

Fishery Data Series No. 09-73

**Subsistence and Personal Use Salmon Harvests in the
Alaska Portion of the Yukon River Drainage, 2008**

by

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December 2009

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. 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)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL			mid-eye to fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid-eye to tail fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.		
liter	L		@	Mathematics, statistics	
meter	m			<i>all standard mathematical signs, symbols and abbreviations</i>	
milliliter	mL	at		alternate hypothesis	H _A
millimeter	mm	compass directions:		base of natural logarithm	<i>e</i>
		east	E	catch per unit effort	CPUE
Weights and measures (English)		north	N	coefficient of variation	CV
cubic feet per second	ft ³ /s	south	S	common test statistics	(F, t, χ^2 , etc.)
foot	ft	west	W	confidence interval	CI
gallon	gal	copyright	©	correlation coefficient	
inch	in	corporate suffixes:		(multiple)	R
mile	mi	Company	Co.	correlation coefficient	
nautical mile	nmi	Corporation	Corp.	(simple)	r
ounce	oz	Incorporated	Inc.	covariance	cov
pound	lb	Limited	Ltd.	degree (angular)	°
quart	qt	District of Columbia	D.C.	degrees of freedom	df
yard	yd	et alii (and others)	et al.	expected value	<i>E</i>
		et cetera (and so forth)	etc.	greater than	>
Time and temperature		exempli gratia	e.g.	greater than or equal to	≥
day	d	(for example)		harvest per unit effort	HPUE
degrees Celsius	°C	Federal Information Code	FIC	less than	<
degrees Fahrenheit	°F	id est (that is)	i.e.	less than or equal to	≤
degrees kelvin	K	latitude or longitude	lat. or long.	logarithm (natural)	ln
hour	h	monetary symbols		logarithm (base 10)	log
minute	min	(U.S.)	\$, ¢	logarithm (specify base)	log ₂ , etc.
second	s	months (tables and figures): first three letters	Jan, ..., Dec	minute (angular)	'
Physics and chemistry		registered trademark	®	not significant	NS
all atomic symbols		trademark	™	null hypothesis	H ₀
alternating current	AC	United States (adjective)	U.S.	percent	%
ampere	A	United States of America (noun)	USA	probability	P
calorie	cal	U.S.C.	United States Code	probability of a type I error (rejection of the null hypothesis when true)	α
direct current	DC	U.S. state	use two-letter abbreviations (e.g., AK, WA)	probability of a type II error (acceptance of the null hypothesis when false)	β
hertz	Hz			second (angular)	"
horsepower	hp			standard deviation	SD
hydrogen ion activity (negative log of)	pH			standard error	SE
parts per million	ppm			variance	
parts per thousand	ppt, ‰			population	Var
volts	V			sample	var
watts	W				

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**SUBSISTENCE AND PERSONAL USE SALMON HARVESTS IN THE
ALASKA PORTION OF THE YUKON RIVER DRAINAGE, 2008**

by

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ABSTRACT

This annual study estimates subsistence and personal use salmon harvest within the Alaska portion of the Yukon River drainage. Most Yukon Area communities have no regulatory requirements to report their subsistence salmon harvest. For these communities, the Alaska Department of Fish and Game utilized a voluntary survey program. Harvest information was collected through postseason household interviews, follow-up telephone interviews, postal questionnaires, and harvest calendars. Stratified random sampling techniques were used to select Yukon Area households to be interviewed. In 2008, a total of 1,153 households were contacted in 33 communities. Data from surveyed households were expanded to estimate the harvest of unsurveyed households. In more accessible portions of the Yukon Area, fishermen must document their harvest on a subsistence or personal use permit. In 2008, 560 subsistence and personal use permits were issued, with 93% returned. Of these returned permits, 291 reported a harvest. This report also documents subsistence fish given to households from various test fish projects. The total subsistence and personal use harvest throughout the Yukon Area was estimated to be 45,312 Chinook *Oncorhynchus tshawytscha*, 86,652 summer chum *O. keta*, 89,538 fall chum *O. keta*, and 16,905 coho *O. kisutch* salmon. The primary fishing gear types used were set gillnets (48%), drift gillnets (37%), and fish wheels (7%). Approximately 268 households fed an estimated 69,122 salmon to 5,297 dogs.

Key words: Tanana River, Yukon River, Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho salmon *O. kisutch*, northern pike *Esox lucius*, inconnu *Stenodus leucichthys*, whitefish *Prosopium* spp., harvest, personal use, subsistence, amount necessary for subsistence

INTRODUCTION

Annual documentation of the subsistence salmon harvest (Appendices A1–A4) is necessary to determine if sufficient salmon are returning to the Yukon Area for escapement and subsistence requirements, and if enough fishing opportunities are provided to meet subsistence needs (Appendices A5–A8). Since 1961, the Alaska Department of Fish and Game (ADF&G) has collected information on subsistence salmon harvest and use in the Yukon Area (ADF&G 2002). Most subsistence users within the Yukon River drainage are not required to record or report their harvest on permits. The primary method of estimating harvest from these subsistence users is the annual subsistence salmon harvest survey conducted by ADF&G. In more accessible portions of the Yukon Area, salmon fishermen must obtain a subsistence or personal use permit and submit records of their harvests. Using a combination of survey and permit information, this report documents the estimated subsistence and personal use harvests within the Alaska portion of the Yukon River drainage.

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1). The difference between the reporting groups “Yukon River” and “Yukon Area” is that the Yukon Area includes the Coastal District. For management purposes, the Yukon Area is divided into 7 districts and 10 subdistricts. The Lower Yukon Area consists of coastal waters in the Yukon Area and the Yukon River drainage from its mouth to Old Paradise Village, and is composed of Districts 1, 2, and 3. The Upper Yukon Area consists of the Yukon River drainage upstream of Old Paradise Village to the Canadian border and is divided into Districts 4, 5, and 6. The Coastal District includes the remainder of coastal Yukon Area waters not included in District 1.

The Yukon River drainage supports 5 species of Pacific salmon: Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, coho *O. kisutch*, pink *O. gorbuscha*, and sockeye *O. nerka* salmon. The majority of subsistence and personal use harvests are made up of Chinook, chum and coho salmon. The chum salmon return consists of 2 temporally and genetically distinct stocks: early (summer chum) and late (fall chum). Subsistence salmon fishing activities in the Yukon Area typically begin

in late May and continue through early October. Salmon fishing in May and October is highly dependent upon river ice conditions.

Subsistence and personal use fishermen in the Yukon Area primarily use drift gillnets, set gillnets, and fish wheels to harvest salmon. Set gillnets are utilized throughout the Yukon Area, whereas under state regulations, drift gillnets to harvest salmon are only allowed from the mouth of the Yukon River to approximately 18 miles below the community of Galena (River Mile 530). Although fish wheels are a legal gear type for subsistence fishing throughout the drainage, they are essentially used only in the Upper Yukon Area. Water conditions and fishing locations are more suitable for the operation of fish wheels in the Upper Yukon Area, which also contains a better supply of logs and young spruce trees used for the raft, axle and axle's stanchion, lead, and basket construction.

Residents of the communities in the Yukon River drainage are primarily of Yupik Eskimo and Athabaskan Indian descent. Excluding the greater Fairbanks area (approximately 90,000 people), the most recent census indicates the rural resident population in 2008 was approximately 22,200 people (Williams 2009). The recent 5-year (2003–2007) average population of Yukon Area rural residents within the Denali Borough, Southeast Fairbanks, Yukon-Koyukuk, and Wade Hampton Census Areas, excluding the greater Fairbanks area, has remained relatively stable at 21,800 people.

Yukon Area communities have a long tradition of harvesting salmon for subsistence use. Fishing activities are usually based from a fish camp or a home community. Extended family groups, representing two or more households, often work together to harvest, cut, and preserve salmon for subsistence use. Some households from Yukon River tributary communities, such as Shageluk and Venetie, may operate or share in the operation of fish camps along the mainstem Yukon River (Figure 1). Subsistence salmon harvested for human consumption are commonly dried, smoked, or frozen. There is usually little wastage of fish taken for subsistence purposes, although damp weather may cause some drying fish to spoil and some fish are lost to disease (e.g. *Ichthyophonus*) or predation (e.g. birds and/or bears). Chinook salmon are highly valued for human consumption, and harvests in the Lower and Upper Yukon Areas are similar.

In addition to human consumption, salmon are fed to dogs, which are used for recreation, transportation and as haul animals. Small Chinook (“jacks”), summer chum, fall chum and coho salmon are primarily harvested to feed dogs in the Upper Yukon Area (Andersen 1992). Most of the subsistence salmon used for dog food are dried summer chum salmon, or “cribbed” (frozen in the open air) fall chum and coho salmon. In the Lower Yukon Area, dogs are often fed scraps that become available during the processing of freshly harvested salmon and relatively few whole fresh salmon are fed to dogs. The practice of keeping sled dogs is more common in the Upper Yukon Area than in the Lower Yukon Area. A gradual reduction in the need for salmon as dog food began around 1930, when airplanes began replacing sled dogs as the primary mail and supply carrier. This decline accelerated in the 1960s with the introduction of snow machines to Interior Alaska (Andersen 1992). Beginning in the early 1980s, there was a renewed interest in recreational use and racing of sled dogs, thereby increasing the number of subsistence salmon harvested for dog food. From 1997 to present day there has been a decline in the number of households with dog teams (D. Andersen, Research North, Fairbanks, AK; personal communication, 2008). The decline is due in part to poor chum salmon run from 1998 to 2002 combined with the steep rise in cost of equipment (boat, motor, nets, fuel) needed to harvest fish for dog food.

Many Yukon Area residents participate in both commercial and subsistence salmon fishing. Restrictions on subsistence salmon fishing may be required during a commercial salmon fishing season to assist in the enforcement of commercial fishing regulations and management of harvest amounts. However, during a typical salmon fishing season, substantially more time is provided for subsistence fishing than for commercial fishing. Commercial fishing in the Upper Yukon Area began in 1974 (ADF&G 2002). From 1974 through 1977, the sale of roe from subsistence caught salmon was legal. Salmon or their eggs harvested during subsistence openings can no longer be legally bought or sold under the State of Alaska regulations. However, flesh from commercially harvested salmon may be retained for subsistence use.

The total estimated salmon harvest in the Alaska portion of the Yukon River drainage is comprised of harvest from both subsistence and personal use fisheries. State regulations dictate that subsistence is the highest priority use of salmon, and subsistence is a primary consideration in fishery management actions. While subsistence salmon fishing in the Yukon Area primarily occurs in non-permit areas, some portions of the Yukon River, and the entire Tanana River are accessible from the road system, so more fishermen from urban areas potentially travel there to subsistence fish. Subsistence permits are used to document harvest data, as otherwise much harvest would go unreported because of the transient nature of these fishermen and the fact that most do not reside in a surveyed community. A personal use fishery was implemented in 1986, and currently takes place in the Fairbanks Nonsubsistence Management Area (Figure 2), which was established in 1992 (Appendix C) due to the heavy demand urban fishermen may potentially place on the resource. In this nonsubsistence area, fishermen must possess a personal use permit and a sport fish license. State regulations dictate that personal use fishing has a lower priority than subsistence fishing. Similar to subsistence fishing permits, data collected from personal use permits allow managers to track harvest.

OBJECTIVES

The objectives of the study include the following:

1. Estimate and document the 2008 Yukon Area subsistence and personal use salmon harvest by species and harvest area;
2. Estimate and document the 2008 Yukon Area subsistence salmon “use” by species and harvest area;
3. Identify Yukon Area fishing households and the number of people in each household;
4. Determine the gear types used by Yukon Area subsistence and personal use fishermen;
5. Include numbers of fish provided to communities for subsistence use that originated from Yukon Area test fishery programs;
6. Estimate the number of dogs, number of households with dogs, number of households that feed salmon to dogs, and the number of salmon fed to dogs;
7. Record the number of freshwater fish species (non-salmonid) harvested by the fishermen in communities which participate in the Yukon Area subsistence and personal use fisheries.

Additional objectives were to provide documentation of the number of households in surveyed communities, relative percent success in meeting their subsistence salmon needs, number of salmon “lost” and not available for human consumption, and review comments and concerns conveyed by subsistence users.

METHODS

DEFINITION OF SUBSISTENCE AND PERSONAL HARVEST

Total subsistence and personal harvest in the Alaska portion of the Yukon River drainage includes 1) fish harvested for subsistence and personal use for direct personal or family consumption (Appendix C) 2) fish distributed to individuals from various test fisheries, and 3) “commercial related” fish, harvested commercially but not sold and retained for subsistence and personal use. A second category of “commercial related” includes female salmon carcass taken commercially for roe product and returned to the fisherman or given away by the commercial buyer/processor and are not included in subsistence harvest. This roe harvest is documented on the commercial fish tickets as fish sold.

HARVEST SURVEY INSTRUMENTS

Total number of salmon harvested for subsistence and personal use fisheries was estimated by the permit programs, calendar and postcard, and the household survey.

Permit Program

In communities along the entire Tanana River drainage (District 6) and where the Yukon River is accessible by the Alaska Highway road system (District 5), households must obtain subsistence or personal use fishing permits issued at the ADF&G offices in Fairbanks, Delta Junction, and Tok. In addition, permit applications for the current season were mailed to all fishermen who returned their permits from the previous season. For residents of communities outside Fairbanks area, subsistence permit applications were mailed with a postage paid return envelope and dates a department representative would visit their community. In 2008, permit issuing trips were conducted in the communities of Central, Circle, Delta Junction, Dot Lake, Eagle, Manley, Minto, Nenana, Northway, Rampart, Tanacross, and Tok (Figure 1).

Permit holders were required to keep a record of their daily fish harvest on the permit and return it to ADF&G within 10 days of the expiration date (expires October 10 for salmon and December 31 for non-salmon permits). Households that did not report their harvest were mailed up to 2 reminder letters, 2 weeks apart. Households that did not respond to the reminder letters were contacted by telephone.

Harvests of permit communities were estimated by summing harvests of all permit holders who returned their permit, returned a completed reminder letter, or verbally reported their harvest information. These results were not expanded permit holders who did not return their permits.

Stevens Village is uniquely situated just outside the boundary of a permit area on the Yukon River. Many residents acquire a permit to fish between Haul Road Bridge and the boundary downstream of the community however, most residents fished outside of the permit area in 2008. Consequently, its harvest was estimated by both the permit and the household survey. The household survey was used to estimate subsistence harvest, while permit harvest number was reported in the permit total. The overlap between subsistence and permit areas can occasionally cause inconsistencies between numbers reported on survey and permit tables. In these instances, readers should be attentive of footnotes accounting for discrepancies.

Subsistence Harvest Calendars and Postcards

Prior to the salmon fishing season, subsistence harvest calendars were distributed to households in surveyed communities from the Coastal District, Districts 1–4 and a portion of District 5. Calendars were used primarily to help fishermen remember their harvest during the postseason harvest surveys and to monitor timing of subsistence harvests by species, in which fishermen record their daily salmon harvest by species.

In May 2008, calendars were mailed to all households except those in the *Do Not Fish* category. Prior to 2002, calendars were mailed to all households. In 2002, in order to reduce expense and increase return rate, calendars were mailed only to those households who had returned a calendar at least once in the previous 10 years (Brase and Hamner 2003). In 2003, with additional funding, calendars were sent to all households (Busher and Hamazaki 2005). Beginning in 2004, calendars were mailed to all identified subsistence salmon fishing households and to households with unknown subsistence salmon fishing habits. Extra calendars were also made available upon request. In an effort to increase the number of calendars returned during community surveys, fliers were sent to community post offices, stores, schools, or city offices with fax numbers to remind fishermen to have their harvest calendars available for the surveyors. Everyone who returned a properly completed 2008 harvest calendar before January 1, 2009, became eligible to win 1 of 6 \$100 lottery prizes.

Lamprey postcards (Figure 3) were mailed to every household in 9 lower river communities in November 2007. Households were asked to record the lamprey harvest taken from November and December 2007. The 2008 survey asked about lamprey harvested in the previous winter, as lampreys are usually harvested after fishermen in the communities are interviewed.

POSTSEASON SUBSISTENCE HOUSEHOLDS SURVEYS

Survey Design

Primary objectives of the subsistence households survey is estimating total number of fish harvested for subsistence and personal use by each community. The survey is based on stratified random sample design (Cochran 1977). In this design, fish harvests of a household is a primary sampling unit, and each household was stratified into 5 use groups based on the level of harvest: the *Unknown*, *Do Not Fish*, *Light Harvester*, *Medium Harvester*, and *Heavy Harvester*. Of those 5 groups, 100% of the households in the *Unknown*, *Medium*, and *Heavy* use groups were selected for survey, and 30% of the households in the *Light* and *Do Not Fish* use groups were selected to be sampled. Percentage of the *Light* and *Do Not Fish* use groups was increased to 50% in Emmonak, Holy Cross, Pilot Station, and Tanana to improve the precision of harvest estimates in these larger communities. When any stratum sample size contained 5 or fewer households, then the sample size was made equal to the stratum size. In communities with less than 40 households, all households were surveyed (Appendix A14).

It should be noted that a fishing household is defined as “a household that participated in the subsistence fishing activities, such as harvesting and processing fish”, and number of fish harvested by a fishing household is defined as “the number of fish harvested or processed by the household for subsistence purposes.” Frequently, several households’ fish together at a fish camp as a group, not only for themselves, but also for other non-fishing households (e.g., their parents, relatives). At camp, some households harvest salmon, while some only process (i.e., clean, cut, dry, smoke). In these cases, fish each household brought back home corresponds to fish

harvested by the household. During the interview a fishing household was identified by the question: “Did anyone in your household catch salmon for subsistence use OR keep fish for subsistence use from commercial fishing?” (survey question 3: Figure 4), in which a surveyor was instructed to clarify that “catching” means any participation in the subsistence fishery, such as cutting fish. To determine the total use of each household, questions were asked about whether the household shared or received fish.

Households Update and Stratification

A list of the Yukon Area households (*families* database) was updated by using previous years’ survey information. Each year before the season, the list was updated by contacting knowledgeable individuals in each community. Community census lists, telephone and utility lists, and the Alaska Permanent Fund Dividend application list were also used in maintaining the ADF&G *families* database. Beginning in 2004, the list was reviewed and updated annually by Subsistence Assistants, local knowledgeable residents employed by the Yukon River Drainage Fisheries Association (YRDFA). Frequently households that live outside of the survey areas travel to the Yukon River to fish near a surveyed community, or some households fished in a permit area, as well as non-permit areas. Those households were included on the household list nearest to the surveyed community where they fished.

The updated households were stratified into 5 use groups based on harvest level: *Unknown*, *Do Not Fish*, *Light*, *Medium*, or *Heavy*. For each household, the most recent 2-year harvest average in previous 5 years (total harvest of all salmon species, except for pink salmon) was calculated. Households with an average harvest of 1 to 100 salmon was classified to *Light*, 101 to 500 salmon to *Medium*, and greater than 500 salmon to *Heavy*. Households with no salmon harvest were classified to *Do Not Fish*, and those with no harvest information were classified to *Unknown* (Appendix A14). When 2 recent years of harvest data were unavailable, the household’s previous year’s use group remained unchanged.

Household Survey Questionnaire

To keep data consistent and comparable between years, the subsistence survey questions have been generally consistent from year to year (Figure 4). The questionnaire asked total number of salmon harvested by the household (question 7), and use (question 11), fishing gears used (question 14), and area fished (question 13). To determine distribution of salmon within a community, it also asked the number of households fished together (question 6), total number of the group’s catch (question 5), the number of salmon given to other families (question 12), the number of salmon received from other households, from commercial harvest, or from test fishery project (question 16), and the number of salmon harvested for dog food (questions 18, 19, 20).

Households were also asked to assess at what level their subsistence salmon needs were met, by species (question 21). A “No need” checkbox also is included on the survey form to account for households who did not harvest or use a species, as opposed to those who did not harvest or use a particular species but wished to do so (met “0% of their need). Examples of “no need” include a species that may not be traditionally fished in a particular area (e.g., coho salmon are not commonly fished on the mainstem Yukon River above the community of Tanana) or the respondent may not have wished to harvest the species (e.g., the summer chum salmon run was sufficient, so the household did not fish for fall chum salmon). Households were also asked about their harvest of pink and sockeye salmon and miscellaneous fish species (question 15). For species

that are commonly harvested in the winter and spring, households were asked about their harvest of that species throughout the previous winter, from the date of the previous year's survey to present.

Household Survey

Before the survey, surveyors were trained in interviewing techniques, including local names of salmon species (e.g., in some villages fall chum salmon are called "silvers" and summer chum salmon are called "dog salmon") and various ways to obtain the number of fish harvested. The surveyors were also briefed on any fishery issues concerning the survey year's subsistence and commercial salmon fishing season. The surveyors were trained to ask questions consistently and understandably and to foster a cooperative atmosphere, so that interviewed household members were able to recall as accurately as possible concerning their household harvest, use, as well as any fishery related knowledge and concerns pertinent to the survey outcome.

The surveys were conducted in early fall when the majority of salmon fishing activities ended and fishermen could still recall their harvest numbers. In 2008, a total of 1,401 households were selected to be surveyed in 33 communities. Surveyors traveled to 32 Yukon Area communities between September 4 and October 29. Due to travel times and cost, surveyors did not visit Birch Creek community and surveys were conducted by telephone or by mail. An additional 7 unselected households from Kaltag (1), Mountain Village (1), St. Mary's (3), Russian Mission (1), and Scammon Bay (1) volunteered to be surveyed. These additional surveys are few in number, and are not statistically significant; therefore they are entered along with the selected households.

Upon arrival in most surveyed communities, the surveyors coordinated with a local resident hired by YRDFFA to update household lists, maps, and locate selected households. In 23 of the communities surveyed, 28 community assistants were hired in 2008. Community assistants provided local knowledge, and in a few cases served as translators, but did not conduct interviews. Surveyors attempted to contact all selected households. Occasionally, surveyors interviewed households not pre-selected for the survey. This occurred when individuals voluntarily provided surveyors with their harvest information. After the interview was completed survey participants were given a small token of appreciation (pen or magnetic clip) for participating in the survey.

After the households survey, completed survey forms were edited for clarity. Occasionally, follow-up calls were made to obtain final harvest numbers or to reconcile conflicting information among households that harvested or shared salmon with each other. Occasionally, fishermen reported amounts of harvest in alternative terms, such as the number of 5 gallon buckets, Ziploc bags, gunny sacs, or pounds. ADF&G has compiled a conversion sheet over the years of locally used measuring units used to estimate fish numbers in these circumstances. For example, a 5 gallon bucket of poke fish is about 25–30 dried summer chum salmon in seal oil. Any calculations were made when the completed surveys were edited.

HARVEST ESTIMATION METHODS

In the postseason survey, classical stratified random sampling methods (Cochran 1977) were used to estimate the average and total number of fish caught by each of the 5 use groups in each surveyed Yukon Area community.

Denote that:

N_{kj} = the number of households in j th ($j = 1 \dots 5$) use group of the k th community

n_{kj} = the number of sample households in the j th use group of the k th community

y_{kji} = response of i th sample household ($i = 1 \dots n_{kj}$) in the j th use group of the k th community

Mean response (harvests) of the j th use group of the k th community (\bar{y}_{kj}) was calculated as:

$$\bar{y}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} \quad (1)$$

and its standard error (SE_{kj}) was calculated as:

$$SE_{kj} = \sqrt{\frac{s_{kj}^2}{n_{kj}} \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right)} \quad \text{WHERE} \quad s_{kj}^2 = \frac{\sum_{i=1}^{n_{kj}} (y_{kji} - \bar{y}_{kj})^2}{n_{kj} - 1}. \quad (2)$$

The estimate of total responses (harvests) of the k th community (\hat{T}_k) was calculated as:

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \bar{y}_{kj} \quad (3)$$

and its 95% confidence interval (95%CI_k) was calculated as:

$$95\% \text{CI}_k = 1.96 \cdot \sqrt{\hat{V}(T_k)} \quad \text{WHERE} \quad \hat{V}(T_k) = \sum_{j=1}^5 N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{s_{kj}^2}{n_{kj}} \right). \quad (4)$$

Because the estimates of the responses (harvests) in each community were independent from each other, the estimate of survey wide total (\hat{T}) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k \quad (5)$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\% \text{CI} = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} \quad \text{WHERE} \quad \hat{V}(\hat{T}) = \sum_{k=1} \hat{V}(\hat{T}_k). \quad (6)$$

The above estimation method were applied to: the number of people (question 2: Figure 4), the number of subsistence salmon harvested (question 7), the number of salmon used (question 11), the number of salmon given away (question 16), the number of dogs (question 17), the number of salmon retained for dog food (question 20), and the number of non-salmon fish (whitefish *Prosopium* spp. and *Coregonus* spp., northern pike *Esox lucius*, and sheefish or inconnu *Stenodus leucichthys*) harvested (question 15).

The reported harvests of other miscellaneous fish species were not expanded because they fall outside the main intent of this survey and limited information is usually obtained. Those fish species include Arctic grayling *Thymallus arcticus*, Arctic char *Salvelinus alpinus*, blackfish *Dallia pectoralis*, burbot *Lota lota*, Arctic lamprey *Lampretra camtschatica*, longnose sucker *Catostomus catostomus* and saffron cod *Eleginus gracilis*. Surveyors ask about the amount of these species harvested during the winter of the previous year to the date of the survey, as many of these species are not harvested during the summer salmon fishing season. Unlike harvest of the other salmon species, the sockeye salmon harvest was also not expanded to estimate the harvest of households that were not surveyed. Sockeye salmon are caught infrequently in the lower and middle Yukon River drainage, but are included on the survey because some fishermen have consistently reported incidental catches of sockeye salmon. Reported sockeye salmon harvests were not expanded because these harvests were too low and only limited information was obtained.

For estimation of the number of subsistence fishing households (question 3) and those with dogs/feed salmon to dogs (questions 17, 18), following expansion method was used:

Denote that:

N_{kj} = the number of households in j th ($j = 1 \dots 5$) use group of the k th community

n_{kj} = the number of sample households in the j th use group of the k th community

y_{kji} = response ($y_{kji} = 1$ if subsistence fish/own/feed dogs, 0 if not) of i th sample household ($i=1 \dots n_{kj}$) in the j th use group of the k th community

Proportion of households subsistence fish/own/feed dogs in the j th use group of the k th community (\hat{p}_{kj}) was calculated as:

$$\hat{p}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} \quad (7)$$

Estimated number of households subsistence fish/own/feed dogs in the k th community (\hat{T}_k) was calculated as:

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \hat{p}_{kj} \quad (8)$$

and its 95% confidence interval (95%CI_k) was calculated as:

$$95\% \text{CI}_k = 1.96 \cdot \sqrt{\hat{V}(\hat{T}_k)} \quad \text{WHERE} \quad \hat{V}(\hat{T}_k) = \sum_{j=1}^5 N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{\hat{p}_{kj}(1 - \hat{p}_{kj})}{n_{kj} - 1} \right). \quad (9)$$

Estimated number of households subsistence fish/own/feed dogs in the survey wide total (\hat{T}) was calculated as:

$$\hat{T} = \sum_{k=1} \hat{T}_k \quad (10)$$

and its 95% confidence interval (95%CI) was calculated as:

$$95\% \text{ CI} = 1.96 \cdot \sqrt{\hat{V}(\hat{T})} \quad \text{WHERE } \hat{V}(\hat{T}) = \sum_{k=1} \hat{V}(\hat{T}_k). \quad (11)$$

The number of fish harvested at each fishing area (question 13) was estimated as follows:

Denote that:

\hat{N}_k = Estimated number salmon harvested at the k th community

y_{kjih} = the number of salmon harvested at the h th fishing area by the i th sample household ($i = 1 \dots n_{kj}$) in the j th use group of the k th community

Proportion of salmon harvested at h th fishing area in the k th community (\hat{p}_{kh}) was estimated as:

$$\hat{p}_{kh} = \frac{\sum_{i,j} y_{kjih}}{\sum_{i,j,h} y_{kjih}} \quad (12)$$

The number of salmon harvested at the h th fishing area at the k th community ($\hat{N}_{k,h}$) was calculated as:

$$\hat{N}_{k,h} = \hat{N}_k \hat{p}_{kh} \quad (13)$$

Total number of salmon harvested at the h th fishing area (\hat{N}_h) was estimated as:

$$\hat{N}_h = \sum_k \hat{N}_{k,h} \quad (14)$$

RESULTS

OVERALL ESTIMATION OF HARVEST

Based on the 2008 postseason surveys, returned permits (subsistence and personal use), and salmon made available from test fish projects, an estimated 1,559 households harvested an

estimated 45,312 Chinook, 86,652 summer chum, 89,538 fall chum, and 16,905 coho salmon in the Yukon Area (Table 1).

Test fish projects provided 3,277 Chinook, 4,276 summer chum, 2,592 fall chum, and 605 coho salmon to households for subsistence use (Appendix A11). The primary gear types used for subsistence and personal use salmon fishing throughout the Yukon Area were set gillnets (48%), drift gillnets (37%), and fish wheels (7%; Table 1).

The estimated salmon harvest retained from the commercial catch in the subsistence survey area was 178 Chinook, 1,035 summer chum, 1,712 fall chum, 259 coho. These salmon were retained from commercial periods, and include males not sold in roe fisheries. Fish tickets from District 4 reported 600 summer chum salmon were retained from the commercial fishery, and that 3,114 fall chum and 61 coho salmon were retained in District 5 (Table 1). Carcasses from roe fisheries that have been returned to subsistence fishermen are estimated under that households salmon use (Table 2).

In 2008, reporting of incidental harvests on fish tickets was required during commercial/subsistence openings (even though the fishing periods coincided and subsistence fishing permits are required with no limit on harvests numbers in the remainder of District 6 outside of the non-subsistence area). In previous years these salmon would have been reported as subsistence harvest on their individual household permits. These retained fish are presented in Table 1 as “Commercial Related” for District 6. Records from fish tickets indicate that 4 Chinook, 311 summer chum, 5,625 fall chum, and 2,411 coho salmon were retained from commercial fishing in District 6. The personal use fishery in Subdistrict 6-C near Fairbanks has a harvest limit for each salmon species and in order not to exceed these limits fishermen are required to report incidental harvests of salmon during commercial openings on fish tickets. Of the salmon recorded on District 6 fish tickets, 2 Chinook salmon, 121 summer chum, 130 fall chum, and 69 coho salmon were taken from the personal use fishery in Subdistrict 6-C.

Approximately 150 surveyed households and 118 permitted households reported feeding subsistence caught salmon to their dogs (and one cat) (Tables 3 and 4). An estimated 69,122 salmon were retained for dog food (from both surveyed and permitted households) throughout the Yukon Area (Tables 4, 5, and 6; Appendix B10).

A total of 1,139 salmon (an insignificant proportion of less than 1% of the total salmon harvested) were reported lost from human consumption in the surveyed communities. Salmon lost to humans and dogs consisted of 143 Chinook, 642 summer chum, 31 fall chum, 7 coho, and 21 pink salmon. Fish that were lost for human consumption but suitable for dogs consisted of 295 salmon; 77 Chinook, 171 summer chum, 41 fall chum, 2 coho, and 4 pink salmon (Appendix A12).

POSTSEASON SUBSISTENCE SURVEYS

Surveyors contacted 991 households in person, 132 via telephone, and information for 30 households was collected from surveys returned by mail (20) or calendars (10) for a total of 1,153 households surveyed (82% of total households selected, Table 7). Of the 2,470 total households identified in the survey area, an estimated 1,275 households (52%) participated in the 2008 subsistence fishery (Table 8). The total population of surveyed communities was estimated at 8,890 people (Table 9). Approximately 37,279 Chinook, 80,137 summer chum, 47,354 fall chum, and 7,754 coho salmon were harvested in the surveyed communities (Table 10, Figure 5).

Harvest by location is presented in Tables 11–14; fishermen from some communities may fish in multiple districts or subdistricts. Households reported being given 3,480 Chinook, 10,557 summer chum, 4,690 fall chum, and 286 coho salmon from subsistence fishermen (Appendix A9). Households also reported being given 27 Chinook, 2,296 summer chum, 7,699 fall chum, and zero coho salmon from commercial fishermen (Appendix A10). In 2008, nine communities received a total of 10,750 salmon from test fish projects (Appendix A11, Appendix B8). Of the salmon harvested and/or given away to households, approximately 30,148 Chinook, 65,684 summer chum, 39,665 fall chum, and 6,225 coho salmon were used for subsistence purposes (Table 2). This estimate includes salmon used by fishing and non-fishing households in the surveyed communities, but the estimate does not include fish distributed to households outside the survey area.

The combined total harvest of pink salmon, whitefish, northern pike and sheefish in the Yukon Area was estimated to be 90,465. The pink salmon harvest was estimated to be 9,529 fish, of which approximately 40% were harvested the Coastal District communities of Scammon Bay and Hooper Bay (Table 15). The reported harvest of other miscellaneous fish species, not estimated, in surveyed communities totaled 122,102 fish (Table 16). Blackfish represent 90% of the reported harvest of miscellaneous fish species (estimated and non-estimated) and are primarily taken in the Lower Yukon Area (Tables 15 and 16, Appendix B11). The reported harvest of sockeye salmon was 213 (Table 16).

Fishermen from some communities may harvest salmon in more than one district or subdistrict or tributaries vs. mainstem may make a difference which stocks are being targeted (Tables 11–14). Districts with the largest catches of subsistence salmon, including salmon retained from commercial were District 4, which harvested 10,619 Chinook salmon (Table 11), District 2 harvested 22,608 summer chum (Table 12), District 5 harvested 33,979 fall chum (Table 13), and 3,135 coho salmon (Table 14).

An estimated 3,845 dogs live in the surveyed Yukon River communities (Table 3). Although estimated 1,485 Yukon Area households in surveyed communities own dogs, only 150 households (10%) feed whole fish to dogs. Surveyed households indicated that they fed their dogs approximately 12,045 summer chum, 29,583 fall chum and 3,046 coho salmon from subsistence harvests and 2,322 summer chum, 9,005 fall chum, and 86 coho salmon from commercial harvests (Tables 5 and 6, Appendix B10).

Households stating that they met 50% or less than their needs was 49% for Chinook, 42% for summer chum, 58% for fall chum, and 74% for coho salmon. The percent of households indicating that they met greater than 75% of their needs was 44% for Chinook, 51% for summer chum, 37% for fall chum, and 25% for coho salmon. Not every household responded for each species, therefore the number of respondents varies by species. Far more households (970), for example, fished for Chinook salmon and commented on Chinook salmon needs than for coho salmon (272) (Table 17).

CALENDARS AND POSTCARDS

In May 2008, a total of 1,611 calendars, 970 Lower Yukon Area and 730 Upper Yukon Area, were mailed. Additional calendars were mailed throughout the season in response to individual requests, to households that have a history of subsistence fishing in the Yukon Area, and to the community of Rampart. In 2008, fishermen returned a total of 247 subsistence harvest calendars (approximately 15% of total issued). A total of 224 calendars (91%) documented salmon harvest

information. The remaining households that returned harvest calendars in 2008 either indicated that they “did not fish” this season (8%) or the calendars were returned unused (1%). Reported harvest on calendars was 12,847 Chinook, 31,102 summer chum, 22,274 fall chum, 3,657 coho, and 1,284 pink salmon (Figure 6). The timing and distribution of fishing effort by district is shown based on returned calendars (Figure 7). In all areas, except District 6, fishing effort in the summer season surpassed that of the fall season due to the usage of Chinook salmon for food fish.

Lamprey postcards were mailed to 669 households, and returned from 96 households, with 8 households indicating they fished for lamprey. Harvest reported from returned lamprey postcards was 70 lbs taken for subsistence use, and 0 lbs taken as commercial harvest (Table 18).

PERMITS

The timing and distribution of fishing effort by district and by day is shown based on harvest recorded on permits (Figure 7). Permit areas in District 5 are not contiguous, and include the Yukon River from Rampart to Stevens Village, and from Circle to Eagle (Figure 1). Survey areas with calendars include Stevens Village, Beaver, and Fort Yukon. Reported harvest by day on permits included in District 5, 3,159 Chinook, 174 summer chum, and 17,573 fall chum salmon and in District 6, 481 Chinook, 944 summer chum, 8,211 fall chum and 5,056 coho salmon. In all areas (coastal through District 5), except District 6, indicated that the fishing effort in the summer season surpassed that of the fall season due to the common usage of Chinook salmon for food fish.

Subsistence

In subsistence permit required areas of District 5 (Yukon River) and District 6 (Tanana River), 466 (93%) of the total subsistence permits issued were returned and 262 households reported participating in salmon and nonsalmon subsistence fisheries. A total of 4,892 Chinook, 1,192 summer chum, 30,711 fall chum, 6,024 coho salmon, 3,361 whitefish, 109 sheefish, 89 burbot, 1,676 Northern pike, 141 longnose suckers, and 488 Arctic grayling were reported harvested by subsistence permit holders in 2008 (Tables 19 and 20). The primary gear types reported were set gillnets (80%) and fish wheels (20%; Table 1). The largest percentage of salmon permits were issued for the Yukon River area near Circle and Eagle (19%), and the largest percentage of nonsalmon permits were pike permits issued for the Tolovana River drainage (29%; Table 19). Based on permits, 118 households indicated that they fed salmon to dogs. These households reported retaining 24,487 whole salmon for dog food. Because District 5 contains both survey and permit areas, a combination of data collection methods (calendars, permits, and surveys) provides a more complete assessment of harvests in this area. The 2008 permit harvest information is based on permits returned by April 15, 2009 (Table 4).

Personal Use

Personal use permits for salmon and nonsalmon species are only issued for the Fairbanks Nonsubsistence Area (Figure 3). In 2008, 56 of the 57 personal use permits issued were returned (Table 19). Of these, 29 permits reported fishing, 25 were issued for salmon and 4 were issued for nonsalmon species. Personal use permit holders reported harvesting 126 Chinook, 138 summer chum, 181 fall chum, 50 coho salmon, 41 whitefish, 2 sheefish, 2 Northern pike, and 157 longnose suckers. (Tables 19 and 20). Of the 29 households that fished for personal use, 27 used set gillnets and 2 used other gear (Table 1). According to current interpretations of state

regulations, fish caught under personal use guidelines cannot be fed to dogs (S. M. White 1991, Department of Law, Juneau, a letter of opinion “Use of subsistence and personal use salmon as dog food”, personal communication.). Historically, the personal use salmon fishery was conducted as a subsistence fishery prior to the designation as a nonsubsistence area. Historical harvest information for the personal use salmon fishery is summarized in Appendix B5. Since Appendix B5 only includes salmon harvest, the number of returned permits on this appendix does not match the number of returned permits on Table 19, which also includes harvest of nonsalmon species.

DISCUSSION

In 2008, the Yukon River breakup in Alakanuk was on May 23, one day later than the 1983–2007 average (NOAA 2009). Early in the season, high water characterized the lower river. The first subsistence catch of Chinook salmon was reported near Alakanuk on June 2 and the first ADF&G’s test fish catch in Emmonak was on June 3 (JTC 2009). The 2008 Yukon Area subsistence salmon harvest of 237,900 Chinook, summer chum, fall chum and coho salmon (Appendix B1–B4) was approximately 4% below the recent 5-year average (247,741; 2003–2007).

Appendices B1–B4 document the historical annual subsistence salmon harvest from 1998 to 2008 by species and by community of residence. Salmon harvest estimates based on survey results indicated that Chinook salmon subsistence harvest was 16% below the recent 5-year average and 12% below the recent 10-year average (Appendix B1; Figure 8). The 2008 summer chum salmon subsistence harvest was 6% below the recent 5-year average and less than 1% below the recent 10-year average (Appendix B2; Figure 9). Beginning in 2003, fall chum salmon returns showed improvement, and in 2008 the harvest was 13% above the recent 5-year average (2003–2007) and 44% above the recent 10-year average (1998–2007) (Appendix B3; Figure 10). Coho salmon harvest decreased nearly 26% from the recent five year average (2003–2007), and decreased 18% from the recent 10 year average (Appendix B4; Figure 11). Appendices B5–B7 document the historical subsistence and personal use harvest from permits, by species and by permit area.

ADF&G’s outlook for the 2008 Chinook salmon run was expected to be below average and similar to the 2007 run. Managers anticipated that the Chinook salmon run would provide for escapements and subsistence needs and a below average commercial harvest (JTC 2009). The 2008 summer season windows fishing schedule was initiated in District 1 on May 26, and implemented chronologically upriver based on migratory timing as the run travelled upstream. Typically, the Coastal District and Subdistrict 5-D, as well as the Innoko, Kantishna and Koyukuk rivers are open 7 days a week by regulation. Summer season subsistence fishing openings were managed based on inseason estimates of run strength and timing and further restrictions to the schedule were implemented (Appendix A13). The 2008 reconstructed Chinook salmon run size was considered weak and was below the recent 10 year average of 210,000 fish (JTC 2009). Cumulative catch per unit effort (CPUE) in the Lower Yukon Test Fishery was about half of the historic average to date on June 20, and Pilot Station estimated projected a Chinook salmon run as low as 80,000 fish. Management actions restricting fishing periods and gear were implemented to allow more Chinook salmon to reach their spawning grounds. The Bering Sea Pollock trawl bycatch of adult Chinook salmon increased to a record catch of over

140,000 Chinook salmon in 2007 (Bue and Hayes 2008), and mostly impacted younger Chinook salmon that were 1 or 2 years from beginning their spawning migration (Witherell et al. 2002).

The 2008 outlook was for an average run of summer chum salmon, which would provide for escapements and a normal subsistence and commercial harvest. In 2008 the fish apportioned as summer chum salmon at Pilot Station sonar was estimated to be approximately 1.7 million with average run timing (JTC 2009). Commercial fishing opportunities and market conditions for summer chum salmon were affected by fishing restrictions implemented to reduce Chinook salmon harvest. A total of 4,461 Chinook salmon were harvested commercially, 88% below the 1998–2007 harvest average of 39,332 fish. The 2008 commercial harvest of 151,201 summer chum was also impacted by high water events in District 6 the Tanana River (JTC 2009).

