

FISHING EFFORT, HARVEST, AND HATCHERY
CONTRIBUTIONS OF CHINOOK SALMON
IN EXPERIMENTAL TROLL FISHERIES
DURING JUNE 1988



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Alaska Department of Fish and Game
Division of Commercial Fisheries
Juneau, Alaska

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By
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and
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ABSTRACT

Experimental troll fisheries were conducted during June, 1988 in near-terminal and terminal hatchery areas under regulations adopted by the Alaska Board of Fisheries. The main objective of these experimental fisheries, first conducted in 1986, was to increase the troll fishery harvest of mature Alaska hatchery chinook salmon (*Oncorhynchus tshawytscha*). These areas were adjacent to the Crystal Lake (Alaska Department of Fish and Game, ADF&G), Little Port Walter (National Marine Fisheries Service, NMFS), Neets Bay and Whitman Lake (Southern Southeast Regional Aquaculture Association, SSRAA), and Medvejie (Northern Southeast Alaska Regional Aquaculture Association, NSRAA) hatcheries. An experimental troll fishery was also conducted in the Cross Sound (Inian Islands) area to determine the feasibility of harvesting pink and chum salmon during the spring with commercial troll gear. In addition, terminal troll fisheries were conducted in Wrangell Narrows near the Crystal Lake Hatchery, in Carroll Inlet near Ketchikan (a remote release site for the Whitman Lake Hatchery), in Earl West Cove (remote release site for Crystal Lake Hatchery) and in Neets Bay (Neets Bay Hatchery) near Ketchikan.

Openings in the experimental troll areas were limited to specific weekly periods to reduce harvests of non-Alaska hatchery stocks of chinook salmon and to hold total harvests below guidelines established by the Board. The Carroll Inlet, Neets Bay, Wrangell Narrows, and Earl West Cove fisheries were terminal fisheries designed to harvest surplus chinook salmon not required for broodstock. These terminal fisheries were open continuously from June 6 to June 29.

Several hundred boats participated in the 1988 experimental and terminal troll fisheries, harvesting approximately 8,700 chinook salmon of which 32% were produced by Alaska hatcheries. An additional 211 chinook, 13,242 pink, 2,462 chum, 433 sockeye, and 300 coho salmon were harvested in the Cross Sound experimental troll fishery.

INTRODUCTION

In 1988, the Alaska Board of Fisheries authorized the Alaska Department of Fish and Game (ADF&G) to conduct limited experimental troll fisheries in June prior to the opening of the general summer season on July 1 (ADF&G, 1988a). The purpose of these fisheries was to determine if mature chinook salmon (*Oncorhynchus tshawytscha*) returning to southeast Alaska hatcheries could be harvested effectively with troll gear in terminal areas without significant impact on non-Alaskan stocks. An experimental troll fishery was also conducted in the Cross Sound (Inian Islands) area near Elfin Cove to determine the feasibility of harvesting mature chum salmon returning to Hidden Falls Hatchery and to determine if a troll fishery could be directed on pink salmon during the spring.

LOCATIONS OF HATCHERIES AND FISHERIES

The experimental troll fishing areas were located adjacent to five chinook salmon production facilities (Figure 1). The Crystal Lake Hatchery, operated by the Division of Fisheries Rehabilitation and Enhancement (ADF&G), is located on Blind Slough on Mitkof Island approximately 19 miles south of Petersburg. The Little Port Walter Hatchery is on the southeast side of Baranof Island approximately 15 miles north of Port Alexander. This hatchery is operated by the National Marine Fisheries Service (NMFS). The Southern Southeast Regional Aquaculture Association (SSRAA) operates the Neets Bay and Whitman Lake Hatcheries. Neets Bay Hatchery is located in Neets Bay on the east side of west Behm Canal approximately 20 miles north of Ketchikan and Whitman Lake Hatchery is just south of Ketchikan in Herring Cove. The Medvejie Central Incubation Facility is located in Bear Cove on the east side of Silver Bay near Sitka. The hatchery is operated by the Northern Southeast Regional Aquaculture Association, (NSRAA). Hidden Falls Hatchery, operated by ADF&G until 1988 when NSRAA assumed management of the facility, is located on the east side of Baranof Island in Kasnyku Bay. In addition, terminal troll fisheries were conducted in Wrangell Narrows near the Crystal Lake Hatchery, Carroll Inlet (remote release site for Whitman Lake Hatchery), Earl West Cove (remote release site for Crystal Lake Hatchery), and Neets Bay (Neets Bay Hatchery). The general locations of all the experimental and terminal troll fisheries are shown in Figure 2.

MANAGEMENT GUIDELINES

In authorizing the experimental fisheries, the Alaska Board of Fisheries established the following management guidelines:

1. The experimental fisheries were open to all Alaska troll permit holders. However, salmon could only be taken under the authority of a permit issued by the Department. Permits specified landing requirements to have fish sampled for the presence of coded-wire tags.
2. All legal salmon could be retained except no coho salmon could be retained until June 15.
3. All participants in the experimental fisheries were required to maintain logbooks of effort and catch.
4. Areas opened to fishing were restricted, to minimize interceptions of non-target species and stocks.
5. Each fishery was to be closed by emergency order when the harvest of legal ($\geq 28''$) size chinook salmon, excluding Alaskan hatchery-produced fish for that fishery, reached 1,000 fish except as follows:

- (a) If the catch of Alaskan hatchery-produced chinook salmon was 33% or greater of the total chinook salmon catch in a specific area the catch limit for that area was increased to 2,000 fish, excluding Alaskan hatchery produced fish.
 - (b) The catch limit for the fishery in Section 14-A (Inian Islands) was 500 chinook salmon, excluding Alaskan hatchery produced fish.
 - (c) The fisheries in Carroll Inlet, Neets Bay, Earl West Cove, and Wrangell Narrows opened June 1 and continued 7 days a week provided the catch of Alaskan hatchery produced chinook salmon remained high.
6. The experimental troll fishing season ran from June 6 through June 29 with open periods as indicated below for each specific location:
- (a) For harvest of returns to the Carroll Inlet chinook salmon release site, fishing was opened in the waters of Carroll Inlet north of the latitude of California Head and south of the latitude of Nigelius Point from June 6 through June 29 (Figure 3).
 - (b) For the harvest of returns to the Neets Bay and Whitman Lake Hatcheries, the waters of District 2 within one nautical mile of the shore of the Cleveland Peninsula north of the latitude of Niblack Point and south of the latitude of Lemesurier Point and the waters Section 1-F north of a line from Cone Point to Harbor Point to Hid Reef light and then due west to the District 2 boundary (Figure 3) on Monday and Tuesday each week except that:
 - (1) The waters of George Inlet were closed north of the latitude of California Head.
 - (2) The waters of Tongass Narrows were closed north of a line from Mountain Point Light to Gravina Point.
 - (3) The waters in Section 1-F of Clarence Strait, Vallenar Bay and Behm Canal were closed north of the latitude of South Vallenar Point.
 - (4) The waters of Carroll Inlet were open as indicated above.
 - (c) For the harvest of returns to the Neets Bay Hatchery, the waters of Section 1-E except in the waters of Neets Bay east of the easternmost tip of Bug Island were opened continuously from June 1 through 30.
 - (d) For the harvest of returns to the Crystal Lake Hatchery, fishing was opened as follows (Figure 4):
 - (1) The waters of Wrangell Narrows, in Section 6-A, south of 56°15'50" north latitude and north of a line from North Point to Spruce Point was open for continuous fishing from June 6 through 29.
 - (2) The waters of Frederick Sound in District 10, within 2 nautical miles along the shore of Kupreanof Island west of the longitude of Boulder Point was open for a one day period on June 6. The duration of subsequent fishing periods was established by emergency order.
 - (3) The Earl West Cove Special Harvest Area included the waters of Eastern Passage south of latitude 56°24'54" and west of longitude 132°6'21" with the following restrictions: Madan Bay was closed north and east of a line from the latitude of the channel marker in the Narrows to the eastern tip of Channel Island, to the navigational light on the northern tip of Channel Island, to the southern most tip of Point Medan.
 - (e) For the harvest of returns to the Little Port Walter Hatchery, the waters of Section 9-A south of the latitude of Patterson Point and north of 56°15'50" north latitude (located

immediately south of Graveyard Cove) including all waters of Patterson Bay, Deep Cove, Port Herbert, Port Walter, Port Lucy and Port Conclusion, were open Monday and Tuesday each week (Figure 5).

- (f) For the harvest of returns to the Medvejie Creek Hatchery, the waters of Silver Bay, Section 13-B, east of a line from Entry Point to a point at 57°01'43" north latitude, 135°14'17" west longitude was open Monday and Tuesday each week except the waters of Bear Cove were closed east of 135°09'42" west longitude (Figure 6).
- (g) For the harvest of pink and chum salmon, the waters of Cross Sound, in Section 14-A, west of the longitude of Point Dundas and south of the latitude of Point Dundas and east of a line from the southern end of Taylor Island to George Island Light to Point Lavinia were open Monday, Tuesday and Wednesday of each week from June 13 through June 29 (Figure 7).

