U.S. Fish and Wildlife Service
Office of Subsistence Management
Fisheries Resource Monitoring Program

In-season Subsistence Harvest Assessment of Yukon River Chinook and Chum Salmon

Final Report No. 02-122

Ray Hander, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12th Ave., Room 222, Box 17, Fairbanks, AK 99701,

Russ Holder, U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, 101 12th Ave., Room 222, Box 17, Fairbanks, AK 99701,

March 2003

FINAL REPORT SUMMARY PAGE

Title: In-season Subsistence Harvest Assessment of Yukon River Chinook and Chum Salmon

Study Number: 02-122

Investigator / Affiliation: Ray Hander / U.S. Fish and Wildlife Service

Management Regions: Yukon - Kuskokwim Delta, (Region 5) and Western Interior (Region 6)

Information Type: Harvest Monitoring

Issue Addressed: The need for in-season subsistence salmon harvest information that is collected and reported in a standardized format that is available for fishery managers to use on the Yukon River.

Study Cost: $24,956

Study Duration: June – August 2002

ABSTRACT

Yukon River federal and state fishery managers have indicated a need for collecting and reporting in-season subsistence salmon harvest information in a standardized format for use as an in-season management tool. The three Federal Regional Advisory Councils associated with the Yukon River, Alaska Department of Fish and Game fishery managers and concerned fishers have requested assistance from the U.S. Fish and Wildlife Service (USFWS) to address this issue. At the beginning of the 2002 salmon fishing season the USFWS began a pilot project to collect qualitative in-season subsistence salmon harvest data in a standardized format from active fishing households in Emmonak, Nulato and Galena. As the salmon season progressed, households from the villages of Huslia, Grayling, Anvik, Shageluk and Holy Cross were opportunistically surveyed for harvest information. The primary goal of the pilot project was to determine subsistence fishing households progress toward meeting their subsistence salmon needs. Progress was assessed through weekly participant household visits and telephone surveys. Information collected through household surveys was organized and presented to fishery managers and the public on a weekly basis by local hire surveyors. In general, survey data indicated that most households surveyed met or nearly met their subsistence salmon needs for the 2002 season. Based on survey findings and feedback from information

users, there is a need to further refine objectives and identify additional communities for future survey efforts.

Key Words: Yukon, subsistence, harvest, monitoring, salmon, survey, household

Project Data: *Description* - Data for this study consist of hard copy forms used for gathering subsistence fisher catch data. Information collected included:
- date caught
- fisher name
- catch location
- gear used
- voluntary offering of numbers of chinook and chum salmon harvested
- percent of subsistence harvest accomplished to date
- catch rate comparison to the 2001 season by species
- comments

The form for reporting individual household catch data included the following questions:
- family name
- fish camp location
- date the family began subsistence fishing in 2002
- primary subsistence fishing areas
- family season harvest goals for chinook, chum and coho salmon
- did your family achieve its harvest goals by species
- when did your family stop subsistence fishing for salmon by species
- surveyor initials
- survey week ending

The remainder of this data form reflects the accumulated data gathered over time from the Subsistence Fisher Catch Information data form. Weekly summary reports were prepared for fishery managers and weekly Yukon River Drainage Fishery Association teleconferences. In addition, salmon age, sex and length (ASL) data were collected in cooperation with the Alaska Department of Fish and Game (ADF&G) in Emmonak and Nulato using ADF&G documented sampling procedures and training.
Format - Harvest monitoring survey data are entered and stored in Microsoft Excel spread sheets and summary reports are stored in Microsoft Word. All ASL data is turned over to ADF&G for analysis and reporting.
Custodian(s) - U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Office, 101 12th Ave., Room 222, Box 17, Fairbanks, AK 99701. Alaska Department of Fish and Game, Commercial Fisheries Research Division, 333 Raspberry Road, Anchorage, AK 99518.
Availability - Access to the harvest monitoring survey data is available upon request to the custodians. Individual household survey data are confidential and not available to the general public.
Citation: Hander, R.F. In-season Subsistence Harvest Assessment of Yukon River Chinook and Chum Salmon. U.S. Fish and Wildlife Service, Office of Subsistence Management. Fisheries Resource Monitoring Program, Final Report No. 02-122, Anchorage, AK 99503.

TABLE OF CONTENTS

Final Report Summary Page…… i

Table of Contents……iii

List of Figures……..v

List of Tables……..vi

List of Appendices……viii

Introduction……..1

Objectives…….3

Methods……....4

Results……..6

Data Collection and Interpretation……...6

Emmonak…….6

Nulato……..7

Galena……...……...8

Huslia……...9

GASH Area……..…9

Data Reporting……...10

Age, Sex and Length Sample Collection……...10

Discussion……..11

Recommendations……..13

Acknowledgements……15

Literature Cited……..16

Figures……17

Tables…….20

Appendices……..…33

LIST OF FIGURES

Figure Page

1. Map of the Yukon River Drainage highlighting Yukon River federal conservation units……...……..18

2. Map of the Yukon River Drainage highlighting the villages of Emmonak, Grayling, Anvik, Shageluk, Holy Cross, Nulato, Huslia and Galena…….19

LIST OF TABLES

Table Page

1. Ratings summary of how Emmonak area households compared their 2002 and 2001 subsistence harvest by species…….…….…….21

2. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Emmonak area. Represents all respondents…….22

3. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Emmonak area. Represents Core respondents…….22

4. Number of households by week that reported their harvest progress for subsistence chum salmon in the Emmonak area. Represents all respondents……...……..23

5. Number of households by week that reported their harvest progress for subsistence chum salmon in the Emmonak area. Represents core respondents……..23

6. Ratings summary of how Nulato area households compared their 2002 and 2001 subsistence harvest by species……..…….24

7. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Nulato area……...25

8. Number of households by week that reported their harvest progress for subsistence chum salmon in the Nulato area……25

9. Ratings summary of how Galena area households compared their 2002 and 2001 subsistence harvest by species……..…….……26

10. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Galena area……27

11. Ratings summary of how Huslia area households compared their 2002 and 2001 subsistence harvest by species……..…….28

12. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Huslia area…….29

13. Number of households by week that reported their harvest progress for subsistence chum salmon in the Huslia area…….29

14. Ratings summary of how GASH area households compared their 2002 and 2001 subsistence harvest by species……..…….30

Table Page

15. Number of households by week that reported their harvest progress for subsistence chum salmon in the GASH area……31

16. In-season subsistence harvest survey reports given during YRDFA teleconferences by local hire and refuge information technicians……..32

LIST OF APPENDICES

Appendix Page

A. Yukon River in-season subsistence harvest assessment of Yukon River chinook and chum salmon……...34

B. In-season subsistence salmon fishing monitoring: Yukon River Drainage, 2002 data form……35

C. Subsistence Catch Information data form……36

D. In-season subsistence salmon fishing monitoring: Yukon River Drainage, 2002 data form……37

E. Example of summary of the ratings of how households compared their 2002 and 2001subsistence harvest by species……38

F-1.A – F-1.J. Emmonak summary reports from the in-season subsistence harvest survey…….39

F-2.A – F-2.H. Nulato summary reports from the in-season subsistence harvest survey……..……...……...51

F-3.A – F-3.E Galena summary reports from the in-season subsistence harvest survey…….....60

F-4.A – F-4.G. Huslia summary reports from the in-season subsistence harvest survey……...……..65

F-5.A – F-5.D. GASH summary reports from the in-season subsistence harvest survey……72

INTRODUCTION

Yukon River federal and state fishery managers have indicated a need or for collecting and reporting in-season subsistence salmon harvest information in a standardized format for use as an in-season management tool. The three Federal Regional Advisory Councils (RACs) associated with the Yukon River, Alaska Department of Fish and Game (ADF&G) fishery managers and concerned fishers have requested assistance from the U.S. Fish and Wildlife Service (USFWS) to address this issue. In February 2002 USFWS and ADF&G fishery management staff met to clarify project information needs. In addition to the federal and state fishery managers, the Yukon River Drainage Fisheries Association (YRDFA) and the Koyukuk / Nowitna National Wildlife Refuge Complex (KNNWRC) expressed their interest in supporting the project. Over the years, qualitative in-season subsistence information has been collected informally from Yukon Rivers fishers through phone and other communications (Vania and Bue, 2001 personal communication). However, the data have not been standardized nor have they been summarized and compiled into a format useful for management or sharing with others. Yukon area quantitative subsistence salmon fishery and harvest information has been collected annually by ADF&G since 1961 (Borba and Hamner 2001) but these data do not provide information on in-season assessment of progress toward meeting subsistence needs or salmon run strength perceptions. Early exploration reports attest to the importance of subsistence salmon harvest to people living in the Yukon River drainage (Zagoskin [1847] 1967; Allen 1887). Historical accounts document the use of large salmon harvests to support dogs, that were used as draft animals for transportation and packing. The intent of this project was to collect qualitative data from fishing households on in-season assessment of how they perceived their progress towards achieving their subsistence harvest and to compare the 2002 and 2001 salmon runs. The project was designed to achieve these goals while not interfering with the quantitative post season surveys conducted by ADF&G.

It is difficult to assess salmon run strength on the Yukon River. Reduced salmon run sizes and corresponding reduction or cessation of commercial fishing on the Yukon River has produced a loss of an inter-annual salmon run comparison tool used by fishery managers to assess in-season salmon run strength and timing. Commercial fishing provides fishery managers with in-season catch per unit of effort data that is valuable for assessing and comparing run strength to past seasons.

Further complicating Yukon River subsistence fisheries management is the unknown affect on harvest of the Alaska Board of Fisheries (BOF) regulatory subsistence fishing schedule implemented in 2001. The BOF opinion is that the regulatory schedule should provide a reasonable opportunity for subsistence fishers to obtain an average subsistence harvest during years of normal to below average salmon run strength (Brase and Hamner, 2002). The purposes of the regulatory schedule are to: 1) increase the quality of escapement, 2) spread the harvest throughout the run and 3) spread subsistence harvest opportunity among users. Presently, an in-season method to evaluate how the regulatory

schedule impacts the subsistence users in terms of them meeting their subsistence needs is lacking, and it is not the intent of this project to address this issue at this time. The ADF&G post season subsistence harvest survey data is intended to detect shifts in harvest patterns and amounts over time given the quantitative data collection methods and analysis used by that project. Prior to the 2001 fishing season, subsistence fishing opportunity was regulated relative to commercial fishing activities and applicable Yukon River salmon management plans (ADF&G, 1998).

Chinook *Oncorhynchus tshawytscha* and chum *O. keta* salmon are important species for subsistence, commercial, sport and personal use fishers in the Yukon River. Chinook and summer chum salmon spawn in the Yukon River in early June and continue through mid-July. The fall chum migration into the river begins about mid-July and continues through August. Chinook salmon spawn throughout the Yukon drainage. The summer chum spawning distribution is mainly in the lower and middle river reaches, and fall chum salmon spawn in the middle and upper reaches of the drainage. Within the scope of this project, chinook and chum salmon spawn in rivers in the Yukon Delta, Koyukuk, Nowitna and Innoko National Wildlife Refuges and contribute to subsistence and commercial fisheries occurring in the Yukon River drainage (Figure 1). The Yukon River drainage is the fifth largest in the largest in North America and the Alaska portion of the Yukon River is approximately1200 miles long. There were approximately 1,300 households that participated in subsistence fishing in 2001 (Brase and Hamner, 2002). Other harvests that occur on the Yukon River are commercial, personal use and sport. In-river fishery harvests occur along the entire 1,200 miles of the mainstem Yukon River in Alaska, the lower 225 miles of the Tanana River and extends into Canada. The management of escapement of overlapping species with compressed and similar entry timing and the primary harvest types of set gill nets, drift gill nets and fish wheels constitutes an extremely complex task.

During the 2001 season, staff from the ADF&G, Division of Subsistence, initiated a successful in-season subsistence survey focusing on three areas of the Kuskokwim River drainage (M. Coffing, ADF&G, pers. comm.) Those survey efforts were focused on qualitative run assessment and were conducted in cooperation with village and native councils located in Bethel, Aniak, and McGrath. As part of the project, local persons were hired to conduct the surveys. In general, this project was thought to be successful and the information was used by Kuskokwim fishery managers. The Yukon River in-season subsistence harvest survey was modeled after the Kuskokwim project and modified to meet the objectives of this pilot project. Initial survey implementation discussions began in early February 2002 between ADF&G and USFWS staff. Since the 2002 Office of Subsistence Management deadline for study proposals had passed it was identified that funding would need to come from other sources . YRDFA was contacted to see if they would have interest in partnering to provide surveyor assistance. It was logical for the USFWS to accept responsibility for the pilot project since new monies were becoming available for subsistence management and the use of existing agency infrastructure such as Refuge Information Technicians (RIT) and logistical support.