Pink salmon subsistence harvest information has been collected in surveyed communities in the Yukon Area since 1994. Although pink salmon are often locally abundant in the Lower Yukon Area, they are not typically sought after and harvests remain low. Pink salmon exhibit a low (odd year) and high (even year) abundance 2-year cycle (ADF&G 2002), and in 2008, the Pilot Station Sonar estimated a record 558,050 pink salmon (JTC 2009), over 6 times the even year median escapement of 91,188 (Carroll and McIntosh 2006). This number should only be used as an index, since the sonar project does not attempt to estimate the passage of all pink salmon. The 2008 estimated subsistence pink salmon harvest was 141% above the even-year average for 1998–2006 and 225% above the all year (both odd and even-year) average for 1998–2007 (Appendix B9). Salmon escapement projects in Norton Sound also indicated that a large run of pink salmon was present in Western Alaska in 2008. Norton Sound escapement goals for pink salmon were easily met in 2008 and a record-setting even-numbered year escapement occurred in the Nome Subdistrict and Pilgrim River (Menard and Kent 2008).

In 2001 the BOF implemented a new subsistence schedule on the Yukon River. This schedule was a response to poor runs and was intended as a conservation measure. The schedule laid out “windows” of allowed fishing time for each district. During these windows, salmon may migrate upriver with reduced exploitation. The schedule intends to reduce harvest early in the run, when there is a much higher level of uncertainty in projecting the total run abundance. Another goal is to distribute the harvest throughout the run, thereby reducing the impact on any particular component of the run, and to spread subsistence harvest opportunities among subsistence users along the river. In 2003, the BOF clarified the windows schedule by allowing ADF&G to relax the subsistence schedule in districts where there was not anticipated to be any commercial fishing. Market interests have been lost in many areas of the middle Yukon due to the cost of getting product out of the remote communities.

July 16 marks the date fishery management changes from summer to fall management and is based historically on the average date fall chum salmon outnumber summer chum salmon in the Lower Yukon Area in District 1. Management follows this up river where transition of summer to fall chum salmon in the Tanana River is approximately August 16. Subsistence fishing efforts are usually light during the transition period from summer to fall season, when relatively few chum salmon (both summer and fall stocks) are moving into the river. Some subsistence fishermen are able to recognize and report the changes in proportion of the 2 runs in their catches based on size, skin color, and flesh color. The late arriving summer chum salmon are smaller in size, their skin is more watermarked, and the flesh is pale. Fall chum salmon are difficult to manage because of their smaller run size and entry pattern. After entering the river, Chinook and summer chum salmon runs typically build to a peak and then subside, whereas fall chum salmon

enter the river in pulses, having 1 to 5 distinct peaks throughout the run. This unpredictable entry pattern makes it hard to assess the run or compare runs from year to year. The fall chum salmon run overlaps with the later-arriving coho salmon run, and the 2 species are of similar physical size, which reduces the ability to manage by gear type, as is possible during the Chinook and summer chum salmon season.

During the fall season in 2008, subsistence fishing in the Lower Yukon Area was open for 7-days per week, 24 hours a day in the Coastal District and Districts 1, 2, and 3 except for closures of 12-hours before and after as well as during commercial fishing periods. The Innoko River in District 3 was open 7-days per week. The pre-2001 subsistence salmon regulations were applied in the Upper Yukon Area (JTC 2009). In 2008, the fall chum salmon run consisted of 3 primary pulses, and the midpoint of the run was 5 days late, compared to the average midpoint. Timing of the coho salmon run was average (JTC 2009).

The 2008 expectation for an above average fall chum salmon run was based on improvement in the production observed in runs the past 3 years. The fall chum salmon run preseason projection ranged from 890,000 to 1.2 million fish with a point estimate of 1.0 million fish. The 2008 run size was anticipated to provide for the drainagewide escapement requirements and subsistence and personal use fisheries, and provide opportunity for commercial ventures where markets exist (Bue and Hayes 2008). Coho salmon primarily return as age-4 fish, and the 2008 outlook was anticipated to be above average based on good escapements in 2004 (Bue and Hayes 2008). The Pilot Station sonar passage estimate for fall chum salmon was 615,000 fish and the end of season run reconstruction resulted a drainagewide return of an approximately 768,000 fish. The Pilot Station sonar passage estimate for coho salmon was approximately 136,000 through September 7, which was below the 1998–2007 average of 148,000 fish (JTC 2009). The 2008 commercial harvest of 119,265 fall chum salmon was 148% above the previous 10-year average of 48,000 fish. The commercial harvest of 35,691 coho salmon was 66% above the 10-year average of 21,490 coho salmon (JTC 2009). Subsistence opportunities for fall chum salmon were liberal, with Districts 1, 2, and 3 closed for subsistence fishing for 12 hours before, during and after commercial fishing, and with most of the Yukon Area open for fall subsistence fishing 5 or 7 days a week. High water and flooding in August in the Upper Yukon Area affected fall fishing efforts.

There are several inseason and postseasons methods for evaluating salmon run and whether fishermen are meeting their subsistence needs. The U.S. Fish and Wildlife (USFWS) complete weekly inseason surveys in selected communities to help managers understand how the subsistence season is unfolding. The information assesses harvest goals, fishing conditions, and quality of subsistence catch through interview of a subsample of fishermen each week to evaluate progress towards meeting subsistence needs (Gerken 2006). In addition, since 1992, YRDFAs schedule weekly inseason teleconferences to provide fishermen in the entire Yukon River drainage (including Canada) an opportunity to discuss the ongoing run with fisheries managers. Managers have routinely maintained continual communications with fishermen to obtain feedback on fishing success and concerns.

Inseason interviews give insight into the salmon runs, however, they do not provide a historical perspective. One method for assessing the relative success of Yukon Area fishermen is to compare the annual drainagewide estimated subsistence harvest to historic averages. In January 2001, the BOF used ADF&G's harvest data to adjust the "amount necessary for subsistence" (ANS), a measure which attempts to quantify the amount of salmon reasonably necessary for subsistence use in the Yukon Area. The BOF established maximum and minimum ANS harvest

ranges based on the total historic estimated harvest for each species by all districts combined for the years from 1990 to 1999, with exceptions for years when subsistence fishing was restricted to meet escapement requirements for fall chum and coho salmon. The ANS levels represent the needs of all subsistence users drainagewise and do not necessarily reflect the needs of specific individuals, communities, or sections of the drainage. The ANS will require periodic adjustments since the ANS cannot account for trends over time, such as changes in fishing patterns due to population shifts or changes in the fisheries. The ANS levels are 45,500–66,704 Chinook, 83,500–142,192 summer chum, 89,500–167,900 fall chum, and 20,500–51,980 coho salmon (Figures 8–11). When determining the ANS for fall chum and coho salmon, the fall seasons for the years 1993 and 1998 were excluded due to fishing restrictions and closures implemented to meet escapement objectives in those years. In 2008, the estimated subsistence harvest of all salmon species were below the range of ANS, with fall chum salmon harvests from the Yukon River within 500 salmon of meeting the lower level of ANS.

Although most subsistence and personal use salmon harvested in the Yukon Area originate from Yukon River drainage stocks, communities within the Coastal District may also harvest stocks bound for other areas. A salmon mark–recapture study, conducted in marine waters near Hooper Bay in 1986, documented the presence of Norton and Kotzebue Sound chum salmon stocks in the area (Kerkvliet 1986). This mark–recapture study, however, also showed that 89% of the recovered tagged summer chum salmon were of Yukon River origin.

Households were asked to estimate the number of “lost” salmon, by species. “Lost” salmon were harvested but ended up being unusable for either human or dog consumption. The purpose of this question was to identify salmon harvest that might not usually be reported, as these additional harvest numbers are needed to help meet the survey’s goal of estimating the total number of fish killed. When reporting harvest, many fishermen think about how many fish they have put away for the winter, so fishermen might not report a batch of fish spoiled by weather while drying. “Lost” fish were not included in the household’s salmon use numbers since these fish were not usable. Salmon may become unusable for human consumption but may still be suitable for dog food. Since feeding salmon to dogs is a subsistence use, these fish were not counted as lost and are included in the household’s use numbers. The survey question aims at collecting numbers of lost fish and does not specifically ask the reason why fish were lost. Because of this, most fish were lost for “unknown” causes. But when noted, the most common reasons cited included spoilage from weather or flies, predation (e.g. bears and/or birds), and sick fish or fish that appeared to suffer from *Ichthyophonus hoferi* (Appendix A12).

Commercially caught fish that are not sold are often kept for subsistence use, and the survey attempts to account for these fish in the total subsistence harvest. Commonly these fish were kept as an “eating fish” for that night’s dinner particularly in the Lower Yukon Area where commercial and subsistence periods do not overlap. In 2008, the vast majority of commercially-caught salmon retained by the fishermen for subsistence use came from the District 6 commercial fishery, which primarily targets roe product. In the District 6 fishery, the fish retained by the fisherman are required to be documented on commercial harvest tickets as “not sold” and are presented in Table 1 as “Commercial Related”. Fish sold during the District 6 roe fishery are required by Department of Environmental Conservation regulations to be processed at an approved processing facility. In the case of this roe fishery, the flesh was not marketable due to low quality, so following extraction of the roe, many of the female carcasses were returned to fishermen for subsistence use, reportedly for dog food. Many of these fishermen would have

fished for dog food anyway, so if there had not been a commercial roe fishery, then the total number of salmon harvested likely would have been higher. Households in District 6 are not surveyed, so their use of subsistence salmon is not quantified, only their harvest via fish tickets and permits. To avoid double counting of salmon, efforts were made not to include this commercial harvest, previously documented on fish tickets, with the subsistence harvest reported on Table 1.

About 50% of surveyed households reported meeting over half (50%) of their subsistence needs for Chinook salmon. Individual communities ranged from 0% (Birch Creek) to 85% (Anvik) meeting over half of their subsistence needs for Chinook salmon (Table 17). Generally, the lower success levels, were reported in District 4, upper Koyukuk River communities, and other tributary communities, such as Venetie and Birch Creek. The overall success for summer chum salmon was similar (over 50% of household meeting 50% of their needs). Less than 40% of the households reported meeting half of their needs for fall chum and coho salmon. Community success rates do not account for where individual households fished. For example, in a tributary community some fishermen may travel to the mainstem Yukon River to fish, yet their success data are not differentiated from households who fish on the tributary. The number of all responses for all species in 2008 (2,397) was approximately 8% (2,599) lower and 12% (2,131) higher than in 2007 and 2006, respectively (Appendix B13).

In 2008, there was an 8% decrease in the number of dogs, compared to the 2003–2007 average (Appendix B10). The estimated amount of all species of whole salmon fed to dogs from surveyed communities and permits was 12% lower than the recent 5-year average. In surveyed communities, the estimated number of fish fed to dog was greater than the 5-year average for fall chum salmon (+5%) and lower than the 5-year average for summer chum (-23%) and coho salmon (-34%). Even this average is a lot lower than reported from 1990 to 1997 when there was a greater use of dogs and a roe fishery provided ample supplies of chum and coho salmon carcasses for dog food. Chinook salmon are generally not fed to dogs, except for fish that are lost but still edible by dogs, or those captured late in the run and thus not suitable for human consumption, or perhaps small “jacks.”

Subsistence households are classified into use groups based on their harvest history, and are selected for survey based on their use group. Households with a total salmon harvest of more than 500 Chinook, summer chum and fall chum salmon combined are classified as “Heavy harvesters”. These 41 households represent 1.6% of the households in the Yukon Area and harvested an estimated 3,596 Chinook salmon, almost 1% of the subsistence Chinook salmon harvest (Appendix A1). The group with the largest harvest was the “Light harvesters”, with 1,028 households, and an estimated 48% of the total Chinook salmon subsistence harvest. In comparison, “Heavy harvesters” harvested an estimated 604 fall chum salmon per household, over 50% of the total estimated number of subsistence fall chum harvested (Appendix A3).

The expanded harvests may be imprecise because the stratification system used for the expansion is based on a household’s historical salmon harvests and most likely significantly underestimating the harvest of nonsalmon fish species. Additionally, timing of the subsistence salmon survey endeavors to document the nonsalmon harvest spanning portions of two years that includes fish taken during the previous winter and current year. (Brown et. al. 2005). The correlation between the level of salmon harvest and the level of nonsalmon harvest has not been determined. In order to improve the harvest estimates of nonsalmon species, additional strata and sampling designs would need to be identified and developed (Borba and Hamner 1998). An

example of this is the harvest of Arctic Lamprey *Lampetra camtschatica*, which are primarily harvested in October through December in Districts 2 and 3 and in the lower portion of District 4. Consequently, the 2007 subsistence lamprey harvest was documented during the 2008 survey.

Surveyed households reported 803 lamprey (Table 16), and households that returned postcards reported 70 pounds of lamprey harvested, about 210 lamprey (Table 18). The 2007–2008 winter is the first year that postcards have been sent to households for the purpose of documenting lamprey subsistence and commercial harvests (Figure 3). Commercial fishing for lamprey is considered exploratory and experimental due to questions regarding life history and abundance of lamprey on the Yukon River (Heather Hildebrand, Commercial Fishery Biologist, ADF&G, Anchorage, unpublished memorandum 16 March 2009). For the 2007 lamprey fishery (October 1 to December 31), 4 commercial permits were issued for lamprey, with only one fisherman from Grayling selling 42 pounds (about 126 lamprey) in the commercial fishery (Maureen Horne-Brine, Lower Yukon Catch Monitor, ADF&G Anchorage, unpublished memorandum 15 January 2008). In the future, fishermen participating in the commercial fishery must return catch logs documenting effort and harvest. Several fishermen reported that the winter of 2007 was unfavorable for harvesting lamprey due to poor ice conditions during the lamprey run (Table 18).

While comparing the annual drainagewide harvest with ANS will give insight into the runs and relative success of all fishermen, ANS levels are not specific for harvest area or sections of the drainage, which is the goal of this postseason survey project. The postseason survey provides a method for assessing the success of Yukon Area fishermen in surveyed communities, as households were asked whether their subsistence salmon needs were met (question 21, Figure 4). Unlike the broader ANS levels, the survey question provides data on a community-by-community basis. This question has evolved over the years of the survey. Beginning in 1992, ADF&G asked whether subsistence salmon needs were met (yes/no) and quality of run (very good, average, very poor) by species. In an attempt to capture more detailed and more quantitative data, question 21 was revised in 2003. The (yes/no) “needs met” was replaced with a percent needs met, and households were asked the percent success for each salmon species, rather than for all species combined. In an attempt to capture more detailed and more quantitative data, question 21 was revised in 2003. The (yes/no) “needs met” was replaced with a percent needs met, and households were asked the percent success for each salmon species, rather than for all species combined. Fishermen may have had differing success for different species due to fishing opportunities. For example, the water levels may have been high during the Chinook salmon run hindering a household’s fishing success, while they were later able to successfully harvest fall chum salmon. When question 21 was edited in 2003, the (yes/no) “needs met” and “quality of run” questions were combined. A general assumption was made that the “needs met” and “run assessment” were linked, in that a higher percent needs met suggests that the run was sufficient to provide for most subsistence needs. However, even in years with relatively good escapement, approximately 20–30% of households state that their needs are not met (Brase and Hamner 2003). The changes to question 21 in 2003 rendered the data from this question not comparable with the historical data displayed in Appendix B12. The historical data prior to 2003 are displayed in Appendix B12, while the data for 2003 through 2008 are in Appendix B13.

During the 2008 survey, households were asked about their salmon harvest, and if they were able to meet their annual need for subsistence salmon. Data from the question have proved useful. First, the data provide a postseason “report card” on the season’s run strength, as ideally a strong run would be reflected in a strong subsistence harvest, with a higher percent needs met. Second,

the data are unique in breaking down percent needs met by species and community (Table 17), and thus can provide a general indicator of how the fishing season went in specific communities. Responses to question 21 are qualitative, as its interpretation may vary from surveyor to surveyor and respondents must subjectively assign a percent to their success. Identifying the harvest and success of individual households is often difficult in a subsistence economy because harvest is frequently shared and accounted for on the level of extended families or fishing groups rather than on the level of individual households. One basic reality of subsistence economies is that the majority of households use or would like to use salmon, even if the household did not fish. Therefore even if a household neither harvested nor used salmon that year, the household might still have a need that was not met (C. Brown, Subsistence Division Resource Specialist, ADF&G, Fairbanks; personal communication). Common examples include elders who no longer fish but still have subsistence needs or households who wanted fish but had boat or motor problems that prevented them from harvesting. People who do not fish rely on receiving fish from friends, family, and others who fish. Fish is generally given to them throughout the winter, as the need arises. At the time of the survey, it may be hard for people to assess whether their needs are met because they have not received their fish yet. It may also be difficult to ascertain the number of fish received, as it is often transferred as processed or cooked salmon among households, not as whole fish. Respondents must self-identify whether they have a need for salmon and to what extent that need was met.

If the household fished and did not meet its subsistence needs, then surveyors inquired if there was a reason why fishing was poor. ADF&G is especially interested in knowing if there was a fishery-related issue, such as run strength or management actions, that prevented households from meeting their needs. Many factors influenced whether subsistence needs were met, including gasoline prices, bad drying weather, water conditions (e.g. water levels, debris), equipment failure, and forest fires. Common reasons for not fishing included being too busy (therefore not a high priority), work schedule, lack of gear or equipment failure (e.g. no boat or motor), being elderly, and health reasons. Fuel prices were mentioned by many households as a hardship in 2008. Recorded prices for June of 2008 ranged from \$4.50 per gallon (Ruby) to \$8.25 per gallon (Hughes) (Caldwel et al. 2008). Some residents took advantage of work opportunities on fire crews for part of the summer and did not fish (JTC 2009).

In 2008 collection of permit harvest information in Eagle was changed to help determine border passage estimates based on the location of the sonar project. Harvests at Eagle are now queried as to location of gear operation either upstream or downstream of the sonar site. The sonar passage estimate minus the harvests taken upstream is used to develop the run reconstruction of U.S./Canadian border passage and escapement of Chinook and fall chum salmon into Canada. The challenge however still exists in that some fishermen harvest Chinook and fall chum salmon in a combination of locations and gear types with some operating both types either up and/or downstream of the sonar site within the same season. Follow up phone calls are therefore required to verify locations of harvest by species for those fishermen that indicated on the permit that they would possibly fish in either location.

The survey also provides an opportunity for respondents to provide comments to ADF&G on any topic they feel is important related to fishing. The most numerous comments from the survey were regarding the fishing windows or fishing schedules that restricted openings, opened for too short of time periods, or missed when salmon were running by their fishing area (110 comments). Additionally, record high fuel prices (>\$8 gallon in lower river communities) (41),

poor run quality (62), issues with fishing gear (35), high water or debris (18), and other work opportunities or health issues (62) were mentioned as contributing to subsistence needs not being met. Many fishermen reported that Chinook salmon were small and few in number, but that in general, salmon quality was good (43). Some fishermen wanted to change the specific hours scheduled for their district. Others stated that fishing needed to be open on weekends, so that people who work can fish. In general, fishermen pointed out that by restricting fishing times, the windows schedule reduces the ability of fishermen to adapt to circumstances such as poor weather, water levels, debris in the water, work schedules, etcetera. For some fishermen, the windows schedule prevents them from catching all their fish at once, which can impact processing and storage of fish. Short openings also stretch out the season, an important consideration when gasoline costs and work schedules limit the number of possible trips to a fish camp. In 2008, some fishermen commented that the timings of openings were off, and that fish were not running during the open fishing periods. The surveyors heard many comments to the effect that fishermen only catch what they need to eat for subsistence and then they stop fishing, and that restrictions of subsistence fishing are unnecessary. ADF&G maintains consistency in most years by setting schedules similar to previous years so fishermen know when fishing is open. The closed periods allow harvest to be spread out on stocks and in some areas are used to separate commercial and subsistence opportunity.

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TABLES AND FIGURES

Table 1.–Subsistence and personal use salmon harvest estimates which include commercially related and test fish harvests provided for subsistence use, and related information, Yukon Area, 2008.

Community	Survey Date, Permit Area ^a	Number of		Estimated Harvest				Primary Gear Used ^d		
		Fishing Households ^b	Number of Dogs ^c	Chinook	Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Hooper Bay	9/11-14	111	226	388	12,007	329	66	52	2	0
Scammon Bay	9/10-11	54	99	1,104	6,113	57	50	24	0	0
Coastal District Total		165	325	1,492	18,120	386	116	76	2	0
Nunam Iqua ^e	9/10	18	64	163	1,949	59	24	13	3	0
Alakanuk ^f	9/8-9	81	203	1,238	6,881	423	157	16	19	0
Emmonak ^f	9/5-7	84	210	2,696	9,646	1,670	717	10	37	0
Kotlik ^f	9/7-9	67	118	2,066	4,291	671	313	17	11	0
District 1 Subtotal		250	595	6,163	22,767	2,823	1,211	56	70	0
Mountain Village ^f	9/18-21	90	148	1,645	7,559	926	518	7	41	0
Pitkas Point	9/17	17	37	544	1,246	101	130	1	13	0
St. Mary's ^f	9/15-17	97	87	1,756	6,451	830	591	0	52	0
Pilot Station ^f	9/21-23	55	114	1,597	6,012	917	268	0	29	0
Marshall ^f	9/24	52	160	3,284	3,023	748	490	0	20	0
District 2 Subtotal		311	546	8,826	24,291	3,522	1,997	8	155	0
Russian Mission	9/25-26	57	200	2,949	2,400	578	372	11	8	0
Holy Cross	9/22-23	35	67	2,509	441	920	38	7	17	0
Shageluk	9/24	18	47	397	130	323	0	4	7	0
District 3 Subtotal		110	314	5,855	2,971	1,821	410	22	32	0
Lower Yukon River Total		671	1,455	20,844	50,029	8,166	3,618	86	257	0
Anvik	9/25	16	71	1,433	340	317	40	6	7	0
Grayling	9/26	34	68	1,761	660	1,012	25	1	9	0
Kaltag ^f	10/6	40	63	2,403	916	620	45	0	14	0
Nulato	10/7	37	109	1,250	468	729	195	2	12	0
Koyukuk	10/8-10	19	79	513	1,104	1,177	84	2	14	1
Galena	10/3-6	75	339	2,232	758	1,364	558	10	16	0
Ruby	10/2-3	15	88	637	655	657	291	5	0	5
District 4 Yukon River Subtotal		236	817	10,229	4,901	5,876	1,238	26	72	6
Huslia	10/6-7	22	179	255	4,377	64	100	8	0	0
Hughes	10/7-8	7	39	61	944	127	0	5	0	0
Allakaket	10/27	14	116	58	3,229	1,345	152	9	0	0
Alatna	10/27	4	4	16	66	0	0	2	0	0
Bettles	10/28-29	0	23	0	0	0	0	0	0	0
Koyukuk River Subtotal		47	361	390	8,616	1,536	252	24	0	0
District 4 Subtotal		283	1,178	10,619	13,517	7,412	1,490	50	72	6

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Table 1.–Page 2 of 3.

Community	Survey Date, Permit Area ^a	Number of Fishing Households ^b	Number of Dogs ^c	Estimated Harvest				Primary Gear Used ^d		
				Chinook	Chum	Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Tanana	10/13-14	41	352	3,981	2,877	17,478	1,511	13	0	7
Rampart	permits	2	2	136	27	1,000	0	1	0	1
Fairbanks NSB ^e	permits	52	172	1,898	119	659	7	45	0	2
Stevens Village ^h	10/13-14, permits	15	76	753	163	643	0	11	0	0
Birch Creek	10/23-24	6	9	32	0	30	0	2	0	0
Beaver	10/20-21	16	25	546	27	13	6	12	0	0
Fort Yukon	10/16-19	61	299	1,991	230	14,252	1,618	13	2	14
Circle	permits	11	66	519	5	3,198	0	6	0	7
Central	permits	5	9	48	0	0	0	4	0	1
Eagle ^f	permits	29	236	1,068	14	15,269	0	18	0	8
Other District 5 ⁱ	permits	6	85	362	25	3,153	61	5	0	1
District 5 Yukon River Subtotal		244	1,331	11,334	3,487	55,695	3,203	130	2	41
Venetie	10/19-20	17	91	292	50	1,563	0	7	0	0
Chalkyitsik	10/20	0	35	0	0	0	0	0	0	0
Chandalar and Black Rivers Subtotal		17	126	292	50	1,563	0	7	0	0
District 5 Subtotal		261	1,457	11,626	3,537	57,258	3,203	137	2	41
Manley	permits	12	138	106	144	7,058	4,243	11	0	2
Minto	permits	9	158	12	9	28	0	7	0	0
Nenana ^f	permits	20	199	327	950	7,512	2,775	9	0	10
Healy	permits	3	37	13	0	1,030	1,105	3	0	0
Fairbanks NSB ^j	permits	109	172	229	346	651	349	35	0	2
Other District 6 ^k	permits	26	178	44	0	37	6	19	0	1
District 6 Tanana River Subtotal ^l		179	882	731	1,449	16,316	8,478	84	0	15
Upper Yukon River Total		723	3,517	22,976	18,503	80,986	13,171	271	74	62
Survey Village Subtotal		1,275	3,845	37,279	80,737	47,354	7,754	270	333	27
Subsistence Permit Subtotal ^m		146	1,403	4,626	1,190	33,786	6,085	136	0	35
Subsistence Test Fish Subtotal ⁿ		-	-	3,277	4,276	2,592	605	-	-	-
District 6 Commercial Related ^o				4	311	5,625	2,411	-	-	-
Subsistence Harvests Subtotal		1,421	5,248	45,186	86,514	89,357	16,855	406	333	62
Personal Use Permit Subtotals		29	-	126	138	181	50	27	0	0
Alaska, Yukon River Total ^{p,q}		1,394	4,972	43,820	68,532	89,152	16,789	357	331	62
Alaska, Yukon Area Total		1,559	5,297	45,312	86,652	89,538	16,905	433	333	62
AK, Yukon Area Percentages of the Total		-	-	19%	36%	38%	7%	48%	37%	7%

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Table 1.–Page 3 of 3.

- ^a Data collected by Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries. Survey data are expanded for number of fishing households, number of dogs, and harvest. Permit data are unexpanded, and are from all permits received as of April 15, 2009.
- ^b Estimated number of households that fished in surveyed communities or number of permit households who reported fishing in permit required areas.
- ^c The number of dogs is based on survey information or from permits issued.
- ^d Primary fishing gear used is based on survey information or from subsistence permits issued. Primary gear information for surveyed communities is not expanded for households that were not surveyed.
- ^e Formerly known as Sheldon or Sheldon's Point.
- ^f Test fish have been added to the total fish harvested in surveyed and permit required communities.
- ^g Fairbanks North Star Borough (FNSB) households that obtained a permit and indicated they fished in the Yukon River permit required area.
- ^h Permit harvest information from Stevens Village residents was used to complement the information obtained by the survey.
- ⁱ "Other District 5" includes residents of Anderson, Healy, Manley, Minto, and the Upper Tanana River drainage communities of Northway and Tok who obtained a household permit and fished in a Yukon River permit required area
- ^j Fairbanks North Star Borough (FNSB) households that obtained a subsistence and/or personal use permit and indicated they fished in the Tanana River permit required area.
- ^k "Other District 6" includes residents of the Upper Tanana River drainage communities of Delta Junction, Northway, Tanacross, and Tok, and the communities of Anchorage and Barrow who obtained a permit and fished in the Tanana River.
- ^l Does not include harvest of coho and chum salmon sold commercially for roe and carcass returned to fishermen for dog food in Subdistrict 6-B.
- ^m Subsistence permit subtotal does not include Stevens Village permit information.
- ⁿ Test fish given away for subsistence use.
- ^o District 6 "Commercial Related" included fish caught during commercial fishing and "not sold" but retained for subsistence use.
- ^p Does not include Coastal District.
- ^q In an attempt to avoid double-counting of harvest, commercial fishermen were contacted to verify that the commercial related harvest was not included on subsistence harvest permits.

Table 2.—Estimated number of salmon used for subsistence purposes and corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	202	83	338	101	9,220	2,256	259	314	52	32	9,869
Scammon Bay	80	32	962	304	5,056	2,015	57	11	50	5	6,125
Coastal District	282	115	1,300	320	14,276	3,025	316	314	102	32	15,994
Nunam Iqua	37	29	133	11	1,673	68	48	4	17	3	1,871
Alakanuk	123	48	1,075	316	6,209	1,946	419	551	157	111	7,860
Emmonak	154	81	850	191	6,229	1,246	788	418	409	245	8,276
Kotlik	94	39	1,153	366	3,245	1,075	590	694	272	142	5,260
District 1	408	197	3,211	520	17,356	2,550	1,845	979	855	304	23,267
Mountain Village	144	64	1,386	354	5,878	1,054	364	169	202	129	7,830
Pitkas Point	28	23	412	58	1,096	166	87	6	99	6	1,694
St. Mary's	124	61	1,489	330	5,401	1,033	763	208	304	268	7,957
Pilot Station	107	53	900	312	3,933	1,468	154	169	81	78	5,068
Marshall	73	26	2,335	826	2,315	1,069	629	354	364	345	5,643
District 2	476	227	6,522	1,008	18,623	2,346	1,997	475	1,050	462	28,192
Russian Mission	69	25	2,721	1,080	2,364	1,151	542	494	546	477	6,173
Holy Cross	54	33	2,003	415	436	91	792	252	31	18	3,262
Shageluk	37	25	299	88	66	22	270	119	0	0	635
District 3	160	83	5,023	1,160	2,866	1,155	1,604	567	577	477	10,070
Anvik	32	26	1,336	115	340	22	285	37	39	16	2,000
Grayling	48	13	1,558	917	500	441	790	581	25	0	2,873
Kaltag	68	25	1,735	778	143	81	129	174	0	0	2,007
Nulato	83	26	1,239	575	464	292	682	375	195	153	2,580
Koyukuk	33	29	386	60	1,096	700	313	82	18	4	1,813
Galena	185	63	1,844	759	437	203	1,177	484	563	255	4,021
Ruby	61	28	419	123	565	317	627	0	291	0	1,902
Huslia	82	27	162	140	2,010	102	24	6	100	0	2,296
Hughes	28	24	61	19	656	277	72	18	0	0	789
Allakaket	48	22	56	11	3,175	345	1,333	11	152	0	4,716
Alatna	14	8	13	0	47	25	0	0	0	0	60
Bettles	22	18	0	0	0	0	0	0	0	0	0
District 4	704	309	8,809	1,551	9,433	1,061	5,432	867	1,383	298	25,057

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Table 2.–Page 2 of 2.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Tanana	97	47	2,322	511	2,796	574	16,596	4,172	1,520	950	23,234
Stevens Village	24	18	648	204	158	120	643	594	0	0	1,449
Birch Creek	19	6	14	15	0	0	30	48	0	0	44
Beaver	32	24	407	172	22	18	3	3	1	1	433
Fort Yukon	174	71	1,722	608	104	71	10,372	7,079	737	392	12,935
Venetie	62	23	170	166	50	0	827	532	0	0	1,047
Chalkyitsik	32	18	0	0	0	0	0	0	0	0	0
District 5	440	207	5,283	854	3,130	591	28,471	8,255	2,258	1,028	39,142
Survey Totals	2,470	1,138	30,148	2,423	65,684	4,895	39,665	8,397	6,225	1,296	141,722

Note: Salmon used include fish harvested (subsistence and commercially retained) and fish received from another subsistence fisherman and/or commercial fisherman, and from test fish project(s) that were kept for the household's own subsistence use.

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 3.—Estimated number of households with dogs, number of households that feed fish to dogs, numbers of dogs, and corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Total Households	Households Contacted	Number of Households with Dogs		Number of Households that Feed Fish to Dogs		Number of Dogs	
			Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)
			Total	(+/-)	Total	(+/-)	Total	(+/-)
Hooper Bay	202	81	105	20	2	1	226	55
Scammon Bay	80	31	50	15	6	10	99	34
Coastal District	282	112	155	25	8	10	325	65
Nunam Iqua	37	29	24	3	1	0	64	13
Alakanuk	123	45	97	14	4	2	203	47
Emmonak	154	78	109	12	3	2	210	49
Kotlik	94	38	74	9	0	0	118	24
District 1	408	190	304	20	8	3	595	73
Mountain Village	144	63	91	17	1	1	148	41
Pitkas Point	28	23	16	2	0	0	37	4
St. Mary's	124	61	52	13	1	0	87	18
Pilot Station	107	48	51	12	0	0	114	82
Marshall	73	25	67	7	9	10	160	35
District 2	476	220	277	26	11	10	546	100
Russian Mission	69	25	57	10	7	8	200	62
Holy Cross	54	33	34	6	3	3	67	17
Shageluk	37	24	19	5	0	0	47	14
District 3	160	82	110	12	10	8	314	65
Anvik	32	26	23	3	3	1	71	9
Grayling	48	13	33	9	4	7	68	27
Kaltag	68	25	38	12	9	9	63	22
Nulato	83	25	53	14	4	1	109	28
Koyukuk	33	27	16	2	4	2	79	21
Galena	185	60	107	22	4	1	339	255
Ruby	61	27	38	11	8	6	88	31
Huslia	82	26	37	15	12	10	179	136
Hughes	28	24	15	2	1	0	39	4
Allakaket	48	22	26	9	11	6	116	20
Alatna	14	8	4	2	0	0	4	2
Bettles	22	18	5	2	0	0	23	10
District 4	704	301	395	37	60	18	1,178	296
Tanana	97	45	62	11	22	7	352	87
Stevens Village	24	18	15	2	4	2	76	28
Birch Creek	19	5	3	5	3	5	9	14
Beaver	32	22	16	5	0	0	25	7
Fort Yukon	174	70	87	18	18	7	299	68
Venetie	62	23	43	11	6	6	91	31
Chalkyitsik	32	18	18	4	0	0	35	12
District 5	440	201	244	25	53	13	887	120
Survey Totals	2,470	1,106	1,485	62	150	28	3,845	355

Table 4.–Household and dog information reported by subsistence and personal use permits issued and returned, listed by fishery and by community of residence, Yukon Area, 2008.

Community	Permit Information ^a				Reported Household Information (based on permits issued)						
	Permits ^b		Percent Returned	Numbers of Permits Returned that Fished ^c	Number of People	Number of Fishermen	Number of Households with Dogs	Number of Dogs	Number of Households Feeding Whole Salmon to Dogs	Number of Whole Salmon Fed to Dogs	
Issued	Returned										
Subsistence Permits											
Central	12	12	100%	5	22	19	6	9	2	0	
Circle	20	14	70%	11	59	33	17	66	9	2,968	
Eagle	41	39	95%	29	111	72	31	270	21	10,635	
Rampart	3	3	100%	2	6	5	1	2	2	500	
Fairbanks (FNSB) ^d	228	219	96%	136	827	565	62	297	20	266	
Healy	5	4	80%	3	18	16	3	37	3	1,300	
Manley	19	19	100%	13	44	36	16	140	12	3,972	
Minto	46	41	89%	11	154	77	26	212	15	20	
Nenana	35	33	94%	19	188	50	25	197	17	4,780	
Stevens Village ^e	6	4	67%	4	17	12	6	31	3	39	
Upper Tanana Villages ^f	72	64	89%	20	229	139	50	173	13	0	
Other Subsistence ^g	16	14	88%	9	53	29	4	31	1	7	
Subsistence Permit Subtotal	503	466	93%	262	1,728	1,053	247	1,465	118	24,487	
Personal Use Permits											
Fairbanks (FNSB) ^d	54	53	98%	29	152	101	-	-	-	-	
Other Personal Use ^h	3	3	100%	3	12	5	-	-	-	-	
Personal Use Permit Subtotal	57	56	98%	32	164	106	-	-	-	-	
Permit Totals	560	522	93%	294	1,892	1,159	247	1,465	118	24,487	

^a Permits returned as of April 15, 2009.

^b Includes 53 households that were "issued" permits for more than one area, one household that was issued a duplicate permit for same area, and three permit holders that were issued an SE and SEU permit to track harvest above and below Eagle sonar.

^c Includes 10 households that "fished" in two different areas.

^d Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

^e Stevens Village is a surveyed community, but many residents fish in permit areas. Therefore this permit information is not included in any final harvest estimates to avoid double counting.

^f Upper Tanana River communities include residents from the communities of Delta Junction, Northway, Tanacross, and Tok.

^g Includes residents from Anchorage, Anderson, Chugiak, Denali Park, Juneau, Lake Minchumina, Sitka, Wasilla, and Wiseman who were issued a subsistence fishing permit for the Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk Rivers.

^h Includes residents of Nenana and Delta Junction that applied for a personal use permit.

Table 5.–Estimated number of salmon retained for dog food from subsistence harvests with corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Total Households		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon ^a
	Households	Contacted ^b	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	202	83	31	11	0	0	0	0	31
Scammon Bay	80	32	110	191	0	0	0	0	110
Coastal District	282	115	141	192	0	0	0	0	141
Nunam Iqua	37	29	0	0	0	0	0	0	0
Alakanuk	123	47	97	52	0	0	0	0	97
Emmonak	154	78	13	12	0	0	0	0	13
Kotlik	94	39	0	0	0	0	0	0	0
District 1	408	193	110	54	0	0	0	0	110
Mountain Village	144	64	11	5	0	0	0	0	11
Pitkas Point	28	23	0	0	0	0	0	0	0
St. Mary's	124	61	0	0	0	0	50	0	50
Pilot Station	107	50	0	0	0	0	0	0	0
Marshall	73	26	12	0	0	0	0	0	12
District 2	476	224	23	5	0	0	50	0	73
Russian Mission	69	24	0	0	0	0	0	0	0
Holy Cross	54	33	72	36	157	222	0	0	229
Shageluk	37	25	0	0	0	0	0	0	0
District 3	160	82	72	36	157	222	0	0	229
Anvik	32	25	233	173	143	89	0	0	376
Grayling	48	13	0	0	0	0	0	0	0
Kaltag	68	25	0	0	0	0	0	0	0
Nulato	83	26	267	178	22	16	104	77	393
Koyukuk	33	28	1,073	706	145	87	1	1	1,219
Galena	185	62	119	16	500	0	129	47	748
Ruby	61	27	192	62	638	21	244	7	1,074
Huslia	82	27	3,229	1,759	0	0	20	0	3,249
Hughes	28	24	500	0	0	0	0	0	500
Allakaket	48	22	3,511	712	1,227	0	152	0	4,890
Alatna	14	8	0	0	0	0	0	0	0
Bettles	22	18	0	0	0	0	0	0	0
District 4	704	305	9,124	2,041	2,675	127	650	90	12,449
Tanana	97	44	2,267	746	14,784	5,182	2,210	1,068	19,261
Stevens Village	24	18	167	124	630	582	0	0	797
Birch Creek	19	6	0	0	150	240	0	0	150
Beaver	32	22	0	0	0	0	0	0	0
Fort Yukon	174	71	91	63	10,367	6,875	136	130	10,594
Venetie	62	23	50	0	820	532	0	0	870
Chalkyitsik	32	18	0	0	0	0	0	0	0
District 5	440	202	2,575	759	26,751	8,649	2,346	1,076	31,672
Survey Totals	2,470	1,121	12,045	2,187	29,583	8,652	3,046	1,079	44,674

^a Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 6.–Estimated number of salmon retained for dog food from commercial harvests with corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Total Households Households Contacted ^b		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon ^a
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	202	83	0	0	0	0	0	0	0
Scammon Bay	80	32	0	0	0	0	0	0	0
Coastal District	282	115	0	0	0	0	0	0	0
Nunam Iqua	37	29	0	0	0	0	0	0	0
Alakanuk	123	47	0	0	0	0	0	0	0
Emmonak	154	79	0	0	0	0	0	0	0
Kotlik	94	39	0	0	0	0	0	0	0
District 1	408	194	0	0	0	0	0	0	0
Mountain Village	144	64	0	0	0	0	0	0	0
Pitkas Point	28	23	0	0	0	0	0	0	0
St. Mary's	124	61	0	0	0	0	0	0	0
Pilot Station	107	52	0	0	0	0	0	0	0
Marshall	73	26	30	0	131	153	86	153	247
District 2	476	226	30	0	131	153	86	153	247
Russian Mission	69	25	0	0	0	0	0	0	0
Holy Cross	54	33	0	0	0	0	0	0	0
Shageluk	37	25	0	0	0	0	0	0	0
District 3	160	83	0	0	0	0	0	0	0
Anvik	32	26	0	0	0	0	0	0	0
Grayling	48	13	0	0	0	0	0	0	0
Kaltag	68	25	2,000	0	7,667	12,919	0	0	9,667
Nulato	83	26	292	216	0	0	0	0	292
Koyukuk	33	28	0	0	0	0	0	0	0
Galena	185	62	0	0	0	0	0	0	0
Ruby	61	27	0	0	0	0	0	0	0
Huslia	82	27	0	0	0	0	0	0	0
Hughes	28	24	0	0	0	0	0	0	0
Allakaket	48	22	0	0	0	0	0	0	0
Alatna	14	8	0	0	0	0	0	0	0
Bettles	22	18	0	0	0	0	0	0	0
District 4	704	306	2,292	216	7,667	12,919	0	0	9,959
Tanana	97	46	0	0	1,207	960	0	0	1,207
Stevens Village	24	18	0	0	0	0	0	0	0
Birch Creek	19	6	0	0	0	0	0	0	0
Beaver	32	24	0	0	0	0	0	0	0
Fort Yukon	174	70	0	0	0	0	0	0	0
Venetie	62	23	0	0	0	0	0	0	0
Chalkyitsik	32	18	0	0	0	0	0	0	0
District 5	440	205	0	0	1,207	960	0	0	1,207
Survey Totals	2,470	1,129	2,322	216	9,005	12,955	86	153	11,413

^a Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 7.—Estimated total number of households, sample size, number contacted, and percentage of sampled households that were contacted in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals			
	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Hooper Bay	7	7	4	57%	71	22	20	91%	92	28	28	100%	32	32	31	97%	-	-	-	-	202	89	83	93%
Scammon Bay	3	3	2	67%	23	7	5	71%	42	13	14	108%	12	12	12	100%	-	-	-	-	80	35	33	94%
Coastal District	10	10	6	60%	94	29	25	86%	134	41	42	102%	44	44	43	98%	-	-	-	-	282	124	116	94%
Nunam Iqua	2	2	-	-	12	12	8	67%	9	9	8	89%	12	12	12	100%	2	2	1	50%	37	37	29	78%
Alakanuk	-	-	-	-	38	12	10	83%	62	19	19	100%	23	23	19	83%	-	-	-	-	123	54	48	89%
Emmonak	-	-	-	-	51	26	23	88%	65	33	29	88%	38	38	33	87%	-	-	-	-	154	97	85	88%
Kotlik	2	2	-	-	25	8	8	100%	45	14	13	93%	22	22	20	91%	-	-	-	-	94	46	41	89%
District 1	4	4	-	-	126	58	49	84%	181	75	69	92%	95	95	84	88%	2	2	1	50%	408	234	203	87%
Mountain Village	7	7	5	71%	34	11	9	82%	70	21	19	90%	31	31	29	94%	2	2	2	100%	144	72	64	89%
Pitkas Point	3	3	1	33%	6	6	6	100%	14	14	11	79%	5	5	5	100%	-	-	-	-	28	28	23	82%
St. Mary's	6	6	4	67%	22	7	7	100%	66	20	20	100%	29	29	29	100%	1	1	1	100%	124	63	61	97%
Pilot Station	10	10	7	70%	32	16	13	81%	50	25	22	88%	15	15	12	80%	-	-	-	-	107	66	54	82%
Marshall	3	3	2	67%	17	6	5	83%	40	12	8	67%	11	11	10	91%	2	2	2	100%	73	34	27	79%
District 2	29	29	19	66%	111	46	40	87%	240	92	80	87%	91	91	85	93%	5	5	5	100%	476	263	229	87%
Russian Mission	13	13	8	62%	12	4	3	75%	39	12	12	100%	5	5	4	80%	-	-	-	-	69	34	27	79%
Holy Cross	1	1	-	-	15	8	7	88%	23	12	11	92%	15	15	15	100%	-	-	-	-	54	36	33	92%
Shageluk	2	2	2	100%	8	8	3	38%	22	22	15	68%	5	5	5	100%	-	-	-	-	37	37	25	68%
District 3	16	16	10	63%	35	20	13	65%	84	46	38	83%	25	25	24	96%	-	-	-	-	160	107	85	79%
Anvik	1	1	1	100%	12	12	9	75%	10	10	8	80%	7	7	7	100%	2	2	1	50%	32	32	26	81%
Grayling	1	1	-	-	4	2	-	-	40	12	10	83%	2	2	2	100%	1	1	1	100%	48	18	13	72%
Kaltag	8	8	6	75%	11	4	4	100%	46	14	12	86%	3	3	3	100%	-	-	-	-	68	29	25	86%
Nulato	-	-	-	-	20	6	4	67%	56	17	16	94%	7	7	6	86%	-	-	-	-	83	30	26	87%
Koyukuk	3	3	3	100%	13	13	11	85%	12	12	11	92%	4	4	3	75%	1	1	1	100%	33	33	29	88%
Galena	43	43	28	65%	68	21	15	71%	68	21	16	76%	5	5	4	80%	1	1	1	100%	185	91	64	70%
Ruby	5	5	5	100%	36	11	11	100%	11	4	3	75%	7	7	7	100%	2	2	2	100%	61	29	28	97%
Huslia	15	15	7	47%	43	13	11	85%	20	6	5	83%	2	2	2	100%	2	2	2	100%	82	38	27	71%
Hughes	2	2	1	50%	19	19	16	84%	3	3	3	100%	2	2	2	100%	2	2	2	100%	28	28	24	86%
Allakaket	10	10	6	60%	26	8	8	100%	7	3	3	100%	2	2	2	100%	3	3	3	100%	48	26	22	85%
Alatna	6	6	1	17%	4	4	4	100%	3	3	2	67%	1	1	1	100%	-	-	-	-	14	14	8	57%
Bettles	6	6	4	67%	14	14	13	93%	2	2	1	50%	-	-	-	-	-	-	-	-	22	22	18	82%
District 4	100	100	62	62%	270	127	106	83%	278	107	90	84%	42	42	39	93%	14	14	13	93%	704	390	310	79%

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Table 7.–Page 2 of 2.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals			
	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Tanana	2	2	1	50%	48	24	20	83%	27	14	13	93%	8	8	5	63%	12	12	10	83%	97	60	49	82%
Stevens Village	-	-	-	-	9	9	7	78%	9	9	6	67%	6	6	5	83%	-	-	-	-	24	24	18	75%
Birch Creek	5	5	1	20%	9	9	3	33%	5	5	2	40%	-	-	-	-	-	-	-	-	19	19	6	32%
Beaver	4	4	2	50%	10	10	8	80%	15	15	11	73%	3	3	3	100%	-	-	-	-	32	32	24	75%
Fort Yukon	32	32	27	84%	94	29	24	83%	32	10	8	80%	8	8	7	88%	8	8	6	75%	174	87	72	83%
Venetie	9	9	5	56%	32	10	9	90%	17	6	5	83%	4	4	4	100%	-	-	-	-	62	29	23	79%
Chalkyitsik	4	4	1	25%	21	21	14	67%	6	6	3	50%	1	1	-	-	-	-	-	-	32	32	18	56%
District 5	56	56	37	66%	223	112	85	76%	111	65	48	74%	30	30	24	80%	20	20	16	80%	440	283	210	74%
Survey Totals	215	215	134	62%	859	392	318	81%	1,028	426	367	86%	327	327	299	91%	41	41	35	85%	2,470	1,401	1,153	82%

Note: Households contacted (C) may include some households not pre-selected resulting in a household contacted percentage (%C) greater than 100%. Total number of households (N), the sample size (n), the number of households contacted (C), and the percent of the sampled households that were contacted (%C).

