Unalakleet River
Test Net Project,1988

by

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Regional Information Report[1] No. 3N89-14

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Division of Commercial Fisheries
333 Raspberry Rd.
Anchorage, Alaska 99518-1599

April 1989

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INTRODUCTION

The Unalakleet River system empties into Norton Sound approximately 130 miles from the Nulato Hills westward to the Bering Sea and drains an area of 1087 square miles. Five major tributaries comprise the system, all of which support spawning salmon.

The town of Unalakleet is situated at the mouth of the Unalakleet River, the most important salmon producing river in Norton Sound. Historically, the people of the area have depended on the salmon runs, both for subsistence needs and as a basis of the cash economy.

Attempts to assess salmon escapement have included aerial surveys, counting towers and side scan sonar (Lean 1984, 1985, and 1986b). Inseason subsistence surveys have been used to assess timing, magnitude and the duration of the chinook salmon return (Lean, 1986a, Bue and Lean, 1988). Hydroacoustic counting techniques have been used unsuccessfully in three prior years (Lean and Peterson, 1982, 1983 and 1984). Test fishing with set gill nets in the river has been utilized since 1981 to provide an index of return strength by species (Lean and Peterson, 1981 and Lean, 1986a, Bue and Lean, 1988). This report presents test fishing results from the 1988 season.

Methods

Project Deployment

Test fishing began June 6 and ended September 12. The same site has been used since 1981 and is located approximately three miles upstream from the Unalakleet River mouth on the north bank (Figure 1). Chinook salmon subsistence fishermen were interviewed daily from June 6 to June 30.

Test Fishing

Similar gear for set gillnet test fishing has been used since 1981. Nets with mesh size 5 7/8" stretch measure and 20 fathoms in length were fished exclusively this season. All nets were made of multifilament nylon #63 (210/18) twine, light green in color with cork lines of 1/2 inch braided nylon stretch measure and "spongex" floats at 30 inch intervals. Lead lines consisted of braided lead core line with a weight of 95 pounds per 100 feet. All nets were hung at a 2:1 ratio.

An effort has been made over the past seven summers to use standard technique in setting the nets. The crew has picked landmarks and tried to set the net in line with a willow bush that serves as the onshore anchor and the downstream point of

an island offshore from the net site. The standard nets have been cut to 20 fathoms length which causes the net to cover the northern half of that river channel.

The test net was fished throughout the season with one day, usually Sunday, taken off each week. Test fishing days were 24 hours in duration and began at 9:00 a.m.

The gill nets were normally picked twice daily and more often to prevent fish or debris saturation. Occasionally the net was left unchecked for more than 24 hours to collect data on days off during peak migration periods.

All fish caught in the test net were delivered to Martha Nanouk, a local subsistence fisher, as per agreement for the use of her traditional set net site. When Mrs. Nanouk did not want fish, she would decide who to give them to among the village elders. From the daily catch and time fished a daily catch per unit effort (CPUE) of catch/100 fathom/hours could be calculated for each species. Cumulative CPUE (calculated as cumulative catch/100 fathom/cumulative hours) was calculated beginning with the first chinook and pink salmon captured, and the tenth coho and chum salmon, to compensate for fishing time expended prior to the beginning of the salmon runs.

Catch Sampling

Commercial catch sampling goals were 500 chinook salmon from both Unalakleet and Shaktoolik subdistricts, 300 coho salmon and 1,500 chum salmon from the Unalakleet subdistrict. Chum salmon were to be collected from June 25 to July 28 at the rate of 150 samples per period.

Age, sex and length data were collected from all chinook, coho and chum salmon caught in the test net. Pink salmon were only counted. Data were recorded on standard "mark sense" data entry forms. Scales were mounted on gum cards and pressed on acetate cards. Aging was done by Gary Kneupfer and Charles Lean in Kotzebue by projecting the scale impression on a microfiche reader. Three scales were taken from each chinook and coho to compensate for regenerated and unreadable scales. Only one scale was required from chum salmon. Catch sampling was done outside the bunk house and the catch was distributed to subsistence users soon after.

Subsistence Survey

One to four subsistence fishermen were interviewed daily from June 6 to July 30 as an additional index of the chinook run. Fishermen were chosen for reliability and willingness to share

catch information. Mean daily catches and locations were compared daily in an effort to track the movement and magnitude of the chinook run.

Results

Test Fishing

A total of 13 chinook (93% male, 7% female), 178 coho (58% male, 42% female), 868 pink and 494 chum (59%male, 41% female) salmon were captured in the test nets from June 6 to September 12. Based on daily CPUE, peak salmon passage occurred on June 22 for chinook, August 8 for coho, July 11 for pinks and July 30 for chum salmon. Daily CPUE data is presented in Appendices 1-4.

Appendices 1-4 show the standardized cumulative CPUE for salmon caught in the Unalakleet River test net. All CPUE values shown in these tables are calculated using the same method. The 1981 catch and CPUE are not comparable to subsequent years because of fishing site conflicts during July and August with the Nanouk family.

Comparative statistics show that 1988 chinook and chum salmon cumulative CPUE are the lowest catch rates since the project began. The cumulative CPUE for coho salmon is 14% below the previous 5-year average (1983-87). Pink salmon catches were strong, falling below only the record years of 1982 and 1984. The catch data indicates that pink salmon are on an odd-even year cycle with odd year returns being much weaker than even year returns.

Catch Sampling

Commercial catch sampling produced 298 usable chinook salmon, 248 coho salmon and 1506 chum salmon samples from the Unalakleet subdistrict. Tables 1-8 present the age, sex and length data collected by project staff in both the commercial and test gear types. Small male chinook salmon comprised the greatest percentage of the commercial catch but males comprised all but one of the chinooks in the test net catch. The test net's small mesh combined with the effects from the large mesh commonly used in the commercial fishery would tend to increase the test net's catch of small male chinook salmon. Coho salmon were primarily 4 year old fish and had equal sex ratios for both the commercial and test fisheries. Four and five year old chum salmon appeared approximately in equal proportions in both fisheries with an equal sex ratio for the commercial fishery.

Subsistence Survey

The inseason subsistence surveys conducted during the chinook salmon subsistence fishery showed fishing effort remaining at relatively low levels in the Unalakleet River through the period of high chinook catches. Subsistence effort increases later when the pink salmon migration gained strength. Apparently some subsistence fishermen have reversed the recent trend and have moved their nets targeting chinooks back to the ocean.

Discussion

The 1984 project report presented all the test catches to that time. This project now serves as an index of escapement so only 5 7/8" test nets are used and only historic data from that net size is presented here for comparison. The other mesh sizes have been dropped since the test net catches are no longer used to apportion sonar counts by species.

Comparisons of cumulative CPUE by year for each salmon species show a correlation between the commercial and test fisheries (Figure 2). Both commercial CPUE and test fish CPUE indices are useful management tools when combined with run timing data (Table 10, Figure 3, and Appendices 1-4). An example would be the coho run in 1985 when it became evident that the run was weak from comparing catch rates with catches from the same time in previous years. Commercial fishing time was reduced which resulted in a near average test fish CPUE by the end of the season.

Currently an escapement index has not yet been fully developed. Tower counts and aerial surveys for the North River are too few and inconsistent to provide an adequate data base for annual comparisons or comparisons with other indices (Table 11). Even if a good database were present, it is not known how the North River compares to the entire Unalakleet River system. Presently the best index of escapement for the Unalakleet System is thought to be the test fish project which can now be used to evaluate the relative size of returns from recent brood years.

Once again, commercial catch sampling goals were not reached this year. Given the current situation, where the AWL information does not play a role during inseason management, it may be reasonable to decrease the goals, particularly those for chinook salmon. In order to improve quality, the fish buyer shipped the salmon out shortly after the deliveries were made in 1988. Consequently there were fewer opportunities and less time to obtain the desired samples as compared to other years.

Subsistence interviews were difficult this year. More than a

dozen subsistence fishermen often had to be contacted in order to find three or four people who actually fished that day. Nets were constantly being moved, pulled and set, or loaned to someone else. Therefore catch rates varied greatly depending on the individual interviewed.

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Table 1. Age, sex, and length (mm) of chinook salmon sample from the Unalakleet commercial harvest, 1988.

	Brood Year and Age Group							
	1984 1.2	1983 1.3	1983 2.2	1982 1.4	1982 2.3	1981 1.5	1981 2.4	1980 2.5
Females	1	12	00	96	4	9	12	3
Percent	00	4	00	32	1	3	4	1
Mean Length	635	754	00	850	836	937	868	901
Std. Error 1/	00	19	00	5	41	27	12	20
Males	20	68	2	54	6	2	7	2
Percent	7	23	1	18	2	1	2	1
Mean Length	581	687	694	824	808	921	784	914
Std. Error 1/	9	9	79	13	20	21	42	29
Sexes Combined	21	80	2	150	10	11	19	5
Percent	7	27	1	50	3	4	6	2
Mean Length	584	697	694	841	819	934	837	906
Std. Error 1/	9	9	79	6	19	22	19	14

1/ Standard error of mean length.

Table 2. Catch, age, sex and length (mm) of chinook salmon from the Shaktoolik District commercial harvest, 1988.

	1981 Brood Year and 1.4 Age Group				
	1984 1.2	1983 1.3	1983 2.2	1982 1.4	1981 1.5
Females	0	2	0	23	2
Percent	00	3	00	33	3
Mean Length	00	799	00	858	891
Std. Error 1/	00	24	00	9	43
Males	8	25	1	8	1
Percent	11	36	1	11	1
Mean Length	573	701	610	819	997
Std. Error 1/	12	17	00	20	00
Sexes Combined	8	27	1	31	3
Percent	11	39	1	44	4
Mean Length	573	708	610	848	926
Std. Error 1/	12	17	00	9	43

1/ Standard error of mean length

Table 3. Catch, age, sex and length (mm) of chinook salmon from the Unalakleet test fishery, 1988

	Brood Year and Age Group			
	1984 1.2	1983 2.2	1982 1.3	1981 1.4
Females	00	00	1	00
Percent	00	00	7	00
Mean Length	00	00	815	00
Std. Error 1/	00	00	00	00
Males	4	1	7	1
Percent	29	7	50	7
Mean Length	648	642	771	821
Std. Error 1/	41	00	37	00
Sexes Combined	4	1	8	1
Percent	29	7	57	7
Mean Length	648	642	776	821
Std. Error 1/	41	00	33	00

1/ Standard error of mean length.

Table 4. Age, sex and length (mm) of coho salmon sample from the Unalakleet commercial harvest, 1988

	Brood Year and Age Group	
	1984	1983
	2.1	3.1
Females	103	8
Percent	42	3
Mean Length	575	585
Std. Error 1/	2	2
Males	129	8
Percent	52	3
Mean Length	570	592
Std. Error 1/	3	13
Sexes Combined	232	16
Percent	94	6
Mean Length	572	588
Std. Error 1/	2	6

1/ Standard error of mean length.

Table 5. Catch, age, sex and length (mm) of coho salmon from the Unalakleet test fishery, 1988

	Brood Year and Age Group	
	1984	1983
	2.1	3.1
Females	55	4
Percent	39	3
Mean Length	591	596
Std. Error 1/	3	3
Males	76	6
Percent	54	4
Mean Length	585	610
Std. Error 1/	3	12
Sexes Combined	131	10
Percent	93	7
Mean Length	588	604
Std. Error 1/	2	7

1/ Standard error of mean length.

Table 6. Age, sex and length (mm) of chum salmon sample from the Unalakleet commercial harvest, 1988

	Brood Year and Age Group				
	1985	1984	1983	1982	1981
	0.2	0.3	0.4	0.5	0.6
Females	3	387	290	16	2
Percent	00	26	19	1	00
Mean Length	558	576	586	601	579
Std. Error 1/	17	1	1	8	21
Males	6	524	264	14	0
Percent	00	35	18	1	00
Mean Length	548	595	612	613	00
Std. Error 1/	10	1	1	8	00
Sexes Combined	9	911	554	30	2
Percent	1	60	37	2	00
Mean Length	551	587	599	606	579
Std. Error 1/	8	00	1	5	21

1/ Standard error of mean length.

Table 7. Catch, age, sex and length (mm) of chum salmon from the Unalakleet test fishery, 1988

	Brood Year and Age Group			
	1985	1984	1983	1982
	0.2	0.3	0.4	0.5
Females	0	123	63	5
Percent	00	26	14	1
Mean Length	00	584	599	595
Std. Error 1/	00	2	3	9
Males	6	150	113	5
Percent	1	32	24	1
Mean Length	573	599	618	613
Std. Error 1/	11	2	2	14
Sexes Combined	6	273	176	10
Percent	1	59	38	2
Mean Length	573	592	611	604
Std. Error 1/	11	1	2	8

1/ Standard error of mean length.

Table 8. Unalakleet River chinook salmon subsistence catch and effort, 1982-1988. 1/

	1982			1983			1984		
Date	# fish-ermen	# king	daily mean	# fish-ermen	# king	daily mean	# fish-ermen	# king	daily mean
6/08				4	3	0.8			
6/09				4	1	0.2			
6/10				4	7	1.8			
6/11				4	2	0.5			
6/12				4	2	0.5			
6/13				4	0	0.0			
6/14	2	4	2.0	4	1	0.2			
6/15	3	0	0.0	4	23	5.8			
6/16	4	5	1.2	4	37	9.2			
6/17	3	5	1.7	4	25	6.2			
6/18	5	9	1.8	4	29	7.2			
6/19	6	9	1.5	4	29	7.2			
9/20	6	10	1.7	4	17	4.2			
6/21	5	10	2.0	4	11	2.8			
6/22	4	3	.8	4	21	5.2			
6/23	4	7	1.8	4	24	6.0	3	1	0.3
/24	4	6	1.5	4	25	6.2	4	5	1.2
/25	4	13	3.2	3	6	2.0	5	18	3.6
6/26	4	2	0.5	3	14	4.7	5	13	2.6
6/27	3	3	1.0	3	15	5.0	4	20	5.0
6/28	3	9	3.0	4	14	3.5	5	66	13.2
6/29	3	8	2.7	4	10	2.5	5	22	4.4
6/30	4	7	1.8	4	6	1.5	5	25	5.0
7/01	5	16	3.2				4	33	8.2
7/02	6	41	6.8				3	41	13.7
7/03	5	73	14.6				2	16	8.0
7/04	4	40	10.0				2	9	4.5
7/05	3	24	8.0				2	16	8.0
7/06	3	27	9.0						
7/07	4	21	5.2						
7/08	3	3	1.0						
7/09	3	16	5.3						
7/10	3	2	0.7						
7/11	4	10	2.5						
7/12	2	2	1.0						
7/13	2	0	0.0						
7/14									
7/15									
7/16									

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Table 8. (p. 2 of 3).

