

# TECHNICAL FISHERY REPORT 95-07

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Alaska Department of Fish and Game  
Commercial Fisheries Management  
and Development Division  
P.O. Box 25526  
Juneau, Alaska 99802-5526

December 1995

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## **Estimates of Subsistence Salmon Harvests Within the Yukon River Drainage in Alaska, 1992**

by

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**Helen H. Hamner**

The Technical Fishery Report Series was established in 1987, replacing the Technical Data Report Series. The scope of this new series has been broadened to include reports that may contain data analysis, although data oriented reports lacking substantial analysis will continue to be included. The new series maintains an emphasis on timely reporting of recently gathered information, and this may sometimes require use of data subject to minor future adjustments. Reports published in this series are generally interim, annual, or iterative rather than final reports summarizing a completed study or project. They are technically oriented and intended for use primarily by fishery professionals and technically oriented fishing industry representatives. Publications in this series have received several editorial reviews and at least one *blind* peer review refereed by the division's editor and have been determined to be consistent with the division's publication policies and standards.

ESTIMATES OF SUBSISTENCE SALMON HARVESTS  
WITHIN THE YUKON RIVER DRAINAGE  
IN ALASKA, 1992

By

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and

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## ABSTRACT

Estimates of subsistence salmon harvests in the Alaska portion of the Yukon River drainage have been documented by the department since 1961. Survey methods and harvest reporting have varied. Successful management of the Yukon River fishery resources depends upon accurate estimates of subsistence harvests. The number of salmon harvested in Yukon River subsistence fisheries in 1992 was estimated from a survey program and from subsistence fishing permit information (estimates cannot be summed for a total due to double-counting problems in Stevens Village). It also included fish taken in test fisheries conducted by the department and given to the public. An estimated total of 47,077 chinook *Oncorhynchus tshawytscha*, 142,192 summer chum *O. keta*, 107,808 fall chum, and 51,980 coho *O. kisutch* salmon were estimated to have been harvested for subsistence use by 1,335 households in 1992 (this includes Bering Sea Coast harvests).

The majority of households in the Yukon River drainage reside in villages in which there are no regulatory requirements on the reporting of subsistence salmon harvests. The department has implemented a survey program to estimate the salmon harvest from areas not requiring a permit. The survey program utilized preseason postcards, subsistence catch calendars, and postseason household and telephone interviews to improve the sampling frame and to estimate the harvest. Stratified random-sampling techniques were used to identify 1,092 households that were to be interviewed during the 1992 survey. The stratification of the households was based on prior-year harvest information. Based on 865 household interviews, an estimated 1,069 households harvested a total of 38,167 chinook salmon, 127,323 summer chum salmon, 65,134 fall chum salmon, and 31,778 coho salmon.

Subsistence users who fished in areas requiring a permit were required to document their catch and return the permit upon expiration. A total of 442 subsistence permits were issued, including 10 Delta River fall chum salmon carcass collection permits. The subsistence permit catches by 416 permittees who had returned their permits as of March 23, 1993, was 7,663 chinook salmon, 10,888 summer chum salmon, 40,213 fall chum salmon, and 17,645 coho salmon. Additionally, 1,897 fall chum salmon carcasses were collected from the Delta River.

From test fisheries, the department gave away a total of 1,828 chinook salmon, 4,101 summer chum salmon, 2,572 fall chum salmon, and 2,557 coho salmon to households in the villages of Emmonak, Kotlik, and Nenana.

**KEY WORDS:** Salmon, chinook salmon, chum salmon, coho salmon, subsistence fishing, subsistence harvests, subsistence survey, subsistence permit, Yukon River

## INTRODUCTION

Effective management of Yukon River salmon populations requires knowledge of the number of salmon harvested in subsistence fisheries. Although all five salmon species are harvested in both commercial and subsistence fisheries, chinook *Oncorhynchus tshawytscha*, chum *O. keta*, and coho *O. kisutch* salmon compose the bulk of all subsistence harvests. In portions of the drainage, subsistence harvests of some species, particularly chum and coho salmon, are substantial and frequently exceed commercial harvests.

Early exploration reports documented the importance of subsistence salmon harvests to people living in the Yukon River drainage (Zagoskin [1847] 1967; Allen 1887). Large, historical salmon harvests were used to feed dogs used for transportation and packing and to feed draft animals for pulling trees out of the forest (Richardson [1900] 1964; Gilbert and O'Malley 1921). Around 1930 the airplane began replacing sled dogs as the primary mail and supply carrier and contributed to a gradual reduction in subsistence harvests. During the early to mid 1960s an increased use of snow machines accelerated the decline of sled-dog use faster than the airplane had. Subsistence salmon catches declined through the 1970s as increased welfare payments and employment opportunities, including commercial fishing activities, became available to rural residents (ADF&G 1985). It is likely that the sale of subsistence-caught salmon roe (legal from 1974 through 1977) increased subsistence chum salmon catches in the upper Yukon area above normal-use levels during the mid 1970s. Beginning in the early 1980s, due, in part, to a renewed interest in sled-dog racing, the number of dogs per family increased in some portions of the drainage; subsistence salmon harvests coincidentally increased. In addition, the human population along the river increased, which may have contributed to increased subsistence salmon harvests.

The primary fishing gear used by households to harvest subsistence salmon in the Yukon area includes drift gillnets, set gillnets, and fish wheels. Subsistence fishermen operate gillnets in the main rivers and coastal marine waters. Fish wheels are used by subsistence fishermen in the upper Yukon and Tanana Rivers. Beach seines are occasionally used near spawning grounds to catch schooling or spawning salmon. Not all gear types are legal in all portions of the drainage.

Subsistence salmon fishing occurs from late May through October, although this varies throughout the drainage. Fishing activities are based either from a fish camp or from a home village. However, the degree to which one or the other is more prevalent varies from village to village. Some people from communities not located along the mainstem Yukon River, such as Shageluk, Birch Creek, etc., may operate fish camps along the mainstem. Subsistence salmon fishing is often undertaken by extended family groups representing two or more households in a community. These groups, as well as members of individual households, cooperate to harvest, cut, preserve, and store salmon for subsistence use.

There is usually little wastage of the fish taken for subsistence purposes. A major portion is sun-dried or smoked for later consumption, while the head and viscera may be fed to dogs. Wet weather may cause the fish to spoil during the process of drying fish. Chinook salmon are used mainly for human consumption, and while chum and coho salmon are also used for human consumption, relatively large numbers are taken to feed sled dogs. It should be noted that the practice of keeping sled dogs is much

more common in the upper Yukon area than in the lower Yukon area, and the number of dogs is considered to be a major factor affecting subsistence use.

Many people who subsistence fish also fish commercially. In major commercial fisheries, some restrictions on subsistence fishing are needed to enforce commercial fishing regulations. During the fishing season, however, substantially more fishing time is allowed for subsistence fishing than for commercial purposes. Since the early 1960s, subsistence fishing has been managed and regulated to coincide with commercial fishing periods when the commercial fishing season is open. During the commercial fishing season, in all districts, additional subsistence-only fishing is allowed when commercial fishing is closed. Prior to and following the commercial fishing season, subsistence fishing is allowed 7 d per week in Districts 1-5 and during two 42-h periods per week in District 6.

Information concerning subsistence fishery harvests within the Alaska portion of the drainage has been collected by the department since 1961 and is recorded in Yukon area Annual Management Reports (ADF&G 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992a, 1992b; Walker et al. 1989). Since 1961 Alaska Department of Fish and Game (ADF&G) staff have conducted subsistence surveys. Subsistence salmon catch data has been collected through personal interviews, catch calendars, and mailed questionnaires. Survey methodologies prior to 1988 were varied, although the basic premise — that surveyors census all known *fishing families* (groups of households that fished together) in a village — was consistent. The basic methodology developed by the department's Subsistence Division in 1988 was to identify all households in each community and to break the updated community household lists into two strata: *usually fish* and *usually not fish* households (Walker et al. 1989). Substantially more fishing households were identified in 1988 than were listed previously. Because the historical survey lists evaluated households in a broader sense (family units working together to harvest and process salmon), there was no direct correlation between fishing family and fishing household. Subsistence catch data has been expanded for noncontacted fishing families or households to provide an annual community estimate, and expanded community harvests have been summed for district and total drainage estimates.

The stratification system developed by the Subsistence Division was further refined in 1990 and 1991 to improve the accuracy and precision of the drainage-wide subsistence harvest estimate (Holder and Hamner 1991; Bromaghin and Hamner 1993). In 1990 households were classified into one of five catch strata based upon their level of subsistence harvest in 1988 and 1989; in 1991 the strata were based on harvests from 1988, 1989, and 1990. A stratified random sample (Cochran 1977) was drawn from the strata formed by combinations of village and harvest level. Assuming that households tend to harvest the same number of fish in the current year as they have historically, this stratification system samples the households with the heaviest harvest of the resource more intensively. Excluding the greater Fairbanks area (population 74,000 in 1990), about 40 villages, with a combined population of approximately 11,000 people of primarily Yupik Eskimo and Athabaskan Indian descent, are located within the drainage.

Since development of the salmon roe fisheries in 1978, distinguishing between subsistence and commercial catches in the upper Yukon area has been difficult because fish harvested to produce commercial roe sales are also utilized for subsistence purposes. It is believed that many of the carcasses produced as a byproduct of the commercial fishery replace salmon that would otherwise have been

harvested under subsistence fishing regulations. In 1990 fish that were commercially taken but provided both a subsistence and commercial use were assigned to a special category in the Annual Management Reports: the *commercial-related* salmon harvest. Fish in these harvests serve both commercial and subsistence uses. Commercial-related harvests are summed with the subsistence harvest to provide an estimate of total subsistence utilization; commercial-related harvests are also summed with the commercial harvest to provide an estimate of total commercial utilization. Although the total commercial and subsistence harvest estimates are reasonably accurate, the two cannot be added together without double-counting the commercial-related harvest; therefore, estimating total salmon utilization requires subtracting the commercial-related fish used for subsistence from the total subsistence utilization.

The males harvested in salmon roe fisheries, other than the summer chum salmon fishery in District 4, are believed to be either sold for their flesh or retained for subsistence use. However, in District 4 the number of summer chum salmon carcasses available from the commercial fishery is usually much greater than the historical subsistence harvest. Since 1981 the District 4 commercial sale of pounds of salmon roe exceeded the number of fish sold in the round and has annually produced salmon carcasses in excess of the estimated subsistence use derived from the subsistence survey. The department has estimated the number of commercial fish harvested from the pounds of roe sold (generated by the pounds of roe per female and the sex ratio). It is probable that the unmarketable carcasses have simply replaced a large portion of the subsistence harvest in this area. Therefore, the estimated number of male summer chum salmon taken during the District 4 commercial fishery are included in commercial-related harvests.

During the years 1981, 1982, 1983, and 1985, District 4 subsistence surveys did not estimate the amount of commercial-related summer chum salmon used for subsistence purposes. In 1984, when the Subsistence Division conducted subsistence surveys in the villages of Kaltag and Nulato, they excluded commercial summer chum salmon used for subsistence purposes in those two villages, and for this reason, summer chum salmon catches for these villages were much lower than in previous years. For 1986 through 1989, District 4 subsistence surveys were conducted to estimate both the number of summer chum salmon taken under subsistence fishing regulations (not commercial-related) and those fish used as a byproduct of the commercial fishery. The percentage of District 4 (excluding Koyukuk River villages) summer chum salmon harvested under subsistence fishing regulations (of the total summer chum salmon used for subsistence purposes) was 24% in 1986 (33,000 of 139,342; ADF&G 1986), 18% in 1987 (24,800 of 133,295; ADF&G 1988), 39% in 1988 (69,520 of 176,321; ADF&G 1990), and 29% in 1989 (33,095 of 113,455; ADF&G 1991). In Annual Management Reports prior to 1988, commercially caught summer chum salmon carcasses retained for subsistence use were tallied in the subsistence harvest. Beginning in 1988, the fish were excluded from the District 4 subsistence harvest estimate. Although the number of District 4 (excluding Koyukuk River villages) summer chum salmon fed to dogs was documented to have been 83,368 in 1990 and 157,133 in 1991 (Hamner, ADF&G, unpublished data), subsistence survey summer chum salmon harvest estimates of 19,832 in 1990 and 22,267 in 1991 included only those fish harvested in subsistence fisheries; it did not include commercial-related fish used for subsistence (ADF&G 1992a, ADF&G 1992b). The estimate of the number of summer chum salmon fed to dogs includes both subsistence and commercial-related harvests.

Since usage questions had not been asked in prior surveys, the department had not been able to quantify the number of carcasses commercial fishermen actually used themselves, gave away, or lost to spoilage or animals. Beginning in 1990, commercial fishermen in Subdistrict 4-A have been required by regulation to report the number of fish killed to produce the roe sold. However, the reported number of fish harvested during the commercial fishery was less than the department estimated. Interestingly, both the fishermen's reported number of fish killed and the department's estimate were considerably greater than the estimates of subsistence use. Because of these discrepancies and the need to know the disposition of the carcasses, a separate survey of Subdistrict 4-A commercial fishermen was initiated during the 1992 survey.

In areas where subsistence salmon fishing permits are required, the department depends on the returned permits and reported harvest for subsistence fish harvest information. Subsistence fishing permits have been required in three sections of the Upper Yukon area since the early 1970s: (1) the Yukon River near the Yukon River Bridge between Hess Creek and the Dall River; (2) the upper portion of District 5 between the upstream mouth of Twenty-Two Mile Slough and the U.S./Canada border; and (3) the Tanana River near Fairbanks. Beginning in 1988 subsistence permits have been required for the entire Tanana River drainage.

## METHODS

Information compiled from the department survey project, permit program, and department test fishery were the three primary sources of information used to estimate the number of salmon harvested in the subsistence fisheries in the Alaska portion of the Yukon River drainage. Harvest information from the permits and surveys were summed, although Stevens Village was an exception. Many Stevens Village residents fished in nonpermit areas, although some residents fished in the permit-required area. Therefore, Stevens Village salmon harvests were based on a combination of survey and permit information. The Stevens Village permit information was subtracted from the permit total to avoid double-counting. The number of salmon harvested from the Delta River after November 21 were not included in the harvest total because Delta River salmon were postspawned carcasses.

### *Subsistence Survey*

The 1992 survey program had several components. All components were intended to help generate an accurate and precise estimate of the number of salmon harvested by subsistence fishing households in the surveyed villages. The primary components of the survey program were subsistence catch calendars, a preseason postcard survey, personal interviews, and postseason telephone or postal surveys of those households not personally contacted during the village visits.

The department mailed a total of 929 calendars during May 1992 to Yukon River subsistence fishermen that were categorized as either light, medium, or heavy harvesters in our database. Calendars were mailed

to 531 lower and 398 upper Yukon fishing households. The lower Yukon calendar began one month earlier than the upper Yukon calendar and contained different local fish names (Appendix C.1 and C.2). The calendars were to be used by fishermen during the 1992 fishing season to record their daily salmon catch by species. The total daily catch of salmon was to be recorded for all fish caught, even if they were given away or used for dog food. When the calendars were mailed to fishermen, a letter was enclosed that thanked fishermen for their participation in the 1991 survey and contained a table that summarized the 1991 subsistence salmon harvest by village (Appendix C.3). Harvest information from the returned calendars was used to complete the harvest information for surveyed households. Catch information from calendars returned by households not in the 1992 survey was recorded to ensure households were placed in the correct strata for the 1993 survey.

During initial production of the 1992 household survey list, it became apparent that the unknown-harvest category was large enough to reduce the efficiency of the sampling design. A postcard survey designed to reduce the number of unknown-harvest households was mailed to 477 households in the then current database. Additionally, postcard surveys were mailed to 1,668 individuals on the 1991 permanent fund application list that could be head of a household not represented in our database. The information contained on the returned postcards was used to update our 1992 household list. An example of the postcard survey form is contained in Appendix C.4.

Based on previous tagging information (Kerkvliet 1986), which indicated that residents of the coastal villages of Hooper Bay and Scammon Bay were catching salmon bound for the Yukon River and Norton Sound, the department was able to reassign these villages into the 1992 subsistence survey sampling schedule because of an increase in the subsistence-survey budget.

A list of households located in surveyed communities within the Yukon River drainage formed the sampling frame for the stratified random-sampling program. The 1992 list of households was based on information surveyors collected during the 1991 survey and results from the 1992 postcard survey. Each household on the list was assigned a subsistence harvest category: unknown, zero, light, medium, and heavy. Households for which no previous harvest information was available were placed into the unknown category. Households that had historical harvest information were placed in a category of harvest based upon their average total annual harvest of salmon from 1988 through 1991. Households that harvested no salmon in those years were placed in the category of *zero harvest*, sometimes identified as *do not harvest* salmon. In the Lower Yukon area an average harvest of 1 to 200 salmon was considered light, a harvest of 201 to 500 salmon was considered medium, and a harvest >500 salmon was considered heavy. In the Upper Yukon area, an average harvest of 1 to 100 salmon was considered light, a harvest of 101 to 700 salmon was considered medium, and a harvest >700 salmon was considered heavy.

A stratified random sample (Cochran 1977) of households was drawn from the stratified population strata being defined by the combinations of community of residence and size of catch. In general, stratum sample sizes were based upon the level of harvest. Households in the medium and heavy categories were to be censused, 30% were to be sampled in the light-harvest category, 10% were to be sampled in the zero-harvest category, and 20% were to be sampled in the unknown-harvest category. However, because of requests by management biologists, sample sizes were increased for some categories within some

villages. In Emmonak, Pilot Station, and Tanana, 30% of the zero-harvest and 50% of the light-harvest strata were sampled. In Holy Cross 50% of the light-harvest stratum was sampled. In addition, all households in communities with 35 or fewer households were censused. Further, if the stratum sample size was less than five households, the sample size was increased to the minimum of five, or the stratum size, to ensure an adequate sample size.

Surveyors were provided with project-orientation information and required to attend a half-day training seminar, during which the 1992 survey form was thoroughly discussed. Appendix C.5 is a copy of the 1992 interview form surveyors used. Each interview determined whether or not members of the household participated in a subsistence fishery in 1992, the number of each salmon species harvested, the number of fish that were a byproduct of a commercial fishery, the type of fishing gear used, and where they caught their subsistence salmon — all of which were categorized by fishing district, subdistrict, or tributary river. All households were asked if they received any fish from another household, the number of people in the household, the number of dogs owned, the number of each salmon species fed to dogs, the number of subsistence salmon the household usually used during a year, and if the household had met their subsistence salmon needs in 1992. Those households that indicated they had not met their salmon needs were asked to explain why they had not gotten enough salmon. This question was added to quantify the number and reasons Yukon River fishermen gave for not meeting their subsistence needs in 1992. Although not written on the survey form, at the end of the interview, surveyors were to ask the person being interviewed if they had ever seen coho salmon spawning, a species for which rudimentary spawning information was lacking. If the person had seen spawning coho salmon, the surveyor was to conduct a secondary coho salmon interview (Appendix C.6). The coho salmon interview form asked for the location, number and condition of the fish, and time of year of the sighting. Additionally, the department felt that a separate supplemental survey (see Appendix C.7) of Subdistrict 4-A commercial fishermen was warranted because of discrepancies between the number of fish the department estimated were being killed in the fishery, the number of fish fishermen reported killing, and the estimates of fish being used for subsistence.

Telephone interviews were attempted for households that were to be surveyed but were not contacted during the village visits. A survey questionnaire with a postage-paid return envelope was mailed to all households that were not contacted during the personal interviews or by telephone. The collection of personal and telephone interview responses obtained was assumed to constitute a stratified random sample. Estimation was performed using classical, stratified random-sampling methods (Cochran 1977). During data analysis, if a strata contained only one household contact, the district variance was used to estimate the stratum variance. In addition, the district mean was used to estimate a strata mean if no households were contacted in the strata.

### *Subsistence Permits*

The permit harvest was reported as the total of the harvests reported on permits returned by March 23, 1993. Permit communities were located primarily within Districts 5 and 6 of the Upper Yukon area. Subsistence fishing household permits were required of resident individuals who desired to fish in

permit-required areas. Permit applications (Appendix C.8) were mailed to all 1991 permittees who reported their 1991 salmon harvests or were distributed during preseason permit-issuing trips to the villages of Nenana, Manley, Minto, Central, Circle, and Eagle. Permits were also issued throughout the season from the department's Fairbanks office. Inseason news releases were used to inform fishermen of period openings and closures.

Harvests were tabulated postseason for all permit holders who returned their permit and/or catch information. Nearly all the permits had an expiration date of October 15, 1992. Permit holders were required to keep a record of their fish harvest and provide that information to the department when they were through fishing for the season or within 10 d of the permit's expiration. On January 8, 1993, fishermen who had not reported their 1992 harvest were sent a reminder letter (Appendix C.9). On January 25, 1993, a second reminder letter was sent to all permittees who had still not reported their harvest (Appendix C.11). Fishermen who had complied at least once during the fishing season with the weekly reporting requirement (which applied to the upper portion of Subdistrict 6-B and all of Subdistrict 6-C) were sent first and second reminder letters thanking them for reporting inseason and asking them to confirm their season's harvest (Appendix C.10 and C.12).

### *Department Test Fishery*

Salmon harvested in test fisheries conducted by the department were frequently given to the public and were assumed to replace salmon that would have been obtained through more traditional fishing activities. Salmon given away as part of a department test fishery were therefore included as a portion of the village subsistence harvest. Department test fishery programs are annually recurring projects in which salmon are caught in locally accepted fishing gear (i.e., drift gillnets, set gillnets, or fish wheels). The catch or catch per unit of effort is then compared within and between years in an effort to determine run timing, species composition, and abundance.

## **RESULTS**

A total of 47,077 chinook, 142,192 summer chum, 107,808 fall chum, and 51,980 coho salmon were estimated to have been harvested in the Alaska portion of the Yukon River drainage by 1,335 fishing households in 1992 (this includes Bering Sea Coast harvests). For reporting consistency with Yukon area Annual Management Reports, Table 1 summarizes the 1992 Alaska Yukon River drainage subsistence salmon harvest and related information by community of residence. Table 2 reports department test fish projects gave away a total of 1,828 chinook, 4,101 summer chum, 2,572 fall chum, and 2,557 coho salmon for subsistence use in the communities of Emmonak, Kotlik, Manley, and Nenana.

## *Subsistence Survey*

Of the 2,145 postcards mailed in June to households for which we did not have any previous subsistence harvest data, a total of 340 (16%) had been returned by October 1, 1992; 91 of these returned cards had been mailed to households in our database for which we did not have any harvest information, and 249 of the returned postcards were from individuals identified from the 1991 permanent fund application list (Appendices A.10 and A.11).

The 1992 survey database contained 2,309 households in 34 village communities; the stratified random-sampling design identified 1,092 households to be surveyed. Staff from the Division of Commercial Fisheries traveled to each of these villages between September 1 and October 29, 1992, and attempted to interview a member of each household included in the sample. Table 3 contains a list of the communities visited and the dates the personal interviews were conducted. A total of 870 households, or 80% of the households to be sampled, were contacted. A total of 95 calendars were either picked up by surveyors during the personal interviews or were mailed back to the department by subsistence fishermen. Table 4 contains a summary of the total number of households, the sample size, and the contact rate for each stratum. The contact number does not reflect the households that were contacted but declined to participate in the survey or did not respond to our telephone or mail inquiries. The majority of mailed questionnaires were returned with incomplete answers to survey questions and were not suitable for inclusion in the sample frame.

Table 5 contains a summary of the estimated number of households from which at least one member participated in a subsistence salmon fishery organized by community of residence and catch stratum. A total of 1,069 households, or 46% of the 2,309 total households, were estimated to have participated in a subsistence salmon fishery. Table 6 contains a summary of the fishing gear used by households that indicated they had participated in a subsistence salmon fishery in 1992. A total of 9,151 people were estimated to populate the 34 surveyed villages (Table 7). Over two-thirds of these households were in light-, medium-, or heavy-catch categories.

Salmon harvested by 1,069 fishing households of surveyed villages was estimated to total 38,167 chinook, 127,323 summer chum, 65,134 fall chum, and 31,778 coho salmon (Table 8; Appendices A.1-A.4). Tables 9-12 identify the salmon harvest by reported fishing district, subdistrict, or tributary location the fish were caught. Appendices B1.-B.5 document the annual salmon harvest from 1981 to 1992 by species and village. The estimated number of salmon used for subsistence (including commercial-related fish) by fishing and nonfishing households totaled 35,653 chinook, 220,965 summer chum, 75,619 fall chum, and 30,393 coho salmon (Table 13). An estimated total of 2,598 chinook and 134,000 summer chum salmon were retained from commercial catches and used for subsistence purposes by Yukon River drainage households (Table 14). Because the fall season commercial fishery was not held in the main Yukon River in 1992, no fall chum or coho salmon could have been retained from fall commercial fishing activities.

A total of 6,250 dogs were estimated to be owned by an estimated 1,552 households located in surveyed communities that participated in Yukon River subsistence fisheries (Table 15). These households estimated they used 159,168 summer chum salmon, 46,800 fall chum salmon, and 20,279 coho salmon as dog food

(Table 15). Chinook salmon were rarely used for dog food, so their dog food use was not computed. The above estimates include those summer chum salmon harvested in the District 4 commercial fishery that were primarily used for dog food since the flesh is retained by fishermen after selling the roe to processors.

A total of 272 households said they had not met their subsistence salmon needs for 1992. Based on the reasons people gave, it is estimated that 113 households tried to fish for salmon and did not get enough to meet their needs, and the remaining 159 households did not attempt to fish for salmon during 1992 (Table 16 and Appendix A.9).

Surveyors interviewed 68 of 71 Subdistrict 4-A commercial fishermen. Table 17 summarizes the survey information. Forty percent of the interviewed fishermen said they threw back live male summer chum salmon. The most common method of returning the fish to the water was to drop the males into the water via a chute from the fish wheel to the water. The majority of fishermen who returned male fish did so for more than half of the available fishing time. The 68 Subdistrict 4-A fishermen reported killing 155,361 summer chum salmon, of which they reported retaining 38% for their own household use, 36% were reportedly given away to other households, 9% were sold/bartered to other households, and 17% were reportedly lost to spoilage (Table 17 and Appendix A.12).

Of the 630 households asked about spawning coho salmon, 39 households said, yes, they had observed coho salmon spawning, and 591 said, no, they had not seen coho salmon spawning anywhere. Table 18 summarizes the tributary streams where individuals indicated they had observed migrating, spawning, or dead coho salmon.

### *Subsistence Permits*

A total of 442 subsistence fishing household permits were issued during the 1992 fishing season (includes 4 households that fished in two different permit areas). Permit issuing began in mid-May when department representatives traveled to six interior villages and issued 75 permits to village residents. The remainder of the permits were issued by mail or to individuals who applied for a permit at the department's Fairbanks office. The first permit was issued May 12, 1992, and the last permit was issued November 27, 1992.

Nearly all of the permits had an expiration date of October 15, 1992, and permit holders were to return their permits within 10 days of permit expiration. Approximately 52% of the permit holders had returned their permits prior to January 8, 1993. On January 8, the first reminder letter was sent to 179 households that had not returned any postseason harvest information. The first reminder letter increased the percentage of total households that reported their harvest to 72% as of January 25, 1993. On January 25, a second reminder letter was sent to a total of 120 households that had not returned any postseason harvest information. As of March 23, 1993, a total of 416 (94%) permittees had reported their 1992 harvest by either returning the original permit, returning either one of the reminder letters, or telephoning the office to report their harvest. The sum of the harvests reported by permit holders as of

March 23, 1993, was 7,663 chinook, 10,888 summer chum, 42,110 fall chum (of which 1,897 were carcasses), and 17,645 coho salmon. Table 19 contains a summary of the number of salmon harvested by permittees organized by fishing location, while Table 20 contains the same information but organizes permittees by community of residence. Historic subsistence permit catch information is summarized in Appendices B.6 and B.7. Salmon carcass subsistence and personal-use permit information is summarized in Appendix B.8 for households that collected salmon carcasses near the confluence of the Delta and Tanana Rivers.

A total of 442 subsistence permit households reported owning 2,982 dogs, and 197 of those permit households said they fed whole fish to their dogs. Of the 416 permit households who reported their 1992 subsistence fishing information, a reported 25,141 whole salmon of unspecified species were fed to or preserved for dog food (includes 600 postspawned fish collected at the Delta River). Table 21 details, by community, the number of dogs owned by households that obtained permits and the number of fish fed or preserved for dog food by people who reported their harvests.

Although personal-use fishing regulations were still valid for Subdistricts 6-A, 6-B, and 6-C during the 1992 fishing season, all Alaskan residents were eligible to harvest fish under subsistence fishing regulations. Subsistence permits were issued to all nonrural households that fished in a permit-required area. No personal-use permits were issued to nonrural households for fishing in the Yukon area during the 1992 fishing season. Historical personal-use harvest information is summarized in Appendices B.9 and B.10.

## DISCUSSION

### *Subsistence Survey*

Estimates of subsistence salmon survey harvests presented in this report are not strictly comparable to estimates obtained in previous years for a number of reasons. Commercially harvested fish retained for subsistence purposes were included in the estimates of subsistence harvests prior to 1988. Surveys conducted prior to 1979 were conducted earlier and undoubtedly documented only a portion of the fall chum and coho salmon harvest information because households fished for fall chum and coho salmon after the survey period. Additionally, the sampling design and questions have changed periodically throughout the history of the program (Brannian and Gnath 1988; Holder and Hamner 1990; Holder and Hamner 1991; Bromaghin and Hamner 1993).

During the personal interviews, surveyors attempted to interview an adult member of each sampled household, preferably the primary fisherman. The quality of the harvest estimate is dependent upon the collection of complete and accurate data. Both the surveyor and the surveyed individual contribute to this estimate. Surveyors have a responsibility to contact all of the households to be surveyed and ensure that questions are asked clearly, understandably, and foster a cooperative atmosphere. The household being interviewed has the responsibility to accurately answer the questions being asked.

Species identification is a concern in all portions of the drainage. For example, fishermen in the Upper Yukon use the term "silver" to refer to any bright, silvery fish; however, both fall chum and coho salmon remain bright late into the season. This problem must continue to be addressed by working with subsistence fishermen on species identification and training surveyors on common species names for each local area. It had been suggested that pictures of the different salmon species might assist individuals in providing surveys with accurate species numbers. During the 1992 survey, surveyors were provided with ocean bright and spawning color fish pictures. Surveyors reported these pictures were not helpful since people could not associate the fish they harvested with the pictures. It seems that the most useful technique is for surveyors to know the local common names of the fish species and to ask for specific dates the fish were harvested. To assist future surveys, surveyors recorded the common species names on village information sheets during the 1992 surveys.

During the 1991 subsistence survey the questionnaire did not ask any dog or dog-related information of nonsubsistence fishing households. This was changed for the 1992 survey, and all surveyed households were asked how many dogs they had and the number of whole salmon fed to those dogs. The difference in asking all households for dog information accounts for the significant increase in the number of dogs reported on the 1992 survey results.

During the 1992 fishing season, high water during the early portion of the season contributed to the lower number of summer chum salmon harvested, and the early freeze-up contributed to the lower number of fall chum salmon harvested for subsistence. The increase in the 1992 coho salmon harvest appears to have been related to the strong run exhibited in the main Yukon River.

The District 4 summer chum salmon commercial fishery poses a special problem. The primary commercial product produced from this fishery is processed summer chum salmon roe, which is mainly exported to Japan. A problem with this fishery has been determining the commercial-related harvest or the number of summer chum salmon carcasses used for subsistence, primarily for feeding dogs. Although used for subsistence, these fish are considered part of the commercial harvest. The separate Subdistrict 4-A interview form asked each commercial fisherman the disposition of his commercially caught salmon. Cross-checking these two survey forms greatly improved both the estimate of the actual summer chum salmon subsistence harvest and the amount of summer chum salmon from the commercial fishery used to meet subsistence needs. Surveyors reported that many Subdistrict 4-A commercial fishermen had only a very general idea of the number of fish they had taken: they just agreed with the department's expanded estimate based on the pounds of roe recorded on their fish tickets. The commonly held belief that selling dried fish from the commercial fishery is illegal probably influenced the fishermen's answers concerning numbers of fish given away or sold. Many fishermen also keep their dried fish in caches until spring, when there is a greater demand, and therefore could not accurately say how they had disposed of their fish.

The 1992 subsistence survey was expanded to ask households what portion of their salmon catch was used for their household, whether their household was given any salmon, and if so, who gave it to them. These two questions were asked to provide the department with better knowledge of the interrelationship

between harvest and sharing and to identify fishermen sharing fish with other people. This helped ADF&G ensure that each fishing household was in the proper catch strata.

Identifying all the tributary drainages in which subsistence fishermen have observed coho salmon spawning is an important first step in identifying coho salmon spawning locations in the Yukon River drainage. Department staff need to confirm these spawning locations and nominate or extend the coho information for those streams or locations not currently included in the department's *Anadromous Stream Catalog*.

### ***Subsistence Permits***

In general, the subsistence fishing permit program is working smoothly. The spring issuing trips and the availability of issuing the permits through the mail and at the local Tok and Delta ADF&G offices works well for most rural residents. The weekly telephone reporting requirement of catches by permitted subsistence fishermen in Subdistrict 6-C and that portion of Subdistrict 6-B three miles upstream of Totchaket Slough could be improved as supported by postseason harvest records.

Due to changes in the state subsistence law in 1986 that limited subsistence hunting and fishing to rural Alaskan residents, the Board of Fisheries created personal-use salmon fisheries in the Yukon area for nonrural state residents. These regulations primarily affected the greater Fairbanks area. Initially, only a fall chum salmon personal-use fishery was implemented in 1987. In 1988, personal-use fisheries were created for all salmon. However, the Alaska Supreme Court ruled that, effective July 1, 1990, every resident of the State of Alaska was an eligible subsistence user. In effect, this decision made the personal-use category obsolete in the Yukon area. Since the 1990 season, all fishermen have fished under subsistence fishing regulations, and no personal-use permits have been issued.

## **RECOMMENDATIONS**

Although some surveyed individuals may accurately recall the numbers of salmon they harvested during the fishing season, others are only able to provide rough approximations. Minimizing this problem requires fishermen to accurately remember or record their subsistence salmon harvests. The department currently uses catch calendars, which are mailed preseason to all Yukon River fishing households to encourage fishermen to record their harvests. Based on the low number of completed catch calendars that fishermen return to the department, some type of incentive program for returning completed catch calendars may need to be investigated.

The use of preseason postcards to improve our sampling frame and strata classifications was marginally successful. Postcards were mailed to households that we (1) had in our database but whose annual fish harvest was unknown, and (2) identified from the 1991 permanent fund list that were not on our lists of households. Additional effort should be expended to minimize the size of the unknown-use strata. A

suggestion would be to provide the surveyors a village list of unknown-harvest households to research during the 1993 survey.

Community household lists have formed the basis of the sampling frame since 1988 (Walker et al. 1989). Each year surveyors have attempted to update the list by having knowledgeable individuals in each community review and update the list. This process alone is not sufficient to maintain a complete and accurate community household list due to the dynamic nature of most community households. Because the conclusions obtained from the sampling program are based on household data, it is necessary that the village household lists be as accurate as possible. The use of the 1991 permanent fund application list was extremely helpful in updating the 1992 sampling frame. Several village organizations were willing to share their community household lists, which they had prepared for village census purposes. Where available, other community lists, such as telephone and utility lists, were also reviewed. One of the largest problems with the sampling frame is that even though it is updated annually, nearly a full year passes from the update to when the next sampling occurs. Methods for updating and maintaining an accurate sampling frame must continually be explored.

Problems with ambiguous or confusing questions on the interview form have been troublesome. Continued review of survey questions and additional training time for surveyors should minimize this problem.

Participation by subsistence fishing households in the subsistence survey program is completely voluntary. No regulation or statute exists that requires subsistence fishermen to record or report their subsistence salmon harvest. In general, fisherman cooperation has been good, but approximately one fisherman per village will decline to participate in the survey. The greater the error in the estimate of the subsistence harvest, the more difficult it becomes to manage the fisheries for sustainable yields. Therefore, regulatory or statutory requirements for fishermen to record and report their subsistence harvests has the potential to substantially improve the accuracy of the harvest estimate.

