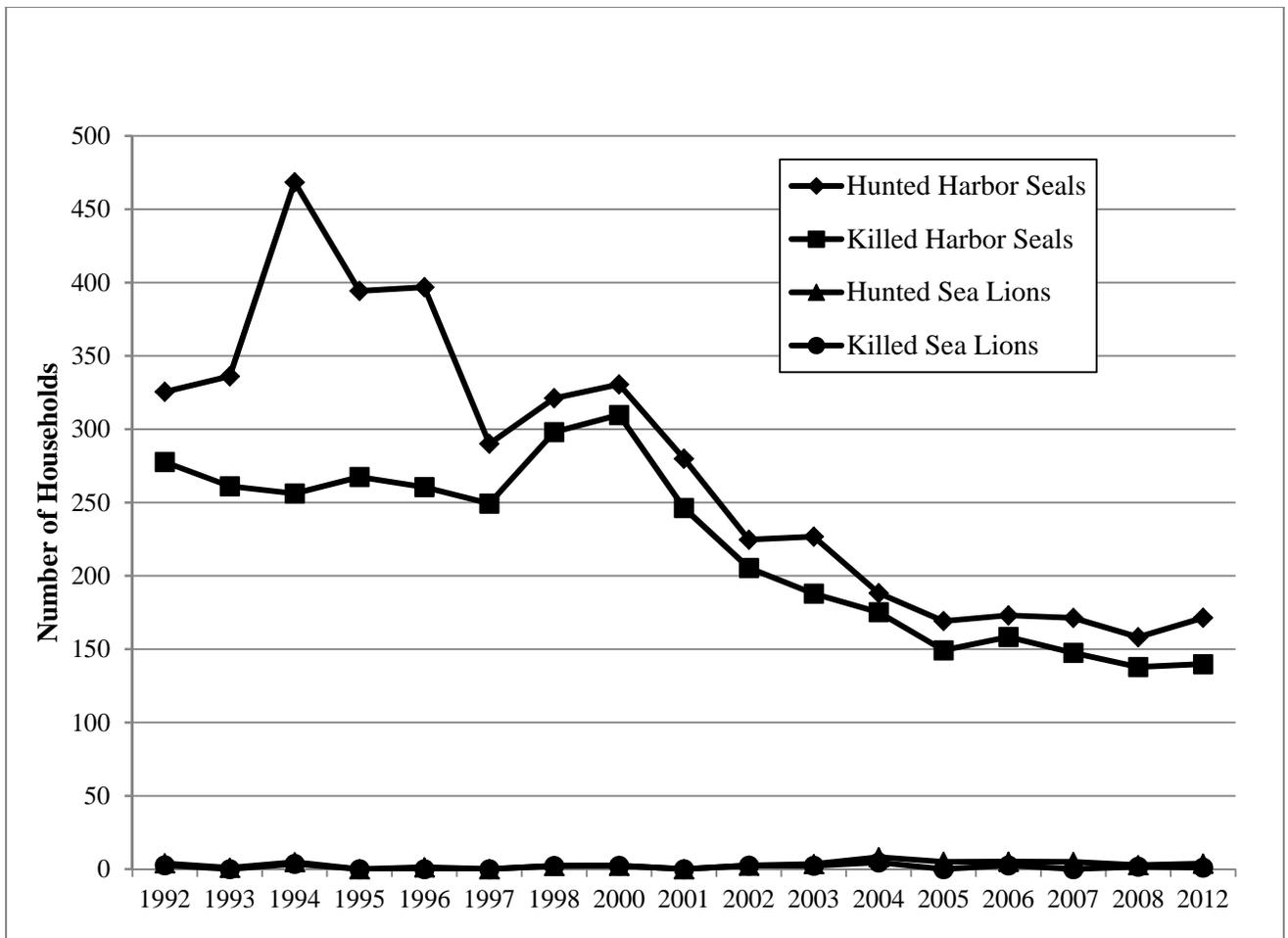


Figure 7.—Trends in number of households hunting harbor seals and sea lions, Southeast Alaska, 1992–2008, 2012.

DISCUSSION

In Southeast Alaska, subsistence takes of harbor seals have declined since surveys began in 1992 (Figure 8). The total take of harbor seals in 2012 (595 seals) was the second lowest recorded, 64.3% lower than takes in 1992 (1,666 seals) (Table 3, Figure 8). The harvest of harbor seals in 2012 (523 seals) was the lowest recorded in Southeast Alaska since 1992.

In Southeast Alaska, declines in harbor seal harvests are associated with fewer seal hunters and decreasing productivity (Table 13, figures 7 and 10). The number of households harvesting seals has decreased by 49.7% since 1992 (from 278 to 140 households) (Table 13, Figure 10). At the same time, the productivity of successful hunters has declined, from 5.3 seals per household (1992) to 3.7 seals per household (2012), the lowest recorded and substantially below the peak year in 1995 (6.4 seals per household) (Figure 10). So the declines in harbor seal harvests in Southeast Alaska appear to be related to fewer hunting households and to the decreasing productivity of successful hunters.

By comparison, there have been few apparent trends in sea lion harvests, numbers of hunters, or harvest productivity in Southeast Alaska (Table 13, figures 7, 9, and 11). Since 1992, hunting effort and harvests of sea lions have occurred at relatively low levels.

Figures 12 and 13 compare the age and sex composition of the yearly subsistence harvests of harbor seals since 1992 in Southeast Alaska. For harbor seals, hunters typically have reported harvesting more males than females each year (Figure 12). Considering harvests of known sex, males have comprised 69.4% of the harvest since 1992 (2.3 males for each female). The higher proportion of males in the harvests may reflect the greater availability of males in the groups of animals hunted due to sex segregation in groups. It also may indicate that females are more elusive than males when disturbed in a group, presenting comparatively fewer or more difficult targets to hunters.

Hunters have taken more adult seals (older, larger animals) compared with juveniles (younger, smaller animals) in Southeast Alaska since 1992 (Figure 13). At the same time, the juvenile proportion of the harvest had been increasing in recent years: juveniles comprised 7.8% of the seal harvest from 1992 to 1998, compared to 15.5% of the seal harvest from 2000 to 2008 (the adult portion decreased from 91.4% to 83.1% of the harvest). In 2012, the age structure of the harvest returned to earlier patterns, with juveniles comprising 8.3% and adults comprising 91.1% of the harvest (figures 13 and 14).

Seal harvests by age class and month in Southeast Alaska are shown in Figure 15. This time series illustrates the relative contribution of adult and juvenile seals in the harvest. It also portrays the overall declines in the harvests of all seals.

The age changes in harvests possibly reflect changes in the age compositions of seal populations accessible to hunters, perhaps due to changing population structures. The older ages of harvested seals in certain years may reflect relatively larger and more stable seal populations with proportionately larger older age classes in the population, while the younger ages of seals harvested in other years may reflect populations with proportionately larger young age classes. As described previously, hunters reported less stable local seal populations in 2012 compared with other years (Table 7).

A number of factors may be related to seal harvest trends in Southeast Alaska. The declines in numbers of seal hunters and harvest productivity of successful hunters may be due to decreased demand for seal products by consumers, perhaps due to changing food preferences in particular communities. The declines also may be associated with difficulties in the recruitment and training of new seal hunters within communities. In addition, the lower seal harvests may be influenced by economic factors, such as restricted incomes due to the recession putting constraints on hunting by households.

Undoubtedly local conditions within communities affect hunting trends. For example, Sitka and Hoonah are communities that present the regional trends of decreased numbers of harvesters and decreased productivity per successful household. In Sitka, harvesters declined from 68 households in 2000 to 24

households in 2012, and productivity fell from 4.1 to 1.9 seals per successful household (Figure 17). In Hoonah, harvesters declined from 30 households in 2000 to 15 households in 2012, and productivity fell from 5.0 to 2.3 seals per successful household (Figure 16). Angoon offers a contrasting case: the numbers of harvesters have remained relatively stable (16 households in 2000, 17 households in 2012), and productivity declined only slightly (3.9 to 2.7 seals per successful household) (Figure 18). Yakutat offers another contrasting case: numbers of harvesters decreased from 38 households in 2000 to 15 households in 2012, while productivity increased from 5.1 to 15.6 seals per successful household (Figure 19).

These comparisons at the community level suggest that local conditions can affect seal hunting patterns in relatively different ways. While the regional pattern represents a summation of community harvests, it may not represent trends at the local level within particular communities. Overall, seal harvests and seal hunters are decreasing in Southeast Alaska. Future research might be expanded to include interviews with hunters on topics such as hunter recruitment, changing food preferences, and economic constraints on hunting, in order to better understand the reasons for the regional trends.

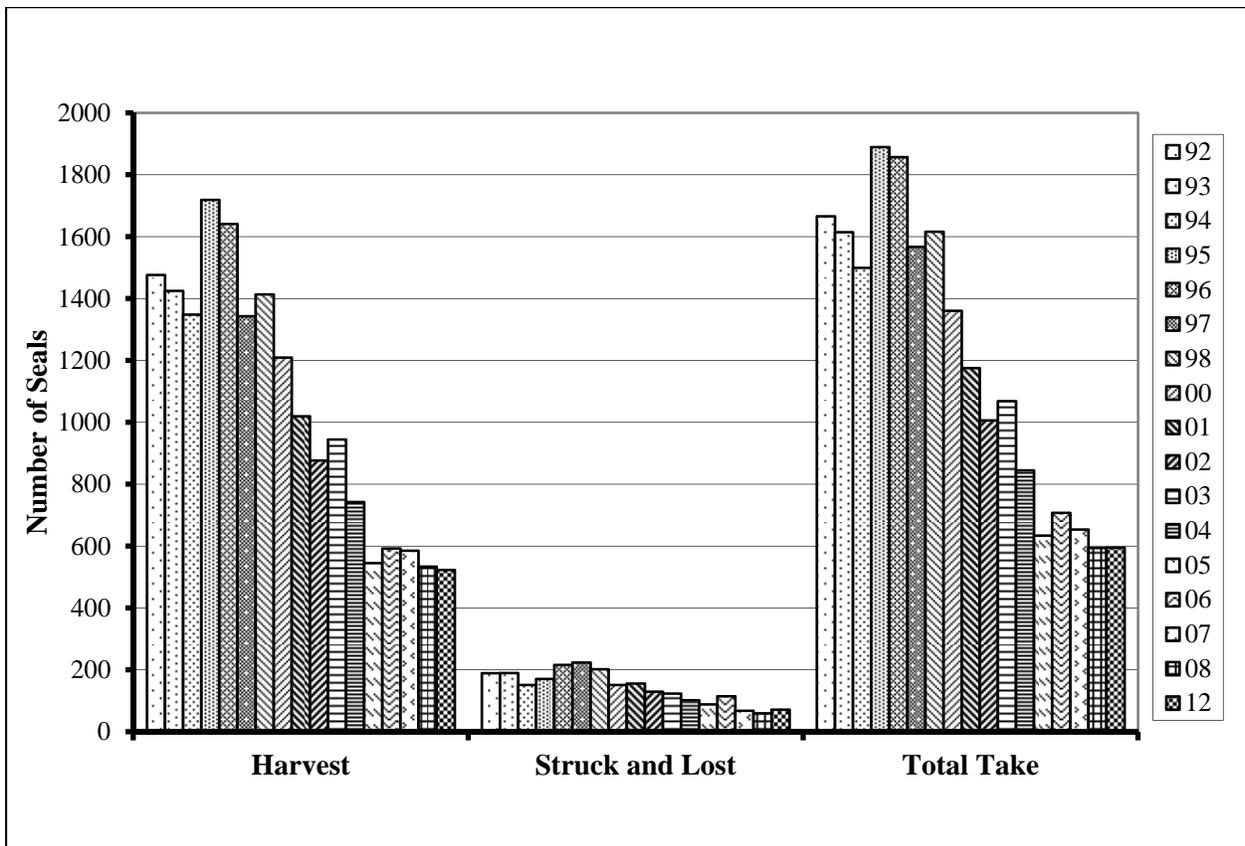


Figure 8.—Estimated subsistence takes of harbor seals in Southeast Alaska, 1992–2008, 2012.

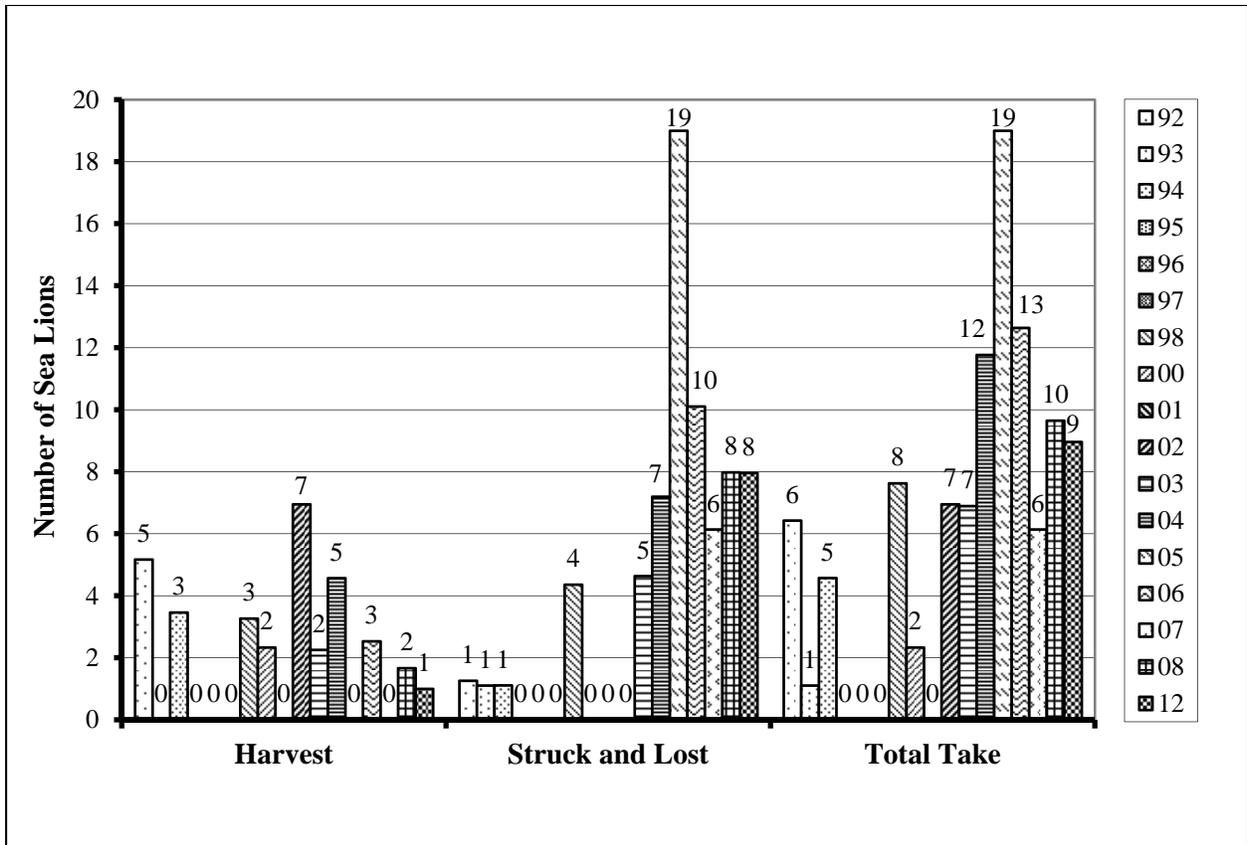


Figure 9.—Estimated subsistence takes of sea lions in Southeast Alaska, 1992–2008, 2012.

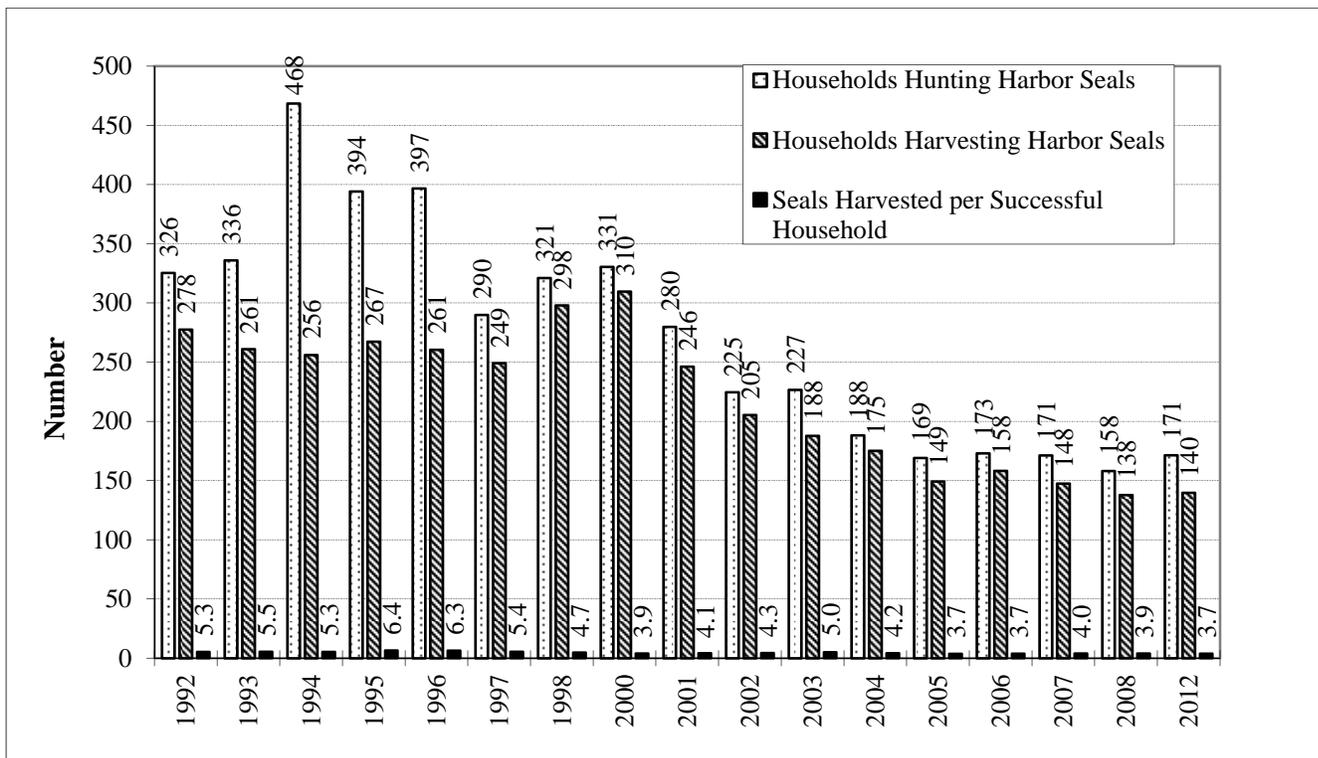


Figure 10.—Harbor seal hunters and success rates, Southeast Alaska, 1992–2008, 2012.

