

**Technical Paper No. 329**

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**Subsistence Harvests and Uses of Salmon, Trout, and  
Char in Akhiok, Larsen Bay, Old Harbor, Ouzinkie,  
and Port Lions, Alaska, 2004 and 2005**

by

**Liz Williams,**

**Philippa Coiley-Kenner,**

and

**David Koster**

April 2010

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Alaska Department of Fish and Game

Division of Subsistence



## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the reports by the Division of Subsistence. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

### Weights and measures (metric)

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

### Weights and measures (English)

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

### Time and temperature

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

### Physics and chemistry

*all atomic symbols*

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

### General

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

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

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

### Measures (fisheries)

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

### Mathematics, statistics

*all standard mathematical signs, symbols and abbreviations*

alternate hypothesis	H <sub>A</sub>
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics (F, t, $\chi^2$ , etc.)	
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	log <sub>2</sub> , etc.
minute (angular)	'
not significant	NS
null hypothesis	H <sub>0</sub>
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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Final Report to the U.S. Fish and Wildlife Service Office of Subsistence Management, to fulfill obligations for Study No. FIS 04-457. The U.S. Fish and Wildlife Service Office of Subsistence Management provided \$133,149 funding for this 3-year project through contract number 701815C203.

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Technical Paper series reports are available through the Alaska State Library and on the Internet: <http://www.subsistence.adfg.state.ak.us>. This publication has undergone editorial and professional review.

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## ABSTRACT

Participation in the Alaska Department of Fish and Game's Kodiak Management Area Pacific salmon *Oncorhynchus* subsistence permitting program has been low; therefore, accurate harvest estimates have been difficult to achieve. The Kodiak Management Area includes the rural communities of Akhiok, Karluk, Larsen Bay, Old Harbor, Ouzinkie, and Port Lions, which are located on the Kodiak Island archipelago. In 2001, the Subsistence Fisheries Harvest Working Group recommended that a project be created that would both provide education and outreach about the permit program and an evaluation of harvest assessment methods. This report is a result of that project, which was funded by the U. S. Fish and Wildlife Service, Office of Subsistence Management. The project included 11 key respondent interviews and 303 household harvest surveys in 2005 and 2006. A fundamental part of the research process was the engagement of residents, fisheries managers, ADF&G researchers and local research assistants through public meetings and workshops. Finally, respondents provided traditional and ecological knowledge about harvest patterns and cultural uses of salmon resources in the area. Results of the project indicated that as the number of fishers participating in the permit program increased from 2004 to 2005, the accuracy of the harvest estimates also increased; the harvest estimates from the permits also more closely agreed with those generated from the household surveys. Discrete estimates showed that rainbow/steelhead trout *O. mykiss* and Dolly Varden/Arctic char *Salvelinus* spp harvests were not increasing, and did not present problems of sustainability in area streams.

Keywords: Kodiak Management Area, subsistence salmon fishing, subsistence fishing, subsistence harvest assessment, Akhiok, Larsen Bay, Old Harbor, Ouzinkie, Port Lions.

## INTRODUCTION

A subsistence salmon fishery harvest monitoring program that yields reliable harvest estimates is essential to fisheries management, which includes the provision of reasonable opportunities for harvests under the guidelines of Alaska state statute [AS 16.05.258 (b) (1) (A)]. In the Kodiak Management Area (KMA), the Alaska Department of Fish and Game (ADF&G) Division of Commercial Fisheries manages the subsistence fisheries for Pacific salmon *Oncorhynchus* through a permit program administered in the rural communities of Akhiok, Larsen Bay, Old Harbor, Ouzinkie, and Port Lions (5 AAC 01.530). However, some fishers in those communities do not obtain permits, and many who do obtain permits do not return a record of their harvests on the permit at the end of the season. As a result, subsistence salmon harvests for these communities have been underreported.

In May 2001, the Subsistence Fisheries Harvest Assessment Working Group (SFHAWG) held a workshop in Kodiak to discuss reasons for low participation in the permit program and to develop recommendations to address this issue. Workshop participants made 4 recommendations: 1) develop partnerships in the subsistence salmon harvest monitoring program; 2) develop harvest monitoring programs for other fishery resources, such as rainbow/steelhead trout *O. mykiss* and Dolly Varden/Arctic char *Salvelinus* spp; 3) collect traditional ecological knowledge (TEK) and integrate that knowledge into existing harvest monitoring programs, and 4) evaluate the harvest permit reporting program. This project addressed the 4 recommendations through 5 objectives:

1. Improve support for and participation in the subsistence salmon permit and harvest reporting program and initiate ongoing support from fisheries managers for use of TEK in subsistence fisheries management. This was addressed through a workshop conducted in January 2006 in Kodiak, and throughout all the research processes conducted for the study.
2. Train local research assistants to conduct outreach in their communities by providing information about, access to, and assistance with the subsistence permit program. The assistants also conducted household harvest surveys.
3. Initiate an increase in dialogue between fisheries managers and community residents about the importance of subsistence harvest data and TEK of fish, and facilitate community participation in management. This was accomplished through frequent meetings and coordination between ADF&G Division of Subsistence researchers, ADF&G and Kodiak National Wildlife Refuge

fisheries biologists, and Kodiak organizations that had subsistence-related research programs or projects.

4. Improve the accuracy of harvest data. This objective was achieved by conducting household harvest surveys in 2005 and 2006 (for the survey year 2004–2005) in order to collect estimates of the subsistence salmon harvest that could be compared to permit harvest data as well as estimates of the number of permit program participants; and in order to discover reasons for nonparticipation in the permit program.
5. Compile TEK on Kodiak area salmon, trout, and char through key respondent interviews during semistructured interviews and through discussions among small groups of experts employing procedures similar to those used by Huntington and Myrmin (1996), Huntington (1997), and Fall et al. 1991.

Planning for the research began in 2003. After May 2005, the principal investigator<sup>1</sup> made 12 trips to Kodiak to train and work with local research assistants, conduct household surveys and key respondent interviews, coordinate the workshop, and provide outreach and education to residents (Table 1).

Table 1.–ADF&G Division of Subsistence visits to study communities, 2003–2006.

<b>Date</b>	<b>Community visited</b>	<b>Purpose of visit</b>
March 2003	Kodiak	Multiagency orientation meeting
September 2004	Kodiak	Multiagency coordination and informational meetings
November 2004	Ouzinkie	Presentation to tribal council
February 2005	Port Lions Ouzinkie	Presentations to tribal and city councils, training of local research assistants, and key respondent interviews
May 2005	Old Harbor Akhiok Ouzinkie	Work with local research assistants Work with local research assistants, key respondent interviews Work with local research assistants
June 2005	Afognak	Attend Academy of Elders Science Camp
August 2005	Akhiok	Key respondent interviews, participant observation
September 2005	Kodiak	Key respondent interviews, agency presentation
January 2006	Kodiak	Preseason workshop
February 2006	Old Harbor Ouzinkie	Work with local research assistants, key respondent interviews
March 2006	Old Harbor Ouzinkie	Work with local research assistants, key respondent interviews
April 2006	Port Lions Larsen Bay	Work with local research assistants, key respondent interviews Work with local research assistants

## BACKGROUND

Communities included in this study were Larsen Bay, Old Harbor, Ouzinkie, and Port Lions. Although invited, the community of Karluk declined to participate,<sup>2</sup> and Akhiok was unable to participate<sup>3</sup> in 2005.

<sup>1</sup> After data collection was complete, the principal investigator moved to other employment, and the report was subsequently compiled by other ADF&G Division of Subsistence staff, which delayed the final report.

<sup>2</sup> Karluk residents were mostly away from home during periods of data collection, and therefore were not available to participate. Karluk residents participated in the 2006 workshop and informally collaborated with the principal investigator.

<sup>3</sup> No local research assistant was available in Akhiok to conduct 2005 data collection.

Table 2 provides population data for participating communities, which are located in the Kodiak Archipelago, Southwest Alaska (Figure 1). None of the communities are accessible by road, but may be reached by airplane or boat.

Table 2.—Population of study communities, 2000.

Community	2000 population	Number of households
Akhiok	80	25
Karluk	27	9
Larsen Bay	115	40
Old Harbor	237	79
Ouzinkie	225	74
Port Lions	256	89

*Note* Excludes group quarters' population.

*Source* U. S. Census Bureau 2001.

Subsistence fishing, particularly for salmon, has been a principal part of the economy and way of life in these communities for at least a millennium (Steffian and Saltonstall 2004). Five species of Pacific salmon, Chinook *O. tshawytscha*, chum *O. keta*, coho *O. kisutch*, pink *O. gorbuscha*, and sockeye salmon *O. nerka*, as well as Dolly Varden *S. malma* and Arctic char *S. alpinus* are harvested by the residents of these communities. Since it is difficult to distinguish Arctic char from Dolly Varden, and since residents use these names interchangeably (e.g., Coiley-Kenner et al. 2003), reference in this report to Dolly Varden also includes Arctic char species. For the same reasons, since both the resident and anadromous forms of rainbow trout *O. mykiss* are harvested, for the purposes of this report, “rainbow trout” includes both the resident and anadromous forms, unless otherwise noted.

The areas used by Kodiak Island communities for subsistence fishing include the freshwater streams within the 1.9 million acre Kodiak National Wildlife Refuge (KNWR), which encompasses the southwestern two-thirds of Kodiak Island. The refuge also includes Uganik Island, the Red Peaks area on the northwest side of Afognak Island, and all of Ban Island (Figure 1). There are at least 117 anadromous streams in the KNWR, many of which support mixed populations of salmon, rainbow trout, and Dolly Varden (USFWS 2005).



FIGURE 1

KODIAK ISLAND

 Kodiak NWR

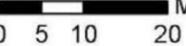
 Miles  
0 5 10 20



Figure 1.—Kodiak Archipelago, Kodiak National Wildlife Refuge, and location of study communities.

## STATE AND FEDERAL SUBSISTENCE FISHING REGULATIONS

Under state statutes, participation in the KMA subsistence fishery is open to those Alaska residents who meet residency requirements [AS 16.05.940 (30) and AS 16.05.940(a) (26)]. In contrast, the Federal Subsistence Board has adopted subsistence salmon fishing regulations for federal public lands and waters within the KMA that stipulate only *rural* Alaska residents may participate in federal subsistence fisheries [CFR Title 50, Part 300, Subpart E, 300.65 (g) (1)]. With 2 exceptions, federal subsistence regulations for salmon in the KMA are identical to state regulations: 1) rod and reel, which are not allowable gear under state regulations, may be used for subsistence salmon fishing in federally managed areas, and 2) fishing is open 24 hours, rather than from 6:00 AM to 9:00 PM only. There is no separate federal subsistence permit. Those qualified to participate under the federal rules must obtain a permit issued by ADF&G. The permit is shown in Appendix A.

## METHODS

Research methods were conducted according to guidelines set forth in *Ethical Principles for the Conduct of Research in the North* (Association of Canadian Universities for Northern Studies 2003). Authorization to conduct the research was obtained from each tribal government. Involvement of community residents was coordinated with officials of the tribal councils, the federal regional advisory councils, and the KNWR. Participation in the household survey was voluntary to the question level and confidential at all levels. Participants were assured that the data would not be used for enforcement purposes, and that the data collected would be summarized at the community level.

### HOUSEHOLD SURVEYS

ADF&G Division of Subsistence conducted an in person household survey (Appendix B), which was administered postseason in 2004 and 2005. First, current permanent household lists were compiled with the assistance of tribal councils and community officials. Interviews with all identified households were then attempted. In 2004, for all communities, interviews were conducted with 129 households, which represented 49% of all households<sup>4</sup>. For 2005, the response rate increased substantially, to 69%, which represented 174 households. The lowest participation rate was in Larsen Bay in 2004, at 28%, but that increased to 95% in 2005. All community participation rates increased over the 2 study years except in Port Lions, which decreased about 10 percentage points, and that rate was also affected by the loss of 1 identified household in the second year (Table 3).

During the 2004 and 2005 household surveys, interviewers asked for information about the harvests of salmon, rainbow/steelhead trout, and Dolly Varden, including:

1. Harvests attempted and achieved; resources used, received, or given away.
2. Harvest numbers for each species.
3. The number of fish retained from commercial harvests for home use.
4. Types of fishing gear used.

---

<sup>4</sup> The response rates were affected by the turnover of local research assistants and subsequent training of replacements. This challenge was anticipated, and the principal investigator planned extra time for this process in order to help meet the objective of increasing local outreach. An important factor to note is that it can be very difficult to interview people in one's own community, especially in smaller communities, and especially when there may be resistance due to a perception of potential "outside" regulation. One research assistant was told by potential respondents that "People have successfully 'managed' their fisheries for thousands of years;" he felt very unwelcome in his role as an interviewer and did not continue on the project. Some respondents also reported that they were fatigued by prior surveys on the effects of the 1989 *Exxon Valdez* oil spill.

Table 3.–Sample achievement for 2004 and 2005 ADF&G household surveys, study communities.

Community	Number of households in community	Number of sampled households	Response rate	Households failed to contact		Households declined to participate		Estimated population
				Number	Percentage	Number	Percentage	
<b>2004</b>								
Akhiok	16	13	81.0%	3	19.0%	0	0.0%	43
Larsen Bay	32	9	28.0%	20	62.0%	3	33.3%	70
Old Harbor	77	29	38.0%	42	54.0%	6	20.7%	208
Ouzinkie	66	42	64.0%	19	29.0%	5	11.9%	185
Port Lions	74	36	49.0%	30	40.0%	8	22.2%	222
All communities	265	129	49.0%	114	43.0%	22	17.1%	716
<b>2005</b>								
Larsen Bay	37	35	94.6%	2	5.4%	0	0.0%	80
Old Harbor	75	49	65.3%	12	16.0%	14	28.6%	205
Ouzinkie	69	62	89.9%	3	4.3%	4	6.5%	193
Port Lions	73	28	38.4%	27	37.0%	10	35.7%	222
All communities <sup>a</sup>	254	174	68.5%	44	17.3%	28	16.1%	700

a. Excluding Akhiok: data were not collected for Akhiok for 2005.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

The 2004 survey instrument also included the following 5 additional questions about the ADF&G subsistence fishing permit and harvest report, in order to elicit comments about the reporting program:

1. During 2004, did your household get a subsistence salmon permit?
2. Where did you get your subsistence salmon permit?
3. Do you know you can get another subsistence salmon permit after you harvest the amount listed on the first one?
4. Has your household mailed [returned] your subsistence salmon permit for 2004?
5. What do you think about the subsistence salmon permit?

As a consequence of 2004 respondent feedback, 6 questions were added to the 2005 survey instrument:

1. Do you know that once you harvest the amount of subsistence salmon listed on your first permit that you can get another permit?
2. Do you know that you can get subsistence salmon permits at the tribal council office?
3. Have the [Alaska State Troopers] ever asked you about your subsistence salmon permit?
4. Did you get a subsistence salmon permit last year?
5. Have you sent your permit back yet? If yes, thanks! If no, would you like for us to take it in for you? If lost, would you like another one?
6. When you hear that the purpose of the subsistence salmon permit is to document the importance of the subsistence harvest and not to limit subsistence, are you more willing to complete the subsistence permit? If not, why?

## Survey Data Analysis

All data were entered into ADF&G databases, checked for errors, and analyzed using the Statistical Package for the Social Sciences (SPSS) Version 11.5<sup>5</sup>. Harvest data collected in numbers of animals, gallons, or buckets were converted to pounds usable weight using the conversion factors shown in Appendix C.

The harvest estimates were derived using a weighted means process (Cochran 1977). The data collected were expanded so as to provide an estimate of harvests for the entire community using the following formulae:

$$H_i = \bar{h}_i S_i \quad (1)$$

$$\text{where } \bar{h}_i = \frac{h_i}{n_i} \quad (\text{mean harvest per returned survey}) \quad (2)$$

and

$H_i$  = the total harvest (numbers of resource or pounds) for the community  $i$ ,

$h_i$  = the total harvest reported in returned surveys,

$n_i$  = the number of returned surveys, and

$S_i$  = the number of households in a community.

The relative precision of the mean, or the likelihood that an unknown value would fall within a certain distance from the mean, was calculated with the raw data and expressed as a confidence limit (CL%)<sup>6</sup>. The formula used to produce the relative precision of the mean (CL%) was

$$C.I.\%(\pm) = \frac{t_{\alpha/2} \times \frac{s}{\sqrt{n}} \times \sqrt{\frac{N-n}{N-1}}}{\bar{x}} \quad (3)$$

where

$s$  = sample standard deviation,

$n$  = sample size,

$N$  = population size, and

$t_{\alpha/2}$  = Student's  $t$  statistic for alpha level ( $\alpha=.95$ ) with  $n-1$  degrees of freedom.

Small CL percentages indicated that an estimate was likely to be close to the actual mean of the sample, which indicated greater accuracy. Larger CL percentages indicated that estimates would be further away from the actual mean of the sample.

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<sup>5</sup> Product names are included because they are established standards for the State of Alaska; they do not constitute product endorsement.

<sup>6</sup> The standard error (SE) or standard deviation (SD) of the mean was multiplied by 1.96, the corresponding factor in a normal distribution to  $\pm 5\%$ .

## **Comparison of Survey Estimates and Permit Data**

Harvest estimates derived from household surveys and permit data are not readily comparable because the data from the returned permits is typically not expanded to include unreturned permits. Unreturned permits could contain harvests, or they may not have been used that season, or the harvests may have been included on another permit.

The household survey harvest reports and the subsistence salmon permit reports were sorted using logical procedures developed in a similar analysis for the Bristol Bay community of Togiak (Gross 1991). First, a list was generated of household survey respondents and this list was matched with subsistence salmon permit holders with the assistance of local research assistants, who compared post office box numbers recorded on permits with known households in the community. This sample was further characterized by grouping according to whether salmon harvests were reported on either a survey or a permit, neither a survey nor a permit, or both a survey and a permit. The latter group, those who reported harvests on both a survey and a permit, was the first filter applied to the matched list, and the resulting list was further reduced according to other factors, such as comparing households that reported fishing effort on the surveys with fishing permit holders. Since nonfishers do not obtain permits, households that reported no salmon harvest on the survey and that did not obtain a permit were excluded for comparison, because households that did not attempt to harvest salmon were not required to obtain permits. Further definitions for exclusion from the dataset were developed for permit holders who did not live in the communities year-round and other seasonal permit holders. Specifically, if household members received a subsistence salmon permit but were living elsewhere when the surveys were conducted, the permit was removed from the comparison for the study communities. Occasionally, a household obtained 2 or more subsistence salmon permits. These were treated as 1 permit for comparison purposes. Final sets of 63 for 2004, and 155 for 2005 were achieved. Identifiers of individuals were removed from the permits to ensure confidentiality.

## **KEY RESPONDENT INTERVIEWS**

The key respondent interviews for this project were conducted through a face-to-face, semistructured, guided interview approach. Eleven key respondents were interviewed during the course of the 2 study years (Table 4). Respondents approached for the first year of research included elders with knowledge of past and present subsistence fisheries. Initially, the plan for second year interviews was to conduct interviews with groups of active fishers. This was not possible because the demographic group which included active fishers was also the group of people most active in their communities. Many of these very active community members participated in the survey but did not have time for interviews. In addition to being major harvesters in their communities, they served on many committees and boards and were raising families. However, groups of knowledgeable individuals were found through the Alutiiq Museum's Master and Apprentice Alutiiq Language Program. These groups met in Old Harbor, Port Lions, and the city of Kodiak.

The interviews focused on traditional Alutiiq concepts of salmon and rainbow trout as expressed through the Alutiiq language, salmon harvesting, preservation techniques, and species preferences. Interviews were conducted using key respondent interview guidelines. All potential interviewees were informed about the purpose of the project, and asked to voluntarily participate. If the respondent agreed to participate, a formal informed consent was obtained, which also included permission for note taking and audiotape recording. Respondents were also informed that their names or other potentially identifying information would not be used in the final report or in any other publications generated from this project without prior express written permission. Response sheets were marked only by a unique identifying number, which was separate from names.

Transcripts of the interviews are on file at Division of Subsistence offices in Anchorage.

Table 4.–Number of key respondents, by community, and length of interviews, 2005–2006.

Respondent	Community	Length of interview
Afognak A	Afognak	30 minutes
Akhiok A	Akhiok	68 minutes
Akhiok B	Akhiok	90 minutes
Akhiok C	Akhiok	157 minutes
Kodiak A	Kodiak	53 minutes
Larsen Bay A	Larsen Bay	120 minutes
Afognak A	Old Harbor	117 minutes
Ouzinkie A	Ouzinkie	58 minutes
Ouzinkie B and C	Ouzinkie	60 minutes
Port Lions A and B	Port Lions	60 minutes
Port Lions C	Port Lions	210 minutes

## RESULTS

### IDENTIFIED ISSUES AND CONCERNS

The outstanding issue that came to light during the workshops, surveys, and interviews was a misperception about why and how subsistence salmon harvest information was used by state and federal agencies. Two specific concerns emerged: 1) some people reasoned that subsistence fishing should not be tracked through a permit program since harvesting salmon was a right, one that should not be restricted by state and federal regulations; and 2) some respondents perceived there to be a risk that harvest information could be used to limit future salmon harvests.

Another issue was that information on the permits was ambiguous. The Alaska Administrative Code at 5 AAC 01.530 (b) states:

A subsistence salmon fishing permit allows the holder to take 25 salmon plus an additional 25 salmon for each member of the same household whose names are listed on the permit. An additional permit may be obtained if it can be shown that more fish are needed.

However, the instruction section of the permit states that a “...limit of 25 per family member listed,” and makes no mention of the availability of additional permits (Appendix A). In addition, there was no regulatory limit on annual subsistence harvests of salmon in 2005, as is implied by the permit wording, which was commonly interpreted by subsistence fishers as an annual limit. The reverse of the salmon permit was for use in subsistence fisheries for herring and crab, and there were annual limits on these harvests, which helped perpetuate the misunderstanding that subsistence salmon harvests were also limited.

Some fishers did not know they could obtain multiple permits for the same household and record all harvests under 1 permit number. In addition, the requirement of the Alaska Administrative Code that a permit holder “show” a “need” for more fish was unclear. It also may have been burdensome for some harvesters to travel to obtain another permit allotment of 25 fish. Another point was the imprecise definition of “household,” which was sometimes understood as all fishers sharing a harvest, or as all the people fishing together, or sometimes as nonfishers who received part of the harvest.

Some fishers obtained permits mainly to avoid being cited by enforcement officers while participating in the fishery. These permits were not necessarily returned at the end of the season. Responses to open-ended questions on the survey instrument revealed that many people were also concerned about the

consequences of not understanding what they considered to be complex regulations. For example, some respondents said that they were legally unable to harvest, in a subsistence fishery, spawning salmon from the fresh waters of the KMA. However, this was legal in most fresh waters, with the exception of the fresh waters of the Little Afognak River, the Portage Creek drainage in Discoverer Bay, and the fresh waters of Afognak Island [5 AAC 01.525 (2) (8)]. A perception voiced several times was that enforcement officers were “out there all the time” and “just waiting to get people [on a regulation infraction].”

Each household survey in 2004 included the question “What do you think about the subsistence salmon permit?” Responses were coded as “favorable” from respondents who merely tolerated the permit, from those who said it was good to have a permit while fishing so as to avoid citation, and from those who understood the intended purpose (tables 5 and 6). Responses were coded as “unfavorable” from respondents who said they did not use a permit because they “did not need more paperwork in their lives,” and who made very clear statements that “Native peoples’ subsistence needs should not be regulated.” Overall, 129 households interviewed in 5 study communities in 2005 offered 203 comments, approximately 60% of which were positive and 40% of which were negative. The greatest variance came from responses from households in Larsen Bay and Old Harbor. In Larsen Bay, most responses were positive and 13% were negative, while in Old Harbor only 39% of responses were positive and 62% were negative.

Table 5.–Summary of opinions regarding subsistence salmon permits, study communities, 2004.

Community	Number of households in community	Number of households interviewed	Number of valid responses	Positive responses		Negative responses		Both positive and negative responses	
				Number	Percentage	Number	Percentage	Number	Percentage
Akhiok	16	13	12	7	60.0%	5	40.0%	0	0.0%
Larsen Bay	32	9	28	25	87.5%	4	12.5%	0	0.0%
Old Harbor	77	29	69	27	38.5%	42	61.5%	0	0.0%
Ouzinkie	66	42	38	25	66.7%	9	25.0%	3	8.3%
Port Lions	74	36	56	35	63.0%	21	37.0%	0	0.0%
<b>Overall</b>	<b>265</b>	<b>129</b>	<b>203</b>	<b>119</b>	<b>58.6%</b>	<b>81</b>	<b>39.9%</b>	<b>3</b>	<b>1.5%</b>

Source ADF&G Division of Subsistence household surveys, 2005.

Table 6.–Responses to the question “What do you think about the subsistence salmon permits?” study communities, 2004.

Responses	Community				
	Akhiok	Larsen Bay	Old Harbor	Ouzinkie	Port Lions
<b>Favorable responses</b>					
Generally favorable, no detail	4	11	8	13	23
I tolerate the permit	4	4	3	5	8
Documents how many salmon are needed to maintain subsistence	0	7	8	6	0
Good for management	0	4	0	8	2
Good – I don't get fined	0	0	5	0	0
I tolerate the permit, but the limit is too low	0	0	3	5	2
<b>Unfavorable responses</b>					
Generally negative, no detail	1	4	0	0	2
I don't use the permit	0	0	0	0	16
Permit irrelevant: I just get what I need	2	0	13	0	2
Native peoples' subsistence fishing should not be regulated	1	0	29	14	0

Source ADF&G Division of Subsistence household surveys, 2005.

Overall, 60% of households said they obtained a 2004 permit and 44% said they returned a permit, a return rate of 73% (Table 7). In response to the question “Did you know you can get a second subsistence salmon permit?” about half of the respondents in Akhiok, Larsen Bay and Port Lions said “Yes.” Conversely, only 17% of Old Harbor and 31% of Ouzinkie households said they knew they could get more than 1 permit.

Table 7.–Estimated number of households that obtained and returned subsistence salmon permits, mailed permits, and were aware an additional permit could be obtained, 2004.

Community	Number of households	Permits		Households aware of second permit		Households returning permits by mail	
		Number	Percentage	Number	Percentage	Number	Percentage
Akhiok	16	14.8	92.3%	7.4	46.2%	2.5	15.4%
Larsen Bay	32	21.3	66.7%	17.8	55.6%	21.3	66.7%
Old Harbor	77	53.1	69.0%	13.3	17.2%	39.8	51.7%
Ouzinkie	66	42.4	64.3%	20.4	31.0%	26.7	40.5%
Port Lions	74	26.7	36.1%	37.0	50.0%	26.7	36.1%
<b>All communities</b>	<b>265</b>	<b>158.4</b>	<b>59.8%</b>	<b>95.9</b>	<b>36.2%</b>	<b>117.1</b>	<b>44.2%</b>

Source ADF&G Division of Subsistence household surveys, 2005.

In 2005, respondents were asked how they obtained subsistence salmon permits for 2004 (Table 8). Of the 177 households responding to the question, 44% obtained their permits in person from an ADF&G staff member, 31% from a tribal organization, 21% from ADF&G by mail, and 4% from a source other than those mentioned, such as personnel at canneries or at fish weirs.

Table 8.—Estimated number of households obtaining subsistence permits, and location of permit issuance, study communities, 2004.

Community	Households	Valid responses		Estimated sources							
		Number	Percentage	In person at ADF&G office		By mail		In person at tribal organization office		Other	
Akhiok	16	14.8	92.3%	6.2	41.7%	0.0	0.0%	3.7	25.0%	4.9	33.3%
Larsen Bay	32	21.3	66.7%	7.1	33.3%	3.6	16.7%	10.7	50.0%	0.0	0.0%
Old Harbor	77	53.1	69.0%	29.2	55.0%	5.3	10.0%	15.9	30.0%	2.7	5.0%
Ouzinkie	66	42.4	64.3%	12.6	29.6%	14.1	33.3%	15.7	37.0%	0.0	0.0%
Port Lions	74	45.2	61.1%	22.6	50.0%	14.4	31.8%	8.2	18.2%	0.0	0.0%
<b>All communities</b>	<b>265</b>	<b>176.9</b>	<b>66.7%</b>	<b>77.7</b>	<b>43.9%</b>	<b>37.4</b>	<b>21.1%</b>	<b>54.2</b>	<b>30.7%</b>	<b>7.6</b>	<b>4.3%</b>

Source ADF&G Division of Subsistence household surveys, 2005.

## 2006 Harvest Assessment Workshop

As mentioned above, results from the first year of fieldwork indicated that residents had misperceptions about the purpose of the subsistence salmon permit program. Therefore, the primary goal of the January 2006 harvest assessment workshop was to address, in detail, how it is in the interest of the community to know how much they need. This included discussions of how ADF&G used subsistence harvest data and how the Alaska Board of Fisheries and fisheries managers used the harvest data for allocation and stock assessment purposes. An additional goal was to show residents how they could use subsistence harvest data.

Attendance at the workshop in Kodiak was mandatory for local research assistants. Also in attendance were representatives from each tribal council, members of the federal Kodiak Area Regional Advisory Council, and representatives from the Shoonaq' Tribe of Kodiak. Staff from the ADF&G divisions of Subsistence, Commercial Fisheries, and Sport Fish; KNWR staff; and staff from the Alaska State Troopers, the agency responsible for law enforcement, were asked to lead discussions on how they used the data from the subsistence salmon permits and why the data were important to managers and communities. The workshop agenda is attached as Appendix D.

During the first day of the workshop, participants discussed the allocation process of the Alaska Board of Fisheries, and emphasized the point that harvest data are critical to this process and are not used to limit subsistence opportunity. Subsequent discussions covered Alaska's subsistence priority [AS 16.05.258 (b) (2) (C)] and the differences between state and federal subsistence laws. Division of Sport Fish staff also informed the group of their monitoring of the Buskin River subsistence fishery on Kodiak Island. Many attendees questioned the need for enforcement officers and Kodiak agency biologists. One of the recurring questions at the workshop, as well as in household surveys, was "If there is no limit, why do we have to get more than one permit?" During the afternoon session, Division of Commercial Fisheries staff addressed this issue, explaining that the limit appeared on the permit to deter "mom and pop" commercial fishing enterprises from operating under the guise of subsistence fishing. They also said that in areas of the state where there was no limit, there might be some individuals who caught more fish than they could use, and thus one of the reasons there was a limit printed on the permit was to prevent overfishing. They cited as an example a specific case at Pasagshak.

On the second day of the workshop, discussion points of the previous day were summarized, especially the fact that harvest and use information was not collected in order to set limits but rather to document the

role of subsistence harvests and uses in local economies. The importance of existing harvest assessment programs and the ways in which the data are used by managers and by communities were also discussed. Agency staff indicated that, as public information, subsistence harvest data could be used by communities for planning and educational purposes. Agency staff pointed out that communities could present subsistence harvest data in response to pressures by others who might be attempting to limit subsistence opportunity. Furthermore, it was emphasized that accurate and complete data were critical to the allocation process. Staff pointed out that having no data made it difficult to represent or document legitimate community uses.

On the third and final day of the workshop, Division of Subsistence researchers presented the 2006 survey questions that addressed harvests for the 2005 calendar year. They also practiced survey techniques and discussed the best practices of communicating the ways subsistence harvest data could be used. Two state troopers attended the afternoon session and regulatory and enforcement concerns were then discussed. The troopers emphasized that, from their point of view, as long as fishers had a permit in possession, they would not be concerned if there were more fish recorded on the permit than the “permit limit” allowed. In fact, troopers said, if a fisher did harvest a large amount of fish, they would prefer he or she immediately record all fish on 1 permit. The troopers stressed that the purpose of the permit was to provide accurate harvest numbers to ADF&G so that agency could maintain healthy resources, and that they didn’t recall ever issuing a citation specifically related to subsistence salmon permits. In spite of this, however, some attendees said they would not record any amount above the limit specified on the permit unless it was specifically allowed in the regulation book because each trooper interpreted the regulations differently.

Overall, the discussions were constructive, many issues were addressed, and active communication was initiated between workshop participants and enforcement officers. There was perfect attendance from all communities.

### TRADITIONAL HARVEST AND USE PATTERNS

The 11 key respondent interviews focused on traditional Alutiiq concepts of salmon and rainbow trout as expressed through the Alutiiq language, salmon harvesting, preservation techniques, and species preferences. The 8 interviews conducted in the first year of research were conducted with people over 60 years old who were born and raised in Kodiak area villages. In 2006, interviews were conducted with the language study groups at the Kodiak Alutiiq Museum, which included people between 35 and 75 years of age.

Table 9 presents some of the Alutiiq words that key respondents used to describe salmon, including many words that referred to methods of harvesting and processing.

Table 9.–Selected Alutiiq words used to describe salmon, study communities.