Yukon River surveyors and their supervisors received survey training from ADF&G Subsistence and Commercial Fisheries Divisions personnel in Bethel, Alaska on 6 and 7 June 2002. Yukon River survey efforts were conducted in the villages of Emmonak, Nulato and Galena as identified in the project study plan (Figure 2). In addition, the villages of Huslia and Grayling-Anvik-Shageluk-Holy Cross (GASH) area participated on an opportunistic level using the same data collection and reporting methods (Figure 2). The added participation from Huslia and the GASH area was prompted by the desire from the Innoko NWR manager and the KNNWRC wildlife biologist (subsistence) to get subsistence harvest information from their respective areas included into the project. They provided RITs for opportunistic data collection, summarization and reporting. Similar to the Kuskokwim project, Yukon River in-season subsistence harvest assessment surveyors were all local people employed by the USFWS and YRDFA. These individuals were vitally important to the project both for their in-depth knowledge about their community and the fishing activities and their skills in collecting fishery harvest and age, sex and length data (ASL). This project addressed the concern expressed by the RACs thus providing an avenue for subsistence households to actively participate by contributing their knowledge and observations about the salmon runs to both the fishery managers and other fishers throughout the drainage during weekly YRDFA teleconferences.

OBJECTIVES

The project objectives are as follows:

1. Collect qualitative in-season subsistence salmon harvest data in a standardized format from active fishing households in Emmonak, Nulato and Galena, Alaska.
2. Determine subsistence fishers progress toward meeting their subsistence salmon needs via weekly household surveys.
3. Summarize weekly survey data and provide it to state and federal managers by Monday afternoons prior to the Tuesday YRDFA teleconferences.
4. Present weekly survey summaries by surveyors on the YRDFA teleconferences.
5. Opportunistically assist ADF&G collect age, sex and length samples from chinook and chum salmon.

Although objectives 3, 4 and 5 were not specifically identified in the 2002 Investigation Plan, they were verbally identified by the project organizers. These three objectives were intended to promote interaction between the local hire surveyors, fishery managers and the fishing public to convey local knowledge and observations from participating subsistence fishing households. Objective 5 was included as a cooperative effort and to support ADF&G in collecting subsistence harvest data and chinook and chum salmon

ASL samples simultaneously because of the loss of samples normally obtained from commercial catch sampling.

METHODS

As previously noted, the concepts and general format for Yukon the pilot project were based on the Kuskokwim river in-season subsistence harvest survey initiated by ADF&G in 2000 (Morgan, 2001). Pre-season preparation of surveyors and supervisors included participating a two day training session in harvest monitoring methods and ASL sampling techniques conducted by ADF&G Subsistence and Commercial Fisheries Divisions in Bethel, Alaska on 6 and 7 June. USFWS fishery managers and USFWS and YRDFA surveyors from the Yukon River attended the training to learn methods of survey administration and how the survey was conducted on the Kuskokwim River. This training provided a good foundation for adapting the methodology to the Yukon River. The Kuskokwim survey was the best available template to work from at the time and allowed for evaluation throughout the Yukon River fishing season. Kuskokwim methodology on who to survey centered on experienced fishers that could evaluate or compare fishing success based on a "normal" year. Households began being contacted when they began catching salmon and knowing when most of them were actively fishing or not was important information to time surveys when fish were present.

The pilot project was developed to sample the villages of Emmonak at the river mouth and Nulato and Galena in the middle river area. These villages had existing infrastructure in the form of surveyors, supervisors and office facilities allowing for economic project operation and data transfer systems. They were geographically separate so incoming information would provide different perspectives about the subsistence fishery. Opportunistic participation from the villages of Huslia (RIT reporting on the Huslia area from the KNNWRC and McGrath (RIT reporting on the GASH area from the Innoko National Wildlife Refuge) added more subsistence harvest information from different geographic areas of the Yukon River. In Emmonak and Nulato survey teams consisting of a USFWS and YRDFA local hire conducted harvest surveys and were supervised by a USFWS staff person. Two surveyors were used for safety reasons, and to cover for each other in case of absence. The KNNWRC wildlife biologist (subsistence) conducted the Galena surveys. A RIT in Huslia and the GASH area conducted surveys in their respective regions. GASH surveys were conducted by the RIT phoning households from McGrath. Before surveying began, ADF&G salmon management staff provided survey project staff a list of 20 or more Emmonak, Nulato and Galena households that have been defined as fishers in the past five years. This information was derived from the ADF&G postseason survey database. Before fishing started potential survey households were contacted: 1) to explain the project, 2) to determine if they wanted to participate and 3) gain consent. The explanation indicated that their participation would involve being surveyed on a weekly basis for approximately

ten weeks to assess their fishing success and inform them how their data would be reported and used. A one page flyer (Appendix A) briefly explaining who was conducting the survey, the importance of their input and how their information would be used was also provided to households.

Weekly surveys of households and or individual fishers were conducted to determine how they perceived their 2002 salmon harvests compared to 2001 and to determine their progress toward meeting their 2002 subsistence harvest goals. The weekly surveys were conducted in relation to the regulatory schedule to facilitate surveying at times when households would have harvest information to provide near the end or after a fishing period(s). For example, surveying a household after one day of fishing may not allow for any different assessment than when they were last surveyed as compared to waiting to the end of a fishing period where the potential for harvest could lend an updated assessment of harvest progress. Surveyors attempted to collect information from between five and ten households per week or more, although harvester participation depended in part on salmon run timing and village size. In addition to the Emmonak households surveyed, surveys were also conducted in concert with ASL sampling via boat trips around the Emmonak community during the chinook and summer chum salmon runs.

The initial field data collection form used was patterned after the Kuskokwim form titled ONC Inseason Subsistence Salmon Subsistence Salmon Fishing Report, 2002 (Appendix B). After a brief period of time this form became cumbersome for field data collection and was used as a means to maintain an individual households record for the entire survey period. A field data collection form, titled Subsistence Fisher Catch Information (Appendix C) replaced the previous sheet and was used to assemble multiple household responses during a survey trip. This form was offered to the project by ADF&G staff in Emmonak. It is the form they used to collect subsistence harvest data when talking to independently contacted fishers as well as when collecting ASL data. Data sheet clarification was accomplished by inserting "voluntary" over the "net length" and "catch" columns since this project was not soliciting harvest numbers. Additionally the "0%" choice was inserted in the "Where are you at in your harvest?" columns. Data from the Subsistence Fisher Catch Information form was transcribed to the data form titled, In-season Subsistence Salmon Fishing Monitoring: Yukon River Drainage, 2002 (Appendix D) to maintain an individual household record for the entire survey period. The dual form data collection method was employed to reduce the number of data forms a surveyor needed to carry on a survey trip as well as preventing the accidental loss of household records. Finally, the data from the In-season Subsistence Salmon Fishing Monitoring: Yukon River Drainage, 2002 form was entered into a Microsoft Excel spread sheet on a weekly basis. Data were summarized (Appendix E) and used in weekly reports as information for fishery managers and provided to the public via weekly YRDFA teleconferences.

Weekly reports (Appendix F-1 – F-5) were submitted to the USFWS project leader for editing and to standardize reporting between survey areas and ensure appropriate and consistent content for the YRDFA teleconferences. A standard summary included the number of households that were surveyed during the past week, fishing gear type used, a

rating characterizing the fishing for the past week (Very Good, Normal, Poor) by each household and comparing relative fishing success in 2002 to the same general time period in 2001, the progress that households were making toward completing their subsistence harvest (expressed as a percentage) and general comments from fishers. The reports were given by the surveyors on the YRDFA teleconferences.

ASL sampling was conducted in support of ADF&G Commercial Fisheries Research Division in-season salmon age analysis. Samples were collected using ADF&G Salmon Length, Sex and Scale Sampling Procedures for Gummed Cards and Mark-Sense Data Forms (Moore 2002). ASL data are used for in-season run estimation by judging year class proportions entering the Yukon River as well as a number of other bio-statistical uses post season and reported in documents such as ADF&G Yukon River Annual Management Reports. With recent declines in Yukon River salmon runs and the reduction or absence of commercial fishing, it has become vitally important to collect ASL samples from subsistence catches to obtain adequate sample sizes for defining population characteristics.

RESULTS

Data Collection and Interpretation

Weekly surveys of households and individual fishers were conducted primarily to determine how their 2002 salmon harvests compared with the 2001 season and also to determine how their harvest was progressing. "Harvest progress" data loss from Emmonak and data collection inconsistencies from Nulato resulted in decreased data analysis ability for reporting households progress toward meeting their needs. Numerical discrepancies arose when comparing tables depicting "harvest progress" and "harvest year comparisons". These discrepancies are from the aforementioned data loss and collection inconsistencies as well as from any households that declined to respond to a question. If a household chose not to answer a question then the end result was a blank in a table cell, thus rendering the total number of households reporting "harvest progress" to be different than that for "harvest year comparison".

Emmonak

Emmonak surveys were conducted by a USFWS and YRDFA local hire. In 2002, Emmonak surveys began on 8 June and ended on 10 August, a period of approximately 10 weeks. During the initial week surveyors informed potential households, gained consent, and obtained some data from those households that had begun subsistence

fishing. A range of 7 to 24 households were surveyed weekly during the 10 week period (Table 1). Attempts were made to survey households weekly while others were only surveyed once. Emmonak respondents were broken into two groups, all and core, based on the number of times a household was surveyed during the 10 week survey period. The core group of households were surveyed a minimum of three and as many as six times during the period. The all group of households constituted all surveyed households. Core households provided the most useful and consistent data for the Emmonak area. Households that reached 100% of their chinook salmon harvest at any point in the survey period were not removed from the calculations of all or core respondent groups. Reporting was not systematic between weeks for either group for reasons such as being out of town or the inability to fish because of bad weather. Over the survey period, both groups tended toward low percentages of meeting their chinook salmon harvest needs in the early weeks to 100% at or near end of the survey period (Table 2 and 3). A number of households reached 100% of their needs in the third and fourth weeks of the survey, coinciding with peak chinook salmon run timing.

Not as many households reported their chum salmon harvest progress compared to chinook salmon for all (90%) and core (86%) respondent groups. Households began reaching 100 percent of their chum salmon needs by 23 June and by the last two survey weeks reporting respondents were at or above 50% of their needs (Table 4 and 5).

Most Emmonak area households indicated that the 2002 chinook and chum salmon season was very good compared to the 2001 season (Table 1).

A number of factors influenced a households percent complete harvest rating. Some of these factors were things such as work schedules and the time that open and closed fishing periods fell in relation to fish movement. Other comments from households were that chinook salmon were early and that fishing was good.

Nulato

Surveys in Nulato were conducted by a KNNWRC local hire RIT and a YRDFA local hire. The YRDFA local hire resigned on 25 July citing that there was not as much work involved as had been indicated before the project began and took a job on a firefighting crew. The YRDFA local hire was not replaced.

During the week ending 16 June surveyors informed potential households and gained consent from them to be included in the survey. Subsistence fishing efforts by Nulato residents started after the week ending 16 June. A range of 8 to 11 households were contacted on a weekly basis through the week ending 11 August (Table 6). Nulato harvest progress data was documented on the Subsistence Fisher Catch Information data forms through 23 June. Subsequent documenting and reporting was on YRDFA teleconference summaries. Harvest progress data for chinook salmon indicated that one household was at 25%, one was at 50% and five were at 75% as of the week ending 30

June (Table 7). As of the week ending 14 July eight of ten households interviewed indicated that they were finished fishing for chinook salmon (Appendix F-2.E). By the week ending 21 July 100% (11) of the interviewed households indicated that they were 100% complete with their chinook salmon fishing (Appendix F-2.F). Only one family reported fishing during the week ending 21 July and the remainder were waiting for fall chum salmon to arrive. Data collected on the Inseason Subsistence Salmon Fishing Monitoring: Yukon River, 2002 data form regarding chinook salmon harvest goals and whether or not they were achieved indicates that 11 of 13 households met their expected harvest goals.

Chum salmon harvest progress by the week ending 30 June was one household at 25% and one at 100% out of 11 households contacted (Table 8). Data collected on the Inseason Subsistence Salmon Fishing Monitoring: Yukon River, 2002 data form regarding chum salmon harvest goals and whether or not they were achieved indicates that 8 of 13 households met their expected harvest goals, one did not and the remaining four did not target chum salmon.

During the week ending 23 June most households reported very good chinook salmon fishing compared to the 2001 season (Table 6). The following four weeks results indicated that chinook salmon subsistence fishing was normal compared to 2001. For chum salmon, households indicated that the 2002 season was poor compared to 2001.

Comments provided by participants in the surveys included that the chinook salmon were of good quality, though smaller than past years and were earlier and less diseased than last year.

Galena

Surveys and reports were conducted by the KNNRWC wildlife biologist (subsistence). In 2002, subsistence harvest surveys began on the week ending 23 June and four households were contacted repeatedly through 4 August (Table 9). One household began subsistence fishing on 8 June. Three of the four households reported meeting 100% and one met 50% of their chinook salmon harvest goals by the week ending 21 July (Table 10). Most of the fishers surveyed reported that they do not normally fish for summer chum salmon. One household reported that they had met 25% of their chum salmon harvest by the week ending 4 August.

Galena participating households indicated that 2002 chinook harvests were very good through the week ending 23 June, normal on the weeks ending 30 June, 7, 21 and 28 July and poor on 14 July (Table 9). Households comparing 2002 to 2001 chum salmon harvests reported normal and poor on weeks ending 28 July and 4 August.

Galena survey participants commented that chinook salmon were of good quality and that observation frequency of disease was low. They also noted that the chinook salmon were in good health and were good size fish.