FISHERY MONITORING

Catches of chinook salmon in the near terminal experimental fisheries were sampled for coded-wire tags and scale samples. Deliveries were monitored for accuracy of reported catch and district fished. Over-flights of each fishing area were made during each open period to monitor the number of vessels actively trolling.

Fishermen participating in the experimental fisheries were asked to maintain a daily logbook of catch and effort (Figure 8). The primary purpose of the logbook was to provide the Department with information on catch rates of legal and sub-legal (<28") sized chinook.

Fishermen in selected experimental areas were asked to retain reproductive tracts (eggs from females and testes from males) from adipose clipped (coded-wire tagged) chinook salmon. In Frederick Sound fishermen were asked to retain reproductive tracts from all chinook. These samples were collected by ADF&G samplers and frozen for subsequent analysis. The main objective of the analysis was to estimate maturity and migratory timing of chinook salmon from the various enhancement facilities through specific areas. Maturity was determined by calculating the ratio of testes weight to body weight for males and by measuring egg diameters for females (Kissner, 1973). Chinook salmon were classified as to relative mature spring spawners, immature "feeder", or fall/summer spawners for both Alaska hatchery and non-Alaska hatchery fish. In addition, the maturity of chinook salmon harvested in the Frederick Sound fishery was estimated by observation of external characteristics: size, color, and degree of scale imbeddedness and resorption. These estimates were later compared with the maturity classifications based on examinations of gonads.

RESULTS

Harvests and Hatchery Contributions

There were 8,734 chinook salmon harvested in the combined June experimental fisheries conducted in 1988 (Table 1). The highest catches were observed for the Little Port Walter fishery at 3,277 chinook salmon followed by Frederick Sound and the combined Ketchikan area troll fisheries (Districts 101 and 102) where 2,152 and 2,199 chinook salmon were harvested, respectively. The highest Alaska hatchery contribution rate (38%), was in the Ship Island Shore (102-80) fishery.

All of the fishing areas near Ketchikan, except Carroll Inlet and Neets Bay, were opened to trolling two days each week. Because the three subdistricts of District 101 (101-27, 101-29, and 101-41) are in close proximity to each other and fishermen could quickly move between areas, catch and effort summaries were combined. The Alaska hatchery contribution rate for District 101 was 33.9% (Table 3). The Carroll Inlet terminal area was opened from 6/6 to 6/29 because it was believed Alaska hatchery chinook salmon contribution rates would be high. The actual estimate was 32.5% Alaska hatchery, similar to other Ketchikan areas (Table 8). Neets Bay was opened continuously from 6/1 to 6/29, but catches and effort were low (Table 7).

Catch rates were low in the Little Port Walter fishery through the first three weekly fishing periods but during the last week of June the numbers of boats fishing almost doubled and catches increased to 21 fish per landing. The Alaska hatchery contribution was estimated to be 784 fish or 23.9% (Table 5).

The Frederick Sound experimental fishery was reduced in area and time after the first week when 1,346 chinook were taken during one day of fishing (Table 6). Alaska hatchery contribution ranged from 6.7 to 23.3% with an overall rate of 20.8%.

Wrangell Narrows near Petersburg was opened to trolling from June 6 to 29 because catch rates were low and the Alaska hatchery percentage was greater than in other areas. The catch was 726 fish of which 99% were estimated to be Alaska hatchery chinook salmon (Table 10). Most of the fishing effort in Wrangell Narrows occurred near Blind Slough where Crystal Lake Hatchery is located. Both catch and effort were low in the Earl West Cove terminal harvest area. The catch was not sampled so no contribution rates could be estimated.

The experimental fishery in Cross Sound near Inian Islands was opened three days per week from 6/13 to 6/28. A total of 13,242 pink, 2,462 chum, 211 chinook, 433 sockeye, and 300 coho salmon were landed by the 39 boats that participated (Table 1). The estimated Alaska hatchery contribution rate for chum salmon was only 1.4% (Table 11). However, tagging ratios for chum salmon released at Hidden Falls hatchery are very low (less than 1 in 400 tagged).

Effort

Fishing effort in the 1988 experimental troll fisheries increased substantially over 1987 fisheries in which about 70 boats fished, harvesting 4,447 chinook salmon. This is probably a result of increased price paid for chinook salmon, several new areas being opened, a short summer season in 1987, and abundance of chinook salmon in the preceding winter fishery season. Effort was highest in Frederick Sound where 201 different boats fished in some or all of the opened periods (Table 2). In the Little Port Walter fishery, 132 different boats participated; 116 different boats participated in some or all of the open areas and periods in the Ketchikan Area troll fisheries (101-102). The greatest numbers of boats observed at one time was during the first open period at Little Port Walter with 91 boats and Frederick Sound with 120 boats.

Logbook Returns and Analysis

Logbooks were returned from all fisheries except Earl West Cove. Returns from the 1988 experimental fisheries represented 701 boat-days of effort (Table 12). In several cases, logbook totals disagree with fish ticket totals. This is probably due to fish caught and recorded in logbooks but not sold, or boats that fished and turned in logbooks but did not catch or sell any fish. Average number of boat-hours per day ranged from 7.3 to 15.3. Average chinook salmon catch per gear-day ranged from 0.4 fish per gear-day in the Inian Islands area to 17.3 fish per gear-day also in the Inian Islands area the following week. A gear-day of 13.7 hours of fishing time is used for comparison purposes. Both of these catches were reported by one boat so they probably are not representative of other areas or other fishermen. Catches for areas where targeting on chinook salmon occurred, ranged from 1.2 chinook salmon per gear day

in Silver Bay (113-35) during the first open periods to 13.5 chinook salmon per gear-day in Frederick Sound during the final open period. Overall average chinook salmon catch per gear-day, excluding Inian Islands, was 7.2 chinook salmon. Sub-legal to legal sized chinook salmon ratios ranged from 0:1 to 4:1. Overall ratio in experimental fisheries not including Inian Islands was 0.9:1 which is similar to the ratio observed in the general Southeast Alaska summer troll fishery (Davis et. al., 1986).

Maturity and Age Composition

The maturity of chinook salmon harvested in Frederick Sound was estimated by examination of reproductive tracts and also by observation of external characteristics. Agreement between the two methods was 79% (sample size 146). Since the agreement between the two methods was high and sample sizes were much larger (1,032), the external classification method was used to estimate maturity percentages.

The percentage of mature "spring spawners" in the total Frederick Sound chinook salmon harvest (Alaska hatchery fish included) decreased from 21.7% in week 24 to 8.7% in week 27 (Table 13). The percentage of mature fish in the Alaska hatchery contribution was much higher and more stable, ranging from 51.4 to 57.1%.

The percentage of mature fish in the Alaska hatchery contribution to Little Port Walter chinook salmon harvest increased from 50% in week 24 to 82.6% week 27 (Table 14). Maturity estimates were not obtained for fisheries other than Frederick Sound and Little Port Walter due to small sample sizes.

The age composition of coded-wire tagged Alaska hatchery chinook salmon agrees with the maturity estimates (Table 15). The Wrangell Narrows harvest which is assumed to be all mature Crystal Lake Hatchery salmon was 83.6% age-1.4 while the Frederick Sound harvest was only 35.7% age-1.4 and 55.7% age-1.3. Most chinook salmon mature after 4 years in the ocean. Age composition of the total harvest varied between the inside districts (101,102,106 and 110) and the outside districts (109,113,114), with the outside districts having higher proportions of freshwater-age-0 chinook salmon (Table 16). This indicates a higher interception rate of non-Alaskan (British Columbia, Washington, Oregon) fish since freshwater-age-0 fish are rare in Alaskan escapements (Van Alen et al. 1986). Coded-wire tags indicate that harvest rates for non-Alaskan hatchery stocks were highest in District 113-35 (60.6%) and ranged from 10.5 to 26.1% in the other experimental troll fishing areas.

DISCUSSION

Experimental or test troll fisheries held prior to the opening of the summer troll fishery began in 1986. From May 11 to June 20, 1986 ADF&G conducted a troll test fishery in selected areas of Southeast Alaska (Davis and Kelly, 1986). Fifteen chartered boats fished 207 boat days and caught 977 legal and 2,924 sub-legal size chinook salmon. The greatest catches of both legal and sub-legal size fish were in June in Frederick Sound and Southern Clarence Strait. The highest percentages of Alaska hatchery fish were in Frederick Sound and Northern Clarence Strait at 19.5% and 19.7% respectively. Mature chinook salmon represented 48.9% of the total catch of legal size chinook, with the highest percentage (72.9%) being in Southern Chatham Strait.

In 1987, experimental troll fisheries were conducted several days a week during the first three weeks of June in areas adjacent to Crystal Lake, Little Port Walter, Neets Bay, and Medvejie hatcheries. About 70 boats participated in these fisheries, harvesting 4,447 chinook salmon of which 1,414 or 32% were estimated to be of Alaska hatchery origin (ADF&G, 1988b). The greatest catch (3,398 total) was in the Little Port Walter area with a 34% estimated Alaska hatchery contribution.

