

# Prince of Wales Steelhead Trout Subsistence Harvest Study

Final Report for FRMP Study 08-650

**March 2012**

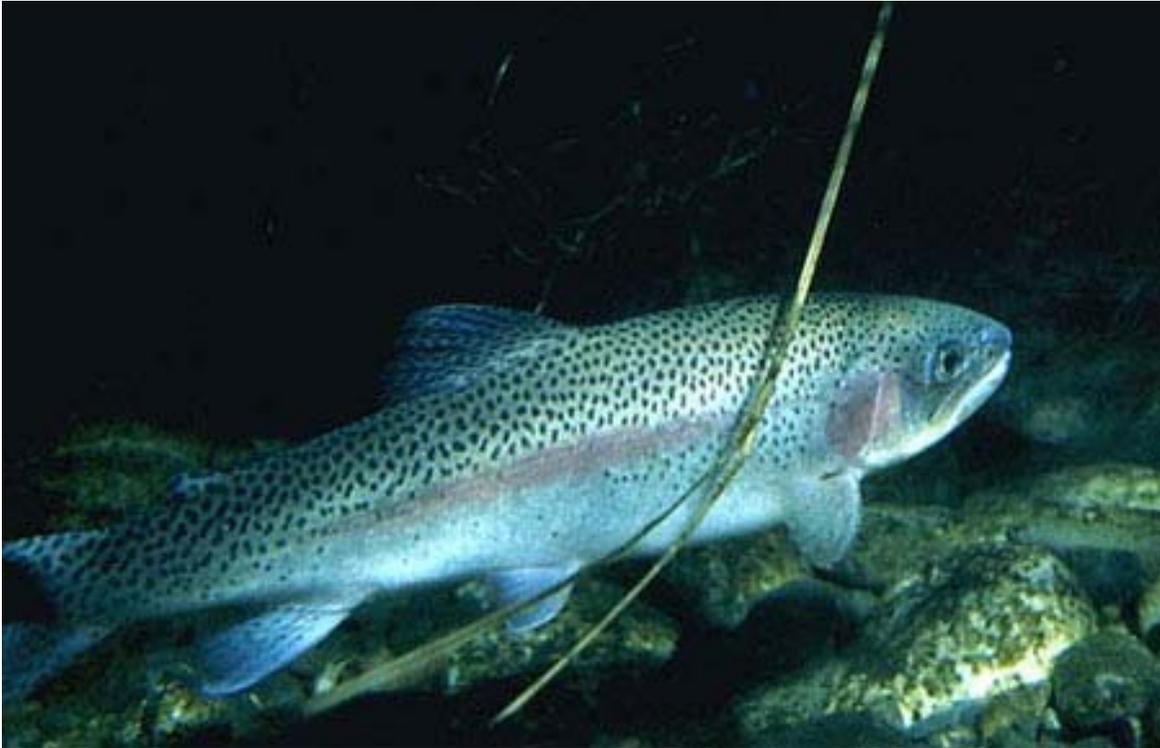


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## TABLE OF CONTENTS

TABLE OF CONTENTS.....	II
LIST OF FIGURES .....	III
LIST OF TABLES.....	III
LIST OF APPENDICES.....	III
ABSTRACT.....	1
INTRODUCTION .....	1
OBJECTIVES.....	3
METHODS .....	3
STUDY DESIGN.....	3
DATA COLLECTION .....	4
OVK/HCA STEELHEAD HOUSEHOLD SURVEYS.....	4
OVK/HCA KEY RESPONDENT INTERVIEWS WITH STEELHEAD HARVESTERS ..	7
DATA COLLECTION SUMMARY.....	7
DATA ANALYSIS.....	8
OVK/HCA STEELHEAD HOUSEHOLD SURVEYS.....	8
OVK/HCA KEY RESPONDENT INTERVIEWS.....	9
RESULTS .....	9
OVK/HCA HOUSEHOLD SURVEY: COMMUNITY DEMOGRAPHICS SUMMARY .	9
OVK/HCA HOUSEHOLD SURVEY AND KEY RESPONDENT INTERVIEWS:	
HARVEST AND USE OF STEELHEAD DURING STUDY YEAR.....	10
FEDERAL PERMIT PARTICIPATION DATA.....	16
OVK/HCA KEY RESPONDENT INFORMATION .....	17
OVK/HCA KEY RESPONDENT RESPONSES CONCERNING PERMIT	
PARTICIPATION .....	18
REASONS FOR GETTING A PERMIT (13 KEY RESPONDENTS): .....	18
REASONS FOR NOT GETTING A PERMIT (9 KEY RESPONDENTS): .....	18
HARVEST LOCATIONS .....	18
DISCUSSION.....	20
CONCLUSIONS .....	25
RECOMMENDATIONS.....	25
ACKNOWLEDGEMENTS.....	25
LITERATURE CITED .....	27

## LIST OF FIGURES

Figure 1: Communities in the Prince of Wales Area .....	2
Figure 2: OVK/HCA Household Survey: Harvests by Month and Year, not expanded.....	13
Figure 3: OVK/HCA Key Respondent Harvests by Month and Year .....	14
Figure 4: OVK/HCA Key Respondent “Catches” by Month and Year .....	14

## LIST OF TABLES

Table 1. Household survey data collection time periods, grouped by sample method, 2008-2010.....	5
Table 2. Household survey sample goals by community.....	6
Table 3. Potential key respondent interviews, based on CSIS estimated steelhead harvesting households, and actual OVK/HCA key respondent interviews.....	7
Table 4. Household survey and key respondent community sample achievement.....	8
Table 5. Household survey participation levels in steelhead fishery .....	10
Table 6. Household survey estimated numbers of steelhead caught and harvested in a 12-month period by community.....	11
Table 7. Household survey per household and per capita steelhead estimated harvests in a 12-month period by community .....	12
Table 8. Household survey months of harvests reported in a 12-month period by community .....	123
Table 9. Household survey percentage of households who attempted or harvested steelhead with a sport fish license and/or subsistence permit .....	15
Table 10. Household survey percentage of households who returned or designated fishing permits .....	15
Table 11. Household survey estimated permit participation.....	16
Table 12. Federal subsistence steelhead permits issued 2007-2010 .....	17
Table 13. Key respondent life history participation in POW steelhead fishery .....	17
Table 14. All harvest locations reported .....	19
Table 15. Household survey harvest estimates by gear type .....	20
Table 16. ADFG Division of Subsistence household harvest estimates by gear type .....	21
Table 17. Comparison of attempting and harvesting participation levels.....	22
Table 18. Comparison of participation levels using rod & reel .....	22
Table 19. Comparison of participation levels using other gear .....	23
Table 20. Comparison of Participation through Commercial Fishing Retention.....	23
Table 21. Comparison of yearly harvest reported by permits issued and the OVK/HCA household surveys by gear type, 2007-2010.....	24

## LIST OF APPENDICES

A. Federal And State Steelhead Regulations .....	29
B. OVK/HCA Household Survey Form.....	33
C. Federal Subsistence Steelhead Permit Forms: Winter And Spring.....	39
D. OVK/HCA Key Respondent Interview Protocol.....	43
E. OVK/HCA Household Survey Demographic Results .....	45
F. OVK/HCA Household Survey Steelhead Harvest Results.....	49
G. Excerpts From OVK/HCA Key Respondent Transcripts Relating To Permits.....	51
H. Concerns Recorded During OVK/HCA Household Surveys And Key Respondent Interviews .....	57
I. CSIS Household Survey Steelhead Harvest Results .....	65

# PRINCE OF WALES STEELHEAD SUBSISTENCE HARVEST STUDY

## ABSTRACT

This report presents the results of efforts to accurately measure the disparity between steelhead harvests recorded in confidential surveys and harvests reported in the Federal subsistence permitting process. The disparity was noted in a previous Fisheries Resource Monitoring Program (FRMP) study by Turek (2005). Data were collected through a confidential household survey in 10 of the 12 Prince of Wales (POW) communities and compared with the harvests reported through the Federal subsistence permits for the corresponding years and harvests estimated by household harvest surveys conducted by the Alaska Department of Fish and Game (ADFG) Division of Subsistence in the 1990s. Key respondent interviews with steelhead harvesters were carried out to understand the rationale for their participation in the subsistence steelhead permitting process. This research project was in response to the information need identified for Southeast Alaska concerning the validity and reliability of subsistence harvest data for Prince of Wales steelhead.

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## INTRODUCTION

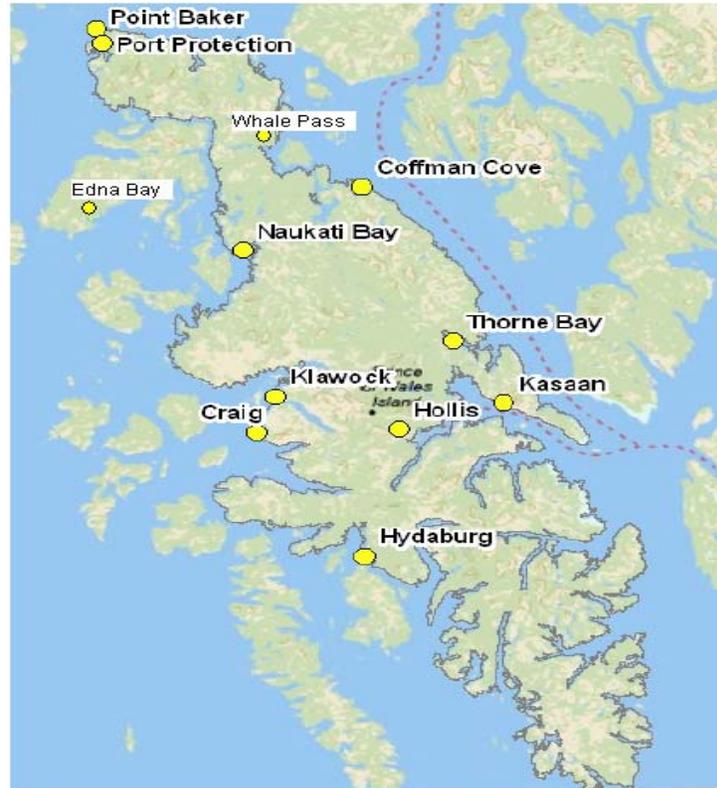
Steelhead *Oncorhynchus mykiss* are a customary and traditional resource in the Prince of Wales Island area. The subsistence use of steelhead by residents of Prince of Wales Island and nearby areas has been recognized by the Federal Subsistence Board through a positive customary and traditional determination for trout; in the Federal program, steelhead are included in the definition of trout. The State of Alaska also has a positive determination in this area that allows for the retention of steelhead in other permitted fishing activities. In 2003, the Federal Subsistence Board adopted regulations that created a directed steelhead fishery on Prince of Wales allowing for household limits in a separate winter and spring season, and harvest quotas for each season (Appendix A, Federal and State regulations).

Since then, two FRMP studies have addressed the biological status, traditional knowledge and harvest assessments of the Prince of Wales subsistence steelhead fishery: "Assessment of adult steelhead populations on Prince of Wales Island, Alaska: Harris and Big Ratz Creek, 2005" K.S. Piazza et al. (2008) and "Prince of Wales Island Subsistence Steelhead Harvest and Use Pattern" Turek (2005). The Piazza study was a three-year weir project with the goal of providing more accurate counts for streams known to be used for subsistence harvests on Prince of Wales. The objectives of the Turek study was to describe historical methods of steelhead harvesting, document local knowledge of steelhead, assess characteristics of contemporary harvesting, and tabulate harvest data by community. The literature search in the Turek study was extensive and used as a starting point for this research project. Other sources reviewed were post-2005 reports in the ADFG Division of Subsistence Technical Paper Series relating to Southeast Alaska and harvest assessments throughout the state and the data available in the ADFG Division of Subsistence Community Subsistence Harvest Information System (CSIS) for the household surveys conducted in the late 1990s.

There are twelve communities in the Prince of Wales area (Figure 1). The area was described:

“Prince of Wales Island is located in southern southeast Alaska, the largest island (135 miles long and 45 miles across) in the Alexander Archipelago. Together Prince of Wales Island and its hundreds of adjacent smaller islands total more than 2,600 square miles. The island is accessible by small plane and ferry. Ketchikan is the nearest large settlement . . .” (Turek 2005: 1)

**Figure 1:** Communities in the Prince of Wales Area



The Piazza study noted that there are 74 drainages known to contain steelhead on Prince of Wales Island and “Subsistence users have traditionally harvested steelhead from the island’s streams during fall through spring. Nearly all of these streams are located within the Federal Conservation Unit boundaries of the Tongass National Forest” (Piazza et al. 2008:1).

In the ADFG species profile for steelhead, it is pointed out that rainbow and steelhead trout are the same species, “the sub-groupings or forms are based primarily on where they spend their time feeding and maturing . . . (steelhead) trout leave freshwater as juveniles and migrate long distances in the ocean where they grow to maturity before migrating back to their original home waters” (ADFGb 2012)

As stated above residents of the Prince of Wales area have a positive customary and traditional use determination for trout, which by definition includes steelhead. The limited numbers and complex life cycle of steelhead has resulted in an intensive subsistence harvest monitoring program. Federal subsistence regulations for Prince of Wales Island steelhead require separate

permits for winter and spring seasons. These permits include a harvest record and must be returned within 15 days of the close of each season. Steelhead harvested incidentally in state commercial and subsistence fisheries may be retained for home use. The specific federal and state harvest regulations are included in Appendix A.

The 2005 Turek study provided an assessment of the contemporary use patterns and harvests for subsistence steelhead on Prince of Wales Island through key respondent interviews and analysis of the harvest data from ADFG Division of Subsistence confidential household surveys conducted on Prince of Wales in the late 1990s. The conclusions of the study contained the recognition that the “Federal subsistence steelhead harvest permit and reporting system is failing to record many of the steelhead harvested on Prince of Wales Island” (Turek 2005: 40). For the three year period 1996-1998, Division of Subsistence household survey results showed an estimated 770 steelhead were harvested annually (ADFG 2011). Harvests reported from subsistence steelhead permits for 2004 through 2006, totaled 98 steelhead (Reeves, personal communication). This current study is an attempt to determine the extent of the disparity between the harvests estimated through ADFG Division of Subsistence household surveys and harvests reported by subsistence permit holders.

## **OBJECTIVES**

The goal of the research undertaken was to provide a quantitative and qualitative assessment of the Federal Subsistence steelhead fishing permitting process. To meet this goal the following two objectives were identified:

1. Accurately estimate the subsistence steelhead harvests on Prince of Wales Island by conducting household surveys in all the communities and compare these harvests with the harvests reported by Federal permit holders and the harvests estimated in the comprehensive household harvest surveys conducted in the late 1990s.
2. Describe the factors affecting participation in the permitting process.

## **METHODS**

Data on steelhead harvest levels were gathered through confidential household surveys conducted in ten of the twelve communities on Prince of Wales Island. These data were analyzed and compared with data reported through the federal subsistence permitting process and past household surveys. Key respondent interviews were conducted with residents of five of these communities. These steelhead harvesters were identified from the household surveys and using the snowball strategy of the chain referral method (Bernard 2006). The interview protocol focused on their level of participation in the federal permitting process. Findings from the household surveys and the key respondent interviews were analyzed and included in a draft final report which was reviewed during community meetings on Prince of Wales Island January 23 2012.

### ***Study Design***

As described above two different data gathering methods were used: a household survey and a key respondent interview process. There are twelve communities on Prince of Wales Island with an estimated 1,737 households (US Census 2000). The initial study design called for household

surveys to be completed in half of the 12 communities during the first summer of the project. Since there were four communities with over 100 households where random sampling would occur, these were divided between the two survey seasons. The remaining eight smaller communities with less than 100 households would have census sampling and were also divided between the two seasons. Besides gathering data for direct comparison from those communities, an additional survey goal was to identify subsistence steelhead harvesters for participation in the key respondent interview process.

The key respondent interviews were to take place in the fall following the first household survey season with the intention that the results from this initial phase could be used to develop an ethnographic decision model containing the factors affecting their participation in the Federal permitting process (Bernard 2006). The decision model would have been field tested in the second year of household surveys in the remaining communities. This study design underwent revision in the first year of the project. Upon reviewing the budget and personnel available to undertake the research, it was decided to survey the larger communities in the first summer season and then develop a strategy for conducting the household survey interviews in the smaller communities in the second year. Additionally, a decision was made to not conduct household surveys in Edna Bay and Whale Pass since there was no evidence of steelhead harvesting in the ADFG Division of Subsistence household surveys or the Federal subsistence permitting records. In light of the revised household survey strategy it was decided that the key respondent interviews would be conducted after the household surveys were completed.

The project study team consisted of Anthony Christianson, Hydaburg Cooperative Association (HCA) and Cathy Needham, Organized Village of Kasaan (OVK) as principal investigators along with secondary investigators, Patricia Petrivelli, Bureau of Indian Affairs (BIA) and Jeff Reeves, United States Forest Service (USFS). OVK assumed responsibility for overall administration of the project and conducting the household surveys and HCA was responsible for the key respondent interviewing portion of data gathering.