Another significant problem relating to the quality of the harvest estimate is that only 80% of the households to be sampled were actually contacted. Methods recommended to increase contact rates, such as spending more time in the villages and increasing the effort to make contacts via the telephone and postal system, have been investigated. It appears that spending more time in the villages is the only practical method to increase our contacts. Telephone contacts are restrained due to the limited availability of telephones in the villages and the reluctance of people to make a long-distance telephone call, even when we have requested they call collect. The followup interview forms sent to households that could not be personally interviewed or contacted by telephone were nearly useless due to the low response rate, and those that did respond usually only wrote a note on the survey and did not answer the questions.

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Table 1. Subsistence salmon harvest estimates and related information for the Alaskan portion of the Yukon River drainage, 1992.

Village <sup>a</sup>	Survey Date	Fishing			Summer	Fall	Coho	Set	Drift	Fish
		<sup>b</sup> Households	Dogs	Chinook	Chum	Chum		Nets	Nets	Wheels
Scammon Bay	9/2-9/3	43	316	948	3,795	79	31	43	0	0
Hooper Bay	9/3-9/4	<sup>c</sup> 60	197	503	12,900	127	28	60	0	0
<b>Bering Sea Coast Subtotal</b>		103	513	1,451	16,695	206	59	103	0	0
Sheldon's Point	9/3	16	42	388	1,415	490	441	13	3	0
Alakanuk	9/1-9/4	65	155	623	9,951	401	966	30	35	0
Emmonak	9/4-9/5	<sup>d</sup> 55	231	2,336	12,296	1,628	666	12	43	0
Kotlik	9/8-9/9	<sup>c</sup> 66	189	1,794	9,577	2,697	3,353	53	13	0
<b>District 1 Subtotal</b>		202	617	5,141	33,239	5,216	5,426	108	94	0
Mountain Village	9/10-9/11, 9/18	88	323	1,249	7,864	1,052	1,971	15	73	0
Pitka's Point	9/12, 9/18	10	96	851	759	77	641	3	7	0
St. Mary's	9/11-9/13, 9/18	54	169	1,753	7,796	2,356	2,130	9	45	0
Pilot Station	9/14	<sup>f</sup> 57	139	1,818	6,236	1,170	300	4	53	0
Marshall	9/15	52	244	1,403	2,076	2,727	1,545	5	47	0
<b>District 2 Subtotal</b>		261	971	7,074	24,731	7,382	6,587	36	225	0
Russian Mission	9/16	29	284	1,282	3,331	648	1,148	11	18	0
Holy Cross	10/13-10/14	31	111	3,491	1,001	845	105	14	17	0
<b>District 3 Subtotal</b>		60	395	4,773	4,332	1,493	1,253	25	35	0
<b>Lower Yukon River Drainage Total</b>		626	2,496	18,439	78,997	14,297	13,325	272	354	0
Anvik	10/14	20	187	389	1,142	894	202	15	3	2
Grayling	10/15-10/16	25	239	1,074	3,605	2,993	859	20	4	1
Kaltag	10/12-10/13	34	109	1,084	1,204	2,522	2,105	2	24	8
Nulato	10/7	38	132	1,596	889	1,910	435	9	18	11
Koyukuk	10/8	13	168	510	1,130	2,817	1,877	8	2	3
Galena	10/5-10/6, 10/9	53	332	1,870	3,232	2,393	1,398	27	11	15
Ruby	10/26	16	182	498	2,420	4,499	1,299	6	0	10
<b>District 4 Yukon River Subtotal</b>		<sup>e</sup> 199	1,349	7,021	13,622	18,028	8,175	87	62	50
Shageluk										
<b>Innoko River Subtotal</b>	10/16	<sup>h</sup> 17	112	218	5,267	865	296	12	2	1
Huslia	10/8	33	379	751	13,670	1,286	233	33	0	0
Hughes	10/9	7	51	29	1,625	325	21	7	0	0
Allakaket	10/12-10/13	25	177	395	6,368	1,452	0	25	0	0
Alatna	10/12	4	6	42	490	127	0	4	0	0
Bettles	10/13	5	103	53	37	14	0	5	0	0
<b>Koyukuk River Subtotal</b>		74	716	1,270	22,190	3,204	254	74	0	0
<b>District 4 Subtotal</b>		290	2,177	8,509	41,079	22,097	8,725	173	64	51
Tanana	10/27-10/29	45	592	2,477	4,553	19,365	11,406	18	0	27
Rampart	10/26	18	181	2,802	4,494	5,701	75	13	0	5
Fairbanks NSB	permits	<sup>i</sup> 29	106	1,394	706	2,491	34	26	0	3
Stevens Village	10/16	<sup>j</sup> 10	70	1,887	460	150	20	9	0	1
Birch Creek	10/22	1	18	44	0	0	0	1	0	0
Beaver	10/15	10	45	1,564	12	361	398	9	0	1
Fort Yukon	10/20-10/22	61	444	4,122	1,700	2,284	341	38	0	23
Circle	permits	<sup>k</sup> 16	190	1,585	265	6,279	54	9	0	7
Central	permits	<sup>l</sup> 7	20	167	91	100	0	7	0	0
Eagle	permits	<sup>m</sup> 23	161	1,040	23	5,630	3	19	0	4
Other	permits	<sup>n</sup> 8	15	571	291	0	0	7	0	1
<b>District 5 Yukon River Subtotal</b>		228	1,842	17,653	12,595	42,361	12,331	156	0	72

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Table 1. (Page 2 of 2).

Village <sup>a</sup>	Survey Date	<sup>b</sup>	Fishing			Summer	Fall	Set Nets	Drift Nets	Fish Wheels	
			Households	Dogs	Chinook	Chum	Chum				Coho
Venetie	10/22		7	164	35	0	3,066	45	7	0	0
Chalkyitsik	10/20		4	63	3	17	274	0	4	0	0
<b>Subtotal Chandalar/Black Rivers</b>			11	227	38	17	3,340	45	11	0	0
<b>District 5 Subtotal</b>			239	2,069	17,691	12,612	45,701	12,376	167	0	72
Manley	permits	<sup>o</sup>	19	603	551	850	7,010	4,725	12	0	7
Minto	permits	<sup>p</sup>	13	221	142	625	3,017	614	11	0	2
Nenana	permits	<sup>q</sup>	31	667	1,267	6,372	13,253	8,895	5	0	26
Healy	permits	<sup>r</sup>	6	95	0	0	1,003	1,038	4	0	2
Fairbanks NSB	permits	<sup>s</sup>	102	617	402	1,342	1,394	2,281	87	0	15
Delta Junction	permits	<sup>t</sup>	4	12	0	0	34	1	4	0	0
Other	permits	<sup>u</sup>	5	55	76	315	2	0	3	0	2
<b>District 6 Subtotal</b>			180	2,270	2,438	9,504	25,713	17,554	126	0	54
<b>Upper Yukon River Drainage Total</b>			709	6,516	28,638	63,195	93,511	38,655	466	64	177
<b>Alaska, Yukon River Drainage Total</b>			1,335	9,012	47,077	142,192	107,808	51,980	738	418	177

<sup>a</sup> Data collected by Commercial Fisheries Division. Survey data is expanded for number of fishing households, number of dogs, and catch data. Permit data is unexpanded, the number of dogs is based on permits issued, while the number of fishing households and their catch is based on returned permits. Gear data represents the principal gear types used by fishing households with exceptions of other gear types not listed.

<sup>b</sup> Estimated number of households that fished in nonpermit communities or number of permittees who reported fishing in permit-required areas.

<sup>c</sup> A tagging study conducted at Hooper Bay in 1986 by the Bering Sea Fishermen's Association concluded that harvests in the Nook Spit area of Hooper Bay intercepted Yukon River and Norton Sound chum salmon stocks.

<sup>d</sup> Includes 1,274 chinook, 3,068 summer chum, 1,366 fall chum, and 481 coho salmon from ADF&G test fish catches.

<sup>e</sup> Includes 441 chinook, 921 summer chum, 1,096 fall chum, and 2,076 coho salmon from ADF&G test fish catches.

<sup>f</sup> No ADF&G test fishing occurred in the 1992 season.

<sup>g</sup> Does not include summer chum salmon taken during commercial roe fishery used for subsistence.

<sup>h</sup> Shageluk harvest data from households fishing mainstem Yukon River and Innoko River.

<sup>i</sup> Data from Fairbanks North Star Borough fishermen who fished the Yukon River in a permit-required area. Of the 39 permits issued, 37 returned their permits and 29 fished.

<sup>j</sup> Permit harvest information from Stevens Village residents was included in the survey data.

<sup>k</sup> Circle. Of the 21 permits issued, 19 returned their permits and 16 fished.

<sup>l</sup> Central. Of the 12 permits issued, 12 returned their permits and 7 fished.

<sup>m</sup> Eagle. Of the 39 permits issued, 36 returned their permits and 23 fished.

<sup>n</sup> Bettles, Chicken, Savoonga, Tok, and Wasilla residents who fished the Yukon River in a permit-required area. 12 permits were issued, 12 returned their permits and 8 fished.

<sup>o</sup> Manley. Of the 30 permits issued, 28 returned their permits and 19 fished.

<sup>p</sup> Minto. Of the 30 permits issued, 25 returned their permits and 13 fished.

<sup>q</sup> Nenana. Of the 52 permits issued, 48 returned their permits and 31 fished. Includes 113 chinook, 112 summer chum, and 110 fall chum salmon from ADF&G test fish wheel.

<sup>r</sup> Healy. Of the 7 permits issued, 7 returned their permits and 6 fished.

<sup>s</sup> Data from Fairbanks North Star Borough fishermen who fished the Tanana River. 166 permits were issued, 161 returned their permits, and 102 fished. Does not include a harvest of 100 postspawned fall chum salmon by one carcass permittee.

<sup>t</sup> Delta. 8 permits were issued, 7 returned their permits, 4 fished. Does not include a harvest of 1,547 postspawned fall chum salmon by 10 carcass permittees.

<sup>u</sup> Residents of Coldfoot, Eagle River, Northway, Tanacross, and Tok who fished the Tanana River. 9 permits were issued, 9 permits were returned, and 5 fished. Does not include a harvest of 250 postspawned fall chum salmon by one carcass permittee.

Table 2. Yukon area department test fish given away for subsistence purposes, 1992.

	Chinook	Summer Chum	Fall Chum	Coho
Emmonak	1,274	3,068	1,366	481
Kotlik	441	921	1,096	2,076
Manley	0	0	0	0
Nenana	113	112	110	0
<b>Total</b>	<b>1,828</b>	<b>4,101</b>	<b>2,572</b>	<b>2,557</b>

Table 3. Yukon area villages, surveyors, and dates villages were surveyed for subsistence salmon harvest, 1992.

Community	Surveyor(s)	Survey Date(s)
Scammon Bay	Holder	9/2-9/3
Hooper Bay	Holder	9/3-9/4
Sheldon's Point	Chapell/Edmund	9/3
Alakanuk	Chapell/Edmund	9/1-9/4
Emmonak	Chapell/Edmund	9/4-9/5
Kotlik	Chapell/Edmund	9/8-9/9
Mountain Village	Chapell/Edmund	9/10-9/11, 9/18
Pitka's Point	Chapell/Edmund	9/12, 9/18
St. Mary's	Chapell/Edmund	9/11-9/13, 9/18
Pilot Station	Chapell/Edmund	9/14
Marshall	Chapell/Edmund	9/15
Russian Mission	Chapell/Edmund	9/16
Holy Cross	Chapell	10/13-10/14
Anvik	Chapell	10/14
Grayling	Chapell	10/15-10/16
Shageluk	Chapell	10/16
Kaltag	Holder	10/12-10/13
Nulato	Chapell/Becker	10/7
Koyukuk	Chapell	10/8
Galena	Chapell/Becker	10/5-10/6, 10/9
Ruby	Chapell	10/26
Huslia	Becker	10/8
Hughes	Becker	10/9
Allakaket	Becker	10/12-10/13
Alatna	Becker	10/12
Bettles	Becker	10/13
Tanana	Chapell/Becker	10/27-10/29
Rampart	Becker	10/26
Stevens Village	Becker	10/16
Beaver	Becker	10/15
Birch Creek	Chapell	10/22
Fort Yukon	Chapell/Becker/Holder	10/20-10/22
Chalkyitsik	Becker	10/20
Venetie	Becker	10/22

Table 4. The total number of households (N), the sample size (n), and the percentage of the sampled households that were contacted (C) by catch stratum, with village, district, and Yukon area totals, 1992.

Community	Unknown			Do Not Harvest			Light Harvester			Medium Harvester			Heavy Harvester			Community Totals		
	N	n	C	N	n	C	N	n	C	N	n	C	N	n	C	N	n	C
Alakanuk	11	5	20.0	38	5	80.0	63	19	94.7	11	11	100.0	1	1	0.0	124	41	27.4
Kotlik	17	5	20.0	22	5	20.0	42	13	100.0	16	16	87.5	3	3	100.0	100	42	32.0
Emmonak	18	5	80.0	55	6	83.3	50	15	80.0	15	15	100.0	1	1	100.0	139	42	26.6
Scammon Bay	35	7	71.4	2	2	50.0	12	5	60.0	9	9	100.0	0	-	-	58	23	31.0
Hooper Bay	62	12	33.3	6	5	20.0	19	6	83.3	24	24	58.3	4	4	50.0	115	51	22.6
Sheldon's Point	0	-	-	2	2	50.0	14	14	92.8	8	8	87.5	0	-	-	24	24	87.5
District 1	143	34	44.1	125	25	52.0	200	72	88.8	83	83	84.3	9	9	66.6	0	0	0.0
Pilot Station	5	5	20.0	39	5	80.0	50	15	73.3	5	5	80.0	1	1	100.0	100	31	21.0
St. Mary's	1	1	100.0	21	5	80.0	36	11	90.9	22	22	100.0	4	4	75.0	84	43	47.6
Mountain Village	3	3	33.3	49	5	100.0	66	20	90.0	19	19	100.0	1	1	0.0	138	48	31.1
Pitka's Point	1	1	0.0	6	5	60.0	8	8	25.0	9	9	77.7	0	-	-	24	23	50.0
Marshall	0	-	-	11	5	40.0	40	12	91.6	10	10	80.0	2	2	100.0	63	29	36.5
District 2	10	10	30.0	126	25	72.0	200	66	78.7	65	65	92.3	8	8	75.0	0	0	0.0
Russian Mission	0	-	-	18	5	40.0	26	8	87.5	10	10	100.0	0	-	-	54	23	35.1
Holy Cross	0	-	-	15	5	100.0	26	8	87.5	6	6	100.0	3	3	100.0	50	22	42.0
District 3	0	0	-	33	10	70.0	52	16	87.5	16	16	100.0	3	3	100.0	0	0	0.0
Ruby	7	5	80.0	29	5	60.0	16	5	100.0	11	11	72.7	3	3	100.0	66	29	34.8
Allakaket	0	-	-	17	5	60.0	12	5	100.0	13	13	76.9	2	2	100.0	44	25	45.4
Huslia	5	5	80.0	29	5	80.0	11	5	100.0	10	10	90.0	5	5	100.0	60	30	45.0
Kaltag	9	5	60.0	12	5	80.0	17	5	80.0	13	13	92.3	0	-	-	51	28	45.0
Alatna	0	-	-	4	4	100.0	2	2	100.0	4	4	75.0	0	-	-	10	10	90.0
Koyukuk	8	5	80.0	15	5	80.0	12	5	100.0	5	5	100.0	2	2	100.0	42	22	47.6
Anvik	4	4	75.0	13	5	80.0	12	5	100.0	5	5	100.0	3	3	100.0	37	22	54.0
Shageluk	4	4	100.0	9	9	55.5	7	7	42.8	9	9	88.8	3	3	100.0	32	32	71.8
Bettles	1	1	100.0	22	22	72.7	7	7	57.1	0	-	-	0	-	-	30	30	70.0
Hughes	3	3	66.6	6	6	66.6	6	6	66.6	5	5	80.0	0	-	-	20	20	70.0
Grayling	5	5	60.0	19	5	80.0	8	5	80.0	20	20	85.0	4	4	100.0	56	39	57.1
Galena	22	5	60.0	74	7	71.4	58	17	82.3	15	15	100.0	4	4	100.0	173	48	23.6
Nulato	20	5	60.0	32	5	100.0	20	6	100.0	13	13	100.0	1	1	100.0	86	30	32.5
District 4	88	47	72.3	281	88	73.8	188	80	82.5	123	123	88.6	27	27	100.0	0	0	0.0
Rampart	0	-	-	14	14	50.0	3	3	100.0	7	7	85.7	4	4	100.0	28	28	71.4
Chalkyitsik	2	2	0.0	22	22	81.8	6	6	83.3	4	4	100.0	0	-	-	34	34	79.4
Beaver	0	-	-	18	18	72.2	10	10	90.0	6	6	83.3	1	1	100.0	35	35	80.0
Fort Yukon	34	7	71.4	93	9	77.7	40	12	75.0	24	24	91.6	8	8	87.5	199	60	25.1
Birch Creek	0	-	-	12	12	91.6	3	3	66.6	0	-	-	0	-	-	15	15	86.6
Stevens Village	1	1	100.0	15	15	40.0	5	5	60.0	7	7	85.7	4	4	100.0	32	32	62.5
Tanana	15	5	40.0	65	7	85.7	16	5	60.0	13	13	76.9	23	23	91.3	132	53	31.8
Venetie	19	5	80.0	19	5	80.0	5	5	100.0	10	10	80.0	1	1	100.0	54	26	40.7
Chicken	0	-	-	2	2	0.0	0	-	-	0	-	-	0	-	-	2	2	0.0
District 5	71	20	60.0	260	104	69.2	88	49	79.5	71	71	85.9	41	41	92.6	531	285	77.8
Survey Totals	312	111	57.6	825	252	69.4	728	283	83.0	358	358	88.2	88	88	90.9	2,311	1,092	79.6

Table 5. Estimated number of subsistence fishing households in Yukon area surveyed villages identified by catch stratum, 1992.

Community	Unknown				Do Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Total HH	Combined		
	HH1		Cont'd		HH2		Cont'd		HH3		Cont'd		HH4		Cont'd		HH5		Cont'd			HH	Cont'd	Est
Alakanuk	11	1	1.0	0.1	38	4	0.5	0.2	63	18	0.3	0.0	11	11	0.9	0.0	1	0	1.0	0.0	124	34	65	24
Emmonak	18	4	0.2	0.2	55	5	0.2	0.1	50	12	0.5	0.1	15	15	0.8	0.0	1	1	1.0	0.0	139	37	55	25
Hooper Bay	62	4	0.5	0.2	6	1	0.0	0.1	19	5	0.4	0.2	24	14	0.7	0.0	4	2	1.0	0.0	115	26	60	35
Kotlik	17	1	0.0	0.1	22	1	1.0	0.1	42	13	0.6	0.1	16	14	0.9	0.0	3	3	1.0	0.0	100	32	66	12
Scammon Bay	35	5	0.6	0.2	2	1	1.0	0.1	12	3	1.0	0.0	9	9	0.8	0.0	0	0	-	-	58	18	43	16
Sheldon's Point	0	0	-	-	2	1	0.0	0.1	14	13	0.5	0.0	8	7	1.0	0.0	0	0	-	-	24	21	16	1
District 1	143	15	0.4	0.1	125	13	0.4	0.1	200	64	0.5	0.0	83	70	0.8	0.0	9	6	0.8	0.0	560	168	303	53
Marshall	0	0	-	-	11	2	0.0	0.0	40	11	1.0	0.0	10	8	1.0	0.0	2	2	1.0	0.0	63	23	52	0
Mountain Village	3	1	1.0	0.3	49	5	0.4	0.2	66	18	0.7	0.0	19	19	0.9	0.0	1	0	1.0	0.0	138	43	88	25
Pilot Station	5	1	0.0	0.3	39	4	0.2	0.2	50	11	0.8	0.1	5	4	1.0	0.0	1	1	1.0	0.0	100	21	57	21
Pitkas Point	1	0	0.3	0.3	6	3	0.3	0.2	8	2	0.0	0.0	9	7	0.8	0.0	0	0	-	-	24	12	10	3
St. Mary's	1	1	0.0	0.0	21	4	0.2	0.2	36	10	0.7	0.1	22	22	0.9	0.0	4	3	1.0	0.0	84	40	54	13
District 2	10	3	0.3	0.1	126	18	0.2	0.1	200	52	0.7	0.0	65	60	0.9	0.0	8	6	0.8	0.0	409	139	261	36
Holy Cross	0	0	-	-	15	5	0.2	0.1	26	7	0.8	0.1	6	6	0.6	0.0	3	3	0.6	0.0	50	21	31	8
Russian Mission	0	0	-	-	18	2	0.0	0.0	26	7	0.7	0.1	10	10	1.0	0.0	0	0	-	-	54	19	29	8
District 3	0	0	-	-	33	7	0.0	0.0	52	14	0.7	0.0	16	16	0.8	0.0	3	3	0.6	0.0	104	40	60	11
Alatna	0	0	-	-	4	4	0.0	0.0	2	2	0.5	0.0	4	3	0.6	0.1	0	0	-	-	10	9	4	1
Allakaket	0	0	-	-	17	3	0.3	0.3	12	5	0.6	0.1	13	10	0.8	0.0	2	2	1.0	0.0	44	20	25	11
Anvik	4	3	0.6	0.1	13	4	0.0	0.0	12	5	1.0	0.0	5	5	0.6	0.0	3	3	0.6	0.0	37	20	20	1
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	0.7	0.1	0	0	-	-	0	0	-	-	30	21	5	2
Galena	22	3	0.0	0.0	74	5	0.0	0.0	58	14	0.6	0.1	15	15	0.8	0.0	4	4	1.0	0.0	173	41	53	13
Grayling	5	3	0.0	0.0	19	4	0.2	0.2	8	4	0.5	0.2	20	17	0.5	0.0	4	4	1.0	0.0	56	32	25	9
Hughes	3	2	0.5	0.2	6	4	0.5	0.1	6	4	0.0	0.0	5	4	0.5	0.1	0	0	-	-	20	14	7	3
Huslia	5	4	0.2	0.1	29	4	0.5	0.2	11	5	0.6	0.1	10	9	0.6	0.0	5	5	0.8	0.0	60	27	33	16
Kaltag	9	3	0.6	0.2	12	4	0.2	0.2	17	4	0.7	0.2	13	12	0.9	0.0	0	0	-	-	51	23	34	10
Koyukuk	8	4	0.2	0.1	15	4	0.2	0.2	12	5	0.2	0.1	5	5	0.6	0.0	2	2	1.0	0.0	42	20	13	8
Nulato	20	3	0.6	0.3	32	5	0.0	0.0	20	6	0.6	0.1	13	13	0.7	0.0	1	1	1.0	0.0	86	28	38	14
Ruby	7	4	0.2	0.1	29	3	0.0	0.0	16	5	0.2	0.1	11	8	0.7	0.0	3	3	1.0	0.0	66	23	16	6
Shageluk	4	4	0.2	0.0	9	5	0.4	0.1	7	3	0.3	0.2	9	8	0.7	0.0	3	3	1.0	0.0	32	23	17	5
District 4	88	34	0.3	0.0	281	65	0.1	0.0	188	66	0.5	0.0	123	109	0.7	0.0	27	27	0.9	0.0	707	301	289	32
Beaver	0	0	-	-	18	13	0.1	0.0	10	9	0.3	0.0	6	5	0.6	0.1	1	1	0.0	0.0	35	28	10	2
Birch Creek	0	0	-	-	12	11	0.0	0.0	3	2	0.0	0.0	0	0	-	-	0	0	-	-	15	13	1	1
Chalkyitsik	2	0	0.0	0.0	22	18	0.0	0.0	6	5	0.4	0.1	4	4	0.5	0.0	0	0	-	-	34	27	4	1
Fort Yukon	34	5	0.2	0.1	93	7	0.1	0.1	40	9	0.4	0.1	24	22	0.6	0.0	8	7	0.8	0.0	199	50	61	30
Rampart	0	0	-	-	14	7	0.4	0.1	3	3	0.6	0.0	7	6	0.8	0.0	4	4	1.0	0.0	28	20	18	4
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	0.3	0.2	7	6	0.6	0.0	4	4	1.0	0.0	32	20	10	2
Tanana	15	2	0.0	0.0	65	6	0.1	0.1	16	3	0.6	0.3	13	10	0.2	0.0	23	21	0.9	0.0	132	42	45	22
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.2	0.0	10	8	0.5	0.0	1	1	1.0	0.0	54	22	7	2
District 5	71	12	0.0	0.0	258	72	0.1	0.0	88	39	0.4	0.0	71	61	0.5	0.0	41	38	0.8	0.0	529	222	156	38
Survey Totals	312	64	0.3	0.0	823	175	0.2	0.0	728	235	0.6	0.0	358	316	0.7	0.0	88	80	0.8	0.0	2,309	870	1,069	82

Table 6. Reported use of fishing gear by surveyed subsistence fishing households, Yukon area, 1992.

Community	Total Households	Households Surveyed	Subsistence Fished	Gear Type Used			
				Set Gillnetters	Drift Nets	Fish Wheels	Other
Alakanuk	124	34 (27.4%)	20 (58.8%)	9 (45.0%)	10 (50.0%)	0 (0.0%)	1 (5.0%)
Kotlik	100	32 (32.0%)	25 (78.1%)	20 (80.0%)	5 (20.0%)	0 (0.0%)	0 (0.0%)
Emmonak	139	37 (26.6%)	22 (59.4%)	5 (22.7%)	17 (77.2%)	0 (0.0%)	0 (0.0%)
Scammon Bay	58	18 (31.0%)	15 (83.3%)	15 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Hooper Bay	115	26 (22.6%)	16 (61.5%)	16 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Sheldon's Point	24	21 (87.5%)	14 (66.6%)	11 (78.5%)	3 (21.4%)	0 (0.0%)	0 (0.0%)
District 1	560	168 (30.0%)	112 (66.6%)	76 (67.8%)	35 (31.2%)	0 (0.0%)	1 (0.8%)
Pilot Station	100	21 (21.0%)	15 (71.4%)	1 (6.6%)	14 (93.3%)	0 (0.0%)	0 (0.0%)
St. Mary's	84	40 (47.6%)	31 (77.5%)	5 (16.1%)	26 (83.8%)	0 (0.0%)	0 (0.0%)
Mountain Village	138	43 (31.1%)	34 (79.0%)	6 (17.6%)	28 (82.3%)	0 (0.0%)	0 (0.0%)
Pitka's Point	24	12 (50.0%)	7 (58.3%)	2 (28.5%)	5 (71.4%)	0 (0.0%)	0 (0.0%)
Marshall	63	23 (36.5%)	21 (91.3%)	2 (9.5%)	19 (90.4%)	0 (0.0%)	0 (0.0%)
District 2	409	139 (33.9%)	108 (77.6%)	16 (14.8%)	92 (85.1%)	0 (0.0%)	1 (0.9%)
Russian Mission	54	19 (35.1%)	15 (78.9%)	6 (40.0%)	9 (60.0%)	0 (0.0%)	0 (0.0%)
Holy Cross	50	21 (42.0%)	13 (61.9%)	6 (46.1%)	7 (53.8%)	0 (0.0%)	0 (0.0%)
District 3	104	40 (38.4%)	28 (70.0%)	12 (42.8%)	16 (57.1%)	0 (0.0%)	1 (3.5%)
Ruby	66	23 (34.8%)	11 (47.8%)	3 (27.2%)	0 (0.0%)	7 (63.6%)	1 (9.0%)
Allakaket	44	20 (45.4%)	14 (70.0%)	14 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Huslia	60	27 (45.0%)	16 (59.2%)	16 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Kaltag	51	23 (45.0%)	17 (73.9%)	1 (5.8%)	12 (70.5%)	4 (23.5%)	0 (0.0%)
Alatna	10	9 (90.0%)	3 (33.3%)	3 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Koyukuk	42	20 (47.6%)	8 (40.0%)	5 (62.5%)	1 (12.5%)	2 (25.0%)	0 (0.0%)
Anvik	37	20 (54.0%)	12 (60.0%)	8 (66.6%)	2 (16.6%)	1 (8.3%)	1 (8.3%)
Shageluk	32	23 (71.8%)	13 (56.5%)	10 (76.9%)	2 (15.3%)	1 (7.6%)	0 (0.0%)
Bettles	30	21 (70.0%)	3 (14.2%)	2 (66.6%)	0 (0.0%)	0 (0.0%)	1 (33.3%)
Hughes	20	14 (70.0%)	5 (35.7%)	5 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Grayling	56	32 (57.1%)	17 (53.1%)	13 (76.4%)	3 (17.6%)	1 (5.8%)	0 (0.0%)
Galena	173	41 (23.6%)	25 (60.9%)	13 (52.0%)	5 (20.0%)	7 (28.0%)	0 (0.0%)
Nulato	86	28 (32.5%)	17 (60.7%)	4 (23.5%)	8 (47.0%)	5 (29.4%)	0 (0.0%)
District 4	707	301 (42.5%)	161 (53.4%)	97 (60.2%)	33 (20.4%)	28 (17.3%)	4 (2.4%)
Rampart	28	20 (71.4%)	14 (70.0%)	9 (69.2%)	0 (0.0%)	4 (30.7%)	0 (0.0%)
Chalkyitsik	34	27 (79.4%)	4 (14.8%)	4 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Beaver	35	28 (80.0%)	8 (28.5%)	7 (87.5%)	0 (0.0%)	1 (12.5%)	0 (0.0%)
Fort Yukon	199	50 (25.1%)	27 (54.0%)	16 (59.2%)	0 (0.0%)	10 (37.0%)	1 (3.7%)
Birch Creek	15	13 (86.6%)	1 (7.6%)	1 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Stevens Village	32	20 (62.5%)	9 (45.0%)	8 (88.8%)	0 (0.0%)	1 (11.1%)	0 (0.0%)
Tanana	132	42 (31.8%)	24 (57.1%)	10 (41.6%)	0 (0.0%)	14 (58.3%)	0 (0.0%)
Venetie	54	22 (40.7%)	6 (27.2%)	6 (100.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
District 5	529	222 (41.9%)	93 (41.8%)	61 (66.3%)	0 (0.0%)	30 (32.6%)	5 (5.4%)
Survey Totals	2,309	870 (37.6%)	502 (57.7%)	262 (52.2%)	176 (35.1%)	58 (11.5%)	5 (0.9%)

Table 7. Estimated number of people per household and total number of people by community, district, and catch stratum for Yukon area surveyed villages, 1992.

Community	Unknown HH1				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Total HH	Combined		
	HH1	Cont'd	Mean	SE	HH2	Cont'd	Mean	SE	HH3	Cont'd	Mean	SE	HH4	Cont'd	Mean	SE	HH5	Cont'd	Mean	SE		Cont'd	Total	Est
Alakanuk	11	1	10.0	0.8	38	4	3.0	1.1	63	18	5.5	0.5	11	11	4.7	0.0	1	0	6.3	1.0	124	34	626	109
Emmonak	18	4	4.0	1.5	55	5	4.2	1.1	50	12	5.2	0.5	15	15	4.2	0.0	1	1	5.0	0.0	139	37	635	143
Hooper Bay	62	4	7.0	0.8	6	1	2.0	0.6	19	5	4.4	1.7	24	14	5.2	0.5	4	2	9.5	0.3	115	26	693	128
Kotlik	17	1	3.0	0.8	22	1	6.0	0.6	42	13	4.9	0.4	16	14	6.2	0.2	3	3	4.6	0.0	100	32	503	51
Scammon Bay	35	5	4.4	1.3	2	1	5.0	0.6	12	3	5.0	0.8	9	9	5.2	0.0	0	0	-	-	58	18	271	93
Sheldon's Point	0	0	-	-	2	1	2.0	0.6	14	13	4.5	0.1	8	7	6.2	0.4	0	0	-	-	24	21	118	10
District 1	143	15	5.7	0.5	125	13	4.0	0.6	200	64	5.1	0.2	83	70	5.2	0.1	9	6	6.3	0.1	560	168	2,845	245
Marshall	0	0	-	-	11	2	3.0	1.8	40	11	4.8	0.3	10	8	6.0	0.2	2	2	4.5	0.0	63	23	295	48
Mountain Village	3	1	7.0	2.0	49	5	4.6	1.2	66	18	4.7	0.5	19	19	5.0	0.0	1	0	4.5	0.5	138	43	653	138
Pilot Station	5	1	1.0	2.0	39	4	3.2	1.8	50	11	6.0	0.6	5	4	5.2	0.4	1	1	7.0	0.0	100	21	465	154
Pitka's Point	1	0	3.0	2.0	6	3	5.3	2.0	8	2	5.0	0.0	9	7	3.0	0.1	0	0	-	-	24	12	99	25
St. Mary's	1	1	1.0	0.0	21	4	3.5	0.7	36	10	4.5	0.6	22	22	5.3	0.0	4	3	3.6	0.1	84	40	368	55
District 2	10	3	2.7	1.1	126	18	3.8	0.7	200	52	5.0	0.2	65	60	5.0	0.0	8	6	3.8	0.1	409	139	1,880	221
Holy Cross	0	0	-	-	15	5	5.8	0.7	26	7	4.5	0.6	6	6	2.6	0.0	3	3	3.6	0.0	50	21	233	38
Russian Mission	0	0	-	-	18	2	5.0	0.9	26	7	5.2	0.9	10	10	5.5	0.0	0	0	-	-	54	19	282	57
District 3	0	0	-	-	33	7	5.3	0.6	52	14	4.9	0.5	16	16	4.4	0.0	3	3	3.6	0.0	104	40	515	68
Alatna	0	0	-	-	4	4	2.0	0.0	2	2	1.5	0.0	4	3	3.0	0.5	0	0	-	-	10	9	23	5
Allakaket	0	0	-	-	17	3	3.6	1.3	12	5	2.6	0.3	13	10	3.7	0.3	2	2	4.5	0.0	44	20	151	45
Anvik	4	3	5.0	0.5	13	4	2.0	0.5	12	5	2.0	0.5	5	5	3.8	0.0	3	3	3.3	0.0	37	20	99	21
Bettles	1	1	2.0	0.0	22	16	1.5	0.0	7	4	4.5	1.0	0	0	-	-	0	0	-	-	30	21	67	15
Galena	22	3	1.3	0.3	74	5	3.0	1.0	58	14	3.2	0.4	15	15	2.6	0.0	4	4	4.0	0.0	173	41	498	155
Grayling	5	3	2.3	0.4	19	4	3.7	1.3	8	4	4.5	0.8	20	17	4.5	0.2	4	4	4.2	0.0	56	32	228	54
Hughes	3	2	6.0	1.1	6	4	3.0	0.5	6	4	2.0	0.4	5	4	2.7	0.3	0	0	-	-	20	14	62	11
Huslia	5	4	1.7	0.2	29	4	3.5	0.8	11	5	3.2	0.5	10	9	4.7	0.3	5	5	4.2	0.0	60	27	214	48
Kaltag	9	3	6.0	0.9	12	4	3.0	0.8	17	4	5.0	0.9	13	12	5.5	0.1	0	0	-	-	51	23	247	41
Koyukuk	8	4	3.7	0.6	15	4	2.5	0.7	12	5	3.0	0.5	5	5	3.2	0.0	2	2	3.5	0.0	42	20	127	27
Nulato	20	3	6.0	0.9	32	5	3.2	1.2	20	6	4.8	0.6	13	13	5.9	0.0	1	1	3.0	0.0	86	28	399	88
Ruby	7	4	3.0	0.8	29	3	3.6	1.5	16	5	4.2	0.4	11	8	2.8	0.3	3	3	2.3	0.0	66	23	233	92
Shageluk	4	4	4.2	0.0	9	5	2.8	0.3	7	3	2.6	0.6	9	8	4.1	0.2	3	3	4.6	0.0	32	23	112	12
District 4	88	34	3.7	0.2	281	65	3.0	0.3	188	66	3.5	0.1	123	109	4.1	0.0	27	27	3.8	0.0	707	301	2,458	226
Beaver	0	0	-	-	18	13	3.0	0.2	10	9	2.7	0.1	6	5	1.6	0.1	1	1	3.0	0.0	35	28	96	10
Birch Creek	0	0	-	-	12	11	2.0	0.1	3	2	4.5	0.2	0	0	-	-	0	0	-	-	15	13	38	4
Chalkyitsik	2	0	2.5	0.4	22	18	2.1	0.1	6	5	2.8	0.2	4	4	3.7	0.0	0	0	-	-	34	27	78	8
Fort Yukon	34	5	2.0	0.7	93	7	2.1	0.4	40	9	3.4	0.4	24	22	3.5	0.1	8	8	3.2	0.0	199	51	517	106
Rampart	0	0	-	-	14	7	2.1	0.2	3	3	2.0	0.0	7	6	2.3	0.2	4	4	4.5	0.0	28	20	70	8
Stevens Village	1	1	5.0	0.0	15	6	1.3	0.2	5	3	1.0	0.0	7	6	3.3	0.3	4	4	3.5	0.0	32	20	67	9
Tanana	15	2	2.5	1.3	65	6	2.1	0.6	16	3	2.0	0.9	13	10	3.6	0.3	23	21	3.7	0.1	132	42	343	94
Venetie	19	4	2.7	0.6	19	4	6.2	0.5	5	5	4.0	0.0	10	8	4.7	0.1	1	1	5.0	0.0	54	22	244	33
District 5	71	12	2.2	0.4	258	72	2.4	0.2	88	39	2.9	0.2	71	61	3.4	0.0	41	39	3.6	0.0	529	223	1,452	147
Survey Totals	312	64	4.3	0.2	823	175	3.2	0.2	728	235	4.4	0.1	358	316	4.4	0.0	88	81	4.0	0.0	2,309	871	9,151	431