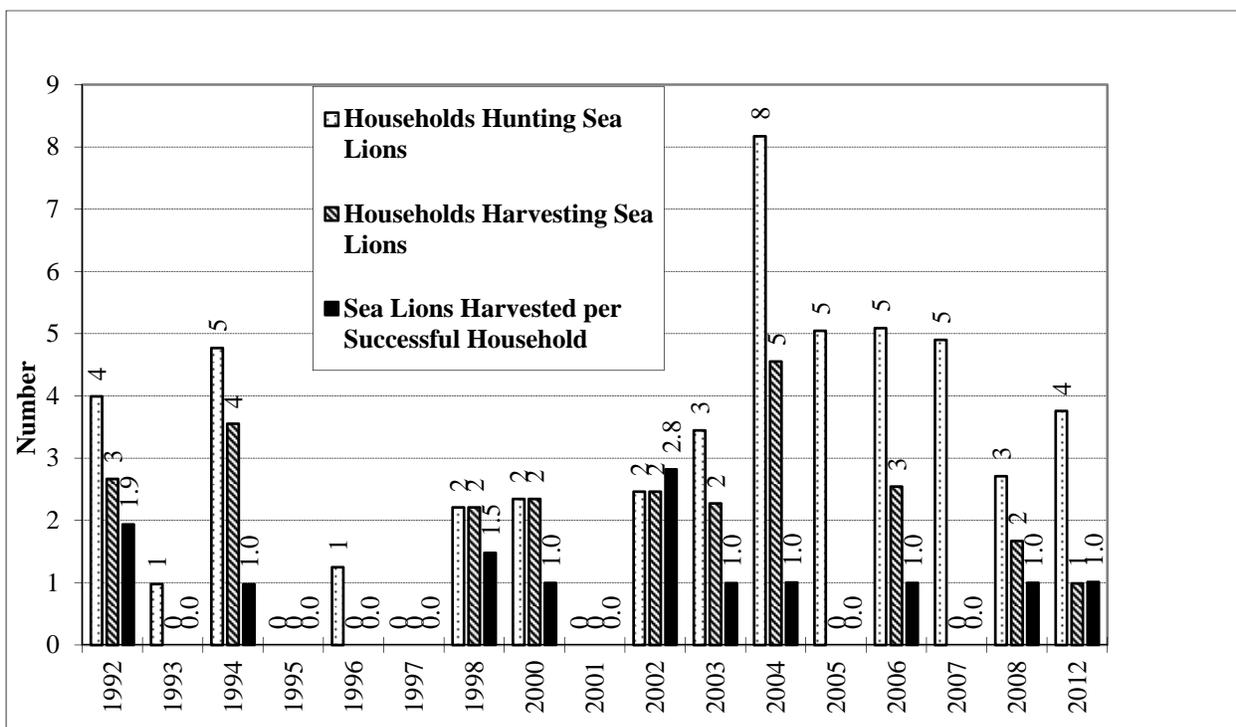


Figure 11.—Sea lion hunters and success rates, Southeast Alaska, 1992–2008, 2012.

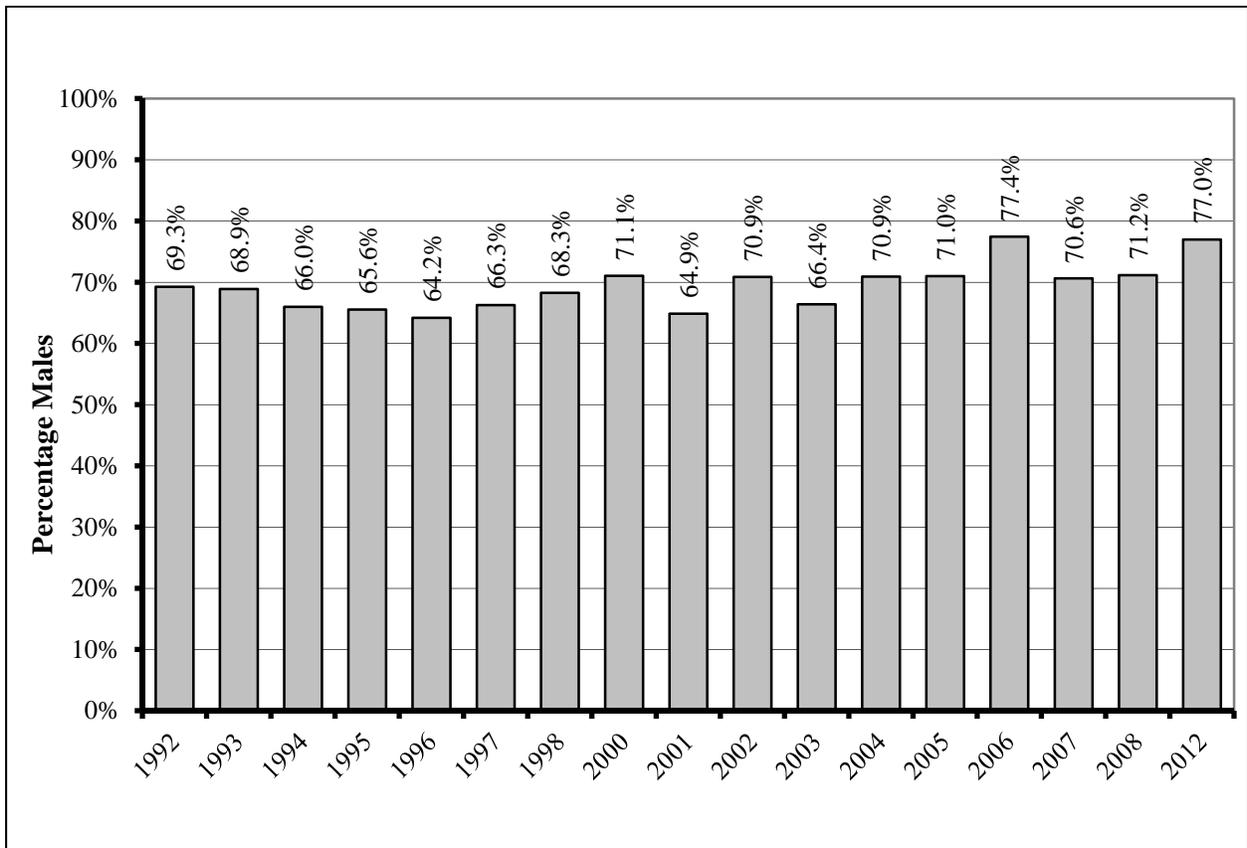


Figure 12.—Harbor seal harvests reported as males by hunters, Southeast Alaska, 1992–2008, 2012.

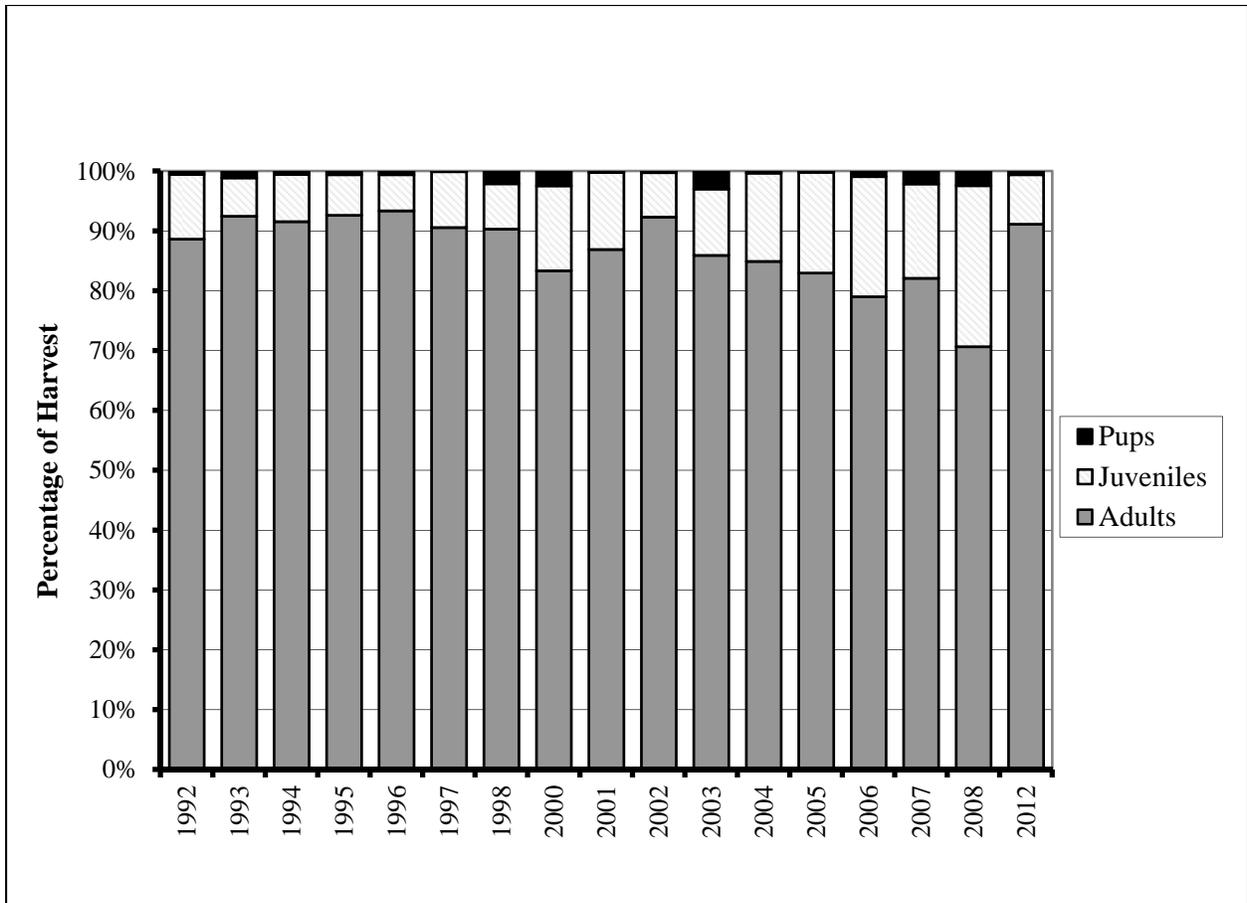


Figure 13.—Age composition of harbor seal harvests reported by hunters, Southeast Alaska, 1992–2008, 2012.

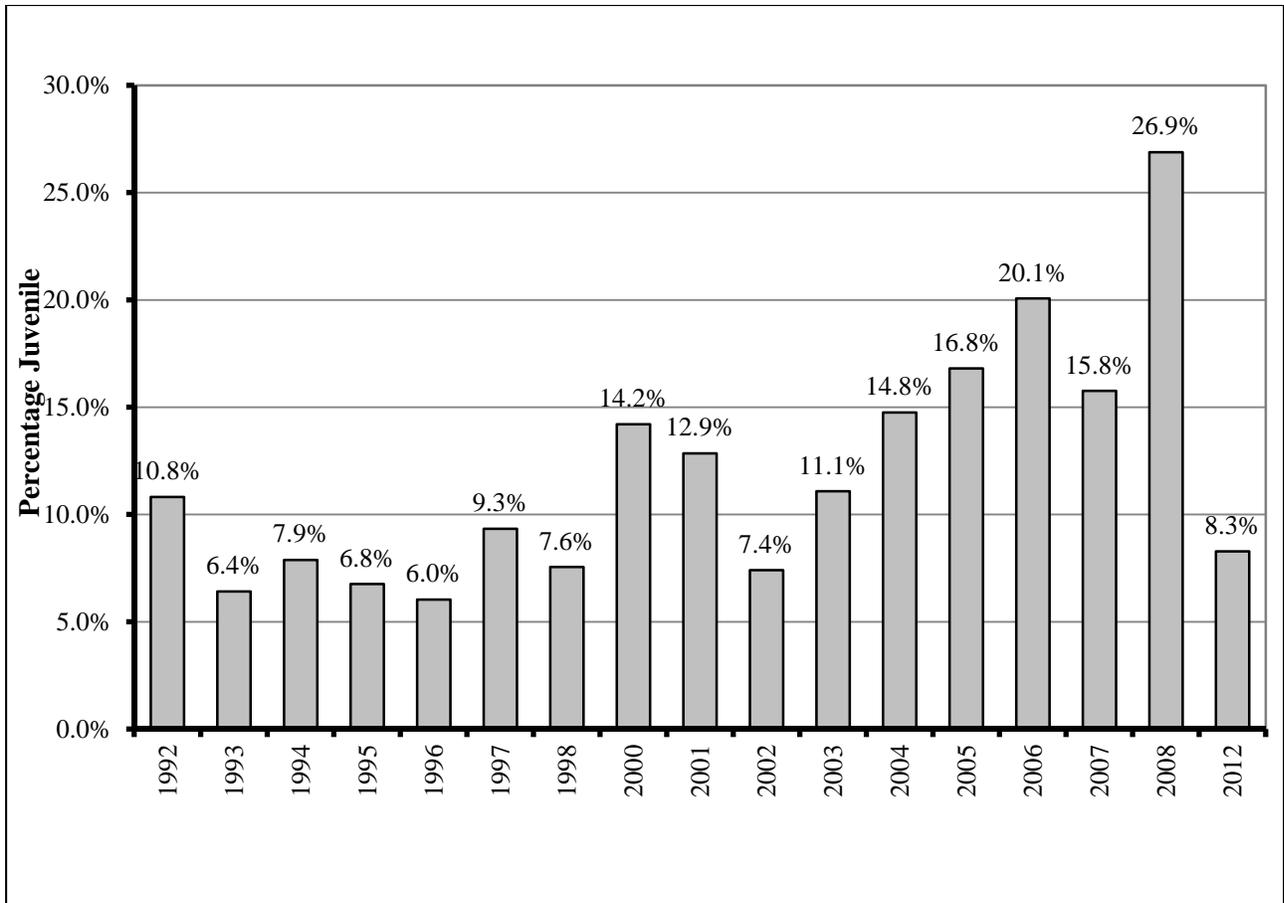


Figure 14.—Percentage of harbor seal harvests reported as juveniles by hunters, Southeast Alaska, 1992–2008, 2012.

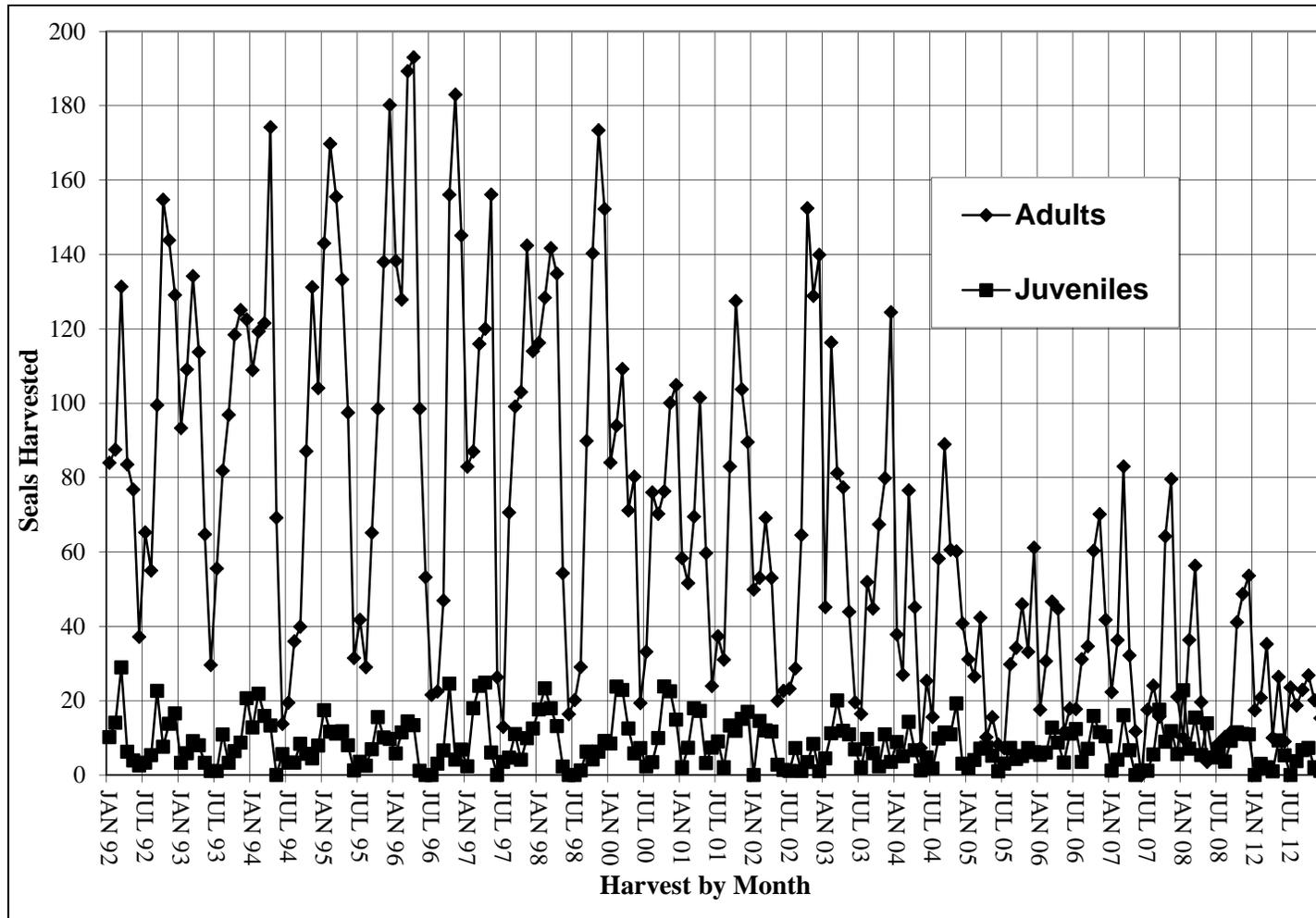


Figure 15.—Adult and juvenile harbor seal harvests by month, Southeast Alaska, 1992–2008, 2012.