### ***Data Collection***

#### ***OVK/HCA Steelhead Household Surveys***

OVK hired a coordinator in the summer of 2008. The survey form and training manual were developed with the assistance of BIA and reviewed by the project team. The coordinator hired 3 interviewers who attended a training session in Kasaan, May 2008. Household surveys were conducted by face to face interviews. Table 1 shows the sampling method, timeframe and interviewers for each community.

**Table 1. Household survey data collection time periods, grouped by sample method, 2008-2010**

Sampling Method	Community	Interview (surveys)	Surveys Completed	Data Collection Time Period
<b>Random</b>	Craig	Martha Wood (145)	145	Feb 11 - Sep 22 2010
	Hydaburg	Jolene Edenshaw (35)	48	May 21 - Nov 8 2008
		Tracy Nix (13)		Jun 9 - Jun 25 2008
	Klawock	Jolene B Edenshaw (88)	88	Jun 5 - Nov 29 2008
	Thorne Bay	Kristiana L Brown (13)	44	Jun 18 - Jul 31 2008
		Patricia Petrivelli (23)		Aug 26 - Aug 30 2010
		Martha Wood (8)		Sep 29 - Sep 30 2010
Coffman Cove	Pippa Kenner (63)	63	Aug 9 - Aug 12 2010	
<b>Census</b>	Hollis	Brittany Foss (9)	65	Feb - Apr 2010
		Patricia Petrivelli (56)		Aug 24 - Aug 30 2010
	Kasaan	Elijah Sheakley (12)	12	Oct 28 - Nov 25 2008
	Naukati Bay	Martha Wood (15)	15	Jun 5 - Oct 1 2010
	Point Baker	Patricia Petrivelli (14)	14	Jun 22 - Jun 26 2009
	Port Protection	Patricia Petrivelli (18)	18	Jun 27 - Jun 28 2009
Total			512	

The investigation plan for this research established a goal of 713 household surveys. The goal of 713 was determined by multiplying the sample percentage achieved in the ADFG Division of Subsistence household surveys by the estimated number of households in the 2000 US Census. A total of 512 household surveys were conducted, 70.0% of the goal. Table 2 shows the percentages achieved for each community. The investigation plan identified 269 households in the “remainder” area of the Prince of Wales census sub-area, an area defined by the US 2000 Census as not associated with specific city boundaries or ‘community designated places’. In the first year of the project, it was determined that the most of these 269 households were adjacent to the communities of Craig (199) and Klawock (46); these numbers were incorporated into the sample universe for each respective community, this incorporation was also done in the 1990s ADFG Division of Subsistence household harvest surveys.

Survey interviewing began in Hydaburg, Klawock, and Thorne Bay. In the fall, another OVK staff person was assigned the household interviews for Craig and Kasaan. It was later determined that since this staff person had not attended the May training session, the prescribed random sampling procedures for Craig were not followed; so the Craig surveys were not used to generate data for community totals, the only information used was the willingness to be contacted for a follow-up key respondent interview. Since Kasaan was a census sample the data collected for the community was used.

Another factor affecting data collection was discovered after the data entry phase; while the surveyor who did the majority of the surveys in Hydaburg and Klawock attended the May training session and correctly followed the procedures for the random sample, they only entered

the demographic information for the head of the household and the total number of persons in the household. Because the demographic information about the other household members, such as gender or birth year, was not collected, minimal demographic information is available for these two communities.

Household surveys were not conducted again until the summer of 2009 when interviewing resumed for the communities of Point Baker and Port Protection. In 2010, household survey efforts were renewed and two OVK staff members began conducting interviews in Craig and Hollis. The person doing the interviews in Hollis left employment. Later in the year, BIA and Fish and Wildlife Service staff provided technical assistance to OVK staff, conducting household surveys in Hollis, Thorne Bay and Coffman Cove.

**Table 2. Household survey sample goals by community**

	Study Year <sup>a</sup>	Community	Survey Goal	Surveyed Households	Percentage
<b>RANDOM</b>	2010	Craig	186	145	78.0%
	2008	Hydaburg	52	48	92.3%
	2008	Klawock	124	88	71.0%
	2008-10 <sup>b</sup>	Thorne Bay	95	44	46.3%
<b>CENSUS</b>	2010	Coffman Cove	79	63	79.7%
	2010	Hollis	83	65	78.3%
	2008	Kasaan	17	12	70.6%
	2010	Naukati Bay	47	15	31.9%
	2009	Point Baker	17	14	82.4%
	2009	Port Protection	31	18	58.1%
		<b>Total</b>	<b>731</b>	<b>512</b>	<b>70.0%</b>

<sup>a</sup>June 1 – May 31  
<sup>b</sup>Interviews began in 2008; the remaining interviews were done in 2010.

The three-page OVK/HCA household survey form (Appendix B) was organized to collect three types of information:

1. Demographic section: to obtain household characteristics,
2. Harvest section: information on the harvest and participation in steelhead fishing
3. Summary section: comments and concerns not covered by the other sections.

All steelhead harvesters were also asked if they were willing to participate in a follow-up interview. The time period defined for each study year was June 1 of the preceding year through May 31 of the study year to capture participation in the winter (Nov. 1 – last day of Feb.) and spring (Mar. 1 – May 31) steelhead seasons of a regulatory year. Additionally, the harvest section requested the same information that was reported on the Federal 2005 subsistence fishing permit (Appendix C).

***OVK/HCA Key respondent interviews with steelhead harvesters***

While the investigation plan identified a possibility of interviewing up to 117 harvesters, a number based upon the percentage of households estimated as harvesting steelhead in the ADFG Division of Subsistence household surveys conducted in the late 1990s, our research team was able to identify only 22 key respondents, Table 3. A protocol was developed to guide the key respondent interviews (Appendix D), HCA hired Benjamin Young to conduct the interviews which began September 16 and ended on October 6, 2010. Mr. Young conducted all 22 interviews with steelhead harvesters from five of the 10 study communities.

**Table 3. Potential key respondent interviews, based on CSIS estimated steelhead harvesting households, and actual key respondent interviews**

Study Year	Community	Households <sup>a</sup>	Estimated Harvesting <sup>b</sup>	Potential Interviews	Actual
1997	Craig	523	6.4%	33	5
1997	Hydaburg	133	15.7%	21	10
1997	Klawock	313	9.4%	29	3
1998	Thorne Bay	219	4.5%	10	2
1998	Coffman Cove	63	18.0%	11	0
1998	Hollis	55	2.2%	1	0
1998	Kasaan	17	7.1%	1	2
1998	Naukati Bay	60	2.0%	1	0
1996	Point Baker	13	37.5%	5	0
1996	Port Protection	31	16.0%	5	0
1998	Edna Bay	19	0.0%	0	0
1998	Whale Pass	22	0.0%	0	0
	Totals	1,468*		<b>117</b>	<b>22</b>

\*This total did not include the 269 households outside of CDP.

Sources: <sup>a</sup> U.S. Census; <sup>b</sup>ADFG, Division of Subsistence, Household Surveys, Community Subsistence Harvest Information System 2011

The majority of the key respondents were identified using the snowball strategy chain referral method (Bernard 2006). In 2008, 15 harvesters from Craig provided contact information for follow up interviews, but due to timing and other factors, none of these harvesters became key respondents. While only two key respondent interviews were identified through the household survey process, in the end, data from eight key respondents were included in their respective household survey community results, shown in Table 4.

***Data Collection Summary***

For the household survey efforts, in the random sample communities, the percentage surveyed ranged from 23.4% in Thorne Bay to 34.8% in Hydaburg. In the census sample communities, where the goal was to survey all the households, achievement ranged from 31.9% in Naukati Bay to 82.4% in Point Baker. For the first two survey years, 2008 and 2009, an incentive raffle entry was offered as a means of combating survey fatigue due to the overlap with the Craig Community Association staff for the Unit 2 Deer Uses and Needs Household Survey. The incentive was a \$50 gift card for fuel. This incentive may have helped the refusal rates for the communities surveyed in these years. The highest refusal rate in the census sample communities

was 6.7% in Point Baker and in the random sample communities 12.0% in Thorne Bay. Naukati Bay, surveyed in 2010, had one of the six 0% refusal rates, but the sample achievement was the lowest for the smaller communities, 31.9%. The low sample achievement is more than likely due to the unfamiliarity with the community by the interviewer. The interviewer was a Craig resident who was only able to travel to Naukati Bay on four day trips dispersed throughout a four month period and was unable to contact 68.1% of the households. Another factor affecting the low refusal rates in so many communities could be related to the limited focus of the survey. The data gathering efforts related to steelhead harvesting only, so for households who did not use steelhead, there was only one question to answer about whether or not someone in their household harvested or attempted to harvest steelhead, plus some limited demographic information.

**Table 4. Household survey and key respondent community sample achievement**

	Random Sample				Census Sample					
	Craig	Hydaburg	Klawock	Thorne Bay	Coffman Cove	Hollis	Kasaan	Naukati Bay	Point Baker	Port Protection
Households Interviewed	145	48	88	44	63	65	12	15	14	18
Estimated Households	581	138	345	188	79	83	17	47	17	31
Refusal Rate	0%	0.0%	0.0%	12.0%	6.0%	3.0%	0.0%	0.0%	6.7%	5.3%
Percentage Interviewed	25.0%	34.8%	25.5%	23.4%	79.7%	78.8%	70.6%	31.9%	82.4%	58.1%
Weighting Factor	4.006	2.875	3.920	4.273	1.254	1.277	1.417	3.133	1.214	1.722
<b>Key Respondent Interviews*</b>	<b>5(1)</b>	<b>10 (4)</b>	<b>3</b>	<b>2 (2)</b>	<b>2 (1)</b>					
*The numbers in parentheses show how many key respondents are included in the community totals.										

As mentioned earlier it was decided to conduct the key respondent interviews after the bulk of the household surveying was completed. Twenty-two key respondent interviews were completed, 18.8% of possible interviews identified in the investigation plan. Data in Table 4 present the achievement levels for the household surveys and key respondent interviews for each community.

## Data Analysis

### *OVK/HCA Steelhead Household Surveys*

The data gathered from the household survey interviews were coded and entered into an Excel spreadsheet by the OVK research coordinator for the 2008 household surveys and in 2009-2010 by Kai Environmental Consulting Services. The Excel spreadsheets were then given to SWCA Environmental Consultants who followed ADFG Division of Subsistence conventions for analysis using the Statistical Package for Social Sciences (SPSS) Version 19 to provide household participation levels and harvest estimates consistent with the methods used by ADFG Division of Subsistence (Williams et al.2010: 7).

### ***OVK/HCA Key Respondent Interviews***

The recorded interviews were transcribed by a court reporting firm, Computer Matrix Court Reporting. The transcripts were reviewed by the key respondents for accuracy. The transcripts were coded and converted into a searchable spreadsheet for purposes of analysis.

## **RESULTS**

In this research project, data were gathered directly from two sources, the OVK/HCA household surveys and key respondent interviews. Additional data was obtained indirectly from the Federal Subsistence Fishing Permit forms for the Prince of Wales subsistence steelhead winter and spring seasons. OVK/HCA household survey results from the demographic data collected are presented in Appendix E, Tables E1-E7. Harvest data from the OVK/HCA household surveys shown in Appendix F is presented in the format used by ADFG Division of Subsistence in the Community Subsistence Information System. Summaries of the harvest results from the OVK/HCA household survey are presented in this section. Where available, information from key respondents was included in the tables reporting OVK/HCA household survey results. It should be remembered that there were 22 key respondents from the study communities and data from eight of the key respondents are also reported in their respective community totals. Summaries of data collected from OVK/HCA key respondents concerning their lifetime participation in the steelhead fishery on Prince of Wales Island and their responses concerning participation in the Federal permit system are reported in this section.

### ***OVK/HCA Household Survey: Community Demographics Summary***

For the ten study communities, the estimates from the 2010 census showed the population at 3,316, living in an estimated 1,348 households (Table E1). Using the demographic data collected in our survey, the population estimate is 3,324 in 1508 households (Table E2). While the variance from these two sources for the total population is less than 1%, the variance in each of the communities ranges from 44% less than the 2010 census to 50% greater. The four communities where the variance was 10% or less were Klawock, 2%, Kasaan, -4%, Thorne Bay -7%, and Craig 10%. The average household size (Table E3) in the ten study communities ranged from a low of 1.79 persons per household in Point Baker to 2.75 persons in Kasaan. Due to data collection errors in two communities, Hydaburg and Klawock, demographic information is not available for comparison for all ten communities. In the eight remaining communities, the average length of residency went from 13.06 in Naukati Bay to 24.67 in Point Baker, Table E4.

Specific demographic information collected on the length of residence, age, and ethnicity for the household heads in all ten study communities are shown in Tables E5-E7. Household heads in Hydaburg and Klawock had the longest residency in their communities. These two communities also had the highest percentage of household heads living in the community since birth with Hydaburg at 76.9% and Klawock at 60.2%. In contrast, two communities, Hollis and Thorne Bay, did not have any household heads that had lived in the community since birth; which could be expected due to the recent founding of these communities. Hollis and Thorne Bay were originally locations of logging camps. In the early 1980s, the State of Alaska had land disposal

sales in these areas and the present day communities were formed (ADCRA 2012). The average ages of the household head ranged from 45.3 years to 55.6 years old.

Additionally, the four communities where there is a tribal government (Craig, Hydaburg, Kasaan, and Klawock) have the highest percentages of Alaska Native household heads, ranging from 28.0% in Craig to 94.3% in Hydaburg. In the remaining communities, the percentages of Alaska Native household heads were all below 6%.

***OVK/HCA Household Survey and Key Respondent Interviews: Harvest and Use of Steelhead during Study Year***

Household survey data showing the level of participation in the steelhead fishery are presented in three categories: 1) **Attempted**, whether someone attempted to fish for steelhead, 2) **Caught**, someone caught a steelhead, and 3) **Harvested**, someone kept the steelhead (Table 5). Typical resource use surveys conducted by the ADFG Division of Subsistence, ask if anyone in the household attempted to harvest, harvested, or used the resource; and whether they gave away or received the resource from other households. These activities are tabulated by the ADFG Division of Subsistence and reported in the CSIS database in columns labeled: 1) using, 2) trying, 3) harvesting, 4) receiving, and 5) giving. The categories parallel to the questions asked in the OVK/HCA survey are **Attempted**, which parallels “using,” and **Harvested**, which parallels “harvesting.” The category **Caught** from the OVK/HCA household survey is not information that is collected by the ADFG Division of Subsistence. This question was asked to obtain information similar to that requested on the Federal subsistence permit form used for the subsistence steelhead fishery on Prince of Wales Island until 2009.

**Table 5. Household survey participation levels in steelhead fishery\***

Study Year	Community	% Households		
		Attempted	Caught	Harvested
2010	Coffman Cove	11.1	9.5	4.8
2010	Craig	17.9	5.5	2.8
2010	Hollis	7.8	3.1	0.0
2008	Hydaburg	27.1	18.8	18.8
2008	Kasaan	16.7	8.3	8.3
2008	Klawock	21.6	14.8	13.6
2010	Naukati Bay	35.7	7.1	7.1
2009	Point Baker	28.6	21.4	21.4
2009	Port Protection	5.6	0.0	0.0
2010**	Thorne Bay	20.5	6.8	2.3
2010	Key Respondents	68.2	68.2	54.5

\*OVK/HCA Survey Results, Appendix F

\*\*Interviews were conducted in 2008 and 2010

The lowest levels of participation in the fishery were in Port Protection, 5.6%, and Hollis, 7.8%, both under ten percent. The three highest levels of participation were in Hydaburg 27.1%, Point Baker 28.6%, and Naukati Bay 35.7%. The large percentage of households attempting to harvest steelhead in Naukati Bay may be more indicative of the small sample achievement, 31.9% rather

than high participation; this possibility will be examined further when comparisons with previous household surveys are made in the Discussion section below. The three highest percentages of households harvesting included Klawock, where 14.8% of the households caught steelhead and 13.6% harvested the steelhead they caught, Point Baker, and Hydaburg, where both had the same percentage of household catching and harvesting steelhead, Point Baker at 21.4% and Hydaburg at 18.8%. Since the key respondents were selected specifically because they harvested steelhead, they had much higher percentages—68.2% of the respondents caught steelhead and 54.5% of them harvested the steelhead that they caught during the study year.

The community estimates for the numbers of steelhead caught and harvested are contained in Table 6. The time period defined for each study year was June 1 of the preceding year through May 31 of the study year to capture participation in the winter and spring steelhead seasons of a regulatory year. Thorne Bay was the only community where the surveys covered a multi-year period, 13 of the 44 surveys were conducted in 2008, while the remaining 31 surveys were completed in 2010.