Huslia

Surveys and reports were conducted by a local hire RIT that participated as often as possible. In 2002, subsistence fishing survey efforts in the village of Huslia area began the week ending 7 July. Between three and eight households were contacted on a weekly basis through the week ending 25 August (Table 11). Chinook salmon harvest progress was reported only on the weeks ending 7 and 14 July. On the week ending 14 July, six households reported with two at the 25% and four at the 50% level. All households indicated that they were through chinook salmon fishing by the week ending 21 July (Table 12) (Appendix F-4). Chum salmon harvest progress reporting began with two households at 25% and four at 50% (Table 13). For the weeks ending 14 July through 4 August, chum salmon harvest appeared to be steady with a range of three to five households at 25% and two to three at 75%. The weeks ending 11 through 25 August one household reported being at 25% and the remainder were at 50% to 75% complete with their harvest. Only three households were contacted on the week ending 25 August and one was at 25% and the other two were at 75% of their chum salmon harvest.

By the week ending 14 July, Huslia area households reported that compared with 2001, chinook salmon subsistence fishing in 2002 was poor (Table 11). From the weeks ending 7 July to 4 August, chum salmon fishing was reported as very good to normal compared to 2001. Chum salmon fishing for the weeks ending 11 and 18 August were reported as normal. No comparison rating was given for the week ending 25 August and the three households interviewed were fishing with whitefish nets.

Comments provided by Huslia area survey participants were that there were fewer and smaller chinook salmon this year. Chum salmon were judged to be of good quality and by the week ending 21 July all households were waiting for silvers (local name for fall chum salmon).

GASH Area

Surveys by telephone in the GASH area were conducted by an Innoko NWR RIT from McGrath in June and August. The RIT was hired by the Innoko NWR to participate in subsistence related activities including reporting on subsistence harvest from the GASH area. The two reports in June were independent of this project and contact by the senior fishery manager was made to request formal participation in future Innoko NWR reports so there could be consistent reporting among participating villages (Appendix F-5.A – D). Survey forms and instructions for their use were provided to the RIT and subsequent

information from the GASH area provided better insight into harvest progress from the GASH area households.

Telephone interviews were conducted with 25 households to assess subsistence fishing success (Table 14). Because most households in the GASH area target chinook and fall chum salmon, the resulting data reflect chinook salmon harvest since fall chum salmon harvests occur after the end of the designated survey period. Two of the 25 respondents did not fish the 2002 season because they had no boat and / or motor. Harvest progress results for the 23 remaining fishing households ranged from 10 to 100% (Table 15).

Six households reported that the 2002 chinook salmon season was very good, ten households reported that it was normal and six reported that is was poor compared to 2001 (Table 14).

Data Reporting

Following completion of surveys, data were summarized on a weekly basis by the local hire surveyors. Surveyors then used Microsoft Excel to produce a summary of comparisons between the 2002 and 2001 subsistence fishing seasons. Analyzing progress toward meeting subsistence needs was accomplished either by hand or using Microsoft Excel spread sheets. Information on fishing gear type(s) utilized and general comments from households were also collected on a weekly basis. The USFWS fishery managers edited the summary reports to ensure that reports were standardized between reporting areas and that the reports were clear and consistent. Efforts were made to provide hard copy and electronic versions of the summarized reports to ADF&G and USFWS fishery managers on Monday afternoons or Tuesday mornings prior to the weekly YRDFA teleconferences. As more surveys were being conducted and reported, the ability to conduct report editing to meet the deadline became more difficult and on multiple occasions the reports were provided to managers only hours before the teleconference, an unacceptable practice. Thus reporting requirements were altered on 18 July to better meet the timeline and give managers ample time to read the survey reports. In Emmonak and Nulato, where two surveyors per village participated, surveyors alternated giving oral presentations of the summaries from their respective areas during the YRDFA teleconferences.

Age, Sex and Length Sample Collection

ASL samples were collected in support of ADF&G both during subsistence surveys and during specific ASL sampling trips with ADF&G. The ASL and subsistence harvest data collection effort was accomplished by visiting places by boat where households were

fishing or processing their harvest. Support for this effort from survey personnel during the early portion of the chinook and chum salmon run was minimal so they could focus developing the in-season survey and solve difficulties early in the project. As the season progressed, support and coordination increased for collecting ASL and subsistence harvest data from villages and fish camps. All ASL samples were turned in to the ADF&G for in-season processing from the Emmonak area. Samples from the Nulato area were given to ADF&G in October 2002 because it had been brought to the authors attention by ADF&G staff that Nulato ASL samples had not been turned in.

DISCUSSION

In-season assessment of subsistence harvests is an intensive undertaking that taxes fishing households and is very demanding of survey personnel. In this pilot project we attempted to obtain a weekly qualitative assessment of subsistence fishing households success and the perception of how their 2002 fishing experience compared to the recollection of their 2001 harvests.

Most households that were asked participated in the survey and provided good information. Based on the information collected it appears that if households worked hard, they generally met or came close to meeting their needs for chinook salmon. In the Huslia area, surveyed households reported that the chinook salmon season was poor compared to 2001, but they also noted that the run in their area may have been early, thus they may have missed part of the run. Households generally reported meeting their need for chum salmon if they tried. The project did span the time when fall chum salmon began to run in the lower to middle Yukon River but the poor return either discouraged fishing effort or fishing was closed by regulation thus preventing any further fishing. The lower river was open to fishing early in the fall chum salmon run but as the run assessment progressed managers were forced to close fishing river wide thus never giving upper river fishers an opportunity to subsistence fish. Reports from the lower river were that fall chum salmon fishing was so poor that very little effort was made to harvest them.

Overall, comparisons between 2002 and 2001 subsistence fishing indicated that the 2002 season was better than 2001. Issues that complicate the comparison between seasons include commercial fishing and fishing closures. It was sometimes difficult for households to compare seasons when they were not fishing at the same times as the previous year.

Since only qualitative data is collected, this project is of greatest value in addressing in-season subsistence fishing concerns as long as the data are collected effectively and shared among interested parties in a timely manner. The ability of this project to measure the affect of the newly established Alaska Board of Fisheries regulatory subsistence fishing schedule on harvest is unlikely. There was no intent for this project to measure

impact of the regulatory schedule and this issue is only brought up to identify a potential concern. At this time the ADF&G post season subsistence salmon survey is capable of addressing actual numbers and distribution of harvests although it does not address in-season harvest assessment. State and Federal mandates provide priority to subsistence activities over all other consumptive uses, yet no in-season subsistence harvest assessment has been available to managers to incorporate into fishery management decision making.

Managers perspectives on the pilot study differed. The ADF&G Yukon River fall chum and coho salmon fishery manager found that during the time that the project ran in the fall season the information provided useful perspectives on how households gauged their success in relation to the assessed fall chum salmon run strength (F. Bue, ADF&G, pers. comm.). The fall season manager also indicated that distributing the information via the weekly YRDFA teleconferences helped other users understand how harvests were progressing in other parts of the Yukon River. The USFWS Yukon River in-season subsistence fishery manager indicated that he used feed back from households about their progress toward meeting subsistence needs as one of several tools to make management decisions (R. Holder, USFWS, pers. comm.). The ADF&G Yukon River chinook and summer chum salmon fishery manager indicated that the in-season harvest assessment project did not provide him any better information than he already had of the lower Yukon area (T. Vania, ADF&G, pers. comm.). Although, he did feel that the survey was of some use in the middle river locations since there is relatively less interaction with households there as opposed to the Emmonak area where fishers and households call in and report their harvest information directly to the ADF&G office.

Pre-season concerns about the affect of the in-season harvest survey on the longstanding ADF&G post season salmon harvest survey were addressed by Audra Brase (principle investigator of the Subsistence and Personal Use Salmon Harvests in the Alaska Portion of the Yukon River Drainage, 2001 and ADF&G assistant Yukon River fall chum and coho salmon fishery manager). She indicated that only 1 out of 39 households surveyed in-season declined to participate in the 2002 post season survey, citing that they had already given that information earlier in the summer (A Brase, ADF&G, pers. comm.). She felt that the impact of this pilot study on the post season surveys was negligible for the 2002 season for the households that participated in-season and the 39 households that were then sampled post season.

The addition of information from the communities of Grayling, Anvik, Shageluk, Holy Cross and Huslia enhanced the scope of the project by increasing the number of households involved and the geographic distribution by including areas from the Innoko and Koyukuk Rivers.

Many users can share standardized data collected on in-season harvest assessment. These data are a valuable management tool, especially in years when salmon run strength influences the opportunities for subsistence and or commercial fisheries. The project also provides a more river wide perspective for households to understand needs and

expectations of the full spectrum of users and use types occurring on the Yukon River. New fishery assessment projects may be developed after conducting a pilot study The pilot study was useful for testing methodology and generating a preliminary database. Results from the pilot study are valuable for assessing and refining the project in relation to its goals. Annual collecting and archiving of in-season subsistence harvest data is valuable for both managers and users. Managers can use this database to compare inter annual in-season subsistence harvests and determine if subsistence needs are being met within the current season.

RECOMMENDATIONS

Future efforts for this project should include further refining objectives to accommodate management data gaps so effort is placed where it is most needed without duplication of or impact to ongoing projects.

A potential resource that this type of project could expand on is the use of USFWS RITs. In 2002 three RITs (Nulato, Huslia and McGrath) were involved in data collection. More information from a wider geographic distribution of the Yukon River drainage could provide fishery managers and the public a broader real-time view of subsistence harvests. Careful planning on expansion would need to occur to prevent an information glut from occurring. There is a point that may be reached where the incoming amount of information is too great for processing thus detracting from the goal of timely presentation to fishery managers and the public. Developing the expertise of village or area residents in reporting subsistence information in a qualitative format will also be vital to data collection, bridging cultural gaps between management agencies and local individuals, tribal and local governments and gaining trust of the fishery resource users. Expanding partnerships with interested and experienced organizations connected to the Yukon River will strengthen the fundamental idea that local input and knowledge is used in fishery resource management. Using local knowledge and historical perspectives in management decision making may integrate aspects of fishery management that may promote broader understanding among users and management agency personnel.

There needs to be Yukon River focused preseason training for surveyors and their supervisors in order to expect quality standardized data in a timely manner during the fishing season. A dedicated project coordinator with access to all facets of the project for quality control (down to the level of going along on household interviews) would be a valuable addition. Data flow from raw data sheets to the summarized information should be available to managers the day prior to teleconferences, since public input is part of their decision making process. Data handling protocols, electronic and hard copy, need to be instituted to ensure the best possible product from week to week and streamline post season reporting.

Surveys should coincide with the presence of fish to make the most efficient use of personnel and funding. Experience from this pilot project showed peak fishing activity from early June to mid / late July in the lower river and mid June to late July / early August in the Nulato and Galena areas. Households tended stop harvesting fish for storage purposes after meeting their chinook and summer chum salmon needs but may have continued to fish for fresh fish for immediate consumption. There is typically a break between the chinook and summer chum and the fall chum and coho salmon runs where fishing activity drops and households begin waiting for fall chum and coho salmon. This break in fishing activity is a likely time when survey efforts could be scaled back or suspended until fall chum and coho salmon fishing activity is evident. Scaling back or suspending surveys during the lull between runs could have the two fold benefit of more efficient project budgeting and minimizing household visits.

Villages that have larger population bases, such as Emmonak, will benefit from focusing survey efforts on a group of households that can be surveyed on a weekly basis. Some of the households in or near Emmonak were only surveyed once during the ten week survey period while others were surveyed up to six out of the ten weeks. We learned from this pilot project that contacting as many people as possible during a survey week was beneficial for that moment in time in regards to assessing subsistence harvest. The down side to single surveys during the entire survey period is that it reduces the ability to draw conclusions about a households subsistence harvest and does not provide ample information for future reference purposes. This is not to discourage obtaining as much information as possible during a survey week but to recognize that for reporting and future reference needs that focusing on a group of households throughout the survey period will yield the best possible results.

ACKNOWLEDGEMENTS

Thanks goes to the Office of Subsistence Management, Fairbanks Fish and Wildlife Office, Yukon River Drainage Fisheries Association and Alaska Department of Fish and Game for funding assistance. Thank you to the ADF&G Commercial Fisheries and Subsistence Divisions for valuable project insight, input and preseason training. Great appreciation goes to the survey personnel: USFWS Emmonak local hire Ted Hamilton, YRDFA Emmonak local hire Roberta Murphy, KNNWRC Nulato local hire RIT Patrick Madros, Jr., YRDFA Nulato local hire Edward George, KNNWRC Huslia local hire RIT Orville Huntington and KNNWRC Subsistence Wildlife Biologist Geoff Beyersdorf, and Innoko NWR McGrath local hire RIT Clara Demientieff.

LITERATURE CITED

ADF&G. 1998. 1998 – 2000 Arctic – Yukon – Kuskokwim Region Commercial, Subsistence, and Personal Use Regulations, Salmon and Miscellaneous Finfish. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division. Anchorage, AK.

Allen, Henry T. 1887. Report of an expedition to the Copper , Tanana, And Koyukuk Rivers, in the Territory of Alaska, in the year 1885. Washington, D.C.

Borba, B.B. and H.H. Hamner. 2001. Subsistence and personal use salmon harvest estimates, Yukon Area, 1999. ADF&G , Division of Commercial Fisheries Management and Development, Regional Information Report 3A00-23. Anchorage, AK.

Brase, A.L.J., H.H. Hamner. 2002. Subsistence and personal use salmon harvests in the Alaska portion of the Yukon River Drainage, 2001. ADF&G , Division of Commercial Fisheries Arctic-Yukon-Kuskokwim Region. Regional Information Report 3A02-32. Anchorage, AK.