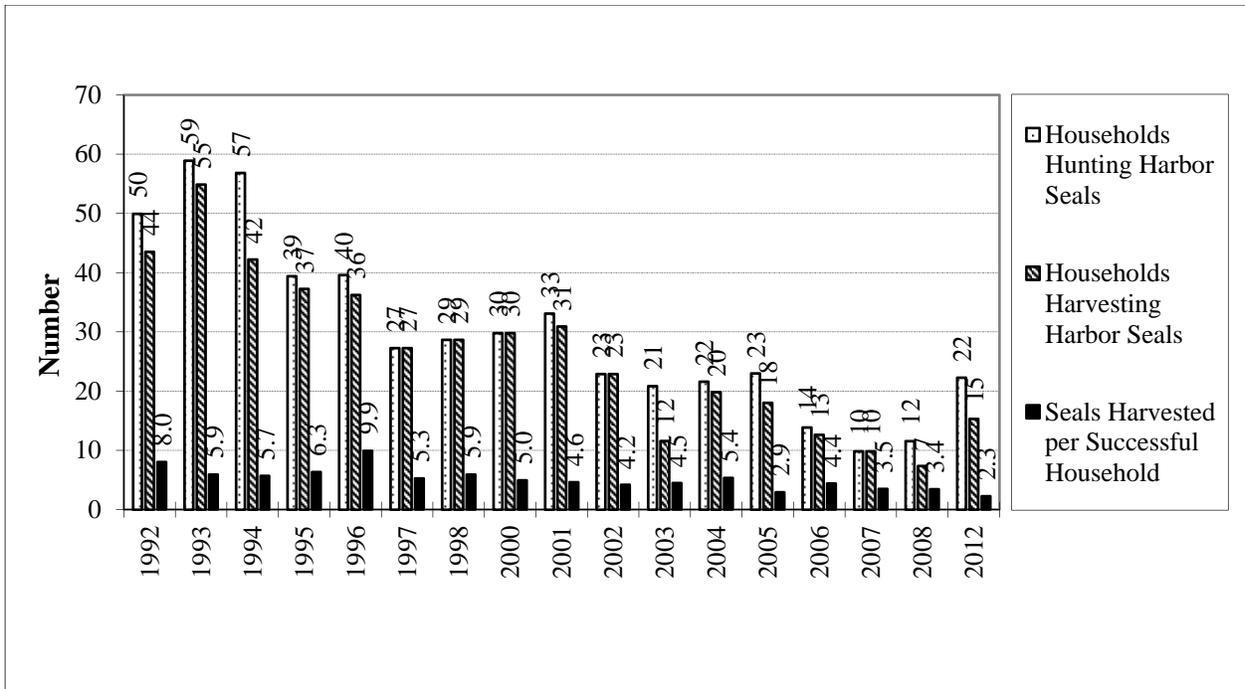


Figure 16.—Seal hunters and success rates, Hoonah, 1992–2008, 2012.

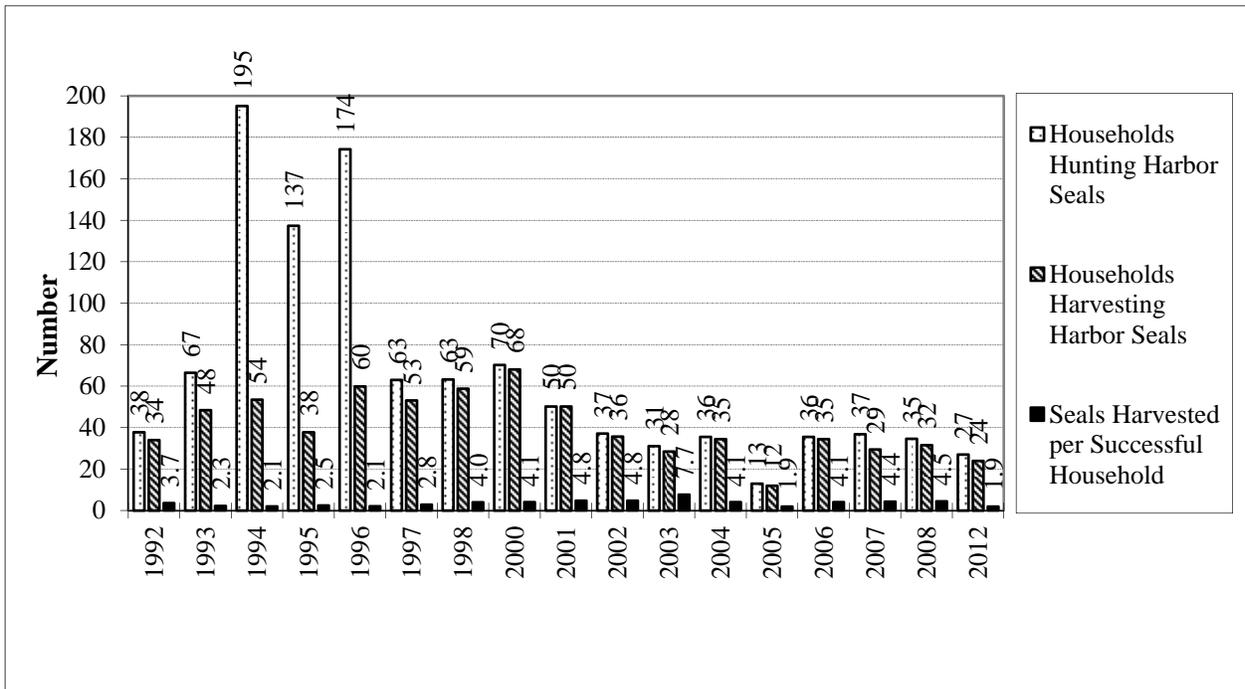


Figure 17.—Seal hunters and success rates, Sitka, 1992–2008, 2012.

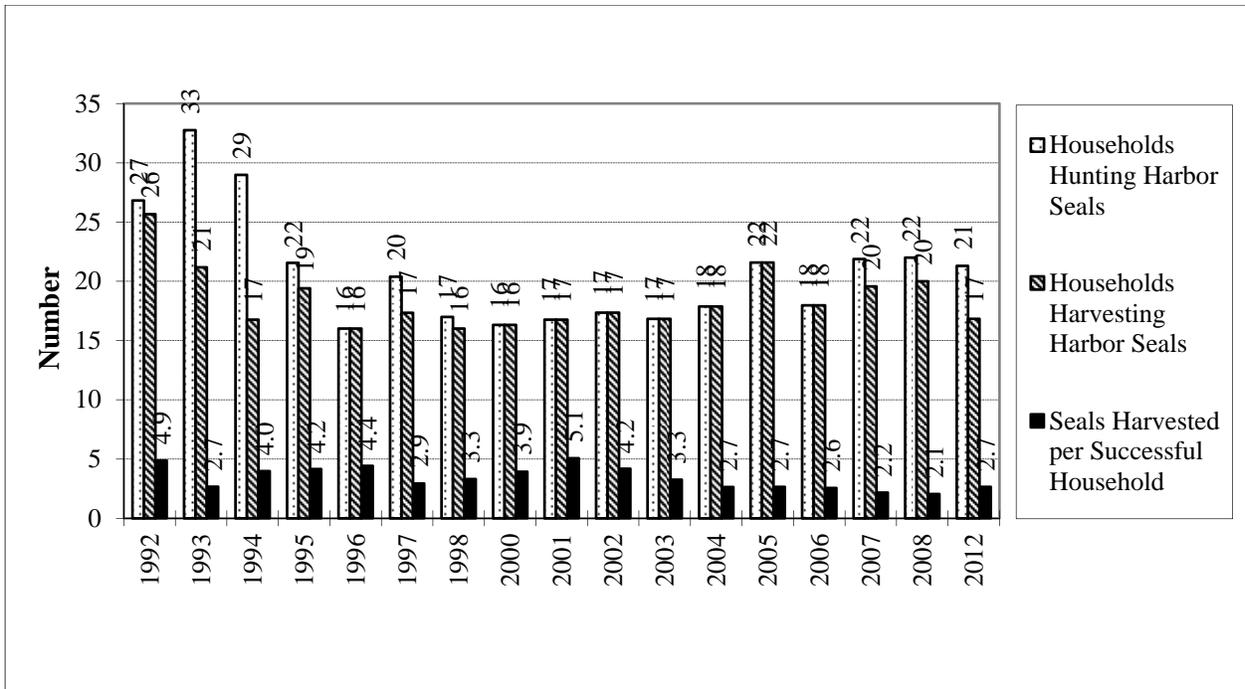


Figure 18.—Seal hunters and success rates, Angoon, 1992–2008, 2012.

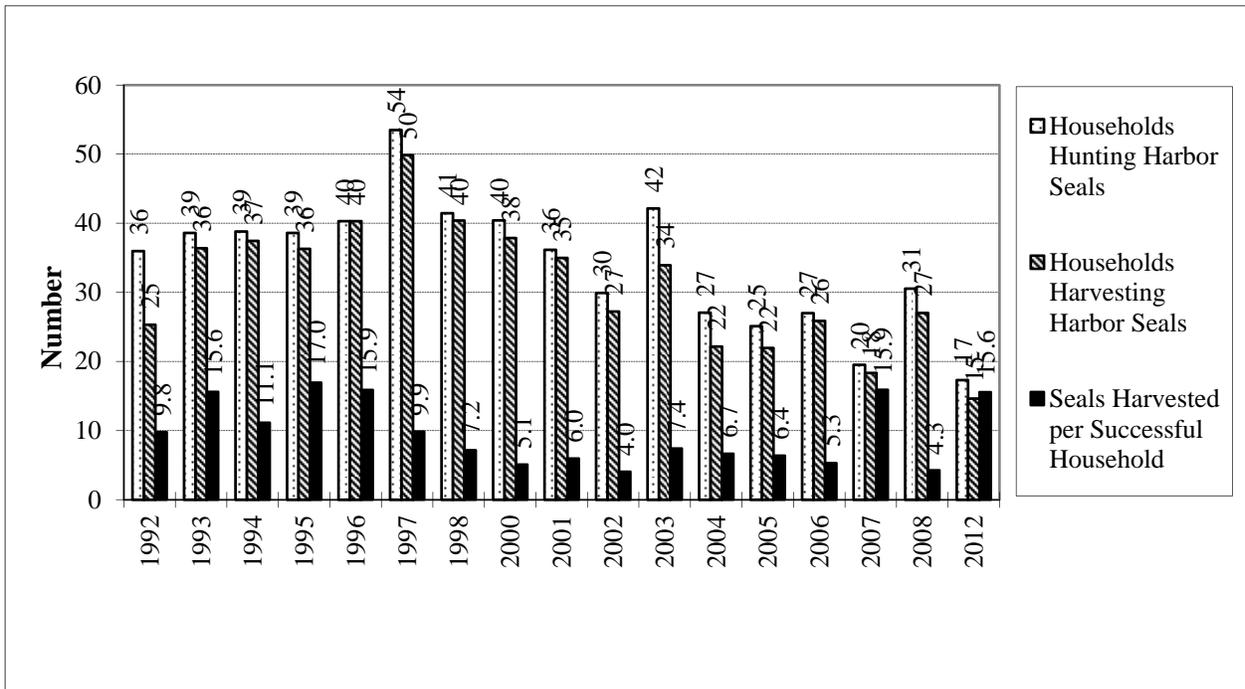


Figure 19.—Seal hunters and success rates, Yakutat, 1992–2008, 2012.

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APPENDIX A
SURVEY INSTRUMENT USED IN HOUSEHOLD INTERVIEWS, 2012

HARBOR SEAL

2012 MARINE MAMMAL SURVEY

Southeast

Are any members of your household Alaska Natives? Yes () No () If No, thank you for your cooperation. This survey is relevant to Native households.
 If yes, how many people lived in your household in 2012? () Check if no contact with Household No Contact ()

Did you or members of your household HUNT or USE (process, eat, receive, crafts) harbor seals in 2012? Yes No
 (IF YES TO HARBOR SEALS, COMPLETE THE FOLLOWING QUESTIONS.) 14. Did your household hunt or use SEA LIONS in 2012?
 No Thank you Yes (Go to Sea lion form)

During 2012, did you or your household:

1. Use harbor seals (meat, hides, or oil)?
2. Hunt harbor seals? If yes, go to 2a and 2b.
3. Kill and retrieve harbor seals?
4. Receive harbor seals from other households or communities?
5. Give away harbor seals to other households or communities?

Yes	No

2a. How many seal hunters in your household? ()

2b. If you hunted outside Southeast, where did you hunt? _____

IF YES TO QUESTION 2 OR 3 ABOVE, GO TO QUESTION 6. IF NO, GO TO QUESTIONS 11-13, THEN COMPLETE SEA LION SURVEY QUESTION 14.

6. How many harbor seals did your household kill and retrieve? [Enter in total box.] _____
7. In which months were they killed and retrieved? How many in (January, etc.)? [Enter the numbers by month.] _____

HARBOR SEAL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
TOTAL														

8. Of the harbor seals killed and retrieved in (January, etc.), how many were male, female, and how many were pups, juveniles, or adults? [Enter the numbers by month]

HARBOR SEAL (Detail)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
ADULT	MALE													
	FEMALE													
	UNKNOWN													
JUVENILE	MALE													
	FEMALE													
	UNKNOWN													
PUP	MALE													
	FEMALE													
	UNKNOWN													
UNKNOWN AGE	MALE													
	FEMALE													
	UNKNOWN													

During 2012, 9. How many harbor seal were struck and lost by your household? [Enter number in total box.] _____

10. In which months were they struck and lost? [Enter numbers by month.] _____

HARBOR SEAL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
STRUCK AND LOST														

Supplemental Questions:

11. During 2012, did you observe any changes to harbor seal numbers in your area? Increase ____ Decrease ____ No Change ____ Didn't Observe ____
12. During 2012, what was the condition of the seals you harvested? _____
13. Do you intend to hunt or hunt again before January 2013? Yes ____ Maybe ____ No ____

Community: () HHID: () List: Hunter Random Interviewer: _____ Date: _____

SEA LION

2012 MARINE MAMMAL SURVEY

Southeast

Did you or members of your household HUNT or "USE" (process, eat, receive, crafts) sea lions in 2012? yes ____ no ____
 (IF YES, PLEASE COMPLETE THE FOLLOWING QUESTIONS:) (If NO, skip to question 13.)

During 2012, did you or your household:

- 1. Use sea lions (meat, hides, or oil)?
- 2. Hunt sea lions? If yes, go to 2a and 2b.....
- 3. Kill and retrieve sea lions?
- 4. Receive sea lions from other households or communities? .
- 5. Give away sea lions to other households or communities? .

Yes	No

2a. How many sea lion hunters in your household? (____)

2b. If you hunted outside Southeast, where did you hunt? _____

IF YES TO QUESTION 2 OR 3 ABOVE, GO TO QUESTION 6. IF NO, GO TO QUESTIONS 11-13.

6. How many sea lions did your household kill and retrieve? [Enter total number in box.] _____

7. In which months were they killed and retrieved? How many in (January, etc.)? [Enter the numbers by month.] _____

SEA LIONS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
TOTAL														

8. Of the sea lions killed and retrieved in (January, etc.), how many were male, female, and how many were pups, juveniles, or adults? [Enter the numbers by month]

SEA LIONS (Detail)	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
ADULT	MALE													
	FEMALE													
	UNKNOWN													
JUVENILE	MALE													
	FEMALE													
	UNKNOWN													
PUP	MALE													
	FEMALE													
	UNKNOWN													
UNKNOWN AGE	MALE													
	FEMALE													
	UNKNOWN													

During 2012,

9. How many sea lions were struck and lost by your household? [Enter number in total box.] _____

10. In which months were they struck and lost? [Enter numbers by month.] _____

SEA LIONS	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	UNKNOWN	TOTAL
STRUCK AND LOST														

Supplemental Questions:

THANK YOU FOR YOUR COOPERATION

11. During 2012, did you observe any changes to sea lion numbers in your area? Increase ____ Decrease ____ No Change ____ Didn't Observe ____

12. During 2012, what was the condition of the sea lions you harvested? _____

13. Do you intend to hunt or hunt again before January 2013? Yes ____ Maybe ____ No ____

Community: _____ (____) HHID: (____) List: Hunter Random Interviewer: _____ Date: _____

APPENDIX B
SUBSISTENCE TAKES OF HARBOR SEALS AND SEA LIONS
BY COMMUNITY AND YEAR, SOUTHEAST ALASKA

Table B-1. Subsistence harbor seal takes in Southeast Alaska communities, 1992-2008, 2012.

