HOOPER BAY SUBSISTENCE SALMON MONITORING PROJECT, 2001

By:

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ABSTRACT

The Yukon River Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula. Because of its location south of the Yukon River, subsistence harvest information from Hooper Bay could be a potential indicator of run strength and timing before chinook and summer chum salmon enter the Yukon River.

During the 2001 monitoring season, 242 interviews were conducted between June 1 and July 14. Catch, time fished, gill net length and mesh size information was collected during these interviews. A total of 1,088 chinook and 7,420 summer chum salmon were harvested during the monitoring period. The average chinook salmon catch per day was 27, season total 513, for fishers using large mesh gear, and the average chum salmon catch was 203 fish per day, season total 6,501, for chum gear.

There were 12 days between the mid-point of the Hooper Bay chinook salmon subsistence fishery and the ADF&G Big Eddy set gillnet test fishing mid-point. The chinook salmon cumulative CPUE for Hooper Bay was 13.80 compared to 11.54 for the Big Eddy test fishing project. For summer chum salmon, the Hooper Bay cumulative CPUE was 69.99 compared to 2,954.97 for the new Big Eddy drift test fishing project. Last year's Hooper Bay subsistence data was compared to Big Eddy's set gillnet test fishing index. Because of inaccurate data, a cooperative drift gillnet test fishing project was initiated in 2001 to index summer chum salmon. There were 7 days between the mid-point of the Hooper Bay subsistence fishery and the Big Eddy test fishing nets. The 2001 salmon runs were poor and likely affected the subsistence harvest and run timing relationship between Hooper Bay and the Yukon River. Continued inseason data collection may eventually lead to formal run timing and run strength estimation for the Yukon River chinook and summer chum salmon.

INTRODUCTION

From its headwaters in Marsh Lake, British Columbia (Thorsteinson et al. 1989), the Yukon River flows approximately 2,300 miles to the Bering Sea coast in western Alaska. The Yukon River Area includes all waters of Alaska within the Yukon River drainage and coastal waters from Point Romanof, located northeast of Kotlik, and south to the Naskonat Peninsula (Borba and Hamner 1999 and ADFG 1999). Five species of Pacific salmon are found in the Yukon River drainage, which include chinook (*Oncorhynchus tshawytscha*), chum (*O.keta*), coho (*O. kitsutch*), pink (*O. gorbuscha*), and sockeye (*O. nerka*). Chinook and chum salmon are the primary species and provide most of the subsistence, personal use, commercial and sport fish harvests for Yukon Area communities.

For management purposes, the Yukon Area is divided into seven districts (Figure 1). The three management areas defining the Lower Yukon Area are Districts 1, 2, and 3. The Upper Yukon Area includes Districts 4, 5 and 6 (ADFG 1999). The Alaskan portion of the Yukon River drainage and the boundary of the management area terminate at the Canadian border.

The Coastal District includes the coastal marine waters within the Yukon Area and is open only to subsistence fishing. Several rural communities are located within the Coastal Management Area and within the lower portions of the Yukon River drainage. Residents of these communities are primarily of Yup'ik Eskimo ancestry who have fished for generations in nearshore marine waters.

Results from the 2000 season are presented in the report *Hooper Bay Subsistence Salmon Monitoring Project, 2000* (Raymond et.al. 2001), which was the first year of operation. This report represents information gathered during the 2001 field season.

Community of Hooper Bay

Hooper Bay is a large community situated on the northwest shore of Hooper Bay and is located approximately 150 miles northwest of Bethel and 90 miles south of the southern most mouth of the Yukon River (Figure 1). The prominent geographical features in the area include Hooper Bay in which the community is located, and the isolated coastal Askinuk Mountains located 15 miles north of the village. The land surface elevation ranges from low-lying marshes bordering Hooper Bay to an abrupt rise of 2,000 feet in height at the Askinuk Mountains. The area around Hooper Bay is well drained by several rivers systems including the Kokechik, Kashunuk, Keolivik, Aphrewn, and Manokinak rivers (Stickney 1984).

Hooper Bay, with a population of approximately 1,200 residents, is the second largest community in the Yukon-Kuskokwim Delta. Hooper Bay has a subsistence-based economy and functions as the hub for nearby smaller satellite villages. Residents harvest salmon for subsistence purposes as the fish migrate north to the Yukon River. Subsistence salmon fishing activities in the bay occur from late May through mid-July. Historically, residents harvest salmon stocks annually that originate from the Yukon River system and from other areas. A Bering Sea Fishermen's Association tagging and recapture study conducted in 1986 identified that the

residents of Hooper Bay primarily harvest Yukon Area chum and pink salmon stocks, (Borba and Hamner 1999), but also harvest Kotzebue and Norton Sound chum salmon stocks (Kerkvliet 1986).

Alaska Department of Fish and Game Projects

The Alaska Department of Fish and Game (ADF&G) has conducted annual subsistence surveys in the Hooper Bay area (Borba and Hamner 1999) since 1992. Fishery managers have periodically collected inseason catch reports from Hooper Bay residents. Although helpful, inseason data from Hooper Bay has not been collected on a consistent basis.

Currently, ADF&G employs a variety of methods to determine returning salmon run strength and timing in the Yukon River. These methods include drift and set net test fishing projects, sonar assessment projects, tower and weir counting projects, and commercial and subsistence fishery catch rate information. However, these projects only provide information on salmon passage after they have entered the mouth of the Yukon River. Because of recent declines in Yukon River chinook and summer chum salmon returns, ADF&G is very interested in collecting salmon run strength and run timing information before the salmon enter the mouth of the Yukon River.

Project Design

This project was designed to compliment and aid the existing data collection methodologies that are currently in place to determine run timing and strength prior to salmon entering the mouth of the Yukon River. Chinook and summer chum salmon are harvested in coastal Yukon area communities annually, but these catches are not formally monitored inseason. Subsistence fishers from Hooper Bay catch salmon before they enter the Yukon River. This ongoing traditional fishing effort may be used to provide catch data with the potential to generate an early assessment of the run strength of returning chinook and summer chum salmon runs. This information may help fishery managers better assess salmon runs early in the migration.

METHODS

During the 2001 summer season, two Hooper Bay Traditional Council technicians collected daily salmon catch and effort data from subsistence salmon fishers in the Hooper Bay area. Data was collected between June 1 through July 14 during the chinook and summer chum salmon migration. Technicians conducted subsistence fisher interviews and gathered information on daily catch by species, net length, mesh size, and time fished. Each technician contacted fishers at the small boat harbor as they returned from fishing.

Catch per unit effort (CPUE) calculations were completed for each interview and compiled into a database. Daily catch rates were calculated and compared to the Big Eddy chinook and summer chum salmon test fishing indices. Because of the different methods of collecting run strength and run timing information, set gillnets and drift gillnets, different formulas are used to calculate

catch rate indices. The goal of this project is to determine if Hooper Bay subsistence harvest information can be used to project the run strength of salmon returning to the Yukon River. Therefore, the emphasis is on comparing trends between the Hooper Bay and Big Eddy test fishing projects, not to compare calculated CPUE indices from each project.

Index values (*I*) used in ADF&G test fishing projects the following catch per unit effort equation.

$$I = \frac{6{,}000\ (c)}{(l)\ (t)}$$

The number 6,000 is a constant and is the number of fish which would have been caught if 100 fathoms of net was fished for 60 minutes, c denotes salmon catch, l is the length of net in fathoms, and t equals mean time fished in minutes (Lingnau 1997).

Chinook and summer chum salmon harvest information from Hooper Bay was separated by mesh size. Catch information from mesh sizes greater than 6.5 inches were used for chinook catch rates. Mesh sizes less than or equal to 6.5 inches provided data for summer chum salmon catch rates. Assembled data was to be reported to the ADF&G office in Emmonak on a daily basis. Collected data from the Hooper Bay subsistence monitoring project was then compared qualitatively with the existing lower Yukon River set gillnet test fishing daily and cumulative CPUE.

The Yukon River summer season area research and management biologists worked to ensure that the data collected from the Hooper Bay Subsistence Salmon Monitoring Project was accurate and of the same quality and standards obtained from other catch data collected in the Lower Yukon Area.

RESULTS

During the 2001 monitoring season, a total of 242 interviews were conducted during a 45-day period (June 1 to July 14) (Appendix Table A.1.). Subsistence fishers primarily used set gillnets to harvest chinook and summer chum salmon. Fishermen used nets of varying lengths (4 fathoms to 150 fathoms), and assorted mesh sizes (2.5 inches to 8.0 inches). The total inseason reported harvest by Hooper Bay subsistence fisherman was 1,088 chinook salmon and 7,420 summer chum salmon.