Alutiiq word	Southern Kodiak Archipelago	Old Harbor	Northern Kodiak Archipelago
<i>Amartuq</i>	Pink salmon; male pink salmon with hump "carrying a pack"	Pink salmon with hump	
<i>Amaqayak</i>	Male pink salmon prior to entering fresh water		
<i>Qasaq</i>	1) Raw meat or fish; 2) hump on male pink salmon; 3) male pink salmon with hump		Raw meat or fish
“Amanguk”	Hump of pink salmon		

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**Table 9. Page 2 of 3.**

Alutiiq word	Southern Kodiak Archipelago	Old Harbor	Northern Kodiak Archipelago
<i>Kinuwaq</i>	1) boiled fish; 2) spawning salmon		Boiled salmon
<i>Sulunaq</i>	Salted salmon		Salted salmon
<i>Kac'amaasaq</i>	Salmon split but left on bone, half dried, and cooked		
<i>Tamuuq</i>	Salmon dried outside or in sheds	Salmon taken from a creek and dried; best made with pink salmon but other species also used	Dried fish; also called "tumaluk"
"Tumaluk"			Salmon not fresh (LW); creek fish eaten immediately; male pink salmon with hump or female ready to spawn, made into "ciduk"
<i>Tamuunicigut</i> (pl.)	Fish that will make good dried salmon		
<i>Aakanaq</i>		Spawning pink salmon with dark skin and white meat	Old, black pink salmon
<i>Paginaq</i>	Fermented salmon eggs mixed with berries or mashed potatoes		
<i>Sisuuq</i>	Fermented salmon eggs (pink salmon eggs in Akhiok) mixed with dried fish, potatoes, sugar, oil, and berries		
"Es'ipiak"	Half-dried sockeye salmon, baked		
<i>Tatanquq</i>	Pink salmon nose		
<i>Ugruaq</i>	Fish oil		
<i>Ugurtu'uq</i>	Fish that is too oily		
"Sekuiq"		Dish made with smoked salmon	
"Pinuk"		Dish made with salmon eggs	
Perok or <i>piruk</i>	Fish pie; to make fish pie		Fish pie
"Ciduk"			Pink salmon mixed with berries
"Uqsuq"	Sockeye salmon		

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**Table 9. Page 3 of 3.**

Alutiiq word	Southern Kodiak Archipelago	Old Harbor	Northern Kodiak Archipelago
<i>Uumatak</i>	1) Sockeye salmon hung outside and half dried; 2) sockeye salmon boiled and mixed with mashed potatoes and fat		Dried fish
“Lake fish”	Spawning and postspawn sockeye salmon		
“Qiurrluq”	Sockeye salmon alive in lakes in winter		
“Sikuq”	Fermented (sockeye salmon) salmon eggs with berries, fat, and sugar		

*Sources* ADF&G Division of Subsistence household surveys and audiotaped interviews, 2005 and 2006; orthography of fish names and preservation methods from Leer (1978) in italics and Coiley-Kenner et al. (2003) in quotation marks.

When discussing uses of salmon, most of the elders focused primarily on pink salmon, which they said had low oil content, an important consideration in the preservation of salmon for future (winter) consumption, including as food. Before home freezers became readily available, people preferred salmon that had low oil content because these fish dried quickly and completely and did not spoil during winter.

Older respondents reported that pink salmon were their favorite type of salmon, and often referred to these fish as “humpies.” They liked the pink salmon found in fresh waters, and the hump that developed on the male pink salmon during its spawning cycle was considered a delicacy. The “blackest” (furthest developed in the spawn) male pink salmon with the biggest humps were harvested, then the hump was removed and eaten with a bit of cow parsnip or wild celery *Heracleum lanatum*, which was called *puchki*. The rest of the fish was split and dried. This was a special delicacy for the residents of the south end of Kodiak Island.

The primary meaning of the Alutiiq word *qasaq* was the nominative “raw fish,” but it could also be used as a verbal meaning to harvest postspawn salmon. *Qasaq* was never cooked; rather, it was sliced and eaten raw. “*Qasaq*,” however, carried different meanings in different areas. The term was first encountered in Larsen Bay when a woman told of her parents’ “*qasaq*-ing” at Humpy Creek in the 1950s. This activity was described as a creekside picnic held on a nice day and attended by all Larsen Bay adults who worked together to harvest the postspawn pink salmon that had collected at the mouth of the creek.

In Akhiok, an elder demonstrated the criteria for *qasaq* selection. When presented with a male pink salmon that appeared to be ready, the elder rejected the fish because it was not “black” enough; i.e., not in the final stages of maturity. A few days later, a very black male pink salmon with a very large hump was harvested and shared, and the hump consumed raw. People who *qasaq*-ed on the south end of Kodiak Island also consumed the cartilaginous noses of the male pink salmon. On the north end of Kodiak Island and on Spruce Island, people did not *qasaq* the hump or the nose, preferring instead to consume them boiled. Ouzinkie residents most often *qasaq*-ed with *sulunaq*, which was salmon soaked in brine and placed in plastic totes layered with salt. On occasion, *qasaq* was made from other species of salmon.

Kodiak Island pink salmon in the last stages of their lifecycle often have no silver coloring on the body, and a white, not yellow, underside. The skin color was considered an indication that the meat was white

and thus ready for making *kinuwaq*, or boiled fish. *Kinuwaq* was also made from spawning coho and chum salmon harvested from shallow creeks very close to the home of the person processing them. In addition, people on the south end of the island harvested “lake fish,” which were spawning and postspawn sockeye salmon.

To make *kinuwaq*, a salmon was placed into boiling water as soon as possible after harvest, along with potatoes and, occasionally, onions and/or wild celery, and then eaten as soon as the potatoes were done. In Ouzinkie, people described making *kinuwaq* from *tumaluk*, or “salmon that was not fresh.” In the south, researchers asked about *tumaluk*; and although residents did not use this word, they did make *kinuwaq* in the same way as Ouzinkie residents.

Many people across the island complained that the method traditionally used to harvest fish used to make *kinuwaq*, a favorite dish, was illegal. At one time, the fish were harvested by hand or with the use of a crook, or they were snagged by a jig, or, in 1 household, fish were speared with a metal 2 prong skewer of the type commonly used to roast hot dogs over a campfire. None of these are legal subsistence methods today. Respondents explained that people sometimes preferred to spear salmon or to otherwise harvest salmon by hand, and that they could thereby target individual fish, such as spawning male pink salmon, and avoid other fish, such as females that would be wasted if not processed immediately.

Across the island, many people said that 30 years ago, Dolly Varden were most often harvested with seines and fried and consumed immediately after harvest, with some dried for later use. Many respondents 50 years of age and older said they learned to how to butcher fish by processing Dolly Varden, saying that it was considered appropriate for them to practice on Dolly Varden, but not on salmon. Most people said they no longer harvested Dolly Varden. In the north, several people said there were too many Dolly Varden in the area.

In summary, before many people had home freezers, pink salmon were preferred over other species of salmon because of their lower oil content. Spawning and postspawn pink salmon harvested from fresh waters were particularly important because they could be prepared in several ways. While elders discussed the importance of pink salmon harvests and uses, data showed that at the time of this project, sockeye and coho salmon were the preferred species, making up about 80% of the reported harvest. In addition, the key respondent interviews revealed an important misunderstanding among residents who believed it was illegal to harvest any spawning salmon in fresh water.

## **SALMON HARVEST ESTIMATES**

The subsistence harvest permit program in the KMA does not capture harvests of commercially caught salmon retained for home use (Appendix A). Furthermore, rod and reel harvests, another important source of subsistence salmon, particularly Chinook and coho salmon, are not documented through the current subsistence permit program because rod and reel harvests are defined according to state regulations as “sport caught” fish. Subsistence harvesters often asserted, and ADF&G household surveys confirmed, that these factors likely lead to underreporting on permits and low subsistence salmon harvest estimates (Brown et al. 2005). Therefore, the ADF&G Division of Subsistence household surveys conducted for this project collected information about all noncommercial harvests of salmon, rainbow/steelhead trout, and Dolly Varden, including fish retained from commercial catches, fish caught with nonsubsistence gear such as rod and reel, and fish caught by sport anglers on charter boats and transferred to community residents.

For 2004 and 2005, the estimated average per capita harvests of salmon for all study communities were 185 lb and 152 lb, respectively. Table 10 provides per capita harvest in pounds and by species for 2004 and 2005. Table 11 shows harvest estimates by gear type and method.

Table 10.—Per capita harvest in pounds, salmon, by species, all study communities, 2004 and 2005.

Species	Per capita harvest, pounds	Percentage of total salmon harvest
<b>2004</b>	N=716	
Chum salmon	9	5%
Coho salmon	74	40%
Chinook salmon	10	6%
Pink salmon	14	7%
Sockeye salmon	78	42%
Total	185	
<b>2005<sup>a</sup></b>	N=700	
Chum salmon	7	5%
Coho salmon	56	37%
Chinook salmon	14	9%
Pink salmon	14	9%
Sockeye salmon	61	40%
Total	152	

N = number of households interviewed.

a. Akhiok did not participate in the household survey for 2005.

Source ADF&G Division of Subsistence household surveys, 2005 and 2006.

In 2004, the species composition of the salmon harvest by weight was 42% sockeye, 40% coho, 7% pink, 6% Chinook, and 5% chum salmon (Table 10). The most prevalent methods in 2004 for harvesting salmon were gillnet or seine (71%), followed by rod and reel (17%) (Table 11). In 2004, most species were harvested with subsistence gear. Seines were often preferred because nontargeted species could be released unharmed. Chinook salmon were the exception: almost two-thirds of the Chinook salmon harvest was taken while ocean trolling; from 8% to 39% of other species were taken with rod and reel.

The species composition of the 2005 salmon harvest was similar to that in 2004: 40% sockeye salmon, 37% coho salmon, 9% pink and Chinook salmon, and 5% chum salmon, by weight. And as in 2004, most salmon were harvested using subsistence nets (68%), followed by rod and reel (22%). Pink salmon were occasionally harvested by hand when they schooled at the mouths of streams before migrating upstream to spawn.

Table 11.–Percentage of pounds of total salmon harvested for home use, by method, all study communities, 2004 and 2005.

Resource	Removed from commercial catch	Subsistence methods			By hand	Ocean trolling	Rod and reel	Charter catch	Missing
		Gillnet	Seine	Any subsistence method					
<b>2004</b>									
Chum salmon	5.5%	55.4%	0.0%	55.4%	0.0%	0.6%	38.5%	0.0%	0.0%
Coho salmon	6.3%	39.9%	26.4%	66.3%	0.0%	5.9%	21.1%	0.0%	0.4%
Chinook salmon	1.0%	5.1%	2.8%	7.9%	0.0%	59.8%	26.9%	4.4%	0.0%
Pink salmon	6.7%	51.3%	13.5%	64.8%	0.0%	0.3%	28.3%	0.0%	0.0%
Sockeye salmon	5.0%	63.2%	23.8%	87.0%	0.0%	0.1%	7.9%	0.0%	0.0%
Total	5.4%	49.4%	21.7%	71.1%	0.0%	5.8%	17.3%	0.2%	0.2%
<b>2005<sup>a</sup></b>									
Chum salmon	0.8%	34.3%	25.2%	59.5%	0.0%	2.9%	36.7%	0.0%	0.2%
Coho salmon	0.2%	32.9%	20.5%	53.4%	0.0%	3.2%	43.2%	0.0%	0.0%
Chinook salmon	0.8%	11.4%	0.7%	12.0%	0.0%	75.7%	11.2%	0.1%	0.2%
Pink salmon	0.9%	40.2%	31.9%	76.1%	0.0%	2.5%	19.4%	0.0%	1.0%
Sockeye salmon	2.5%	68.6%	22.7%	91.2%	0.0%	0.6%	5.7%	0.0%	0.0%
Total	1.4%	47.0%	20.2%	67.6%	0.0%	8.5%	22.4%	<0.1%	0.2%

a. Akhiok did not participate in the survey for 2005.

Source ADF&G Division of Subsistence household surveys, 2005 and 2006.

## Community Harvest Estimates

### *Salmon Harvests*

Table 12 presents the per capita harvest of salmon for the 5 study communities for 1982 through 2005, which ranged between 29 and 399 lb.

Detailed estimated harvests of salmon, rainbow trout, and Dolly Varden by community are included in Appendix E.

Table 12.–1982–2005 per capita harvest in pounds of salmon for home use.

Survey year	Akhiok		Larsen Bay		Old Harbor		Ouzinkie		Port Lions	
	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest
1982–1983	21	238	32	168	77	234	32	173	55	98
1986	12	111	37	102	44	187	34	193	65	160
1989–1990	10	110	34	68	48	149	35	29	36	60
1990–1991			35	105	42	207	53	76		
1991–1992			38	109	43	110	32	89		
1992–1993	24	200	37	182			52	213		
1993–1994			40	203			61	102	45	158

-continued-

**Table 12. Page 2 of 2.**

Survey year	Akhiok		Larsen Bay		Old Harbor		Ouzinkie		Port Lions	
	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest	N=	Pounds per capita harvest
1997–1998			26	213			47	127		
2003	11	96	25	181	52	166	51	131	54	95
2004	13	147	9	399	29	215	42	137	36	126
2005			35	153	49	162	51	138	28	154

N = number of households interviewed. Blank cell = survey not conducted.

Source ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Subsistence household surveys, 2005 and 2006.

### ***Akhiok***

In 2004, Akhiok’s estimated per capita salmon harvest was 90 lb (Table E-1). The species composition of the harvest was primarily sockeye salmon, followed by pink, coho, chum, and Chinook salmon. Most (84%) of the sockeye salmon harvest was taken with gillnets, only 7% was removed from commercial harvests, and none were reported to have been harvested with rod and reel (tables E-2 and E-3). In Akhiok, most (85%) households used subsistence nets to harvest salmon; 15% removed salmon from commercial catches, and 31% used rod and reel (Table E-4). Pink and coho salmon were the most distributed within the community and used by over two-thirds of households. Salmon were harvested from April through September, with half of the sockeye salmon harvested in June, and the pink salmon in July and August (Table E-5). No salmon harvest was reported October through March; however, winter harvests were mentioned in key respondent interviews. A harvest survey was not conducted in Akhiok for the 2005 study year.

### ***Larsen Bay***

In 2004, Larsen Bay had an estimated per capita harvest of 368 lb of salmon (Table E-6). The species composition of the harvest was primarily sockeye and coho salmon, with some Chinook, pink, and chum salmon. Every species except chum salmon was used by over 50% of households. Most sockeye salmon (81%) were harvested using subsistence nets, with a lesser proportion removed from commercial gear (9%) or harvested by rod and reel (10%) (tables E-7 and E-8). Larsen Bay residents harvested salmon primarily by using rod and reel (67%), followed by subsistence nets (44%), and removing from commercial catches. Some (11%) also harvested salmon while ocean trolling (Table E-9). Most coho salmon were taken with subsistence gear (62%), with a smaller proportion harvested by rod and reel (32%) or removed from commercial catches (6%). Most Chinook salmon were harvested with rod and reel. Half of the sockeye salmon were harvested in September, approximately one-third in June, and the remaining harvest was distributed throughout the year (Table E-10). The largest proportion (45%) of the coho salmon harvest was taken in September. A quarter of the Chinook salmon were harvested in June while the rest of the harvest was distributed throughout the year.

In 2005, the estimated Larsen Bay per capita salmon harvest was 153 lb (Table E-6). The species composition of the harvest was similar to 2004: sockeye and coho salmon the predominate species harvested, followed by Chinook salmon. The majority (81%) of all salmon were harvested with subsistence nets, 10% were harvested by rod and reel, and only 3% were removed from commercial catches (tables E-7, E-8 and E-9). Forty-five percent of the sockeye salmon were harvested in May while 35% were harvested in June (Table E-10). Slightly over 40% of the coho salmon were harvested in August, but coho salmon harvests were distributed from June through September. Just over one-quarter of Chinook salmon were harvested in June, the rest were harvested throughout the year. Differences in harvest timing were detected between 2004 and 2005. In 2004, over 60% of coho salmon were harvested

after August 31 (Table E-10), and in 2005, the majority were harvested in July and August. In 2004, over 50% of the sockeye salmon were harvested in September, but in 2005, most sockeye salmon were harvested in May and June.

### ***Old Harbor***

In 2004, the estimated per capita harvest of salmon in Old Harbor was 126 lb (Table E-11). The species composition of the harvest was primarily coho salmon, then sockeye, pink, chum, and Chinook salmon. Two-thirds of the coho salmon were taken with subsistence nets, 14% with rod and reel, 11% ocean trolling, and 9% were removed from commercial catches (tables E-12 and E-13). Most sockeye salmon (87%) were harvested with subsistence nets, 12% were taken with rod and reel, 1% were removed from commercial catches, and <1% were taken while ocean trolling. About two-thirds of the pink salmon harvest was taken with subsistence nets, and one-third with rod and reel, while chum salmon were taken almost evenly by subsistence gillnets and rod and reel. All Chinook salmon were harvested while ocean trolling.

In 2005, Old Harbor reported a per capita salmon harvest of 162 lb (Table E-11). The harvest was composed of primarily of coho and sockeye salmon, with fewer numbers of both species harvested in 2005 than in 2004. In 2005, Old Harbor residents used a range of gear types and reported harvest patterns similar to those in 2004 in that most salmon were harvested with subsistence nets, with lesser proportions harvested by rod and reel, by ocean trolling, or removed from commercial catches (Table E-14).

Salmon harvests were reported from May to October in 2004 (Table E-15). Approximately two-thirds (65%) of sockeye salmon were harvested in June. Chum salmon were harvested primarily July through August, and pink salmon June through September. In 2005, salmon harvests were reported between April and October. More than 70% of the coho salmon were harvested in September. Half of the sockeye salmon were harvested in June, and 25% each harvested in May and July. The pink salmon harvest was almost evenly distributed between July, August, and September.

### ***Ouzinkie***

The 2004 per capita salmon harvest in Ouzinkie was 93 lb (Table E-16). The harvest was composed primarily of sockeye and coho salmon, followed by pink, Chinook, and chum salmon. More than 70% of each salmon species was harvested using subsistence methods, except Chinook salmon, which were also taken while ocean trolling and with rod and reel (tables E-17 and E-18). The 2005 per capita harvest was 138 lb (Table E-16), and the primary composition of species was sockeye and coho salmon. Almost 60% of households used subsistence methods to harvest salmon, 37% used rod and reel, 16% harvested salmon while ocean trolling, 3% removed salmon from commercial catches, and 2% received salmon from charter harvests (Table E-19).

Salmon were harvested during every month of the year (Table E-20), but most harvests occurred between May and September. Almost the entire sockeye salmon harvest occurred in May and June, and the bulk of the coho salmon harvest occurred in August and September. All chum and pink salmon were harvested from June to October. Chinook salmon, however, were harvested during every month.

### ***Port Lions***

In 2004, the Port Lions per capita harvest of salmon was 160 lb (Table E-21). The species composition of the harvest was primarily coho and sockeye salmon, followed by Chinook, pink and chum salmon. Most coho salmon (66%) were harvested with subsistence nets while 22% were harvested with rod and reel (tables E-22 and E-23). Most sockeye salmon (85%) were also taken with subsistence nets, while most Chinook salmon (86%) were harvested while ocean trolling (tables E-22 and E-23). Sockeye salmon were harvested in May (34%) and June (55%), and coho salmon in August (63%) and September (26%). Small numbers of Chinook salmon were harvested year-round (Table E-25).

In 2005, the per capita harvest was 154 lb (Table E-21). The species composition of the harvest was similar to that of 2004, although the harvests of sockeye and Chinook salmon were noticeably higher in 2005 than in 2004. Just over 50% of households used subsistence nets to harvest salmon, 46% used rod and reel, 32% ocean trolled. Four percent removed salmon from commercial catches. The largest proportion of the sockeye salmon harvest was taken in June (70%), followed by May (18%) (Table E-25). The largest proportion of the coho salmon harvest was taken in August (57%), followed by June (19%). Chinook salmon were harvested year-round.

***Salmon Egg Harvest and Use***

Reported salmon egg harvest and use is shown on Table 13. In 2004, respondents in Akhiok and Old Harbor reported the use of eggs, or roe, from all species of salmon except Chinook. In Larsen Bay and Ouzinkie, eggs from all species were used by at least 33% of households, except that 10% of households in Ouzinkie used Chinook salmon roe. In Port Lions, in 2004, people reported eating coho salmon (25%) and sockeye salmon (19%) roe, but no other species.

Table 13.—Estimated number of households using salmon roe for food, study communities, 2004.

Community/Resource	Households	Estimated households			
		Using salmon species		Using roe for food	
		Number	Percentage	Number	Percentage <sup>a</sup>
<b>Akhiok</b>					
Chum salmon	16	3	15.4%	1	50.0%
Coho salmon	16	11	69.2%	1	11.1%
Chinook salmon	16	3	15.4%	0	0.0%
Pink salmon	16	12	76.9%	3	20.0%
Sockeye salmon	16	16	100.0%	5	30.8%
<b>Larsen Bay</b>					
Chum salmon	32	7	22.2%	4	50.0%
Coho salmon	32	25	77.8%	14	57.1%
Chinook salmon	32	21	66.7%	7	33.3%
Pink salmon	32	18	55.6%	11	60.0%
Sockeye salmon	32	28	88.9%	11	37.5%
<b>Old Harbor</b>					
Chum salmon	77	40	51.7%	11	26.7%
Coho salmon	77	77	100.0%	21	27.6%
Chinook salmon	77	27	34.5%	0	0.0%
Pink salmon	77	64	82.8%	8	12.5%
Sockeye salmon	77	72	93.1%	16	22.2%
<b>Ouzinkie</b>					
Chum salmon	66	28	42.9%	16	55.6%
Coho salmon	66	55	83.3%	33	60.0%
Chinook salmon	66	49	73.8%	5	9.7%
Pink salmon	66	44	66.7%	17	39.3%
Sockeye salmon	66	64	97.6%	28	43.9%

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**Table 13. Page 2 of 2.**

Community/Resource	Households	Estimated households			
		Using salmon species		Using roe for food	
		Number	Percentage	Number	Percentage <sup>a</sup>
<b>Port Lions</b>					
Chum salmon	74	6	8.3%	0	0.0%
Coho salmon	74	58	77.8%	14	25.0%
Chinook salmon	74	41	55.6%	0	0.0%
Pink salmon	74	25	33.3%	0	0.0%
Sockeye salmon	74	66	88.9%	12	18.8%

a. Percentage of households using each species.

Source ADF&G Division of Subsistence household surveys, 2005.

### ***Spawning Salmon***

In 2006, respondents were asked about their uses of spawning salmon, and if and when they had harvested salmon from fresh waters (tables 14 and 15).

Survey results indicated that spawning salmon were harvested by the 4 communities surveyed. Species composition of the harvest varied depending on the availability of the runs, harvest timing, and the size of the fish, among other factors. In Larsen Bay, households harvested more spawning coho and sockeye salmon than other species, and the harvests occurred primarily in September and October. The majority (67%) of Old Harbor households reported harvesting spawning pink salmon, primarily in August and September. In Ouzinkie, households harvested more spawning coho and pink salmon than other species; coho salmon primarily in September and October and pink salmon in August and September. Spawning pink salmon were also more popular in Port Lions, with most being taken in July and August.

Table 14.—Estimated number of households, study communities, reporting that they harvested spawning salmon, 2005.

Community	Total households	Estimated number and percentage of households harvesting spawning salmon, by species									
		Chum salmon		Coho salmon		Chinook salmon		Pink salmon		Sockeye salmon	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Larsen Bay	37	0	0.0%	9	22.9%	0	0.0%	4	11.4%	9	22.9%
Old Harbor	75	21	28.6%	26	34.7%	2	2.0%	51	67.3%	21	28.6%
Ouzinkie	69	7	9.7%	28	40.3%	0	0.0%	27	38.7%	8	11.3%
Port Lions	73	5	7.1%	18	25.0%	3	3.6%	18	25.0%	8	10.7%

Source ADF&G Division of Subsistence household surveys, 2006.

Table 15.—Months during which spawning salmon were harvested from fresh waters, study communities.

Resource	Valid responses <sup>a</sup>	Estimated number and percentage of households reporting spawning salmon harvested in ... <sup>b</sup>																	
		May		June		July		August		September		October		November		December		January	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>Larsen Bay</b>																			
Chum salmon	16	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	16	0	0.0%	0	0.0%	0	0.0%	1	6.7%	4	27.0%	3	20.2%	0	0.0%	0	0.0%	0	0.0%
Chinook salmon	16	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	16	0	0.0%	0	0.0%	1	6.7%	4	27.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	16	0	0.0%	2	13.5%	1	6.7%	0	0.0%	6	38.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Old Harbor</b>																			
Chum salmon	40	0	0.0%	0	0.0%	2	3.9%	5	11.6%	8	19.3%	5	11.6%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	40	0	0.0%	0	0.0%	0	0.0%	3	7.7%	6	15.5%	12	30.9%	5	11.6%	0	0.0%	0	0.0%
Chinook salmon	40	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	40	0	0.0%	0	0.0%	2	3.9%	21	54.1%	17	42.5%	6	15.5%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	40	0	0.0%	2	3.9%	0	0.0%	2	3.9%	4	10.1%	9	23.2%	3	7.7%	0	0.0%	0	0.0%
<b>Ouzinkie</b>																			
Chum salmon	47	0	0.0%	0	0.0%	0	0.0%	2	4.8%	5	9.6%	1	2.4%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	47	0	0.0%	0	0.0%	0	0.0%	9	19.1%	23	50.3%	21	45.5%	10	21.5%	5	9.6%	1	2.4%
Chinook salmon	47	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	47	0	0.0%	0	0.0%	1	2.4%	17	35.9%	19	40.7%	7	14.4%	1	2.4%	1	2.4%	0	0.0%
Sockeye salmon	47	1	2.4%	1	2.4%	1	2.4%	2	4.8%	3	6.5%	3	7.2%	0	0.0%	0	0.0%	0	0.0%
<b>Port Lions</b>																			
Chum salmon	28	0	0.0%	0	0.0%	0	0.0%	3	9.2%	3	9.2%	3	9.2%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	28	0	0.0%	0	0.0%	0	0.0%	3	9.2%	10	36.6%	3	9.2%	5	18.3%	3	9.2%	0	0.0%
Chinook salmon	28	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	28	0	0.0%	0	0.0%	13	45.8%	13	45.8%	0	0.0%	3	9.2%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	28	0	0.0%	5	18.3%	3	9.2%	0	0.0%	1	3.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%

a. Valid responses are based on households that gave a month of harvest for any type of salmon.

b. Percentages may sum to a value greater than 100% because respondents were permitted to report multiple months.

Source ADF&G Division of Subsistence household survey, 2006.

### ***Salmon Preservation Methods***

In 2004, Akhiok residents reported a variety of methods for preserving salmon: freezing, drying, smoking, canning, salting, half-drying, and kippering. Salmon also was eaten fresh (Table 16). Most salmon were dried and then smoked, but large numbers of sockeye salmon were not dried, but frozen after smoking. In Larsen Bay and Old Harbor, most salmon were frozen or dried and then smoked. In Ouzinkie, most salmon were frozen, canned, or eaten fresh. Some were salted, dried, or smoked. In Port Lions, over 70% of households reported freezing, smoking, or canning salmon, but all methods of preserving salmon were mentioned.

### ***Changes in Abundance***

The survey instrument included open ended questions about respondents' perceptions of fish abundance (Appendix B). Overall, Akhiok respondents noted a decrease in Chinook and chum salmon, and a slight increase in pink salmon from the 2003 to the 2004 fishing season (Table 17). Larsen Bay respondents noted an increase in chum and sockeye salmon. Old Harbor respondents noticed decreases in chum, coho, and sockeye salmon. For Ouzinkie overall, the majority of respondents noted no changes for any species except sockeye salmon, which they thought had decreased. In Port Lions, the majority of respondents reported no changes for coho salmon, but most commonly reported a decrease in the other salmon species (Table 17).

In Akhiok in 2004, almost half of the households responded to questions about their impressions of Dolly Varden abundance compared to 2003 (Table 17). Half said there was no change, and one third said the abundance of Dolly Varden was increasing. A harvest survey was not conducted in Akhiok in 2005. In Larson Bay, no comments were recorded about changes in abundance of Dolly Varden or rainbow/steelhead trout in either 2004 or 2005. In Old Harbor in 2004, 16 of 21 interviewed households indicated that the abundance of Dolly Varden was increasing. And in Ouzinkie, according to a few households, the abundance of Dolly Varden was the same or was increasing and both rainbow and steelhead trout had decreased in abundance when compared to 2003.

Table 16.—Methods used to preserve salmon, study communities, 2004.

Resource	Households	Estimated valid responses <sup>a</sup>	Estimated number and percentage of households that ... <sup>b</sup>																	
			Freeze		Dry		Smoke		Can/Jar		Pickle		Salt		Half-dry		Kipper		Eat fresh	
			Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>Akhiok</b>																				
Chum salmon	16	16	0	0.0%	3	15.4%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	23.1%
Coho salmon	16	16	5	30.8%	1	7.7%	3	15.4%	1	7.7%	0	0.0%	1	7.7%	0	0.0%	0	0.0%	4	23.1%
Chinook salmon	16	16	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	7.7%
Pink salmon	16	16	3	15.4%	10	61.5%	4	23.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	23.1%
Sockeye salmon	16	16	15	92.3%	0	0.0%	12	76.9%	3	15.4%	0	0.0%	10	61.5%	4	23.1%	3	15.4%	6	38.5%
Any salmon	16	16	15	92.3%	10	61.5%	12	76.9%	3	15.4%	0	0.0%	10	61.5%	4	23.1%	3	15.4%	10	61.5%
<b>Larsen Bay</b>																				
Chum salmon	32	32	7	22.2%	0	0.0%	4	11.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	32	32	25	77.8%	0	0.0%	11	33.3%	0	0.0%	0	0.0%	4	11.1%	0	0.0%	0	0.0%	0	0.0%
Chinook salmon	32	32	14	44.4%	0	0.0%	11	33.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	32	32	7	22.2%	0	0.0%	7	22.2%	4	11.1%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	32	32	28	88.9%	11	33.3%	14	44.4%	0	0.0%	0	0.0%	4	11.1%	7	22.2%	0	0.0%	0	0.0%
Any salmon	32	32	32	100.0%	11	33.3%	14	44.4%	4	11.1%	0	0.0%	4	11.1%	7	22.2%	0	0.0%	0	0.0%
<b>Old Harbor</b>																				
Chum salmon	77	77	13	17.2%	27	34.5%	5	6.9%	0	0.0%	0	0.0%	3	3.4%	0	0.0%	3	3.4%	0	0.0%
Coho salmon	77	77	58	75.9%	16	20.7%	53	69.0%	0	0.0%	3	3.4%	24	31.0%	3	3.4%	5	6.9%	0	0.0%
Chinook salmon	77	77	8	10.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	3.4%
Pink salmon	77	77	24	31.0%	35	44.8%	16	20.7%	3	3.4%	0	0.0%	3	3.4%	0	0.0%	3	3.4%	5	6.9%
Sockeye salmon	77	77	56	72.4%	13	17.2%	50	65.5%	5	6.9%	3	3.4%	16	20.7%	3	3.4%	8	10.3%	3	3.4%
Any salmon	77	77	72	93.1%	40	51.7%	61	79.3%	5	6.9%	5	6.9%	29	37.9%	3	3.4%	8	10.3%	8	10.3%

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**Table 16. Page 2 of 2.**

Resource	Households	Estimated valid responses <sup>a</sup>	Estimated number and percentage of households that ... <sup>b</sup>																	
			Freeze		Dry		Smoke		Can/Jar		Pickle		Salt		Half-dry		Kipper		Eat fresh	
			Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>Ouzinkie</b>																				
Chum salmon	66	64	16	24.4%	6	9.8%	5	7.3%	3	4.9%	2	2.4%	3	4.9%	0	0.0%	0	0.0%	9	14.6%
Coho salmon	66	64	49	75.6%	5	7.3%	14	22.0%	31	48.8%	6	9.8%	16	24.4%	2	2.4%	9	14.6%	6	9.8%
Chinook salmon	66	64	19	29.3%	0	0.0%	7	2.4%	2	2.4%	0	0.0%	0	0.0%	0	0.0%	2	2.4%	36	56.1%
Pink salmon	66	64	19	29.3%	8	12.2%	0	0.0%	8	12.2%	2	2.4%	5	7.3%	7	2.4%	0	0.0%	17	26.8%
Sockeye salmon	66	64	50	78.0%	3	4.9%	20	31.7%	35	53.7%	6	9.8%	13	19.5%	0	0.0%	8	12.2%	9	14.6%
Any salmon	66	64	61	95.1%	14	22.0%	24	36.6%	49	75.6%	8	12.2%	20	31.7%	7	2.4%	13	19.5%	46	70.7%
<b>Port Lions</b>																				
Chum salmon	74	70	2	2.9%	0	0.0%	2	2.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	74	70	45	64.7%	6	8.8%	33	47.1%	45	64.7%	21	29.0%	16	24.0%	4	5.9%	25	35.3%	2	2.9%
Chinook salmon	74	70	19	26.5%	0	0.0%	12	17.6%	6	8.8%	4	5.9%	2	2.9%	0	0.0%	6	8.8%	14	20.6%
Pink salmon	74	70	8	11.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	2.9%	0	0.0%	2	2.9%
Sockeye salmon	74	70	45	64.7%	6	8.8%	47	67.6%	51	73.5%	21	29.4%	23	32.4%	2	2.9%	31	44.1%	4	5.9%
Any salmon	74	70	53	76.5%	6	8.8%	51	73.5%	64	91.2%	31	44.1%	27	38.2%	6	8.8%	35	50.0%	16	23.5%

a. Valid responses are based on households that gave a preservation method for any type of salmon.

b. Percentages may sum to a value greater than 100% because respondents were permitted to report multiple methods.