Table 8. Subsistence salmon harvest estimates and corresponding confidence intervals for Yukon area surveyed villages, 1992.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)
	Households	Contacted	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)
Alakanuk	124	34	623	238	9,951	4,680	401	337	966	349
Emmonak	139	37	1,062	738	9,228	4,527	262	0	185	0
Hooper Bay	115	23	503	562	12,900	14,503	127	207	28	42
Kotlik	100	32	1,353	242	8,656	2,241	1,601	767	1,277	325
Scammon Bay	58	18	948	878	3,795	2,713	79	75	31	38
Sheldon's Point	24	21	388	89	1,415	274	490	130	441	152
District 1	560	165	4,877	1,326	45,945	16,285	2,960	876	2,928	504
Marshall	63	22	1,403	554	2,076	819	2,727	1,333	1,545	557
Mountain Village	138	43	1,249	358	7,864	2,059	1,052	343	1,971	938
Pilot Station	100	21	1,818	1,206	6,236	3,266	1,171	1,581	300	519
Pitka's Point	24	11	851	580	759	529	77	85	641	681
St. Mary's	84	40	1,753	634	7,796	2,520	2,356	508	2,130	866
District 2	409	137	7,074	1,623	24,731	4,712	7,383	2,158	6,587	1,635
Holy Cross	50	21	3,491	1,546	1,001	603	845	536	105	156
Russian Mission	54	19	1,282	584	3,331	614	648	100	1,148	52
District 3	104	40	4,773	1,653	4,332	861	1,493	545	1,253	164
Alatna	10	9	42	19	490	333	127	105	0	0
Allakaket	44	20	395	99	6,368	2,941	1,452	1,063	0	0
Anvik	37	20	389	193	1,142	401	894	141	202	43
Bettles	30	21	53	42	37	44	14	18	0	0
Galena	173	41	1,870	729	3,232	1,428	2,393	177	1,398	368
Grayling	56	32	1,074	442	3,605	1,254	2,993	968	859	269
Hughes	20	14	29	12	1,625	786	325	226	21	11
Huslia	60	27	751	492	13,670	12,685	1,286	571	233	128
Kaltag	51	23	1,084	365	1,204	586	2,522	2,107	2,105	2,560
Koyukuk	42	20	510	69	1,130	223	2,817	475	1,877	1,259
Nulato	86	28	1,596	585	889	795	1,910	774	435	273
Ruby	66	23	498	276	2,420	1,480	4,499	1,091	1,299	176
Shageluk	32	23	218	67	5,267	1,186	865	56	296	86
District 4	707	301	8,509	1,259	41,079	13,367	22,097	2,994	8,725	2,912
Beaver	35	28	1,564	706	12	9	361	289	398	319
Birch Creek	15	13	44	24	0	0	0	0	0	0
Chalkyitsik	34	27	3	4	17	33	274	50	0	0
Fort Yukon	199	50	4,122	1,608	1,700	1,263	2,284	1,039	341	136
Rampart	28	20	2,802	213	4,494	3,650	5,701	1,445	75	61
Stevens Village	32	20	1,887	445	460	0	150	0	20	0
Tanana	132	42	2,477	453	4,553	922	19,365	2,945	11,406	1,489
Venetie	54	22	35	30	0	0	3,066	1,098	45	0
District 5	529	222	12,934	1,881	11,236	3,971	31,201	3,624	12,285	1,530
Survey Totals	2,309	865	38,167	3,499	127,323	21,968	65,134	5,274	31,778	3,711

Table 9. Surveyed villages estimated Yukon area chinook salmon subsistence catch by fishing location, 1992.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)
Alakanuk	3	590														
Emmonak	27	1,035														
Hooper Bay	503	0														
Kotlik	0	1,308														
Scammon Bay	223	725														
Sheldon's Point	0	388														
District 1	756	4,046														
Marshall		0	1,403													
Mountain Village		275	941													
Pilot Station		0	1,818													
Pitka's Point		0	847													
St. Mary's		318	1,435													
District 2	---	593	6,444													
Holy Cross			0	3,491												
Russian Mission			65	1,217												
District 3	---	---	65	4,708												
Alatna					0	0	0					0	42			
Allakaket					0	0	0					0	395			
Anvik					389	0	0					0	0			
Bettles					0	0	0					0	53			
Galena					259	990	622					0	0			
Grayling					1,074	0	0					0	0			
Hughes					0	0	0					0	29			
Huslia					0	0	0					0	751			
Kaltag					1,084	0	0					0	0			
Koyukuk					140	370	0					0	0			
Nulato					1,596	0	0					0	0			
Ruby					3	0	495					0	0			
Shageluk				21	101	0	0					96	0			
District 4	---	---	---	21	4,646	1,360	1,117					96	1,270			
Beaver								0	0	0	1,564			0	0	0
Birch Creek								0	0	0	44			0	0	0
Chalkyitsik								0	0	0	0			0	0	0
Fort Yukon								0	0	0	3,809			313	0	0
Rampart								0	0	2,802	0			0	0	0
Stevens Village								0	0	355	1,532			0	0	0
Tanana								0	2,552	0	0			0	0	0
Venetie								0	0	0	0			0	35	0
District 5								0	2,552	3,157	6,949			313	35	0
Yukon Totals	756	4,639	6,509	4,729	4,646	1,360	1,117	0	2,552	3,157	6,949	96	1,270	313	35	0

Table 10. Surveyed villages estimated Yukon area summer chum salmon subsistence catch by fishing location, 1992.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)
Alakanuk	0	9,671	77													
Emmonak	4	9,224	0													
Hooper Bay	12,140	0	760													
Kotlik	0	8,816	0													
Scammon Bay	2,040	1,755	0													
Sheldon's Point	0	1,415	0													
District 1	14,184	30,881	837													
Marshall		0	2,076													
Mountain Village		3,614	4,023													
Pilot Station		0	6,236													
Pitka's Point		0	756													
St. Mary's		1,356	6,440													
District 2	---	4,970	19,531													
Holy Cross			0	1,001												
Russian Mission			1,500	1,831												
District 3	---	---	1,500	2,832												
Alatna					0	0	0					0	490			
Allakaket					0	0	0					0	6,368			
Anvik					1,142	0	0					0	0			
Bettles					0	0	0					0	37			
Galena					1,428	952	851					0	0			
Grayling					3,605	0	0					0	0			
Hughes					0	0	0					0	1,625			
Huslia					0	0	0					0	13,670			
Kaltag					1,204	0	0					0	0			
Koyukuk					1,110	20	0					0	0			
Nulato					889	0	0					0	0			
Ruby					0	0	2,420					0	0			
Shageluk					11	0	0					5,256	0			
District 4	---	---	---	---	9,389	972	3,271					5,256	22,190			
Beaver								0	0	0	12			0	0	0
Birch Creek								0	0	0	0			0	0	0
Chalkyitsik								0	0	0	0			0	0	0
Fort Yukon								0	0	0	1,673			27	0	0
Rampart								0	0	4,494	0			0	0	0
Stevens Village								0	0	150	310			0	0	0
Tanana								120	4,409	130	0			0	0	0
Venetie								0	0	0	0			0	0	0
District 5	---	---	---	---	---	---	---	120	4,409	4,774	1,995			27	0	0
Yukon Totals	14,184	35,851	21,868	2,832	9,389	972	3,271	120	4,409	4,774	1,995	5,256	22,190	27	0	0

Table 11. Surveyed villages estimated Yukon area fall chum salmon subsistence catch by fishing location, 1992.

Villages	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	Black River (Porcupine)
Alakanuk	0	338	55													
Emmonak	0	262	0													
Hooper Bay	127	0	0													
Kotlik	0	1,294	0													
Scammon Bay	44	35	0													
Sheldon's Point	0	490	0													
District 1	171	2,419	55													
Marshall		0	2,727													
Mountain Village		460	490													
Pilot Station		0	1,171													
Pitka's Point		0	75													
St. Mary's		276	2,080													
District 2		736	6,543													
Holy Cross			0	845												
Russian Mission			340	308												
District 3			340	1,153												
Alatna					0	0	0					0	127			
Allakaket					0	0	0					0	1,452			
Anvik					894	0	0					0	0			
Bettles					0	0	0					0	14			
Galena					40	1,643	710					0	0			
Grayling					2,993	0	0					0	0			
Hughes					0	0	0					0	325			
Huslia					0	0	0					0	1,286			
Kaltag					2,522	0	0					0	0			
Koyukuk					787	2,030	0					0	0			
Nulato					1,910	0	0					0	0			
Ruby					0	0	4,499					0	0			
Shageluk					53	267	0	0				545	0			
District 4					53	9,413	3,673	5,209				545	3,204			
Beaver								0	0	0	361			0	0	0
Birch Creek								0	0	0	0			0	0	0
Chalkyitsik								0	0	0	0			0	0	266
Fort Yukon								0	0	0	2,056			229	0	0
Rampart								0	0	5,701	0			0	0	0
Stevens Village								0	0	150	0			0	0	0
Tanana								10,603	9,371	65	0			0	0	0
Venetie								0	0	0	0			0	3,066	0
District 5								10,603	9,371	5,916	2,417			229	3,066	266
Yukon Totals	171	3,155	6,938	1,206	9,413	3,673	5,209	10,603	9,371	5,916	2,417	545	3,204	229	3,066	266

Table 12. Surveyed villages estimated Yukon area coho salmon subsistence catch by fishing location, 1992.

Villages													Black River			
	Ocean	Y-1	Y-2	Y-3	Y-4A	Y-4B	Y-4C	Y-5A	Y-5B	Y-5C	Y-5D	Innoko	Koyukuk	Porcupine	Chandalar	(Porcupine)
Alakanuk	0	394	495													
Emmonak	0	193	0													
Hooper Bay	28	0	0													
Kotlik	0	1,218	0													
Scammon Bay	10	21	0													
Sheldon's Point	0	441	0													
District 1	38	2,267	495													
Marshall		0	1,545													
Mountain Village		52	1,784													
Pilot Station		0	300													
Pitka's Point		0	640													
St. Mary's		43	2,087													
District 2		95	6,356													
Holy Cross			0	105												
Russian Mission			600	548												
District 3			600	653												
Alatna					0	0	0					0	0			
Allakaket					0	0	0					0	0			
Anvik					202	0	0					0	0			
Bettles					0	0	0					0	0			
Galena					446	630	323					0	0			
Grayling					859	0	0					0	0			
Hughes					0	0	0					0	21			
Huslia					0	0	0					0	233			
Kaltag					2,105	0	0					0	0			
Koyukuk					1,857	20	0					0	0			
Nulato					435	0	0					0	0			
Ruby					0	0	1,299					0	0			
Shageluk					0	0	0					296	0			
District 4					5,904	650	1,622					296	254			
Beaver								0	0	0	398			0	0	0
Birch Creek								0	0	0	0			0	0	0
Chalkyitsik								0	0	0	0			0	0	0
Fort Yukon								0	0	0	336			5	0	0
Rampart								0	0	75	0			0	0	0
Stevens Village								0	0	20	0			0	0	0
Tanana								9,439	1,962	0	0			0	0	0
Venetie								0	0	0	0			0	45	0
District 5								9,439	1,962	95	734			5	45	0
Yukon Totals	38	2,362	7,451	653	5,904	650	1,622	9,439	1,962	95	734	296	254	5	45	0

Table 13. Estimated number of salmon used for subsistence purposes in Yukon area surveyed villages, 1992.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)
	Households	Contacted	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)
Alakanuk	124	34	847	163	9,440	4,191	360	337	765	129
Emmonak	139	37	1,033	574	9,707	2,963	367	31	218	31
Hooper Bay	115	23	338	139	6,106	2,194	127	207	28	39
Kotlik	100	32	1,662	358	8,917	1,880	1,787	778	1,132	309
Scammon Bay	58	18	902	855	3,787	2,713	79	75	143	116
Sheldon's Point	24	21	408	88	1,776	282	490	130	342	116
District 1	560	165	5,190	1,116	39,733	6,491	3,210	886	2,628	376
Marshall	63	22	1,393	550	2,257	1,071	2,684	1,314	1,382	521
Mountain Village	138	43	1,219	351	9,114	2,313	1,209	271	1,048	178
Pilot Station	100	21	1,871	1,207	7,255	3,115	762	884	300	519
Pitka's Point	24	11	794	588	535	435	77	85	641	681
St. Mary's	84	40	1,409	468	6,738	1,893	1,555	301	1,263	279
District 2	409	137	6,686	1,565	25,899	4,469	6,287	1,637	4,634	1,056
Holy Cross	50	21	1,465	492	813	711	704	397	7	0
Russian Mission	54	19	1,376	668	3,474	725	747	165	1,157	54
District 3	104	40	2,841	830	4,287	1,015	1,451	430	1,164	54
Alatna	10	9	40	15	495	333	130	105	0	0
Allakaket	44	20	360	86	6,368	2,941	1,452	1,063	0	0
Anvik	37	20	348	145	19,195	8,453	751	151	187	43
Bettles	30	21	98	58	40	44	22	20	0	0
Galena	173	41	1,587	879	26,030	13,169	1,662	279	1,878	1,500
Grayling	56	32	1,075	421	26,366	7,314	2,306	671	654	301
Hughes	20	14	61	23	1,475	742	306	221	21	11
Huslia	60	27	776	439	14,248	12,684	1,321	572	233	128
Kaltag	51	23	1,219	250	16,674	9,115	2,551	1,837	802	243
Koyukuk	42	20	505	104	4,821	1,886	1,784	327	1,502	630
Nulato	86	28	1,541	607	12,804	4,169	1,998	939	169	137
Ruby	66	23	1,648	360	6,131	4,296	6,473	3,430	1,322	175
Shageluk	32	23	224	66	5,187	1,193	836	56	268	104
District 4	707	301	9,482	1,325	19,834	24,340	21,592	4,266	7,036	1,696
Beaver	35	28	915	351	12	9	432	298	398	319
Birch Creek	15	13	38	9	0	0	109	62	0	0
Chalkyitsik	34	27	5	5	17	33	288	56	0	0
Fort Yukon	199	50	3,315	917	1,743	1,269	2,929	1,155	173	69
Rampart	28	20	2,648	212	4,082	3,104	5,977	1,402	75	61
Stevens Village	32	20	1,864	301	463	8	275	190	20	0
Tanana	132	42	2,144	396	4,895	933	30,003	16,433	14,220	5,749
Venetie	54	22	525	827	0	0	3,066	1,098	45	0
District 5	529	222	11,454	1,394	11,212	3,481	43,079	16,573	14,931	5,759
Yukon Totals	2,309	865	35,653	2,843	220,965	25,840	75,619	17,220	30,393	6,107

Table 14. Estimated number of salmon retained from commercial catches for subsistence use in Yukon area surveyed villages, 1992.

Community	Catch Strata Combined		Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon	
	Total Households	Households Contacted	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)
Alakanuk	124	34	0	0	18	29				
Emmonak	139	37	0	0	0	0				
Hooper Bay	115	23	0	0	0	0				
Kotlik	100	32	0	0	0	0				
Scammon Bay	58	18	8	14	0	0				
Sheldon's Point	24	21	11	4	328	118				
District 1	560	165	19	14	346	121				
Marshall	63	22	0	0	0	0				
Mountain Village	138	43	0	0	4	0				
Pilot Station	100	21	0	0	0	0				
Pitkas Point	24	11	0	0	0	0				
St. Mary's	84	40	0	0	0	0				
District 2	409	137	0	0	4	0				
Holy Cross	50	21	0	0	0	0				
Russian Mission	54	19	10	0	0	0				
District 3	104	40	10	0	0	0				
Alatna	10	9	0	0	0	0				
Allakaket	44	20	0	0	0	0				
Anvik	37	20	60	7	28,109	13,487				
Bettles	30	21	0	0	0	0				
Galena	173	41	118	71	17,425	9,194				
Grayling	56	32	52	19	20,450	10,938				
Hughes	20	14	0	0	0	0				
Huslia	60	27	0	0	0	0				
Kaltag	51	23	187	152	44,977	34,608				
Koyukuk	42	20	0	0	4,000	0				
Nulato	86	28	10	0	15,064	4,216				
Ruby	66	23	1,973	853	3,399	920				
Shageluk	32	23	0	0	0	0				
District 4	707	301	2,400	870	133,424	40,030				
Beaver	35	28	0	0	0	0				
Birch Creek	15	13	0	0	0	0				
Chalkyitsik	34	27	0	0	0	0				
Fort Yukon	199	50	0	0	27	15				
Rampart	28	20	16	22	0	0				
Stevens Village	32	20	0	0	0	0				
Tanana	132	42	153	58	199	78				
Venetie	54	22	0	0	0	0				
District 5	529	222	169	62	226	79				
Yukon Totals	2,309	865	2,598	872	134,000	40,031	0	0	0	0

There was no fall commercial fishing season in Districts 1, 2, 3, 4, or 5

Table 15. Estimated households with dogs, number of dogs, and salmon fed to dogs for Yukon area surveyed villages, 1992.

Community	Catch Strata Combined		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 Households	Households Contacted	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)
Alakanuk	124	34	87	23	155	62	12	116	0	0	0	0
Emmonak	139	37	79	30	231	154	20	0	0	0	0	0
Hooper Bay	115	23	98	9	197	89	9	11	0	0	0	0
Kotlik	100	32	83	12	189	69	413	556	0	0	86	59
Scammon Bay	58	18	35	16	316	334	650	1,016	0	0	0	0
Sheldon's Point	24	21	13	2	42	18	67	65	1,000	904	67	65
District 1	560	165	395	44	1,130	390	1,171	1,166	1,000	904	153	88
Marshall	63	22	52	0	244	50	75	22	31	22	70	0
Mountain Village	138	43	91	23	323	168	75	79	1	2	512	22
Pilot Station	100	21	70	22	139	77	0	0	0	0	0	0
Pitka's Point	24	11	15	7	96	45	0	0	0	0	1,157	1,069
St. Mary's	84	40	57	14	169	33	544	261	215	63	498	106
District 2	409	137	285	35	971	200	694	274	247	67	2,237	1,075
Holy Cross	50	21	42	6	111	56	371	622	0	0	0	0
Russian Mission	54	19	48	6	284	112	286	311	74	124	37	62
District 3	104	40	90	9	395	125	657	696	74	124	37	62
Alatna	10	9	5	1	6	2	150	0	0	0	0	0
Allakaket	44	20	33	11	177	53	6,132	3,648	509	103	0	0
Anvik	37	20	23	8	187	98	19,308	8,401	0	0	85	0
Bettles	30	21	17	4	103	75	35	45	0	0	0	0
Galena	173	41	80	37	332	173	24,765	13,244	546	261	245	130
Grayling	56	32	49	9	239	42	25,980	7,264	176	134	85	18
Hughes	20	14	14	3	51	18	1,500	1,074	0	0	0	0
Huslia	60	27	49	4	379	84	23,250	16,192	327	365	0	0
Kaltag	51	23	42	9	109	20	16,123	9,108	0	0	108	58
Koyukuk	42	20	34	7	168	147	4,782	1,886	0	0	1,393	629
Nulato	86	28	56	13	132	32	12,550	3,964	167	273	167	273
Ruby	66	23	34	19	182	59	4,938	2,821	5,225	2,975	1,240	168
Shageluk	32	23	23	4	112	30	4,236	950	0	0	0	0
District 4	707	301	459	48	2,177	291	143,749	26,201	6,950	3,026	3,323	721
Beaver	35	28	18	3	45	16	0	0	429	297	398	318
Birch Creek	15	13	9	2	18	5	0	0	120	96	0	0
Chalkyitsik	34	27	16	2	63	7	17	33	260	48	0	0
Fort Yukon	199	50	129	39	444	116	3,874	2,033	1,583	442	87	49
Rampart	28	20	19	4	181	80	3,660	3,424	3,850	0	0	0
Stevens Village	32	20	15	6	70	38	450	0	275	190	0	0
Tanana	132	42	80	32	592	163	4,896	932	28,946	16,459	13,999	5,749
Venetie	54	22	37	13	164	46	0	0	3,066	1,098	45	0
District 5	529	222	323	53	1,577	224	12,897	4,089	38,529	16,506	14,529	5,759
Yukon Totals	2,309	865	1,552	91	6,250	585	159,168	26,555	46,800	16,805	20,279	5,903

Table 16. Summary of responses of surveyed individuals who said their household's subsistence salmon needs were not met in 1992, and answered the question, "Why didn't you meet your salmon needs this year?"

Category	Number of Responses in this Category	Percent Response in this Category	Response Summary
1	54	20%	Fished but due to Mother Nature, i.e., high water/early freeze-up, did not get enough fish.
2	35	13%	Working in another occupation.
3	30	11%	No gear boat/net.
4	15	6%	No helper to harvest or process fish.
5	21	8%	Busy doing other things.
6	23	8%	Medical reasons or elderly.
7	19	7%	Poor run of fish.
8	9	3%	Out of town.
9	10	3%	Will get more fish as gifts or will buy more fish.
10	17	6%	Not enough fish caught.
11	26	10%	They didn't fish and other reasons not in other categories.
12	13	5%	Still fishing.
<b>Totals<sup>a</sup></b>	<b>272</b>	<b>100%</b>	

<sup>a</sup> This table was generated from the individual responses in Appendix A.9.

Table 17. Summary information from Subdistrict 4-A commercial fishermen concerning summer chum salmon caught during the 1992 commercial fishing season.

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#### INSEASON INFORMATION FROM 68 FISHERMEN <sup>a</sup>

68 of the 71 fishermen reported killing 117,825 summer chum salmon on fish tickets inseason.

The department inseason estimate for those same 68 fishermen estimated 176,708 summer chum salmon killed, based on 0.9 pounds of roe per female and a sex ratio of 0.6.

#### POSTSEASON INTERVIEW INFORMATION FROM 68 FISHERMEN <sup>a</sup>

Do you or crewmembers throw back live male summer chum salmon?

27 (40%) fishermen said yes.

34 (50%) fishermen said no.

7 fishermen did not answer.

Of the 27 fishermen who reported throwing back live male summer chum salmon, the method of return to the water was:

4 (15%) threw the fish back after they dropped into a box;

15 (56%) dropped males into the water via a chute from the wheel to the water;

3 (11%) released the fish from a livebox using a dipnet;

3 (11%) released fish from their set gillnets; and

2 ( 7%) fishermen released fish parttime from a box and parttime via a chute

Of the 27 fishermen who reported throwing back live male summer chum salmon during the four 24-hour fishing periods (96 hours), how much of the time were males released?

8 released males all the time during 764 of 768 hours of fishing time;

4 released males 3/4 of the time during 324 of 384 hours of fishing time;

6 released males 1/2 of the time during 570 of 576 hours of fishing time;

4 released males 1/4 of the time during 372 of 384 hours of fishing time;

3 released males <1/4 of the time during 286 of 288 hours of fishing time; and

2 did not answer.

During the postseason interview, 68 Subdistrict 4-A fishermen reported killing 155,361 summer chum salmon during the 1992 commercial fishing season — 132% of the inseason fish ticket report and 88% of the department-expanded inseason estimate.

Fishermen reported retaining 58,873 (38%) fish for their households' subsistence use.

Fishermen reported giving away 55,064 (36%) fish to other households.

Fishermen reported selling/bartering 12,954 (9%) fish to other households.

Fishermen reported loss to spoilage/animals of 26,127 (17%) fish.

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<sup>a</sup> This table was generated from the information contained in Appendix A.12.

Table 18. Summary of reported Yukon River tributary coho salmon spawning locations collected from Yukon River subsistence households during the 1992 survey.

Village	HHID#	Migrating, Spawning, or Dead?	Number of Coho Observed	Month	Day	Year	River and Stream Locations in Alaska Place Name Dictionary	Longitude/Latitude	Previously Identified in Yukon River Anadromous Stream Catalog as Coho Salmon Spawning Stream $\epsilon$
Scammon Bay	390046	Dead	2	August	Mid/Late	Yearly	- Kun River.	61° 54' N, 164° 37' W	No
Mountain Village	310038	Spawning Spawning	30 (+) 30 (+)	August	9-15	1992	- Anuk River.	62° 19' N, 163° 51' W	No
				August	9-15	1992	- East (South) Fork Andreafsky River.	63° 07' N, 161° 46' W	Yes; 1981
Mountain Village	New HH	Spawning and Dead	Thousands	August (For 2-3 weeks)	15-22	1992	- Archuelinguk River (Clearwater River). Above Anuk River. Also other creeks near Marshall and Russian Mission.	62° 23' N, 163° 14' W	No
Pilot Station	340011	Spawning and Dead	300 (+/-)	August	12-20	1990	- 20 miles up the Atchuelinguk River (Chuilnak River).	63° 02' N, 161° 27' W	No
Pilot Station	340004	Spawning and Dead	10 (+/-)	September	23-31	1991	- 29 miles up the Atchuelinguk River (Chuilnak River)?	63° 02' N, 161° 27' W	No
Marshall	290035	Spawning	600 (+/-) <sup>a</sup>	September	1-31	1990	- Wilson Creek Slough - Marshall end of airport.	61° 49' N, 162° 03' W	No
Marshall	290015	Spawning and Dead	100 (-) <sup>b</sup>	August to October	20 10	1991 1991	- 16 miles up Wilson Creek.	61° 51'50" N, 162° 03'20" W	No
Marshall	290011	Spawning and Dead	Hundreds 50 (+/-) Hundreds	August and September		1991	- Engineer Creek up to Engineer Lake.	61° 43' N, 161° 56' W	No
				August and September		1991	- Wilson Creek.	61° 51'50" N, 162° 03'20" W	No
				August and September		1991	- Kuyukutuk River (up near Muddy Lake behind Russian Mission).	61° 52' N, 161° 41' W	No
Russian Mission	380030	Spawning	10	August	15-20	1992 (Yearly)	- Carnation Creek 10 miles above Russian Mission (first creek below Dogfish V.).	Not in Place Names Dictionary	No
		Spawning	10 (-)	August	15-20	1992	- Mission Creek 1 mile below Russian Mission.	Not in Place Names Dictionary	No
		<sup>d</sup>	---	---	---	---	- Nagaiyugtalek River?	Not in Place Names Dictionary	No
St. Mary's	420055	Spawning	<sup>c</sup>	August to September	20 9	Yearly	- Andreafsky River (West and East Forks).	63° 07' N, 161° 46' W	Yes; 1981 East Fork only
St. Mary's	420052	Migrating	10-20	August	20-30	1992	- West (North) Fork Andreafsky River.	63° 07' N, 161° 46' W	No
Pitka's Point	350010	Migrating	1,000 (+/-)	September	1	1992	- 67 miles up West Fork Andreafsky River.	63° 07' N, 161° 46' W	No
		<sup>d</sup>	---	---	---	---	- Atchuelinguk River.	63° 02' N, 161° 27' W	No

- continued -

Table 18. (Page 2 of 2).

Village	HHID#	Migrating, Spawning, or Dead?	Number of Coho Observed	Month	Day	Year	River and Stream Locations in Alaska Place Name Dictionary	Longitude/Latitude	Previously Identified in Yukon River Anadromous Stream Catalog as Coho Salmon Spawning Stream <sup>g</sup>
Kotlik	260083	Migrating	1,000 (+/-)	August	—	1991	– Pastolik Slough (Pastolik River)	63° 02' N, 163° 20' W	No
Fort Yukon	160037	Spawning	Hundreds.	September	Late	1989	– Sheenjek River, 7–30 miles upriver. (At least 6 spawning holes.)	69° 00' N, 144° 00' W	Yes; 74', 75'
Anvik	040014	Spawning	<sup>c</sup>	—	—	—	– Anvik River, ~10 miles upriver.	63° 39' N, 160° 08' W	Yes; 57', 75', 76'
Anvik	040015	Dead	50 (+/-)	November	Several Years		– Hawk River (off of Bonasila River).	62° 30' N, 160° 53' W	No
		Dead	50 (+/-)	November	Several Years		– Beaver Creek (off of Anvik River).	62° 50'30" N, 160° 43'00" W	Yes; 57', 75', 76'
Grayling	180003	Spawning and Dead	Hundreds	September to October		1991	– Grayling Creek.	62° 54' N, 160° 04' W	No
Grayling	180024	Dead	Hundreds	September to October		1991	– Grayling Creek.	62° 54' N, 160° 04' W	No
Holy Cross	200001	Migrating	2 (+)	September	17	1991	– Reindeer River (off Paimute Slough).	62° 15' N, 158° 28' W	No
Bettles	060017	Spawning and Dead	60 (+/-)	September	Late	1990	– North Fork Koyukuk River (3–4 miles upriver).	64° 55' N, 157° 32' W	No
Nulato	330059	Dead	60	September	9	1992	– Nulato River (2 miles upriver).	64° 42' N, 158° 08' W	No
Nulato	330029	Spawning	100	October	5	1992	– Nulato River.	64° 42' N, 158° 08' W	No
Venetie	450030	Spawning	500 (+/-)	October	20	1992	– Chandalar River (5 miles upriver from Venetie in side sloughs).	66° 36'35" N, 146° 00'20" W	No
Kaltag	<sup>f</sup>	—	—	—	—		Kaltag River	64° 20' N, 158° 43' W	No
	<sup>f</sup>	—	—	—	—		Rodo River	64° 17' N, 158° 43' W	No

<sup>a</sup> Caught approximately 20 fish a day from end of August to first week in October. Eggs fell out of fish as 20 fish pullet was pulled

<sup>b</sup> Reported to see chinook salmon up Wilson Creek

<sup>c</sup> Did not give an estimate. Household member interviewed said there were lots of red fish.

<sup>d</sup> Did not indicate Migrating, Spawning, or Dead, or estimate Number of Coho Salmon Observed.

<sup>e</sup> Did not estimate Number of Coho Salmon Observed, or indicate Date observation was made.

<sup>f</sup> Household numbers 240001, 240004, 240006, 240007, 240010, 240011, 240017, 240019, 240026, 240028, 240033, 240035, 240040, 240046, 240051, 240057, and 240061

indicated coho salmon have been seen on the Kaltag River. Household numbers 240007, 240011, and 240057 indicated coho salmon have been seen on the Rodo River

Migrating, Spawning or Dead, Number of Coho Salmon Observed, and Date of Observations were not recorded

<sup>g</sup> Information from Yukon River Salmon Spawning Escapement Surveys through 1983.

Table 19. Reported Yukon River area subsistence salmon catches taken under authority of a permit, listed by fishing location, 1992.

Permit Fishing Area <sup>a</sup>	Permit Type	Issued	Returned	Percent Returned	Fished <sup>b</sup>	Reported Harvest							
						Chinook	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike
Yukon River near Haul Road Bridge	SY-#-92	45	42	93%	33	2,241	975	2,491	34	1,588	0	1	2
Yukon River near Circle and Eagle	SE-#-92	85	79	93%	54	2,984	409	12,009	57	259	2	2	0
Tanana River Fishing Subdistrict 6A	SA-#-92	38	35	92%	26	508	450	5,999	5,028	144	0	12	0
Tanana River Fishing Subdistrict 6B <sup>c</sup>	SB-#-92	98	89	91%	57	1,587	7,820	18,782	11,409	182	2	18	313
Tanana River Fishing Subdistrict 6C	SC-#-92	149	146	98%	90	343	1,234	896	1,116	115	8	4	11
Tanana River upstream of Subdistrict 6C	SU-#-92	11	11	100%	4	0	0	36	1	287	0	0	0
Tanana River - Whitefish	SW-#-92	6	4	67%	3	0	0	0	0	203	0	0	0
Subsistence Permit Totals		432	406	94%	267	7,663	10,888	40,213	17,645	2,778	12	37	326
Delta River Carcasses	SD-#-92	10	10	100%	9	0	0	1,897	0	0	0	0	0
Grand Total		442 <sup>d</sup>	416	94%	276	7,663	10,888	42,110	17,645	2,778	12	37	326

<sup>a</sup> Does not include permit information returned after March 23, 1993.

<sup>b</sup> The number of fishermen who fished based on returned permits.

<sup>c</sup> Includes 113 chinook, 112 summer chum, and 110 fall chum salmon given away as part of the department's Nenana test fish wheel program.

<sup>d</sup> Includes 4 households that fished in two different permit areas.

Table 20. Reported Yukon River area subsistence salmon catches taken under authority of a permit, listed by community of residence, 1992.

Community		Permits <sup>a</sup>		Percent Returned	Fished <sup>b</sup>	Reported Harvest							
		Issued	Returned			Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike	
Central		12	12	100%	7	167	91	100	0	4	0	0	0
Circle		21	19	90%	16	1,585	265	6,279	54	94	0	1	0
Delta Junction	Yukon R. Harvest	2	2		1	24	0	0	0	0	0	0	0
	Tanana R. Harvest	8	7		4	0	0	34	1	203	0	0	0
	Subtotal	10	9	90%	5	24	0	34	1	203	0	0	0
Delta Carcass Permits <sup>c</sup>		10	10	100%	9	0	0	1,897	0	0	0	0	0
Eagle		39	36	92%	23	1,040	23	5,630	3	161	2	1	0
Fairbanks North Star Borough <sup>d</sup>	Yukon R. Harvest	39	37		29	1,394	706	2,491	34	1,588	0	1	2
	Tanana R. Harvest	166	161		102	402	1,342	1,394	2,281	116	8	5	11
	Subtotal	205	198	97%	131	1,796	2,048	3,885	2,315	1,704	8	6	13
Healy <sup>e</sup>		7	7	100%	6	0	0	1,003	1,038	35	0	4	6
Manley	Yukon R. Harvest	1	1		1	200	200	0	0	0	0	0	0
	Tanana R. Harvest	30	28		19	551	850	7,010	4,725	76	0	11	0
	Subtotal	31	29	94%	20	751	1,050	7,010	4,725	76	0	11	0
Minto		30	25	83%	13	142	625	3,017	614	82	2	0	306
Nenana	Yukon R. Harvest	2	2		1	255	61	0	0	0	0	0	0
	Tanana R. Harvest <sup>f</sup>	52	48		31	1,267	6,372	13,253	8,895	132	0	14	1
	Subtotal	54	50	93%	32	1,522	6,433	13,253	8,895	132	0	14	1
Stevens Village		7	5	71%	4	468	8	0	0	0	0	0	0
Tok	Yukon R. Harvest	3	3		3	35	30	0	0	0	0	0	0
	Tanana R. Harvest	6	6		2	0	0	2	0	212	0	0	0
	Subtotal	9	9	100%	5	35	30	2	0	212	0	0	0
Other <sup>g</sup>	Yukon R. Harvest	4	4		2	57	0	0	0	0	0	0	0
	Tanana R. Harvest	3	3		3	76	315	0	0	75	0	0	0
	Subtotal	7	7	100%	5	133	315	0	0	75	0	0	0
Total <sup>c</sup>		442 <sup>h</sup>	416	94%	276	7,663	10,888	42,110	17,645	2,778	12	37	326

<sup>a</sup> Does not include permit information returned after March 23, 1993.

<sup>b</sup> The number of fishermen who fished based on returned permits.

<sup>c</sup> Delta River fall chum salmon carcass permittees were from the communities of Delta, Northway, and North Pole.

<sup>d</sup> Includes residents from the communities of Fairbanks, College, Ester, Ft. Wainwright, North Pole, Salcha, and Two Rivers.

<sup>e</sup> Includes one permit issued to a resident of Clear who returned the permit but did not fish.

<sup>f</sup> Includes 113 chinook, 112 summer chum, and 110 fall chum salmon given away as part of the Department's Nenana test fishing project.