Table 8.—Estimated number of subsistence fishing households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total				Combined	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est	CI (95%)	
																										N
Hooper Bay	7	4	0.0	0.0	71	20	0.5	0.1	92	28	0.5	0.1	32	31	0.9	0.0	-	-	-	-	202	83	111	20		
Scammon Bay	3	2	0.0	0.0	23	5	0.4	0.2	42	14	0.8	0.1	12	12	1.0	0.0	-	-	-	-	80	33	54	12		
Coastal District	10	6	0.0	0.0	94	25	0.5	0.1	134	42	0.6	0.1	44	43	1.0	0.0	-	-	-	-	282	116	165	23		
Nunam Iqua	2	0	-	-	12	8	0.3	0.1	9	8	0.4	0.1	12	12	0.8	0.0	2	1	1.0	-	37	29	18	2		
Alakanuk	-	-	-	-	38	10	0.4	0.1	62	19	0.7	0.1	23	19	0.9	0.0	-	-	-	-	123	48	81	15		
Emmonak	-	-	-	-	51	22	0.3	0.1	65	29	0.7	0.1	38	30	0.7	0.0	-	-	-	-	154	81	84	12		
Kotlik	2	0	-	-	25	8	0.4	0.2	45	12	0.9	0.1	22	19	0.7	0.0	-	-	-	-	94	39	67	10		
District 1	4	0	-	-	126	48	0.3	0.1	181	68	0.7	0.0	95	80	0.8	0.0	2	1	1.0	-	408	197	250	21		
Mountain Village	7	5	0.8	0.1	34	9	0.2	0.1	70	19	0.7	0.1	31	29	0.9	0.0	2	2	0.5	0.0	144	64	90	15		
Pitkas Point	3	1	0.0	-	6	6	0.3	0.0	14	11	0.7	0.1	5	5	1.0	0.0	-	-	-	-	28	23	17	2		
St. Mary's	6	4	1.0	0.0	22	7	0.7	0.2	66	20	0.7	0.1	29	29	1.0	0.0	1	1	1.0	-	124	61	97	13		
Pilot Station	10	7	0.7	0.1	32	12	0.2	0.1	50	22	0.6	0.1	15	12	0.8	0.1	-	-	-	-	107	53	55	10		
Marshall	3	2	1.0	0.0	17	5	0.4	0.2	40	8	0.8	0.1	11	10	0.9	0.0	2	2	1.0	0.0	73	27	52	13		
District 2	29	19	0.7	0.0	111	39	0.3	0.1	240	80	0.7	0.0	91	85	0.9	0.0	5	5	0.8	0.0	476	228	311	26		
Russian Mission	13	8	0.4	0.1	12	3	1.0	0.0	39	11	0.9	0.1	5	4	1.0	0.0	-	-	-	-	69	26	57	7		
Holy Cross	1	0	-	-	15	7	0.1	0.1	23	11	0.8	0.1	15	15	0.9	0.0	-	-	-	-	54	33	35	5		
Shageluk	2	2	0.0	0.0	8	3	0.7	0.3	22	15	0.5	0.1	5	5	0.2	0.0	-	-	-	-	37	25	18	5		
District 3	16	10	0.3	0.1	35	13	0.6	0.1	84	37	0.8	0.0	25	24	0.8	0.0	-	-	-	-	160	84	110	10		
Anvik	1	1	0.0	-	12	9	0.1	0.1	10	8	0.8	0.1	7	7	0.7	0.0	2	1	1.0	-	32	26	16	2		
Grayling	1	0	-	-	4	0	-	-	40	10	0.8	0.1	2	2	0.5	0.0	1	1	1.0	-	48	13	34	9		
Kaltag	8	6	0.5	0.1	11	4	0.3	0.2	46	12	0.7	0.1	3	3	1.0	0.0	-	-	-	-	68	25	40	12		
Nulato	-	-	-	-	20	4	0.3	0.2	56	16	0.4	0.1	7	6	1.0	0.0	-	-	-	-	83	26	37	15		
Koyukuk	3	3	0.3	0.0	13	11	0.4	0.1	12	11	0.7	0.0	4	3	1.0	0.0	1	1	1.0	-	33	29	19	2		
Galena	43	27	0.3	0.1	68	15	0.1	0.1	68	16	0.7	0.1	5	4	1.0	0.0	1	1	1.0	-	185	63	75	18		
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	0.7	0.3	7	7	0.9	0.0	2	2	1.0	0.0	61	28	15	6		
Huslia	15	7	0.1	0.1	43	11	0.1	0.1	20	5	0.6	0.2	2	2	1.0	0.0	2	2	1.0	0.0	82	27	22	11		
Hughes	2	1	0.0	-	19	16	0.2	0.0	3	3	0.3	0.0	2	2	0.0	0.0	2	2	1.0	0.0	28	24	7	1		
Allakaket	10	6	0.0	0.0	26	8	0.3	0.1	7	3	0.3	0.3	2	2	1.0	0.0	3	3	1.0	0.0	48	22	14	8		
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	1.0	0.0	1	1	1.0	-	-	-	-	-	14	8	4	0		
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0		
District 4	100	61	0.2	0.0	270	106	0.1	0.0	278	90	0.6	0.0	42	39	0.9	0.0	14	13	1.0	0.0	704	309	283	32		

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Table 8.–Page 2 of 2.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined ^a									
	N		n		Mean		SE		N		n		Mean		SE		N		n		Mean		SE		Total		Est		CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)		
Tanana	2	1	0.0	-	48	20	0.2	0.1	27	12	0.4	0.1	8	5	1.0	0.0	12	10	1.0	0.0	97	48	41	9						
Stevens Village	-	-	-	-	9	7	0.4	0.1	9	6	0.7	0.1	6	5	0.8	0.1	-	-	-	-	24	18	15	3						
Birch Creek	5	1	0.0	-	9	3	0.3	0.3	5	2	0.5	0.4	-	-	-	-	-	-	-	-	19	6	6	6						
Beaver	4	2	0.5	0.4	10	8	0.1	0.1	15	11	0.7	0.1	3	3	0.7	0.0	-	-	-	-	32	24	16	4						
Fort Yukon	32	26	0.3	0.0	94	24	0.3	0.1	32	8	0.4	0.2	8	7	1.0	0.0	8	6	1.0	0.0	174	71	61	18						
Venetie	9	5	0.0	0.0	32	9	0.2	0.1	17	5	0.4	0.2	4	4	0.8	0.0	-	-	-	-	62	23	17	10						
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0						
District 5	56	36	0.2	0.0	223	85	0.2	0.0	111	47	0.4	0.1	30	24	0.9	0.0	20	16	1.0	0.0	440	208	156	24						
Survey Totals	215	132	0.3	0.0	859	316	0.3	0.0	1,028	364	0.6	0.0	327	295	0.9	0.0	41	35	1.0	0.0	2,470	1,142	1,275	58						

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%). Dashes indicate indefinable values.

Table 9.—Estimated number of people in households in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	Total N	n	Total	Est CI (95%) (+/-)
Hooper Bay	7	4	4.3	0.9	71	19	4.6	0.6	92	28	5.1	0.5	32	31	5.5	0.1	-	-	-	-	202	82	1,001	118
Scammon Bay	3	2	4.5	0.3	23	5	4.2	0.7	42	14	5.3	0.6	12	12	8.0	0.0	-	-	-	-	80	33	428	62
Coastal District	10	6	4.3	0.7	94	24	4.5	0.5	134	42	5.1	0.4	44	43	6.2	0.1	-	-	-	-	282	115	1,429	134
Nunam Iqua	2	0	-	-	12	8	3.9	0.5	9	8	4.9	0.3	12	12	4.3	0.0	2	1	4.0	-	37	29	150	12
Alakanuk	-	-	-	-	38	10	4.1	0.5	62	18	4.8	0.6	23	19	5.0	0.2	-	-	-	-	123	47	567	84
Emmonak	-	-	-	-	51	21	4.8	0.4	65	29	4.6	0.3	38	29	5.3	0.3	-	-	-	-	154	79	744	63
Kotlik	2	0	-	-	25	8	4.5	0.7	45	12	5.6	0.6	22	19	5.5	0.2	-	-	-	-	94	39	485	61
District 1	4	0	-	-	126	47	4.4	0.3	181	67	4.9	0.3	95	79	5.1	0.1	2	1	4.0	-	408	194	1,946	122
Mountain Village	7	5	4.2	0.5	34	9	3.2	0.8	70	19	4.6	0.5	31	29	5.4	0.1	2	2	7.5	0.0	144	64	642	87
Pitkas Point	3	1	2.0	-	6	6	3.7	0.0	14	10	3.8	0.3	5	5	4.8	0.0	-	-	-	-	28	22	105	8
St. Mary's	6	4	4.3	0.3	22	7	2.1	0.3	66	19	3.3	0.4	29	29	4.5	0.0	1	1	7.0	-	124	60	426	60
Pilot Station	10	7	4.6	0.5	32	13	3.0	0.4	50	22	5.0	0.4	15	11	5.5	0.4	-	-	-	-	107	53	476	47
Marshall	3	2	6.5	0.3	17	4	5.0	1.4	40	8	3.6	0.3	11	10	6.1	0.3	2	2	5.0	0.0	73	26	327	52
District 2	29	19	4.3	0.2	111	39	3.2	0.3	240	78	4.1	0.2	91	84	5.2	0.1	5	5	6.4	0.0	476	225	1,976	127
Russian Mission	13	6	3.0	0.3	12	2	4.5	0.5	39	11	6.5	0.8	5	4	5.0	0.7	-	-	-	-	69	23	373	61
Holy Cross	1	0	-	-	15	7	2.6	0.3	23	11	3.7	0.4	15	15	3.3	0.0	-	-	-	-	54	33	174	22
Shageluk	2	2	1.5	0.0	8	3	1.3	0.3	22	15	3.0	0.3	5	5	2.4	0.0	-	-	-	-	37	25	92	12
District 3	16	8	2.8	0.2	35	12	2.9	0.2	84	37	4.8	0.4	25	24	3.5	0.1	-	-	-	-	160	81	639	66
Anvik	1	1	4.0	-	12	9	1.8	0.2	10	8	3.8	0.4	7	7	2.6	0.0	2	1	7.0	-	32	26	95	9
Grayling	1	0	-	-	4	0	-	-	40	10	3.1	0.5	2	2	5.0	0.0	1	1	2.0	-	48	13	136	42
Kaltag	8	6	2.8	0.3	11	4	1.5	0.4	46	12	2.7	0.4	3	3	4.0	0.0	-	-	-	-	68	25	174	37
Nulato	-	-	-	-	20	4	1.3	0.2	56	15	2.7	0.4	7	6	3.5	0.2	-	-	-	-	83	25	203	43
Koyukuk	3	2	2.5	0.9	13	11	2.0	0.2	12	10	2.0	0.2	4	2	4.5	0.4	1	1	2.0	-	33	26	78	8
Galena	43	26	2.3	0.1	68	14	2.6	0.3	68	15	3.2	0.3	5	4	2.5	0.3	1	1	4.0	-	185	60	507	63
Ruby	5	5	1.4	0.0	36	10	1.9	0.3	11	3	2.7	0.6	7	6	2.0	0.1	2	2	1.5	0.0	61	26	122	26
Huslia	15	7	3.4	0.6	43	10	3.0	0.5	20	5	3.2	1.1	2	2	2.0	0.0	2	2	4.5	0.0	82	26	257	59
Hughes	2	1	4.0	-	19	16	2.5	0.3	3	3	1.3	0.0	2	2	2.0	0.0	2	2	3.0	0.0	28	24	70	10
Allakaket	10	6	3.3	0.5	26	8	3.0	0.3	7	3	2.0	0.4	2	2	2.0	0.0	3	3	4.3	0.0	48	22	142	20
Alatna	6	1	1.0	-	4	4	2.8	0.0	3	2	3.5	0.9	1	1	3.0	-	-	-	-	-	14	8	31	5
Bettles	6	4	1.3	0.1	14	13	1.5	0.1	2	1	2.0	-	-	-	-	-	-	-	-	-	22	18	33	2
District 4	100	59	2.5	0.1	270	103	2.3	0.1	278	87	2.9	0.2	42	37	3.0	0.1	14	13	3.8	0.0	704	299	1,848	118

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Table 9.–Page 2 of 2.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	Total		Est CI (95%)	
																					N	n	Total	(+/-)
Tanana	2	1	6.0	-	48	18	2.1	0.3	27	12	2.3	0.3	8	5	3.0	0.3	12	10	2.2	0.2	97	46	224	34
Stevens Village	-	-	-	-	9	6	1.8	0.3	9	6	2.5	0.3	6	5	3.8	0.6	-	-	-	-	24	17	62	10
Birch Creek	5	1	1.0	-	9	3	1.3	0.3	5	2	1.5	0.4	-	-	-	-	-	-	-	-	19	6	25	6
Beaver	4	2	2.5	1.1	10	7	2.0	0.4	15	9	2.0	0.2	3	3	1.7	0.0	-	-	-	-	32	21	65	13
Fort Yukon	32	24	3.0	0.2	94	23	2.4	0.3	32	7	1.9	0.5	8	7	1.9	0.1	8	5	2.8	0.4	174	66	419	71
Venetie	9	5	1.8	0.4	32	9	2.9	0.4	17	5	2.4	0.4	4	4	4.5	0.0	-	-	-	-	62	23	167	28
Chalkyitsik	4	1	5.0	-	21	14	2.6	0.2	6	3	2.7	0.8	1	0	-	-	-	-	-	-	32	18	90	14
District 5	56	34	2.9	0.1	223	80	2.3	0.2	111	44	2.1	0.2	30	24	2.9	0.2	20	15	2.4	0.2	440	197	1,052	86
Survey Totals	215	126	3.0	0.1	859	305	3.0	0.1	1,028	355	3.9	0.1	327	291	4.7	0.0	41	34	3.5	0.1	2,470	1,111	8,890	273

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%). Dashes indicate indefinable values.

Table 10.—Subsistence salmon harvest estimates including commercially retained (not including test fish) and corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	202	83	388	123	12,007	2,763	329	365	66	34	12,790
Scammon Bay	80	32	1,104	363	6,113	2,233	57	11	50	5	7,324
Coastal District	282	115	1,492	384	18,120	3,552	386	365	116	34	20,114
Nunam Iqua	37	29	163	11	1,949	69	59	7	24	6	2,195
Alakanuk	123	48	1,235	415	6,811	2,027	423	565	157	111	8,626
Emmonak	154	81	1,258	363	7,230	1,296	792	420	482	253	9,762
Kotlik	94	39	1,368	447	4,184	1,296	671	698	313	177	6,536
District 1	408	197	4,024	710	20,174	2,734	1,945	991	976	328	27,119
Mountain Village	144	64	1,645	381	7,559	1,546	432	172	309	144	9,945
Pitkas Point	28	23	544	79	1,246	218	101	0	130	0	2,021
St. Mary's	124	61	1,706	369	6,451	1,120	830	208	591	664	9,578
Pilot Station	107	53	1,208	408	4,674	1,550	161	170	152	154	6,195
Marshall	73	26	2,591	828	2,678	1,080	748	358	490	346	6,507
District 2	476	227	7,694	1,067	22,608	2,695	2,272	479	1,672	778	34,246
Russian Mission	69	25	2,949	1,176	2,400	1,150	578	510	372	401	6,299
Holy Cross	54	33	2,509	445	441	82	920	253	38	18	3,908
Shageluk	37	25	397	151	130	79	323	145	0	0	850
District 3	160	83	5,855	1,266	2,971	1,156	1,821	587	410	402	11,057
Anvik	32	26	1,433	120	340	22	317	47	40	18	2,130
Grayling	48	13	1,761	928	660	541	1,012	676	25	0	3,458
Kaltag	68	25	2,403	1,157	316	304	159	226	0	0	2,878
Nulato	83	26	1,250	575	468	292	729	379	195	153	2,642
Koyukuk	33	29	513	96	1,104	697	1,177	723	84	53	2,878
Galena	185	63	2,232	879	758	204	1,364	521	558	401	4,912
Ruby	61	28	637	123	655	366	657	0	291	0	2,240
Huslia	82	27	255	199	4,377	2,441	64	6	100	0	4,796
Hughes	28	24	61	19	944	462	127	18	0	0	1,132
Allakaket	48	22	58	11	3,229	391	1,345	11	152	0	4,784
Alatna	14	8	16	3	66	44	0	0	0	0	82
Bettles	22	18	0	0	0	0	0	0	0	0	0
District 4	704	309	10,619	1,839	12,917	2,731	6,951	1,203	1,445	433	31,932

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Table 10.–Page 2 of 2.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Tanana	99	48	3,981	1,184	2,877	579	17,478	4,382	1,511	951	25,847
Stevens Village	25	19	753	216	163	120	643	594	0	0	1,559
Birch Creek	19	6	32	40	0	0	30	48	0	0	62
Beaver	32	24	546	218	27	18	13	14	6	1	592
Fort Yukon	174	71	1,991	808	230	158	14,252	10,153	1,618	691	18,091
Venetie	62	23	292	271	50	0	1,563	1,134	0	0	1,905
Chalkyitsik District 5	32	22	0	0	0	0	0	0	0	0	0
District 5	443	213	7,595	1,491	3,347	612	33,979	11,132	3,135	1,176	48,056
Survey Totals	2,473	1,144	37,279	3,000	80,137	6,043	47,354	11,272	7,754	1,564	172,524

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 11.—Estimated subsistence harvest including commercially retained (not including test fish) of Chinook salmon by fishing location in surveyed communities, Yukon Area, 2008.

Community	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black		
Hooper Bay	358	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	388
Scammon Bay	231	873	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,104
Coastal District	589	903	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,492
Nunam Iqua	0	163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163
Alakanuk	0	1,235	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,235
Emmonak	34	1,224	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,258
Kotlik	37	1,331	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,368
District 1	71	3,953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,024
Mountain Village	0	304	1,341	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,645
Pitkas Point	0	544	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	544
St. Mary's	0	171	1,535	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,706
Pilot Station	0	0	1,208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,208
Marshall	0	0	2,520	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,591
District 2	0	1,018	6,604	71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,694
Russian Mission	0	0	0	2,949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,949
Holy Cross	0	0	0	2,178	331	0	0	0	0	0	0	0	0	0	0	0	0	0	2,509
Shageluk	0	0	0	151	62	0	0	0	0	0	0	0	184	0	0	0	0	0	397
District 3	0	0	0	5,278	393	0	0	0	0	0	0	0	184	0	0	0	0	0	5,855
Anvik	0	0	0	0	1,433	0	0	0	0	0	0	0	0	0	0	0	0	0	1,433
Grayling	0	0	0	0	1,581	0	0	0	0	0	180	0	0	0	0	0	0	0	1,761
Kaltag	0	0	0	0	2,403			0	0	0	0	0	0	0	0	0	0	0	2,403
Nulato	0	0	0	0	1,250			0	0	0	0	0	0	0	0	0	0	0	1,250
Koyukuk	0	0	0	22	390	87	14	0	0	0	0	0	0	0	0	0	0	0	513
Galena	0	0	0	0	813	404	1,014	0	0	0	0	0	0	0	0	0	0	0	2,232
Ruby	0	0	0	0	0	21	616	0	0	0	0	0	0	0	0	0	0	0	637
Huslia	0	0	0	0	60	0	98	0	0	0	0	0	0	97	0	0	0	0	255
Hughes	0	0	0	0	24	0	0	0	0	0	0	0	0	37	0	0	0	0	61
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	58	0	0	0	0	58
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	16
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	22	7,955	512	1,743	0	0	0	180	0	0	208	0	0	0	0	10,619

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Table 11.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts ^a								River Drainages				Total by Community ^b		
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innokko	Koyukuk	Chandalar	Porcupine		Black	
Tanana	0	0	0	0	0	27	0	13	3,941	0	0	0	0	0	0	0	0	0	3,981
Stevens Village	0	0	0	0	0	0	0	0	0	122	631	0	0	0	0	0	0	0	753
Birch Creek	0	0	0	0	0	0	0	0	0	0	32	0	0	0	0	0	0	0	32
Beaver	0	0	0	0	0	0	0	0	0	0	546	0	0	0	0	0	0	0	546
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1,386	605	0	0	0	0	0	0	1,991
Venetie	0	0	0	0	0	0	0	0	0	0	171	0	0	0	121	0	0	0	292
Chalkyitsik District 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	27	0	13	3,941	122	2,766	605	0	0	121	0	0	0	7,595
Survey Totals	660	5,874	6,604	5,371	8,348	539	1,743	13	3,941	122	2,946	605	184	208	121	0	0	0	37,279

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

^a Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

^b Totals may not add in both directions due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 12.—Estimated subsistence harvest including commercially retained (not including test fish) of summer chum salmon by fishing location in surveyed communities, Yukon Area, 2008.

Community	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	11,381	626	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12,007
Scammon Bay	1,775	4,338	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,113
Coastal District	13,156	4,964	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18,120
Nunam Iqua	0	1,949	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,949
Alakanuk	0	6,811	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,811
Emmonak	63	7,167	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,230
Kotlik	31	4,153	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,184
District 1	94	20,080	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20,174
Mountain Village	0	905	6,654	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,559
Pitkas Point	0	0	1,246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,246
St. Mary's	0	694	5,757	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,451
Pilot Station	0	0	4,674	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,674
Marshall	0	0	2,474	204	0	0	0	0	0	0	0	0	0	0	0	0	0	2,678
District 2	0	1,599	20,805	204	0	0	0	0	0	0	0	0	0	0	0	0	0	22,608
Russian Mission	0	0	0	2,400	0	0	0	0	0	0	0	0	0	0	0	0	0	2,400
Holy Cross	0	0	0	356	85	0	0	0	0	0	0	0	0	0	0	0	0	441
Shageluk	0	0	0	33	15	0	0	0	0	0	0	82	0	0	0	0	0	130
District 3	0	0	0	2,789	100	0	0	0	0	0	0	82	0	0	0	0	0	2,971
Anvik	0	0	0	0	340	0	0	0	0	0	0	0	0	0	0	0	0	340
Grayling	0	0	0	0	420	0	0	0	0	0	0	240	0	0	0	0	0	660
Kaltag	0	0	0	0	316	0	0	0	0	0	0	0	0	0	0	0	0	316
Nulato	0	0	0	0	468	0	0	0	0	0	0	0	0	0	0	0	0	468
Koyukuk	0	0	0	0	1,103	1	0	0	0	0	0	0	0	0	0	0	0	1,104
Galena	0	0	0	0	105	121	532	0	0	0	0	0	0	0	0	0	0	758
Ruby	0	0	0	0	0	449	206	0	0	0	0	0	0	0	0	0	0	655
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	4,377	0	0	0	0	4,377
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	944	0	0	0	0	944
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	3,229	0	0	0	0	3,229
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	66	0	0	0	0	66
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	2,752	571	738	0	0	0	0	240	0	8,616	0	0	0	12,917

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Table 12.–Page 2 of 2.

Community	Coastal District	Districts			Subdistrict ^a								River Drainages					Total by Community ^b	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black		
Tanana	0	0	0	0	0	0	0	278	2,599	0	0	0	0	0	0	0	0	0	2,877
Stevens Village	0	0	0	0	0	0	0	0	0	2	161	0	0	0	0	0	0	0	163
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	27	0	0	0	0	0	0	0	27
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1	229	0	0	0	0	0	0	230
Venetie	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	0	0	0	50
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	278	2,599	2	239	229	0	0	0	0	0	0	3,347
Survey Totals	13,250	26,643	20,805	2,993	2,852	571	738	278	2,599	2	239	469	82	8,616	0	0	0	0	80,137

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

^a Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

^b Totals may not add in both directions due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 13.—Estimated subsistence harvest including commercially retained (not including test fish) of fall chum salmon by fishing location in surveyed communities, Yukon Area, 2008.

Community	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b	
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black		
Hooper Bay	198	131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	329
Scammon Bay	4	53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Coastal District	202	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	386
Nunam Iqua	0	59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59
Alakanuk	0	423	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	423
Emmonak	0	792	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	792
Kotlik	17	654	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	671
District 1	17	1,928	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,945
Mountain Village	0	68	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	432
Pitkas Point	0	0	101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101
St. Mary's	0	83	747	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	830
Pilot Station	0	114	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161
Marshall	0	748	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	748
District 2	0	1,013	1,259	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,272
Russian Mission	0	0	0	578	0	0	0	0	0	0	0	0	0	0	0	0	0	0	578
Holy Cross	0	0	0	881	39	0	0	0	0	0	0	0	0	0	0	0	0	0	920
Shageluk	0	0	0	76	164	0	0	0	0	0	0	83	0	0	0	0	0	0	323
District 3	0	0	0	1,535	203	0	0	0	0	0	0	83	0	0	0	0	0	0	1,821
Anvik	0	0	0	0	317	0	0	0	0	0	0	0	0	0	0	0	0	0	317
Grayling	0	0	0	0	912	0	0	0	0	0	0	100	0	0	0	0	0	0	1,012
Kaltag	0	0	0	0	159	0	0	0	0	0	0	0	0	0	0	0	0	0	159
Nulato	0	0	0	0	729	0	0	0	0	0	0	0	0	0	0	0	0	0	729
Koyukuk	0	0	0	0	365	788	24	0	0	0	0	0	0	0	0	0	0	0	1,177
Galena	0	0	0	0	48	26	1,290	0	0	0	0	0	0	0	0	0	0	0	1,364
Ruby	0	0	0	0	0	233	424	0	0	0	0	0	0	0	0	0	0	0	657
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	64	0	0	0	0	0	64
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	127	0	0	0	0	0	127
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	1,345	0	0	0	0	0	1,345
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	2,530	1,047	1,738	0	0	0	0	100	0	1,536	0	0	0	0	6,951

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Table 13.–Page 2 of 2.

Community	Coastal District	Districts			Subdistricts ^a									River Drainages					Total by Community ^b
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black		
Tanana	0	0	0	0	0	767	0	811	15,900	0	0	0	0	0	0	0	0	0	17,478
Stevens Village	0	0	0	0	0	0	0	0	0	0	643	0	0	0	0	0	0	0	643
Birch Creek	0	0	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	30
Beaver	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	13
Fort Yukon	0	0	0	0	0	0	0	0	0	0	2,365	10,598	0	0	0	1,289	0	0	14,252
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,563	0	0	0	1,563
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	767	0	811	15,900	0	3,051	10,598	0	0	1,563	1,289	0	0	33,979
Survey Totals	219	3,125	1,259	1,535	2,733	1,814	1,738	811	15,900	0	3,051	10,698	83	1,536	1,563	1,289	0	0	47,354

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

^a Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

^b Totals may not add in both directions due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 14.—Estimated subsistence harvest including commercially retained (not including test fish) of coho salmon by fishing location in surveyed communities, Yukon Area, 2008.

Community	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	64	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66
Scammon Bay	2	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50
Coastal District	66	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	116
Nunam Iqua	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24
Alakanuk	0	157	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157
Emmonak	0	482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	482
Kotlik	0	313	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	313
District 1	0	976	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	976
Mountain Village	0	120	189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	309
Pitkas Point	0	0	130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130
St. Mary's	0	25	566	0	0	0	0	0	0	0	0	0	0	0	0	0	0	591
Pilot Station	0	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152
Marshall	0	0	490	0	0	0	0	0	0	0	0	0	0	0	0	0	0	490
District 2	0	145	1,527	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,672
Russian Mission	0	0	0	372	0	0	0	0	0	0	0	0	0	0	0	0	0	372
Holy Cross	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	38
Shageluk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 3	0	0	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	410
Anvik	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	40
Grayling	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	25
Kaltag	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nulato	0	0	0	0	195	0	0	0	0	0	0	0	0	0	0	0	0	195
Koyukuk	0	0	0	0	29	55	0	0	0	0	0	0	0	0	0	0	0	84
Galena	0	0	0	0	106	135	317	0	0	0	0	0	0	0	0	0	0	558
Ruby	0	0	0	0	0	83	208	0	0	0	0	0	0	0	0	0	0	291
Huslia	0	0	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	100
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	152	0	0	0	0	152
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	495	273	525	0	0	0	0	0	152	0	0	0	0	1,445

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Community	Coastal District	Districts			Subdistricts ^a								River Drainages				Total by Community ^b		
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine		Black	
Tanana	0	0	0	0	0	0	0	38	1,473	0	0	0	0	0	0	0	0	0	1,511
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6
Fort Yukon	0	0	0	0	0	0	0	0	0	0	368	1,050	0	0	0	200	0	1,618	
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	38	1,473	0	374	1,050	0	0	0	200	0	3,135	
Survey Totals	66	1,171	1,527	410	495	273	525	38	1,473	0	374	1,050	0	152	0	200	0	7,754	

Note: Commercially retained fish are salmon harvested during commercial fishing that were not sold, but retained and used for subsistence purposes.

^a Harvest in Subdistrict 5D near Ft. Yukon is divided according to whether harvest occurred downriver (5D-down) or upriver (5D-up) of the confluence of the Porcupine River with the Yukon River.

^b Totals may not add in both directions due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 15.—Estimated subsistence harvest of pink salmon, whitefish, pike, and sheefish by surveyed communities, Yukon Area, 2008.

Community	Total Households Households Contacted ^b		Estimated Subsistence Harvest										Total Expanded Miscellaneous Fish Harvest
			Pink Salmon		Large Whitefish ^a		Small Whitefish		Pike		Sheefish		
			Estimated CI (95%) Total	(+/-)	Estimated CI (95%) Total	(+/-)	Estimated CI (95%) Total	(+/-)	Estimated CI (95%) Total	(+/-)	Estimated CI (95%) Total	(+/-)	
Hooper Bay	202	83	1,013	614	2,768	993	2,406	1,484	695	251	179	54	7,061
Scammon Bay	80	32	2,766	1,059	792	299	1,505	797	2,957	1,191	148	117	8,168
Coastal District	282	115	3,779	1,224	3,560	1,037	3,911	1,685	3,652	1,217	327	128	15,229
Nunam Iqua	37	29	757	0	292	12	2,189	352	63	53	385	203	3,686
Alakanuk	123	48	494	263	462	170	2,923	1,558	1,147	559	1,525	1,691	6,551
Emmonak	154	81	641	440	997	463	2,933	1,183	2,122	581	1,136	284	7,829
Kotlik	94	39	1,161	787	430	178	2,030	823	950	442	1,080	335	5,651
District 1	408	197	3,053	939	2,181	524	10,075	2,151	4,282	921	4,126	1,758	23,717
Mountain Village	144	64	500	143	2,114	960	186	236	1,187	462	337	147	4,324
Pitkas Point	28	23	15	0	1,662	1,306	126	132	203	87	220	123	2,226
St. Mary's	124	61	367	13	2,063	1,367	57	0	856	605	393	127	3,736
Pilot Station	107	53	34	30	2,519	1,707	68	50	215	105	715	411	3,551
Marshall	73	26	26	21	2,142	808	0	0	2,240	420	465	192	4,873
District 2	476	227	942	148	10,500	2,840	437	275	4,701	880	2,130	509	18,710
Russian Mission	69	25	436	496	1,514	966	35	59	1,556	723	253	136	3,794
Holy Cross	54	33	20	0	243	52	24	0	79	44	55	29	421
Shageluk	37	25	0	0	293	125	0	0	127	53	48	21	468
District 3	160	83	456	496	2,050	975	59	59	1,762	727	356	140	4,683
Anvik	32	26	23	11	326	19	15	11	28	11	47	5	439
Grayling	48	13	200	339	670	681	20	34	50	45	258	175	1,198
Kaltag	68	25	383	646	2,748	2,117	0	0	109	129	420	338	3,660
Nulato	83	26	35	26	786	664	0	0	18	8	293	259	1,132
Koyukuk	33	29	67	65	272	112	0	0	58	29	50	24	447
Galena	185	63	31	21	667	447	83	39	76	53	253	314	1,110
Ruby	61	28	184	6	681	18	0	0	12	12	18	18	895
Huslia	82	27	100	0	621	328	80	136	498	305	134	89	1,433
Hughes	28	24	0	0	179	14	0	0	30	0	87	19	296
Allakaket	48	22	0	0	938	265	1,299	0	276	30	547	575	3,060
Alatna	14	8	0	0	35	22	0	0	0	0	0	0	35
Bettles	22	18	0	0	0	0	0	0	3	2	6	2	9
District 4	704	309	1,023	733	7,923	2,403	1,497	146	1,158	341	2,113	806	13,714

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Community	Total Households Households Contacted ^b		Estimated Subsistence Harvest										Total Expanded Miscellaneous Fish Harvest
			Pink Salmon		Large Whitefish ^a		Small Whitefish		Pike		Sheefish		
			Estimated CI (95%)		Estimated CI (95%)		Estimated CI (95%)		Estimated CI (95%)		Estimated CI (95%)		
	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	
Tanana	97	48	80	96	6,417	2,910	3,353	1,901	103	57	520	128	10,473
Stevens Village	24	18	0	0	29	13	0	0	96	56	7	6	132
Birch Creek	19	6	0	0	225	325	0	0	90	110	210	336	525
Beaver	32	24	0	0	5	0	3	0	6	0	2	2	16
Fort Yukon	174	71	196	331	1,829	1,429	533	523	134	111	357	283	3,049
Venetie	62	23	0	0	7	11	0	0	17	23	0	0	24
Chalkyitsik	32	18	0	0	115	17	20	0	52	51	6	8	193
District 5	440	208	276	345	8,627	3,258	3,909	1,971	498	184	1,102	458	14,412
Survey Totals	2,470	1,139	9,529	1,818	34,841	5,173	19,888	3,384	16,053	1,945	10,154	2,061	90,465

Note: The estimated harvest in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests. Estimations include 95% confidence interval, CI (95%).

^a Large whitefish are considered those four pounds or larger and small whitefish are less than four pounds.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 16.—Reported subsistence harvest of other miscellaneous fish species by surveyed communities, Yukon Area, 2008.

Community	Total Households	Households Contacted ^a	Reported Harvest of Miscellaneous Fish Species, (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Lamprey ^b	Tomcod	Grayling	Sucker	Arctic Char	Blackfish	Sockeye Salmon ^c	
Hooper Bay	202	82	72	0	2,315	5	0	10	15,705	4	18,111
Scammon Bay	80	32	26	0	2,472	0	0	1	10,860	4	13,363
Coastal District	282	114	98	0	4,787	5	0	11	26,565	8	31,474
Nunam Iqua	37	29	83	0	350	0	0	0	0	6	439
Alakanuk	123	47	96	0	35	0	0	1	6,020	37	6,189
Emmonak	154	79	228	0	629	3	0	23	21,571	7	22,461
Kotlik	93	39	75	0	540	20	0	17	5,528	27	6,207
District 1	407	194	482	0	1,554	23	0	41	33,119	77	35,296
Mountain Village	144	64	570	153	50	82	0	0	8,690	22	9,567
Pitkas Point	27	22	30	225	0	5	0	0	6,300	3	6,563
St. Mary's	125	62	582	200	0	42	0	10	14,150	7	14,991
Pilot Station	107	52	1,070	10	0	2	0	1	5,228	1	6,312
Marshall	73	26	79	0	0	0	0	1	5,545	27	5,652
District 2	476	226	2,331	588	50	131	0	12	39,913	60	43,085
Russian Mission	69	25	21	150	0	0	0	9	9,184	0	9,364
Holy Cross	54	33	76	60	0	3	0	0	100	10	249
Shageluk	38	25	2	0	0	0	0	0	0	3	5
District 3	161	83	99	210	0	3	0	9	9,284	13	9,618
Anvik	32	26	5	0	0	0	0	0	15	28	48
Grayling	46	13	5	0	0	2	0	0	0	5	12
Kaltag	68	25	3	0	0	113	0	57	0	19	192
Nulato	83	25	9	0	0	210	0	31	0	0	250
Koyukuk	33	28	3	0	0	0	0	0	0	0	3
Galena	185	61	148	0	0	3	0	3	1,460	0	1,614
Ruby	61	28	2	0	0	0	0	0	0	0	2
Huslia	82	27	1	0	0	4	0	0	0	0	5
Hughes	28	24	0	0	0	0	0	0	0	0	0
Allakaket	51	25	0	0	0	100	6	0	0	0	106
Alatna	11	5	0	0	0	0	0	0	0	0	0
Bettles	22	18	0	0	0	6	0	20	0	0	26
District 4	702	305	176	0	0	438	6	111	1,475	52	2,258

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Community	Total Households	Households Contacted ^a	Reported Harvest of Miscellaneous Fish Species, (Not Expanded)								Total Not Expanded Miscellaneous Fish Harvest
			Burbot	Lamprey ^b	Tomcod	Grayling	Sucker	Arctic Char	Blackfish	Sockeye Salmon ^c	
Tanana	97	44	45	0	0	2	19	0	0	1	67
Stevens Village	24	18	0	0	0	0	0	0	0	2	2
Birch Creek	19	6	0	0	0	0	0	0	0	0	0
Beaver	32	22	0	0	0	0	0	0	0	0	0
Fort Yukon	174	69	42	5	0	0	0	0	0	0	47
Venetie	62	23	0	0	0	255	0	0	0	0	255
Chalkyitsik	32	18	0	0	0	0	0	0	0	0	0
District 5	440	200	87	5	0	257	19	0	0	3	371
Survey Totals	2,468	1,122	3,273	803	6,391	857	25	184	110,356	213	122,102

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

^b Surveys are conducted before the lamprey fishery occurs in November and December. Consequently lamprey totals are for previous year harvest, i.e., the 2008 reported harvest here is for the calendar year 2007.