Moore, H. 2002 Salmon Length, Sex, and Scale Sampling Procedures for Gummed Cards and Mark-Sense Data Forms. Alaska Department of Fish and Game. Unpublished Report. Version 2002.

Morgan, W., D. B. Molyneaux, M. Coffing, 2002. Kuskokwim River Inseason Subsistence Salmon Harvest Data Collection. Study number: FIS 01-225. Performance Report.

Zagoskin, Lavrenti A. [1848] 1967. Lieutenant Zagoskin's travels in Russian America, 1842-44. Arctic Institute of North America, Anthropology of the North: Translations form Russian Sources, No. 7, University of Toronto Press, Toronto, Ontario, Canada.

FIGURES

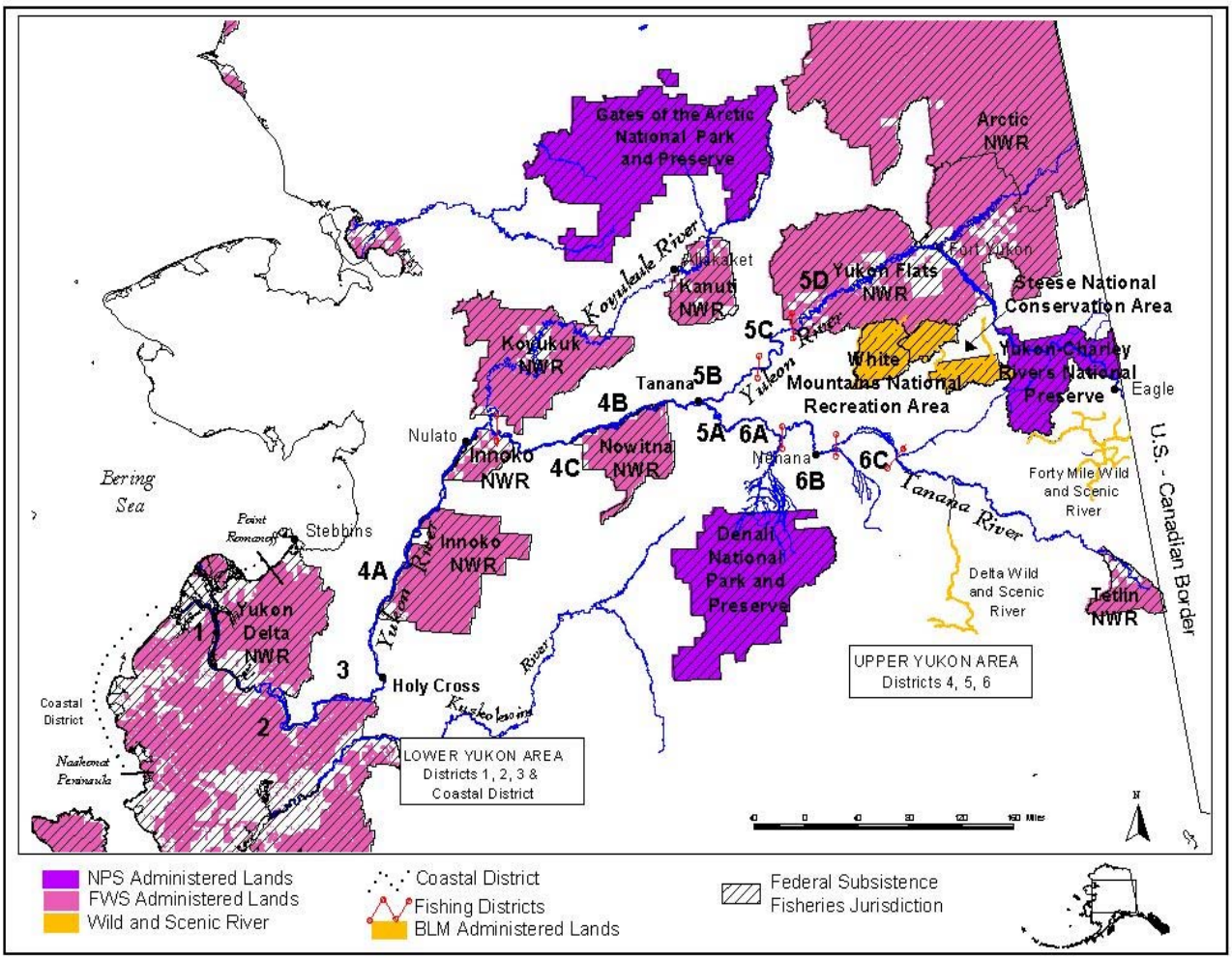

Figure 1. Federal land distribution along the Yukon River corridor and its major tributaries.

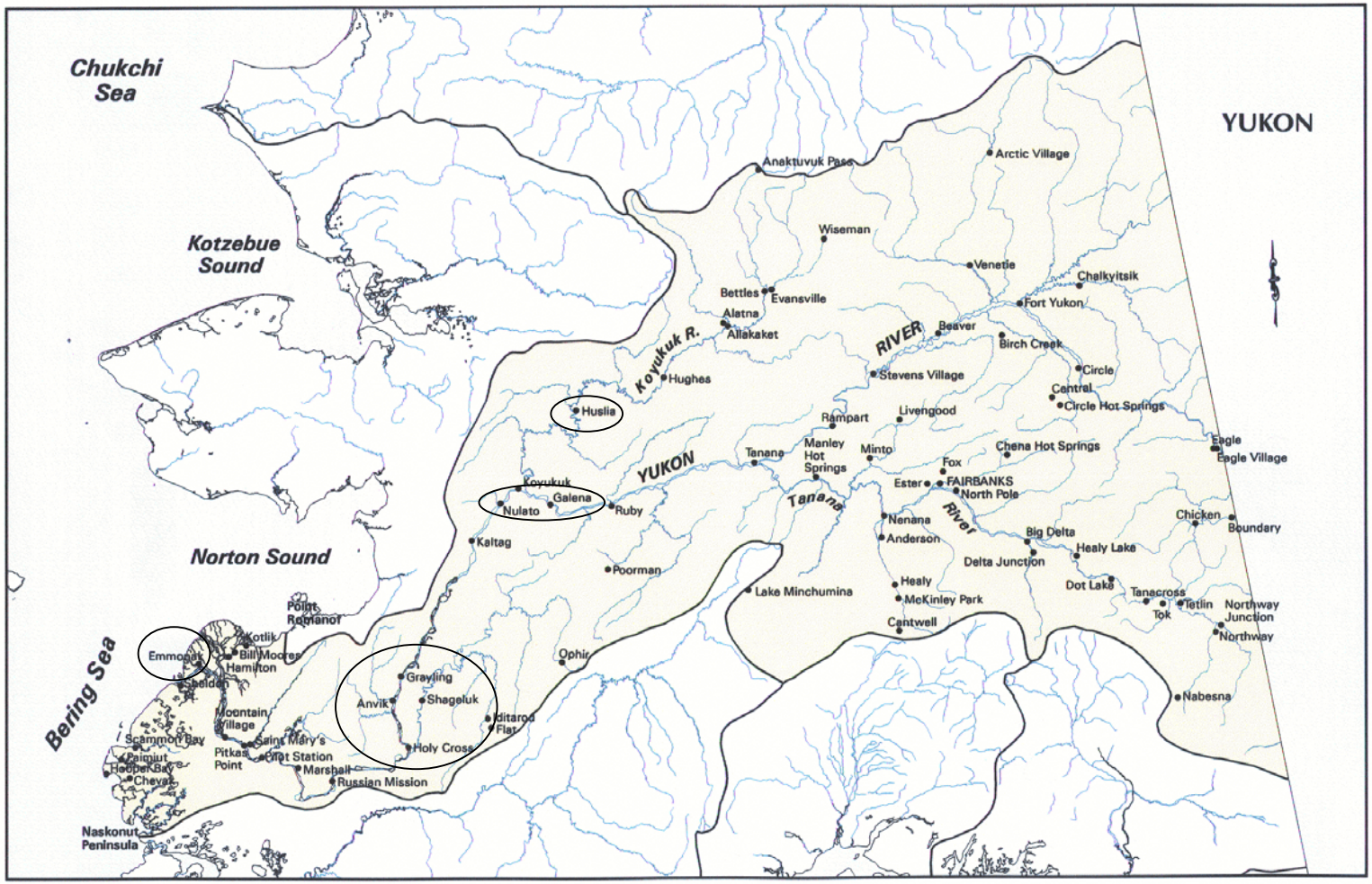

Figure 2. Yukon River Drainage highlighting Emmonak, Grayling, Anvik, Shageluk, Holy Cross, Nulato, Huslia and Galena.

TABLES

Table 1. Ratings summary of how Emmonak area households compared their 2002 and 2001subsistence harvest by species.

Week	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002												Number of
	Kings			Chums			Coho						Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR				Surveyed
9-Jun	3	3	5	2	3	6							11
16-Jun	13	6	4	14	6	3							23
23-Jun	17	5	2	22	2								24
30-Jun	4	1	1	3	1	1							22
7-Jul	3			3									11
14-Jul	1		1	1		1							13
21-Jul													15
28-Jul													15
4-Aug													7
11-Aug				1			1						7
18-Aug													0
25-Aug													0
1-Sep													0

Table 2. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Emmonak area. Represents all respondents.

Chinook Percent Complete	Week Ending											
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0	1		1										
10	2			1									
25			2	1									
50		1	1			1	1						
75			1										
100	2	1	6	6		1	2	2	3	4			
Weekly Total	5	2	11	8		2	3	2	3	4			

Table 3. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Emmonak area. Represents core respondents.

Chinook Percent Complete	Week Ending											
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10	1			1									
25			1	1									
50		1	1			1							
75													
100	1		1	4		1		1	2	4			
Weekly Total	2	1	3	6		2		1	2	4			

Table 4. Number of households by week that reported their harvest progress for subsistence chum salmon in the Emmonak area. Represents all respondents.

Chum Percent Complete	Week Ending											
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0				1		1							
10													
25	1		2										
50	3	1	3	2		1	1		1				
75			1										
100	1	1	5	5			2	1	1	2			
Weekly Total	5	2	11	8		2	3	1	1	2			

Table 5. Number of households by week that reported their harvest progress for subsistence chum salmon in the Emmonak area. Represents core respondents.

Chum Percent Complete	Week Ending											
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0				1		1							
10													
25	1												
50	1	1	3	2		1			1				
75													
100				3				1		2			
Weekly Total	2	1	3	6		2		1	1	2			

Table 6. Ratings summary of how Nulato area households compared their 2002 and 2001subsistence harvest by species.

Week	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002									Number of
	Kings			**Chums**			**Coho**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
9-Jun										0
16-Jun										0
23-Jun	5	1	2	2	3	2				11
30-Jun	1	5	3	1	1	4				10
7-Jul	2	3		1	1	3				8
14-Jul		2								8
21-Jul		1								11
28-Jul										11
4-Aug						1				11
11-Aug		1								11
18-Aug										0
25-Aug										0
1-Sep										0

Table 7. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Nulato area.

Chinook Percent Complete	Week Ending										
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10			1										
25			2	1									
50			3	1									
75				5									
100													
Weekly Total			6	7									

Table 8. Number of households by week that reported their harvest progress for subsistence chum salmon in the Nulato area.

Chum Percent Complete	Week Ending										
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10			1										
25				1									
50													
75													
100			1	1									
Weekly Total			2	2									

Table 9. Ratings summary of how Galena area households compared their 2002 and 2001subsistence harvest by species.

Week Ending	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002									Number of Households Surveyed
	Kings			Chums			Coho			
	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	
9-Jun										0
16-Jun										0
23-Jun	3									4
30-Jun		2								4
7-Jul		3	1							4
14-Jul			3							4
21-Jul		1								4
28-Jul		1			2					4
4-Aug						1				4
11-Aug										0
18-Aug										0
25-Aug										0
1-Sep										0

Table 10. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Galena area.

Chinook Percent Complete	Week Ending										
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10													
25			1										
50			2	1	2	1							
75					2								
100						2	1						
Weekly Total			3	1	4	3	1						

Table 11. Ratings summary of how Huslia area households compared their 2002 and 2001subsistence harvest by species.

Week	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002										Number of
	Kings			**Chums**			**Coho**				Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR		Surveyed
9-Jun											0
16-Jun											0
23-Jun											0
30-Jun											0
7-Jul	2	1	4	6	1						7
14-Jul		1	5	7							8
21-Jul				3	3						6
28-Jul				3	4	1					8
4-Aug				5	1						6
11-Aug					6						6
18-Aug					7						7
25-Aug											3
1-Sep											0

Table 12. Number of households by week that reported their harvest progress for subsistence chinook salmon in the Huslia area.

Chinook Percent Complete	Week Ending										
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0					1								
10					1								
25					3	2							
50					2	4							
75													
100													
Weekly Total					7	6							

Table 13. Number of households by week that reported their harvest progress for subsistence chum salmon in the Huslia area.