Chinook Salmon

Chinook salmon were harvested using nets that averaged 17.5 fathoms in length with a mean mesh size of 7.8 inch. The total time fished using chinook gear was 36,360 minutes (606 hours) (Appendix A.2). The mean chinook catch per day fished was 27 salmon. The cumulative CPUE was 13.8, compared to 11.4 for the Big Eddy test fishing project (Table 1 and Figure 2). The average number of fishermen per day using chinook salmon gear was 2.95 with an average

fishing time of 10.8 hours per fisherman. The highest single day catch was 116 salmon on June 7. Because of the low harvest of chinook salmon, conclusions of run timing between Hooper Bay and the Big Eddy test fishing project should be made with caution (Figure 3). When comparing the quartiles between Hooper Bay and the Big Eddy test fishing project, the differences (number of days) between the quartiles were 7 days (1st quartile), 12 days (2nd quartile) and 8 days (3rd quartile) (Table 1).

Summer Chum Salmon

On June 19, subsistence fishers harvested 1,512 chum salmon, the highest single day harvest during the monitoring period. The highest daily CPUE was 6.35 occurring on June 20. The cumulative CPUE was 69.99, compared to 2,954.97 for the Big Eddy test fishing project (Table 2 and Figure 2). Summer chum salmon were harvested using nets with a mean length of 16.4 fathoms with an average mesh size of 5.2 inches. Fishers fished for a total 123,280 minutes (2,055 hours) (Appendix Table 2). The mean chum salmon catch was 203 fish per day. The average number of fishers using summer chum salmon gear per day was 5.81 with an average fishing time of 11.0 hours per fisher. When comparing the quartiles between Hooper Bay and the Big Eddy test fishing project, the differences (number of days) between the quartiles were 7 days (1st quartile), 7 days (2nd quartile) and 6 days (3rd quartile) (Table 2).

DISCUSSION

The 2001 preseason outlook was for a weak to below average chinook and summer chum salmon run in the Yukon River (ADF&G 2000). The summer chum salmon run in 2001 was poor as expected. However, postseason analysis indicates the chinook salmon run could have supported a normal subsistence harvest and a low level commercial harvest. Verbal reports from fishermen also supported this evaluation. Fishermen reported better chinook salmon harvests in 2001 than in the previous several years, but the harvests in Hooper Bay were the lowest most fishermen had seen in recent history. An additional factor affecting harvests in Hooper Bay may have been the weather conditions. Hooper Bay harvests tend to be higher when onshore winds occur. According to the fishermen, there were fewer days with onshore winds (northeast) in 2001 than normal.

Because it is a new project, the results were not utilized to provide run timing and strength information in 2001. Subsistence fishermen indicated that this year's harvest was one of the lowest in recent memory, supporting information from other run assessment projects used by the department. Summer chum salmon catch rates in Hooper Bay may be a more viable tool to managers in the future concerning run strength and timing compared to chinook salmon data. The poor results (of using Hooper Bay as a run indicator) for chinook salmon may be attributed to not enough chinook salmon being caught in Hooper Bay to provide an assessment of the run timing and abundance of chinook salmon. [The poor results of using Hooper Bay chinook catch data as an assessment of the run timing and abundance may be attributed to not enough chinook salmon being caught in Hooper Bay.] However, this was one of the poorest chinook salmon runs on record. More useful information may be obtained when the run size is larger. Additional years

of data need to be collected to understand its potential contribution to the management of the Yukon River fisheries.

More comparable information between the Hooper Bay subsistence monitoring project and the Big Eddy test fishing project could provide higher quality information. One option would be to continue the project as is but only compare gillnets that are of similar mesh size. For example, instead of comparing Big Eddy 5.5 inch mesh size gill nets to Hooper Bay nets smaller than 6.5 inch, compare the Big Eddy test fishing nets to similar mesh size nets used in Hooper Bay. The other option would be to establish a test fishery using the same gear type used at the Big Eddy site. Comparing similarly or identically collected data would provide managers with higher quality comparable run timing and run strength information. In the future, the collection of scales from chinook and summer chum salmon for aging purposes should be added to the project. This could provide local residents a better understanding of the biology of salmon harvested in Hooper Bay.

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TABLES AND FIGURES

Table 1. Hooper Bay subsistence and Big Eddy test fishing chinook salmon catch, and daily and cumulative CPUE, 2001. [a]

	Chinook Salmon					
	Hooper Bay Subsistence			Big Eddy Set Test Fishing Nets		
	Daily		Cumulative	Daily		Cumulative
Date	Catch	CPUE	CPUE	Catch	CPUE	CPUE
1-Jun						
2-Jun	12	0.57	0.57			
3-Jun			0.57	0	0.00	0.00
4-Jun	8	0.42	0.99	0	0.00	0.00
5-Jun	7	0.33	1.32	0	0.00	0.00
6-Jun	35	1.03	2.35	0	0.00	0.00
7-Jun	116	1.71	4.05	0	0.00	0.00
8-Jun	24	1.12	5.17	9	0.19	0.19
9-Jun	9	0.38	5.54	17	0.35	0.54
10-Jun	11	0.92	6.46	10	0.21	0.75
11-Jun	10	0.83	7.29	16	0.33	1.08
12-Jun	42	0.70	7.99	27	0.56	1.64
13-Jun	43	0.60	8.59	32	0.67	2.31
14-Jun	1	0.08	8.68	40	0.83	3.14
15-Jun	13	0.32	8.99	15	0.31	3.45
16-Jun	23	0.96	9.95	10	0.21	3.66
17-Jun	96	1.21	11.16	8	0.17	3.83
18-Jun	6	0.30	11.46	2	0.04	3.87
19-Jun	15	0.63	12.08	6	0.13	4.00
20-Jun	37	1.30	13.38	5	0.10	4.10
21-Jun	5	0.42	13.80	50	1.04	5.14
22-Jun				24	0.50	5.64
23-Jun				57	1.19	6.83
24-Jun				54	1.13	7.96
25-Jun				37	0.77	8.73
26-Jun				22	0.46	9.19
27-Jun				34	0.71	9.90
28-Jun				10	0.21	10.11
29-Jun				3	0.06	10.17
30-Jun				4	0.08	10.25
1-Jul				12	0.25	10.50
2-Jul				7	0.15	10.65
3-Jul				8	0.17	10.82
4-Jul				6	0.13	10.95
5-Jul				6	0.13	11.08
6-Jul				3	0.06	11.14
7-Jul				3	0.06	11.20
8-Jul				2	0.04	11.24
9-Jul				1	0.02	11.26
10-Jul				5	0.10	11.36
11-Jul				3	0.06	11.42
12-Jul				1	0.02	11.44
13-Jul				3	0.06	11.50
14-Jul				1	0.02	11.52
15-Jul				1	0.02	11.54
Total	513	13.80		554	11.54	

[a] Area outlineded by the fine line represents the 25% to 75% quartiles. The bold outline represents the 50 percentile.

Table 2. Hooper Bay subsistence and Big Eddy test fishing summer chum salmon catch, and daily and cumulative CPUE, 2001.

	Summer Chum Salmon					
	Hooper Bay Subsistence			Big Eddy Drift Test Fishing Nets		
	Daily		Cumulative	Daily		Cumulative
Date	Catch	CPUE	CPUE	Catch	CPUE	CPUE
1-Jun	1	0.07	0.07			
2-Jun	1	0.33	0.40			
3-Jun			0.40			0.00
4-Jun			0.40			0.00
5-Jun	105	2.73	3.13			0.00
6-Jun	122	2.61	5.75			0.00
7-Jun	121	2.88	8.63			0.00
8-Jun	144	2.94	11.57	0	0	0.00
9-Jun	177	3.00	14.57	1	1.67	1.67
10-Jun	43	3.58	18.15	0	0	1.67
11-Jun			18.15	0	0	1.67
12-Jun	78	3.25	21.40	3	4.62	6.29
13-Jun	88	3.67	25.07	41	67.39	73.68
14-Jun	185	3.85	28.92	162	399.89	473.57
15-Jun	343	3.28	32.20	41	173.74	647.31
16-Jun	455	2.73	34.94	43	81.84	729.15
17-Jun	547	3.22	38.15	34	53.76	782.91
18-Jun	644	3.59	41.74	20	24.99	807.90
19-Jun	1,512	4.63	46.37	8	16.88	824.78
20-Jun	908	6.35	52.72	10	16.47	841.25
21-Jun	658	4.55	57.27	83	155.84	997.09
22-Jun	54	2.25	59.52	83	128.38	1,125.47
23-Jun			59.52	116	295.84	1,421.31
24-Jun			59.52	59	454.59	1,875.90
25-Jun			59.52	110	166.57	2,042.47
26-Jun	1	1.00	60.52	108	201.25	2,243.72
27-Jun	3	0.08	60.61	151	355.55	2,599.27
28-Jun	87	1.32	61.93	38	78.44	2,677.71
29-Jun	89	1.48	63.41	14	23.43	2,701.14
30-Jun	7	0.58	63.99	85	121.44	2,822.58
1-Jul			63.99	25	40.17	2,862.75
2-Jul			63.99	11	16.57	2,879.32
3-Jul			63.99	11	17.26	2,896.58
4-Jul			63.99	18	25.95	2,922.53
5-Jul			63.99	2	9.21	2,931.74
6-Jul	15	1.25	65.24	7	10.83	2,942.57
7-Jul	28	1.65	66.89	1	3.08	2,945.65
8-Jul	8	1.14	68.03	5	7.82	2,953.47
9-Jul			68.03	0	0	2,953.47
10-Jul	5	0.48	68.51	0	0	2,953.47
11-Jul	6	0.20	68.71	1	1.5	2,954.97
12-Jul	20	0.20	68.91	0	0	2,954.97
13-Jul	18	0.50	69.41	0	0	2,954.97
14-Jul	28	0.58	69.99	0	0	2,954.97
15-Jul				0	0	2,954.97
	6,501	69.99		1,291	2,954.97	

[a] Area outlined by the fine line represents the 25% to 75% quartiles. The bold outline represents the 50 percentile.