Experimental troll fisheries harvested 7,563 chinook salmon in 1988 with an overall Alaska hatchery contribution rate of 25.2%. In comparison, contribution rates of Alaska hatchery chinook salmon to the 1988 summer and winter troll fisheries were 5% and 13% respectively. Terminal harvest area troll fisheries harvested 1,171 chinook salmon in June 1988 with an overall Alaska hatchery contribution rate of 70.0%. Alaska hatchery contribution to the combined experimental and terminal troll fisheries harvest of 8,734 fish was 32%. Two of the experimental areas; 102-80 and 101 had Alaska hatchery contribution rates greater than the 33% required by the management guidelines to allow a harvest greater than 1,000 non-AK hatchery fish. Fishing effort in 1988 was high, especially in the Little Port Walter and Frederick Sound fisheries. With higher prices and shorter summer seasons it is likely that interest and effort in experimental troll fisheries will remain high.

The percentage of Alaskan hatchery fish harvested in the southern districts (101 and 102) increased slightly over the four fishing periods while the percentages in the central districts (109 and 110) decreased slightly. Davis and Kelly (1986) found higher catch rates for Alaska hatchery chinook salmon in June than in May.

In the District 110 experimental troll fishery 51% of the AK hatchery chinook salmon harvested were mature compared to 19% of the overall catch. Davis and Kelly (1986) reported a much higher percentage (40.9) of mature fish in the overall Frederick Sound catch. In the 1986 test fishery a much larger area of Frederick Sound was fished and Stikine River fish could have accounted for the higher proportion of mature fish.

In the District 109 harvest, 62.1% of the Alaska hatchery chinook salmon were mature. For districts 109 and 110 the objective of harvesting mature chinook salmon returning to southeast Alaska hatcheries without significant impact on non-hatchery stocks appears possible. Maturity analysis was not done for areas 102-80 and 101 however, in those districts higher ratios of sub-legal to legal size fish were reported than in other experimental areas. Wild stocks of Alaskan chinook salmon from the Unuk and Chickamin River are known to rear in Southeast inside waters and a few coded-wire tagged fish from these rivers have been harvested each year in the experimental troll fisheries. Recent escapements to these systems have been good (Hubartt and Kissner 1987) and additional conservation measures are probably not necessary at this time.

Age composition of chinook salmon harvested in the 1986, 1987, and 1988 experimental troll fisheries were similar in most cases. The catches were dominated by age-1.2, -1.3, -0.3, and -1.4 fish. The 1986 samples showed all legal-size ocean-age-2 fish to be freshwater-age-0. This was not the case in 1987 or 1988 where as many as 17% of the catch was age-1.2 fish. The strong 1982 brood year for Crystal Lake hatchery was indicated by a District 106-44 catch of 58.1% age-1.3 fish in 1987 and a 1988 catch of 76.1% age-1.4. The 1988 proportion of age-1.3 fish was only 16.4% perhaps indicating a poorer survival rate for the 1983 brood.

The Inian Island experimental troll fishery harvested 13,255 pink and 2,505 chum salmon. No coded-wire tagged chums from Hidden Falls hatchery were recovered. The coded-wire tagging ratios for chum salmon released from Hidden Falls hatchery in 1985 and 1986 are very low. This makes it very difficult to determine if the objective of harvesting mature chum salmon returning to Hidden Falls was met. Effort increased over the four openings giving an indication of the viability of the fishery.

The final determination of catch and hatchery contribution rates was complicated by the coincidence that the last days of the experimental troll fisheries and the first days of the summer troll fishery were in the same statistical week. Because all the ADF&G catch and hatchery contribution rate estimates are tabulated by statistical week, allocating the catches to the correct fisheries required considerable effort. This problem could occur again in 1989 as July 1 falls on a Saturday, the last day of statistical week 26. While it appears that the experimental troll fishery objective of harvesting mature chinook salmon returning to Alaska hatcheries is possible, hatchery contribution rates change from year to year and must continue to be closely monitored. Openings can then be extended or shortened as needed to harvest hatchery fish and insure escapement goals and broodstock needs are achieved.

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Table 1. Summary of total salmon harvest by area for experimental and terminal troll fisheries, June, 1988.

Area	Harvest				
	Chinook	Sockeye	Coho	Pink	Chum
<u>Experimental Troll Fisheries</u>					
West Gravina Island (101-29)	604	1	46	8	22
Tongass Narrows (101-41)	7	0	1	0	1
Nichols Passage (101-27)	343	0	1	0	6
Ship Island Shore (102-80)	853	1	11	2	10
Ketchikan Area Sub Total	<u>1,807</u>	<u>2</u>	<u>59</u>	<u>10</u>	<u>39</u>
Little Port Walter (109-10)	3,277	8	116	12	32
Frederick Sound (110-16/17)	2,152	0	1	0	9
Silver Bay (113-35)	116	0	6	1	2
Inian Islands (114-21)	211	433	300	13,242	2,462
Experimental Sub Total	<u>7,563</u>	<u>441</u>	<u>423</u>	<u>13,255</u>	<u>2,505</u>
<u>Terminal Troll Fisheries</u>					
Wrangell Narrows (106-44)	726	0	0	0	0
Carroll Inlet (101-45)	380	0	7	0	21
Neets Bay (101-95)	12	0	0	0	0
Earl West Cove (107-45)	53	0	0	0	0
Terminal Troll Sub Total	<u>1,171</u>	<u>0</u>	<u>7</u>	<u>0</u>	<u>21</u>
Grand Total	8,734	441	430	13,255	2,526

Table 2. Effort and harvest of chinook salmon in 1988 experimental and terminal troll fisheries by area and week.

West Gravina Island (101-29)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	16	17	137	8.1	2,483	18.1
6/13 - 6/14	23	24	200	8.3	3,334	16.7
6/20 - 6/21	17	17	100	5.9	1,763	17.6
6/27 - 6/28	14	15	167	11.1	2,327	13.9
Total	43	73	604	8.3	9,907	16.4

Tongass Narrows (101-41)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	1	1	1	1.0	16	16.0
6/20 - 6/21	2	2	6	3.0	91	15.2
Total	2	3	7	2.3	107	15.3

Carroll Inlet (101-45)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/11	11	12	128	10.7	1,671	13.1
6/12 - 6/18	9	10	114	11.4	1,854	16.3
6/19 - 6/25	10	10	95	9.5	1,486	15.6
6/26 - 6/29	4	4	43	10.8	658	15.3
Total	18	36	380	10.6	5,669	14.9

-continued-

Table 2. Effort and harvest of chinook salmon in 1988
 experimental and terminal troll fisheries by area
 and week. continued

Nichols Passage (101-27)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	9	10	153	15.3	2,101	13.7
6/13 - 6/14	7	12	158	13.2	2,628	16.6
6/20 - 6/21	4	4	28	7.0	375	13.4
6/27 - 6/28	1	1	4	4.0	80	20
Total	14	27	343	12.7	5,184	15.1

Neets Bay (101-95)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/13 - 6/14	1	1	5	5.0	91	18.2
6/27 - 6/28	1	2	7	3.5	91	13
Total	1	3	12	4.0	182	15.2

Ship Island Shore (102-80)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	17	20	259	13.0	3,975	15.3
6/13 - 6/14	26	32	427	13.3	6,912	16.2
6/20 - 6/21	12	12	71	5.9	1,026	14.5
6/27 - 6/28	9	11	96	8.7	1,369	14.3
Total	38	75	853	11.4	13,282	15.6

Table 2. Effort and harvest of chinook salmon in 1988
 experimental and terminal troll fisheries by area
 and week. continued

Wrangell Narrows (106-44)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/11	16	21	82	3.9	1,505	18.4
6/12 - 6/18	26	38	156	4.1	3,038	19.5
6/19 - 6/25	27	46	217	4.7	4,447	20.5
6/26 - 6/29	22	42	271	6.5	5,744	21.2
Total	49	147	726	4.9	14,734	20.3

Earl West Cove (107-45)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/13 - 6/14	6	6	43	7.2	659	15.3
6/20 - 6/21	1	1	5	5.0	63	12.6
6/27 - 6/28	1	1	5	5.0	106	21.2
Total	7	8	53	6.6	828	15.6

Little Port Walter (109-10)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	91	92	708	7.7	9,284	13.1
6/13 - 6/14	60	60	218	3.6	3,303	15.2
6/20 - 6/21	33	39	633	16.2	11,057	17.5
6/27 - 6/28	59	80	1,718	21.5	27,118	15.8
Total	132	271	3,277	12.1	50,762	15.5

Table 2. Effort and harvest of chinook salmon in 1988 experimental and terminal troll fisheries by area and week. continued

Frederick Sound (110-16 and 110-17)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	108	111	1,346	12.1	16,607	12.3
6/13 - 6/14	54	56	367	6.6	4,717	12.9
6/20 - 6/21	22	22	217	9.9	2,799	12.9
6/27 - 6/28	17	17	222	13.1	2,670	12
Total	201	206	2,152	10.4	26,793	12.5

Silver Bay (113-35)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/06 - 6/07	6	6	12	2.0	159	13.3
6/20 - 6/21	9	9	51	5.7	719	14.1
6/27 - 6/28	19	22	53	2.4	843	15.9
Total	29	37	116	3.1	1,721	14.8

Inian Islands (114-21)

Date	Permits	Landings	Catch	Catch/ Landing	Pounds	Average Weight
6/13 - 6/14	16	22	116	5.3	1,690	14.6
6/20 - 6/21	16	25	56	2.2	868	15.5
6/27 - 6/28	33	62	39	0.6	545	14
Total	29	109	211	1.9	3,103	14.7

Table 3. Chinook salmon harvests and coded-wire tag contribution estimates for the District 101 (101-27, 101-29; 101-41) experimental troll fisheries, June 5 to June 30, 1988 /1.