Chum Percent Complete	Week Ending										
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10								1					
25					2	5	3	4	4			1	
50					4					4	5		
75						3	3	3	2	2	2	2	
100													
Weekly Total					6	8	6	8	6	6	7	3	

Table 14. Ratings summary of how GASH area households compared their 2002 and 2001subsistence harvest by species.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002												Number of
Week	Kings				Chums				Coho				Households
Ending	VERY GOOD	NORMAL	POOR		VERY GOOD	NORMAL	POOR		VERY GOOD	NORMAL	POOR		Surveyed
9-Jun													
16-Jun													
23-Jun													
30-Jun													
7-Jul													
14-Jul													
21-Jul													
28-Jul													
4-Aug	3	7	4										14
11-Aug													
18-Aug	3	3	2				1						11
25-Aug													
1-Sep													

Table 15. Number of households by week that reported their harvest progress for subsistence chinook salmon in the GASH area.

Chinook Percent Complete	Week Ending											
	9-Jun	16-Jun	23-Jun	30-Jun	7-Jul	14-Jul	21-Jul	28-Jul	4-Aug	11-Aug	18-Aug	25-Aug	1-Sep
0													
10									1				
25									1		2		
50									4		1		
75									5		5		
100									3		1		
Weekly Total									14		9		

Table 16. In-season subsistence harvest survey reports given during YRDFA teleconferences by local hire and refuge information technicians.

Teleconference Date, 2002	Emmonak	Nulato	Galena	Huslia	GASH
June 4					
11	TH				
18	RM	PM	GB		
25	TH	PM			
July 2	RM	PM	PM for GB		
9	TH	PM			
16	RM	EG	GB	OH	
23	RM	PM	GB	OH	
30	RM	PM	GB	OH	
August 6	TH	PM	GB	OH	RH for CD
13	RM			OH	
20				OH	RH for CD
27				OH	
September 3					
10					
17					
Total = 16	10	8	6	7	2

TH – Ted Hamilton, RM – Roberta Murphy, PM – Patrick Madros, EG – Edward George, OH – Orville Huntington, GB – Geoff Beyersdorf, CD – Clara Demientieff, RH – Ray Hander

APPENDICES

Appendix A. Yukon River in-season subsistence harvest assessment of Yukon River chinook and chum salmon.

Yukon River Drainage

Including Information From Subsistence Users into Salmon Management

The Yukon River in-season subsistence salmon fishing assessment project is a cooperative effort between the Alaska Department of Fish and Game, Emmonak Tribal Council, Nulato Tribal Council, the Yukon River Drainage Fisheries Association (YRDFA) and the U.S. Fish and Wildlife Service (USFWS).

Subsistence fishers in the Yukon River area have a very good and lifelong understanding of the salmon runs. Local subsistence users have knowledge about these salmon runs that is unavailable anyplace else. The aim of this in-season subsistence survey project is to use the information from subsistence fishers to help evaluate the strength or weakness of the salmon runs during the 2002 season and to help assess how well subsistence fishing is going.

Subsistence fishers will be asked information about their subsistence fishing during summer 2002. Information collected regularly (weekly) from subsistence fishers will be used along with information from other salmon escapement projects (such as weirs, sonar, and test fisheries) when decisions are made affecting salmon management on the Yukon River.

All subsistence fishers are encouraged to get involved. Participation is voluntary. Surveys will be conducted by local hires of YRDFA and USFWS Refuge Information Technicians.

For additional information:

Emmonak Tribal Council:	949-1720	(Wilbur Hootch)
Nulato Information Contact:	898-2269	(Patrick Madros)
USFWS Emmonak:	949-1798	(Ray Hander)
USFWS Galena:	656-1231	(Geoff Beyersdorf)
USFWS McGrath:	524-3251	(Clara Demientieff)
USFWS Huslia:	829-2266	(Orville Huntington)

Appendix B. ONC In-season subsistence salmon fishing report, 2002.

Family Name: Lastname, Firstname

Fishcamp Location

Date family started salmon fishing this year (month, day)

Primary Subsistence Salmon Fishing Areas

What are your family's salmon harvest goals this year ?

King _____, Chum _____,

Chinook

Data Sheet ID		Salmon Fishing Gear Used This Week						Compared with this time "LAST" how were your catches for salmon this						Comments about salmon fishing this week?
15 -		Net Type		Mesh ?				King Salmon			Chum Salmon			Few fish ? Lots of fish ? Are fish early / late? Water Size of Fish ? Fish look healthy ? Fishing harder this Fishing in more places/areas than
Staff initials	Week Endin	Drift Net	Set Net	6" or Less	More than 6"	Rod Reel	Fish Wheel	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	
	2-Jun													
	9-Jun													
	16-Jun													
	23-Jun													
	30-Jun													
	7-Jul													
	14-Jul													
	21-Jul													
	28-Jul													

		Net Type					Chum Salmon			Coho Salmon			Comments about salmon fishing this week?
Staff initials	Week Endin	Drift Net	Set Net		Rod Reel	Fish Wheel	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	Few fish ? Lot of fish ? Are fish early / late? Size of Fish Fish look healthy ? Fishing harder this
	4-Aug												
	11-Aug												
	18-Aug												
	25-Aug												
	1-Sep												

Were your family's salmon harvest goals achieved ? Kings _____, Chum _____, Sockeye_____ Coho_____ .

When did your family stop subsistence fishing for: King Salmon___ (month, day) Chum Salmon_____ (month, day) Sockeye Salmon__ (month, day) Coho Salmon_____. (month, day)

Appendix C. Subsistence Catch Information data form.

Subsistence Fisher Catch Information

Survey Date: _____

Year:_____ Surveyor Name: _____ **Remind fishers to use their subsistence harvest calendars**

Date Caught	Name	Catch Location	Gear		Voluntary			Where are you at in your harvest? (%)		Compared to "LAST" year how were your catch rates?		Comments (size of fish, healthy, water levels, timing, more/less effort, abundance, fishing more places than usual, etc…)
					Net Length	Catch						
						King	Chum	King	Chum	King	Chum	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	
			DN SN UNK	chum king UNK				0 10 25 50 75 100	0 10 25 50 75 100	Poor OK Good	Poor OK Good	

DN = drift gillnet SN = set gillnet UNK = unknown

More room for comments on reverse side

Appendix D. In-season subsistence salmon fishing monitoring: Yukon River Drainage, 2002 data form.

Family Name: Lastname, Firstname

Fishcamp Location

Date family started salmon fishing this year (month, day)

Primary Subsistence Salmon Fishing Areas

What are your family's salmon harvest goals this year ? (number of salmon)

King _____, Chum _____, Coho _____
Chinook Silver

Data Sheet ID #		Salmon Fishing Gear Used This Week						Compared with this time "LAST" year, how were your catches for salmon this week?						Comments about salmon fishing this week?
15 -		Net Type		Mesh ?				King Salmon			Chum Salmon			Few fish ? Lots of fish ? Are fish early / late? Water levels? Size of Fish ? Fish look healthy ? Fishing harder this year ? Fishing in more places/areas than usual
Staff initials	Week Ending	Drift Net	Set Net	6" or Less	More than 6"	Rod Reel	Fish Wheel	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	
	2-Jun													
	9-Jun													
	16-Jun													
	23-Jun													
	30-Jun													
	7-Jul													
	14-Jul													
	21-Jul													
	28-Jul													

		Net Type					Chum Salmon			Coho Salmon			Comments about salmon fishing this week?
Staff initials	Week Ending	Drift Net	Set Net		Rod Reel	Fish Wheel	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	Few fish ? Lot of fish ? Are fish early / late? Water levels? Size of Fish Fish look healthy ? Fishing harder this year ?
	4-Aug												
	11-Aug												
	18-Aug												
	25-Aug												
	1-Sep												

Were your family's salmon harvest goals achieved ? Kings _____, Chum _____, Coho_____ .

When did your family stop subsistence fishing for: King Salmon_____, Chum Salmon_____, Coho Salmon_____.
(month, day) (month, day) (month, day)

Appendix E. Example of summary of the ratings of how households compared their 2002 and 2001subsistence harvest by species.

THIS IS A SUMMARY / CALCULATION PAGE: DO NOT ENTER DATA ON THIS PAGE

Summary of the ratings of how Emmonak households compared their 2002 and 2001subsistence harvest by species.

Week Ending	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002									Number of Households Surveyed
	Kings			Chums			Coho			
	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	
9-Jun	0	0	0	0	0	0	0	0	0	0
16-Jun	0	0	0	0	0	0	0	0	0	0
23-Jun	0	0	0	0	0	0	0	0	0	0
30-Jun	0	0	0	0	0	0	0	0	0	0
7-Jul	0	0	0	0	0	0	0	0	0	0
14-Jul	0	0	0	0	0	0	0	0	0	0
21-Jul	0	0	0	0	0	0	0	0	0	0
28-Jul	0	0	0	0	0	0	0	0	0	0
4-Aug	0	0	0	0	0	0	0	0	0	0
11-Aug	0	0	0	0	0	0	0	0	0	0
18-Aug	0	0	0	0	0	0	0	0	0	0
25-Aug	0	0	0	0	0	0	0	0	0	0
1-Sep	0	0	0	0	0	0	0	0	0	0

Appendix F-1.A. Emmonak summary reports from the in-season subsistence harvest survey.

Yukon River In-Season Subsistence Survey Report
Emmonak Tribal Council

Date: June 10, 2002
Survey Report ending the week of June 9

I am Ted Hamilton, a seasonal employee with the U.S. Fish and Wildlife Service. Roberta Murphy (a Yukon River Drainage Fisheries Association local hire) and I are participating in giving the in-season subsistence survey report for the week ending June 9th. We just completed the in-season subsistence harvest training that was provided by Alaska Department of Fish and Game in Bethel on the 6th and 7th of June.

On the 8th of June we started contacting Emmonak families to determine survey participation. We've been getting good responses from the families we have asked to participate in the Subsistence Salmon Survey. Our initial results are:

30 families were asked to participate in the in-season subsistence survey. 26 families are willing to participate and 4 declined. 3 of the 4 families that have declined because they are not subsistence fishing in 2002, 1 person wishes not to participate. 5 families have moved and are unable to be contacted. 8 families reported that they have not started fishing yet. The remaining 18 families were not surveyed for subsistence fishery information, but did agree to participate in the survey.

This week we will make additional initial contacts with families, and will be revisiting participating families weekly throughout the fishing season.

Appendix F-1.B.

Yukon River In-Season Subsistence Survey Report for the 18 June YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date June 16, 2002
Survey Report ending the week of June 16

I am Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association. Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I are participating in giving the in-season subsistence harvest survey report for the survey week ending June 16, 2002.

23 families were interviewed in the Emmonak area during this survey period. 15 families reported using driftnets and 12 families reported using set nets. 7 families reported using gillnets with mesh that was larger than 6" mesh and 21 families reported using gillnets with 6" or smaller mesh. Some families reported using multiple gear types during this period.

KINGS			CHUMS		
VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
13	6	4	14	6	3

King salmon

13 families indicated that their subsistence catches for king salmon were very good compared to last year. 6 families reported their catches as normal for this time of year and 4 families rated their catches as poor at this time.

Chum salmon

Compared to last year, 14 families reported their catches for chum salmon as very good for this time of year, 6 families indicated that their subsistence catches for chum salmon were normal and 3 families reported their catches as poor at this time.

Overall comments from families indicate good success fishing for king salmon during this survey period, and normal fishing for chum salmon.

New contacts continue to be made. Subsistence harvest information is being asked for at the time of initial contact, provided that the family is willing to participate in the survey. We will also continue revisiting participating families weekly throughout the fishing season. That completes our Emmonak subsistence harvest report for last week.

Thank You.

Appendix F-1.C.

Yukon River In-Season Subsistence Survey Report for the 25th of June YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

I am Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service. Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association and I are participating in giving the in-season subsistence harvest survey report for the survey week ending June 23, 2002.

25 families were interviewed in the Emmonak area during this survey period. 24 families had fished and provided harvest information. 18 families reported using driftnets, and 7 families reported using set nets. 8 families reported using gillnets larger than 6" mesh size, and 18 families reported using gillnets with 6" or smaller mesh size. Two families reported using both set net and drift net.

KINGS			CHUMS		
VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
17	5	2	22	2	0

King salmon

17 families indicated that their subsistence catches for king salmon were very good compared to last year. 5 families reported their catches as normal for this time of year, and 2 families rated their catches as poor at this time.

Chum salmon

Compared to last year, 22 families reported their catches for chum salmon as very good for this time of year, 2 families indicated that their subsistence catches for chum salmon were normal, and no families reported their catches as poor at this time.

Seven families reported that they are all done fishing for both kings and chums. One family is done fishing for King Salmon, 3 families are done fishing for Chum salmon.

4 families reported they are waiting for White Nose Kings, and will fish again. 2 families reported they are still fishing for kings to put in the freezer. A few families that did not subsistence fish this week received their fish from Fish and Game or other fishermen. 7 families reported that they retained chums caught during the commercial opening for their subsistence use.

Overall comments from families indicate that fishing has been very good this week.

Appendix F-1.C. (continued)

New contacts continue to be made. Subsistence harvest information is being asked for at the time of initial contact, provided that the family is willing to participate in the survey.

That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-1.D.

Yukon River In-Season Subsistence Survey Report for the 2nd of July YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 1, 2002
Survey Report ending the week of July 2, 2002

I am Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association. Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I are participating in giving the in-season subsistence harvest survey report for the survey week ending July 02, 2002.

22 families were interviewed in the Emmonak area during this survey period. 6 families had fished and provided harvest information. 6 families reported using driftnets, and no families reported using set nets. 5 families reported using gillnets larger than 6" mesh size, and 3 families reported using gillnets with 6" or smaller mesh size. Two families reported using both set net and drift net.