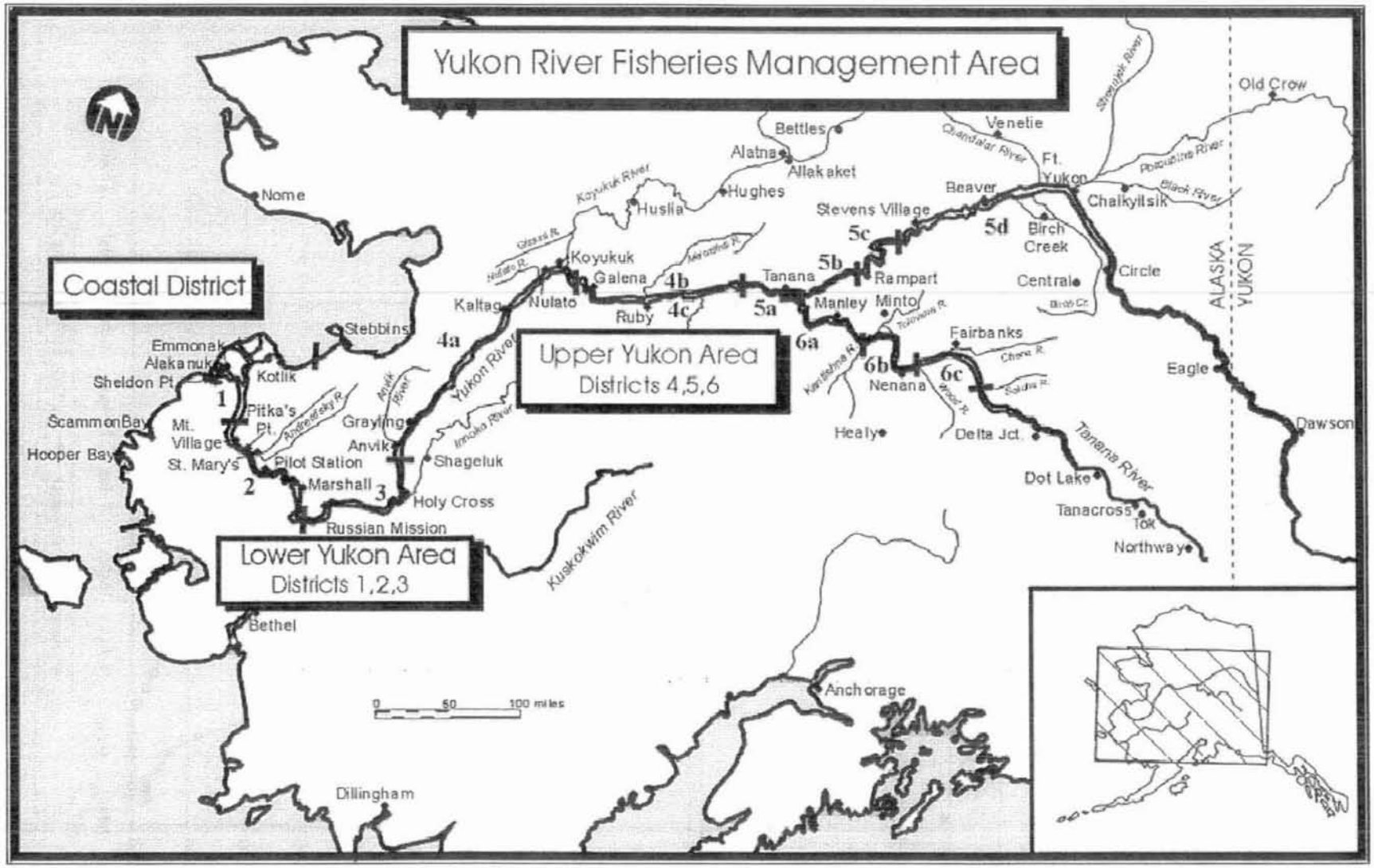
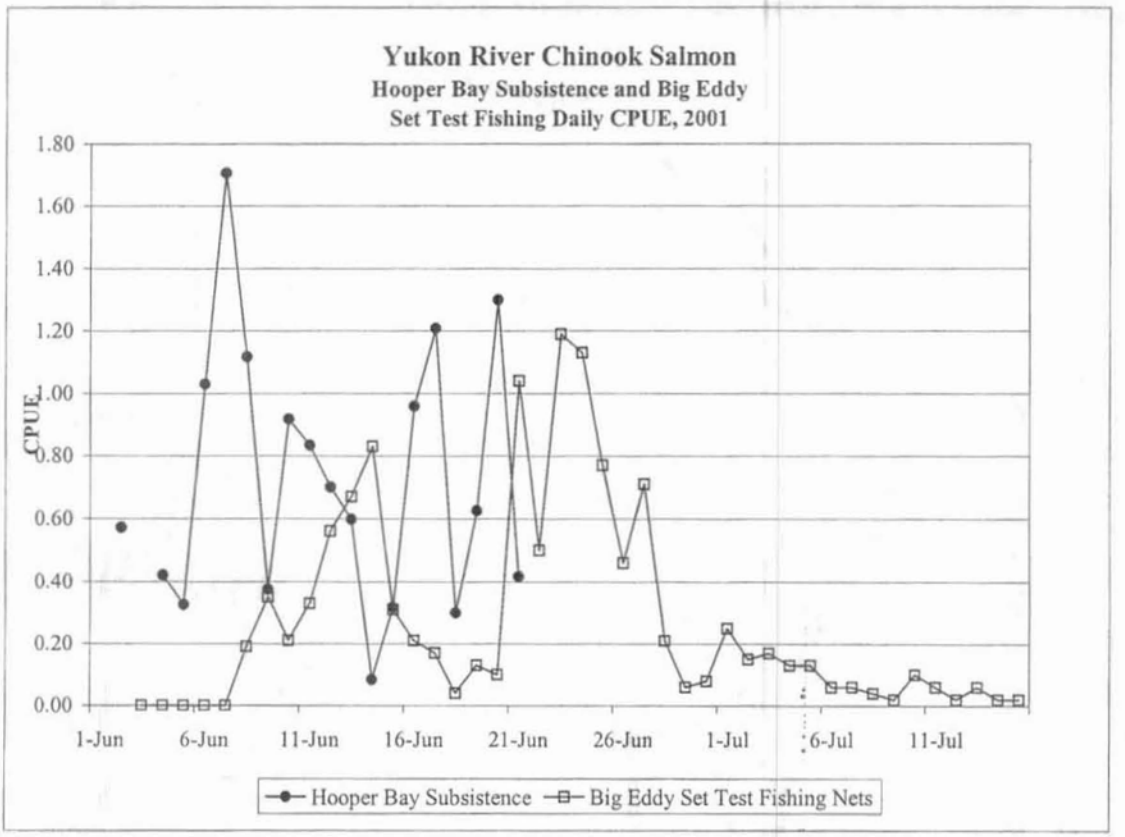


Figure 1. Alaska portion of the Yukon River drainage.



