

ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

ANNUAL MANAGEMENT REPORTS

1974 - 1976

UPPER COOK INLET
REGION II

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PREFACE

This report contains a brief summary of the commercial salmon fishing activities in Upper Cook Inlet for the years 1974 through 1976. In addition, the herring, subsistence and commercial razor clam fisheries managed from the Soldotna office for these years are briefly discussed. Dave Daisy was the Area Management Biologist for Upper Cook Inlet from 1974-1977. This report covers the first three years of his tenure and is intended to provide a chronological record outlining the management decisions, strategies and regulatory changes that occurred during those years. The final catch and escapement statistics are provided for each of the three years discussed and were compiled from the latest IBM catch runs and the final revised sonar escapement estimates for those years. Data presented in this report supercedes earlier reported data and is considered final. For a complete historical prospectus of Upper Cook Inlet, refer to Upper Cook Inlet Stock Status Report (Middleton & Rowell, 1983 in press).

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1974

SALMON

The 1974 Upper Cook Inlet Management Area is described as that area north of the latitude of Anchor Point (Figure 74-1), and was divided into two Districts, Northern and Central. The Central District was further divided into eight subdistricts; Kustatan, Salamatof, Kalifonsky, Cohoe Kalgin Island, Ninilchik, Chisik and Iliamna (Figure 74-2). The management of Upper Cook Inlet was transferred from Homer to the Soldotna office prior to the 1974 season.

Board of Fish and Game

The December 1973 Board of Fish and Game meeting did not adopt any significant regulatory changes for Upper Cook Inlet. One change was the elimination of trolling from Cook Inlet. There was lengthy discussion concerning changing subdistrict boundaries, but no regulatory boundary changes were adopted. Weekly fishing times of two 12-hour periods were established by the Board of Fish and Game in 1971. Opening dates for the 1974 salmon season were Friday, 28 June in the Central District and Monday, 1 July for the Northern District.

1974 Season Summary

There were eight emergency orders issued during the 1974 salmon season, Table 74-1 gives a brief description of each emergency order. The 1974 salmon harvest was the lowest even year salmon harvest on record. A total of 1,585,759 salmon was harvested (Table 74-2), with an exvessel value of 6.65 million dollars (Appendix Table 10). The sockeye salmon and chum salmon harvests were less than half their respective averages while the pink salmon harvest of 484,000 fish was about one-fifth the even year average. The coho salmon which had its best catch since 1970 was the only species to have an average run.

Escapement

The major sockeye producing systems in Upper Cook Inlet in 1974 had escapement goals of 150-250 thousand fish with an optimum of 200 thousand fish for the Kenai River and 75-150 thousand fish with an optimum of 100 thousand fish for the Kasilof River. No escapement goals had yet been established for any other of the systems since total escapements were impossible to determine at that time.

Escapements to the major systems for sockeye in 1974 were; Kenai River, 161,000 fish (Table 74-3) and Kasilof River, 70,000 fish (Table 74-4). The 1974 sockeye salmon escapement into the Susitna River system appeared to be less than the previous two seasons in approximately 80% of the index areas surveyed (Tables 74-5 and 74-6). Sockeye salmon escapement into Susitna River tributaries estimated by weirs, counting towers and mark-recapture methods included Yentna River 55,000 fish, Talachulitna River 15,976 fish, Quig Creek 1,048 fish and Shell Creek 956 fish. The 1974 sockeye salmon escapement into Fish Creek was 16,225 fish. Approximately 84 percent of the escapement consisted of precocious males. The adult escapement, 2,609 fish, was the second lowest on record. Appendix Table 8 shows escapement figures for sockeye salmon through 1976 for those systems monitored.

Pink salmon escapements were poor in the Northern District and fair to good in

the Central District. Coho salmon and chum salmon escapements were not monitored in 1974 but observations from Sport Fish biologists and personal communications between the Area Management Biologist and private individuals indicated that escapements for both of these species were fair.

Field Projects

There was a total of 16 different field projects deployed in Upper Cook Inlet during the 1974 season to aid in the management of the fishery and to achieve better understanding of various salmon stocks.

A counting weir was placed on Fish Creek at the outlet of Big Lake. This weir was used to count both adult salmon and outmigrating smolts. The sockeye salmon return had drastically declined and the information gathered, plus information from related studies being conducted by FRED Division was to be used to aid in rehabilitating Big Lake.

In the Susitna Basin, a sonar counter and counting tower were operated on Lake Creek, counting weirs on Shell Creek and Quig Creek and a counting tower on the Talchulitna-Skwentna River. Fish wheels were operated in the Yentna and Talchulitna-Skwentna Rivers for a tag-recapture study. A total of 28 systems were surveyed during 1974 to provide sockeye escapement data for the Susitna Basin and the westside of the Northern District. Initial field studies in the Upper Susitna Basin were begun in 1974 to determine the effect on salmon by the proposed Devils Canyon Hydroelectric Project.

Projects on the Kenai and Kasilof Rivers included sonar salmon counters on both rivers and intertidal testfish sites at both river mouths to determine species composition, magnitude and run timing. In the Kenai system, weirs were installed on Hidden Creek, Jean Creek and Russian River to enumerate sockeye escapement. In addition, a stickleback life history study was conducted on Lower Jean Lake to determine the feasibility of a rehabilitation project by F.R.E.D. Division.

Information was gathered at Packers Lake on Kalgin Island to measure the effects of a rotenone application in the fall of 1973. This was being investigated to determine the feasibility of managing Packers Lake for sockeye salmon production. A fishwheel was operated on Crescent River to collect age, weight and length data and to estimate run timing.