	1985				1986				1987			
Date	# fish-ermen	# king	daily mean	observed nets	# fish-ermen	# king	daily mean	observed nets	# fish-ermen	# King	daily mean	observed nets
6/06												
6/07												
6/08												
6/09												
6/10												
6/11												
6/12												
6/13												
6/14												
6/15												
6/16												
6/17												7
6/18									1	0	0.00	10
6/19								14	2	1	0.50	14
6/20								19	2	2	1.00	16
9/21					6	27	4.5	21	3	7	2.33	
6/22					6	22	3.7	21	3	3	1.00	17
6/23					5	13	2.6	16	5	3	0.60	18
6/24					5	34	6.8	16	3	4	1.33	19
[illegible]5					6	93	15.5	15	3	8	2.67	20
[illegible]	4	1	0.2	16	3	87	29.0	20	1	1	1.00	22
[illegible]	4	2	0.5	16	3	38	12.7	21	4	12	3.00	22
6/28	4	2	0.5	19	1	9	9.	19	5	56	11.20	21
6/29	4	9	2.2	19	5	8	1.6	16	7	60	8.57	22
6/30	5	78	15.6	16	4	9	2.2	15	6	29	4.83	15
7/01	3	37	12.3	13	4	11	2.7	10	7	57	8.14	23
7/02	3	19	6.3	12	3	5	1.7	7	6	8	1.33	26
7/03	3	19	6.3	11	2	2	1.0	6	4	9	2.25	22
7/04	3	20	6.7	12					3	2	0.67	22
7/05	4	31	7.8	13							0.00	
7/06	4	5	1.2	12					4	11	2.75	17
7/07	3	14	4.7						2	5	2.50	19
7/08	3	43	14.3	11					2	4	2.00	17
7/09	4	44	11.0	10					2	1	0.50	18
7/10	3	12	4.0	11					2	0	0.00	9
7/11	3	7	2.3	9					1	5	5.00	13
7/12	3	7	2.3	10					1	6	6.00	
7/13	3	9	3.0	11					1	0	0.00	9
7/14	4	3	0.8	10							0.00	10
7/15	3	11	3.7	12					1	0	0.00	10
7/16												
7/17												

-continued-

Table 8. (p. 3 of 3).

	1988			
Date	# fish-ermen	# king	daily mean	observed nets
6/06	3	5	1.7	10
6/07				
6/08	3	0	0.0	9
6/09	1	0	0.0	10
6/10				10
6/11	4	6	1.5	12
6/12				
6/13	2	0	0.0	5
6/14	1	0		7
6/15	1	0	0.0	15
6/16	2	1	0.5	15
6/17	2	1	0.5	15
6/18	1	5	5.0	14
6/19				
6/20	2	3	1.5	10
9/21	4	24	6.0	10
6/22	3	37	12.3	12
6/23	1	6	6.0	15
6/24				15
6/25	1	9	9.0	13
6/26				
6/27				14
6/28				
6/29				
6/30				30
7/01				
7/02				
7/03				
7/04				
7/05				
7/06				
7/07				
7/08				
7/09				
7/10				
7/11				
7/12				
7/13				
7/14				
7/15				
7/16				
7/17				

1/ Only a selected number of fishermen were interviewed, therefore catch and effort data presented here do not represent the total for the Unalakleet River. Net counts began in 1985.

Table 9. Mean dates of commercial and test fish CPUE, Unalakleet subdistrict, Norton Sound District, 1981-1988.

	Chinook		Coho		Chum	
	C/F	T/F	C/F	T/F	C/F	T/F
1981	6/20		8/15	8/22	7/18	8/03
1982	6/23	6/23	8/14	8/29	7/17	7/15
1983	6/25	6/20	8/13	8/30	7/14	7/23
1984	6/29	7/03	8/15	8/21	7/18	7/16
1985	7/06	7/08	8/21	8/24	7/24	7/09
1986	6/28	6/30	8/13	8/17	7/16	7/20
1987	6/26	7/07	8/15	8/24	7/11	7/22
1988	6/24	6/24	8/13	8/12	7/13	7/22
5-Yr. Avg 1983-1987	6/27	6/29	8/15	8/24	7/18	7/17

Table 10. Comparison of commercial catch and escapement data for the Unalakleet subdistrict, Norton Sound District, 1981-1988.

Commercial Fishery			Escapement			
Chinook						
Year	Catch	Cum. CPUE	Test Catch	Test Cum. CPUE	North River Tower	North River Aerial
1981	6157					
1982	3768	0.2	22	0.64		8
1983	7022	0.3	18	0.42		347
1984	6804	0.7	41	0.85	2844	51
1985	12621	1.1	171	1.60	1426	703
1986	4494	0.3	49	0.42	1613	
1987	3246	0.3	42	0.34		445
1988	2218	0.2	13	0.19		
1983-1987 Average	6837	0.5	64	0.73		
Coho						
1981	29845	1.4	310	0.81		263
1982	61343	2.2	235	1.89		4145
1983	36098	1.6	184	1.12		
1984	47904	1.7	244	1.56		152
1985	15421	0.5	175	1.15	2045	
1986	20580	1.0	134	0.82		
1987	15097	1.1	133	0.88		680
1988	24265	1	178	0.93		
1983-1987 Average	27020	1.18	174	1.11		
Chum						
1981	39186	0.8	1102	2.83		599
1982	44520	1.1	330	1.98		4135
1983	109220	2.4	547	2.30		
1984	43317	1.3	626	2.79	2915	1625
1985	25111	0.9	819	2.30	4567	
1986	29136	1.2	774	2.74	3738	
1987	17525	0.8	608	1.71		392
1988	25364	0.8	494	1.53		
1983-1987 Average	44862	1.3	675	2.37		

1/ Commercial Cum. CPUE through the first 336 open fishing hours for chinook, August 20 for chum and July 18 - Sept. 8 for coho salmon Source = Norton Sound and Kotzebue Commercial Salmon Catch Statistics report.
2/ 1986 salmon catches through August 9, Cum. CPUE through July 17. Source = Salmon fish ticket reports.
3/ 1986 Cum. CPUE through July 6. Tower count through July 18.
4/ 1986 chum Cum. CPUE through August 9. Source = Salmon fish ticket report.
5/ Tower count through July 18.

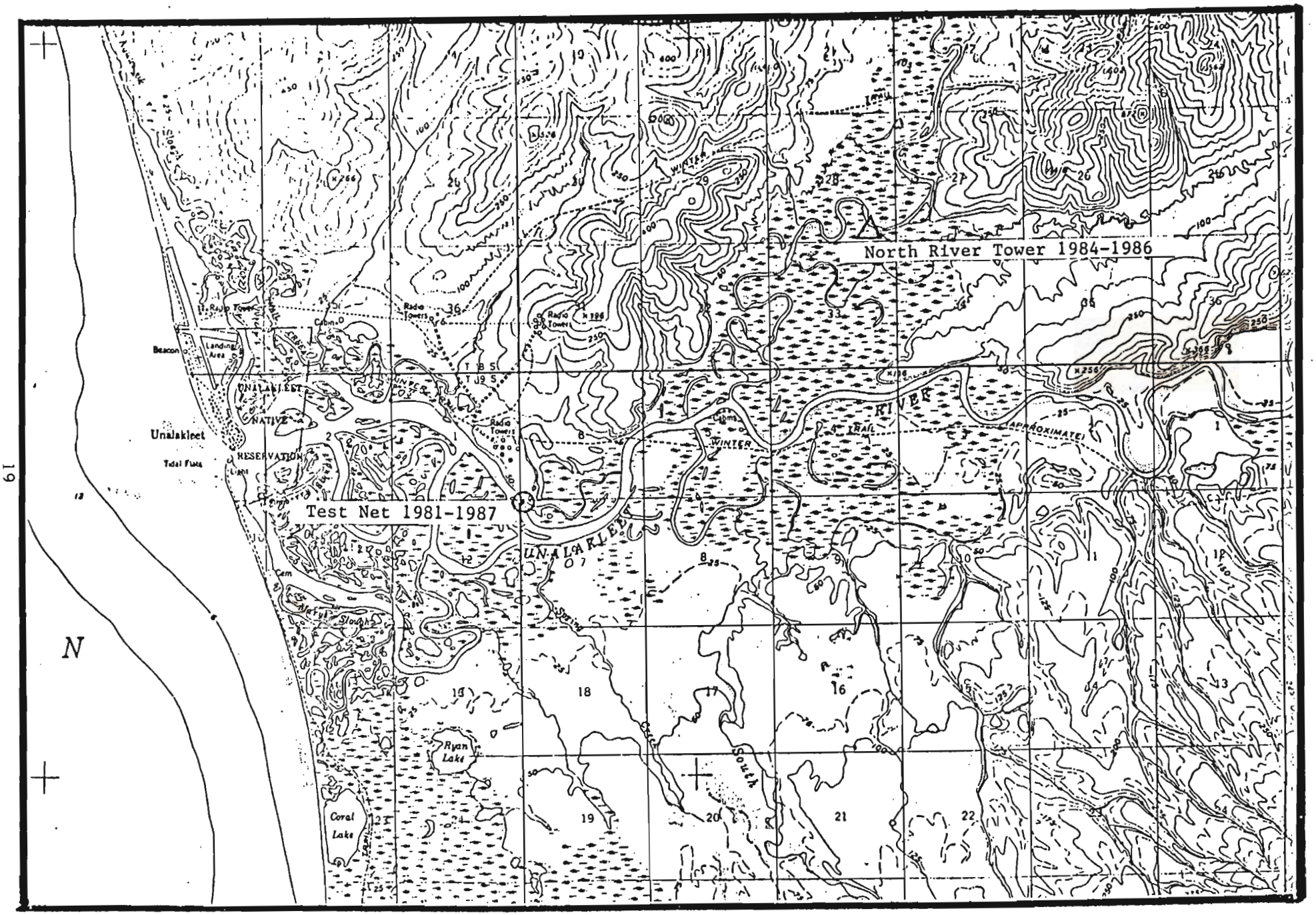

Figure 1. Unalakleet escapement project site locations.

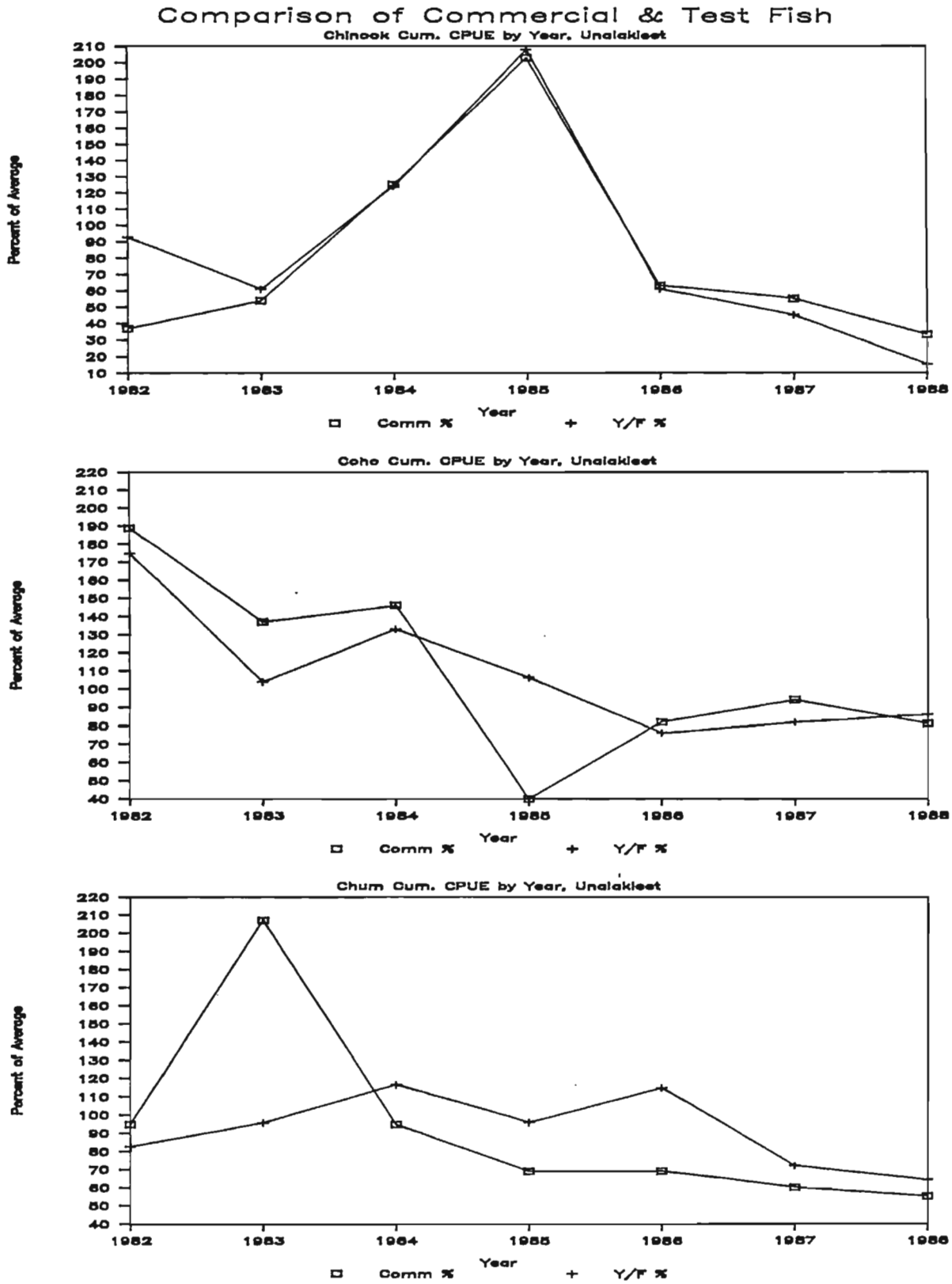

Figure 2. Comparisons of commercial and test fish cumulative CPUE for each salmon species by year as a percent of the previous 5-year averages (1982-1987). Unalakleet subdistrict, Norton Sound District, 1988.