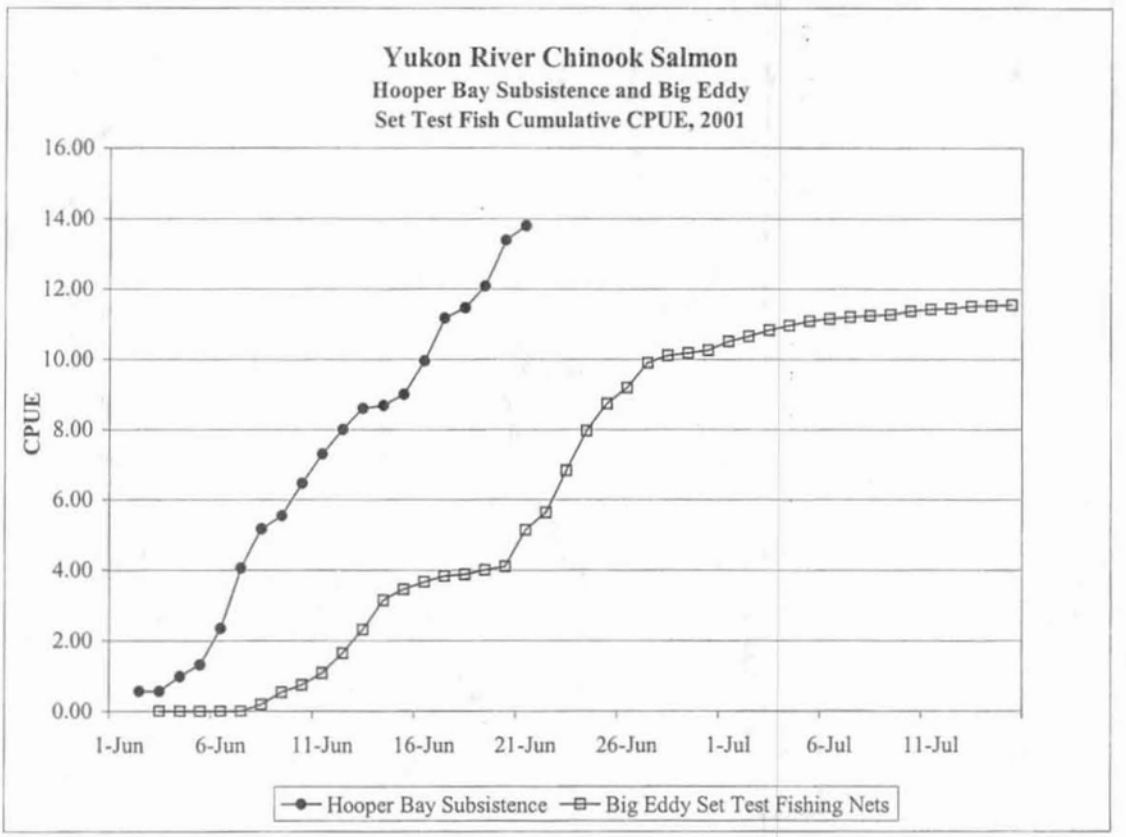
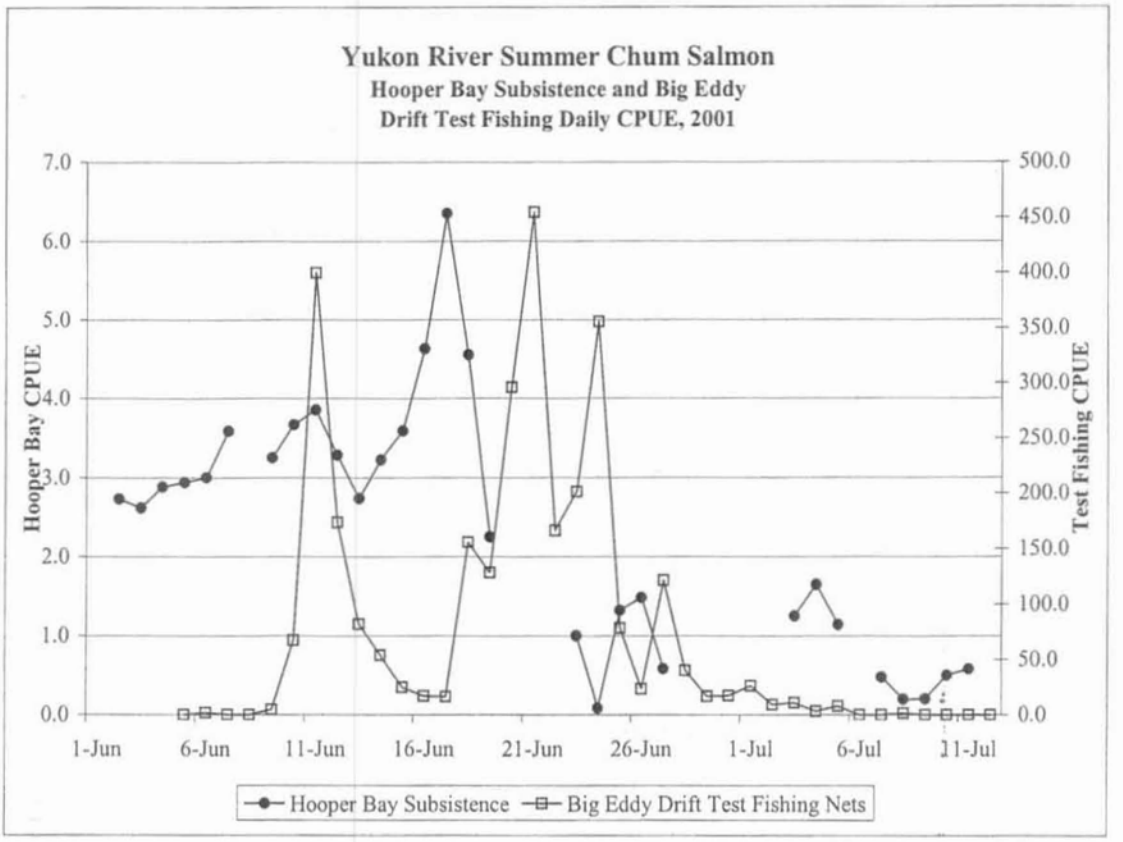


Figure 2. Hooper Bay subsistence and Big Eddy test fishing chinook salmon daily and cumulative CPUE, 2001.



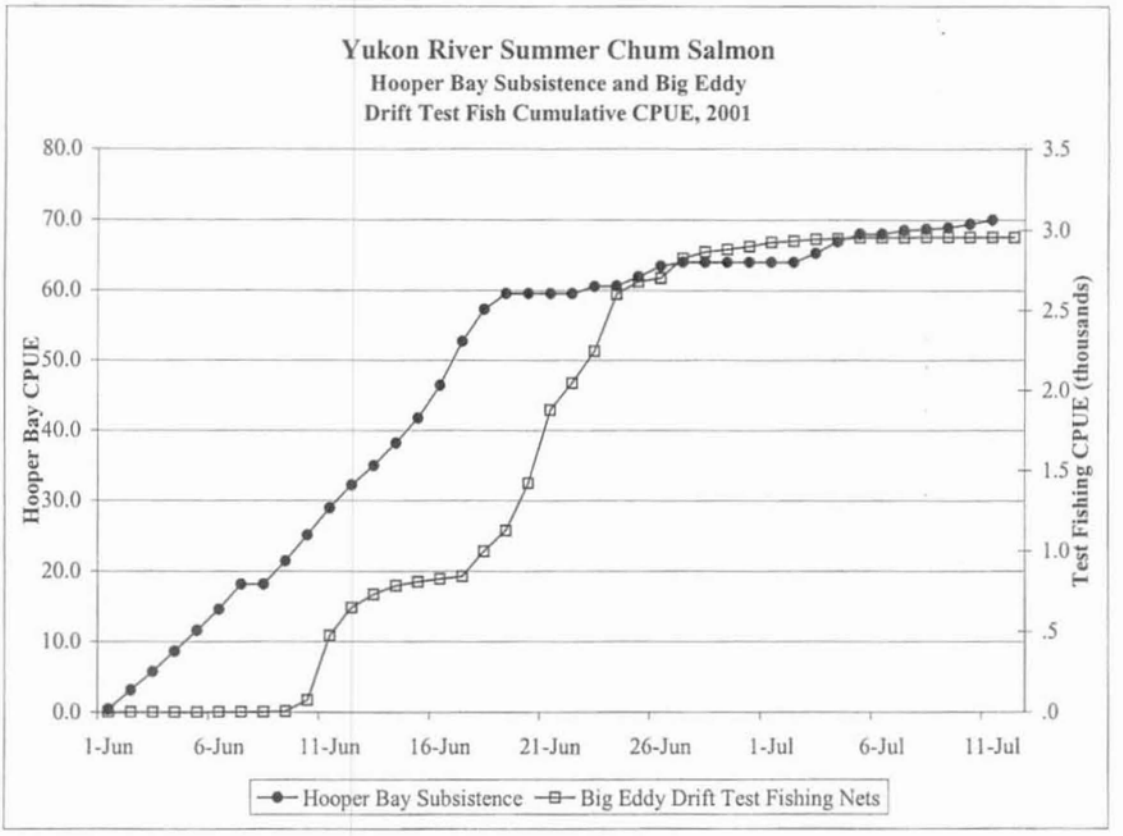


Figure 3. Hooper Bay subsistence and Big Eddy test fishing summer chum salmon daily and cumulative CPUE, 2001.