In three of the eight communities that harvested steelhead, the number of fish caught equaled the number of fish harvested: Hydaburg, Kasaan, and Naukati Bay. In six of the ten communities, more fish were caught than harvested.

**Table 6. Household survey estimated numbers of steelhead caught and harvested in a 12-month period by community\***

Study Year	Community	Lower Confidence Interval	Estimated	Upper Confidence Interval	Lower Confidence Interval	Estimated	Upper Confidence Interval
		NUMBERS CAUGHT			NUMBERS HARVESTED		
2010	Coffman Cove	70	113	172.6	8	10	16.1
2010	Craig	83	333	655.6	7	28	54.3
2010	Hollis	76	99	191.4	0	0	0.0
2008	Hydaburg	23	66	105.9	23	66	105.9
2008	Kasaan	1	1	3.1	1	1	3.1
2008	Klawock	41	161	238.1	34	133	202.9
2010	Naukati Bay	1	3	9.0	1	3	9.1
2009	Point Baker	53	103	153.8	27	33	49.2
2009	Port Protection	0	0	0.0	0	0	0.0
2010**	Thorne Bay	10	43	103.1	1	4	11.7
<b>Totals</b>		<b>410</b>	<b>922</b>	<b>1,632.5</b>	<b>102</b>	<b>278</b>	<b>452.4</b>
<b>Key Respondents</b>		<b>111</b>			<b>51</b>		

\*OVK/HCA Survey Results, Appendix F

\*\* Interviews were conducted in 2008 and 2010

Craig has the highest estimate of steelhead caught, 333, and Klawock has the second highest estimate, 161. These two communities also have the highest number of residents. The community of Port Protection has zero steelhead caught or harvested; Hollis also had zero steelhead harvested, but had an estimated 84 steelhead caught. The key respondents reported 111 steelhead caught and 51 harvested. It should be recalled the data from eight of these harvesters are included in their respective community results.

Looking at the numbers on a per household and per capita basis, shown in Table 7, Point Baker has the highest number per household/capita in either category, 6.07 per household caught, and

1.93 per household harvested. Coffman Cove and Hollis rank two and three in average numbers caught, with 1.43 per household for Coffman Cove, and 1.19 per household for Hollis. There are two different communities in the number two and three positions for average harvest levels; Hydaburg ranked second with 0.48 steelhead per household and Klawock ranked third with 0.39 per household. The harvest estimates are also shown by pounds in Table 7, the standard conversion factor used by ADFG Division of Subsistence is 8.5 pounds per steelhead. The estimates for the key respondents were calculated on a per capita basis only. Their catch and harvest estimate per person is similar to the levels shown for Point Baker.

**Table 7. Household survey per household and per capita steelhead estimated harvests in a 12-month period by community\***

Community	CAUGHT		HARVESTED		HARVESTED	
	Average NUMBERS		Average NUMBERS		Average POUNDS	
	Per Household	Per Capita	Per Household	Per Capita	Per Household	Per Capita
Coffman Cove	1.43	0.78	0.13	0.10	1.08	0.60
Craig	0.57	0.25	0.05	0.00	0.41	0.20
Hollis	1.19	0.55	0.00	0.00	0.00	0.00
Hydaburg	0.48	0.26	0.48	0.30	4.07	2.20
Kasaan	0.08	0.03	0.08	0.00	0.71	0.30
Klawock	0.47	0.22	0.39	0.20	3.28	1.50
Naukati Bay	0.07	0.03	0.07	0.00	0.61	0.30
Point Baker	6.07	3.40	1.93	1.08	16.39	9.18
Port Protection	0.00	0.00	0.00	0.00	0.00	0.00
Thorne Bay	0.23	0.10	0.02	0.00	0.19	0.10
<b>Key Respondents</b>		<b>5.05</b>		<b>2.32</b>		<b>19.70</b>

\*OVK/HCA Survey Results, Appendix F

The months reported for steelhead harvests by the households surveyed are shown in Table 8. Less than twenty-four percent of the reported harvests occurred during the winter, November 1 through the last day of February, or spring, March 1 through May 31, subsistence steelhead seasons (months are shown in **capital letters**). For the Key Respondents' harvests, 84.3% occurred during either subsistence steelhead season.

Since the study period does not correspond to a calendar year, the actual month and year of the reported harvests are shown in Figure 2.

The key respondent harvests also occurred over a multi-year period represented in Figure 3. The months and years of the steelhead 'caught' but not harvested by key respondents are shown in Figure 4 to allow a comparison of the two patterns.

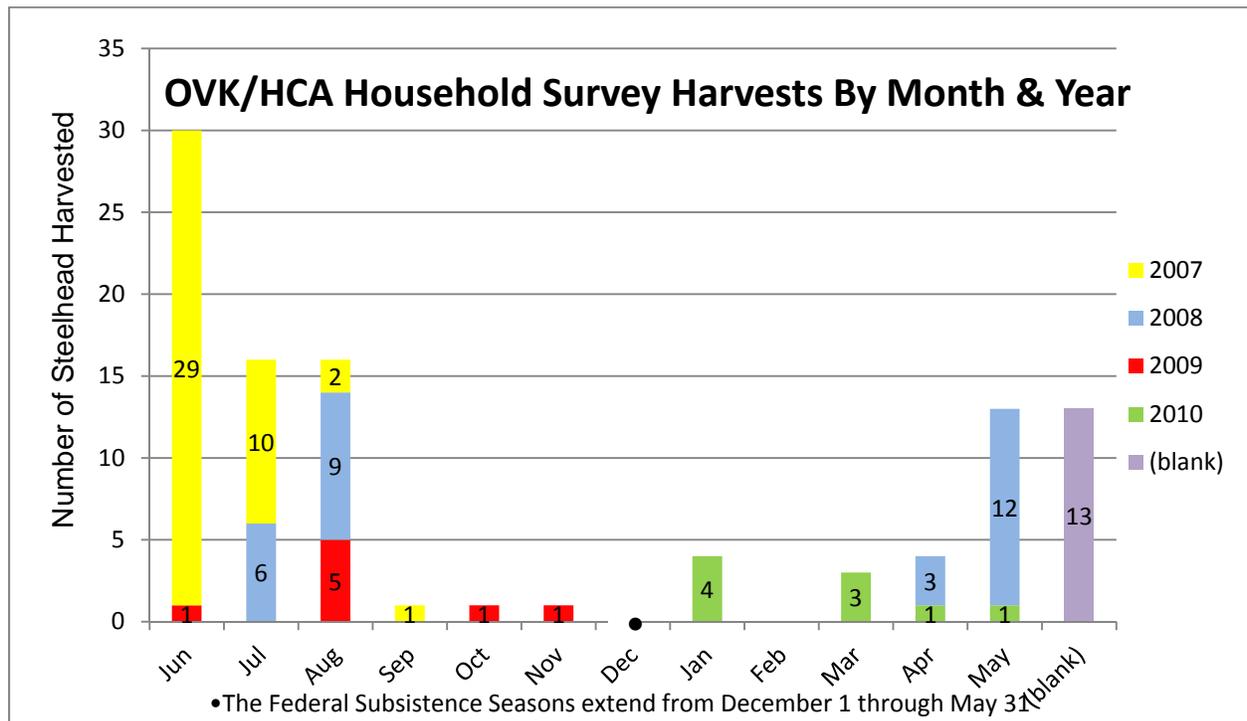
Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table 8. Household survey months of harvests reported in a 12-month period by community (Subsistence seasons in CAPS)\***

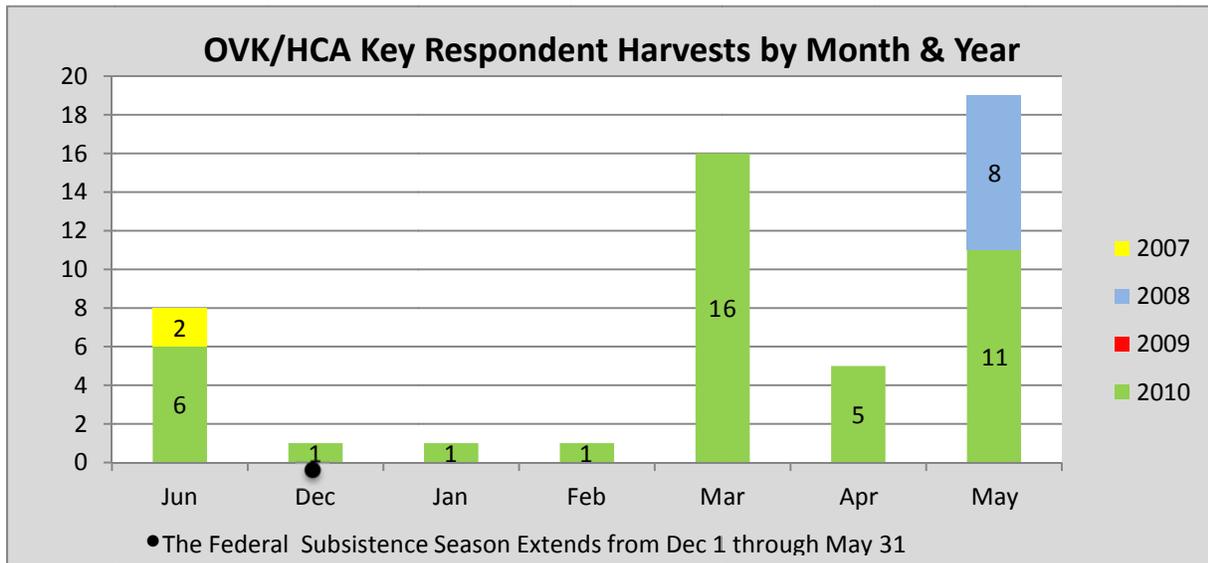
Community	Jun	Jul	Aug	Sep	Oct	Nov	DEC	JAN	FEB	MAR	APR	MAY	Blank	Total
Coffman Cove			5		1			2						8
Craig						1		2		3	1			7
Hollis														0
Hydaburg	9	1									2	10	1	23
Kasaan				1										1
Klawock	20	9	2								1	2		34
Naukati Bay	1													1
Point Baker		6	9										12	27
Port Protection														0
Thorne Bay												1		1
<b>Grand Total</b>	<b>30</b>	<b>16</b>	<b>16</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>13</b>	<b>13</b>	<b>102</b>
<b>Percentages</b>	29.4	15.7	15.7	1.0	1.0	1.0	0.0	3.9	0.0	2.9	3.9	12.7	12.7	
<b>Key Respondents</b>	<b>8</b>						<b>1</b>	<b>1</b>	<b>1</b>	<b>16</b>	<b>5</b>	<b>19</b>		<b>51</b>

\*OVK/HCA Survey Results, Appendix F

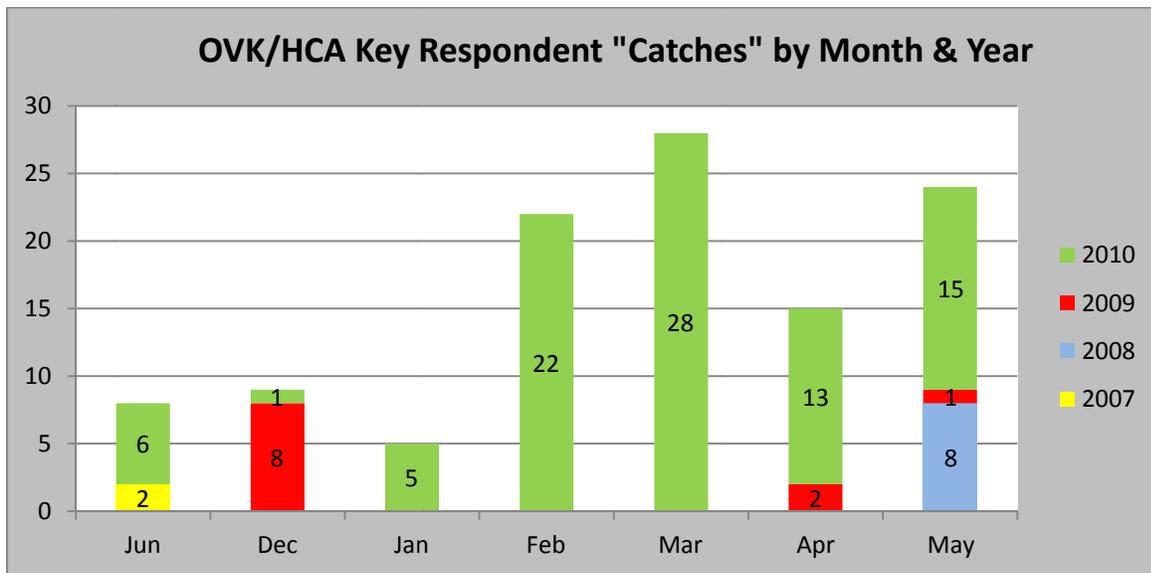
**Figure 2:** OVK/HCA Household Survey: Harvests by Month and Year, not expanded.



**Figure 3:** OVK/HCA Key Respondent Harvests by Month and Year



**Figure 4:** OVK/HCA Key Respondent "Catches" by Month and Year



Data relating household participation by community in the regulatory process are shown in Tables 9 and 10. An estimated 17.8% of all households attempted or harvested steelhead annually. Of these households, 71.4% also reported obtaining a sport fish license and 35.2% reported get a subsistence permit. For those who replied that they got a subsistence permit, households in six communities also reported returning the permit, ranging from 25.0% to 100.0%. Households in 3 communities replied that they designated someone to fish with their subsistence permits (Table 10).

**Table 9. Household survey percentage of households who attempted or harvested steelhead with a sport fish license and/or subsistence permit**

Study Year	Community	% Attempted or Harvested Steelhead	% of HH Attempting to Harvest also got a:	
			Sport Fish License	Subsistence Permit
2010	Coffman Cove	11.1%	85.7%	14.3%
2010	Craig	17.9%	76.9%	30.8%
2010	Hollis	7.8%	100.0%	20.0%
2008	Hydaburg	27.1%	38.5%	38.5%
2008	Kasaan	16.7%	0.0%	100.0%
2008	Klawock	21.6%	73.7%	47.4%
2010	Naukati Bay	35.7%	80.0%	40.0%
2009	Point Baker	28.6%	100.0%	0.0%
2009	Port Protection	5.6%	0.0%	0.0%
2010*	Thorne Bay	20.5%	77.8%	33.3%
	All Communities	17.8%	71.4%	34.1%
<b>2010</b>	<b>Key Respondents</b>	<b>72.7%</b>	<b>68.8%</b>	<b>81.3%</b>

\* Interviews were conducted in 2008 and 2010

**Table 10. Household survey percentage of households who returned or designated fishing permits**

Study Year	Community	Percent Returned	Percent who designated permit
2010	Coffman Cove	0.0%	0.0%
2010	Craig	25.0%	0.0%
2010	Hollis	0.0%	0.0%
2008	Hydaburg	100.0%	0.0%
2008	Kasaan	50.0%	0.0%
2008	Klawock	66.7%	33.3%
2010	Naukati Bay	100.0%	50.0%
2009	Point Baker	NA	0.0%
2009	Port Protection	NA	0.0%
2010*	Thorne Bay	100.0%	25.0%
<b>2010</b>	<b>Key Respondents</b>	<b>38.5%</b>	<b>15.4%</b>

\* Interviews were conducted in 2008 and 2010

The results of the household survey relating to steelhead subsistence permit participation by community are shown in Table 11. Under the community estimate for permits, a total of 114.4 households said that they obtained a subsistence permit during the study period. For Craig, Hydaburg, Klawock, and Naukati Bay, the survey estimates are higher than the actual permits issued (Table 12). It may be that the persons answering the question did not understand what a subsistence steelhead permit is and responded “yes” thinking the interviewer was asking about

the subsistence salmon permit that is more generally available. In the key respondent replies to the question about why they did not get a permit there were a number of respondents who did not know about the existence of a subsistence steelhead permit (Appendix G).

**Table 11. Household survey estimated permit participation**

Study Year	Community	Community Estimate	
		Permits	Harvests
2010	Coffman Cove	1.3	1.3
2010	Craig	36.1	12.0
2010	Hollis	1.3	0.0
2008	Hydaburg	14.4	14.4
2008	Kasaan	2.8	1.4
2008	Klawock	35.3	58.8
2010	Naukati Bay	6.3	0.0
2009	Point Baker	0.0	NA
2009	Port Protection	0.0	NA
2010*	Thorne Bay	17.1	4.3
<b>Grand Total</b>		<b>114.4</b>	<b>92.1</b>

\* Interviews were conducted in 2008 and 2010

Another factor relating to this discrepancy may have been due to the fact that sometimes the person answering the questions for the household was not always the actual harvester of the steelhead. During the community review meetings, comments were made that residents are required to get a number of different forms from the state and federal agencies. They asked if the interviewers had a copy of the federal steelhead subsistence permit during the interviews and the project team replied that copies of the permit were not provided.