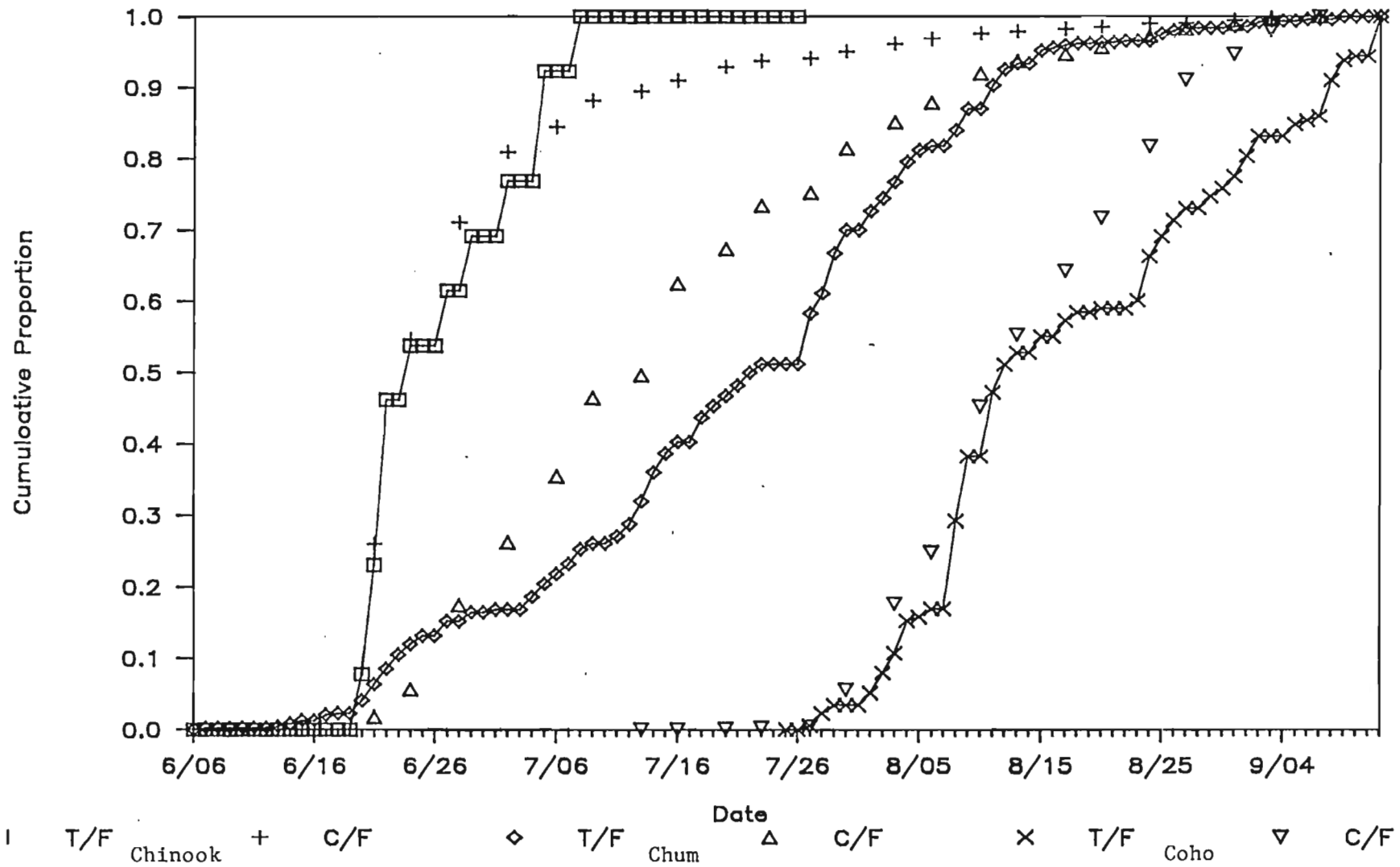

Figure 3. Commercial and test fish cumulative proportion curves showing run timing of salmon by date. Unalakleet subdistrict, Norton Sound District, 1988.

APPENDICES

Appendix Table 1. Unalakleet test net catches of chinook salmon in 5 7/8" gear, 1982 - 1988.

	chinook salmon catch, 1982 counts begin the day the first salmon was caught					chinook salmon catch, 1983 counts begin the day the first salmon was caught					chinook salmon catch, 1984 counts begin the day the first salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/07						12.6	1	0.40	0.40	0.056					
6/08						12.7	1	0.39	0.40	0.111					
9/09								0.00	0.40	0.111					
6/10						11.4	0	0.00	0.27	0.111					
6/11								0.00	0.27	0.111					
6/12						11.3	2	0.88	0.42	0.222					
6/13								0.00	0.42	0.222					
6/14						11.9	2	0.84	0.50	0.333					
6/15						11.6	1	0.43	0.49	0.389					
6/16	24.0	1	0.21	0.21	0.045			0.00	0.49	0.389					
6/17			0.00	0.21	0.045	11.6	2	0.86	0.54	0.500					
6/18	24.0	5	1.04	0.63	0.273			0.00	0.54	0.500					
6/19			0.00	0.63	0.273	11.8	0	0.00	0.47	0.500					
6/20	12.0	4	1.67	0.83	0.455			0.00	0.47	0.500					
6/21			0.00	0.83	0.455	11.8	1	0.42	0.47	0.556					
6/22	12.0	2	0.83	0.83	0.545	11.7	1	0.43	0.46	0.611					
6/23	12.0	2	0.83	0.83	0.636			0.00	0.46	0.611					
6/24			0.00	0.83	0.636	11.6	0	0.00	0.42	0.611					
6/25	11.9	1	0.42	0.78	0.682			0.00	0.42	0.611					
6/26			0.00	0.78	0.682	11.9	2	0.84	0.46	0.722	24.2	1	0.21	0.21	0.024
6/27	12.1	2	0.83	0.79	0.773			0.00	0.46	0.722			0.00	0.21	0.248
6/28			0.00	0.79	0.773	11.8	1	0.42	0.46	0.778	24.5	4	0.82	0.51	0.122
6/29	12.2	1	0.41	0.75	0.818	11.5	2	0.87	0.48	0.889			0.00	0.51	0.122
6/30	13.5	2	0.74	0.75	0.909			0.00	0.48	0.889	24.4	6	1.23	0.75	0.268
7/01			0.00	0.75	0.909	11.9	1	0.42	0.48	0.944			0.00	0.75	0.268
7/02	12.0	2	0.83	0.75	1.000			0.00	0.48	0.944			0.00	0.75	0.268
7/03			0.00	0.75	1.000	11.9	1	0.42	0.48	1.000	23.8	7	1.47	0.93	0.439
7/04	13.5	0	0.00	0.69	1.000								0.00	0.93	0.439
7/05			0.00	0.69	1.000	11.9	0				24.0	9	1.88	1.12	0.659
7/06	12.0	0	0.00	0.64	1.000	12.0	0						0.00	1.12	0.659
7/07											24.1	13	2.70	1.38	0.976
7/08													0.00	1.38	0.976
7/09											24.1	1	0.21	1.21	1.000
7/10															
7/11															
7/12											23.9	0			
7/13															
7/14											24.1	0			
7/15															
7/16															
7/17											24.0	0			
7/18															
7/19															
7/20															
7/21															
7/22															
7/23															
7/24															
7/25															
Totals	171.2	22	7.8			212.9	18	7.6			241.1	41	8.56		
	Mean day of catch 6/23					Mean day of catch 6/20					Mean day of catch 7/03				

-continued-

Appendix Table 1. (p. 2 of 3).

	chinook salmon catch, 1985 counts begin the day the first salmon was caught					chinook salmon catch, 1986 counts begin the day the first salmon was caught					chinook salmon catch, 1987 counts begin the day the first salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/07															
6/08															
6/09															
6/10															
6/11															
6/12															
6/13															
6/14															
6/15															
6/16															
6/17						23.9	1	0.21	0.21	0.020					
6/18						24.2	2	0.41	0.31	0.061					
6/19						24.1	3	0.62	0.42	0.122					
6/20						24.0	2	0.42	0.42	0.163	11.8	1	0.42	0.42	0.024
6/21						23.9	2	0.42	0.42	0.204			0.00	0.42	0.024
6/22						24.3	2	0.41	0.42	0.245	23.6	0	0.00	0.14	0.024
6/23						23.9	2	0.42	0.42	0.286	23.9	0	0.00	0.08	0.024
6/24						23.7	2	0.42	0.42	0.327	24.0	0	0.00	0.06	0.024
6/25						24.0	4	0.83	0.46	0.408	24.1	2	0.41	0.14	0.071
6/26	23.0	1	0.22	0.22	0.006	25.0	6	1.20	0.54	0.531	24.2	0	0.00	0.11	0.071
6/27	24.5	0	0.00	0.11	0.006	24.0	1	0.21	0.51	0.551			0.00	0.11	0.071
6/28	23.7	0	0.00	0.07	0.006	12.1	0	0.00	0.49	0.551	48.0	6	0.63	0.25	0.214
6/29	24.1	2	0.41	0.16	0.018	0.0	0	0.00	0.49	0.551	23.9	0	0.00	0.22	0.214
6/30	23.7	18	3.80	0.88	0.123	24.0	0	0.00	0.45	0.551	24.1	0	0.00	0.20	0.214
7/01	9.8	8	4.08	1.13	0.170	24.1	0	0.00	0.42	0.551	23.7	0	0.00	0.18	0.214
7/02	7.0	10	7.14	1.44	0.228	23.9	0	0.00	0.39	0.551	24.0	4	0.83	0.24	0.310
7/03	24.0	13	2.71	1.63	0.304	24.1	0	0.00	0.36	0.551	24.0	2	0.42	0.25	0.357
7/04	23.8	14	2.94	1.80	0.386	23.9	0	0.00	0.34	0.551			0.00	0.25	0.357
7/05	23.9	9	1.88	1.81	0.439	12.2	1	0.41	0.34	0.571	47.6	3	0.32	0.26	0.429
7/06	9.2	2	1.09	1.78	0.450	0.0	0	0.00	0.34	0.571	24.5	0	0.00	0.24	0.429
7/07			0.00	1.78	0.450	24.4	4	0.82	0.37	0.653	24.0	4	0.83	0.28	0.524
7/08	23.2	22	4.74	2.06	0.579	24.5	2	0.41	0.37	0.694	24.1	2	0.41	0.29	0.571
7/09	24.1	14	2.90	2.14	0.661	23.8	2	0.42	0.37	0.735	24.0	1	0.21	0.28	0.595
7/10	23.9	13	0.00	2.19	0.737	23.9	9	0.00	0.44	0.918	24.3	6	1.23	0.33	0.738
7/11	24.1	5	1.04	2.10	0.766	24.2	3	0.62	0.45	0.980	11.2	4	1.79	0.37	0.833
7/12	24.4	5	1.02	2.02	0.795	12.4	0	0.00	0.44	0.980			0.00	0.37	0.833
7/13	8.6	1	0.58	1.99	0.801	0.0	0	0.00	0.44	0.980	23.3	1	0.21	0.36	0.857
7/14			0.00	1.99	0.801	24.6	0	0.00	0.42	0.980	23.9	3	0.63	0.37	0.929
7/15	24.3	7	1.44	1.95	0.842	23.0	1	0.22	0.42	1.000			0.00	0.37	0.929
7/16	23.9	8	1.67	1.93	0.889						48.4	1	0.10	0.35	0.952
7/17	24.3	5	1.03	1.88	0.918						23.8	1	0.21	0.34	0.976
7/18	33.8	3	0.44	1.77	0.936						10.9	0	0.00	0.34	0.976
7/19	24.1	4	0.83	1.72	0.959								0.00	0.34	0.976
7/20			0.00	1.72	0.959						24.2	0	0.00	0.32	0.976
7/21			0.00	1.72	0.959						23.8	0	0.00	0.31	0.976
7/22	24.2	3	0.62	1.67	0.977						24.0	1	0.21	0.31	1.000
7/23	24.9	1	0.20	1.60	0.982										
7/24	23.1	2	0.43	1.55	0.994										
7/25	23.7	0	0.00	1.49	0.994										
7/26	24.6	1	0.20	1.43	1.000										
Totals	595.9	171	41.4			590.1	49	8.5			681.3	42	8.87		
	Mean day of catch 7/08					Mean day of catch 6/30					Mean day of catch 7/07				

-continued-

Appendix Table 1. (p. 3 of 3).