APPENDIX TABLES

Appendix Table A.1. Hooper Bay chinook and summer chum salmon subsistence harvest by entry number, date, time fished, net length, mesh size, catch and CPUE, 2001.

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
1	1-Jun	420	10	3.00	0	1	0.00	1.43
2	1-Jun	420	10	3.00	1	0	1.43	0.00
3	2-Jun	420	25	7.80	2	0	1.14	0.00
4	2-Jun	420	25	8.00	1	0	0.57	0.00
5	2-Jun	420	25	8.00	9	0	5.14	0.00
6	2-Jun	180	10	3.50	0	1	0.00	3.33
7	4-Jun	720	6.1	8.00	8	1	10.93	1.37
8	4-Jun	420	8.3	8.00	0	0	0.00	0.00
9	5-Jun	570	10	5.30	3	31	3.16	32.63
10	5-Jun	720	6.1	8.00	2	0	2.73	0.00
11	5-Jun	570	25	8.00	5	19	2.11	8.00
12	5-Jun	630	25	5.00	9	24	3.43	9.14
13	5-Jun	480	10	5.30	5	23	6.25	28.75
14	5-Jun	630	25	5.30	2	27	0.76	10.29
15	6-Jun	720	6.1	8.00	12	1	16.39	1.37
16	6-Jun	600	10	5.30	4	27	4.00	27.00
17	6-Jun	600	10	5.30	4	29	4.00	29.00
18	6-Jun	720	6.1	8.00	18	1	24.59	1.37
19	6-Jun	600	25	8.00	5	18	2.00	7.20
20	6-Jun	530	25	5.00	1	22	0.45	9.96
21	6-Jun	530	10	5.30	3	25	3.40	28.30
22	6-Jun	540	25	5.00	2	19	0.89	8.44
23	7-Jun	720	10	8.00	36	9	30.00	7.50
24	7-Jun	720	6.1	8.00	14	5	19.13	6.83
25	7-Jun	600	10	5.30	5	30	5.00	30.00
26	7-Jun	720	25	8.00	40	8	13.33	2.67
27	7-Jun	720	6.1	8.00	15	0	20.49	0.00
28	7-Jun	480	25	8.00	7	21	3.50	10.50
29	7-Jun	570	25	5.00	3	33	1.26	13.89
30	7-Jun	720	50	8.00	4	0	0.67	0.00
31	7-Jun	630	10	5.30	2	24	1.90	22.86
32	7-Jun	720	25	5.00	6	34	2.00	11.33
33	8-Jun	600	10	5.30	9	32	9.00	32.00
34	8-Jun	660	10	5.30	8	29	7.27	26.36
35	8-Jun	720	6.1	8.00	18	0	24.59	0.00
36	8-Jun	570	25	8.00	6	23	2.53	9.68
37	8-Jun	540	25	5.00	7	20	3.11	8.89
38	8-Jun	630	10	5.30	4	27	3.81	25.71
39	8-Jun	510	25	5.00	3	36	1.41	16.94
40	9-Jun	600	4.5	5.00	5	31	11.11	68.89
41	9-Jun	630	10	5.30	2	25	1.90	23.81
42	9-Jun	510	10	5.30	6	29	7.06	34.12
43	9-Jun	720	25	8.00	5	32	1.67	10.67

(continued)

Appendix Table A.1. (Page 2 of 6)

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
44	9-Jun	660	25	5.00	4	24	1.45	8.73
45	9-Jun	720	50	8.00	4	0	0.67	0.00
46	9-Jun	600	10	5.30	7	36	7.00	36.00
47	9-Jun	540	25	5.00	3	32	1.33	14.22
48	10-Jun	720	13.3	8.00	11	0	6.89	0.00
49	10-Jun	720	6.1	5.25	5	43	6.83	58.74
50	11-Jun	720	13.3	8.00	10	1	6.27	0.63
51	12-Jun	720	10	8.00	9	6	7.50	5.00
52	12-Jun	720	10	5.00	10	30	8.33	25.00
53	12-Jun	720	13.3	8.00	17	42	10.65	26.32
54	12-Jun	720	25	8.00	2	5	0.67	1.67
55	12-Jun	720	25	8.00	6	9	2.00	3.00
56	12-Jun	720	10	8.00	8	27	6.67	22.50
57	12-Jun	720	25	5.00	11	48	3.67	16.00
58	13-Jun	720	10	8.00	4	7	3.33	5.83
59	13-Jun	480	25	6.75	20	63	10.00	31.50
60	13-Jun	720	10	5.00	4	21	3.33	17.50
61	13-Jun	720	25	8.00	4	6	1.33	2.00
62	13-Jun	480	25	6.75	2	10	1.00	5.00
63	13-Jun	480	25	8.00	2	3	1.00	1.50
64	13-Jun	720	25	7.75	5	3	1.67	1.00
65	13-Jun	720	50	5.50	2	67	0.33	11.17
66	13-Jun	720	25	8.00	6	14	2.00	4.67
67	14-Jun	720	10	8.00	1	1	0.83	0.83
68	14-Jun	720	13.3	5.50	0	58	0.00	36.34
69	14-Jun	720	10	5.25	0	58	0.00	48.33
70	14-Jun	720	6.1	5.25	4	46	5.46	62.84
71	14-Jun	720	50	5.50	1	23	0.17	3.83
72	15-Jun	720	6.1	8.00	0	32	0.00	43.72
73	15-Jun	540	10	6.75	6	36	6.67	40.00
74	15-Jun	720	13.3	5.50	0	24	0.00	15.04
75	15-Jun	660	10	5.25	5	40	4.55	36.36
76	15-Jun	480	25	6.75	4	28	2.00	14.00
77	15-Jun	720	10	5.25	3	32	2.50	26.67
78	15-Jun	720	25	8.00	3	8	1.00	2.67
79	15-Jun	720	25	5.50	0	48	0.00	16.00
80	15-Jun	720	10	5.50	0	20	0.00	16.67
81	15-Jun	720	50.0	5.50	2	40	0.33	6.67
82	15-Jun	720	10	5.50	2	28	1.67	23.33
83	15-Jun	570	25	5.00	3	43	1.26	18.11
84	15-Jun	720	25	5.50	3	68	1.00	22.67
85	16-Jun	720	4.5	5.00	4	30	7.41	55.56
86	16-Jun	480	25	5.00	3	24	1.50	12.00

(continued)

Appendix Table A.1. (Page 3 of 6)

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
87	16-Jun	720	10	5.50	0	31	0.00	25.83
88	16-Jun	720	6.1	8.00	2	20	2.73	27.32
89	16-Jun	720	13.3	5.50	3	29	1.88	18.17
90	16-Jun	720	10	5.50	2	14	1.67	11.67
91	16-Jun	720	10	5.50	3	24	2.50	20.00
92	16-Jun	570	10	5.25	5	30	5.26	31.58
93	16-Jun	690	10	5.25	3	25	2.61	21.74
94	16-Jun	720	10	5.50	3	31	2.50	25.83
95	16-Jun	720	10	8.00	21	51	17.50	42.50
96	16-Jun	720	50.0	5.50	2	40	0.33	6.67
97	16-Jun	720	10	5.50	0	45	0.00	37.50
98	16-Jun	720	10	5.50	5	40	4.17	33.33
99	16-Jun	510	10	5.25	3	25	3.53	29.41
100	16-Jun	720	10	5.50	50	20	41.67	16.67
101	16-Jun	540	25	5.00	2	47	0.89	20.89
102	17-Jun	720	10	5.50	63	28	52.50	23.33
103	17-Jun	690	4.5	5.00	4	34	7.73	65.70
104	17-Jun	570	25	5.00	2	24	0.84	10.11
105	17-Jun	720	10	8.00	9	3	7.50	2.50
106	17-Jun	720	10	5.50	23	67	19.17	55.83
107	17-Jun	720	6.1	8.00	2	44	2.73	60.11
108	17-Jun	600	10	6.75	2	34	2.00	34.00
109	17-Jun	720	13.3	5.50	3	52	1.88	32.58
110	17-Jun	720	10	5.50	5	43	4.17	35.83
111	17-Jun	600	10	5.25	4	30	4.00	30.00
112	17-Jun	750	25	6.75	2	35	0.64	11.20
113	17-Jun	720	10	5.25	3	27	2.50	22.50
114	17-Jun	720	10	5.50	4	35	3.33	29.17
115	17-Jun	720	6.1	5.50	2	40	2.73	54.64
116	17-Jun	720	25	8.00	78	0	26.00	0.00
117	17-Jun	720	6.1	5.25	13	65	17.76	88.80
118	17-Jun	720	10	8.00	0	50	0.00	41.67
119	17-Jun	540	25	8.00	3	21	1.33	9.33
120	17-Jun	720	25	5.00	3	31	1.00	10.33
121	17-Jun	720	10	5.50	23	18	19.17	15.00
122	17-Jun	630	10	5.25	2	29	1.90	27.62
123	17-Jun	510	25	5.00	3	24	1.41	11.29
124	18-Jun	720	10	5.50	1	17	0.83	14.17
125	18-Jun	630	60	5.25	0	57	0.00	9.05
126	18-Jun	510	25	5.50	1	2	0.47	0.94
127	18-Jun	570	50	6.25	5	31	1.05	6.53
128	18-Jun	600	25	5.50	1	55	0.40	22.00
129	18-Jun	720	10	5.50	0	52	0.00	43.33