^c Due to low harvest numbers of sockeye salmon and difficulties with identification by fishermen, the harvest is not estimated.

Table 17.—Responses to survey question assessing percentage of subsistence salmon needs being met, by community, by species, Yukon Area, 2008.

Community	Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species											
	Total Households	Chinook Salmon					Summer Chum Salmon					
		Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%	
Hooper Bay	202	71	56%	4%	6%	34%	100%	73	14%	7%	5%	74%
Scammon Bay	80	31	16%	13%	3%	68%	100%	31	13%	3%	10%	74%
Coastal District	282	102	44%	7%	5%	44%	100%	104	13%	6%	7%	74%
Nunam Iqua	37	24	46%	8%	4%	42%	100%	26	23%	12%	8%	58%
Alakanuk	123	43	16%	14%	9%	60%	100%	43	14%	7%	14%	65%
Emmonak	154	69	38%	19%	4%	39%	100%	71	32%	10%	11%	46%
Kotlik	94	37	38%	8%	8%	46%	100%	36	31%	22%	3%	44%
District 1	408	173	34%	14%	6%	46%	100%	176	26%	12%	10%	52%
Mountain Village	144	56	30%	9%	14%	46%	100%	56	20%	9%	11%	61%
Pitkas Point	28	18	11%	17%	22%	50%	100%	19	5%	11%	21%	63%
St. Mary's	124	54	13%	9%	13%	65%	100%	54	13%	7%	7%	72%
Pilot Station	107	50	36%	12%	8%	44%	100%	48	25%	13%	6%	56%
Marshall	73	25	20%	20%	8%	52%	100%	23	22%	26%	0%	52%
District 2	476	203	24%	12%	12%	52%	100%	200	18%	12%	9%	62%
Russian Mission	69	23	22%	30%	13%	35%	100%	21	48%	10%	5%	38%
Holy Cross	54	30	17%	10%	13%	60%	100%	8	13%	25%	13%	50%
Shageluk	37	18	28%	17%	0%	56%	100%	9	44%	0%	0%	56%
District 3	160	71	21%	18%	10%	51%	100%	38	39%	11%	5%	45%
Anvik	32	20	15%	0%	0%	85%	100%	11	27%	0%	0%	73%
Grayling	48	12	17%	8%	25%	50%	100%	7	14%	14%	14%	57%
Kaltag	68	22	23%	23%	0%	55%	100%	9	44%	0%	0%	56%
Nulato	83	24	42%	29%	13%	17%	100%	12	50%	25%	0%	25%
Koyukuk	33	25	20%	8%	12%	60%	100%	5	60%	0%	0%	40%
Galena	185	48	44%	13%	6%	38%	100%	24	71%	8%	0%	21%
Ruby	61	23	70%	13%	4%	13%	100%	20	65%	5%	10%	20%
Huslia	82	22	73%	9%	0%	18%	100%	12	42%	8%	25%	25%
Hughes	28	17	82%	0%	6%	12%	100%	11	64%	0%	0%	36%
Allakaket	48	18	61%	6%	0%	33%	100%	15	40%	20%	13%	27%
Alatna	14	8	75%	0%	13%	13%	100%	8	63%	0%	0%	38%
Bettles	22	13	85%	8%	0%	8%	100%	2	50%	50%	0%	0%
District 4	704	252	48%	11%	6%	35%	100%	136	52%	9%	6%	33%
Tanana	97	39	36%	15%	10%	38%	100%	15	13%	20%	0%	67%
Stevens Village	24	15	20%	13%	0%	67%	100%	6	50%	0%	17%	33%
Birch Creek	19	6	100%	0%	0%	0%	100%	1	100%	0%	0%	0%
Beaver	32	20	35%	15%	5%	45%	100%	3	67%	0%	0%	33%
Fort Yukon	174	59	54%	17%	3%	25%	100%	4	100%	0%	0%	0%
Venetie	62	15	40%	20%	0%	40%	100%	1	100%	0%	0%	0%
Chalkyitsik	32	15	87%	0%	0%	13%	100%	1	100%	0%	0%	0%
District 5	440	169	48%	14%	4%	34%	100%	31	45%	10%	3%	42%
Survey Totals	2,470	970	36%	13%	7%	44%	100%	685	32%	10%	7%	51%

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Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species											
Community	Total Households	Fall Chum Salmon					Coho Salmon				
		Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
		Hooper Bay	202	20	60%	0%	10%	30%	19	79%	0%
Scammon Bay	80	9	78%	0%	0%	22%	8	75%	0%	0%	25%
Coastal District	282	29	66%	0%	7%	28%	27	78%	0%	0%	22%
Nunam Iqua	37	12	58%	8%	8%	25%	11	64%	0%	9%	27%
Alakanuk	123	22	55%	9%	0%	36%	16	81%	0%	0%	19%
Emmonak	154	48	63%	2%	10%	25%	30	77%	3%	0%	20%
Kotlik	94	23	87%	0%	0%	13%	19	79%	0%	0%	21%
District 1	408	105	66%	4%	6%	25%	76	76%	1%	1%	21%
Mountain Village	144	27	37%	15%	7%	41%	17	53%	12%	0%	35%
Pitkas Point	28	6	50%	0%	0%	50%	7	57%	0%	0%	43%
St. Mary's	124	25	48%	4%	8%	40%	12	75%	0%	0%	25%
Pilot Station	107	21	71%	5%	5%	19%	14	100%	0	0	0
Marshall	73	17	41%	18%	0%	41%	12	58%	17%	0%	25%
District 2	476	96	49%	9%	5%	36%	62	69%	6%	0%	24%
Russian Mission	69	7	86%	0%	0%	14%	6	100%	0%	0%	0%
Holy Cross	54	11	9%	0%	18%	73%	2	50%	0%	0%	50%
Shageluk	37	9	22%	0%	0%	78%	1	0%	0%	0%	100%
District 3	160	27	33%	0%	7%	59%	9	78%	0%	0%	22%
Anvik	32	8	50%	0%	0%	50%	5	60%	0%	0%	40%
Grayling	48	8	38%	0%	0%	63%	2	50%	0%	0%	50%
Kaltag	68	12	58%	0%	0%	42%	4	100%	0%	0%	0%
Nulato	83	16	44%	25%	6%	25%	10	60%	0	0	0
Koyukuk	33	14	21%	14%	7%	57%	5	40%	20%	0%	40%
Galena	185	27	67%	4%	4%	26%	17	71%	6%	0%	24%
Ruby	61	19	68%	11%	11%	11%	16	75%	6%	6%	13%
Huslia	82	11	73%	18%	0%	9%	2	50%	50%	0%	0%
Hughes	28	11	64%	0%	0%	36%	2	100%	0%	0%	0%
Allakaket	48	12	50%	0%	8%	42%	3	33%	0%	0%	67%
Alatna	14	2	100%	0%	0%	0%	1	100%	0%	0%	0%
Bettles	22	2	100%	0%	0%	0%	1	100%	0%	0%	0%
District 4	704	142	56%	8%	4%	32%	68	68%	6%	1%	25%
Tanana	97	22	32%	18%	5%	45%	7	57%	0%	0%	43%
Stevens Village	24	4	100%	0%	0%	0%	2	100%	0%	0%	0%
Birch Creek	19	2	100%	0%	0%	0%	1	100%	0%	0%	0%
Beaver	32	4	75%	0%	0%	25%	2	50%	0%	0%	50%
Fort Yukon	174	29	34%	10%	0%	55%	16	50%	13%	0%	38%
Venetie	62	7	43%	29%	0%	29%	0	-	-	-	-
Chalkyitsik	32	3	100%	0%	0%	0%	2	100%	0%	0%	0%
District 5	440	71	45%	13%	1%	41%	30	60%	7%	0%	33%
Survey Totals	2,470	470	52%	6%	5%	37%	272	71%	3%	0%	25%

Table 18.—Reported subsistence and commercial harvest of lamprey from postseason postcards for the October 1 to December 31, 2007 fishing period.

Community	Date Mailed ^a	Households Mailed Postcards	Returned Postcards	Reported Subsistence Fishing	Subsistence Lamprey Harvested (lbs) ^b	Reported Commercial Fishing ^b	Commercial Lamprey Harvested (lbs) ^b	Lamprey Given away (lbs) ^b	Lamprey Received (lbs)
Mountain Village	11/9/2007	144	20	5	70	0	0	25	0
Pitkas Point	11/9/2007	26	2	0	0	0	0	0	0
St. Mary's	11/9/2007	130	27	0	0	0	0	0	20
Pilot Station	11/9/2007	102	8	1	0	0	0	0	0
Marshall	11/9/2007	71	15	2	0	0	0	0	0
Russian Mission	11/9/2007	57	8	0	0	0	0	0	6
Holy Cross	11/20/2007	60	9	0	0	0	0	0	0
Anvik	11/20/2007	34	5	0	0	0	0	0	0
Grayling	11/20/2007	45	2	0	0	0	0	0	0
Totals		669	96	8	70	0	0	25	26
Percent			14%	1%					

^a Lamprey harvest occurs after communities have been surveyed. The 2008 survey asks about lamprey harvested in the previous winter.

^b Lamprey are estimated to weigh 1/3 of a pound each for converting between pounds and number of lamprey harvested.

Table 19.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2008.

Permit Fishing Area	Permit ^a		Percent Returned	Number of Permits Returned that Fished ^c	Reported Harvest										
	Type	Issued ^b			Returned	Chinook ^d	Summer Chum ^d	Fall Chum ^d	Coho ^d	Whitefish	Sheefish	Burbot	Pike	Suckers	Grayling
Subsistence Permit															
Koyukuk Middle and South Fork Rivers	SF	1	1	100%	1	0	0	0	0	10	0	0	0	15	27
Yukon River Rampart Area	SR	18	18	100%	15	1,049	43	1,000	0	20	0	0	0	0	0
Yukon River near Haul Road Bridge	SY	73	68	93%	44	1,434	130	705	7	192	71	61	57	0	0
Yukon River near Circle and Eagle ^e	SE	96	87	91%	50	1,808	19	18,496	0	197	34	10	16	78	368
Tanana River Subdistrict 6A	SA	34	32	94%	17	115	146	2,583	1,987	96	1	1	71	0	0
Tanana River Subdistrict 6B ^f	SB	73	71	97%	35	486	854	7,815	4,009	403	0	4	121	21	11
Tanana River Upstream of Subdistrict 6C	SU	58	50	86%	19	0	0	17	6	2,185	0	10	62	27	35
Kantishna River Subdistrict 6A	SK	4	3	75%	2	0	0	95	15	0	0	0	10	0	0
Tolovana River Pike Subdistrict 6B	ST	146	136	93%	79	0	0	0	0	258	3	3	1,339	0	47
Subsistence Permit Subtotals		503	466	93%	262	4,892	1,192	30,711	6,024	3,361	109	89	1,676	141	488
Personal Use Permit															
Tanana River Salmon Subdistrict 6C	PC	51	50	98%	25	126	138	181	50	13	2	0	2	0	0
Tanana River Whitefish Upstream of Subdistrict 6C	PW	6	6	100%	4	0	0	0	0	28	0	0	0	157	0
Personal Use Permit Subtotals		57	56	98%	29	126	138	181	50	41	2	0	2	157	0
Permit Totals		560	522	93%	291	5,018	1,330	30,892	6,074	3,402	111	89	1,678	298	488

^a Permits returned as of April 15, 2009.

^b Includes 53 households that were "issued" permits for more than one area, one household that was issued a duplicate permit for same area, and three permit holders issued an additional SE or SEU permit to track harvest above and below Eagle sonar. Harvest from the SEU area above the sonar was 815 Chinook, 6 summer chum, 11,375 fall chum, 0 coho salmon, 51 whitefish, 16 sheefish, 4 pike, and 18 grayling.

^c Includes 10 households that "fished" in two different permit areas.

^d Does not include District 6 commercial related harvest of 6 Chinook, 301 summer chum, 5,625 fall chum, and 2,411 coho salmon caught but "not sold" during commercial fishing and retained for subsistence use in 2008.

^e Does not include fish distributed to community households from ADF&G Eagle Sonar test fish project (6 Chinook and 3 fall chum salmon).

^f Includes some fish distributed to community households from ADF&G Nenana test fish wheel project that were documented on contractor's subsistence permit.

Table 20.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by fishery, by community of residence, and by drainage, Yukon Area, 2008.

Community	Harvest by Drainage	Permits ^a Issued ^b	Percent Returned	Number of Permits Returned that Fished ^c	Reported Harvest										
					Chinook ^d	Summer Chum ^d	Fall Chum ^d	Coho ^d	Whitefish	Sheefish	Burbot	Pike	Sucker	Grayling	
Subsistence Permit															
Central	Yukon River	12	12	100%	5	48	0	0	0	0	1	6	1	0	0
Circle	Yukon River	20	14	70%	11	519	5	3,198	0	50	2	0	6	4	0
Eagle ^e	Yukon River	41	39	95%	29	1,062	14	15,266	0	137	31	4	8	74	368
Fairbanks (FNSB) ^f	Yukon River	81	78	96%	52	1,898	119	659	7	192	70	59	52	0	0
	Tanana River	24	23	96%	11	108	94	340	230	105	1	0	1	0	0
	Tolovana River	122	117	96%	72	0	0	0	0	0	0	3	1,256	0	47
	Kantishna River	1	1	100%	1	0	0	0	0	0	0	0	10	0	0
	FNSB Subtotal	228	219	96%	136	2,006	213	999	237	297	71	62	1,319	0	47
Healy	Yukon River	0	0	-	0	0	0	0	0	0	0	0	0	0	0
	Tanana River	5	4	80%	3	13	0	1,030	1,105	91	0	0	4	21	0
	Healy Subtotal	5	4	80%	3	13	0	1,030	1,105	91	0	0	4	21	0
Manley	Yukon River	1	1	100%	1	271	17	0	0	0	0	0	0	0	0
	Tanana River	17	17	100%	11	106	144	2,395	1,886	26	0	1	9	0	0
	Kantishna River	1	1	100%	1	0	0	95	15	0	0	0	0	0	0
	Manley Subtotal	19	19	100%	13	377	161	2,490	1,901	26	0	1	9	0	0
Minto	Yukon River	3	3	100%	2	91	8	0	0	0	0	0	0	0	0
	Tanana River	26	25	96%	6	12	9	28	0	114	0	0	171	0	0
	Tolovana River	17	13	76%	3	0	0	0	0	258	3	0	65	0	0
	Minto Subtotal	46	41	89%	11	103	17	28	0	372	3	0	236	0	0
Nenana ^g	Yukon River	0	0	-	0	0	0	0	0	0	0	0	0	0	0
	Tanana River	34	33	97%	19	318	753	6,585	2,775	163	0	4	2	0	11
	Kantishna River	1	0	0%	0	0	0	0	0	0	0	0	0	0	0
	Nenana Subtotal	35	33	94%	19	318	753	6,585	2,775	163	0	4	2	0	11
Rampart	Yukon River	3	3	100%	2	136	27	1,000	0	20	0	0	0	0	0
Stevens Village	Yukon River	6	4	67%	4	266	2	39	0	0	0	0	5	0	0
Villages (UTV) ^h	Yukon River	16	16	100%	1	0	0	0	0	0	0	0	0	0	0
	Tanana River	56	48	86%	19	0	0	17	6	2,185	0	10	62	27	35
	UTV Subtotal	72	64	89%	20	0	0	17	6	2,185	0	10	62	27	35
Other Subsistence ⁱ	Yukon River	5	4	80%	3	0	0	39	0	20	1	2	1	15	27
	Tanana River	3	3	100%	2	44	0	20	0	0	0	0	5	0	0
	Tolovana River	7	6	86%	4	0	0	0	0	0	0	0	18	0	0
	Kantishna River	1	1	100%	0	0	0	0	0	0	0	0	0	0	0
	Other Subtotal	16	14	88%	9	44	0	59	0	20	1	2	24	15	27
Subsistence Permit Subtotals		503	466	93%	262	4,892	1,192	30,711	6,024	3,361	109	89	1,676	141	488

-continued-

Table 20.–Page 2 of 2.

Community	Harvest by Drainage	Number of Permits				Reported Harvest									
		Permits ^a Issued ^b	Returned	Percent Returned	Returned that Fished ^c	Chinook ^d	Summer Chum ^d	Fall Chum ^d	Coho ^d	Whitefish	Sheefish	Burbot	Pike	Sucker	Grayling
Personal Use Permit															
Fairbanks (FNSB) ^f	Tanana River	54	53	98%	27	121	131	181	50	31	2	0	2	60	0
Others Personal Use ^j	Tanana River	3	3	100%	2	5	7	0	0	10	0	0	0	97	0
Personal Use Permit Subtotals		57	56	98%	29	126	138	181	50	41	2	0	2	157	0
Permit Totals		560	522	93%	291	5,018	1,330	30,892	6,074	3,402	111	89	1,678	298	488

^a Permits returned as of April 15, 2009.

^b Includes 33 households that were "issued" permits for more than one area. Additionally, includes two households that were issued duplicate permits for same area.

^c Includes 8 households that "fished" in two different permit areas.

^d Does not include District 6 commercial related harvest of 4 Chinook, 311 summer chum, 5,625 fall chum, and 2,411 coho salmon caught but "not sold" during commercial fishing and retained for subsistence use.

^e Does not include fish distributed to community households from ADF&G Eagle Sonar test fish project (6 Chinook and 3 summer chum salmon).

^f Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

^g Includes some fish distributed to community households from ADF&G Nenana test fish wheel project that were documented on contractor's subsistence permit.

^h Upper Tanana Villages (UTV) include residents from the communities of Delta Junction, Northway, Tanacross, and Tok.

ⁱ "Other Subsistence" represents residents from Anchorage, Anderson, Chugiak, Denali Park, Juneau, Lake Minchumina, Palmer, Sitka, and Wiseman who were issued a subsistence fishing permit for Yukon, Tanana, Tolovana, Kantishna, and Upper Koyukuk Rivers.

^j "Others Personal Use" includes residents from Nenana and Delta Junction.

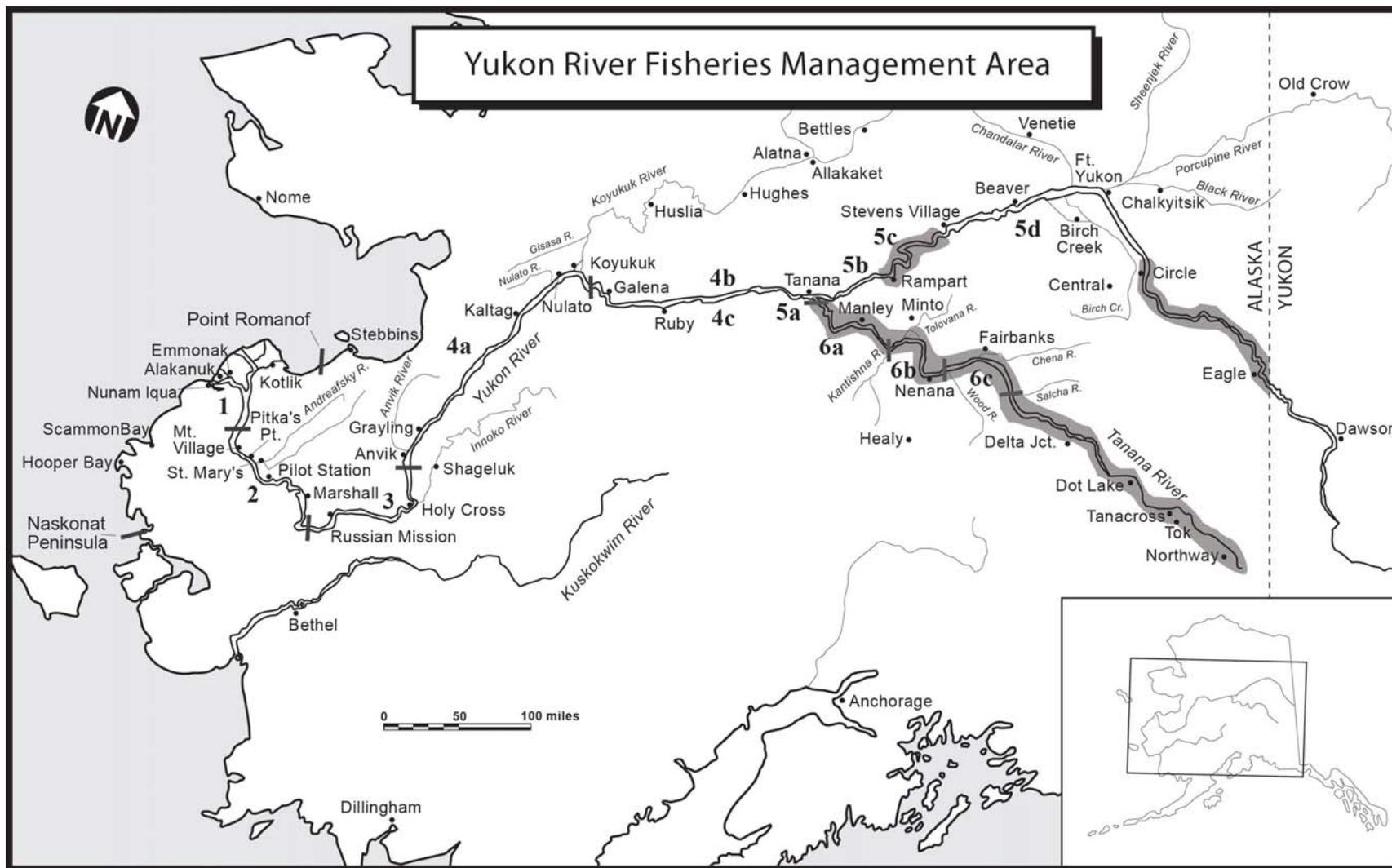


Figure 1.—Map of Alaska portion of Yukon River drainage showing communities and fishing districts. Subsistence permit areas are shaded.

5 AAC 99.015 JOINT BOARD NONSUBSISTENCE AREAS. (4) The Fairbanks Nonsubsistence Area is comprised of the following: within Unit 20(A) as defined by 5 AAC 92.450(20)(A) east of the Wood River drainage and south of the Rex Trail but including the upper Wood River drainage south of its confluence with Chicken Creek, within Unit 20(B) as defined by 5AAC 92.450(20)(B) the North Star Borough and that portion of the Washington Creek drainage east of the Elliot Highway, within 20(D) as defined by 5 AAC 92.450(20)(D) west of the Tanana River between its confluence's with the Johnson and Delta Rivers, west of the west bank of the Johnson River, and north and west of the Volkmar drainage, including the Goodpaster River drainage, and within Unit 25(C) as defined by 5 AAC 92.450(25)(C) the Preacher and Beaver Creek drainages.

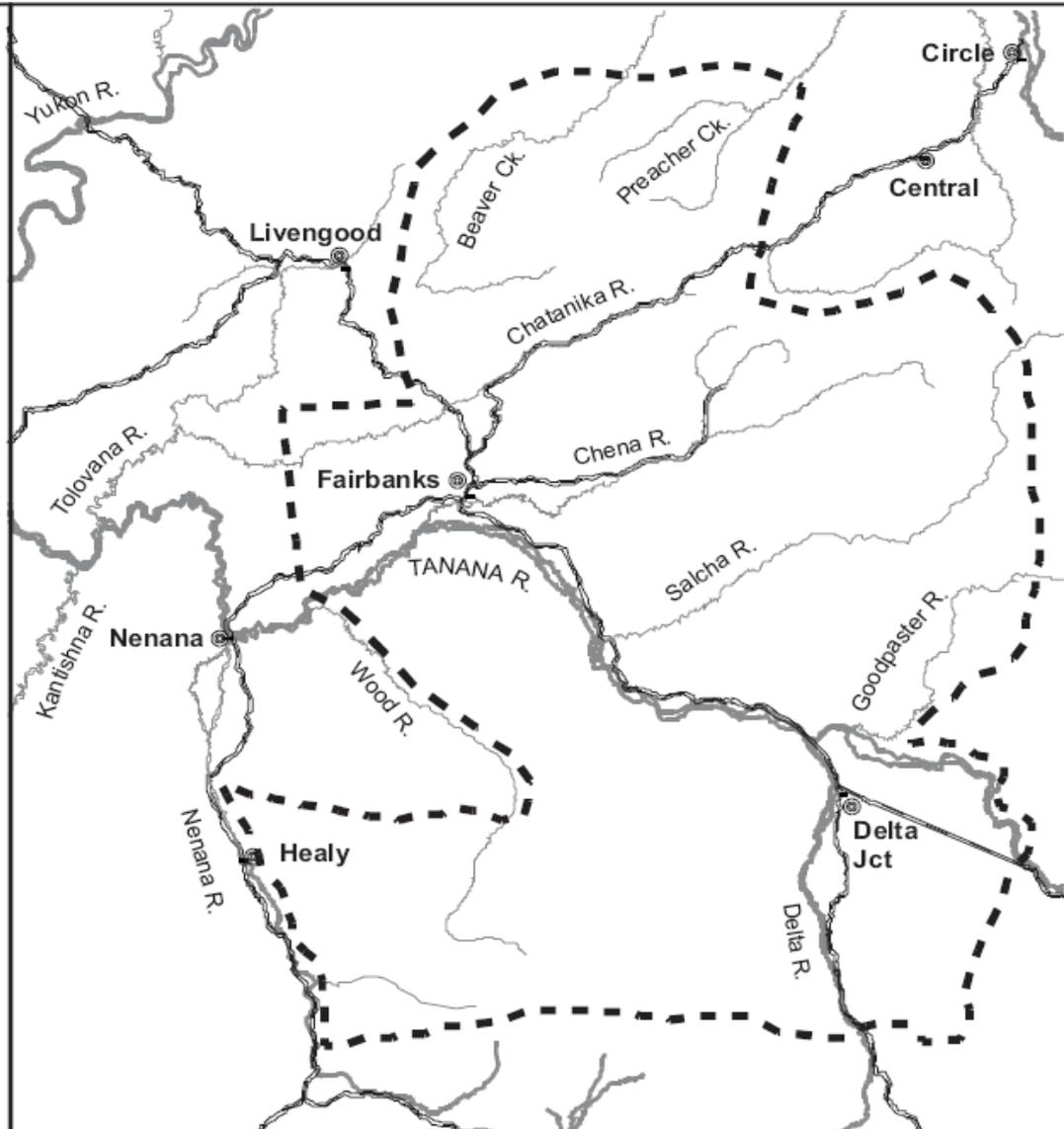
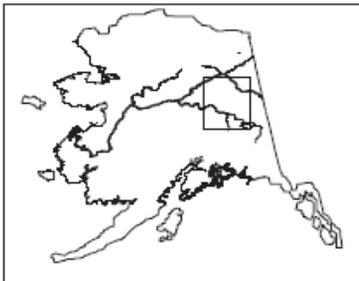


Figure 2.—Map of the Fairbanks Nonsubsistence Area.

2007 Yukon River Lamprey Harvest Survey

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES, FAIRBANKS
Telephone (907) 459-7274, Fax (907) 459-7271



The Alaska Department of Fish and Game would like your help to better manage the lamprey fishery in the Yukon River. Please fill out and return this pre-paid postcard to help us understand the importance of lamprey harvests to your household. Thank you for your assistance.

1. DID YOU FISH FOR LAMPREY (EELS) IN NOVEMBER OR DECEMBER, 2007 (please circle): YES NO

2. PLEASE ESTIMATE THE AMOUNT OF LAMPREY CAUGHT AND DATE(S) OF HARVEST:

SUBSISTENCE _____ POUNDS DATES: _____

COMMERCIAL _____ POUNDS DATES: _____

3. PLEASE ESTIMATE THE AMOUNT OF SUBSISTENCE LAMPREY GIVEN AWAY AND/OR RECEIVED:

GIVEN AWAY _____ POUNDS RECEIVED _____ POUNDS

4. CIRCLE THE COMMUNITY NEAREST TO WHERE YOU FISHED: MOUNTAIN VILLAGE PITKAS POINT

ST. MARYS PILOT STATION MARSHALL RUSSIAN MISSION HOLY CROSS

ANVIK GRAYLING OTHER _____



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Note: Yukon Area postseason subsistence lamprey harvest survey postcards were mailed November 2007 to all households in the communities listed in District Y2, Y3, Anvik and Grayling. Surveys took place in these communities in September 2008, and asked about lamprey harvested the previous year.

Figure 3.-Supplemental postcard mailed to lamprey harvesting communities.

Date of Survey _____
 Person Interviewed _____
 Relation to HH _____
 Interviewer _____

Community	LABEL	HHID#
Head of Household	LABEL	
Mailing Address	LABEL	Telephone#
Significant Other	LABEL	

**2008 Yukon Area Post-Season Subsistence Salmon Harvest Survey
 CONFIDENTIAL INFORMATION**

1. We would like to make sure we have the correct name and address for your household.

Head of Household _____
 Mailing Address _____ Telephone _____
 Permanent Note _____
 Significant Other _____
 Permanent Note _____

2. How many people live in your household? _____

3. Did anyone in your household catch salmon for subsistence use this year? Yes ____ No ____ (If "No," go to area II)
 Includes salmon caught during commercial openings but retained for subsistence. IF YES, COMPLETE ALL OF PART ONE.

Adult household member declined to be interviewed. [] Reason given: _____

I. HOUSEHOLDS THAT CAUGHT SALMON

4. May I have your salmon catch calendar? Yes ____ No ____ Already sent in ____ (Are all fish harvested on calendar?)

5. How many total salmon did you or your fishing group catch this year? (Group may include other households)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

6. How many households help catch these fish? _____ (Names) _____

*7. How many total salmon did your household catch for subsistence purposes this year?
 (Include only fish caught by this household, not the group, includes fish kept from commercial periods.)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

8. Did you or anyone in this household commercial fish this year? Yes ____ No ____

9. If Yes. How many salmon caught during commercial openings did your household keep for subsistence use?
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

10. Did your household "lose" any salmon? (e.g. to bears, birds, spoilage, diseased fish, Ichthyophonus, etc.)
 (If fish was not fit for humans but was fed to dogs, then it was not "lost.")
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

**11. How many salmon did you keep for your household's use? (do not include fish given away or "lost")
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

12. Did your household share the salmon catch with any other households? (names, species and numbers)

13. Where do you catch your subsistence salmon? (Circle all that apply and show harvest by area if more than one)
 Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D (Ft Yukon ↑ or ↓) Innoko Koyukuk Chandalar Porcupine
 Black
 Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
 Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

14. What is your household's primary type of salmon fishing gear? (In order of importance 1= primary)
 SET NET _____ DRIFT NET _____ FISH WHEEL _____ HOOK & LINE _____ DIPNET _____ OTHER _____

Figure 4.–Yukon Area postseason subsistence salmon harvest survey form, 2008.

II. ALL HOUSEHOLDS

15. Did your household catch any other fish besides salmon? Yes _____ No _____
 (Harvest numbers should include from September/October of last year to now. Large Whitefish are 4 pounds or greater.)

LG WHITEFISH _____ SM WHITEFISH _____ SHEEFISH _____ BURBOT _____ PIKE _____ BLACKFISH _____
 GRAYLING _____ SUCKERS _____ TROUT (Arctic Char) _____ EELS (Lamprey) _____ TOMCOD (Saffron) _____

Did your household catch any sockeye (red) salmon this year? Yes _____ No _____ How many? _____

**16. Was your household given any salmon? Yes _____ No _____ Code: S=Subsistence, C=Commercial, T=Test Fish

Code: _____ Fishermen/Project (Name) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Code: _____ Fishermen/Project (Name) _____
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

17. How many dogs (including puppies) does your household have? _____ (if "No" on questions 3 and 16 go to question 22)

18. Do you feed whole salmon to your dogs? Yes _____ No _____ Only Feed Scraps _____ (if "No" go to question 21)

19. Were any of the salmon put up for the dogs from the commercial fishery? Yes _____ No _____

20. Estimate harvest of salmon put up for dogs this year by fishery (numbers should represent whole fish, not scraps):

(subsistence) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____
 (commercial) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____

21. How successful was your household in meeting its subsistence salmon needs? (indicate percent success with "x")
 "No Need" means there was no harvest or use of a species because there was no need for the species, e.g. species may not be traditionally fished in that area or respondent may not wish to harvest the species.

(No Need)
 Chinook _____(100%) _____(75%) _____(50%) _____(25%) _____(0%) If poor, why? _____
 Summer Chum _____(100%) _____(75%) _____(50%) _____(25%) _____(0%) If poor, why? _____
 Fall Chum _____(100%) _____(75%) _____(50%) _____(25%) _____(0%) If poor, why? _____
 Coho _____(100%) _____(75%) _____(50%) _____(25%) _____(0%) If poor, why? _____

22. Additional Comments: _____

THANK YOU! THIS INFORMATION IS USED TO DOCUMENT THE SUBSISTENCE SALMON HARVEST WITHIN THE YUKON RIVER DRAINAGE AND TO TRY TO ENSURE THERE WILL BE ENOUGH SALMON FOR THE FUTURE.

Surveyor Comments:

Official Use - This area is to be filled in by Fish and Game.

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH (Totals from question *7)

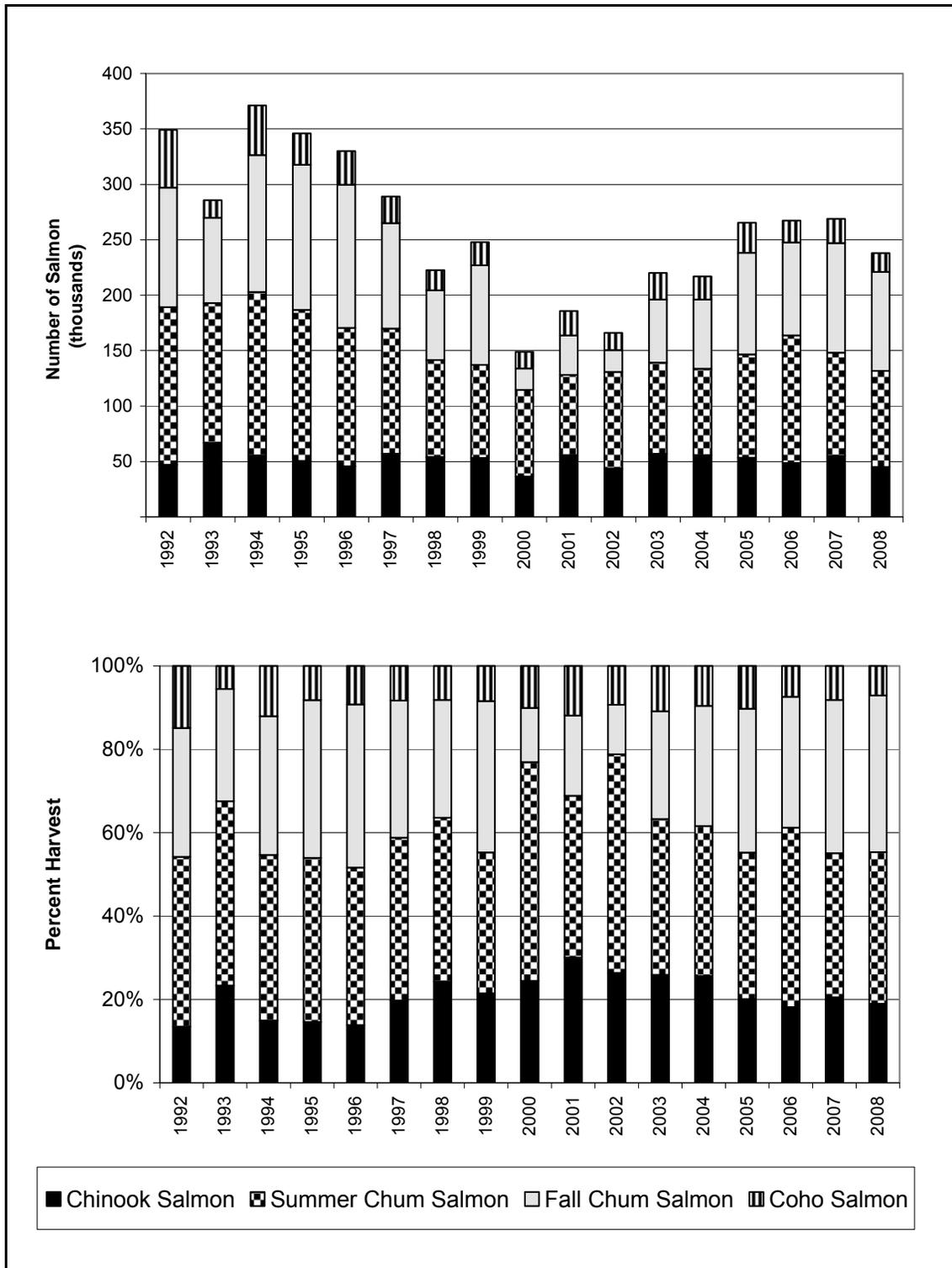
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE (Add totals from questions **11 and **16)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

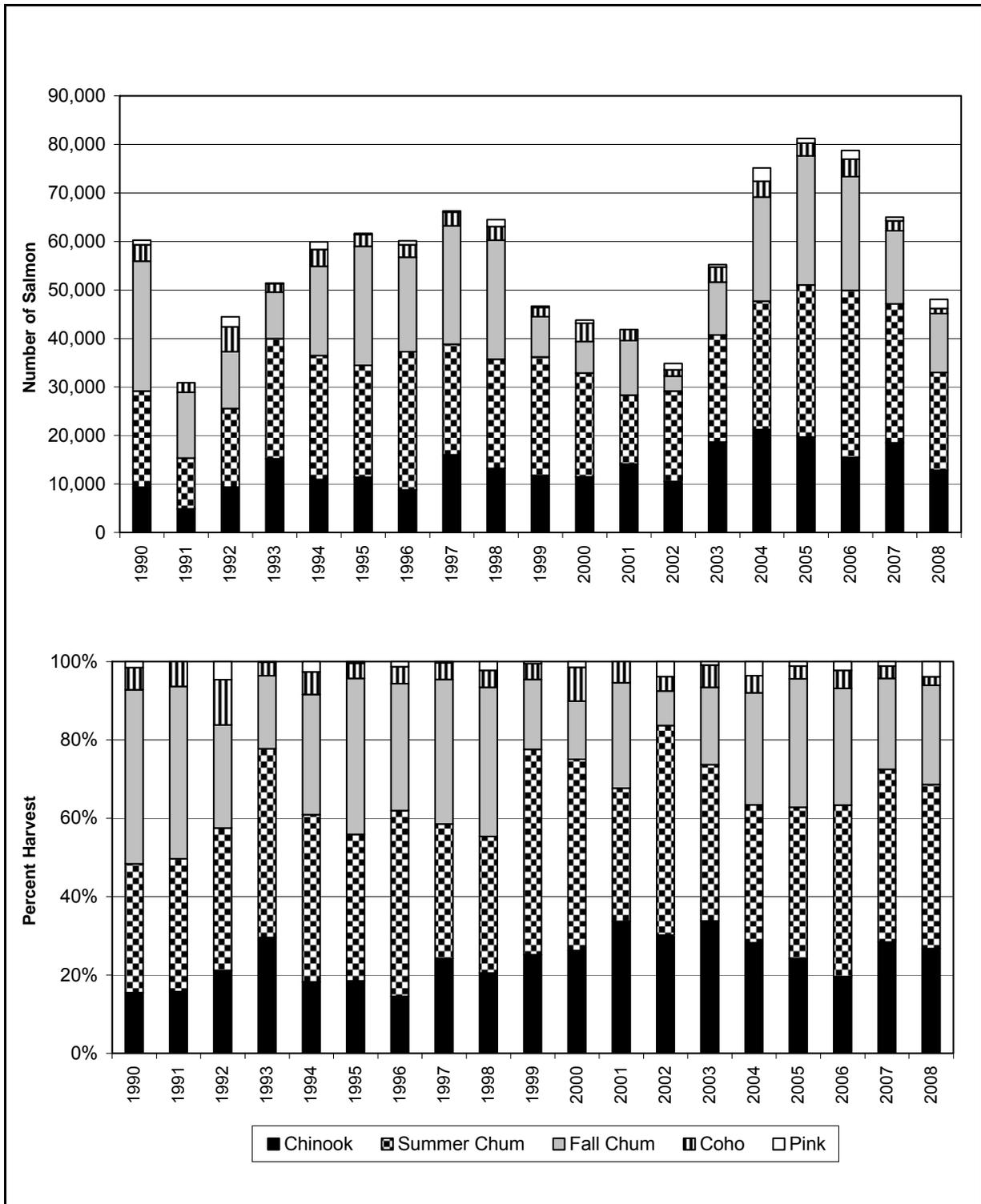
Complete Survey _____ Partial Survey _____ No Survey _____

Figure 4.-Page 2 of 2.