<sup>g</sup> Includes residents from the communities of Bettles, Chicken, Coldfoot, Eagle River, Northway, Savoonga, Tanacross, and Wasilla.

<sup>h</sup> Includes 4 households that fished two different permit areas.

Table 21. Yukon area household and dog information reported by subsistence permits issued and returned, listed by community of residence, 1992.

Community	Permit Issue Information									
	Permits <sup>a</sup>		Percent Returned	Fished <sup>b</sup>	Permit Issue Information				Permit Return Information	
	Issued	Returned			Number of People in Households that Obtained a Permit	Number of Household Fishermen	Number of Dogs Reported by Permits Issued	Number of Households that Said They Fed Whole Salmon to Dogs	Number of Households that Reported Feeding Whole Salmon to Dogs	Number of Salmon Fed or Put Up for Dog Food
Central	12	12	100%	7	27	17	20	4	0	0
Chicken	1	1	100%	0	2	2	0	0	0	0
Circle	21	19	90%	16	60	35	190	16	4	4,455
Delta Junction <sup>c</sup>	18	17	94%	12	38	28	208	9	3	600
Eagle	39	36	92%	23	102	70	161	17	6	2,571
Fairbanks North Star Borough <sup>d</sup>	206	199	97%	132	638	345	723	52	8	413
Healy <sup>e</sup>	7	7	100%	6	23	19	95	6	3	1,198
Manley	31	29	94%	20	83	46	606	29	9	7,267
Minto	30	25	83%	13	110	53	221	20	1	1,001
Nenana	54	50	93%	32	170	95	675	36	7	7,634
Stevens Village	7	5	71%	4	24	11	24	3	0	0
Tok	9	9	100%	5	36	20	6	2	1	2
Other <sup>f</sup>	7	7	100%	6	25	11	53	3	0	0
Total <sup>c</sup>	442	<sup>g</sup> 416	94%	276	1,338	752	2,982	197	42	25,141

<sup>a</sup> Does not include permit information returned after March 23, 1993.

<sup>b</sup> The number of fishermen who fished based on returned permits.

<sup>c</sup> The number of whole salmon fed or put up for dog food includes 600 post-spawned fish collected at the Delta River.

<sup>d</sup> Includes residents from the communities of Fairbanks, College, Ester, Ft. Wainwright, North Pole, Salcha, and Two Rivers.

<sup>e</sup> Includes one permit issued to a resident of Clear who returned the permit but did not fish.

<sup>f</sup> Includes residents from the communities of Bettles, Coldfoot, Eagle River, Northway, Savoonga, Tanacross, and Wasilla.

<sup>g</sup> Includes 4 households that fished two different permit areas.



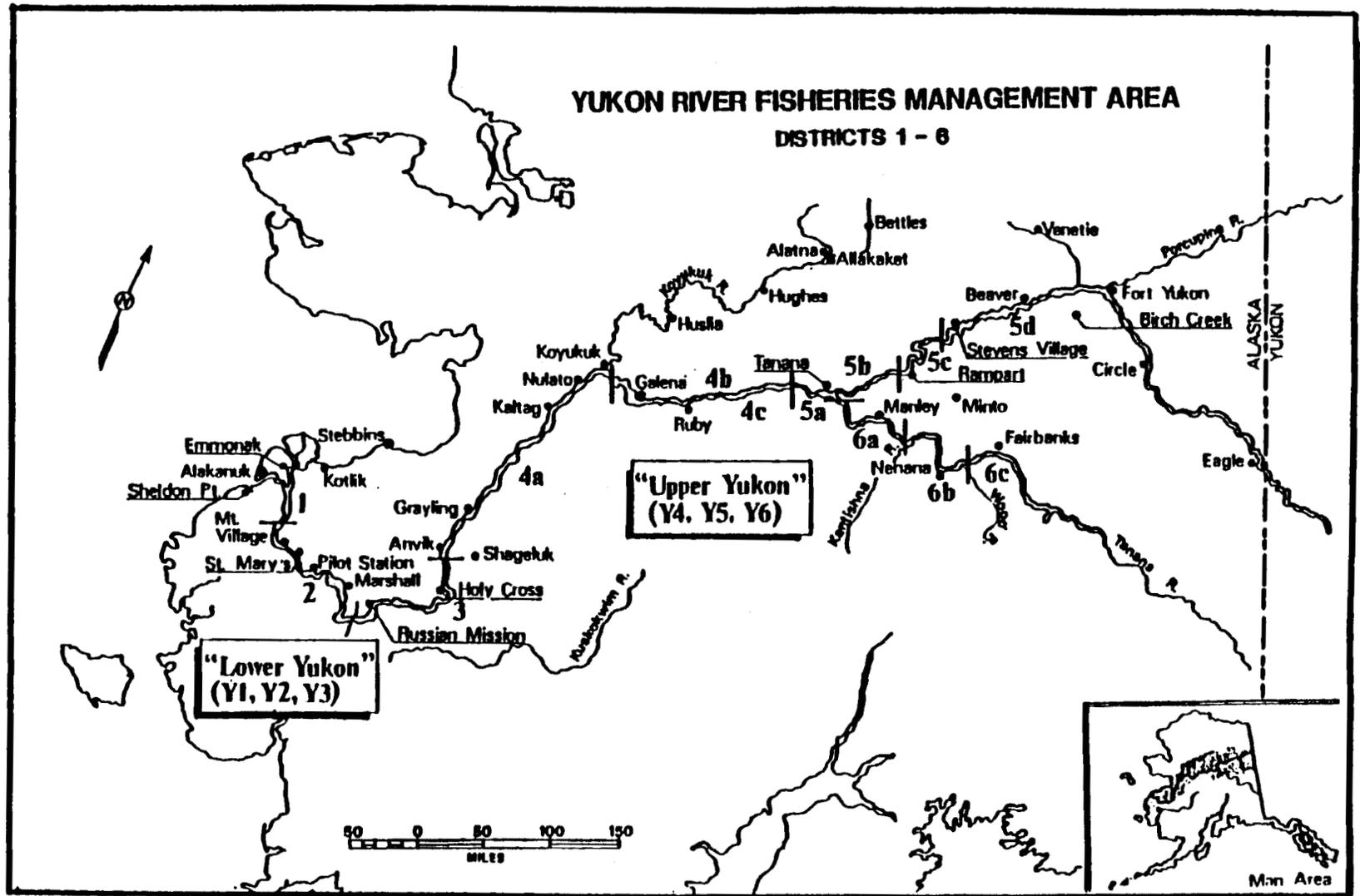


Figure 1. The Alaska portion of the Yukon River drainage, showing communities and fishing districts.

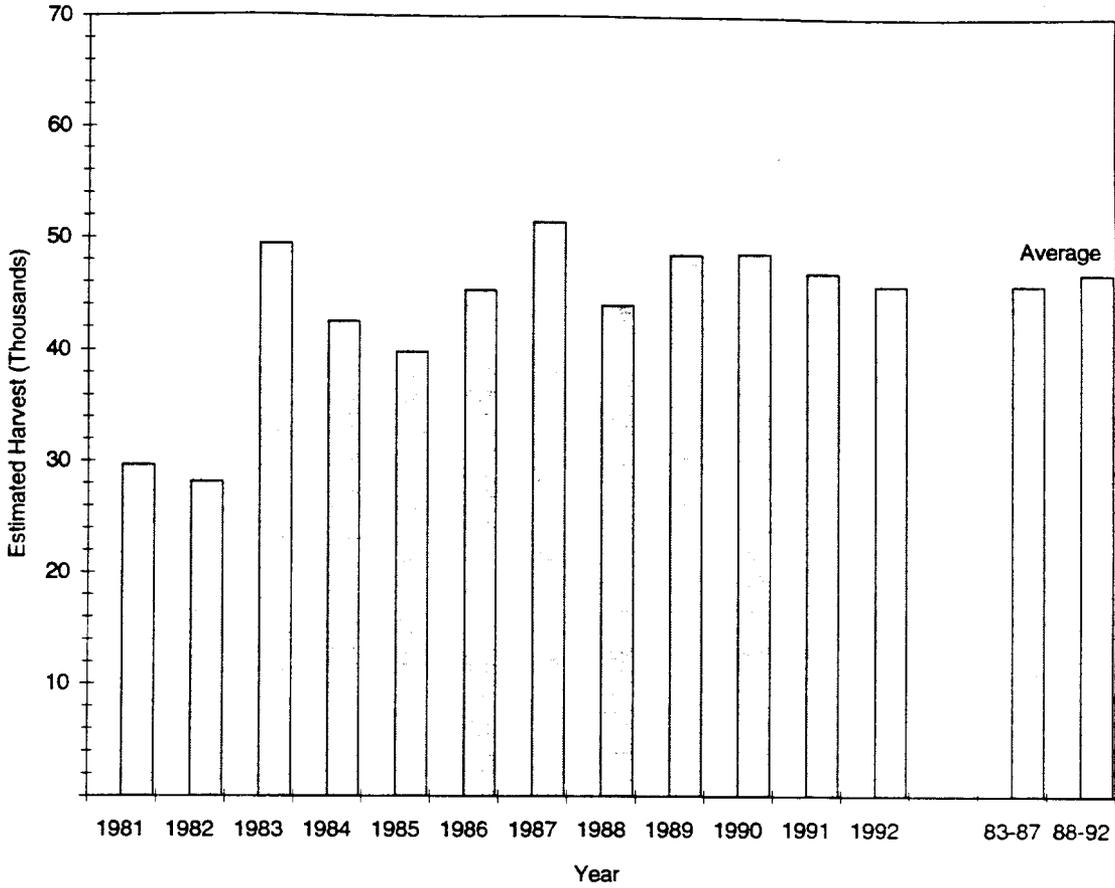


Figure 2. The estimated number of chinook salmon harvested in Yukon River subsistence salmon fisheries in Alaska since 1981. Note: Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

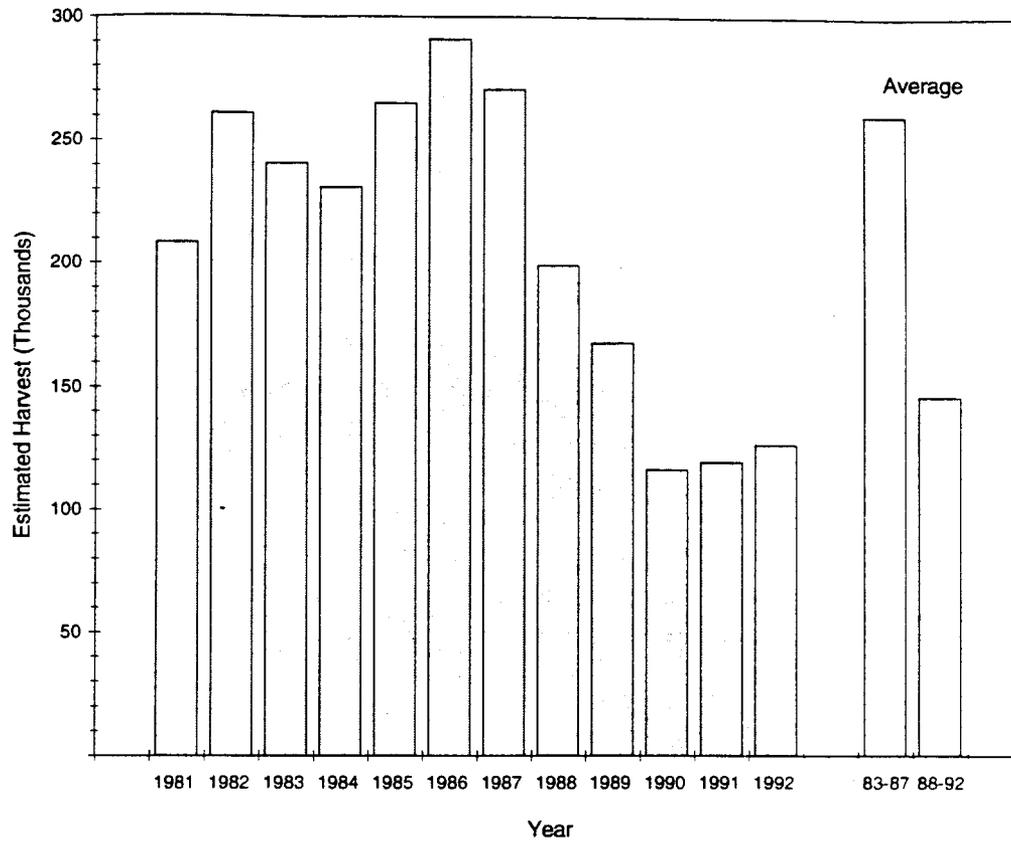


Figure 3. The estimated number of summer chum salmon harvested in Yukon River subsistence salmon fisheries in Alaska since 1981. Note: Summer chum salmon harvest estimates prior to 1988 included commercial-caught summer chum salmon carcasses retained for subsistence use; beginning in 1988, efforts were made to exclude commercial carcasses from the subsistence harvest estimate. Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

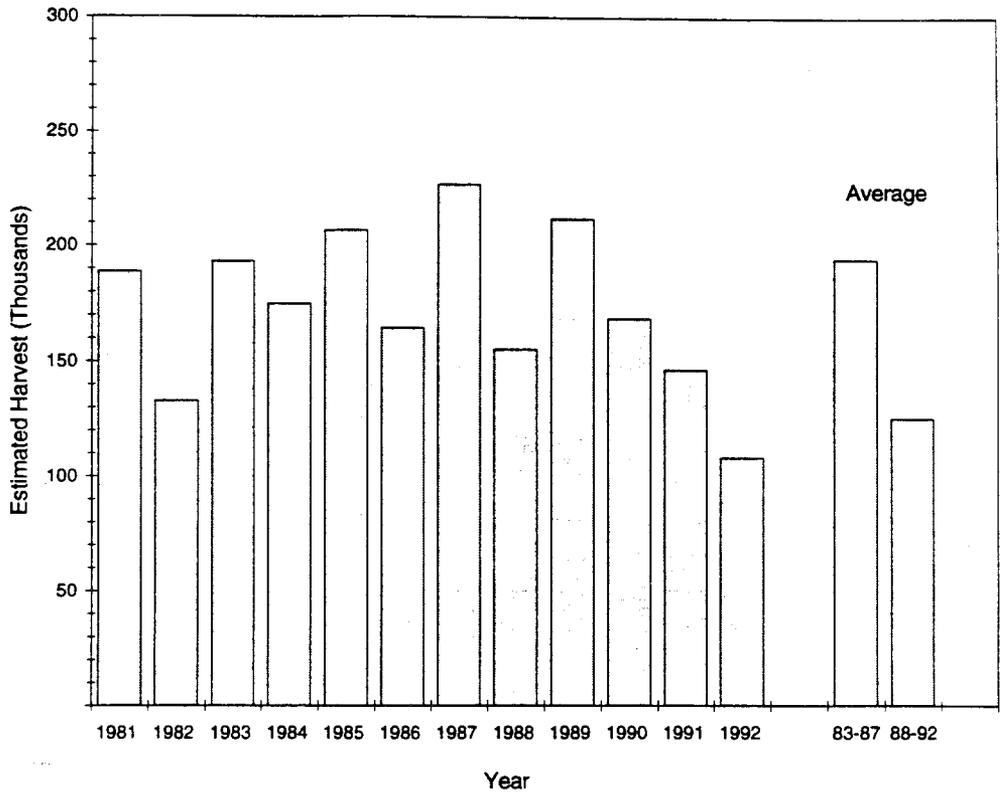


Figure 4. The estimated number of fall chum salmon harvested in Yukon River subsistence salmon fisheries in Alaska since 1981. Note: Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.

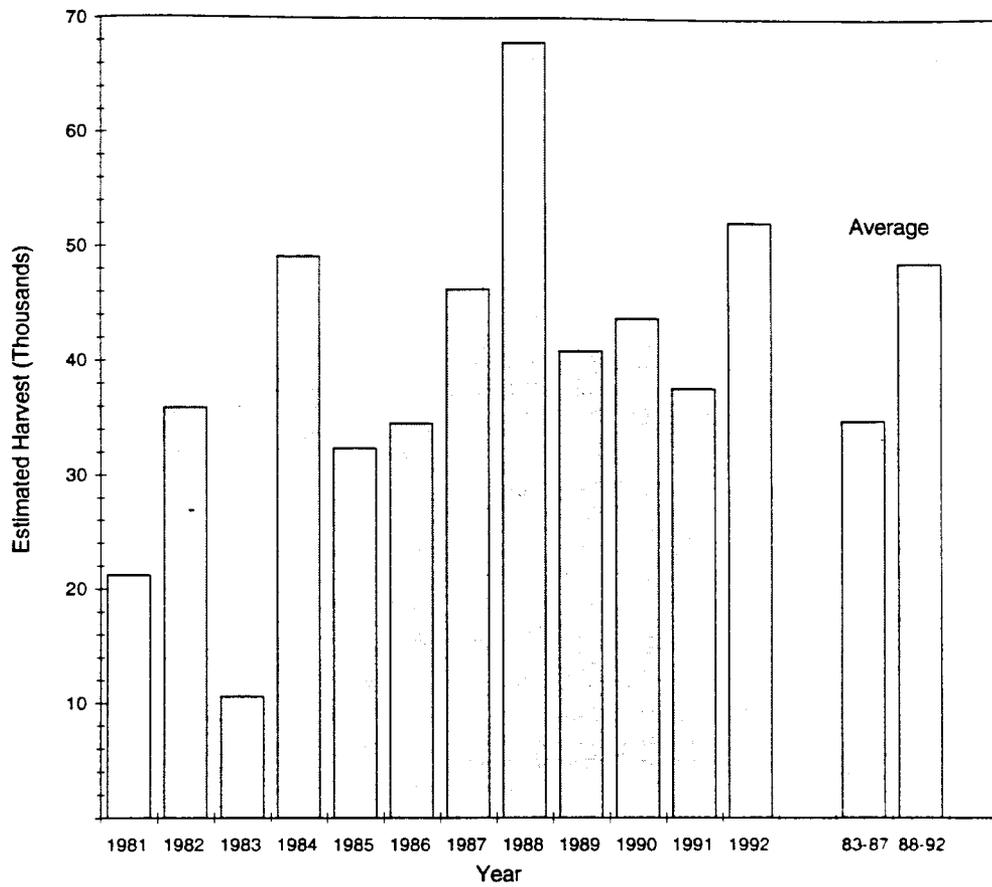


Figure 5. The estimated number of coho salmon harvested in Yukon River subsistence salmon fisheries in Alaska since 1981. Note: Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households.



APPENDIX A

DETAILED YUKON RIVER SALMON HARVEST ESTIMATES  
AND RELATED INFORMATION



Appendix Table A.1. Estimated Yukon River chinook salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HH1				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total HH		Est	CI (95%)
																					N	n	Total	(+/-)
Alakanuk	11	1	0.0	4.7	38	4	2.5	2.3	63	18	3.1	0.9	11	11	27.1	0.0	1	0	32.8	10.7	124	34	623	238
Emmonak	18	4	0.0	0.0	55	5	1.0	0.9	50	12	16.0	7.4	15	15	12.4	0.0	1	1	20.0	0.0	139	37	1,062	738
Hooper Bay	62	4	6.0	4.6	6	1	0.0	1.6	19	5	0.4	0.3	24	11	3.7	1.1	4	2	8.5	1.0	115	23	503	562
Kotlik	17	1	0.0	4.7	22	1	20.0	1.6	42	13	7.2	1.7	16	14	28.0	2.7	3	3	53.3	0.0	100	32	1,353	242
Scammon Bay	35	5	17.2	12.3	2	1	2.0	1.6	12	3	14.0	10.0	9	9	29.3	0.0	0	0	—	—	58	18	948	878
Sheldon's Point	0	0	—	—	2	1	0.0	1.6	14	13	9.8	2.0	8	7	31.2	4.3	0	0	—	—	24	21	388	89
District 1	143	15	6.8	3.6	125	13	4.7	0.8	200	64	8.0	2.0	83	67	17.4	0.7	9	6	27.4	1.2	560	165	4,877	1,326
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	23.4	6.9	10	8	40.7	5.5	2	2	29.5	0.0	63	22	1,403	554
Mountain Village	3	1	12.0	4.0	49	5	1.2	0.7	66	18	11.2	2.7	19	19	19.8	0.0	1	0	33.3	8.1	138	43	1,249	358
Pilot Station	5	1	0.0	4.0	39	4	0.2	0.2	50	11	29.0	12.3	5	4	70.2	4.0	1	1	2.0	0.0	100	21	1,818	1,206
Pitka's Point	1	0	4.0	4.0	6	3	39.3	27.8	8	2	0.0	0.0	9	6	67.8	27.1	0	0	—	—	24	11	851	580
St. Mary's	1	1	0.0	0.0	21	4	6.0	5.3	36	10	22.0	8.4	22	22	29.5	0.0	4	3	46.3	3.3	84	40	1,753	634
District 2	10	3	4.0	2.3	126	18	3.4	1.8	200	51	19.6	4.3	65	59	36.8	3.8	8	6	34.9	1.9	409	137	7,073	1,623
Holy Cross	0	0	—	—	15	5	25.0	20.4	26	7	74.4	27.9	6	6	110.6	0.0	3	3	172.3	0.0	50	21	3,491	1,546
Russian Mission	0	0	—	—	18	2	0.0	0.0	26	7	25.1	11.4	10	10	62.8	0.0	0	0	—	—	54	19	1,282	584
District 3	0	0	—	—	33	7	11.3	11.6	52	14	49.7	22.4	16	16	80.7	0.0	3	3	172.3	0.0	104	40	4,773	1,653
Alatna	0	0	—	—	4	4	0.0	0.0	2	2	1.0	0.0	4	3	10.0	2.5	0	0	—	—	10	9	42	19
Allakaket	0	0	—	—	17	3	0.6	0.6	12	5	3.4	1.5	13	10	23.3	3.5	2	2	20.0	0.0	44	20	395	99
Anvik	4	3	0.0	0.0	13	4	0.0	0.0	12	5	17.6	8.2	5	5	8.0	0.0	3	3	46.0	0.0	37	20	389	193
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	7.5	3.1	0	0	—	—	0	0	—	—	30	21	53	42
Galena	22	3	0.0	0.0	74	5	0.0	0.0	58	14	13.2	6.4	15	15	22.8	0.0	4	4	190.2	0.0	173	41	1,870	729
Grayling	5	3	0.0	0.0	19	4	12.5	11.1	8	4	12.5	8.8	20	17	17.5	1.9	4	4	96.2	0.0	56	32	1,074	442
Hughes	3	2	0.0	0.0	6	4	2.2	0.8	6	4	0.0	0.0	5	4	3.0	0.8	0	0	—	—	20	14	29	12
Huslia	5	4	1.7	0.7	29	4	15.5	8.6	11	5	1.8	0.8	10	9	18.2	2.7	5	5	18.2	0.0	60	27	751	492
Kaltag	9	3	26.6	14.4	12	4	3.7	3.0	17	4	7.5	6.5	13	12	51.6	5.0	0	0	—	—	51	23	1,084	365
Koyukuk	8	4	6.2	4.4	15	4	0.0	0.0	12	5	0.0	0.0	5	5	26.0	0.0	2	2	165.0	0.0	42	20	510	69
Nulato	20	3	0.0	0.0	32	5	0.0	0.0	20	6	38.1	14.9	13	13	56.3	0.0	1	1	100.0	0.0	86	28	1,596	585
Ruby	7	4	4.2	2.7	29	3	0.0	0.0	16	5	0.2	0.1	11	8	40.5	12.7	3	3	6.6	0.0	66	23	498	276
Shageluk	4	4	0.0	0.0	9	5	0.0	0.0	7	3	2.0	1.5	9	8	15.3	3.6	3	3	22.0	0.0	32	23	218	67
District 4	88	34	3.7	1.5	281	65	2.6	1.8	188	66	11.1	6.7	123	109	27.5	1.3	27	27	71.5	0.0	707	301	8,511	1,259
Beaver	0	0	—	—	18	13	26.8	13.3	10	9	12.0	2.0	6	5	160.2	44.5	1	1	0.0	0.0	35	28	1,564	706
Birch Creek	0	0	—	—	12	11	3.6	1.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	44	24
Chalkyitsik	2	0	1.2	1.2	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	3	4
Fort Yukon	34	5	3.0	2.7	93	7	0.0	0.0	40	9	33.3	19.7	24	22	87.9	7.8	8	7	72.1	9.0	199	50	4,122	1,608
Rampart	0	0	—	—	14	7	2.8	2.0	3	3	56.6	0.0	7	6	163.1	15.0	4	4	362.5	0.0	28	20	2,802	213
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	48.3	30.5	7	6	122.1	24.0	4	4	197.5	0.0	32	20	1,887	445
Tanana	15	2	0.0	0.0	65	6	1.0	0.9	16	3	12.0	5.5	13	10	10.0	4.8	23	21	90.8	8.4	132	42	2,477	453
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.0	0.0	10	8	3.5	1.5	1	1	0.0	0.0	54	22	35	30
District 5	71	12	1.4	1.3	258	72	2.4	2.1	88	39	23.3	17.1	71	61	73.7	5.4	41	38	119.6	5.0	529	222	12,934	1,881
Totals	312	64	4.6	1.7	823	175	3.3	0.6	728	234	16.8	2.0	358	312	38.4	1.3	88	80	89.5	2.3	2,309	865	38,167	3,499

Appendix Table A.2. Estimated Yukon River summer chum salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HHI				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	Total n	Est Total	CI (95%) (+/-)
Alakanuk	11	1	7.0	35.7	38	4	89.2	49.4	63	18	70.7	22.4	11	11	165.4	0.0	1	0	203.3	93.9	124	34	9,951	4,680
Emmonak	18	4	50.0	44.0	55	5	21.8	20.7	50	12	107.1	36.8	15	15	94.7	0.0	1	1	350.0	0.0	139	37	9,228	4,527
Hooper Bay	62	4	135.0	118.0	6	1	0.0	21.0	19	5	90.0	47.7	24	11	100.8	24.0	4	2	100.0	42.4	115	23	12,900	14,503
Kotlik	17	1	0.0	35.7	22	1	150.0	21.0	42	13	45.6	19.4	16	14	173.1	14.7	3	3	223.3	0.0	100	32	8,656	2,241
Scammon Bay	35	5	58.6	36.4	2	1	7.0	21.0	12	3	68.3	44.8	9	9	101.1	0.0	0	0	—	—	58	18	3,795	2,713
Sheldon's Point	0	0	—	—	2	1	0.0	21.0	14	13	35.0	4.8	8	7	115.5	14.3	0	0	—	—	24	21	1,415	274
District 1	143	15	79.7	52.4	125	13	63.2	18.0	200	64	73.7	13.4	83	67	123.6	7.6	9	6	180.3	21.5	560	165	45,945	16,285
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	29.5	10.0	10	8	78.3	11.5	2	2	56.0	0.0	63	22	2,076	819
Mountain Village	3	1	10.0	3.3	49	5	1.4	1.1	66	18	65.7	15.8	19	19	168.4	0.0	1	0	227.0	104.3	138	43	7,864	2,059
Pilot Station	5	1	0.0	3.3	39	4	37.5	35.5	50	11	84.8	18.4	5	4	106.5	15.6	1	1	0.0	0.0	100	21	6,236	3,266
Pitka's Point	1	0	3.3	3.3	6	3	50.6	35.8	8	2	0.0	0.0	9	6	50.1	18.1	0	0	—	—	24	11	759	529
St. Mary's	1	1	0.0	0.0	21	4	45.0	40.4	36	10	58.3	25.7	22	22	140.2	0.0	4	3	416.6	65.3	84	40	7,796	2,520
District 2	10	3	3.3	1.9	126	18	22.0	13.0	200	51	59.2	8.6	65	59	123.9	3.3	8	6	250.7	35.1	409	137	24,731	4,712
Holy Cross	0	0	—	—	15	5	1.2	0.9	26	7	19.2	11.8	6	6	29.1	0.0	3	3	102.3	0.0	50	21	1,001	603
Russian Mission	0	0	—	—	18	2	0.0	0.0	26	7	34.0	12.0	10	10	244.7	0.0	0	0	—	—	54	19	3,331	614
District 3	0	0	—	—	33	7	0.5	0.4	52	14	26.6	8.4	16	16	163.8	0.0	3	3	102.3	0.0	104	40	4,332	861
Alatna	0	0	—	—	4	4	0.0	0.0	2	2	75.0	0.0	4	3	85.0	42.5	0	0	—	—	10	9	490	333
Allakaket	0	0	—	—	17	3	3.3	3.0	12	5	168.0	120.7	13	10	176.6	29.8	2	2	1,000.0	0.0	44	20	6,368	2,941
Anvik	4	3	100.0	50.0	13	4	0.0	0.0	12	5	9.2	3.5	5	5	1.0	0.0	3	3	209.0	0.0	37	20	1,142	401
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	5.2	3.2	0	0	—	—	0	0	—	—	30	21	37	44
Galena	22	3	0.0	0.0	74	5	0.0	0.0	58	14	20.8	12.5	15	15	90.8	0.0	4	4	164.7	0.0	173	41	3,232	1,428
Grayling	5	3	0.0	0.0	19	4	25.0	22.2	8	4	2.5	1.7	20	17	138.2	24.0	4	4	86.0	0.0	56	32	3,605	1,254
Hughes	3	2	100.0	57.7	6	4	75.0	27.6	6	4	0.0	0.0	5	4	175.0	64.2	0	0	—	—	20	14	1,625	786
Huslia	5	4	0.0	0.0	29	4	288.2	222.8	11	5	0.0	0.0	10	9	261.1	36.3	5	5	540.0	0.0	60	27	13,670	12,685
Kaltag	9	3	0.0	0.0	12	4	1.0	0.8	17	4	0.0	0.0	13	12	91.6	22.9	0	0	—	—	51	23	1,204	586
Koyukuk	8	4	0.0	0.0	15	4	8.7	7.4	12	5	2.0	1.5	5	5	15.0	0.0	2	2	450.0	0.0	42	20	1,130	223
Nulato	20	3	0.0	0.0	32	5	0.0	0.0	20	6	35.3	20.2	13	13	14.0	0.0	1	1	0.0	0.0	86	28	889	795
Ruby	7	4	164.7	107.8	29	3	0.0	0.0	16	5	0.0	0.0	11	8	1.5	0.5	3	3	416.6	0.0	66	23	2,420	1,480
Shageluk	4	4	40.0	0.0	9	5	24.0	12.9	7	3	100.0	75.5	9	8	178.1	29.9	3	3	862.6	0.0	32	23	5,267	1,186
District 4	88	34	22.8	9.0	281	65	34.5	23.0	188	66	26.4	9.3	123	109	108.3	7.3	27	27	409.9	0.0	707	301	41,079	13,367
Beaver	0	0	—	—	18	13	0.4	0.2	10	9	0.0	0.0	6	5	0.6	0.2	1	1	0.0	0.0	35	28	12	9
Birch Creek	0	0	—	—	12	11	0.0	0.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	0	0
Chalkyitsik	2	0	8.3	8.3	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	17	33
Fort Yukon	34	5	20.0	18.4	93	7	0.8	0.8	40	9	0.0	0.0	24	22	13.9	2.6	8	7	75.8	13.2	199	50	1,700	1,263
Rampart	0	0	—	—	14	7	185.7	131.3	3	3	0.0	0.0	7	6	142.0	42.5	4	4	225.0	0.0	28	20	4,494	3,650
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	0.0	0.0	7	6	0.0	0.0	4	4	115.0	0.0	32	20	460	0
Tanana	15	2	0.0	0.0	65	6	0.0	0.0	16	3	0.0	0.0	13	10	10.0	4.8	23	21	192.2	20.2	132	42	4,553	922
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.0	0.0	10	8	0.0	0.0	1	1	0.0	0.0	54	22	0	0
District 5	71	12	9.8	8.8	258	72	10.4	7.1	88	39	0.0	0.0	71	61	20.5	4.3	41	38	155.8	11.6	529	222	11,236	3,971
Totals	312	64	45.3	24.2	823	175	28.0	8.8	728	234	45.2	5.0	358	312	99.7	3.2	88	80	243.1	6.6	2,309	865	127,323	21,968

Appendix Table A.3. Estimated Yukon River fall chum salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown				Do Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	HH1				HH2				HH3				HH4				HH5				Total HH		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		
Alakanuk	11	1	5.0	0.6	38	4	0.0	0.0	63	18	3.2	2.7	11	11	12.2	0.0	1	0	7.6	6.5	124	34	401	337
Emmonak	18	4	0.0	0.0	55	5	0.0	0.0	50	12	0.0	0.0	15	15	17.4	0.0	1	1	0.0	0.0	139	37	262	0
Hooper Bay	62	4	1.7	1.6	6	1	0.0	0.0	19	5	0.0	0.0	24	11	0.2	0.2	4	2	3.0	2.1	115	23	127	207
Kotlik	17	1	0.0	0.6	22	1	0.0	0.0	42	13	17.3	9.0	16	14	52.1	6.1	3	3	13.3	0.0	100	32	1,601	767
Scammon Bay	35	5	1.0	0.9	2	1	0.0	0.0	12	3	2.0	1.7	9	9	2.2	0.0	0	0	—	—	58	18	79	75
Sheldon's Point	0	0	—	—	2	1	0.0	0.0	14	13	2.0	0.5	8	7	57.5	8.2	0	0	—	—	24	21	490	130
District 1	143	15	1.3	0.7	125	13	0.0	0.0	200	64	4.9	2.0	83	67	20.7	1.4	9	6	6.6	1.1	560	165	2,960	876
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	51.3	16.8	10	8	56.1	7.6	2	2	57.0	0.0	63	22	2,727	1,333
Mountain Village	3	1	5.0	1.6	49	5	0.0	0.0	66	18	6.3	2.5	19	19	27.2	0.0	1	0	101.6	35.9	138	43	1,052	343
Pilot Station	5	1	0.0	1.6	39	4	0.0	0.0	50	11	18.0	15.9	5	4	53.2	21.9	1	1	0.0	0.0	100	21	1,171	1,581
Pitka's Point	1	0	1.6	1.6	6	3	0.0	0.0	8	2	0.0	0.0	9	6	8.3	4.8	0	0	—	—	24	11	77	85
St. Mary's	1	1	0.0	0.0	21	4	0.0	0.0	36	10	10.5	6.8	22	22	59.8	0.0	4	3	165.3	18.8	84	40	2,356	508
District 2	10	3	1.6	0.9	126	18	0.0	0.0	200	51	18.7	5.4	65	59	42.1	2.1	8	6	109.6	10.4	409	137	7,383	2,158
Holy Cross	0	0	—	—	15	5	0.0	0.0	26	7	25.0	10.5	6	6	25.0	0.0	3	3	15.0	0.0	50	21	845	536
Russian Mission	0	0	—	—	18	2	0.0	0.0	26	7	2.2	1.9	10	10	58.9	0.0	0	0	—	—	54	19	648	100
District 3	0	0	—	—	33	7	0.0	0.0	52	14	13.6	5.3	16	16	46.1	0.0	3	3	15.0	0.0	104	40	1,493	545
Alatna	0	0	—	—	4	4	0.0	0.0	2	2	10.0	0.0	4	3	26.6	13.3	0	0	—	—	10	9	127	105
Allakaket	0	0	—	—	17	3	0.0	0.0	12	5	66.0	44.7	13	10	20.0	5.8	2	2	200.0	0.0	44	20	1,452	1,063
Anvik	4	3	10.0	5.0	13	4	0.0	0.0	12	5	37.4	5.7	5	5	51.0	0.0	3	3	50.0	0.0	37	20	894	141
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	2.0	1.3	0	0	—	—	0	0	—	—	30	21	14	18
Galena	22	3	0.0	0.0	74	5	0.0	0.0	58	14	1.7	1.5	15	15	79.2	0.0	4	4	275.0	0.0	173	41	2,393	177
Grayling	5	3	0.0	0.0	19	4	25.0	22.2	8	4	23.7	12.5	20	17	83.0	11.8	4	4	167.0	0.0	56	32	2,993	968
Hughes	3	2	0.0	0.0	6	4	12.5	4.7	6	4	0.0	0.0	5	4	50.0	22.3	0	0	—	—	20	14	325	226
Huslia	5	4	10.0	4.4	29	4	16.0	9.7	11	5	1.0	0.7	10	9	42.1	7.1	5	5	68.0	0.0	60	27	1,286	571
Kaltag	9	3	13.3	10.8	12	4	16.2	13.2	17	4	92.5	62.1	13	12	48.8	4.1	0	0	—	—	51	23	2,522	2,107
Koyukuk	8	4	0.0	0.0	15	4	15.0	12.8	12	5	16.0	12.2	5	5	20.0	0.0	2	2	1,150.0	0.0	42	20	2,817	475
Nulato	20	3	3.3	1.6	32	5	0.0	0.0	20	6	38.1	19.6	13	13	83.0	0.0	1	1	0.0	0.0	86	28	1,910	774
Ruby	7	4	52.7	34.5	29	3	0.0	0.0	16	5	0.2	0.1	11	8	88.7	45.6	3	3	1,050.0	0.0	66	23	4,499	1,091
Shageluk	4	4	40.0	0.0	9	5	0.8	0.5	7	3	0.0	0.0	9	8	24.0	3.1	3	3	160.6	0.0	32	23	865	56
District 4	88	34	9.1	3.0	281	65	5.1	2.0	188	66	21.8	6.7	123	109	58.1	4.7	27	27	318.1	0.0	707	301	22,096	2,994
Beaver	0	0	—	—	18	13	0.0	0.0	10	9	0.0	0.0	6	5	60.2	24.5	1	1	0.0	0.0	35	28	361	289
Birch Creek	0	0	—	—	12	11	0.0	0.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	0	0
Chalkyitsik	2	0	4.1	4.1	22	18	0.0	0.0	6	5	11.0	4.0	4	4	50.0	0.0	0	0	—	—	34	27	274	50
Fort Yukon	34	5	10.0	9.2	93	7	0.0	0.0	40	9	12.7	9.7	24	22	35.9	4.8	8	7	71.4	16.7	199	50	2,284	1,039
Rampart	0	0	—	—	14	7	100.0	51.1	3	3	0.0	0.0	7	6	71.5	24.8	4	4	950.0	0.0	28	20	5,701	1,445
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	0.0	0.0	7	6	0.0	0.0	4	4	37.5	0.0	32	20	150	0
Tanana	15	2	0.0	0.0	65	6	0.0	0.0	16	3	0.0	0.0	13	10	10.0	3.2	23	21	836.2	65.3	132	42	19,365	2,945
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	15.0	0.0	10	8	269.1	56.0	1	1	300.0	0.0	54	22	3,066	1,098
District 5	71	12	4.9	4.4	258	72	5.4	2.7	88	39	7.4	4.4	71	61	66.8	8.6	41	38	586.7	36.7	529	222	31,201	3,624
Totals	312	64	4.3	1.3	823	175	3.4	1.1	728	234	14.0	2.4	358	312	47.7	2.4	88	80	382.1	17.1	2,309	865	65,133	5,274