chinook salmon catch, 1988
counts begin the day the
first salmon was caught

Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/07					
6/08					
6/09					
6/10					
6/11					
6/12					
6/13					
6/14					
6/15					
6/16					
6/17					
6/18					
6/19					
6/20	24.3	1	0.21	0.21	0.077
6/21	23.9	2	0.42	0.31	0.231
6/22	24.0	3	0.63	0.42	0.462
6/23	24.2	0	0.00	0.31	0.462
6/24	23.7	1	0.21	0.29	0.538
6/25	9.0	0	0.00	0.27	0.538
6/26			0.00	0.27	0.538
6/27	24.1	1	0.21	0.26	0.615
6/28			0.00	0.26	0.615
6/29	53.0	1	0.09	0.22	0.692
6/30	19.1	0	0.00	0.20	0.692
7/01	24.2	0	0.00	0.18	0.692
7/02	10.3	1	0.49	0.19	0.769
7/03			0.00	0.19	0.769
7/04	24.2	0	0.00	0.18	0.769
7/05	24.0	2	0.42	0.19	0.923
7/06	24.0	0	0.00	0.18	0.923
7/07	24.1	0	0.00	0.17	0.923
7/08	23.9	1	0.21	0.17	1.000
7/09	11.6	0	0.00	0.17	1.000
7/10			0.00	0.17	1.000
7/11	24.4	0	0.00	0.16	1.000
7/12	23.9	0	0.00	0.15	1.000
7/13	23.9	0	0.00	0.14	1.000
7/14	23.9	0	0.00	0.13	1.000
7/15	24.1	0	0.00	0.13	1.000
7/16	10.8	0	0.00	0.12	1.000
7/17			0.00	0.12	1.000
7/18	24.1	0	0.00	0.12	1.000
7/19	24.0	0	0.00	0.11	1.000
7/20	24.0	0	0.00	0.11	1.000
7/21	24.2	0	0.00	0.11	1.000
7/22	24.0	0	0.00	0.10	1.000
7/23	25.4	0	0.00	0.10	1.000
7/24			0.00	0.10	1.000
7/25			0.00	0.10	1.000
7/26			0.00	0.10	1.000
Totals	668.3	13	2.87		
Mean day of catch 6/24					

Appendix Table 2. Unalakleet test net catches of coho salmon in 5 7/8" gear, 1981-1988.

	coho salmon catch, 1981 count begins the day the tenth salmon was caught					coho salmon catch, 1982 count begins the day the tenth salmon was caught					coho salmon catch, 1983 count begins the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop
7/25															
7/26															
7/27															
7/28															
7/29															
7/30	24.0	6	0.83	0.83	0.019										
7/31	24.0	6	0.83	0.83	0.039										
8/01	24.0	3	0.42	0.69	0.048	3.0	9	15.00	15.00	0.038					
8/02	24.0	0	0.00	0.52	0.048	4.4	3	3.41	8.11	0.051					
8/03	24.0	3	0.42	0.50	0.058			0.00	8.11	0.051					
8/04	24.0	0	0.00	0.42	0.058	13.2	8	3.03	4.05	0.085					
8/05	24.0	0	0.00	0.36	0.058	7.3	6	4.11	4.66	0.111	11.8	1	0.34	0.34	0.005
8/06	24.0	0	0.00	0.31	0.058			0.00	4.66	0.111			0.00	0.34	0.005
8/07	24.0	3	0.42	0.32	0.068			0.00	4.66	0.111	12.8	4	1.25	0.81	0.027
8/08	24.0	0	0.00	0.29	0.068	12.6	9	3.57	4.32	0.149			0.00	0.81	0.027
8/09	24.0	9	1.25	0.38	0.097	12.9	0	0.00	3.28	0.149	25.7	14	2.18	1.51	0.103
8/10	24.0	3	0.42	0.38	0.106			0.00	3.28	0.149	12.5	21	6.72	2.55	0.217
8/11	24.0	0	0.00	0.35	0.106	12.2	8	3.28	3.28	0.183			0.00	2.55	0.217
8/12	24.0	3	0.42	0.36	0.116	12.5	17	6.80	3.84	0.255	1.3	0	0.00	2.50	0.217
8/13	24.0	3	0.42	0.36	0.126			0.00	3.84	0.255			0.00	2.50	0.217
8/14	24.0	5	0.69	0.38	0.142			0.00	3.84	0.255	10.7	12	4.49	2.78	0.283
8/15	24.0	17	2.36	0.50	0.197	12.3	10	7.32	4.31	0.332			0.00	2.78	0.283
8/16	24.0	36	5.00	0.75	0.313	12.2	5	2.05	4.04	0.353	12.2	2	0.66	2.48	0.293
8/17	24.0	27	3.75	0.91	0.400			0.00	4.04	0.353	12.3	6	1.95	2.42	0.326
8/18	24.0	21	2.92	1.01	0.468	12.0	5	2.08	3.84	0.374	11.8	1	0.34	2.28	0.332
8/19	24.0	20	2.78	1.09	0.532	12.2	1	0.41	3.51	0.379			0.00	2.28	0.332
8/20	24.0	10	1.39	1.10	0.565			0.00	3.51	0.379			0.00	2.28	0.332
8/21	24.0	17	2.36	1.16	0.619			0.00	3.51	0.379	11.2	6	2.14	2.19	0.364
8/22	24.0	10	1.39	1.17	0.652	12.2	6	2.46	3.42	0.404			0.00	2.19	0.364
8/23	24.0	13	1.81	1.19	0.694	11.0	2	0.85	3.22	0.413	12.0	2	0.67	2.06	0.375
8/24	24.0	2	0.28	1.16	0.700			0.00	3.22	0.413	11.5	2	0.70	1.95	0.386
8/25	24.0	5	0.69	1.14	0.716	12.1	3	1.24	3.07	0.426			0.00	1.95	0.386
8/26	24.0	13	1.81	1.17	0.750	12.2	0	0.00	2.86	0.426	11.5	5	1.74	1.93	0.413
8/27	24.0	5	0.69	1.15	0.774			0.00	2.86	0.426			0.00	1.93	0.413
8/28	24.0	4	0.56	1.13	0.787			0.00	2.86	0.426	11.9	0	0.00	1.80	0.413
8/29	24.0	1	0.14	1.10	0.790	12.5	11	4.40	2.96	0.472			0.00	1.80	0.413
8/30	24.0	0	0.00	1.06	0.790	11.3	5	2.21	2.92	0.494	11.9	4	1.34	1.77	0.435
8/31	24.0	3	0.42	1.04	0.800			0.00	2.92	0.494	11.7	1	0.34	1.68	0.440
9/01	24.0	2	0.28	1.02	0.806	12.2	6	2.46	2.89	0.519			0.00	1.68	0.440
9/02	24.0	1	0.14	1.00	0.810	11.5	2	0.87	2.79	0.528	12.3	5	1.63	1.68	0.467
9/03	24.0	2	0.28	0.98	0.816			0.00	2.79	0.528			0.00	1.68	0.467
9/04	24.0	3	0.42	0.96	0.826			0.00	2.79	0.528	47.9	15	1.25	1.60	0.549
9/05	24.0	6	0.83	0.96	0.845	11.6	8	3.45	2.82	0.562			0.00	1.60	0.549
9/06	24.0	6	0.83	0.95	0.865	9.8	3	1.53	2.77	0.574	23.8	11	1.85	1.62	0.609
9/07	24.0	3	0.42	0.94	0.874			0.00	2.77	0.574	23.7	5	0.84	1.56	0.636
9/08	24.0	6	0.83	0.94	0.894	11.8	0	0.00	2.64	0.574	23.8	6	1.01	1.52	0.668
9/09	24.0	6	0.83	0.94	0.913			0.00	2.64	0.574	24.2	10	1.65	1.53	0.723
9/10	24.0	9	1.25	0.94	0.942	28.5	13	2.28	2.60	0.630	24.2	3	0.50	1.46	0.739
9/11	24.0	3	0.42	0.93	0.952	23.5	14	2.98	2.63	0.689	24.2	2	0.33	1.39	0.750
9/12	24.0	3	0.42	0.92	0.961	25.6	0	1.56	2.55	0.723	24.1	8	1.33	1.39	0.793
9/13	24.0	6	0.83	0.92	0.981	25.6	5	0.98	2.44	0.745			0.00	1.39	0.793
9/14	24.0	0	0.00	0.90	0.981	21.3	6	1.41	2.30	0.770	22.7	14	2.47	1.44	0.870
9/15	24.0	0	0.00	0.88	0.981	26.7	7	1.31	2.31	0.800	24.2	9	1.49	1.44	0.910
9/16	24.0	3	0.42	0.87	0.990	22.2	5	1.13	2.25	0.821	21.0	3	0.57	1.41	0.935
9/17	24.0	0	0.00	0.85	0.990	24.8	10	2.02	2.24	0.864	23.9	2	0.33	1.36	0.946
9/18	24.0	0	0.00	0.84	0.990	22.1	15	3.39	2.29	0.928	23.0	2	0.35	1.31	0.957
9/19	24.0	0	0.00	0.82	0.990	30.2	4	0.66	2.19	0.945			0.00	1.31	0.957
9/20	24.0	3	0.42	0.81	1.000	19.1	0	0.00	2.11	0.945	48.9	4	0.33	1.23	0.970
9/21						25.2	4	0.76	2.05	0.962	24.0	3	0.50	1.20	0.995
9/22						27.6	6	1.09	2.00	0.987	24.2	0	0.00	1.16	0.995
9/23						20.2	2	0.50	1.95	0.996	23.4	1	0.17	1.12	1.000
9/24						23.8	1	0.21	1.89	1.000					
9/25															
9/26															
9/27															
Totals	1272.0	310	43.06			623.2	235	90.00			656.3	184	41.44		
	Mean day of catch 8/22					Mean day of catch 8/29					Mean day of catch 8/30				

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Appendix Table 2. (p. 2 of 3).

	coho salmon catch, 1984 counts begin the day the tenth salmon was caught					coho salmon catch, 1985 counts begin the day the tenth salmon was caught					coho salmon catch, 1986 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	Cum. Prop	Hours	Catch	CPUE	Cum. CPUE	CP(C)
7/25															
7/26															
7/27															
7/28											24.2	2	0.41	0.41	0.000
7/29											24.2	1	0.21	0.31	0.000
7/30	24.6	16	3.25	3.25	0.066						23.9	2	0.42	0.35	0.015
7/31	2.7	2	3.70	3.30	0.074						24.5	7	1.43	0.62	0.022
8/01	23.3	26	5.58	4.35	0.180								0.00	0.62	0.037
8/02			0.00	4.35	0.180								0.00	0.62	0.090
8/03	4.6	16	17.39	5.43	0.246	10.7	2	0.93	0.93	0.011			0.00	0.62	0.090
8/04			0.00	5.43	0.246			0.00	0.93	0.011			0.00	0.62	0.090
8/05			0.00	5.43	0.246	23.8	3	0.63	0.72	0.029	24.2	23	4.75	1.45	0.090
8/06	24.3	10	2.06	4.40	0.287	24.3	2	0.41	0.60	0.040	24.2	15	3.10	1.72	0.090
8/07			0.00	4.40	0.287	24.0	4	0.83	0.66	0.063	23.7	8	1.69	1.72	0.261
8/08	23.3	11	2.36	3.94	0.332	24.0	3	0.63	0.66	0.080	24.4	1	0.20	1.53	0.373
8/09			0.00	3.94	0.332	24.0	2	0.42	0.61	0.091	11.9	3	1.26	1.51	0.433
8/10	23.9	8	1.67	3.51	0.365	11.0	0	0.00	0.56	0.091			0.00	1.51	0.440
8/11			0.00	3.51	0.365			0.00	0.56	0.091	24.0	4	0.83	1.44	0.463
8/12			0.00	3.51	0.365	24.2	2	0.41	0.54	0.103	24.2	2	0.41	1.34	0.463
8/13	24.0	5	1.04	3.12	0.385	24.0	1	0.21	0.50	0.109	24.0	5	1.04	1.32	0.493
8/14	24.2	4	0.83	2.80	0.402	29.2	10	1.71	0.66	0.166	24.1	2	0.41	1.24	0.507
8/15	23.8	5	1.05	2.59	0.422	19.5	7	1.79	0.75	0.206	24.1	0	0.00	1.15	0.545
8/16			0.00	2.59	0.422	23.5	6	1.28	0.80	0.240	12.0	0	0.00	1.11	0.560
8/17	25.0	6	1.20	2.44	0.447	11.6	6	2.59	0.88	0.274			0.00	1.11	0.560
8/18			0.00	2.44	0.447			0.00	0.88	0.274	23.9	5	1.05	1.11	0.560
8/19			0.00	2.44	0.447	24.1	26	5.39	1.24	0.423	24.1	0	0.00	1.04	0.560
8/20	24.0	11	2.29	2.42	0.492	23.8	5	1.05	1.23	0.451	24.0	1	0.21	0.99	0.597
8/21			0.00	2.42	0.492	24.8	14	2.82	1.34	0.531	24.0	4	0.83	0.98	0.597
8/22	24.7	4	0.81	2.28	0.508	23.8	6	1.26	1.34	0.566	23.9	1	0.21	0.94	0.604
8/23	23.2	6	1.29	2.20	0.533	23.7	8	1.69	1.36	0.611	11.8	1	0.42	0.93	0.634
8/24	24.0	9	1.88	2.17	0.570	9.1	2	1.10	1.35	0.623			0.00	0.93	0.642
8/25			0.00	2.17	0.570			0.00	1.35	0.623	23.9	1	0.21	0.89	0.649
8/26			0.00	2.17	0.570	23.0	12	2.61	1.42	0.691	24.0	3	0.63	0.88	0.649
8/27	23.0	6	1.30	2.12	0.594	24.2	4	0.83	1.39	0.714	24.0	2	0.42	0.86	0.657
8/28	22.8	9	1.97	2.11	0.631	24.2	8	1.65	1.40	0.760			0.00	0.86	0.679
8/29	25.3	11	2.17	2.11	0.676	23.7	5	1.05	1.38	0.789	48.0	7	0.73	0.85	0.694
8/30	24.2	4	0.83	2.04	0.693	24.2	2	0.41	1.34	0.800	11.8	0	0.00	0.83	0.694
8/31	30.7	7	1.14	1.97	0.721	23.5	0	0.00	1.28	0.800			0.00	0.83	0.746
9/01			0.00	1.97	0.721			0.00	1.28	0.800			0.00	0.83	0.746
9/02			0.00	1.97	0.721			0.00	1.28	0.800	24.0	4	0.83	0.83	0.746
9/03	16.7	5	1.50	1.96	0.742	24.4	3	0.61	1.25	0.817	24.1	9	1.87	0.87	0.746
9/04	23.0	6	1.30	1.93	0.766	23.6	2	0.42	1.22	0.829	23.9	6	1.26	0.88	0.776
9/05	24.2	7	1.45	1.90	0.795	24.0	3	0.63	1.20	0.846	23.9	4	0.84	0.88	0.843
9/06	24.2	9	1.86	1.90	0.832	24.1	6	1.24	1.20	0.880	24.1	1	0.21	0.86	0.888
9/07	24.3	10	2.06	1.91	0.873	11.8	5	2.13	1.22	0.909			0.00	0.86	0.918
9/08			0.00	1.91	0.873			0.00	1.22	0.909			0.00	0.86	0.925
9/09			0.00	1.91	0.873	5.8	2	1.74	1.22	0.920	72.3	6	0.41	0.82	0.970
9/10	23.5	5	1.06	1.87	0.893			0.00	1.22	0.920	23.9	4	0.84	0.82	1.000
9/11	33.1	2	0.30	1.79	0.902			0.00	1.22	0.920					
9/12	22.0	3	0.68	1.75	0.914			0.00	1.22	0.920					
9/13	17.0	3	0.88	1.73	0.926	26.2	7	1.34	1.23	0.960					
9/14	23.7	1	0.21	1.68	0.930			0.00	1.23	0.960					
9/15			0.00	1.68	0.930			0.00	1.23	0.960					
9/16			0.00	1.68	0.930			0.00	1.23	0.960					
9/17	24.6	4	0.81	1.65	0.947			0.00	1.23	0.960					
9/18	24.4	4	0.82	1.62	0.963			0.00	1.23	0.960					
9/19			0.00	1.62	0.963	24.0	0	0.00	1.18	0.960					
9/20	23.8	7	1.47	1.61	0.992	24.2	4	0.83	1.17	0.983					
9/21	8.6	0	0.00	1.59	0.992	24.1	3	0.62	1.15	1.000					
9/22			0.00	1.59	0.992	9.8	0								
9/23			0.00	1.59	0.992										
9/24	23.6	2	0.42	1.56	1.000										
9/25	27.5	0													
9/26	20.3	0													
9/27	23.7	0													
Totals	853.8	244	68.7			767.8	175	41.3			817.2	134	27.13		
	Mean day of catch 8/21					Mean day of catch 8/24					Mean day of catch 8/17				