(continued)

Appendix Table A.1. (Page 4 of 6)

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
130	18-Jun	720	25	5.25	3	78	1.00	26.00
131	18-Jun	720	6.1	8.00	4	6	5.46	8.20
132	18-Jun	720	13.3	5.50	1	47	0.63	29.45
133	18-Jun	720	25	5.00	2	30	0.67	10.00
134	18-Jun	720	10	5.25	1	26	0.83	21.67
135	18-Jun	720	10	5.50	4	67	3.33	55.83
136	18-Jun	660	25	5.50	3	36	1.09	13.09
137	18-Jun	720	6.1	5.25	1	52	1.37	71.04
138	18-Jun	720	25	5.25	2	30	0.67	10.00
139	18-Jun	690	10	5.25	1	29	0.87	25.22
140	18-Jun	480	25	8.00	2	2	1.00	1.00
141	18-Jun	630	25	5.25	3	35	1.14	13.33
142	19-Jun	720	25.0	5.00	2	37	0.67	12.33
143	19-Jun	720	10.0	8.00	5	20	4.17	16.67
144	19-Jun	690	50.0	6.25	2	47	0.35	8.17
145	19-Jun	720	10	5.50	2	62	1.67	51.67
146	19-Jun	720	25.0	5.50	2	40	0.67	13.33
147	19-Jun	720	10	5.50	5	72	4.17	60.00
148	19-Jun	720	10.0	5.50	5	80	4.17	66.67
149	19-Jun	660	25.0	5.25	3	40	1.09	14.55
150	19-Jun	720	12.5	5.50	1	53	0.67	35.33
151	19-Jun	720	12.5	5.50	1	30	0.67	20.00
152	19-Jun	720	13.3	5.50	0	49	0.00	30.70
153	19-Jun	720	10.0	5.50	1	29	0.83	24.17
154	19-Jun	690	10.0	5.25	3	27	2.61	23.48
155	19-Jun	720	6.6	5.50	0	23	0.00	29.04
156	19-Jun	540	25.0	5.25	3	34	1.33	15.11
157	19-Jun	720	6.6	5.50	2	180	2.53	227.27
158	19-Jun	720	10	5.50	4	24	3.33	20.00
159	19-Jun	720	10	5.50	0	41	0.00	34.17
160	19-Jun	720	10	5.50	3	25	2.50	20.83
161	19-Jun	720	6.1	5.25	6	13	8.20	17.76
162	19-Jun	720	25.0	5.50	6	150	2.00	50.00
163	19-Jun	600	25.0	5.25	4	36	1.60	14.40
164	19-Jun	720	25.0	5.50	5	125	1.67	41.67
165	19-Jun	720	25.0	5.50	3	77	1.00	25.67
166	19-Jun	720	10.0	5.25	1	7	0.83	5.83
167	19-Jun	720	10.0	5.50	1	70	0.83	58.33
168	19-Jun	720	10.0	8.00	10	25	8.33	20.83
169	19-Jun	720	10.0	5.50	1	60	0.83	50.00
170	19-Jun	720	10	5.50	3	49	2.50	40.83
171	19-Jun	570	25.0	5.00	1	32	0.42	13.47
172	20-Jun	720	10.0	5.50	2	70	1.67	58.33

(continued)

Appendix Table A.1. (Page 5 of 6)

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
173	20-Jun	720	13.3	5.50	5	21	3.13	13.16
174	20-Jun	720	10.0	5.50	2	36	1.67	30.00
175	20-Jun	540	25.0	8.00	8	2	3.56	0.89
176	20-Jun	630	10.0	6.75	6	86	5.71	81.90
177	20-Jun	720	13.3	5.50	0	80	0.00	50.13
178	20-Jun	600	10.0	5.25	3	105	3.00	105.00
179	20-Jun	510	10.0	5.25	2	54	2.35	63.53
180	20-Jun	720	10.0	5.50	5	84	4.17	70.00
181	20-Jun	720	10.0	5.50	1	43	0.83	35.83
182	20-Jun	630	25.0	5.25	1	80	0.38	30.48
183	20-Jun	600	25.0	5.25	2	120	0.80	48.00
184	20-Jun	630	25.0	5.00	4	93	1.52	35.43
185	20-Jun	540	25.0	8.00	23	11	10.22	4.89
186	20-Jun	570	25.0	5.25	1	67	0.42	28.21
187	20-Jun	720	10.0	5.50	3	55	2.50	45.83
188	21-Jun	720	10.0	5.50	0	12	0.00	10.00
189	21-Jun	720	10.0	5.50	0	12	0.00	10.00
190	21-Jun	720	13.3	5.50	0	20	0.00	12.53
191	21-Jun	720	10.0	5.50	2	70	1.67	58.33
192	21-Jun	720	10.0	5.50	4	68	3.33	56.67
193	21-Jun	720	10.0	5.50	3	35	2.50	29.17
194	21-Jun	720	6.6	5.50	1	43	1.26	54.29
195	21-Jun	570	10.0	5.25	3	52	3.16	54.74
196	21-Jun	600	25.0	5.25	2	46	0.80	18.40
197	21-Jun	570	25.0	5.25	1	49	0.42	20.63
198	21-Jun	540	25.0	5.00	2	48	0.89	21.33
199	21-Jun	630	25.0	5.25	3	53	1.14	20.19
200	21-Jun	720	10.0	8.00	5	70	4.17	58.33
201	21-Jun	720	150	5.50	10	150	0.56	8.33
202	22-Jun	720	13.3	5.25	1	20	0.63	12.53
203	22-Jun	720	10.0	5.25	2	34	1.67	28.33
204	26-Jun	60	150.0	3.00	0	1	0.00	0.67
205	27-Jun	720	6.6	5.25	0	3	0.00	3.79
206	27-Jun	720	10.0	5.25	0	0	0.00	0.00
207	27-Jun	720	10.0	5.25	0	0	0.00	0.00
208	28-Jun	720	13.3	5.24	0	8	0.00	5.01
209	28-Jun	720	13.3	5.25	0	25	0.00	15.66
210	28-Jun	720	6.6	5.25	0	16	0.00	20.20
211	28-Jun	720	10.0	5.25	0	12	0.00	10.00
212	28-Jun	360	6.6	5.25	0	6	0.00	15.15
213	28-Jun	720	10.0	5.25	0	20	0.00	16.67
214	29-Jun	720	10.0	5.25	1	37	0.83	30.83
215	29-Jun	720	10.0	5.25	0	14	0.00	11.67

(continued)

Appendix Table A.1. (Page 6 of 6)

Entry	Date	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number Chinook	Number Chum	CPUE Chinook	CPUE Chum
216	29-Jun	720	13.3	5.25	0	7	0.00	4.39
217	29-Jun	720	6.6	4.00	0	11	0.00	13.89
218	29-Jun	720	13.3	5.25	0	20	0.00	12.53
219	30-Jun	720	25.0	5.50	0	7	0.00	2.33
220	6-Jul	720	10.0	5.50	0	15	0.00	12.50
221	7-Jul	720	10.0	5.50	0	14	0.00	11.67
222	7-Jul	300	10.0	5.50	0	14	0.00	28.00
223	8-Jul	240	10.0	3.50	0	1	0.00	2.50
224	8-Jul	180	10.0	5.50	0	7	0.00	23.33
225	10-Jul	180	8.0	3.00	0	1	0.00	4.17
226	10-Jul	150	13.0	5.50	0	2	0.00	6.15
227	10-Jul	300	5.0	4.50	0	2	0.00	8.00
228	11-Jul	720	10.0	5.50	0	6	0.00	5.00
229	11-Jul	1,080	5.0	4.50	0	0	0.00	0.00
230	11-Jul	30	5.0	2.50	0	0	0.00	0.00
231	12-Jul	1,440	5.0	4.50	0	0	0.00	0.00
232	12-Jul	2,400	4.0	3.00	1	5	0.63	3.13
233	12-Jul	720	13.3	5.50	0	6	0.00	3.76
234	12-Jul	720	10.0	5.50	1	7	0.83	5.83
235	12-Jul	720	10.0	3.50	0	2	0.00	1.67
236	13-Jul	720	10.0	3.50	0	4	0.00	3.33
237	13-Jul	720	10.0	5.50	0	8	0.00	6.67
238	13-Jul	720	10.0	5.50	0	6	0.00	5.00
239	14-Jul	720	10.0	5.50	0	9	0.00	7.50
240	14-Jul	720	10.0	5.50	0	7	0.00	5.83
241	14-Jul	720	10.0	5.50	0	8	0.00	6.67
242	14-Jul	720	10.0	3.50	0	4	0.00	3.33

Appendix Table A.2. Hooper Bay chinook salmon (mesh size 6.5" or greater) subsistence harvest by entry number, time fished, net length, mesh size and CPUE, 2001.