Appendix Table A.4. Estimated Yukon River coho salmon subsistence harvest by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HH1				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total HH N	Est n	CI (95%) Total	(+/-)
Alakanuk	11	1	45.0	2.9	38	4	4.5	4.2	63	18	0.8	0.7	11	11	15.4	0.0	1	0	77.3	50.6	124	34	966	349
Emmonak	18	4	0.0	0.0	55	5	0.0	0.0	50	12	0.0	0.0	15	15	12.3	0.0	1	1	0.0	0.0	139	37	185	0
Hooper Bay	62	4	0.0	0.0	6	1	0.0	1.3	19	5	0.0	0.0	24	11	0.0	0.0	4	2	7.0	4.9	115	23	28	42
Kotlik	17	1	0.0	2.9	22	1	0.0	1.3	42	13	3.2	1.7	16	14	43.2	8.5	3	3	150.0	0.0	100	32	1,277	325
Scammon Bay	35	5	0.6	0.5	2	1	0.0	1.3	12	3	0.0	0.0	9	9	1.1	0.0	0	0	—	—	58	18	31	38
Sheldon's Point	0	0	—	—	2	1	0.0	1.3	14	13	15.3	4.1	8	7	28.1	6.4	0	0	—	—	24	21	441	152
District 1	143	15	3.6	0.4	125	13	1.3	1.3	200	64	2.0	0.5	83	67	15.4	1.7	9	6	61.7	6.0	560	165	2,927	504
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	16.0	6.0	10	8	65.0	14.7	2	2	127.5	0.0	63	22	1,545	557
Mountain Village	3	1	3.0	1.0	49	5	1.2	0.9	66	18	11.1	7.0	19	19	54.4	0.0	1	0	135.0	88.0	138	43	1,971	938
Pilot Station	5	1	0.0	1.0	39	4	0.0	0.0	50	11	6.0	5.2	5	4	0.0	0.0	1	1	0.0	0.0	100	21	300	519
Pitka's Point	1	0	1.0	1.0	6	3	6.6	4.7	8	2	0.0	0.0	9	6	66.6	38.4	0	0	—	—	24	11	641	681
St. Mary's	1	1	0.0	0.0	21	4	0.0	0.0	36	10	9.8	6.7	22	22	47.1	0.0	4	3	185.0	92.5	84	40	2,130	866
District 2	10	3	1.0	0.5	126	18	0.7	0.4	200	51	10.1	3.1	65	59	51.1	5.7	8	6	141.2	47.5	409	137	6,587	1,635
Holy Cross	0	0	—	—	15	5	0.0	0.0	26	7	3.5	3.0	6	6	0.0	0.0	3	3	4.0	0.0	50	21	105	156
Russian Mission	0	0	—	—	18	2	0.0	0.0	26	7	1.7	1.0	10	10	110.3	0.0	0	0	—	—	54	19	1,148	52
District 3	0	0	—	—	33	7	0.0	0.0	52	14	2.6	1.6	16	16	68.9	0.0	3	3	4.0	0.0	104	40	1,252	164
Alatna	0	0	—	—	4	4	0.0	0.0	2	2	0.0	0.0	4	3	0.0	0.0	0	0	—	—	10	9	0	0
Allakaket	0	0	—	—	17	3	0.0	0.0	12	5	0.0	0.0	13	10	0.0	0.0	2	2	0.0	0.0	44	20	0	0
Anvik	4	3	10.0	5.0	13	4	0.0	0.0	12	5	1.0	0.7	5	5	30.0	0.0	3	3	0.0	0.0	37	20	202	43
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	0.0	0.0	0	0	—	—	0	0	—	—	30	21	0	0
Galena	22	3	0.0	0.0	74	5	0.0	0.0	58	14	6.1	3.2	15	15	29.4	0.0	4	4	150.0	0.0	173	41	1,398	368
Grayling	5	3	0.0	0.0	19	4	1.2	1.1	8	4	0.5	0.3	20	17	23.3	6.7	4	4	91.0	0.0	56	32	859	269
Hughes	3	2	0.0	0.0	6	4	2.5	0.8	6	4	0.0	0.0	5	4	1.2	0.5	0	0	—	—	20	14	21	11
Huslia	5	4	0.0	0.0	29	4	0.0	0.0	11	5	12.0	5.9	10	9	1.1	0.3	5	5	18.0	0.0	60	27	233	128
Kaltag	9	3	0.0	0.0	12	4	0.0	0.0	17	4	87.5	76.5	13	12	47.5	9.2	0	0	—	—	51	23	2,105	2,560
Koyukuk	8	4	0.0	0.0	15	4	50.0	42.8	12	5	0.6	0.4	5	5	20.0	0.0	2	2	510.0	0.0	42	20	1,877	1,259
Nulato	20	3	0.0	0.0	32	5	0.0	0.0	20	6	8.3	6.9	13	13	20.6	0.0	1	1	0.0	0.0	86	28	435	273
Ruby	7	4	6.0	3.9	29	3	0.0	0.0	16	5	0.0	0.0	11	8	16.5	7.7	3	3	358.3	0.0	66	23	1,299	176
Shageluk	4	4	0.0	0.0	9	5	0.0	0.0	7	3	4.0	3.0	9	8	21.2	4.2	3	3	25.6	0.0	32	23	296	86
District 4	88	34	0.9	0.3	281	65	2.8	2.2	188	66	11.6	7.0	123	109	19.7	1.6	27	27	119.4	0.0	707	301	8,725	2,912
Beaver	0	0	—	—	18	13	0.0	0.0	10	9	0.0	0.0	6	5	66.4	27.1	1	1	0.0	0.0	35	28	398	319
Birch Creek	0	0	—	—	12	11	0.0	0.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	0	0
Chalkyitsik	2	0	0.0	0.0	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	0	0
Fort Yukon	34	5	0.0	0.0	93	7	0.0	0.0	40	9	0.2	0.1	24	22	13.6	2.8	8	7	0.5	0.2	199	50	341	136
Rampart	0	0	—	—	14	7	2.8	2.0	3	3	0.0	0.0	7	6	5.0	1.8	4	4	0.0	0.0	28	20	75	61
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	0.0	0.0	7	6	0.0	0.0	4	4	5.0	0.0	32	20	20	0
Tanana	15	2	0.0	0.0	65	6	0.0	0.0	16	3	0.0	0.0	13	10	0.5	0.2	23	21	495.6	33.0	132	42	11,406	1,489
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.0	0.0	10	8	0.0	0.0	1	1	45.0	0.0	54	22	45	0
District 5	71	12	0.0	0.0	258	72	0.1	0.1	88	39	0.1	0.0	71	61	10.8	2.4	41	38	279.7	18.5	529	222	12,285	1,530
Totals	312	64	1.9	0.2	823	175	1.3	0.8	728	234	6.5	2.0	358	312	24.8	1.3	88	80	186.2	9.6	2,309	865	31,777	3,711

Appendix Table A.5. Estimated Yukon River chinook salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HH1				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total HH		Est	CI (95%) (+/-)
																					N	n		
Alakanuk	11	1	25.0	4.7	38	4	0.5	0.4	63	18	3.8	0.9	11	11	24.6	0.0	1	0	37.0	13.9	124	34	847	163
Emmonak	18	4	0.0	0.0	55	5	3.0	1.9	50	11	12.7	5.4	15	15	14.1	0.0	1	1	20.0	0.0	139	36	1,033	574
Hooper Bay	62	4	3.2	1.0	6	1	0.0	1.6	19	5	1.6	0.7	24	12	3.0	0.7	4	2	8.5	1.0	115	24	338	139
Kotlik	17	1	0.0	4.7	22	1	20.0	1.6	42	13	15.0	3.7	16	14	25.4	2.4	3	3	61.6	0.0	100	32	1,662	358
Scammon Bay	35	5	17.8	12.1	2	1	1.0	1.6	12	3	11.6	8.0	9	9	15.2	0.0	0	0	—	—	58	18	902	855
Sheldon's Point	0	0	—	—	2	1	0.0	1.6	14	13	11.2	2.0	8	7	31.2	4.3	0	0	—	—	24	21	408	88
District 1	143	15	7.6	3.0	125	13	5.0	0.9	200	63	9.1	1.6	83	68	16.2	0.6	9	6	30.6	1.6	560	165	5,190	1,116
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	23.2	6.8	10	8	40.7	5.5	2	2	28.5	0.0	63	22	1,393	550
Mountain Village	3	1	12.0	4.0	49	5	1.2	0.7	66	18	10.5	2.6	19	19	21.4	0.0	1	0	20.4	6.1	138	43	1,219	351
Pilot Station	5	1	0.0	4.0	39	4	1.5	1.1	50	11	29.1	12.2	5	4	70.2	4.0	1	1	2.0	0.0	100	21	1,871	1,207
Pitka's Point	1	0	4.0	4.0	6	3	39.3	27.8	8	2	0.0	0.0	9	6	61.5	27.7	0	0	—	—	24	11	794	588
St. Mary's	1	1	0.0	0.0	21	4	1.5	1.3	36	10	17.8	6.5	22	21	29.5	1.2	4	2	21.5	2.4	84	38	1,409	468
District 2	10	3	4.0	2.3	126	18	3.0	1.6	200	51	18.6	4.0	65	58	36.4	3.9	8	5	20.6	1.4	409	135	6,685	1,565
Holy Cross	0	0	—	—	15	5	16.4	4.7	26	6	28.8	9.2	6	6	33.6	0.0	3	3	89.0	0.0	50	20	1,465	492
Russian Mission	0	0	—	—	18	2	5.0	4.7	26	7	27.5	12.7	10	10	56.9	0.0	0	0	—	—	54	19	1,376	668
District 3	0	0	—	—	33	7	10.1	7.2	52	13	28.2	17.4	16	16	48.1	0.0	3	3	89.0	0.0	104	39	2,841	830
Alatna	0	0	—	—	4	4	1.2	0.0	2	2	1.0	0.0	4	3	8.3	1.9	0	0	—	—	10	9	40	15
Allakaket	0	0	—	—	17	3	0.6	0.6	12	5	3.4	1.5	13	10	20.6	2.9	2	2	20.0	0.0	44	20	360	86
Anvik	4	3	0.0	0.0	13	4	0.0	0.0	12	5	14.8	6.1	5	5	12.0	0.0	3	3	36.6	0.0	37	20	348	145
Bettles	1	1	0.0	0.0	22	16	0.8	0.2	7	4	11.5	4.2	0	0	—	—	0	0	—	—	30	21	98	58
Galena	22	3	1.6	0.8	74	5	7.0	5.5	58	14	8.8	2.9	15	15	25.0	0.0	4	3	36.0	9.0	173	40	1,587	879
Grayling	5	3	20.6	8.2	19	4	22.2	10.4	8	4	17.5	8.3	20	16	13.8	1.2	4	4	33.2	0.0	56	31	1,075	421
Hughes	3	2	5.0	2.8	6	4	3.7	1.0	6	4	0.7	0.4	5	4	3.7	0.7	0	0	—	—	20	14	61	23
Huslia	5	4	1.7	0.7	29	4	15.7	7.6	11	5	3.4	1.8	10	9	18.2	2.7	5	5	18.2	0.0	60	27	776	439
Kaltag	9	3	16.6	7.2	12	4	7.5	2.6	17	4	15.5	5.0	13	12	55.0	4.7	0	0	—	—	51	23	1,219	250
Koyukuk	8	4	8.0	4.0	15	4	3.5	2.0	12	5	3.2	2.4	5	5	24.0	0.0	2	2	115.0	0.0	42	20	505	104
Nulato	20	3	5.0	4.6	32	5	0.4	0.3	20	6	38.6	14.7	13	13	42.6	0.0	1	1	100.0	0.0	86	28	1,541	607
Ruby	7	4	13.0	4.3	29	3	6.0	2.8	16	5	14.8	7.1	11	8	57.8	10.2	3	3	170.0	0.0	66	23	1,648	360
Shageluk	4	4	2.5	0.0	9	5	0.0	0.0	7	3	2.0	1.5	9	8	16.0	3.6	3	3	18.6	0.0	32	23	224	66
District 4	88	34	6.5	1.4	281	65	6.3	2.0	188	66	12.3	5.2	123	108	27.5	1.1	27	26	52.3	1.3	707	299	9,483	1,325
Beaver	0	0	—	—	18	13	18.3	7.9	10	9	15.5	1.8	6	5	71.4	17.5	1	1	0.0	0.0	35	28	915	351
Birch Creek	0	0	—	—	12	11	2.9	0.3	3	2	1.0	0.5	0	0	—	—	0	0	—	—	15	13	38	9
Chalkyitsik	2	0	2.0	1.2	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	5	5
Fort Yukon	34	5	4.2	2.6	93	7	3.1	1.5	40	9	27.7	10.5	24	22	54.4	3.7	8	7	57.7	8.8	199	50	3,315	917
Rampart	0	0	—	—	14	7	7.2	1.8	3	3	56.6	0.0	7	6	143.6	14.9	4	4	342.5	0.0	28	20	2,648	212
Stevens Village	1	1	0.0	0.0	15	6	2.1	1.2	5	3	0.0	0.0	7	6	153.0	21.8	4	4	190.0	0.0	32	20	1,864	301
Tanana	15	2	1.5	1.3	65	6	3.1	1.6	16	3	8.0	5.4	13	10	16.4	4.8	23	21	68.4	5.8	132	42	2,144	396
Venetie	19	4	0.0	0.0	19	4	25.0	22.2	5	5	3.0	0.0	10	8	3.5	1.5	1	1	0.0	0.0	54	22	525	827
District 5	71	12	2.3	1.2	258	72	5.7	2.8	88	39	17.9	12.2	71	61	57.1	3.3	41	38	101.6	3.7	529	222	11,453	1,394
Totals	312	64	6.0	1.5	823	175	5.5	0.9	728	232	15.0	1.4	358	311	33.3	1.0	88	78	71.4	1.7	2,309	860	35,651	2,843

Appendix Table A.6. Estimated Yukon River summer chum salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown				Do Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	HH1				HH2				HH3				HH4				HH5				Total HH		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	(+/-)
Alakanuk	11	1	7.0	14.2	38	4	57.5	45.2	63	18	83.6	19.8	11	11	147.2	0.0	1	0	286.6	141.3	124	34	9,440	4,191
Emmonak	18	4	32.5	17.4	55	5	21.8	20.7	50	11	98.0	18.7	15	15	157.8	0.0	1	1	650.0	0.0	139	36	9,707	2,963
Hooper Bay	62	4	50.0	12.4	6	1	0.0	19.0	19	5	40.4	34.2	24	12	76.5	18.0	4	2	100.0	42.4	115	24	6,106	2,194
Kotlik	17	1	0.0	14.2	22	1	150.0	19.0	42	13	56.0	19.1	16	14	149.7	12.5	3	3	290.0	0.0	100	32	8,917	1,880
Scammon Bay	35	5	58.6	36.4	2	1	4.0	19.0	12	3	68.3	44.8	9	9	100.8	0.0	0	0	—	—	58	18	3,787	2,713
Sheldon's Point	0	0	—	—	2	1	0.0	19.0	14	13	60.8	5.5	8	7	115.5	14.3	0	0	—	—	24	21	1,776	282
District 1	143	15	40.6	10.8	125	13	53.5	16.8	200	63	74.8	9.7	83	68	121.1	5.9	9	6	245.1	24.5	560	165	39,733	6,491
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	34.5	13.3	10	8	77.6	11.7	2	2	50.5	0.0	63	22	2,257	1,071
Mountain Village	3	1	14.0	4.6	49	5	3.4	1.8	66	18	86.5	17.8	19	19	161.7	0.0	1	0	118.6	55.7	138	43	9,114	2,313
Pilot Station	5	1	0.0	4.6	39	4	62.5	35.5	50	11	85.4	15.4	5	4	109.0	15.0	1	1	0.0	0.0	100	21	7,255	3,115
Pitka's Point	1	0	4.6	4.6	6	3	50.6	35.8	8	2	0.0	0.0	9	6	25.1	6.1	0	0	—	—	24	11	535	435
St. Mary's	1	1	0.0	0.0	21	4	22.5	20.2	36	10	66.7	23.7	22	21	130.9	5.4	4	2	246.0	16.9	84	38	6,738	1,893
District 2	10	3	4.6	2.7	126	18	26.8	11.6	200	51	68.8	8.6	65	58	115.4	2.9	8	5	150.4	10.9	409	135	25,899	4,469
Holy Cross	0	0	—	—	15	5	0.2	0.1	26	6	22.5	13.9	6	6	6.3	0.0	3	3	62.3	0.0	50	20	813	711
Russian Mission	0	0	—	—	18	2	11.5	8.0	26	7	38.7	13.0	10	10	226.0	0.0	0	0	—	—	54	19	3,474	725
District 3	0	0	—	—	33	7	6.3	4.3	52	13	30.6	9.5	16	16	143.6	0.0	3	3	62.3	0.0	104	39	4,287	1,015
Alatna	0	0	—	—	4	4	1.2	0.0	2	2	75.0	0.0	4	3	85.0	42.5	0	0	—	—	10	9	495	333
Allakaket	0	0	—	—	17	3	3.3	3.0	12	5	168.0	120.7	13	10	176.6	29.8	2	2	1,000.0	0.0	44	20	6,368	2,941
Anvik	4	3	100.0	50.0	13	4	87.5	49.1	12	5	639.8	355.0	5	5	916.0	0.0	3	3	1,800.0	0.0	37	20	19,195	8,453
Bettles	1	1	0.0	0.0	22	16	0.1	0.0	7	4	5.2	3.2	0	0	—	—	0	0	—	—	30	21	40	44
Galena	22	3	0.0	0.0	74	5	55.0	49.5	58	14	194.4	96.9	15	15	676.6	0.0	4	3	133.3	66.6	173	40	26,030	13,169
Grayling	5	3	2,000.0	614.2	19	4	72.5	42.2	8	4	402.5	217.7	20	16	427.1	45.1	4	4	806.2	0.0	56	31	26,366	7,314
Hughes	3	2	100.0	57.7	6	4	50.0	16.6	6	4	0.0	0.0	5	4	175.0	64.2	0	0	—	—	20	14	1,475	742
Huslia	5	4	0.0	0.0	29	4	288.2	222.8	11	5	1.0	0.7	10	9	317.7	35.5	5	5	540.0	0.0	60	27	14,248	12,684
Kaltag	9	3	0.0	0.0	12	4	3.0	1.0	17	4	300.0	262.3	13	12	887.5	101.3	0	0	—	—	51	23	16,674	9,115
Koyukuk	8	4	0.0	0.0	15	4	100.5	64.1	12	5	3.2	1.5	5	5	35.0	0.0	2	2	1,550.0	0.0	42	20	4,821	1,886
Nulato	20	3	216.6	100.7	32	5	0.0	0.0	20	6	47.6	34.0	13	13	424.3	0.0	1	1	2,000.0	0.0	86	28	12,804	4,169
Ruby	7	4	477.2	312.4	29	3	0.0	0.0	16	5	0.0	0.0	11	8	28.6	12.8	3	3	825.0	0.0	66	23	6,131	4,296
Shageluk	4	4	135.0	0.0	9	5	55.6	19.7	7	3	128.3	63.1	9	8	295.6	42.1	3	3	196.0	0.0	32	23	5,187	1,193
District 4	88	34	214.9	48.6	281	65	61.7	26.9	188	66	166.9	46.2	123	108	407.8	14.3	27	26	815.6	9.8	707	299	139,834	24,340
Beaver	0	0	—	—	18	13	0.4	0.2	10	9	0.0	0.0	6	5	0.6	0.2	1	1	0.0	0.0	35	28	12	9
Birch Creek	0	0	—	—	12	11	0.0	0.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	0	0
Chalkyitsik	2	0	8.3	8.3	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	17	33
Fort Yukon	34	5	20.0	18.4	93	7	1.2	0.8	40	9	0.0	0.0	24	22	14.5	2.6	8	7	74.4	15.0	199	50	1,743	1,269
Rampart	0	0	—	—	14	7	157.1	111.1	3	3	0.0	0.0	7	6	140.3	42.4	4	4	225.0	0.0	28	20	4,082	3,104
Stevens Village	1	1	0.0	0.0	15	6	0.3	0.2	5	3	0.0	0.0	7	6	0.0	0.0	4	4	114.5	0.0	32	20	463	8
Tanana	15	2	0.0	0.0	65	6	0.0	0.0	16	3	0.0	0.0	13	10	21.0	6.7	23	21	200.9	20.3	132	42	4,895	933
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.0	0.0	10	8	0.0	0.0	1	1	0.0	0.0	54	22	0	0
District 5	71	12	9.8	8.8	258	72	9.0	6.0	88	39	0.0	0.0	71	61	22.6	4.4	41	38	160.3	11.7	529	222	11,212	3,481
Totals	312	64	81.6	14.7	823	175	36.4	9.8	728	232	84.7	12.4	358	311	200.0	5.2	88	78	365.8	6.8	2,309	860	220,964	25,840

Appendix Table A.7. Estimated Yukon River fall chum salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HHI				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total HH		Est	CI (95%)
																					N	n		
Alakanuk	11	1	5.0	0.6	38	4	0.0	0.0	63	18	3.2	2.7	11	11	8.5	0.0	1	0	7.6	6.5	124	34	360	337
Emmonak	18	4	0.0	0.0	55	5	0.0	0.0	50	11	0.3	0.3	15	15	23.2	0.0	1	1	0.0	0.0	139	36	367	31
Hooper Bay	62	4	1.7	1.6	6	1	0.0	0.0	19	5	0.0	0.0	24	12	0.2	0.1	4	2	3.0	2.1	115	24	127	207
Kotlik	17	1	0.0	0.6	22	1	0.0	0.0	42	13	23.0	9.2	16	14	48.7	5.4	3	3	13.3	0.0	100	32	1,787	778
Scammon Bay	35	5	1.0	0.9	2	1	0.0	0.0	12	3	2.0	1.7	9	9	2.2	0.0	0	0	—	—	58	18	79	75
Sheldon's Point	0	0	—	—	2	1	0.0	0.0	14	13	2.0	0.5	8	7	57.5	8.2	0	0	—	—	24	21	490	130
District 1	143	15	1.3	0.7	125	13	0.0	0.0	200	63	6.2	2.1	83	68	20.6	1.3	9	6	6.6	1.1	560	165	3,209	886
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	50.8	16.6	10	8	54.0	7.8	2	2	56.0	0.0	63	22	2,684	1,314
Mountain Village	3	1	5.0	1.6	49	5	0.0	0.0	66	18	6.4	2.0	19	19	37.8	0.0	1	0	49.8	18.8	138	43	1,209	271
Pilot Station	5	1	0.0	1.6	39	4	0.0	0.0	50	11	9.9	8.7	5	4	53.2	21.9	1	1	0.0	0.0	100	21	762	884
Pitka's Point	1	0	1.6	1.6	6	3	0.0	0.0	8	2	0.0	0.0	9	6	8.3	4.8	0	0	—	—	24	11	77	85
St. Mary's	1	1	0.0	0.0	21	4	0.0	0.0	36	10	6.6	3.7	22	21	47.4	3.1	4	2	68.5	0.3	84	38	1,555	301
District 2	10	3	1.6	0.9	126	18	0.0	0.0	200	51	15.9	4.0	65	58	40.6	2.4	8	5	54.4	2.3	409	135	6,287	1,637
Holy Cross	0	0	—	—	15	5	5.4	3.1	26	6	21.1	7.5	6	6	7.6	0.0	3	3	9.0	0.0	50	20	704	397
Russian Mission	0	0	—	—	18	2	6.0	3.7	26	7	2.5	1.9	10	10	57.2	0.0	0	0	—	—	54	19	747	165
District 3	0	0	—	—	33	7	5.7	2.5	52	13	11.8	3.9	16	16	38.6	0.0	3	3	9.0	0.0	104	39	1,451	430
Alatna	0	0	—	—	4	4	0.7	0.0	2	2	10.0	0.0	4	3	26.6	13.3	0	0	—	—	10	9	130	105
Allakaket	0	0	—	—	17	3	0.0	0.0	12	5	66.0	44.7	13	10	20.0	5.8	2	2	200.0	0.0	44	20	1,452	1,063
Anvik	4	3	10.0	5.0	13	4	0.5	0.4	12	5	36.0	6.2	5	5	24.4	0.0	3	3	50.0	0.0	37	20	751	151
Bettles	1	1	0.0	0.0	22	16	0.3	0.1	7	4	2.0	1.3	0	0	—	—	0	0	—	—	30	21	22	20
Galena	22	3	1.0	0.9	74	5	0.0	0.0	58	14	2.0	1.2	15	15	79.4	0.0	4	3	83.3	30.0	173	40	1,662	279
Grayling	5	3	24.0	15.1	19	4	30.7	16.0	8	4	31.2	11.2	20	16	55.8	5.1	4	4	58.7	0.0	56	31	2,306	671
Hughes	3	2	0.0	0.0	6	4	8.7	2.9	6	4	0.0	0.0	5	4	50.7	22.2	0	0	—	—	20	14	306	221
Huslia	5	4	12.5	4.2	29	4	16.0	9.7	11	5	3.0	1.4	10	9	42.1	7.1	5	5	68.0	0.0	60	27	1,321	572
Kaltag	9	3	13.3	10.8	12	4	21.2	12.5	17	4	90.0	54.0	13	12	49.6	3.9	0	0	—	—	51	23	2,551	1,837
Koyukuk	8	4	0.0	0.0	15	4	12.5	5.3	12	5	16.4	12.1	5	5	20.0	0.0	2	2	650.0	0.0	42	20	1,784	327
Nulato	20	3	20.0	13.8	32	5	0.4	0.3	20	6	36.1	19.5	13	13	66.3	0.0	1	1	0.0	0.0	86	28	1,998	939
Ruby	7	4	377.7	236.4	29	3	13.3	8.3	16	5	18.2	7.5	11	8	113.7	45.5	3	3	633.3	0.0	66	23	6,473	3,430
Shageluk	4	4	10.0	0.0	9	5	2.6	1.1	7	3	0.0	0.0	9	8	33.3	2.9	3	3	157.3	0.0	32	23	836	56
District 4	88	34	39.1	19.1	281	65	7.0	1.8	188	66	23.3	6.1	123	108	53.9	4.3	27	26	190.0	4.4	707	299	21,591	4,266
Beaver	0	0	—	—	18	13	3.8	2.0	10	9	0.1	0.0	6	5	60.2	24.5	1	1	0.0	0.0	35	28	432	298
Birch Creek	0	0	—	—	12	11	9.0	2.6	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	109	62
Chalkyitsik	2	0	10.8	7.5	22	18	0.0	0.0	6	5	11.0	4.0	4	4	50.0	0.0	0	0	—	—	34	27	288	56
Fort Yukon	34	5	10.0	9.2	93	7	2.8	2.7	40	9	18.0	9.8	24	22	28.7	4.1	8	7	114.2	17.5	199	50	2,929	1,155
Rampart	0	0	—	—	14	7	87.5	49.5	3	3	183.3	0.0	7	6	71.5	24.8	4	4	925.0	0.0	28	20	5,977	1,402
Stevens Village	1	1	0.0	0.0	15	6	8.3	6.4	5	3	0.0	0.0	7	6	0.0	0.0	4	4	37.5	0.0	32	20	275	190
Tanana	15	2	40.0	37.2	65	6	135.8	126.5	16	3	0.0	0.0	13	10	48.2	13.7	23	21	867.2	65.5	132	42	30,003	16,433
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	15.0	0.0	10	8	269.1	56.0	1	1	300.0	0.0	54	22	3,066	1,098
District 5	71	12	13.5	9.0	258	72	41.1	32.0	88	39	16.0	4.4	71	61	71.3	8.9	41	38	610.0	36.9	529	222	43,079	16,573
Totals	312	64	14.8	5.7	823	175	15.5	10.0	728	232	14.9	2.1	358	311	46.5	2.3	88	78	348.4	17.2	2,309	860	75,616	17,220

Appendix Table A.8. Estimated Yukon River coho salmon subsistence use by residents of surveyed villages, by catch stratum, with village and district totals; N indicates the total number of households and n indicates the number of households contacted, 1992.

Community	Unknown HH1				Do Not Harvest Salmon HH2				Light Harvester HH3				Medium Harvester HH4				Heavy Harvester HH5				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total HH	Est	CI (95%)	
																					N	n	Total	(+/-)
Alakanuk	11	1	45.0	2.9	38	4	0.7	0.7	63	18	0.8	0.7	11	11	14.2	0.0	1	0	32.3	24.0	124	34	765	129
Emmonak	18	4	0.0	0.0	55	5	0.0	0.0	50	11	0.3	0.3	15	15	13.3	0.0	1	1	0.0	0.0	139	36	218	31
Hooper Bay	62	4	0.0	0.0	6	1	0.0	0.3	19	5	0.0	0.0	24	12	0.0	0.0	4	2	7.0	4.9	115	24	28	39
Kotlik	17	1	5.0	2.9	22	1	0.0	0.3	42	13	2.4	1.3	16	14	47.7	8.5	3	3	60.0	0.0	100	32	1,132	309
Scammon Bay	35	5	3.8	1.6	2	1	0.0	0.3	12	3	0.0	0.0	9	9	1.1	0.0	0	0	—	—	58	18	143	116
Sheldon's Point	0	0	—	—	2	1	4.0	0.3	14	13	7.7	2.0	8	7	28.1	6.4	0	0	—	—	24	21	342	116
District 1	143	15	4.9	0.5	125	13	0.2	0.2	200	63	1.4	0.3	83	68	16.3	1.7	9	6	26.7	3.4	560	165	2,628	376
Marshall	0	0	—	—	11	2	0.0	0.0	40	10	16.0	6.0	10	8	50.2	10.7	2	2	119.5	0.0	63	22	1,382	521
Mountain Village	3	1	3.0	1.0	49	5	1.2	0.9	66	18	2.2	1.1	19	19	41.3	0.0	1	0	47.8	29.9	138	43	1,048	178
Pilot Station	5	1	0.0	1.0	39	4	0.0	0.0	50	11	6.0	5.2	5	4	0.0	0.0	1	1	0.0	0.0	100	21	300	519
Pitka's Point	1	0	1.0	1.0	6	3	6.6	4.7	8	2	0.0	0.0	9	6	66.6	38.4	0	0	—	—	24	11	641	681
St. Mary's	1	1	0.0	0.0	21	4	0.0	0.0	36	10	6.0	3.3	22	21	47.5	3.5	4	2	0.0	0.0	84	38	1,263	279
District 2	10	3	1.0	0.5	126	18	0.7	0.4	200	51	6.5	1.9	65	58	45.1	5.7	8	5	35.8	3.7	409	135	4,633	1,056
Holy Cross	0	0	—	—	15	5	0.0	0.0	26	6	0.0	0.0	6	6	0.0	0.0	3	3	2.3	0.0	50	20	7	0
Russian Mission	0	0	—	—	18	2	0.5	0.4	26	7	1.7	1.0	10	10	110.3	0.0	0	0	—	—	54	19	1,157	54
District 3	0	0	—	—	33	7	0.2	0.2	52	13	0.8	0.5	16	16	68.9	0.0	3	3	2.3	0.0	104	39	1,164	54
Alatna	0	0	—	—	4	4	0.0	0.0	2	2	0.0	0.0	4	3	0.0	0.0	0	0	—	—	10	9	0	0
Allakaket	0	0	—	—	17	3	0.0	0.0	12	5	0.0	0.0	13	10	0.0	0.0	2	2	0.0	0.0	44	20	0	0
Anvik	4	3	10.0	5.0	13	4	0.0	0.0	12	5	1.0	0.7	5	5	27.0	0.0	3	3	0.0	0.0	37	20	187	43
Bettles	1	1	0.0	0.0	22	16	0.0	0.0	7	4	0.0	0.0	0	0	—	—	0	0	—	—	30	21	0	0
Galena	22	3	0.0	0.0	74	5	10.0	9.6	58	14	6.1	3.2	15	15	25.4	0.0	4	3	100.0	50.0	173	40	1,878	1,500
Grayling	5	3	11.6	7.3	19	4	10.0	7.4	8	4	0.5	0.3	20	16	10.6	2.2	4	4	47.2	0.0	56	31	654	301
Hughes	3	2	0.0	0.0	6	4	2.5	0.8	6	4	0.0	0.0	5	4	1.2	0.5	0	0	—	—	20	14	21	11
Huslia	5	4	0.0	0.0	29	4	0.0	0.0	11	5	12.0	5.9	10	9	1.1	0.3	5	5	18.0	0.0	60	27	233	128
Kaltag	9	3	0.0	0.0	12	4	0.0	0.0	17	4	0.0	0.0	13	12	61.6	9.5	0	0	—	—	51	23	802	243
Koyukuk	8	4	0.0	0.0	15	4	25.0	21.4	12	5	0.6	0.4	5	5	20.0	0.0	2	2	510.0	0.0	42	20	1,502	630
Nulato	20	3	0.0	0.0	32	5	0.0	0.0	20	6	4.1	3.4	13	13	6.6	0.0	1	1	0.0	0.0	86	28	169	137
Ruby	7	4	8.5	3.7	29	3	0.0	0.0	16	5	0.4	0.3	11	8	16.5	7.7	3	3	358.3	0.0	66	23	1,322	175
Shageluk	4	4	0.0	0.0	9	5	5.2	3.3	7	3	4.0	3.0	9	8	21.2	4.2	3	3	0.6	0.0	32	23	268	104
District 4	88	34	1.7	0.5	281	65	4.8	2.8	188	66	3.3	1.1	123	108	17.1	1.3	27	26	102.8	7.4	707	299	7,037	1,696
Beaver	0	0	—	—	18	13	0.0	0.0	10	9	0.0	0.0	6	5	66.4	27.1	1	1	0.0	0.0	35	28	398	319
Birch Creek	0	0	—	—	12	11	0.0	0.0	3	2	0.0	0.0	0	0	—	—	0	0	—	—	15	13	0	0
Chalkyitsik	2	0	0.0	0.0	22	18	0.0	0.0	6	5	0.0	0.0	4	4	0.0	0.0	0	0	—	—	34	27	0	0
Fort Yukon	34	5	0.0	0.0	93	7	0.0	0.0	40	9	0.2	0.1	24	22	6.8	1.4	8	7	0.0	0.0	199	50	173	69
Rampart	0	0	—	—	14	7	2.8	2.0	3	3	0.0	0.0	7	6	5.0	1.8	4	4	0.0	0.0	28	20	75	61
Stevens Village	1	1	0.0	0.0	15	6	0.0	0.0	5	3	0.0	0.0	7	6	0.0	0.0	4	4	5.0	0.0	32	20	20	0
Tanana	15	2	0.0	0.0	65	6	45.8	43.6	16	3	0.0	0.0	13	10	21.5	9.5	23	21	476.5	31.7	132	42	14,220	5,749
Venetie	19	4	0.0	0.0	19	4	0.0	0.0	5	5	0.0	0.0	10	8	0.0	0.0	1	1	45.0	0.0	54	22	45	0
District 5	71	12	0.0	0.0	258	72	11.7	11.0	88	39	0.1	0.0	71	61	12.3	2.9	41	38	268.9	17.7	529	222	14,931	5,759
Totals	312	64	2.8	0.3	823	175	5.5	3.5	728	232	3.1	0.6	358	311	23.4	1.3	88	78	162.9	8.6	2,309	860	30,393	6,107

Appendix Table A.9. Responses of surveyed individuals who said their household's subsistence salmon needs were not met in 1992, and answered the question, "Why didn't you meet your salmon needs this year?"