Community	Struck and Lost Take																	
	Harvest	Struck and Lost	Take															
	1992			1993			1994			1995			1996			1997		
Angoon	125.1	28.9	154.0	56.6	9.9	66.5	66.9	21.1	88.0	80.9	9.7	90.6	71.0	2.0	73.0	51.0	7.1	58.1
Craig	74.2	0.0	74.2	51.1	9.8	60.9	42.7	6.6	49.3	69.4	13.6	83.1	48.2	8.0	56.3	62.0	7.5	69.5
Haines	30.5	7.9	38.4	23.0	2.3	25.3	39.3	2.2	41.5	24.0	9.0	33.0	41.1	3.4	44.6	36.8	10.5	47.3
Hoonah	350.2	24.8	375.0	324.4	35.8	360.2	240.7	15.0	255.8	236.6	19.7	256.3	359.7	48.6	408.3	143.8	9.9	153.8
Hydaburg	30.0	2.1	32.1	14.0	0.0	14.0	10.0	0.0	10.0	6.5	0.0	6.5	15.0	0.0	15.0	11.5	0.0	11.5
Juneau	122.6	7.6	130.2	59.0	21.6	80.6	78.6	13.5	92.1	42.9	1.3	44.2	32.8	1.3	34.1	99.0	0.0	99.0
Kake	173.9	12.3	186.2	100.8	15.2	115.9	99.3	7.4	106.6	72.0	1.5	73.5	86.4	0.0	86.4	68.4	7.6	76.0
Ketchikan	90.2	6.5	96.8	42.4	2.9	45.3	31.4	0.0	31.4	46.4	0.0	46.4	25.0	0.0	25.0	27.4	4.3	31.8
Klawock	39.0	1.4	40.3	39.8	0.0	39.8	71.1	0.0	71.1	263.8	0.0	263.8	69.8	0.0	69.8	94.0	0.0	94.0
Klukwan	8.0	2.0	10.0	1.2	0.0	1.2	3.8	1.3	5.0	35.2	6.4	41.6	6.3	0.0	6.3	1.1	0.0	1.1
Pelican	8.3	1.4	9.7	5.3	1.1	6.4	4.4	1.1	5.6	13.5	0.0	13.5	15.4	0.0	15.4	14.5	0.0	14.5
Petersburg	22.4	2.6	25.0	4.5	4.5	9.0	15.2	1.3	16.4	13.6	1.1	14.7	19.5	2.4	21.9	11.8	4.3	16.2
Saxman	22.2	1.2	23.5	5.6	0.0	5.6	16.5	0.0	16.5	15.9	0.0	15.9	4.9	0.0	4.9	11.0	0.0	11.0
Sitka	124.7	21.4	146.1	109.3	20.6	129.9	110.5	20.1	130.6	93.8	6.3	100.0	126.8	4.1	130.9	150.6	3.7	154.3
Wrangell	6.0	8.0	14.0	19.5	9.0	28.5	101.0	27.0	128.0	89.3	22.8	112.0	79.3	22.2	101.5	68.8	29.2	98.0
Yakutat	248.0	61.3	309.3	568.4	57.4	625.8	417.1	35.0	452.1	615.5	79.6	695.1	640.3	124.1	764.5	491.5	139.9	631.5
	1998			2000			2001			2002			2003			2004		
Angoon	53.0	2.0	55.0	64.3	6.1	70.4	85.0	5.2	90.2	72.7	2.2	74.9	54.9	0.0	54.9	47.4	3.2	50.5
Craig	52.7	5.2	57.9	35.0	3.0	38.0	54.0	4.0	58.0	38.9	5.7	44.6	28.0	6.0	34.0	29.7	5.5	35.2
Haines	30.7	10.6	41.3	17.5	0.0	17.5	19.3	1.1	20.4	19.6	26.2	45.8	12.0	0.0	12.0	7.0	0.0	7.0
Hoonah	169.7	19.8	189.6	147.9	16.0	163.9	143.4	13.2	156.7	96.4	6.0	102.4	52.2	10.4	62.6	106.2	9.0	115.2
Hydaburg	14.4	0.0	14.4	14.4	0.0	14.4	14.4	0.0	14.4	14.4	0.0	14.4	14.4	0.0	14.4	14.4	0.0	14.4
Juneau	90.4	15.3	105.7	59.9	3.5	63.4	29.9	1.6	31.5	17.2	1.4	18.7	30.3	24.8	55.0	13.6	9.1	22.7
Kake	123.0	6.1	129.1	101.7	3.6	105.3	85.6	10.7	96.4	98.2	10.6	108.7	52.1	0.0	52.1	96.2	0.0	96.2
Ketchikan	26.7	0.0	26.7	111.7	0.0	111.7	12.7	0.0	12.7	123.5	1.2	124.6	78.0	0.0	78.0	60.0	5.0	65.0
Klawock	83.0	0.0	83.0	67.1	0.0	67.1	71.5	0.0	71.5	24.0	0.0	24.0	59.8	0.0	59.8	29.2	7.6	36.8
Klukwan	10.5	0.0	10.5	18.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelican	15.8	2.4	18.2	7.5	0.0	7.5	9.0	0.0	9.0	1.8	0.0	1.8	1.8	0.0	1.8	1.8	0.0	1.8
Petersburg	23.9	9.3	33.2	20.7	7.2	27.9	16.0	22.0	38.0	45.0	18.0	63.0	9.6	7.2	16.8	10.3	8.3	18.6
Saxman	19.6	0.0	19.6	45.6	1.9	47.5	12.9	0.0	12.9	25.5	3.0	28.5	12.0	0.0	12.0	5.0	0.0	5.0
Sitka	237.6	29.4	267.0	276.8	41.1	317.8	241.3	32.8	274.1	169.7	19.3	189.0	220.4	5.2	225.6	141.2	19.3	160.5
Wrangell	174.0	30.0	204.0	28.5	12.0	40.5	16.0	29.0	45.0	20.0	9.0	29.0	68.0	18.7	86.7	33.3	8.3	41.7
Yakutat	289.0	72.3	361.3	193.3	56.8	250.1	208.8	36.2	245.0	110.3	27.2	137.5	251.7	51.5	303.2	147.7	27.1	174.8

Table B-1.(continued) Subsistence harbor seal takes in Southeast Alaska communities, 1992-2008, 2012.

Community	Struck and Lost Take														
	Harvest	and Lost	Take												
	2005			2006			2007			2008			2012		
Angoon	57.5	6.2	63.7	46.0	8.0	54.0	44.8	12.3	57.2	44.8	12.3	57.2	44.8	12.3	57.2
Craig	26.0	3.0	29.0	1.3	0.0	1.3	26.5	3.5	30.1	26.5	3.5	30.1	26.5	3.5	30.1
Haines	2.0	0.0	2.0	4.7	0.0	4.7	19.6	0.0	19.6	19.6	0.0	19.6	19.6	0.0	19.6
Hoonah	53.0	11.0	64.0	55.6	7.6	63.2	34.8	5.6	40.4	34.8	5.6	40.4	34.8	5.6	40.4
Hydaburg	14.4	0.0	14.4	14.4	0.0	14.4	4.7	0.0	4.7	4.7	0.0	4.7	4.7	0.0	4.7
Juneau	8.0	1.0	9.0	26.1	23.4	49.5	25.7	4.7	30.3	25.7	4.7	30.3	25.7	4.7	30.3
Kake	47.6	4.6	52.3	40.5	0.0	40.5	23.8	4.5	28.3	23.8	4.5	28.3	23.8	4.5	28.3
Ketchikan	73.1	0.0	73.1	37.6	0.0	37.6	22.0	0.0	22.0	22.0	0.0	22.0	22.0	0.0	22.0
Klawock	20.0	2.0	22.0	16.2	3.5	19.7	29.0	2.5	31.5	29.0	2.5	31.5	29.0	2.5	31.5
Klukwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelican	10.5	0.0	10.5	8.4	0.0	8.4	6.0	0.0	6.0	6.0	0.0	6.0	6.0	0.0	6.0
Petersburg	30.0	22.0	52.0	10.0	11.0	21.0	6.0	9.0	15.0	6.0	9.0	15.0	6.0	9.0	15.0
Saxman	6.8	5.5	12.3	20.2	0.0	20.2	2.9	0.0	2.9	2.9	0.0	2.9	2.9	0.0	2.9
Sitka	23.0	1.0	24.0	141.2	19.3	160.5	46.0	3.0	49.0	46.0	3.0	49.0	46.0	3.0	49.0
Wrangell	33.3	8.3	41.7	33.3	8.3	41.7	3.3	0.0	3.3	3.3	0.0	3.3	3.3	0.0	3.3
Yakutat	140.2	24.1	164.3	137.3	33.8	171.0	228.0	26.7	254.7	228.0	26.7	254.7	228.0	26.7	254.7

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table B-2. Subsistence sea lion takes in Southeast Alaska communities, 1992-2008, 2012.

Community	Struck																	
	Harvest	and Lost	Take															
	1992			1993			1994			1995			1996			1997		
Angoon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hoonah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydaburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Juneau	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kake	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ketchikan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klawock	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klukwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelican	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petersburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saxman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sitka	3.8	1.3	5.0	0.0	1.1	1.1	1.1	1.1	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wrangell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yakutat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1998			2000			2001			2002			2003			2004		
Angoon	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	3.3
Haines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hoonah	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6	4.6	0.0	7.2	7.2	0.0
Hydaburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Juneau	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kake	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ketchikan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klawock	0.0	0.0	0.0	1.3	0.0	1.3	0.0	0.0	0.0	1.0	0.0	1.0	2.3	0.0	2.3	1.3	0.0	1.3
Klukwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelican	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petersburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saxman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sitka	3.3	4.4	7.6	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Wrangell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yakutat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Table B-2.(continued) Subsistence sea lion takes in Southeast Alaska communities, 1992-2008, 2012.

Community	Struck														
	Harvest	and Lost	Take												
	2005			2006			2007			2008			2012		
Angoon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Craig	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Haines	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hoonah	0.0	9.0	9.0	0.0	10.1	10.1	0.0	6.1	6.1	0.0	7.0	7.0	0.0	7.0	7.0
Hydaburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Juneau	0.0	0.0	0.0	1.4	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kake	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ketchikan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klawock	0.0	10.0	10.0	1.2	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Klukwan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pelican	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petersburg	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saxman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sitka	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	1.0	1.0	2.0
Wrangell	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yakutat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

APPENDIX C
SUBSISTENCE TAKES OF HARBOR SEALS AND SEA LIONS BY
REGION AND COMMUNITY

Table C-1. Sea lion and harbor seal harvest and take estimates, Angoon, 2012.

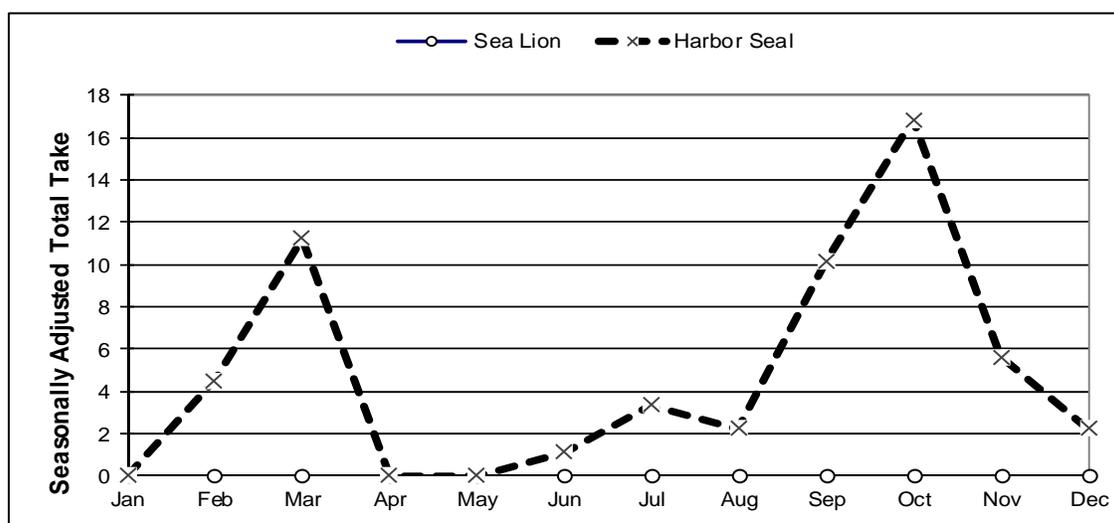
<i>SAMPLING DESIGN:</i>														
<i>CHAIN REFERRAL</i>														
	Total Referred Households											37		
	Surveyed Households											33		
	Sampling Fraction											89.2%		
	Sample Household Members											105		
	Estimated Household Members											117.7		
	2000 U.S. Census Estimated Native Population											348		
<i>HARVEST AND USE INFORMATION</i>														
<i>Percentage of Sample Households:</i>						<i>Estimated Community Harvest and Take (Expanded):</i>								
		Sea	Harbor									Sea	Harbor	
		<u>Lion</u>	<u>Seal</u>									<u>Lion</u>	<u>Seal</u>	
	Used	0.0%	78.8%									Total Number Harvested	0.0	44.8
	Hunted	0.0%	57.6%									Total Number Struck and Lost	0.0	12.3
	Harvested	0.0%	45.5%									Total Number Taken	0.0	57.2
	Received	0.0%	42.4%											
	Gave Away	0.0%	36.4%									Number Harvested Per Capita	0.00	0.13
<i>SEA LION HARVEST BY MONTH</i>														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<i>HARBOR SEAL HARVEST BY MONTH</i>														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	4	6	0	0	0	3	2	8	10	5	2	0	40
Struck & Lost	0	0	4	0	0	1	0	0	1	5	0	0	0	11
Total Take	0	4	10	0	0	1	3	2	9	15	5	2	0	51
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	4.5	6.7	0.0	0.0	0.0	3.4	2.2	9.0	11.2	5.6	2.2	0.0	44.8
Struck & Lost	0.0	0.0	4.5	0.0	0.0	1.1	0.0	0.0	1.1	5.6	0.0	0.0	0.0	12.3
Total Take	0.0	4.5	11.2	0.0	0.0	1.1	3.4	2.2	10.1	16.8	5.6	2.2	0.0	57.2
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	4.5	6.7	0.0	0.0	0.0	3.4	2.2	9.0	11.2	5.6	2.2	0.0	44.8
Struck & Lost	0.0	0.0	4.5	0.0	0.0	1.1	0.0	0.0	1.1	5.6	0.0	0.0	0.0	12.3
Total Take	0.0	4.5	11.2	0.0	0.0	1.1	3.4	2.2	10.1	16.8	5.6	2.2	0.0	57.2
Total Take (%)	0.0%	7.8%	19.6%	0.0%	0.0%	2.0%	5.9%	3.9%	17.6%	29.4%	9.8%	3.9%	0.0%	100.0%
Cum. Take	0.0	4.5	15.7	15.7	15.7	16.8	20.2	22.4	32.5	49.3	54.9	57.2	57.2	57.2
Cum. Take (%)	0.0%	7.8%	27.5%	27.5%	27.5%	29.4%	35.3%	39.2%	56.9%	86.3%	96.1%	100.0%	100.0%	100.0%

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-1.(continued) Sea lion and harbor seal harvest and take estimates, Angoon, 2012.

	Sea Lion				Harbor Seal			
	Reported by		Community Est.		Reported by		Community Est.	
	Sample		(Expanded)		Sample		(Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	19	47.5%	21.3	47.5%
Adult Female	0	---	0.0	---	6	15.0%	6.7	15.0%
Adult Unknown Sex	0	---	0.0	---	7	17.5%	7.8	17.5%
Juvenile Male	0	---	0.0	---	6	15.0%	6.7	15.0%
Juvenile Female	0	---	0.0	---	1	2.5%	1.1	2.5%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	1	2.5%	1.1	2.5%
Total	0	---	0.0	---	40	100.0%	44.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/	Total	Year	Harvest	Struck/	Total
		Lost	Take			Lost	Take
1992	0.0	0.0	0.0	1992	125.1	28.9	154.0
1993	0.0	0.0	0.0	1993	56.6	9.9	66.5
1994	0.0	0.0	0.0	1994	66.9	21.1	88.0
1995	0.0	0.0	0.0	1995	80.9	9.7	90.6
1996	0.0	0.0	0.0	1996	71.0	2.0	73.0
1997	0.0	0.0	0.0	1997	51.0	7.1	58.1
1998	0.0	0.0	0.0	1998	53.0	2.0	55.0
2000	1.0	0.0	1.0	2000	64.3	6.1	70.4
2001	0.0	0.0	0.0	2001	85.0	5.2	90.2
2002	0.0	0.0	0.0	2002	72.7	2.2	74.9
2003	0.0	0.0	0.0	2003	54.9	0.0	54.9
2004	0.0	0.0	0.0	2004	47.4	3.2	50.5
2005	0.0	0.0	0.0	2005	57.5	6.2	63.7
2006	0.0	0.0	0.0	2006	46.0	8.0	54.0
2007	0.0	0.0	0.0	2007	42.6	0.0	42.6
2008	0.0	0.0	0.0	2008	41.0	5.0	46.0
2012	0.0	0.0	0.0	2012	44.8	12.3	57.2

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-2. Sea lion and harbor seal harvest and take estimates, Craig, 2012.

<i>SAMPLING DESIGN:</i>	
<i>CHAIN REFERRAL</i>	
Total Referred Households	23
Surveyed Households	13
Sampling Fraction	56.5%
Sample Household Members	29
Estimated Household Members	51.3
2000 U.S. Census Estimated Native Population	240

<i>HARVEST AND USE INFORMATION</i>					
<i>Percentage of Sample Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea <u>Lion</u>	Harbor <u>Seal</u>		Sea <u>Lion</u>	Harbor <u>Seal</u>
Used	0.0%	69.2%	Total Number Harvested	0.0	26.5
Hunted	0.0%	53.8%	Total Number Struck and Lost	0.0	3.5
Harvested	0.0%	46.2%	Total Number Taken	0.0	30.1
Received	0.0%	23.1%			
Gave Away	0.0%	38.5%	Number Harvested Per Capita	0.00	0.11

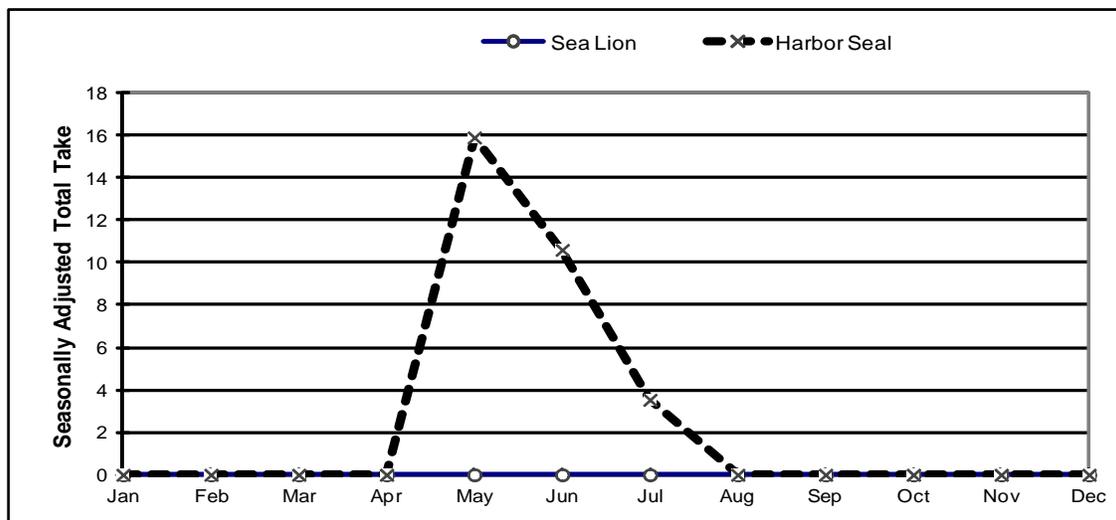
<i>SEA LION HARVEST BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<i>HARBOR SEAL HARVEST BY MONTH</i>														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	8	5	2	0	0	0	0	0	0	15
Struck & Lost	0	0	0	0	1	1	0	0	0	0	0	0	0	2
Total Take	0	0	0	0	9	6	2	0	0	0	0	0	0	17
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	14.2	8.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	26.5
Struck & Lost	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Total Take	0.0	0.0	0.0	0.0	15.9	10.6	3.5	0.0	0.0	0.0	0.0	0.0	0.0	30.1
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	14.2	8.8	3.5	0.0	0.0	0.0	0.0	0.0	0.0	26.5
Struck & Lost	0.0	0.0	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Total Take	0.0	0.0	0.0	0.0	15.9	10.6	3.5	0.0	0.0	0.0	0.0	0.0	0.0	30.1
Total Take (%)	0.0%	0.0%	0.0%	0.0%	52.9%	35.3%	11.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	0.0	0.0	0.0	15.9	26.5	30.1	30.1	30.1	30.1	30.1	30.1	30.1	30.1
Cum. Take (%)	0.0%	0.0%	0.0%	0.0%	52.9%	88.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-2.(continued) Sea lion and harbor seal harvest and take estimates, Craig, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	3	20.0%	5.3	20.0%
Adult Female	0	---	0.0	---	3	20.0%	5.3	20.0%
Adult Unknown Sex	0	---	0.0	---	3	20.0%	5.3	20.0%
Juvenile Male	0	---	0.0	---	3	20.0%	5.3	20.0%
Juvenile Female	0	---	0.0	---	2	13.3%	3.5	13.3%
Juvenile Unknown Sex	0	---	0.0	---	1	6.7%	1.8	6.7%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	15	100.0%	26.5	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