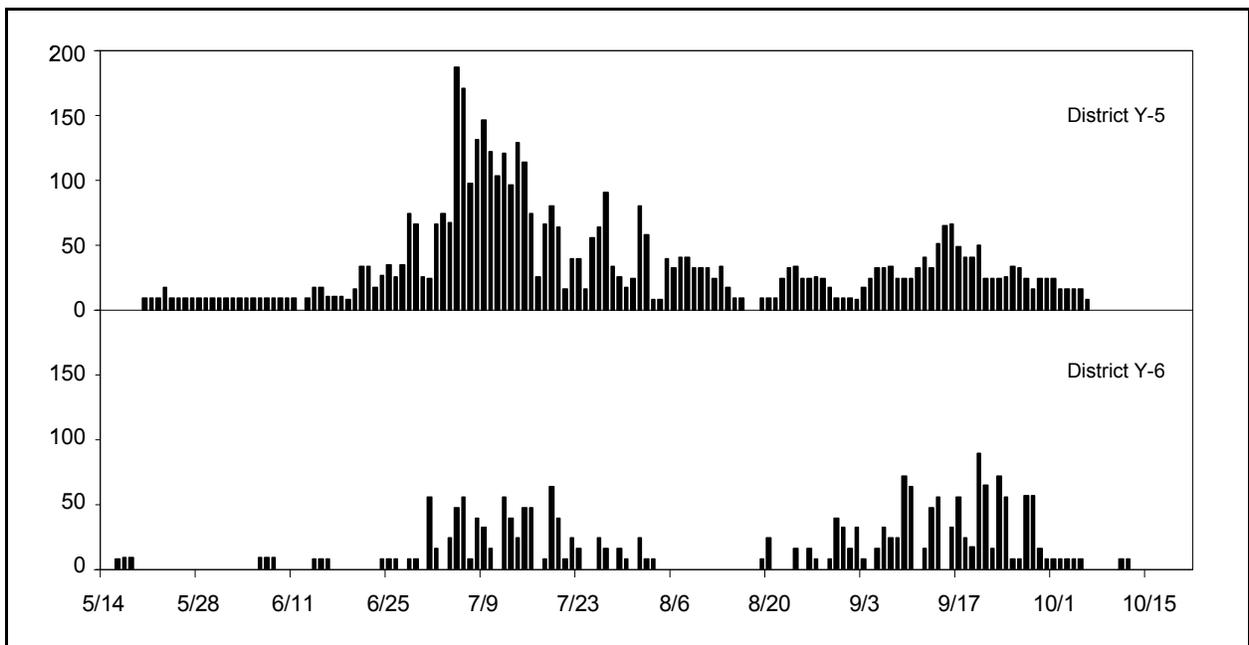
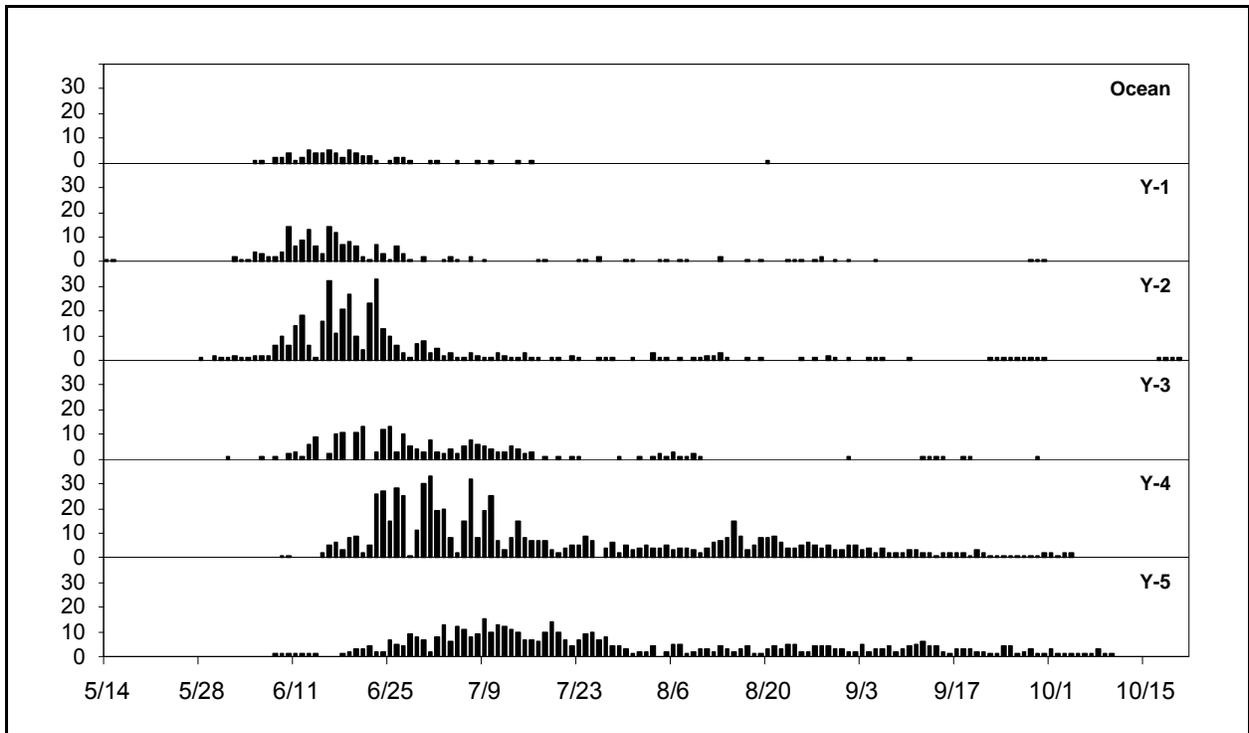
Note: Harvest of salmon species by number (upper panel) and proportion (lower panel). Totals include survey, permit, test fish and retained from commercial. Does not include salmon caught in the personal use fishery, or summer chum, fall chum, and coho salmon carcasses retained from the commercial fishery and used for subsistence. Does not include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2001 and 2003.

Figure 5.—Estimated total subsistence salmon harvest by species, Yukon Area, 1992–2008.



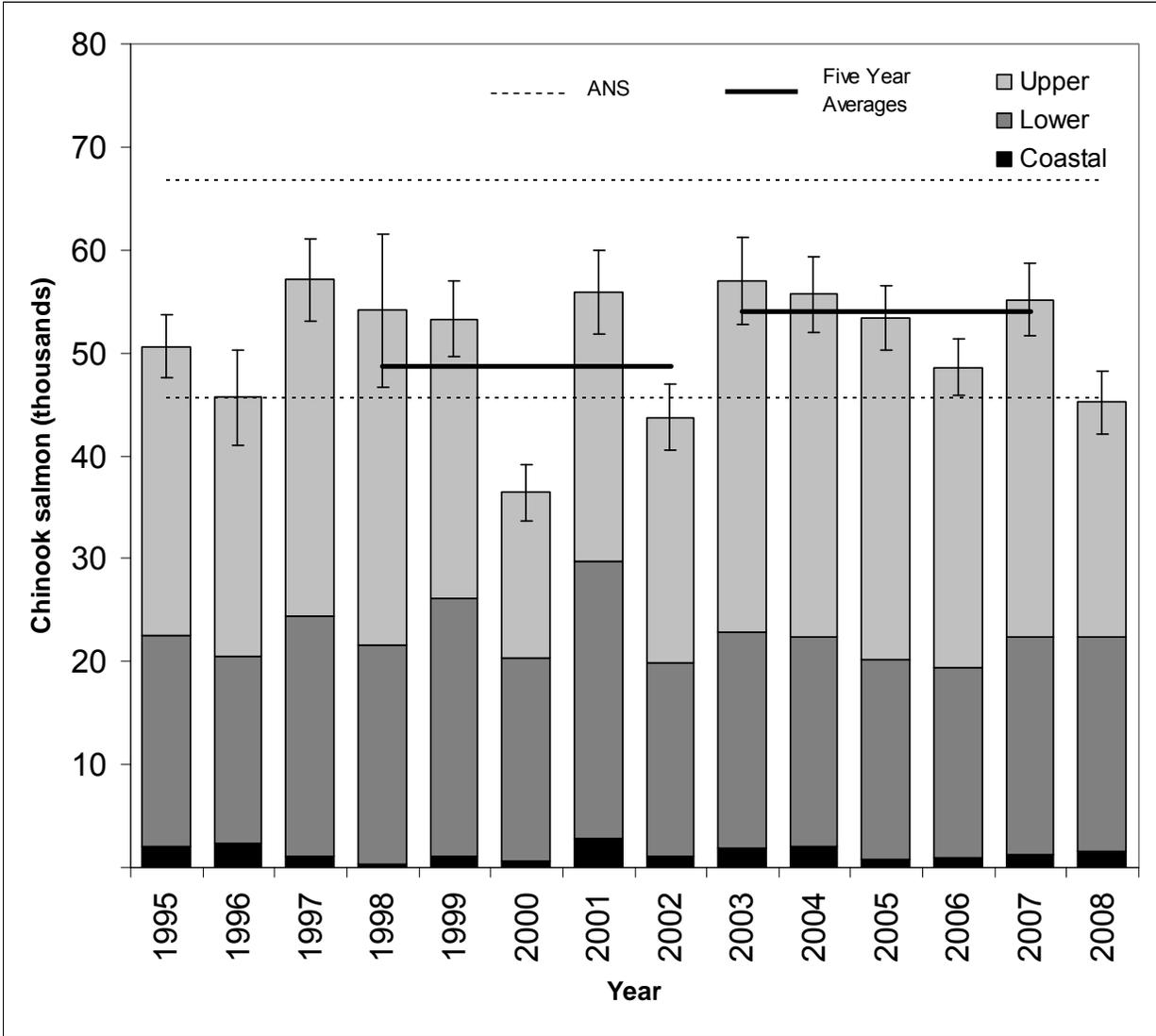
Note: Salmon harvest by number (upper panel) and proportion (lower panel).

Figure 6.—Subsistence salmon harvest reported on catch calendars by species from Districts 1–4 and a portion of District 5, Yukon Area, 1990–2008.



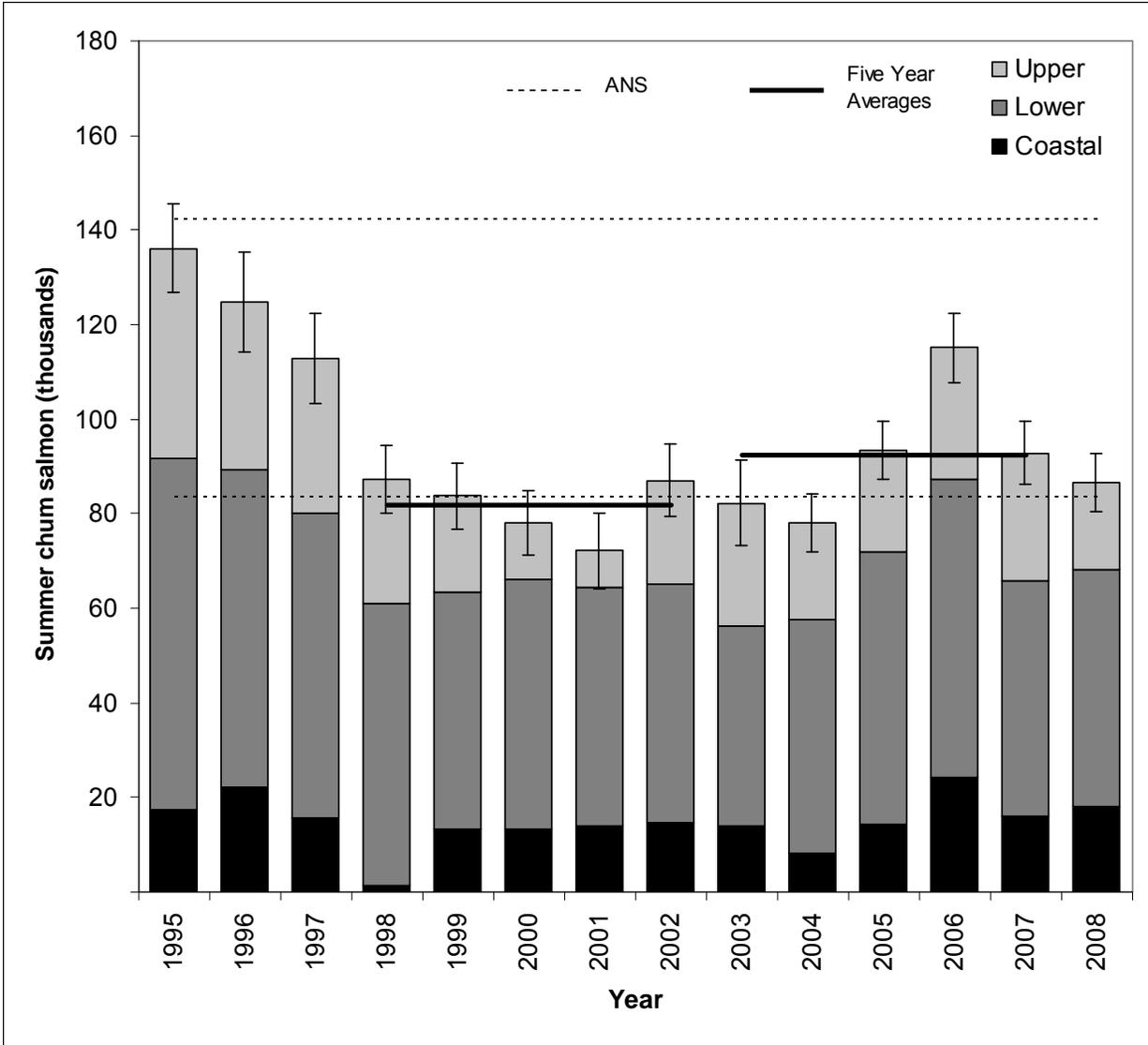
Note: Effort by day as recorded on returned harvest calendars (top), and subsistence salmon permits (bottom) Yukon Area 2008. District 5 contains calendars from surveyed communities and permit areas.

Figure 7.—Number of households reporting fishing effort by day and by district



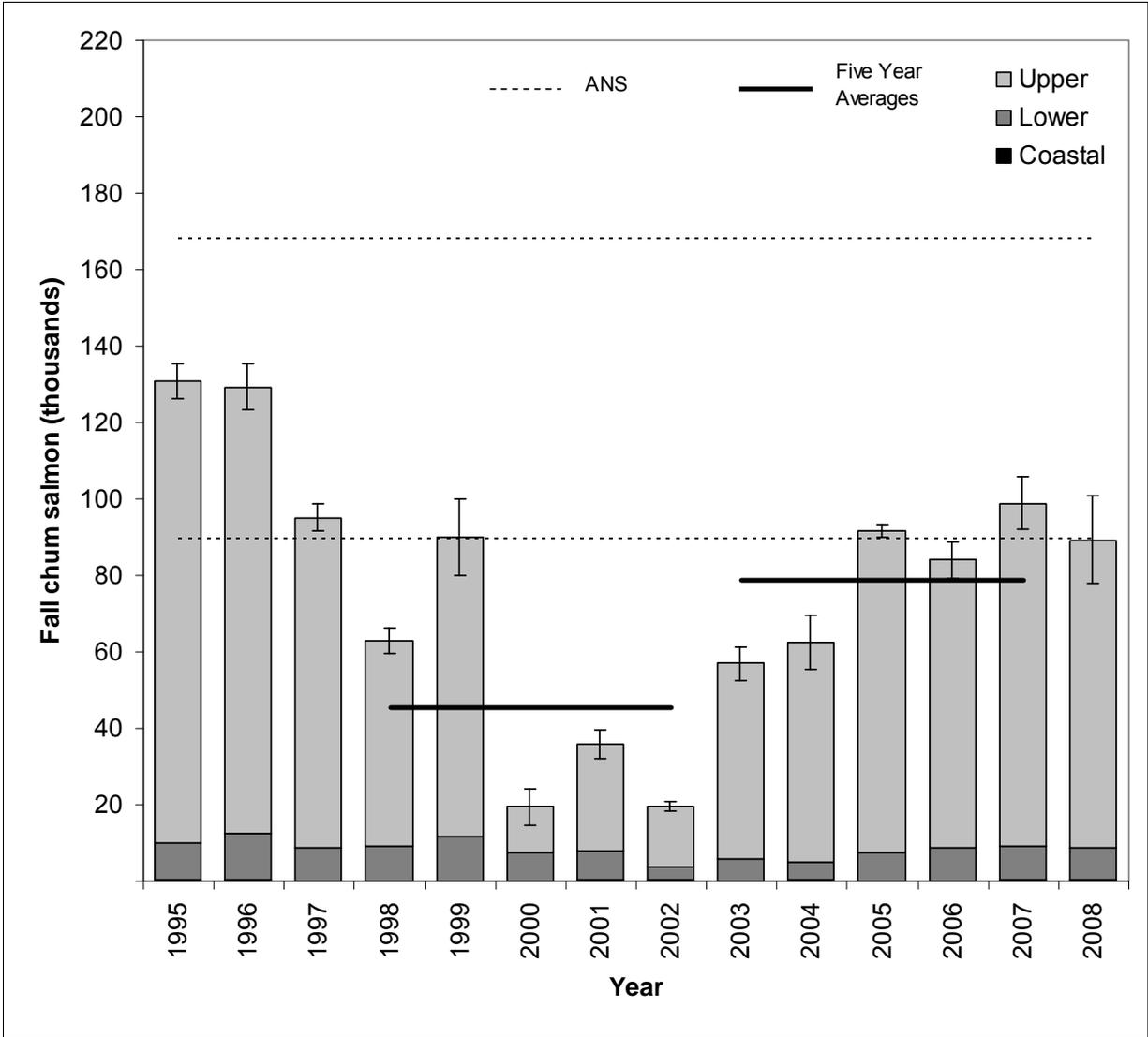
Note: Harvest estimates and 95% confidence interval are provided. In 2001 the Board of Fisheries defined the Amount Necessary for Subsistence (ANS) as 45,500 to 66,704 Chinook salmon.

Figure 8.—Estimated Chinook salmon subsistence harvest, Yukon Area, 1995–2008.



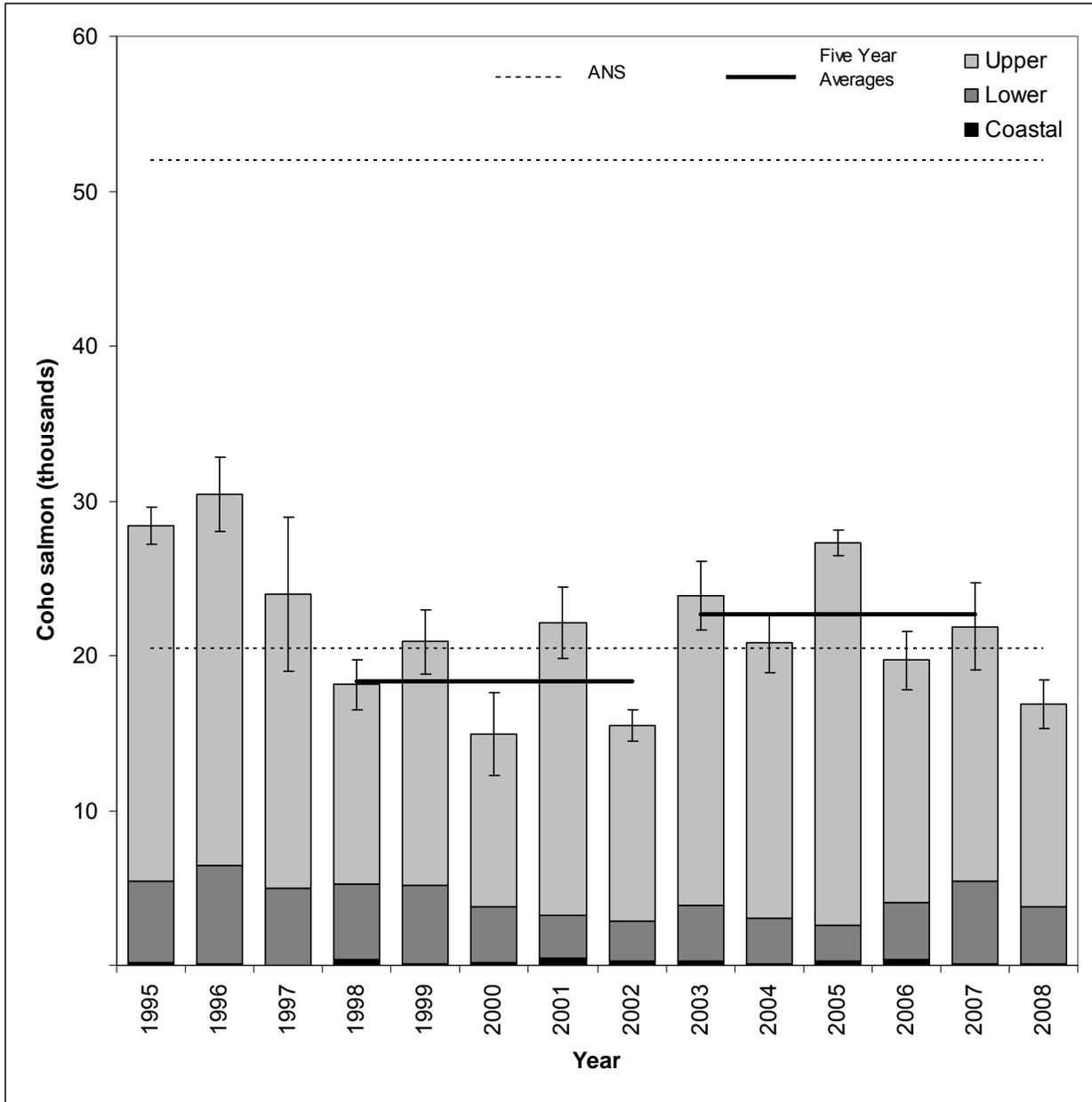
Note: Does not include summer chum salmon carcasses retained from the commercial roe fishery (most significant in 1995 and 1996) and used for subsistence. Harvest estimates and 95% confidence interval are provided. In 2001, the Board of Fisheries defined the Amount Necessary for Subsistence (ANS) as 82,500 to 142,192 summer chum salmon.

Figure 9.—Estimated summer chum salmon subsistence harvest, Yukon Area, 1995–2008.



Note: Does not include fall chum salmon carcasses retained from the commercial fishery and used for subsistence. Does not include approximately 14,500 to 15,000 coho salmon obtained from Valdez Fisheries Development Association as part of Eagle's replacement subsistence salmon fishery in 2003. Harvest estimates and 95% confidence interval are provided. In 2001, the Board of Fisheries defined the Amount Necessary for Subsistence (ANS) as 89,500 to 167,900 fall chum salmon.

Figure 10.—Estimated fall chum salmon subsistence harvest, Yukon Area, 1995–2008.



Note: Coho salmon carcasses retained from the commercial fishery (most significant in 2003) and used for subsistence are not included. Harvest estimates and 95% confidence interval are provided. In 2001, the Board of Fisheries defined the Amount Necessary for Subsistence (ANS) as 20,500 to 51,980 coho salmon.

Figure 11.—Estimated coho salmon subsistence harvest, Yukon Area, 1995–2008.

APPENDIX A. 2008 HARVEST INFORMATION

Appendix A1.–Estimated Chinook salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	Est	CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	7	4	0.0	0.0	71	20	1.4	0.5	92	28	1.4	0.6	32	30	5.2	0.3	-	-	-	-	202	82	388	123
Scammon Bay	3	2	0.0	0.0	23	5	6.4	4.1	42	13	13.2	3.8	12	12	33.7	0.0	-	-	-	-	80	32	1,104	363
Coastal District	10	6	0.0	0.0	94	25	2.6	1.1	134	41	5.1	1.2	44	42	13.0	0.2	-	-	-	-	282	114	1,492	384
Nunam Iqua	2	0	-	-	12	8	0.6	0.4	9	8	1.3	0.4	12	12	11.3	0.0	2	1	4.0	-	37	29	163	11
Alakanuk	-	-	-	-	38	10	3.0	1.4	62	19	13.5	3.3	23	19	12.4	1.0	-	-	-	-	123	48	1,235	415
Emmonak	-	-	-	-	51	22	3.5	1.4	65	29	5.1	1.2	38	30	19.7	4.0	-	-	-	-	154	81	1,258	363
Kotlik	2	0	-	-	25	8	2.8	1.7	45	12	15.8	4.9	22	19	26.8	2.2	-	-	-	-	94	39	1,368	447
District 1	4	0	-	-	126	48	2.9	0.8	181	68	10.4	1.7	95	80	18.5	1.7	2	1	4.0	-	408	197	4,024	710
Mountain Village	7	5	9.0	3.2	34	9	2.8	1.9	70	19	8.3	2.5	31	29	28.1	1.2	2	2	19.5	0.0	144	64	1,645	381
Pitkas Point	3	1	0.0	-	6	6	7.8	0.0	14	11	18.3	2.9	5	5	48.2	0.0	-	-	-	-	28	23	544	79
St. Mary's	6	4	11.0	2.4	22	7	10.1	4.3	66	20	8.6	2.4	29	29	28.4	0.0	1	1	30.0	-	124	61	1,706	369
Pilot Station	10	7	6.6	1.9	32	12	5.2	4.0	50	22	10.6	3.0	15	12	29.7	3.9	-	-	-	-	107	53	1,208	408
Marshall	3	2	43.5	4.9	17	5	16.2	9.8	40	7	32.6	9.6	11	10	65.7	3.7	2	2	80.0	0.0	73	26	2,591	828
District 2	29	19	11.2	1.3	111	39	7.3	2.2	240	79	13.5	2.0	91	85	34.1	0.9	5	5	45.8	0.0	476	227	7,694	1,067
Russian Mission	13	8	13.3	5.4	12	3	33.3	11.8	39	11	57.3	14.8	5	3	28.7	5.9	-	-	-	-	69	25	2,949	1,176
Holy Cross	1	0	-	-	15	7	5.7	4.2	23	11	44.4	9.5	15	15	93.5	0.0	-	-	-	-	54	33	2,509	445
Shageluk	2	2	0.0	0.0	8	3	15.0	8.2	22	15	9.1	1.8	5	5	15.2	0.0	-	-	-	-	37	25	397	151
District 3	16	10	11.5	4.7	35	13	17.3	4.8	84	37	41.1	7.4	25	23	64.9	1.2	-	-	-	-	160	83	5,855	1,266
Anvik	1	1	0.0	-	12	9	0.8	0.4	10	8	40.3	6.1	7	7	74.4	0.0	2	1	250.0	-	32	26	1,433	120
Grayling	1	0	-	-	4	0	-	-	40	10	41.4	11.8	2	2	30.0	0.0	1	1	45.0	-	48	13	1,761	928
Kaltag	8	6	21.8	8.0	11	4	8.8	7.0	46	12	40.5	12.6	3	3	89.7	0.0	-	-	-	-	68	25	2,403	1,157
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	19.3	5.2	7	6	24.0	2.8	-	-	-	-	83	26	1,250	575
Koyukuk	3	3	15.0	0.0	13	11	2.0	0.5	12	11	17.1	1.9	4	3	48.0	10.8	1	1	45.0	-	33	29	513	96
Galena	43	27	5.5	1.9	68	15	2.0	1.5	68	16	22.1	6.2	5	4	66.8	17.9	1	1	20.0	-	185	63	2,232	879
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	6.7	5.7	7	7	15.4	0.0	2	2	228.0	0.0	61	28	637	123
Huslia	15	7	0.1	0.1	43	11	2.3	2.0	20	5	5.6	2.8	2	2	1.0	0.0	2	2	20.5	0.0	82	27	255	199
Hughes	2	1	0.0	-	19	16	1.5	0.5	3	3	0.0	0.0	2	2	0.0	0.0	2	2	16.0	0.0	28	24	61	19
Allakaket	10	6	0.0	0.0	26	8	0.4	0.2	7	3	0.0	0.0	2	2	3.0	0.0	3	3	14.0	0.0	48	22	58	11
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	3.0	0.6	1	1	7.0	-	-	-	-	-	14	8	16	3
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	4.6	1.0	270	106	1.5	0.6	278	90	24.8	3.3	42	39	39.7	2.4	14	13	84.4	0.0	704	309	10,619	1,839
Tanana	2	1	0.0	-	48	20	1.8	1.2	27	12	16.8	5.3	8	5	186.2	63.1	12	10	162.7	24.5	97	48	3,981	1,184
Stevens Village	-	-	-	-	9	7	8.1	2.6	9	6	31.2	9.9	6	5	66.6	10.1	-	-	-	-	24	18	753	216
Birch Creek	5	1	0.0	-	9	3	2.7	2.2	5	2	1.5	1.2	-	-	-	-	-	-	-	-	19	6	32	40
Beaver	4	2	16.5	11.7	10	8	0.0	0.0	15	11	28.2	6.7	3	3	19.0	0.0	-	-	-	-	32	24	546	218
Fort Yukon	32	26	6.6	1.6	94	24	4.9	2.9	32	8	12.6	8.6	8	7	86.1	14.9	8	6	28.0	7.7	174	71	1,991	808
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	12.4	8.1	4	4	20.3	0.0	-	-	-	-	62	23	292	271
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	5.0	1.2	223	85	2.9	1.2	111	47	16.0	3.3	30	24	93.7	18.0	20	16	108.8	15.0	440	208	7,595	1,491
Survey Totals	215	132	5.9	0.7	859	316	3.6	0.5	1,028	362	17.5	1.3	327	293	35.1	1.7	41	35	87.7	7.3	2,470	1,138	37,279	3,000

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A2.–Estimated summer chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total	Est	CI (95%)	
	N	n	Total	(+/-)	N	n	Total	(+/-)	N	n	Total	(+/-)	N	n	Total	(+/-)	N	n	Total	(+/-)	N	n	Total	(+/-)
Hooper Bay	7	4	0.0	0.0	71	20	41.0	14.8	92	28	49.0	10.1	32	31	143.3	3.3	-	-	-	-	202	83	12,007	2,763
Scammon Bay	3	2	0.0	0.0	23	5	52.6	33.6	42	13	69.8	19.9	12	12	164.4	0.0	-	-	-	-	80	32	6,113	2,233
Coastal District	10	6	0.0	0.0	94	25	43.8	13.9	134	41	55.5	9.4	44	43	149.0	2.4	-	-	-	-	282	115	18,120	3,552
Nunam Iqua	2	0	-	-	12	8	3.8	2.2	9	8	12.0	2.6	12	12	128.8	0.0	2	1	125.0	-	37	29	1,949	69
Alakanuk	-	-	-	-	38	10	16.1	9.3	62	19	61.2	15.4	23	19	104.7	7.5	-	-	-	-	123	48	6,811	2,027
Emmonak	-	-	-	-	51	22	13.8	5.7	65	29	43.0	7.1	38	30	98.1	9.9	-	-	-	-	154	81	7,230	1,296
Kotlik	2	0	-	-	25	8	12.4	5.1	45	12	48.8	14.0	22	19	76.4	7.2	-	-	-	-	94	39	4,184	1,296
District 1	4	0	-	-	126	48	13.3	3.8	181	68	49.1	6.8	95	80	98.6	4.7	2	1	125.0	-	408	197	20,174	2,734
Mountain Village	7	5	32.8	16.6	34	9	9.1	6.0	70	19	47.6	10.6	31	29	110.5	3.5	2	2	132.0	0.0	144	64	7,559	1,546
Pitkas Point	3	1	0.0	-	6	6	20.2	0.0	14	11	46.5	7.9	5	5	94.6	0.0	-	-	-	-	28	23	1,246	218
St. Mary's	6	4	42.0	12.3	22	7	34.3	14.6	66	20	30.4	7.1	29	29	116.6	0.0	1	1	62.0	-	124	61	6,451	1,120
Pilot Station	10	7	18.7	4.8	32	12	0.3	0.2	50	22	68.5	15.5	15	12	70.3	9.7	-	-	-	-	107	53	4,674	1,550
Marshall	3	2	15.0	5.8	17	5	42.0	24.7	40	7	21.1	8.8	11	10	78.1	6.2	2	2	107.0	0.0	73	26	2,678	1,080
District 2	29	19	24.6	5.1	111	39	17.2	5.1	240	79	42.7	5.1	91	85	101.0	2.1	5	5	108.0	0.0	476	227	22,608	2,695
Russian Mission	13	8	8.1	3.8	12	3	16.3	10.5	39	11	48.5	14.5	5	3	41.7	13.6	-	-	-	-	69	25	2,400	1,150
Holy Cross	1	0	-	-	15	7	1.0	0.7	23	11	6.0	1.8	15	15	19.2	0.0	-	-	-	-	54	33	441	82
Shageluk	2	2	0.0	0.0	8	3	8.0	4.8	22	15	1.7	0.5	5	5	5.8	0.0	-	-	-	-	37	25	130	79
District 3	16	10	7.0	3.3	35	13	7.9	3.8	84	37	24.6	6.8	25	23	21.0	2.7	-	-	-	-	160	83	2,971	1,156
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	5.8	1.1	7	7	34.6	0.0	2	1	20.0	-	32	26	340	22
Grayling	1	0	-	-	4	0	-	-	40	10	14.5	6.9	2	2	20.0	0.0	1	1	40.0	-	48	13	660	541
Kaltag	8	6	1.7	0.8	11	4	0.0	0.0	46	12	5.3	3.4	3	3	19.0	0.0	-	-	-	-	68	25	316	304
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	3.2	2.1	7	6	41.3	12.7	-	-	-	-	83	26	468	292
Koyukuk	3	3	0.0	0.0	13	11	0.0	0.0	12	11	1.0	0.2	4	3	184.7	88.9	1	1	353.0	-	33	29	1,104	697
Galena	43	27	0.1	0.1	68	15	0.0	0.0	68	16	3.5	1.5	5	4	22.8	5.9	1	1	400.0	-	185	63	758	204
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	22.3	17.0	7	7	29.9	0.0	2	2	100.0	0.0	61	28	655	366
Huslia	15	7	13.1	9.6	43	11	0.0	0.0	20	5	110.0	61.8	2	2	140.0	0.0	2	2	850.0	0.0	82	27	4,377	2,441
Hughes	2	1	0.0	-	19	16	31.3	12.4	3	3	16.7	0.0	2	2	0.0	0.0	2	2	150.0	0.0	28	24	944	462
Allakaket	10	6	0.0	0.0	26	8	13.8	7.5	7	3	7.3	5.5	2	2	143.0	0.0	3	3	844.7	0.0	48	22	3,229	391
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	22.0	7.5	1	1	0.0	-	-	-	-	-	14	8	66	44
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	2.2	1.5	270	106	3.6	1.2	278	90	14.1	4.7	42	39	53.7	8.8	14	13	397.6	0.0	704	309	12,917	2,731
Tanana	2	1	0.0	-	48	20	1.0	0.8	27	12	0.0	0.0	8	5	17.2	6.0	12	10	224.3	24.1	97	48	2,877	579
Stevens Village	-	-	-	-	9	7	14.9	6.7	9	6	1.7	1.0	6	5	2.4	0.8	-	-	-	-	24	18	163	120
Birch Creek	5	1	0.0	-	9	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	0	0
Beaver	4	2	0.0	0.0	10	8	0.0	0.0	15	11	1.5	0.6	3	3	1.7	0.0	-	-	-	-	32	24	27	18
Fort Yukon	32	26	0.0	0.0	94	24	0.0	0.0	32	8	0.0	0.0	8	7	28.7	10.1	8	6	0.0	0.0	174	71	230	158
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	0.0	0.0	4	4	12.5	0.0	-	-	-	-	62	23	50	0
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	0.0	0.0	223	85	0.8	0.3	111	47	0.3	0.1	30	24	15.1	3.2	20	16	134.6	14.5	440	208	3,347	612
Survey Totals	215	132	5.0	1.0	859	316	10.7	1.8	1,028	362	31.7	2.5	327	294	86.9	1.9	41	35	220.7	7.1	2,470	1,139	80,137	6,043

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A3.—Estimated fall chum salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est
Hooper Bay	7	4	0.0	0.0	71	20	2.5	2.1	92	28	1.4	1.2	32	30	0.6	0.1	-	-	-	-	202	82	329	365
Scammon Bay	3	2	0.0	0.0	23	5	0.0	0.0	42	13	0.2	0.1	12	12	4.3	0.0	-	-	-	-	80	32	57	11
Coastal District	10	6	0.0	0.0	94	25	1.9	1.6	134	41	1.0	0.8	44	42	1.6	0.1	-	-	-	-	282	114	386	365
Nunam Iqua	2	0	-	-	12	8	0.0	0.0	9	8	1.5	0.4	12	12	3.8	0.0	2	1	0.0	-	37	29	59	7
Alakanuk	-	-	-	-	38	10	8.8	7.6	62	19	0.1	0.1	23	19	3.6	1.0	-	-	-	-	123	48	423	565
Emmonak	-	-	-	-	51	22	2.7	1.9	65	29	6.8	2.8	38	30	5.6	1.6	-	-	-	-	154	81	792	420
Kotlik	2	0	-	-	25	8	0.0	0.0	45	12	9.7	7.8	22	19	10.7	2.5	-	-	-	-	94	39	671	698
District 1	4	0	-	-	126	48	3.7	2.4	181	68	5.0	2.2	95	80	6.1	0.9	2	1	0.0	-	408	197	1,945	991
Mountain Village	7	5	11.6	6.2	34	9	0.4	0.4	70	19	2.1	1.0	31	29	6.1	0.5	2	2	0.0	0.0	144	64	432	172
Pitkas Point	3	1	0.0	-	6	6	0.0	0.0	14	11	0.0	0.0	5	5	20.2	0.0	-	-	-	-	28	23	101	0
St. Mary's	6	4	4.3	1.9	22	7	1.6	1.3	66	20	3.0	1.5	29	29	19.7	0.0	1	1	0.0	-	124	61	830	208
Pilot Station	10	7	1.4	0.8	32	12	0.3	0.2	50	22	2.7	1.7	15	12	0.2	0.1	-	-	-	-	107	53	161	170
Marshall	3	2	8.5	3.8	17	5	5.4	4.5	40	7	6.4	4.1	11	10	27.6	3.0	2	2	35.0	0.0	73	26	748	358
District 2	29	19	5.1	1.6	111	39	1.3	0.8	240	79	3.1	0.9	91	85	12.8	0.4	5	5	14.0	0.0	476	227	2,272	479
Russian Mission	13	8	0.0	0.0	12	3	0.0	0.0	39	11	14.8	6.7	5	3	0.0	0.0	-	-	-	-	69	25	578	510
Holy Cross	1	0	-	-	15	7	0.0	0.0	23	11	15.6	5.6	15	15	37.3	0.0	-	-	-	-	54	33	920	253
Shageluk	2	2	0.0	0.0	8	3	6.7	5.3	22	15	12.3	2.8	5	5	0.0	0.0	-	-	-	-	37	25	323	145
District 3	16	10	0.0	0.0	35	13	1.5	1.2	84	37	14.4	3.5	25	23	22.4	0.0	-	-	-	-	160	83	1,821	587
Anvik	1	1	0.0	-	12	9	1.1	0.6	10	8	8.8	2.3	7	7	16.6	0.0	2	1	50.0	-	32	26	317	47
Grayling	1	0	-	-	4	0	-	-	40	10	23.3	8.6	2	2	0.0	0.0	1	1	80.0	-	48	13	1,012	676
Kaltag	8	6	0.0	0.0	11	4	0.0	0.0	46	12	2.9	2.5	3	3	8.3	0.0	-	-	-	-	68	25	159	226
Nulato	-	-	-	-	20	4	5.0	4.5	56	16	5.9	3.0	7	6	42.3	5.3	-	-	-	-	83	26	729	379
Koyukuk	3	3	30.7	0.0	13	11	2.3	0.7	12	11	5.7	1.6	4	3	223.7	92.0	1	1	92.0	-	33	29	1,177	723
Galena	43	27	1.1	0.7	68	15	0.0	0.0	68	16	5.2	3.2	5	4	72.8	29.4	1	1	600.0	-	185	63	1,364	521
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	0.0	0.0	7	7	8.1	0.0	2	2	300.0	0.0	61	28	657	0
Huslia	15	7	0.3	0.2	43	11	0.0	0.0	20	5	0.0	0.0	2	2	20.0	0.0	2	2	10.0	0.0	82	27	64	6
Hughes	2	1	0.0	-	19	16	1.3	0.5	3	3	18.3	0.0	2	2	0.0	0.0	2	2	24.0	0.0	28	24	127	18
Allakaket	10	6	0.0	0.0	26	8	0.3	0.2	7	3	0.0	0.0	2	2	94.5	0.0	3	3	383.0	0.0	48	22	1,345	11
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	0.0	0.0	1	1	0.0	-	-	-	-	-	14	8	0	0
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	1.5	0.3	270	106	0.7	0.3	278	90	7.1	1.6	42	39	47.2	9.5	14	13	192.1	0.0	704	309	6,951	1,203
Tanana	2	1	0.0	-	48	20	1.4	0.7	27	12	0.0	0.0	8	5	2.0	1.2	12	10	1449.8	186.3	97	48	17,478	4,382
Stevens Village	-	-	-	-	9	7	71.4	33.7	9	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	24	18	643	594
Birch Creek	5	1	0.0	-	9	3	3.3	2.7	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	30	48
Beaver	4	2	2.5	1.8	10	8	0.0	0.0	15	11	0.2	0.1	3	3	0.0	0.0	-	-	-	-	32	24	13	14
Fort Yukon	32	26	51.0	20.0	94	24	64.2	53.9	32	8	12.5	10.8	8	7	194.7	42.4	8	6	579.0	91.6	174	71	14,252	10,153
Venetie	9	5	0.0	0.0	32	9	30.6	17.9	17	5	5.0	4.2	4	4	125.0	0.0	-	-	-	-	62	23	1,563	1,134
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	29.3	11.4	223	85	34.7	22.9	111	47	4.4	3.2	30	24	71.5	11.7	20	16	1101.5	117.6	440	208	33,979	11,132
Survey Totals	215	132	9.2	3.1	859	316	10.3	6.0	1,028	362	5.3	0.8	327	293	19.7	1.6	41	35	604.6	57.4	2,470	1,138	47,354	11,272