KINGS			CHUMS		
VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
4	1	1	3	1	1

King salmon

4 families indicated that their subsistence catches for king salmon were very good compared to last year. 1 family reported their catches as normal for this time of year, and 1 family rated their catches as poor at this time.

Chum salmon

Compared to last year, 3 families reported their catches for chum salmon as very good for this time of year, 1 family indicated that their subsistence catches for chum salmon were normal, and 1 family reported their catches as poor at this time.

The following information is from families that were not actively fishing last week. Five families reported they are all done fishing for both king and chum salmon. Three families are done fishing for king salmon and two families are done fishing for chum salmon.

Four families reported that they would fish again after they put away fish that they already have in their smoke houses. 6 families reported that they did not fish last week due to commercial fishing. 4 families reported they would fish again for fall chum.

Appendix F-1.D. (continued)

Overall comments from families that did not actively subsistence fish last week were that they are putting away fish already in their smoke houses or that the available subsistence fishing times conflicted with other duties. Many subsistence fishermen are also commercial fishermen.

New contacts continue to be made. Subsistence harvest information is being asked for at the time of initial contact, provided that the family is willing to participate in the survey.
That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-1.E.

Yukon River In-Season Subsistence Survey Report for the 07 July YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 9, 2002
Survey Report ending the week of July 7th

I am Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service. Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association and I are participating in giving the in-season subsistence harvest survey report for the survey week ending July 7th.

11 families were interviewed in the Emmonak area during this survey period. 2 families reported using driftnets with less than 6"mesh.

KINGS			CHUMS		
VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
2	0	0	2	0	0

King and chum salmon

2 families indicated that their subsistence catches for king and chum salmon were very good compared to last year.

Overall comments from families indicate good success in the harvest of King Salmon and most of the families participating in the survey have met their needs in the harvest of King Salmon for their subsistence needs. Most of the families surveyed, are waiting for the Fall Chum to arrive, with some families still fishing for summer chum.

Thank You.

Appendix F-1.F.

Yukon River In-Season Subsistence Survey Report for the 16 July YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 15, 2002
Survey Report ending the week of July 14th

I am Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association. Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I participated in surveying Emmonak fishing families for the week ending July 14th.

13 families were interviewed in the Emmonak area during this survey period. 2 families had fished and provided harvest information. Both families reported using set gillnets, with mesh larger than 6" and 1 family reported using set gillnets with 6" or smaller mesh.

King and Chum Salmon

For king and chum salmon one family indicated that their subsistence catches were very good compared to last year, and the other family rated their catches for king and chum as poor.

Families that were not fishing reported they have met their chinook and summer chum salmon subsistence needs and were waiting for the fall chum salmon to arrive.

That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-1.G.

Yukon River In-Season Subsistence Survey Report for the 16 July YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 15, 2002
Survey Report ending the week of July 14th

I am Roberta Murphy a local hire with the Yukon River Drainage Fisheries Association. Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I participated in surveying Emmonak fishing families for the week ending July 14th.

13 families were interviewed in the Emmonak area during this survey period. 2 families had fished and provided harvest information. Both families reported using set gillnets, with mesh larger than 6" and 1 family reported using set gillnets with 6" or smaller mesh.

King and Chum Salmon

For king and chum salmon one family indicated that their subsistence catches were very good compared to last year, and the other family rated their catches for king and chum as poor.

Families that were not fishing reported they have met their chinook and summer chum salmon subsistence needs and were waiting for the fall chum salmon to arrive.

That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-1.H.

Yukon River In-Season Subsistence Survey Report for the 30th of July YRDFA teleconference.

U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association

Survey Report ending the week of July 28th

Hi, I am Roberta Murphy, a local hire with the Yukon River Drainage Fisheries Association Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I participated in surveying Emmonak fishing families for the week ending July 28th.

Twelve families were interviewed in the Emmonak area during this survey period, none of them fished last week. All of these families are still waiting for the fall chum to arrive.

A number of families were pursuing other subsistence activities such as berry picking, seal and whale hunting. Since the fall chum salmon run is progressing slowly, one family decided to forgo fall fishing, since they have met their chinook and summer chum needs.

That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-1.I.

Yukon River In-Season Subsistence Survey Report for the 6th of August YRDFA teleconference.

U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association

Survey Report ending the week of August 4th.

Hi, I am Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service. Roberta Murphy, a local hire with the Yukon River Drainage Fisheries Association and I participated in surveying Emmonak fishing families for the week ending August 4th.

7 families were interviewed in the Emmonak area during this survey period, none of them fished last week. All of these families are still waiting for the fall chum to arrive in large enough numbers before fishing.

A number of families were pursuing other subsistence activities such as berry picking, seal and whale hunting, taking advantage of the recent heat spell.

In review of kings and chums with the families who were surveyed last week, 6 of the 7 families surveyed said that they had met their needs with kings and the other family is at 75%. For the total season chum harvest, 4 of the 7 families surveyed, said that they had met their needs, 2 were at 50% of their goals and 1 family had not started harvesting chums yet.

That completes our Emmonak super short short subsistence harvest report for last week. Thank You.

Appendix F-1.J.

Yukon River In-Season Subsistence Survey Report for the 13th of August YRDFA teleconference.

U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association

Survey Report ending the week of August 11th.

Hi, I am Roberta Murphy, a local hire with the Yukon River Drainage Fisheries Association. Ted Hamilton a seasonal employee with the U.S. Fish and Wildlife Service and I participated in surveying Emmonak fishing families for the week ending August 11th.

7 families were interviewed in the Emmonak area during this survey period, one family fished and provided harvest information. The family stated that the run for coho and chum salmon is very good for this time compared to last year, commenting that they caught 110 chums and 10 coho in 3 short drifts using a less than 6" mesh, 25-fathom net. The family also said 6 fish were diseased due to irregularities noticed in the flesh and 14 had whale tooth marks.

A number of families were pursuing other subsistence activities such as berry picking, seal and whale hunting.

For the total season chum harvest, 4 of the 7 families surveyed, said that they had met their needs, 1 is at 75% of their goals, and one family is at 90% this family also said that they would get the last of their fish from ADF&G, and one decided not to harvest any chums because the lateness of the season.

That completes our Emmonak subsistence harvest report for last week. Thank You.

Appendix F-2.A. Nulato summary reports from the in-season subsistence harvest survey.

Yukon River In-Season Subsistence Survey Report for the 18 June YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date June 16, 2002
Survey Report ending the week of June 16

I am Patrick Madros Jr., a seasonal local hire with the U.S. Fish and Wildlife Service. Edward George, a local hire with YRDFA, and I are participating in giving the in-season subsistence survey. We just completed the in-season subsistence harvest training that was provided by the Alaska Department of Fish and Game in Bethel on June 6th and 7th. Thanks.

In the last week we started contacting Nulato families to determine survey participation. Our initial results are:

Five families were asked to participate in the in-season subsistence survey. Three families are willing to participate and two had not gotten back with their responses. We expect to contact an additional 5-7 more families during this week and will be conducting formal surveys on Saturday.

Appendix F-2.B.

I am Patrick Madros Jr., a seasonal local hire with the U.S. Fish and Wildlife Service. Edward George, a local hire with YRDFA, and I are participating in giving the in-season survey for the week ending June 23, 2002.

Eleven families in Nulato were contacted. Nine families were interviewed this survey period, two families were out of town. Five families reported using drift nets and four families reported using set nets. Six families reported using gillnets with mesh that was larger than 6" mesh and two families reported using gillnets with 6" or smaller mesh. Some families reported using multiple gear types during this period.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002					
Week	**Kings**			**Chums**		
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
23-jun	4	1	2	2	2	2

King Salmon
Four families indicated that their subsistence catches for king salmon were very good compared to this time last year. One family reported their catch as normal compared to this time last year, and two families reported their catch as poor compared to this time last year. Two families surveyed have not started fishing and two could not be contacted as they were out of town.

Chum Salmon
Two families reported their subsistence catches for chum salmon as very good compared to this time last year. Two families reported their catch for chum salmon as normal compared to this time last year. Two families reported their catch for chum salmon as poor compared to last year. Two families were out of town and could not be surveyed. One family does not fish for chums and two families have not started fishing.

Overall, families indicated fishing success for kings and chums as very good compared to last year. The better quality of this years fish was commented on several times as was the average to small size of this years kings compared to last year. Almost every surveyed family indicated that this years run was earlier than last year. There have been several comments asking about changing the fishing schedule for District 4 from two forty-eight hour openings per week. In upcoming surveys we will be asking what type of schedule they would like.

Appendix F-2.C.

Yukon River In-Season Subsistence Survey Report for the 2nd of July YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

I am Patrick Madros Jr. a seasonal local hire with the U.S. Fish and Wildlife Service. Edward George, a local hire with YRDFA and I are participation in giving the in-season subsistence harvest survey for he week ending June 30, 2002.

Eleven families were contacted. Ten families were interviewed during this survey period, one was unreachable. Seven families reported using drift nets and three families reported using set nets. Eight families reported using gillnets with mesh larger than 6" and two families reported using gillnets with 6" or smaller mesh size. One family reported using multiple gear types during this period.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002						
Week	**Kings**				**Chums**		
Ending	Very Good	Normal	Poor		Very Good	Normal	Poor
June 30	2	5	3		1	2	4

King Salmon
Two families indicated that their subsistence catches for king salmon were very good compared to last year. Five families reported their catch as normal compared to this time last year, and three reported their catch as poor compared to this time last year. One family did not fish this week and one family could not be contacted.

Chum Salmon
One family reported their subsistence catches for chum salmon as very good compared to this time last year. Two families reported their catch for chum salmon as normal compared to last year. Four families reported their catch as poor compared to this time last year. Three of the four families reporting as poor used gillnets with mesh larger than 6". Three families reported not fishing for chums, one family did not fish this week and one family could not be contacted.

Overall, families indicated that fishing was normal to poor for king and chums compared to this time last year. A higher incidence of fish with sores/scars were seen in catches this by fishermen. Several families commented that they were seeing a lot more fish that were red in appearance and not the gray/silver color they saw last week. Water levels dropped several inches this week.

A couple of Nulato fishermen commented on the presence of Galena fishermen in the area and wondered why they are restricted from drift gillnet fishing in the Galena area. Both Nulato fishermen asked what can be done to legalize drift gillnet fishing in the Galena area. One fisherman mentioned that a regulatory proposal may help them get drift gillnet fishing legalized.

Appendix F-2.C. (continued)

This completes our weekly report for the Nulato inseason subsistence survey.

Now I have a subsistence harvest summary for the Galena area.

Four families were surveyed this week in Galena via the telephone. Two families reported using drift nets; one family used a set net and one family did not fish this week. All three families using gillnets reported using mesh larger than 6". No families reported using multiple gear types.

King Salmon
Three families indicated that their subsistence catches for king salmon were very good compared to last year.

Chum Salmon
Three families reported that their subsistence catches for chum salmon as normal compared to this time last year.

Overall, fishermen indicated fishing success for kings was very good compared to this time last year and normal fishing success for chum salmon. Generally, quality of fish was commented on as being good with only two fish reported with sores for the whole week.

All fishermen using drift nets are drifting across from Koyukuk or in the vicinity of Koyukuk. One fisherman asked why they are not allowed to drift up river from Bishop rock. He also stated that it does not seem right that they are not allowed to drift around Galena and that he feel like they are invading or crowding the one fishing spot.

Appendix F-2.D.

Yukon River In-Season Subsistence Survey Report for the YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

I am Patrick Madros Jr., a seasonal local hire with the U.S. Fish and Wildlife Service. Edward George, a local hire with YRDFA, and I are participating in giving the in-season survey for the week ending July 7th, 2002.

Eleven families were interviewed during this survey period, two were unreachable, and one was excluded from the survey. Of the eight families interviewed, two families reported not fishing this week. Six families reported using drift nets and one family reported using a set net. Five families reported using gillnets with mesh larger than six inches. One family reported using a net with six inches or smaller mesh size. One family reported using multiple gear types during this period.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002								Number of
Week	**Kings**				**Chums**				Households
Ending	VERY GOOD	NORMAL	POOR		VERY GOOD	NORMAL	POOR		Surveyed
07-Jul	3	3	0		1	1	4		8

King Salmon
Three families reported that their subsistence catches for king salmon as very good compared to this time last year. Three families reported their catch as normal compared to this time last year. Two families reported not fishing this week, two families could not be contacted and one family was excluded from the survey this week.

Chum Salmon
One family reported their subsistence catches for chum salmon as very good compared to this time last year. One family reported their catch for chum salmon as normal compared to this time last year. Three of the four families reporting as poor used gillnets with mesh larger than six inches. Two families did not fish this week, two families could not be contacted and one family was excluded from the survey.

Overall, families indicated that fishing was very good to normal for kings compared to this time last year. Families reported that fishing for chum salmon as poor compared to this time last year. A lower incidence of fish with sores/scars were seen in catches this week by fishermen. Several families indicated that the larger kings they caught were not as rich in color as last weeks catches. On the other hand, small kings were stated as being of good quality compared to this years larger kings. The water level dropped but was minimal compared to last week. Rough water on a couple of days prevented several fishermen from fishing as much as the previous week.

Appendix F-2.E.

Yukon River In-Season Subsistence Survey Report for the YRDFA teleconference.