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Appendix Table 2. (p. 3 of 3).

coho salmon catch, 1987 count begins the day the tenth salmon was caught.						coho salmon catch, 1988 count begins the day the tenth salmon was caught.					
DATE	Hours	Catch	CPUE	Cum. CPUE	CP(C)	DATE	Hours	Catch	CPUE	Cum. CPUE	CP(C)
7/25									0.00	0.00	0.000
7/26									0.00	0.00	0.000
7/27								1	0.00	0.00	0.006
7/28								3	0.00	0.00	0.022
7/29								2	0.00	0.00	0.034
7/30		1	0.00	0.00	0.008			0	0.00	0.00	0.034
7/31		0	0.00	0.00	0.008				0.00	0.00	0.034
8/01			0.00	0.00	0.008			3	0.00	0.00	0.051
8/02		0	0.00	0.00	0.008		24.0	5	1.04	2.92	0.079
8/03		2	0.00	0.00	0.023		24.1	5	1.04	1.98	0.107
8/04		1	0.00	0.00	0.030		23.9	0	1.67	1.88	0.152
8/05		1	0.00	0.00	0.038		24.2	1	0.21	1.46	0.157
8/06	24.3	0	1.65	1.65	0.098		18.2	2	0.96	0.89	0.169
8/07	24.1	0	0.00	0.83	0.098				0.00	0.89	0.169
8/08	18.4	0	0.00	0.68	0.098		23.9	22	4.60	0.92	0.292
8/09			0.00	0.68	0.098		24.1	16	3.32	1.30	0.382
8/10	24.2	7	1.45	0.98	0.150				0.00	1.30	0.382
8/11	23.8	1	0.21	0.75	0.158		47.9	16	1.67	1.38	0.472
8/12	23.9	1	0.21	0.65	0.165		23.9	7	1.46	1.39	0.511
8/13	24.3	2	0.41	0.61	0.180		9.1	3	1.65	1.40	0.528
8/14	23.9	5	1.05	0.67	0.218				0.00	1.40	0.528
8/15	23.8	4	0.84	0.69	0.248		16.1	4	1.24	1.39	0.551
8/16	24.0	2	0.42	0.66	0.263		23.9	0	0.00	1.27	0.551
8/17	24.2	2	0.41	0.64	0.278		23.9	4	0.84	1.24	0.573
8/18	23.8	1	0.21	0.69	0.286		23.9	2	0.42	1.18	0.584
8/19	24.0	6	1.25	0.65	0.331				0.00	1.18	0.584
8/20	24.2	7	1.45	0.71	0.383		33.9	1	0.15	1.00	0.590
8/21	24.0	7	1.46	0.76	0.436				0.00	1.00	0.590
8/22	24.0	5	1.04	0.78	0.474		24.0	0	0.00	1.01	0.590
8/23	23.9	2	0.42	0.76	0.489		24.0	2	0.42	0.98	0.601
8/24	23.9	2	0.42	0.74	0.504		24.5	11	2.24	1.05	0.663
8/25	24.2	3	0.62	0.73	0.526		23.7	5	1.05	1.05	0.691
8/26	24.1	4	0.83	0.74	0.556		23.7	4	0.84	1.04	0.713
8/27	24.0	2	0.42	0.72	0.571		9.0	3	1.53	1.05	0.730
8/28	23.9	1	0.21	0.70	0.579				0.00	1.05	0.730
8/29	18.8	0	0.00	0.68	0.579		24.0	3	0.63	1.03	0.747
8/30			0.00	0.68	0.579		24.0	2	0.42	1.00	0.758
8/31	13.1	8	3.05	0.74	0.639		24.1	3	0.62	0.98	0.775
9/01	24.2	7	1.45	0.77	0.692		24.1	5	1.04	0.99	0.803
9/02	23.9	3	0.63	0.77	0.714		23.9	5	1.05	0.99	0.831
9/03	23.9	3	0.63	0.76	0.737		18.2	0	0.00	0.97	0.831
9/04	24.1	6	1.24	0.78	0.782				0.00	0.97	0.831
9/05	24.0	4	0.81	0.78	0.812		23.9	3	0.63	0.96	0.848
9/06	23.5	10	2.13	0.83	0.867		23.0	1	0.22	0.93	0.854
9/07			0.00	0.83	0.887		25.0	1	0.20	0.91	0.860
9/08	47.0	15	1.57	0.88	1.000		24.2	9	1.86	0.94	0.910
9/09							24.2	5	1.03	0.94	0.938
9/10							24.0	1	0.21	0.92	0.944
9/11									0.00	0.92	0.944
9/12							48.0	10	1.04	0.93	1.000
9/13											
9/14											
9/15											
9/16											
9/17											
9/18											
9/19											
9/20											
9/21											
9/22											
9/23											
9/24											
9/25											
9/26											
9/27											
Totals	731.0	133	26.46			Total	889.3	178	35.32		
	Mean day of catch 8/24.					Mean day of catch 8/12.					

Appendix Table 3. Chalakleet test net catches of pink salmon in 5 7/8" gear, 1981 - 1988.

	pink salmon catch, 1981 counts begin the day the tenth salmon was caught					pink salmon catch, 1982 counts begin the day the tenth salmon was caught					pink salmon catch, 1983 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/16															
6/17						24.0	13	2.71	2.71	0.015					
6/18								0.00	2.71	0.015					
6/19								0.00	2.71	0.015					
6/20						12.0	11	4.58	3.33	0.028					
6/21								0.00	3.33	0.028					
6/22						12.0	10	4.17	3.54	0.040					
6/23						12.0	13	5.42	3.92	0.055					
6/24								0.00	3.92	0.055					
6/25						11.9	36	15.13	5.77	0.098					
6/26								0.00	5.77	0.098					
6/27						12.1	37	15.29	7.14	0.141					
6/28								0.00	7.14	0.141					
6/29						12.2	24	9.84	7.48	0.169	11.5	8	2.78	2.78	0.047
6/30						13.5	23	8.52	7.61	0.196			0.00	2.78	0.047
7/01								0.00	7.61	0.196	11.9	19	6.39	4.62	0.160
7/02						12.0	87	36.25	10.44	0.298			0.00	4.62	0.160
7/03								0.00	10.44	0.298	11.9	6	2.02	3.74	0.195
7/04						13.5	61	22.59	11.65	0.370			0.00	3.74	0.195
7/05								0.00	11.65	0.370	11.9	15	5.04	4.07	0.234
7/06						12.0	64	26.67	12.87	0.445	12.0	2	0.67	3.38	0.296
7/07						5.5	63	57.27	14.47	0.519			0.00	3.38	0.296
7/08								0.00	14.47	0.519	12.1	12	3.97	3.48	0.367
7/09						9.0	12	6.67	14.04	0.533			0.00	3.48	0.367
7/10								0.00	14.04	0.533	11.4	12	4.21	3.58	0.438
7/11						6.5	12	9.23	13.85	0.548			0.00	3.58	0.438
7/12								0.00	13.85	0.548	11.5	19	6.61	3.95	0.550
7/13						12.2	49	20.08	14.27	0.605	11.6	15	5.17	4.08	0.639
7/14						9.0	40	22.22	14.65	0.652			0.00	4.08	0.639
7/15								0.00	14.65	0.652	11.7	13	4.44	4.12	0.716
7/16						11.8	64	27.12	15.38	0.727			0.00	4.12	0.716
7/17	24.0	20	8.33	8.33	0.056			0.00	15.38	0.727	11.8	10	3.39	4.05	0.775
7/18	24.0	20	8.33	8.33	0.111	12.0	80	33.33	16.39	0.821			0.00	4.05	0.775
7/19	24.0	23	9.58	8.75	0.175	12.0	53	22.08	16.70	0.884	11.8	9	3.05	3.97	0.828
7/20	24.0	15	6.25	8.13	0.217			0.00	16.70	0.884	11.5	0	0.00	3.67	0.828
7/21	24.0	51	21.25	10.75	0.358	11.8	49	20.76	16.90	0.942			0.00	3.67	0.828
7/22	24.0	55	22.92	12.78	0.511	24.5	37	7.55	16.02	0.985	12.2	19	6.23	3.86	0.941
7/23	24.0	28	11.67	12.62	0.589			0.00	16.02	0.985			0.00	3.86	0.941
7/24	24.0	17	7.08	11.93	0.636			0.00	16.02	0.985	11.5	2	0.70	3.65	0.953
7/25	24.0	22	9.17	11.62	0.697	12.6	0	3.17	15.43	0.994			0.00	3.65	0.953
7/26	24.0	14	5.83	11.04	0.736	2.5	1	2.00	15.31	0.995	12.0	3	1.00	3.48	0.970
7/27	24.0	12	5.00	10.49	0.769			0.00	15.31	0.995	11.7	2	0.68	3.32	0.982
7/28	24.0	5	2.08	9.79	0.783			0.00	15.31	0.995			0.00	3.32	0.982
7/29	24.0	9	3.75	9.33	0.808	4.6	2	2.17	15.10	0.998	11.7	0	0.00	3.14	0.982
7/30	24.0	8	3.33	8.98	0.831			0.00	15.10	0.998			0.00	3.14	0.982
7/31	24.0	10	4.17	8.58	0.858			0.00	15.10	0.998	11.6	0	0.00	2.97	0.982
8/01	24.0	4	1.67	8.15	0.869			0.00	15.10	0.998			0.00	2.97	0.982
8/02	24.0	4	1.67	7.77	0.881	4.4	0	0.00	14.86	0.998	12.1	0	0.00	2.82	0.982
8/03	24.0	6	2.50	7.48	0.897			0.00	14.86	0.998	12.2	0	0.00	2.68	0.982
8/04	24.0	4	1.67	7.17	0.908	13.2	1	0.36	14.22	0.999			0.00	2.68	0.982
8/05	24.0	2	0.83	6.85	0.914	7.3	0	0.00	13.88	0.999	11.8	1	0.34	2.58	0.988
8/06	24.0	10	4.17	6.73	0.942			0.00	13.88	0.999			0.00	2.58	0.988
8/07	24.0	12	5.00	6.65	0.975			0.00	13.88	0.999	12.0	0	0.00	2.45	0.988
8/08	24.0	1	0.42	6.38	0.978	12.6	0	0.00	13.34	0.999			0.00	2.45	0.988
8/09	24.0	1	0.42	6.13	0.981	12.9	0	0.00	12.82	0.999	25.7	0	0.00	2.24	0.988
8/10	24.0	2	0.83	5.92	0.986			0.00	12.82	0.999	12.5	0	0.00	2.15	0.988
8/11	24.0	2	0.83	5.72	0.992	12.2	0	0.00	12.36	0.999			0.00	2.15	0.988
8/12	24.0	3	1.25	5.56	1.000	12.5	0	0.00	11.93	0.999	1.3	0	0.00	2.14	0.988
8/13	24.0	0	0.00	5.36	1.000			0.00	11.93	0.999			0.00	2.14	0.988
8/14	24.0	0	0.00	5.17	1.000			0.00	11.93	0.999	10.7	1	0.37	2.00	0.994
8/15						12.3	1	0.41	11.54	1.000			0.00	2.00	0.994
8/16											12.2	1	0.33	2.02	1.000
8/17															
8/18															
8/19															
8/20															
Totals	696.6	360	150.0			368.6	851	385.6			334.6	169	57.4		
	Mean day of catch 7/25					Mean day of catch 7/09					Mean day of catch 7/12				

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Appendix Table 3. (p. 2 of 3).