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A4.—Estimated coho salmon subsistence harvest in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined				
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est	CI (95%)
Hooper Bay	7	4	0.0	0.0	71	20	0.3	0.2	92	28	0.0	0.0	32	30	1.4	0.3	-	-	-	-	202	82	66	34	
Scammon Bay	3	2	0.0	0.0	23	5	0.0	0.0	42	13	0.1	0.1	12	12	3.9	0.0	-	-	-	-	80	32	50	5	
Coastal District	10	6	0.0	0.0	94	25	0.2	0.2	134	41	0.0	0.0	44	42	2.1	0.2	-	-	-	-	282	114	116	34	
Nunam Iqua	2	0	-	-	12	8	0.0	0.0	9	8	1.5	0.4	12	12	0.8	0.0	2	1	0.0	-	37	29	24	6	
Alakanuk	-	-	-	-	38	10	1.4	1.0	62	19	0.6	0.5	23	19	2.8	1.1	-	-	-	-	123	48	157	111	
Emmonak	-	-	-	-	51	22	0.5	0.3	65	29	3.8	1.8	38	30	5.5	1.3	-	-	-	-	154	81	482	253	
Kotlik	2	0	-	-	25	8	0.0	0.0	45	12	2.2	1.4	22	19	9.8	2.9	-	-	-	-	94	39	313	177	
District 1	4	0	-	-	126	48	0.6	0.3	181	68	2.2	0.8	95	80	5.2	0.9	2	1	0.0	-	408	197	976	328	
Mountain Village	7	5	3.4	1.8	34	9	0.7	0.6	70	19	1.1	0.9	31	29	6.1	1.0	2	2	0.0	0.0	144	64	309	144	
Pitkas Point	3	1	0.0	-	6	6	0.0	0.0	14	11	0.0	0.0	5	5	26.0	0.0	-	-	-	-	28	23	130	0	
St. Mary's	6	4	0.0	0.0	22	7	1.1	0.9	66	20	7.3	5.1	29	29	2.9	0.0	1	1	0.0	-	124	61	591	664	
Pilot Station	10	7	14.3	7.8	32	12	0.0	0.0	50	22	0.2	0.1	15	12	0.0	0.0	-	-	-	-	107	53	152	154	
Marshall	3	2	2.5	1.4	17	5	0.0	0.0	40	7	11.3	4.4	11	10	2.8	0.6	2	2	0.0	0.0	73	26	490	346	
District 2	29	19	6.0	2.7	111	39	0.4	0.3	240	79	4.2	1.6	91	85	4.8	0.3	5	5	0.0	0.0	476	227	1,672	778	
Russian Mission	13	8	0.0	0.0	12	3	0.0	0.0	39	11	9.5	5.2	5	3	0.0	0.0	-	-	-	-	69	25	372	401	
Holy Cross	1	0	-	-	15	7	0.0	0.0	23	11	0.5	0.4	15	15	1.7	0.0	-	-	-	-	54	33	38	18	
Shageluk	2	2	0.0	0.0	8	3	0.0	0.0	22	15	0.0	0.0	5	5	0.0	0.0	-	-	-	-	37	25	0	0	
District 3	16	10	0.0	0.0	35	13	0.0	0.0	84	37	4.6	2.4	25	23	1.0	0.0	-	-	-	-	160	83	410	402	
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	2.0	0.9	7	7	0.0	0.0	2	1	10.0	-	32	26	40	18	
Grayling	1	0	-	-	4	0	-	-	40	10	0.0	0.0	2	2	0.0	0.0	1	1	25.0	-	48	13	25	0	
Kaltag	8	6	0.0	0.0	11	4	0.0	0.0	46	12	0.0	0.0	3	3	0.0	0.0	-	-	-	-	68	25	0	0	
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	1.6	1.2	7	6	15.3	5.6	-	-	-	-	83	26	195	153	
Koyukuk	3	3	3.3	0.0	13	11	0.0	0.0	12	11	0.6	0.2	4	3	14.0	6.8	1	1	10.0	-	33	29	84	53	
Galena	43	27	0.0	0.0	68	15	0.0	0.0	68	16	4.7	3.0	5	4	31.8	6.4	1	1	80.0	-	185	63	558	401	
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	0.0	0.0	7	7	8.0	0.0	2	2	117.5	0.0	61	28	291	0	
Huslia	15	7	0.0	0.0	43	11	0.0	0.0	20	5	0.0	0.0	2	2	0.0	0.0	2	2	50.0	0.0	82	27	100	0	
Hughes	2	1	0.0	-	19	16	0.0	0.0	3	3	0.0	0.0	2	2	0.0	0.0	2	2	0.0	0.0	28	24	0	0	
Allakaket	10	6	0.0	0.0	26	8	0.0	0.0	7	3	0.0	0.0	2	2	0.0	0.0	3	3	50.7	0.0	48	22	152	0	
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	0.0	0.0	1	1	0.0	-	-	-	-	-	14	8	0	0	
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0	
District 4	100	61	0.1	0.0	270	106	0.0	0.0	278	90	1.6	0.8	42	39	9.0	1.4	14	13	44.4	0.0	704	309	1,445	433	
Tanana	2	1	0.0	-	48	20	0.1	0.0	27	12	0.0	0.0	8	5	0.0	0.0	12	10	125.7	40.4	97	48	1,511	951	
Stevens Village	-	-	-	-	9	7	0.0	0.0	9	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	24	18	0	0	
Birch Creek	5	1	0.0	-	9	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	0	0	
Beaver	4	2	0.0	0.0	10	8	0.0	0.0	15	11	0.1	0.0	3	3	1.7	0.0	-	-	-	-	32	24	6	1	
Fort Yukon	32	26	1.3	0.4	94	24	0.0	0.0	32	8	6.3	5.4	8	7	138.1	34.6	8	6	33.7	16.6	174	71	1,618	691	
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	0.0	0.0	4	4	0.0	0.0	-	-	-	-	62	23	0	0	
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0	
District 5	56	36	0.8	0.2	223	85	0.0	0.0	111	47	1.8	1.6	30	24	38.3	9.5	20	16	88.9	25.2	440	208	3,135	1,176	
Survey Totals	215	132	1.1	0.4	859	316	0.2	0.1	1,028	362	2.4	0.5	327	293	7.8	0.9	41	35	58.5	12.3	2,470	1,138	7,754	1,564	

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A5.—Estimated Chinook salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	n	Total	Est CI (95%) (+/-)
Hooper Bay	7	4	0.0	0.0	71	20	1.0	0.3	92	28	1.2	0.5	32	30	5.1	0.3	-	-	-	-	202	82	338	101
Scammon Bay	3	2	0.0	0.0	23	5	4.0	2.2	42	13	11.7	3.5	12	12	31.6	0.0	-	-	-	-	80	32	962	304
Coastal District	10	6	0.0	0.0	94	25	1.7	0.6	134	41	4.5	1.1	44	42	12.3	0.2	-	-	-	-	282	114	1,300	320
Nunam Iqua	2	0	-	-	12	8	0.6	0.4	9	8	1.3	0.4	12	12	9.2	0.0	2	1	2.0	-	37	29	133	11
Alakanuk	-	-	-	-	38	10	2.7	1.3	62	19	11.7	2.5	23	19	10.8	0.8	-	-	-	-	123	48	1,075	316
Emmonak	-	-	-	-	51	22	2.0	0.8	65	29	4.9	1.2	38	30	11.2	1.2	-	-	-	-	154	81	850	191
Kotlik	2	0	-	-	25	8	1.8	0.9	45	12	12.4	4.0	22	19	25.0	2.2	-	-	-	-	94	39	1,153	366
District 1	4	0	-	-	126	48	2.0	0.5	181	68	8.9	1.4	95	80	14.0	0.7	2	1	2.0	-	408	197	3,211	520
Mountain Village	7	5	9.6	3.1	34	9	0.1	0.1	70	19	8.2	2.5	31	29	22.6	0.9	2	2	19.5	0.0	144	64	1,386	354
Pitkas Point	3	1	0.0	-	6	6	6.7	0.0	14	11	14.1	2.1	5	5	35.0	0.0	-	-	-	-	28	23	412	58
St. Mary's	6	4	10.5	2.5	22	7	10.1	4.3	66	20	7.5	2.1	29	29	23.5	0.0	1	1	30.0	-	124	61	1,489	330
Pilot Station	10	7	2.7	0.9	32	12	1.8	1.4	50	22	9.4	2.8	15	11	23.1	3.7	-	-	-	-	107	52	900	312
Marshall	3	2	43.5	4.9	17	5	16.2	9.8	40	7	32.6	9.6	11	10	44.7	2.7	2	2	67.5	0.0	73	26	2,335	826
District 2	29	19	9.9	1.1	111	39	5.4	1.8	240	79	12.6	2.0	91	84	26.3	0.8	5	5	40.8	0.0	476	226	6,522	1,008
Russian Mission	13	8	10.8	4.0	12	3	25.0	5.0	39	11	54.8	14.0	5	3	28.7	5.9	-	-	-	-	69	25	2,721	1,080
Holy Cross	1	0	-	-	15	7	5.7	4.2	23	11	35.2	8.8	15	15	73.9	0.0	-	-	-	-	54	33	2,003	415
Shageluk	2	2	0.0	0.0	8	3	3.3	2.6	22	15	8.9	1.8	5	5	15.2	0.0	-	-	-	-	37	25	299	88
District 3	16	10	9.3	3.4	35	13	11.8	2.5	84	37	37.4	6.9	25	23	53.1	1.2	-	-	-	-	160	83	5,023	1,160
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	38.1	5.9	7	7	67.9	0.0	2	1	240.0	-	32	26	1,336	115
Grayling	1	0	-	-	4	0	-	-	40	10	38.0	11.7	2	2	0.0	0.0	1	1	38.0	-	48	13	1,558	917
Kaltag	8	6	21.8	8.0	11	4	6.3	5.0	46	12	26.6	8.4	3	3	89.7	0.0	-	-	-	-	68	25	1,735	778
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	19.3	5.2	7	6	22.5	2.7	-	-	-	-	83	26	1,239	575
Koyukuk	3	3	8.3	0.0	13	11	2.0	0.5	12	11	13.7	1.1	4	3	31.3	6.7	1	1	45.0	-	33	29	386	60
Galena	43	27	2.5	0.5	68	15	2.0	1.5	68	16	18.7	5.3	5	4	61.8	17.3	1	1	20.0	-	185	63	1,844	759
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	6.7	5.7	7	7	13.7	0.0	2	2	125.0	0.0	61	28	419	123
Huslia	15	7	0.1	0.1	43	11	1.4	1.2	20	5	3.4	2.5	2	2	1.0	0.0	2	2	15.5	0.0	82	27	162	140
Hughes	2	1	0.0	-	19	16	1.5	0.5	3	3	0.0	0.0	2	2	0.0	0.0	2	2	16.0	0.0	28	24	61	19
Allakaket	10	6	0.0	0.0	26	8	0.4	0.2	7	3	0.0	0.0	2	2	3.0	0.0	3	3	13.3	0.0	48	22	56	11
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	2.0	0.0	1	1	7.0	-	-	-	-	-	14	8	13	0
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	3.1	0.7	270	106	1.2	0.5	278	90	20.8	2.8	42	39	34.4	2.2	14	13	66.9	0.0	704	309	8,809	1,551
Tanana	2	1	0.0	-	48	20	1.8	1.2	27	12	12.3	4.7	8	4	66.3	10.1	12	10	114.8	17.1	97	47	2,322	511
Stevens Village	-	-	-	-	9	7	5.9	2.5	9	6	31.2	9.9	6	5	52.4	8.1	-	-	-	-	24	18	648	204
Birch Creek	5	1	0.0	-	9	3	0.7	0.5	5	2	1.5	1.2	-	-	-	-	-	-	-	-	19	6	14	15
Beaver	4	2	2.5	1.8	10	8	0.0	0.0	15	11	24.9	5.8	3	3	7.7	0.0	-	-	-	-	32	24	407	172
Fort Yukon	32	26	6.0	1.5	94	24	4.0	2.2	32	8	6.5	5.6	8	7	86.1	14.9	8	6	31.5	7.5	174	71	1,722	608
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	6.4	5.0	4	4	15.3	0.0	-	-	-	-	62	23	170	166
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	3.6	0.9	223	85	2.3	1.0	111	47	11.8	2.4	30	23	55.8	5.3	20	16	81.5	10.7	440	207	5,283	854
Survey Totals	215	132	4.5	0.5	859	316	2.7	0.4	1,028	362	15.1	1.1	327	291	26.6	0.6	41	35	67.6	5.2	2,470	1,136	30,148	2,423

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A6.—Estimated summer chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total		Est CI (95%)	
																					N	n	Total	(+/-)
Hooper Bay	7	4	0.0	0.0	71	20	33.2	11.5	92	28	38.9	8.8	32	31	102.7	2.6	-	-	-	-	202	83	9,220	2,256
Scammon Bay	3	2	0.0	0.0	23	5	42.2	33.9	42	13	57.3	15.9	12	12	139.8	0.0	-	-	-	-	80	32	5,056	2,015
Coastal District	10	6	0.0	0.0	94	25	35.4	12.0	134	41	44.6	7.8	44	43	112.9	1.9	-	-	-	-	282	115	14,276	3,025
Nunam Iqua	2	0	-	-	12	8	3.8	2.2	9	8	11.8	2.6	12	12	106.0	0.0	2	1	125.0	-	37	29	1,673	68
Alakanuk	-	-	-	-	38	10	13.3	7.3	62	19	58.4	15.2	23	19	90.6	6.5	-	-	-	-	123	48	6,209	1,946
Emmonak	-	-	-	-	51	22	13.3	5.7	65	29	37.4	6.7	38	30	82.0	9.5	-	-	-	-	154	81	6,229	1,246
Kotlik	2	0	-	-	25	8	9.3	3.8	45	12	37.4	11.8	22	19	60.5	4.7	-	-	-	-	94	39	3,245	1,075
District 1	4	0	-	-	126	48	11.6	3.3	181	68	43.3	6.4	95	80	82.1	4.2	2	1	125.0	-	408	197	17,356	2,550
Mountain Village	7	5	33.0	16.6	34	9	0.7	0.6	70	19	34.9	7.4	31	29	94.0	3.2	2	2	132.0	0.0	144	64	5,878	1,054
Pitkas Point	3	1	0.0	-	6	6	17.5	0.0	14	11	40.2	6.1	5	5	85.6	0.0	-	-	-	-	28	23	1,096	166
St. Mary's	6	4	42.5	12.2	22	7	35.7	15.6	66	20	24.5	6.0	29	29	94.2	0.0	1	1	12.0	-	124	61	5,401	1,033
Pilot Station	10	7	5.0	2.3	32	12	0.3	0.2	50	22	59.7	14.7	15	12	59.4	9.1	-	-	-	-	107	53	3,933	1,468
Marshall	3	2	13.0	4.6	17	5	39.0	24.4	40	7	21.1	8.8	11	10	50.3	4.3	2	2	107.0	0.0	73	26	2,315	1,069
District 2	29	19	19.8	4.8	111	39	14.3	4.9	240	79	35.2	4.4	91	85	82.6	1.9	5	5	98.0	0.0	476	227	18,623	2,346
Russian Mission	13	8	8.1	3.8	12	3	16.3	10.5	39	11	47.5	14.5	5	3	41.7	13.6	-	-	-	-	69	25	2,364	1,151
Holy Cross	1	0	-	-	15	7	1.0	0.7	23	11	6.5	2.0	15	15	18.2	0.0	-	-	-	-	54	33	436	91
Shageluk	2	2	0.0	0.0	8	3	0.0	0.0	22	15	1.7	0.5	5	5	5.8	0.0	-	-	-	-	37	25	66	22
District 3	16	10	7.0	3.3	35	13	6.0	3.6	84	37	24.3	6.8	25	23	20.4	2.7	-	-	-	-	160	83	2,866	1,155
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	5.8	1.1	7	7	34.6	0.0	2	1	20.0	-	32	26	340	22
Grayling	1	0	-	-	4	0	-	-	40	10	11.5	5.6	2	2	0.0	0.0	1	1	40.0	-	48	13	500	441
Kaltag	8	6	1.7	0.8	11	4	0.0	0.0	46	12	1.6	0.9	3	3	19.0	0.0	-	-	-	-	68	25	143	81
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	3.1	2.1	7	6	41.3	12.7	-	-	-	-	83	26	464	292
Koyukuk	3	3	0.0	0.0	13	11	0.0	0.0	12	11	0.9	0.2	4	3	183.0	89.3	1	1	353.0	-	33	29	1,096	700
Galena	43	27	0.1	0.1	68	15	0.0	0.0	68	16	3.4	1.5	5	4	20.3	5.0	1	1	100.0	-	185	63	437	203
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	19.7	14.7	7	7	29.9	0.0	2	2	70.0	0.0	61	28	565	317
Huslia	15	7	0.0	0.0	43	11	0.0	0.0	20	5	3.0	2.6	2	2	140.0	0.0	2	2	835.0	0.0	82	27	2,010	102
Hughes	2	1	0.0	-	19	16	18.8	7.5	3	3	0.0	0.0	2	2	0.0	0.0	2	2	150.0	0.0	28	24	656	277
Allakaket	10	6	0.0	0.0	26	8	12.1	6.6	7	3	7.3	5.5	2	2	143.0	0.0	3	3	840.7	0.0	48	22	3,175	345
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	15.5	4.3	1	1	0.0	-	-	-	-	-	14	8	47	25
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	0.2	0.1	270	106	2.5	0.8	278	90	5.0	1.2	42	39	52.3	8.8	14	13	368.9	0.0	704	309	9,433	1,061
Tanana	2	1	0.0	-	48	20	1.0	0.8	27	12	0.0	0.0	8	4	7.8	2.4	12	10	223.8	24.2	97	47	2,796	574
Stevens Village	-	-	-	-	9	7	14.3	6.7	9	6	1.7	1.0	6	5	2.4	0.8	-	-	-	-	24	18	158	120
Birch Creek	5	1	0.0	-	9	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	0	0
Beaver	4	2	0.0	0.0	10	8	0.0	0.0	15	11	1.5	0.6	3	3	0.0	0.0	-	-	-	-	32	24	22	18
Fort Yukon	32	26	0.0	0.0	94	24	0.0	0.0	32	8	0.0	0.0	8	7	13.0	4.5	8	6	0.0	0.0	174	71	104	71
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	0.0	0.0	4	4	12.5	0.0	-	-	-	-	62	23	50	0
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	0.0	0.0	223	85	0.8	0.3	111	47	0.3	0.1	30	23	7.9	1.4	20	16	134.3	14.5	440	207	3,130	591
Survey Totals	215	132	3.4	0.7	859	316	8.7	1.6	1,028	362	25.0	1.9	327	293	71.2	1.8	41	35	209.5	7.1	2,470	1,138	65,684	4,895

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A7.—Estimated fall chum salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N		n Mean SE		N		n Mean SE		N		n Mean SE		N		n Mean SE		N		n Mean SE		Total		Est CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	7	4	0.0	0.0	71	20	2.5	2.1	92	28	0.7	0.6	32	30	0.5	0.1	-	-	-	-	202	82	259	314
Scammon Bay	3	2	0.0	0.0	23	5	0.0	0.0	42	13	0.2	0.1	12	12	4.3	0.0	-	-	-	-	80	32	57	11
Coastal District	10	6	0.0	0.0	94	25	1.9	1.6	134	41	0.5	0.4	44	42	1.5	0.1	-	-	-	-	282	114	316	314
Nunam Iqua	2	0	-	-	12	8	0.0	0.0	9	8	0.9	0.2	12	12	3.3	0.0	2	1	0.0	-	37	29	48	4
Alakanuk	-	-	-	-	38	10	8.7	7.4	62	19	0.1	0.1	23	19	3.6	1.0	-	-	-	-	123	48	419	551
Emmonak	-	-	-	-	51	22	2.6	1.9	65	29	6.8	2.8	38	30	5.6	1.6	-	-	-	-	154	81	788	418
Kotlik	2	0	-	-	25	8	0.0	0.0	45	12	9.7	7.8	22	19	7.1	1.7	-	-	-	-	94	39	590	694
District 1	4	0	-	-	126	48	3.7	2.4	181	68	4.9	2.2	95	80	5.2	0.8	2	1	0.0	-	408	197	1,845	979
Mountain Village	7	5	11.6	6.2	34	9	0.0	0.0	70	19	2.1	1.0	31	29	4.4	0.4	2	2	0.0	0.0	144	64	364	169
Pitkas Point	3	1	0.0	-	6	6	0.0	0.0	14	11	0.5	0.2	5	5	16.2	0.0	-	-	-	-	28	23	87	6
St. Mary's	6	4	4.3	1.9	22	7	1.6	1.3	66	20	3.0	1.5	29	29	17.4	0.0	1	1	0.0	-	124	61	763	208
Pilot Station	10	7	0.7	0.4	32	12	0.3	0.2	50	22	2.7	1.7	15	12	0.2	0.1	-	-	-	-	107	53	154	169
Marshall	3	2	8.5	3.8	17	5	5.4	4.5	40	7	6.4	4.1	11	10	16.8	1.7	2	2	35.0	0.0	73	26	629	354
District 2	29	19	4.8	1.6	111	39	1.2	0.7	240	79	3.1	0.9	91	85	10.0	0.2	5	5	14.0	0.0	476	227	1,997	475
Russian Mission	13	8	0.0	0.0	12	3	0.0	0.0	39	11	13.9	6.5	5	3	0.0	0.0	-	-	-	-	69	25	542	494
Holy Cross	1	0	-	-	15	7	0.0	0.0	23	11	12.9	5.6	15	15	33.0	0.0	-	-	-	-	54	33	792	252
Shageluk	2	2	0.0	0.0	8	3	0.0	0.0	22	15	12.3	2.8	5	5	0.0	0.0	-	-	-	-	37	25	270	119
District 3	16	10	0.0	0.0	35	13	0.0	0.0	84	37	13.2	3.4	25	23	19.8	0.0	-	-	-	-	160	83	1,604	567
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	7.5	1.9	7	7	15.7	0.0	2	1	50.0	-	32	26	285	37
Grayling	1	0	-	-	4	0	-	-	40	10	18.2	7.4	2	2	0.0	0.0	1	1	62.0	-	48	13	790	581
Kaltag	8	6	0.0	0.0	11	4	0.0	0.0	46	12	2.3	1.9	3	3	8.3	0.0	-	-	-	-	68	25	129	174
Nulato	-	-	-	-	20	4	5.0	4.5	56	16	5.9	3.0	7	6	35.7	3.6	-	-	-	-	83	26	682	375
Koyukuk	3	3	8.3	0.0	13	11	2.3	0.7	12	11	5.7	1.6	4	3	24.3	9.1	1	1	92.0	-	33	29	313	82
Galena	43	27	0.0	0.0	68	15	0.0	0.0	68	16	3.3	2.9	5	4	70.3	29.8	1	1	600.0	-	185	63	1,177	484
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	0.0	0.0	7	7	8.1	0.0	2	2	285.0	0.0	61	28	627	0
Huslia	15	7	0.3	0.2	43	11	0.0	0.0	20	5	0.0	0.0	2	2	0.0	0.0	2	2	10.0	0.0	82	27	24	6
Hughes	2	1	0.0	-	19	16	1.3	0.5	3	3	0.0	0.0	2	2	0.0	0.0	2	2	24.0	0.0	28	24	72	18
Allakaket	10	6	0.0	0.0	26	8	0.3	0.2	7	3	0.0	0.0	2	2	94.5	0.0	3	3	379.0	0.0	48	22	1,333	11
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	0.0	0.0	1	1	0.0	-	-	-	-	-	14	8	0	0
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0
District 4	100	61	0.3	0.0	270	106	0.6	0.3	278	90	5.5	1.5	42	39	25.7	3.7	14	13	187.8	0.0	704	309	5,432	867
Tanana	2	1	0.0	-	48	20	1.4	0.7	27	12	0.0	0.0	8	5	2.0	1.2	12	10	1376.3	177.3	97	48	16,596	4,172
Stevens Village	-	-	-	-	9	7	71.4	33.7	9	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	24	18	643	594
Birch Creek	5	1	0.0	-	9	3	3.3	2.7	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	30	48
Beaver	4	2	0.0	0.0	10	8	0.0	0.0	15	11	0.2	0.1	3	3	0.0	0.0	-	-	-	-	32	24	3	3
Fort Yukon	32	26	47.1	20.0	94	24	43.3	35.9	32	8	12.5	10.8	8	7	75.7	20.2	8	5	473.2	130.9	174	70	10,372	7,079
Venetie	9	5	0.0	0.0	32	9	10.0	8.5	17	5	0.4	0.3	4	4	125.0	0.0	-	-	-	-	62	23	827	532
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0
District 5	56	36	26.9	11.4	223	85	23.0	15.2	111	47	3.7	3.1	30	24	38.7	5.6	20	15	1015.1	118.6	440	207	28,471	8,255
Survey Totals	215	132	8.0	3.1	859	316	7.1	4.0	1,028	362	4.6	0.7	327	293	12.8	0.7	41	34	561.0	57.8	2,470	1,137	39,665	8,397

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 % confidence interval, CI (95%).

Appendix A8.—Estimated coho salmon subsistence use in surveyed communities, by harvest level, with community and district totals, Yukon Area, 2008.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined				
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est	CI (95%)
Hooper Bay	7	4	0.0	0.0	71	20	0.3	0.2	92	28	0.0	0.0	32	30	1.0	0.2	-	-	-	-	202	82	52	32	
Scammon Bay	3	2	0.0	0.0	23	5	0.0	0.0	42	13	0.1	0.1	12	12	3.9	0.0	-	-	-	-	80	32	50	5	
Coastal District	10	6	0.0	0.0	94	25	0.2	0.2	134	41	0.0	0.0	44	42	1.8	0.1	-	-	-	-	282	114	102	32	
Nunam Iqua	2	0	-	-	12	8	0.0	0.0	9	8	0.8	0.2	12	12	0.8	0.0	2	1	0.0	-	37	29	17	3	
Alakanuk	-	-	-	-	38	10	1.4	1.0	62	19	0.6	0.5	23	19	2.8	1.1	-	-	-	-	123	48	157	111	
Emmonak	-	-	-	-	51	22	0.3	0.2	65	29	3.8	1.8	38	30	3.9	1.1	-	-	-	-	154	81	409	245	
Kotlik	2	0	-	-	25	8	0.0	0.0	45	12	1.3	0.7	22	19	9.8	2.9	-	-	-	-	94	39	272	142	
District 1	4	0	-	-	126	48	0.6	0.3	181	68	1.9	0.7	95	80	4.6	0.8	2	1	0.0	-	408	197	855	304	
Mountain Village	7	5	3.4	1.8	34	9	0.0	0.0	70	19	1.1	0.9	31	29	3.4	0.4	2	2	0.0	0.0	144	64	202	129	
Pitkas Point	3	1	0.0	-	6	6	0.0	0.0	14	11	0.5	0.2	5	5	18.6	0.0	-	-	-	-	28	23	99	6	
St. Mary's	6	4	0.0	0.0	22	7	1.1	0.9	66	20	3.1	2.0	29	29	2.6	0.0	1	1	0.0	-	124	61	304	268	
Pilot Station	10	7	7.1	3.9	32	12	0.0	0.0	50	22	0.2	0.1	15	12	0.0	0.0	-	-	-	-	107	53	81	78	
Marshall	3	2	2.5	1.4	17	5	0.0	0.0	40	7	8.4	4.4	11	10	1.8	0.4	2	2	0.0	0.0	73	26	364	345	
District 2	29	19	3.5	1.4	111	39	0.2	0.2	240	79	2.6	1.0	91	85	3.2	0.2	5	5	0.0	0.0	476	227	1,050	462	
Russian Mission	13	8	0.0	0.0	12	3	0.0	0.0	39	11	14.0	6.2	5	3	0.0	0.0	-	-	-	-	69	25	546	477	
Holy Cross	1	0	-	-	15	7	0.0	0.0	23	11	0.5	0.4	15	15	1.2	0.0	-	-	-	-	54	33	31	18	
Shageluk	2	2	0.0	0.0	8	3	0.0	0.0	22	15	0.0	0.0	5	5	0.0	0.0	-	-	-	-	37	25	0	0	
District 3	16	10	0.0	0.0	35	13	0.0	0.0	84	37	6.6	2.9	25	23	0.7	0.0	-	-	-	-	160	83	577	477	
Anvik	1	1	0.0	-	12	9	0.0	0.0	10	8	1.9	0.8	7	7	0.0	0.0	2	1	10.0	-	32	26	39	16	
Grayling	1	0	-	-	4	0	-	-	40	10	0.0	0.0	2	2	0.0	0.0	1	1	25.0	-	48	13	25	0	
Kaltag	8	6	0.0	0.0	11	4	0.0	0.0	46	12	0.0	0.0	3	3	0.0	0.0	-	-	-	-	68	25	0	0	
Nulato	-	-	-	-	20	4	0.0	0.0	56	16	1.6	1.2	7	6	15.3	5.6	-	-	-	-	83	26	195	153	
Koyukuk	3	3	0.0	0.0	13	11	0.0	0.0	12	11	0.6	0.2	4	3	0.0	0.0	1	1	10.0	-	33	29	18	4	
Galena	43	27	0.0	0.0	68	15	0.0	0.0	68	16	1.6	1.4	5	4	74.5	18.3	1	1	80.0	-	185	63	563	255	
Ruby	5	5	0.0	0.0	36	11	0.0	0.0	11	3	0.0	0.0	7	7	8.0	0.0	2	2	117.5	0.0	61	28	291	0	
Huslia	15	7	0.0	0.0	43	11	0.0	0.0	20	5	0.0	0.0	2	2	0.0	0.0	2	2	50.0	0.0	82	27	100	0	
Hughes	2	1	0.0	-	19	16	0.0	0.0	3	3	0.0	0.0	2	2	0.0	0.0	2	2	0.0	0.0	28	24	0	0	
Allakaket	10	6	0.0	0.0	26	8	0.0	0.0	7	3	0.0	0.0	2	2	0.0	0.0	3	3	50.7	0.0	48	22	152	0	
Alatna	6	1	0.0	-	4	4	0.0	0.0	3	2	0.0	0.0	1	1	0.0	-	-	-	-	-	14	8	0	0	
Bettles	6	4	0.0	0.0	14	13	0.0	0.0	2	1	0.0	-	-	-	-	-	-	-	-	-	22	18	0	0	
District 4	100	61	0.0	0.0	270	106	0.0	0.0	278	90	0.8	0.4	42	39	12.8	2.4	14	13	44.4	0.0	704	309	1,383	298	
Tanana	2	1	0.0	-	48	20	0.1	0.0	27	12	0.0	0.0	8	5	0.0	0.0	12	10	126.5	40.4	97	48	1,520	950	
Stevens Village	-	-	-	-	9	7	0.0	0.0	9	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	24	18	0	0	
Birch Creek	5	1	0.0	-	9	3	0.0	0.0	5	2	0.0	0.0	-	-	-	-	-	-	-	-	19	6	0	0	
Beaver	4	2	0.0	0.0	10	8	0.0	0.0	15	11	0.1	0.0	3	3	0.0	0.0	-	-	-	-	32	24	1	1	
Fort Yukon	32	26	0.8	0.3	94	24	0.0	0.0	32	8	3.1	2.7	8	7	42.9	15.2	8	6	33.7	16.6	174	71	737	392	
Venetie	9	5	0.0	0.0	32	9	0.0	0.0	17	5	0.0	0.0	4	4	0.0	0.0	-	-	-	-	62	23	0	0	
Chalkyitsik	4	1	0.0	-	21	14	0.0	0.0	6	3	0.0	0.0	1	0	-	-	-	-	-	-	32	18	0	0	
District 5	56	36	0.4	0.1	223	85	0.0	0.0	111	47	0.9	0.8	30	24	11.8	4.2	20	16	89.4	25.1	440	208	2,258	1,028	
Survey Totals	215	132	0.6	0.2	859	316	0.1	0.1	1,028	362	1.8	0.4	327	293	5.2	0.5	41	35	58.8	12.3	2,470	1,138	6,225	1,296	

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95 % confidence interval, CI (95%).

Appendix A9.–Estimated number of salmon given away by subsistence fishermen to other subsistence households and corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Households		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated
	Households	Contacted ^a	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total
Hooper Bay	202	83	74	44	2,221	1,460	238	242	43	60	2,576
Scammon Bay	80	32	165	93	1,194	822	0	0	2	0	1,361
Coastal District	282	115	239	103	3,415	1,676	238	242	45	60	3,937
Nunam Iqua	37	29	44	13	585	186	89	10	36	34	754
Alakanuk	123	47	110	72	545	467	229	125	47	41	931
Emmonak	154	80	63	66	341	277	9	10	7	10	420
Kotlik	94	38	232	317	494	575	0	0	0	0	726
District 1	408	194	449	332	1,965	813	327	126	90	54	2,831
Mountain Village	144	64	88	49	509	379	0	0	0	0	597
Pitkas Point	28	22	10	8	34	22	0	0	0	0	44
St. Mary's	124	61	142	111	318	430	28	11	26	43	514
Pilot Station	107	50	503	291	1,423	951	0	0	0	0	1,926
Marshall	73	26	42	53	78	107	60	74	14	22	194
District 2	476	223	785	320	2,362	1,116	88	75	40	49	3,275
Russian Mission	69	26	41	38	23	27	0	0	0	0	64
Holy Cross	54	33	138	57	13	18	0	0	0	0	151
Shageluk	37	25	50	19	4	0	43	30	0	0	97
District 3	160	84	229	71	40	32	43	30	0	0	312
Anvik	32	25	55	17	30	19	22	17	3	0	110
Grayling	48	13	49	49	2	0	32	20	0	0	83
Kaltag	68	25	99	88	0	0	24	29	0	0	123
Nulato	83	25	134	136	0	0	161	154	0	0	295
Koyukuk	33	27	154	48	11	7	136	39	1	1	302
Galena	185	60	246	166	289	382	514	619	8	10	1,057
Ruby	61	27	64	56	63	67	176	187	6	0	309
Huslia	82	27	148	104	1,306	1,747	250	193	0	0	1,704
Hughes	28	24	9	2	280	0	55	0	0	0	344
Allakaket	48	22	17	13	580	668	53	56	0	0	650
Alatna	14	8	2	0	22	0	0	0	0	0	24
Bettles	22	18	5	2	0	0	1	1	0	0	6
District 4	704	301	982	270	2,583	1,910	1,424	697	18	10	5,007
Tanana	97	45	272	107	141	206	253	213	0	0	666
Stevens Village	24	18	60	37	51	51	0	0	0	0	111
Birch Creek	19	6	9	14	0	0	120	192	0	0	129
Beaver	32	22	33	10	0	0	0	0	0	0	33
Fort Yukon	174	69	336	110	0	0	2,051	1,370	93	75	2,480
Venetie	62	23	44	28	0	0	146	181	0	0	190
Chalkyitsik	32	18	42	15	0	0	0	0	0	0	42
District 5	440	201	796	162	192	212	2,570	1,411	93	75	3,651
Survey Totals	2,470	1,118	3,480	572	10,557	2,900	4,690	1,599	286	121	19,013

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A10.–Estimated number of salmon given away by commercial fishermen to subsistence households and corresponding confidence intervals (CI) for surveyed communities, Yukon Area, 2008.

Community	Households		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated
	Households	Contacted ^a	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total
Hooper Bay	202	83	0	0	0	0	0	0	0	0	0
Scammon Bay	80	32	0	0	0	0	0	0	0	0	0
Coastal District	282	115	0	0	0	0	0	0	0	0	0
Nunam Iqua	37	29	0	0	0	0	0	0	0	0	0
Alakanuk	123	47	0	0	0	0	0	0	0	0	0
Emmonak	154	80	0	0	4	7	0	0	0	0	4
Kotlik	94	38	0	0	0	0	0	0	0	0	0
District 1	408	194	0	0	4	7	0	0	0	0	4
Mountain Village	144	64	0	0	0	0	0	0	0	0	0
Pitkas Point	28	23	0	0	0	0	0	0	0	0	0
St. Mary's	124	61	0	0	0	0	0	0	0	0	0
Pilot Station	107	52	0	0	0	0	0	0	0	0	0
Marshall	73	26	0	0	0	0	25	0	0	0	25
District 2	476	226	0	0	0	0	25	0	0	0	25
Russian Mission	69	26	0	0	0	0	0	0	0	0	0
Holy Cross	54	33	0	0	0	0	0	0	0	0	0
Shageluk	37	25	0	0	0	0	0	0	0	0	0
District 3	160	84	0	0	0	0	0	0	0	0	0
Anvik	32	26	0	0	0	0	0	0	0	0	0
Grayling	48	13	0	0	0	0	0	0	0	0	0
Kaltag	68	25	0	0	2,000	0	7,667	12,919	0	0	9,667
Nulato	83	26	0	0	292	216	0	0	0	0	292
Koyukuk	33	28	0	0	0	0	0	0	0	0	0
Galena	185	61	0	0	0	0	0	0	0	0	0
Ruby	61	27	0	0	0	0	0	0	0	0	0
Huslia	82	27	0	0	0	0	0	0	0	0	0
Hughes	28	24	0	0	0	0	0	0	0	0	0
Allakaket	48	22	0	0	0	0	0	0	0	0	0
Alatna	14	8	0	0	0	0	0	0	0	0	0
Bettles	22	18	0	0	0	0	0	0	0	0	0
District 4	704	305	0	0	2,292	216	7,667	12,919	0	0	9,959
Tanana	97	45	27	41	0	0	7	10	0	0	34
Stevens Village	24	18	0	0	0	0	0	0	0	0	0
Birch Creek	19	6	0	0	0	0	0	0	0	0	0
Beaver	32	22	0	0	0	0	0	0	0	0	0
Fort Yukon	174	70	0	0	0	0	0	0	0	0	0
Venetie	62	23	0	0	0	0	0	0	0	0	0
Chalkyitsik	32	18	0	0	0	0	0	0	0	0	0
District 5	440	202	27	41	0	0	7	10	0	0	34
Survey Totals	2,470	1,126	27	41	2,296	216	7,699	12,919	0	0	10,022

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A11.—Estimated number of salmon provided to communities for subsistence use by test fish programs, Yukon Area, 2008.

Yukon River Test Fishery Sites	Village where fish were distributed	Chinook Salmon	Summer Chum Salmon	Fall Chum Salmon	Coho Salmon	Total Salmon
Lower Yukon Test Fish Drift Gillnet (LYTF) ^a	Emmonak ^b	1,236	2,162	878	235	4,511
	Kotlik	698	107	0	0	805
	Alakanuk	3	70	0	0	73
	St. Mary's	50	0	0	0	50
LYTF Project Subtotal:		1,987	2,339	878	235	5,439
Lower Yukon mesh size study	Emmonak	202	254	0	0	456
Mountain Village Test Fish Drift Gillnet	Mountain Village	0	0	494	209	703
Pilot Station Sonar Test Fish Drift Gillnet	Pilot Station	389	1,338	756	116	2,599
Marshall Test Fish Drift Gillnet	Marshall	693	345	0	0	1,038
Kaltag Test Fish Drift Gillnet	Kaltag	0	0	461	45	506
Eagle Sonar Test Fish Gillnet	Eagle	6	0	3	0	9
Test Fish Totals ^c		3,277	4,276	2,592	605	10,750

^a A drift test fishery operates both summer and fall seasons, however numbers include some fish from the summer season set gillnet test fishery.

^b Test fish catch totals as reported in Table 1.

^c Includes test fish that were placed in an open access tote in the community of Emmonak, and were most likely utilized by Emmonak residents.

Appendix A12.–Salmon reported lost in surveyed communities due to sick fish, weather, predators, and unknown causes, Yukon Area, 2008.

Reasons Given For Salmon Lost	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Pink Salmon		Total Reported Salmon Lost		
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
LOST DUE TO SICK FISH													
<i>Ichthyophonus h.</i>	80	36.4%	118	14.5%	4	5.6%	0	0.0%	0	0.0%	202	17.7%	
Bad meat, blemishes, worms	8	3.6%	194	23.9%	7	9.7%	6	66.7%	0	0.0%	215	18.9%	
Subtotal	88	40.0%	312	38.4%	11	15.3%	6	66.7%	0	0.0%	417	36.6%	
LOST DUE TO WEATHER / SPOILAGE													
Rain/Bad Weather	24	10.9%	87	10.7%	30	41.7%	0	0.0%	0	0.0%	141	12.4%	
Insects	40	18.2%	20	2.5%	20	27.8%	0	0.0%	21	84.0%	101	8.9%	
Subtotal	64	29.1%	107	13.2%	50	69.4%	0	0.0%	21	84.0%	242	21.2%	
LOST DUE TO ANIMALS													
Bears	23	10.5%	153	18.8%	0	0.0%	0	0.0%	0	0.0%	176	15.5%	
Birds	8	3.6%	3	0.4%	6	8.3%	0	0.0%	0	0.0%	17	1.5%	
Subtotal	31	14.1%	156	19.2%	6	8.3%	0	0.0%	0	0.0%	193	16.9%	
LOST UNKNOWN	Subtotal	37	16.8%	238	29.3%	5	6.9%	3	33.3%	4	16.0%	287	25.2%
SALMON REPORTED LOST	Total	220		813		72		9		25		1,139	
Use of Lost salmon													
Salmon Fed to Dogs ^a	77	6.8%	171	15.0%	41	3.6%	2	0.2%	4	0.4%	295	25.9%	
Salmon Lost to Humans and Dogs ^b	143	12.6%	642	56.4%	31	2.7%	7	0.6%	21	1.8%	844	74.1%	
Total Salmon Lost ^c	220	19.3%	813	71.4%	72	6.3%	9	0.8%	25	2.2%	1,139	100.0%	

^a Salmon unfit for human consumption, but reported retained for dog food.

^b Salmon lost and unfit for human consumptions and for dog food.

^c A total of 100 surveyed households reported losing salmon.

Appendix A13.–Subsistence salmon fishing period reductions and gear restrictions, Yukon Area, 2008.

		Coastal District ^a	District 1	District 2	District 3 ^b	Subdistrict 4A	Subdistricts 4B/4C	Subdistricts 5A/5B/5C	Subdistrict 5D ^c
Monday	23 Jun	18-hour period	18-hour period	open	closed	open	open	closed	open
Tuesday	24 Jun	6" mesh restrict	6" mesh restrict	close @ 8am	open @ 8am	close @ 6pm	close @ 6pm	open @ 6pm	open
Wednesday	25 Jun	closed	closed	18-hour period	close @ 8pm	open @ 6pm	open @ 6pm	open	open
Thursday	26 Jun	18-hour period	18-hour period	6" mesh restrict	closed	open	open	close @ 6pm	open
Friday	27 Jun	6" mesh restrict	6" mesh restrict	closed	18-hour period	close @ 6pm	close @ 6pm	open @ 6pm	open
Saturday	28 Jun	closed	closed	closed	6" mesh restrict	closed	closed	open	open
Sunday	29 Jun	closed	closed	18-hour period	closed	open @ 6pm	open @ 6pm	close @ 6pm	open
Monday	30 Jun	18-hour period	18-hour period	6" mesh restrict.	closed	open	open	closed	open
Tuesday	1 Jul	6" mesh restrict.	6" mesh restrict.	closed	18-hour period	close @ 6pm	close @ 6pm	open @ 6pm	open
Wednesday	2 Jul	Open 7 days per week	Two 36-hour periods per week	18-hour period	6" mesh restrict	24-hour period	open @ 6pm	open	open
Thursday	3 Jul			6" mesh restrict.	closed	No gear restrict.	open	close @ 6pm	open
Friday	4 Jul			Two 36-hour periods per week	18-hour period	closed	close @ 6pm	open @ 6pm	open
Saturday	5 Jul				6" mesh restrict.	closed	closed	open	open
Sunday	6 Jul				Two 36-hour periods per week	24-hour period	24-hour period	close @ 6pm	open
Monday	7 Jul					No gear restrict.	No gear restrict.	closed	open
Tuesday	8 Jul					closed	closed	24-hour period	open
Wednesday	9 Jul					24-hour period	24-hour period	No gear restrict.	open
Thursday	10 Jul					6" mesh restrict.	No gear restrict.	closed	open
Friday	11 Jul					Two 48-hour periods per week	closed	closed	open
Saturday	12 Jul						closed	24-hour period	open
Sunday	13 Jul						24-hour period	No gear restrict.	open
Monday	14 Jul						6" mesh restrict.	closed	open
Tuesday	15 Jul						Two 48-hour periods per week	closed	close @ 6pm
Wednesday	16 Jul							closed	closed
Thursday	17 Jul							24-hour period	open @ 6pm
Friday	18 Jul							No gear restrict.	open
Saturday	19 Jul							Two 48-hour periods per week	open
Sunday	20 Jul								open
Monday	21 Jul								close @ 6am
Tuesday	22 Jul								3.5 day restriction
Wednesday	23 Jul								No gear restrict.
Thursday	24 Jul								open @ 6pm
Friday	25 Jul								open
Saturday	26 Jul								open

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	Coastal District ^a	District 1	District 2	District 3 ^b	Subdistrict 4A	Subdistrict 4B/4C	Subdistricts 5A/5B/5C	Subdistrict 5D ^c
Sunday	27 Jul							open
Monday	28 Jul							close @ 6am
Tuesday	29 Jul							3.5 day restriction
Wednesday	30 Jul							No gear restrict.
Thursday	31 Jul							open @ 6pm
Friday	1 Aug							open
Saturday	2 Aug							close @ 6am
Sunday	3 Aug							No gear restrict.
Monday	4 Aug							open @ 6pm

Note: Shaded areas indicate fishery closures and gear restrictions implemented inseason. Unshaded fishing period closures follow regulations by district. The Tanana and Koyukuk river drainages did not have any subsistence fishing restrictions, because of low fishing effort, and in the case of the Tanana River, there are escapement counting tower projects to manage this river separately as a terminal harvest area.