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

I am Edward George, a local hire with the Yukon River Drainage Fisheries Association. Patrick Madros Jr., a seasonal local hire with the U.S. Fish and Wildlife Service, and I are participating in giving the in-season subsistence harvest survey for the week ending July 14, 2002.

Ten families were interviewed during this survey period and one family was unreachable. Of the ten families interviewed eight families reported not fishing this week. Two families reported using drift nets during this survey period, one with a gillnet with mesh larger than six inches and one using mesh smaller than six inches.

King Salmon

Two families reported that their subsistence catches for king salmon as normal compared to this time last year. These two families indicated that they were ninety percent or more complete with their king salmon fishing. Eight families reported not fishing this week since they were finished subsistence fishing for kings.

Chum Salmon

Most families are not targeting chum salmon and are not making comparisons to 2001.

Overall, families indicated that fishing was normal for kings compared to this time last year. Fishermen saw no fish with sores/scars in catches this week. One family indicated that three of four fish caught this week were from were of good quality and one had pale colored meat. Water levels stayed about the same this week. Seventy-five percent of the fishermen interviewed this week indicated that they were finished fishing for king salmon.

Appendix F-2.F.

Yukon River in-season subsistence survey report for the 23rd of July, 2002 YRDFA teleconference.
U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association Survey report ending the week of July 21st.

I am Patrick Madros jr., a seasonal local hire with the U.S. Fish and Wildlife Service. Edward George, a local hire with YRDFA, and I are participating in giving the in-season subsistence harvest survey for the week ending July 21,2002.

11 Families were interviewed during this survey period. Of the eleven families, ten families reported not fishing this week. One family reported using a set net during this survey period with a mesh smaller than six inches.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring 2002						
Week	Kings				Chums		
Ending	Very Good	Normal	Poor		Very Good	Normal	Poor
July 21			1		n/a	n/a	n/a

King Salmon

This family reported their subsistence catches for king salmon as poor compared to this time last year and that they are now done with their king salmon fishing. The other ten families reported not fishing this week and are finished fishing for king salmon.

Chum Salmon
Most families are not targeting chum salmon and are not making comparisons to 2001.

The fisherman saw no fish with sores/scars in catches this week and a majority of their fish were of good quality. After this past week all fishermen interviewed are one hundred percent complete with their king salmon fishing. The water level dropped a couple of inches this week.

Appendix F-2.G.

I am Patrick Madros jr., a seasonal local hire with the U.S. Fish and Wildlife Service, am participating in giving the in-season subsistence harvest survey report for the survey week ending July 28th.

Eleven families were contacted during this survey period. No families contacted reported fishing at all last week.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002					
Week	**Kings**			**Chums**		
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
28-july						

Water levels dropped a little in the past week. At least ninety percent of those interviewed have achieved their harvest goals for king salmon. Many people indicated they are waiting for the fall fish to resume fishing.

Appendix F-2.H.

Yukon River in-season subsistence survey report for the 6th of August, 2002 YRDFA teleconference.
U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association Survey report ending the week of August 4th, 2002.

I am Patrick Madros jr., a seasonal local hire with the U.S. Fish and Wildlife Service, and I am participating in giving the in-season subsistence harvest survey for the week ending August 4, 2002.

11 Families were contacted during this survey period. Of the eleven families, ten families reported not fishing this week. One family reported using a set net during this survey period with a mesh smaller than six inches.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002					
Week	**Coho**			**Fall Chums**		
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR
4-Aug						1

Fall Chum Salmon
One family reported their catch for chum salmon as poor compared to this time last year.

Coho
No families reported catching any coho.

General Findings
The fisherman saw no fish with sores/scars in catches this week and a majority of their fish were of good quality. Ninety percent of those interviewed had achieved their harvest goals for king salmon. Water levels dropped early in the week , but rose over the weekend.

Appendix F-3.A. Galena summary reports from the in-season subsistence harvest survey.

Yukon River In-Season Subsistence Survey Report for the YRDFA teleconference
U.S. Fish and Wildlife Service and Yukon River Drainage Fisheries Association

Date June 18, 2002
Survey Report ending the week of June 16

I am Geoff Beyersdorf, a subsistence biologist with the U.S. Fish and Wildlife Service based in Galena. I will be giving the in-season subsistence harvest survey report for the survey week ending June 16, 2002.

On June 12th I started contacting Galena families to determine survey participation. I've been getting good responses from the families I have asked to participate in the Subsistence Salmon Survey. The initial results are:

Six subsistence fishers were asked to participate in the in-season subsistence survey. Four families were willing to participate and two declined. One of the families declined because they don't fish as much as in the past, the other person wishes to not participate.

Four families were interviewed during this survey period. Two families reported they will be using drift nets, but as of this survey had not begun fishing. The other two families use set nets and one had just set their net on Sunday evening and had not checked it as of Monday morning. The other set net family is currently out of town.

Overall comments from families indicate there are some kings salmon and a few chum beginning to be harvested and that the timing of the run is approximately one week earlier when compared to last year.

There have been several comments in regards to the low water levels this year and also asking about changing the fishing schedule for District 4.

Subsistence harvest information is being asked for at the time of initial contact, provided that the family is willing to participate in the survey.

That completes my Galena subsistence report for last week.

Appendix F-3.B.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 16, 2002
Survey Report ending the week of July 14

I am Geoff Beyersdorf, a subsistence biologist with the U.S. Fish and Wildlife Service in Galena. I will be giving the in-season subsistence harvest survey report for the survey week ending July 14, 2002.

Four families in Galena were contacted.. Two families reported using drift gillnets with mesh that was larger than 6", one family used a set net with mesh that was larger than 6", and one family didn't fish as they achieved their king harvest goals.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002							Number of
Week	**Kings**				**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR		VERY GOOD	NORMAL	POOR	Surveyed
14-July	0	0	3					4

King Salmon
Three families indicated that their subsistence catches for king salmon were poor compared to this week last year.

Chum Salmon
Four families indicated they do not fish for chum and therefore can't compare it to last year.

Overall, families indicated fishing success for kings as being poor compared to this time last year. Several people stated they harvested most of their fish as a large pulse moved through the area the week of July 8th 2001. Fish quality was considered average by two families. One family reported the size of this years kings as good, while one family reported 100% of their catch had smaller fish. Three families reported that they had completed their subsistence harvest for the season, two families achieved their harvest goals and one family was at 50% of their goal. The water began rising around July 8th and there was a lot of debris in the river. One fisherman commented that he has talked to several subsistence fishers in the Galena and they would like to see the fishing schedule changed to one 96 hour opening.

That completes our Galena subsistence survey for this past week.

Appendix F-3.C.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of July 21

I am Geoff Beyersdorf, a subsistence biologist with the U.S. Fish and Wildlife Service in Galena. I will be giving the in-season subsistence harvest survey report for the survey week ending July 21, 2002.

Four families in Galena were contacted. Three families didn't fish . The one family that did fish used a set net with greater than 6" mesh.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002							Number of
Week	**Kings**				**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR		VERY GOOD	NORMAL	POOR	Surveyed
21-July	0	1	0					4

<u>King Salmon</u>
One family indicated that their subsistence catches for king salmon were normal compared to this week last year.

<u>Chum Salmon</u>
Four families indicated they do not fish for chum and therefore can't compare it to last year.

In summary, the one family that fished this past week stated that the fish were of good quality, looked healthy with good color, and were of medium size. At this point all four families have stopped fishing for kings and are awaiting the fall chum run. Three families indicated that they achieved their harvest goals for kings. One family indicated that they were at 50% of their harvest goals and will need to supplement their harvest with fall chum. Water levels have been slowly dropping this week.

I traveled down river to Kaltag on Friday 07/19 and spoke to some fishers along the way. As in Galena most people are done with king fishing. The few kings still being caught in the Nulato area are good size, with silver color, and firm flesh. One fish camp was still catching 1-2 dozen good quality kings per day. This same camp is starting to see fall chum come in with 1-2 per day during the first open subsistence period this past week and five per day during the second open period.

In summary, people commented that this years kings were of good quality compared to last year due to the lack of scarring, brightness (silver color), firm dark flesh, and relative lack of diseased fish. Those fishers contacted would rate this years king harvest as very good to normal compared to last year. In addition they would like to see the fishing schedule remain the same as it gives their cutters and chance to rest. Lastly, many people have commented on the absence of black bears around fish camps and smokehouses.

That completes our Galena subsistence survey for this past week.

Appendix F-3.D.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of July 27

I am Geoff Beyersdorf, a subsistence biologist with the U.S. Fish and Wildlife Service in Galena. I will be giving the in-season subsistence harvest survey report for the survey week ending July 27, 2002.

Four families in Galena were contacted. Three families didn't fish, one family used a set net with less than 6" mesh.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
27-July	0	0	0		1		4

King Salmon
Four families indicated they did not fish for kings.

Fall Chum Salmon
The one family that fished fall chum would rate it as normal compared to this time last year.

In summary, the family that fished thought the fall chum were a little early this year and said their fish were small. At this point all four families have stopped fishing for kings and are awaiting the fall chum run. Two families indicated that they achieved their harvest goals for kings. Two families indicated that they did not achieve their harvest goals for kings, of these families, one indicated that they were at 50% of their harvest goals and will need to supplement their harvest with fall chum. Water levels have been dropping this week.

Patrick Madros traveled up river to Ruby on Thursday 07/25 and spoke to some fishers along the way. As in Galena, people are done with king salmon fishing. Three fishers were contacted. Two fishers used fish wheels and one is using a set net with less than 6" mesh. One fishers harvest goals for king salmon were achieved, one was not, and one other did not indicate that they target kings. One fisher indicated they could not compare their king harvest to last year as they did not use a fish wheel last year, another fisher rated their kings harvest as "fair" compared to last year, the fisher targeting summer chum rated it as normal compared to last year. The fishers commented on the good quality of this years fish, that they looked healthy, and that there were a lot of smaller kings this year. One fisher also commented that they fished harder this year and that they were catching some pink salmon.

That completes our Galena subsistence survey for this past week.

Appendix F-3.E.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of August 4th

I am Geoff Beyersdorf, a subsistence biologist with the U.S. Fish and Wildlife Service in Galena. I will be giving the in-season subsistence harvest survey report for the survey week ending August 4th, 2002.

Four families in Galena were contacted. Three families didn't fish, one family used a set net with less than 6" mesh.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Fall Chum**			**Silvers**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
4-Aug.	0	0	1	0	0	0	4

Fall Chum Salmon
The one family that fished fall chum would rate it as poor compared to this time last year.

In summary, the family that fished thought the fall chum were running late this year. This family is at 25% of their harvest goals for fall chum. Three families indicated that they are waiting for the pulse to arrive. Water levels were dropping early in the week but began rising as of Sunday.

Coho Salmon
Nothing to report.

That completes our Galena subsistence survey for this past week.

Appendix F-4.A. Huslia summary reports from the in-season subsistence harvest survey.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 15, 2002
Survey Report ending the week of July 13

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending July 13, 2002.

Twelve families in Huslia were contacted during their fishing activities early in the week, and eight of the twelve were surveyed at the end of the week. Two families fishing reported using drift nets and six used set nets. Three families reported using gillnets with mesh less than 6", three families reported using gillnets with mesh larger than 6", and two families reported using multiple gear types.

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
13-Jul	0	1	5	7	0	0	8

King Salmon

One family indicated that their catch for king salmon was normal compared to last year, and five families indicated this years king salmon fishing as being poor compared to this time last year, and two families did not rate their catch as they do not catch kings. Three families reported pulling their nets to conserve the king salmon run and let the big fish go up stream to spawn.

Chum Salmon

Seven families indicated that their subsistence catches for chum salmon were very good compared to this time last year. One fisher did not fish for chum salmon during the week.

The majority of families indicated fishing success for kings as being poor compared to this week during 2001. Those fishers who started fishing for kings at the normal time did not do well, but those who started two weeks early caught about half of their normal annual catch. All fishers commented that quality of kings on the Koyukuk was poor compared to last week as the fish are starting to turn red and soften, they also said there were less king salmon and they were smaller. Additionally, all fishers in Huslia on July 13th reported there were many large firm chums in the area.

This past week there were three families setting up camp and had just started fishing. Out of the eight families contacted, four reported being at about 50% and two at 25% of their king harvest, and two families did not fish for kings. For chum salmon, three fishers reported being at about 75% and four at 25% of their chum harvest, and one fisher did not fish for chums. All fishers commented that this week kings were starting to turn red and there were some visible small scars. The water levels were dropping earlier in the week and began rising around July 12.

Appendix F-4.B.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference

U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of July 20

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending July 20, 2002.

Six families in Huslia were contacted during their fishing activities this week. All families reported using set nets. All families reported using gillnets with mesh less than 6".

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
20-Jul	0	0	0	3	3	0	6

King Salmon

No families fished for king salmon this week, and no one reported catching any.

Chum Salmon

Three families indicated that their subsistence catches for chum salmon were very good and three families indicated that their catch was normal compared to this time last year. Out of the six families contacted, three reported being at about 75% and three at 25% of their annual chum salmon harvest for this year.

All families indicated that they are through fishing for king salmon this year, and most are waiting for silver salmon to arrive. All fishers in Huslia as of July 21st reported there were still many large firm chums in the area, but a lot of spawned chum are starting to show up.

This past week four families broke camp and are waiting in town for silver salmon to arrive. Three fishers commented that this week chums were starting to turn red and some had visible small scars. Two fishers reported catching coho, pinks, and silver salmon.