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chinook	CPUE Chinook
3	2-Jun	420	7	25	7.8	2	1.14
4	2-Jun	420	7	25	8.0	1	0.57
5	2-Jun	420	7	25	8.0	9	5.14
7	4-Jun	720	12	6.1	8.0	8	10.93
8	4-Jun	420	7	8.3	8.0	0	0.00
10	5-Jun	720	12	6.1	8.0	2	2.73
11	5-Jun	570	9.5	25	8.0	5	2.11
15	6-Jun	720	12	6.1	8.0	12	16.39
18	6-Jun	720	12	6.1	8.0	18	24.59
19	6-Jun	600	10	25	8.0	5	2.00
23	7-Jun	720	12	10	8.0	36	30.00
24	7-Jun	720	12	6.1	8.0	14	19.13
26	7-Jun	720	12	25	8.0	40	13.33
27	7-Jun	720	12	6.1	8.0	15	20.49
28	7-Jun	480	8	25	8.0	7	3.50
30	7-Jun	720	12	50	8.0	4	0.67
35	8-Jun	720	12	6.1	8.0	18	24.59
36	8-Jun	570	9.5	25	8.0	6	2.53
43	9-Jun	720	12	25	8.0	5	1.67
45	9-Jun	720	12	50	8.0	4	0.67
48	10-Jun	720	12	13.3	8.0	11	6.89
50	11-Jun	720	12	13.3	8.0	10	6.27
51	12-Jun	720	12	10	8.0	9	7.50
53	12-Jun	720	12	13.3	8.0	17	10.65
54	12-Jun	720	12	25	8.0	2	0.67
55	12-Jun	720	12	25	8.0	6	2.00
56	12-Jun	720	12	10	8.0	8	6.67
58	13-Jun	720	12	10	8.0	4	3.33
59	13-Jun	480	8	25	6.8	20	10.00
61	13-Jun	720	12	25	8.0	4	1.33
62	13-Jun	480	8	25	6.8	2	1.00
63	13-Jun	480	8	25	8.0	2	1.00
64	13-Jun	720	12	25	7.8	5	1.67
66	13-Jun	720	12	25	8.0	6	2.00
67	14-Jun	720	12	10	8.0	1	0.83
72	15-Jun	720	12	6.1	8.0	0	0.00
73	15-Jun	540	9	10	6.8	6	6.67
76	15-Jun	480	8	25	6.8	4	2.00
78	15-Jun	720	12	25	8.0	3	1.00
88	16-Jun	720	12	6.1	8.0	2	2.73
95	16-Jun	720	12	10	8.0	21	17.50
105	17-Jun	720	12	10	8.0	9	7.50
107	17-Jun	720	12	6.1	8.0	2	2.73

(continued)

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

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chinook	CPUE Chinook
108	17-Jun	600	10	10	6.8	2	2.00
112	17-Jun	750	12.5	25	6.8	2	0.64
116	17-Jun	720	12	25	8.0	78	26.00
118	17-Jun	720	12	10	8.0	0	0.00
119	17-Jun	540	9	25	8.0	3	1.33
131	18-Jun	720	12	6.1	8.0	4	5.46
140	18-Jun	480	8	25	8.0	2	1.00
143	19-Jun	720	12	10	8.0	5	4.17
168	19-Jun	720	12	10	8.0	10	8.33
175	20-Jun	540	9	25	8.0	8	3.56
176	20-Jun	630	10.5	10	6.8	6	5.71
185	20-Jun	540	9	25	8.0	23	10.22
200	21-Jun	720	12	10	8.0	5	4.17

Appendix Table A.3. Hooper Bay summer chum salmon (mesh size less than 6.5") subsistence harvest by entry number, time fished, net length, mesh size and CPUE, 2001.

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chum	CPUE Chum
1	1-Jun	420	7	10	3.0	1	1.43
2	1-Jun	420	7	10	3.0	0	0.00
6	2-Jun	180	3	10	3.5	1	3.33
9	5-Jun	570	10	10	5.3	31	32.63
12	5-Jun	630	11	25	5.0	24	9.14
13	5-Jun	480	8	10	5.3	23	28.75
14	5-Jun	630	11	25	5.3	27	10.29
16	6-Jun	600	10	10	5.3	27	27.00
17	6-Jun	600	10	10	5.3	29	29.00
20	6-Jun	530	9	25	5.0	22	9.96
21	6-Jun	530	9	10	5.3	25	28.30
22	6-Jun	540	9	25	5.0	19	8.44
25	7-Jun	600	10	10	5.3	30	30.00
29	7-Jun	570	10	25	5.0	33	13.89
31	7-Jun	630	11	10	5.3	24	22.86
32	7-Jun	720	12	25	5.0	34	11.33
33	8-Jun	600	10	10	5.3	32	32.00
34	8-Jun	660	11	10	5.3	29	26.36
37	8-Jun	540	9	25	5.0	20	8.89
38	8-Jun	630	11	10	5.3	27	25.71
39	8-Jun	510	9	25	5.0	36	16.94
40	9-Jun	600	10	4.5	5.0	31	68.89
41	9-Jun	630	11	10	5.3	25	23.81
42	9-Jun	510	9	10	5.3	29	34.12
44	9-Jun	660	11	25	5.0	24	8.73
46	9-Jun	600	10	10	5.3	36	36.00
47	9-Jun	540	9	25	5.0	32	14.22
49	10-Jun	720	12	6.1	5.3	43	58.74
52	12-Jun	720	12	10	5.0	30	25.00
57	12-Jun	720	12	25	5.0	48	16.00
60	13-Jun	720	12	10	5.0	21	17.50
65	13-Jun	720	12	50	5.5	67	11.17
68	14-Jun	720	12	13.3	5.5	58	36.34
69	14-Jun	720	12	10	5.3	58	48.33
70	14-Jun	720	12	6.1	5.3	46	62.84
71	14-Jun	720	12	50	5.5	23	3.83
74	15-Jun	720	12	13.3	5.5	24	15.04
75	15-Jun	660	11	10	5.3	40	36.36
77	15-Jun	720	12	10	5.3	32	26.67
79	15-Jun	720	12	25	5.5	48	16.00
80	15-Jun	720	12	10	5.5	20	16.67
81	15-Jun	720	12	50	5.5	40	6.67

(continued)

Appendix Table A.3. (Page 2 of 5)

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chum	CPUE Chum
82	15-Jun	720	12	10	5.5	28	23.33
83	15-Jun	570	10	25	5.0	43	18.11
84	15-Jun	720	12	25	5.5	68	22.67
85	16-Jun	720	12	4.5	5.0	30	55.56
86	16-Jun	480	8	25	5.0	24	12.00
87	16-Jun	720	12	10	5.5	31	25.83
89	16-Jun	720	12	13.3	5.5	29	18.17
90	16-Jun	720	12	10	5.5	14	11.67
91	16-Jun	720	12	10	5.5	24	20.00
92	16-Jun	570	10	10	5.3	30	31.58
93	16-Jun	690	12	10	5.3	25	21.74
94	16-Jun	720	12	10	5.5	31	25.83
96	16-Jun	720	12	50	5.5	40	6.67
97	16-Jun	720	12	10	5.5	45	37.50
98	16-Jun	720	12	10	5.5	40	33.33
99	16-Jun	510	9	10	5.3	25	29.41
100	16-Jun	720	12	10	5.5	20	16.67
101	16-Jun	540	9	25	5.0	47	20.89
102	17-Jun	720	12	10	5.5	28	23.33
103	17-Jun	690	12	4.5	5.0	34	65.70
104	17-Jun	570	10	25	5.0	24	10.11
106	17-Jun	720	12	10	5.5	67	55.83
109	17-Jun	720	12	13.3	5.5	52	32.58
110	17-Jun	720	12	10	5.5	43	35.83
111	17-Jun	600	10	10	5.3	30	30.00
113	17-Jun	720	12	10	5.3	27	22.50
114	17-Jun	720	12	10	5.5	35	29.17
115	17-Jun	720	12	6.1	5.5	40	54.64
117	17-Jun	720	12	6.1	5.3	65	88.80
120	17-Jun	720	12	25	5.0	31	10.33
121	17-Jun	720	12	10	5.5	18	15.00
122	17-Jun	630	11	10	5.3	29	27.62
123	17-Jun	510	9	25	5.0	24	11.29
124	18-Jun	720	12	10	5.5	17	14.17
125	18-Jun	630	11	60	5.3	57	9.05
126	18-Jun	510	9	25	5.5	2	0.94
127	18-Jun	570	10	50	6.3	31	6.53
128	18-Jun	600	10	25	5.5	55	22.00
129	18-Jun	720	12	10	5.5	52	43.33
130	18-Jun	720	12	25	5.3	78	26.00
132	18-Jun	720	12	13.3	5.5	47	29.45
133	18-Jun	720	12	25	5.0	30	10.00