	pink salmon catch, 1984 counts begin the day the tenth salmon was caught					pink salmon catch, 1985 counts begin the day the first salmon was caught					pink salmon catch, 1986 count begins the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/16												1	0.00	0.00	0.000
6/17												1	0.00	0.00	0.000
6/18												0	0.00	0.00	0.000
6/19												1	0.00	0.00	0.000
6/20												1	0.00	0.00	0.000
6/21											23.9	7	1.46	1.46	0.010
6/22	24.1	11	2.28	2.28	0.017						24.3	13	2.67	2.07	0.028
6/23			0.00	2.28	0.017						23.9	21	4.39	2.84	0.057
6/24			0.00	2.28	0.017						23.7	37	7.81	4.07	0.108
6/25	24.2	12	2.48	2.38	0.035						24.0	51	10.63	5.38	0.179
6/26			0.00	2.38	0.035						25.0	39	7.80	5.88	0.234
6/27	24.5	29	5.92	3.57	0.079						24.0	27	5.63	5.78	0.271
6/28			0.00	3.57	0.079						12.1	8	3.31	5.61	0.282
6/29	24.4	29	5.94	4.17	0.123	24.1	1	0.21	0.21	0.077	8.0	0	0.00	5.61	0.282
6/30			0.00	4.17	0.123	23.7	1	0.21	0.21	0.154	24.0	64	13.33	6.52	0.371
7/01			0.00	4.17	0.123	9.8	0	0.00	0.17	0.154	24.1	75	15.56	7.47	0.476
7/02	23.8	41	8.61	5.04	0.186	7.0	0	0.00	0.15	0.154	23.9	66	13.81	8.07	0.567
7/03			0.00	5.04	0.186	24.0	0	0.00	0.11	0.154	24.1	29	6.02	7.89	0.608
7/04	24.0	32	6.67	5.31	0.234	23.8	0	0.00	0.09	0.154	23.9	28	5.86	7.73	0.647
7/05			0.00	5.31	0.234	23.9	0	0.00	0.07	0.154	12.2	11	4.51	7.60	0.662
7/06	24.1	45	9.34	5.88	0.303	9.2	1	0.54	0.18	0.231	0.0	0	0.00	7.60	0.662
7/07			0.00	5.88	0.303			0.00	0.18	0.231	24.4	2	0.41	7.08	0.665
7/08			0.00	5.88	0.303	23.2	1	0.22	0.12	0.308	24.5	2	0.41	6.63	0.668
7/09	24.1	61	12.66	6.73	0.396	24.1	0	0.00	0.10	0.308	23.8	4	0.84	6.27	0.673
7/10			0.00	6.73	0.396	23.9	0	0.00	0.09	0.308	23.9	3	0.63	5.94	0.677
7/11	23.9	81	16.95	7.85	0.519	24.1	0	0.00	0.08	0.308	24.2	3	0.62	5.65	0.682
7/12			0.00	7.85	0.519	24.4	0	0.00	0.08	0.308	12.4	1	0.48	5.50	0.683
7/13	24.1	97	20.12	9.08	0.667	8.6	0	0.00	0.07	0.308	0.0	0	0.00	5.50	0.683
7/14			0.00	9.08	0.667			0.00	0.07	0.308	24.6	3	0.61	5.25	0.687
7/15			0.00	9.08	0.667	24.3	0	0.00	0.07	0.308	23.0	2	0.43	5.02	0.690
7/16	24.0	48	10.00	9.16	0.740	23.9	0	0.00	0.06	0.308	24.1	3	0.62	4.82	0.694
7/17			0.00	9.16	0.740	24.3	3	0.62	0.10	0.538	24.0	14	2.92	4.73	0.713
7/18	24.2	37	7.64	9.84	0.796	33.8	4	0.59	0.14	0.846	26.4	24	4.55	4.72	0.747
7/19			0.00	9.84	0.796	24.1	0	0.00	0.14	0.846	0.0	0	0.00	4.72	0.747
7/20	24.0	44	9.17	9.85	0.863			0.00	0.14	0.846	0.0	0	0.00	4.72	0.747
7/21			0.00	9.85	0.863			0.00	0.14	0.846	0.0	0	0.00	4.72	0.747
7/22			0.00	9.85	0.863	24.2	1	0.21	0.14	0.923	24.2	13	2.69	4.64	0.765
7/23	23.5	49	10.43	9.14	0.938	24.9	0	0.00	0.13	0.923	26.8	10	1.87	4.52	0.779
7/24			0.00	9.14	0.938	23.1	1	0.22	0.14	1.000	12.9	23	8.91	4.61	0.811
7/25	23.9	12	2.51	8.78	0.956						24.1	41	8.51	4.75	0.868
7/26	24.0	15	3.13	8.35	0.979						12.0	22	9.17	4.83	0.898
7/27	24.1	9	1.87	7.97	0.992						0.0	0	0.00	4.83	0.898
7/28	11.4	0	0.00	7.76	0.992						24.2	7	1.45	4.71	0.908
7/29			0.00	7.76	0.992						24.2	7	1.45	4.60	0.918
7/30	24.6	1	0.20	7.34	0.994						23.9	3	0.63	4.48	0.922
7/31	2.7	0	0.00	7.29	0.994						24.5	10	2.04	4.40	0.936
8/01	23.3	2	0.43	6.95	0.997								0.00	4.40	0.936
8/02			0.00	6.95	0.997								0.00	4.40	0.936
8/03	4.6	0	0.00	6.89	0.997								0.00	4.40	0.936
8/04			0.00	6.89	0.997								0.00	4.40	0.936
8/05			0.00	6.89	0.997						24.2	14	2.89	4.35	0.955
8/06	24.3	0	0.00	6.55	0.997						24.2	6	1.24	4.26	0.964
8/07			0.00	6.55	0.997						23.7	7	1.48	4.18	0.974
8/08	23.3	0	0.00	6.26	0.997						24.4	1	0.20	4.07	0.975
8/09			0.00	6.26	0.997						11.9	2	0.84	4.02	0.978
8/10	23.9	0	0.00	5.99	0.997								0.00	4.02	0.978
8/11			0.00	5.99	0.997						24.0	6	1.25	3.95	0.986
8/12			0.00	5.99	0.997						24.2	2	0.41	3.86	0.989
8/13	24.0	2	0.42	5.75	1.000						24.0	0	0.00	3.76	0.989
8/14											24.1	1	0.21	3.67	0.990
8/15											24.1	3	0.62	3.60	0.994
8/16											12.0	2	0.83	3.56	0.997
8/17													0.00	3.56	0.997
8/18											23.9	0	0.00	3.48	0.997
8/19											24.1	1	0.21	3.41	0.999
8/20											24.0	1	0.21	3.33	1.000
Totals	571.0	657	136.8			476.4	13	2.8			1078.0	719	162.3		
	Mean day of catch 7/11					Mean day of catch 7/14					Mean day of catch 7/8				

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Appendix Table 3. (p. 3 of 3).

	pink salmon catch, 1988 counts begin the day the first salmon was caught					pink salmon catch, 1988 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	CUM CPUE	CP(C)	Hours	Catch	CPUE	CUM CPUE	CP(C)
6/14							1	0.00	0.00	0.001
6/15							2	0.00	0.00	0.003
6/16							2	0.00	0.00	0.006
6/17								0.00	0.00	0.006
6/18							1	0.00	0.00	0.007
6/19								0.00	0.00	0.007
6/20						24.3	32	6.58	7.82	0.044
6/21						23.9	20	4.18	6.02	0.067
6/22						24.0	35	7.29	6.44	0.107
6/23						24.2	22	4.55	5.96	0.132
6/24						23.7	10	2.11	5.20	0.144
6/25						9.0	16	8.89	5.46	0.162
6/26								0.00	5.46	0.162
6/27						24.1	54	11.20	6.36	0.225
6/28								0.00	6.36	0.225
6/29						53.0	53	5.08	6.01	0.286
6/30						19.1	38	9.95	6.35	0.329
7/01						24.2	72	14.88	7.17	0.412
7/02						10.3	27	13.11	7.41	0.444
7/03								0.00	7.41	0.444
7/04						24.2	38	7.85	7.45	0.487
7/05						24.0	32	6.67	7.39	0.524
7/06						24.0	23	4.79	7.20	0.551
7/07						24.1	29	6.02	7.12	0.584
7/08	24.1	2	0.41	0.41	0.022	23.9	27	5.65	7.03	0.615
7/09	24.0	1	0.21	0.31	0.034	11.6	22	9.48	7.18	0.641
7/10	24.3	5	1.03	0.55	0.090			0.00	7.10	0.641
7/11	11.2	1	0.45	0.54	0.101	24.4	115	23.57	8.06	0.773
7/12			0.00	0.54	0.101	23.9	52	10.88	8.22	0.833
7/13	23.3	1	0.21	0.47	0.112	23.9	36	7.53	8.18	0.874
7/14	23.9	0	0.00	0.38	0.112	23.9	14	2.93	7.92	0.891
7/15			0.00	0.38	0.112	24.1	9	1.87	7.64	0.901
7/16	48.4	10	1.03	0.56	0.225	10.8	7	3.24	7.55	0.909
7/17	23.8	2	0.42	0.54	0.247			0.00	7.55	0.909
7/18	10.9	0	0.00	0.51	0.247	24.1	14	2.90	7.34	0.925
7/19			0.00	0.51	0.247	24.0	12	2.50	7.14	0.939
7/20	24.2	19	3.93	0.86	0.461	24.0	6	1.25	6.90	0.946
7/21	23.8	22	4.62	1.20	0.708	24.2	8	1.65	6.70	0.955
7/22	24.0	18	3.75	1.42	0.910	24.0	6	1.25	6.49	0.962
7/23	24.3	3	0.62	1.35	0.944	25.4	3	0.59	6.27	0.965
7/24	23.8	4	0.84	1.32	0.989			0.00	6.27	0.965
7/25	10.5	0	0.00	1.20	0.989			0.00	6.27	0.965
7/26			0.00	1.20	0.989			0.00	6.27	0.965
7/27	23.4	0	0.00	1.20	0.989	22.7	0	1.76	6.12	0.975
7/28	24.3	1	0.21	1.13	1.000	24.3	5	1.03	5.95	0.980
7/29						23.6	4	0.85	5.79	0.985
7/30						10.3	1	0.49	5.71	0.986
7/31								0.00	5.71	0.986
8/01						24.0	0	0.00	5.54	0.986
8/02						24.0	1	0.21	5.38	0.987
8/03						24.1	1	0.21	5.00	0.988
8/04						23.9	2	0.42	5.09	0.991
8/05						24.2	1	0.21	4.95	0.992
8/06						10.2	1	0.49	4.90	0.993
8/07								0.00	4.90	0.993
8/08						23.9	2	0.42	4.70	0.995
8/09						24.1	1	0.21	4.66	0.997
8/10								0.00	4.66	0.997
8/11						47.9	2	0.21	4.44	0.999
8/12						23.9	0	0.00	4.34	0.999
8/13						9.1	0	0.00	4.30	0.999
8/14								0.00	4.30	0.999
8/15						16.1	0	0.00	4.23	0.999
8/16						23.9	1	0.21	4.14	1.000
8/17						23.9	0	0.00	4.05	1.000
8/18						23.9	0	0.00	3.96	1.000
8/19								0.00	3.96	1.000
8/20						33.9	0	0.00	3.84	1.000
Total	392.2	89	17.73		Total	1130.2	868	195.05		
Mean day of catch 7/20.					Mean day of catch 7/4.					

Appendix Table 4. Chalkleet test net catches of chum salmon in 5 7/8" gear, 1981-1983.