- ^a The Coastal District south of 62 degrees north, which includes the communities of Chevak, Hooper Bay, and Scammon Bay, subsistence salmon fishing remained open 7 days per week. That portion of the Coastal District north of 62 degrees north latitude and south of Chris Point, subsistence salmon fishing was open from 8:00 pm Mondays until 2:00 pm Tuesdays and from 8:00 pm Thursdays until 2:00 pm Fridays with gill nets restricted to a maximum of 6-inch mesh size.
- ^b Innoko River drainage remained on 7 days per week due to low harvests on local Chinook salmon populations, but gillnets were restricted to 6-inch or less from July 2 to July 6.
- ^c Effective 6:00 pm Monday, August 4, Subdistrict 5-D returned to the 7 day per week regulatory subsistence fishing schedule.

Appendix A14.–Household groups and selection.

Household Group	Harvest level	Survey coverage ^a
Unknown	Unknown	100%
Do Not Fish	0	30%/50% ^a /100% ^b
Light	1-100	30%/50% ^a /100% ^b
Medium	101-500	100%
Heavy	>500	100%

Note: Harvest level is the total number of Chinook, summer chum, fall chum and coho salmon harvested. Households are categorized into groups based on their average harvest from the most recent 2 years of harvest in the previous 5 years.

^a Emmonak, Holy Cross, Pilot Station, and Tanana.

^b Communities with fewer than 40 households.

APPENDIX B. HISTORICAL INFORMATION

Appendix B1.—Chinook salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1998–2008.

Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002 Average	2003-2007 Average
Hooper Bay	13	173	114	2,150	282	722	1,042	157	376	430	388	546	545
Scammon Bay	378	938	449	732	840	1,128	996	691	507	768	1,104	667	818
Coastal District Total	391	1,111	563	2,882	1,122	1,850	2,038	848	883	1,198	1,492	1,214	1,363
Nunam Iqua	527	855	684	550	393	925	647	338	371	907	163	602	638
Alakanuk	1,930	1,236	1,109	973	1,773	1,707	1,317	860	690	1,257	1,238	1,404	1,166
Emmonak	2,396	3,337	2,205	2,473	1,751	2,763	2,768	1,730	2,311	2,326	2,696	2,432	2,380
Kotlik	2,389	1,420	1,893	3,093	1,686	937	1,148	2,130	1,750	1,569	2,066	2,096	1,507
District 1 Subtotal	7,242	6,848	5,891	7,089	5,603	6,332	5,880	5,058	5,122	6,059	6,163	6,535	5,690
Mountain Village	2,533	2,162	1,715	1,864	1,523	2,174	2,362	2,383	1,659	2,077	1,645	1,959	2,131
Pitkas Point	817	632	753	651	566	633	609	618	274	320	544	684	491
St. Mary's	2,679	2,150	1,810	3,815	2,045	1,916	2,357	2,693	2,233	3,573	1,756	2,500	2,554
Pilot Station	1,715	2,715	2,378	2,614	2,530	2,886	2,406	1,658	1,976	2,028	1,597	2,390	2,191
Marshall	1,711	2,780	3,279	4,498	2,290	2,059	1,990	1,804	1,897	2,555	3,284	2,912	2,061
District 2 Subtotal	9,455	10,439	9,935	13,442	8,954	9,668	9,724	9,156	8,039	10,553	8,826	10,445	9,428
Russian Mission	1,314	2,722	1,860	3,428	1,887	2,057	2,337	1,894	1,851	1,301	2,949	2,242	1,888
Holy Cross	2,648	4,581	1,249	2,711	1,813	2,395	1,993	2,817	3,165	2,902	2,509	2,600	2,654
Shageluk	552	412	805	222	439	550	418	420	358	448	397	486	439
District 3 Subtotal	4,514	7,715	3,914	6,361	4,139	5,002	4,748	5,131	5,374	4,651	5,855	5,329	4,981
Lower Yukon River Total	21,211	25,002	19,740	26,892	18,696	21,002	20,352	19,345	18,535	21,263	20,844	22,308	20,099
Anvik	1,025	776	205	608	708	1,286	1,588	1,206	958	1,321	1,433	664	1,272
Grayling	2,177	2,476	839	1,077	2,249	1,613	1,869	1,878	1,702	1,500	1,761	1,764	1,712
Kaltag	1,870	2,051	1,074	1,506	1,435	1,838	1,656	3,367	2,833	1,456	2,403	1,587	2,230
Nulato	4,147	1,799	1,083	2,127	1,773	2,531	5,199	2,749	2,707	2,431	1,250	2,186	3,123
Koyukuk	800	506	175	449	323	860	400	396	835	811	513	451	660
Galena	1,668	2,539	788	1,755	1,522	3,112	3,296	2,864	2,380	2,511	2,232	1,654	2,833
Ruby/Kokrines	3,891	777	1,577	2,033	954	631	1,620	1,193	304	1,594	637	1,846	1,068
District 4 Subtotal	15,578	10,924	5,741	9,555	8,964	11,871	15,628	13,653	11,719	11,624	10,229	10,152	12,899
(Excluding Koyukuk River)													
Huslia	23	90	424	377	222	469	285	207	258	146	255	227	273
Hughes	91	105	50	144	67	113	291	33	8	8	61	91	91
Allakaket	85	108	41	76	200	306	65	68	23	53	58	102	103
Alatna	4	10	8	0	3	12	0	0	14	0	16	5	5
Bettles	20	1	0	0	0	0	0	3	0	0	0	4	1
Koyukuk River Subtotal	223	314	523	597	492	900	641	311	303	207	390	430	472
District 4 Total	15,801	11,238	6,264	10,152	9,456	12,771	16,269	13,964	12,022	11,831	10,619	10,582	13,371

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Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002	2003-2007
												Average	Average
Tanana	5,212	3,388	2,895	4,112	2,379	5,332	2,689	3,729	3,794	5,498	3,981	3,597	4,208
Rampart ^a	885	2,018	847	1,857	852	1,411	287	411	429	250	136	1,292	558
Fairbanks ^b	1,231	851	1,342	1,125	1,767	1,932	1,997	2,584	2,184	2,492	1,898	1,263	2,238
Stevens Village	1,232	1,214	466	1,111	1,334	1,121	2,394	1,570	1,245	610	753	1,071	1,388
Birch Creek	48	24	72	0	67	78	82	131	174	113	32	42	116
Beaver	470	473	196	1,368	702	1,156	858	957	830	1,244	546	642	1,009
Fort Yukon	1,771	2,539	988	2,361	2,348	4,004	4,430	3,591	3,144	4,076	1,991	2,001	3,849
Circle	685	524	627	447	1,533	895	565	1,283	694	1,057	519	763	899
Central	170	91	26	84	58	144	83	175	130	334	48	86	173
Eagle	2,473	2,558	1,087	1,033	1,910	2,081	1,512	2,566	2,303	1,999	1,068	1,812	2,092
Other ^c	446	488	205	40	348	862	357	315	330	472	362	305	467
District 5 Subtotal	14,623	14,168	8,751	13,538	13,298	19,016	15,254	17,312	15,257	18,145	11,334	12,876	16,997
(Excluding Chandalar and Black Rivers)													
Venetie	168	127	103	28	77	125	352	59	667	1,002	292	101	441
Chalkyitsik	11	35	0	0	26	50	60	53	0	0	0	14	33
Chandalar/Black River Subtotal	179	162	103	28	103	175	412	112	667	1,002	292	115	474
District 5 Total	14,802	14,330	8,854	13,566	13,401	19,191	15,666	17,424	15,924	19,147	11,626	12,991	17,470
Manley	209	136	58	534	336	213	239	289	361	333	106	255	287
Minto	275	317	0	197	19	317	35	35	31	82	12	162	100
Nenana	1,187	975	541	1,405	509	1,193	633	533	712	893	322	923	793
Fairbanks ^d	230	195	360	191	159	392	449	971	125	409	108	227	469
Other ^e	18	1	24	0	44	30	32	0	0	0	57	17	12
District 6 Tanana R. Total	1,919	1,624	983	2,327	1,067	2,145	1,388	1,828	1,229	1,717	605	1,584	1,661
Upper Yukon River Total	32,522	27,192	16,101	26,045	23,924	34,107	33,323	33,216	29,175	32,695	22,850	25,157	32,503
Alaska, Yukon River Total ^f	53,733	52,194	35,841	52,937	42,620	55,109	53,675	52,561	47,710	53,958	43,694	47,465	52,603
Alaska, Yukon Area Total	54,124	53,305	36,404	55,819	43,742	56,959	55,713	53,409	48,593	55,156	45,186	48,679	53,966

^a Rampart area harvest as reported from subsistence fishing permits established by the Board of Fisheries (BOF) in 2004.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Other permit holders who fished in District 5 but did not reside in the communities listed.

^d Harvest by Fairbanks subsistence permit holders who fished in the Tanana River. Does not include harvest by personal use permit holders.

^e Other permit holders who fished in District 6 but did not reside in the communities listed.

^f Does not include the Coastal District.

Appendix B2.–Summer chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1998–2008.

Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002	2003-2007
												Average	Average
Hooper Bay	261	10,146	9,301	12,593	9,780	10,658	3,242	9,771	19,468	12,234	12,007	8,416	11,075
Scammon Bay	1,101	3,315	3,876	1,323	5,016	3,310	5,020	4,586	4,703	3,887	6,113	2,926	4,301
Coastal District Total	1,362	13,461	13,177	13,916	14,796	13,968	8,262	14,357	24,171	16,121	18,120	11,342	15,376
Nunam Iqua	1,872	1,343	3,309	1,942	1,897	2,561	2,698	2,794	2,903	2,325	1,949	2,073	2,656
Alakanuk	5,643	3,808	6,259	5,992	7,637	5,287	6,555	5,687	7,790	7,611	6,881	5,868	6,586
Emmonak	9,558	10,310	8,338	8,242	8,458	7,644	8,618	12,594	11,899	9,256	9,646	8,981	10,002
Kotlik	9,815	4,708	6,173	6,595	6,115	4,209	2,749	6,620	5,289	5,017	4,291	6,681	4,777
District 1 Subtotal	26,888	20,169	24,079	22,771	24,107	19,701	20,620	27,695	27,881	24,209	22,767	23,603	24,021
Mountain Village	9,596	10,059	7,074	8,484	6,657	6,497	10,676	8,861	13,119	8,104	7,559	8,374	9,451
Pitkas Point	1,302	849	1,728	862	639	800	717	1,023	680	515	1,246	1,076	747
St. Mary's	9,047	6,752	8,094	10,026	7,284	4,521	6,994	6,877	7,394	8,107	6,451	8,241	6,779
Pilot Station	5,042	5,265	5,223	5,329	6,490	4,163	5,779	4,333	6,070	3,711	6,012	5,470	4,811
Marshall	1,293	1,212	3,212	1,602	2,484	792	1,765	3,183	4,392	3,070	3,023	1,961	2,640
District 2 Subtotal	26,280	24,137	25,331	26,303	23,554	16,773	25,931	24,277	31,655	23,507	24,291	25,121	24,429
Russian Mission	702	616	1,318	165	395	171	884	925	1,328	759	2,400	639	813
Holy Cross	269	264	569	460	155	214	276	760	825	320	441	343	479
Shageluk	5,501	4,868	1,800	684	1,956	5,473	1,798	4,081	1,381	977	130	2,962	2,742
District 3 Subtotal	6,472	5,748	3,687	1,309	2,506	5,858	2,958	5,766	3,534	2,056	2,971	3,944	4,034
Lower Yukon River Total	59,640	50,054	53,097	50,383	50,167	42,332	49,509	57,738	63,070	49,772	50,029	52,668	52,484
Anvik	2,139	848	425	94	1,089	844	248	529	387	5,250	340	919	1,452
Grayling	4,032	4,126	474	92	1,311	1,072	1,129	783	644	641	660	2,007	854
Kaltag	175	625	169	10	234	1,028	213	680	159	109	916	243	438
Nulato	3,518	1,945	377	208	269	180	198	634	838	356	468	1,263	441
Koyukuk	1,819	197	204	118	426	1,339	329	537	394	995	1,104	553	719
Galena	2,333	1,688	820	53	712	289	782	1,013	1,205	571	758	1,121	772
Ruby/Kokrines	2,251	1,697	1,233	1,025	1,406	876	2,010	967	1,714	416	655	1,522	1,197
District 4 Subtotal	16,267	11,126	3,702	1,600	5,447	5,628	4,909	5,143	5,341	8,338	4,901	7,628	5,872
(Excluding Koyukuk River)													
Huslia	449	1,192	745	833	3,178	6,187	3,844	2,433	1,122	3,243	4,377	1,279	3,366
Hughes	334	577	1,079	551	1,089	1,265	3,823	2,230	3,254	1,213	944	726	2,357
Allakaket	901	2,245	1,520	1,604	6,242	4,383	2,367	2,535	5,170	3,451	3,229	2,502	3,581
Alatna	13	99	0	0	15	50	16	5	110	11	66	25	38
Bettles	82	100	0	0	0	0	0	4	0	0	0	36	1
Koyukuk River Subtotal	1,779	4,213	3,344	2,988	10,524	11,885	10,050	7,207	9,656	7,918	8,616	4,570	9,343
District 4 Total	18,046	15,339	7,046	4,588	15,971	17,513	14,959	12,350	14,997	16,256	13,517	12,198	15,215

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Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002 Average	2003-2007 Average
Tanana	1,966	1,214	2,848	1,407	3,321	3,075	1,490	4,832	5,474	5,229	2,877	2,151	4,020
Rampart ^a	19	60	47	0	14	9	103	315	135	25	27	28	117
Fairbanks ^b	57	346	275	165	295	89	280	780	1,341	529	119	228	604
Stevens Village	171	26	50	0	12	0	108	442	972	254	163	52	355
Beaver	15	91	7	328	77	7	2	68	117	41	27	104	47
Fort Yukon ^c	30	0	0	289	1,832	2,176	1,187	67	2,165	2,365	230	430	1,592
Circle	1	60	109	6	5	85	52	3	58	200	5	36	80
Central	1	0	1	0	0	0	0	5	2	0	0	0	1
Eagle	52	271	121	555	24	104	171	235	989	15	14	205	303
Other ^d	2	42	51	0	17	0	3	53	117	81	25	22	51
District 5 Subtotal	2,314	2,110	3,509	2,750	5,597	5,545	3,396	6,800	11,370	8,739	3,487	3,256	7,170
(Excluding Chandalar and Black Rivers)													
Venetie	0	166	0	106	13	0	15	0	475	107	50	57	119
Chalkyitsik	0	0	132	0	0	0	0	0	0	0	0	26	0
Chandalar/Black River Subtotal	0	166	132	106	13	0	15	0	475	107	50	83	119
District 5 Total	2,314	2,276	3,641	2,856	5,610	5,545	3,411	6,800	11,845	8,846	3,537	3,339	7,289
Manley	211	272	240	338	93	65	296	163	89	140	144	231	151
Minto	148	173	3	19	10	625	7	21	460	82	9	71	239
Nenana	5,041	1,894	775	19	360	2,193	1,171	1,771	388	1,419	753	1,618	1,388
Fairbanks ^e	604	315	90	36	47	31	308	45	73	255	94	218	142
Other ^f	0	0	3	0	2	0	11	14	0	0	311	1	5
District 6 Tanana R. Total	6,004	2,654	1,111	412	512	2,914	1,793	2,014	1,010	1,896	1,311	2,139	1,925
Upper Yukon River Total	26,364	20,269	11,798	7,856	22,093	25,972	20,163	21,164	27,852	26,998	18,365	17,676	24,430
Alaska, Yukon River Total ^g	86,004	70,323	64,895	58,239	72,260	68,304	69,672	78,902	90,922	76,770	68,394	70,344	76,914
Alaska, Yukon Area Total	87,366	83,784	78,072	72,155	87,056	82,272	77,934	93,259	115,093	92,891	86,514	81,687	92,290

^a Rampart area harvest as reported from subsistence fishing permits established by the Board of Fisheries (BOF) in 2004.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Includes Birch Creek harvest of one summer chum salmon in 1997.

^d Other permit holders who fished in District 5 but did not reside in the communities listed.

^e Harvests by Fairbanks subsistence permit holders who fished in the Tanana River. Does not include harvest by personal use permit holders.

^f Other permit holders who fished in District 6 but did not reside in the communities listed.

^g Does not include the Coastal District.

Appendix B3.—Fall chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1998–2008.

Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002	2003-2007
												Average	Average
Hooper Bay	0	0	78	364	44	40	264	1	146	64	329	97	103
Scammon Bay	34	204	11	195	240	106	56	69	41	170	57	137	88
Coastal District Total	34	204	89	559	284	146	320	70	187	234	386	234	191
Nunam Iqua	266	115	105	176	284	127	49	310	735	152	59	189	275
Alakanuk	665	558	505	1,032	222	348	953	627	624	1,348	423	596	780
Emmonak	867	1,849	1,165	1,272	1,261	1,257	785	1,436	2,056	2,360	1,670	1,283	1,579
Kotlik	1,365	3,980	3,519	957	114	407	280	516	487	530	671	1,987	444
District 1 Subtotal	3,163	6,502	5,294	3,437	1,881	2,139	2,067	2,889	3,902	4,390	2,823	4,055	3,077
Mountain Village	2,031	1,968	313	470	478	873	918	1,290	2,398	1,073	926	1,052	1,310
Pitkas Point	233	53	5	34	16	49	0	6	5	44	101	68	21
St. Mary's	416	722	255	227	103	762	104	490	417	825	830	345	520
Pilot Station	1,162	1,155	852	1,522	680	823	1,108	838	785	741	917	1,074	859
Marshall	640	696	0	1,003	341	394	291	633	410	789	748	536	503
District 2 Subtotal	4,482	4,594	1,425	3,256	1,618	2,901	2,421	3,257	4,015	3,472	3,522	3,075	3,213
Russian Mission	137	100	37	76	164	615	172	667	251	530	578	103	447
Holy Cross	1,095	239	523	624	0	9	76	582	224	248	920	496	228
Shageluk	329	76	38	0	0	114	50	55	5	147	323	89	74
District 3 Subtotal	1,561	415	598	700	164	738	298	1,304	480	925	1,821	688	749
Lower Yukon River Total	9,206	11,511	7,317	7,393	3,663	5,778	4,786	7,450	8,397	8,787	8,166	7,818	7,040
Anvik	388	126	175	29	401	179	398	497	118	429	317	224	324
Grayling	648	1,370	284	314	52	441	267	1,009	691	317	1,012	534	545
Kaltag	499	764	190	607	314	725	687	1,089	823	910	620	475	847
Nulato	367	2,338	0	151	0	1,341	1,246	421	751	1,345	729	571	1,021
Koyukuk	1,583	1,544	239	517	255	835	344	803	1,147	927	1,177	828	811
Galena	1,915	1,932	564	420	349	1,510	1,587	2,695	1,632	1,471	1,364	1,036	1,779
Ruby/Kokrines	2,427	907	64	581	78	2,331	1,064	559	227	1,959	657	811	1,228
District 4 Subtotal	7,827	8,981	1,516	2,619	1,449	7,362	5,593	7,073	5,389	7,358	5,876	4,478	6,555
(Excluding Koyukuk River)													
Huslia	0	89	35	683	0	1,786	1,139	1,614	313	272	64	161	1,025
Hughes	60	84	157	0	0	497	97	111	240	0	127	60	189
Allakaket	11	20	36	50	100	105	968	557	393	939	1,345	43	592
Alatna	0	0	15	0	0	0	0	0	0	7	0	3	1
Bettles	0	0	0	0	0	0	0	50	0	0	0	0	10
Koyukuk River Subtotal	71	193	243	733	100	2,388	2,204	2,332	946	1,218	1,536	268	1,818
District 4 Total	7,898	9,174	1,759	3,352	1,549	9,750	7,797	9,405	6,335	8,576	7,412	4,746	8,373

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Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002	2003-2007
												Average	Average
Tanana	24,956	22,305	9,384	9,779	6,255	14,308	23,118	20,545	23,167	21,596	17,478	14,536	20,547
Rampart ^a	100	4,324	0	183	0	365	0	358	250	250	1,000	921	245
Fairbanks ^b	96	681	8	0	0	105	43	1,682	5,269	2,126	659	157	1,845
Stevens Village	1,076	20	10	20	0	857	1,080	246	50	199	643	225	486
Beaver	409	16	0	21	1	192	48	179	0	354	13	89	155
Ft. Yukon ^c	3,035	9,702	355	2,209	3,523	7,963	7,302	8,088	5,178	6,010	14,252	3,765	6,908
Circle	37	2,722	0	2,588	74	499	1,022	918	664	1,286	3,198	1,084	878
Central	0	0	0	0	0	0	0	36	0	0	0	0	7
Eagle	543	11,292	32	2,714	339	2,871	5,482	17,356	16,786	18,676	15,269	2,984	12,234
Other ^d	50	65	1	0	100	0	13	117	44	26	3,183	43	40
District 5 Subtotal	30,302	51,127	9,790	17,514	10,292	27,160	38,108	49,525	51,408	50,523	55,695	23,805	43,345
(Excluding Chandalar and Black Rivers)													
Venetie	658	2,011	130	3,286	680	770	2,083	1,801	520	721	1,563	1,353	1,179
Chalkyitsik	433	442	0	73	4	340	479	337	215	213	0	190	317
Chandalar/Black River Subtotal	1,091	2,453	130	3,359	684	1,110	2,562	2,138	735	934	1,563	1,543	1,496
District 5 Total	31,393	53,580	9,920	20,873	10,976	28,270	40,670	51,663	52,143	51,457	57,258	25,348	44,841
Manley	4,411	5,172	0	1,230	947	1,303	1,504	2,985	3,374	3,419	2,490	2,352	2,517
Minto	505	781	2	251	100	675	0	600	242	155	28	328	334
Nenana	6,781	5,619	8	999	1,070	7,802	5,367	10,594	10,530	21,863	6,585	2,895	11,231
Fairbanks ^e	960	1,630	0	191	229	1,949	1,024	6,691	1,311	3,325	340	602	2,860
Other ^f	1,713	2,269	300	855	856	1,257	1,058	2,076	1,468	1,131	6,692	1,199	1,398
District 6 Tanana R. Total	14,370	15,471	310	3,526	3,202	12,986	8,953	22,946	16,925	29,893	16,135	7,376	18,341
Upper Yukon River Total	53,661	78,225	11,989	27,751	15,727	51,006	57,420	84,014	75,403	89,926	80,805	37,471	71,554
Alaska, Yukon River Total ^g	62,867	89,736	19,306	35,144	19,390	56,784	62,206	91,464	83,800	98,713	88,971	45,289	78,593
Alaska, Yukon Area Total	62,901	89,940	19,395	35,703	19,674	56,930	62,526	91,534	83,987	98,947	89,357	45,523	78,785

^a Rampart area harvest as reported from subsistence fishing permits established by the Board of Fisheries (BOF) in 2004.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Includes Birch Creek harvest of zero fall chum salmon for all years surveyed.

^d Other permit holders who fished in District 5 but did not reside in the communities listed.

^e Harvests by Fairbanks subsistence permit holders who fished in the Tanana River. Does not include harvest by personal use permit holders.

^f Other permits holders who fished in District 6 but did not reside in the communities listed.

^g Does not include the Coastal District.

Appendix B4.–Coho salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1998–2008.

Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002 Average	2003-2007 Average
Hooper Bay	145	68	218	439	125	244	9	0	175	26	66	199	91
Scammon Bay	204	0	4	63	123	48	54	279	160	84	50	79	125
Coastal District Total	349	68	222	502	248	292	63	279	335	110	116	278	216
Nunam Iqua	229	51	5	32	56	117	79	241	392	92	24	75	184
Alakanuk	292	108	84	414	183	193	207	322	101	857	157	216	336
Emmonak	696	525	191	342	514	547	296	191	450	1,032	717	454	503
Kotlik	954	1,046	787	486	542	403	593	222	234	284	313	763	347
District 1 Subtotal	2,171	1,730	1,067	1,274	1,295	1,260	1,175	976	1,177	2,265	1,211	1,507	1,371
Mountain Village	954	665	376	423	361	745	521	246	1,856	1,027	518	556	879
Pitkas Point	305	302	139	112	47	130	0	30	16	38	130	181	43
St. Mary's	290	536	117	610	209	276	258	252	171	97	591	352	211
Pilot Station	413	249	1,708	222	230	371	296	241	225	263	268	564	279
Marshall	335	1,041	11	73	386	64	425	341	191	922	490	369	389
District 2 Subtotal	2,297	2,793	2,351	1,440	1,233	1,586	1,500	1,110	2,459	2,347	1,997	2,023	1,800
Russian Mission	233	542	24	0	115	178	151	133	19	259	372	183	148
Holy Cross	100	62	70	0	0	498	27	84	16	213	38	46	168
Shageluk	67	6	0	0	0	35	106	0	48	267	0	15	91
District 3 Subtotal	400	610	94	0	115	711	284	217	83	739	410	244	407
Lower Yukon River Total	4,868	5,133	3,512	2,714	2,643	3,557	2,959	2,303	3,719	5,351	3,618	3,774	3,578
Anvik	20	282	0	13	0	12	288	406	0	807	40	63	303
Grayling	133	201	372	144	30	559	233	234	224	271	25	176	304
Kaltag	71	333	110	533	212	463	138	307	106	204	45	252	244
Nulato	34	170	60	258	78	928	203	60	214	130	195	120	307
Koyukuk	421	295	138	80	249	1,155	166	37	330	189	84	237	375
Galena	322	123	71	142	169	1,507	1,307	607	137	425	558	165	797
Ruby/Kokrines	1,459	620	173	871	69	648	1,540	361	11	168	291	638	546
District 4 Subtotal	2,460	2,024	924	2,041	807	5,272	3,875	2,012	1,022	2,194	1,238	1,651	2,875
(Excluding Koyukuk River)													
Huslia	128	15	132	83	60	375	764	734	105	592	100	84	514
Hughes	5	10	12	117	100	20	110	20	150	100	0	49	80
Allakaket	0	0	0	25	56	99	17	205	25	66	152	16	82
Alatna	0	0	0	0	0	7	0	0	0	0	0	0	1
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River Subtotal	133	25	144	225	216	501	891	959	280	758	252	149	678
District 4 Total	2,593	2,049	1,068	2,266	1,023	5,773	4,766	2,971	1,302	2,952	1,490	1,800	3,553

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Community	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1998-2002	2003-2007
												Average	Average
Tanana	2,572	3,989	4,826	6,675	2,032	3,480	1,049	1,616	3,619	2,369	1,511	4,019	2,427
Rampart ^a	20	126	0	0	0	0	0	10	0	50	0	29	12
Fairbanks ^b	11	0	2	11	0	120	91	10	79	26	7	5	65
Stevens Village	63	0	0	2	0	0	100	0	0	0	0	13	20
Beaver	0	0	0	0	17	0	0	0	0	354	6	3	71
Fort Yukon ^c	39	124	129	972	14	0	19	394	35	2,821	1,618	256	654
Circle	0	0	0	0	0	244	100	100	22	0	0	0	93
Central	0	0	0	0	0	0	0	1	0	0	0	0	0
Eagle	132	0	0	0	1	0	14	15	0	0	0	27	6
Other ^d	2	2	30	0	0	25	0	13	0	0	61	7	8
District 5 Subtotal	2,839	4,241	4,987	7,660	2,064	3,869	1,373	2,159	3,755	5,620	3,203	4,358	3,355
(Excluding Chandalar and Black Rivers)													
Venetie	0	0	0	10	12	11	5	0	24	0	0	4	8
Chalkyitsik	0	0	0	4	0	7	45	0	0	0	0	1	10
Chandalar/Black River Subtotal	0	0	0	14	12	18	50	0	24	0	0	5	18
District 5 Total	2,839	4,241	4,987	7,674	2,076	3,887	1,423	2,159	3,779	5,620	3,203	4,363	3,374
Manley	2,362	3,244	2,180	2,637	1,617	886	1,384	2,510	1,671	1,126	1,901	2,408	1,515
Minto	31	0	3	0	250	423	5	0	14	155	0	57	119
Nenana	3,519	4,023	1,767	4,443	3,574	5,431	6,494	12,395	7,032	4,487	2,775	3,465	7,168
Fairbanks ^e	786	868	0	68	1,024	1,049	1,435	3,032	745	609	230	549	1,374
Other ^f	774	1,259	1,200	1,818	3,034	2,574	2,266	1,601	1,109	1,468	3,522	1,617	1,804
District 6 Tanana River Total	7,472	9,394	5,150	8,966	9,499	10,363	11,584	19,538	10,571	7,845	8,428	8,096	11,980
Upper Yukon Area Total	12,904	15,684	11,205	18,906	12,598	20,023	17,773	24,668	15,652	16,417	13,121	14,259	18,907
Alaska, Yukon River Total ^g	17,772	20,817	14,717	21,620	15,241	23,580	20,732	26,971	19,371	21,768	16,739	18,033	22,484
Alaska, Yukon Area Total	18,121	20,885	14,939	22,122	15,489	23,872	20,795	27,250	19,706	21,878	16,855	18,311	22,700

^a Rampart area harvest as reported from subsistence fishing permits established by the Board of Fisheries (BOF) in 2004.

^b Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^c Includes Birch Creek harvest of three coho salmon in 1997.

^d Other permit holders who fished in District 5 but did not reside in the communities listed.

^e Harvests by Fairbanks subsistence permit holders who fished in the Tanana River. Does not include harvest by personal use permit holders.

^f Other permits holders who fished in District 6 but did not reside in the communities listed.

^g Does not include the Coastal District.

Appendix B5.–Personal use salmon harvests taken under authority of a permit, Tanana River drainage, 1987–2008.

Subdistrict 6-C Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	132 ^a	-	60 ^b			3,316	2,465
1988	208	162	120	317	1,182	2,074	1,125
1989	175	160	112	397	991	1,770	731
1990	152	144	102	442	918	1,353	1,120
1991 ^c	-	-	-	-	-	-	-
1992 ^c	-	-	-	-	-	-	-
1993	133	131	79	426	674	163	0
1994 ^c	-	-	-	-	-	-	-
1995	139	138	91	399	780	863	417
1996	129	125	73	215	905	356	198
1997	112	109	61	313	391	284	350
1998	103	101	52	357	84	2	9
1999 ^d	103	103	67	331	382	261	147
2000	70	69	16	75	30	1	0
2001	54	51	24	122	146	10	34
2002	57	55	29	126	175	3	20
2003	67	67	32	204	148	394	549
2004	68	66	35	201	231	230	233
2005	63	59	27	138	152	133	107
2006	60	60	35	89	262	333	279
2007	65	63	32	136	184	173	135
2008	51	50	25	126	138	181	50
Five Year Average							
2003-2007	65	63	32	154	195	253	261
Ten Year Average							
1998-2007	71	69	35	178	179	154	151
Subdistrict 6-A Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	0	0	0	0	0
1989	1	1	1	0	4	0	0
1990	1	1	0	0	0	0	0
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 ^e	no permits issued						
1988-1990							
Average	1	1	0	0	1	0	0

-continued-

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Subdistrict 6-B Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	1	306	60	40	22
1989	1	1	1	56	220	0	0
1990	4	4	3	9	12	40	35
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 ^e	no permits issued						
1988-1990							
Average	2	2	2	124	97	27	19

Upper Tanana River Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	no permits issued						
1989	no permits issued						
1990	no permits issued						
1991 ^f	no permits issued						

^a Includes 60 former subsistence fishermen who were reissued personal use permits to fish for fall chum salmon.

^b Some fishing families used both subsistence and personal use permits.

^c From July 1, 1990 through 1992, and in 1994, the regulations did not provide for a personal use fishery in this area.

^d Does not include 4 whitefish and sucker fishery permit holders, 2 of which fished, who reported a total harvest of 1 fall chum and 6 coho salmon in 1999.

^e After 1997 the regulations did not provide for a personal use fishery in this area.

^f After July 1, 1991 the regulations did not provide for a personal use salmon fishery in this area.

Appendix B6.—Subsistence salmon harvests taken under authority of a permit in portions of District 5, Yukon Area, 1974–2008.

Yukon River "Bridge" Area Subsistence Salmon Fishery ^a								
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest				
				Summer		Fall		Coho
				Chinook	Chum ^b	Chum ^b	Chum ^b	
1974	29	-	-	591	-	1,857	1,271	
1975	19	-	-	727	-	778	70	
1976	28	-	18	531	-	974	-	
1977	38	-	-	467	-	2,567	-	
1978	57	-	-	1,333	-	9,735	-	
1979	55	-	41	2,194	-	12,374	-	
1980	70	-	67	1,350	-	6,488	36	
1981	57	-	24	1,095	-	12,034	-	
1982	64	-	44	1,935	-	11,328	20	
1983	68	-	46	2,672	-	15,059	-	
1984	67	-	54	4,676	-	27,869	399	
1985	55	-	42	2,618	-	21,832	33	
1986	76	-	58	3,827	-	18,690	759	
1987	16	-	14	1,818	2,091	7,631	6	
1988	24	21	18	1,747	2,097	3,183	606	
1989	26	20	13	2,483	574	1,157	309	
1990	26	25	16	2,033	3,493	1,109	455	
1991	52	46	34	2,529	1,295	3,953	20	
1992	45	42	33	2,241	975	2,491	34	
1993	49	47	36	3,767	492	2,915	16	
1994	50	49	36	3,073	384	2,911	25	
1995	59	59	39	3,253	954	2,244	59	
1996	47	45	31	1,157	3,475	2,727	42	
1997	44	42	28	1,588	683	491	26	
1998	48	47	31	1,685	103	156	15	
1999	66	64	47	1,653	356	701	2	
2000	56	52	33	1,607	324	8	32	
2001	65	62	38	1,819	176	0	13	
2002	60	58	45	2,285	320	100	0	
2003	86	80	62	2,670	89	104	145	
2004	69	67	51	2,032	164	43	91	
2005	76	72	57	1,847	643	17	9	
2006	68	66	53	1,952	1,063	4,855	79	
2007	85	79	50	1,689	142	626	26	
2008	73	68	44	1,434	130	705	7	
Five Year Average								
2003-2007	77	73	55	2,038	420	1,129	70	
Ten Year Average								
1998-2007	68	65	47	1,924	338	661	41	

Yukon River "Rampart Village" Area Subsistence Salmon Fishery ^c								
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest				
				Summer		Fall		Coho
				Chinook	Chum	Chum	Chum	
2004	14	11	9	832		249	0	0
2005	22	19	17	1,721		663	2,023	10
2006	19	19	16	1,083		647	318	0
2007	23	19	15	1,744		495	2,050	50
2008	18	18	15	1,049		43	1,000	0
Five Year Average								
2004-2008	19	17	14	1,286		419	1,078	12

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Upper Yukon River "Circle-Eagle" Area Subsistence Salmon Fishery ^d							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum ^b	Fall Chum ^b	Coho
1979	75	-	6	4,063	-	30,475	114
1980	48	-	39	3,649	-	18,477	6
1981	71	-	51	4,510	-	38,333	-
1982	60	-	61	3,833	-	15,432	-
1983	53	-	52	2,831	-	23,708	-
1984	58	-	54	2,543	-	21,675	17
1985	59	-	36	2,419	-	19,059	2
1986	40	-	52	4,148	-	20,701	43
1987	51	51	58 ^e	3,602	2,495	27,369	0
1988	58	57	50	2,783	2,134	9,078	101
1989	59	56	42	1,186	68	7,515	1
1990	81	75	54	3,746	1,629	14,992	206
1991	70	69	48	3,219	658	14,898	5
1992	85	79	54	2,984	409	12,009	57
1993	79	79	49	1,910	118	2,419	95
1994	79	76	51	3,093	145	12,844	30
1995	87	87	53	3,628	129	19,047	1
1996	86	84	51	3,458	528	20,861	1
1997	98	93	60	3,148	393	18,616	212
1998	101	95	54	3,562	55	630	132
1999	119	116	71	3,404	364	14,079	0
2000	121	118	47	1,806	233	33	0
2001	98	93	33	1,688	561	5,322	0
2002	94	87	42	3,877	29	418	1
2003	95	85	58	3,406	189	3,374	0
2004	89	83	50	2,304	223	6,517	114
2005	89	81	55	4,004	241	18,427	130
2006	85	82	59	3,302	1,034	17,866	22
2007	78	71	50	3,548	218	19,985	0
2008 ^f	96	87	50	1,808	19	18,496	0
Five Year Average							
2003-2007	87	80	54	3,313	381	13,234	53
Ten Year Average							
1998-2007	97	91	52	3,090	315	8,665	40

Note: Prior to 1988 reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded.

^a That portion of the Yukon River drainage from Hess Creek to Dall River.

^b Summer chum and fall chum salmon undifferentiated from 1974–1986.

^c That portion of the Yukon River drainage from Garnet Island to Hess Creek. 2004 was the first year of permit requirement.

^d That portion of the Yukon River drainage from the upstream mouth of Twenty-Two Mile Slough (downstream of Circle) to the United States/Canadian border.

^e Harvest was reported from some fishermen who did not have permits.

^f Three households fished in both SE and the new SEU sub-area. These duplicates are included in the permit numbers.

Appendix B7.—Subsistence salmon harvests taken under authority of a permit, Tanana River drainage, 1973–2008.

Subdistrict 6-A Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988	^a 28	24	18	845	1,389	9,165	3,455
1989	^{a, b} 29	28	24	^c 651	1,918	25,266	5,292
1990	^b 42	36	26	1,369	2,250	27,957	8,408
1991	45	41	31	420	1,716	17,472	8,486
1992	38	35	26	508	450	5,999	5,028
1993	^b 42	41	22	331	784	2,617	1,317
1994	^d 37	37	30	576	3,793	18,076	12,449
1995	41	38	29	456	4,898	23,522	11,344
1996	31	29	23	209	1,338	18,931	5,959
1997	33	32	21	887	542	10,621	3,703
1998	31	31	19	512	519	4,726	1,526
1999	24	24	14	137	525	5,712	3,464
2000	24	24	12	80	240	0	2,441
2001	26	24	14	398	327	1,541	3,319
2002	24	23	20	542	101	1,341	2,246
2003	23	21	13	276	65	2,445	2,514
2004	23	23	12	339	308	2,148	2,004
2005	24	22	15	424	168	4,317	2,659
2006	24	24	18	503	114	3,694	2,283
2007	22	22	14	333	144	3,779	2,121
2008	38	35	19	115	241	2,583	2,002
Five Year Average 2003-2007	23	22	14	375	160	3,277	2,316
Ten Year Average 1998-2007	25	24	15	354	251	2,970	2,458

Subdistrict 6-B Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest ^e			
				Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989	^f 60	51	37	^d 455	363	18,506	8,453
1990	^f 70	58	38	1,234	1,966	16,332	9,155
1991	^f 87	78	51	1,796	2,373	21,629	11,971
1992	^f 98	89	57	1,587	7,820	18,782	11,409
1993	99	89	38	1,341	5,976	7,166	2,987
1994	102	94	49	1,337	2,035	13,726	12,480
1995	98	98	59	1,322	6,712	25,364	7,458
1996	105	96	59	968	6,138	17,439	8,934
1997	103	95	55	1,825	3,282	8,729	7,892
1998	94	84	46	1,407	5,485	9,573	5,937
1999	83	79	47	1,487	2,129	9,757	5,930
2000	81	79	33	903	869	210	2,709
2001	87	81	44	1,511	74	1,983	5,646
2002	62	60	25	525	711	2,193	8,032
2003	77	72	40	1,839	2,849	10,537	7,849
2004	60	56	30	1,049	1,485	6,805	9,580
2005	70	67	29	1,404	1,846	15,367	9,659
2006	78	76	42	423	885	13,047	7,897
2007	79	184	93	1,139	1,752	12,478	5,160
2008	73	71	35	486	854	7,815	4,009
Five Year Average 2003-2007	73	91	47	1,171	1,763	11,647	8,029
Ten Year Average 1998-2007	77	84	43	1,169	1,809	8,195	6,840

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Upper Tanana River Drainage Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990	1	1	0	0	0	0	0
1991	8	7	6	0	0	288	14
1992	11	11	4	0	0	36	1
1993	10	10	8	0	0	5	0
1994	7	7	3	0	0	202	15
1995	50	46	12	0	0	88	0
1996	42	39	15	0	10	97	0
1997	61	58	26	0	0	200	0
1998	46	46	17	0	0	71	9
1999	29	29	13	0	0	2	0
2000	41	36	16	0	2	100	0
2001	57	50	22	0	0	2	1
2002	32	31	16	0	0	25	0
2003	38	32	17	30	0	4	0
2004	35	30	14	0	0	0	0
2005	29	24	13	0	0	15	0
2006	23	22	17	0	0	10	0
2007	34	33	17	0	0	41	5
2008	58	50	19	0	0	17	6
Five Year Average							
2003-2007	32	28	16	6	0	14	1
Ten Year Average							
1998-2007	36	33	16	3	0	27	2
Subdistrict 6-C Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho ^g
1973	22	-	4	26	771	886	-
1974	70	-	-	38	1,373	1,580	-
1975	36	-	-	32	751	864	-
1976	110	-	-	31	1,314	1,512	-
1977	89	-	33	81	118	607	-
1978	160	-	126	126	2,729	1,188	-
1979	246	-	199	264	2,384	4,459	-
1980	315	-	254	282	3,729	4,059	-
1981	346	-	228	440	3,239	5,770	-
1982	330	-	209	451	2,708	4,521	-
1983	259	-	147	475	2,276	3,830	-
1984	308	-	212	321	3,177	5,134	-
1985	291	-	155	326	2,646	3,937	-
1986	323	-	211	637	4,031	4,437	-
1987 ^h	217	-	123	531	2,739	0	0
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990 ⁱ	19	18	6	15	69	279	50
1991	149	142	98	299	980	1,080	1,089
1992	149	146	90	343	1,234	896	1,116
1993 ^j	0	0	0	0	0	0	0
1994 ^{k, l}	145	142	107	457	1,198	1,600	1,545
All Years							
Average	163	64	116	235	1,703	2,120	475

-continued-

Note: Prior to 1988 reported harvest was expanded for unreturned permits. Beginning in 1988, reported harvest was not expanded. Dashes in the table indicate the information is not available.