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		Total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Deer Mtn. (ADF&G)	2	2.7	0	0.0	0	0.0	2	2.9	4	1.1
Hidden Falls (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0	0.0	2	2.2	0	0.0	0	0.0	2	0.6
Medevjie (NSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neets Bay (SSRAA)	5	7.6	17	18.2	90	86.3	45	77.0	157	48.4
Whitman L. (SSRAA)	26	38.8	39	40.6	14	13.7	12	20.1	90	27.9
Tamgas Cr. (BIA)	34	50.8	37	39.0	0	0.0	0	0.0	71	22.0
Alaska subtotal	67	100.00	95	100.00	104	100.00	58	100.00	324	100.00
Alaska hatchery	67	23.0	95	26.6	104	77.4	58	33.9	324	33.9
Non-AK hatchery	16	5.5	157	43.7	14	10.6	62	36.2	249	26.1
Other \2	207	71.1	104	29.1	16	12.0	51	29.9	377	39.9
Total harvest	291	\3	358		134		171		954	
Weekly percentage		30.5		37.5		14.1		17.9		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

\3 Alaskan wild CWT contribution estimates 1 wk 24 and 2 wk 25.

Table 4. Chinook salmon harvests and coded-wire tag contribution estimates for the District 102-80 (Ship Island shore) experimental troll fishery, June 5 to June 30, 1988. 1/

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		Total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Deer Mtn. (ADF&G)	0	0.0	0	0.0	1	7.2	0	0.0	1	0.4
Hidden Falls (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medevjie (NSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neets Bay (SSRAA)	27	45.4	141	66.2	12	60.5	11	35.2	191	59.0
Whitman L. (SSRAA)	33	54.6	43	20.1	6	32.3	9	27.4	91	28.0
Tamgas Cr. (BIA)	0	0.0	29	13.7	0	0.0	12	37.3	41	12.6
Alaska subtotal	60	100.00	213	100.00	20	100.00	31	100.00	324	100.00
Alaska hatchery	60	23.3	213	49.8	20	28.2	31	32.4	324	38.0
Non-Alaska hatch	55	21.2	87	20.3	2	2.1	0	0.0	143	16.8
Other \2	144	55.5	126	29.6	49	69.7	65	67.6		45.1
Total harvest	259		427 \3		71		96		853	
Weekly percentage		30.4		50.1		8.3		11.2		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

\3 Alaskan wild CWT contribution estimates 1 fish wk 25.

Table 5. Chinook salmon harvests and coded-wire tag contribution estimates for the District 109-10 (Little Port Walter) experimental troll fishery, June 5 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		Total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	32	16.2	4	5.1	8	6.3	24	6.1	67	8.5
Deer Mtn. (ADF&G)	0	0.0	0	0.0	0	0.0	4	1.0	4	0.5
Hidden Falls (ADF&G)	3	1.3	0	0.0	0	0.0	3	0.8	6	0.7
Snettisham (ADF&G)	0	0.0	6	8.8	0	0.0	0	0.0	6	0.8
Little Port (NMFS)	100	51.1	39	57.1	107	84.3	201	51.0	447	57.0
Medevjie (NSRAA)	1	0.6	0	0.0	0	0.0	1	0.3	2	0.3
Neets Bay (SSRAA)	52	26.6	19	27.4	5	4.0	107	27.2	183	23.3
Whitman L. (SSRAA)	8	4.2	1	1.6	7	5.4	35	8.9	51	6.5
Tamgas Cr. (BIA)	0	0.0	0	0.0	0	0.0	19	4.8	19	2.4
Alaska subtotal	195	100.00	68	100.00	127	100.00	394	100.00	784	100.00
Alaska hatchery	195	27.5	68	31.3	127	20.1	394	22.9	784	23.9
Non-Alaska hatchery	55	7.8	6	2.8	59	9.3	223	13.0	344	10.5
Other \2	457	64.5	144	65.8	447	70.4	1,098	63.9	2,146	65.6
Total harvest	708 \3		218		633		1,718		3,277	
Weekly percentage		21.6		6.7		19.3		52.4		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

\3 Alaskan wild CWT contribution estimate 4 fish total: 1 wk 24, 1 wk 26 and 2 wk 27.

Table 6. Chinook salmon harvest and coded-wire tag contribution estimates for the District 110-16 and 110-17 (Frederick Sound) experimental troll fishery, June 5 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		Total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	171	54.5	40	49.2	23	59.3	6	42.3	240	53.6
Deer Mtn. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hidden Falls (ADF&G)	4	1.2	0	0.0	0	0.0	0	0.0	4	0.8
Snettisham (ADF&G)	13	4.3	0	0.0	10	26.3	0	0.0	24	5.3
Little Port (NMFS)	103	32.8	41	50.8	6	14.4	9	57.7	158	35.2
Medevjie (NSRAA)	1	0.4	0	0.0	0	0.0	0	0.0	1	0.3
Neets Bay (SSRAA)	9	3.0	0	0.0	0	0.0	0	0.0	9	2.1
Whitman L. (SSRAA)	12	3.9	0	0.0	0	0.0	0	0.0	12	2.7
Tamgas Cr. (BIA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Alaska subtotal	314	100.0	80	100.00	39	100.00	15	100.00	448	100.00
Alaska hatchery	314	23.3	80	21.9	39	17.9	15	6.7	448	20.8
Non-AK hatchery	166	12.3	28	7.7	22	10.3	93	42.1	310	14.4
Other \2	865	64.2	258	70.4	156	71.8	114	51.2	1,394	64.8
Total harvest	1,346		367		217		222		2,152	
Weekly percentage		62.6		17.1		10.1		10.2		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

\3 Alaskan wild CWT contribution estimates 1 fish week 24.

Table 7. Chinook salmon harvests and coded-wire tag contribution estimates for the District 101-95 (Neets Bay) experimental troll fishery, June 1 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Deer Mtn. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hidden Falls (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medevjie (NSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neets Bay (SSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	9	100.0
Whitman L. (SSRAA)	9	100.0	0	0.0	0	0.0	0	0.0	0	0.0
Tamgas Cr. (BIA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Alaska subtotal	9	100.00	0	0.00	0	0.00	0	0.00	9	?
Alaska hatchery	9	100.0	-	-	-	-	-	-	9	?
Non-AK hatchery	0	0.0	-	-	-	-	-	-	-	?
Other \2	0	0.0	-	-	-	-	-	-	-	?
Total harvest	0		5		7		-		12	
Weekly percentage		?		-		-		-		?

\1 Number of fish sampled in wk 24 (9) exceeds official catch total for that week (0), resulting in nonsense contribution rates.

\2 Other obtained by subtracting CWT contributions from total catch.

Table 8. Chinook salmon harvests and coded-wire tag contribution estimates for the District 101-45 (Carroll Inlet) experimental troll fishery, June 1 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Deer Mtn. (ADF&G)	0	0.0	0	0.0	14	29.7	0	0.0	14	4.3
Hidden Falls (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0	0.0	0	0.0	0	0.0	1	7.4	1	0.4
Medevjie (NSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Neets Bay (SSRAA)	0	0.0	0	0.0	0	0.0	5	30.2	5	1.6
Whitman L. (SSRAA)	20	59.0	5	18.3	14	28.8	11	62.4	49	15.1
Tamgas Cr. (BIA)	14	41.0	21	81.7	20	41.5	0	0.0	54	16.8
Alaska subtotal	34	100.00	25	100.00	47	100.00	17	100.00	123	38.15
Alaska hatchery	34	26.4	25	22.3	47	49.8	17	39.5	123	32.5
Non-AK hatchery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other \2	94	73.6	89	77.7	48	50.2	26	60.5	257	67.5
Total harvest	128		114		95		43		380	
Weekly percentage		33.7		30.0		25.0		11.3		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

Table 9. Chinook salmon catches and coded-wire tag contribution estimates for the District 113-35 (Silver Bay) experimental troll fishery, June 5 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		Total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0		0		0	0.0	0	0.0	0	0.0
Deer Mtn. (ADF&G)	0		0		0	0.0	0	0.0	0	0.0
Hidden Falls (ADF&G)	0		0		0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0		0		0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0		0		0	0.0	0	0.0	0	0.0
Medevjie (NSRAA)	0		0		1	100.0	4	76.3	6	1.8
Neets Bay (SSRAA)	0		0		0	0.0	0	0.0	0	0.0
Whitman L. (SSRAA)	0		0		0	0.0	1	23.7	1	0.4
Tamgas Cr. (BIA)	0		0		0	0.0	0	0.0	0	0.0
Alaska subtotal	0	0.00	0	0.00	1	100.00	6	100.00	7	2.22
Alaska hatchery	0	0.0	0	0.0	1	2.9	6	10.8	7	6.2
Non-AK hatchery	28	230.2 /2	0	0.0	17	33.4	26	48.5	70	60.6
Other 3/	0	0.0	0	100.0	33	63.8	22	40.8	39	33.2
Total harvest	12		0		51		53		116	
Weekly percentage		10.3		0.0		44.0		45.7		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Estimated contribution exceeds catch due to estimation technique

Table 10. Summary of Alaska hatchery contributions to the experimental troll fishery and terminal harvest of chinook salmon, June 5 to June 30, 1988.