Village	Category <sup>a</sup>	Response
Alakanuk	2	Both were working.
Alakanuk	4	Nobody to fish for us — all are too young to fish.
Alakanuk	10	Thought we had enough for the year.
Alakanuk	4	Nobody to fish for me, husband works, would like to fish silvers.
Alakanuk	3	Had motor problems — son was commercial fishing.
Alakanuk	11	Did not set net.
Alakanuk	12	Will fish coho, one more bucket (75 coho).
Alakanuk	12	Still fishing for fall chum/coho.
Alakanuk	12	Still fishing coho, less effort on kings than usual.
Alakanuk	4	Nobody to fish for me.
Alakanuk	6	Mother was sick — nobody to cut fish for her.
Alakanuk	3	Don't have a net, boat, and motor.
Alakanuk	2	Husband working, then wrong time; flies; too wet. Might fish silvers.
Alakanuk	6	Broke finger recently — will fish when healed.
Alakanuk	5	Too busy with kids.
Alakanuk	6	Wants more, can't fish.
Allakaket	3	Kicker problems, didn't fish.
Allakaket	1	High water, lost net.
Allakaket	7	Didn't fish; complained about too much commercial fishing downriver.
Anvik	10	Nobody gave her enough.
Anvik	11	Commercial fishermen won't allow them to fish eddy for dog salmon.
Anvik	4	No helpers.
Anvik	6	Were in Anchorage for operation.
Anvik	7	Fishing periods not long enough.
Anvik	5	Not enough time for subsistence king fishing.
Anvik	11	Didn't go fishing.
Beaver	6	Injury, couldn't fish.
Beaver	6	Did not fish last summer, too old.
Beaver	1	Bum spot for fishing, poor eddy.
Beaver	5	Didn't have time to fish.
Bettles	11	Didn't fish.
Bettles	7	Not enough fish up Koyukuk.
Birch Creek	1	Early freeze.
Birch Creek	1	The water on Yukon River was too high to fish.
Chalkyitsik	1	Froze-up too early.
Chalkyitsik	11	Didn't set net.
Chalkyitsik	1	Froze too quick, didn't fish.
Chalkyitsik	7	No king salmon in Black River.
Chalkyitsik	1	Because too high water.
Emmonak	3	Motor problems.
Emmonak	5	Too busy during the season.
Emmonak	2	No ?? Working.
Emmonak	6	Too old to fish, not given any by Fish & Game this year.
Emmonak	11	Other people living here temporarily, ate some.
Emmonak	11	Someone stole from freezer.
Emmonak	6	Son stopped fishing, husband too old.
Emmonak	6	Don't fish, too old.
Emmonak	1	Smokehouse was damaged by flood, was moving fish camp.
Emmonak	11	Didn't ask Fish & Game for fish soon enough.
Fort Yukon	7	Too much commercial fishing ocean.

– continued –

Appendix Table A.9. (Page 2 of 6).

Village	Category <sup>a</sup>	Response
Fort Yukon	2	Took a year off, busy working. Will buy fish for dogs.
Fort Yukon	10	Not enough caught.
Fort Yukon	1	Gone during hunting, bum weather, cold early, running tour business, high water.
Fort Yukon	1	Early freeze-up, in the middle of the fall chum run.
Fort Yukon	1	High water poor fishing.
Fort Yukon	7	Very short run on fall chum, one week only.
Fort Yukon	7	Enough for eating but not for dogs, poor run of fall chum salmon.
Fort Yukon	7	No fish available this year for dog food.
Fort Yukon	5	Too much work to do on house.
Fort Yukon	1	Freeze-up too quickly ice running.
Fort Yukon	1	Early ice prevented fishing.
Fort Yukon	7	Runs very poor on all species.
Fort Yukon	3	Put wheel in too late, missed king run.
Fort Yukon	10	Didn't dry any.
Fort Yukon	1	Hardly any fish this year. Early freeze prevented fishing.
Fort Yukon	1	Too high water.
Fort Yukon	1	Too high water.
Fort Yukon	8	Haven't been around to get fish from others.
Fort Yukon	2	Too busy working, no fishing gear.
Fort Yukon	11	Didn't fish.
Fort Yukon	3	Too expensive to buy boat and net.
Galena	8	Weren't around.
Galena	9	Will buy another 20 bales (1,000 fish) summer chum from 4-A fishermen.
Galena	1	Froze too early.
Galena	2	Traveling a lot for work, missed king run.
Galena	4	Fishing partner had a death in the family so quit fishing.
Galena	7	Late commercial, king run went by already.
Galena	9	Will get more from fisherman in Koyukuk.
Galena	2	Babysat all summer.
Galena	11	Not given enough.
Galena	2	No time to fish for kings, busy at work.
Galena	5	Too busy building house.
Grayling	3	Didn't get enough fishing for dog salmon, will buy more from commercial fishermen, boat leaked.
Grayling	10	Gave a lot away — but yes met ??
Grayling	7	Not enough kings, poor fishing.
Grayling	7	Poor king fishing. No time to king fish during commercial openings.
Grayling	2	Working, no time.
Grayling	4	No one to help fish.
Grayling	9	Needs to buy more fish for dogs.
Grayling	11	Too many goddamn laws to go fishing.
Grayling	1	Too much driftwood, water was too high.
Grayling	4	Brothers in hospital, no one to fish with.
Grayling	2	Been busy, not enough time to fish.
Grayling	10	Not enough from commercial fishing for dogs.
Grayling	10	Could have used more dog salmon if he had fished more.
Grayling	9	Will buy more dog fish from commercial fishermen.
Grayling	9	Will buy more from 4-A commercial fishermen and will buy king strips.
Grayling	9	Will get more for dogs from commercial fishermen.
Holy Cross	1	Too high water, too much driftwood.
Holy Cross	11	Didn't fish very much.
Holy Cross	8	Wasn't here to fish.

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Appendix Table A.9. (Page 3 of 6).

Village	Category <sup>a</sup>	Response
Hooper Bay	10	Fish rack all filled up and splitting fish with older brother.
Hooper Bay	3	Didn't have king salmon net — net rotten — not enough to buy new one.
Hooper Bay	6	Elderly, wasn't fishing themselves, only what people gave them.
Hooper Bay	4	Helping mom, traveling to Anchorage, so family didn't have enough fishermen to catch fish.
Hooper Bay	3	Don't have boat, people didn't give enough away and didn't ask relatives to give them fish.
Hooper Bay	3	Don't have a boat or net.
Hughes	3	No net to start, not enough fish in river this year.
Hughes	11	Didn't fish.
Hughes	11	Didn't fish this year.
Hughes	2	Didn't fish, too busy working.
Huslia	1	Short on dog food, too high water.
Huslia	1	Too high water.
Huslia	11	Didn't fish.
Huslia	1	Froze-up too early, too high water.
Huslia	1	Too high water, poor quality fish.
Huslia	6	Elderly, no boat, no equipment, too old.
Huslia	1	Too high water, cold too early.
Huslia	1	Too high water, not enough nets.
Huslia	1	Too many snags this year to set nets, mouth of Huslia River changed.
Huslia	11	Didn't salmon fish.
Huslia	1	Too high water.
Huslia	2	Working in Hughes.
Huslia	1	Cut banks changing, poor eddies, too high waters.
Kaltag	1	High water, short season for fish passage, boat and weather problems.
Kaltag	7	King run wasn't that good — run came through all at once.
Kaltag	10	Didn't get enough fish.
Kaltag	3	No gear, will go buy fish in store..
Kaltag	1	Water too high, illegal downriver fishing caught them all.
Kaltag	4	Because my husband left me and I couldn't do the fishing alone.
Kaltag	3	No fish net, wheel no good for kings or silvers.
Kaltag	1	Bad bear problem, and water too high to set up racks of fish.
Kaltag	1	High water, couldn't catch.
Kotlik	2	Busy working and building smokehouse.
Kotlik	6	Poor health.
Kotlik	7	Not enough fish in the river — bad year for fishing.
Kotlik	12	Still fishing coho.
Kotlik	10	Not enough kings, not enough time to fish.
Kotlik	10	Not enough fall chum.
Kotlik	3	Don't have motor — broke down.
Kotlik	7	No fish in North Mouth.
Kotlik	8	Wasn't here in the month of July.
Kotlik	12	Will fish for coho more this year, ~20 more.
Koyukuk	2	No time to fish, runs store.
Koyukuk	11	Didn't fish for fall chum.
Koyukuk	9	Will buy more for dogs.
Koyukuk	9	Will buy more fish later.
Koyukuk	7	Too short driftnet season, too many people trying to fish for kings, black market kings caught downriver.
Koyukuk	2	Was working all summer.
Koyukuk	3	Doesn't have boat, couldn't fish.
Koyukuk	5	Busy with other things.

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Appendix Table A.9. (Page 4 of 6).

Village	Category <sup>a</sup>	Response
Koyukuk	9	Will buy more fish to eat, on vacation this summer, didn't fish enough.
Marshall	5	No time for fishing, limited openings during king season.
Marshall	6	Husband is sick.
Marshall	6	Brother drowned.
Marshall	2	Busy working.
Marshall	4	No one to cut fish for us — wife out of town.
Marshall	2	Alvin working on tender.
Marshall	12	Still fishing for coho.
Marshall	2	Husband too busy working.
Marshall	2	Husband was working all summer, didn't have enough time.
Marshall	3	No boat, no motor.
Mtn Village	2	Too busy commercial fishing and work at school.
Mtn Village	4	Daughter left for school in Anchorage, no one to help us.
Mtn Village	5	Busy campaigning for House Seat 38.
Mtn Village	8	Weren't here.
Mtn Village	3	Don't have boat, motor, nets.
Mtn Village	5	Didn't have enough time, too busy.
Mtn Village	5	Busy with other things.
Mtn Village	12	Still fishing for coho, fall chum.
Mtn Village	3	Didn't have a boat at the time.
Mtn Village	2	Too busy — husband working all day.
Mtn Village	4	Child care.
Nulato	1	Too high water, did not fish.
Nulato	1	High water made for poor fishing through July.
Nulato	7	Fish weren't there.
Nulato	2	Working too much.
Nulato	3	Boat not working.
Nulato	6	Husband sick.
Nulato	2	Working.
Nulato	3	Have no boat.
Nulato	11	Didn't fish.
Nulato	2	Husband working, no time to fish.
Nulato	3	Fishing with fish wheel, don't catch kings.
Nulato	3	Broken motor.
Nulato	11	Didn't fish.
Pilot Station	6	Father had a stroke.
Pilot Station	5	Too busy all summer — no time.
Pilot Station	3	No fishing gear.
Pilot Station	9	Will get some from parents if needed.
Pilot Station	5	Didn't have time to put fish away.
Pitka's Point	3	Motor problems.
Pitka's Point	2	Don't feel like subsistence fishing this year (working).
Pitka's Point	5	Too busy to subsistence fish.
Pitka's Point	12	Still fishing coho.
Pitka's Point	6	Family health problems.
Pitka's Point	3	No boat.
Pitka's Point	6	Don't fish, too old, lives alone.
Pitka's Point	5	Too busy — working all summer.
Pitka's Point	2	Busy working, no money to go fishing.
Pitka's Point	11	Don't like salmon — don't fish either.
Ruby	1	Will buy 400 more chums for dog food. Short season due to weather.

- continued -

Appendix Table A.9. (Page 5 of 6).

Village	Category <sup>a</sup>	Response
Ruby	1	Had to buy 200 more for dogs due to early freezing for fall chum fishing.
Ruby	7	Poor king fishing.
Ruby	11	Got ticketed by FWP, so quit fishing.
Ruby	5	Didn't have enough time to fish.
Russian Mission	10	Didn't have enough subsistence fishing time.
Russian Mission	12	Still fishing coho, will mail numbers to Fairbanks.
Russian Mission	3	No net.
Russian Mission	6	Husband accident — will try fish again.
Russian Mission	1	Water was too high — went on vacation.
Russian Mission	12	Will set net, plan to continue fishing.
Scammon Bay	6	Too elderly and too short subsistence fishing periods.
Scammon Bay	10	She wanted whitefish and the boys said she already had enough fish.
Shageluk	8	Out of town most of summer.
Shageluk	10	Wasn't given enough.
Shageluk	2	Busy working.
Shageluk	10	Death in the family, gave away all the fish at potlatch.
Shageluk	3	No boat, no motor.
Shageluk	3	Didn't get any net, no working outboard motor.
Shageluk	5	Usually go to Kaltag and fish for one month, too busy this year.
Shageluk	11	Didn't feel like fishing.
Shageluk	5	Busy building house.
Sheldon's Point	2	Too busy working.
Sheldon's Point	12	Still fishing — first time putting fish away.
Sheldon's Point	10	Not enough subsistence fishing time.
Sheldon's Point	2	Got a job — don't have time to go fish.
Sheldon's Point	2	Boys and husband working.
Sheldon's Point	2	Got a job — no time to fish.
Sheldon's Point	4	Only given, don't want to ask for fish.
Sheldon's Point	2	Got a full-time job.
Sheldon's Point	12	Not done fishing.
Sheldon's Point	12	Will set net in fall.
St. Mary's	4	All dried, none in the freezer. No babysitters available.
St. Mary's	6	Broken arm, couldn't fish.
St. Mary's	2	Not enough time, busy at work.
St. Mary's	10	Moved to St. Mary's from camp too early, too many humpies.
St. Mary's	8	In Nightmute during the summer.
St. Mary's	1	Too much rain, didn't want to cut more because of what was drying — fish spoil in the rain.
St. Mary's	2	Did not fish too much, all were working, too busy to fish.
St. Mary's	11	No ?? nothing.
St. Mary's	3	No boat, motor, nets available, could not fish.
St. Mary's	8	Traveling back and forth from Pilot and St. Mary's
St. Mary's	6	Medical problems.
St. Mary's	11	Don't fish at all.
St. Mary's	8	Both out of town during the summer.
Stevens Village	1	Froze too early.
Stevens Village	4	Lives alone, has no helper.
Stevens Village	2	Working.
Stevens Village	1	Poor fishing, too high water.
Stevens Village	11	Didn't fish.
Stevens Village	1	Ice ran too early, lost net.
Tanana	7	Not a big run, fished one week.

- continued -

Appendix Table A.9. (Page 6 of 6).

Village	Category <sup>a</sup>	Response
Tanana	5	Didn't have time to go fishing.
Tanana	1	Got there too late to fish after freeze-up, counted on fish for dogs.
Tanana	1	Early freeze-up, reduced dog team from 70-40 dogs.
Tanana	1	Early freeze curtailed fall fishing.
Tanana	1	Early freeze prevented fishing.
Tanana	1	Ice came too fast to get all dog feed.
Tanana	1	Froze-up too early to get fall fish, 3,000 fish short.
Tanana	5	Too busy to go out to fish camp.
Tanana	1	High water during king fishing, then busy campaigning.
Tanana	1	Early freeze prevented fishing.
Tanana	1	Couldn't fish this fall, froze to early.
Tanana	6	Bum knee, can't fish.
Tanana	1	High water, early season, fall icing conditions.
Tanana	1	Due to early ice running.
Tanana	3	No boat, no net.
Venetie	5	No time to fish this year.
Venetie	11	Didn't fish.
Venetie	1	Poor fishing, water too high.
Venetie	1	Poor year, ice running too soon in September.

a

Category	Response Summary
1	Fished, but due to Mother Nature, i.e., high water/early freeze-up, did not get enough fish
2	Working in another occupation.
3	No gear boat/net.
4	No helper to harvest or process fish.
5	Busy doing other things.
6	Medical reasons or elderly.
7	Poor run of fish.
8	Out of town.
9	Will get more fish as gifts or will buy more fish.
10	Not enough fish caught.
11	They didn't fish and other reasons not in other categories.
12	Still fishing.

Appendix Table A.10. Postcard return information for unknown-use households in the 1991 database.

Village	Fishing District	Postcard Repls To Questions Asking If They Caught Or Were Given Salmon							Return to Sender			Total Card Return
		Return	Caught		Given		No Reply		Other	Deceased	Total	
			Yes	No	Yes	No	Caught	Given				
Alakanuk	1	4	3	1	1	3				0	4	
Alatna	4	1	1			1				0	1	
Allakaket	4									0	0	
Anvik	4	2	2			2				0	2	
Beaver	5	2	1	1	1	1			1	1	3	
Bettles	4	1					1	1		0	1	
Birch Creek	5	1		1	1					0	1	
Chalkyitsik	5	2		2	2				1	1	3	
Emmonak	1	1	1		1				1	1	2	
Fort Yukon	5	9	5	3	4	4	1	1	10	2	12	21
Galena	4	4	1	3	4				11		11	15
Grayling	4										0	0
Holy Cross	3										0	0
Hooper Bay	1	7	7		1	5		1	3		3	10
Hughes	4	1	1			1					0	1
Huslia	4	1	1		1				4		4	5
Kaltag	4	1		1	1						0	1
Kotlik	1	3	2	1	2	1					0	3
Koyukuk	4	3	2	1	2	1					0	3
Marshall	2	1	1			1					0	1
Mountain Village	2										0	0
Nulato	4	1	1			1					0	1
Pilot Station	2	1	1			1			1		1	2
Pitka's Point	2										0	0
Rampart	5										0	0
Ruby	4	1		1	1						0	1
Russian Mission	3										0	0
Scammon Bay	1	3	3		1	2					0	3
Shageluk	4										0	0
Sheldon's Point	1										0	0
St. Mary's	2										0	0
Stevens Village	5										0	0
Tanana	5	3		3	2	1			1		1	4
Venetie	5	1	1		1				2		2	3
Total		54	34	18	26	25	2	3	33	4	37	91

Appendix Table A.11. Postcard return information for possible heads of households from the 1991 Permanent Fund Dividend list.

Village	New Household From Postcard Reply Salmon Caught or Given to Household							Household Existed on 1991 Household List Postcard Reply Salmon Caught or Given to Household							Cumulative Household Postcard Reply Salmon Caught or Given to Household							Return to Sender			Total Card Return
	Return	Caught		Given		No Reply		Return	Caught		Given		No Reply		Cumulative Return	Caught		Given		No Reply		Other	Deceased	Total	
		Yes	No	Yes	No	Caught	Given		Yes	No	Yes	No	Caught	Given		Yes	No	Yes	No	Caught	Given				
Alakanuk	6	2	4	2	4			3	2	1		3			9	4	5	2	7	0	0			0	9
Alatna															0	0	0	0	0	0	0			0	0
Allakaket	5	2	2	3	1	1	1	3	2	1	3				8	4	3	6	1	1	1	2		2	10
Anvik	1	1			1			1	1			1			2	2	0	0	2	0	0			0	2
Beaver	0							1		1	1				1	0	1	1	0	0	0	2		2	3
Bettles	2		1	1		1	1	6	1	4	3	2	1	1	8	1	5	4	2	2	2	4		4	12
Birch Creek															0	0	0	0	0	0	0			0	0
Chalkyitsik	1	1					1	1	1			1			2	2	0	0	1	0	1			0	2
Emmonak	6	2	3	4	1	1	1	2		1	2		1		8	2	4	6	1	2	1			0	8
Fort Yukon	14	6	7	7	6	1	1	2	1	1		2			16	7	8	7	8	1	1	14		14	30
Galena	18	6	8	6	8	4	4	1		1	1				19	6	9	7	8	4	4	5	1	6	25
Grayling	1		1		1			1		1	1				2	0	2	1	1	0	0	1		1	3
Holy Cross	5	4	1	3	2			1	1			1			6	5	1	3	3	0	0		1	1	7
Hooper Bay	16	7	7	4	10	2	2	1	2			2			17	9	7	4	12	2	2	2		2	19
Hughes	0														0	0	0	0	0	0	0		1	1	1
Huslia	4	3	1	1	3			1	1			1			5	4	1	1	4	0	0	5		5	10
Kaltag	1	1		1				1	1			1			2	2	0	1	1	0	0			0	2
Kotlik	4	1	3	2	2			1		1	1				5	1	4	3	2	0	0			0	5
Koyukuk	1		1	1				1		1	1				2	0	2	2	0	0	0	1		1	3
Marshall	2	2			2			2	1	1		2			4	3	1	2	4	0	0			0	4
Mountain Village	13	7	5	3	8	1	2	3	2	1	1	2			16	9	6	4	10	1	2	2		2	18
Nulato	1	1			1										1	1	0	0	1	0	0			0	1
Pilot Station	3		3	1	2			1	1			1			4	1	3	1	3	0	0			0	4
Pitka's Point	0														0	0	0	0	0	0	0			0	0
Rampart	0							1		1	1				1	0	1	1	0	0	0			0	1
Ruby	3		2	3		1		1	1		1				4	1	2	4	0	1	0			0	4
Russian Mission	4	3	1		4										4	3	1	0	4	0	0	1		1	5
Scammon Bay	5	2	3	3	2										5	2	3	3	2	0	0			0	5
Shageluk	5	2	3	3	2										5	2	3	3	2	0	0	1		1	6
Sheldon's Point	4	1	2	2	1	1	1								4	1	2	2	1	1	1			0	4
St. Mary's	14	9	4	3	10	1	1	2	2			2			16	11	4	3	12	1	1	2		2	18
Stevens Village	1		1		1										1	0	1	0	1	0	0	1		1	2
Tanana	9	4	5	6	3			3	3		1	2			12	7	5	7	5	0	0	10	1	11	23
Venetie	2	1		1	1	1									2	1	0	1	1	1	0	1		1	3
<b>Total</b>	<b>151</b>	<b>68</b>	<b>68</b>	<b>60</b>	<b>76</b>	<b>15</b>	<b>15</b>	<b>40</b>	<b>23</b>	<b>16</b>	<b>17</b>	<b>23</b>	<b>2</b>	<b>1</b>	<b>191</b>	<b>91</b>	<b>84</b>	<b>79</b>	<b>99</b>	<b>17</b>	<b>16</b>	<b>54</b>	<b>4</b>	<b>58</b>	<b>249</b>

Appendix Table A.12. Summary of information collected from 68 of the 71 Subdistrict 4-A commercial fishermen concerning summer chum salmon caught during the 1992 commercial fishing season.

Fish Ticket Reported Number of Fish Killed	Department Estimate of Fish Killed	Throw Back Live Males? <sup>a</sup>	Method of Throw Back <sup>b</sup>	Hours Fished 96	Time Males Released <sup>c</sup>	Estimated Commercial Harvest	Household Estimated Use	Number Given Away	Number Sold	Number Lost to Spoilage/Animals
4,035	5,350	N		96		4,035	3,735			300
1,860	2,704	N		96		2,700	900	1,700		100
3,290	4,426					4,426	1,000	3,300		126
46	59					50	50			
3,376	5,670			96		5,670	5,670			
3,531	5,124	Y	4			3,900	300	1,650		1,950
1,151	1,459	Y	4	50		1,151	767	0	0	384
1,355	1,785					1,785	55	1,730		
777	1,165	N				1,165	1,165			
74	89	N		48		118	18	0	0	100
3,939	5,228	Y	4	96	2	3,939	1,919	2,000		20
3,367	4,170	N				4,170	500	3,170		500
1,993	2,461	N		84		2,400	1,900	500	0	0
1,434	1,789	N				1,789	250			1,539
3,655	4,481	N		96		4,481	0	1,500	2,500	481
1,852	2,557	N				2,557	57	2,500		
630	920	Y	2	96	A	600		550		50
100	896	N				900	0	450		450
2,487	4,017	Y	3	94	A	2,487	100	2,387		0
2,013	3,519	Y	2	96	A	2,100	600			1,500
380	1,696	Y	2	96	2	1,696	500	250	300	646
2,067	2,765	Y	2	84	3	2,067	1,967			100
1,936	2,422	Y	1	96	4	1,936	1,166	70		700
1,539	1,680	N				1,539	1,539			
1,635	3,130	Did not interview								
803	1,004	Y	2	48	3	800	700	100		
4,025	4,385	Y	1&2	96	4	4,025	2,025	0		2,000
1,805	2,091	Y	1&2	96	3	1,805	1,200	0	0	605
1,280	1,461	Y	2	94	<4	1,280	300	880		100
1,732	2,167	N				2,167	250		1,917	
1,688	2,807	Y	2	96	A	1,688	600	1,000		88
1,255	2,630	N				2,630	300			
1,858	2,883	Did not interview								
486	3,250	N				3,250	2,250	250		750
544	2,430	N				2,430	0	2,430		
3,309	5,706	Y	3	94	A	3,309	100	100	3,109	0
4,618	7,843	Y	2	96	2	6,273	3,046	0	2,600	627
1,087	1,865	Y	2	96	A	1,120	1,000			120
3,966	4,970	Y	1	96	2	4,000	0	4,000		
3,167	4,028	N		96		4,000	3,000	0	0	1,000
190	983	Y	2	96		983	433	250	300	
1,921	2,459	Y	2	96	4	2,500	2,500			
507	498					507	0	507		
1,242	1,511	N				1,242	0	1,242	0	0
1,587	2,113	N				2,000	2,000	0	0	0
1,891	2,313	N		96		2,313	0	1,000		1,300
1,300	1,869	N				1,800	1,800	0	0	0

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Appendix Table A.12. (Page 2 of 2).

Fish Ticket Reported Number of Fish Killed	Department Estimate of Fish Killed	Throw Back Live Males? <sup>a</sup>	Method of Throw Back <sup>b</sup>	Hours Fished 96	Time Males Released <sup>c</sup>	Estimated Commercial Harvest	Household Estimated Use	Number Given Away	Number Sold	Number Lost to Spoilage/ Animals
1,710	2,141	N				2,141	2,141			
3,627	6,524	Y	3	96	A	3,914	14	3,800		100
25 <sup>d</sup>	489	N		96	<4	489	0	489	0	0
2,925	3,559	N		96		3,559	0	3,500		59
0	3,894	N				3,900	3,700			200
932	1,035	N		96		1,035	535			500
1,489	2,311					2,311	0	2,311		
2,331	3,507	Did not interview								
350	341	Y	2	96	3	350	175	175		
739	837	N		96		873	0	873		
940	1,157	N		72		1,157	1,157			
1,302	1,631	N		96		1,631	0	1,600		31
334 <sup>d</sup>	1,000	N				1,000	350			650
5,145	6,169					6,000		1,200	0	4,800
2,472	3,365	Y	1	96	2	3,365	500	2,000	0	865
1,248	2,020	N				2,000	0	1,200		800
3,570	3,319	N				3,319	1,319	640	1,300	60
2,169	3,815	Y	2	96	A	2,450	2,450			
162 <sup>d</sup>	1,148	N				1,150	0	500	150	500
0	65	N				0	0			
1,704	2,663	Y	1	84	4	2,663	20	2,500	0	143
0	893	Y	2	96	<4	843	0	760		83
887 <sup>c</sup>	2,389	N				2,300	500			1,800
805	1,128	Y	2	90	2	1,128	350		778	
123,649	186,228					155,361	58,873	55,064	12,954	26,127

<sup>a</sup> Y = Yes; N = No.

<sup>b</sup> 1 = Males thrown back after they dropped into a box; 2 = Males dropped directly from the wheel into the water by a chute;

3 = Males held in a livebox and returned to the river using a dip net; and 4 = Released live males from set gillnet.

<sup>c</sup> Males released: A = all the time; 3 = 3/4 of the time; 2 = 1/2 of the time; 4 = 1/4 of the time; and <4 = less than 1/4 of the time.

<sup>d</sup> Only one period number of fish were reported on fish tickets.

<sup>e</sup> Out of four periods fished, one period did not report number of fish killed.

APPENDIX B  
YUKON RIVER DRAINAGE  
HISTORICAL SUBSISTENCE AND PERSONAL-USE  
SALMON HARVESTS



Appendix Table B.1. Estimated Yukon River chinook salmon subsistence harvest in numbers of fish by village, 1981-1992.

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983-1987 Average	1988-1992 Average
Sheldon's Point	163	79	1,021	802	143	592	1,173	302	165	756	445	388	746	411
Alakanuk	423	336	1,582	1,028	517	1,027	1,180	738	820	871	1,044	623	1,067	819
Emmonak	1,021	1,328	2,436	2,099	1,382	1,754	2,518	1,786	1,598	1,873	1,311	2,336	2,038	1,781
Kotlik	675	568	1,224	695	1,029	1,902	2,407	1,112	1,982	3,119	3,125	1,794	1,451	2,226
Retained From Commercial														
<i>Mouth to Anuk River Subtotal</i>	2,282	2,311	6,263	4,624	3,071	5,275	7,278	3,938	4,565	6,619	5,925	5,141	5,302	5,238
Mountain Village	811	218	1,875	1,217	672	1,367	2,252	740	2,001	1,792	1,171	1,249	1,477	1,391
Pitka's Point/St. Mary's	1,380	985	2,432	2,663	778	1,717	2,457	1,378	2,184	2,476	2,488	2,604	2,009	2,226
Pilot Station	399	428	2,703	1,116	896	1,452	2,593	674	1,498	3,786	2,681	1,818	1,752	2,091
Marshall	990	478	2,055	2,176	1,122	1,947	2,564	1,031	1,464	1,492	1,277	1,403	1,973	1,333
Retained From Commercial														
<i>Anuk River to Owl Slough Subtotal</i>	3,580	2,109	9,065	7,172	3,468	6,483	9,866	3,823	7,147	9,546	7,617	7,074	7,211	7,041
Russian Mission	1,689	1,628	2,634	1,938	974	1,747	2,036	1,850	2,367	1,694	1,349	1,282	1,866	1,708
Holy Cross	2,312	1,731	2,276	2,456	2,368	2,505	2,625	2,593	2,379	2,337	1,649	3,491	2,446	2,490
Retained From Commercial													0	
<i>Owl Slough to Bonasila River Subtotal</i>	4,001	3,359	4,910	4,394	3,342	4,252	4,661	4,443	4,746	4,031	2,998	4,773	4,312	4,198
<b>Lower Yukon Total</b>	<b>9,863</b>	<b>7,779</b>	<b>20,238</b>	<b>16,190</b>	<b>9,881</b>	<b>16,010</b>	<b>21,805</b>	<b>12,204</b>	<b>16,458</b>	<b>20,196</b>	<b>16,540</b>	<b>16,988</b>	<b>16,825</b>	<b>16,477</b>
Anvik	191	354	744	576	405	959	428	211	418	481	619	389	622	424
Grayling	222	294	951	879	903	1,837	1,322	1,571	1,082	144	874	1,074	1,178	949
Kaltag	179	344	652	487	669	1,080	1,117	1,168	1,306	2,244	1,866	1,084	801	1,534
Nulato	1,117	811	1,135	966	1,063	1,835	1,573	1,986	2,079	2,788	2,500	1,596	1,314	2,190
Koyukuk	541	493	966	1,009	194	569	609	711	1,003	876	885	510	669	797
Galena	570	735	1,477	1,226	1,329	1,046	1,270	1,982	1,374	3,134	2,574	1,870	1,270	2,187
Ruby/Kokrines	964	1,168	2,346	1,107	1,657	1,263	927	1,402	1,016	811	971	498	1,460	940
Retained From Commercial														
<i>Bonasila River to Illinois Creek Subtotal</i>	3,784	4,199	8,271	6,250	6,220	8,589	7,246	9,031	8,278	10,478	10,289	7,021	7,315	9,019
Shageluk														
<i>Innoko River Subtotal</i>	10					53	47	104	32	62	189	218	20	121
Huslia	61	125	459	169	144	82	182	89	177	198	198	751	207	283
Hughes	402	479	318	856	778	296	177	29	181	90	146	29	485	95
Allakaket/Alatna <sup>b</sup>	185	274	706	375	283	563	309	366	438	356	451	437	447	410
Bettles									0	0	16	53		14
<i>Koyukuk River Subtotal</i>	648	878	1,483	1,400	1,205	941	668	484	796	644	811	1,270	1,139	801
<i>District 4 Subtotal</i>	4,442	5,077	9,754	7,650	7,425	9,583	7,961	9,619	9,106	11,184	11,289	8,509	8,475	9,941

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Appendix Table B.1. (Page 2 of 2).

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983-1987 Average	1988-1992 Average
Tanana	2,517	2,230	5,547	2,682	1,248	1,672	4,021	3,537	3,008	2,284	2,483	2,477	3,034	2,758
Rampart	488	887	1,070	876	1,302	1,700	2,815	3,145	3,177	1,481	988	2,802	1,553	2,319
Fairbanks (permits) <sup>c,d</sup>		1,935	2,672	2,499	1,865	1,762	613	0	200	420	982	1,394	1,882	599
Stevens Village	2,387	1,810	2,531	2,177	2,763	2,839	2,076	2,845	3,101	1,295	2,035	1,887	2,477	2,233
Birch Creek								0 <sup>b</sup>	0		196	44	0	48
Beaver	552	250	220	553	506	708	466	940	1,694	721	713	1,564	491	1,126
Fort Yukon	2,794	1,894	1,887	3,608	2,900	3,083	3,950	2,245	4,898	4,051	5,585	4,122	3,086	4,180
Circle/Central (permits) <sup>d</sup>	728	969	648	545	2,259	2,233	1,614	2,034	1,785	1,951	1,871	1,752	1,460	1,879
Eagle (permits) <sup>d</sup>	3,782	2,864	2,183	1,998	2,247	1,915	1,988	2,333	2,385	1,742	1,193	1,040	2,066	1,739
Other (permits) <sup>d,e</sup>										615	374	571	0	312
Retained From Commercial														
<i>Illinois Creek to U.S. Can. Border Subtotal</i>	13,248	12,839	16,758	14,938	15,090	15,912	17,543	17,079	20,248	14,560	16,420	17,653	16,048	17,192
Venetie	52	20	22	51		32	13	121	88	29	9	35	24	56
Chalkyitsik						0	0	0	0	0	0	3	0	1
<i>Chandalar/Black Rivers Subtotal</i>	52	20	22	51		32	13	121	88	29	9	38	24	57
<i>District 5 Subtotal</i>	13,300	12,859	16,780	14,989	15,090	15,944	17,556	17,200	20,336	14,589	16,429	17,691	16,072	17,249
Manley <sup>f</sup>	367	386	990	282	744	621	40	572	992	1,169	401	551	535	737
Minto <sup>f</sup>	344	411	275	440	1,386	350	374	466	366	100	134	142	565	242
Nenana <sup>f</sup>	974	1,195	966	2,556	4,919	2,093	3,151	3,846	1,188	1,265	1,599	1,267	2,737	1,833
Fairbanks (permits) <sup>d,g</sup>	400	451	475	321	326	637	531	0	0	84	378	402	458	173
Other <sup>h</sup>								0	0	0	3	76	0	16
Retained From Commercial													0	
<i>Tanana River Subtotal</i>	2,085	2,443	2,706	3,599	7,375	3,701	4,096	4,884	2,546	2,618	2,515	2,438	4,295	3,000
<b>Upper Yukon Total</b>	<b>19,827</b>	<b>20,379</b>	<b>29,240</b>	<b>26,238</b>	<b>29,890</b>	<b>29,228</b>	<b>29,613</b>	<b>31,703</b>	<b>31,988</b>	<b>28,391</b>	<b>30,233</b>	<b>28,638</b>	<b>28,842</b>	<b>30,191</b>
<b>Alaska Total</b>	<b>29,690</b>	<b>28,158</b>	<b>49,478</b>	<b>42,428</b>	<b>39,771</b>	<b>45,238</b>	<b>51,418</b>	<b>43,907</b>	<b>48,446</b>	<b>48,587</b>	<b>46,773</b>	<b>45,626</b>	<b>45,667</b>	<b>46,668</b>

<sup>a</sup> 1961-1981 data available from 1981 Yukon Area Annual Management Report. Beginning in 1988 subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Blanks indicate harvest information was not collected.