Source ADF&G Division of Subsistence household surveys, 2005.

Table 17.—Changes in the abundance of salmon and nonsalmon fishes from 2003 to 2004, study communities.

Resource	Total households	Estimated number of household responses <sup>b</sup>													
		Estimated valid responses <sup>a</sup>		No change in runs/abundance		Increase in runs/abundance		Decrease in runs/abundance		Other changes		Did not use		Other comments	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>Akhiok</b>															
Chinook salmon	16	1	7.7%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
Chum salmon	16	7	46.2%	5	66.7%	0	0.0%	1	16.7%	0	0.0%	1	16.7%	0	0.0%
Coho salmon	16	1	7.7%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%
Pink salmon	16	5	30.8%	0	0.0%	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	16	10	61.5%	4	50.0%	0	0.0%	5	50.0%	0	0.0%	0	0.0%	0	0.0%
Dolly Varden	16	7	46.2%	4	50.0%	3	33.3%	0	0.0%	0	0.0%	0	0.0%	1	16.7%
Rainbow trout	16	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Steelhead trout	16	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Larsen Bay</b>															
Chinook salmon	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Chum salmon	32	4	11.1%	0	0.0%	4	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	32	4	11.1%	0	0.0%	4	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Dolly Varden	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Rainbow trout	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Steelhead trout	32	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
<b>Old Harbor</b>															
Chinook salmon	77	3	3.4%	3	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Chum salmon	77	24	31.0%	8	33.3%	0	0.0%	16	66.7%	0	0.0%	0	0.0%	0	0.0%
Coho salmon	77	11	13.8%	0	0.0%	0	0.0%	8	75.0%	0	0.0%	3	25.0%	0	0.0%
Pink salmon	77	5	6.9%	5	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	77	29	37.9%	8	27.3%	0	0.0%	19	63.6%	3	9.1%	0	0.0%	0	0.0%
Dolly Varden	77	21	27.6%	0	0.0%	16	75.0%	0	0.0%	0	0.0%	5	25.0%	0	0.0%
Rainbow trout	77	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Steelhead trout	77	3	3.4%	0	0.0%	0	0.0%	3	100.0%	0	0.0%	0	0.0%	0	0.0%

-continued-

**Table 17. Page 2 of 2.**

Resource	Total households	Estimated number of household responses <sup>b</sup>													
		Estimated valid responses <sup>a</sup>		No change in runs/abundance		Increase in runs/abundance		Decrease in runs/abundance		Other changes		Did not use		Other comments	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>Ouzinkie</b>															
Chinook salmon	66	6	9.5%	5	75.0%	2	25.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Chum salmon	66	25	38.1%	11	43.8%	11	43.8%	3	12.5%	7	6.3%	0	0.0%	0	0.0%
Coho salmon	66	13	19.0%	6	50.0%	5	37.5%	2	12.5%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	66	17	26.2%	8	45.5%	6	36.4%	2	9.1%	7	9.1%	0	0.0%	0	0.0%
Sockeye salmon	66	31	47.6%	13	40.0%	3	10.0%	13	40.0%	5	15.0%	0	0.0%	0	0.0%
Dolly Varden	66	13	19.0%	5	37.5%	6	50.0%	0	0.0%	0	0.0%	7	12.5%	0	0.0%
Rainbow trout	66	2	2.4%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%
Steelhead trout	66	2	2.4%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%
<b>Port Lions</b>															
Chinook salmon	74	2	2.8%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%
Chum salmon	74	23	30.6%	2	9.1%	4	18.2%	14	63.6%	2	9.1%	0	0.0%	0	0.0%
Coho salmon	74	12	16.7%	10	83.3%	0	0.0%	2	16.7%	0	0.0%	0	0.0%	0	0.0%
Pink salmon	74	6	8.3%	2	33.3%	2	33.3%	2	33.3%	0	0.0%	0	0.0%	0	0.0%
Sockeye salmon	74	31	41.7%	2	6.7%	2	6.7%	27	86.7%	2	6.7%	0	0.0%	0	0.0%
Dolly Varden	74	8	11.1%	0	0.0%	8	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Rainbow trout	74	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Steelhead	74	2	2.8%	0	0.0%	0	0.0%	2	100.0%	0	0.0%	0	0.0%	0	0.0%

a. Percentages are based on the total number of valid responses for each species.

b. Percentages may not add to 100% as households were permitted to give multiple responses.

Source ADF&G Division of Subsistence household surveys, 2005.

### **DOLLY VARDEN, RAINBOW TROUT, AND STEELHEAD HARVESTS IN 2004 AND 2005**

All of the study communities reported harvesting small numbers of Dolly Varden and rainbow/steelhead trout in 2004 and 2005. Harvest estimates are shown in Appendix E. Table 18 gives harvest estimates of these species collected from surveys conducted by the Division of Subsistence in the study communities in selected years from 1982 to 2005. In Akhiok, the estimated annual average harvest for both species combined was 145 fish. There were 661 fish harvested in Larsen Bay, 247 in Old Harbor, 1,432 in Ouzinkie,<sup>7</sup> and 434 fish in Port Lions. In all communities, the composition of the char harvest was almost completely Dolly Varden, and the composition of the trout harvest was a combination of rainbow and steelhead trout (Table 19). Differences in harvest levels from year to year were influenced by a number of factors, including the incidental harvest of Dolly Varden and rainbow/steelhead trout in net fisheries, weather and travel conditions, and the level of harvest of other resources.

<sup>7</sup>This number may be inaccurate because in 2005 “fingerlings” were reported as Dolly Varden. In 2006, the survey moved fingerlings into a separate category.

Table 18.—Harvest estimates of char and trout species, numbers of fish, study communities, 1982–2005.

Community	Year	Number of char species harvested	Number of trout species harvested	Total number of char and trout species harvested
<b>Akhiok</b>	1982	372	3	375
	1986	79	0	79
	1989	104	0	104
	1992	153	14	167
	2003	95	0	95
	2004	50	0	50
Average, all years		142	3	145
<b>Larsen Bay</b>	1982	1,063	367	1,430
	1986	90	215	305
	1989	21	98	119
	1990	613	272	885
	1991	208	304	512
	1992	74	698	772
	1993	1,781	429	2,210
	1997	135	266	401
	2003	15	12	27
	2004	43	487	530
	2005	27	56	84
Average, all years		370	291	661
<b>Old Harbor</b>	1982	615	127	742
	1986	114	32	146
	1989	469	31	500
	1991	168	30	198
	1997	210	47	257
	2003	61	3	64
	2004	16	8	24
	2005	35	12	47
Average, all years		211	36	247
<b>Ouzinkie</b>	1982	1,778	313	2,091
	1986	2,019	97	2,116
	1989	63	128	191
	1990	656	293	949
	1991	1,976	88	2,064
	1992	1,379	218	1,597
	1993	1,037	66	1,103
	1997	620	443	1,063
	2003	1,676	1,357	3,033
	2004	479	91	570
	2005	848	125	973
Average, all years		1,139	293	1,432

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**Table 18. Page 2 of 2.**

Community	Year	Number of char species harvested	Number of trout species harvested	Total number of char and trout species harvested
<b>Port Lions</b>	1982	662	29	691
	1986	454	368	822
	1989	70	2	72
	1993	463	98	561
	2003	222	45	267
	2004	140	6	146
	2005	289	190	480
Average, all years		329	105	434

Source ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Subsistence household surveys 2005 and 2006.

Table 19.—Harvest estimates of char and trout species, pounds per capita, study communities, 1982–2005.

Community	Year	All char species	Dolly Varden	Dolly Varden fingerling	Brook trout	Unknown char	Lake trout	All trout species	Cutthroat trout	Rainbow trout	Steelhead	Unknown trout	Total, all char and trout species
<b>Akhiok</b>	1982	5.1	5.1					<0.1			<0.1		5.1
	1986	0.9	0.7				0.3						0.9
	1989	2.6	2.6										2.6
	1992	2.1	1.9										2.1
	2003	1.9	1.9										1.9
	2004	0.9	0.9										0.9
	2005	0.5	0.5					3.9				3.9	
<b>Larsen Bay</b>	1982	8.8	8.8					3.0			3.0		11.8
	1986	0.7	0.6				0.2	1.8		0.3	0.9	0.6	2.5
	1989	0.2	0.2					1.1			1.1		1.3
	1990	5.9	5.9					2.6		0.1	2.5		8.5
	1991	1.9	1.9					2.7		0.6	2.2		4.6
	1992	0.8	0.8					28.3			28.3		29.1
	1993	19.2	19.2					17.3		0.3	17.0		36.5
	1997	1.5			1.5			7.3		1.5	5.7		8.8
	2003	0.5	0.3					1.1			1.1		1.6
	2004	0.9	0.9					28.4		3.5	24.9		29.3
	2005	0.5	0.5					3.9			3.9		4.3
<b>Old Harbor</b>	1982	2.4	2.4					0.5			0.5		2.9
	1986	0.4	0.4					0.1		0.1	0.0		0.5
	1989	2.4	2.4					0.2		0.2	0.0		2.5
	1991	1.1	1.1					0.2		0.1	0.1		1.3
	1997	1.0	1.0					0.2		0.2	0.0		1.2
	2003	0.1	0.1					0.2			0.2		0.3

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**Table 19. Page 2 of 2.**

Community	Year	All char species	Dolly Varden	Dolly Varden fingerling	Brook trout	Unknown char	Lake trout	All trout species	Cutthroat trout	Rainbow trout	Steelhead	Unknown trout	Total, all char and trout species
<b>Old Harbor, continued</b>													
	2004	0.1	0.1					0.2			0.2		0.3
	2005	0.4	0.4					0.1			0.1		0.5
<b>Ouzinkie</b>	1982	10.8	10.8					1.9			1.9		12.8
	1986	14.5	2.6				11.8	0.7		0.2	0.2	0.3	15.2
	1989	0.4	0.4					0.8		0.5	0.3		1.2
	1990	4.5	4.5					2.0		1.9	0.1		6.6
	1991	4.6	2.0	2.6				0.6		0.6	0.1		5.2
	1992	5.8	4.2	1.3	<0.1	0.3		2.7		0.4	1.4	0.9	8.5
	1993	1.5	1.2	0.2				1.0		0.2	0.8	<0.1	2.4
	1997	4.2	4.2					4.0		2.6	1.4		8.2
	2003	11.0	4.3				6.8	10.2		1.4	1.7	7.2	21.2
	2004	3.6	3.6					0.9		0.6	0.3		4.6
	2005	2.1	2.1					1.7		0.6	1.1		3.8
<b>Port Lions</b>	1982	3.2	3.2					0.1			0.1		3.3
	1986	2.2	1.9				0.3	1.7		0.6	1.1	0.1	3.9
	1989	0.5	0.5					0.0			<0.1		0.5
	1993	2.7	2.6					1.0		0.5	0.5		3.6
	2003	1.6	1.5				0.1	0.5		0.2	0.2	0.1	2.1
	2004	0.9	0.9					0.2			0.2		1.0
	2005	1.8	1.8					3.3		0.5	2.8		5.1

Source ADF&G Community Subsistence Information System; ADF&G Division of Subsistence household harvest surveys, 2005 and 2006.

### Akhiok

In 2004, there was no reported harvest of rainbow or steelhead trout by Akhiok residents (Table E-1). An estimated 51 Dolly Varden were harvested by 46% of households, or about 1 lb per person. The most popular method was rod and reel, and the majority of the harvest was taken by 39% of community households (tables E-2, E-3, and E-4). Some were also taken with subsistence gillnets, possibly incidental to salmon harvesting. In 2004, harvests occurred in April and May (Table E-5). A harvest survey was not conducted in Akhiok in 2005. Of the 6 harvest surveys conducted since 1982 in Akhiok, the estimated annual community harvest of Dolly Varden and rainbow/steelhead trout combined was between 50 and 375 fish (Table 18). No harvests of either rainbow or steelhead trout were reported except in 1982 when 3 fish were taken, and 1992 when 14 fish were taken.

### Larsen Bay

In 2004, 22% of households harvested an estimated 43 Dolly Varden, about 1 lb per person in Larsen Bay (Table E-6). Many more rainbow/steelhead trout were harvested: 487 fish, most of which were steelhead. The steelhead trout harvest amounted to 4 lb per capita and the rainbow trout harvest was 2 lb per capita. Harvest usually occurred with rod and reel, while some were taken in subsistence nets (tables E-7, E-8, and E-9). Fishing for rainbow/steelhead trout occurred throughout the year, though most were harvested in October and November (Table E-10).

In 2005, an estimated 56 steelhead trout and 28 Dolly Varden were harvested. Harvests were recorded by 11% and 6% of households, respectively. About half the steelhead trout harvest was with rod and reel and another half was removed from commercial salmon catches. Dolly Varden were almost all removed from commercial catches. Most steelhead trout were harvested in July and October with a few harvested in February. Dolly Varden were harvested in July almost exclusively. Since 1982, there have been 11 harvest surveys that included questions about rainbow/steelhead trout and Dolly Varden harvests in Larsen Bay (Table 18). For Dolly Varden, harvests ranged from 1,781 fish in 1993 to 15 fish in 2003. Similarly, the estimated harvest of rainbow and steelhead trout ranged from 698 in 1992 to 12 in 2003.

### **Old Harbor**

In Old Harbor, 16 Dolly Varden and 8 steelhead trout were harvested in 2004 (Table E-11). Subsistence gillnet effort occurred in June and was reported by 3% of community households (tables E-12, E-13, E-14, and E-15). In 2005, an estimated 35 Dolly Varden and 12 steelhead trout were harvested. Dolly Varden were harvested from April to June, and steelhead trout were harvested between July and September. Dolly Varden were harvested with rod and reel, and steelhead trout were either harvested in subsistence gillnets or removed from commercial catches. Since 1982, there have been 8 harvest surveys that have included questions about rainbow/steelhead trout and Dolly Varden in Old Harbor (Table 18). The Dolly Varden harvest ranged from 615 fish in 1982 to 16 in 2004. Rainbow and steelhead trout harvests ranged from 127 fish in 1982 to 3 in 2003.

### **Ouzinkie**

Dolly Varden (479 fish)<sup>8</sup>, rainbow trout (80 fish), and steelhead trout (11 fish) were harvested for subsistence uses in Ouzinkie in 2004 (Table E-16), for about 7 lb per capita of char species and 2 lb per capita for trout species (tables E-17, E-18, and E-19). Dolly Varden were harvested from March to September, with most harvested in May and June (Table E-20). Rainbow trout were harvested in June, July, September, and October, and most steelhead trout were taken in April. The majority of the harvest was with rod and reel (tables E-17 and E-19).

In 2005, 32% of Ouzinkie households reported harvesting 283 Dolly Varden, 565 Dolly Varden fingerlings, 87 rainbow trout, and 38 steelhead trout (Table E-16). Dolly Varden harvests peaked in June and July (Table E-20). Most steelhead trout were taken in September and October. Most rainbow trout were taken in May and June. Most of the Dolly Varden harvest and all of the rainbow and steelhead trout harvests were with rod and reel (Table E-17). An estimated 100 Dolly Varden were removed from commercial catches. The harvest levels of Dolly Varden recorded in 11 harvest surveys ranged from 63 fish in 1989 to 2,019 fish in 1986 (Table 18). The annual rainbow/steelhead trout harvest ranged from 66 fish in 1993 to 1,357 fish in 2003.

### **Port Lions**

In Port Lions, an estimated 140 Dolly Varden and 6 steelhead trout were harvested in 2004 (Table E-21). All Dolly Varden and rainbow/steelhead trout that were harvested were taken with rod and reel by almost 83% of households (tables E-22, E-23, and E-24). Dolly Varden were harvested in April and May (Table E-25). The majority of responding households said the abundance of Dolly Varden was decreasing (Table 17). In 2005, Port Lions residents took an estimated 289 Dolly Varden, 78 rainbow trout, and 112 steelhead trout (Table E-21). More than two-thirds of the Dolly Varden was harvested in May, rainbow trout were harvested in April and May, and steelhead were harvested in September and October (Table E-25). The majority of the Dolly Varden and rainbow/steelhead trout harvest was with rod and reel (tables E-22, E-23, and E-24). Some Dolly Varden were also harvested in subsistence seines and while ocean trolling, and steelhead trout were also harvested in subsistence gillnets. Since 1982, seven surveys have

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<sup>8</sup> This number may be inaccurate because in 2005 “fingerlings” were reported as Dolly Varden. In 2006, the survey moved fingerlings into a separate category.

been conducted in Port Lions (Table 18). Dolly Varden harvests ranged from 662 fish in 1982 to 70 fish in 1989. The rainbow/steelhead trout harvests ranged from 368 fish in 1986 to 2 fish in 1989.

## **COMPARISON OF ESTIMATED SALMON HARVESTS FROM PERMIT DATA AND HOUSEHOLD SURVEY DATA**

A comparison of salmon harvest data gathered through the permit program with household survey data gathered by the Division of Subsistence showed the harvest levels from the permits to be much lower than the harvest levels gathered through household surveys. Tables E-26 to E-33 compare salmon harvests derived from surveys with those recorded on permits for each study community from 1981 to 2005. In 1986, household surveys conducted in 6 Kodiak Island communities produced an estimated salmon harvest of 23,848 fish, while the estimate from the permit program was 6,885 salmon. In 2003, the postseason household surveys produced a harvest estimate of 14,265 salmon, compared to 8,626 salmon reported on permits. Similar trends were reflected in the harvest levels of individual species. Overall, the average annual harvests recorded on subsistence permits was between 14% and 40% lower than the average annual harvests estimated from household surveys.

By expanding matched household survey and permit data and by including those fish harvested only with subsistence gear, a more refined ratio of permit harvests to survey harvests was achieved. In 2004, this ratio was between 24% and 55% among all study communities, and increased in 2005 to between 41% and 70% (tables E-26 through E-33; figures 2 and 3).

To assess participation in the 2 programs, the estimated number of fishing households was compared to the number of returned permits in the 4 study communities that participated in both years of the project (Table 20). In 2005, 26 more households obtained permits than in 2004, an increase of 10% (Table 20). The number of households returning permits also increased in 2005 (15%) as did the number of households obtaining an additional permit after the recording limit of 25 salmon was reached (increase of 24%) (Table 21). Fifty-one percent of fishing households returned permits in 2004, compared to 69% in 2005. The increase in rate of return was partly attributable to the education and outreach associated with this study that occurred between 2004 and 2005. The exception was Port Lions, where the total number of permits decreased.

Information collected from household surveys showed that some households reporting salmon harvests either did not return their permit or did not obtain one. In Larsen Bay for example, in 2004, one household reported harvesting salmon on the household survey but said they did not return their subsistence permit, and 5 households reported harvests on the household survey but said they never obtained a subsistence permit (Table 20). In 2005, 2 households in Larsen Bay reported harvests on surveys but did not return their permits, and 9 reported harvests on surveys that did not obtain permits (Table 20). Similar findings were made in other communities, such as Old Harbor, where 26 households in 2004 and 15 in 2005 reported harvests on surveys but did not obtain permits (Table 20).

Eliminating harvests other than those taken with subsistence gear from the survey data reduced the difference between the 2 reporting programs. In every case, harvests reported from the survey were still higher than the permit data. In 2004, salmon harvests reported on returned permits were from 19% to 44% lower than estimates from household surveys. In 2005, the estimates differed between 41% and 70% (figures 2 and 3).

The timing of harvests, such as the harvest of late arriving coho salmon into Larsen Bay in 2004, also affected permit recording. Harvests occurring earlier in the season appeared to be recorded more consistently, perhaps because permit holders were still below the 25 fish threshold for 1 permit. This pattern was especially noticeable when comparing harvest data from households that reported harvest on the survey but that had not obtained a permit, as shown in tables 20 and 21. Most of the difference between higher harvest estimates from surveys was primarily attributable in the study communities to

data from those fishing households that did not obtain permits. According to 2005 survey data, 9 of these households were in Larsen Bay, 15 in Old Harbor, 9 in Ouzinkie, and 11 in Port Lions.

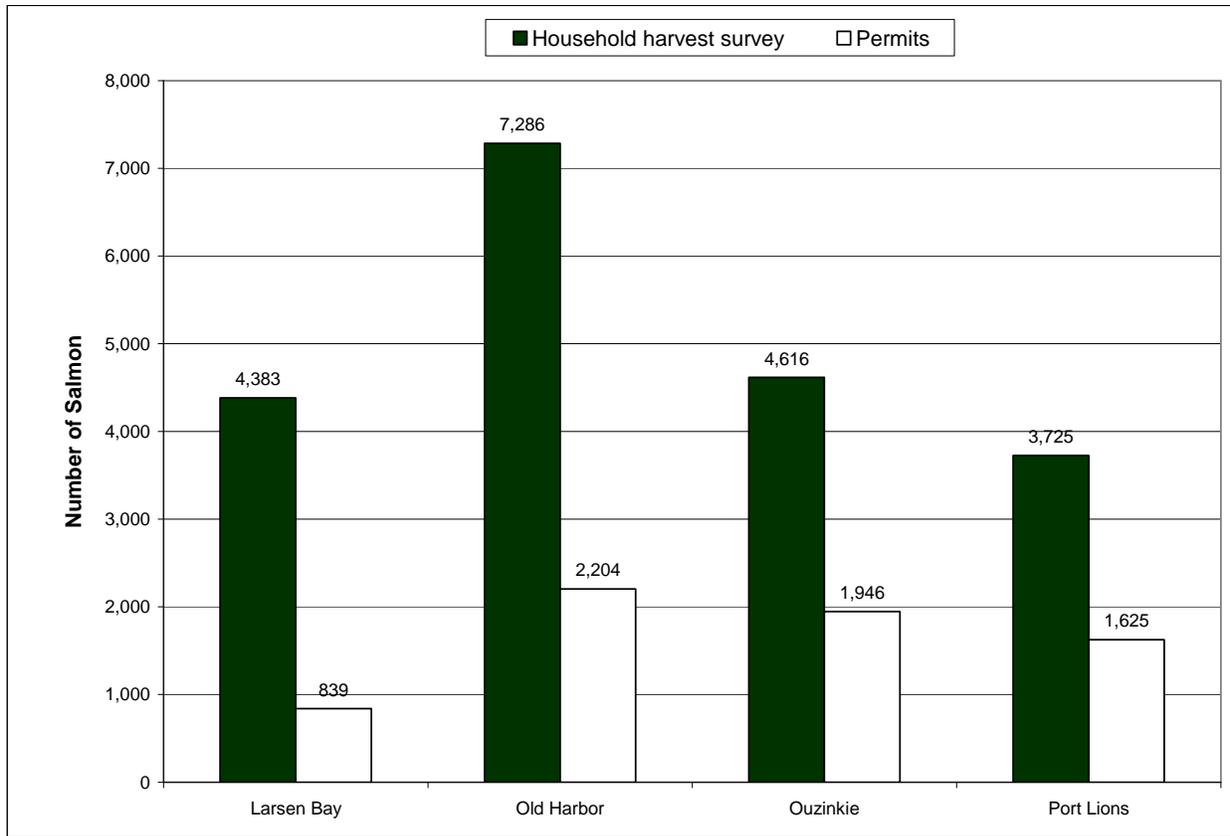


Figure 2.—Comparison of salmon harvests estimated from survey interviews and reported on permits, study communities, 2004.

*Note* estimated survey results include subsistence methods only. Permits held by those not living year-round in the study community have been removed.

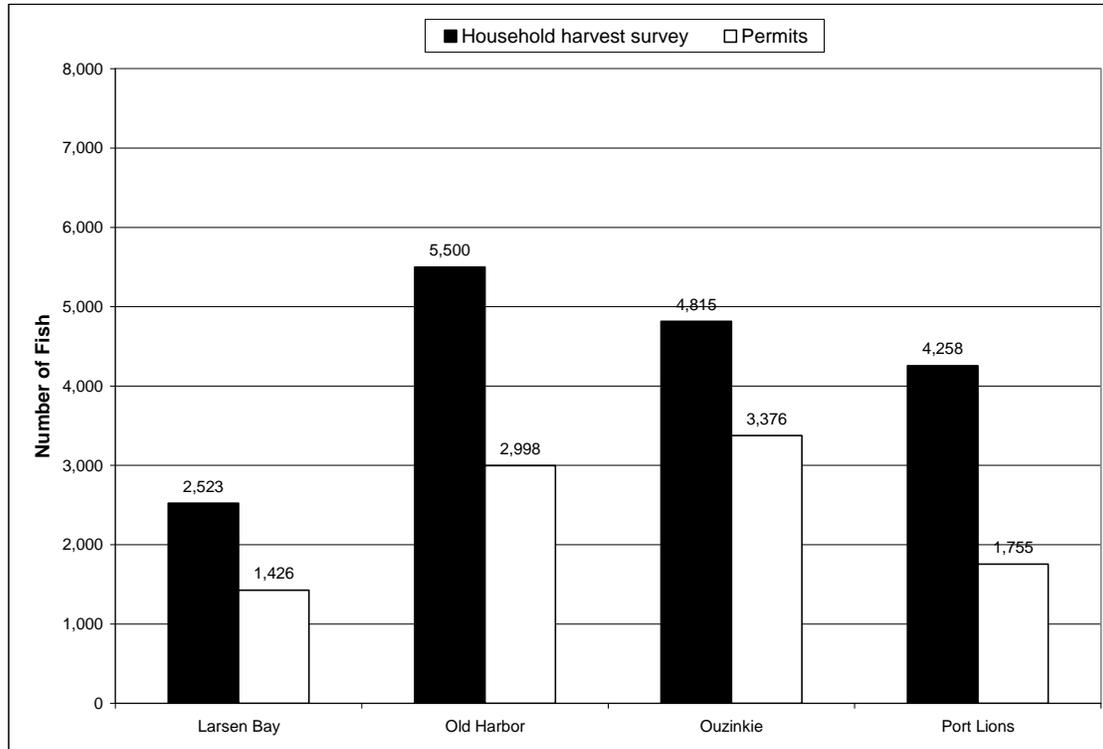


Figure 3.—Comparison of salmon harvests estimated from survey interviews and reported on permits, study communities, 2005.

*Note* estimated survey results include subsistence methods only. Permits held by those not living year-round in the study community have been removed.

Several factors influence the gap between the results of the 2 assessments of salmon harvests:

1. Households participate unequally in the permit and survey programs.
2. Permit harvest records are frequently unreturned, and the harvests are reported only from returned permits; harvests are not expanded to represent communitywide harvests.
3. Survey responses are expanded to a communitywide estimate by means of substituting the average harvest level for nonrespondents.
4. Permit responses include only “subsistence” gear and exclude fish harvested with “sport” gear, such as rod and reel. The surveys capture the latter, and also fish retained from commercial harvests for home use.
5. If survey response rates are low, the result may be an overestimation of the harvest if average values were substituted for households that did not fish. Wide confidence limit percentages may also compromise the assumption that the data can be expanded by mean substitution for nonrespondents, as they suggest that there is less similarity among fishers in their harvest activities.
6. Bias may be introduced by either method. Permittees may not understand or trust the terms of the permit, and adjust their recording accordingly. Likewise, local research assistants may (and did) encounter respondent resistance, and may interview individuals with nonaverage characteristics, who may be the highest harvesters.

Table 20.—Number of households obtaining and returning permits for 2005 that did not for 2004, study communities.

Community and survey year	Total number of households (from survey)	Total number of permits <sup>a</sup>	Estimated number of households that fished, from survey <sup>b</sup>	Number of fished permits	Households obtaining permits in 2005 that did not in 2004		Number of permits returned	Percentage of fishing households that returned permits	Households that returned permits in 2005 that did not in 2004	
					Number	Percentage			Number	Percentage
					Larsen Bay 2004	32			15	14
Larsen Bay 2005	37	19	17	8	6	16.2%	12	47%	2	5.4%
Old Harbor 2004	77	30	56	25			25	45%		
Old Harbor 2005	75	31	46	31	5	6.7%	31	68%	5	6.7%
Ouzinkie 2004	66	26	47	23			26	49%		
Ouzinkie 2005	69	34	40	31	10	14.5%	34	77%	11	15.9%
Port Lions 2004	74	36	47	27			33	57%		
Port Lions 2005	73	33	39	28	5	6.8%	33	72%	3	4.1%
Study communities, 2004	249	107	164	84			96	51%		
Study communities, 2005	254	117	142	98	26	10.2%	110	69%	21	8.3%

a. Households obtaining 2 or more permits are treated as 1 permit.

b. With subsistence nets only.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Table 21.—Number of households obtaining additional permits, study communities, 2004 and 2005.

Community and survey year	Total number of households (from survey)	Households receiving an additional permit		Additional paper permits received by households, number	Additional permits per		
		Number	Percentage		Household	Fishing household	Permits fished
Larsen Bay 2005	37	2	5.4%	3	0.08	0.18	0.38
Old Harbor 2004	77	18	23.4%	32	0.42	0.57	1.28
Old Harbor 2005	75	18	24.0%	25	0.33	0.54	0.81
Ouzinkie 2004	66	14	21.2%	23	0.35	0.49	1.00
Ouzinkie 2005	69	21	30.4%	44	0.64	1.10	1.42
Port Lions 2004	74	13	17.6%	20	0.27	0.42	0.74
Port Lions 2005	73	21	28.8%	26	0.36	0.66	0.93

-continued-

**Table 21. Page 2 of 2.**

Community and survey year	Total number of households (from survey)	Households receiving an additional permit		Additional paper permits received by households, number	Additional permits per		
		Number	Percentage		Household	Fishing household	Permits fished
Study communities, 2004	249	47	18.9%	77	0.31	0.47	0.92
Study communities, 2005	254	62	24.4%	98	0.39	0.69	1.00

## SUMMARY AND CONCLUSIONS

Subsistence salmon harvests have been underreported in the study communities of the KMA, in part because of misperceptions about permit reporting requirements. Observations from 2004–2006 fieldwork, in-person interviews, and workshops confirmed that the majority of fishers understood the permit recording limits to be regulatory limits. They also were not aware that an additional permit could be obtained if the household wanted to harvest additional fish. Furthermore, fishers were not confident about ADF&G uses of the information, and perceived that recorded harvests could be used to calculate future limits on subsistence harvests. These concerns were not new and had been documented in a workshop conducted in 2001 (KMASFHAW 2001).

While conducting the postharvest surveys for the 2004 fishing season during the 2005 field season, education and outreach took place during multiple visits to study communities. Local research assistants were trained, permit requirements were explained, and permit vendors identified. The information exchange was multidirectional: elders were asked about their knowledge of the salmon runs, harvest data were collected, and agency staff answered questions about regulatory processes and household limits. Attendees of the 2006 harvest assessment workshop continued the information exchange, with input from residents of all study communities, as well from enforcement officers and fisheries biologists. By 2006, there was a notable increase in residents’ understanding of the purpose and utility of the permit and reporting program. In addition, fisheries managers were more aware of residents’ concerns regarding permit data collection.

An overall comparison of survey and permit harvest accounting programs for each study community found that harvests reported on permits accounted for between 14% and 40% of the harvests as estimated from household surveys. When comparable households, both surveyed and permitted, were matched, a more refined ratio of permit harvests to survey harvests was achieved and showed a ~5% overall increase in the ratio for 2004. This ratio greatly increased in 2005, to between 41% and 70%. This rise was partly attributable to the 2004 and 2005 education and outreach efforts associated with this study. Fifty-one percent of fishing households returned permits in 2004, and 69% in 2005, in all study communities combined.

The increased alignment between harvest results from household surveys and subsistence salmon permits between 2004 and 2005 indicated that continuing outreach could increase participation in the permit program as well as produce more precise subsistence salmon harvest estimates.

Household surveys in 2005 and 2006 revealed consistency in the composition of harvests and methods used to harvest salmon for home uses. Subsistence fishing gear was used to harvest more salmon by more households than were other methods, and sockeye and coho salmon comprised the largest proportion of harvests in 2004 and 2005, although other species were harvested as well. The estimated annual per capita harvest of salmon measured in pounds usable weight in 2004 and 2005 ranged between 100 and 200 lb, which was consistent with data recorded in other harvest surveys. Salmon roe and spawning salmon are harvested as they traditionally have been, and continued to be valued. Results of harvest surveys in 2004

and 2005 indicated that the harvest of rainbow/steelhead trout and Dolly Varden was within historical levels in terms of the numbers of fish harvested, but was generally decreasing.

Traditional ecological knowledge of fisheries was documented in order to provide context to harvest data and to describe subsistence uses that were not captured through surveys. Species preferences for salmon have changed during the lifetimes of community members, which has affected the mix of species harvested for home uses. The local knowledge collected during this project reiterated the importance of salmon to residents' diets, as well as the importance of pink salmon, particularly spawning or "black" pink salmon, as a traditional delicacy. A preference for pink salmon, which dries more quickly and thoroughly than other species of salmon when harvested from fresh waters, gradually declined with the increased use of home freezers. According to key respondents, more sockeye salmon were retained from commercial catches and harvested using subsistence gear in 2005 than during their childhood years.