Steelhead harvests totaled 92.1 by the households who said that they obtained a subsistence steelhead permit, shown in Table 11. Steelhead harvest amounts were not reported for Point Baker and Port Protection since no households reported obtaining a permit and all of their harvests were through commercial retention of fish.

***Federal Permit Participation Data***

The US Forest Service subsistence fisheries biologist in Craig provided the data in Table 12. A total of 320 permits were issued for subsistence steelhead fishing from 2007 to 2010; harvests reported by these permit holders totaled 115. In 2007, 66 permits were issued with a reported harvest of 19; 85 permits were issued in 2008 with a reported harvest of 36, 103 permits were issued in 2009 with a reported harvest of 33, and in 2010, 66 permits were issued for the spring season with a reported harvest of 27.

**Table 12. Federal subsistence steelhead permits issued 2007-2010\***

	2007		2008		2009		2010	
	Permit Issued	Harvest Reported						
Coffman Cove			3	0	8	3	3	0
Craig	24	7	26	14	31	7	17	7
Edna Bay	1	0						
Hollis	7	3	5	0	3		2	3
Hydaburg	6	0	2	1				
Kasaan	1	0	6	2	2	4	1	0
Klawock	14	8	14	9	22	7	11	4
Metlakatla					1	0		
Naukati Bay			1	0	1	0	1	0
Thorne Bay	13	1	28	10	35	12	31	13
<b>Yearly Total</b>	<b>66</b>	<b>19</b>	<b>85</b>	<b>36</b>	<b>103</b>	<b>33</b>	<b>66</b>	<b>27</b>

\*Reeves 2012 personal communication

***OVK/HCA Key Respondent Information***

Twenty-two people were interviewed as key respondents. They were from the communities of Craig, Hydaburg, Kasaan, Klawock, and Thorne Bay. The excerpts from the transcripts relating to permit participation are in Appendix G. The remainder of the key respondent interviews dealt with community residence, their history of steelhead fishing and concerns that they may have about the study or the resource. The concerns recorded during the interviews of key respondents and all household surveys are listed in Appendix H. Information, not reported as part of the community summary tables, summarizing key respondents' history of steelhead fishing on Prince of Wales is shown in Table 13. As a group, the key respondents harvested steelhead for an average of 21.6 years with an estimated yearly harvest of 5 steelhead; the individual community averages are shown in the Table 13.

**Table 13. Key respondent life history participation in POW steelhead fishery**

Community	Number of years fishing Steelhead			Methods used	Average annual harvest
	Minimum	Maximum	Average		
Craig	5	33	20.0	rod & reel, jig	3.0
Hydaburg	12	39	21.9	snaggers, spear, dipnet, rod & reel	8.3
Kasaan	6	25	15.5	rod & reel	3.0
Klawock	25	53	32.7	rod & reel	3.0
Thorne Bay	8	20	14.0	rod & reel	1.1

***OVK/HCA Key Respondent Responses Concerning Permit Participation***

Of these twenty-two key respondents, thirteen have gotten subsistence steelhead permits. In two communities, Craig and Kasaan, all of the harvesters have gotten a permit. In Hydaburg, 3 of 10 got a permit, in Klawock, 2 of 3, and in Thorne Bay 1 of 2 harvesters got a subsistence steelhead permit. The reasons shared by the key respondents for getting or not getting a permit are listed below.

***Reasons for Getting a Permit (13 key respondents):***

1. So fish can be kept to eat (6)
2. So fisher can use bait (6)
3. Have different size restrictions to increase the chances of getting a fish to eat (4)
4. To be legal – avoid a fine (3)
5. Tribe issued the permit (3)
6. To not have to throw back a dead fish (1)

Additional information: Three (3) key respondents got a permit only one time; three (3) were sporadic permit holders.

***Reasons for NOT Getting a Permit (9 key respondents):***

1. Didn't know you had to have one (3)
2. Accessibility of permit issuer (2)
3. Didn't feel you have to have one (2)
4. Not Applicable—catch & release fishing only (2); fished for steelhead before permits were required (1)
5. Never took the time (1)

***Harvest Locations***

Eleven different harvest areas were reported in the household surveys. The key respondents reported harvesting steelhead in seven different locations shown in Table 14. The smaller number of locations from the key respondents could be because they are from 5 of the 9 communities that harvested steelhead, so the other four communities would account for the additional areas. The key respondents had two harvest locations that were not reported by the participants in the household survey: 12 mile/Polk Inlet and the Karta River and the household survey participants reported six areas not given by the key respondents. Ten different locations were reported by federal subsistence permit holders. Four of these locations were different than those reported in the household survey or by the key respondents: Harris River, Luck Creek, Maybeso Creek, and Ratz Creek.

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table 14. All harvest locations reported**

<u>OVK/HCA</u> <u>Household Surveys</u>	<u>OVK/HCA</u> <u>Key Respondents</u>	<u>Reported on</u> <u>Federal Permits</u>
Eagle Creek	Eagle Creek	Eagle Creek
Klawock River / Lake	Klawock River	Klawock River
Staney Creek	Staney Creek	Staney Creek
Hydaburg River	Hydaburg River	
Saltery Creek	Saltery Creek	
	Karta River	Karta River
Thorne River		Thorne River
Hatchery Creek	12 Mile/Polk Inlet	Cable Creek
Hetta & Eek		Harris River
Hunter's Bay		Luck Creek
Logjam Creek/Sweet Lake		Maybeso Creek
Saltwater		Ratz Creek

## DISCUSSION

The 2005 Turek report summarized the disparity between subsistence steelhead permit reporting and annual harvests estimated through confidential household surveys by noting that the harvest estimates from the 1996-1998 ADFG Division of Subsistence household harvest surveys totaled about 700 steelhead per year and the harvests reported by permit holders were less than 26 per year (2005, p. 40). This disparity served as the catalyst for this research project. The objectives to obtain current harvest estimates for steelhead, to compare these estimates with the amounts reported by steelhead subsistence permit holders and previous household survey results, and to describe factors affecting participation in the permitting process, were created to provide an assessment of participation in the Federal permitting process. Data from the 2008-2010 OVK/HCA confidential household survey and the permit holders' reports were presented in the previous section. The 1996-1998 steelhead harvest data from the ADFG Division of Subsistence household surveys are contained in Appendix I. The discussion of the research results conducted will begin with a comparison of the harvest estimates by gear type from the two household surveys.

The OVK/HCA household survey estimated an annual steelhead harvest of 278 when expanded for all households in the ten communities shown in Table 15. This represents a significant decrease from the harvest estimates of 770 from the 1990s ADFG Division of Subsistence household surveys (Table 16). The estimated 64% decrease in annual harvest statistically confirms the observations made by key respondents recorded in Turek's report (2005, pp.16-17) about declining harvests. The Turek report specifically noted a decrease in steelhead harvests in Klawock from the 1984 harvest year to the 1997 harvest year and discussed declining participation in the subsistence steelhead fishery. In summarizing discussions with key respondents, a variety of reasons were provided for the decline in participation: regulatory restrictions by the State of Alaska, fewer young men participating in the fishery, availability of legal harvests of halibut in the winter and spring, and demographic changes from the decline in logging activities and resultant loss of timber workers (Turek 2005: p. 36)

**Table 15. Household survey harvest estimates by gear type**

<u>Study Year</u>	<u>Community</u>	<u>Rod and Reel</u>	<u>Other Gear</u>	<u>Commercial Fishing Retention</u>	<u>Grand Total</u>
2010	Coffman Cove	4		6	10
2010	Craig	28			28
2010	Hollis				0
2008	Hydaburg	20	46		66
2008	Kasaan		1		1
2008	Klawock	31	102		133
2010	Naukati Bay	3			3
2009	Point Baker			33	33
2009	Port Protection				0
2010*	Thorne Bay 2010*	4			4
Grand Total		89	149	38	278

\*Interviews were conducted in 2008 and 2010

Another reason for the decline in steelhead harvests surfaced in this study; two key respondents in this study raised the issue of hatchery steelhead. During the discussion of average yearly harvest one key respondent recalled that he kept more steelhead when it was legal to keep the fin-clipped hatchery steelhead (KR13, p. 43, Appendix G). Another key respondent raised the issue during the concerns portion of the interview (Key Respondent section p. 51, Appendix H), wondering why the hatchery stopped releasing steelhead and recalled that significant numbers of steelhead were released in the past.

Regulatory restrictions began in 1994, when the State of Alaska made the use of spears and gaff illegal, limited the harvest to 2 per year with a size restriction of 36 inches or longer (Turek 2005). The avoidance of restrictions was also mentioned by this study’s key respondents as a reason for obtaining the Federal Subsistence Permit, which became available in 2003.

**Table 16. ADFG Division of Subsistence household harvest estimates by gear type**

<u>Study Year</u>	<u>Community</u>	<u>Rod and Reel</u>	<u>Other Gear</u>	<u>Commercial Fishing Retention</u>	<u>Estimated Total</u>
1998	Coffman Cove	69			69
1997	Craig	211			211
1998	Hollis	1			1
1997	Hydaburg	95	77		172
1998	Kasaan	3			3
1997	Klawock	214	11		226
1998	Naukati Bay	1			1
1996	Point Baker	4		31	35
1996	Port Protection	22	0	14	36
1998	Thorne Bay	16			16
Grand Total		636	88	45	770

While overall harvest estimates declined significantly from the 1990s survey results, harvest estimates for ‘other gear’ increased from 88 to 149, estimates for commercial retention stayed about the same, 45 in the 1990s and 38 in the 2000s. The harvest estimates by rod and reel went from an estimated 636 steelhead to 89, an 86% reduction.

In reviewing the changes in household participation levels in the steelhead fishery from the 1990s household surveys, rather than paralleling the declining harvest levels, in 7 communities, the percentage of households attempting to fish for steelhead increased. This higher percentage could be a result of the survey focus solely on steelhead fishing in the OVK/HCA research as opposed to the use of all wild resources in the ADFG Division of Subsistence surveys where households may not have recalled or reported sport fishing attempts for steelhead. The increase in participation levels could also be related to the Federal subsistence regulations which allow the use of traditional gear types, such as spears and hand lines.

While participation levels in attempting to harvest steelhead increased, percentage of households harvesting steelhead declined in 7 of the 10 communities. Hydaburg, Kasaan, and Klawock were the only communities where the percentage of households harvesting increased since the 1990s study.

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table 17. Comparison of attempting and harvesting participation levels**

Any Gear	ADFG Subsistence % Households			OVK/HCA % Households		
	Study Year	Trying	Harvesting	Study Year	Trying	Harvesting
Coffman Cove	1998	18.0%	18.0%	2010	11.1%	4.8%
Craig	1997	8.1%	6.4%	2010	17.9%	2.8%
Hollis	1998	2.2%	2.2%	2010	7.9%	0.0%
Hydaburg	1997	15.7%	15.7%	2008	27.1%	18.8%
Kasaan	1998	7.1%	7.1%	2008	16.7%	8.3%
Klawock	1997	11.3%	9.4%	2008	21.6%	13.6%
Naukati Bay	1998	2.0%	2.0%	2010	33.3%	6.7%
Point Baker	1996	37.5%	37.5%	2009	28.6%	21.4%
Port Protection	1996	24.0%	16.0%	2009	5.6%	0.0%
Thorne Bay	1998	5.6%	4.5%	2010*	20.5%	2.3%

\*Interviews were conducted in 2008 & 2010

Data at the community level showing household use levels by gear types for harvesting steelhead in the two different survey periods are shown in Tables 18-20. The gear types reported in the ADFG Division of Subsistence 1990s household surveys were rod and reel, other gear, and commercial retention; the OVK/HCA 2008-2010 household survey data for “other gear” is shown by specific gear type reported: handline, dip net, and spear.

**Table 18. Comparison of participation levels using rod & reel**

Rod and Reel	ADFG Subsistence % Households		OVK/HCA % Households	
	Study Year	Harvesting	Study Year	Harvested
Coffman Cove	1998	18.0%	2010	3.2%
Craig	1997	6.4%	2010	2.8%
Hollis	1998	2.2%	2010	0.0%
Hydaburg	1997	11.8%	2008	8.3%
Kasaan	1998	7.1%	2008	0.0%
Klawock	1997	8.5%	2008	2.3%
Naukati Bay	1998	2.0%	2010	6.7%
Point Baker	1996	6.3%	2009	0.0%
Port Protection	1996	8.0%	2009	0.0%
Thorne Bay	1998	4.5%	2010*	2.3%

\*Interviews were conducted in 2008 & 2010

All ten communities used rod and reel to harvest steelhead in both survey periods. The percentages of households using rod and reel declined in 9 of 10 communities, Naukati Bay was the only community where the level was higher. The percentages and estimated harvests for Naukati Bay significantly increased between the two study periods. Skewed results for Naukati

Bay have been noted in the Results sections above and these results more than likely are due to the low sample size, 31.9% rather than actual changes in harvest and use levels.

Three communities used other gear in the 2008-2010 survey period, an increase from two communities in the 1990s. The percentage of households using other gear increased significantly from the 1990s surveys.

**Table 19. Comparison of participation levels using other gear**

Other Gear	ADFG Subsistence % Households		OVK/HCA % Households		
	Study Year	Harvesting	Study Year	Gear Used	Harvested
Hydaburg	1997	3.9%	2008	Handline	10.4%
Kasaan	1998	0.0%	2008	Dip net	8.3%
Klawock	1997	0.9%	2008	Handline Spear	10.2% 1.1%

Two communities obtained their steelhead by retention from commercial fishing during each study period. Point Baker was the only community to harvest by commercial retention in both study periods and the percentage of households harvesting with this method declined.

**Table 20. Comparison of Participation through Commercial Fishing Retention**

Commercial Fishing Retention	ADFG Subsistence % Households		OVK/HCA % Households	
	Study Year	Harvesting	Study Year	Harvested
Coffman Cove	1998	0.0%	2010	1.6%
Point Baker	1996	31.3%	2009	21.4%
Port Protection	1996	8.0%	2009	0.0%

In reviewing permit participation by all households who reported getting a subsistence permit, in the OVK/HCA household survey, an estimated 114.4 permits were obtained (Table 9); only 69 Federal steelhead subsistence permits were reported as issued for the corresponding time frame for the study communities (Table 12). Possible reasons for the over reporting of obtained permits for the remaining communities were noted in the Results section, p. 16.

Table 21 contains the results of a comparison of harvests by gear type reported through Federal Subsistence permits and by the estimated harvests by the OVK/HCA survey households who said they obtained a permit. The two reports are somewhat similar despite the significant differences in totals. In both categories, there were less steelhead harvests than permits; 53 harvests reported by 75 permit holders and an estimated 92.0 harvests by 109.5 households from the survey.

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table 21.** Comparison of yearly harvest reported by permits issued and the OVK/HCA household surveys by gear type, 2007-2010\*

		Annual Harvests by Gear Type							
		Reported By Permit				Survey Estimate			
		2007	2008	2009	2010	2007	2008	2009	2010
Coffman Cove	Rod and Reel			3			1.3		
Craig	Rod and Reel				7		0	12.0	
Hollis	Rod and Reel						0		
Hydaburg	Gill Net		1			0			
	Hand Line						8.6		
	Rod and Reel					5.8			
Kasaan	Dip Net						1.4		
	Rod and Reel		2				0		
Klawock	Gill Net					0			
	Hand Line	1				31.4	11.8		
	Rod and Reel	6	7			15.7			
	Spear	1	2						
Naukati Bay	Rod and Reel							0	
Thorne Bay	Hand Line				1				
	Rod and Reel		10		12		0	4.3	
<b>Grand Total</b>		<b>8</b>	<b>22</b>	<b>3</b>	<b>20</b>	<b>52.8</b>	<b>21.8</b>	<b>1.3</b>	<b>16.3</b>
		53				92.0			

At the community level, where there were less harvests reported by permit holders than estimated by households, the levels ranged from 7% to 58% of the harvest estimates reported by households who said that they obtained a permit in the confidential surveys. In three of the communities, there were more harvests reported through permits that were issued than estimated by the surveys, and the variance ranged from 143% in Kasaan where 2 harvests are reported and 1.4 estimated to 204% for Thorne Bay in 2010 where 13 harvests are reported and 4.3 harvests estimated. The wide range of variance between permits and household surveys is very different from results that were obtained in a study done five villages on Kodiak Island (Williams, et al. 2010). The harvests reported by subsistence permits were between 14% and 40% lower than harvests estimated from household surveys in the same communities (Williams et al. 2010:33). One reason for the differences in variance may be due to the different species involved. The Kodiak study involved subsistence salmon permit regulations that had been in place for a number of years. The subsistence steelhead permit regulations are relatively new to subsistence users in these communities. Three of the nine key respondents who did not get a subsistence steelhead permit did not know that they existed.