Experimental Troll Fisheries

Stat. Week	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		total (all weeks)		Area Total Harvest
	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	
101-27,29,41	67	23.0	95	25.6	104	77.4	58	33.9	324	33.9	954
102-80	60	23.3	213	49.8	20	28.2	31	32.4	324	38.0	853
109-10	195	27.5	68	31.3	127	20.1	394	22.9	784	23.9	3,277
110-16,17	314	23.3	80	21.9	39	17.9	15	6.7	448	20.8	2,152
113-35	0	0.0	0	0.0	1	2.9	6	10.8	7	6.2	116
114-21	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	211
AK Contrib.	636		456		291		504		1,887*		7,563
Total Harvest	2,616	34.6	1,486	19.6	1,162	15.4	2,299	30.4	7,563	100.0	

Terminal Harvest Areas

Stat week	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		total (all weeks)		Area Total Harvest
	Numbers	%	Numbers	%	Numbers	%	Numbers	%	Numbers	%	
101-45	34	26.4	25	22.3	47	49.8	17	39.5	123	32.5	380
101-95	9	?	0	0.0	0	0.0	0	0.0	9	?	12
106-44	82	100	156	100	217	76	271	99	726	99	726
AK Contrib.	125		181		264		288		858		1118
Total Harvest	210	18.8	275	24.6	312	27.9	321	28.7	1,118	100.0*	

* Does not include catch of 53 fish from Earl West Cove (107-45).

Table 11. Chum salmon harvests and coded-wire tag contribution estimates for the District 114-21 (Inian Islands) experimental troll fishery, June 5 to June 30, 1988. \1

Hatchery	Statistical Week									
	24 (6/5-6/11)		25 (6/12-6/18)		26 (6/19-6/25)		27 (6/26-7/2)		total (all weeks)	
	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent	Numbers	Percent
Crystal L. (ADF&G)	0	0.0	0	0.0	4	100.0	0	0.0	4	11.4
Deer Mtn. (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hidden Falls (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Snettisham (ADF&G)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Little Port (NMFS)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Medevjie (NSRAA)	0	0.0	0	0.0	0	0.0	31	100.0	31	88.6
Neets Bay (SSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Whitman L. (SSRAA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Tamgas Cr. (BIA)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Alaska subtotal	0	0.00	0	0.00	4	100.00	31	100.00	35	100.00
Alaska hatchery	0	0.0	0	0.0	4	0.5	31	2.1	35	1.4
Non-AK hatchery	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other \2	0	0.0	306	100.0	705	99.5	1,416	97.9	2,427	99.6
Total harvest	0		306		709		1,447		2,462	
Weekly percentage		-		12.4		28.8		58.8		100.0

\1 Estimates may not sum exactly due to rounding error.

\2 Other obtained by subtracting CWT contributions from total catch.

Table 12. Summary of logbook data for the 1988 experimental troll fisheries by area and week.* continued

West Gravina Island (101-29)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	10	16	13.5	79	5.0	2.2	0.4
6/13 - 6/14	17	27	12.2	114	4.7	5.6	1.2
6/20 - 6/21	8	10	12.3	37	4.1	4.4	1.0
6/27 - 6/28	7	14	10.1	93	8.9	7.6	0.8

Nichols Pass (101-27)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	4	7	16.7	74	8.6	8.1	0.9
6/13 - 6/14	10	13	11.3	35	3.2	3.3	1.0
6/20 - 6/21	6	8	9.1	23	4.3	8.2	1.9
6/27 - 6/28	1	1	15.0	10	9.1	0.0	0

Carroll Inlet (101-45)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	11	31	10.4	269	11.4	4.8	0.4
6/13 - 6/14	10	22	11.3	161	8.8	6.3	0.7
6/20 - 6/21	6	13	10.1	64	6.6	5.6	0.8
6/27 - 6/28	2	4	11.1	35	10.7	9.8	0.9

* Logbook totals may exceed fish ticket totals due to fish caught but not sold and/or boats fishing and turning in logbooks but not catching any fish.

Table 12 Summary of logbook data for the 1988 experimental troll fisheries by area and week. page 2 of 3.

Neets Bay (101-95)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	1	2	15	19	8.6	3.6	0.4
6/13 - 6/14	4	5	15.8	27	4.6	2.6	0.5
6/20 - 6/21	0	-	-	-	-	-	-
6/27 - 6/28	1	1	12	4	4.5	5.7	1.2

Ship Island Shore (102-80)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	5	10	14.2	113	10.8	10.9	1.0
6/13 - 6/14	10	19	14	222	11.3	11.9	1.0
6/20 - 6/21	5	7	9.1	41	8.7	13.4	1.5
6/27 - 6/28	4	8	8.6	50	9.9	10.3	1.0

Wrangell Narrows (106-44)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	23	44	10.2	104	3.1	1.0	0.3
6/13 - 6/14	17	38	8.1	86	3.7	1.5	0.4
6/20 - 6/21	18	45	9.0	218	7.3	1.8	0.2
6/27 - 6/28	13	24	8.0	118	8.4	1.2	0.1

Table 12 Summary of logbook data for the 1988 experimental troll fisheries by area and week. page 3 of 3.

Little Port Walter (109-10)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	38	71	12.1	244	3.8	6.3	1.6
6/13 - 6/14	21	21	12.3	62	3.2	1.4	0.4
6/20 - 6/21	17	36	10.5	297	10.7	3.5	0.3
6/27 - 6/28	22	59	14.3	660	10.6	2.1	0.2

Frederick Sound (110-16, 17)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	61	61	14.7	752	11.4	7.0	0.6
6/13 - 6/14	36	36	10.5	220	7.9	4.3	0.5
6/20 - 6/21	8	8	15.3	84	9.3	3.2	0.3
6/27 - 6/28	9	9	14.8	133	13.5	6.3	0.4

Silver Bay (113-35)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	3	3	7.3	2	1.2	4.9	4
6/13 - 6/14	1	1	9.0	1	1.5	0	0
6/20 - 6/21	4	5	9.0	31	9.4	10.6	1.1
6/27 - 6/28	7	9	7.3	12	2.4	4.5	1.8

Inian Islands (114-21)

Date	Number Boats Reporting	Number Boat Days	Avg. Hours / Day	Number Legal Chinook	Avg. # Legal / Day	Avg. # Sublegal / Day	Sublegal / Legal
6/06 - 6/07	0	-	-	-	-	-	-
6/13 - 6/14	1	3	9.5	1	0.4	0.4	1
6/20 - 6/21	1	3	10.0	38	17.3	2.2	0.1
6/27 - 6/28	4	7	11.8	8	1.3	0.6	0.5

Table 13. Maturity of chinook salmon harvested in the District 110 experimental troll fishery, 1988.

Stat Week	Total Catch	Total harvest						Total Sampled
		Mature		Immature		Fall or Summer		
		n	%	n	%	n	%	
24	1,346	136	21.7	456	72.8	34	5.4	626
25	367	46	18.8	195	79.6	4	1.6	245
26	217	13	11.3	97	84.3	5	4.3	115
27	222	4	8.7	42	91.3	0	0.0	46
Total	2,152	199	19.3	790	76.6	43	4.2	1,032

Stat Week	Catch	Alaska hatchery contribution						Total Sampled
		Mature		Immature		Fall or Summer		
		n	%	n	%	n	%	
24	314	38	51.4	32	43.2	4	5.4	74
25	80	13	50.0	13	50.0	0	0.0	26
26	39	4	57.1	2	28.6	1	14.3	7
27	15	0	0.0	1	100.0	0	0.0	1
Total	448	55	50.9	48	44.4	5	4.6	108

Table 14. Maturity of Alaska hatchery chinook salmon harvested in the District 109 experimental troll fishery, 1988.*

Stat Week	Estimated Catch	Mature		Immature		Fall or Summer		Total Sampled
		n	%	n	%	n	%	
24	195	14	50.0 ^b	13	46.4	1	3.6	28
25	68	8	53.3	7	46.7	0	0.0	15
26	127	0	-	0	-	0	-	0
27	394	19	82.6	4	17.4	0	0.0	23
Total	784	41	62.1	24	36.4	1	1.5	66

* Maturity estimates from gonad samples.

^b Week 24 mature sample includes 8 jacks, no jacks in later weeks.

Table 15. Age composition of coded-wire tagged Alaska hatchery chinook harvested in the experimental troll fisheries June 5 to June 30, 1988.