Although it was not possible to include Karluk residents in the study for either 2002 or 2005 or Akhiok for 2005, residents of both communities participated in the January 2006 workshop. However, the absence of data from these communities limits the generalization of study results to the region as a whole. Overall response rates on the household survey, while not exceedingly low, did reflect a refusal rate that certainly affects the precision of the harvest estimates. There may have been some bias introduced, as well, because of challenges local research assistants faced while working in their own communities.

Not all fishers obtain permits, or accurately record harvests. The permit data also cannot be reliably expanded to the community because of unknown totals of fishing households. However, the survey estimates provide a baseline that makes it possible for biologists and other managers to broadly assess the completeness of permit program data in some areas of the KMA. The acknowledgement and understanding of traditional practices and community residents' perceptions about fisheries management programs should help to increase the facility of the management of these fisheries as well. Cooperation and communication may grow in importance as human populations and competition for fishery resources increase on Kodiak Island.

## **RECOMMENDATIONS**

1. Information from this research may contribute to and enhance USFWS planning efforts in the KNWR. It can be used to describe how and which refuge lands are being used for subsistence purposes, including which streams within the boundaries of the refuge are used for subsistence fishing.
2. Communities may review the data from this research and consider how involved they want to be with a community based salmon harvest monitoring program. The community vendor program and knowledge of the regulations may be sufficient to help improve harvest estimates and record subsistence use levels.
3. The KMA subsistence salmon permit should be revised to more precisely state current regulations. This can be done concurrently with the establishment of a community based salmon harvest monitoring program, if one is deemed beneficial.
4. Communication about the harvest permit and reporting program should be improved. In the Kodiak area, no harvest monitoring program will be effective without positive human relationships. Providing harvest data is an exercise in trust and communication. These are the critical factors necessary for acquiring accurate and precise subsistence harvest data. A community vendor program is an important element, as is continued outreach to encourage members of active fishing households to obtain subsistence fishing permits. A permit return rate less than 85%, as measured at the ADF&G office in Kodiak, could trigger prearranged community visits to help increase the return of permits.

5. Information from this project, as well as annual summaries of subsistence salmon harvests, should be returned to participating communities, both for improving communication and acquiring feedback from participants in the program.
6. Agency staff could use ADF&G Fish and Game Advisory Committee and USFWS Regional Advisory Council meetings and other opportunities to describe the importance of participating in the harvest reporting program and regulatory processes.
7. Short of sustainability concerns in specific streams, there is no recommendation to initiate permit driven assessments of these harvests.

## **ACKNOWLEDGEMENTS**

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**APPENDIX A. ADF&G KODIAK SALMON / HERRING / CRAB  
SUBSISTENCE PERMIT**







**APPENDIX B. ADF&G HARVEST SURVEY INSTRUMENTS  
2004 AND 2005**



HH ID \_\_\_\_\_

surveyor \_\_\_\_\_

Date \_\_\_\_\_

Division of Subsistence  
Fish Harvest Survey 2004

start time \_\_\_\_\_ stop time \_\_\_\_\_

This survey covers January 1, 2004 through December 31, 2004. In 2004, did your household harvest subsistence salmon or trout or did anyone give you salmon and trout? YES NO

What do YOU think about the subsistence salmon permits? Questions, complaints, suggestions:

**2004 Subsistence Salmon Use and Harvest Chart:** First we would like to know how much fish from your commercial harvest you used for home use. Second, we would like to know how many subsistence salmon you caught with which kind of gear and in which months.

If you didn't harvest salmon yourself, we would like to know if you received salmon from other households.

*\* If your household harvested salmon in 2004, please list the number of each type of salmon harvested each month.*

2004 SUBSISTENCE SALMON USE AND HARVEST		used?	tried to harvest	received	gave away	* If your household harvested salmon in 2004, please list the number of each type of salmon harvested each month.												general names of places you fish most	Comments about runs, abundance, seasonal changes, run failures, competition, anything?	
		Y/N	Y/N	Y/N	Y/N	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	UNK?		
reds nR/llq sockeye	this row to answer used, tried, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	for reds	red
	from commercial catch for home use																			
	subsistence gill net																			
	beach seine																			
	ocean trolling																			
rod and reel																				
silvers qakiyaq coho	this row to answer used, tried, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	for silvers	silver	
	from commercial catch for home use																			
	subsistence gill net																			
	beach seine																			
	ocean trolling																			
rod and reel																				
king amasuq likksak chinook	this row to answer used, tried, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	for kings	king	
	from commercial catch for home use																			
	from charter catch for home use																			
	subsistence gill net																			
	beach seine																			
ocean trolling																				
rod and reel																				
humpy amaruq pink	this row to answer used, tried, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	for humpies	humpy/pink	
	from commercial catch for home use																			
	subsistence gill net																			
	beach seine																			
	ocean trolling																			
rod and reel																				
dog alimaaq chum	this row to answer used, tried, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	for dogs	dog/chum	
	from commercial catch for home use																			
	subsistence gill net																			
	beach seine																			
	ocean trolling																			
rod and reel																				

**How did you put up your salmon in 2004?** *Please circle all methods used:*

red freeze dry-lamuuq smoke-kupcuunaq can/far pickle salt-salunaq half dry-umaduk kipper-sikiuk \_\_\_\_\_

silver freeze dry-lamuuq smoke-kupcuunaq can/far pickle salt-salunaq half dry-umaduk kipper-sikiuk \_\_\_\_\_

king freeze dry-lamuuq smoke-kupcuunaq can/far pickle salt-salunaq half dry-umaduk kipper-sikiuk \_\_\_\_\_

humpy freeze dry-lamuuq smoke-kupcuunaq can/far pickle salt-salunaq half dry-umaduk kipper-sikiuk \_\_\_\_\_

dog freeze dry-lamuuq smoke-kupcuunaq can/far pickle salt-salunaq half dry-umaduk kipper-sikiuk \_\_\_\_\_

In 2004, did you use salmon eggs (sisut) for food? YES NO  
If yes, which type? (please circle one) red silver king humpy dog

Are there other words for salmon, (Alutiiq, Russian, Scandinavian, English) used now or that elders used in the past?

Do people here eat salmon that have gone to fresh water and turned red (they call them red fish in Chignik area)  
If they do, which species: reds silvers kings humpys chum

Are there Alutiiq, Russian, Scandinavian or English words for these?

During 2004, did your household get a subsistence salmon permit? YES NO

Where did you get your subsistence salmon permit? mail ADF&G Tribal Office other \_\_\_\_\_

Do you know you can get another subs. salmon permit after your harvest the amount listed on the first one? YES NO

Has your household mailed in your subsistence salmon permit for 2004? YES NO

Any other subsistence related questions comments or concerns:

doesn't have to be about fish: waterfowl, deer, goat, etc.

2004 Subsistence Trout-Anciq Use and Harvest		used?	tried to harvest	received	gave away	general names of places you fish most												Comments about runs, abundance, changes:		
		Y/N	Y/N	Y/N	Y/N	JAN	FEB	MARCH	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC		unk?	
Dolly Varden/ Arctic char	this row to answer used, tried, rec'd, gave	Y / N	Y / N	Y / N	Y / N	#	#	#	#	#	#	#	#	#	#	#	#	#	for Dolly Varden:	dolly varden
	taken from commercial catch for home use	>>>>>	>>>>>	>>>>>	>>>>>															
	subsistence gill net	>>>>>	>>>>>	>>>>>	>>>>>															
	beach seine	>>>>>	>>>>>	>>>>>	>>>>>															
	ocean trolling	>>>>>	>>>>>	>>>>>	>>>>>															
Steelhead	this row to answer used, tried, rec'd, gave	Y / N	Y / N	Y / N	Y / N	#	#	#	#	#	#	#	#	#	#	#	#	#	for Steelhead:	steelhead
	taken from commercial catch for home use	>>>>>	>>>>>	>>>>>	>>>>>															
	subsistence gill net	>>>>>	>>>>>	>>>>>	>>>>>															
	beach seine	>>>>>	>>>>>	>>>>>	>>>>>															
	ocean trolling	>>>>>	>>>>>	>>>>>	>>>>>															
Rainbow	this row to answer used, tried, rec'd, gave	Y / N	Y / N	Y / N	Y / N	#	#	#	#	#	#	#	#	#	#	#	#	#	for Rainbows:	rainbows
	taken from commercial catch for home use	>>>>>	>>>>>	>>>>>	>>>>>															
	subsistence gill net	>>>>>	>>>>>	>>>>>	>>>>>															
	beach seine	>>>>>	>>>>>	>>>>>	>>>>>															
	ocean trolling	>>>>>	>>>>>	>>>>>	>>>>>															
Grayling	this row to answer used, tried, rec'd, gave	Y / N	Y / N	Y / N	Y / N	#	#	#	#	#	#	#	#	#	#	#	#	#		
	subsistence gill net	>>>>>	>>>>>	>>>>>	>>>>>															
	beach seine	>>>>>	>>>>>	>>>>>	>>>>>															
	ocean trolling	>>>>>	>>>>>	>>>>>	>>>>>															
	rod and reel	>>>>>	>>>>>	>>>>>	>>>>>															

HOUSEHOLD ID # \_\_\_\_\_

Division of Subsistence  
Old Harbor Tribal Council

Salmon and Trout Harvest Survey 2005

1. **Subsistence Salmon Harvest Permits – Why the Numbers are Important!**

The Division of Subsistence and Old Harbor Tribal Council are doing this survey to document the importance of subsistence salmon to Old Harbor. This survey is confidential and voluntary. The amount of subsistence each community needs is supposed to be documented through subsistence salmon permits. We are doing this survey because we have learned that the current permit data is not very accurate. The current permit data underestimates Old Harbor's subsistence salmon uses and needs. The data is not accurate because some people are not comfortable about the permits and either don't turn in their permits or don't know they can get more than one permit. This leads to a low estimate of how much salmon Old Harbor needs for subsistence. We are doing this survey to learn the accurate amount of salmon needed by Old Harbor for subsistence and to let people know why the permits are important. The permit numbers are used by biologists to ensure that subsistence needs are met because by law, there must be a reasonable opportunity for adequate subsistence harvests before allocations are made for commercial and sport harvests. This is what the numbers on the subsistence salmon permit are for. Biologists also use the salmon permit numbers to measure the health of salmon populations. They add up the harvests from subsistence, commercial and sport harvests to measure the strength of salmon runs year after year. The numbers from the subsistence permits can be used by Old Harbor to show how much salmon is needed for subsistence in community plans, regulation changes, grants and subsistence education.

2. **2005 Subsistence Salmon Use and Harvest Chart** This survey covers January 1, 2005 through December 31, 2005.

We are going to ask about your household's harvest as a whole. We would like to know an estimate of how much of each salmon species you harvested in 2005 and how you got the fish. We try to show how people get their subsistence fish in many ways and that sharing is very important.

In 2005, did your household harvest subsistence salmon or trout or did anyone give you salmon and trout? YES NO

2005 SUBSISTENCE SALMON USE AND HARVEST	USED?	DIED TO HARVEST?	REC'D?	GAVE AWAY?	* If your household harvested salmon in 2005, please list the number of each type of salmon harvested each month												general names of places you fish most	Comments about runs, abundance, seasonal changes, run failures, Big Creek, other places?							
					Y/N	Y/N	Y/N	Y/N	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG			SEPT	OCT	NOV	DEC	UNK?		
<b>reds</b>	this row to answer used, died, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	for reds	Do you have any other comments about reds?
	from commercial catch for home use																								
<b>nikilq</b>	subistence gill net																								
<b>sockeye</b>	beach seine																								
	ocean trolling																								
	rod and reel																								
<b>silvers</b>	this row to answer used, died, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	for silvers	Do you have any other comments about silvers?	
	from commercial catch for home use																								
<b>akyaq</b>	subistence gill net																								
<b>coho</b>	beach seine																								
	ocean trolling																								
	rod and reel																								
<b>king</b>	this row to answer used, died, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	for kings	Do you have any other comments about kings?	
	from commercial catch for home use																								
<b>amasuq</b>	from charter catch for home use																								
<b>likasak</b>	subistence gill net																								
<b>chinook</b>	beach seine																								
	ocean trolling																								
	rod and reel																								
<b>humpy</b>	this row to answer used, died, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	for humpies	Do you have any other comments about humpies or pinks?	
	from commercial catch for home use																								
<b>amartuq</b>	subistence gill net																								
<b>pink</b>	beach seine																								
	ocean trolling																								
	rod and reel																								
<b>dog</b>	this row to answer used, died, rec'd, gave	Y/N	Y/N	Y/N	Y/N	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	for dogs	Do you have any other comments about dog salmon/chums?	
<b>aimaq</b>	from commercial catch for home use																								
<b>chum</b>	subistence gill net																								
	beach seine																								
	ocean trolling																								
	rod and reel																								

Surveyor Initials \_\_\_\_\_ Date \_\_\_\_\_ Community: OLD HARBOR coded by \_\_\_\_\_

HOUSEHOLD ID # \_\_\_\_\_ start time \_\_\_\_\_ stop time \_\_\_\_\_

How many people lived in your household in 2005? \_\_\_\_\_

3. **Subsistence Salmon Permit Questions**

1. Do you know that once you harvest the amount of subsistence salmon listed on your first permit that you can get another permit? YES NO
  2. Do you know that you can get subsistence salmon permits at the tribal council offices? YES NO
  3. Have the troopers ever asked you about your subsistence salmon permit? YES NO
  4. Did you get a subsistence salmon permit last year? YES NO
  5. Have you sent your permit back yet? YES NO If yes, thanks! If no, would you like for us to take it in for you? If lost, would you like another one? Y N
  6. When you hear that the purpose of the subsistence salmon permit is to document the importance of the subsistence harvest and not to limit subsistence, are you more willing to complete the subsistence permit? YES NO
- If no, why? \_\_\_\_\_



## **APPENDIX C. ADF&G CONVERSION FACTORS**



Resource	Unit	Conversion factor	
		2004	2005
Chum salmon	Individual	5.3	5.3
Coho salmon	Individual	5.8	5.8
Chinook salmon	Individual	7.4	7.4
Pink salmon	Individual	2.6	2.6
Sockeye salmon	Individual	4.0	4.0
Dolly Varden	Individual	1.4	1.4
Rainbow trout	Individual	1.4	1.4
Steelhead	Individual	5.5	5.5

*Source* ADF&G Division of Subsistence household surveys 2005 and 2006.



**APPENDIX D. AGENDA FOR WORKSHOP, KODIAK,  
ALASKA, 2006**



## 2006 Subsistence Survey Planning in Kodiak city

Agenda for Jan 24-26, 2006

Held at: Kodiak Inn (Best Western), conference room, 236 Rezanof Drive,  
907-486-5712

Contact: Liz Williams, Division of Subsistence, ADF&G  
907-267-2119, Liz\_Williams@fishgame.state.ak.us

January 24, 2006      **9:00am** subsistence salmon and trout surveys  
January 25, 2006      **8:30am** subsistence bird and marine mammal surveys  
January 26, 2006      **8:30am** survey practicum, survey coordination-schedule & results

### Research Partners:

#### *Tribal Councils:*

##### **Akhiok Tribal Council:**

**907-836-2313**

**David Kalmakoff, Rodrigo Amodo, Jr.**

##### **Karluk IRA Traditional Council:**

**907-241-2218**

**Catherine Reft**

##### **Larsen Bay Tribal Council:**

**907-847-2207**

**Marlene Aga, Virginia Squartsoff**

##### **Old Harbor Tribal Council:**

**907-286-2215**

**Tillie Christiansen, Joe Inga**

##### **Ouzinkie Tribal Council:**

**907-680-2214**

**Vicki Peterson, Herman Squartsoff**

##### **Port Lions Traditional Tribal Council:**

**907-454-2234**

**Wanda Kaiser**

##### **Sun'aq Tribe of Kodiak:**

**907-486-4449**

#### *Agencies:*

##### **Alaska Native Harbor Seal Commission**

**Joni Bryant, 1-888-424-5882**

marine mammal subsistence surveys

##### **Alaska Migratory Bird Co-Management**

**Council, Kodiak Area Migratory Bird**

**Working Group, Herman Squartsoff,**

**Division of Subsistence, ADF&G,**

**Ron Stanek, 267-2362**

**Kodiak National Wildlife Refuge**

**Tonya Lee, 1-888-408-3514**

**U.S. Fish and Wildlife Service**

migratory bird subsistence surveys

##### **Division of Subsistence, ADF&G**

**TEK and Harvest Assessment of**

**Salmon and Trout, Liz Williams,**

**267-2119**

**Kodiak National Wildlife Refuge**

**Tonya Lee, 1-888-408-3514**

**U.S. Fish and Wildlife Service,**

**Fisheries Information Service**

**Division of Commercial Fisheries,**

**ADF&G**

subsistence salmon and trout surveys

**JANUARY 24, 2006**

**SUBSISTENCE SALMON AND TROUT SURVEYS**

- 9:00 -Meet-introductions  
-Subsistence Overview  
-Why we do surveys, agency use of data  
-Tribal use of data  
-Relationships between tribal councils, communities and agencies
- Review of data from 2005 subsistence fish surveys and TEK interviews  
-Suggestions for 2006 survey  
-Suggestions for permit change  
-Technical training: surveys, household lists, mapping, TEK interviews

11:45 Lunch

**1:15 Return**

- ADF&G Commercial Fish Management biologists: How management uses permit data:  
Local researcher and biologist dialogue

**4:00 NMFS Information about Trawlers (draggers) (tentative)**

5:00 Adjourn for the day

**Research Partners in Subsistence Salmon and Trout Research**

**Tribal Councils:**

**Akhiok Tribal Council: 907-836-2313**

David Kalmakoff  
Rodrigo Amodo, Jr.

**Karluk IRA Traditional Council: 907-241-2218**

Catherine Reft

**Larsen Bay Tribal Council: 907-847-2207**

Marlene Aga  
Virginia Squartsoff

**Old Harbor Tribal Council: 907-286-2215**

Joe Inga

**Ouzinkie Tribal Council: 907-680-2214**

Vicki Peterson

**Port Lions Traditional Tribal Council: 907-454-2234**

Wanda Kaiser

**Agencies**

-**Division of Subsistence**, ADF&G, (state) subsistence fish surveys  
Liz Williams 267-2119, Liz\_Williams@fishgame.state.ak.us

-**Kodiak National Wildlife Refuge**, (federal) subsistence surveys  
Tonya Lee, 487-2600, 1-888-408-3514, Tonya\_Lee@fws.gov

-**Division of Commercial Fisheries**, ADF&G

**JANUARY 25, 2006**

**MIGRATORY BIRD AND MARINE MAMMAL SUBSISTENCE SURVEYS**

8:30 **Subsistence Migratory Bird Statewide Harvest Survey**  
Orientation and Questions or Issues from the Previous Day  
Survey Overview

9:00 PPT – Alaska Migratory Bird Co-Management Council  
Subsistence Migratory Bird Harvest Surveys

9:45 Survey Training

**Research Partners:**

-Kodiak Island Tribal Councils, page 1  
-Alaska Migratory Bird Subsistence Co-Management Council  
Kodiak Area Migratory Bird Working Group- Herman Squartsoff  
-Kodiak National Wildlife Refuge, USFWS- Tonya Lee, 487-2600,  
1-888-408-3514, Tonya\_Lee@fws.gov  
-Division of Subsistence ADF&G-Ron Stanek, 267-2362, Ron\_Stanek@fishgame.state.ak.us

11:45 Lunch

1:15 **Alaska Native Harbor Seal Commission – Harvest Survey Training**

Power Point Presentation – Harbor Seal/Sea Lion Survey Overview Joni Bryant

**Research Partners:**

-Kodiak Island Tribal Councils (see page 1)  
-Alaska Native Harbor Seal Commission, Joni Bryant, Marine Mammal Surveys  
1-888-424-5882, 345-0554, JoniBryant@harborsealcommission.org

5:00 Adjourn for the day

**JANUARY 26, 2006**

**SUBSISTENCE SURVEY PRACTICUM AND COORDINATION**

Attendance Required

9:00 Review  
Practical tactics  
Tracking sheets-community list creation  
household list maintenance  
sampling design primer  
Confidentiality

10:30 Survey Drill

11:45 Lunch

1:15 Communication Plan

1:45 Coordination Plan

2:30 Survey Drill

4:00 2006 Research Plan Finalization  
Assignments  
Expectations  
Commitment

5:00 Adjourn

**APPENDIX E. HARVEST AND USE TABLES, STUDY  
COMMUNITIES, 2004 AND 2005**



Appendix Table E-1.—Estimated harvests and uses of salmon and nonsalmon fishes in Akhiok, 2004.

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit (±)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Mean household	Per capita <sup>a</sup>		
<b>Salmon</b>													
Chum salmon	15.4%	15.4%	15.4%	0.0%	7.7%	104.4	6.5	1.5	19.7	Ind	1.2	22.4	24.3%
Coho salmon	69.2%	69.2%	69.2%	23.1%	53.8%	530.8	33.2	7.5	92.3	Ind	5.8	0.3	67.8%
Chinook salmon	15.4%	7.7%	7.7%	7.7%	0.0%	9.1	0.6	0.1	1.2	Ind	0.1	1.2	27.8%
Pink salmon	76.9%	76.9%	76.9%	53.8%	53.8%	1,080.6	67.5	15.2	417.2	Ind	26.1	0.0	96.7%
Sockeye salmon	100.0%	92.3%	92.3%	76.9%	92.3%	4,612.5	288.3	65.0	1,161.8	Ind	72.6	5.5	28.7%
Subtotal, salmon	100.0%	100.0%	100.0%	84.6%	100.0%	6,337.4	396.1	89.4	1,692.3	Ind	105.8	23.0	23.7%
<b>Nonsalmon fishes</b>													
Dolly Varden	46.2%	46.2%	46.2%	15.4%	23.1%	70.6	4.4	1.0	50.5	Ind	3.2	0.7	49.6%
Arctic grayling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.7	
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	
Steelhead	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	
Subtotal, nonsalmon fishes	46.2%	46.2%	46.2%	15.4%	23.1%	70.6	4.4	1.0	50.5	Ind	3.2	15.4	26.6%
<b>Total, all fishes</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>84.6%</b>	<b>100.0%</b>	<b>6,408.0</b>	<b>400.5</b>	<b>90.4</b>	<b>1,742.8</b>	<b>Ind</b>	<b>108.9</b>	<b>23.0</b>	<b>23.7%</b>

a. Based on population estimated by ADF&G survey conducted in winter and spring 2005.

Source ADF&G Division of Subsistence household surveys, 2005.

Appendix Table E-2.—Percentage of total estimated harvest of salmon and nonsalmon fishes, by gear type and resource, Akhiok, 2004.

Resource Percentage base	Removed from commercial catch		Subsistence methods										Rod and reel		Charter catch		Missing		Any method	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds								
<b>Chum salmon</b>																				
Gear type	0.0%	0.0%	0.9%	1.3%	0.0%	0.0%	0.8%	1.2%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	1.6%
Resource	0.0%	0.0%	62.5%	62.5%	0.0%	0.0%	62.5%	62.5%	0.0%	0.0%	37.5%	37.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.7%	1.0%	0.0%	0.0%	0.7%	1.0%	0.0%	0.0%	0.4%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	1.6%
<b>Coho salmon</b>																				
Gear type	3.8%	6.4%	3.2%	5.0%	12.9%	18.8%	4.3%	6.6%	0.0%	0.0%	0.0%	0.0%	85.7%	89.2%	0.0%	0.0%	0.0%	0.0%	5.5%	8.4%
Resource	6.7%	6.7%	46.7%	46.7%	22.7%	22.7%	69.3%	69.3%	0.0%	0.0%	0.0%	0.0%	24.0%	24.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.4%	0.6%	2.5%	3.9%	1.2%	1.9%	3.8%	5.8%	0.0%	0.0%	0.0%	0.0%	1.3%	2.0%	0.0%	0.0%	0.0%	0.0%	5.5%	8.4%
<b>Chinook salmon</b>																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	6.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
<b>Pink salmon</b>																				
Gear type	45.8%	34.8%	23.2%	16.2%	18.9%	12.5%	22.8%	15.8%	0.0%	0.0%	0.0%	0.0%	9.5%	4.5%	0.0%	0.0%	0.0%	0.0%	24.7%	17.1%
Resource	17.7%	17.7%	74.3%	74.3%	7.4%	7.4%	81.7%	81.7%	0.0%	0.0%	0.0%	0.0%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	4.4%	3.0%	18.3%	12.7%	1.8%	1.3%	20.1%	13.9%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	24.7%	17.1%
<b>Sockeye salmon</b>																				
Gear type	50.4%	58.7%	72.6%	77.5%	68.2%	68.7%	72.1%	76.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.7%	72.8%
Resource	7.0%	7.0%	83.5%	83.5%	9.5%	9.5%	93.0%	93.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	4.8%	5.1%	57.3%	60.8%	6.5%	6.9%	63.9%	67.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	68.7%	72.8%
<b>Total, salmon</b>																				
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	9.5%	8.7%	78.9%	78.4%	9.6%	10.1%	88.5%	88.5%	0.0%	0.0%	0.4%	0.6%	1.5%	2.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	9.5%	8.7%	78.9%	78.4%	9.6%	10.1%	88.5%	88.5%	0.0%	0.0%	0.4%	0.6%	1.5%	2.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

-continued-

**Appendix Table E-2. Page 2 of 2.**

Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
<b>Dolly Varden</b>																				
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	2.9%	0.0%	0.0%	0.0%	0.0%	8.0%	3.0%
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.6%	14.0%	0.0%	0.0%	0.0%	0.0%	33.0%	12.0%
<b>Total, nonsalmon fishes</b>																				
Resource	0.0%	0.0%	7.0%	10.0%	3.0%	5.0%	10.0%	15.0%	0.0%	0.0%	0.0%	0.0%	90.0%	85.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	6.7%	9.7%	3.0%	5.0%	10.1%	14.5%	0.0%	0.0%	0.0%	0.0%	89.9%	85.5%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.0%	3.4%	0.0%	0.0%	0.0%	0.0%	8.0%	3.0%

Source ADF&G Division of Subsistence household surveys, 2005.

Appendix Table E-3.–Estimated number and pounds of salmon and nonsalmon fishes harvested, by gear type and method, Akhiok, 2004.

Resource	Removed from commercial catch		Subsistence methods																	
	Total	Mean household	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household
<b>Chum salmon</b>																				
Number	0.0	0.0	12.3	0.8	0.0	0.0	12.3	0.8	0.0	0.0	7.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	19.7	1.2
Pounds	0.0	0.0	65.2	4.1	0.0	0.0	65.2	4.1	0.0	0.0	39.1	2.4	0.0	0.0	0.0	0.0	0.0	0.0	104.4	6.5
<b>Coho salmon</b>																				
Number	6.2	0.4	43.1	2.7	20.9	1.3	64.0	4.0	0.0	0.0	0.0	0.0	22.2	1.4	0.0	0.0	0.0	0.0	92.3	5.8
Pounds	35.4	2.2	247.7	15.5	120.3	7.5	368.0	23.0	0.0	0.0	0.0	0.0	127.4	8.0	0.0	0.0	0.0	0.0	530.8	33.2
<b>Chinook salmon</b>																				
Number	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.1	0.0	0.0	0.0	0.0	1.2	0.1
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1	0.6	0.0	0.0	0.0	0.0	9.1	0.6
<b>Pink salmon</b>																				
Number	73.8	4.6	310.2	19.4	30.8	1.9	340.9	21.3	0.0	0.0	0.0	0.0	2.5	0.2	0.0	0.0	0.0	0.0	417.2	26.1
Pounds	191.3	12.0	803.3	50.2	79.7	5.0	883.0	55.2	0.0	0.0	0.0	0.0	6.4	0.4	0.0	0.0	0.0	0.0	1,080.6	67.5
<b>Sockeye salmon</b>																				
Number	81.2	5.1	969.8	60.6	110.8	6.9	1,080.6	67.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,161.8	72.6
Pounds	322.5	20.2	3,850.3	240.6	439.8	27.5	4,290.0	268.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4,612.5	288.3
<b>Total, salmon</b>																				
Number	161.2	10.1	1,335.4	83.5	162.5	10.2	1,497.8	93.6	0.0	0.0	7.4	0.5	25.8	1.6	0.0	0.0	0.0	0.0	1,692.3	105.8
Pounds	549.1	34.3	4,966.5	310.4	639.8	40.0	5,606.3	350.4	0.0	0.0	39.1	2.4	142.8	8.9	0.0	0.0	0.0	0.0	6,337.4	396.1
<b>Dolly Varden</b>																				
Number	0.0	0.0	6.2	0.4	0.0	0.0	6.2	0.4	0.0	0.0	0.0	0.0	44.3	2.8	0.0	0.0	0.0	0.0	50.5	3.2
Pounds	0.0	0.0	8.6	0.5	0.0	0.0	8.6	0.5	0.0	0.0	0.0	0.0	62.0	3.9	0.0	0.0	0.0	0.0	70.6	4.4
<b>Total, nonsalmon fishes</b>																				
Number	0.0	0.0	6.2	0.4	0.0	0.0	6.2	0.4	0.0	0.0	0.0	0.0	44.3	2.8	0.0	0.0	0.0	0.0	50.5	3.2
Pounds	0.0	0.0	8.6	0.5	0.0	0.0	8.6	0.5	0.0	0.0	0.0	0.0	62.0	3.9	0.0	0.0	0.0	0.0	70.6	4.4

Source ADF&G Division of Subsistence household surveys, 2005.

Appendix Table E-4.—Percentage of households harvesting salmon and nonsalmon fishes by gear type and species, Akhiok, 2004.

Resource	Removed from commercial catch	Subsistence methods								
		Gillnet	Seine	Any method	By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method
Chum salmon	0.0%	7.7%	0.0%	7.7%	0.0%	7.7%	0.0%	0.0%	0.0%	15.4%
Coho salmon	7.7%	30.8%	15.4%	46.2%	0.0%	0.0%	23.1%	0.0%	0.0%	69.2%
Chinook salmon	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	7.7%
Pink salmon	7.7%	53.8%	7.7%	61.5%	0.0%	0.0%	7.7%	0.0%	0.0%	76.9%
Sockeye salmon	15.4%	61.5%	15.4%	76.9%	0.0%	0.0%	0.0%	0.0%	0.0%	92.3%
<b>Total, salmon</b>	<b>15.4%</b>	<b>69.2%</b>	<b>15.4%</b>	<b>84.6%</b>	<b>0.0%</b>	<b>7.7%</b>	<b>30.8%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>100.0%</b>
Dolly Varden	0.0%	7.7%	0.0%	7.7%	0.0%	0.0%	38.5%	0.0%	0.0%	46.2%
<b>Total, nonsalmon fishes</b>	<b>0.0%</b>	<b>7.7%</b>	<b>0.0%</b>	<b>7.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>38.5%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>46.2%</b>

Source ADF&G Division of Subsistence household surveys, 2005.

Appendix Table E-5.—Estimated number of salmon and nonsalmon fishes harvested by month, Akhiok, 2004.

Resource	Estimated number and percentage of total harvest													
	April		May		June		July		August		September		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Chum salmon	7.4	37.5%	0.0	0.0%	0.0	0.0%	12.3	62.5%	0.0	0.0%	0.0	0.0%	19.7	100.0%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	61.5	66.7%	30.8	33.3%	92.3	100.0%
Chinook salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.2	100.0%	1.2	100.0%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	251.1	60.2%	166.2	39.8%	0.0	0.0%	417.2	100.0%
Sockeye salmon	0.0	0.0%	73.8	6.4%	574.8	49.5%	334.8	28.8%	178.5	15.4%	0.0	0.0%	1161.8	100.0%
<b>Total, salmon</b>	<b>7.4</b>	<b>0.4%</b>	<b>73.8</b>	<b>4.4%</b>	<b>574.8</b>	<b>34.0%</b>	<b>598.2</b>	<b>35.3%</b>	<b>406.2</b>	<b>24.0%</b>	<b>32.0</b>	<b>1.9%</b>	<b>1,692.3</b>	<b>100.0%</b>
Dolly Varden	1.2	2.4%	49.2	97.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	50.5	100.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
<b>Total, nonsalmon fishes</b>	<b>1.2</b>	<b>2.4%</b>	<b>49.2</b>	<b>97.6%</b>	<b>0.0</b>	<b>0.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>0.0</b>	<b>0.0%</b>	<b>50.5</b>	<b>100.0%</b>

*Note* No harvest of any species was reported in January, February, March, October, November, or December.

*Source* ADF&G Division of Subsistence household surveys, 2005.

Appendix Table E-6.—Estimated harvest and uses of salmon and nonsalmon fishes in Larsen Bay, 2004 and 2005.