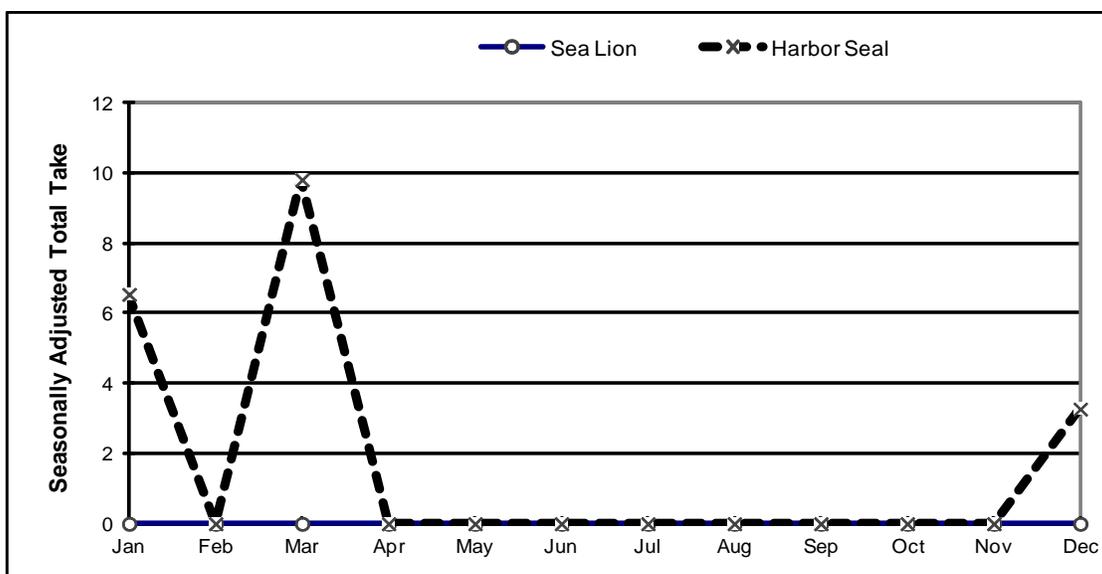
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	74.2	0.0	74.2
1993	0.0	0.0	0.0	1993	51.1	9.8	60.9
1994	0.0	0.0	0.0	1994	42.7	6.6	49.3
1995	0.0	0.0	0.0	1995	69.4	13.6	83.1
1996	0.0	0.0	0.0	1996	48.2	8.0	56.3
1997	0.0	0.0	0.0	1997	62.0	7.5	69.5
1998	0.0	0.0	0.0	1998	52.7	5.2	57.9
2000	0.0	0.0	0.0	2000	35.0	3.0	38.0
2001	0.0	0.0	0.0	2001	54.0	4.0	58.0
2002	0.0	0.0	0.0	2002	38.9	5.7	44.6
2003	0.0	0.0	0.0	2003	28.0	6.0	34.0
2004	3.3	0.0	3.3	2004	29.7	5.5	35.2
2005	0.0	0.0	0.0	2005	26.0	3.0	29.0
2006	0.0	0.0	0.0	2006	1.3	0.0	1.3
2007	0.0	0.0	0.0	2007	2.1	0.0	2.1
2008	0.0	0.0	0.0	2008	2.1	0.0	2.1
2012	0.0	0.0	0.0	2012	26.5	3.5	30.1

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-3.(continued) Sea lion and harbor seal harvest and take estimates, Haines, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	10	55.6%	10.9	55.6%
Adult Female	0	---	0.0	---	8	44.4%	8.7	44.4%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	18	100.0%	19.6	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

Year	SEA LION			HARBOR SEAL		
	Harvest	Lost	Total	Harvest	Lost	Total
1992	0.0	0.0	0.0	30.5	7.9	38.4
1993	0.0	0.0	0.0	23.0	2.3	25.3
1994	0.0	0.0	0.0	39.3	2.2	41.5
1995	0.0	0.0	0.0	24.0	9.0	33.0
1996	0.0	0.0	0.0	41.1	3.4	44.6
1997	0.0	0.0	0.0	36.8	10.5	47.3
1998	0.0	0.0	0.0	30.7	10.6	41.3
2000	0.0	0.0	0.0	17.5	0.0	17.5
2001	0.0	0.0	0.0	19.3	1.1	20.4
2002	0.0	0.0	0.0	19.6	26.2	45.8
2003	0.0	0.0	0.0	12.0	0.0	12.0
2004	0.0	0.0	0.0	7.0	0.0	7.0
2005	0.0	0.0	0.0	2.0	0.0	2.0
2006	0.0	0.0	0.0	4.7	0.0	4.7
2007	0.0	0.0	0.0	19.5	0.0	19.5
2008	0.0	0.0	0.0	15.6	2.6	18.2
2012	0.0	0.0	0.0	19.6	0.0	19.6

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-4. Sea lion and harbor seal harvest and take estimates, Hoonah, 2012.

<i>SAMPLING DESIGN:</i>	
<i>CHAIN REFERRAL</i>	
Total Referred Households	39
Surveyed Households	28
Sampling Fraction	71.8%
Sample Household Members	77
Estimated Household Members	107.3
2000 U.S. Census Estimated Native Population	399

<i>HARVEST AND USE INFORMATION</i>					
<i>Percentage of Sample Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea <u>Lion</u>	Harbor <u>Seal</u>		Sea <u>Lion</u>	Harbor <u>Seal</u>
Used	0.0%	85.7%	Total Number Harvested	0.0	34.8
Hunted	7.1%	57.1%	Total Number Struck and Lost	7.0	5.6
Harvested	0.0%	39.3%	Total Number Taken	7.0	40.4
Received	0.0%	82.1%			
Gave Away	0.0%	42.9%	Number Harvested Per Capita	0.00	0.09

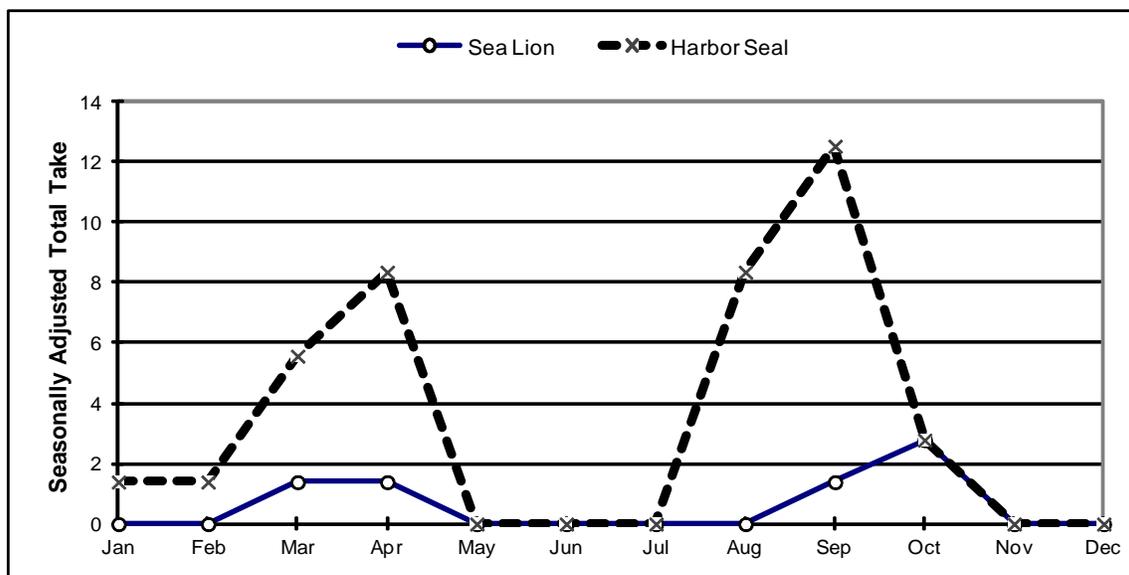
<i>SEA LION HARVEST BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	1	1	0	0	0	0	1	2	0	0	0	5
Total Take	0	0	1	1	0	0	0	0	1	2	0	0	0	5
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	7.0
Total Take	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	7.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	7.0
Total Take	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	0.0	0.0	0.0	7.0
Total Take (%)	0.0%	0.0%	20.0%	20.0%	0.0%	0.0%	0.0%	0.0%	20.0%	40.0%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	0.0	1.4	2.8	2.8	2.8	2.8	2.8	4.2	7.0	7.0	7.0	7.0	
Cum. Take (%)	0.0%	0.0%	20.0%	40.0%	40.0%	40.0%	40.0%	40.0%	60.0%	100.0%	100.0%	100.0%	100.0%	
<i>HARBOR SEAL HARVEST BY MONTH</i>														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unknown	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	1	1	4	2	0	0	0	6	9	2	0	0	0	25
Struck & Lost	0	0	0	4	0	0	0	0	0	0	0	0	0	4
Total Take	1	1	4	6	0	0	0	6	9	2	0	0	0	29
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	1.4	1.4	5.6	2.8	0.0	0.0	0.0	8.4	12.5	2.8	0.0	0.0	0.0	34.8
Struck & Lost	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Total Take	1.4	1.4	5.6	8.4	0.0	0.0	0.0	8.4	12.5	2.8	0.0	0.0	0.0	40.4
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	1.4	1.4	5.6	2.8	0.0	0.0	0.0	8.4	12.5	2.8	0.0	0.0	0.0	34.8
Struck & Lost	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Total Take	1.4	1.4	5.6	8.4	0.0	0.0	0.0	8.4	12.5	2.8	0.0	0.0	0.0	40.4
Total Take (%)	3.4%	3.4%	13.8%	20.7%	0.0%	0.0%	0.0%	20.7%	31.0%	6.9%	0.0%	0.0%	0.0%	100.0%
Cum. Take	1.4	2.8	8.4	16.7	16.7	16.7	16.7	25.1	37.6	40.4	40.4	40.4	40.4	
Cum. Take (%)	3.4%	6.9%	20.7%	41.4%	41.4%	41.4%	41.4%	62.1%	93.1%	100.0%	100.0%	100.0%	100.0%	

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-4.(continued) Sea lion and harbor seal harvest and take estimates, Hoonah, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	8	32.0%	11.1	32.0%
Adult Female	0	---	0.0	---	7	28.0%	9.8	28.0%
Adult Unknown Sex	0	---	0.0	---	3	12.0%	4.2	12.0%
Juvenile Male	0	---	0.0	---	4	16.0%	5.6	16.0%
Juvenile Female	0	---	0.0	---	3	12.0%	4.2	12.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	25	100.0%	34.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

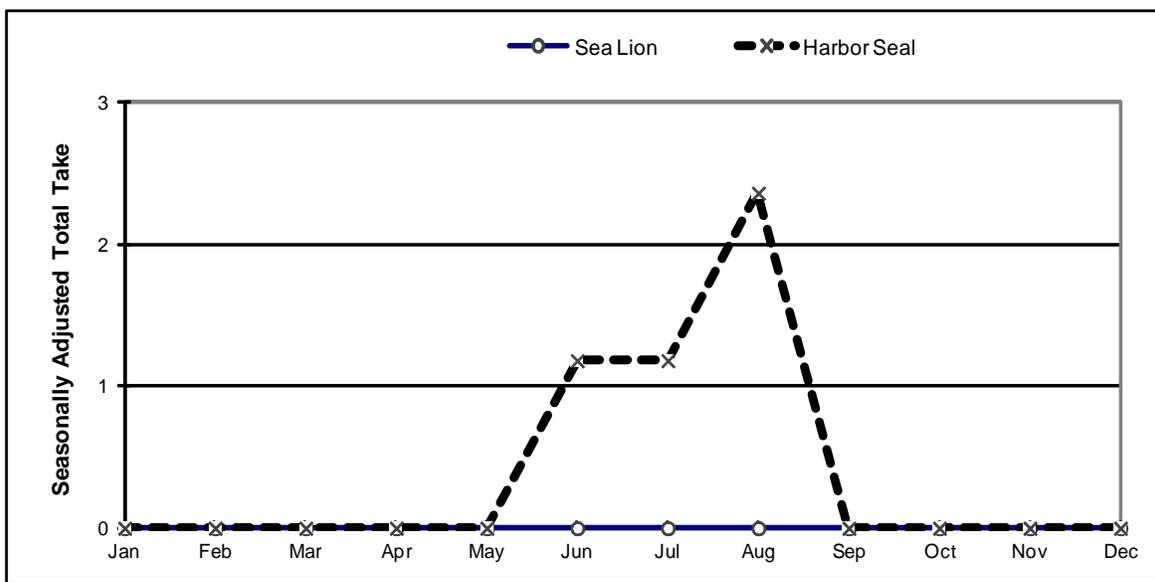
SEA LION				HARBOR SEAL			
Year	Harvest	Lost	Take	Year	Harvest	Lost	Take
1992	0.0	0.0	0.0	1992	350.2	24.8	375.0
1993	0.0	0.0	0.0	1993	324.4	35.8	360.2
1994	0.0	0.0	0.0	1994	240.7	15.0	255.8
1995	0.0	0.0	0.0	1995	236.6	19.7	256.3
1996	0.0	0.0	0.0	1996	359.7	48.6	408.3
1997	0.0	0.0	0.0	1997	143.8	9.9	153.8
1998	0.0	0.0	0.0	1998	169.7	19.8	189.6
2000	0.0	0.0	0.0	2000	147.9	16.0	163.9
2001	0.0	0.0	0.0	2001	143.4	13.2	156.7
2002	0.0	0.0	0.0	2002	96.4	6.0	102.4
2003	0.0	4.6	4.6	2003	52.2	10.4	62.6
2004	0.0	7.2	7.2	2004	106.2	9.0	115.2
2005	0.0	9.0	9.0	2005	53.0	11.0	64.0
2006	0.0	10.1	10.1	2006	55.6	7.6	63.2
2007	0.0	6.1	6.1	2007	34.4	6.1	40.5
2008	0.0	6.3	6.3	2008	25.3	6.3	31.6
2012	0.0	7.0	7.0	2012	34.8	5.6	40.4

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012..

Table C-5.(continued) Sea lion and harbor seal harvest and take estimates, Hydaburg, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	2	50.0%	2.4	50.0%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	2	50.0%	2.4	50.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	4	100.0%	4.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

Year	SEA LION			Year	HARBOR SEAL		
	Harvest	Struck/ Lost	Total Take		Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	30.0	2.1	32.1
1993	0.0	0.0	0.0	1993	14.0	0.0	14.0
1994	0.0	0.0	0.0	1994	10.0	0.0	10.0
1995	0.0	0.0	0.0	1995	6.5	0.0	6.5
1996	0.0	0.0	0.0	1996	15.0	0.0	15.0
1997	0.0	0.0	0.0	1997	11.5	0.0	11.5
1998	0.0	0.0	0.0	1998	14.4	0.0	14.4
2000	0.0	0.0	0.0	2000	14.4	0.0	14.4
2001	0.0	0.0	0.0	2001	14.4	0.0	14.4
2002	0.0	0.0	0.0	2002	14.4	0.0	14.4
2003	0.0	0.0	0.0	2003	14.4	0.0	14.4
2004	0.0	0.0	0.0	2004	14.4	0.0	14.4
2005	0.0	0.0	0.0	2005	14.4	0.0	14.4
2006	0.0	0.0	0.0	2006	14.4	0.0	14.4
2007	0.0	0.0	0.0	2007	14.4	0.0	14.4
2008	0.0	0.0	0.0	2008	14.4	0.0	14.4
2012	0.0	0.0	0.0	2012	4.7	0.0	4.7

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-6. Sea Lion and Harbor Seal Harvest and Take Estimates, Juneau, 2012

<i>SAMPLING DESIGN:</i>	
<i>CHAIN REFERRAL</i>	Total Referred Households 21
	Surveyed Households 9
	Sampling Fraction 42.9%
	Sample Household Members 26
	Estimated Household Members 60.7
	2000 U.S. Census Estimated Native Population 3692

<i>HARVEST AND USE INFORMATION</i>					
<i>Percentage of Sample Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea <u>Lion</u>	Harbor <u>Seal</u>		Sea <u>Lion</u>	Harbor <u>Seal</u>
Used	0.0%	44.4%	Total Number Harvested	0.0	25.7
Hunted	0.0%	55.6%	Total Number Struck and Lost	0.0	4.7
Harvested	0.0%	44.4%	Total Number Taken	0.0	30.3
Received	0.0%	0.0%			
Gave Away	0.0%	33.3%	Number Harvested Per Capita	0.00	0.01