District- subdistrict		Brood Year and Age Class						
		1984		1983		1982		1981
		1.2	0.3	1.3	0.4	1.4	0.5	1.5
101-	Sample Size	31	0	40	2	5	0	0
27,29	Percent	39.7	0	51.3	2.6	6.4	0	0
102-	Sample Size	22	0	36	2	3	0	0
80	Percent	34.9	0	57.1	3.2	4.8	0	0
106-	Sample Size	2	0	7	0	51	0	1
44	Percent	3.3	0	11.5	0	83.6	0	1.6
109-	Sample Size	62	1	280	7	96	0	3
10	Percent	13.8	0.2	62.4	1.6	21.4	0	0.7
110-	Sample Size	11	0	103	4	66	0	1
16,17	Percent	5.9	0	55.7	2.2	35.7	0	0.5

Table 16. Age composition of chinook salmon harvested in the terminal and experimental troll fisheries June 5 to June 30, 1988.

District- subdistrict		Brood Year and Age Class								
		1985		1984		1983		1982		1981
		0.2	1.2	0.3	1.3	0.4	1.4	0.5	1.5	
101- 27,29	Sample Size	4	24	14	76	6	13	0	0	
	Percent	2.9	17.5	10.2	55.5	4.4	9.5	0	0	
102- 80	Sample Size	2	20	28	48	5	13	1	1	
	Percent	1.7	16.9	23.7	40.7	4.2	11	0.8	0.8	
106- 44	Sample Size	0	2	5	26	4	121	0	1	
	Percent	0	1.3	3.1	16.4	2.5	76.1	0	0.6	
109- 10	Sample Size	4	45	190	218	83	45	4	4	
	Percent	0.7	7.6	32.0	36.8	14.0	7.6	0.7	0.7	
110- 16,17	Sample Size	0	11	0	103	4	66	0	1	
	Percent	0	5.9	0	55.7	2.2	35.7	0	0.5	
113- 37	Sample Size	6	2	43	16	1	2	0	0	
	Percent	8.6	2.9	61.4	22.9	1.4	2.9	0	0	
114- 21	Sample Size	0	5	33	2	4	1	0	0	
	Percent	0	11.1	73.3	4.4	8.9	2.2	0	0	

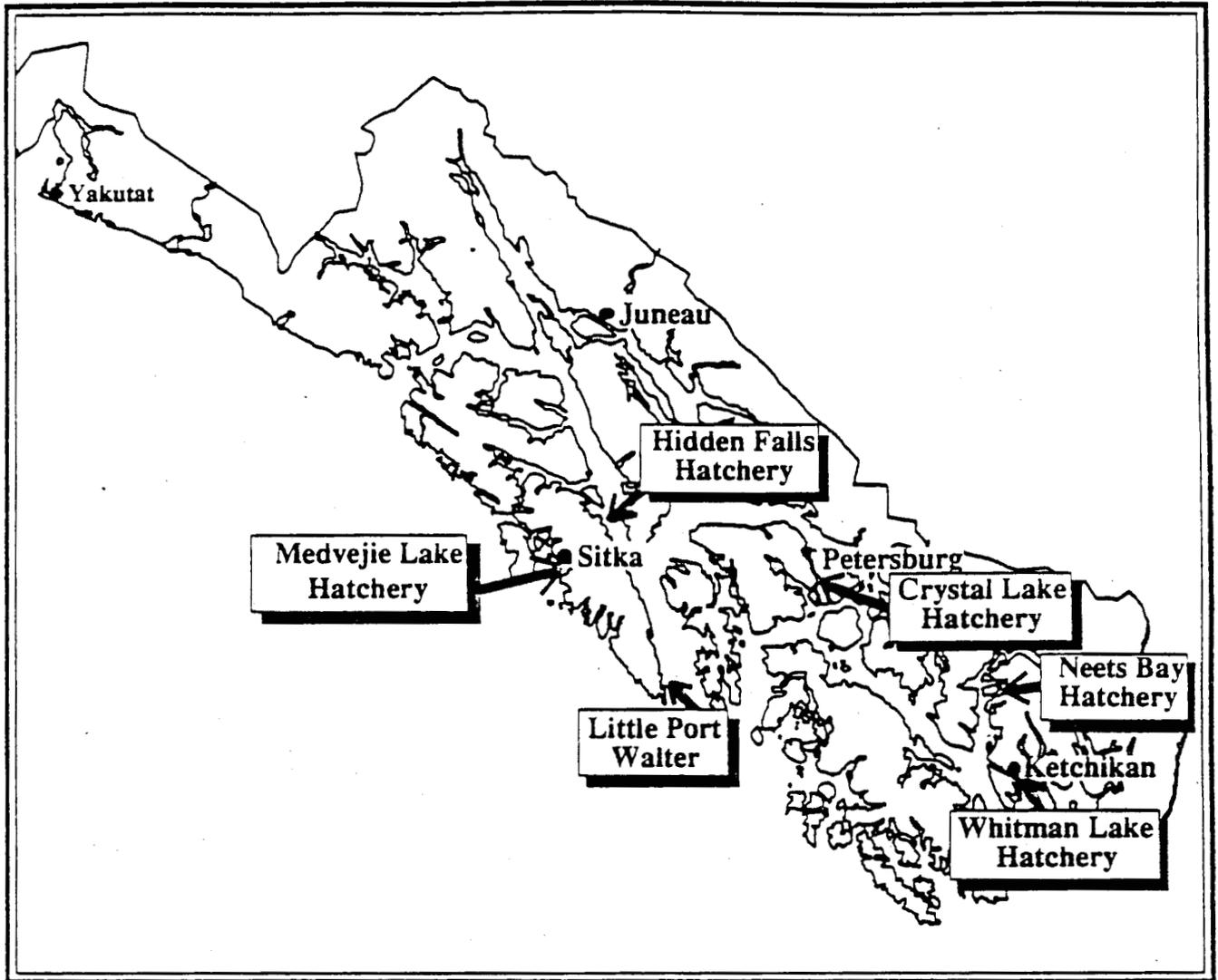


Figure 1. Southeast Alaska chinook hatchery locations.