<sup>b</sup> Alatna combined with Allakaket.

<sup>c</sup> Catches by Fairbanks subsistence permit holders that fished in District 5 near the Yukon River bridge crossing.

<sup>d</sup> Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

<sup>e</sup> Other permit holders that fished in District 5 but did not reside in the villages listed.

<sup>f</sup> Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

<sup>g</sup> Catches by Fairbanks subsistence permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of Wood River.

<sup>h</sup> Other permit holders that fished in District 6 but did not reside in the villages listed.

<sup>i</sup> Estimated chinook salmon carcasses available for subsistence use as a byproduct of commercial roe sales are documented in total utilization tables in Yukon annual management reports.

Appendix Table B.2. Estimated Yukon River summer chum salmon subsistence harvest in numbers of fish by village, 1981–1992.

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983–1987 Average	1988–1992 Average
Sheldon's Point	2,495	885	1,690	2,701	1,717	4,755	2,460	2,589	4,314	1,458	2,226	1,415	2,665	2,400
Alakanuk	2,263	5,225	9,347	10,095	7,702	11,280	9,913	6,992	12,108	7,265	8,058	9,951	9,667	8,875
Emmonak	4,907	8,426	8,401	10,053	8,742	12,618	11,177	10,528	22,985	15,215	8,401	12,296	10,198	13,885
Kotlik	1,645	3,916	5,241	5,610	6,188	10,201	7,210	8,825	13,437	13,061	9,105	9,577	6,890	10,801
<i>Retained From Commercial</i>														
<i>Mouth to Anuk River Subtotal</i>	11,310	18,452	24,679	28,459	24,349	38,854	30,760	28,934	52,844	36,999	27,790	33,239	29,420	35,961
Mountain Village	3,383	3,854	10,183	8,665	6,745	11,468	12,456	9,248	15,869	9,950	4,743	7,864	9,903	9,535
Pitka's Point/St. Mary's	4,699	9,405	8,569	11,019	7,556	14,986	12,402	10,501	13,124	9,515	9,284	8,555	10,906	10,196
Pilot Station	2,859	2,135	4,683	3,236	3,133	7,870	4,279	4,242	6,783	6,698	4,634	6,236	4,640	5,719
Marshall	3,277	3,048	3,961	4,076	2,361	7,172	3,997	4,796	3,927	2,290	2,042	2,076	4,313	3,026
<i>Retained From Commercial</i>														
<i>Anuk River to Owl Slough Subtotal</i>	14,218	18,442	27,396	26,996	19,795	41,496	33,134	28,787	39,703	28,453	20,703	24,731	29,763	28,475
Russian Mission	2,628	1,419	1,576	2,227	1,817	3,136	2,283	2,794	2,229	2,146	837	3,331	2,208	2,267
Holy Cross	2,301	4,421	3,033	5,124	1,870	2,392	1,878	3,036	1,753	857	1,028	1,001	2,859	1,535
<i>Retained From Commercial</i>														
<i>Owl Slough to Bonasila River Subtotal</i>	4,929	5,840	4,609	7,351	3,687	5,528	4,161	5,830	3,982	3,003	1,865	4,332	5,067	3,802
<b>Lower Yukon Total</b>	<b>30,457</b>	<b>42,734</b>	<b>56,684</b>	<b>62,806</b>	<b>47,831</b>	<b>85,878</b>	<b>68,055</b>	<b>63,551</b>	<b>96,529</b>	<b>68,455</b>	<b>50,358</b>	<b>62,302</b>	<b>64,251</b>	<b>68,239</b>
Anvik	26,588	27,087	20,592	22,433	24,950	41,581	28,887	12,607	410	2,032	876	1,142	27,689	3,413
Grayling	15,836	47,006	22,958	28,060	23,937	35,284	21,264	22,634	14,570	1,430	8,094	3,605	26,301	10,067
Kaltag	28,121	37,125	27,674	1,800	26,965	24,667	28,550	3,592	632	6,956	2,287	1,204	21,931	2,934
Nulato	7,534	19,740	11,130	232	16,315	10,349	16,299	10,201	200	502	159	889	10,865	2,390
Koyukuk	11,788	18,149	14,440	5,215	9,666	6,250	9,718	284	381	283	2,326	1,130	9,058	881
Galena	15,089	20,434	5,789	19,480	16,212	6,618	11,776	7,413	6,216	1,760	3,493	3,232	11,975	4,423
Ruby/Kokrines	5,542	7,539	8,804	4,282	13,556	7,883	8,786	4,010	1,844	351	1,352	2,420	8,662	1,995
<i>Retained From Commercial</i>														
<i>Bonasila River to Illinois Creek Subtotal</i>	110,498	177,080	111,387	81,502	131,601	132,632	125,280	60,741	24,253	13,314	18,587	13,622	116,480	26,103
<i>Shageluk</i>														
<i>Innoko River Subtotal</i>	2,501					6,710	8,015	8,779	8,842	6,518	3,680	5,267	2,945	6,617
Huslia	12,550	6,809	18,588	12,550	13,430	10,516	11,042	14,895	10,005	7,368	7,857	13,670	13,225	10,759
Hughes	6,196	8,409	1,905	14,744	12,788	7,280	4,369	2,445	3,687	509	1,257	1,625	8,217	1,905
Allakake/Alatna <sup>b</sup>	7,827	7,687	4,165	4,169	7,564	8,934	8,700	8,524	2,915	5,319	7,413	6,858	6,706	6,206
Bettles									75	24	155	37	0	58
<i>Koyukuk River Subtotal</i>	26,573	22,905	24,658	31,463	33,782	26,730	24,111	25,864	16,682	13,220	16,682	22,190	28,149	18,928
<i>District 4 Subtotal</i>	139,572	199,985	136,045	112,965	165,383	166,072	157,406	95,384	49,777	33,052	38,949	41,079	147,574	51,648

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Appendix Table B.2. (Page 2 of 2).

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983-1987	1988-1992
													Average	Average
Tanana	7,873	3,214	5,552	10,620	11,148	11,646	10,876	13,972	7,756	5,905	2,779	4,553	9,968	6,993
Rampart	1,946	0	3,698	7,650	5,133	1,450	2,434	3,383	28	58	20	4,494	4,073	1,597
Fairbanks (permits) <sup>c,d</sup>	4,501	2,056	2,194	4,065	2,027	1,382	1,493	0	0	25	1,068	706	2,232	360
Stevens Village	2,576	666	5,051	5,952	3,046	3,116	1,446	865	2,375	1,671	1,385	460	3,722	1,351
Beaver	146	534	100	167	263	0	657	214	124	108	2,355	12	237	563
Fort Yukon	8,149	1,434	7,142	3,032	4,410	3,264	1,187	7,717	1,760	145	11,974	1,700	3,807	4,659
Circle/Central (permits) <sup>d</sup>	2,009	0	73	0	930	459	2,078	871	361	1,267	51	356	708	581
Eagle (permits) <sup>d</sup>	108	1,887	133	49	39	516	417	1,273	547	361	607	23	231	562
Other (permits) <sup>d,e</sup>										187	32	291	0	102
Retained From Commercial														
<i>Illinois Creek to U.S. Can. Border Subtotal</i>	27,308	9,791	23,943	31,535	26,996	21,833	20,588	28,295	12,951	9,727	20,271	12,595	24,979	16,768
Venetie	0	0	0	0		0	0	701	30	0	3,393	0	0	825
Chalkyitsik						0	0	327	0	90	500	17	0	187
<i>Chandalar/Black Rivers Subtotal</i>	0	0	0	0		0	0	1,028	30	90	3,893	17	0	1,012
<i>District 5 Subtotal</i>	27,308	9,791	23,943	31,535	26,996	21,833	20,588	29,323	12,981	9,817	24,164	12,612	24,979	17,779
Manley <sup>f</sup>	2,972	971	7,245	1,260	856	604	267	3,731	2,457	2,250	1,716	850	2,046	2,201
Minto <sup>f</sup>	367	808	7,414	5,042	5,291	1,587	1,383	947	1,425	500	748	625	4,143	849
Nenana <sup>f</sup>	4,369	3,972	6,779	13,962	15,825	10,827	21,214	5,654	3,986	1,383	1,499	6,372	13,721	3,779
Fairbanks <sup>d,g</sup>	3,239	2,708	2,276	3,177	2,646	4,024	1,461	0	0	152	1,096	1,342	2,717	518
Other <sup>f,h</sup>								0	0	0	10	315	0	65
Retained From Commercial														
<i>Tanana River Subtotal</i>	10,947	8,459	23,714	23,441	24,618	17,042	24,325	10,332	7,868	4,285	5,069	9,504	22,628	7,412
<b>Upper Yukon Total<sup>i</sup></b>	<b>177,827</b>	<b>218,235</b>	<b>183,702</b>	<b>167,941</b>	<b>216,997</b>	<b>204,947</b>	<b>202,319</b>	<b>135,039</b>	<b>70,626</b>	<b>47,154</b>	<b>68,182</b>	<b>63,195</b>	<b>195,181</b>	<b>76,839</b>
<b>Alaska Total</b>	<b>208,284</b>	<b>260,969</b>	<b>240,386</b>	<b>230,747</b>	<b>264,828</b>	<b>290,825</b>	<b>270,374</b>	<b>198,590</b>	<b>167,155</b>	<b>115,609</b>	<b>118,540</b>	<b>125,497</b>	<b>259,432</b>	<b>145,078</b>

<sup>a</sup> 1961-1981 chum salmon data available from 1981 Yukon Area Annual Management Report. Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households. District 4 summer chum salmon subsistence harvest estimates prior to 1988 and Districts 5 and 6 prior to 1989 included commercially caught summer chum salmon carcasses retained for subsistence use. Beginning in 1988 and 1989, efforts were made to exclude commercial carcasses from subsistence harvest estimates. Blanks indicate harvest information was not collected.

<sup>b</sup> Alutna combined with Allakaket.

<sup>c</sup> Catches by Fairbanks subsistence use permit holders that fished in District 5 near the Yukon River bridge crossing.

<sup>d</sup> Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

<sup>e</sup> Other permit holders that fished in District 5 but did not reside in the villages listed.

<sup>f</sup> Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

<sup>g</sup> Catches by Fairbanks subsistence use permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of Wood River.

<sup>h</sup> Other permit holders that fished in District 6 but did not reside in the villages listed.

<sup>i</sup> Estimated summer chum salmon carcasses available for subsistence use as a byproduct of commercial roe sale are documented in total utilization tables in Yukon annual management reports.

Appendix Table B.3. Estimated Yukon River fall chum salmon subsistence harvest in numbers of fish by village, 1981–1992.

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983–1987	1988–1992
													Average	Average
Sheldon's Point	490	886	233	555	713	259	882	289	586	102	84	490	528	310
Alakanuk	4,913	1,336	903	1,219	2,603	2,030	3,748	1,194	430	267	193	401	2,101	223
Emmonak	4,375	4,458	2,715	3,329	4,539	2,746	8,160	1,792	840	2,353	2,027	1,628	4,298	2,191
Kotlik	5,762	3,336	4,387	3,782	5,420	3,965	5,677	2,200	3,058	2,613	1,631	2,697	4,646	2,842
<i>Mouth to Anuk River Subtotal</i>	15,540	10,016	8,238	8,885	13,275	9,000	18,467	5,475	4,914	5,335	3,935	5,216	11,573	5,567
Mountain Village	3,794	2,810	4,065	3,497	3,591	2,947	4,897	1,880	4,641	1,566	1,473	1,052	3,799	1,200
Pitka's Point/St. Mary's	3,322	2,386	3,138	3,927	3,315	5,401	3,966	2,533	1,970	956	2,202	77	3,949	1,060
Pilot Station	1,764	1,568	1,302	832	1,957	1,663	583	1,372	1,872	1,941	1,062	3,526	1,267	1,815
Marshall	2,890	2,747	1,836	3,138	2,681	3,472	4,008	2,815	1,532	1,724	891	2,727	3,027	1,214
<i>Anuk River to Owl Slough Subtotal</i>	11,770	9,511	10,341	11,394	11,544	13,483	13,454	8,600	10,015	6,187	5,628	7,382	12,043	5,288
Russian Mission	497	630	773	860	1,266	637	1,255	1,151	308	878	425	648	958	427
Holy Cross	2,396	1,029	2,090	1,373	1,024	1,148	1,598	596	711	1,178	190	845	1,447	789
<i>Owl Slough to Bonasila River Subtotal</i>	2,893	1,659	2,863	2,233	2,290	1,785	2,853	1,747	1,019	2,056	615	1,493	2,405	1,216
<b>Lower Yukon Total</b>	<b>30,203</b>	<b>21,186</b>	<b>21,442</b>	<b>22,512</b>	<b>27,109</b>	<b>24,268</b>	<b>34,774</b>	<b>15,822</b>	<b>15,948</b>	<b>13,578</b>	<b>10,178</b>	<b>14,091</b>	<b>26,021</b>	<b>12,071</b>
Anvik	2,167	4,088	902	720	2,125	913	394	136	168	583	452	894	1,011	501
Grayling	890	2,972	3,847	1,950	3,106	4,204	4,750	1,760	830	1,405	3,616	2,993	3,571	2,182
Kaltag	2,329	812	2,833	1,330	1,570	2,024	7,474	2,293	1,654	2,327	2,834	2,522	3,046	1,803
Nulato	621	217	3,159	1,675	4,240	1,762	2,200	1,673	2,436	3,546	1,637	1,910	2,607	1,755
Koyukuk	700	1,355	1,120	1,560	798	2,195	2,492	587	2,460	860	2,761	2,817	1,633	1,908
Galena	3,142	2,164	4,259	7,270	4,476	4,819	10,509	4,308	6,436	3,202	5,525	2,393	6,267	3,668
Ruby/Kokrines	7,984	6,662	12,319	8,505	6,717	7,101	11,000	5,171	6,599	3,352	2,856	4,499	9,128	3,469
<i>Bonasila River to Illinois Creek Subtotal</i>	17,833	18,270	28,439	23,010	23,032	23,018	38,819	15,928	20,583	15,275	19,681	18,028	27,264	15,285
<b>Shageluk</b>														
<i>Innoko River Subtotal</i>	150				0	370	434	0	4	0	0	865	161	252
Huslia	119	102	3,528	6,306	276	808	585	1,697	1,728	846	411	1,286	2,301	571
Hughes	611	1,231	327	1,280	1,260	1,422	586	311	260	70	270	325	975	167
Allakaket/Alatna <sup>b</sup>	1,410	716	1,915	556	707	878	1,477	443	1,969	3,050	513	1,579	1,107	1,075
Bettles									0	0	0	14	0	3
<i>Koyukuk River Subtotal</i>	2,140	2,049	5,770	8,142	2,243	3,108	2,648	2,451	3,957	3,966	1,194	3,204	4,382	1,816
<i>District 4 Subtotal</i>	20,123	20,319	34,209	31,152	25,275	26,496	41,901	18,379	24,544	19,241	20,875	22,097	31,807	17,353
Tanana	30,820	31,470	41,630	42,690	28,113	32,049	41,825	55,998	40,845	41,145	40,868	19,365	37,261	31,832
Rampart	5,370	5,495	5,627	4,395	19,619	3,950	5,092	3,600	2,472	10,818	5,801	5,701	7,737	5,320
Fairbanks (permits) <sup>c,d</sup>	7,527	9,272	12,865	12,920	13,874	11,708	5,264		7	82	2,022	2,491	11,326	1,679
Stevens Village	8,356	7,392	3,502	4,932	11,679	4,150	7,538	1,451	6,633	3,857	2,481	150	6,360	1,479
Beaver	735	1,878	6,004	0	1,761	3,321	5,750	96	7,242	757	7	361	3,367	777

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Appendix Table B.3. (Page 2 of 2).

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983-1987 Average	1988-1992 Average
Fort Yukon	16,143	1,926	3,967	7,525	12,719	8,543	15,200	2,766	27,790	11,627	7,467	2,284	9,591	6,117
Circle/Central (permits) <sup>d</sup>	5,219	290	3,687	3,107	4,096	3,650	7,691	4,396	4,478	6,804	6,413	6,379	4,446	4,905
Eagle (permits) <sup>d</sup>	30,997	13,255	20,021	18,519	25,264	16,027	19,678	14,800	11,557	8,027	7,985	5,630	19,902	6,395
Other (permits) <sup>a,c</sup>										529	100	0	0	476
<i>Illinois Creek to U.S. Can. Border Subtotal</i>	105,167	70,978	97,303	94,088	117,125	83,398	108,038	83,107	101,024	83,646	73,144	42,361	99,990	58,980
Venetie	6,400	850	7,800	4,345		3,193	2,774	34	7,977	5,377	758	3,066	3,622	4,277
Chalkyitsik						1,533	2,686	1,068	3,000	1,490	100	274	844	818
<i>Chandalar/Black Rivers Subtotal</i>	6,400	850	7,800	4,345		4,726	5,460	1,102	10,977	6,867	858	3,340	4,466	5,095
<i>District 5 Subtotal</i>	111,567	71,828	105,103	98,433	117,125	88,124	113,498	84,209	112,001	90,513	74,002	45,701	104,457	64,075
Manley <sup>f</sup>	9,419	4,444	11,400	2,196	6,560	5,905	4,267	6,899	21,087	25,860	13,243	7,010	6,066	12,610
Minto <sup>f</sup>	3,182	3,568	6,489	4,025	4,642	545	5,419	2,615	2,005	3,652	5,276	3,017	4,224	2,733
Nenana <sup>f</sup>	10,176	9,034	11,685	13,520	22,901	15,902	26,909	26,889	25,340	12,464	17,932	13,253	18,183	12,156
Fairbanks (permits) <sup>d,g</sup>	3,855	2,518	2,600	2,985	2,860	2,803	0	0	0	309	1,671	1,394	2,250	1,687
Other <sup>f,h</sup>									10,222	2,283	2,347	1,039	0	1,654
<i>Tanana River Subtotal</i>	26,632	19,564	32,174	22,726	36,963	25,155	36,595	36,403	58,654	44,568	40,469	25,713	30,723	30,840
<b>Upper Yukon Total<sup>1</sup></b>	<b>158,322</b>	<b>111,711</b>	<b>171,486</b>	<b>152,311</b>	<b>179,363</b>	<b>139,775</b>	<b>191,994</b>	<b>138,991</b>	<b>195,199</b>	<b>154,322</b>	<b>135,346</b>	<b>93,511</b>	<b>166,986</b>	<b>112,269</b>
<b>Alaska Total</b>	<b>188,525</b>	<b>132,897</b>	<b>192,928</b>	<b>174,823</b>	<b>206,472</b>	<b>164,043</b>	<b>226,768</b>	<b>154,813</b>	<b>211,147</b>	<b>167,900</b>	<b>145,524</b>	<b>107,602</b>	<b>193,007</b>	<b>124,340</b>

<sup>a</sup> 1961-1981 chum data available from 1981 Yukon Area Annual Management Report. Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Includes commercial-related harvest to produce roe sold, 1982-1988. Blanks indicate harvest information was not collected.

<sup>b</sup> Alatna combined with Allakaket.

<sup>c</sup> Catches by Fairbanks subsistence use permit holders that fished in District 5 near the Yukon River bridge crossing.

<sup>d</sup> Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

<sup>e</sup> Other permit holders that fished in District 5 but did not reside in the villages listed.

<sup>f</sup> Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

<sup>g</sup> Catches by Fairbanks subsistence permit holders that fished in the Tanana River. Permits required beginning in 1964 for the Tanana River upstream of Wood River.

<sup>h</sup> Other permit holders that fished in District 6 but did not reside in the villages listed.

<sup>1</sup> Estimated fall chum salmon carcasses available for subsistence use as a byproduct of commercial roe sales are documented in total utilization tables in Yukon annual management reports.

Appendix Table B.4. Estimated Yukon River coho salmon subsistence harvest in numbers of fish by village, 1981–1992.

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983–1987	1988–1992
													Average	Average
Sheldon's Point	215	1,770	170	245	49	237	308	169	487	78	35	441	202	242
Alakanuk	508	1,313	438	776	894	1,518	1,116	634	334	156	391	966	948	496
Emmonak	1,295	4,795	1,290	3,659	1,552	732	3,497	1,578	1,259	1,283	801	666	2,146	1,117
Kotlik	1,751	3,314	1,692	1,415	751	238	1,475	2,008	2,997	1,784	581	3,353	1,114	2,145
<i>Mouth to Anuk River Subtotal</i>	3,769	11,192	3,590	6,095	3,246	2,725	6,396	4,389	5,077	3,301	1,808	5,426	4,410	4,000
Mountain Village	1,055	3,025	2,500	982	1,527	828	2,481	1,314	2,385	1,754	868	1,971	1,664	1,658
Pitka's Point/St. Mary's	1,183	2,783	1,529	2,024	1,113	4,832	1,740	3,147	971	515	1,617	2,771	2,248	1,804
Pilot Station	431	2,644	638	1,114	710	1,514	300	876	379	1,968	553	300	855	815
Marshall	1,067	1,777	1,405	2,946	1,484	1,966	2,373	1,767	1,304	2,107	259	1,545	2,035	1,396
<i>Anuk River to Owl Slough Subtotal</i>	3,736	10,229	6,072	7,066	4,834	9,140	6,894	7,104	5,039	6,344	3,297	6,587	6,801	5,674
Russian Mission	434	156	540	740	276	679	423	604	20	688	396	1,148	532	571
Holy Cross	56	519	377	0	100	102	259	935	517	338	944	105	168	568
<i>Owl Slough to Bonasila River Subtotal</i>	490	675	917	740	376	781	682	1,539	537	1,026	1,340	1,253	699	1,139
<b>Lower Yukon Total</b>	<b>7,995</b>	<b>22,096</b>	<b>10,579</b>	<b>13,901</b>	<b>8,456</b>	<b>12,646</b>	<b>13,972</b>	<b>13,032</b>	<b>10,653</b>	<b>10,671</b>	<b>6,445</b>	<b>13,266</b>	<b>11,911</b>	<b>10,813</b>
Anvik	385	58	250	40	272	296	405	97	40	236	347	202	253	184
Grayling	172	1,014	1,275	97	0	860	599	692	969	10	1,363	859	566	779
Kaltag	102	62	0	0	0	229	0	0	792	501	1,260	2,105	46	932
Nulato	140	76	0	0	510	69	85	234	276	845	75	435	133	373
Koyukuk	142	187	40	200	120	154	894	10	110	162	307	1,877	282	493
Galena	333	347	759	452	1,072	465	1,349	1,029	415	572	422	1,398	819	767
Ruby/Kokrines	746	867	1,122	1,631	1,719	339	0	2,169	1,069	974	410	1,299	962	1,184
<i>Bonasila River to Illinois Creek Subtotal</i>	2,020	2,611	3,446	2,420	3,693	2,412	3,332	4,231	3,671	3,300	4,184	8,175	3,061	4,712
Shageluk														
<i>Innoko River Subtotal</i>	20					173	72	128	0	0	0	296	49	85
Huslia	146	17	475	12	0	31	124	201	150	235	150	233	128	194
Hughes	42	0	0	400	138	0	0	104	91	43	9	21	108	54
Allakaket/Alatna <sup>b</sup>	31	324	25	35	118	15	23	178	118	36	108	0	43	88
Bettles									0	0	0	0	0	0
<i>Koyukuk River Subtotal</i>	219	341	500	447	256	46	147	483	359	314	267	254	279	335
<i>District 4 Subtotal</i>	2,259	2,952	3,946	2,867	3,919	2,631	3,551	4,842	4,030	3,614	4,451	8,725	3,389	5,132
Tanana	1,373	3,260	2,312	16,898	7,381	4,691	6,680	16,922	5,518	8,580	4,448	11,406	7,593	9,375
Rampart	169	0	47	120	513	110	81	842	87	591	58	75	174	331
Fairbanks (permits) <sup>c,d</sup>	6	20	78	254	13	709	6	0	0	5	8	34	212	9
Stevens Village	95	23	0	145	182	67	0	604	208	479	0	20	79	262
Beaver	0	0	0	0	1	124	0	164	774	172	1	398	25	302
Fort Yukon	70	125	11	33	3	118	41	370	406	727	380	341	41	445

- continued -

Appendix Table B.4. (Page 2 of 2).

Village <sup>a</sup>	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1983-1987 Average	1988-1992 Average
Circle/Central (permits) <sup>d</sup>	0	0	0	0	0	37	0	41	1	206	5	54	7	61
Eagle (permits) <sup>d</sup>	0	0	0	17	2	6	0	11	0	0	0	3	5	3
Other (permits) <sup>d,e</sup>								0	165	450	12	0	0	125
<i>Illinois Creek to U.S. Can. Border Subtotal</i>	1,713	3,428	2,448	17,467	8,098	5,862	6,808	18,954	7,159	11,210	4,912	12,331	8,137	10,913
Venetie	0	0	0	0		0	17	0	2	348	12	45	3	81
Chalkyitsik						8	2	801	26	4	7	0	2	168
<i>Chandalar/Black River Subtotal</i>	0	0	0	0		8	19	801	28	352	19	45	5	249
<i>District 5 Subtotal</i>	1,713	3,428	2,448	17,467	8,098	5,870	6,827	19,755	7,187	11,562	4,931	12,376	8,142	11,162
Manley <sup>f</sup>	3,723	837	1,350	1,566	1,926	538	1,467	2,103	5,310	7,574	6,361	4,725	1,369	5,215
Minto <sup>f</sup>	267	1,500	0	800	1,144	1,058	671	2,729	1,179	818	526	614	735	1,173
Nenana <sup>f</sup>	3,356	3,078	4,352	10,270	7,614	10,090	19,592	25,369	7,593	7,381	10,171	8,895	10,384	11,882
Fairbanks (permits) <sup>d,g</sup>	1,915	2,003	1,230	2,149	1,077	1,635	0	0	0	66	2,501	2,281	1,218	970
Other <sup>f,h</sup>									4,759	1,774	2,002	1,039	0	1,915
Retained from commercial														
<i>Tanana River Subtotal</i>	9,261	7,418	6,932	14,785	11,761	13,321	21,730	30,201	18,841	17,613	21,561	17,554	13,706	21,154
<b>Upper Yukon Total</b>	<b>13,233</b>	<b>13,798</b>	<b>13,326</b>	<b>35,119</b>	<b>23,808</b>	<b>21,822</b>	<b>32,108</b>	<b>54,798</b>	<b>30,058</b>	<b>32,789</b>	<b>30,943</b>	<b>38,655</b>	<b>25,237</b>	<b>37,449</b>
<b>Alaska Total</b>	<b>21,228</b>	<b>35,894</b>	<b>23,905</b>	<b>49,020</b>	<b>32,264</b>	<b>34,468</b>	<b>46,080</b>	<b>67,830</b>	<b>40,711</b>	<b>43,460</b>	<b>37,388</b>	<b>51,921</b>	<b>37,147</b>	<b>48,262</b>

<sup>a</sup> 1961-1981 coho salmon data available from 1981 Yukon Area Annual Management Report. Beginning in 1988, subsistence salmon harvest estimates have been generated from a stratified random sample of village households. Blanks indicate harvest information was not collected.

<sup>b</sup> Alatna combined with Allakaket.

<sup>c</sup> Catches by Fairbanks subsistence use permit holders that fished in District 5 near the Yukon River bridge crossing.

<sup>d</sup> Salmon catches expanded for permits not returned and household interviews (1981-1989). Beginning in 1990, reported harvest is from returned permits only.

<sup>e</sup> Other permit holders that fished in District 5 but did not reside in the villages listed.

<sup>f</sup> Permits required beginning in 1988 for Subdistricts 6-A and 6-B. In 1988 and 1989, permit and household interview data were expanded. Beginning in 1990, reported harvest is from returned permits only.

<sup>g</sup> Catches by Fairbanks subsistence use permit holders that fished in the Tanana River. Permits required beginning in 1984 for the Tanana River upstream of Wood River.

<sup>h</sup> Other permit holders that fished in District 6 but did not reside in the villages listed.

<sup>i</sup> Estimated coho salmon carcasses available for subsistence use as a byproduct of commercial roe sales are documented in total utilization tables in Yukon annual management reports.

Appendix Table B.5. Estimated subsistence salmon harvest for Scammon and Hooper Bay, 1987–1992.

Year	Scammon Bay				Hooper Bay				Total			
	Chinook	Summer Chum	Fall Chum	Coho	Chinook	Summer Chum	Fall Chum	Coho	Chinook	Summer Chum	Fall Chum	Coho
1987	838	6,200	117	64	2,738	23,468	105	69	3,576	29,668	222	133
1988	489	8,171	551	326	1,099	23,059	1,711	1,523	1,588	31,230	2,262	1,849
1989	—	—	—	—	—	—	—	—	—	—	—	—
1990	—	—	—	—	—	—	—	—	—	—	—	—
1991	—	—	—	—	—	—	—	—	—	—	—	—
1992	948	3,795	79	31	503	12,900	127	28	1,451	16,695	206	59

Appendix Table B.6. Subsistence salmon catches taken under authority of a permit in District 5, Upper Yukon area, 1974–1992.

Upper Yukon River (Hess Creek to Dall River) Subsistence Salmon Fishery <sup>b</sup>							
Year <sup>a</sup>	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches <sup>c</sup>	Chinook	Summer Chum <sup>d</sup>	Fall Chum <sup>d</sup>	Coho
1974	29	<sup>e</sup>	<sup>e</sup>	591		1,857	1,271
1975	19	<sup>e</sup>	<sup>e</sup>	727		778	70
1976	28	<sup>e</sup>	18	531		974	<sup>e</sup>
1977	38	<sup>e</sup>	<sup>e</sup>	467		2,567	<sup>e</sup>
1978	57	<sup>e</sup>	<sup>e</sup>	1,333		9,735	<sup>e</sup>
1979	55	<sup>e</sup>	41	2,194		12,374	<sup>e</sup>
1980	70	<sup>e</sup>	67	1,350		6,488	36
1981	57	<sup>e</sup>	24	1,095		12,034	<sup>e</sup>
1982	64	<sup>e</sup>	44	1,935		11,328	20
1983	68	<sup>e</sup>	46	2,672		15,059	<sup>e</sup>
1984	67	<sup>e</sup>	54	4,676		27,869	399
1985	55	<sup>e</sup>	42	2,618		21,832	33
1986	76	<sup>e</sup>	58	3,827		18,690	759
1987 <sup>f</sup>	16	<sup>e</sup>	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 <sup>g</sup>	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

Upper Yukon River (22 Mile Slough to U.S./Canada Border) Subsistence Salmon Fishery							
Year <sup>a</sup>	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches <sup>c</sup>	Chinook	Summer Chum <sup>d</sup>	Fall Chum <sup>d</sup>	Coho
1979	75	<sup>e</sup>	6	4,063		30,475	114
1980	48	<sup>e</sup>	39	3,649		18,477	6
1981	71	<sup>e</sup>	51	4,510		38,333	<sup>e</sup>
1982	60	<sup>e</sup>	61	3,833		15,432	<sup>e</sup>
1983	53	<sup>e</sup>	52	2,831		23,708	<sup>e</sup>
1984	58	<sup>e</sup>	54	2,543		21,675	17
1985	59	<sup>e</sup>	36	2,419		19,059	2
1986	40	<sup>e</sup>	52	4,148		20,701	43
1987	51	51	58	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

<sup>a</sup> Salmon catches expanded for permits not returned (1974–1987). Beginning in 1988, reported harvest from returned permits only.

<sup>b</sup> Includes catches from Stevens Village and Rampart.

<sup>c</sup> Some fishermen reporting catches did not have permits.

<sup>d</sup> Summer and fall chum salmon undifferentiated from 1974–1986.

<sup>e</sup> Information not available.

<sup>f</sup> Personal-use fishery established only for fall chum salmon in 1987.

<sup>g</sup> Some fishermen may have had personal-use catches due to changes in the subsistence law. No personal-use permits have been issued since 1990.

Appendix Table B.7. Subsistence salmon catches taken under authority of a permit in the Tanana River drainage, 1973–1992.

Tanana River (Subdistrict 6-A) Subsistence Salmon Fishery <sup>b</sup>								
Year <sup>a</sup>	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho	
1988	28	24	18	845	1,389	9,165	3,455	
1989	<sup>c,d</sup> 29	28	24	<sup>e</sup> 651	1,918	25,266	5,292	
1990	<sup>d</sup> 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	

Tanana River (Subdistrict 6-B) Subsistence Salmon Fishery								
Year <sup>a</sup>	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho	
1988	75	66	52	3,721	3,167	18,902	18,906	
1989	<sup>c,f</sup> 60	51	37	<sup>e</sup> 455	363	18,506	8,453	
1990	<sup>f</sup> 70	58	38	1,234	1,966	16,332	9,155	
1991	<sup>f</sup> 87	78	51	1,796	2,373	21,629	11,971	
1992	<sup>f</sup> 98	89	57	1,587	7,820	18,782	11,409	

Upper Tanana River (Upstream of Wood River) Subsistence Salmon Fishery								
Year <sup>a</sup>	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho	
1973	22	<sup>g</sup>	4	26	771	886	<sup>h</sup>	
1974	70	<sup>g</sup>	<sup>g</sup>	38	1,373	1,580	<sup>h</sup>	
1975	36	<sup>g</sup>	<sup>g</sup>	32	751	864	<sup>h</sup>	
1976	110	<sup>g</sup>	<sup>g</sup>	31	1,314	1,512	<sup>h</sup>	
1977	89	<sup>g</sup>	33	81	118	607	<sup>h</sup>	
1978	160	<sup>g</sup>	126	126	2,729	1,188	<sup>h</sup>	
1979	246	<sup>g</sup>	199	264	2,384	4,459	<sup>h</sup>	
1980	315	<sup>g</sup>	254	282	3,729	4,059	<sup>h</sup>	
1981	346	<sup>g</sup>	228	440	3,239	5,770	<sup>h</sup>	
1982	330	<sup>g</sup>	209	451	2,708	4,521	<sup>h</sup>	
1983	259	<sup>g</sup>	147	475	2,276	3,830	<sup>h</sup>	
1984	308	<sup>g</sup>	212	321	3,177	5,134	<sup>h</sup>	
1985	291	<sup>g</sup>	155	326	2,646	3,937	<sup>h</sup>	
1986	323	<sup>g</sup>	211	637	4,031	4,437	<sup>h</sup>	
1987	<sup>i</sup> 217	<sup>g</sup>	123	531	2,739	0	0	
1988	0	0	0	0	0	0	0	
1989	2	2	2	5	0	39	0	
1990	<sup>j</sup> 20	19	6	15	69	279	50	
1991	157	149	104	299	980	1,368	1,103	
1992	160	157	94	343	1,234	932	1,117	

<sup>a</sup> Salmon catches expanded for permits not returned (1973–1987). Beginning in 1988, reported harvest from returned permits only.

<sup>b</sup> Includes Kantishna River catches.

<sup>c</sup> Permit requirement for Subdistricts 6-A and 6-B went into effect in 1988; however, very few permits were issued in 1988, and not all fishermen had permits in 1989.

<sup>d</sup> Includes salmon given away as part of the department's test fishing projects in Manley.

<sup>e</sup> Some fishermen reporting catches did not have permits.

<sup>f</sup> Includes salmon given away as part of the department's test fishing projects in Nenana.

<sup>g</sup> Information not available.

<sup>h</sup> Fall chum and coho salmon were not reported as separate species from 1973–1987.

<sup>i</sup> Personal-use fishery established for nonrural residents beginning in July 1987.

<sup>j</sup> Some fishermen had both personal-use and subsistence permits since the McDowell Decision, which became effective July 1990, and stated all Alaskan residents were eligible subsistence participants.

Appendix Table B.8. Subsistence and personal-use chum salmon carcasses taken under authority of a permit, Tanana River drainage, 1973–1992.