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit (±)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit household	Per capita <sup>a</sup>		
<b>2004</b>													
Chum salmon	22.2%	22.2%	22.2%	22.2%	22.2%	282.7	8.8	3.7	53.3	Ind	1.7	0.7	134.5%
Coho salmon	77.8%	66.7%	66.7%	66.7%	66.7%	9,343.1	292.0	122.9	1,624.9	Ind	50.8	21.4	94.2%
Chinook salmon	66.7%	44.4%	44.4%	55.6%	44.4%	1,544.0	48.2	20.3	209.8	Ind	6.6	2.8	151.4%
Pink salmon	55.6%	33.3%	33.3%	44.4%	33.3%	460.4	14.4	6.1	177.8	Ind	5.6	2.3	132.2%
Sockeye salmon	88.9%	77.8%	77.8%	66.7%	77.8%	16,331.7	510.4	214.9	4,113.8	Ind	128.6	54.1	108.7%
2004 subtotal, salmon	100.0%	88.9%	88.9%	88.9%	77.8%	27,961.9	873.8	367.9	6,179.6	Ind	193.1	81.3	84.5%
Dolly Varden	22.2%	22.2%	22.2%	0.0%	11.1%	59.7	1.9	0.8	42.7	Ind	1.3	0.6	134.5%
Rainbow trout	22.2%	22.2%	22.2%	11.1%	11.1%	243.9	7.6	3.2	174.2	Ind	5.4	2.3	185.9%
Steelhead	44.4%	33.3%	33.3%	33.3%	33.3%	1,730.3	54.1	22.8	312.9	Ind	9.8	4.1	113.4%
2004 subtotal, nonsalmon fishes	55.6%	44.4%	44.4%	33.3%	33.3%	2,033.9	63.6	26.8	529.8	Ind	16.6	7.0	122.2%
2004 total, all fish	100.0%	88.9%	88.9%	100.0%	77.8%	29,995.8	937.4	394.7	6,709.3	Ind	209.7	88.3	78.6%
<b>2005</b>													
Chum salmon	11.4%	2.9%	2.9%	8.6%	2.9%	112.1	3.0	1.4	21.1	Ind	0.6	36.3	47.9%
Coho salmon	60.0%	40.0%	40.0%	37.1%	22.9%	1,908.7	51.6	23.8	331.9	Ind	9.0	0.3	14.2%
Chinook salmon	60.0%	22.9%	22.9%	54.3%	17.1%	396.8	10.7	4.9	53.9	Ind	1.5	4.1	19.2%
Pink salmon	25.7%	20.0%	20.0%	8.6%	8.6%	170.2	4.6	2.1	65.7	Ind	1.8	0.7	22.6%
Sockeye salmon	88.6%	51.4%	51.4%	71.4%	45.7%	9,711.5	262.5	120.9	2,446.2	Ind	66.1	0.8	13.7%
2005 subtotal, salmon	91.4%	62.9%	62.9%	77.1%	48.6%	12,299.3	332.4	153.1	2,919.0	Ind	78.9	37.4	12.7%
Dolly Varden	5.7%	5.7%	5.7%	0.0%	0.0%	38.5	1.0	0.5	27.5	Ind	0.7	0.3	46.0%
Dolly Varden fingerling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	0.0%
Steelhead	34.3%	11.4%	11.4%	25.7%	8.6%	309.8	8.4	3.9	56.0	Ind	1.5	0.0	26.3%
2005 subtotal, nonsalmon fishes	37.1%	14.3%	14.3%	25.7%	8.6%	348.3	9.4	4.3	83.5	Ind	2.3	30.4	31.4%
2005 total, all fish	91.4%	62.9%	62.9%	77.1%	48.6%	12,647.6	341.8	157.4	3,002.5	Ind	81.1	37.4	12.5%

a. Based on population determined by ADF&G survey conducted in winter and spring 2005.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-7.—Percentage of total estimated harvest of salmon and nonsalmon fishes, by gear type and resource, Larsen Bay, 2004 and 2005.

Resource	Removed from commercial catch		Subsistence methods										Rod and reel		Charter catch		Missing		Any method		
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling										
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
<b>2004</b>																					
Chum salmon																					
Gear type	5.9%	7.6%	2.6%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	1.0%
Resource	66.7%	66.7%	33.3%	33.3%	0.0%	0.0%	33.0%	33.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.6%	0.7%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	1.0%
Coho salmon																					
Gear type	15.4%	21.5%	15.4%	20.7%	24.6%	31.9%	23.1%	30.1%	0.0%	0.0%	0.0%	0.0%	43.6%	48.7%	0.0%	0.0%	0.0%	0.0%	26.3%	33.4%	
Resource	5.7%	5.7%	6.6%	6.6%	55.8%	55.8%	62.4%	62.4%	0.0%	0.0%	0.0%	0.0%	31.9%	31.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	1.5%	1.9%	1.7%	2.2%	14.7%	18.6%	16.4%	20.8%	0.0%	0.0%	0.0%	0.0%	8.4%	10.7%	0.0%	0.0%	0.0%	0.0%	26.3%	33.4%	
Chinook salmon																					
Gear type	0.0%	0.0%	0.0%	0.0%	0.8%	1.3%	0.6%	1.1%	0.0%	0.0%	100.0%	100.0%	14.9%	21.3%	0.0%	0.0%	0.0%	0.0%	3.4%	5.5%	
Resource	0.0%	0.0%	0.0%	0.0%	13.6%	13.6%	13.6%	13.6%	0.0%	0.0%	1.7%	1.7%	84.7%	84.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.5%	0.7%	0.5%	0.7%	0.0%	0.0%	0.1%	0.1%	2.9%	4.7%	0.0%	0.0%	0.0%	0.0%	3.4%	5.5%	
Pink salmon																					
Gear type	14.8%	9.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.5%	3.8%	0.0%	0.0%	0.0%	0.0%	2.9%	1.6%	
Resource	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	2.9%	1.6%	
Sockeye salmon																					
Gear type	63.9%	61.6%	82.1%	76.1%	74.7%	66.9%	75.8%	68.3%	0.0%	0.0%	0.0%	0.0%	34.0%	26.2%	0.0%	0.0%	0.0%	0.0%	66.6%	58.4%	
Resource	9.3%	9.3%	13.8%	13.8%	67.0%	67.0%	80.8%	80.8%	0.0%	0.0%	0.0%	0.0%	9.9%	9.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	6.2%	5.5%	9.2%	8.1%	44.6%	39.1%	53.8%	47.2%	0.0%	0.0%	0.0%	0.0%	6.6%	5.8%	0.0%	0.0%	0.0%	0.0%	66.6%	58.4%	
2004 total, salmon																					
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Resource	9.7%	8.9%	11.2%	10.6%	59.7%	58.5%	70.9%	69.1%	0.0%	0.0%	0.1%	0.1%	19.3%	21.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	9.7%	8.9%	11.2%	10.6%	59.7%	58.5%	70.9%	69.1%	0.0%	0.0%	0.1%	0.1%	19.3%	21.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	

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**Appendix Table E-7. Page 2 of 3.**

Resource	Removed from commercial catch		Subsistence methods								Ocean trolling		Rod and reel		Charter catch		Missing		Any method		
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds											
Percentage base																					
Dolly Varden																					
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.0%	3.4%	0.0%	0.0%	0.0%	0.0%	8.1%	2.9%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	2.9%	0.0%	0.0%	0.0%	0.0%	8.1%	2.9%
Rainbow trout																					
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.6%	14.0%	0.0%	0.0%	0.0%	0.0%	32.9%	12.0%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.9%	12.0%	0.0%	0.0%	0.0%	0.0%	32.9%	12.0%
Steelhead																					
Gear type	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	54.5%	82.5%	0.0%	0.0%	0.0%	0.0%	59.1%	85.1%	
Resource	0.0%	0.0%	11.4%	11.4%	5.7%	5.7%	17.0%	17.0%	0.0%	0.0%	0.0%	0.0%	83.0%	83.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	6.7%	9.7%	3.4%	4.8%	10.1%	14.5%	0.0%	0.0%	0.0%	0.0%	49.0%	70.6%	0.0%	0.0%	0.0%	0.0%	59.1%	85.1%	
2004 total, nonsalmon fishes																					
Gear type	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Resource	0.0%	0.0%	6.7%	9.7%	3.4%	4.8%	10.1%	14.5%	0.0%	0.0%	0.0%	0.0%	89.9%	85.5%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	6.7%	9.7%	3.4%	4.8%	10.1%	14.5%	0.0%	0.0%	0.0%	0.0%	89.9%	85.5%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
<b>2005</b>																					
Chum salmon																					
Gear type	25.0%	29.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.9%	
Resource	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.7%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.9%	
Coho salmon																					
Gear type	12.5%	15.9%	2.5%	3.6%	2.7%	3.9%	2.6%	3.8%	0.0%	0.0%	0.0%	0.0%	85.2%	83.5%	0.0%	0.0%	0.0%	0.0%	11.4%	15.5%	
Resource	3.2%	3.2%	8.6%	8.6%	11.1%	11.1%	19.7%	19.7%	0.0%	0.0%	0.0%	0.0%	77.1%	77.1%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.4%	0.5%	1.0%	1.3%	1.3%	1.7%	2.2%	3.1%	0.0%	0.0%	0.0%	0.0%	8.8%	12.0%	0.0%	0.0%	0.0%	0.0%	11.4%	15.5%	
Chinook salmon																					
Gear type	0.0%	0.0%	0.0%	0.0%	0.6%	1.1%	0.3%	0.6%	0.0%	0.0%	100.0%	100.0%	11.3%	14.1%	0.0%	0.0%	0.0%	0.0%	1.8%	3.2%	
Resource	0.0%	0.0%	0.0%	0.0%	15.7%	15.7%	15.7%	15.7%	0.0%	0.0%	21.6%	21.6%	62.7%	62.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.3%	0.5%	0.3%	0.5%	0.0%	0.0%	0.4%	0.7%	1.2%	2.0%	0.0%	0.0%	0.0%	0.0%	1.8%	3.2%	

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**Appendix Table E-7. Page 3 of 3.**

Resource	Removed from commercial catch		Subsistence methods								Ocean trolling		Rod and reel		Charter catch		Missing		Any method		
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds											
Percentage base																					
Pink salmon																					
Gear type	0.0%	0.0%	1.9%	1.2%	0.0%	0.0%	0.9%	0.6%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	1.4%
Resource	0.0%	0.0%	32.2%	32.2%	0.0%	0.0%	32.2%	32.2%	67.8%	67.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.7%	0.4%	0.0%	0.0%	0.7%	0.4%	1.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	1.4%
Sockeye salmon																					
Gear type	62.5%	54.8%	95.6%	95.2%	96.6%	94.9%	96.2%	95.0%	0.0%	0.0%	0.0%	0.0%	3.5%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	83.8%	79.0%
Resource	2.2%	2.2%	44.3%	44.3%	53.2%	53.2%	97.4%	97.4%	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	1.8%	1.7%	37.1%	34.9%	44.5%	42.0%	81.6%	76.9%	0.0%	0.0%	0.0%	0.0%	0.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	83.8%	79.0%
2005 total, salmon																					
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	2.9%	3.1%	38.8%	36.7%	46.1%	44.2%	84.9%	80.9%	1.5%	0.9%	0.4%	0.7%	10.3%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	2.9%	3.1%	38.8%	36.7%	46.1%	44.2%	84.9%	80.9%	1.5%	0.9%	0.4%	0.7%	10.3%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Dolly Varden																					
Gear type	50.0%	20.2%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.9%	11.0%
Resource	96.2%	96.2%	0.0%	0.0%	3.8%	3.8%	3.8%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	31.6%	10.6%	0.0%	0.0%	1.3%	0.4%	1.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	32.9%	11.0%
Steelhead																					
Gear type	50.0%	79.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	67.1%	89.0%
Resource	47.2%	47.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.8%	52.8%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	31.6%	42.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.4%	47.0%	0.0%	0.0%	0.0%	0.0%	0.0%	67.1%	89.0%
2005 total, nonsalmon fishes																					
Gear type	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	63.3%	52.6%	0.0%	0.0%	1.3%	0.4%	1.3%	0.4%	0.0%	0.0%	0.0%	0.0%	35.4%	47.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	63.3%	52.6%	0.0%	0.0%	1.3%	0.4%	1.3%	0.4%	0.0%	0.0%	0.0%	0.0%	35.4%	47.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-8.—Estimated number and pounds of salmon and nonsalmon fishes harvested, by gear type and method, Larsen Bay, 2004 and 2005.

Resource	Removed from commercial catch		Subsistence methods								By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method				
			Gillnet		Seine		Any subsistence method													
	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean						Mean	Mean	Mean	Mean	Mean
Harvest units	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household		
<b>2004</b>																				
Chum salmon																				
Numbers	35.6	1.1	17.8	0.6	0.0	0.0	17.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	53.3	1.7
Pounds	188.4	5.9	94.2	2.9	0.0	0.0	94.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	282.7	8.8
Coho salmon																				
Numbers	92.4	2.9	106.7	3.3	906.7	28.3	1,013.3	31.7	0.0	0.0	0.0	0.0	519.1	16.2	0.0	0.0	0.0	0.0	1,624.9	50.8
Pounds	531.6	16.6	613.3	19.2	5,213.3	162.9	5,826.7	182.1	0.0	0.0	0.0	0.0	2,984.9	93.3	0.0	0.0	0.0	0.0	9,343.1	292.0
Chinook salmon																				
Numbers	0.0	0.0	0.0	0.0	28.4	0.9	28.4	0.9	0.0	0.0	3.6	0.1	177.8	5.6	0.0	0.0	0.0	0.0	209.8	6.6
Pounds	0.0	0.0	0.0	0.0	209.4	6.5	209.4	6.5	0.0	0.0	26.2	0.8	1,308.4	40.9	0.0	0.0	0.0	0.0	1,544.0	48.2
Pink salmon																				
Numbers	88.9	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	88.9	2.8	0.0	0.0	0.0	0.0	177.8	5.6
Pounds	230.2	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	230.2	7.2	0.0	0.0	0.0	0.0	460.4	14.4
Sockeye salmon																				
Numbers	384.0	12.0	568.9	17.8	2,755.6	86.1	3,324.4	103.9	0.0	0.0	0.0	0.0	405.3	12.7	0.0	0.0	0.0	0.0	4,113.8	128.6
Pounds	1,524.5	47.6	2,258.5	70.6	10,939.6	341.9	13,198.0	412.4	0.0	0.0	0.0	0.0	1,609.2	50.3	0.0	0.0	0.0	0.0	16,331.7	510.4
2004 total, salmon																				
Numbers	600.9	18.8	693.3	21.7	3,690.7	115.3	4,384.0	137.0	0.0	0.0	3.6	0.1	1,191.1	37.2	0.0	0.0	0.0	0.0	6,179.6	193.1
Pounds	2,474.7	77.3	2,966.0	92.7	16,362.2	511.3	19,328.3	604.0	0.0	0.0	26.2	0.8	6,132.7	191.6	0.0	0.0	0.0	0.0	27,961.9	873.8
Dolly Varden																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.7	1.3	0.0	0.0	0.0	0.0	42.7	1.3
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.7	1.9	0.0	0.0	0.0	0.0	59.7	1.9
Rainbow trout																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	174.2	5.4	0.0	0.0	0.0	0.0	174.2	5.4
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	243.9	7.6	0.0	0.0	0.0	0.0	243.9	7.6
Steelhead																				
Numbers	0.0	0.0	35.6	1.1	17.8	0.6	53.3	1.7	0.0	0.0	0.0	0.0	259.6	8.1	0.0	0.0	0.0	0.0	312.9	9.8
Pounds	0.0	0.0	196.6	6.1	98.3	3.1	294.9	9.2	0.0	0.0	0.0	0.0	1,435.3	44.9	0.0	0.0	0.0	0.0	1,730.3	54.1
2004 total, nonsalmon fishes																				
Numbers	0.0	0.0	35.6	1.1	17.8	0.6	53.3	1.7	0.0	0.0	0.0	0.0	476.4	14.9	0.0	0.0	0.0	0.0	529.8	16.6
Pounds	0.0	0.0	196.6	6.1	98.3	3.1	294.9	9.2	0.0	0.0	0.0	0.0	1,739.0	54.3	0.0	0.0	0.0	0.0	2,033.9	63.6

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Appendix Table E-8. Page 2 of 2.

Resource	Removed from commercial catch		Subsistence methods										Any method								
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing				
	Harvest units	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	
	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	
<b>2005</b>																					
Chum salmon																					
Numbers	21.1	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.1	0.6
Pounds	112.1	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	112.1	3.0
Coho salmon																					
Numbers	10.6	0.3	28.5	0.8	37.0	1.0	65.5	1.8	0.0	0.0	0.0	0.0	255.8	6.9	0.0	0.0	0.0	0.0	0.0	331.9	9.0
Pounds	60.8	1.6	164.1	4.4	212.8	5.8	376.9	10.2	0.0	0.0	0.0	0.0	1,471.0	39.8	0.0	0.0	0.0	0.0	0.0	1,908.7	51.6
Chinook salmon																					
Numbers	0.0	0.0	0.0	0.0	8.5	0.2	8.5	0.2	0.0	0.0	11.6	0.3	33.8	0.9	0.0	0.0	0.0	0.0	0.0	53.9	1.5
Pounds	0.0	0.0	0.0	0.0	62.2	1.7	62.2	1.7	0.0	0.0	85.6	2.3	249.0	6.7	0.0	0.0	0.0	0.0	0.0	396.8	10.7
Pink salmon																					
Numbers	0.0	0.0	21.1	0.6	0.0	0.0	21.1	0.6	44.6	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.7	1.8
Pounds	0.0	0.0	54.8	1.5	0.0	0.0	54.8	1.5	115.5	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	170.2	4.6
Sockeye salmon																					
Numbers	52.9	1.4	1,082.5	29.3	1,300.3	35.1	2,382.8	64.4	0.0	0.0	0.0	0.0	10.6	0.3	0.0	0.0	0.0	0.0	0.0	2,446.2	66.1
Pounds	209.8	5.7	4,297.6	116.2	5,162.1	139.5	9,459.7	255.7	0.0	0.0	0.0	0.0	42.0	1.1	0.0	0.0	0.0	0.0	0.0	9,711.5	262.5
2005 total, salmon																					
Numbers	84.6	2.3	1,132.2	30.6	1,345.7	36.4	2,477.9	67.0	44.6	1.2	11.6	0.3	300.2	8.1	0.0	0.0	0.0	0.0	0.0	2,919.0	78.9
Pounds	382.7	10.3	4,516.5	122.1	5,437.1	146.9	9,953.6	269.0	115.5	3.1	85.6	2.3	1,762.0	47.6	0.0	0.0	0.0	0.0	0.0	12,299.3	332.4
Dolly Varden																					
Numbers	26.4	0.7	0.0	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5	0.7
Pounds	37.0	1.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	38.5	1.0
Steelhead																					
Numbers	26.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.6	0.8	0.0	0.0	0.0	0.0	0.0	56.0	1.5
Pounds	146.2	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	163.7	4.4	0.0	0.0	0.0	0.0	0.0	309.8	8.4
2005 total, nonsalmon fishes																					
Numbers	52.9	1.4	0.0	0.0	1.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	29.6	0.8	0.0	0.0	0.0	0.0	0.0	83.5	2.3
Pounds	183.2	5.0	0.0	0.0	1.5	0.0	0.0	0.0	1.5	0.0	0.0	0.0	163.7	4.4	0.0	0.0	0.0	0.0	0.0	348.3	9.4

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-9.—Percentage of households harvesting salmon and nonsalmon fishes by gear type and species, Larsen Bay, 2004 and 2005.

Resource	Removed from commercial catch	Subsistence methods								
		Gillnet	Seine	Any subsistence method	By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method
<b>2004</b>										
Chum salmon	11.1%	11.1%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%
Coho salmon	11.1%	11.1%	22.2%	22.2%	0.0%	0.0%	55.6%	0.0%	0.0%	66.7%
Chinook salmon	0.0%	0.0%	22.2%	22.2%	0.0%	11.1%	22.2%	0.0%	0.0%	44.4%
Pink salmon	22.2%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%	33.3%
Sockeye salmon	22.2%	22.2%	22.2%	33.3%	0.0%	0.0%	33.3%	0.0%	0.0%	77.8%
2004 total, salmon	33.3%	33.3%	33.3%	44.4%	0.0%	11.1%	66.7%	0.0%	0.0%	88.9%
Dolly Varden	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%	22.2%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%	22.2%
Steelhead	0.0%	11.1%	11.1%	22.2%	0.0%	0.0%	33.3%	0.0%	0.0%	33.3%
2004 total, nonsalmon fishes	0.0%	11.1%	11.1%	22.2%	0.0%	0.0%	44.4%	0.0%	0.0%	44.4%
<b>2005</b>										
Chum salmon	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%
Coho salmon	2.9%	8.6%	5.7%	14.3%	0.0%	0.0%	28.6%	0.0%	0.0%	40.0%
Chinook salmon	0.0%	0.0%	5.7%	5.7%	0.0%	5.7%	14.3%	0.0%	0.0%	22.9%
Pink salmon	0.0%	2.9%	0.0%	3.0%	17.1%	0.0%	0.0%	0.0%	0.0%	20.0%
Sockeye salmon	2.9%	22.9%	25.7%	45.7%	0.0%	0.0%	2.9%	0.0%	0.0%	51.4%
2005 total, salmon	2.9%	25.7%	25.7%	45.7%	17.1%	5.7%	31.4%	0.0%	0.0%	62.9%
Dolly Varden	2.9%	0.0%	2.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	5.7%
Steelhead	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	8.6%	0.0%	0.0%	11.4%
2005 total, nonsalmon fishes	2.9%	0.0%	2.9%	2.9%	0.0%	0.0%	8.6%	0.0%	0.0%	14.3%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-10.—Estimated number of salmon and nonsalmon fishes harvested by month, Larsen Bay, 2004 and 2005.

	Estimated number and percentage of total harvest													
	January		February		March		April		May		June		July	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	17.8	33.3%
Coho salmon	14.2	0.9%	14.2	0.9%	14.2	0.9%	14.2	0.9%	387.6	23.9%	14.2	0.9%	14.2	0.9%
Chinook salmon	14.2	6.8%	14.2	6.8%	14.2	6.8%	14.2	6.8%	14.2	6.8%	49.8	23.7%	14.2	6.8%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	17.8	10.0%
Sockeye salmon	56.9	1.4%	71.1	1.7%	49.8	1.2%	14.2	0.3%	14.2	0.3%	1,191.1	29.0%	476.4	11.6%
2004 total, salmon	85.3	1.4%	99.6	1.6%	78.2	1.3%	42.7	0.7%	416.0	6.7%	1,255.1	20.3%	540.4	8.7%
Dolly Varden	7.1	16.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	17.8	41.7%	10.7	25.0%	0.0	0.0%
Rainbow trout	14.2	8.2%	14.2	8.2%	14.2	8.2%	14.2	8.2%	14.2	8.2%	14.2	8.2%	14.2	8.2%
Steelhead	14.2	4.5%	14.2	4.5%	14.2	4.5%	14.2	4.5%	14.2	4.5%	32.0	10.2%	14.2	4.5%
2004 total, nonsalmon fishes	35.6	6.7%	28.4	5.4%	28.4	5.4%	28.4	5.4%	46.2	8.7%	56.9	10.7%	28.4	5.4%
<b>2005</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	21.1	100.0%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	5.3	1.6%	118.4	35.7%
Chinook salmon	8.5	15.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.2	7.8%	14.8	27.5%	10.6	19.6%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	43.3	65.9%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,104.7	45.2%	851.0	34.8%	102.5	4.2%
2005 total, salmon	8.5	0.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,108.9	38.0%	871.1	29.8%	296.0	10.1%
Dolly Varden	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	26.4	96.2%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	10.6	18.9%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	26.4	47.2%
2005 total, nonsalmon fishes	0.0	0.0%	10.6	12.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	52.9	63.3%

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**Appendix Table E-10. Page 2 of 2.**

	Estimated number and percentage of total harvest													
	August		September		October		November		December		Unknown month		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	35.6	66.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	53.3	100.0%
Coho salmon	35.6	2.2%	725.3	44.6%	327.1	20.1%	49.8	3.1%	14.2	0.9%	0.0	0.0%	1,624.9	100.0%
Chinook salmon	14.2	6.8%	14.2	6.8%	14.2	6.8%	17.8	8.5%	14.2	6.8%	0.0	0.0%	209.8	100.0%
Pink salmon	160.0	90.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	177.8	100.0%
Sockeye salmon	120.9	2.9%	2,076.4	50.5%	14.2	0.3%	14.2	0.3%	14.2	0.3%	0.0	0.0%	4,113.8	100.0%
2004 total, salmon	366.2	5.9%	2,816.0	45.6%	355.6	5.8%	81.8	1.3%	42.7	0.7%	0.0	0.0%	6,179.6	100.0%
Dolly Varden	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	7.1	16.7%	0.0	0.0%	42.7	100.0%
Rainbow trout	14.2	8.2%	14.2	8.2%	14.2	8.2%	14.2	8.2%	17.8	10.2%	0.0	0.0%	174.2	100.0%
Steelhead	14.2	4.5%	14.2	4.5%	49.8	15.9%	92.4	29.5%	24.9	8.0%	0.0	0.0%	312.9	100.0%
2004 total, nonsalmon fishes	28.4	5.4%	28.4	5.4%	64.0	12.1%	106.7	20.1%	49.8	9.4%	0.0	0.0%	529.8	100.0%
<b>2005</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	21.1	100.0%
Coho salmon	139.5	42.0%	68.7	20.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	331.9	100.0%
Chinook salmon	5.3	9.8%	0.0	0.0%	0.0	0.0%	10.6	19.6%	0.0	0.0%	0.0	0.0%	53.9	100.0%
Pink salmon	21.1	32.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1.2	1.9%	65.7	100.0%
Sockeye salmon	92.0	3.8%	296.0	12.1%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	2,446.2	100.0%
2005 total, salmon	257.9	8.8%	364.7	12.5%	0.0	0.0%	10.6	0.4%	0.0	0.0%	1.2	0.0%	2,919.0	100.0%
Dolly Varden	1.1	3.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	27.5	100.0%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	19.0	34.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	56.0	100.0%
2005 total, nonsalmon fishes	1.1	1.3%	0.0	0.0%	19.0	22.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	83.5	100.0%

Source ADF&G Division of Subsistence household surveys, 2005 and 2006.

Appendix Table E-11.—Estimated harvests and uses of salmon and nonsalmon fishes in Old Harbor, 2004 and 2005.

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit (±)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit	Mean household		Per capita <sup>a</sup>
<b>2004</b>													
Chum salmon	51.7%	37.9%	34.5%	37.9%	41.4%	4,545.4	59.0	12.8	857.6	Ind	11.1	2.4	54.7%
Coho salmon	100.0%	89.7%	89.7%	55.2%	93.1%	20,565.0	267.1	57.8	3,576.5	Ind	46.4	10.1	27.8%
Chinook salmon	34.5%	10.3%	6.9%	31.0%	17.2%	117.3	1.5	0.3	15.9	Ind	0.2	0.0	118.3%
Pink salmon	82.8%	72.4%	65.5%	48.3%	72.4%	5,795.6	75.3	16.3	2,237.7	Ind	29.1	6.3	42.4%
Sockeye salmon	93.1%	82.8%	79.3%	55.2%	65.5%	13,728.8	178.3	38.6	3,458.1	Ind	44.9	9.7	42.5%
2004 subtotal, salmon	100.0%	89.7%	89.7%	75.9%	96.6%	44,752.0	581.2	125.8	10,145.9	Ind	131.8	28.5	25.8%
Dolly Varden	3.4%	3.4%	3.4%	0.0%	0.0%	22.3	0.3	0.1	15.9	Ind	0.2	0.0	161.0%
Rainbow trout	0.0%	3.4%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	0.0%
Steelhead	3.4%	6.9%	3.4%	0.0%	0.0%	44.0	0.6	0.1	8.0	Ind	0.1	0.0	161.0%
2004 subtotal, nonsalmon fishes	3.4%	6.9%	3.4%	0.0%	0.0%	66.4	0.9	0.2	23.9	Ind	0.3	0.1	161.0%
2004 total, all fish	100.0%	89.7%	89.7%	75.9%	96.6%	44,818.3	582.1	126.0	10,169.8	Ind	132.1	28.6	25.8%
<b>2005</b>													
Chum salmon	38.8%	34.7%	34.7%	20.4%	26.5%	1,928.7	25.7	9.4	363.9	Ind	4.9	37.0	35.3%
Coho salmon	93.9%	79.6%	79.6%	59.2%	69.4%	15,208.2	202.8	74.1	2,644.9	Ind	35.3	1.8	21.9%
Chinook salmon	55.1%	18.4%	16.3%	51.0%	22.4%	1,351.8	18.0	6.6	183.7	Ind	2.4	12.9	65.1%
Pink salmon	77.6%	57.1%	57.1%	55.1%	51.0%	5,050.5	67.3	24.6	1,950.0	Ind	26.0	0.9	27.4%
Sockeye salmon	89.8%	61.2%	61.2%	61.2%	61.2%	9,679.9	129.1	47.2	2,438.3	Ind	32.5	9.5	27.9%
2005 subtotal, salmon	95.9%	79.6%	79.6%	77.6%	75.5%	33,219.1	442.9	162.0	7,580.7	Ind	101.1	37.2	21.0%
Dolly Varden	10.2%	6.1%	6.1%	4.1%	2.0%	49.3	0.7	0.2	35.2	Ind	0.5	0.2	73.4%
Dolly Varden fingerling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.2	0.0%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.1	0.0%
Steelhead	8.2%	8.2%	8.2%	0.0%	4.1%	67.7	0.9	0.3	12.2	Ind	0.2	0.0	61.3%

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**Appendix Table E-11. Page 2 of 2.**

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit ( $\pm$ )	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit	Mean household		Per capita <sup>a</sup>
2005 subtotal, nonsalmon fishes	18.4%	14.3%	14.3%	4.1%	6.1%	117.0	1.6	0.6	47.4	Ind	0.6	11.9	55.7%
2005 total, all fish	95.9%	79.6%	79.6%	77.6%	75.5%	33,336.1	444.5	162.5	7,628.2	Ind	101.7	37.2	20.9%

a. Based on population determined by ADF&G survey conducted in winter and spring 2005.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-12.—Percentage of total estimated harvest of salmon and nonsalmon fishes, by gear type and resource, Old Harbor, 2004 and 2005.

Resource	Removed from commercial catch		Subsistence methods										Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Gillnet		Seine		Any subsistence method		By hand													
	Percentage base	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
<b>2004</b>																						
Chum salmon																						
Gear type	0.0%	0.0%	6.3%	7.9%	0.0%	0.0%	5.0%	6.4%	0.0%	0.0%	0.0%	0.0%	22.7%	28.5%	0.0%	0.0%	0.0%	0.0%	8.5%	10.2%		
Resource	0.0%	0.0%	44.3%	44.3%	0.0%	0.0%	44.0%	44.3%	0.0%	0.0%	0.0%	0.0%	55.7%	55.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.0%	0.0%	3.7%	4.5%	0.0%	0.0%	4.0%	4.5%	0.0%	0.0%	0.0%	0.0%	4.7%	5.7%	0.0%	0.0%	0.0%	0.0%	8.5%	10.2%		
Coho salmon																						
Gear type	92.4%	94.6%	25.7%	34.9%	64.5%	78.1%	32.6%	43.3%	0.0%	0.0%	93.5%	93.2%	23.6%	32.2%	0.0%	0.0%	0.0%	0.0%	35.3%	46.0%		
Resource	9.0%	9.0%	43.1%	43.1%	23.4%	23.4%	66.4%	66.4%	0.0%	0.0%	10.7%	10.7%	13.9%	13.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	3.2%	4.1%	15.2%	19.8%	8.2%	10.7%	23.4%	30.5%	0.0%	0.0%	3.8%	4.9%	4.9%	6.4%	0.0%	0.0%	0.0%	0.0%	35.3%	46.0%		
Chinook salmon																						
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%		
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%		
Pink salmon																						
Gear type	0.0%	0.0%	19.6%	12.0%	26.6%	14.5%	20.9%	12.5%	0.0%	0.0%	0.0%	0.0%	34.1%	20.9%	0.0%	0.0%	0.0%	0.0%	22.1%	13.0%		
Resource	0.0%	0.0%	52.5%	52.5%	15.4%	15.4%	68.0%	68.0%	0.0%	0.0%	0.0%	0.0%	32.0%	32.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.0%	0.0%	11.6%	6.8%	3.4%	2.0%	15.0%	8.8%	0.0%	0.0%	0.0%	0.0%	7.1%	4.1%	0.0%	0.0%	0.0%	0.0%	22.1%	13.0%		
Sockeye salmon																						
Gear type	7.6%	5.4%	48.3%	45.2%	8.9%	7.4%	41.3%	37.9%	0.0%	0.0%	2.6%	1.8%	19.6%	18.4%	0.0%	0.0%	0.0%	0.0%	34.1%	30.7%		
Resource	0.8%	0.8%	83.7%	83.7%	3.3%	3.3%	87.0%	87.0%	0.0%	0.0%	0.3%	0.3%	11.9%	11.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.3%	0.2%	28.5%	25.7%	1.1%	1.0%	29.7%	26.7%	0.0%	0.0%	0.1%	0.1%	4.1%	3.7%	0.0%	0.0%	0.0%	0.0%	34.1%	30.7%		
2004 total, salmon																						
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Resource	3.4%	4.4%	59.0%	56.8%	12.8%	13.8%	71.8%	70.5%	0.0%	0.0%	4.0%	5.3%	20.7%	19.8%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	3.4%	4.4%	59.0%	56.8%	12.8%	13.8%	71.8%	70.5%	0.0%	0.0%	4.0%	5.3%	20.7%	19.8%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		

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Resource	Removed from commercial catch		Subsistence methods										Rod and reel		Charter catch		Missing		Any method	
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling									
	Percentage base	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
<b>Dolly Varden</b>																				
Gear type	0.0%	0.0%	66.7%	33.6%	0.0%	0.0%	66.7%	33.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	33.6%
Resource	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	66.7%	33.6%	0.0%	0.0%	66.7%	33.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	66.7%	33.6%
<b>Steelhead</b>																				
Gear type	0.0%	0.0%	33.3%	66.4%	0.0%	0.0%	33.3%	66.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.4%
Resource	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	33.3%	66.4%	0.0%	0.0%	33.3%	66.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.4%
<b>2004 total, nonsalmon fishes</b>																				
Gear type	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>2005</b>																				
<b>Chum salmon</b>																				
Gear type	0.0%	0.0%	3.1%	3.9%	2.4%	3.3%	2.8%	3.7%	0.0%	0.0%	0.0%	0.0%	11.8%	12.3%	0.0%	0.0%	44.2%	61.9%	4.8%	5.8%
Resource	0.0%	0.0%	29.4%	29.4%	13.5%	13.5%	42.9%	42.9%	0.0%	0.0%	0.0%	0.0%	55.1%	55.1%	0.0%	0.0%	2.0%	2.0%	100.0%	100.0%
Total	0.0%	0.0%	1.4%	1.7%	0.6%	0.8%	2.1%	2.5%	0.0%	0.0%	0.0%	0.0%	2.6%	3.2%	0.0%	0.0%	0.1%	0.1%	4.8%	5.8%
<b>Coho salmon</b>																				
Gear type	0.0%	0.0%	20.4%	28.0%	36.7%	53.9%	26.4%	37.1%	0.0%	0.0%	42.0%	36.4%	65.4%	73.6%	0.0%	0.0%	0.0%	0.0%	34.9%	45.8%
Resource	0.0%	0.0%	26.9%	26.9%	28.0%	28.0%	54.8%	54.8%	0.0%	0.0%	3.4%	3.4%	41.8%	41.8%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	9.4%	12.3%	9.8%	12.8%	19.1%	25.1%	0.0%	0.0%	1.2%	1.5%	14.6%	19.2%	0.0%	0.0%	0.0%	0.0%	34.9%	45.8%
<b>Chinook salmon</b>																				
Gear type	0.0%	0.0%	1.0%	1.7%	0.0%	0.0%	0.6%	1.1%	0.0%	0.0%	56.5%	62.7%	1.8%	2.6%	0.0%	0.0%	0.0%	0.0%	2.4%	4.1%
Resource	0.0%	0.0%	18.3%	18.3%	0.0%	0.0%	18.3%	18.3%	0.0%	0.0%	65.0%	65.0%	16.7%	16.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.4%	0.7%	0.0%	0.0%	0.4%	0.7%	0.0%	0.0%	1.6%	2.6%	0.4%	0.7%	0.0%	0.0%	0.0%	0.0%	2.4%	4.1%

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Appendix Table E-12. Page 3 of 3.