(continued)

Appendix Table A.3. (Page 3 of 5)

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chum	CPUE Chum
134	18-Jun	720	12	10	5.3	26	21.67
135	18-Jun	720	12	10	5.5	67	55.83
136	18-Jun	660	11	25	5.5	36	13.09
137	18-Jun	720	12	6.1	5.3	52	71.04
138	18-Jun	720	12	25	5.3	30	10.00
139	18-Jun	690	12	10	5.3	29	25.22
141	18-Jun	630	11	25	5.3	35	13.33
142	19-Jun	720	12	25	5.0	37	12.33
144	19-Jun	690	12	50	6.3	47	8.17
145	19-Jun	720	12	10	5.5	62	51.67
146	19-Jun	720	12	25	5.5	40	13.33
147	19-Jun	720	12	10	5.5	72	60.00
148	19-Jun	720	12	10	5.5	80	66.67
149	19-Jun	660	11	25	5.3	40	14.55
150	19-Jun	720	12	12.5	5.5	53	35.33
151	19-Jun	720	12	12.5	5.5	30	20.00
152	19-Jun	720	12	13.3	5.5	49	30.70
153	19-Jun	720	12	10	5.5	29	24.17
154	19-Jun	690	12	10	5.3	27	23.48
155	19-Jun	720	12	6.6	5.5	23	29.04
156	19-Jun	540	9	25	5.3	34	15.11
157	19-Jun	720	12	6.6	5.5	180	227.27
158	19-Jun	720	12	10	5.5	24	20.00
159	19-Jun	720	12	10	5.5	41	34.17
160	19-Jun	720	12	10	5.5	25	20.83
161	19-Jun	720	12	6.1	5.3	13	17.76
162	19-Jun	720	12	25	5.5	150	50.00
163	19-Jun	600	10	25	5.3	36	14.40
164	19-Jun	720	12	25	5.5	125	41.67
165	19-Jun	720	12	25	5.5	77	25.67
166	19-Jun	720	12	10	5.3	7	5.83
167	19-Jun	720	12	10	5.5	70	58.33
169	19-Jun	720	12	10	5.5	60	50.00
170	19-Jun	720	12	10	5.5	49	40.83
171	19-Jun	570	10	25	5.0	32	13.47
172	20-Jun	720	12	10	5.5	70	58.33
173	20-Jun	720	12	13.3	5.5	21	13.16
174	20-Jun	720	12	10	5.5	36	30.00
177	20-Jun	720	12	13.3	5.5	80	50.13
178	20-Jun	600	10	10	5.3	105	105.00
179	20-Jun	510	9	10	5.3	54	63.53
180	20-Jun	720	12	10	5.5	84	70.00

(continued)

Appendix Table A.3. (Page 4 of 5)

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chum	CPUE Chum
181	20-Jun	720	12	10	5.5	43	35.83
182	20-Jun	630	11	25	5.3	80	30.48
183	20-Jun	600	10	25	5.3	120	48.00
184	20-Jun	630	11	25	5.0	93	35.43
186	20-Jun	570	10	25	5.3	67	28.21
187	20-Jun	720	12	10	5.5	55	45.83
188	21-Jun	720	12	10	5.5	12	10.00
189	21-Jun	720	12	10	5.5	12	10.00
190	21-Jun	720	12	13.3	5.5	20	12.53
191	21-Jun	720	12	10	5.5	70	58.33
192	21-Jun	720	12	10	5.5	68	56.67
193	21-Jun	720	12	10	5.5	35	29.17
194	21-Jun	720	12	6.6	5.5	43	54.29
195	21-Jun	570	10	10	5.3	52	54.74
196	21-Jun	600	10	25	5.3	46	18.40
197	21-Jun	570	10	25	5.3	49	20.63
198	21-Jun	540	9	25	5.0	48	21.33
199	21-Jun	630	11	25	5.3	53	20.19
201	21-Jun	720	12	150	5.5	150	8.33
202	22-Jun	720	12	13.3	5.3	20	12.53
203	22-Jun	720	12	10	5.3	34	28.33
204	26-Jun	60	1	150	3.0	1	0.67
205	27-Jun	720	12	6.6	5.3	3	3.79
206	27-Jun	720	12	10	5.3	0	0.00
207	27-Jun	720	12	10	5.3	0	0.00
208	28-Jun	720	12	13.3	5.2	8	5.01
209	28-Jun	720	12	13.3	5.3	25	15.66
210	28-Jun	720	12	6.6	5.3	16	20.20
211	28-Jun	720	12	10	5.3	12	10.00
212	28-Jun	360	6	6.6	5.3	6	15.15
213	28-Jun	720	12	10	5.3	20	16.67
214	29-Jun	720	12	10	5.3	37	30.83
215	29-Jun	720	12	10	5.3	14	11.67
216	29-Jun	720	12	13.3	5.3	7	4.39
217	29-Jun	720	12	6.6	4.0	11	13.89
218	29-Jun	720	12	13.3	5.3	20	12.53
219	30-Jun	720	12	25	5.5	7	2.33
220	6-Jul	720	12	10	5.5	15	12.50
221	7-Jul	720	12	10	5.5	14	11.67
222	7-Jul	300	5	10	5.5	14	28.00
223	8-Jul	240	4	10	3.5	1	2.50
224	8-Jul	180	3	10	5.5	7	23.33

(continued)

Appendix Table A.3. (Page 5 of 5)

Entry	Day	Time Fished (minutes)	Time Fished (hours)	Net Length (fathoms)	Mesh Size	Number Chum	CPUE Chum
225	10-Jul	180	3	8	3.0	1	4.17
226	10-Jul	150	3	13	5.5	2	6.15
227	10-Jul	300	5	5	4.5	2	8.00
228	11-Jul	720	12	10	5.5	6	5.00
229	11-Jul	1080	18	5	4.5	0	0.00
230	11-Jul	30	1	5	2.5	0	0.00
231	12-Jul	1440	24	5	4.5	0	0.00
232	12-Jul	2400	40	4	3.0	5	3.13
233	12-Jul	720	12	13.3	5.5	6	3.76
234	12-Jul	720	12	10	5.5	7	5.83
235	12-Jul	720	12	10	3.5	2	1.67
236	13-Jul	720	12	10	3.5	4	3.33
237	13-Jul	720	12	10	5.5	8	6.67
238	13-Jul	720	12	10	5.5	6	5.00
239	14-Jul	720	12	10	5.5	9	7.50
240	14-Jul	720	12	10	5.5	7	5.83
241	14-Jul	720	12	10	5.5	8	6.67
242	14-Jul	720	12	10	3.5	4	3.33

Appendix Table B. Hooper Bay subsistence catch survey form.

Hooper Bay Native Village Daily Subsistence Catch Form

Date	Fisherman	Time Fished (minutes)	Net Length (fathoms)	Mesh Size	Number of Kings	Number of Chum	King CPUE	Chum CPUE
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Description of Subsistence Catch

Fishing for kings today was described as:	☐ Poor	☐ Fair	☐ Average	☐ Good	☐ Very Good
Fishing for chums today was described as:	☐ Poor	☐ Fair	☐ Average	☐ Good	☐ Very Good
Overall, fishermen have completed what percent of their subsistence harvest:	☐ 10%	☐ 25%	☐ 50%	☐ 75%	☐ 90%	☐ 100%
General Observations Describing Catch (i.e., kings are increasing; good storm moving fish; poor tide):					

Catch Per Unit Effort: 6,000 (c) / (l) (t)

c = Catch
l = Net Length
t = Time

FAX DAILY To : 949-1830
Attn: Rick Raymond
Phone 949-1039