Upper Tanana River (Big Delta area) Subsistence and Personal-Use Chum Salmon Carcass Fishery				
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Fall Chum Carcasses
1973	16	<sup>a</sup>	8	1,561
1974	21	<sup>a</sup>	<sup>a</sup>	1,974
1975	26	<sup>a</sup>	<sup>a</sup>	2,573
1976	36	<sup>a</sup>	<sup>a</sup>	3,441
1977	46	<sup>a</sup>	29	5,816
1978	70	<sup>a</sup>	43	2,517
1979	32	<sup>a</sup>	25	4,582
1980	57	<sup>a</sup>	36	4,915
1981	43	<sup>a</sup>	27	5,030
1982	37	<sup>a</sup>	13	1,690
1983	45	<sup>a</sup>	29	5,357
1984	31	<sup>a</sup>	14	2,353
1985	30	<sup>a</sup>	14	2,111
1986	27	<sup>a</sup>	19	2,276
1987	<sup>b</sup> 20	17	13	1,931
1988	<sup>b</sup> 22	20	15	2,100
1989	<sup>b</sup> 12	12	10	1,785
1990	<sup>b</sup> 7	7	3	750
1991	8	4	3	741
1992	10	10	9	1,897

<sup>a</sup> Information not available.

<sup>b</sup> Personal-use permits 1987–1990; all other years subsistence permits.

Appendix Table B.9. Personal-use salmon catches taken under authority of a permit in the Lower Yukon area and the Tanana River drainage, 1987-1992.

Lower Yukon Personal-Use Salmon Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1987	0	0	0			0	
1988	17	14	10	67	416	5	0
1989	26	23	12	286	381	18	59
1990	19	16	15	450	256	60	8
1991	0	0	0	0	0	0	0
1992	Regulations did not provide for a personal-use fishery.						

Tanana River (Subdistrict 6-A) Personal-Use Fishery <sup>a, b</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1987	0	0	0			0	
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	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0

Tanana River (Subdistrict 6-B) Personal-Use Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1987	0	0	0			0	
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	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0

Upper Tanana River (Upstream of Wood River) Personal-Use Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches	Chinook	Summer Chum	Fall Chum	Coho
1987	132 <sup>d</sup>	<sup>c</sup>	60 <sup>c</sup>			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	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0

<sup>a</sup> Personal-use fishery during 1987 applied to nonrural residents harvesting only fall chum. Beginning in 1988, nonrural personal-use fishing applied to all salmon species and reported harvest is from returned permits only. Effective July 1, 1990, all Alaskan residents became eligible for subsistence fishing permits.

<sup>b</sup> Includes Kantishna River catches.

<sup>c</sup> Information not available.

<sup>d</sup> Represents 60 former subsistence fishermen who were reissued permits to fish fall chum salmon for personal use.

<sup>e</sup> Some fishing families used both subsistence and personal-use permits.

Appendix Table B.10. Personal-use salmon catches taken under authority of a permit in District 5, Upper Yukon area, 1987–1992.

Upper Yukon River (Hess Creek to Dall River) Personal-Use Salmon Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches <sup>b</sup>	Chinook	Summer Chum	Fall Chum	Coho
1987	42	<sup>c</sup>	33	1,674	4,262	15,750	58
1988	45	42	35	1,435	567	1,762	103
1989	45	42	32	1,877	295	3,294	82
1990	<sup>d</sup> 41	36	26	1,529	641	3,723	18
1991	0	0	0	0	0	0	0
1992	Regulations did not provide for a personal-use fishery						

Upper Yukon River (22 Mile Slough to U.S./Canada Border) Personal-Use Salmon Fishery <sup>a</sup>							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Catches <sup>b</sup>	Chinook	Summer Chum	Fall Chum	Coho
1987	2	2	2	32	0	0	0
1988	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0
1990	4	4	3	164	0	0	0
1991	0	0	0	0	0	0	0
1992	Regulations did not provide for a personal-use fishery						

<sup>a</sup> Personal-use fishery during 1987 applied to nonrural residents harvesting only fall chum. Beginning in 1988, nonrural personal-use fishing applied to all salmon species and reported harvest is from returned permits only. Effective July 1, 1990, all Alaskan residents became eligible for subsistence fishing permits.

<sup>b</sup> Some fishermen reporting catches did not have permits.

<sup>c</sup> Information not available.

<sup>d</sup> Includes personal-use catches of 2 chinook salmon taken by one permittee from a non-permit area below Rampart.

APPENDIX C

YUKON RIVER DRAINAGE  
SUBSISTENCE SALMON SURVEY AND  
PERMIT HARVEST FORMS



Appendix C.1. Example of the salmon catch calendar mailed to Lower Yukon area fishermen (reduced from original 11- x 17-inch size).

PLEASE WRITE THE NUMBER OF ALL SALMON CAUGHT EACH DAY BY PEOPLE LIVING IN YOUR HOUSE. PLEASE INCLUDE SALMON THAT WERE GIVEN TO PEOPLE WHO LIVE IN OTHER HOUSES AND SALMON THAT WERE CAUGHT FOR DOGFOOD. DO NOT INCLUDE SALMON SOLD WHEN COMMERCIAL FISHING.

Division of Commercial Fisheries  
Alaska Department of Fish and Game  
1300 College Road  
Fairbanks, Alaska 99701

Back Area  
U.S. Postage  
Paid  
Fairbanks, AK  
Permit No. 59

NAME

Lower Yukon

WHEN DONE SALMON FISHING FOR THE YEAR, PLEASE HAVE THE CALENDAR AVAILABLE FOR PICK UP BY SURVEYOR OR MAIL IT BACK TO FISH AND GAME.

THANK YOU

This calendar is sent to you by the  
Alaska Department of Fish and Game in Fairbanks.

JUNE 1992 SUBSISTENCE SALMON CALENDAR

PLEASE RECORD ANY SALMON CATCHES FROM MAY HERE.

MAY KINGS \_\_\_\_\_ MAY DOGS \_\_\_\_\_

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5	6
		KING _____ DOG _____ HUMPY _____					
Summer Chase = Pack =	7	8	9	10	11	12	13
	KING _____ DOG _____ HUMPY _____						
	14	15	16	17	18	19	20
	KING _____ DOG _____ HUMPY _____						
	21	22	23	24	25	26	27
	KING _____ DOG _____ HUMPY _____						
	28	29	30				
	KING _____ DOG _____ HUMPY _____	KING _____ DOG _____ HUMPY _____	KING _____ DOG _____ HUMPY _____				

JULY 1992 SUBSISTENCE SALMON CALENDAR

Breeding season

Common name: King salmon

	SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3	4
				KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____			
Summer Chase = Cabin = Pack =	5	6	7	8	9	10	11
	KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____						
	12	13	14	15	16	17	18
	KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____						
	19	20	21	22	23	24	25
	KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____						
	26	27	28	29	30	31	
	KING _____ DOG _____ FALL CHUM _____ SILVER _____ HUMPY _____						

-Continued-

**AUGUST 1992** **SUBSISTENCE SALMON CALENDAR**

SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
 												1	
FALL CHUM _____												SILVER _____	
2		3		4		5		6		7		8	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
9		10		11		12		13		14		15	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
16		17		18		19		20		21		22	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
23		24		25		26		27		28		29	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
30		31											
FALL CHUM _____		FALL CHUM _____											
SILVER _____		SILVER _____											

**SEPTEMBER 1992** **SUBSISTENCE SALMON CALENDAR**

SUNDAY		MONDAY		TUESDAY		WEDNESDAY		THURSDAY		FRIDAY		SATURDAY	
		1		2		3		4		5		6	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
7		8		9		10		11		12		13	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
14		15		16		17		18		19		20	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
21		22		23		24		25		26		27	
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____		FALL CHUM _____	
SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____		SILVER _____	
28		29		30									
FALL CHUM _____		FALL CHUM _____		FALL CHUM _____									
SILVER _____		SILVER _____		SILVER _____									

THANK YOU AGAIN.

This information is used to try to make sure there will be enough salmon for subsistence for Yukon River drainage families.

IF NOT PICKED UP BY OCTOBER 31, PLEASE RETURN TO:

Division of Commercial Fisheries  
 Alaska Department of Fish and Game  
 1300 College Road  
 Fairbanks, Alaska 99701

Appendix C.2. Example of the salmon catch calendar mailed to Upper Yukon area fishermen (reduced from original 11- x 17-inch size).

PLEASE WRITE THE NUMBER OF ALL SALMON CAUGHT EACH DAY BY PEOPLE LIVING IN YOUR HOUSE. PLEASE INCLUDE SALMON THAT WERE GIVEN TO PEOPLE WHO LIVE IN OTHER HOUSES AND SALMON THAT WERE CAUGHT FOR DOGFOOD DO NOT INCLUDE SALMON SOLD WHEN COMMERCIAL FISHING.

Division of Commercial Fisheries  
Alaska Department of Fish and Game  
1300 College Road  
Fairbanks, Alaska 99701

Bulk Rate  
U.S. Postage  
Paid  
Fairbanks, AK  
Permit No. 59

WHEN DONE SALMON FISHING FOR THE YEAR, PLEASE HAVE THE CALENDAR AVAILABLE FOR PICK UP BY SURVEYOR OR MAIL IT BACK TO FISH AND GAME.

NAME

Upper Yukon

THANK YOU

This calendar is sent to you by the Alaska Department of Fish and Game at Fairbanks

**JULY 1992 SUBSISTENCE SALMON CALENDAR**

PLEASE RECORD ANY SALMON CATCHES FROM JUNE HERE.

JUNE KINGS \_\_\_\_\_ JUNE DOGS: \_\_\_\_\_

		WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4
		KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
SUNDAY	MONDAY	TUESDAY	3	4	
5	6	7	8	9	10
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
11	12	13	14	15	16
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
17	18	19	20	21	22
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
23	24	25	26	27	28
KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____	KING _____ DOG _____ SILVER _____
29	30	31			

Summer Class = \_\_\_\_\_  
Fall Class = \_\_\_\_\_

**AUGUST 1992 SUBSISTENCE SALMON CALENDAR**

						SATURDAY
						1
						KING _____ DOG _____ SILVER _____ COMO _____
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	(Classed)
2	3	4	5	6	7	8
KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____
9	10	11	12	13	14	15
KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____
16	17	18	19	20	21	22
KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____
23	24	25	26	27	28	29
KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____
30	31					
KING _____ DOG _____ SILVER _____ COMO _____	KING _____ DOG _____ SILVER _____ COMO _____					

Summer Class = \_\_\_\_\_  
Fall Class = \_\_\_\_\_

**SEPTEMBER 1992** **SUBSISTENCE SALMON CALENDAR**

		1	2	3	4	5
		TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
SUNDAY	MONDAY					
		6	7	8	9	10
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
		11	12	13	14	15
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
		16	17	18	19	20
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
		21	22	23	24	25
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
		26	27	28	29	30
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
						

Fall Chase =

**OCTOBER 1992** **SUBSISTENCE SALMON CALENDAR**

				1	2	3
				THURSDAY	FRIDAY	SATURDAY
				SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)
SUNDAY	MONDAY	TUESDAY	WEDNESDAY			
		4	5	6	7	8
		SILVER _____ COWO _____ (CHHOOK)				
		9	10	11	12	13
		SILVER _____ COWO _____ (CHHOOK)				
		14	15	16	17	18
		SILVER _____ COWO _____ (CHHOOK)				
		19	20	21	22	23
		SILVER _____ COWO _____ (CHHOOK)				
		24	25	26	27	28
		SILVER _____ COWO _____ (CHHOOK)				
		29	30	31		
		SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)	SILVER _____ COWO _____ (CHHOOK)		

Fall Chase =

THANK YOU AGAIN

This information is used to try to make sure there will be enough salmon for subsistence for Yukon River drainage families.

IF NOT PICKED UP BY OCTOBER 31. PLEASE RETURN TO:

Division of Commercial Fisheries  
Alaska Department of Fish and Game  
1300 College Road  
Fairbanks, Alaska 99701

Appendix C.3. Example of preseason letter mailed with catch calendars to Yukon River households.

# STATE OF ALASKA

**DEPARTMENT OF FISH AND GAME**  
**COMMERCIAL FISHERIES DIVISION**

WALTER J. HICKEL, GOVERNOR

1300 COLLEGE ROAD  
FAIRBANKS, ALASKA 99701

May 18, 1992

Dear Subsistence Salmon Fishermen:

The 1992 salmon fishing season is rapidly approaching. Each year we strive to improve the accuracy of the subsistence salmon harvest estimate for the Yukon River drainage and its communities in Alaska. These estimates are very important because they are used in regulation decisions by the Alaska Board of Fisheries and in the international treaty negotiations with Canada.

Many of you expressed an interest in the results of the survey during our community visits and interviews with fishing households last fall. We interviewed 870 households of the nearly 2,100 households in the nonpermitted areas of the Yukon River drainage. Almost 800 Yukon River households were estimated to have participated in Yukon River subsistence fisheries in 1991. Additional Yukon River Area salmon subsistence harvest was compiled from the 423 households who were issued permits to fish in areas of the Yukon or Tanana Rivers where permits were required.

A total of 46,773 chinook salmon, 118,540 summer chum salmon, 145,524 fall chum salmon, and 37,388 coho salmon were estimated to have been harvested in both nonpermit and permit areas of the Yukon River subsistence fisheries during the 1991 fishing season. The total Yukon River drainage subsistence salmon harvest has been estimated by community and fishing district on the attached table. To help us understand the role of the subsistence fishery to households and communities, we also recorded fishing gear information, number of dogs and the number of fish fed to dogs, and the size of fishing households.

I would like to personally thank you for your participation in the 1991 survey. The project is continuing for the 1992 fishing season, and I have attached a 1992 fishing calendar for you to record your daily harvest of subsistence fish. In addition to our normal subsistence questions for 1992, we will be mapping subsistence fishing locations. If you fish in more than one location, please keep track of the fish you catch by location.

Thank you again for your cooperation!

Sincerely,



Russ Holder  
Fishery Biologist  
Division of Commercial Fisheries  
(907) 456-4286

-Continued-

1991 ALASKAN YUKON RIVER DRAINAGE SUBSISTENCE SALMON HARVESTS a/

Village	Estimation Method b/	Total Households or Permits Issued	Households Contacted or Permits Returned	Estimated Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
Sheldon Pt.	Survey	21	17	445	2,226	84	35
Alakanuk	Survey	121	36	1,044	8,058	193	391
Emmonak c/	Survey	138	51	1,311	8,401	2,027	801
Kotlik d/	Survey	100	34	3,125	9,105	1,631	581
District 1 Subtotal		380	138	5,925	27,790	3,935	1,808
Mt. Village	Survey	130	43	1,171	4,743	1,473	868
Pitkas Pt.	Survey	21	18	652	1,452	610	347
St. Marys	Survey	73	37	1,836	7,832	1,592	1,270
Pilot Station e/	Survey	100	38	2,681	4,634	1,062	553
Marshall	Survey	59	27	1,277	2,042	891	259
District 2 Subtotal		383	163	7,617	20,703	5,628	3,297
Russian Mission	Survey	51	24	1,349	837	425	396
Holy Cross	Survey	46	22	1,649	1,028	190	944
District 3 Subtotal		97	46	2,998	1,865	615	1,340
Arvik	Survey	31	19	619	876	452	347
Shageluk	Survey	23	15	189	3,680	0	0
Grayling	Survey	52	32	874	8,094	3,616	1,363
Kaltag	Survey	54	28	1,866	2,287	2,834	1,260
Nulato	Survey	90	26	2,500	1,159	1,637	75
Koyukuk	Survey	42	18	885	2,326	2,761	307
Galena	Survey	179	44	2,574	3,493	5,525	422
Ruby	Survey	66	25	971	1,352	2,856	410
District 4 Subtotal		537	207	10,478	22,267	19,681	4,184
Tanana	Survey	122	50	2,483	2,779	40,868	4,448
Rampart	Survey	25	22	988	20	5,801	58
Stevens Village	Survey	30	26	2,035	1,385	2,481	0
Beaver	Survey	35	30	713	2,355	7	0
Ft. Yukon	Survey	222	50	5,585	11,974	7,467	380
Birch Creek	Survey	13	8	196	0	0	1
Circle	Permit	22	21	1,720	51	6,340	5
Central	Permit	7	7	151	0	73	0
Chicken	Permit	2	2	0	0	0	0
Eagle	Permit	35	35	1,193	607	7,985	0
District 5 Subtotal		513	251	15,064	19,171	71,022	4,892
Hanley	Permit	30	27	518	1,729	13,243	6,361
Minto	Permit	34	26	134	748	5,276	526
Nenana f/	Permit	49	47	1,654	1,499	17,932	10,171
Healy	Permit	7	7	0	0	2,059	1,987
Fairbanks NSB	Permit	200	190	1,360	2,164	3,693	2,509
Delta Junction g/	Permit	15	9	0	0	0	3
Tok	Permit	8	8	139	19	46	3
Tanana R. Subtotal		343	314	3,805	6,159	42,350	21,569
Other Subtotal h/	Permit	14	12	66	10	241	12
Huslia	Survey	61	23	198	7,857	411	150
Hughes	Survey	18	16	146	1,257	270	9
Alatna	Survey	13	11	5	962	38	83
Allakaket	Survey	43	22	446	6,431	475	25
Bettles	Survey	24	13	16	155	0	0
Koyukuk R. Subtotal		159	85	811	16,682	1,194	267
Venetie	Survey	63	19	9	3,393	758	12
Chalkyitsik	Survey	32	26	9	500	100	7
Chandalar/Black R. Subtotal		95	45	9	3,893	858	19
Survey Subtotal		2,098	870	39,838	111,713	88,535	15,802
Permit Subtotal		423	391	6,935	6,827	56,989	21,586
Alaska Yukon River Drainage Total		2,521	1,261	46,773	118,540	145,524	37,388

a/ Source: "Estimates of Subsistence Salmon Harvests in the Yukon River Drainage 1991 (draft, April 1992) by Jeffrey F. Bromaghin and Helen H. Hamner, Alaska Department of Fish and Game. Harvests are listed by fisherman's community of residence.

b/ Does not include permit information received after April 20, 1992.

c/ Includes 661 chinook, 2,519 summer chum, 1,620 fall chum, and 761 coho harvested in ADF&G test fishery and given away for subsistence use.

d/ Includes 869 chinook, 3,103 summer chum, 854 fall chum, and 334 coho harvested in ADF&G test fishery and given away for subsistence use.

e/ Includes 262 chinook, 984 summer chum, 505 fall chum, and 234 coho harvested in ADF&G test fishery and given away for subsistence use.

f/ Includes 112 chinook, 98 summer chum, and 777 fall chum salmon harvested in ADF&G test fishery and given away for subsistence use.

g/ Does not include a harvest of 741 post-spawned fall chum salmon.

h/ Includes information from permits issued to residents of other communities who fished the Upper Yukon Area.

Division of Commercial Fisheries  
Alaska Department of Fish and Game  
333 Raspberry Road  
Anchorage, AK 99518-1599



ATTENTION: Helen Hamner  
DIVISION OF COMMERCIAL FISHERIES  
ALASKA DEPT. OF FISH AND GAME  
333 RASPBERRY ROAD  
ANCHORAGE, AK 99518-1599

DEAR VILLAGE RESIDENT

The Department of Fish and Game attempts to document how many salmon are harvested from the Yukon River each year. In preparation for the 1992 season, we need to know your household salmon use. By filling out and returning this card, you will help us to ensure that enough salmon are allowed to meet subsistence needs throughout the area. Please fill in the answers for your household and mail it back to us today. If you use subsistence salmon and mail this card back, we will send you a catch calendar each year to record your catches on.

THANK YOU VERY MUCH!

Division of Commercial Fisheries  
Alaska Dept. of Fish and Game  
333 Raspberry Road  
Anchorage, AK 99518-1599



LABEL

(address correction requested)

LABEL

1. Did your household use salmon for subsistence during 1991?  
(eaten fresh, frozen, smoked, or used for animal food?)  
Yes \_\_\_ No \_\_\_
2. Please circle the number of subsistence salmon your household used during the 1991 season.  
1 - 100    100 - 200    200 - 500    500 - 700    700 +
3. Does your household catch most of the salmon you use?  
Yes \_\_\_ No \_\_\_
4. Are all of the subsistence salmon your household uses given to you?  
Yes \_\_\_ No \_\_\_

Appendix C.5. Example of Yukon River subsistence salmon postseason interview form, 1992.

Community \_\_\_\_\_ HHID# & Name \_\_\_\_\_  
 Date of Survey \_\_\_\_\_ Person interviewed \_\_\_\_\_  
 Interviewer \_\_\_\_\_ Relation to HH \_\_\_\_\_

**YUKON AREA**  
**1992 Post-Season Subsistence Salmon Harvest Survey**  
**CONFIDENTIAL INFORMATION**

1. We would like to make sure we have the correct name and address for this household.  
 Correct name of household head \_\_\_\_\_  
 Mailing address \_\_\_\_\_  
 Phone \_\_\_\_\_
2. Did anyone in this household catch salmon for subsistence this year? Yes \_\_\_ No \_\_\_ (If no go to area IV.)
3. May I have your fish catch calendar?  
 Picked up by interviewer \_\_\_ (Go to area I. then area III.)  
 Didn't get one \_\_\_ Didn't use \_\_\_ Not Available \_\_\_ Already sent in \_\_\_ (Go to area II. then area III.)

Fish use includes fish eaten fresh, frozen, dried, smoked, and those used for dog food. Commercial salmon kept for subsistence use should also be included. Include female carcasses with roe removed and sold separately.

<b>I. HOUSEHOLD FISHED. ADF&amp;G DOES HAVE CALENDAR</b>	
CALENDAR NUMBERS (totals of fish caught, off of calendar)	
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____	
4. How many total salmon did you catch this year? (are all fish on calendar?)	
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
5. Where do you catch your subsistence salmon? (Circle all that apply and divide harvest by area)	
Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D Porcupine, Koyukuk, Innoko, Tanana/Permit	
1st Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
2nd Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
6. How many of these salmon did you process ("put up") for your household's use?	
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
<b>II. HOUSEHOLD FISHED. ADF&amp;G DOES NOT HAVE CALENDAR</b>	
7. How many total salmon did you catch this year?	
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
8. Where do you catch your subsistence salmon? (Circle all that apply and divide harvest by area)	
Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D Porcupine, Koyukuk, Innoko, Tanana/Permit	
1st Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
2nd Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	
9. How many of these salmon did you process ("put up") for your household's use?	
CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ Could not estimate _____	

-Continued-

**III. ALL FISHING HOUSEHOLDS**

10. How many of these fish were commercially caught? (Include female carcasses with roe removed and sold separately and all male salmon in Districts 4, 5, and 6)

CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

11. What is this households' primary type of subsistence fishing gear? (Mark only one)

Set net \_\_\_ Drift net \_\_\_ Fishwheel \_\_\_

**IV. ALL HOUSEHOLDS**

12. Was this household given any fish? Yes \_\_\_ No \_\_\_

Subsistence Fishermen (Name) \_\_\_\_\_  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

Commercial Fishermen (Name) \_\_\_\_\_  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

From Fish and Game (Where) \_\_\_\_\_  
 CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

13. How many people live in this household? \_\_\_\_\_ People

14. How many dogs does this household have? \_\_\_\_\_

Do you feed whole fish to your dogs? Yes \_\_\_ No \_\_\_ Scraps \_\_\_

How many whole salmon do you feed to your dogs during a year? (These can be subsistence and commercial, especially Anvik, Grayling, Kaltag, and Nulato / numbers should represent whole fish, not scraps.)

Are these fish from the commercial fishery \_\_\_yes \_\_\_no \_\_\_some)

\_\_\_\_\_ SUMMER CHUM (dog) \_\_\_\_\_ FALL CHUM (silver) \_\_\_\_\_ COHO (silver)

15. Please estimate your households usual salmon use in a year.

CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

Were your household's subsistence salmon needs met this year? Yes \_\_\_ No \_\_\_ (Continue) Could not estimate \_\_\_\_\_

Why didn't you meet your salmon needs this year? \_\_\_\_\_

**THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH** (This area filled in by the surveyor after the interview)  
 (Fished has calendar-subtract 10 from 4, Fished no calendar subtract 10 from 7)

CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

**THIS HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE** (This area filled in by the surveyor after the interview)  
 (Fished has calendar-add lines 6 and 12, Fished no calendar add lines 9 and 12, Does not fish enter line 12)

CHINOOK \_\_\_\_\_ SUMMER CHUM \_\_\_\_\_ FALL CHUM \_\_\_\_\_ COHO \_\_\_\_\_ Could not estimate \_\_\_\_\_

THANK YOU VERY MUCH FOR YOUR HELP. THIS HARVEST INFORMATION WILL BE USED TO MAKE SURE THERE WILL BE ENOUGH SUBSISTENCE SALMON FOR FAMILIES ALONG THE RIVER.  
 Interviewer comments about this interview or anything of value for assisting data analysis.

Appendix C.6. Example of Yukon River coho salmon spawning location interview form, 1992.

Community \_\_\_\_\_ HHID#&Name \_\_\_\_\_  
Date of Survey \_\_\_\_\_ Person Interviewed \_\_\_\_\_  
Interviewer \_\_\_\_\_ Relation to HH \_\_\_\_\_

YUKON AREA  
1992 Post-Season Subsistence Salmon Harvest Survey  
SUPPLEMENTAL COHO SALMON QUESTIONNAIRE

1) While fishing, hunting, or traveling - have you seen or caught coho salmon which were spawning?

2) Were they spawning or dead?

3) How many coho salmon would you estimate you saw?

4) Where did you see or catch these coho salmon?

\_\_\_\_\_  
Andreafsky River  
Anvik River  
Innoko River  
Anvik River  
Kaltag River  
Nulato River

5) When did you see these coho salmon?

Year

Month

Date

**SUBDISTRICT 4-A**  
**1992 Post-Season**  
**Questions for Commercial Fishermen**

1. The department has received fish tickets which document your commercial sale of \_\_\_\_\_ pounds of salmon roe in 1992.

Does that number sound about right? Yes \_\_\_ No \_\_\_ Not enough \_\_\_ Too Much \_\_\_

2. The department uses an expansion factor of .9, just under one pound of roe per female. Based on this expansion factor we estimate you harvested \_\_\_\_\_ female chum salmon.

Does that number sound about right? Yes \_\_\_ No \_\_\_ Not enough \_\_\_ Too many \_\_\_

3. The department uses an expansion factor of .6, as the proportion of females harvested. Based on this expansion factor we estimate you harvested \_\_\_\_\_ male chum salmon.

Does that number sound about right? Yes \_\_\_ No \_\_\_ Not enough \_\_\_ Too many \_\_\_  
Sum Expanded males and females \_\_\_\_\_ Reported Killed \_\_\_\_\_

4. Do you or crewmembers throw back live male summer chum salmon?

Yes \_\_\_ (If yes complete A, B, and C) If No \_\_\_ go to 5

- A. Did you throw back male fish

after they dropped into a box? \_\_\_\_\_  
by a chute directly from the wheel into the water? \_\_\_\_\_  
by dipnet from a livebox? \_\_\_\_\_

other \_\_\_\_\_

- B. This year there was \_\_\_\_\_ hours of commercial fishing time. How much of that time did you fish? \_\_\_\_\_

- C. Of the time you fished, how much of that time were males released?

All the time \_\_\_ Three quarters \_\_\_ Half \_\_\_ One quarter \_\_\_ Less than one quarter \_\_\_

5. Your estimated commercial harvest is \_\_\_\_\_ summer chum salmon. You estimated that you used \_\_\_\_\_ summer chum salmon for your household subsistence needs. Of the fish you didn't use what happened to them?

Number \_\_\_\_\_ Given to other subsistence users (Name) \_\_\_\_\_  
\_\_\_\_\_

Number \_\_\_\_\_ Sold to other users (Name) \_\_\_\_\_  
\_\_\_\_\_

How much money did you receive from those fish you sold? \_\_\_\_\_

Number \_\_\_\_\_ Loss to spoilage, wild animals, and birds

Number \_\_\_\_\_ Other \_\_\_\_\_

**CONFIDENTIAL**

**Household Application and Permit  
for Subsistence Fishing**

Department of Fish and Game, Division of Commercial Fisheries  
1300 College Road, Fairbanks, AK 99701 Phone 456-4286



(PLEASE PRINT)

Name \_\_\_\_\_ Phone \_\_\_\_\_

(Home, Work, Message)

Mailing Address \_\_\_\_\_

City State Zipcode

Number in your Household \_\_\_\_\_ Household Fishermen \_\_\_\_\_  
(Include yourself) (Names of other household members authorized to fish this household's gear)

Number of Dogs in Household \_\_\_\_\_ Do you feed salmon to Dogs? yes no (Circle one)  
(whole fish, not scraps)

Area to be Fished (Circle one)

Tanana River: [6A] [6B] [6C] [Upper], Yukon River Bridge, Circle/Eagle, Other

Fishing Gear: Fishwheel \_\_\_\_\_  
Set Gillnet \_\_\_\_\_ length \_\_\_\_\_ stretch mesh size \_\_\_\_\_

Conditions of Permit: All regulations pertaining to subsistence fishing in this area are to be observed. Anyone fishing this household's gear must be named above as a fisherman and carry this permit on their person during any fishing activity. A summary of these regulations is available from the Fairbanks office. It is unlawful to sell or buy fish or their eggs caught for subsistence use.

An accurate record of fish taken under authority of this permit must be kept and recorded in the appropriate spaces on the reverse side of this permit. PERMITTEES FISHING IN SUBDISTRICTS 6-B (three miles upstream of Totchekat Slough) AND 6-C ARE REQUIRED TO REPORT THEIR WEEKLY CATCHES BY CALLING THE DEPARTMENT OF FISH AND GAME AT 452-7466 BY 4:30 P.M. EVERY THURSDAY. Return this permit with your completed catch information to the Alaska Department of Fish and Game, 1300 College Road, Fairbanks, Alaska, 99701 within 10 days after permit expiration date. FAILURE TO RETURN YOUR PERMIT AND CATCH FORM WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.

For a 24-hour recording of subsistence or commercial salmon fishing schedules, call 452-4387.

X \_\_\_\_\_ Date \_\_\_\_\_ Birthdate or Drivers License# \_\_\_\_\_  
Signature of Permittee - I hereby claim the information contained on this permit is a true statement as witnessed by my signature above and I further state that I am a resident of Alaska.

**TO BE COMPLETED BY ISSUING OFFICER:** The above named person(s) is authorized to take fish according to the following stipulations: Permit is valid for one location only.

<input type="checkbox"/>						
6A	6B	6C	Upper Tanana	Yukon Br.	Circle/Eagle	Other
SA	SB	SC	SU	SY	SE	_____

Permit is valid from the date of issue to October 15, 1992 using (gear) \_\_\_\_\_

\_\_\_\_\_ the period from the date of issue through August 15, 1992, under authority of this permit \_\_\_\_\_ king salmon and \_\_\_\_\_ chum salmon may be taken.

\_\_\_\_\_ the period from August 16 through October 15, 1992, under authority of this permit \_\_\_\_\_ chum/coho salmon may be taken.

\_\_\_\_\_ Fish may be taken under authority of this permit. \_\_\_\_\_ Pike may be taken in waters of the Tolovana River drainage.

Signature of Issuing Officer \_\_\_\_\_

Date Issued \_\_\_\_\_

Permit Number \_\_\_\_\_

-Continued-



Appendix C.9. Example of the first Upper Yukon area subsistence fishing permit reminder letter, 1992.

# STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

## DEPARTMENT OF FISH AND GAME

1300 COLLEGE ROAD  
FAIRBANKS, ALASKA 99701-1599

January 8, 1993

Box  
Central, AK 99730

Dear :

The department issued fishing permit SE- -92 to you for the 1992 season. To date, the department has not received your expired permit and catch information for the 1992 season. Regulations require you to keep an accurate record of your catch and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit. **FAILURE TO RETURN YOUR PERMIT AND CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.**

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and mail to: Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701.

I fished in 1992. Yes No (Circle one)

If you fished in 1992, please fill in the number you caught below.

Chinook/Kings \_\_\_\_\_ Fall Chums \_\_\_\_\_  
Summer Chums \_\_\_\_\_ Coho \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Your catch information is needed to accurately document last seasons harvest. Thank you in advance for your cooperation.

Sincerely,



Russ Holder  
Fishery Biologist  
Division of Commercial Fisheries  
(907) 456-4286

Appendix C.10. Example of the first Upper Yukon area subsistence fishing permit reminder letter sent to households that had complied with the inseason reporting requirement but had not reported postseason, 1992.

STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

DEPARTMENT OF FISH AND GAME

1300 COLLEGE ROAD  
FAIRBANKS, ALASKA 99701-1599

January 8, 1993

Dear James:

The department issued subsistence fishing permit SC- 92 to you for the 1992 season. We appreciate and use your in-season telephone reporting. My summary of your telephone reports indicate that you harvested the number of fish indicated below:

Chinook		Fall Chum
Summer Chum	69	Coho

You may feel that you have completed your reporting requirement but we have not received your expired permit. A condition of the permit you were issued requires that you keep an accurate record of your catch and return your expired permit with the catch information at the end of the season. I am summarizing the 1992 fish harvest information and I need your expired permit to confirm the total number of fish you harvested this past summer.

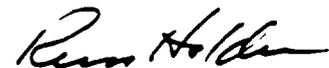
Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill in the number of fish you caught last season and mail to: Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701.

Chinook/Kings _____	Fall Chums _____
Summer Chums _____	Coho _____

_____ Signature	_____ Date
--------------------	---------------

Your catch information is needed to accurately document last seasons harvest. Thank you in advance for your cooperation.

Sincerely,



Russ Holder  
Fishery Biologist  
Division of Commercial Fisheries  
(907) 456-4286

Appendix C.11. Example of the second Upper Yukon area subsistence fishing permit reminder letter, 1992.

# STATE OF ALASKA

**DEPARTMENT OF FISH AND GAME**

WALTER J. HICKEL, GOVERNOR

1300 COLLEGE ROAD  
FAIRBANKS, ALASKA 99701

January 25, 1993

Dear :

The department issued fishing permit SD- 92 to you for the 1992 season. To date, the department has not received your expired permit and catch information for the 1992 season. Regulations require you to keep an accurate record of your catch, and to return the expired permit with the catch record at the end of the season. Even if you did not fish, or caught no fish, you must return your permit. **FAILURE TO RETURN YOUR PERMIT AND CATCH INFORMATION WILL RESULT IN YOUR NOT BEING ISSUED A PERMIT NEXT YEAR.**

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill out the following questions and mail to: Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701. I have enclosed a self-addressed stamped envelope for your use.

I fished in 1992. Yes No (Circle one)

If you fished in 1992, please fill in the number you caught below.

Chinook/Kings \_\_\_\_\_ Fall Chums \_\_\_\_\_  
Summer Chums \_\_\_\_\_ Coho \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

This is your second and FINAL notice that we have not received any information from you. To get a permit next year, you must report your catch for last season.

Sincerely,



Russ Holder  
Fishery Biologist  
Division of Commercial Fisheries  
(907) 456-4286

Appendix C.12. Example of the second Upper Yukon area subsistence fishing permit reminder letter sent to households that had complied with the inseason reporting requirement but had not reported postseason, 1992.

# STATE OF ALASKA

WALTER J. HICKEL, GOVERNOR

## DEPARTMENT OF FISH AND GAME

1300 COLLEGE ROAD  
FAIRBANKS, ALASKA 99701-1599

January 25, 1993

Dear :

The department issued subsistence fishing permit SC- -92 to you for the 1992 season. We appreciate and use your in season telephone reporting. My summary of your telephone reports indicate that you harvested the number of fish indicated below:

Chinook	8	Fall Chum	75
Summer Chum	75	Coho	

You may feel that you have completed your reporting requirement, but we have not received your expired permit. A condition of the permit you were issued requires that you keep an accurate record of your catch, and to return your expired permit with the catch information at the end of the season. I am summarizing the 1992 fish harvest information and I need your expired permit to confirm the total number of fish you harvested this past summer. I have enclosed a self-addressed stamped envelope for your use.

Please return your expired permit and catch information immediately. If you are unable to locate the expired permit, please fill in the number of fish you caught last season and mail to: Department of Fish and Game, Division of Commercial Fisheries, 1300 College Road, Fairbanks, Alaska, 99701.

Chinook/Kings	_____	Fall Chums	_____
Summer Chums	_____	Coho	_____

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

This is your second and FINAL notice that we have not received your expired permit or confirmation of your season's harvest. To get a permit next year, you must report your catch for last season.

Sincerely,

  
 Russ Holder  
 Fishery Biologist  
 Division of Commercial Fisheries  
 (907) 456-4286

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