Resource	Removed from commercial catch		Subsistence methods										Charter catch		Missing		Any method			
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling								Rod and reel	
	Percentage base	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
Pink salmon																				
Gear type	0.0%	0.0%	15.7%	9.7%	54.1%	35.8%	29.8%	18.9%	0.0%	0.0%	0.0%	0.0%	17.9%	9.1%	0.0%	0.0%	55.8%	38.1%	25.7%	15.2%
Resource	0.0%	0.0%	28.1%	28.1%	55.9%	55.9%	84.0%	84.0%	0.0%	0.0%	0.0%	0.0%	15.5%	15.5%	0.0%	0.0%	0.5%	0.5%	100.0%	100.0%
Total	0.0%	0.0%	7.2%	4.3%	14.4%	8.5%	21.6%	12.8%	0.0%	0.0%	0.0%	0.0%	4.0%	2.4%	0.0%	0.0%	0.1%	0.1%	25.7%	15.2%
Sockeye salmon																				
Gear type	100.0%	100.0%	59.8%	56.7%	6.8%	6.9%	40.4%	39.3%	0.0%	0.0%	1.4%	0.9%	3.1%	2.4%	0.0%	0.0%	0.0%	0.0%	32.2%	29.1%
Resource	6.6%	6.6%	85.5%	85.5%	5.6%	5.6%	91.1%	91.1%	0.0%	0.0%	0.1%	0.1%	2.1%	2.1%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	2.1%	1.9%	27.5%	24.9%	1.8%	1.6%	29.3%	26.6%	0.0%	0.0%	0.0%	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%	32.2%	29.1%
2005 total, salmon																				
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
Resource	2.1%	1.9%	46.0%	43.9%	26.6%	23.7%	72.5%	67.7%	0.0%	0.0%	2.8%	4.2%	22.3%	26.0%	0.0%	0.0%	0.2%	0.2%	100.0%	100.0%
Total	2.1%	1.9%	46.0%	43.9%	26.6%	23.7%	72.5%	67.7%	0.0%	0.0%	2.8%	4.2%	22.3%	26.0%	0.0%	0.0%	0.2%	0.2%	100.0%	100.0%
Dolly Varden																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	74.2%	42.1%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	47.8%	47.8%	0.0%	0.0%	52.2%	52.2%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	35.5%	20.1%	0.0%	0.0%	38.7%	22.0%	74.2%	42.1%
Steelhead																				
Gear type	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.8%	57.9%
Resource	38.0%	37.5%	62.5%	62.5%	0.0%	0.0%	62.5%	62.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	9.7%	21.7%	16.1%	36.2%	0.0%	0.0%	16.1%	36.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.8%	57.9%
2005 total, nonsalmon fishes																				
Gear type	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
Resource	9.7%	21.7%	16.1%	36.2%	0.0%	0.0%	16.1%	36.2%	0.0%	0.0%	0.0%	0.0%	35.5%	20.1%	0.0%	0.0%	38.7%	22.0%	100.0%	100.0%
Total	9.7%	21.7%	16.1%	36.2%	0.0%	0.0%	16.1%	36.2%	0.0%	0.0%	0.0%	0.0%	35.5%	20.1%	0.0%	0.0%	38.7%	22.0%	100.0%	100.0%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-13.—Estimated number and pounds of salmon and nonsalmon fishes harvested, by gear type and method, Old Harbor, 2004 and 2005.

Resource	Removed from commercial catch		Subsistence methods						By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
	Total	Mean household	Gillnet		Seine		Any subsistence method		Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household
			Total	Mean household	Total	Mean household	Total	Mean household												
2004																				
Chum salmon																				
Numbers	0.0	0.0	379.7	4.9	0.0	0.0	379.7	4.9	0.0	0.0	0.0	0.0	477.9	6.2	0.0	0.0	0.0	0.0	857.6	11.1
Pounds	0.0	0.0	2012.4	26.1	0.0	0.0	2,012.4	26.1	0.0	0.0	0.0	0.0	2,533.0	32.9	0.0	0.0	0.0	0.0	4,545.4	59.0
Coho salmon																				
Numbers	321.3	4.2	1,540.0	20.0	836.4	10.9	2,376.4	30.9	0.0	0.0	382.3	5.0	496.5	6.4	0.0	0.0	0.0	0.0	3,576.5	46.4
Pounds	1,847.3	24.0	8,855.0	115.0	4,809.2	62.5	13,664.2	177.5	0.0	0.0	2,198.5	28.6	2,855.0	37.1	0.0	0.0	0.0	0.0	20,565.0	267.1
Chinook salmon																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.2
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	117.3	1.5	0.0	0.0	0.0	0.0	0.0	0.0	117.3	1.5
Pink salmon																				
Numbers	0.0	0.0	1,175.6	15.3	345.2	4.5	1,520.8	19.8	0.0	0.0	0.0	0.0	716.9	9.3	0.0	0.0	0.0	0.0	2,237.7	29.1
Pounds	0.0	0.0	3,044.8	39.5	894.0	11.6	3,938.8	51.2	0.0	0.0	0.0	0.0	1,856.8	24.1	0.0	0.0	0.0	0.0	5,795.6	75.3
Sockeye salmon																				
Numbers	26.6	0.3	2,894.1	37.6	115.3	1.5	3,009.4	39.1	0.0	0.0	10.6	0.1	411.6	5.3	0.0	0.0	0.0	0.0	3,458.1	44.9
Pounds	105.4	1.4	11,489.7	149.2	457.6	5.9	11,947.4	155.2	0.0	0.0	42.2	0.5	1,633.9	21.2	0.0	0.0	0.0	0.0	13,728.8	178.3
2004 total, salmon																				
Numbers	347.8	4.5	5,989.4	77.8	1,296.8	16.8	7,286.3	94.6	0.0	0.0	408.9	5.3	2,102.9	27.3	0.0	0.0	0.0	0.0	10,145.9	131.8
Pounds	1,952.7	25.4	25,401.9	329.9	6,160.8	80.0	31,562.7	409.9	0.0	0.0	2,357.9	30.6	8,878.6	115.3	0.0	0.0	0.0	0.0	44,752.0	581.2
Dolly Varden																				
Numbers	0.0	0.0	15.9	0.2	0.0	0.0	15.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9	0.2
Pounds	0.0	0.0	22.3	0.3	0.0	0.0	22.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.3	0.3
Steelhead																				
Numbers	0.0	0.0	8.0	0.1	0.0	0.0	8.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.1
Pounds	0.0	0.0	44.0	0.6	0.0	0.0	44.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	44.0	0.6
2004 total, nonsalmon fishes																				
Numbers	0.0	0.0	23.9	0.3	0.0	0.0	23.9	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.9	0.3
Pounds	0.0	0.0	66.4	0.9	0.0	0.0	66.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.4	0.9

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Appendix Table E-13. Page 2 of 2.

Resource	Removed from commercial catch		Subsistence methods																	
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household
2005																				
Chum salmon																				
Numbers	0.0	0.0	107.1	1.4	49.0	0.7	156.1	2.1	0.0	0.0	0.0	0.0	200.5	2.7	0.0	0.0	7.3	0.1	363.9	4.9
Pounds	0.0	0.0	567.9	7.6	259.6	3.5	827.4	11	0.0	0.0	0.0	0.0	1,062.7	14.2	0.0	0.0	38.6	0.5	1,928.7	25.7
Coho salmon																				
Numbers	0.0	0.0	710.2	9.5	739.3	9.9	1,449.5	19.3	0.0	0.0	88.8	1.2	1,106.6	14.8	0.0	0.0	0.0	0.0	2,644.9	35.3
Pounds	0.0	0.0	4,083.7	54.4	4,250.9	56.7	8,334.6	111.1	0.0	0.0	510.5	6.8	6,363.1	84.8	0.0	0.0	0.0	0.0	15,208.2	202.8
Chinook salmon																				
Numbers	0.0	0.0	33.7	0.4	0.0	0.0	33.7	0.4	0.0	0.0	119.4	1.6	30.6	0.4	0.0	0.0	0.0	0.0	183.7	2.4
Pounds	0.0	0.0	247.8	3.3	0.0	0.0	247.8	3.3	0.0	0.0	878.7	11.7	225.3	3.0	0.0	0.0	0.0	0.0	1,351.8	18.0
Pink salmon																				
Numbers	0.0	0.0	548.0	7.3	1,089.8	14.5	1,637.8	21.8	0.0	0.0	0.0	0.0	303.1	4.0	0.0	0.0	9.2	0.1	1,950.0	26.0
Pounds	0.0	0.0	1,419.2	18.9	2,822.6	37.6	4,241.8	56.6	0.0	0.0	0.0	0.0	784.9	10.5	0.0	0.0	23.8	0.3	5,050.5	67.3
Sockeye salmon																				
Numbers	160.7	2.1	2,084.7	27.8	137.8	1.8	2,222.4	29.6	0.0	0.0	3.1	0.0	52.0	0.7	0.0	0.0	0.0	0.0	2,438.3	32.5
Pounds	638.0	8.5	8,276.2	110.3	546.9	7.3	8,823.1	117.6	0.0	0.0	12.2	0.2	206.6	2.8	0.0	0.0	0.0	0.0	9,679.9	129.1
2005 total, salmon																				
Numbers	160.7	2.1	3,483.7	46.4	2,015.8	26.9	5,499.5	73.3	0.0	0.0	211.2	2.8	1,692.9	22.6	0.0	0.0	16.5	0.2	7,580.7	101.1
Pounds	638.0	8.5	14,594.8	194.6	7,879.9	105.1	22,474.8	299.7	0.0	0.0	1,401.3	18.7	8,642.7	115.2	0.0	0.0	62.4	0.8	33,219.1	442.9
Dolly Varden																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.8	0.2	0.0	0.0	18.4	0.2	35.2	0.5
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.6	0.3	0.0	0.0	25.7	0.3	49.3	0.7
Steelhead																				
Numbers	4.6	0.1	7.7	0.1	0.0	0.0	0.0	0.0	7.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.2
Pounds	25.4	0.3	42.3	0.6	0.0	0.0	0.0	0.0	42.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.7	0.9
2005 total, nonsalmon fishes																				
Numbers	4.6	0.1	7.7	0.1	0.0	0.0	0.0	0.0	7.7	0.1	0.0	0.0	16.8	0.2	0.0	0.0	18.4	0.2	47.4	0.6
Pounds	25.4	0.3	42.3	0.6	0.0	0.0	0.0	0.0	42.3	0.6	0.0	0.0	23.6	0.3	0.0	0.0	25.7	0.3	117.0	1.6

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-14.—Percentage of households harvesting salmon and nonsalmon fishes by gear type and species, Old Harbor, 2004 and 2005.

Resource	Removed from commercial catch	Subsistence methods				By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method
		Gillnet	Seine	Any subsistence method							
<b>2004</b>											
Chum salmon	0.0%	13.8%	0.0%	13.8%	0.0%	0.0%	20.7%	0.0%	0.0%	34.5%	
Coho salmon	10.3%	31.0%	20.7%	51.7%	0.0%	24.1%	44.8%	0.0%	0.0%	89.7%	
Chinook salmon	0.0%	0.0%	0.0%	0.0%	0.0%	6.9%	0.0%	0.0%	0.0%	6.9%	
Pink salmon	0.0%	31.0%	6.9%	37.9%	0.0%	0.0%	27.6%	0.0%	0.0%	65.5%	
Sockeye salmon	3.4%	58.6%	3.4%	58.6%	0.0%	3.4%	20.7%	0.0%	0.0%	79.3%	
2004 total, salmon	10.3%	62.1%	31.0%	72.4%	0.0%	31.0%	55.2%	0.0%	0.0%	89.7%	
Dolly Varden	0.0%	3.4%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	
Steelhead	0.0%	3.4%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	
2004 total, nonsalmon fishes	0.0%	3.4%	0.0%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	3.4%	
<b>2005</b>											
Chum salmon	0.0%	6.1%	6.1%	12.2%	0.0%	0.0%	20.4%	0.0%	2.0%	34.7%	
Coho salmon	0.0%	18.4%	12.2%	30.6%	0.0%	6.1%	59.2%	0.0%	0.0%	79.6%	
Chinook salmon	0.0%	4.1%	0.0%	4.1%	0.0%	10.2%	2.0%	0.0%	0.0%	16.3%	
Pink salmon	0.0%	14.3%	20.4%	34.7%	0.0%	0.0%	22.4%	0.0%	2.0%	57.1%	
Sockeye salmon	4.1%	49.0%	4.1%	53.1%	0.0%	2.0%	6.1%	0.0%	0.0%	61.2%	
2005 total, salmon	4.1%	55.1%	24.5%	61.2%	0.0%	16.3%	63.3%	0.0%	2.0%	79.6%	
Dolly Varden	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	0.0%	2.0%	6.1%	
Steelhead	2.0%	6.1%	0.0%	6.1%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2%	
2005 total, nonsalmon fishes	2.0%	6.1%	0.0%	6.1%	0.0%	0.0%	4.1%	0.0%	2.0%	14.3%	

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-15.—Estimated number of salmon and nonsalmon fishes harvested by month, Old Harbor, 2004 and 2005.

Resource		Estimated number and percentage of total harvest																			
		April		May		June		July		August		September		October		December		Unknown month		Total	
		Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>																					
Chum salmon	0.0	0.0%	0.0	0.0%	132.8	15.5%	310.7	36.2%	414.2	48.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	857.6	100.0%	
Coho salmon	0.0	0.0%	0.0	0.0%	159.3	4.5%	812.5	22.7%	1,197.5	33.5%	1,340.9	37.5%	66.4	1.9%	0.0	0.0%	0.0	0.0%	3,576.5	100.0%	
Chinook salmon	0.0	0.0%	2.7	16.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	2.7	16.7%	10.6	66.7%	15.9	100.0%	
Pink salmon	0.0	0.0%	0.0	0.0%	201.8	9.0%	924.0	41.3%	807.2	36.1%	265.5	11.9%	0.0	0.0%	0.0	0.0%	39.2	1.8%	2,237.7	100.0%	
Sockeye salmon	0.0	0.0%	639.9	18.5%	2,259.6	65.3%	244.3	7.1%	66.4	1.9%	79.7	2.3%	53.1	1.5%	0.0	0.0%	115.3	3.3%	3,458.1	100.0%	
2004 total, salmon	0.0	0.0%	642.6	6.3%	2,753.4	27.1%	2,291.4	22.6%	2,485.2	24.5%	1,686.0	16.6%	119.5	1.2%	2.7	0.0%	165.1	1.6%	10,145.9	100.0%	
Dolly Varden	0.0	0.0%	0.0	0.0%	15.9	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	15.9	100.0%	
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	
Steelhead	0.0	0.0%	0.0	0.0%	8.0	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	8.0	100.0%	
2004 total, nonsalmon fishes	0.0	0.0%	0.0	0.0%	23.9	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	23.9	100.0%	
<b>2005</b>																					
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	191.3	52.6%	101.0	27.8%	64.3	17.7%	0.0	0.0%	0.0	0.0%	7.3	2.0%	363.9	100.0%	
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	78.1	3.0%	676.5	25.6%	1,871.9	70.8%	18.4	0.7%	0.0	0.0%	0.0	0.0%	2,644.9	100.0%	
Chinook salmon	3.1	1.7%	15.3	8.3%	35.2	19.2%	30.6	16.7%	7.7	4.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	91.8	50.0%	183.7	100.0%	
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	711.7	36.5%	645.9	33.1%	592.3	30.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,950.0	100.0%	
Sockeye salmon	0.0	0.0%	604.6	24.8%	1,190.8	48.8%	566.3	23.2%	76.5	3.1%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	2,438.3	100.0%	
2005 total, salmon	3.1	0.0%	619.9	8.2%	1,226.0	16.2%	1,578.1	20.8%	1,507.7	19.9%	2,528.6	33.4%	18.4	0.2%	0.0	0.0%	99.1	1.3%	7,580.7	100.0%	

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**Appendix Table E-15. Page 2 of 2.**

Resource	Estimated number and percentage of total harvest																			
	April		May		June		July		August		September		October		December		Unknown month		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Dolly Varden	23.0	65.2%	6.1	17.4%	6.1	17.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	35.2	100.0%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	6.1	50.0%	3.1	25.0%	3.1	25.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	12.2	100.0%
2005 total, nonsalmon fishes	23.0	48.4%	6.1	12.9%	6.1	12.9%	6.1	12.9%	3.1	6.5%	3.1	6.5%	0.0	0.0%	0.0	0.0%	0.0	0.0%	47.4	100.0%

*Note* No harvest of any species was reported in January, February, March, or November.

*Source* ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-16.—Estimated harvests and uses of salmon and nonsalmon fishes, Ouzinkie, 2004 and 2005.

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit (±)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit household	Per capita <sup>a</sup>		
<b>2004</b>													
Chum salmon	42.9%	26.2%	23.8%	40.5%	23.8%	1,315.9	19.9	4.8	248.3	Ind	3.8	0.9	56.0%
Coho salmon	83.3%	66.7%	66.7%	66.7%	59.5%	9,650.1	146.2	35.5	1,678.3	Ind	25.4	6.2	22.6%
Chinook salmon	73.8%	38.1%	38.1%	59.5%	31.0%	1,804.3	27.3	6.6	245.1	Ind	3.7	0.9	35.8%
Pink salmon	66.7%	50.0%	50.0%	45.2%	35.7%	1,827.8	27.7	6.7	705.7	Ind	10.7	2.6	39.7%
Sockeye salmon	97.6%	64.3%	64.3%	76.2%	57.1%	10,717.9	162.4	39.4	2,699.7	Ind	40.9	9.9	28.1%
2004 subtotal, salmon	98.0%	78.6%	78.6%	92.9%	66.7%	25,316.0	383.6	93.1	5,577.1	Ind	84.5	20.5	20.5%
Dolly Varden	42.9%	40.5%	40.5%	7.1%	14.3%	671.0	10.2	2.5	479.3	Ind	7.3	1.8	41.3%
Rainbow trout	11.9%	11.9%	11.9%	4.8%	4.8%	112.2	1.7	0.4	80.1	Ind	1.2	0.3	63.9%
Steelhead	4.8%	4.8%	4.8%	2.4%	2.4%	60.8	0.9	0.2	11.0	Ind	0.2	0.0	93.2%
2004 subtotal, nonsalmon fishes	47.6%	47.6%	47.6%	11.9%	16.7%	844.1	12.8	3.1	570.5	Ind	8.6	2.1	38.1%
2004 total, all fish	98.0%	81.0%	81.0%	92.9%	69.0%	26,160.0	396.4	96.2	6,147.6	Ind	93.1	22.6	20.6%
<b>2005</b>													
Chum salmon	37.1%	24.2%	22.6%	21.0%	17.7%	1,132.5	16.4	5.9	213.7	Ind	3.1	1.1	20.4%
Coho salmon	75.8%	58.1%	58.1%	45.2%	33.9%	11,889.1	172.3	61.8	2,067.7	Ind	30.0	10.7	10.4%
Chinook salmon	72.6%	33.9%	30.6%	54.8%	25.8%	973.8	14.1	5.1	132.3	Ind	1.9	0.7	26.9%
Pink salmon	64.5%	41.9%	40.3%	40.3%	30.6%	2,562.8	37.1	13.3	989.5	Ind	14.3	5.1	16.5%
Sockeye salmon	95.2%	59.7%	59.7%	62.9%	54.8%	10,095.5	146.3	52.4	2,542.9	Ind	36.9	13.2	9.4%
2005 subtotal, salmon	98.4%	69.4%	69.4%	83.9%	64.5%	26,653.7	386.3	138.4	5,946.1	Ind	86.2	30.9	9.0%

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**Appendix Table E-16. Page 2 of 2.**

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit ( $\pm$ )	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit household	Per capita <sup>a</sup>		
Dolly Varden	25.8%	17.7%	17.7%	11.3%	8.1%	395.7	5.7	2.1	282.7	Ind	4.1	1.5	24.9%
Dolly Varden fingerling	6.5%	6.5%	6.5%	3.2%	3.2%	33.9	0.5	0.2	565.4	Ind	8.2	2.9	45.3%
Rainbow trout	9.7%	8.1%	8.1%	1.6%	4.8%	121.5	1.8	0.6	86.8	Ind	1.3	0.5	30.8%
Steelhead	11.3%	9.7%	9.7%	1.6%	4.8%	209.2	3.0	1.1	37.8	Ind	0.5	0.2	34.0%
2005 subtotal, nonsalmon fishes	38.7%	32.3%	32.3%	12.9%	14.5%	760.4	11.0	3.9	972.7	Ind	14.1	5.1	29.9%
2005 total, all fish	98.4%	71.0%	71.0%	83.9%	64.5%	27,414.1	397.3	142.4	6,918.8	Ind	100.3	35.9	9.5%

a. Based on population determined by ADF&G survey conducted in winter and spring 2005.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-17.—Percentage of total estimated harvest of salmon and nonsalmon fishes, by gear type and resource, Ouzinkie, 2004 and 2005.

Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
<b>2004</b>																				
Chum salmon																				
Gear type	0.0%	0.0%	5.5%	6.7%	0.0%	0.0%	5.0%	7.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	5.2%
Resource	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	4.5%	5.2%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.5%	5.2%
Coho salmon																				
Gear type	30.3%	39.8%	26.3%	34.4%	0.0%	0.0%	25.6%	33.9%	0.0%	0.0%	13.3%	10.7%	66.6%	71.0%	0.0%	0.0%	0.0%	0.0%	30.1%	38.1%
Resource	3.3%	3.3%	70.4%	70.4%	0.0%	0.0%	70.4%	70.4%	0.0%	0.0%	1.1%	1.1%	25.2%	25.2%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	1.0%	1.2%	21.2%	26.8%	0.0%	0.0%	21.2%	26.8%	0.0%	0.0%	0.3%	0.4%	7.6%	9.6%	0.0%	0.0%	0.0%	0.0%	30.1%	38.1%
Chinook salmon																				
Gear type	0.0%	0.0%	0.6%	1.0%	0.0%	0.0%	0.6%	1.0%	0.0%	0.0%	86.7%	89.3%	14.6%	19.9%	100.0%	100.0%	0.0%	0.0%	4.4%	7.1%
Resource	0.0%	0.0%	10.9%	10.9%	0.0%	0.0%	10.9%	10.9%	0.0%	0.0%	50.0%	50.0%	37.8%	37.8%	1.3%	1.3%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	0.5%	0.8%	0.0%	0.0%	2.2%	3.6%	1.7%	2.7%	0.1%	0.1%	0.0%	0.0%	4.4%	7.1%
Pink salmon																				
Gear type	9.0%	5.3%	10.0%	5.9%	100.0%	100.0%	12.3%	7.4%	0.0%	0.0%	0.0%	0.0%	18.8%	9.0%	0.0%	0.0%	0.0%	0.0%	12.7%	7.2%
Resource	2.3%	2.3%	63.6%	63.6%	17.1%	17.1%	80.8%	80.8%	0.0%	0.0%	0.0%	0.0%	16.9%	16.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.3%	0.2%	8.0%	4.6%	2.2%	1.2%	10.2%	5.8%	0.0%	0.0%	0.0%	0.0%	2.1%	1.2%	0.0%	0.0%	0.0%	0.0%	12.7%	7.2%
Sockeye salmon																				
Gear type	60.6%	54.9%	57.6%	52.1%	0.0%	0.0%	56.0%	51.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.4%	42.3%
Resource	4.1%	4.1%	95.9%	95.9%	0.0%	0.0%	96.0%	96.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	2.0%	1.7%	46.4%	40.6%	0.0%	0.0%	46.0%	41.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	48.4%	42.3%
2004 total, salmon																				
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%
Resource	3.3%	3.1%	80.6%	78.0%	2.2%	1.2%	82.8%	79.3%	0.0%	0.0%	2.5%	4.0%	11.4%	13.5%	0.1%	0.1%	0.0%	0.0%	100.0%	100.0%
Total	3.3%	3.1%	80.6%	78.0%	2.2%	1.2%	82.8%	79.3%	0.0%	0.0%	2.5%	4.0%	11.4%	13.5%	0.1%	0.1%	0.0%	0.0%	100.0%	100.0%

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Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
<b>Dolly Varden</b>																				
Gear type	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.2%	80.8%	0.0%	0.0%	0.0%	0.0%	84.0%	79.5%
Resource	2.3%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	97.7%	97.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	2.0%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	82.1%	77.7%	0.0%	0.0%	0.0%	0.0%	84.0%	79.5%
<b>Rainbow trout</b>																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.4%	13.8%	0.0%	0.0%	0.0%	0.0%	14.0%	13.3%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.0%	13.3%	0.0%	0.0%	0.0%	0.0%	14.0%	13.3%
<b>Steelhead</b>																				
Gear type	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	1.4%	5.4%	0.0%	0.0%	0.0%	0.0%	1.9%	7.2%
Resource	0.0%	0.0%	28.6%	28.6%	0.0%	0.0%	28.6%	28.6%	0.0%	0.0%	0.0%	0.0%	71.4%	71.4%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.6%	2.1%	0.0%	0.0%	0.6%	2.1%	0.0%	0.0%	0.0%	0.0%	1.4%	5.1%	0.0%	0.0%	0.0%	0.0%	1.9%	7.2%
<b>2004 total, nonsalmon fishes</b>																				
Gear type	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	2.0%	1.8%	0.6%	2.1%	0.0%	0.0%	1.0%	2.0%	0.0%	0.0%	0.0%	0.0%	97.5%	96.1%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	2.0%	1.8%	0.6%	2.1%	0.0%	0.0%	1.0%	2.0%	0.0%	0.0%	0.0%	0.0%	97.5%	96.1%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>2005</b>																				
<b>Chum salmon</b>																				
Gear type	7.0%	10.3%	4.3%	5.2%	0.0%	0.0%	4.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.2%	24.5%	3.6%	4.2%
Resource	3.1%	3.1%	94.3%	94.3%	0.0%	0.0%	94.0%	94.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	2.6%	100.0%	100.0%
Total	0.1%	0.1%	3.4%	4.0%	0.0%	0.0%	3.0%	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	3.6%	4.2%
<b>Coho salmon</b>																				
Gear type	0.0%	0.0%	28.2%	37.4%	100.0%	100.0%	29.8%	39.3%	0.0%	0.0%	0.0%	0.0%	68.5%	78.6%	0.0%	0.0%	0.0%	0.0%	34.8%	44.6%
Resource	0.0%	0.0%	64.0%	64.0%	5.4%	5.4%	69.4%	69.4%	0.0%	0.0%	0.0%	0.0%	30.6%	30.6%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	22.3%	28.6%	1.9%	2.4%	24.1%	31.0%	0.0%	0.0%	0.0%	0.0%	10.6%	13.6%	0.0%	0.0%	0.0%	0.0%	34.8%	44.6%

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Appendix Table E-17. Page 3 of 4.

Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Chinook salmon																				
Gear type	0.0%	0.0%	0.8%	1.3%	0.0%	0.0%	0.7%	1.2%	0.0%	0.0%	100.0%	100.0%	2.1%	3.0%	100.0%	100.0%	5.7%	12.9%	2.2%	3.7%
Resource	0.0%	0.0%	26.9%	26.9%	0.0%	0.0%	26.9%	26.9%	0.0%	0.0%	56.4%	56.4%	14.3%	14.3%	0.8%	0.8%	1.6%	1.6%	100.0%	100.0%
Total	0.0%	0.0%	0.6%	1.0%	0.0%	0.0%	0.6%	1.0%	0.0%	0.0%	1.3%	2.1%	0.3%	0.5%	0.0%	0.0%	0.0%	0.0%	2.2%	3.7%
Pink salmon																				
Gear type	34.9%	25.2%	16.2%	9.7%	0.0%	0.0%	15.8%	9.4%	0.0%	0.0%	0.0%	0.0%	18.0%	9.3%	0.0%	0.0%	79.1%	62.6%	16.6%	9.6%
Resource	3.4%	3.4%	76.9%	76.9%	0.0%	0.0%	76.9%	76.9%	0.0%	0.0%	0.0%	0.0%	16.8%	16.8%	0.0%	0.0%	2.9%	2.9%	100.0%	100.0%
Total	0.6%	0.3%	12.8%	7.4%	0.0%	0.0%	12.8%	7.4%	0.0%	0.0%	0.0%	0.0%	2.8%	1.6%	0.0%	0.0%	0.5%	0.3%	16.6%	9.6%
Sockeye salmon																				
Gear type	58.1%	64.4%	50.6%	46.4%	0.0%	0.0%	49.5%	45.0%	0.0%	0.0%	0.0%	0.0%	11.5%	9.1%	0.0%	0.0%	0.0%	0.0%	42.8%	37.9%
Resource	2.2%	2.2%	93.7%	93.7%	0.0%	0.0%	93.7%	93.7%	0.0%	0.0%	0.0%	0.0%	4.2%	4.2%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.9%	0.8%	40.1%	35.5%	0.0%	0.0%	40.1%	35.5%	0.0%	0.0%	0.0%	0.0%	1.8%	1.6%	0.0%	0.0%	0.0%	0.0%	42.8%	37.9%
2005 total, salmon																				
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Resource	1.6%	1.3%	79.1%	76.4%	1.9%	2.4%	81.0%	78.8%	0.0%	0.0%	1.3%	2.1%	15.5%	17.3%	0.0%	0.0%	0.6%	0.5%	100.0%	100.0%
Total	1.6%	1.3%	79.1%	76.4%	1.9%	2.4%	81.0%	78.8%	0.0%	0.0%	1.3%	2.1%	15.5%	17.3%	0.0%	0.0%	0.6%	0.5%	100.0%	100.0%
Dolly Varden																				
Gear type	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	19.1%	36.3%	0.0%	0.0%	33.3%	92.1%	29.1%	52.0%
Resource	35.4%	35.4%	0.8%	0.8%	0.0%	0.0%	0.8%	0.8%	0.0%	0.0%	0.0%	0.0%	52.0%	52.0%	0.0%	0.0%	11.8%	11.8%	100.0%	100.0%
Total	10.3%	18.4%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	15.1%	27.0%	0.0%	0.0%	3.4%	6.1%	29.1%	52.0%
Dolly Varden fingerling																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	64.7%	5.3%	0.0%	0.0%	66.7%	7.9%	58.1%	4.5%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	88.2%	88.2%	0.0%	0.0%	11.8%	11.8%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	51.3%	3.9%	0.0%	0.0%	6.9%	0.5%	58.1%	4.5%

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**Appendix Table E-17. Page 4 of 4.**

Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Rainbow trout																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.3%	21.5%	0.0%	0.0%	0.0%	0.0%	8.9%	16.0%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.9%	16.0%	0.0%	0.0%	0.0%	0.0%	8.9%	16.0%
Steelhead																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	36.9%	0.0%	0.0%	0.0%	0.0%	3.9%	27.5%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	27.5%	0.0%	0.0%	0.0%	0.0%	3.9%	27.5%
2005 total, nonsalmon fishes																				
Gear type	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
Resource	10.3%	18.4%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.2%	74.5%	0.0%	0.0%	10.3%	6.7%	100.0%	100.0%
Total	10.3%	18.4%	0.2%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	79.2%	74.5%	0.0%	0.0%	10.3%	6.7%	100.0%	100.0%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-18.—Estimated number and pounds of salmon and nonsalmon fishes harvested, by gear type and method, Ouzinkie, 2004 and 2005.