## **CONCLUSIONS**

Overall the estimated harvest of steelhead has declined by 64%, with the harvests by rod and reel declining by 86%. At the same time, in three of the ten study communities, harvesting by traditional gear types has increased. The overall decline may be related to a change in demographics (decrease in logging, lack of participation by young fishers), the restrictions in sport fish regulations, and a decrease in hatchery steelhead. The increase in a few communities may be a result of the change in regulations providing for a Federal subsistence steelhead fishery allowing the use of spears, hand lines, dip nets and other methods prohibited under State of Alaska sport fish regulations.

## **RECOMMENDATIONS**

The USFS should work with tribal governments in the communities to raise awareness about the subsistence steelhead permits.

## **ACKNOWLEDGEMENTS**

The authors would like to thank the following people for their contributions for the study. Kristiana Brown and Jolene Edenshaw for coordinating and conducting the household harvest surveys and data entry. Other household harvest surveyors included Martha Wood, Tracy Nix, Brittany Foss and Elijah Sheakley. Household harvest survey data was coded and entered into a database by Kim Homan of Kai Environmental Consulting Services, and data analysis of the household harvest survey data was conducted by George Weekly of SWCA, Inc. We would like to thank the many residents of Prince of Wales Island who allowed us into their homes to talk about steelhead. Key respondent interviews were conducted by Benjamin Young, and transcriptions were transcribed by Computer Matrix Court Reporters. This study was developed in conjunction with the Office of Subsistence Management, with technical advice from Polly Wheeler and Pippa Kenner. Technical reviewers for this report included Roger Harding and Glenn Chen.

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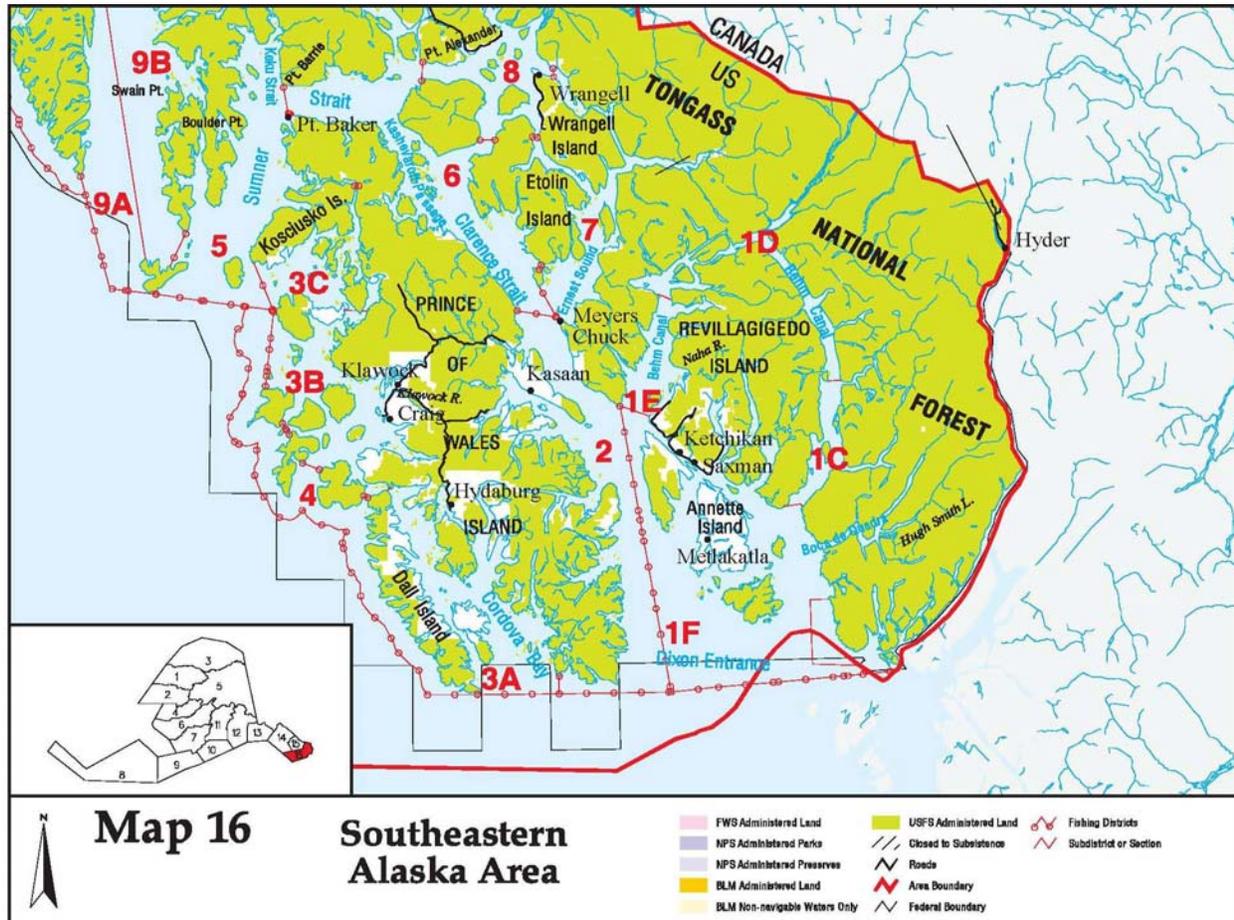
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APPENDIX

A. FEDERAL AND STATE STEELHEAD REGULATIONS



**CUSTOMARY AND TRADITIONAL USE DETERMINATIONS**

**FEDERAL**

**§.24 Customary and traditional use determinations.**

(2) *Fish determinations.* The following communities and areas have been found to have a positive customary and traditional use determination in the listed area for the indicated species:

Area	Species	Determination
Districts 2, 3, and 5 and waters draining into those Districts.	Salmon, Dolly Varden, trout, smelt, and eulachon.	Residents living south of Sumner Strait and west of Clarence Strait and Kashevaroff Passage.
District 6 and waters draining into that District	Salmon, Dolly Varden, trout, smelt, and eulachon.	Residents living south of Sumner Strait and west of Clarence Strait and Kashevaroff Passage; residents of drainages flowing into District 6 north of the latitude of Point Alexander (Mitkof Island); residents of drainages flowing into Districts 7 & 8, including the communities of Petersburg & Wrangell; and residents of the communities of Meyers Chuck and Kake.

## **STATE**

(a) The Alaska Board of Fisheries finds that the following fish stocks are customarily and traditionally taken or used for subsistence:

(15) salmon, Dolly Varden char, and steelhead trout in Section 3-B in waters east of a line from Point Ildefonso to Tranquil Point and in waters of Warm Chuck Inlet north of a line from a point on Hecata Island at 55° 44' N. lat., 133° 25' W. long. to Bay Point, and in Section 3-C in waters of Karheen Passage north of 55° 48' N. lat. and east of 133° 20' W. long. and in waters of Sarkar Cove and Sarkar Lakes;

## **HARVEST**

### **FEDERAL SUBSISTENCE**

(xviii) You may take steelhead trout on Prince of Wales and Kosciusko Islands under the terms of Federal subsistence fishing permits. You must obtain a separate permit for the winter and spring seasons.

(A) The winter season is December 1 through the last day of February, with a harvest limit of two fish per household. You may use only a dip net, handline, spear, or rod and reel. The winter season may be closed when the harvest level cap of 100 steelhead for the Prince of Wales/Kosciusko Islands has been reached.

You must return your winter season permit within 15 days of the close of the season and before receiving another permit for a Prince of Wales/Kosciusko steelhead subsistence fishery. The permit conditions and systems to receive special protection will be determined by the local Federal fisheries manager in consultation with ADF&G.

(B) The spring season is March 1 through May 31, with a harvest limit of five fish per household. You may use only a dip net, handline, spear, or rod and reel. The spring season may be closed prior to May 31 if the harvest quota of 600 fish minus the number of steelhead harvested in the winter subsistence steelhead fishery is reached.

You must return your spring season permit within 15 days of the close of the season and before receiving another permit for a Prince of Wales/Kosciusko steelhead subsistence fishery. The permit conditions and systems to receive special protection will be determined by the local Federal fisheries manager in consultation with ADF&G.

### **STATE SUBSISTENCE**

(a) Except in the nonsubsistence areas described in 5 AAC 99.015(a) (1) and (a)(2) and unless restricted in this section, 5 AAC 01.725, or under the terms of a subsistence fishing permit, fish, other than rainbow trout and steelhead trout, may be taken in the Southeastern Alaska Area at any time.

#### **ARTICLE 14 SOUTHEASTERN ALASKA AREA**

##### **5 AAC 01.716. CUSTOMARY AND TRADITIONAL SUBSISTENCE USES OF FISH STOCKS AND AMOUNT NECESSARY FOR SUBSISTENCE USES**

(a) The Alaska Board of Fisheries finds that the following fish stocks are customarily and traditionally taken or used for subsistence:

(15) salmon, Dolly Varden char, and steelhead trout in section 3-b in waters east of a line from Point Ildefonso to Tranquil Point and in waters of Warm Chuck Inlet north of a line from a point on Hecata

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

Island at 55ø 44' N. lat., 133ø 25' W. long. to Bay Point, and in Section 3-C in waters of Karheen Passage north of 55ø 48' N. lat. and east of 133ø 20' W. long. and in waters of Sarkar Cove and Sarkar Lakes;

(23) herring, herring spawn, bottomfish, halibut, salmon, Dolly Varden, and steelhead trout in the waters of Districts 7 and 8.

5 AAC 01.730. Subsistence fishing permits

- (i) The department shall not issue a permit for the taking of steelhead trout, but steelhead trout taken incidentally by gear operated under the terms of a subsistence permit for salmon are legally taken and possessed for subsistence purposes. The holder of a subsistence salmon permit must report any steelhead trout taken in this manner on his or her permit calendar.
- (j) Salmon, trout, or char taken incidentally by gear operated under the terms of a subsistence permit for salmon are legally taken and possessed for subsistence purposes. The holder of a subsistence salmon permit must report any salmon, trout, or char taken in this manner on his or her permit calendar.

**STATE SPORTFISH**

Steelhead Trout Sport Fish Regulations in Southeast Alaska	
Species:	Wild steelhead (fresh and salt waters)
Open season:	entire year
Size and harvest limits:	36-inch minimum size limit 1 per day/2 in possession
Freshwater bait categories: 1. Fall-run steelhead streams, high-use waters, trophy lakes, small cutthroat lakes—no bait year-round.	

**STATE COMMERCIAL FISH**

2009 –2012 Southeast Alaska and Yakutat Commercial Salmon Fishing Regulations

**CHAPTER 39. GENERAL PROVISIONS.**

**ARTICLE 1. GENERAL.**

5 AAC 30.395. Reporting requirements

The commissioner may, by emergency order, close a commercial salmon fishing season and immediately reopen a commercial salmon fishing season during which a CFEC permit holder shall be required to report on an ADF&G fish ticket, at the time of delivery, the number of steelhead and the number of king salmon, 28 inches or greater in length, taken but not sold.

5 AAC 39.010. Retention of fish taken in a commercial fishery.

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

- (a) A person engaged in commercial fishing may retain finfish from lawfully taken commercial catch for that person's own use, including for the use as bait in a commercial fishery. Finfish retained under this section may not be sold or bartered.
- (b) Except as otherwise specified in 5 AAC 01 – 5 AAC 39, a commercial fisherman shall report on an ADF&G fish ticket, at the time of delivery of the commercial catch, the number of steelhead retained from the commercial catch but not sold. For the purposes of this subsection, "delivery" means the offloading of the finfish for sale or for transport to a buyer for later sale.

**APPENDIX**

**B. OVK/HCA HOUSEHOLD SURVEY FORM**

INFORMED CONSENT

Craig · Hydaburg · Kasaan · Klawock · Thorne Bay · 2008

BEFORE WE BEGIN, I need to make sure we both understand what this survey is about. This survey asks if your household harvested steelhead this past season and if you participated in the permitting process. It also asks limited demographic information about who lived in your household last year for statistical verification purposes.

We are doing this survey to better understand the accuracy of subsistence steelhead harvest reporting on Prince of Wales Island. This survey is not intended to determine levels of needs. During 2008, we are conducting household surveys in the four larger communities. The next phase of this study will involve household surveys of the remaining communities on Prince of Wales Island. As steelhead harvesters are identified, in-depth interviews will be conducted. The goal is to gather information about the reasons for participation or lack of participation in the harvest reporting system. Results of all research activities will be shared with Prince of Wales communities before the report is finalized in 2010.

Before we can do this survey, we need to sign an agreement. We will have a similar agreement with the \_\_\_\_\_.

(community organization)

By signing this paper, we agree that:

- This survey is confidential. We will not put your name on the survey. We will not use your name in our reports.
- The name and address that you provide will only be used for the raffle prize drawing and will be kept separate from the information provided in the survey questions.
- We will publish a report describing the steelhead subsistence harvests in your community.
- We will provide a DRAFT copy of the report to the \_\_\_\_\_ for review before we publish it.  
(community organization)

By signing this paper, you agree that:

- You understand this survey is voluntary.
- You understand that we will publish one or more reports describing steelhead subsistence harvests in your community.
- You understand that summary data about your community's harvests will be stored in a computer database.

Do you have any questions?

RESPONDENT

INTERVIEWER

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
(date)

\_\_\_\_\_  
(printed name)

\_\_\_\_\_  
(printed name)

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

Interviewer: _____
Date: _____
Time began: _____
Time completed: _____

COMMUNITY: \_\_\_\_\_

HH ID# : \_\_\_\_\_

1. DO YOU CONSIDER \_\_\_\_\_ AS YOUR PRIMARY PLACE OF RESIDENCE? \_\_\_Y \_\_\_N  
community

2. DID YOU RESIDE IN \_\_\_\_\_ FOR AT LEAST THREE MONTHS DURING THE STUDY PERIOD? \_\_\_Y \_\_\_N  
community

ID#	Male or Female? (circle)	Alaska Native? (circle)	When was this person born? Year (year)	How is this Person Related to HH Head? (relationship)	STUDY PERIOD: June 1 2007 through May 31 2008			
					Lived in _____ since birth?	When did this person move here?	From where did this person move?	Total Years in _____
1 (Head)	M F	Y N			Y N			
2 (Head)	M F	Y N			Y N			
3	M F	Y N			Y N			
4	M F	Y N			Y N			
5	M F	Y N			Y N			
6	M F	Y N			Y N			
7	M F	Y N			Y N			
8	M F	Y N			Y N			
9	M F	Y N			Y N			
10	M F	Y N			Y N			
11	M F	Y N			Y N			
12	M F	Y N			Y N			

3. DID YOU OR ANYONE IN YOUR HOUSEHOLD HARVEST OR ATTEMPT TO HARVEST STEELHEAD TROUT BETWEEN 6/1/2007 AND 5/31/2008? Y\_\_\_ N\_\_\_

**IF NO**, say that the survey is completed and thank them for their time.

**IF YES**, continue with survey questions:

4. DID YOU GET A SPORT FISH LICENSE? Y\_\_\_ N\_\_\_

5. DID YOU OR ANYONE IN YOUR HOUSEHOLD GET A SUBSISTENCE PERMIT TO HARVEST STEELHEAD? Y\_\_\_ N\_\_\_

**IF YES**, DID YOU DESIGNATE ANYONE TO FISH WITH YOUR PERMIT? Y\_\_\_ N\_\_\_

6. HARVEST REPORT INFORMATION

Date Fished	Location Fished	Gear Used	Total Steelhead		Comments:
			# Caught	# Kept	

7. WAS THE PERMIT RETURNED? Y\_\_\_ N\_\_\_

8. Would you agree to be contacted at a later date to provide additional information about the household's participation in the Federal Subsistence Steelhead Permitting Process?