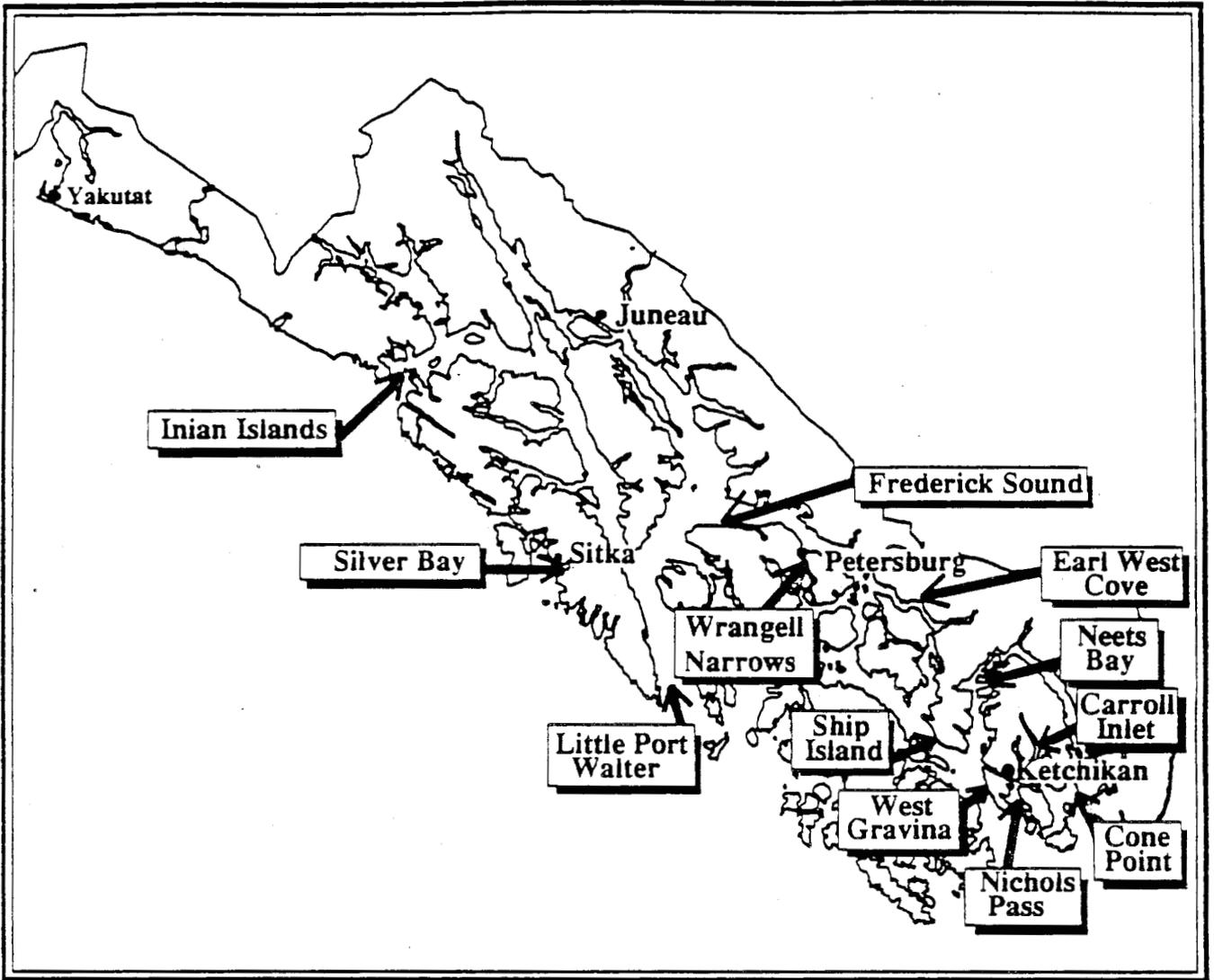
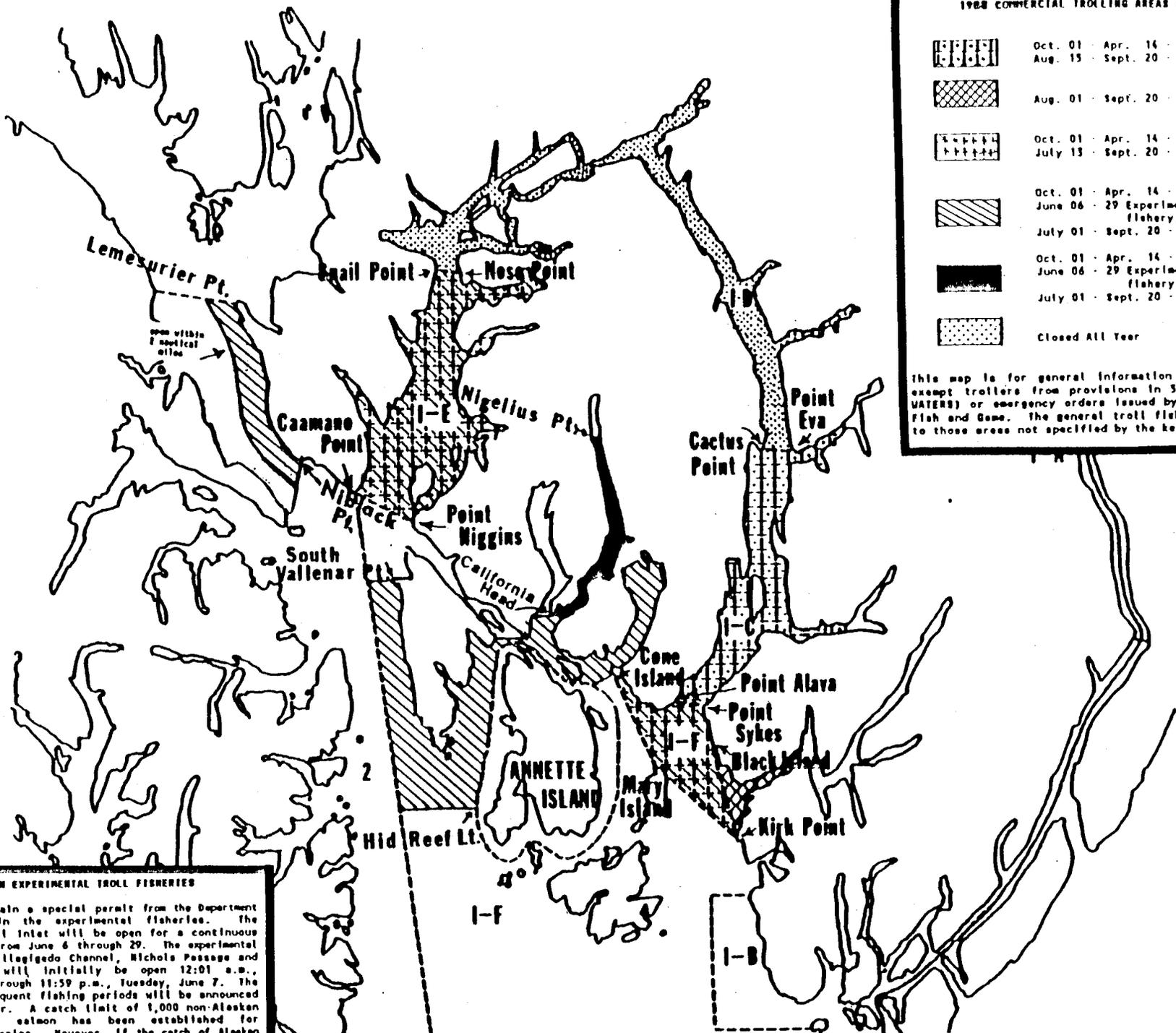


Figure 2. 1988 Experimental Troll Fishery Areas.



KEY AREAS
1988 COMMERCIAL TROLLING AREAS AND SEASONS



Oct. 01 - Apr. 14 - Open
Aug. 15 - Sept. 20 - Open



Aug. 01 - Sept. 20 - Open



Oct. 01 - Apr. 14 - Open
July 13 - Sept. 20 - Open



Oct. 01 - Apr. 14 - Open
June 06 - 29 Experimental troll fishery, see below.
July 01 - Sept. 20 - Open



Oct. 01 - Apr. 14 - Open
June 06 - 29 Experimental troll fishery, see below.
July 01 - Sept. 20 - Open



Closed All Year

This map is for general information only and does not exempt trollers from provisions in SAAC 33.350 (CLOSED WATERS) or emergency orders issued by the Department of Fish and Game. The general troll fishing season applies to those areas not specified by the key.

KETCHIKAN EXPERIMENTAL TROLL FISHERIES

Trollers must obtain a special permit from the Department to participate in the experimental fisheries. The fishery in Carroll Inlet will be open for a continuous trolling period from June 6 through 29. The experimental fisheries in Revillagigedo Channel, Nichols Passage and Clarence Strait will initially be open 12:01 a.m., Monday, June 6 through 11:59 p.m., Tuesday, June 7. The duration of subsequent fishing periods will be announced by emergency order. A catch limit of 1,000 non-Alaskan hatchery chinook salmon has been established for experimental fisheries. However, if the catch of Alaskan hatchery chinook salmon is 33% or more of the total catch, the catch limit is increased to 2,000 fish. Trollers should check with the department prior to fishing, as emergency order changes are expected.

Figure 3. Ketchikan area commercial trolling areas and seasons

1988 DISTRICT 9 EXPERIMENTAL TROLL AREA



Oct. 1 - Apr. 14 Open
 June 6 - 29 Experimental troll fishery, see below.
 July 1 - Sept. 20 Open

This map is for general information only and does not exempt trollers from provisions of 5AAC 33.350 (CLOSED WATERS) or emergency orders issued by the Department of Fish and Game. The general troll season applies to those areas not specified in the key. The initial experimental troll fishery open period is from 12:01 a.m., Monday, June 6 through 11:59 p.m., Tuesday, June 7. Additional open periods will be announced following the initial period. Trollers must obtain a special permit to participate. The permits are available at local Department offices. A catch limit of 1,000 non-Alaskan hatchery chinook salmon has been established for this experimental fishery. However, if the catch of Alaskan hatchery chinook salmon is 33% or more of the total chinook catch, the catch limit is increased to 2,000 fish.