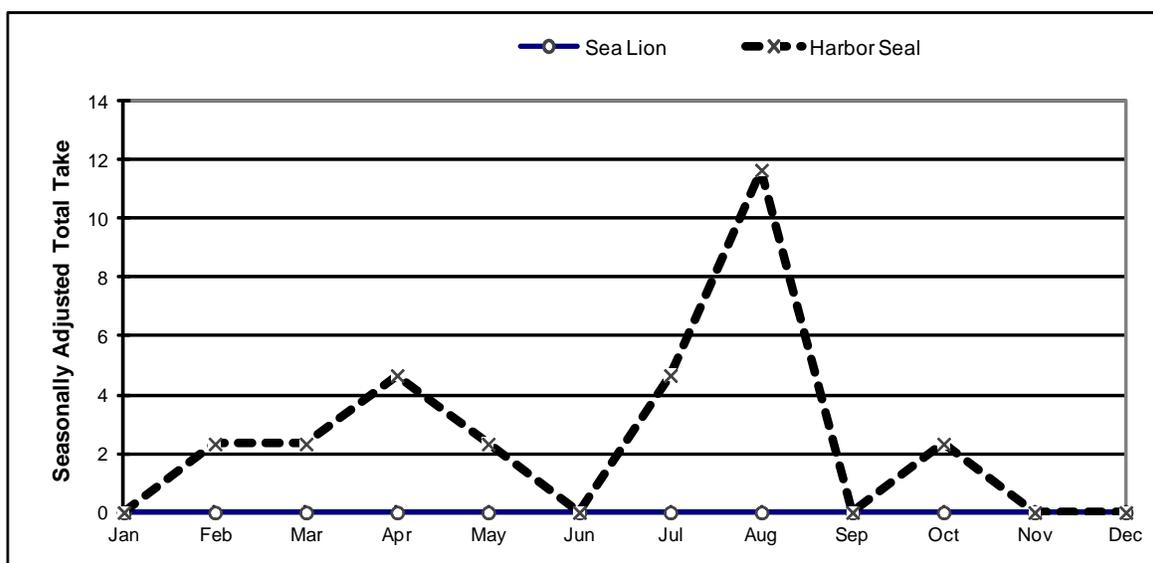
<i>SEA LION HARVEST BY MONTH</i>													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HARBOR SEAL HARVEST BY MONTH													Unknown	Total
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month		
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	1	1	2	1	0	2	3	0	1	0	0	0	11
Struck & Lost	0	0	0	0	0	0	0	2	0	0	0	0	0	2
Total Take	0	1	1	2	1	0	2	5	0	1	0	0	0	13
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	2.3	2.3	4.7	2.3	0.0	4.7	7.0	0.0	2.3	0.0	0.0	0.0	25.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	4.7
Total Take	0.0	2.3	2.3	4.7	2.3	0.0	4.7	11.7	0.0	2.3	0.0	0.0	0.0	30.3
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	2.3	2.3	4.7	2.3	0.0	4.7	7.0	0.0	2.3	0.0	0.0	0.0	25.7
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.0	0.0	0.0	0.0	4.7
Total Take	0.0	2.3	2.3	4.7	2.3	0.0	4.7	11.7	0.0	2.3	0.0	0.0	0.0	30.3
Total Take (%)	0.0%	7.7%	7.7%	15.4%	7.7%	0.0%	15.4%	38.5%	0.0%	7.7%	0.0%	0.0%	0.0%	100.0%
Cum. Take	0.0	2.3	4.7	9.3	11.7	11.7	16.3	28.0	28.0	30.3	30.3	30.3	30.3	30.3
Cum. Take (%)	0.0%	7.7%	15.4%	30.8%	38.5%	38.5%	53.8%	92.3%	92.3%	100.0%	100.0%	100.0%	100.0%	100.0%

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-6.(continued) Sea Lion and Harbor Seal Harvest and Take Estimates, Juneau, 2012

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	10	90.9%	23.3	90.9%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	1	9.1%	2.3	9.1%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	11	100.0%	25.7	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

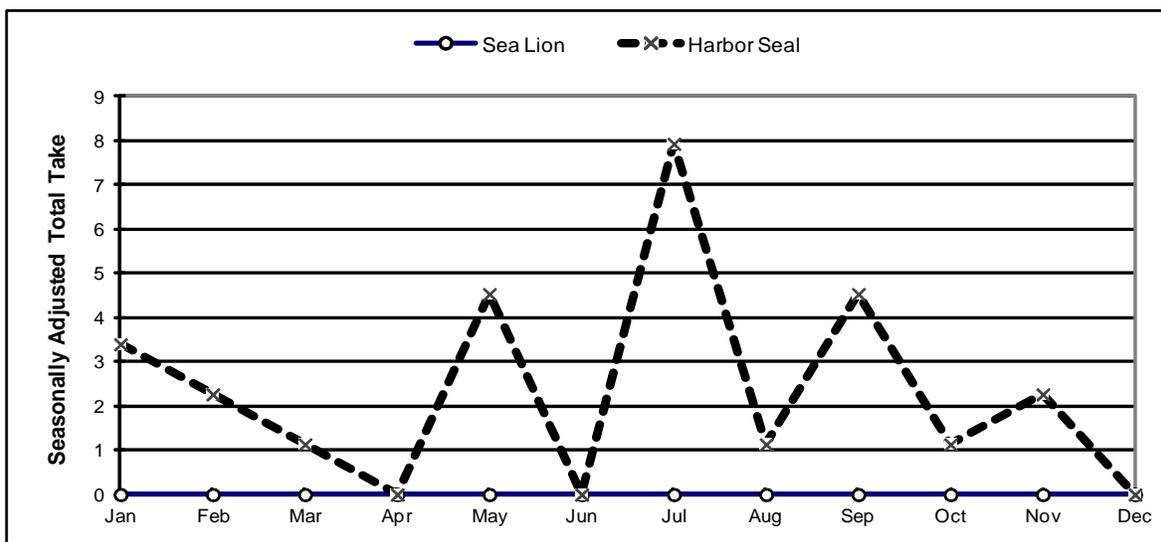
Year	SEA LION			Year	HARBOR SEAL		
	Harvest	Struck/ Lost	Total Take		Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	122.6	7.6	130.2
1993	0.0	0.0	0.0	1993	59.0	21.6	80.6
1994	1.1	0.0	1.1	1994	78.6	13.5	92.1
1995	0.0	0.0	0.0	1995	42.9	1.3	44.2
1996	0.0	0.0	0.0	1996	32.8	1.3	34.1
1997	0.0	0.0	0.0	1997	99.0	0.0	99.0
1998	0.0	0.0	0.0	1998	90.4	15.3	105.7
2000	0.0	0.0	0.0	2000	59.9	3.5	63.4
2001	0.0	0.0	0.0	2001	29.9	1.6	31.5
2002	0.0	0.0	0.0	2002	17.2	1.4	18.7
2003	0.0	0.0	0.0	2003	30.3	24.8	55.0
2004	0.0	0.0	0.0	2004	13.6	9.1	22.7
2005	0.0	0.0	0.0	2005	8.0	1.0	9.0
2006	1.4	0.0	1.4	2006	26.1	23.4	49.5
2007	0.0	0.0	0.0	2007	16.0	10.0	26.0
2008	0.0	0.0	0.0	2008	8.0	1.3	9.3
2012	0.0	0.0	0.0	2012	25.7	4.7	30.3

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-7.(continued) Sea lion and harbor seal harvest and take estimates, Kake, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	16	76.2%	18.1	76.2%
Adult Female	0	---	0.0	---	4	19.0%	4.5	19.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	1	4.8%	1.1	4.8%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	21	100.0%	23.8	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

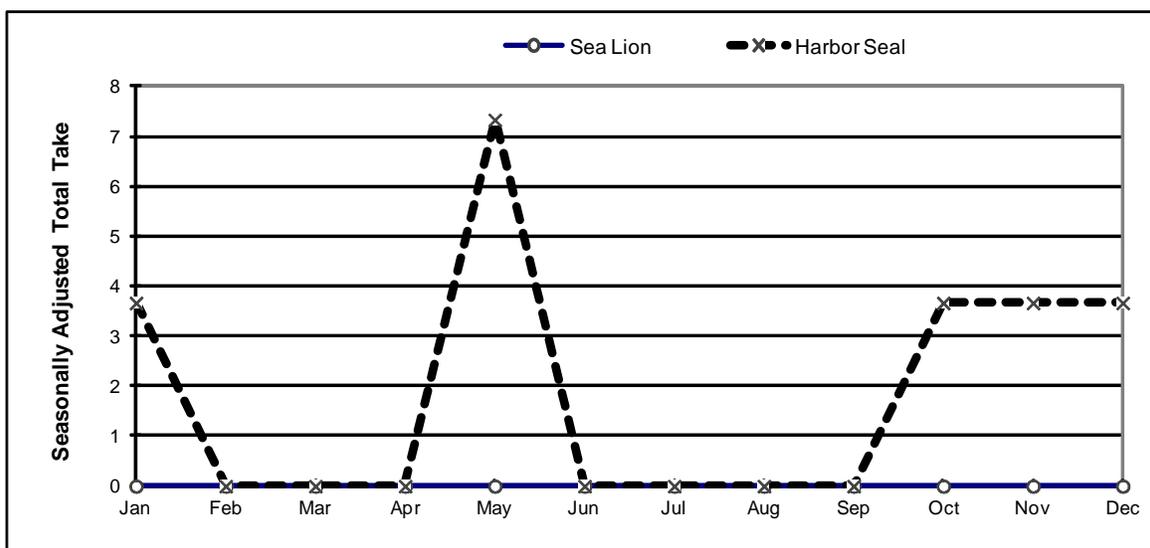
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	173.9	12.3	186.2
1993	0.0	0.0	0.0	1993	100.8	15.2	115.9
1994	1.2	0.0	1.2	1994	99.3	7.4	106.6
1995	0.0	0.0	0.0	1995	72.0	1.5	73.5
1996	0.0	0.0	0.0	1996	86.4	0.0	86.4
1997	0.0	0.0	0.0	1997	68.4	7.6	76.0
1998	0.0	0.0	0.0	1998	123.0	6.1	129.1
2000	0.0	0.0	0.0	2000	101.7	3.6	105.3
2001	0.0	0.0	0.0	2001	85.6	10.7	96.4
2002	0.0	0.0	0.0	2002	98.2	10.6	108.7
2003	0.0	0.0	0.0	2003	52.1	0.0	52.1
2004	0.0	0.0	0.0	2004	96.2	0.0	96.2
2005	0.0	0.0	0.0	2005	47.6	4.6	52.3
2006	0.0	0.0	0.0	2006	40.5	0.0	40.5
2007	0.0	0.0	0.0	2007	24.5	1.1	25.7
2008	0.0	0.0	0.0	2008	23.0	2.0	25.0
2012	0.0	0.0	0.0	2012	23.8	4.5	28.3

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012..

Table C-8.(continued) Sea lion and harbor seal harvest and take estimates, Ketchikan, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	14	77.8%	17.1	77.8%
Adult Female	0	---	0.0	---	4	22.2%	4.9	22.2%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	18	100.0%	22.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

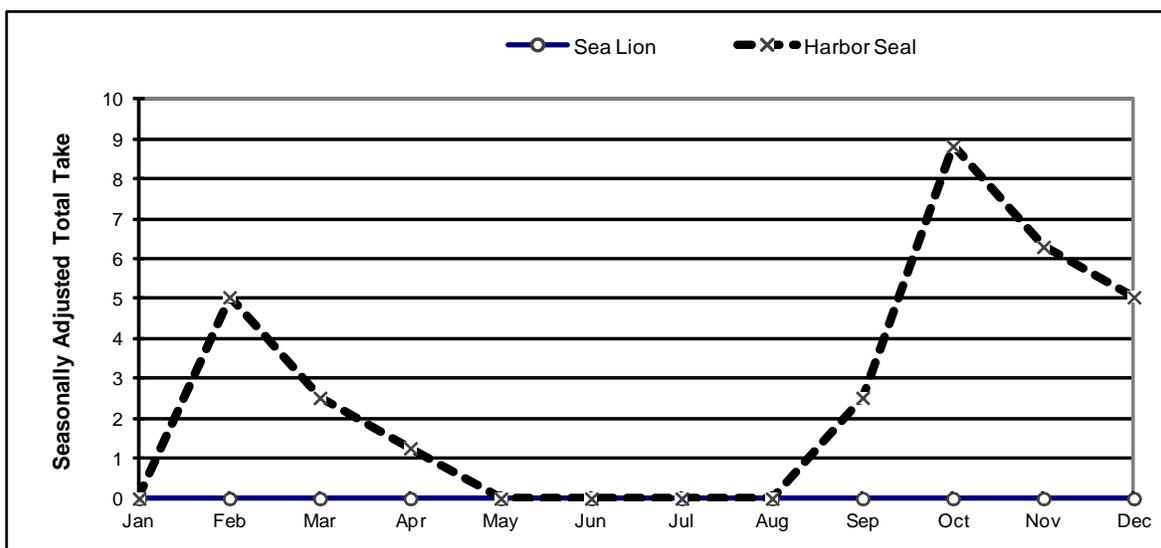
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	90.2	6.5	96.8
1993	0.0	0.0	0.0	1993	42.4	2.9	45.3
1994	0.0	0.0	0.0	1994	31.4	0.0	31.4
1995	0.0	0.0	0.0	1995	46.4	0.0	46.4
1996	0.0	0.0	0.0	1996	25.0	0.0	25.0
1997	0.0	0.0	0.0	1997	27.4	4.3	31.8
1998	0.0	0.0	0.0	1998	26.7	0.0	26.7
2000	0.0	0.0	0.0	2000	111.7	0.0	111.7
2001	0.0	0.0	0.0	2001	12.7	0.0	12.7
2002	0.0	0.0	0.0	2002	123.5	1.2	124.6
2003	0.0	0.0	0.0	2003	78.0	0.0	78.0
2004	0.0	0.0	0.0	2004	60.0	5.0	65.0
2005	0.0	0.0	0.0	2005	73.1	0.0	73.1
2006	0.0	0.0	0.0	2006	37.6	0.0	37.6
2007	0.0	0.0	0.0	2007	78.0	2.4	80.4
2008	1.7	1.7	3.3	2008	66.7	0.0	66.7
2012	0.0	0.0	0.0	2012	22.0	0.0	22.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-9.(continued) Sea lion and harbor seal harvest and take estimates, Klawock, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	19	82.6%	24.0	82.6%
Adult Female	0	---	0.0	---	3	13.0%	3.8	13.0%
Adult Unknown Sex	0	---	0.0	---	1	4.3%	1.3	4.3%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	23	100.0%	29.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	1.4	0.0	1.4	1992	39.0	1.4	40.3
1993	0.0	0.0	0.0	1993	39.8	0.0	39.8
1994	0.0	0.0	0.0	1994	71.1	0.0	71.1
1995	0.0	0.0	0.0	1995	263.8	0.0	263.8
1996	0.0	0.0	0.0	1996	69.8	0.0	69.8
1997	0.0	0.0	0.0	1997	94.0	0.0	94.0
1998	0.0	0.0	0.0	1998	83.0	0.0	83.0
2000	1.3	0.0	1.3	2000	67.1	0.0	67.1
2001	0.0	0.0	0.0	2001	71.5	0.0	71.5
2002	1.0	0.0	1.0	2002	24.0	0.0	24.0
2003	2.3	0.0	2.3	2003	59.8	0.0	59.8
2004	1.3	0.0	1.3	2004	29.2	7.6	36.8
2005	0.0	10.0	10.0	2005	20.0	2.0	22.0
2006	1.2	0.0	1.2	2006	16.2	3.5	19.7
2007	0.0	0.0	0.0	2007	43.9	5.2	49.1
2008	0.0	0.0	0.0	2008	21.4	1.3	22.7
2012	0.0	0.0	0.0	2012	29.0	2.5	31.5

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-10. Sea lion and harbor seal harvest and take estimates, Klukwan, 2012.

<i>SAMPLING DESIGN:</i>	
<i>CHAIN REFERRAL</i>	Total Referred Households 8
	Surveyed Households 8
	Sampling Fraction 100.0%
	Sample Household Members 18
	Estimated Household Members 18.0
	2000 U.S. Census Estimated Native Population 76

<i>HARVEST AND USE INFORMATION</i>					
<i>Percentage of Sample Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea	Harbor		Sea	Harbor
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
Used	0.0%	12.5%	Total Number Harvested	0.0	0.0
Hunted	0.0%	12.5%	Total Number Struck and Lost	0.0	0.0
Harvested	0.0%	0.0%	Total Number Taken	0.0	0.0
Received	0.0%	12.5%			
Gave Away	0.0%	12.5%	Number Harvested Per Capita	0.00	0.00

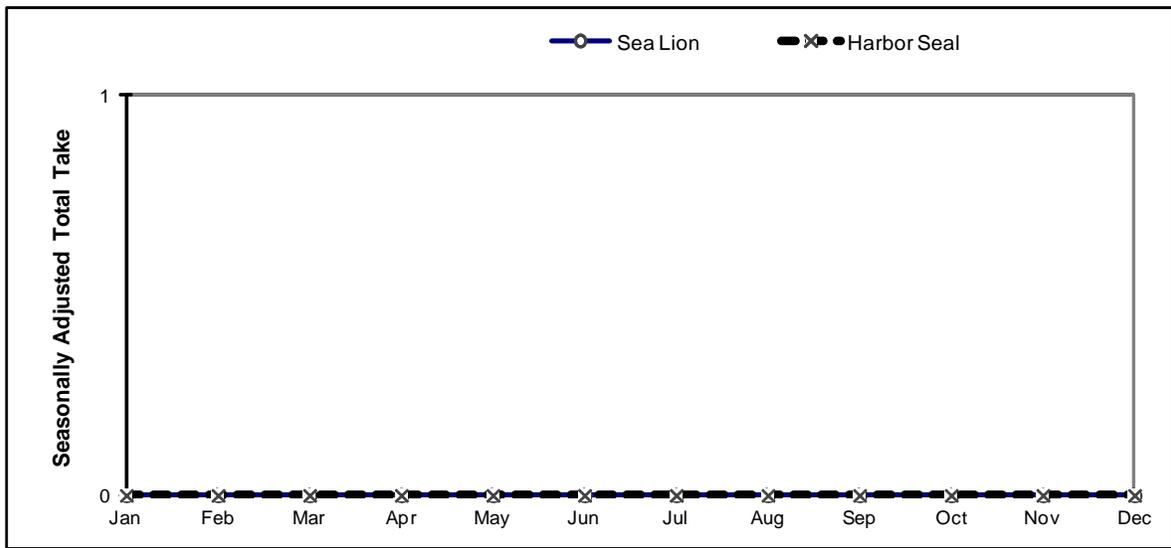
<i>SEA LION HARVEST BY MONTH</i>													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		
<i>HARBOR SEAL HARVEST BY MONTH</i>													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---		