Resource	Removed from commercial catch		Subsistence methods										Any method								
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling				Rod and reel		Charter catch		Missing		
	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	
<b>2004</b>																					
Chum salmon																					
Numbers	0.0	0.0	248.3	3.8	0.0	0.0	248.3	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	248.3	3.8
Pounds	0.0	0.0	1,315.9	19.9	0.0	0.0	1,315.9	19.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,315.9	19.9
Coho Salmon																					
Numbers	55.0	0.8	1,181.7	17.9	0.0	0.0	1,181.7	17.9	0.0	0.0	18.9	0.3	422.7	6.4	0.0	0.0	0.0	0.0	0.0	1,678.3	25.4
Pounds	316.3	4.8	6,794.9	103.0	0.0	0.0	6,794.9	103.0	0.0	0.0	108.4	1.6	2,430.6	36.8	0.0	0.0	0.0	0.0	0.0	9,650.1	146.2
Chinook salmon																					
Numbers	0.0	0.0	26.7	0.4	0.0	0.0	26.7	0.4	0.0	0.0	122.6	1.9	92.7	1.4	3.1	0.0	0.0	0.0	0.0	245.1	3.7
Pounds	0.0	0.0	196.6	3.0	0.0	0.0	196.6	3.0	0.0	0.0	902.1	13.7	682.4	10.3	23.1	0.4	0.0	0.0	0.0	1,804.3	27.3
Pink salmon																					
Numbers	16.4	0.2	448.9	6.8	121.0	1.8	569.9	8.6	0.0	0.0	0.0	0.0	119.4	1.8	0.0	0.0	0.0	0.0	0.0	705.7	10.7
Pounds	42.5	0.6	1,162.6	17.6	313.4	4.7	1,476.0	22.4	0.0	0.0	0.0	0.0	309.3	4.7	0.0	0.0	0.0	0.0	0.0	1,827.8	27.7
Sockeye salmon																					
Numbers	110.0	1.7	2,589.7	39.2	0.0	0.0	2,589.7	39.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2,699.7	40.9
Pounds	436.7	6.6	10,281.2	155.8	0.0	0.0	10,281.2	155.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10,717.9	162.4
2004 total, salmon																					
Numbers	181.4	2.7	4,495.3	68.1	121.0	1.8	4,616.3	69.9	0.0	0.0	141.4	2.1	634.9	9.6	3.1	0.0	0.0	0.0	0.0	5,577.1	84.5
Pounds	795.5	12.1	19,751.1	299.3	313.4	4.7	20,064.5	304.0	0.0	0.0	1,010.6	15.3	3,422.3	51.9	23.1	0.4	0.0	0.0	0.0	25,316.0	383.6
Dolly Varden																					
Numbers	11.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	468.2	7.1	0.0	0.0	0.0	0.0	0.0	479.3	7.3
Pounds	15.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	655.4	9.9	0.0	0.0	0.0	0.0	0.0	671.0	10.2
Rainbow trout																					
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80.1	1.2	0.0	0.0	0.0	0.0	0.0	80.1	1.2
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	112.2	1.7	0.0	0.0	0.0	0.0	0.0	112.2	1.7
Steelhead																					
Numbers	0.0	0.0	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	7.9	0.1	0.0	0.0	0.0	0.0	0.0	11.0	0.2
Pounds	0.0	0.0	17.4	0.0	0.0	0.0	17.4	0.3	0.0	0.0	0.0	0.0	43.5	0.7	0.0	0.0	0.0	0.0	0.0	60.8	0.9

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Appendix Table E-18. Page 2 of 3.

Resource	Removed from commercial catch		Subsistence methods										Any method							
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling				Rod and reel		Charter catch		Missing	
	Harvest units	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household	Mean Total household						
2004 total, nonsalmon fishes																				
Numbers	11.1	0.2	3.1	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	556.2	8.4	0.0	0.0	0.0	0.0	570.5	8.6
Pounds	15.6	0.2	17.4	0.0	0.0	0.0	17.4	0.3	0.0	0.0	0.0	0.0	811.1	12.3	0.0	0.0	0.0	0.0	844.1	12.8
<b>2005</b>																				
Chum salmon																				
Numbers	6.7	0.1	201.4	2.9	0.0	0.0	201.4	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.1	213.7	3.1
Pounds	35.4	0.5	1,067.6	15.5	0.0	0.0	1,067.6	15.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.5	0.4	1,132.5	16.4
Coho salmon																				
Numbers	0.0	0.0	1,324.2	19.2	111.3	1.6	1,435.5	20.8	0.0	0.0	0.0	0.0	632.1	9.2	0.0	0.0	0.0	0.0	2,067.7	30.0
Pounds	0.0	0.0	7,614.3	110.4	639.9	9.3	8,254.2	119.6	0.0	0.0	0.0	0.0	3,634.8	52.7	0.0	0.0	0.0	0.0	11,889.1	172.3
Chinook salmon																				
Numbers	0.0	0.0	35.6	0.5	0.0	0.0	35.6	0.5	0.0	0.0	74.6	1.1	18.9	0.3	1.1	0.0	2.1	0.0	132.3	1.9
Pounds	0.0	0.0	262.1	3.8	0.0	0.0	262.1	3.8	0.0	0.0	548.8	8.0	139.2	2.0	8.2	0.1	15.5	0.2	973.8	14.1
Pink salmon																				
Numbers	33.4	0.5	761.2	11.0	0.0	0.0	761.2	11.0	0.0	0.0	0.0	0.0	165.8	2.4	0.0	0.0	29.1	0.4	989.5	14.3
Pounds	86.5	1.3	1,971.6	28.6	0.0	0.0	1,971.6	28.6	0.0	0.0	0.0	0.0	429.5	6.2	0.0	0.0	75.3	1.1	2,562.8	37.1
Sockeye salmon																				
Numbers	55.6	0.8	2,381.6	34.5	0.0	0.0	2,381.6	34.5	0.0	0.0	0.0	0.0	105.7	1.5	0.0	0.0	0.0	0.0	2,542.9	36.9
Pounds	220.9	3.2	9,454.9	137.0	0.0	0.0	9,454.9	137.0	0.0	0.0	0.0	0.0	419.7	6.1	0.0	0.0	0.0	0.0	10,095.5	146.3
2005 total, salmon																				
Numbers	95.7	1.4	4,704.1	68.2	111.3	1.6	4,815.4	69.8	0.0	0.0	74.6	1.1	922.6	13.4	1.1	0.0	36.7	0.5	5,946.1	86.2
Pounds	342.8	5.0	20,370.5	295.2	639.9	9.3	21,010.4	304.5	0.0	0.0	548.8	8.0	4,623.3	67.0	8.2	0.1	120.2	1.7	26,653.7	386.3
Dolly Varden																				
Numbers	100.2	1.5	2.2	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	146.9	2.1	0.0	0.0	33.4	0.5	282.7	4.1
Pounds	140.2	2.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	205.7	3.0	0.0	0.0	46.7	0.7	395.7	5.7

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**Appendix Table E-18. Page 3 of 3.**

Resource	Removed from commercial catch	Subsistence methods										Any method								
		Gillnet		Seine		Any subsistence method		By hand		Ocean trolling			Rod and reel		Charter catch		Missing			
		Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean	Mean		Mean	Mean	Mean	Mean	Mean	Mean		
Harvest units	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household	Total	household		
Dolly Varden fingerling																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	498.6	7.2	0.0	0.0	66.8	1.0	565.4	8.2
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	29.9	0.4	0.0	0.0	4.0	0.1	33.9	0.5
Rainbow trout																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.8	1.3	0.0	0.0	0.0	0.0	86.8	1.3
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121.5	1.8	0.0	0.0	0.0	0.0	121.5	1.8
Steelhead																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.8	0.5	0.0	0.0	0.0	0.0	37.8	0.5
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	209.2	3.0	0.0	0.0	0.0	0.0	209.2	3.0
2005 total, nonsalmon fishes																				
Numbers	100.2	1.5	2.2	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	770.1	11.2	0.0	0.0	100.2	1.5	972.7	14.1
Pounds	140.2	2.0	3.1	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	566.4	8.2	0.0	0.0	50.7	0.7	760.4	11.0

Source: ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-19.—Percentage of households harvesting salmon and nonsalmon fishes by gear type and species, Ouzinkie, 2004 and 2005.

Resource	Removed from commercial catch	Subsistence methods								
		Gillnet	Seine	Any method	By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method
<b>2004</b>										
Chum salmon	0.0%	23.8%	0.0%	23.8%	0.0%	0.0%	0.0%	0.0%	0.0%	23.8%
Coho salmon	2.4%	50.0%	0.0%	50.0%	0.0%	2.4%	23.8%	0.0%	0.0%	66.7%
Chinook salmon	0.0%	4.8%	0.0%	4.8%	0.0%	21.4%	14.3%	2.4%	0.0%	38.1%
Pink salmon	2.4%	35.7%	2.4%	38.1%	0.0%	0.0%	14.3%	0.0%	0.0%	50.0%
Sockeye salmon	4.8%	61.9%	0.0%	61.9%	0.0%	0.0%	0.0%	0.0%	0.0%	64.3%
2004 total, salmon	7.1%	71.4%	2.4%	71.4%	0.0%	21.4%	33.3%	2.4%	0.0%	78.6%
Dolly Varden	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	38.1%	0.0%	0.0%	40.5%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.9%	0.0%	0.0%	11.9%
Steelhead	0.0%	2.4%	0.0%	2.4%	0.0%	0.0%	2.4%	0.0%	0.0%	4.8%
2004 total, nonsalmon fishes	2.4%	2.4%	0.0%	2.4%	0.0%	0.0%	45.2%	0.0%	0.0%	47.6%
<b>2005</b>										
Chum salmon	1.6%	19.4%	0.0%	19.4%	0.0%	0.0%	0.0%	0.0%	1.6%	22.6%
Coho salmon	0.0%	37.1%	1.6%	38.7%	0.0%	0.0%	24.2%	0.0%	0.0%	58.1%
Chinook salmon	0.0%	9.7%	0.0%	9.7%	0.0%	16.1%	3.2%	1.6%	1.6%	30.6%
Pink salmon	1.6%	21.0%	0.0%	21.0%	0.0%	0.0%	16.1%	0.0%	3.2%	40.3%
Sockeye salmon	3.2%	53.2%	0.0%	53.2%	0.0%	0.0%	6.5%	0.0%	0.0%	59.7%
2005 total, salmon	3.2%	58.1%	1.6%	58.1%	0.0%	16.1%	37.1%	1.6%	6.5%	69.4%
Dolly Varden	3.2%	1.6%	0.0%	1.6%	0.0%	0.0%	11.3%	0.0%	1.6%	17.7%
Dolly Varden fingerling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.8%	0.0%	1.6%	6.5%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.1%	0.0%	0.0%	8.1%
Steelhead	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.7%	0.0%	0.0%	9.7%
2005 total, nonsalmon fishes	3.2%	1.6%	0.0%	1.6%	0.0%	0.0%	25.8%	0.0%	3.2%	32.3%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-20.—Estimated number of salmon and nonsalmon fishes harvested by month, Ouzinkie, 2004 and 2005.

Resource	Estimated number and percentage of total harvest													
	January		February		March		April		May		June		July	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	61.3	24.7%	15.7	6.3%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	39.3	2.3%	180.7	10.8%
Chinook salmon	25.1	10.3%	31.4	12.8%	37.7	15.4%	7.9	3.2%	29.9	12.2%	22.0	9.0%	7.9	3.2%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	102.1	14.5%	422.7	59.9%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,381.3	51.2%	1,243.0	46.0%	28.3	1.0%
2004 total, salmon	25.1	0.5%	31.4	0.6%	37.7	0.7%	7.9	0.1%	1,411.1	25.3%	1,467.7	26.3%	655.3	11.7%
Dolly Varden	0.0	0.0%	0.0	0.0%	15.7	3.3%	77.0	16.1%	147.7	30.8%	102.1	21.3%	47.1	9.8%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	33.0	41.2%	18.9	23.5%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	7.9	71.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%
2004 total, nonsalmon fishes	0.0	0.0%	0.0	0.0%	15.7	2.8%	84.9	14.9%	147.7	25.9%	135.1	23.7%	66.0	11.6%
<b>2005</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	56.8	26.6%	100.2	46.9%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	22.3	1.1%	22.3	1.1%	77.9	3.8%
Chinook salmon	10.0	7.6%	15.6	11.8%	8.9	6.7%	8.9	6.7%	4.5	3.4%	14.5	10.9%	12.2	9.3%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	35.6	3.6%	461.9	46.7%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	55.6	2.2%	556.5	21.9%	1,609.3	63.3%	33.4	1.3%
2005 total, salmon	10.0	0.2%	15.6	0.3%	8.9	0.1%	64.5	1.1%	583.2	9.8%	1,738.4	29.2%	685.5	11.5%
Dolly Varden	0.0	0.0%	0.0	0.0%	16.7	5.9%	30.0	10.6%	31.2	11.0%	102.4	36.2%	56.8	20.1%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	69.0	12.2%	69.0	12.2%	91.3	16.1%	146.9	26.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	6.7	7.7%	30.0	34.6%	16.7	19.2%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.5	11.8%	2.2	5.9%	0.0	0.0%	1.1	2.9%
2005 total, nonsalmon fishes	0.0	0.0%	0.0	0.0%	16.7	1.7%	110.2	11.3%	132.4	13.6%	210.3	21.6%	204.8	21.1%

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Resource	Estimated number and percentage of total harvest													
	August		September		October		November		December		Unknown month		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	132.0	53.2%	39.3	15.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	248.3	100.0%
Coho salmon	942.9	56.2%	515.4	30.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,678.3	100.0%
Chinook salmon	6.3	2.6%	55.0	22.4%	4.7	1.9%	7.9	3.2%	7.9	3.2%	1.6	0.6%	245.1	100.0%
Pink salmon	67.6	9.6%	86.4	12.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	26.9	3.8%	705.7	100.0%
Sockeye salmon	47.1	1.7%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	2,699.7	100.0%
2004 total, salmon	1,195.9	21.4%	696.1	12.5%	4.7	0.1%	7.9	0.1%	7.9	0.1%	28.4	0.5%	5,577.1	100.0%
Dolly Varden	51.9	10.8%	15.7	3.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	22.0	4.6%	479.3	100.0%
Rainbow trout	0.0	0.0%	6.3	7.8%	22.0	27.5%	0.0	0.0%	0.0	0.0%	0.0	0.0%	80.1	100.0%
Steelhead	1.6	14.3%	1.6	14.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	11.0	100.0%
2004 total, nonsalmon fishes	53.4	9.4%	23.6	4.1%	22.0	3.9%	0.0	0.0%	0.0	0.0%	22.0	3.9%	570.5	100.0%
<b>2005</b>														
Chum salmon	49.0	22.9%	7.8	3.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	213.7	100.0%
Coho salmon	940.4	45.5%	923.7	44.7%	50.1	2.4%	0.0	0.0%	0.0	0.0%	31.1	1.5%	2,067.7	100.0%
Chinook salmon	17.8	13.5%	11.1	8.4%	10.0	7.6%	5.6	4.2%	8.9	6.7%	4.3	3.3%	132.3	100.0%
Pink salmon	360.6	36.4%	110.2	11.1%	5.6	0.6%	0.0	0.0%	0.0	0.0%	15.7	1.6%	989.5	100.0%
Sockeye salmon	139.1	5.5%	111.3	4.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%	37.8	1.5%	2,542.9	100.0%
2005 total, salmon	1,506.9	25.3%	1,164.1	19.6%	65.7	1.1%	5.6	0.1%	8.9	0.1%	88.9	1.5%	5,946.1	100.0%
Dolly Varden	12.2	4.3%	11.1	3.9%	11.1	3.9%	11.1	3.9%	0.0	0.0%	0.0	0.0%	282.7	100.0%
Dolly Varden fingerling	77.9	13.8%	55.6	9.8%	55.6	9.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	565.4	100.0%
Rainbow trout	0.0	0.0%	13.4	15.4%	13.4	15.4%	6.7	7.7%	0.0	0.0%	0.0	0.0%	86.8	100.0%
Steelhead	0.0	0.0%	13.4	35.3%	16.7	44.1%	0.0	0.0%	0.0	0.0%	0.0	0.0%	37.8	100.0%
2005 total, nonsalmon fishes	90.1	9.3%	93.5	9.6%	96.8	10.0%	17.8	1.8%	0.0	0.0%	0.0	0.0%	972.7	100.0%

Source: ADF&G Division of Subsistence household surveys, 2005 and 2006.

Appendix Table E-21.—Estimated harvests and uses of salmon and nonsalmon fishes, Port Lions, 2004 and 2005.

Resource	Percentage of households					Pounds harvested			Amount harvested			95% confidence limit (±)	
	Use	Attempt	Harvest	Receive	Give	Total	Mean household	Per capita <sup>a</sup>	Total	Unit household	Per capita <sup>a</sup>		
<b>2004</b>													
Chum salmon	8.3%	8.3%	8.3%	8.3%	5.6%	337.7	4.6	1.9	63.7	Ind	0.9	0.4	87.0%
Coho salmon	77.8%	66.7%	66.7%	52.8%	41.7%	12,871.4	173.9	73.7	2,238.5	Ind	30.3	12.8	36.1%
Chinook salmon	55.6%	41.7%	41.7%	44.4%	33.3%	3,963.8	53.6	22.7	538.6	Ind	7.3	3.1	46.5%
Pink salmon	33.3%	25.0%	25.0%	22.2%	22.2%	601.6	8.1	3.4	232.3	Ind	3.1	1.3	52.7%
Sockeye salmon	88.9%	72.2%	72.2%	63.9%	52.8%	10,241.5	138.4	58.6	2,579.7	Ind	34.9	14.8	22.1%
2004 subtotal, salmon	100.0%	83.3%	83.3%	80.6%	63.9%	28,016.0	378.6	160.3	5,652.8	Ind	76.4	32.4	24.5%
Dolly Varden	13.9%	13.9%	13.9%	0.0%	0.0%	195.7	2.6	1.1	139.8	Ind	1.9	0.8	73.6%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	0.0%
Steelhead	2.8%	2.8%	2.8%	0.0%	0.0%	34.1	0.5	0.2	6.2	Ind	0.1	0.0	145.4%
2004 subtotal, nonsalmon fishes	13.9%	13.9%	13.9%	0.0%	0.0%	229.8	3.1	1.3	145.9	Ind	2.0	0.8	72.2%
2004 total, all fish	100.0%	83.3%	83.3%	80.6%	63.9%	28,245.8	381.7	161.7	5,798.7	Ind	78.4	33.2	24.4%
<b>2005</b>													
Chum salmon	25.0%	17.9%	17.9%	17.9%	17.9%	1,810.1	24.8	8.2	341.5	Ind	4.7	1.5	80.4%
Coho salmon	75.0%	60.7%	57.1%	46.4%	46.4%	10,448.8	143.1	47.2	1,817.2	Ind	24.9	8.2	56.5%
Chinook salmon	67.9%	35.7%	35.7%	46.4%	25.0%	6,831.1	93.6	30.8	928.1	Ind	12.7	4.2	66.8%
Pink salmon	42.9%	32.1%	32.1%	17.9%	25.0%	1,789.4	24.5	8.1	690.9	Ind	9.5	3.1	68.0%
Sockeye salmon	82.1%	64.3%	60.7%	50.0%	46.4%	13,258.8	181.6	59.8	3,339.8	Ind	45.8	15.1	52.9%
2005 subtotal, salmon	96.4%	75.0%	71.4%	75.0%	67.9%	34,138.3	467.6	154.0	7,117.5	Ind	97.5	32.1	44.2%
Dolly Varden	21.4%	14.3%	14.3%	7.1%	10.7%	405.2	5.6	1.8	289.4	Ind	4.0	1.3	111.3%
Dolly Varden fingerling	0.0%	0.0%	0.0%	0.0%	0.0%	0.0	0.0	0.0	0.0	Ind	0.0	0.0	0.0%
Rainbow trout	10.7%	10.7%	10.7%	0.0%	7.1%	109.5	1.5	0.5	78.2	Ind	1.1	0.4	111.3%
Steelhead	10.7%	10.7%	10.7%	3.6%	10.7%	620.0	8.5	2.8	112.1	Ind	1.5	0.5	94.8%
2005 subtotal, nonsalmon fishes	32.1%	25.0%	25.0%	7.1%	17.9%	1,134.6	15.5	5.1	479.7	Ind	6.6	2.2	101.1%
2005 total, all fish	96.4%	75.0%	71.4%	75.0%	67.9%	35,272.9	483.2	159.2	7,597.2	Ind	104.1	34.3	46.7%

a. Based on population determined by ADF&G survey conducted in winter and spring 2005.

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-22.—Percentage of total estimated harvest of salmon and nonsalmon fishes, by gear type and resource, Port Lions, 2004 and 2005.

Resource Percentage base	Removed from commercial catch		Subsistence methods							By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
	Number	Pounds	Gillnet		Seine		Any subsistence method		Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	
			Number	Pounds	Number	Pounds	Number	Pounds													
<b>2004</b>																					
Chum salmon																					
Gear type	10.6%	12.5%	1.1%	1.3%	0.0%	0.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	1.2%
Resource	51.6%	51.6%	48.4%	48.4%	0.0%	0.0%	48.0%	48.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.6%	0.6%	0.5%	0.6%	0.0%	0.0%	1.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	1.2%
Coho salmon																					
Gear type	33.1%	42.4%	29.7%	37.5%	64.9%	73.0%	39.4%	48.2%	0.0%	0.0%	23.2%	19.5%	53.1%	64.8%	0.0%	0.0%	100.0%	100.0%	39.6%	45.9%	
Resource	4.6%	4.6%	35.7%	35.7%	29.8%	29.8%	65.6%	65.6%	0.0%	0.0%	6.5%	6.5%	21.5%	21.5%	0.0%	0.0%	1.8%	1.8%	100.0%	100.0%	
Total	1.8%	2.1%	14.1%	16.4%	11.8%	13.7%	26.0%	30.1%	0.0%	0.0%	2.6%	3.0%	8.5%	9.9%	0.0%	0.0%	0.7%	0.8%	39.6%	45.9%	
Chinook salmon																					
Gear type	3.3%	5.4%	0.9%	1.5%	0.0%	0.0%	0.7%	1.0%	0.0%	0.0%	73.5%	79.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	9.5%	14.1%	
Resource	1.9%	1.9%	4.6%	4.6%	0.0%	0.0%	4.6%	4.6%	0.0%	0.0%	85.9%	85.9%	0.0%	0.0%	7.6%	7.6%	0.0%	0.0%	100.0%	100.0%	
Total	0.2%	0.3%	0.4%	0.6%	0.0%	0.0%	0.4%	0.6%	0.0%	0.0%	8.2%	12.2%	0.0%	0.0%	0.7%	1.1%	0.0%	0.0%	9.5%	14.1%	
Pink salmon																					
Gear type	23.2%	13.4%	0.0%	0.0%	1.2%	0.6%	0.3%	0.2%	0.0%	0.0%	1.6%	0.6%	15.2%	8.4%	0.0%	0.0%	0.0%	0.0%	4.1%	2.1%	
Resource	31.0%	31.0%	0.0%	0.0%	5.3%	5.3%	5.3%	5.3%	0.0%	0.0%	4.4%	4.4%	59.3%	59.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	1.3%	0.7%	0.0%	0.0%	0.2%	0.1%	0.2%	0.1%	0.0%	0.0%	0.2%	0.1%	2.4%	1.3%	0.0%	0.0%	0.0%	0.0%	4.1%	2.1%	
Sockeye salmon																					
Gear type	29.8%	26.3%	68.3%	59.6%	33.9%	26.4%	58.8%	49.6%	0.0%	0.0%	1.6%	0.9%	31.7%	26.8%	0.0%	0.0%	0.0%	0.0%	45.6%	36.6%	
Resource	3.6%	3.6%	71.3%	71.3%	13.5%	13.5%	84.9%	84.9%	0.0%	0.0%	0.4%	0.4%	11.2%	11.2%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	1.6%	1.3%	32.5%	26.1%	6.2%	5.0%	38.7%	31.0%	0.0%	0.0%	0.2%	0.1%	5.1%	4.1%	0.0%	0.0%	0.0%	0.0%	45.6%	36.6%	
2004 total, salmon																					
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Resource	5.5%	5.0%	47.7%	43.7%	18.2%	18.8%	65.9%	62.5%	0.0%	0.0%	11.1%	15.4%	16.0%	15.2%	0.7%	1.1%	0.7%	0.8%	100.0%	100.0%	
Total	5.5%	5.0%	47.7%	43.7%	18.2%	18.8%	65.9%	62.5%	0.0%	0.0%	11.1%	15.4%	16.0%	15.2%	0.7%	1.1%	0.7%	0.8%	100.0%	100.0%	

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Resource Percentage base	Removed from commercial catch		Subsistence methods										Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds												
<b>Dolly Varden</b>																						
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.8%	85.2%	0.0%	0.0%	0.0%	0.0%	95.8%	85.2%	
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	95.8%	85.2%	0.0%	0.0%	0.0%	0.0%	95.8%	85.2%	
<b>Steelhead</b>																						
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	14.8%	0.0%	0.0%	0.0%	0.0%	4.2%	14.8%	
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	14.8%	0.0%	0.0%	0.0%	0.0%	4.2%	14.8%	
<b>2004 total, nonsalmon fishes</b>																						
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
<b>2005</b>																						
<b>Chum salmon</b>																						
Gear type	0.0%	0.0%	8.5%	10.7%	3.9%	4.6%	6.7%	8.1%	0.0%	0.0%	0.2%	0.2%	3.5%	3.8%	0.0%	0.0%	0.0%	0.0%	4.8%	5.3%		
Resource	0.0%	0.0%	61.8%	61.8%	19.1%	19.1%	80.9%	80.9%	0.0%	0.0%	0.8%	0.8%	18.3%	18.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.0%	0.0%	3.0%	3.3%	0.9%	1.0%	4%	4.3%	0.0%	0.0%	0%	0%	0.9%	1.0%	0.0%	0.0%	0.0%	0.0%	4.8%	5.3%		
<b>Coho salmon</b>																						
Gear type	0.0%	0.0%	7.9%	10.7%	31.1%	39.7%	17.3%	22.8%	0.0%	0.0%	12.3%	10.8%	54.2%	63.5%	0.0%	0.0%	0.0%	0.0%	25.5%	30.6%		
Resource	0.0%	0.0%	10.8%	10.8%	28.7%	28.7%	39.5%	39.5%	0.0%	0.0%	7.2%	7.2%	53.4%	53.4%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.0%	0.0%	2.7%	3.3%	7.3%	8.8%	10.1%	12.0%	0.0%	0.0%	1.8%	2.2%	13.6%	16.3%	0.0%	0.0%	0.0%	0.0%	25.5%	30.6%		
<b>Chinook salmon</b>																						
Gear type	100.0%	100.0%	3.2%	5.5%	0.0%	0.0%	1.9%	3.2%	0.0%	0.0%	73.2%	82.2%	3.5%	5.2%	0.0%	0.0%	0.0%	0.0%	13.0%	20.0%		
Resource	1.1%	1.1%	8.4%	8.4%	0.0%	0.0%	8.4%	8.4%	0.0%	0.0%	83.7%	83.7%	6.7%	6.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%		
Total	0.1%	0.2%	1.1%	1.7%	0.0%	0.0%	1.1%	1.7%	0.0%	0.0%	10.9%	16.8%	0.9%	1.3%	0.0%	0.0%	0.0%	0.0%	13.0%	20.0%		

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**Appendix Table E-22. Page 3 of 3.**

Resource Percentage base	Removed from commercial catch		Subsistence methods																	
	Number	Pounds	Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method	
			Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
<b>Pink salmon</b>																				
Gear type	0.0%	0.0%	6.3%	3.9%	5.3%	3.0%	5.9%	4.0%	100.0%	100.0%	8.8%	3.5%	13.8%	7.3%	0.0%	0.0%	0.0%	0.0%	9.7%	5.2%
Resource	0.0%	0.0%	22.6%	22.6%	12.8%	12.8%	35.5%	35.5%	15.1%	15.1%	13.6%	13.6%	35.8%	35.8%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	2.2%	1.2%	1.2%	0.7%	3.0%	1.9%	1.5%	0.8%	1.3%	0.7%	3.5%	1.9%	0.0%	0.0%	0.0%	0.0%	9.7%	5.2%
<b>Sockeye salmon</b>																				
Gear type	0.0%	0.0%	74.1%	69.3%	59.8%	52.7%	68.3%	62.4%	0.0%	0.0%	5.4%	3.3%	24.9%	20.2%	0.0%	0.0%	0.0%	0.0%	46.9%	38.8%
Resource	0.0%	0.0%	54.9%	54.9%	30.1%	30.1%	84.9%	84.9%	0.0%	0.0%	1.7%	1.7%	13.3%	13.3%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	25.8%	21.3%	14.1%	11.7%	39.9%	33.0%	0.0%	0.0%	0.8%	0.7%	6.3%	5.2%	0.0%	0.0%	0.0%	0.0%	46.9%	38.8%
<b>2005 total, salmon</b>																				
Gear type	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	0.1%	0.2%	34.8%	30.8%	23.6%	22.1%	58.0%	52.9%	1.5%	0.8%	14.9%	20.4%	25.1%	25.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.1%	0.2%	34.8%	30.8%	23.6%	22.1%	58.0%	52.9%	1.5%	0.8%	14.9%	20.4%	25.1%	25.7%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
<b>Dolly Varden</b>																				
Gear type	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	75.8%	44.2%	0.0%	0.0%	100.0%	100.0%	55.2%	32.2%	0.0%	0.0%	0.0%	0.0%	60.3%	35.7%
Resource	0.0%	0.0%	0.0%	0.0%	22.5%	22.5%	22.5%	22.5%	0.0%	0.0%	5.4%	5.4%	72.1%	72.1%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	13.6%	8.0%	13.6%	8.0%	0.0%	0.0%	3.3%	1.9%	43.5%	25.7%	0.0%	0.0%	0.0%	0.0%	60.3%	35.7%
<b>Rainbow trout</b>																				
Gear type	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.7%	12.1%	0.0%	0.0%	0.0%	0.0%	16.3%	9.7%
Resource	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.3%	9.7%	0.0%	0.0%	0.0%	0.0%	16.3%	9.7%
<b>Steelhead</b>																				
Gear type	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	24.2%	55.8%	0.0%	0.0%	0.0%	0.0%	24.1%	55.7%	0.0%	0.0%	0.0%	0.0%	23.4%	54.6%
Resource	0.0%	0.0%	18.6%	18.6%	0.0%	0.0%	18.6%	18.6%	0.0%	0.0%	0.0%	0.0%	81.4%	81.4%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	4.3%	10.2%	0.0%	0.0%	4.3%	10.2%	0.0%	0.0%	0.0%	0.0%	19.0%	44.5%	0.0%	0.0%	0.0%	0.0%	23.4%	54.6%
<b>2005 total, nonsalmon fishes</b>																				
Gear type	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Resource	0.0%	0.0%	4.3%	10.2%	13.6%	8.0%	17.9%	18.2%	0.0%	0.0%	3.3%	1.9%	78.8%	79.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Total	0.0%	0.0%	4.3%	10.2%	13.6%	8.0%	17.9%	18.2%	0.0%	0.0%	3.3%	1.9%	78.8%	79.9%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-23.—Estimated number and pounds of salmon and nonsalmon fishes harvested, by gear type and method, Port Lions, 2004 and 2005.