- ^a Many Subdistrict 6-A fishermen did not obtain a permit in 1988 and 1989.
- ^b Includes salmon given away as part of ADF&G's test fishing project in Manley.
- ^c Harvest was reported from some fishermen who did not have permits.
- ^d Beginning in 1994, a separate Kantishna River drainage permit was required. The previous Subdistrict 6-A harvest totals include those from the Kantishna River drainage.
- ^e Includes small numbers of salmon harvested and reported from the Tolovana River drainage (Subdistrict 6-B) subsistence pike permit, established in 1993.
- ^f Includes salmon given away as part of ADF&G's test fish project in Nenana.
- ^g Prior to 1988 fall chum and coho salmon were not reported as separate species.
- ^h Personal use fishery established for nonrural residents beginning in July of 1987.
- ⁱ Some fishermen had both personal use and subsistence permits. The McDowell Decision became effective July 1990 (midway through the season), and stated that all Alaskan residents were eligible subsistence participants.
- ^j Personal use fishery was established for those fishing for salmon in the Fairbanks Nonsubsistence Area, which includes all of Subdistrict 6-C.
- ^k No personal use permits were issued in 1994 for this area.
- ^l After 1994 subsistence regulations were repealed within the Fairbanks Nonsubsistence Area, which includes all of Subdistrict 6-C.

Appendix B8.—Reported number of salmon distributed from test fish projects, Yukon Area, 1992–2008.

Chinook Salmon ^a																	
Year	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						Total
	Test Fish	Lower	Mountain	Pilot	Russian				Fort								
	Lower Yukon	Yukon	Village	Station	Marshall	Marshall ^b	Mission ^c	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Yukon	
1992	1,715	-	-	-	-	-	-	-	-	-	-	0	-	113	-	-	1,828
1993	1,584	-	-	471	-	-	-	-	-	-	-	0	-	0	0	-	2,055
1994	1,985	-	-	334	-	-	-	-	-	-	-	0	-	0	0	-	2,319
1995	1,715	-	1	166	-	-	-	-	-	-	2	1	-	0	0	0	1,885
1996	1,355	-	0	0	-	-	-	-	-	-	-	0	-	0	0	0	1,355
1997	1,825	-	2	330	-	-	-	-	-	-	-	0	-	0	0	-	2,157
1998	1,035	-	8	435	-	-	-	-	-	-	-	0	-	0	0	-	1,478
1999	1,656	-	1	359	773	-	-	1	-	-	-	0	-	0	0	-	2,790
2000	1,344	-	0	450	1,024	11	23	0	-	-	-	-	0	0	0	-	2,852
2001	1,379	535	0	561	-	27	11	0	-	-	-	-	0	0	-	-	2,513
2002	1,268	253	0	545	-	8	18	0	-	-	-	-	0	0	0	-	2,092
2003	^c	374	0	846	-	-	33	0	0	-	-	-	0	0	0	-	1,253
2004	^c	1,158	0	665	-	-	20	0	-	-	-	-	0	0	0	-	1,843
2005	^c	1,430	0	699	-	-	-	0	-	179	-	-	0	0	0	-	2,308
2006	^c	1,367	0	366	362	-	-	0	-	20	-	-	0	38	0	-	2,153
2007	^c	1,240	1	448	262	-	-	2	-	12	-	-	-	-	-	-	1,965
2008	^c	2,189 ^d	0	389	693	-	-	0	-	6	-	-	-	-	-	-	3,277
Five Year Average																	
2003 to 2007	-	1,114	0	605	312	-	27	0	-	70	-	-	0	10	0	-	1,904
Summer Chum Salmon ^a																	
Year	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						Total
	Test Fish	Lower	Mountain	Pilot	Russian				Fort								
	Lower Yukon	Yukon	Village	Station	Marshall	Marshall ^b	Mission ^c	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Yukon	
1992	3,989	-	-	-	-	-	-	-	-	-	-	0	-	112	-	-	4,101
1993	4,111	-	-	2,098	-	-	-	-	-	-	-	33	-	0	0	-	6,242
1994	7,060	-	-	2,998	-	-	-	-	-	-	-	0	-	0	0	-	10,058
1995	6,382	-	0	1,875	-	-	-	-	-	-	57	50	-	0	0	0	8,364
1996	7,052	-	0	276	-	-	-	-	-	-	-	0	-	0	0	0	7,328
1997	4,539	-	0	2,420	-	-	-	-	-	-	-	0	-	0	0	-	6,959
1998	2,290	-	0	2,209	-	-	-	-	-	-	-	0	-	0	147	-	4,646
1999	2,717	-	0	1,636	181	-	-	0	-	-	-	0	-	0	0	-	4,534
2000	2,499	-	0	2,141	335	0	0	0	-	-	-	-	5	0	0	-	4,980
2001	211	1,787	0	1,696	-	1	2	0	-	-	-	-	0	0	-	-	3,697
2002	199	2,209	0	2,174	-	10	0	0	-	-	-	-	0	0	0	-	4,592
2003	^c	1,801	0	2,060	-	-	5	0	0	-	-	-	0	0	0	-	3,866
2004	^c	868	0	1,848	-	-	29	0	-	-	-	-	0	0	0	-	2,745
2005	^c	1,765	0	1,612	-	-	-	0	-	2	-	-	0	0	0	-	3,379
2006	^c	2,192	0	1,175	238	-	-	0	-	15	-	-	0	0	0	-	3,620
2007	^c	933	200	1,100	126	-	-	0	-	0	-	-	-	-	-	-	2,359
2008	^c	2,593 ^d	0	1,338	345	-	-	0	-	0	-	-	-	-	-	-	4,276
Five Year Average																	
2003 to 2007	199	1,512	40	1,559	182	-	17	0	0	6	-	-	0	0	0	-	3,194

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Fall Chum Salmon ^a																	
Year	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						Total
	Test Fish	Lower	Mountain	Pilot	Russian				Fort								
	Lower Yukon	Yukon	Village	Station	Marshall	Marshall ^b	Mission ^c	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Yukon	
1992	2,462	-	-	-	-	-	-	-	-	-	-	0	-	110	-	-	2,572
1993	3,692	-	-	652	-	-	-	-	-	-	-	65	-	0	0	-	4,409
1994	2,566	-	-	1,349	-	-	-	-	-	-	-	0	-	7	1,895	-	5,817
1995	2,408	-	523	541	-	-	-	-	-	-	199	194	-	0	1,876	1,570	7,311
1996	1,421	-	319	150	-	-	-	-	-	-	-	0	-	0	0	1,081	2,971
1997	1,466	-	962	997	-	-	-	-	-	-	-	0	-	0	0	-	3,425
1998	2,000	-	664	1,110	-	-	-	-	-	-	-	0	-	0	0	-	3,774
1999	4,061	-	1,008	968	0	-	-	483	-	-	-	0	-	0	0	-	6,520
2000	2,921	-	269	834	0	0	0	190	-	-	-	-	0	0	0	-	4,214
2001	-	1,694	339	1,492	-	0	0	494	-	-	-	-	0	0	0	-	4,019
2002	-	1,050	175	680	-	0	0	314	-	-	-	-	0	0	0	-	2,219
2003	-	1,247	328	823	-	-	0	457	873	-	-	-	0	0	0	-	3,728
2004	-	635	425	726	-	-	0	592	-	-	-	-	0	0	0	-	2,378
2005	-	1,118	758	821	-	-	-	744	-	0	-	-	0	0	0	-	3,441
2006	-	880	621	664	0	-	-	672	-	0	-	-	0	159	0	-	2,996
2007	-	1,219	567	703	0	-	-	536	-	3	-	-	-	-	-	-	3,028
2008	-	878	494	756	0	-	-	461	-	3	-	-	-	-	-	-	2,592
Five Year Average																	
2003 to 2007	-	1,020	540	747	0	-	0	600	-	1	-	-	0	40	0	-	3,114
Coho Salmon ^a																	
Year	Set Gillnet	Drift Gillnet Test Fish Projects									Test Fish Wheel Projects						Total
	Test Fish	Lower	Mountain	Pilot	Russian				Fort								
	Lower Yukon	Yukon	Village	Station	Marshall	Marshall ^b	Mission ^c	Kaltag	Rampart	Eagle	Galena	Manley	Kantishna	Nenana	Tanana	Yukon	
1992	2,557	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	2,557
1993	1,210	-	-	222	-	-	-	-	-	-	-	0	-	0	0	-	1,432
1994	2,033	-	-	786	-	-	-	-	-	-	-	0	-	0	266	-	3,085
1995	579	-	559	205	-	-	-	-	-	-	0	0	-	0	164	0	1,507
1996	755	-	228	25	-	-	-	-	-	-	-	0	-	0	0	0	1,008
1997	593	-	309	283	-	-	-	-	-	-	-	0	-	0	0	-	1,185
1998	792	-	567	364	-	-	-	-	-	-	-	0	-	0	0	-	1,723
1999	649	-	2	180	0	-	-	70	-	-	-	0	-	0	0	-	901
2000	949	-	313	1,705	0	0	0	110	-	-	-	-	322	0	0	-	3,399
2001	-	492	302	180	-	0	0	251	-	-	-	-	0	0	0	-	1,225
2002	-	374	155	225	-	0	0	158	-	-	-	-	0	0	0	-	912
2003	-	635	362	371	-	-	0	23	0	-	-	-	0	0	0	-	1,391
2004	-	152	285	236	-	-	0	128	-	-	-	-	0	0	0	-	801
2005	-	112	107	241	-	-	-	120	-	0	-	-	0	0	0	-	580
2006	-	144	204	193	0	-	-	37	-	0	-	-	0	389	0	-	967
2007	-	466	434	231	0	-	-	133	-	0	-	-	-	-	-	-	1,264
2008	-	235	209	116	0	-	-	45	-	0	-	-	-	-	-	-	605
Five Year Average																	
2003 to 2007	-	302	278	254	0	-	0	88	0	0	-	-	0	97	0	-	1,001

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Note: Dashes indicate test fish project was not in operation.

- ^a Does not include salmon that were accounted for by using the survey or permit methods.
- ^b Chinook salmon radio telemetry project.
- ^c Salmon caught in the Lower Yukon “set” gillnet test fishery are included with Lower Yukon “drift” gillnet totals.
- ^d Includes 202 Chinook and 254 summer chum salmon caught in the 2008 Emmonak Chinook mesh size study.

Appendix B9.—Estimated pink salmon subsistence harvest by residents of surveyed communities, with community and district totals, Yukon Area, 1995–2008.

Community	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Estimated Total		
													Even Years Average	Odd Years Average	1998 to 2007 Average
Hooper Bay	265	1,941	99	902	32	5,475	473	5,418	860	1,433	113	1,013	3,034	346	1,675
Scammon Bay	0	1,791	527	96	362	417	997	2,508	1,645	1,381	1,435	2,766	1,239	706	1,116
Coastal District	265	3,732	626	998	394	5,892	1,470	7,926	2,505	2,814	1,548	3,779	4,272	1,052	2,790
Nunam Iqua	1	299	0	0	0	10	5	32	132	555	170	757	179	28	120
Alakanuk	33	239	0	38	0	130	0	233	49	115	32	494	151	16	84
Emmonak	35	145	17	0	9	39	4	32	54	225	51	641	88	24	58
Kotlik	0	907	15	263	0	849	198	318	155	219	129	1,161	511	74	305
District 1	69	1,590	32	301	9	1,028	207	615	390	1,114	382	3,053	930	141	567
Mountain Village	10	753	0	61	0	745	117	891	78	616	87	500	613	41	335
Pitkas Point	101	330	12	114	0	35	0	0	2	44	66	15	105	23	60
St. Mary's	4	467	1	54	0	7	0	137	144	236	32	367	180	30	108
Pilot Station	0	0	8	6	0	22	0	5	0	1	0	34	7	2	4
Marshall	0	0	0	0	0	473	0	105	6	3	0	26	116	1	59
District 2	115	1,550	21	235	0	1,282	117	1,138	230	900	185	942	1,021	97	566
Russian Mission	0	211	0	8	0	0	0	6	0	8	3	436	47	0	24
Holy Cross	0	150	0	20	0	0	0	0	0	17	0	20	37	0	19
Shageluk	0	1,256	0	0	0	0	130	0	0	0	0	0	251	26	139
District 3	0	1,617	0	28	0	0	130	6	0	25	3	456	335	26	181
Anvik	0	50	0	30	0	0	240	0	0	0	0	23	16	48	32
Grayling	0	649	1	0	0	30	3	0	3	0	0	200	136	1	69
Kaltag	11	1	1	0	0	0	0	10	4	0	0	383	2	3	2
Nulato	0	0	0	0	0	50	0	0	0	1	0	35	10	0	5
Koyukuk	23	0	0	0	0	4	0	0	0	0	0	67	1	5	0
Galena	0	0	0	0	0	50	0	0	0	0	0	31	10	0	5
Ruby	0	0	0	1	0	87	0	2	0	0	0	184	18	0	9
Huslia	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	34	700	2	31	0	221	243	12	7	1	0	1,023	193	57	122
Tanana	0	0	0	0	0	0	0	0	0	0	0	80	0	0	0
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	196	0	0	0
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	0	0	276	0	0	0
Survey Totals	483	9,189	681	1,593	403	8,423	2,167	9,697	3,132	4,854	2,118	9,529	6,751	1,373	4,226
CI (95%) ^a	290	2,511	621	559	416	4,091	964	2,829	1,521	990	739	1,818	-	-	-

^a Annual 95% confidence interval, CI (95%).

Appendix B10.—Households with dogs, number of dogs, and salmon fed to dogs, as estimated in surveyed communities or reported in permit areas, Yukon Area, 1990–2008.

Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1990						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	455	2,859	372	0	3,231
District 2 Survey	-	775	3,278	415	3,665	7,358
District 3 Survey	-	272	8,248	120	166	8,534
District 4 Survey	-	1,385	91,256	6,911	2,511	100,678
District 5 Survey	-	1,286	5,697	72,424	9,118	87,239
District 5 Permit ^a	-	-	-	-	-	-
District 6 Permit	-	-	-	-	-	-
Totals	0	4,173	111,338	80,242	15,460	207,040
1991						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	349	30	0	16	46
District 2 Survey	-	543	723	652	874	2,249
District 3 Survey	-	145	1,747	150	0	1,897
District 4 Survey	-	1,660	169,866	903	591	171,360
District 5 Survey	-	1,520	28,518	54,657	2,754	85,929
District 5 Permit ^a	49	400	-	-	-	11,522
District 6 Permit	220	1,980	-	-	-	19,479
Totals	269	6,597	200,884	56,362	4,235	292,482
1992						
Coastal District Survey	133	513	659	0	0	659
District 1 Survey	262	617	512	1,000	153	1,665
District 2 Survey	285	971	694	247	2,237	3,178
District 3 Survey	113	507	4,893	74	37	5,004
District 4 Survey	436	2,065	139,513	6,950	3,323	149,786
District 5 Survey	323	1,577	12,897	38,529	14,529	65,955
District 5 Permit ^a	52	492	-	-	-	7,026
District 6 Permit	255	2,270	-	-	-	18,115
Totals	1,859	9,012	159,168	46,800	20,279	251,388
1993						
Coastal District Survey	150	391	0	0	0	0
District 1 Survey	280	690	654	70	22	746
District 2 Survey	232	880	794	260	670	1,724
District 3 Survey	118	447	2,671	734	162	3,567
District 4 Survey	435	1,645	44,793	3,905	579	49,277
District 5 Survey	348	1,840	5,490	38,888	5,147	49,525
District 5 Permit ^a	54	1,031	-	-	-	1,133
District 6 Permit	143	1,857	-	-	-	1,547
Totals	1,760	8,781	54,402	43,857	6,580	107,519
1994						
Coastal District Survey	161	367	1,287	0	0	1,287
District 1 Survey	288	819	267	144	384	795
District 2 Survey	286	1,074	1,066	653	2,470	4,189
District 3 Survey	123	413	5,279	0	162	5,441
District 4 Survey ^b	427	1,649	92,127	4,720	2,916	99,763
District 5 Survey	355	1,426	10,903	51,674	4,422	66,999
District 5 Permit ^a	103	534	-	-	-	9,824
District 6 Permit	212	2,269	-	-	-	34,111
Totals	1,955	8,551	110,929	57,191	10,354	222,409

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1995						
Coastal District Survey	158	596	2,919	214	0	3,133
District 1 Survey	223	391	531	43	7	581
District 2 Survey	213	677	1,587	436	979	3,002
District 3 Survey	111	347	8,450	265	100	8,815
District 4 Survey	423	1,830	183,386	9,092	1,151	193,629
District 5 Survey	356	1,442	6,222	50,680	2,107	59,009
District 5 Permit ^a	54	495	-	-	-	17,980
District 6 Permit	103	1,723	-	-	-	50,731
Totals	1,641	7,501	203,095	60,730	4,344	336,880
1996						
Coastal District Survey	159	406	0	0	0	0
District 1 Survey	298	682	1,847	250	38	2,135
District 2 Survey	251	1,044	1,460	1,724	1,423	4,607
District 3 Survey	134	513	3,558	0	0	3,558
District 4 Survey	468	1,607	130,575	5,771	1,324	137,670
District 5 Survey	325	1,289	10,155	48,836	5,966	64,957
District 5 Permit ^a	53	293	-	-	-	14,345
District 6 Permit	176	1,907	-	-	-	43,590
Totals	1,864	7,741	147,595	56,581	8,751	270,862
1997						
Coastal District Survey	174	494	837	0	0	837
District 1 Survey	255	683	103	0	0	103
District 2 Survey	301	1,075	779	498	142	1,419
District 3 Survey	111	492	11,418	400	746	12,564
District 4 Survey	430	1,209	63,850	4,481	3,141	71,472
District 5 Survey	254	1,146	2,943	33,188	2,961	39,092
District 5 Permit ^a	95	569	-	-	-	19,584
District 6 Permit	156	1,898	-	-	-	12,813
Totals	1,776	7,566	79,930	38,567	6,990	157,884
1998						
Coastal District Survey	185	503	0	0	0	0
District 1 Survey	259	555	1,711	270	0	1,981
District 2 Survey	293	966	682	110	137	929
District 3 Survey	106	394	4,288	32	202	4,522
District 4 Survey	560	1,731	14,468	3,394	1,935	19,797
District 5 Survey	356	1,342	2,029	29,448	2,680	34,157
District 5 Permit ^a	113	598	-	-	-	1,262
District 6 Permit	136	1,610	-	-	-	22,311
Totals	2,008	7,699	23,178	33,254	4,954	84,959
1999						
Coastal District Survey	163	276	135	0	0	135
District 1 Survey	252	451	254	20	25	299
District 2 Survey	312	982	778	52	1,277	2,107
District 3 Survey	95	374	4,153	50	240	4,443
District 4 Survey	481	1,502	15,546	3,399	1,513	20,458
District 5 Survey	273	1,233	1,436	36,006	3,844	41,286
District 5 Permit ^a	141	739	-	-	-	11,013
District 6 Permit	107	1,321	-	-	-	13,256
Totals	1,824	6,878	22,302	39,527	6,899	92,997

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
2000						
Coastal District Survey	215	451	0	0	0	0
District 1 Survey	247	552	1,240	741	0	1,981
District 2 Survey	307	941	467	30	30	527
District 3 Survey	111	374	419	150	70	639
District 4 Survey	441	1,318	4,237	846	329	5,412
District 5 Survey	236	811	1,263	5,972	1,791	9,026
District 5 Permit ^{a,c}	67	568	-	-	-	317
District 6 Permit ^c	70	1,327	-	-	-	3,082
Totals	1,694	6,342	7,626	7,739	2,220	20,984
2001						
Coastal District Survey	234	495	0	0	0	0
District 1 Survey	318	609	223	100	0	323
District 2 Survey	331	926	255	210	80	545
District 3 Survey	114	610	873	111	25	1,009
District 4 Survey	553	2,074	4,571	2,014	1,263	7,848
District 5 Survey	293	1,026	1,649	10,629	5,976	18,254
District 6 Permit ^c	121	583	-	-	-	8,065
District 6 Permit ^d	130	1,266	-	-	-	7,506
Totals	2,094	7,589	7,571	13,064	7,344	43,550
2002						
Coastal District Survey	207	399	0	0	67	67
District 1 Survey	282	655	14	59	30	103
District 2 Survey	327	847	410	38	379	827
District 3 Survey	88	312	620	0	0	620
District 4 Survey	437	1,502	8,286	848	697	9,831
District 5 Survey	197	677	2,256	6,324	1,393	9,973
District 5 Permit ^{a,c}	81	546	-	-	-	689
District 6 Permit ^c	111	806	-	-	-	11,722
Totals	1,730	5,744	11,586	7,269	2,566	33,832
2003						
Coastal District Survey	132	365	0	0	0	0
District 1 Survey	239	483	115	0	38	153
District 2 Survey	236	729	635	0	58	693
District 3 Survey	87	298	3,650	0	0	3,650
District 4 Survey	384	1,728	15,648	4,118	3,271	23,037
District 5 Survey	221	864	3,268	19,267	2,862	25,397
District 5 Permit ^{a,c}	59	672	-	-	-	1,614
District 6 Permit ^c	161	866	-	-	-	12,717
Totals	1,519	6,005	23,316	23,385	6,229	67,261
2004						
Coastal District Survey	151	300	13	0	0	13
District 1 Survey	235	505	534	21	0	555
District 2 Survey	270	630	1,114	62	376	1,552
District 3 Survey	97	272	1,228	0	0	1,228
District 4 Survey	421	1,424	12,608	3,382	3,232	19,222
District 5 Survey	241	853	2,134	31,266	1,103	34,503
District 5 Permit ^{a,c}	60	644	-	-	-	3,428
District 6 Permit ^c	149	1,003	-	-	-	18,261
Totals	1,624	5,631	17,631	34,731	4,711	78,762

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
2005						
Coastal District Survey	190	375	0	0	0	0
District 1 Survey	262	482	302	46	34	382
District 2 Survey	281	563	1,315	137	104	1,556
District 3 Survey	78	214	2,288	342	70	2,700
District 4 Survey	364	1,325	5,993	3,236	1,464	10,693
District 5 Survey	277	1,229	4,566	24,982	1,498	31,046
District 5 Permit ^{a, c}	59	609	-	-	-	8,316
District 6 Permit ^d	143	1,175	-	-	-	27,179
Totals	1,654	5,972	14,464	28,743	3,170	81,872
2006						
Coastal District Survey	197	397	0	37	63	100
District 1 Survey	272	457	270	147	0	417
District 2 Survey	294	612	373	355	318	1,046
District 3 Survey	109	288	95	95	0	190
District 4 Survey	426	1,251	9,885	1,298	77	11,260
District 5 Survey	238	1,257	7,664	23,607	3,236	34,507
District 5 Permit ^{a, c}	62	596	-	-	-	12,934
District 6 Permit ^c	140	1,027	-	-	-	15,194
Totals	1,738	5,885	18,287	25,539	3,694	75,648
2007						
Coastal District Survey	132	214	142	0	0	142
District 1 Survey	230	517	1,096	38	59	1,193
District 2 Survey	267	521	763	232	443	1,438
District 3 Survey	86	285	375	0	30	405
District 4 Survey	305	982	12,326	2,807	1,096	16,229
District 5 Survey	247	949	7,233	25,720	3,643	36,596
District 5 Permit ^{a, c}	52	567	-	-	-	17,891
District 6 Permit ^c	175	890	-	-	-	15,945
Totals	1,494	4,925	21,935	28,797	5,271	89,839
2008						
Coastal District Survey	155	325	141	0	0	141
District 1 Survey	304	595	110	0	0	110
District 2 Survey	277	546	23	0	50	73
District 3 Survey	110	314	72	157	0	229
District 4 Survey	395	1,178	9,124	2,675	650	12,449
District 5 Survey	244	887	2,575	26,751	2,346	31,672
District 5 Permit ^{a, c}	55	521	-	-	-	14,103
District 6 Permit ^c	186	882	-	-	-	10,345
Totals	1,726	5,248	12,045	29,583	3,046	69,122
Five Year Average 2003 to 2007						
Coastal District Survey	160	330	31	7	13	51
District 1 Survey	248	489	463	50	26	540
District 2 Survey	270	611	840	157	260	1,257
District 3 Survey	91	271	1,527	87	20	1,635
District 4 Survey	380	1,342	11,292	2,968	1,828	16,088
District 5 Survey	245	1,030	4,973	24,968	2,468	32,410
District 5 Permit ^{a, c}	58	618	-	-	-	8,837
District 6 Permit ^c	154	992	-	-	-	17,859
Totals	1,606	5,684	19,127	28,239	4,615	78,676

Note: Beginning in 1993, the estimated number of salmon includes those retained from subsistence and commercial-related harvests. Beginning in 1992, the community of Shageluk was relocated from District 4 into District 3. Dashes indicate information was not collected.

^a Permit totals do not include the community of Stevens Village.

^b Does not include the communities of Hughes, Allakaket and Alatna, which were not surveyed due to a major flood event.

^c Does not include duplicate information from households with more than one permit.

Appendix B11.—Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 1997–2008.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Five Year Average 1998-2002	Five Year Average 2003-2007
Survey Estimates ^a														
Whitefish	77,630	70,261	50,748	45,292	86,200	78,489	68,416	64,039	48,862	60,923	64,338	54,729	66,198	61,316
Pike	29,540	22,459	16,928	9,174	16,753	18,906	22,341	18,738	29,799	28,133	25,947	16,053	16,844	24,992
Sheefish	19,538	19,159	12,550	6,581	14,384	15,960	14,280	16,896	13,764	12,745	13,203	10,154	13,727	14,178
Survey Reported														
Burbot	6,381	6,704	11,545	2,168	2,836	5,809	3,000	2,628	3,138	5,069	3,500	3,273	5,812	3,467
Lamprey	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	12,584	803	7,809	23,319
Tomcod	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	7,121	6,391	4,515	7,204
Grayling	1,600	1,578	1,476	346	1,503	1,408	2,421	1,645	1,258	1,145	2,296	857	1,262	1,753
Suckers	667	128	104	364	277	546	234	178	1,452	105	225	25	284	439
Arctic Char	131	206	131	32	251	198	376	116	217	345	181	184	164	247
Blackfish	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	131,712	110,356	205,778	200,363
Sockeye Salmon	ND	ND	ND	ND	ND	ND	ND	787	648	333	493	213	-	565
Permit Reported														
Whitefish	5,157	4,019	3,734	3,205	2,430	2,856	5,508	4,402	3,671	3,399	3,328	3,402	3,249	4,062
Pike	1,978	793	812	687	451	791	1,266	606	641	1,008	2,094	1,678	707	1,123
Sheefish	190	137	176	85	75	66	203	97	155	80	83	111	108	124
Burbot	215	137	101	95	124	65	129	127	78	127	99	89	104	112
Grayling	154	55	439	521	51	138	1,228	1,032	800	507	525	488	241	818
Suckers	858	459	986	739	236	344	978	341	694	770	243	298	553	605
Yukon Area Totals														
Whitefish	82,787	74,280	54,482	48,497	88,630	81,345	73,924	68,441	52,533	64,322	67,666	58,131	69,447	65,377
Pike	31,518	23,252	17,740	9,861	17,204	19,697	23,607	19,344	30,440	29,141	28,041	17,731	17,551	26,115
Sheefish	19,728	19,296	12,726	6,666	14,459	16,026	14,483	16,993	13,919	12,825	13,286	10,265	13,835	14,301
Burbot	6,596	6,841	11,646	2,263	2,960	5,874	3,129	2,755	3,216	5,196	3,599	3,362	5,917	3,579
Lamprey	2,533	2,580	30,536	785	4,520	623	29,886	33,919	38,115	2,092	12,584	803	7,809	23,319
Tomcod	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,988	13,652	7,121	6,391	4,515	7,204
Grayling	1,754	1,633	1,915	867	1,554	1,546	3,649	2,677	2,058	1,652	2,821	1,345	1,503	2,571
Suckers	1,525	587	1,090	1,103	513	890	1,212	519	2,146	875	468	323	837	1,044
Arctic Char	131	206	131	32	251	198	376	116	217	345	181	184	164	247
Blackfish	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	259,874	218,695	131,712	110,356	205,778	200,363
Sockeye Salmon	ND	ND	ND	ND	ND	ND	ND	787	648	333	493	213	-	565

^a Subsistence whitefish, pike, and sheefish estimates in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests.

Appendix B12.–Surveyed households which indicated that their subsistence salmon needs were not met, Yukon Area, 1992–2002.

Year	Total Number of Households Contacted	Total Number of Responses Indicating Needs Were not Met ^a	Percent of Responses Indicating Needs Were not Met ^a	Percent of Responses Indicating Poor Salmon Returns
1992	870	272	31%	7%
1993	979	514	53%	8%
1994	933	345	37%	1%
1995	1,011	207	20%	1%
1996	951	230	24%	6%
1997	915	213	23%	6%
1998	970	593	61%	47%
1999	1,024	385	38%	18%
2000 ^b	932	592	64%	77%
2001 ^b	885 ^c	496	56%	27%
2002 ^b	799 ^c	437	55%	25%
11 Year Average				
1992-2002	934	389	42%	20%

^a This question was altered after 2002 season. Subsequent results are included in Appendix B13.

^b A different method from prior years was used from 2000 to 2002 to provide an indication of the quality of the salmon runs by species. The method used was a weighted average expressed in percent of Chinook, summer chum, fall chum, and coho salmon responses from households that indicated poor salmon runs by species contributed to not meeting their needs.

^c Total number of households that answered this survey question, rather than total number households contacted.

Appendix B13.–Households response to the survey question assessing their success of subsistence salmon needs being met (in percent), by species, Yukon Area, 2003–2008.

Chinook Salmon						
Year	Total Households	Total Number of Household Responses ^a	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met	
			Responses	Percent	Responses	Percent
2003	2,351	639	223	0.35	416	0.65
2004	2,274	693	203	0.29	490	0.71
2005	2,231	749	223	0.30	526	0.70
2006	2,398	856	401	0.47	455	0.53
2007	2,353	914	420	0.46	494	0.54
2008	2,470	970	488	0.50	482	0.50
2003-2007 Avg	2,346	804	326	0.40	477	0.60

Summer Chum Salmon						
Year	Total Households	Total Number of Household Responses ^a	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	421	152	0.36	269	0.64
2004	2,274	542	187	0.35	355	0.65
2005	2,231	570	165	0.29	405	0.71
2006	2,398	686	247	0.36	439	0.64
2007	2,353	706	332	0.47	374	0.53
2008	2,470	685	265	0.39	420	0.61
2003-2007 Avg	2,346	602	225	0.37	377	0.63

Fall Chum Salmon						
Year	Total Households	Total Number of Household Responses ^a	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	181	58	0.32	123	0.68
2004	2,274	210	81	0.39	129	0.61
2005	2,231	380	145	0.38	235	0.62
2006	2,398	408	220	0.54	188	0.46
2007	2,353	580	400	0.69	180	0.31
2008	2,470	470	289	0.61	181	0.39
2003-2007 Avg	2,346	372	199	0.49	173	0.51

Coho Salmon						
Year	Total Households	Total Number of Household Responses ^a	Household Responses Indicated ≤ 50% Needs Met		Household Responses Indicated > 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	116	40	0.34	76	0.66
2004	2,274	177	71	0.40	106	0.60
2005	2,231	226	104	0.46	122	0.54
2006	2,398	181	109	0.60	72	0.40
2007	2,353	399	271	0.68	128	0.32
2008	2,470	272	204	0.75	68	0.25
2003-2007 Avg	2,346	229	133	0.54	95	0.46

^a Total number of households surveyed who answered this question.

^b In 2003, the survey question “How successful was your household in meeting its subsistence salmon needs?” (indicated by percent success) targeted primarily only those households selected to be surveyed that indicated they subsistence fished for salmon and does not necessarily include all selected households that did not fish.

APPENDIX C. HISTORY OF REGULATORY CHANGES

Definitions: Sec. 16.05.940. In AS 16.05 - AS 16.40

(25) "personal use fishing" means the taking, fishing for, or possession of finfish, shellfish, or other fishery resources, by Alaska residents for personal use and not for sale or barter, with gill or dip net, seine, fish wheel, long line, or other means defined by the Board of Fisheries

(31) "subsistence fishing" means the taking of, fishing for, or possession of fish, shellfish, or other fisheries resources by a resident domiciled in a rural area of the state for subsistence uses with gill net, seine, fish wheel, long line, or other means defined by the Board of Fisheries;

(33) "subsistence uses" means the noncommercial, customary and traditional uses of wild, renewable resources by a resident domiciled in a rural area of the state for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation, for the making and selling of handicraft articles out of nonedible by-products of fish and wildlife resources taken for personal or family consumption, and for the customary trade, barter, or sharing for personal or family consumption; in this paragraph, "family" means persons related by blood, marriage, or adoption, and a person living in the household on a permanent basis

History of regulatory changes:

1960

- Alaska Department of Fish and Game is given responsibility to manage all Alaskan subsistence and commercial fisheries.
- Commercial fishing is open six days per week, subsistence fishing is open 5.5 days per week.
- Once commercial fishing season ends, subsistence fishing is open 7 days per week.

1961

- Lower Yukon Area (Districts 1 – 3) commercial fisheries are open 4 days per week.
- Directed fall chum salmon fishery begins.

1962

- Four commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing in the Lower Yukon Area is reduced to 4 days per week (concurrent with commercial).

1974

- Six commercial fishing districts established within Alaska portion of the Yukon River drainage.
- Subsistence fishing restrictions are implemented along the southern portion of the Dalton Highway.
- Upper Yukon Area (Districts 4 – 6) begins concurrent subsistence and commercial fishing 5 days per week.
- Subsistence fishing schedules are linked to commercial fishing schedules in Districts 1-6.

1974–77

- Legalized sale of salmon roe from Yukon Area subsistence caught salmon.

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1976

- Limited entry begins for Yukon River commercial fisheries.
- Streams crossing the Dalton Highway north of the Yukon River are closed to subsistence fishing.

1977

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the commercial Chinook salmon season.
- Lower Yukon Area is reduced to subsistence/commercial fishing 3.5 days per week during the fall chum salmon season.

1978

- Passage of the *State of Alaska Subsistence Act*, which provides a rural subsistence priority in times of shortage.
- Commercial salmon roe fishery begins in the Upper Yukon Area.

1979

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the fall chum salmon season.

1980

- ANILCA (*Alaska National Interest Lands Conservation Act*) provides for a rural subsistence priority on Federal lands.

1980–89

- Unified management of subsistence fishing by the State of Alaska consistent with ANILCA and the *State of Alaska Subsistence Act*.

1981

- Commercial fishing periods in the Lower Yukon Area can be established inseason by state emergency order.

1982

- Tanana River Subdistrict 6-C Subsistence Management Plan established.

1983–84

- Lower Yukon Area subsistence periods established inseason by emergency order.

1986

- Personal use fisheries created for Alaska residents living in non-rural areas. Non-rural residents are classified as “personal use” fishermen rather than subsistence fishermen regardless of where they fish.

1987

- Regulations for a personal use fall chum salmon fishery established in the Yukon Area.
- Regulatory *Yukon Area Fall Chum Salmon Management Plan* established.

1988

- Subdistricts 6-A, 6-B and 6-C subsistence and personal use periods are limited to two 42 hour periods per week.
- “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
- Upper Tanana Area remains open to subsistence fishing 7 days per week.
- Regulations for personal use fisheries for all salmon species established in the Yukon Area.

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1990

- Court case removes rural residency requirement for subsistence participation (*McDowell v. State*).
- Regulatory *Yukon River Summer Chum Salmon Management Plan* established.
- Regulatory *Tanana River Salmon Management Plan* established.

1992

- Alaska divided into subsistence and non-subsistence areas. Personal use fishing only allowed within the non-subsistence areas.
- Upper Yukon Area commercial periods established in season by emergency order.

1993

- Regulations implemented separating subsistence and commercial salmon fishing times in Districts 1-3 and Subdistrict 4-A (prior to 1993 subsistence and commercial periods coincided).
 - In Districts 1-3 subsistence salmon fishing is open 24 hours/day until commercial season begins. Once commercial fishing begins subsistence fishing is closed 18 hours before, during and 12 hours after each commercial period. Additional periods for subsistence salmon fishing may be authorized.
 - Subdistricts 4-B, 4-C, 5-B and 5-C subsistence salmon fishing is open 7 days per week until commercial season begins, then commercial and subsistence periods coincide. Additional periods for subsistence salmon fishing may be authorized.
 - Koyukuk River, Kantishna River and Subdistrict 5-D remain open to subsistence salmon fishing 7 days per week.
- Court case declares subsistence and non-subsistence areas are unconstitutional and subsistence salmon fishing again allowed statewide (*State v. Kenaitze Indian Tribe*).
- Regulatory *Toklat River Fall Chum Salmon Rebuilding Management Plan* established.
- Amounts necessary for subsistence was defined for Yukon-Northern Area:
 - 348,000–503,000 (all salmon species combined).

1994

- Subdistrict 5-A subsistence salmon fishing is allowed 5 days per week once commercial season ends.
- Regulatory *Anvik River Chum Salmon Fishery Management Plan* established.

1995

- Alaska Supreme Court reverses decision in *Kenaitze* case and Alaska is again divided into subsistence and non-subsistence areas. Personal use fishing is only allowed within the non-subsistence areas.
- Ninth Circuit Court finds that Federal jurisdiction for fisheries should be extended to navigable waters on Federal lands (*State of Alaska v. Babbitt a.k.a. Katie John decision*). US Senator Stevens delays implementation.

1998

- Subdistrict 5-A subsistence salmon fishing is allowed 7 days per week once commercial season ends.
- Regulatory *Yukon River King Salmon Management Plan* established.

1999

- Subdistrict 5-A subsistence salmon fishing is returned to 5 days per week once commercial season ends because in 1998 Toklat River escapement goals were not met.
- Regulatory *Yukon River Coho Salmon Management Plan* established.

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2000

- U.S. Fish and Wildlife Service begins first season of joint subsistence fisheries management authority with ADF&G in portions of the Yukon Area.

2001

- Subsistence fishing schedule “windows” established for times of conservation implemented throughout the entire Yukon River Area when there is no commercial fishing season:
 - Districts 1-3 area open to subsistence salmon fishing for two 36 hour periods per week.
 - District 4 and Subdistricts 5-B and 5-C are open to subsistence salmon fishing for two 48 hour periods per week.
 - Subdistrict 5-A, 6-A and 6-B (includes the Kantishna River) are open to subsistence salmon fishing for two 42 hour periods per week.
 - The “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
 - The Coastal District, Koyukuk River and Subdistrict 5-D are open to subsistence salmon fishing 7 days per week.
 - Subdistrict 6-C is open to personal use salmon fishing for two 42 hour periods per week.
- Amounts necessary for subsistence defined by salmon species for Yukon Area:
 - Chinook salmon: 45,500–66,704 fish
 - Summer chum salmon: 83,500–142,192 fish
 - Fall chum salmon: 89,500–167,900 fish
 - Coho salmon: 20,500–51,980 fish

2004

- *Yukon River King Salmon Management Plan.*
 - During times of chum salmon conservation, the commercial fish wheel season may be closed by emergency order and immediately reopen the season during which set gillnet gear may be used instead of a fish wheel.
- *Yukon River Drainage Fall Chum Salmon Management Plan* revised.
 - Plan to be implemented from July 16 through December 31 to ensure adequate escapement for fall chum salmon into the Yukon River drainage and to provide management guidelines to ADF&G.
 - Subsistence fishing schedule of seven days a week fishing in the Kantishna River.
 - Returned Subdistrict 5-A to two 48-hour periods per week from 6:00 pm. Tuesdays until 6:00 p.m. Thursdays and from 6:00 pm. Fridays until 6:00 p.m. Sundays.
- *Toklat River Fall Chum Salmon Rebuilding Management Plan* repealed and elements of the plan incorporated into the *Yukon River Drainage Fall Chum Salmon Management Plan.*
- *Tanana River Salmon Management Plan.*
 - In Subdistricts 6-A and 6-B, through September 30, the subsistence salmon fishing periods are from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 p.m. Mondays until 12:00 Wednesdays, unless altered by emergency order. This allows for possible seven days a week subsistence fishing beginning October 1.
- In Subdistrict 4-A, king salmon may be taken during the commercial fishing season with drift gillnet gear only for two 48-hour fishing periods per week, by emergency order from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays and from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays.

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- New subsistence required permit areas in portions of the Koyukuk River along the Dalton Highway and Yukon River drainage from Garnet Island to Hess Creek:
 - South Fork of the Koyukuk River drainage upstream from the mouth of the Jim River and the Middle Fork of the Koyukuk River drainage upstream from the mouth of the North Fork. The Koyukuk River areas along the Dalton Highway were closed but are now opened for subsistence fishing for nonsalmon species with permit and gear stipulations. Gillnets gear may be used only from November 1 through June 30 and a gillnet mesh size may not exceed three and one-half inches.
 - Yukon River drainage upstream from the westernmost tip of Garnet Island to the mouth of Hess Creek of Subdistrict 5-C in an effort to document harvest by transient fishermen. This change now requires a subsistence fishing permit in the entire Subdistrict 5-C.
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