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-10.(continued) Sea lion and harbor seal harvest and take estimates, Klukwan, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	0	---	0.0	---
Adult Female	0	---	0.0	---	0	---	0.0	---
Adult Unknown Sex	0	---	0.0	---	0	---	0.0	---
Juvenile Male	0	---	0.0	---	0	---	0.0	---
Juvenile Female	0	---	0.0	---	0	---	0.0	---
Juvenile Unknown Sex	0	---	0.0	---	0	---	0.0	---
Pup Male	0	---	0.0	---	0	---	0.0	---
Pup Female	0	---	0.0	---	0	---	0.0	---
Pup Unknown Sex	0	---	0.0	---	0	---	0.0	---
Male Unknown Age	0	---	0.0	---	0	---	0.0	---
Female Unknown Age	0	---	0.0	---	0	---	0.0	---
Unknown Sex and Age	0	---	0.0	---	0	---	0.0	---
Total	0	---	0.0	---	0	---	0.0	---

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

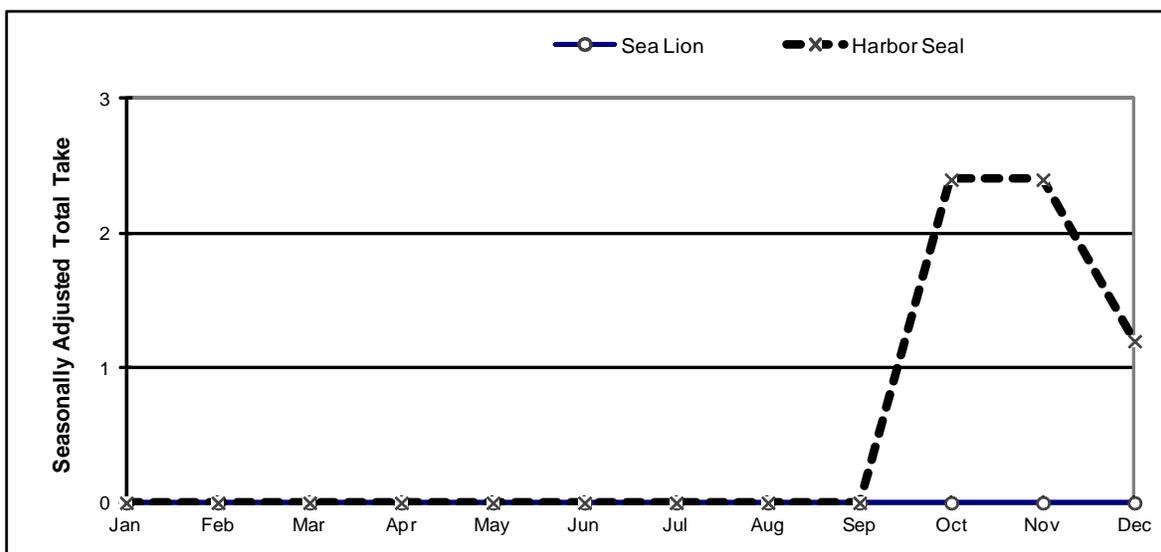
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	8.0	2.0	10.0
1993	0.0	0.0	0.0	1993	1.2	0.0	1.2
1994	0.0	0.0	0.0	1994	3.8	1.3	5.0
1995	0.0	0.0	0.0	1995	35.2	6.4	41.6
1996	0.0	0.0	0.0	1996	6.3	0.0	6.3
1997	0.0	0.0	0.0	1997	1.1	0.0	1.1
1998	0.0	0.0	0.0	1998	10.5	0.0	10.5
2000	0.0	0.0	0.0	2000	18.0	0.0	18.0
2001	0.0	0.0	0.0	2001	0.0	0.0	0.0
2002	0.0	0.0	0.0	2002	0.0	0.0	0.0
2003	0.0	0.0	0.0	2003	0.0	0.0	0.0
2004	0.0	0.0	0.0	2004	0.0	0.0	0.0
2005	0.0	0.0	0.0	2005	0.0	0.0	0.0
2006	0.0	0.0	0.0	2006	0.0	0.0	0.0
2007	0.0	0.0	0.0	2007	0.0	0.0	0.0
2008	0.0	0.0	0.0	2008	0.0	0.0	0.0
2012	0.0	0.0	0.0	2012	0.0	0.0	0.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-11.(continued) Sea lion and harbor seal harvest and take estimates, Pelican, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	5	100.0%	6.0	100.0%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	5	100.0%	6.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	8.3	1.4	9.7
1993	0.0	0.0	0.0	1993	5.3	1.1	6.4
1994	0.0	0.0	0.0	1994	4.4	1.1	5.6
1995	0.0	0.0	0.0	1995	13.5	0.0	13.5
1996	0.0	0.0	0.0	1996	15.4	0.0	15.4
1997	0.0	0.0	0.0	1997	14.5	0.0	14.5
1998	0.0	0.0	0.0	1998	15.8	2.4	18.2
2000	0.0	0.0	0.0	2000	7.5	0.0	7.5
2001	0.0	0.0	0.0	2001	9.0	0.0	9.0
2002	0.0	0.0	0.0	2002	1.8	0.0	1.8
2003	0.0	0.0	0.0	2003	1.8	0.0	1.8
2004	0.0	0.0	0.0	2004	1.8	0.0	1.8
2005	0.0	0.0	0.0	2005	10.5	0.0	10.5
2006	0.0	0.0	0.0	2006	8.4	0.0	8.4
2007	0.0	0.0	0.0	2007	8.4	0.0	8.4
2008	0.0	0.0	0.0	2008	10.0	0.0	10.0
2012	0.0	0.0	0.0	2012	6.0	0.0	6.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-12. Sea lion and harbor seal harvest and take estimates, Petersburg, 2012.

<i>SAMPLING DESIGN:</i>	
<i>CHAIN REFERRAL</i>	Total Referred Households 27
	Surveyed Households 27
	Sampling Fraction 100.0%
	Sample Household Members 67
	Estimated Household Members 67.0
	2000 U.S. Census Estimated Native Population 2714

<i>HARVEST AND USE INFORMATION</i>			
<i>Percentage of Sample Households:</i>		<i>Estimated Community Harvest and Take (Expanded):</i>	
	Sea <u>Lion</u>	Harbor <u>Seal</u>	
Used	0.0%	100.0%	Total Number Harvested 0.0 6.0
Hunted	0.0%	40.7%	Total Number Struck and Lost 0.0 9.0
Harvested	0.0%	14.8%	Total Number Taken 0.0 15.0
Received	0.0%	85.2%	
Gave Away	0.0%	74.1%	Number Harvested Per Capita 0.00 0.00

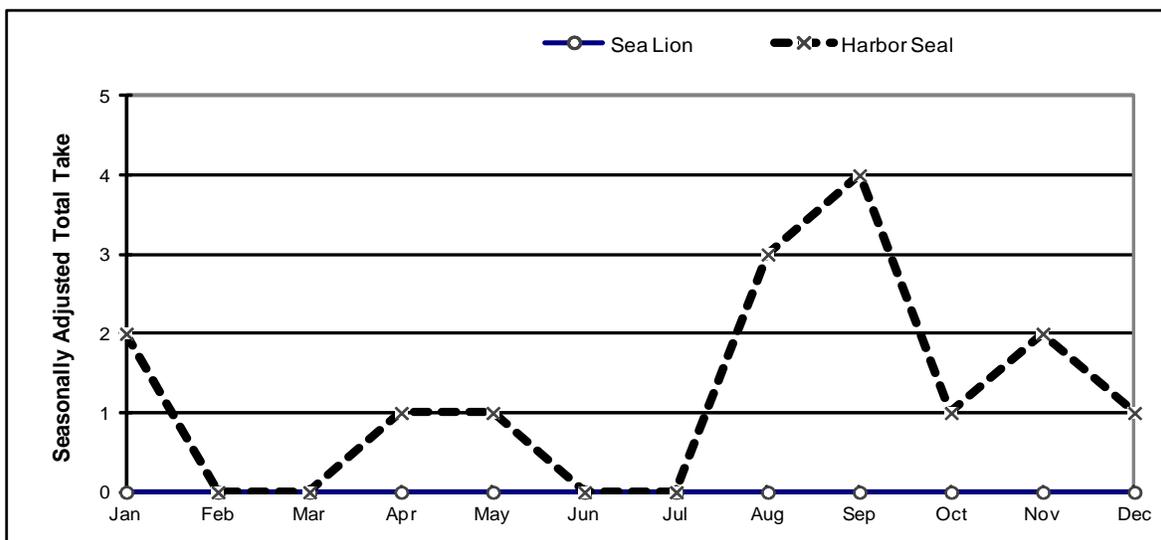
<i>SEA LION HARVEST BY MONTH</i>													Unknown	Total
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Struck & Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Take	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Struck & Lost	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Cum. Take	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cum. Take (%)	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<i>HARBOR SEAL HARVEST BY MONTH</i>														
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
<i>REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)</i>														
Harvest	1	0	0	0	0	0	0	0	2	1	2	0	0	6
Struck & Lost	1	0	0	1	1	0	0	3	2	0	0	1	0	9
Total Take	2	0	0	1	1	0	0	3	4	1	2	1	0	15
<i>ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	2.0	0.0	0.0	6.0
Struck & Lost	1.0	0.0	0.0	1.0	1.0	0.0	0.0	3.0	2.0	0.0	0.0	1.0	0.0	9.0
Total Take	2.0	0.0	0.0	1.0	1.0	0.0	0.0	3.0	4.0	1.0	2.0	1.0	0.0	15.0
<i>ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)</i>														
Harvest	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	2.0	0.0	0.0	6.0
Struck & Lost	1.0	0.0	0.0	1.0	1.0	0.0	0.0	3.0	2.0	0.0	0.0	1.0	0.0	9.0
Total Take	2.0	0.0	0.0	1.0	1.0	0.0	0.0	3.0	4.0	1.0	2.0	1.0	0.0	15.0
Total Take (%)	13.3%	0.0%	0.0%	6.7%	6.7%	0.0%	0.0%	20.0%	26.7%	6.7%	13.3%	6.7%	0.0%	100.0%
Cum. Take	2.0	2.0	2.0	3.0	4.0	4.0	4.0	7.0	11.0	12.0	14.0	15.0	15.0	15.0
Cum. Take (%)	13.3%	13.3%	13.3%	20.0%	26.7%	26.7%	26.7%	46.7%	73.3%	80.0%	93.3%	100.0%	100.0%	100.0%

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-12.(continued) Sea lion and harbor seal harvest and take estimates, Petersburg, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	3	50.0%	3.0	50.0%
Adult Female	0	---	0.0	---	2	33.3%	2.0	33.3%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	1	16.7%	1.0	16.7%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	6	100.0%	6.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

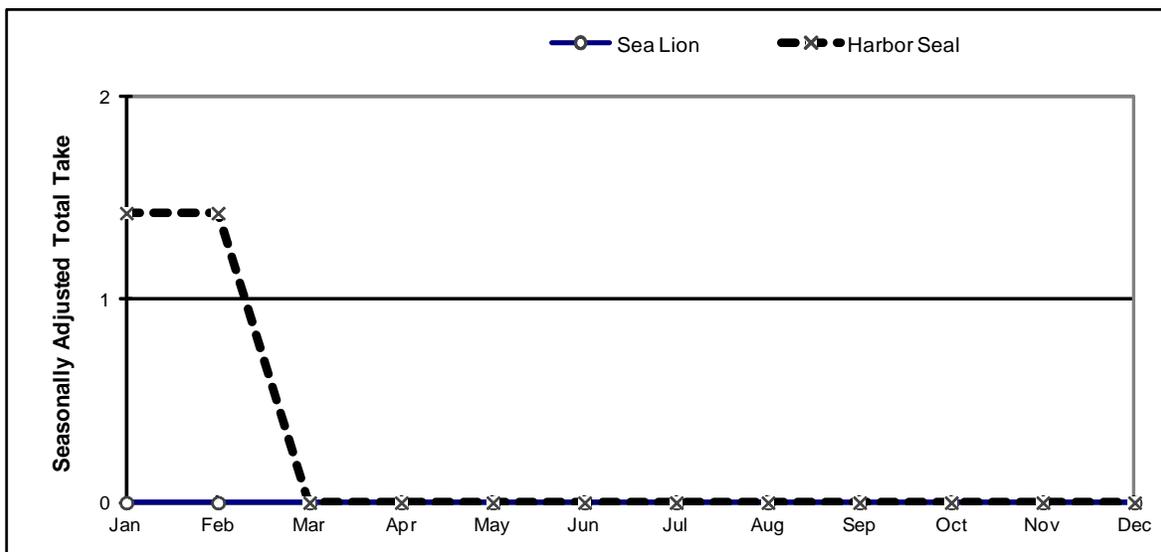
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	22.4	2.6	25.0
1993	0.0	0.0	0.0	1993	4.5	4.5	9.0
1994	0.0	0.0	0.0	1994	15.2	1.3	16.4
1995	0.0	0.0	0.0	1995	13.6	1.1	14.7
1996	0.0	0.0	0.0	1996	19.5	2.4	21.9
1997	0.0	0.0	0.0	1997	11.8	4.3	16.2
1998	0.0	0.0	0.0	1998	23.9	9.3	33.2
2000	0.0	0.0	0.0	2000	20.7	7.2	27.9
2001	0.0	0.0	0.0	2001	16.0	22.0	38.0
2002	0.0	0.0	0.0	2002	45.0	18.0	63.0
2003	0.0	0.0	0.0	2003	9.6	7.2	16.8
2004	0.0	0.0	0.0	2004	10.3	8.3	18.6
2005	0.0	0.0	0.0	2005	30.0	22.0	52.0
2006	0.0	0.0	0.0	2006	10.0	11.0	21.0
2007	0.0	0.0	0.0	2007	9.0	17.0	26.0
2008	0.0	0.0	0.0	2008	7.8	12.2	20.0
2012	0.0	0.0	0.0	2012	6.0	9.0	15.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-13.(continued) Sea lion and harbor seal harvest and take estimates, Saxman, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	2	100.0%	2.9	100.0%
Adult Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	2	100.0%	2.9	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

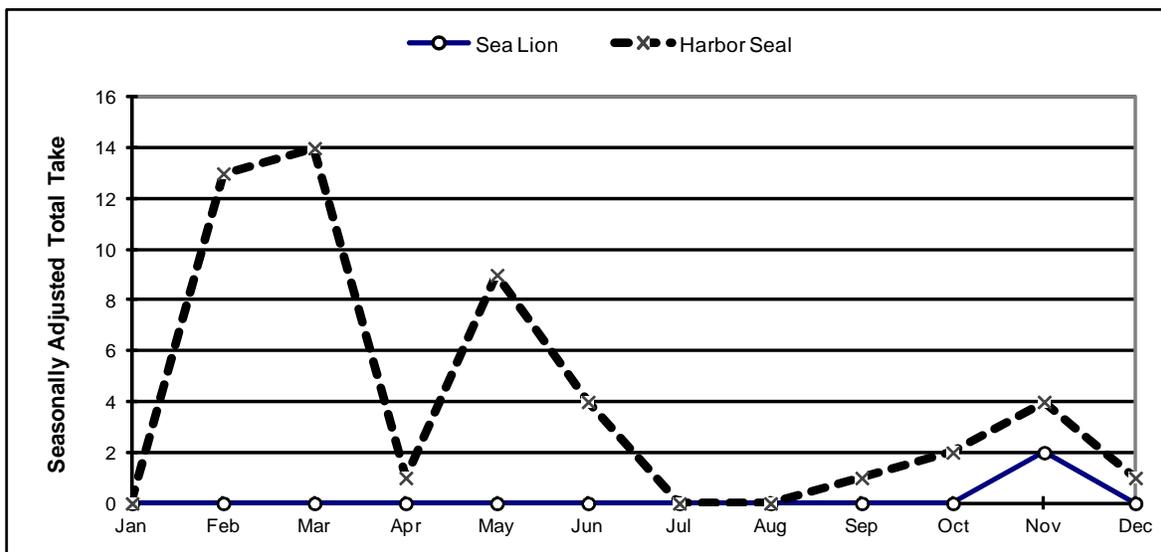
Year	SEA LION			Year	HARBOR SEAL		
	Harvest	Struck/ Lost	Total Take		Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	22.2	1.2	23.5
1993	0.0	0.0	0.0	1993	5.6	0.0	5.6
1994	0.0	0.0	0.0	1994	16.5	0.0	16.5
1995	0.0	0.0	0.0	1995	15.9	0.0	15.9
1996	0.0	0.0	0.0	1996	4.9	0.0	4.9
1997	0.0	0.0	0.0	1997	11.0	0.0	11.0
1998	0.0	0.0	0.0	1998	19.6	0.0	19.6
2000	0.0	0.0	0.0	2000	45.6	1.9	47.5
2001	0.0	0.0	0.0	2001	12.9	0.0	12.9
2002	0.0	0.0	0.0	2002	25.5	3.0	28.5
2003	0.0	0.0	0.0	2003	12.0	0.0	12.0
2004	0.0	0.0	0.0	2004	5.0	0.0	5.0
2005	0.0	0.0	0.0	2005	6.8	5.5	12.3
2006	0.0	0.0	0.0	2006	20.2	0.0	20.2
2007	0.0	0.0	0.0	2007	12.5	0.0	12.5
2008	0.0	0.0	0.0	2008	9.6	0.0	9.6
2012	0.0	0.0	0.0	2012	2.9	0.0	2.9

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-14.(continued) Sea lion and harbor seal harvest and take estimates, Sitka, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	16	34.8%	16.0	34.8%
Adult Female	0	0.0%	0.0	0.0%	1	2.2%	1.0	2.2%
Adult Unknown Sex	0	0.0%	0.0	0.0%	2	4.3%	2.0	4.3%
Juvenile Male	0	0.0%	0.0	0.0%	7	15.2%	7.0	15.2%
Juvenile Female	0	0.0%	0.0	0.0%	1	2.2%	1.0	2.2%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	1	2.2%	1.0	2.2%
Pup Male	0	0.0%	0.0	0.0%	1	2.2%	1.0	2.2%
Pup Female	0	0.0%	0.0	0.0%	2	4.3%	2.0	4.3%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	1	100.0%	1.0	100.0%	13	28.3%	13.0	28.3%
Female Unknown Age	0	0.0%	0.0	0.0%	2	4.3%	2.0	4.3%
Unknown Sex and Age	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Total	1	100.0%	1.0	100.0%	46	100.0%	46.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