IF YES, then ask for contact information:

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_wk\_\_

\_\_\_\_\_hm\_\_

9. DO YOU HAVE ANY QUESTIONS, COMMENTS, OR CONCERNS?

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INTERVIEW SUMMARY:

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**APPENDIX**

**C. SUBSISTENCE STEELHEAD PERMIT FORMS: WINTER AND SPRING**

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Federal Subsistence Fishing Permit**

Valid: December 1, 2004 -February 28, 2005

OMB Clearance Number 1018-0075  
Expires: 07-31-2006

**Prince of Wales Island and Kosciusko Islands - Winter Steelhead**

Permittee's Name (Last, First MI)	Permit #
Mailing Address	Community of Primary Residence
City, State, Zip Code	Telephone Number(s)
Persons Designated to Fish with this Permit (must be a Federally-qualified subsistence user) Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____	AK Drivers License # or other acceptable ID
	I have received the permit conditions (general and specific) and understand that failing to comply with reporting requirements may make me ineligible to receive a subsistence permit during the following calendar year.
	X _____ Date _____ Permittee Signature (not valid until signed)
	X _____ Date _____ Issuing Officer/Agent (not valid until signed)
	Federal Contact Telephone Number: _____
Subsistence permit holders are encouraged to contact the Issuing Office prior to fishing as open areas and seasons may be changed by in-season emergency orders. All the telephone numbers can be found in the current Federal Subsistence Fishing Regulations.	
*A knowingly false statement on any part of this permit may be grounds for revocation of the permit. Also, you may be punished by fine or imprisonment* (U.S. Code, title 18, section 1001)	

**Federal Subsistence Harvest Report** Due by March 15, 2005  Check here if did not fish

Date Fished	Location Fished	Gear Used	Total Steelhead		Comments
			Number Caught	Number Kept	

1. This permit is valid for the Federal subsistence steelhead fishery in freshwater on Prince of Wales Island and Kosciusko Island.
2. The only persons authorized to fish with this permit are residents of lands west of Clarence Strait and south of Sumner Strait except that residents of Kake, Petersburg, Wrangell and Meyers Chuck may only fish in the Prince of Wales streams flowing into District 6.
3. This permit must be in your possession while fishing.
4. Only one permit will be issued to each household. Any other federally qualified person may fish the permit if included as a designated fisherman.
5. Prior to leaving the fishing site record information on each day's fishing activities, including those days when fishing was attempted but no steelhead were caught/kept.
6. Any information concerning steelhead presence, numbers of other fishermen, and water or weather conditions would be appreciated in the comments section.
7. Legal fishing gear only includes dipnets, spears or rod and reel. You may not use bait.
8. The winter season harvest limit is 2 steelhead. This permit must be returned within 15 days of taking your 2 steelhead or by March 15.

In accordance with the Privacy Act (5 U.S.C. 552a) and the paperwork Reduction Act (44 U.S.C. 3501), please note the following information. This information collection is authorized by the Alaska National Interest Lands Conservation Act and regulations promulgated thereunder. It is our policy not to use your name for any other purpose. The information that you provide will be used by the Federal Subsistence Board to meet the needs of Subsistence users. All names and identifying information will be removed when we compile the results and only summary information will be reported. This information is maintained in accordance with the Privacy Act. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. This information collection has been approved by OMB and assigned clearance number 1018-0075. We estimate that it will take you about 15 minutes to fill in the form and record your harvest. Comments on this form should be mailed to the Information Collection Clearance Officer, U.S. Fish and Wildlife Service, Mail Stop 222 Arlington Square, Washington, D.C. 20240, (1018-0075). Thank you.  
OMB Clearance Number 1018-0075  
Expires: 07-31-2006

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Federal Subsistence Fishing Permit 2005**

OMB Clearance Number 1018-0075  
Expires: 07-31-2006

Valid: March 1, 2005 - May 31, 2005

Federal Land Unit: Tongass National Forest -  
Prince of Wales Island and Kosciusko Islands (Spring Steelhead)

Permittee's Name (Last, First MI)	Permit #
Mailing Address	Community of Primary Residence
City, State, Zip Code	Telephone Number(s)
Persons Designated to Fish with this Permit (must be a Federally-qualified subsistence user) Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____ Name _____ DOB _____	AK Drivers License # or other acceptable ID
	I have received the permit conditions (general and specific) and understand that failing to comply with reporting requirements may make me ineligible to receive a subsistence permit during the following calendar year.
	X _____ Date _____ Permittee Signature (not valid until signed)
	X _____ Date _____ Issuing Officer/Agent (not valid until signed)
	Federal Contact Telephone Number: _____
Subsistence permit holders are encouraged to contact the Issuing Office prior to fishing as open areas and seasons may be changed by in-season emergency orders. All the telephone numbers can be found in the current Federal Subsistence Fishing Regulations.	
*A knowingly false statement on any part of this permit may be grounds for revocation of the permit. Also, you may be punished by fine or imprisonment* (U.S. Code, title 18, section 1001)	

**Federal Subsistence Harvest Report Due by June 15, 2005**  Check here if did not fish

Harvest Date	Water Body	Gear Used	Steelhead		Comments
			Number Kept	Number Released	

1. This permit is valid for the Federal subsistence steelhead fishery in the freshwater portions of streams on Prince of Wales Island and Kosciusko Island.
2. The only persons authorized to fish with this permit are residents of lands west of Clarence Strait and south of Sumner Strait except that residents of Kake, Petersburg, Wrangell and Meyers Chuck are qualified to fish in Prince of Wales streams flowing into District 6.
3. This permit must be in your possession while fishing.
4. Only one permit will be issued to each household. Any other federally qualified person may fish the permit if included as a designated fisherman.
5. Prior to leaving the fishing site, you must record each steelhead on the permit when taken. Please include information on each day's fishing activities, including those days when fishing was attempted but no fish were taken.
6. Any information concerning steelhead presence, numbers of other fishermen, and water or weather conditions would be appreciated in the comments section.
7. Legal fishing gear only includes dipnets, spears or rod and reel. Handlines are also legal gear after March 31. You may not use bait.
8. The seasonal harvest limit is 5 steelhead. This permit must be returned within 15 days of taking your 5 steelhead or by June 15.
9. Depending on harvest patterns, some systems may be closed to fishing for steelhead prior to May 31. Please contact the Craig Ranger District at (907)826-3271 for current information on inseason closures.

In accordance with the Privacy Act (5 U.S.C. 552a) and the paperwork Reduction Act (44 U.S.C. 3501), please note the following information. This information collection is authorized by the Alaska National Interest Lands Conservation Act and regulations promulgated thereunder. It is our policy not to use your name for any other purpose. The information that you provide will be used by the Federal Subsistence Board to meet the needs of Subsistence users. All names and identifying information will be removed when we compile the results and only summary information will be reported. This information is maintained in accordance with the Privacy Act. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. This information collection has been approved by OMB and assigned clearance number 1018-0075. We estimate that it will take you about 15 minutes to fill in the form and record your harvest. Comments on the form should be mailed to the Information Collection Clearance Officer, U.S. Fish and Wildlife Service, Mail Stop 222 Arlington Square, Washington, D.C. 20240, (1018-0075). Thank you.  
OMB Clearance Number 1018-0075  
Expires: 07-31-2006

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**APPENDIX**

**D. OVK/HCA KEY RESPONDENT INTERVIEW PROTOCOL**

## **KEY RESPONDENT INTERVIEW PROTOCOL**

Key Respondents will be identified through the household survey being conducted in each Prince of Wales community and through referrals from other knowledgeable individuals for potential interview candidates and then asking these interview candidates if there are others that should be interviewed.

The criteria for key respondents are:

1. Harvest of steelhead in the past  
or
2. Obtaining a subsistence steelhead permit in the past

- All Key Respondents will be given the Household Survey before going through the interview guide
- A Project Overview will be provided to each respondent
- Consent forms must be signed.
- All interviews will be recorded.

After providing the background of the study and obtaining the signed consent form, the interview begins with completion of the household survey for the respondent, if not already completed.

### **Harvest of steelhead**

- Did you harvest steelhead last year?
- How long have you been harvesting steelhead?
- Past methods and means?
- Past Locations?
- Past Harvests? Timing?

### **PARTICIPATION IN THE PERMITTING PROCESS**

- Obtained a permit?
- How long have you been getting a permit?
- Why?
- Why NOT?

### **OTHER CONCERNS**

- Any other concerns or questions about this study and the participation in the subsistence steelhead permitting system?

**APPENDIX**

**E. OVK/HCA HOUSEHOLD SURVEY DEMOGRAPHIC RESULTS**

**Table E1:** Number of people and households in study communities in 2010 based on the US Census (ADCCED 2011).

Community	Total Identified Households	Estimated Population
Coffman Cove	89	176
Craig	470	1,201
Hollis	44	112
Hydaburg	128	376
Kasaan	23	49
Klawock	297	755
Naukati Bay	49	113
Point Baker	8	15
Port Protection	26	48
Thorne Bay	214	471
<b>Total</b>	<b>1,348</b>	<b>3,316</b>

**Table E2:** Number of people and households in communities during study year based on OVK/HCA Household Survey Data and comparison with 2010 census data from Table D1.

Community	Total Identified Households	Estimated Population	Variance from Census
Coffman Cove	79	122	-44%
Craig	581	1,330	10%
Hollis	83	177	37%
Hydaburg	138	262	-44%
Kasaan	17	47	-4%
Klawock	345	768	2%
Naukati Bay	47	87	-30%
Point Baker	17	30	50%
Port Protection	31	60	20%
Thorne Bay	188	440	-7%
<b>Total</b>	<b>1,508</b>	<b>3,324</b>	<b>-0.2 %</b>

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table E3:** Average Household Size

<b>Community</b>	<b>Mean</b>	<b>Standard Error</b>
Coffman Cove	1.84	.102
Craig	2.29	.104
Hollis	2.14	.179
Hydaburg	1.90	.217
Kasaan	2.75	.392
Klawock	2.23	.188
Naukati Bay	2.07	.267
Point Baker	1.79	.239
Port Protection	1.94	.249
Thorne Bay	2.34	.200
Key Respondents	2.42	--

**Table E4:** Length of Residency

<b>Community</b>	<b>Maximum</b>	<b>Mean</b>	<b>Standard Error</b>
Coffman Cove	49	17.40	1.153
Craig	90	20.02	0.908
Hollis	44	10.64	0.866
Kasaan	72	13.55	3.119
Naukati Bay	33	13.06	1.350
Point Baker	66	24.67	4.041
Port Protection	34	14.43	1.776
Thorne Bay	47	14.48	1.093
<b>Key Respondents</b>	<b>76</b>	<b>27.68</b>	<b>3.500</b>

**Table E5:** HH Heads Length of Residency

<b>Community</b>	<b>Maximum</b>	<b>Mean</b>	<b>Standard Error</b>
Coffman Cove	49	17.8	1.25
Craig	75	23.5	1.15
Hollis	44	12.9	1.13
Kasaan	72	18.6	4.50
Naukati Bay	33	13.5	1.52
Point Baker	65	24.2	4.74
Port Protection	34	16.5	2.34
Thorne Bay	47	17.8	1.46
Hydaburg	98	44.4	3.20
Klawock	85	32.8	2.03
<b>Key Respondent</b>	<b>76</b>	<b>30.0</b>	<b>3.92</b>

**Table E6:** Total Household Heads Lived in Community Since Birth

<b>Community</b>	<b>Number</b>	<b>Percentage</b>
Coffman Cove	5	5.2%
Craig	43	20.5%
Hollis	0	0.0%
Hydaburg	40	76.9%
Kasaan	3	14.3%
Klawock	53	60.2%
Point Baker	2	10.5%
Naukati Bay	1	4.2%
Port Protection	1	4.3%
Thorne Bay	0	0.0%
<b>Key Respondent</b>	<b>11</b>	<b>52.4%</b>

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**Table E7:** Household Heads Ethnicity and Estimated Age

Community	Alaska Native				Estimated Age	
	No		Yes		Mean	Standard Error
	Count	Percent	Count	Percent		
Coffman Cove	90	96.8%	3	3.2%	53.5	1.86
Craig	149	72.0%	58	28.0%	49.9	0.91
Hollis	85	96.6%	3	3.4%	52.4	1.39
Hydaburg	3	5.7%	50	94.3%	52.3	2.38
Kasaan	4	19.0%	17	81.0%	45.3	3.27
Klawock	17	19.3%	71	80.7%	46.9	1.49
Naukati Bay	25	96.2%	1	3.8%	45.8	3.75
Point Baker	18	94.7%	1	5.3%	55.6	2.50
Port Protection	23	100.0%	0	0.0%	48.9	3.16
Thorne Bay	62	100.0%	0	0.0%	51.2	1.87
<b>Key Respondents</b>	<b>11</b>	<b>50.0%</b>	<b>11</b>	<b>50.0%</b>	42.8	4.39

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**APPENDIX**

**F. OVK/HCA HOUSEHOLD SURVEY STEELHEAD HARVEST RESULTS**

Gear Used	Percent of Households			Estimated Harvest			Average Pounds Harvested		
	Attempt	Caught	Kept	LCI	Community	UCI	per Household	per Capita	
Coffman Cove	Any	11.1	9.5	4.8	3.9	10.0	16.1	1.1	0.6
	CF Retention	1.6	1.6	1.6	0.2	6.0	12.4	0.7	0.4
	Dipnet						6.1		
	Handline						6.1		
	Rod and Reel	9.5	7.9	3.2		4.0	9.9	0.4	0.2
	Spear						6.1		
Craig	Any	17.9	5.5	2.8	1.7	28.0	54.3	0.4	0.2
	CF Retention						26.3		
	Dipnet						26.3		
	Handline						26.3		
	Rod and Reel	15.2	5.5	2.8	1.7	28.0	54.3	0.4	0.2
	Spear						26.3		
Hollis	Any	7.8	3.1						
	CF Retention								
	Dipnet								
	Handline								
	Rod and Reel	4.7	3.1						
	Spear								
Hydaburg	Any	27.1	18.8	18.8	26.4	66.0	105.9	4.1	2.2
	CF Retention						39.8		
	Dipnet						39.8		
	Handline	14.6	10.4	10.4	6.2	46.0	85.8	2.8	1.5
	Other	2.1							
	Rod and Reel	10.4	8.3	8.3		20.0	59.9	1.2	0.7
Spear						39.8			
Kasaan	Any	16.7	8.3	8.3		1.0	3.1	0.7	0.3
	CF Retention						1.7		
	Dipnet	8.3	8.3	8.3		1.0	3.1	0.7	0.3
	Handline						1.7		
	Rod and Reel	8.3					1.7		
	Spear						1.7		
Klawock	Any	21.6	14.8	13.6	63.7	133.0	202.9	3.3	1.5
	CF Retention						69.6		
	Dipnet						69.6		
	Handline	15.9	11.4	10.2	20.5	90.0	159.8	2.2	1.0
	Other	1.1							
	Rod and Reel	3.4	2.3	2.3		31.0	101.0	0.8	0.4
Spear	1.1	1.1	1.1		12.0	81.4	0.3	0.1	

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

Gear Used	Percent of Households			Estimated Harvest			Average Pounds Harvested		
	Attempt	Caught	Kept	LCI	Community	UCI	per Household	per Capita	
Naukati Bay	Any	35.7	7.1	7.1		3.0	9.0	0.6	0.3
	CF Retention						5.7		
	Dipnet						5.7		
	Handline						5.7		
	Rod and Reel	28.6	7.1	7.1		3.0	9.0	0.6	0.3
	Spear						5.7		
Point Baker	Any	28.6	21.4	21.4	16.4	33.0	49.2	16.4	9.2
	CF Retention	28.6	21.4	21.4	16.4	33.0	49.2	16.4	9.2
	Dipnet						16.4		
	Handline						16.4		
	Rod and Reel						16.4		
	Spear						16.4		
Port Protection	Any	5.6							
	CF Retention								
	Dipnet								
	Handline								
	Rod and Reel	5.6							
	Spear								
Thorne Bay	Any	20.5	6.8	2.3		4.0	11.7	0.2	0.1
	CF Retention						7.5		
	Dipnet						7.5		
	Handline						7.5		
	Rod and Reel	18.2	6.8	2.3		4.0	11.7	0.2	0.1
	Spear						7.5		

Community	Estimated Caught			Average Pounds Caught	
	LCI	Community	UCI	per Household	per Capita
Coffman Cove	53.2	112.9	172.6	12.1	6.6
Craig	9.6	332.6	655.6	4.9	2.1
Hollis	5.7	98.6	191.4	10.1	4.7
Hydaburg	26.4	66.1	105.9	4.1	2.2
Kasaan	-0.3	1.4	3.1	0.7	0.3
Klawock	83.4	160.7	238.1	4.0	1.8
Naukati Bay	-2.3	3.4	9.0	0.6	0.3
Point Baker	52.7	103.2	153.8	51.6	28.9
Port Protection	0.0	0.0	0.0	0.0	0.0
Thorne Bay	-17.6	42.7	103.1	1.9	0.8

**APPENDIX**

**G. EXCERPTS FROM OVK/HCA KEY RESPONDENT TRANSCRIPTS  
RELATING TO PERMITS**

**Reasons for getting a permit:**

KR01

Just to, you know, catch some steelhead to eat.

Yes. You know, that way you can legally use bait and rod and reel to catch them and I don't think there's like a size limit. It seems like they have to be like 30 inches or something.

I'm sure just like sport, sport fishing. And then I don't even know if you can keep them sport fishing. I guess that would be 30 inches and then you can keep them.

Well, it's kind of a hassle to have to go get this permit rather than why not just make it a legal resident is allowed to catch steelhead with using bait and whatever the limit is. It seems like everything is going more towards, you know, so people can finesse the fish out of the river with their fly rod and then let him go. I want something to eat. I'm not interested in catching it and letting it go.

---

KR02

Just that one year. I just haven't had time to fish. No. Like I said, for my enjoyment, so it's a little different than fishing for food. . . . I just wanted to keep one and bring it home. I hadn't had one to eat for a long time.