	chum salmon catch, 1981 counts begin the day the tenth salmon was caught					chum salmon catch, 1982 counts begin the day the tenth salmon was caught					chum salmon catch, 1983 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/15											12.6	4	1.38	1.38	0.007
6/16													0.00	1.38	0.007
6/17											11.6	3	1.03	1.21	0.013
6/18						24.0	9	1.06	1.08	0.027			0.00	1.21	0.013
6/19								0.00	1.08	0.027	11.8	6	2.03	1.49	0.024
6/20						12.0	10	4.17	2.64	0.058			0.00	1.49	0.024
6/21								0.00	2.64	0.058	11.8	0	0.00	1.11	0.024
6/22						12.0	8	3.33	2.91	0.082	11.7	10	3.42	1.57	0.042
6/23						12.0	2	0.83	2.42	0.088			0.00	1.57	0.042
6/24								0.00	2.42	0.088	11.6	3	1.03	1.48	0.048
6/25						11.9	3	1.26	2.23	0.097			0.00	1.48	0.048
6/26								0.00	2.23	0.097	11.9	11	3.70	1.80	0.060
6/27						12.1	23	9.50	3.27	0.167			0.00	1.80	0.060
6/28								0.00	3.27	0.167	11.8	10	3.39	2.08	0.086
6/29						12.2	11	4.51	3.43	0.200	11.5	13	4.52	2.28	0.110
6/30						13.5	13	4.81	3.60	0.239			0.00	2.28	0.110
7/01								0.00	3.60	0.239	11.9	8	2.69	2.32	0.124
7/02						12.0	17	7.08	3.94	0.291			0.00	2.32	0.124
7/03								0.00	3.94	0.291	11.9	17	5.71	2.63	0.155
7/04						13.5	20	7.41	4.29	0.352			0.00	2.63	0.155
7/05								0.00	4.29	0.352	11.9	13	4.37	2.78	0.179
7/06						12.0	4	1.67	4.00	0.364	12.0	17	5.67	3.01	0.210
7/07						5.5	12	10.91	4.32	0.400			0.00	3.01	0.210
7/08								0.00	4.32	0.400	12.1	7	2.31	2.96	0.223
7/09						9.0	9	5.00	4.36	0.427			0.00	2.96	0.223
7/10								0.00	4.36	0.427	11.4	10	6.32	3.17	0.256
7/11						6.5	16	12.31	4.67	0.476			0.00	3.17	0.256
7/12								0.00	4.67	0.476	11.5	12	4.17	3.23	0.278
7/13						12.2	8	3.28	4.57	0.500	11.6	37	12.76	3.79	0.346
7/14						9.0	8	4.44	4.57	0.524			0.00	3.79	0.346
7/15								0.00	4.57	0.524	11.7	16	5.47	3.88	0.375
7/16						11.0	3	1.27	4.37	0.533			0.00	3.88	0.375
7/17	24.0	20	2.50	2.50	0.016			0.00	4.37	0.533	11.0	31	10.51	4.23	0.431
7/18	24.0	48	6.67	4.58	0.060	12.0	8	3.33	4.32	0.550			0.00	4.23	0.431
7/19	24.0	36	5.00	4.72	0.093	12.0	19	7.92	4.53	0.615	11.0	18	6.10	4.33	0.464
7/20	24.0	60	8.33	5.63	0.147			0.00	4.53	0.615	11.5	29	10.09	4.59	0.517
7/21	24.0	48	6.67	5.83	0.191	11.0	0	3.39	4.45	0.639			0.00	4.59	0.517
7/22	24.0	12	1.67	5.14	0.201	24.5	38	7.76	4.76	0.755	12.2	17	5.57	4.64	0.540
7/23	24.0	21	2.92	4.82	0.221			0.00	4.76	0.755			0.00	4.64	0.540
7/24	24.0	36	5.00	4.84	0.253			0.00	4.76	0.755	11.5	24	8.35	4.80	0.592
7/25	24.0	33	4.58	4.81	0.283	12.6	23	9.13	4.96	0.824			0.00	4.80	0.592
7/26	24.0	60	8.33	5.17	0.330	2.5	3	6.00	4.97	0.833	12.0	19	6.33	4.86	0.627
7/27	24.0	63	8.75	5.49	0.395			0.00	4.97	0.833	11.7	11	3.76	4.82	0.647
7/28	24.0	52	7.22	5.64	0.442			0.00	4.97	0.833			0.00	4.82	0.647
7/29	24.0	111	15.42	6.19	0.543	4.6	0	0.70	5.03	0.850	11.7	14	4.79	4.82	0.673
7/30	24.0	66	9.17	6.59	0.603			0.00	5.03	0.850			0.00	4.82	0.673
7/31	24.0	36	5.00	6.40	0.635			0.00	5.03	0.850	11.6	10	6.21	4.87	0.706
8/01	24.0	9	1.25	6.15	0.643	3.0	3	5.00	5.03	0.867			0.00	4.87	0.706
8/02	24.0	0	0.00	5.79	0.643	4.4	1	1.14	4.97	0.870	12.1	9	2.98	4.88	0.722
8/03	24.0	12	1.67	5.56	0.654			0.00	4.97	0.870	12.2	17	5.57	4.83	0.753
8/04	24.0	21	2.92	5.42	0.673	13.2	5	1.89	4.84	0.885			0.00	4.83	0.753
8/05	24.0	33	4.58	5.38	0.703	7.3	5	3.42	4.80	0.900	11.0	0	2.71	4.76	0.760
8/06	24.0	24	3.33	5.28	0.725			0.00	4.80	0.900			0.00	4.76	0.760
8/07	24.0	33	4.58	5.25	0.755			0.00	4.80	0.900	12.0	19	5.94	4.80	0.803
8/08	24.0	33	4.58	5.22	0.785	12.6	6	2.38	4.71	0.910			0.00	4.80	0.803
8/09	24.0	27	3.75	5.16	0.809	12.9	2	0.78	4.56	0.924	25.7	10	1.56	4.59	0.821
8/10	24.0	18	2.50	5.06	0.826			0.00	4.56	0.924	12.5	14	4.48	4.58	0.846
8/11	24.0	27	3.75	5.01	0.850	12.2	6	1.64	4.46	0.936			0.00	4.58	0.846
8/12	24.0	21	2.92	4.93	0.869	12.5	3	1.20	4.34	0.945	1.3	1	3.08	4.58	0.848
8/13	24.0	3	0.42	4.77	0.872			0.00	4.34	0.945			0.00	4.58	0.848
8/14	24.0	25	3.47	4.72	0.895			0.00	4.34	0.945	10.7	5	1.87	4.51	0.857
8/15	24.0	30	4.17	4.70	0.922	12.3	2	0.81	4.22	0.952			0.00	4.51	0.857
8/16	24.0	14	1.94	4.61	0.935	12.2	2	0.82	4.12	0.958	12.2	4	1.31	4.42	0.865
8/17	24.0	9	1.25	4.51	0.943			0.00	4.12	0.958	12.3	15	4.88	4.43	0.892
8/18	24.0	14	1.94	4.43	0.956	12.0	0	0.00	3.99	0.958			0.00	4.43	0.892
8/19	24.0	8	1.11	4.33	0.963	12.2	1	0.41	3.88	0.961	11.8	11	3.73	4.41	0.912
8/20	24.0	6	0.83	4.23	0.968			0.00	3.88	0.961			0.00	4.41	0.912
8/21	24.0	7	0.97	4.14	0.975			0.00	3.88	0.961	11.2	3	1.07	4.33	0.918
8/22	24.0	1	0.14	4.04	0.975	12.2	1	0.41	3.78	0.964			0.00	4.33	0.918
8/23	24.0	1	0.14	3.93	0.976	11.8	4	1.69	3.73	0.976	12.0	6	2.00	4.27	0.929
8/24	24.0	2	0.28	3.84	0.978			0.00	3.73	0.976	11.5	7	2.43	4.23	0.941
8/25	24.0	2	0.28	3.75	0.980	12.1	1	0.41	3.64	0.979			0.00	4.23	0.941
8/26	24.0	2	0.28	3.67	0.982	12.2	0	0.00	3.54	0.979	11.5	5	1.74	4.17	0.951
8/27	24.0	7	0.97	3.60	0.988			0.00	3.54	0.979			0.00	4.17	0.951
8/28	24.0	2	0.28	3.52	0.990			0.00	3.54	0.979	11.9	1	0.34	4.08	0.952
8/29	24.0	1	0.14	3.45	0.991	12.5	3	1.20	3.48	0.988			0.00	4.08	0.952
8/30	24.0	0	0.00	3.37	0.991	11.3	0	0.00	3.48	0.988	11.9	4	1.34	4.02	0.960
8/31	24.0	2	0.28	3.30	0.993			0.00	3.40	0.988	11.7	0	0.00	3.93	0.960
9/01	24.0	2	0.28	3.24	0.995	12.2	0	0.00	3.31	0.988			0.00	3.93	0.960
9/02	24.0	0	0.00	3.17	0.995	11.5	0	0.00	3.24	0.988	12.3	3	0.98	3.86	0.965
9/03	24.0	0	0.00	3.11	0.995			0.00	3.24	0.988			0.00	3.86	0.965
9/04	24.0	0	0.00	3.04	0.995			0.00	3.24	0.988	47.9	2	0.17	3.57	0.969
9/05	24.0	1	0.14	2.99	0.995	11.6	0	0.00	3.16	0.988			0.00	3.57	0.969
9/06	24.0	1	0.14	2.93	0.996	9.0	0	0.00	3.10	0.988	23.0	1	0.17	3.44	0.971
9/07	24.0	2	0.28	2.88	0.998			0.00	3.10	0.988	23.7	0	0.00	3.31	0.971
9/08	24.0	2	0.28	2.83	1.000	11.0	3	1.27	3.06	0.997	23.0	1	0.17	3.20	0.973
9/09								0.00	3.06	0.997	24.2	2	0.33	3.10	0.976
9/10						28.5	0	0.00	2.91	0.997	24.2	3	0.50	3.01	0.982
9/11						23.5	0	0.00	2.79	0.997	24.2	0	0.00	2.91	0.982
9/12						25.6	0	0.00	2.68	0.997	24.1	2	0.33	2.83	0.985
9/13						25.6	0	0.00	2.57	0.997			0.00	2.83	0.985
9/14						21.3	0	0.00	2.49	0.997	22.7	3	0.53	2.76	0.991
9/15						26.7	0	0.00	2.39	0.997	24.2	0	0.00	2.68	0.991
9/16						22.2	0	0.00	2.32	0.997	21.0	1	0.19	2.62	0.993
9/17						24.0	0	0.00	2.24	0.997	23.9	2	0.33	2.55	0.996
9/18						22.1	0	0.00	2.17	0.997	23.0	0	0.00	2.49	0.996
9/19						30.2	0	0.00	2.09	0.997			0.00	2.49	0.996
9/20						19.1	0	0.00	2.04	0.997	48.9	0	0.00	2.35	0.996
9/21						26.2	1	0.19	1.98	1.000	24.0	2	0.33	2.30	1.000
Totals	1296.0	1102	153.06			832.0	330	154.56			958.1	547	182.74		
	Mean day of catch 8/03					Mean day of catch 7/15					Mean day of catch 7/23				

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Appendix Table 4. (p. 2 of 3).

	chum salmon catch, 1984 counts begin the day the tenth salmon was caught					chum salmon catch, 1985 counts begin the day the tenth salmon was caught					chum salmon catch, 1986 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	Cum. CPUE	CP(C)
6/15															
6/16												3			
6/17												2			
6/18											24.2	11	2.27	2.27	0.014
6/19											24.1	4	0.83	1.55	0.019
6/20											24.0	3	0.63	1.24	0.023
6/21											23.9	9	1.88	1.40	0.035
6/22											24.3	9	1.85	1.49	0.047
6/23											23.9	14	2.93	1.73	0.065
6/24						23.9	17	2.85	2.85	0.021	23.7	2	0.42	1.55	0.067
6/25	24.2	17	3.51	3.51	0.027	25.3	22	3.48	3.17	0.040	24.0	5	1.04	1.48	0.074
6/26			0.00	3.51	0.027	23.0	32	5.57	3.93	0.087	25.0	5	1.00	1.43	0.080
6/27	24.5	29	5.92	4.72	0.073	24.5	22	3.59	3.85	0.114	24.0	10	2.08	1.49	0.093
6/28			0.00	4.72	0.073	23.7	19	3.21	3.72	0.137	12.1	13	5.37	1.68	0.110
6/29	24.4	27	5.53	4.99	0.117	24.1	29	4.81	3.90	0.172	0.0	0	0.00	1.68	0.110
6/30			0.00	4.99	0.117	23.7	37	6.24	4.23	0.217	24.0	9	1.88	1.70	0.121
7/01			0.00	4.99	0.117	9.0	20	8.16	4.45	0.242	24.1	9	1.87	1.71	0.133
7/02	23.8	39	8.19	5.70	0.179	7.0	34	19.43	5.02	0.283	23.9	6	1.26	1.68	0.141
7/03			0.00	5.70	0.179	24.0	38	6.33	5.17	0.330	24.1	10	2.07	1.70	0.154
7/04	24.0	31	6.46	5.91	0.220	23.8	36	6.05	5.26	0.374	23.9	8	1.67	1.70	0.164
7/05			0.00	5.91	0.220	23.9	19	3.18	5.06	0.397	12.2	11	4.51	1.79	0.178
7/06	24.1	56	11.62	6.60	0.318	9.2	7	3.04	4.99	0.405	0.0	0	0.00	1.79	0.178
7/07			0.00	6.86	0.318			0.00	4.99	0.405	24.4	11	2.25	1.82	0.193
7/08			0.00	6.86	0.318	23.2	38	6.55	5.12	0.452	24.5	11	2.24	1.84	0.207
7/09	24.1	58	10.37	7.36	0.398	24.1	58	9.63	5.47	0.523	23.8	14	2.94	1.90	0.225
7/10			0.00	7.36	0.398	23.9	34	5.69	5.48	0.564	23.9	10	2.09	1.91	0.238
7/11	23.9	29	6.07	7.20	0.444	24.1	38	6.31	5.54	0.611	24.2	12	2.48	1.94	0.253
7/12			0.00	7.20	0.444	24.4	22	3.61	5.41	0.637	12.4	10	4.03	1.99	0.266
7/13	24.1	26	5.39	7.00	0.486	8.6	9	4.19	5.39	0.648	0.0	0	0.00	1.99	0.266
7/14			0.00	7.00	0.486			0.00	5.39	0.648	24.6	23	4.67	2.11	0.296
7/15			0.00	7.00	0.486	24.3	25	4.12	5.31	0.679	23.0	20	4.35	2.20	0.322
7/16	24.0	22	4.58	6.76	0.521	23.9	3	0.50	5.05	0.683	24.1	17	3.53	2.25	0.344
7/17			0.00	6.76	0.521	24.3	11	1.81	4.89	0.696	24.0	23	4.79	2.35	0.373
7/18	24.2	22	4.55	6.56	0.556	13.8	20	2.37	4.72	0.728	26.4	40	7.58	2.57	0.425
7/19			0.00	6.56	0.556	24.1	8	1.33	4.56	0.730	0.0	0	0.00	2.57	0.425
7/20	24.0	20	5.03	6.50	0.601			0.00	4.56	0.730	0.0	0	0.00	2.57	0.425
7/21			0.00	6.50	0.601			0.00	4.56	0.730	0.0	0	0.00	2.57	0.425
7/22			0.00	6.50	0.601	24.2	21	3.47	4.51	0.756	24.2	44	9.09	2.80	0.482
7/23	23.5	15	3.19	6.25	0.625	24.9	13	2.09	4.41	0.772	26.0	49	9.24	3.05	0.545
7/24			0.00	6.25	0.625	23.1	18	1.73	4.30	0.784	12.9	26	10.00	3.10	0.579
7/25	23.9	6	1.26	5.90	0.634	23.7	19	3.21	4.26	0.807	24.1	44	9.13	3.30	0.636
7/26	24.0	0	3.75	5.75	0.663	24.6	8	1.30	4.15	0.817	12.0	30	12.50	3.52	0.674
7/27	24.1	16	3.32	5.60	0.693	7.4	1	0.54	4.11	0.818	0.0	0	0.00	3.52	0.674
7/28	11.4	3	1.32	5.48	0.693			0.00	4.11	0.818	24.2	34	7.02	3.63	0.710
7/29			0.00	5.48	0.693	23.8	22	3.70	4.09	0.845	24.2	32	6.61	3.73	0.760
7/30	24.6	30	6.10	5.51	0.741	23.9	6	1.00	3.99	0.852	23.9	36	7.53	3.84	0.806
7/31	2.7	0	0.00	5.48	0.741	23.0	7	1.10	3.98	0.861	24.5	41	8.37	3.97	0.859
8/01	23.3	7	1.50	5.27	0.752	24.2	7	1.16	3.81	0.869			0.00	3.97	0.859
8/02			0.00	5.27	0.752	24.3	3	0.49	3.70	0.873			0.00	3.97	0.859
8/03	4.6	4	4.35	5.26	0.759	10.7	1	0.37	3.66	0.874			0.00	3.97	0.859
8/04			0.00	5.26	0.759			0.00	3.66	0.874			0.00	3.97	0.859
8/05			0.00	5.26	0.759	23.0	2	0.34	3.56	0.877	24.2	13	2.69	3.93	0.876
8/06	24.3	7	1.44	5.07	0.778	24.3	1	0.16	3.46	0.878	24.2	19	3.93	3.93	0.901
8/07			0.00	5.07	0.778	24.0	3	0.50	3.38	0.882	23.7	24	5.06	3.96	0.932
8/08	23.3	11	2.36	4.94	0.788	24.0	9	1.50	3.33	0.893	24.4	6	1.23	3.89	0.939
8/09			0.00	4.94	0.788	24.6	13	2.17	3.29	0.908	11.9	2	0.84	3.85	0.942
8/10	23.9	6	1.26	4.77	0.797	11.0	5	1.82	3.28	0.915			0.00	3.85	0.942
8/11			0.00	4.77	0.797			0.00	3.28	0.915	24.0	6	1.25	3.79	0.950
8/12			0.00	4.77	0.797	24.2	9	1.49	3.23	0.926	24.2	1	0.21	3.70	0.951
8/13	24.0	14	2.92	4.69	0.819	24.0	9	1.50	3.19	0.937	24.0	12	2.50	3.67	0.966
8/14	24.2	12	2.48	4.60	0.839	29.2	8	1.10	3.13	0.946	24.1	5	1.04	3.61	0.973
8/15	23.8	7	1.47	4.47	0.858	19.5	11	2.26	3.11	0.960	24.1	4	0.83	3.55	0.978
8/16			0.00	4.47	0.858	23.5	11	1.87	3.00	0.973	12.0	3	1.25	3.52	0.982
8/17	25.0	13	2.60	4.40	0.871	11.6	0	0.00	3.05	0.973			0.00	3.52	0.982
8/18			0.00	4.40	0.871			0.00	3.05	0.973	23.9	1	0.21	3.45	0.983
8/19			0.00	4.40	0.871	24.1	1	0.17	2.98	0.974	24.1	2	0.41	3.39	0.986
8/20	24.0	7	1.46	4.29	0.882	23.0	5	0.84	2.94	0.980	24.0	1	0.21	3.32	0.987
8/21			0.00	4.29	0.882	24.0	3	0.48	2.88	0.984	24.0	2	0.42	3.26	0.990
8/22	24.7	5	1.01	4.17	0.890	23.0	2	0.34	2.83	0.987	23.9	0	0.00	3.20	0.990
8/23	23.2	8	1.72	4.00	0.903	23.7	3	0.51	2.78	0.990	11.0	0	0.00	3.17	0.990
8/24	24.0	7	1.46	4.00	0.914	9.1	0	0.00	2.76	0.990			0.00	3.17	0.990
8/25			0.00	4.00	0.914			0.00	2.76	0.990	23.9	0	0.00	3.10	0.990
8/26			0.00	4.00	0.914	23.0	4	0.70	2.72	0.995	24.0	0	0.00	3.04	0.990
8/27	23.0	6	1.30	3.91	0.923	24.2	2	0.33	2.67	0.998	24.0	1	0.21	2.99	0.991
8/28	22.0	7	1.54	3.84	0.935	24.2	0	0.00	2.62	0.998			0.00	2.99	0.991
8/29	25.3	4	0.79	3.74	0.941	23.7	0	0.00	2.57	0.998	48.0	2	0.21	2.89	0.994
8/30	24.2	3	0.62	3.65	0.946	24.2	0	0.00	2.52	0.998	11.0	1	0.42	2.87	0.995
8/31	30.7	4	0.65	3.54	0.952	23.5	0	0.00	2.48	0.998			0.00	2.87	0.995
9/01			0.00	3.54	0.952			0.00	2.48	0.998			0.00	2.87	0.995
9/02			0.00	3.54	0.952			0.00	2.48	0.998	24.0	1	0.21	2.82	0.996
9/03	16.7	5	1.50	3.50	0.960	24.3	0	0.00	2.43	0.998	24.1	2	0.41	2.78	0.999
9/04	23.0	4	0.87	3.43	0.966	23.6	1	0.17	2.39	0.999	23.9	1	0.21	2.74	1.000
9/05	24.2	6	1.24	3.37	0.976	24.0	0	0.00	2.35	0.999					
9/06	24.2	4	0.83	3.31	0.982	24.1	0	0.00	2.31	0.999					
9/07	24.3	3	0.62	3.24	0.987	11.8	1	0.34	2.30	1.000					
9/08			0.00	3.24	0.987										
9/09			0.00	3.24	0.987										
9/10	23.5	2	0.43	3.17	0.990										
9/11	33.1	1	0.15	3.07	0.992										
9/12	22.0	2	0.45	3.02	0.995										
9/13	17.0	1	0.29	2.97	0.997										
9/14	23.7	0	0.00	2.91	0.997										
9/15			0.00	2.91	0.997										
9/16			0.00	2.91	0.997										
9/17	24.6	1	0.20	2.85	0.998										
9/18	24.4	1	0.20	2.79	1.000										
9/19															
9/20															
9/21															
Totals	1122.5	626	134.67			1426.3	819	160.84			1413.7	774	177.74		
	Mean day of catch 7/22					Mean day of catch 7/09					Mean day of catch 7/28				