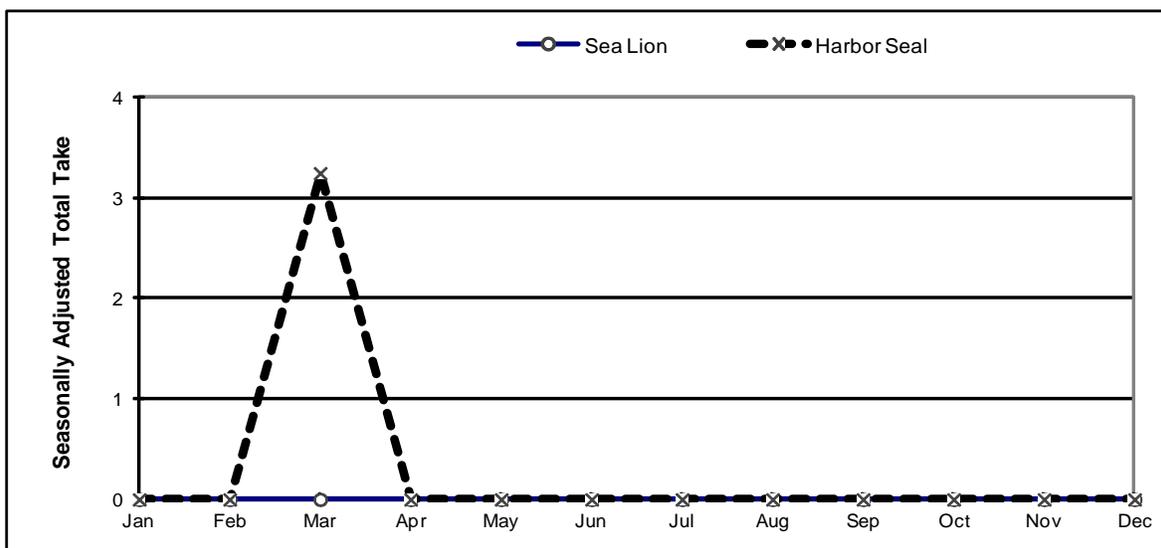
Year	SEA LION			Year	HARBOR SEAL		
	Harvest	Struck/ Lost	Total Take		Harvest	Struck/ Lost	Total Take
1992	3.8	1.3	5.0	1992	124.7	21.4	146.1
1993	0.0	1.1	1.1	1993	109.3	20.6	129.9
1994	1.1	1.1	2.2	1994	110.5	20.1	130.6
1995	0.0	0.0	0.0	1995	93.8	6.3	100.0
1996	0.0	0.0	0.0	1996	126.8	4.1	130.9
1997	0.0	0.0	0.0	1997	150.6	3.7	154.3
1998	3.3	4.4	7.6	1998	237.6	29.4	267.0
2000	0.0	0.0	0.0	2000	276.8	41.1	317.8
2001	0.0	0.0	0.0	2001	241.3	32.8	274.1
2002	6.0	0.0	6.0	2002	169.7	19.3	189.0
2003	0.0	0.0	0.0	2003	220.4	5.2	225.6
2004	0.0	0.0	0.0	2004	141.2	19.3	160.5
2005	0.0	0.0	0.0	2005	23.0	1.0	24.0
2006	0.0	0.0	0.0	2006	141.2	19.3	160.5
2007	0.0	0.0	0.0	2007	128.4	2.1	130.5
2008	0.0	0.0	0.0	2008	140.6	1.0	141.6
2012	1.0	1.0	2.0	2012	46.0	3.0	49.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-15.(continued) Sea lion and harbor seal harvest and take estimates, Wrangell, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	1	50.0%	1.6	50.0%
Adult Female	0	---	0.0	---	1	50.0%	1.6	50.0%
Adult Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	2	100.0%	3.3	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

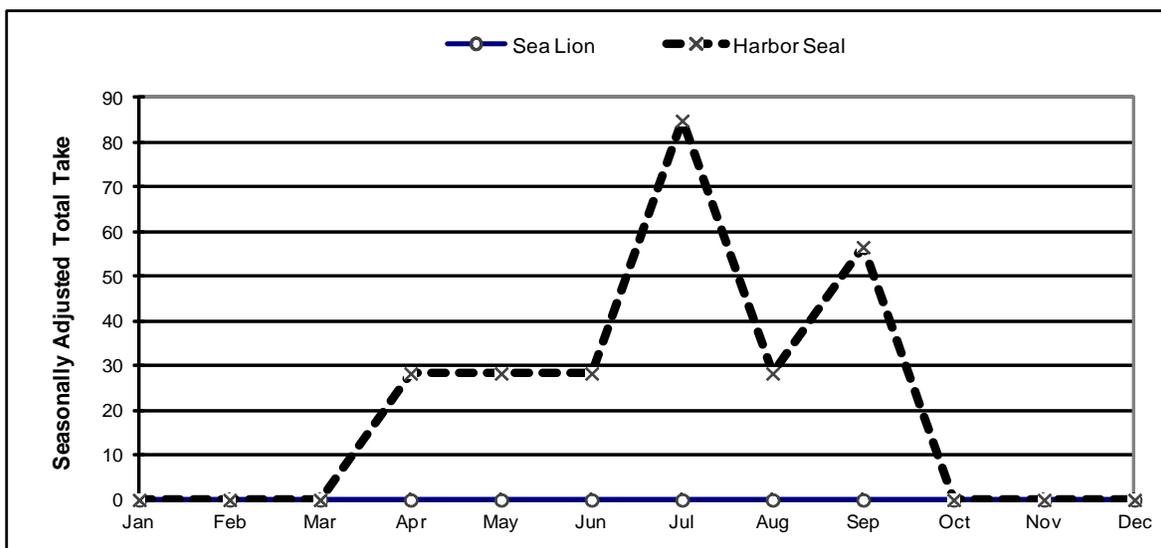
SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	6.0	8.0	14.0
1993	0.0	0.0	0.0	1993	19.5	9.0	28.5
1994	0.0	0.0	0.0	1994	101.0	27.0	128.0
1995	0.0	0.0	0.0	1995	89.3	22.8	112.0
1996	0.0	0.0	0.0	1996	79.3	22.2	101.5
1997	0.0	0.0	0.0	1997	68.8	29.2	98.0
1998	0.0	0.0	0.0	1998	174.0	30.0	204.0
2000	0.0	0.0	0.0	2000	28.5	12.0	40.5
2001	0.0	0.0	0.0	2001	16.0	29.0	45.0
2002	0.0	0.0	0.0	2002	20.0	9.0	29.0
2003	0.0	0.0	0.0	2003	68.0	18.7	86.7
2004	0.0	0.0	0.0	2004	33.3	8.3	41.7
2005	0.0	0.0	0.0	2005	33.3	8.3	41.7
2006	0.0	0.0	0.0	2006	33.3	8.3	41.7
2007	0.0	0.0	0.0	2007	33.3	8.3	41.7
2008	0.0	0.0	0.0	2008	33.3	8.3	41.7
2012	0.0	0.0	0.0	2012	3.3	0.0	3.3

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-16.(continued) Sea lion and harbor seal harvest and take estimates, Yakutat, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	---	0.0	---	86	50.3%	114.7	50.3%
Adult Female	0	---	0.0	---	25	14.6%	33.3	14.6%
Adult Unknown Sex	0	---	0.0	---	60	35.1%	80.0	35.1%
Juvenile Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Juvenile Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Male	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Female	0	---	0.0	---	0	0.0%	0.0	0.0%
Pup Unknown Sex	0	---	0.0	---	0	0.0%	0.0	0.0%
Male Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Female Unknown Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Unknown Sex and Age	0	---	0.0	---	0	0.0%	0.0	0.0%
Total	0	---	0.0	---	171	100.0%	228.0	100.0%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

SEA LION				HARBOR SEAL			
Year	Harvest	Struck/ Lost	Total Take	Year	Harvest	Struck/ Lost	Total Take
1992	0.0	0.0	0.0	1992	248.0	61.3	309.3
1993	0.0	0.0	0.0	1993	568.4	57.4	625.8
1994	0.0	0.0	0.0	1994	417.1	35.0	452.1
1995	0.0	0.0	0.0	1995	615.5	79.6	695.1
1996	0.0	0.0	0.0	1996	640.3	124.1	764.5
1997	0.0	0.0	0.0	1997	491.5	139.9	631.5
1998	0.0	0.0	0.0	1998	289.0	72.3	361.3
2000	0.0	0.0	0.0	2000	193.3	56.8	250.1
2001	0.0	0.0	0.0	2001	208.8	36.2	245.0
2002	0.0	0.0	0.0	2002	110.3	27.2	137.5
2003	0.0	0.0	0.0	2003	251.7	51.5	303.2
2004	0.0	0.0	0.0	2004	147.7	27.1	174.8
2005	0.0	0.0	0.0	2005	140.2	24.1	164.3
2006	0.0	0.0	0.0	2006	137.3	33.8	171.0
2007	0.0	0.0	0.0	2007	118.6	15.9	134.4
2008	0.0	0.0	0.0	2008	115.2	20.0	135.1
2012	0.0	0.0	0.0	2012	228.0	26.7	254.7

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.

Table C-17. Sea lion and harbor seal harvest and take estimates, Southeast Alaska, 2012.

<i>SAMPLING DESIGN:</i>		<u>Total</u>
<i>CHAIN REFERRAL</i>	Total Referred Households	345
	Surveyed Households	277
	Sampling Fraction	80.3%
	Sample Household Members	776
	Estimated Household Members	962.2
	2000 U.S. Census Estimated Native Population	12,398

<i>HARVEST AND USE INFORMATION</i>					
<i>Percentage of Native Households:</i>			<i>Estimated Community Harvest and Take (Expanded):</i>		
	Sea	Harbor		Sea	Harbor
	<u>Lion</u>	<u>Seal</u>		<u>Lion</u>	<u>Seal</u>
Used	N/A	N/A	Total Number Harvested	1.0	523.1
Hunted	N/A	N/A	Total Number Struck and Lost	8.0	71.8
Harvested	N/A	N/A	Total Number Taken	9.0	595.0
Received	N/A	N/A			
Gave Away	N/A	N/A	Number Harvested Per Capita	0.00	0.04

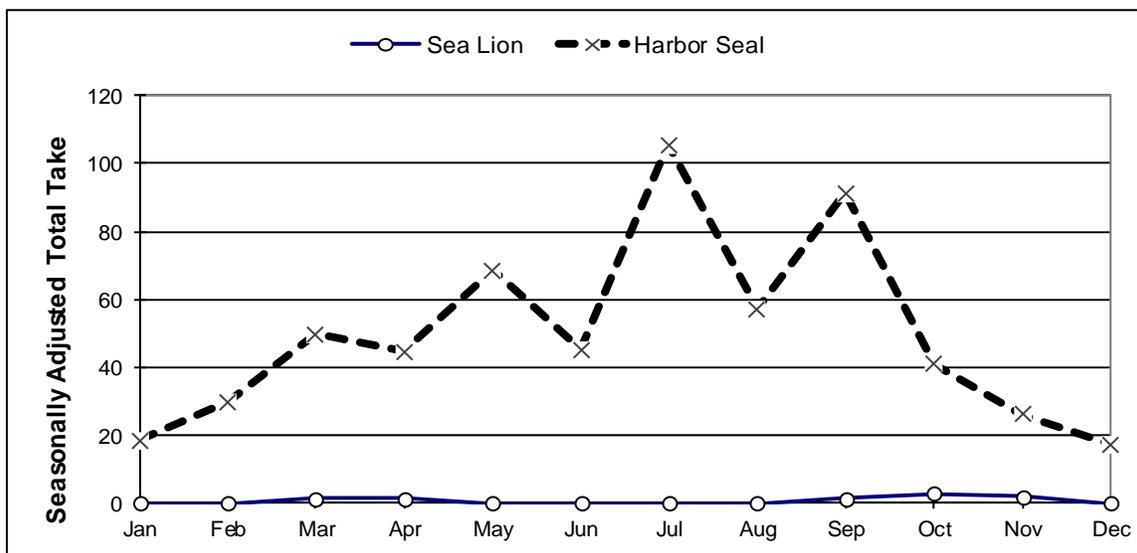
<i>SEA LION HARVEST BY MONTH</i>													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Struck & Lost	0	0	1	1	0	0	0	0	1	2	1	0	0	6
Total Take	0	0	1	1	0	0	0	0	1	2	2	0	0	7
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0
Struck & Lost	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	1.0	0.0	0.0	8.0
Total Take	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	2.0	0.0	0.0	9.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0		1.0
Struck & Lost	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	1.0	0.0		8.0
Total Take	0.0	0.0	1.4	1.4	0.0	0.0	0.0	0.0	1.4	2.8	2.0	0.0		9.0
Total Take (%)	0.0%	0.0%	15.5%	15.5%	0.0%	0.0%	0.0%	0.0%	15.5%	31.1%	22.3%	0.0%		100%
Cum. Take	0.0	0.0	1.4	2.8	2.8	2.8	2.8	2.8	4.2	7.0	9.0	9.0		
Cum. Take (%)	0.0%	0.0%	15.5%	31.1%	31.1%	31.1%	31.1%	31.1%	46.6%	77.7%	100.0%	100.0%		
<i>HARBOR SEAL HARVEST BY MONTH</i>													Unknown	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Month	Total
REPORTED HARVEST AND TAKE BY SAMPLED HOUSEHOLDS (UNEXPANDED)														
Harvest	15	25	39	7	29	11	17	15	25	28	20	14	162	407
Struck & Lost	1	1	4	5	2	2	1	5	6	6	2	1	21	57
Total Take	16	26	43	12	31	13	18	20	31	34	22	15	183	464
ESTIMATED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	17.4	28.8	45.4	11.0	38.7	15.4	23.6	22.4	30.7	34.1	23.2	16.4	216.0	523.1
Struck & Lost	1.0	1.1	4.5	6.6	2.8	2.9	1.1	7.7	6.6	6.9	2.0	1.0	27.7	71.8
Total Take	18.4	29.9	49.8	17.6	41.5	18.3	24.7	30.1	37.3	41.0	25.2	17.4	243.7	595.0
ESTIMATED SEASONALLY ADJUSTED HARVEST AND TAKE BY COMMUNITY (EXPANDED)														
Harvest	17.4	28.8	45.4	35.0	62.7	39.4	95.6	46.4	78.7	34.1	23.2	16.4		523.1
Struck & Lost	1.0	1.1	4.5	9.5	5.7	5.9	10.0	10.6	12.6	6.9	3.0	1.0		71.8
Total Take	18.4	29.9	49.8	44.6	68.4	45.2	105.6	57.1	91.3	41.0	26.2	17.4		595.0
Total Take (%)	3.1%	5.0%	8.4%	7.5%	11.5%	7.6%	17.7%	9.6%	15.3%	6.9%	4.4%	2.9%		100%
Cum. Take	18.4	48.4	98.2	142.8	211.2	256.4	362.0	419.1	510.3	551.3	577.6	595.0		
Cum. Take (%)	3.1%	8.1%	16.5%	24.0%	35.5%	43.1%	60.8%	70.4%	85.8%	92.7%	97.1%	100.0%		

Source Alaska Department of Fish and Game, Division of Subsistence and Alaska Native Harbor Seal Commission Household Surveys 2012.

Table C-17.(continued) Sea lion and harbor seal harvest and take estimates, Southeast Alaska, 2012.

	Sea Lion				Harbor Seal			
	Reported by Sample		Community Est. (Expanded)		Reported by Sample		Community Est. (Expanded)	
	Number	%	Number	%	Number	%	Number	%
Adult Male	0	0.0%	0.0	0.0%	214	52.6%	277.7	53.1%
Adult Female	0	0.0%	0.0	0.0%	64	15.7%	81.7	15.6%
Adult Unknown Sex	0	0.0%	0.0	0.0%	78	19.2%	103.0	19.7%
Juvenile Male	0	0.0%	0.0	0.0%	23	5.7%	29.1	5.6%
Juvenile Female	0	0.0%	0.0	0.0%	7	1.7%	9.8	1.9%
Juvenile Unknown Sex	0	0.0%	0.0	0.0%	2	0.5%	2.8	0.5%
Pup Male	0	0.0%	0.0	0.0%	1	0.2%	1.0	0.2%
Pup Female	0	0.0%	0.0	0.0%	2	0.5%	2.0	0.4%
Pup Unknown Sex	0	0.0%	0.0	0.0%	0	0.0%	0.0	0.0%
Male Unknown Age	1	100.0%	1.0	100.0%	13	3.2%	13.0	2.5%
Female Unknown Age	0	0.0%	0.0	0.0%	2	0.5%	2.0	0.4%
Unknown Sex and Age	0	0.0%	0.0	0.0%	1	0.2%	1.1	0.2%
Total	1	100.0%	1.0	100.0%	407	100.0%	523.1	100%

SEASONALLY ADJUSTED TAKE BY MONTH, SEA LION AND HARBOR SEAL



ESTIMATED COMMUNITY HARVEST, STRUCK AND LOST, AND TAKE BY YEAR

Year	SEA LION			Year	HARBOR SEAL		
	Harvest	Struck/ Lost	Total Take		Harvest	Struck/ Lost	Total Take
1992	5.2	1.3	6.4	1992	1476.8	189.5	1666.2
1993	0.0	1.1	1.1	1993	1425.0	190.0	1615.0
1994	3.5	1.1	4.6	1994	1348.5	151.4	1499.9
1995	0.0	0.0	0.0	1995	1719.1	170.9	1890.0
1996	0.0	0.0	0.0	1996	1641.6	216.3	1857.8
1997	0.0	0.0	0.0	1997	1343.4	224.1	1567.4
1998	3.3	4.4	7.6	1998	1414.0	202.4	1616.4
2000	2.3	0.0	2.3	2000	1209.7	151.4	1361.1
2001	0.0	0.0	0.0	2001	1019.9	155.9	1175.7
2002	7.0	0.0	7.0	2002	877.0	129.8	1006.8
2003	2.3	4.6	6.9	2003	945.1	123.7	1068.8
2004	4.6	7.2	11.8	2004	743.0	102.3	845.3
2005	0.0	19.0	19.0	2005	545.5	88.7	634.2
2006	2.5	10.1	12.6	2006	592.7	114.8	707.6
2007	0.0	6.1	6.1	2007	585.7	68.2	653.8
2008	1.7	8.0	9.6	2008	533.9	60.1	593.9
2012	1.0	8.0	9.0	2012	523.1	71.8	595.0

Sources Alaska Department of Fish and Game, Division of Subsistence, Household Surveys 1992-1998; ADF&G and Alaska Native Harbor Seal Commission Household Surveys 2000 - 2008 and 2012.