The water levels were dropping slowly throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-4.C.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date July 28, 2002
Survey Report ending the week of July 27

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending July 27, 2002.

Eight families in Huslia were contacted during their fishing activities this week. Seven families reported using set gillnets with mesh less than 6" and one used a fishwheel.

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
27-Jul	0	0	0	3	4	1	8

King Salmon

No families fished for king salmon this week.

Chum Salmon and summary

Compared to this time last year, three families indicated that their subsistence catches for chum salmon were very good, four families indicated that their catch was normal, and one family indicated that their catch was poor. Out of the eight families contacted, three reported being at about 75%, four at 25% and one at 10% of their annual chum salmon harvest for this year.

All families indicated that they are through fishing for king salmon this year, but two fisherman reported catching a couple of small spawned or Jack kings once during the week. Most fisherman are waiting for fall chum salmon to arrive. All fishers in Huslia as of July 27th reported that there were a lot of spawned chum starting to show up.

This past week one family broke camp and is waiting in town for fall chum to arrive. One family moved downriver from Huslia to set up a new camp. One fisher commented that this week chums were starting to turn black and some had visible small scars. Six fishers reported catching a few good quality fall chum salmon. One fisher indicated that the fishwheel wasn't working because the Koyukuk River was to clear.

The water levels was stable throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-4.D.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Date: August 4, 2002
Survey Report ending the week of August 3

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending August 3, 2002.

Six families in Huslia were contacted during their fishing activities this week. All families reported using set gillnets with mesh less than 6".

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
03-Aug	0	0	0	5	1	0	6

Chum Salmon and summary

Compared to this time last year, five families indicated that their subsistence catches for chum salmon were very good, and one family indicated that their catch was normal. Out of the six families contacted, two reported being at about 75%, and four at 25% of their annual chum salmon harvest for this year.

Most fisherman are waiting for more fall chum salmon to arrive. This past week two families broke camp and are waiting in town for fall chum to arrive. All fishers commented that this week many summer chums were starting to turn black and some had a lot of visible small scars, and reported they are still catching a few good quality fall chum salmon.

The water levels dropped slowly throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-4.E.

Yukon River In-season Subsistence Survey Report for the August 13th YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Final report for surveys ending the week of August 10.

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending August 10, 2002.

Six families in Huslia were contacted during their fishing activities this week. All families reported using set gillnets with mesh less than 6".

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
10-Aug	0	0	0	0	6	0	6

Chum Salmon and summary

Compared to this time last year, all six families fishing indicated that their subsistence catches for chum salmon were normal. Out of the six families contacted, two reported being at about 75%, and four at 50% of their annual chum salmon harvest for this year.

Most fisherman are still waiting for more fall chum salmon to arrive. This past week one family broke camp and is waiting in town for fall chum to arrive, and only one family from Huslia is now staying at fish camp. All fishers indicated they are still catching one or two good quality fall chum salmon a day.

The water levels continue to drop slowly throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-4.F.

Yukon River In-season Subsistence Survey Report for the August 20th YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Report for surveys ending the week of August 17.

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending August 17, 2002.

Seven families in Huslia were contacted during their fishing activities this week. All families reported using set gillnets with mesh less than 6", and they all pulled their nets at 6:00 PM August 14th, and four of them set gillnets with mesh less than 4" that were less than 60' in length.

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
17-Aug	0	0	0	0	7	0	7

Chum Salmon and summary

Compared to this time last year, all seven families fishing indicated that their subsistence catches for chum salmon were normal. Out of the six families contacted, two reported being at about 75%, and five at 50% of their annual chum salmon harvest for this year.

Most fisherman were still waiting for more fall chum salmon to arrive, when they pulled their nets according to the emergency closure. This past week one family broke camp, and all fisherman are now fishing from the village. All fishers indicated chum salmon fishing was the same before the closure, and they are still catching few freshwater fish a day in their whitefish nets. No fisherman reported catching any chum salmon in their legal gear after the closure.

The water levels continue to drop slowly throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-4.G.

Yukon River In-season Subsistence Survey Report for the August 20th YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Report for surveys ending the week of August 24.

I am Orville Huntington, a Refuge Information Technician with the U.S. Fish and Wildlife Service in Huslia. I will be giving the in-season subsistence harvest survey report for the survey week ending August 24, 2002.

Three families in Huslia were contacted during their fishing activities this week, and all families reported using set gillnets with mesh less than 4" that were less than 60' in length.

	Yukon River In-season Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	VERY GOOD	NORMAL	POOR	VERY GOOD	NORMAL	POOR	Surveyed
24-Aug	0	0	0	1	1	1	3

Fishing summary

Compared to this time last year, one family fishing indicated that their subsistence catches were very good, one family indicated their catches were normal and one family indicated their catches were poor. Out of the three families contacted, two reported being at about 75%, and one at 25% of their annual chum salmon harvest for this year.

Most fisherman were still waiting for more fall chum salmon to arrive, when they pulled their nets according to the emergency closure. All fisherman are now fishing from the village, and indicated they are still catching few freshwater fish a day in their whitefish nets. No fisherman reported catching any chum salmon in their legal gear after the closure. All fishers and residents of Huslia wanted to reopen the fall chum fishing on the Koyukuk River before fall moose hunting starts.

The water levels rose slowly throughout the week.

That completes our Huslia subsistence survey for this past week.

Appendix F-5.A. GASH summary reports from the in-season subsistence harvest survey.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of 4 August 2002.

This report was submitted by Clara Demientieff, a Refuge Information Technician with the Innoko National Wildlife Refuge. This is the in-season subsistence harvest survey report for the survey week ending 4 August, 2002.

Fourteen families in the Grayling, Anvik, Shageluk and Holy Cross area were contacted. They reported on their king and chum salmon harvest to this point in time.
Seven families used drift nets and five families used set nets, all of them used 6" or greater mesh. Of the two remaining families, one used a drift net and the other a set net and neither reported the mesh size that they used.

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings**			**Chums**			Households
Ending	GOOD	NORMAL	POOR	GOOD	NORMAL	POOR	Surveyed
21-July	3	7	4				14

King Salmon
Three families reported their king salmon harvest as good, seven reported as normal and four as poor compared to last year.

Chum Salmon
Most families do not target chum salmon and did not make comparisons to 2001 harvests.

Summary
Families reported varying degrees of how they did for their king salmon harvest. Three of the 14 families met their harvest goals, five reached 75 percent, four reached 50 percent, one was at 25 percent and one was at 10 percent. Comments about the season ranged from not having enough time to fish because of work responsibilities to a number of families saying that the timing of fish abundance in their area did not coincide with open subsistence fishing periods. In general, fish quality was reported to be good with low rates of scaring, sores and disease.

One of the 14 families reported being at 10 percent of their chum salmon harvest goals and the others all reported 0.

Families are waiting for fall chum salmon to arrive although some said they were not going to fish for fall chum salmon because gas costs are just too high at $3.00/gal. Some fishers said that they used most of their cash to fish for king salmon and prefer to save money to go moose hunting. One individual from Shageluk, population 130, said that there were only 3 fishers this past summer that mostly fished for kings. There were only a few chum salmon caught and many shee fish. He also said that most people buy food from the store.
That concludes my report, thank you.

Appendix F-5.B.

Yukon River In-season Subsistence Survey Report for the YRDFA Teleconference
U.S. Fish and Wildlife Services and Yukon River Drainage Fisheries Association

Survey Report ending the week of 18 August 2002.

This report was submitted by Clara Demientieff, a Refuge Information Technician with the Innoko National Wildlife Refuge. This is the in-season subsistence harvest survey report for the survey week ending 18 August, 2002.

Eleven families in the Grayling, Anvik, Shageluk and Holy Cross area were contacted. They reported on their king and chum salmon harvest to this point in time.

Three families used drift nets and one used a set net, five families used 6" or greater mesh and one family used 6" or less mesh. One family used a drift net and gave no mesh size and four families gave no reply on whether they used a set or drift net and what mesh size they used (two of the four did not fish at all this summer since they had no boat or motor).

	Yukon River Inseason Subsistence Salmon Fishing Monitoring, 2002						Number of
Week	**Kings***			**Chums***			Households
Ending	GOOD	NORMAL	POOR	GOOD	NORMAL	POOR	Surveyed
18 Aug	3	3	2			1	11

King Salmon
Three families reported their king salmon harvest as good, three reported as normal and two as poor compared to last year. * Three families did not reply and two of them did not fish at all this summer since they had no boat or motor.

Chum Salmon
One family reported poor chum salmon fishing compared to last year and reported being at 10 percent of their chum salmon harvest goals and the others all gave no reply. The other families do not target summer chum salmon and did not make comparisons to 2001 harvests. * Two families did not fish at all this summer since they had no boat or motor. The dominant comment from most all the families was that the season closed too early for fall chum salmon subsistence fishing. Most families in this area target king salmon during the summer season and wait for fall time to harvest chum salmon.

Summary
Families reported varying degrees of how they did for their king salmon harvest. Three of the 11 families met their harvest goals, five reached 75 percent, one reached 50 percent and two were at 25 percent. In general, fish quality was reported to be good.

That concludes my report, thank you.

Appendix F-5.C.

GASH Village Survey Observation

June 13 & 14, 2002
Holy Cross

Innoko Boat/Motor

Boat and motor was just docked in Holy Cross last week. The motor still has to be broken in before any Yukon River visits are made to fish camps, ect., and law enforcement will be as needed basis. Either Bill Schaff/Innoko Wildlife Manager and myself or another staff person will be on the Yukon tour. No set date.

Verbal Subsistence Surveys

I was in Holy Cross and contacted talked with as many as 26 fishers. The subsistence fishing seems to be similar to last year. For most of the people, it is just the beginning of their fishing season and seems to be quite sporadic. Most of the people are drifting, maybe 1-3 who have a set net.

As many as 7 fishers said they have not started subsistence fishing. Some, who say, did not have motor running, have to get the boat in the river, it's too early to fish, some other say, they try to get out on the river after work and one person who is just not fishing this summer.

Quality of Salmon

With all the salmon which I've encountered while the fishers were cutting up the salmon. The quality is very good, very nutritiously fat, no sores, no shining fish, most are about 30-40 pounds, very few which are about/ or almost 4 feet long.

Tagged Salmon

No one has mentioned catching any tagged salmon. Otherwise, they would probably ask where to send the tag.

Subsistence Fishing Regulations

Only one person mentioned that the fishing periods are short. When the period opens most of the fish have already gone by. The person thinks that the down river fishers have caught their limit because they are the first to encounter the fish. Every other week, the fishing periods should change with time and days.

Fin Identification

Why cut off the dorsal fin upon docking?

Law Enforcement
A few people asked if we were going to do law enforcement on the Yukon River? How far up river and down river we will be traveling? Someone did say, that most everyone on the river follows the subsistence regulations.

How Many Fish Have Been Netted?

Most fishers catch 2-3 in a drift, which is very low.
In one period, at least 25-30 fish are caught.
I would say, close to 1,000 fish are caught by all 26 fishers per period.

Appendix F-5.D.

GASH Village Survey Observation

June 25, 2002
Anvik, Grayling , Shageluk

Anvik

Per telephone conversation. Talked with two fishers. One fisher is a seasonal fisher who is from Anvik But lives in Anchorage. He come from Anchorage each summer to do his subsistence fishing for freeze. He says, he had a real good season, which was better than last year. The set net caught 18 beautiful salmon. The salmon quality was very good. The fish had very silvery skin and the meat was of good quality. The other fisher said, they weren't getting very may fish as they did last year. The fishing was quite slow. They also had set net which caught thirteen per period with three large dog salmon. Most of the salmon were of medium size. The salmon were of good quality. The fisher asked, why is district 1 and 2 having commercial fishing periods when district 3 is not doing well in fishing?

Grayling

Per telephone conversation. Talked with two fishers. One fisher said that he had just started fishing for salmon. Was in training for his job for about three weeks. He does drift netting about 10 miles upriver from Grayling. For one period he netted only 13. The salmon appeared to be of medium size and of good quality when cut up for strips. He asks that the period opens on weekends because of people tending to their jobs. The other fisher, also did not get very many fish. The fisher thinks there is only about 10 people who are fishing for salmon due to the high costs of gas and oil. They too, asks, why are the people in district 1 an 2 commercial fishing already when they don't even have caught very much fish.

Shageluk

Per telephone conversation. Talk with one fisher. He said that his family was not fishing very much this year. There are not too many salmon running up the Innoko as there were last year. They are catching mostly salmon now. The other fish caught is white fish, shee fish and some pike fish. The other fisher person I wanted to talk to was out checking his net and was due back to Shageluk about 1:30 pm. And this would be too late to give him report.

<u>Other</u>

Some people think that the teleconferences are held the wrong day and time, on Tuesdays at 1 pm. Some districts are fishing during this time and some districts aren't able to participate because they are done fishing and sleeping then.

NON-DISCRIMININATION STATEMENT

The U.S. Fish and Wildlife Service, Office of Subsistence Management conducts all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood, or disability. For information on alternative formats available for this publication please contact the Office of Subsistence Management to make necessary arrangements. Any person who believes she or he has been discriminated against should write to: Office of Subsistence Management, 3601 C Street, Suite 1030, Anchorage, AK 99503, or O.E.O., U.S. Department of Interior, Washington, D.C. 20240.