---

KR03

I usually get one every winter, but I don't usually go. It's just in case some friends want to go, you know, or something and if you don't have the permit you can't go, so I always get one, but I probably -- I don't know, I might go once during the winter. . . . I don't know how long I've been getting a subsistence permit though. I mean because when you fished with eggs you really didn't need it because you could catch them. You know, it's when they changed the regulations, you know, that you couldn't fish with eggs. The main reason I get the permit is so I can fish with bait.

---

KR06

I got them a couple years in a row, I think, but I didn't get one last year. I didn't have much time. . . . Because I didn't want to get no big fine or, you know, because they always harass us when they see us in the creeks doing it the way we like to do it. So I didn't want them to give me a big fine. They usually give us a pretty good fine too. Just trying to catch a bite to eat. . . . Yeah. And to be legal.

---

KR12

I got one -- well, they've only been out for just -- not really all that long. What, about six years?

Yes, about that.

Well, when they first come out, I think the second year or something, I think I got one. If I recall, that was the year I got two.

Okay. Have you fished with that one before or have you fished since then?

No.

Okay.

I haven't been after steelhead for quite a few seasons now on account of this log truck.

Okay. So when you have gone out....

If I go after steelhead, I'll go with the subsistence card because it's stupid not to. You've got a lot better chance to catch them.

KR13

I get the permit because I couldn't bring myself to throw one back if we happen to kill one, but we're pretty efficient. We use very small non-stainless steel hooks and we haven't gill-hooked a fish -- we haven't killed a fish in the last several years.

Okay. So kind of a mix between subsistence at times but primarily sport.

Primarily sport.

Where are your primary locations that you fish from?

The Klawock, of course, is easy because it's here and there are a fair number of fish in the Klawock and you just change gear until you catch them. We fish a lot in the Klawock, the Thorne and when you can get to it Eagle and Rats.

I fished years ago down in Trocadero Creek and some of that area, but they're difficult to fly fish in. I think the resource is hit harder there maybe than other places, so I just as soon leave them be.

So can you recall some of the amounts that you've harvested and when, like different seasons?

Like I said, we haven't kept any for the last several years.

Okay.

None. We haven't killed one, so we haven't kept them. When I first started fishing, we'd keep one to eat now and then, you know. If you caught three or four in a day, you'd keep one to bring home and eat. We never were into keeping more than we could just eat fresh.

Oh, okay.

Even years and years ago, it wasn't anything we needed to do. That was the way we fished. We'd just keep one to eat back in the old days, but I haven't kept a steelhead to eat since probably the late '80s.

Actually that's not true. When you could keep the fin-clipped ones out of the Klawock when they were raising them there, I probably did keep some up until maybe 2000 or 2001. Occasionally if you'd get one of those fin-clipped ones, then you knew it was a hatchery fish, but it still was rare that we kept any fish.

Oh, okay. Did you ever get a subsistence steelhead harvest permit?

Yes, I've had those for the last, I don't know, three or four years at least, I would think, from the Forest Service.

Okay.

But, like I said, I got the harvest permits in case we killed one. There are times when they will swallow the bait too hard and pull a gill and if they're going to come upstream in blood, then I just can't bring myself to throw a dead useless fish back.

Right. Do you have any concerns or questions about this study and the participation in the subsistence steelhead permitting system?

Not really. I think the studies are probably good. I don't know how many people -- I talk to people who keep the occasional fish. I have friends who keep fish now and then because they get the permit and they want to take the fish. I don't begrudge them that fact, you know, if they want to keep one now and then, you know.

We got fish last year that were legal to keep based on the size alone, but we didn't keep them because they were so fresh and they looked like they were going to do a really good job spawning later. I've learned a lot in the last several years about fishing them and it's a lot of fun. I hope the resource stays forever for the people that need them and the people like me that just want to fish them.

Really, I don't -- I think a lot of the people don't bother to get the permits because they don't plan on keeping them, the people that I generally fish with, because they plan on just releasing them. Like I said, I get the permit in case I kill one because it would make me crazy to throw something back in the water that was going to be wasted.

KR14

Well, I did once about ten -- probably 15 years ago I got one, one time, one Federal permit, but that's the only one I've ever gotten. Since then I haven't had the need for a subsistence permit.

---

KR15

Well, since they started. Actually wrote the very first proposal to have the steelhead declared as a subsistence species. Dave Johnson gave me a hand writing it up and because of the way it was written all the tribal governments in the state of Alaska jumped on the bandwagon and fought it all the way to Federal court and won it.

Nice.

But I was the first one to toss the first stone.

How many years ago was that?

Oh, jeez, I don't know—back in the '90s.

'90s?

Yes.

Mid '90s? Cool. So over 12 years maybe.

---

KR16

How long have you been getting a permit?

The last couple years.

Why?

Mostly because the tribe was able to issue them in meetings.

---

KR17

Because it's -- in order to catch one big enough with just a sport license it has to be 36 inches and it's very difficult to catch one that big. If you just want one to eat, you go get a Federal permit. Like the first steelhead you catch is the one you bring home and that's fairly adequate.

Okay.

I mean if you're just looking to go get a fish, that's the best way to do it. It's efficient. You don't have to sit there and hook four or five fish or you may never get a 36- -inch one out of some of these systems. It's very difficult to get one to eat with that restriction, you know what I mean. So with a Federal permit it allows you to take a fish.

So just the restrictions really on the sport fish.

No. I think the system works really well. You know, you can get a Federal permit for the winter fishery and then later get one for the spring fishery. You can take two fish in the winter and then five in the spring fishery, but you can also get a Federal permit for salmon, trout, char, Dolly Varden, that sort of thing. It's a little different permit, but it allows you to catch trout also, which I did get one of those and did go fishing trout for the first time in years too and it worked fine.

Oh, nice.

It's less restrictive than the State system size limit wise. It's actually a pretty good thing.

.....And you can use bait. That's the other difference. With the State sport fishing as opposed to subsistence fishing is you can use bait subsistence fishing with a Federal permit.

Oh, yes.

Which makes it much more efficient.

---

KR18

Okay. How long have you been getting this permit?

I got three, maybe four different years.

Just so I have the opportunity to keep one or two fish a year if I want. Yeah. I didn't get one this last year.

Oh, okay. So just for the opportunity of being able to keep them without them being a certain length?

Yeah.

Okay. Is there any other reasons?

No, not really.

KR19

How long have you been getting the permit?

Probably the last three years.

The last three years?

Yes.

Why did you get the permit?

Because I can fish with eggs with it.

Fish with eggs with it. Stay legit?

Yes.

---

KR20

So I wouldn't get no ticket. I needed it for up there.

Did you get one this year?

No. I didn't even fish for steelhead I don't think. They didn't have no permits. I usually get them from the tribe.

Oh, okay. The reason being the tribe out here didn't have permits. Okay. If they did have it, would you -- do you think you would get one issued for yourself?

Oh, yes.

---

KR21

.... So a permit, have you ever gotten a subsistence steelhead harvest permit?

Yes, just since they're giving them out down here to the Haida Corporation office. The last three years, I think.

About the last three years?

Yes.

Why did you go get a permit? Because it was offered here or....

I think it was offered here. Early fish tastes pretty good that time of the year. It's kind of getting out, you know, and getting a little exercise after the winter months of such poor weather, you know. Getting out and enjoying the terrain is probably a good reason.

Okay. But as far as getting a permit, what influenced you to get a permit?

Well, because you could -- we've been connected to the road for some time now and it made it legal going out and chasing them.

Okay. Made it legal.

Or fishing them. It made it legal.

To stay legit pretty much.

Right, right.

And then for it to be right down the road it would probably be....

Yes.

.....more convenient.

Very convenient. And there's usually good runs of fish here every year that I know of.

**Reasons for not getting a permit:**

---

KR04

I think I might have. I get all my permits mixed up.

Okay. You have in the past?

Yes.

Have you gotten one this year, for this season?

No. I got my -- I went seining, so I didn't go fishing up the creek.

So is there a reason -- is there a reason why you didn't issue -- or why you didn't get one today for subsistence?

No. No ride. . . .

So accessibility to it.

Yes. It's a long way to go to Craig.

---

KR05

Have you ever got a subsistence steelhead harvest permit?

I didn't even know they had them.

Didn't even know they existed, huh?

No.

If you would have known, would you have got one?

More likely. (Phone ringing - pause)

So the reason why you haven't gotten a permit is because you just didn't know there was -- they even had them to be issued in the first place.

Not that I even known any issue of steelhead permits.

Okay.

I know there's just a sport license now.

---

KR07

I don't recall having one. I figure we just live here in Hydaburg, that we just go get it (steelhead).

Is there any other reasons why you haven't gotten it?

Nowhere to get it.

Nowhere to get it?

Yes. I don't remember if HCA ever gave out permits for steelhead.

Maybe lack of information or lack of.....

Lack of information.

Lack of information whether we had it or not or where to get it.

Yes.

---

KR08

Well, being from Hydaburg here and a Native from here, I don't believe we should have to go after a permit to get our subsistence. We've been regulating our creeks pretty much ourselves for quite a while.

Now that more sport fish come in they want us to start regulating their -- I mean they're regulating us more and we live off it. They're doing it for sport.

So the idea is we're more self-sufficient.....

Yes.

.....with our own creeks. So, with that being said, do you have any concerns or questions about this study and the participation in the subsistence steelhead permitting system?

Just concerned about all the sport fishermen coming in and they start taking some of these fish not being reported that they take out. Like I said, we only take what we need.

Right. No sport at all in it.

Yes. And if we have one or two fish that we're not going to put in the freezer, we give to an elder or someone else in town.

---

KR09

I was just -- I don't really know. I just never really, you know, felt I needed one. If my family was hungry, I went out and fished. I never bothered with, you know, getting it. As far as I knew, I didn't know you had to have a permit to fish steelhead.

So you didn't know.

Yes.

So lack of information on that.

Yes, towards that specific fishery. I mean, you know, fishing, steelhead fishing. I know you have to get a subsistence license to get sockeye and stuff, but I didn't realize it pertained to steelhead too. But that's one of the reasons why I never went for it.

So you didn't even realize that there was a permit out there for it.

Yes.

Okay. Is there any other reasons?

Basically that, you know, not knowing that it was there. Not knowing those were available to get.

Okay. So if you didn't know where -- if you didn't know that they were issuing it, you wouldn't even know where to get it from.

Yes.

Or you'd know where to get it from.

Yes.

Okay. Do you have any concerns or questions about this study and the participation in the steelhead permitting system?

No questions or nothing. It sounds like it's a pretty good program. I'd like to see everything, you know -- at least find out what the heck is going on out there with our subsistence fishing.

---

KR10

Just never took the time to do it.

Never took the time to do it?

Yes.

Okay. Is there any other reasons affecting why you didn't?

No.

Just the time.

Yes.

---

KR11

Not that I know. Since I was talking about when I was fishing when I was young, so I'm talking about like maybe 30 years ago.

Oh, okay. A while back.

So there was no permits or anything for steelhead at that time.

Okay. So talking about more recently, maybe more recently your grandsons get steelhead.

Yes. I think Francis, my grandson, he goes fishing, but at that time he was underage and he didn't need a permit.

Okay. So he didn't need a permit.

Yes. That's one of the reasons why we didn't have no permits.

Okay. So he's too young to get one.

Yes.

---

KR22

No.

Is there any particular reason why?

I've never been the type of person to really subsist a lot. I've been fortunate enough to have pretty good jobs most of the time and I think highly of the subsistence rights. I just have never really participated myself. I never really had the need and I never really was much -- never much of one for -- I'm not much of a hunter either I guess I should say.

I love to sport fish, but I'm primarily catch and release. Primarily fresh water also. I do enjoy the steelhead runs, so I'm very much interested in them for sure even though I, myself, don't participate very often in the subsistence rights that I may have.

**APPENDIX**

**H. CONCERNS RECORDED DURING OVK/HCA HOUSEHOLD SURVEYS AND KEY RESPONDENT INTERVIEWS**

**OVK/HCA Household Survey**

**Questions, Comments, Concerns**

<p>"backouts" - cut out of net. Only get steelhead thru commercial retention. Subsistence steelhead permit ridiculous. "Glorified sport fishing." Spring fishing with least amount of effort-&gt; subs. Time - bottom fishing long line. Ok. If Fed govt. said no subs. permit, no effect; would have to drive 25-30 miles hike up stream - Effort necessary to get steelhead in a stream - sport fishing. Limited amount of people go after steelhead as "true" subs. Resource - concern that Feds will shut down all fishery for 60 subs. users. Never could sell them - released live ones last 15 years.</p>
<p>"They're screwing up the river (Harris River) shoveling during spawning."</p>
<p>All commercial retention. Got 1 steelhead all together. ___ from different people. Used to be more last year. Weren't as many. Canned and freeze. Father trapper-fisherman, lived off the land.</p>
<p>Catching less in commercial retention last 5 fewer than last 20 years. Out of concern -&gt; When steelhead shut down proactive measures about concern for steelhead populations - cutting live ones out of net. 10 or so - 36"</p>
<p>Change the regulations to 24".</p>
<p>Close our fishing area to commercial fishing and non residential people.</p>
<p>Concerned about federal government allowing subsistence fishing of steelhead because the SOA should be the only managers of fish and game (Feds allow bait to be used).</p>
<p>Did catch and release in the past. Should do whatever they can to replenish the stock.</p>
<p>Trade with a commercial fisherman: smoking fish for 1/2; someone gave them 10 steelhead. Kept 5 steelhead. (lived in Wrangell before (4 years son in high school); seems like plenty of steelhead around.</p>
<p>Disappointed about weir at Ratz. Didn't let trout through - killed by otters, very upset.</p>
<p>Doesn't believe subsistence use should be allowed with such a limited resource when other resources are available such as sockeye or halibut. The program (sockeye, halibut) works great. Continue special monitoring.</p>
<p>Doesn't seem to be that many on the Island. Former sport fish guide - hard to find steelhead. Gillnet fishery has a big impact. Trolling for past 10 years, never got a steelhead. Should do studies about origin of steelhead. Tagging and genetic to assess impact of gillnetting on steelhead.</p>
<p>Don't like rules and regs for fishing and don't fish Klawock River too much mono filament and people.</p>
<p>Get rid of subsistence fishing.</p>

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**OVK/HCA Household Survey**

**Questions, Comments, Concerns**

Gets permits in case they are mortally hooked. Lots of violations - fish and game. Weir - concern for spring steelhead population half of what is used to be. Harris 7/8 now 2/3. Limits on silvers too liberal; should be 3; reduce bag limits and have a punch card for silvers. Concern people can use eggs; people are throwing them back - catching a lot of trout - Klawock River - hurting trout. Subsistence on steelhead not necessary especially with bait. One good thing - allowing pinks to be used as bait and inc. limit from 6 to 10 - good!
Gillnetter gave away 1 steelhead, commercial retention. --I get a steelhead trolling, keep it to eat.
Have not been steelhead fishing because of regs.
Haven't caught steelhead on POW; but in Oregon, yes.
Husband guides steelhead fisherman; Overfishing by outsiders is a big concern for her. Should be regulated a little bit more. (Everyone) too many lodges are over taking. Concern people are taking advantage of subsistence permit. Visitor: Subs a good thing. There is some abuse occurring - especially with steelhead - harvesting steelhead every day.
I had a piece of steelhead given to me last year by commercial gillnetter. Over the last 10 years, I have gotten maybe 4 steelheads given to me by commercial gillnetters.
I used 4 steelhead in the past year from incidental commercial catch.
If there are native steelhead and they are endangered they should be treated that way - not caught and released.
It has been beneficial to all 4 Native Co.
Just because we didn't harvest, doesn't mean other people don't.
Karta River - low productivity - clients went to sport fish for steelhead - minimal success. Surprised at low productivity for a remote area - other areas more accessible higher productivity.
Keep out residential.
Let them go thru the fish traps/take out the fish traps. Feels affecting the fish for undue stress.
Love nature. Not for overdoing it. Ate lots of salmon in younger days when it was more available.
Love to be able to catch one and eat it. Rules are too strict.
New trails on the Harris River and the impact on fishing for all species - huge increase of people - pressure on resource - buses of people - concerned about inc. fishing effort. (Coho and steelhead)
Only ones able to get from gillnetters don't and won't go into creek to fish; not into it. Should not be killing herring for eggs. In 1972 in Wrangell - 12 year old herring overfishing herring.
Our runs are very small - subsistence harvest is having a negative effect on our returns. I think fishing with eggs creates too much opportunity to over harvest by catch species such as cutthroat trout. I would like to see the stop to subsistence steelhead retention.
--Don't fish steelhead: Because of the Regulations. I no longer fish in this industry. But if they change them I will!
Because of length regs have quit fishing. When this changes I will resume fishing.
Didn't go because of your regulations.
Hook and release

Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**OVK/HCA Household Survey  
Questions, Comments, Concerns**

No. Need to have the regulations changed for size.
No. If the regulations change maybe I will fish this again. But don't want to get a fine for too small of a fish.
Sports fisherman depleting fisheries, used to be a lot of steelhead.
Had no knowledge of permits.
Page 2. Don't want to fish in the river. Concern about # of steelhead in each stream. Page 3. Concerned about individual steelhead population. Kupreanof Tunahue Creek 200-24 steelhead. Humpy/Elicker. Concern that steelhead - viable population. Lodges - bottomfish - keeping everything they can catch.
Page 2.6.) Lake. Average 2 year last year only 1. 8.) Work too much to try harvesting. C.R. provides enough for HH use. Page 3. Usually use all varieties of fish. Primary source dog salmon. Concern about decline of steelhead population.
Point Baker fisherman gave us 2008 a wonderful steelhead and we smoked it and ate it. *Close steelhead fishing to all users until the population is healthy.
Produce more!
Re: Sealaska land transfer - potential impacts. Okay to have steelhead for subsistence use. Impact on fishing by lodges. Regulations of bear hunting - should be guided and well controlled.
Regulation too hard, got permit but didn't have chance to fish.
Should allow people to fish for steelhead.
Should be no season. Even shouldn't have catch and release. A few - One creek - Maybeso Creek. But not enough to harvest; let them multiply. Didn't try (in one creek or Maybeso creek) because there are too few. An endangered species on the Harris R. Native Corporations - post "No Trespassing." Very much against. Sealaska Land Transfer Bill because they will deny you access. Local people should have been hired to do surveys; Waste of money to bring a person from Anchorage. Basically FS & ADFG doing a good job, they're trying. This study is a waste of money.
Slow down subsistence harvest to protect resource.
States normally does fish and get license, just not this season. Too much going on with family.
Steelhead harvest in April/May in Hyd. Combination of rain, snow melt, and high water made difficult to harvest.
Stop herring roe fishery.
Stopped fishing since not using bait; noticed they are starting to come back.
Supports conservation of steelhead.
Too many charter fishing with the low amount of steelhead.
Very worried about steelhead population on POW - that's why I never tried to catch a steelhead since I lived here. I think they should be called endangered.
Who funds this?
Will be fishing in near future.
Wish Klawock had steelhead program back.
Wondering about impact of trail on Harris River - time access.
Would like see them raised and released again.