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Appendix Table 4. (p. 3 of 3).

	chum salmon catch, 1987 counts begin the day the tenth salmon was caught					chum salmon catch, 1988 counts begin the day the tenth salmon was caught				
Date	Hours	Catch	CPUE	Cum. CPUE	CP(C)	Hours	Catch	CPUE	CUM CPUE	CP(C)
6/06							0	0.00	0.00	0.000
6/07							1	0.00	0.00	0.002
6/08							0	0.00	0.00	0.002
6/09							0	0.00	0.00	0.002
6/10							0	0.00	0.00	0.002
6/11							0	0.00	0.00	0.002
6/12							0	0.00	0.00	0.002
6/13							1	0.00	0.00	0.004
6/14							2	0.00	0.00	0.008
6/15							2	0.00	0.00	0.012
6/16		1					0	0.00	0.00	0.012
6/17	24.3	9	1.85	1.85	0.015	24.2	4	0.83	2.07	0.020
6/18	23.7	2	0.42	1.15	0.018	18.5	1	0.40	1.59	0.022
6/19	23.9	2	0.42	0.90	0.021			0.00	1.59	0.022
6/20	11.8	0	0.00	0.78	0.021	24.3	9	1.85	1.69	0.040
6/21			0.00	0.78	0.021	23.9	11	2.30	1.87	0.063
6/22	23.6	3	0.64	0.75	0.026	24.0	11	2.29	1.96	0.085
6/23	23.9	2	0.42	0.69	0.030	24.2	10	2.07	1.98	0.105
6/24	24.0	7	1.46	0.81	0.041	23.7	7	1.40	1.91	0.119
6/25	24.1	11	2.28	1.00	0.059	9.0	6	3.33	1.90	0.132
6/26	24.2	10	2.07	1.13	0.076			0.00	1.90	0.132
6/27			0.00	1.13	0.076	24.1	10	2.07	2.00	0.152
6/28	40.0	17	1.77	1.25	0.104			0.00	2.00	0.152
6/29	23.9	12	2.51	1.36	0.123	53.0	6	0.57	1.68	0.164
6/30	24.1	9	1.87	1.40	0.130	19.1	0	0.00	1.56	0.164
7/01	23.7	6	1.27	1.39	0.140	24.2	2	0.41	1.46	0.160
7/02	24.0	7	1.46	1.40	0.160	18.3	0	0.00	1.41	0.160
7/03	24.0	2	0.42	1.33	0.163			0.00	1.41	0.160
7/04			0.00	1.33	0.163	24.2	9	1.86	1.44	0.186
7/05	47.6	15	1.58	1.36	0.180	24.0	9	1.80	1.47	0.204
7/06	24.5	9	1.84	1.39	0.202	24.0	7	1.46	1.47	0.219
7/07	24.0	8	0.00	1.32	0.202	24.1	7	1.45	1.47	0.233
7/08	24.1	6	1.24	1.31	0.212	23.9	10	2.09	1.51	0.253
7/09	24.0	18	3.75	1.43	0.242	11.6	4	1.72	1.53	0.261
7/10	24.3	27	5.56	1.61	0.286			0.00	1.51	0.261
7/11	11.2	15	6.70	1.72	0.311	24.4	5	1.02	1.49	0.271
7/12			0.00	1.72	0.311	23.9	8	1.67	1.50	0.287
7/13	23.3	23	4.94	1.85	0.349	23.9	16	3.35	1.58	0.320
7/14	23.9	18	2.09	1.86	0.365	23.9	20	4.18	1.70	0.360
7/15			0.00	1.86	0.365	24.1	13	2.70	1.75	0.387
7/16	40.4	20	2.07	1.87	0.398	18.0	8	3.70	1.79	0.403
7/17	23.8	5	1.05	1.84	0.406			0.00	1.79	0.403
7/18	10.9	1	0.46	1.82	0.408	24.1	17	3.53	1.86	0.437
7/19			0.00	1.82	0.408	24.0	8	1.67	1.85	0.453
7/20	24.2	10	2.07	1.83	0.424	24.0	7	1.46	1.84	0.468
7/21	23.8	18	3.78	1.89	0.454	24.2	7	1.45	1.82	0.482
7/22	24.0	24	5.00	1.99	0.493	24.0	9	1.88	1.82	0.500
7/23	24.3	21	4.32	2.06	0.528	25.4	6	1.18	1.80	0.512
7/24	23.8	23	4.83	2.15	0.566			0.00	1.80	0.512
7/25	10.5	13	6.19	2.20	0.587			0.00	1.80	0.512
7/26			0.00	2.20	0.587			0.00	1.80	0.512
7/27	23.4	8	1.71	2.19	0.600	22.7	35	7.71	1.98	0.583
7/28	24.3	4	0.82	2.15	0.607	24.3	14	2.88	2.01	0.611
7/29	23.9	3	0.63	2.11	0.612	23.6	28	5.93	2.13	0.668
7/30	23.7	10	2.11	2.11	0.628	10.3	16	7.77	2.21	0.700
7/31	23.9	5	1.05	2.08	0.637			0.00	2.21	0.700
8/01			0.00	2.08	0.637	24.0	13	2.71	2.22	0.727
8/02	47.6	18	1.89	2.07	0.666	24.0	9	1.88	2.23	0.745
8/03	24.0	16	3.33	2.10	0.692	24.1	11	2.28	2.21	0.767
8/04	24.2	15	3.10	2.12	0.717	23.9	14	2.93	2.23	0.796
8/05	23.7	12	2.53	2.13	0.737	24.2	8	1.65	2.22	0.812
8/06	24.3	22	4.53	2.19	0.773	10.2	3	1.47	2.21	0.818
8/07	24.1	18	3.73	2.27	0.803			0.00	2.21	0.818
8/08	10.4	10	4.81	2.24	0.819	23.9	11	2.30	2.21	0.840
8/09			0.00	2.24	0.819	24.1	15	3.11	2.23	0.870
8/10	24.2	8	1.65	2.23	0.832			0.00	2.23	0.870
8/11	23.0	9	1.89	2.21	0.847	47.9	16	1.67	2.21	0.903
8/12	23.9	4	0.84	2.20	0.854	23.9	11	2.30	2.21	0.925
8/13	24.3	10	2.06	2.19	0.870	9.1	4	2.20	2.21	0.933
8/14	23.9	8	1.67	2.18	0.883			0.00	2.21	0.933
8/15	23.8	6	1.26	2.17	0.893	16.1	9	2.00	2.22	0.951
8/16	24.0	5	1.04	2.15	0.901	23.9	2	0.42	2.18	0.955
8/17	24.2	16	2.07	2.14	0.918	23.9	2	0.42	2.14	0.960
8/18	23.0	6	1.26	2.13	0.928	23.9	1	0.21	2.10	0.962
8/19	24.0	3	0.63	2.10	0.933			0.00	2.10	0.962
8/20	24.2	7	1.45	2.09	0.944	33.9	1	0.15	2.04	0.964
8/21	24.0	5	1.04	2.07	0.952			0.00	2.04	0.964
8/22	24.0	4	0.83	2.05	0.959	24.0	1	0.21	2.01	0.966
8/23	23.9	2	0.42	2.02	0.962	24.0	0	0.00	1.97	0.966
8/24	23.9	1	0.21	1.99	0.964	24.5	0	0.00	1.93	0.966
8/25	24.2	1	0.21	1.97	0.965	23.7	5	1.05	1.91	0.976
8/26	24.1	5	1.04	1.95	0.974	23.7	2	0.42	1.88	0.980
8/27	24.0	2	0.42	1.93	0.977	9.0	2	1.02	1.88	0.984
8/28	23.9	0	0.00	1.90	0.977			0.00	1.88	0.984
8/29	18.8	0	0.00	1.88	0.977	24.0	0	0.00	1.84	0.984
8/30			0.00	1.88	0.977	24.0	0	0.00	1.81	0.984
8/31	13.1	2	0.76	1.88	0.980	24.1	1	0.21	1.78	0.986
9/01	24.2	1	0.21	1.85	0.982	24.1	0	0.00	1.75	0.986
9/02	23.9	3	0.63	1.83	0.987	23.9	3	0.63	1.73	0.992
9/03	23.9	2	0.42	1.81	0.990	10.2	1	0.49	1.72	0.994
9/04	24.1	1	0.21	1.79	0.992			0.00	1.72	0.994
9/05	24.0	2	0.40	1.77	0.995	23.9	0	0.00	1.69	0.994
9/06	23.5	0	0.00	1.74	0.995	23.0	1	0.22	1.67	0.996
9/07			0.00	1.74	0.995	25.0	0	0.00	1.64	0.996
9/08	47.0	3	0.31	1.71	1.000	24.2	0	0.00	1.62	0.996
9/09						24.2	2	0.41	1.60	1.000
9/10						24.0	0	0.00	1.57	1.000
9/11								0.00	1.57	1.000
9/12						48.0	0	0.00	1.53	1.000
9/13										
9/14										
9/15										
9/16										
9/17										
9/18										
9/19										
9/21										
Totals	1781.5	600	129.45			1617.2	494	113.36		
Mean day of catch 7/22.						Mean day of catch 7/22				