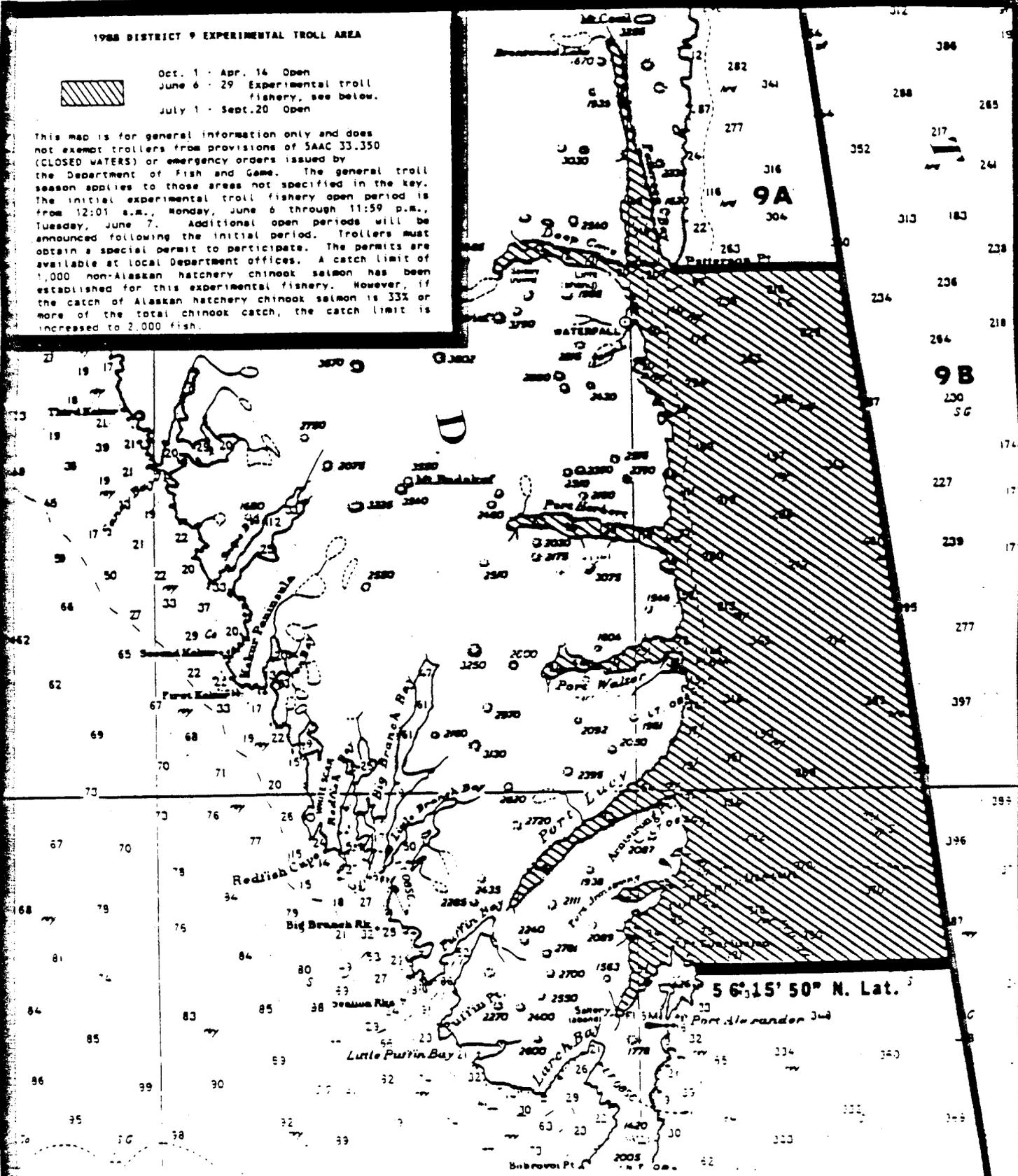


Figure 5. District 109 experimental troll area, 1988

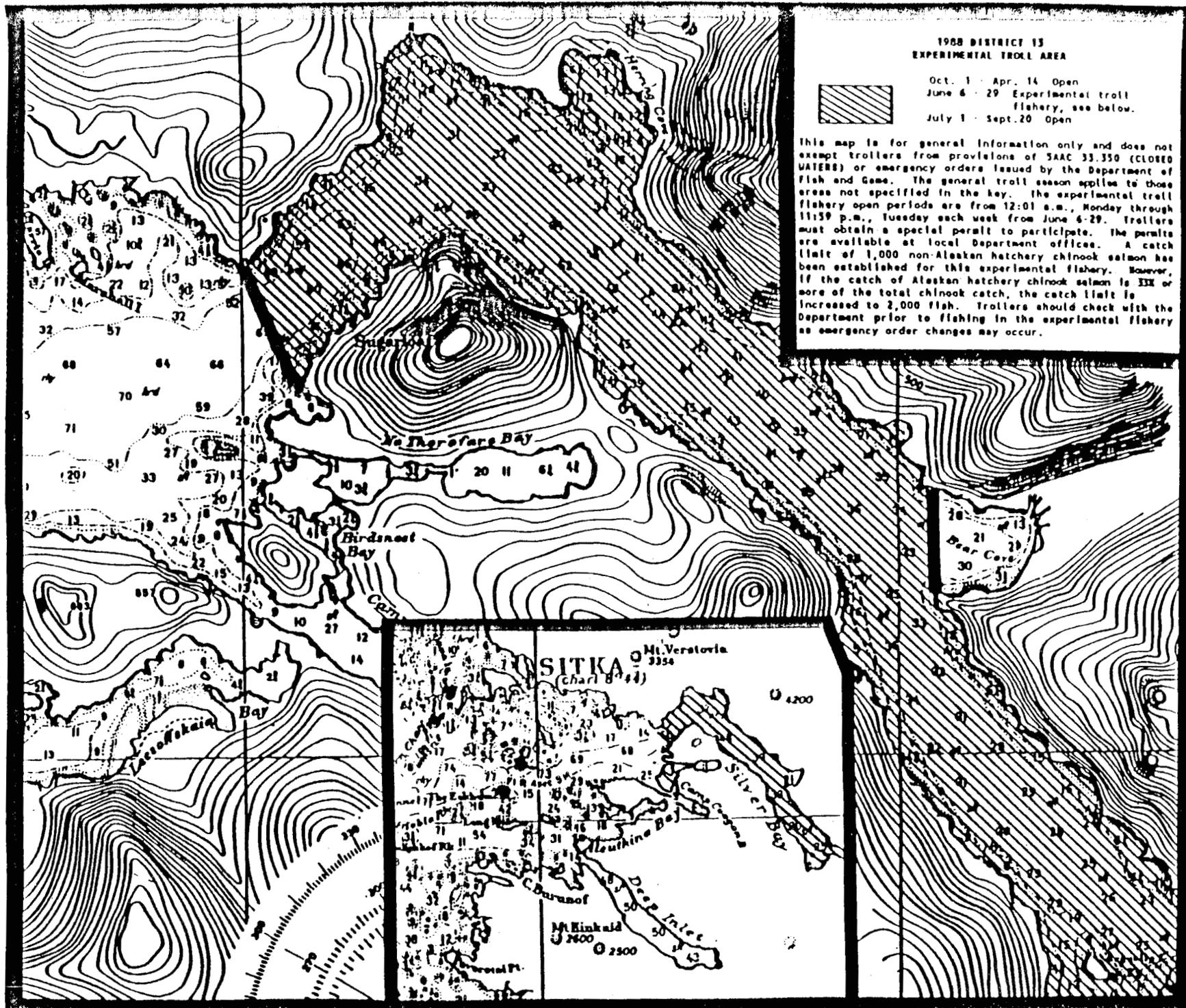


Figure 6. District 113 experimental troll area, 1988

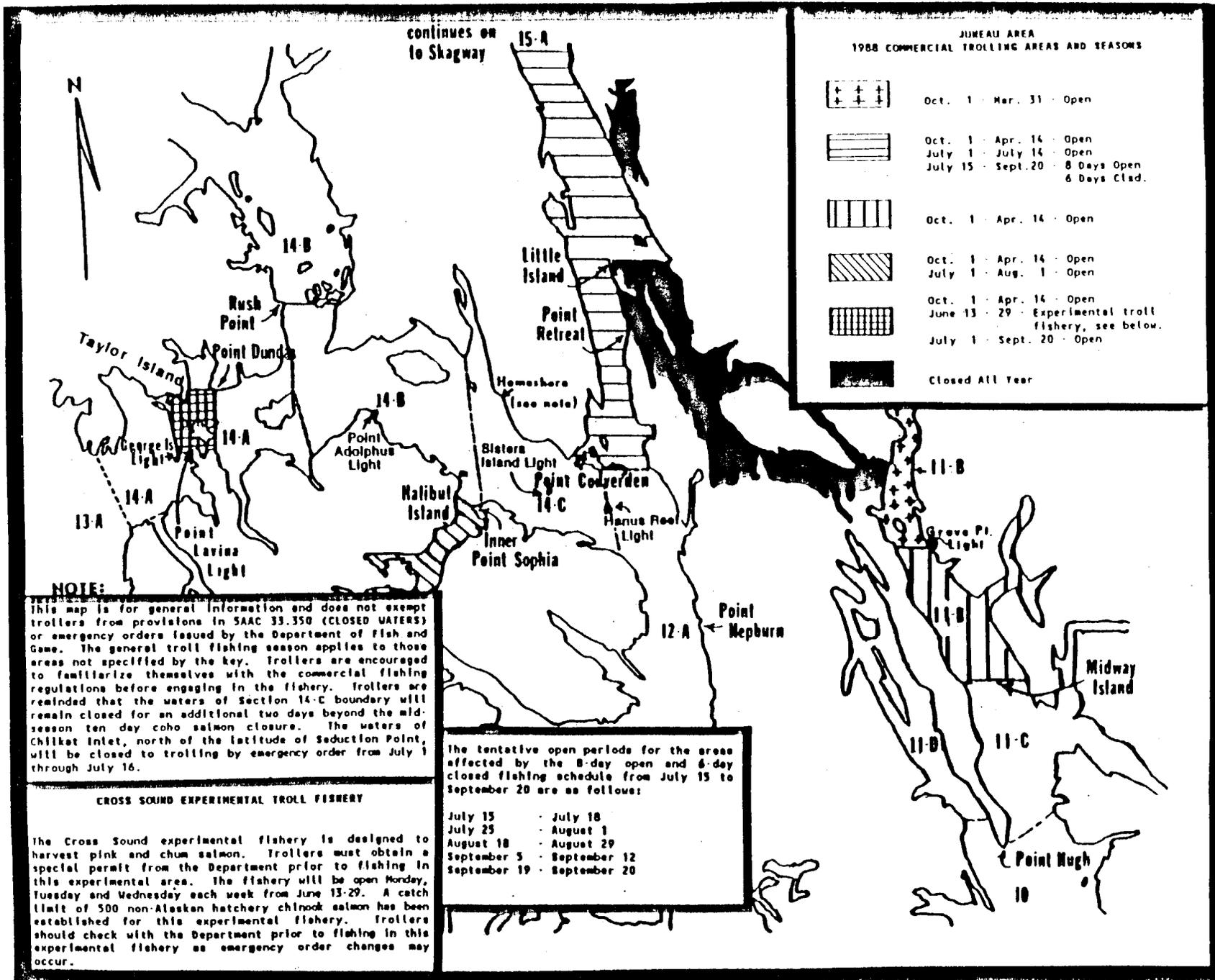


Figure 7. Juneau Area 1988 Commercial Trolling Areas and Seasons

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