**OVK/HCA Household Survey**

**Questions, Comments, Concerns**

Would like to see steelhead populations come back. Concerned about resource - subsistence issue? Why can't they take coho or sockeye? If there is a stream in danger, why not leave it alone with no one harvesting them?

**OVK/HCA Key Respondent**

**Concerns or questions about this study and the participation in subsistence steelhead permitting system.**

Not in the study, but I'd like to see the tribal governments fight the State on their bag limit because in my mind -- and I had a good argument with Bob Chadwick and he tucked his tail and started running from me because I wouldn't let up. See, the way they have the bag limit written up you're allowed to take a steelhead 36-plus inches. You have to release anything smaller, you have to let go.

So what that does is it makes the steelhead run weaker over time because everybody is keeping all these big, beautiful spawners that have the best eggs for the strongest run possible, . . . and they're leaving the small steelhead behind to spawn, to take over. To me that's making a weaker run.

So what I would recommend is allowing the subsistence or even sport fish steelhead fishermen to keep the smaller steelhead and release those big spawners with the exception of a trophy over 40 inches. They can keep one. Kind of like the spiked fork 50 ruling on the moose harvest, similar to that. So that way it would ensure the strongest and most mature eggs would be spawning instead of these little rack fish.

I wouldn't mind seeing the tribal governments jump in, submit a proposal and fight the State again. And the other thing, it being a subsistence steelhead, why can't they go and fight the State. The State stopped us from raising steelhead in the hatchery and the stock is being depleted in all the streams and estuaries everywhere.

I've seen hatcheries work with steelhead and they come back so strong. The mortality is so low they don't even have to raise but 100,000 eggs at a time. The problem is we don't have the financing to do it. If the tribal governments got together and submitted a letter of recommendation or something to the State and the State would have to give in and allow the hatcheries to have a permit to go ahead and raise steelhead. They yanked our permit. Bob Chadwick is the one. Because of my argument with him on their bag limit, they pulled our permits for enhancing steelhead.

When the State was running the hatchery, they did steelhead all the time and that river was just full of steelhead, but they discontinued it because Bob Chadwick wanted natural run steelhead. But what the heck, you know. There's no such thing in this ocean anymore.

Everything out there is enhanced, you know. The king salmon, you've got what -- 97 percent of the king salmon in the ocean are hatchery oriented, plus all the cohos out there. There's only so many. They only allow 6,000 coho to escape above the weir. That's all the State allows. The rest is all hatchery. That river, Klawock Lake, I'm sure at one time before there was any weirs or hatcheries or anything there was probably 30,000 coho going through that weir or going over that falls into the lake. They said it can't handle. How do they know it can't handle it, you know? Because of the restrictions on the escapement being only 6,000, in my mind it's killing that lake because we're having problems with sockeye returning and everything.

See, what happens when you only allow that much fish to go through, what's going to fertilize the lake normally is the fish carcasses decaying in the bottom of the lake that fertilizes that lake. Well, with only 6,000 fish what's fertilizing the lake for the sockeye to flourish down there, you know. I've always thought about pulling a couple pegs of the weir as soon as we got our brood stock, you know. Just let them go through. But they're biologists. They're all college-educated people. They don't realize that

**OVK/HCA Key Respondent**

**Concerns or questions about this study and the participation in subsistence steelhead permitting system.**

just through their own stupid practices they're killing the lake. You know, there's no fish up there to fertilize the bottom of the lake anymore for those little sockeye fry.

So we're having to enhance. Now we ran out of money for enhancing sockeye. It costs about 40,000 a year to raise sockeye. Last year was the last enhancement return. We've been out of money for about five years, four years, something like that. Last year we had like 24,000 sockeye escape up there and this year is the result of no enhancement. There was just around 3,000. So you could see the big difference.

But if the tribal governments can change the State's bag limit on the steelhead and because it being declared a subsistence species try to get a permit and maybe a grant to enhance steelhead so everybody can eat fish. Regardless if it's a hatchery fish or a natural steelhead, I'd like to see catch and release in practice with the subsistence species just for basically the release of these big beautiful spawners that can bring back a stronger run.

Instead of killing every fish that they keep, allow them to unhook this big, beautiful spawner that the eggs are loose and ready to spawn and revive it in the river and let it go. You know, let it go do its thing. I think we'll be better off in the long run instead of killing every fish that we catch. You know, allowing to keep the smaller steelhead and release those big, beautiful spawners instead of the opposite of what in their minds. That was always my concern. Even though somebody is on the bank I'll take and release them anyway.

One guy questioned my releasing it. He said with a subsistence permit you're supposed to keep that fish. I told him, well, in my mind, I told him by releasing this big, beautiful spawner it will ensure that there will be a stronger run returning when this fish spawns out. I said I'd rather keep that small one that I have up on the bank there because it's plenty enough for me to eat. I said this one here, it being ready to spawn, I said it's spitting eggs already. I'll just nurse it back to where it can swim off on its own and she'll go and do her thing and there will be maybe 50,000 eggs hatched because of her. He was, oh, wow, I didn't see anything then. . . .That's what the guy said. So I got away with it. But I always make it a habit of releasing those big ol' spawning steelhead. Yes. Steelhead are beautiful fish.

I don't support catch and release. I think that's just harassing the fish and they die anyway.

I think it's working okay. Not right off. I don't know of too many guys that actually fish, you know. I mean we just kind of drifted away from it unfortunately, but I plan to start utilizing it a little more. I mean we all get busy doing other things. It was pure and simple too restrictive as far as sport fishing until the Federal opportunity comes along. And I was involved in that heavily to get a subsistence fishery for steelhead. I'm very familiar with it.

One thing is that as far as I understand if you go subsistence fishing and you're fishing with bait, you're supposed to keep the fish, which is ridiculous because if you catch a dark black steelhead when you're subsistence fishing, you don't want to eat it.

You should be able to turn it loose without violating the law. But the law says if you're subsistence fishing you're supposed to keep what you catch, you know, which doesn't make any sense to me at all. A black, spawned-out steelhead ain't no good to eat.

You know, so I would just as soon -- that's one reason why I don't fish anymore because you can't do it really legally. I mean if you go subsistence fishing and you catch a dark steelhead, I'm not going to keep it. I'm going to throw it away.

<p><b>OVK/HCA Key Respondent</b></p> <p><b>Concerns or questions about this study and the participation in subsistence steelhead permitting system.</b></p>
<p>So if somebody is there enforcing the law, then I've violated the law because you're supposed to keep it. I'm like forget it. I'm not going to keep it, you know, and I don't want to break the law, so that's one reason I don't subsistence fish that much anymore, you know. I don't want no 18-pound black male steelhead to eat. I want a six-pound chrome bright one, you know.</p> <p>No. I would like to see them maintain the steelhead population and I'd like to see people be able to catch them if they need -- you know, need food to eat, you know, but I don't want them to destroy the fishery over a food resource.</p> <p>You know. I mean I have no problem, -- if there's -- what is there, 170 steelhead on the Harris River, you know, the total run. Well, that's not enough to support a community of 500 people if they wanted to eat one every winter, you know.</p> <p>So that's why I just basically quit fishing because there's just too much pressure on them. I mean if I could fish them and turn them loose, I don't have any problem with that. I mean if I go subsistence steelhead fishing and you're fishing with bait, if -- like all fast on the trigger. As soon as they bite, you hit. You don't let them chew on it. You're not going to hook them in the gut. You can turn them loose, you know.</p> <p>So I don't have any problem with that, you know. But if I'm required to keep it, I don't -- I don't want no black steelhead, you know. I want to be able to turn it loose. If I just want one to eat all winter, I want to pick the one I want, you know. If I hook one and it's going to die, okay, I'm stuck with that one, I've got to eat it, but if it's just hooked in the corner of the mouth and nothing wrong with it, I should be able to turn it loose and go for the one I want to eat, you know.</p> <p>I used to be. I mean I've got pictures over there on the wall. Do you want to see some nice steelhead? But when the laws all changed, it kind of got too complicated for me.</p>
<p>Just concerned about all the sport fishermen coming in and they start taking some of these fish not being reported that they take out. Like I said, we only take what we need. And if we have one or two fish that we're not going to put in the freezer, we give to an elder or someone else in town.</p> <p>Just some of the logging that's being done back here and the contamination to the creeks and stuff I worry about once in a while. These streams around here, the bone fish go up the main stream Hydaburg, Saltery and all these ones. You go look at all the small streams, the small little minnows go up those in the summertime. They don't go in there when they're grown up or anything, but they're there when they're small. We've got to watch contamination on any stream. Then with steelhead having the most -- having such a complex life, they would be pretty vulnerable to it. So environmental -- environmental concerns.</p>
<p>Not at this time. I'm not sure what you would like me to say. I mean we just haven't had access lately because of jobs. And time.</p>
<p>On the study of it, all right, to see how the steelhead are dying. Like I say, this is our way of life handed down from generation to generation. That should be kept within the villages. You don't know if hard times are coming or not. Yeah, it's our livelihood.</p>
<p>No questions or nothing. It sounds like it's a pretty good program. I'd like to see everything, you know -- at least find out what the heck is going on out there with our subsistence fishing.</p>

**OVK/HCA Key Respondent**

**Concerns or questions about this study and the participation in subsistence steelhead permitting system.**

The only thing I'm surprised -- there was a report here a few years ago that the number of fish returning to the streams and spawning of the steelhead is way down, you know. I'm wondering what the reason is because I haven't paid much attention here, you know.

I don't think there's any less here per year than there has been. Right up until I got so I didn't go after the fish so much, it seemed like the run was fairly strong. It only lasted a while, you know. It would start sometime in late February and April and then the height of the run would be in the first part of May, first week or so in May.

Fish and Game report that fish had to be a certain size, 36 inches or longer. At that rate, the fish -- one of the fishermen here got one up in the Klawock River that was 36 inches long and he gave me a chunk of it and it wasn't -- it didn't taste very good to me. . . this must have been in May. The spring run up there.

My only concerns are -- and only you probably know better than I, is the sincerity of the answers that you get from folks, how honest they are with you about the harvest. Like I say, I don't participate very much at all in either the subsistence deer hunting rights, I never have even though I could, and it's been pretty much the same with the fishing. I just never had a personal need for that, so I just -- I really haven't done it.

Well, that was pretty easy. I'm very much interested in the subsistence issue itself. I just wish that the people that need that and use it traditionally still have those rights. Even as long as I've lived here I don't feel that I really have that right. That's me personally.

I just have always looked at it -- if I had a need, I think I could view it differently. If I really had to have it. But I have had the luxury of having a pretty good job most of my life and didn't really have to rely upon things like living off the outdoors, but I certainly, after living here long enough, see the need for it with a lot of folks.

As well as just traditionally. That's their diet, so it's more -- I just wish that we had less pressure on our stream courses here. We have such a fragile island.

We really do. I don't know how much we can tolerate in the form of tourism. Although there's always a place for that, it concerns me over some of the issues that we're discussing today like subsistence rights. Those are where the pressure is going to come from, I think. Anyway, thank you very much.

I think it's wise for those that are in charge of all this to do the best they can to keep a track record of everything as much as they're able to, you know. I would rather see them do that than to make some of these outlandish guesses that a lot of them do. You know, if you're going to count numbers, let's do it right.

I think the studies are probably good. I don't know how many people -- I talk to people who keep the occasional fish. I have friends who keep fish now and then because they get the permit and they want to take the fish. I don't begrudge them that fact, you know, if they want to keep one now and then, you know.

We got fish last year that were legal to keep based on the size alone, but we didn't keep them because they were so fresh and they looked like they were going to do a really good job spawning later. I've learned a lot in the last several years about fishing them and it's a lot of fun. I hope the resource stays forever for the people that need them and the people like me that just want to fish them.

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Prince of Wales Island Steelhead Trout Subsistence Harvest Study

**APPENDIX**

**I. CSIS HOUSEHOLD SURVEY STEELHEAD HARVEST RESULTS**

	Study Year	Gear Used	% Households					Estimated Community Harvest			Average	
			using	trying	harvesting	Receiving	Giving	Lower CI	Total	Upper CI	Pounds per Household	Per Capita Pounds
Coffman Cove	1998	Any	32.0	18.0	18.0	20.0	8.0	24.0	69.0	114.0	7.82	2.75
		CF Retention	0.0	0.0	0.0	0.0	0.0	0	0	0	0.00	0.00
		Rod & Reel	0.0		18.0	0.0	0.0	24	69	114	7.82	2.75
Craig	1997	Any	8.7	8.1	6.4	2.3	2.3	86	211	335	2.95	1.02
		Rod & Reel			6.4			86	211	335	2.95	1.02
Edna Bay	1998	Any	0.0	0.0	0.0	0.0	0.0	0	0	0	0.00	0.00
Hollis	1998	Any	2.2	2.2	2.2	0.0	0.0	0	1	2	0.18	0.07
		Rod & Reel	0.0		2.2	0.0	0.0	0	1	2	0.18	0.07
Hydaburg	1997	Any	21.6	15.7	15.7	9.8	9.8	62	172	282	11.17	3.63
		Rod & Reel			11.8			20	95	170	6.17	2.00
		Other Gear			3.9			-8	77	162	5.00	1.62
Kasaan	1998	Any	7.1	7.1	7.1	0.0	7.1	0	3	5	1.21	0.50
	1998	Rod & Reel	0.0		7.1	0.0	0.0	0	3	5	1.21	0.50
Klawock	1984	Any	55.6	44.4	38.9	25.0	13.9	150	338	526	15.50	4.29
		Any	10.4	11.3	9.4	1.9	1.9	93	226	359	6.33	2.27
	1997	Rod & Reel			8.5			82	214	347	6.01	2.15
		Other Gear			0.9			-7	11	30	0.32	0.11
Naukati Bay	1998	Any	2.0	2.0	2.0	0.0	0.0	0	1	3	0.17	0.08
		Rod & Reel	0.0		2.0	0.0	0.0	0	1	3	0.17	0.08
Point Baker	1996	Any	62.5	37.5	37.5	25.0	6.3	16	34	52	15.41	6.16
		CF Retention	31.3	31.3	31.3		6.3	13	31	49	13.81	5.53
		Rod & Reel			6.3			1	4	7	1.59	0.64
Port Protection	1996	Any	52.0	24.0	16.0	44.0	16.0	8	37	65	7.82	3.20
		CF Retention	8.0	8.0	8.0		4.0	-2	14	31	3.06	1.25
		Rod & Reel			8.0			-2	22	47	4.76	1.95
Thorne Bay	1998	Any	5.6	5.6	4.5	1.1	0.0	3	16	29	0.67	0.26
		Rod & Reel	0.0		4.5	0.0	0.0	3	16	29	0.67	0.26
Whale Pass	1998	Any	0.0	0.0	0.0	0.0	0.0	0	0	0	0.00	0.00

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