Resource	Harvest units	Removed from commercial catch	Subsistence methods																		
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method		
			Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	
<b>2004</b>																					
Chum salmon																					
Numbers	32.9	0.4	30.8	0.4	0.0	0.0	30.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.7	0.9
Pounds	174.3	2.4	163.4	2.2	0.0	0.0	163.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	337.7	4.6
Coho salmon																					
Numbers	102.8	1.4	799.6	10.8	668.1	9.0	1,467.7	19.8	0.0	0.0	145.9	2.0	481.0	6.5	0.0	0.0	41.1	0.6	2,238.5	30.3	
Pounds	591.0	8.0	4,597.8	62.1	3,841.3	51.9	8,439.1	114.0	0.0	0.0	839.2	11.3	2,765.8	37.4	0.0	0.0	236.4	3.2	12,871.4	173.9	
Chinook salmon																					
Numbers	10.3	0.1	24.7	0.3	0.0	0.0	24.7	0.3	0.0	0.0	462.5	6.3	0.0	0.0	41.1	0.6	0.0	0.0	538.6	7.3	
Pounds	75.6	1.0	181.5	2.5	0.0	0.0	181.5	2.5	0.0	0.0	3,404.0	46.0	0.0	0.0	302.6	4.1	0.0	0.0	3,963.8	53.6	
Pink salmon																					
Numbers	71.9	1.0	0.0	0.0	12.3	0.2	12.3	0.2	0.0	0.0	10.3	0.1	137.7	1.9	0.0	0.0	0.0	0.0	232.3	3.1	
Pounds	186.3	2.5	0.0	0.0	31.9	0.4	31.9	0.4	0.0	0.0	26.6	0.4	356.7	4.8	0.0	0.0	0.0	0.0	601.6	8.1	
Sockeye salmon																					
Numbers	92.5	1.3	1,839.7	24.9	349.4	4.7	2,189.2	29.6	0.0	0.0	10.3	0.1	287.8	3.9	0.0	0.0	0.0	0.0	2,579.7	34.9	
Pounds	367.2	5.0	7,303.7	98.7	1,387.3	18.7	8,691.0	117.4	0.0	0.0	40.8	0.6	1,142.5	15.4	0.0	0.0	0.0	0.0	10,241.5	138.4	
2004 total, salmon																					
Numbers	310.4	4.2	2,694.8	36.4	1,029.8	13.9	3,724.7	50.3	0.0	0.0	629.0	8.5	906.5	12.3	41.1	0.6	41.1	0.6	5,652.8	76.4	
Pounds	1,394.5	18.8	12,246.4	165.5	5,260.6	71.1	17,507.0	236.6	0.0	0.0	4,310.6	58.3	4,264.9	57.6	302.6	4.1	236.4	3.2	28,016.0	378.6	
Dolly Varden																					
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	139.8	1.9	0.0	0.0	0.0	0.0	139.8	1.9	
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	195.7	2.6	0.0	0.0	0.0	0.0	195.7	2.6	
Steelhead																					
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.1	0.0	0.0	0.0	0.0	6.2	0.1	
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.1	0.5	0.0	0.0	0.0	0.0	34.1	0.5	

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Appendix Table E-23. Page 2 of 3.

Resource	Removed from commercial catch	Subsistence methods																		
		Gillnet		Seine		Any subsistence method		By hand		Ocean trolling		Rod and reel		Charter catch		Missing		Any method		
		Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	
2004 total, nonsalmon fishes																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	145.9	2.0	0.0	0.0	0.0	0.0	145.9	2.0
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	229.8	3.1	0.0	0.0	0.0	0.0	229.8	3.1
<b>2005</b>																				
Chum salmon																				
Numbers	0.0	0.0	211.2	2.9	65.2	0.9	276.4	3.8	0.0	0.0	2.6	0.0	62.6	0.9	0.0	0.0	0.0	0.0	341.5	4.7
Pounds	0.0	0.0	1,119.2	15.3	345.4	4.7	1,464.7	20.1	0.0	0.0	13.8	0.2	331.6	4.5	0.0	0.0	0.0	0.0	1,810.1	24.8
Coho salmon																				
Numbers	0.0	0.0	195.5	2.7	521.4	7.1	717.0	9.8	0.0	0.0	130.4	1.8	969.9	13.3	0.0	0.0	0.0	0.0	1,817.2	24.9
Pounds	0.0	0.0	1,124.3	15.4	2,998.2	41.1	4,122.5	56.5	0.0	0.0	749.6	10.3	5,576.7	76.4	0.0	0.0	0.0	0.0	10,448.8	143.1
Chinook salmon																				
Numbers	10.4	0.1	78.2	1.1	0.0	0.0	78.2	1.1	0.0	0.0	776.9	10.6	62.6	0.9	0.0	0.0	0.0	0.0	928.1	12.7
Pounds	76.8	1.1	575.7	7.9	0.0	0.0	575.7	7.9	0.0	0.0	5,718.2	78.3	460.5	6.3	0.0	0.0	0.0	0.0	6,831.1	93.6
Pink salmon																				
Numbers	0.0	0.0	156.4	2.1	88.6	1.2	245.1	3.4	104.3	1.4	93.9	1.3	247.7	3.4	0.0	0.0	0.0	0.0	690.9	9.5
Pounds	0.0	0.0	405.2	5.6	229.6	3.1	634.7	8.7	270.1	3.7	243.1	3.3	641.5	8.8	0.0	0.0	0.0	0.0	1,789.4	24.5
Sockeye salmon																				
Numbers	0.0	0.0	1,832.8	25.1	1,003.8	13.8	2,836.6	38.9	0.0	0.0	57.4	0.8	445.8	6.1	0.0	0.0	0.0	0.0	3,339.8	45.8
Pounds	0.0	0.0	7,276.3	99.7	3,984.9	54.6	11,261.2	154.3	0.0	0.0	227.7	3.1	1,769.9	24.2	0.0	0.0	0.0	0.0	13,258.8	181.6
2005 total, salmon																				
Numbers	10.4	0.1	2,474.2	33.9	1,679.0	23.0	4,153.2	56.9	104.3	1.4	1,061.1	14.5	1,788.5	24.5	0.0	0.0	0.0	0.0	7,117.5	97.5
Pounds	76.8	1.1	10,500.7	143.8	7,558.1	103.5	18,058.8	247.4	270.1	3.7	6,952.4	95.2	8,780.2	120.3	0.0	0.0	0.0	0.0	34,138.3	467.6
Dolly Varden																				
Numbers	0.0	0.0	0.0	0.0	65.2	0.9	0.0	0.0	65.2	0.9	15.6	0.2	208.6	2.9	0.0	0.0	0.0	0.0	289.4	4.0
Pounds	0.0	0.0	0.0	0.0	91.3	1.3	0.0	0.0	91.3	1.3	21.9	0.3	292.0	4.0	0.0	0.0	0.0	0.0	405.2	5.6
Rainbow trout																				
Numbers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.2	1.1	0.0	0.0	0.0	0.0	78.2	1.1
Pounds	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.5	1.5	0.0	0.0	0.0	0.0	109.5	1.5

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**Appendix Table E-23. Page 3 of 3.**

Resource	Removed from commercial catch		Subsistence methods										Any method							
			Gillnet		Seine		Any subsistence method		By hand		Ocean trolling				Rod and reel		Charter catch		Missing	
	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household	Total	Mean household		
Steelhead																				
Numbers	0.0	0.0	20.9	0.3	0.0	0.0	0.0	0.0	20.9	0.3	0.0	0.0	91.3	1.3	0.0	0.0	0.0	0.0	112.1	1.5
Pounds	0.0	0.0	115.3	1.6	0.0	0.0	0.0	0.0	115.3	1.6	0.0	0.0	504.6	6.9	0.0	0.0	0.0	0.0	620.0	8.5
2005 total, nonsalmon fishes																				
Numbers	0.0	0.0	20.9	0.3	65.2	0.9	0.0	0.0	86.0	1.2	15.6	0.2	378.0	5.2	0.0	0.0	0.0	0.0	479.7	6.6
Pounds	0.0	0.0	115.3	1.6	91.3	1.3	0.0	0.0	206.6	2.8	21.9	0.3	906.1	12.4	0.0	0.0	0.0	0.0	1,134.6	15.5

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-24.—Percentage of households harvesting salmon and nonsalmon fishes by gear type and species, Port Lions, 2004 and 2005.

Resource	Removed from commercial catch	Subsistence methods								
		Gillnet	Seine	Any subsistence method	By hand	Ocean trolling	Rod and reel	Charter catch	Missing	Any method
<b>2004</b>										
Chum salmon	5.6%	2.8%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%
Coho salmon	2.8%	36.1%	8.3%	41.7%	0.0%	11.1%	27.8%	0.0%	2.8%	66.7%
Chinook salmon	2.8%	2.8%	0.0%	2.8%	0.0%	44.4%	0.0%	5.6%	0.0%	44.4%
Pink salmon	8.3%	0.0%	2.8%	2.8%	0.0%	2.8%	13.9%	0.0%	0.0%	25.0%
Sockeye salmon	8.3%	52.8%	8.3%	58.3%	0.0%	2.8%	13.9%	0.0%	0.0%	72.2%
2004 total, salmon	16.7%	58.3%	13.9%	63.9%	0.0%	50.0%	36.1%	5.6%	2.8%	83.3%
Dolly Varden	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.9%	0.0%	0.0%	13.9%
Steelhead	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	2.8%
2004 total, nonsalmon fishes	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	13.9%	0.0%	0.0%	13.9%
<b>2005</b>										
Chum salmon	0.0%	10.7%	3.6%	10.7%	0.0%	3.6%	3.6%	0.0%	0.0%	17.9%
Coho salmon	0.0%	10.7%	10.7%	17.9%	0.0%	7.1%	46.4%	0.0%	0.0%	57.1%
Chinook salmon	3.6%	7.1%	0.0%	7.1%	0.0%	28.6%	3.6%	0.0%	0.0%	35.7%
Pink salmon	0.0%	3.6%	7.1%	7.1%	3.6%	10.7%	14.3%	0.0%	0.0%	32.1%
Sockeye salmon	0.0%	35.7%	10.7%	42.9%	0.0%	3.6%	21.4%	0.0%	0.0%	60.7%
2005 total, salmon	3.6%	42.9%	17.9%	53.6%	3.6%	32.1%	46.4%	0.0%	0.0%	71.4%
Dolly Varden	0.0%	0.0%	3.6%	3.6%	0.0%	3.6%	10.7%	0.0%	0.0%	14.3%
Rainbow trout	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.7%	0.0%	0.0%	10.7%
Steelhead	0.0%	3.6%	0.0%	3.6%	0.0%	0.0%	7.1%	0.0%	0.0%	10.7%
2005 total, nonsalmon fishes	0.0%	3.6%	3.6%	7.1%	0.0%	3.6%	21.4%	0.0%	0.0%	25.0%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-25.—Estimated number of salmon and nonsalmon fishes harvested by month, Port Lions, 2004 and 2005.

Resource	Estimated number and percentage of total harvest													
	January		February		March		April		May		June		July	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	4.1	6.5%	14.4	22.6%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	49.3	2.2%	123.3	5.5%
Chinook salmon	16.4	3.1%	16.4	3.1%	30.8	5.7%	30.8	5.7%	59.6	11.1%	45.2	8.4%	57.6	10.7%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	10.3	4.4%	96.6	41.6%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	873.6	33.9%	1,428.6	55.4%	102.8	4.0%
2004 total, salmon	16.4	0.3%	16.4	0.3%	30.8	0.5%	30.8	0.5%	933.2	16.5%	1,537.6	27.2%	394.7	7.0%
Dolly Varden	0.0	0.0%	0.0	0.0%	0.0	0.0%	63.7	45.6%	55.5	39.7%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
2004 total, nonsalmon fishes	0.0	0.0%	0.0	0.0%	0.0	0.0%	63.7	43.7%	55.5	38.0%	0.0	0.0%	0.0	0.0%
<b>2005</b>														
Chum salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	26.1	7.6%	159.0	46.6%
Coho salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	344.1	18.9%	143.4	7.9%
Chinook salmon	54.8	5.9%	54.8	5.9%	60.0	6.5%	57.4	6.2%	91.3	9.8%	73.0	7.9%	122.5	13.2%
Pink salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	187.7	27.2%	453.6	65.7%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	607.5	18.2%	2,349.0	70.3%	221.6	6.6%
2005 total, salmon	54.8	0.8%	54.8	0.8%	60.0	0.8%	57.4	0.8%	698.7	9.8%	2,980.0	41.9%	1,100.2	15.5%
Dolly Varden	0.0	0.0%	0.0	0.0%	0.0	0.0%	26.1	9.0%	195.5	67.6%	7.8	2.7%	7.8	2.7%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	52.1	66.7%	26.1	33.3%	0.0	0.0%	0.0	0.0%
Steelhead	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
2005 total, nonsalmon fishes	0.0	0.0%	0.0	0.0%	0.0	0.0%	78.2	16.3%	221.6	46.2%	7.8	1.6%	7.8	1.6%

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Resource	Estimated number and percentage of total harvest													
	August		September		October		November		December		Unknown month		Total	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
<b>2004</b>														
Chum salmon	14.4	22.6%	30.8	48.4%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	63.7	100.0%
Coho salmon	1,399.8	62.5%	577.6	25.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	88.4	3.9%	2,238.5	100.0%
Chinook salmon	59.6	11.1%	28.8	5.3%	18.5	3.4%	18.5	3.4%	12.3	2.3%	143.9	26.7%	538.6	100.0%
Pink salmon	10.3	4.4%	12.3	5.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	102.8	44.2%	232.3	100.0%
Sockeye salmon	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	174.7	6.8%	2,579.7	100.0%
2004 total, salmon	1,484.1	26.3%	649.6	11.5%	18.5	0.3%	18.5	0.3%	12.3	0.2%	509.8	9.0%	5,652.8	100.0%
Dolly Varden	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	20.6	14.7%	139.8	100.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Steelhead	6.2	100.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	6.2	100.0%
2004 total, nonsalmon fishes	6.2	4.2%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	20.6	14.1%	145.9	100.0%
<b>2005</b>														
Chum salmon	156.4	45.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	341.5	100.0%
Coho salmon	1,042.9	57.4%	221.6	12.2%	65.2	3.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%	1,817.2	100.0%
Chinook salmon	161.6	17.4%	109.5	11.8%	52.1	5.6%	44.3	4.8%	46.9	5.1%	0.0	0.0%	928.1	100.0%
Pink salmon	33.9	4.9%	15.6	2.3%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	690.9	100.0%
Sockeye salmon	161.6	4.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	3,339.8	100.0%
2005 total, salmon	1,556.5	21.9%	346.8	4.9%	117.3	1.6%	44.3	0.6%	46.9	0.7%	0.0	0.0%	7,117.5	100.0%
Dolly Varden	0.0	0.0%	52.1	18.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	289.4	100.0%
Dolly Varden fingerling	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%
Rainbow trout	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	78.2	100.0%
Steelhead	0.0	0.0%	65.2	58.1%	46.9	41.9%	0.0	0.0%	0.0	0.0%	0.0	0.0%	112.1	100.0%
2005 total, nonsalmon fishes	0.0	0.0%	117.3	24.5%	46.9	9.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	479.7	100.0%

Source ADF&G Division of Subsistence household surveys, 2005 and 2006.

Appendix Table E-26.—Salmon harvests estimated from household surveys and reported salmon harvests from returned permits, numbers of fish, Larsen Bay, 1981–2005.

Year	Number of households	Number of surveys	Survey sampling percentage	95% confidence limit	Number of permits	Estimated total number of harvested salmon, household surveys	Reported total number of salmon harvested, permits	Number of chum salmon, household surveys	Number of chum salmon, permits	Number of coho salmon, household surveys	Number of coho salmon, permits	Number of Chinook salmon, household surveys	Number of Chinook salmon, permits	Number of pink salmon, household surveys	Number of pink salmon, permits	Number of sockeye salmon, household survey	Number of sockeye salmon, permits
1981					2		49		0		2		0		1		46
1982 <sup>a</sup>	43	32	74%	22%		6,734		180		1,059		113		1,767		3,615	
1986	52	37	71%	33%	20	3,587	861	10	4	864	61	125	3	469	19	2,118	774
1987					14		991		76		85		22		101		707
1988					5		307		9		53		5		6		234
1989	39	34	87%	21%	6	1,926	350	11	31	385	30	14	0	145	54	1,371	235
1990	40	35	87%	17%	21	3,440	1,598	2	24	759	136	105	28	189	78	2,385	1,332
1991	43	38	88%	15%	15	4,273	883	23	5	627	26	86	6	416	51	3,008	795
1992	42	37	88%	17%	11	4,071	577	37	6	608	12	58	5	205	19	3,161	535
1993	49	40	82%	23%	7	6,451	661	47	8	940	51	158	3	93	104	5,214	661
1994					10		551		8		36		2		81		424
1995					10		504		0		13		11		0		480
1996					8		590		3		5		1		0		581
1997	41	26	63%	41%	13	5,666	729	3	2	1,256	39	523	6	806	13	3,078	669
1998					10		637		0		11		3		0		623
1999					10		556		4		17		5		9		521
2000					10		459		3		23		0		3		430
2001					26		841		28		47		5		2		759
2002					24		628		0		31		162		4		431
2003	31	25	62%	30%	21	2,678	917	6	0	413	35	63	12	107	15	2,089	855
2004	32	9	28%	84%	23	6,180	1,021	53	0	1,625	19	210	21	178	23	4,114	958
2005	37	35	95%	13%	24	2,919	1,453	21	53	332	25	54	7	66	50	2,446	1,318
Average, survey years only						4,357	905	36	13	806	43	137	9	404	43	2,964	813

Note Average permit harvest as a portion of survey harvest = 21%. a. No permits returned in 1982.

Sources ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Commercial Fisheries Subsistence Salmon Permit Database; ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-27.—Salmon harvests estimated from household surveys and reported salmon harvests from returned permits, numbers of fish, Old Harbor, 1981–2005.

Year	Number of households	Number of surveys	Survey sampling percentage	95% confidence limit	Number of permits	Estimated total number of harvested salmon, household surveys	Reported total number of salmon harvested, permits	Number of chum salmon, household surveys	Number of chum salmon, permits	Number of coho salmon, household surveys	Number of coho salmon, permits	Number of Chinook salmon, household surveys	Number of Chinook salmon, permits	Number of pink salmon, household surveys	Number of pink salmon, permits	Number of sockeye salmon, household survey	Number of sockeye salmon, permits
1981					4		381		0		125		0		240		16
1982 <sup>a</sup>	94	77	82%	8%		16,720		3,765		5,221		110		6,930		693	
1986	119	42	37%	45%	12	14,345	896	3,072	55	4,957	531	138	0	3,540	285	2,637	25
1987					19		1,490		200		791		0		154		345
1988					13		945		37		463		0		350		95
1989	93	48	52%	26%	11	7,622	591	450	25	4,210	223	8	0	2,218	208	736	135
1990					35		2,547		225		1,699		4		519		100
1991	66	42	64%	22%	33	10,398	2,966	1,424	129	4,656	1,759	35	2	2,711	581	1,573	495
1992					21		1,644		271		751		0		280		342
1993					25		2,173		277		1,064		0		406		426
1994					16		1,119		163		666		7		240		43
1995					16		808		44		482		0		217		65
1996					17		986		109		584		0		133		160
1997	80	43	54%	22%	16	6,309	874	372	50	3,038	542	240	2	835	280	1,821	0
1998					10		661		50		357		0		230		24
1999					18		1,119		47		562		0		187		323
2000					49		2,022		34		570		0		184		430
2001					49		2,022		88		1,014		12		218		690
2002					40		2,506		110		1,063		6		535		792
2003	96	52	54%	20%	41	7,240	2,710	808	102	2,678	1,189	262	50	1,419	431	2,074	938
2004	77	29	38%	26%	33	10,146	2,204	858	85	3,577	1,001	16	13	2,238	531	3,458	574
2005	75	49	65%	21%	38	7,581	3,303	364	236	2,645	1,025	184	13	1,950	725	2,438	1,304
Average, survey years only						10,045	1,935	1,389	97	1,549	896	124	11	2,730	434	1,929	496

Note Average permit harvest as a portion of survey harvest = 19%. a. No permits returned in 1982.

Sources ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Commercial Fisheries Subsistence Salmon Permit Database; ADF&G, Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-28.—Salmon harvests estimated from household surveys and reported salmon harvests from returned permits, numbers of fish, Ouzinkie, 1981–2005.

Year	Number of households	Number of surveys	Survey sampling percentage	95% confidence limit	Number of permits	Estimated total number of harvested salmon, household surveys	Reported total number of salmon harvested, permits	Number of chum salmon, household surveys	Number of chum salmon, permits	Number of coho salmon, household surveys	Number of coho salmon, permits	Number of Chinook salmon, household surveys	Number of Chinook salmon, permits	Number of pink salmon, household surveys	Number of pink salmon, permits	Number of sockeye salmon, household survey	Number of sockeye salmon, permits
1981					20		961		8		227		0		90		636
1982 <sup>a</sup>	70		46%	31%		7,886		1,133		2,201		66		1,339		3,148	
1986	69	35	55%	26%	32	7,573	1,656	1,001	12	2,640	544	20	5	1,245	92	2,666	1,003
1987					31		2,017		117		368		19		169		1,344
1988					18		948		0		328		0		18		602
1989	69	35	51%	32%	20	1,151	555	10	36	678	117	6	0	252	45	205	357
1990	59	53	90%	12%	37	3,261	2,002	246	58	1,212	765	24	5	414	101	1,331	1,073
1991	55	32	58%	23%	38	3,857	2,261	364	149	1,745	702	14	0	400	120	1,334	1,290
1992	59	52	88%	10%	36	6,041	2,518	271	90	2,450	740	54	1	850	163	2,395	1,524
1993	71	66	86%	13%	28	5,695	2,038	231	27	2,541	949	14	55	708	92	2,120	915
1994					26		2,323		46		811		5		134		1,327
1995					22		1,873		17		586		23		73		1,174
1996					24		1,744		28		626		0		25		1,065
1997	62	47	76%	15%	31	5,799	2,308	394	31	1,633	546	136	9	925	86	2,571	1,636
1998					27		2,051		23		602		7		62		1,357
1999					32		2,275		93		564		4		131		1,483
2000					26		2,110		43		617		8		20		1,422
2001					45		2,269		79		563		6		148		1,473
2002					40		2,467		51		440		34		74		1,868
2003	77	51	66%	18%	40	6,006	2,346	356	42	2,204	567	138	43	708	147	2,600	1,547
2004	66	42	64%	20%	43	5,577	2,265	248	35	1,678	514	245	23	706	168	2,700	1,525
2005	69	62	90%	9%	36	5,946	3,416	214	172	2,068	863	132	119	990	572	2,543	1,690
Average, survey years only						5,345	2,137	406	65	1,914	631	77	26	776	159	2,147	1,256

Note Average permit harvest as a portion of survey harvest = 40%. a. No permits returned in 1982.

Sources ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Commercial Fisheries Subsistence Salmon Permit Database; ADF&G, Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-29.—Salmon harvests estimated from household surveys and reported salmon harvests from returned permits, numbers of fish, Port Lions, 1981–2005.

Year	Number of households	Number of surveys	Survey sampling percentage	95% confidence limit	Number of permits	Estimated total number of harvested salmon, household surveys	Reported total number of salmon harvested, permits	Number of chum salmon, household surveys	Number of chum salmon, permits	Number of coho salmon, household surveys	Number of coho salmon, permits	Number of Chinook salmon, household surveys	Number of Chinook salmon, permits	Number of pink salmon, household surveys	Number of pink salmon, permits	Number of sockeye salmon, household survey	Number of sockeye salmon, permits
1981					15		847		2		322		17		44		462
1982 <sup>a</sup>	89	55	62%	17%		5,429		142		2,225		39		772		2,251	
1986	90	65	72%	18%	42	9,130	1,921	244	10	3,482	781	432	2	1,695	124	3,277	1,004
1987					47		2,453		289		454		3		198		1,509
1988					30		1,343		77		170		0		69		1,027
1989	67	36	54%	37%	28	2,205	969	65	9	899	218	24	5	164	48	1,053	689
1990					49		3,185		4		1,683		4		138		1,356
1991					54		3,574		7		1,638		1		89		1,839
1992					50		3,653		3		1,554		1,948		131		1,948
1993	67	36	56%	30%	45	8,991	4,278	176	270	3,381	1,578	97	2	1,096	31	4,192	2,397
1994					36		2,317		4		897		13		62		1,341
1995					36		2,448		2		808		23		10		1,605
1996					41		2,960		8		451		2		53		2,446
1997					43		3,846		0		891		6		12		2,937
1998					39		2,246		12		547		5		34		1,648
1999					46		2,070		1		265		24		41		1,739
2000					41		2,486		1		431		2		11		2,041
2001					54		3,286		0		667		27		11		2,581
2002					47		3,208		1		702		33		25		2,447
2003	100	54	54%	14%	51	4,049	2,245	28	2	1,074	274	229	79	355	39	2,364	1,851
2004	74	36	49%	25%	49	5,653	2,242	64	3	2,238	612	539	43	232	65	2,580	1,519
2005	73	28	38%	44%	42	7,118	1,893	342	1	1,817	466	928	28	691	85	3,340	1,313
Average, survey years only						6,082	2,258	1,061	49	15,116	655	2,288	27	5,005	65	19,057	1,462

Note Average permit harvest as a portion of survey harvest = 37%. a. No permits returned in 1982.

Sources ADF&G Division of Subsistence Community Profile Database; ADF&G Division of Commercial Fisheries Subsistence Salmon Permit Database; ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-30.—Salmon harvests, reported from permits and expanded from surveys, numbers of fish, Larsen Bay, 2004 and 2005.

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<u>Group A: Surveyed, returned permits</u>														
Permit totals	3	0	0	4	0	290	294	24	48	30	6	50	1,292	1,426
Survey totals	3	5	271	6	15	245	542	23	20	185	23	40	1,540	1,808
<u>Group B: Surveyed, did not return permit</u>														
Permit totals	1							8						
Survey totals	1	0	0	0	0	60	60	8	0	117	26	22	520	685
<u>Group C: Surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	5	10	186	53	35	852	1,136	4	0	12	2	0	255	269
<u>Group D: Not surveyed, returned permit</u>														
Permit totals	9	0	8	10	8	519	545	1	0	0	0	0	0	0
Survey totals	9							1						
<u>Group E: Not surveyed, did not return permit</u>														
Permit totals	2							0						
Survey totals	2							0						
<u>Group F: Not surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	12							2						

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**Appendix Table E-30. Page 2 of 2.**

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<b>Reported totals</b>														
Permit totals	12/15	0	8	14	8	809	839	24/37	48	30	6	50	1,292	1,426
Survey totals	9/32	15	457	59	50	1,157	1,738	35/37	20	314	51	62	2,315	2,762
<b>Expanded totals</b>														
Permit totals	12/15	0	10	18	10	1,011	1,049	24/37	73	46	9	76	1,964	2,168
Survey totals	9/32	53	1,625	210	178	4,114	6,180	35/37	21	332	54	66	2,447	2,920
Percentage						17%							74%	
Permit totals	12/15	0	10	18	10	1,011	1,049	24/37	73	46	9	76	1,964	2,168
Survey totals	9/32	18	1,013	28	0	3,324	4,383	35/37	0	66	9	66	2,383	2,523
Subsistence methods only		0%	1%	63%		30%	24%		69%	101%	115%	82%	86%	

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-31.—Salmon harvests, reported from permits and expanded from surveys, numbers of fish, Old Harbor, 2004 and 2005.

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<u>Group A: Surveyed, returned permits</u>														
Permit totals	13	48	502	11	318	349	1,228	3	211	738	10	625	1,109	2,693
Survey totals	13	188	749	0	550	758	2,245	33	171	1,315	45	860	1,222	3,613
<u>Group B: Surveyed, did not return permit</u>														
Permit totals	0							0						
Survey totals	0							0						
<u>Group C: Surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	11	100	504	6	233	474	1,317	16	67	413	75	414	371	1,340
<u>Group D: Not surveyed, returned permit</u>														
Permit totals	14	37	499	2	213	225	976	6	0	195	0	15	120	330
Survey totals	14							6						
<u>Group E: Not surveyed, did not return permit</u>														
Permit totals	5							1						
Survey totals	5							1						
<u>Group F: Not surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	30							19						
<u>Group G: Household not identified</u>														
Permit totals	0							0						
Survey totals	4	35	94	0	60	70	259	0						

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**Appendix Table E-31. Page 2 of 2.**

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<b>Reported totals</b>														
Permit totals	27/31	85	1,001	13	531	574	2,204	39/40	211	933	10	640	1,229	3,023
Survey totals	29/77	323	1,347	6	843	1,302	3,821	49/75	238	1,728	120	1,274	1,593	4,953
<b>Expanded totals</b>														
Permit totals	27/31	98	1,149	15	610	659	2,531	39/40	216	957	10	656	1,261	3,101
Survey totals	29/77	858	3,577	16	2,238	3,457	10,145	49/75	364	2,645	184	1,950	2,438	7,581
Percentage							25%							41%
Permit totals	27/31	98	1,149	15	610	659	2,531	39/40	216	957	10	656	1,261	3,101
Survey totals														
Subsistence methods only	29/77	380	2,376	0	1,521	3,009	7,286	49/75	156	1,450	34	1,638	2,222	5,500
Percentage		26%	48%		40%	22%	35%		139%	66%	30%	40%	57%	56%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-32.—Salmon harvests, reported from permits and expanded from surveys, numbers of fish, Ouzinkie, 2004 and 2005.

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<u>Group A: Surveyed, returned permits</u>														
Permit totals	23	29	297	10	104	938	1,378	45	159	768	118	542	1,563	3,150
Survey totals	23	86	434	64	343	1,177	2,104	45	163	1,181	80	565	1,347	3,336
<u>Group B: Surveyed, did not return permit</u>														
Permit totals	4							6						
Survey totals	4	2	116	16	16	80	230	6	18	252	27	139	375	811
<u>Group C: Surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	15	70	518	76	90	461	1,215	9	11	425	11	185	520	1,152
<u>Group D: Not surveyed, returned permit</u>														
Permit totals	6	1	135	0	20	412	568	2	12	73	0	30	111	226
Survey totals	6							2						
<u>Group E: Not surveyed, did not return permit</u>														
Permit totals	5							1						
Survey totals	5							1						
<u>Group F: Not surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	13							4						
<u>Group G: Household not identified</u>														
Permit totals	0							0						
Survey totals	0							2	0	0	1	0	43	44

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**Appendix Table E-32. Page 2 of 2.**

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<b>Reported totals</b>														
Permit totals	29/38	30	432	10	124	1,350	1,946	47/54	171	841	118	572	1,674	3,376
Survey totals	42/66	158	1,068	156	449	1,718	3,549	62/69	192	1,858	119	889	2,285	5,343
<b>Expanded totals</b>														
Permit totals	29/38	39	566	13	162	1,769	2,550	47/54	196	966	136	657	1,923	3,879
Survey totals	42/66	248	1,678	245	706	2,700	5,577	62/69	214	2,068	132	989	2,543	5,946
Percentage							46%							65%
Permit totals	29/38	39	566	13	162	1,769	2,550	47/54	196	966	136	657	1,923	3,879
Survey totals	42/66	248	1,182	28	570	2,590	4,616	62/69	201	1,436	36	761	2,382	4,815
Subsistence methods only		16%	48%	47%	29%	68%	55%		98%	67%	377%	86%	81%	81%

Source ADF&G Division of Subsistence household surveys 2005 and 2006.

Appendix Table E-33.—Salmon harvests, reported from permits and expanded from surveys, numbers of fish, Port Lions, 2004 and 2005.

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<u>Group A: Surveyed, returned permits</u>														
Permit totals	3	0	0	4	0	290	294	24	48	30	6	50	1,292	1,426
Survey totals	3	5	271	6	15	245	542	23	20	185	23	40	1,540	1,808
<u>Group B: Surveyed, did not return permit</u>														
Permit totals	1							8						
Survey totals	1	0	0	0	0	60	60	8	0	117	26	22	520	685
<u>Group C: Surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	5	10	186	53	35	852	1,136	4	0	12	2	0	255	269
<u>Group D: Not surveyed, returned permit</u>														
Permit totals	9	0	8	10	8	519	545	1	0	0	0	0	0	0
Survey totals	9							1						
<u>Group E: Not surveyed, did not return permit</u>														
Permit totals	2							0						
Survey totals	2							0						
<u>Group F: Not surveyed, had no permit</u>														
Permit totals	0							0						
Survey totals	12							2						
<b>Reported total</b>														
Permit totals	12/15	0	8	14	8	809	839	24/37	48	30	6	50	1,292	1,426
Survey totals	9/32	15	457	59	50	1,157	1,738	35/37	20	314	51	62	2,315	2,762

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**Appendix Table E-33. Page 2 of 2.**

Description	2004							2005						
	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total	Number of permits or surveys	Chum salmon	Coho salmon	Chinook salmon	Pink salmon	Sockeye salmon	Total
<b>Expanded total</b>														
Permit totals	12/15	0	10	18	10	1,011	1,049	24/37	73	46	9	76	1,964	2,168
Survey totals	9/32	53	1,625	210	178	4,114	6,180	35/37	21	332	54	66	2,447	2,920
Percentage							17%							74%
Permit totals	12/15	0	10	18	10	1,011	1,049	24/37	73	46	9	76	1,964	2,168
Survey totals														
Subsistence methods only	9/32	18	1,013	28	0	3,324	4,383	35/37	0	66	9	66	2,383	2,523
Percentage		0%	1%	63%		30%	24%			69%	101%	115%	82%	86%

Source ADF&G, Division of Subsistence household surveys 2005 and 2006.