Management Summary

The opening period of the 1974 commercial fishing season (in the Central District 28 June and 1 July in the Northern District) produced catches of about half the normal average. The 5 July period showed that catch rates were low in both the Northern and Central Districts, due mainly to strong winds and heavy seas which sharply reduced the efficiency of the gear. The escapements as of 5 July were fair with 18,500 fish in the Kenai River and 17,500 fish for the Kasilof River.

An extra 12 hour period was given on Wednesday, 10 July for the Central and Northern Districts. Justification for this extra period was the total salmon catch in Upper Cook Inlet by 8 July was about 69,000 fish. It was felt by the management staff that the poor catches were more a function of bad weather than a weak return indicated by the above normal escapement rates to both the Kenai and Kasilof Rivers. As of 9 July there were 41,000 fish past the Kenai

River sonar and 31,000 fish in the Kasilof River, representing about 25 percent of the total escapement goal.

The regularly scheduled period for 12 July was reduced from 12 hours to six hours starting at 9 AM and ending at 3 PM. Reasoning for this reduction was that only 37,000 salmon were harvested during the Wednesday, 10 July extra period bringing the total season catch to 106,000 salmon or less than one half the average catch of a normal year. The weather was good for the 10 July period. Sonar counts were fair for both rivers (45,000 counts for the Kenai River and 34,000 counts for the Kasilof River) but the escapement rate was rapidly decreasing. In addition, the catch rates at the river mouth test fish sites were not increasing.

The catch from the six hour Friday period (12 July) in the Northern and Central Districts was 57,000 salmon, 89 percent of the catch being sockeye and the bulk of these fish taken by the drift fleet concentrated in the tide rips between the southern boundary of the Central District and the latitude of Chisik Island. The escapement rates for the Kenai and Kasilof Rivers had declined and the catch rate at the river mouths was low but steady. Daily sonar counts for each river was less than 2,000 fish. Escapement as of 13 July was 51,000 fish for the Kenai River and 42,000 fish for the Kasilof River. Another body of salmon was apparently moving into the Central fishing District based upon the location of the drift fleet on 12 July. It was decided to hold the regularly scheduled period on Monday 15 July. Catches for that period were 206,000 salmon, 60 percent of which were sockeye salmon.

By 17 July the daily escapement counts into the Kenai River had increased to about 11,000 fish per day. The cumulative Kenai River escapement through that date was 80,000 fish. The Kasilof River counts were averaging about 1,700 fish per day and the management staff was getting concerned that the minimum escapement goal would not be obtained for the Kasilof River.

The regular period of 19 July produced a catch of approximately 281,000 salmon, of which 46 percent were sockeye salmon. About 85 percent of the catch came from the drift fleet with most of the effort concentrated east of Kaligan Island. Escapement in the Kenai River were beginning to lag, daily counts dropped from 11,000 fish on Wednesday 17 July to 5,700 Friday 19 July. Daily escapement in the Kasilof River was also declining, total escapement into the Kasilof River was 53,000 salmon.

The regular period scheduled for Monday, 22 July was changed to Tuesday, 23 July which allowed an extra 24 hours for escapement without commercial exploitation. The Tuesday period produced a sockeye salmon harvest of only 62,000 fish and the escapement rate into the Kenai and Kasilof Rivers continued to lose momentum.

The 26 July fishing period harvested only 28,000 sockeye salmon indicating that the sockeye salmon run was about over. Management effort was shifted to pink and chum salmon after the 26 July period. The 29 July period produced a catch of 33,000 pink salmon and about 60,000 chum salmon. Based on these weak catches (less than one half the average for this date) the Friday, 2 August period was closed.

The Monday, 5 August period produced good pink salmon catches on the east

beaches and fair to poor catches for the rest of the district. In view of the catch and escapement, a 16 hour period was announced for Wednesday, 7 August for the Northern District, the Ninilchik, Coho, Kalifonsky and Salamatof subdistricts of the Central District and that portion of the Kustatan subdistrict north of the Drift River. The lower portion of the Kustatan subdistrict and the Chisik, Iliamna and Kaligan Island subdistrict were not opened due to poor escapements of chum salmon on the westside.

The relatively high catches for the 7 August period prompted a 30 hour period extending from 6 AM Friday, 9 August, until 12 noon Saturday, 10 August for the eastside beaches (Ninilchik, Coho, Kalifonsky and Salamatof subdistricts) and a 16 hour period (6 AM to 10 PM Friday, 9 August) for the remainder of the Central District. The Northern District remained closed.

On 13 August, the management staff announced three day per week fishing for Upper Cook Inlet for all districts and subdistricts until further notice except Chinitna Bay which remained on 2 periods per week.

Subsistence

The 1974 subsistence salmon harvest for Upper Cook Inlet was 325 salmon consisting of 1 king salmon, 14 sockeye salmon, 291 coho salmon, 17 pink salmon and 2 chum salmon. A total of 109 subsistence permits were issued in Upper Cook Inlet. Appendix Table 11 gives the subsistence catch for Upper Cook Inlet from 1971-1976.

HERRING

Commercial herring fishing began in Cook Inlet in 1914 as a gill net fishery in the Halibut Cove area of Kachemak Bay. The industry expanded rapidly and by 1925, there were a total of eight salteries in Cook Inlet, six in Halibut Cove and one each in Seldovia and Port Graham.

Gill netting remained the primary method of catching herring until 1923 when purse seining was introduced. In 1927, catches began to drop as the larger size herring became difficult to locate and by 1931 the stocks became uneconomical to fish in the area. During the three highest years of production in Kachemak Bay (1924-1926), the total annual harvest averaged 8,000 tons. The average annual harvest (1914-1928) was 2,850 tons.

The next major herring fishery to occur in the Cook Inlet management area was a purse seine fishery for reduction purposes in the Day Harbor - Resurrection Bay area. This fishery began in 1939 and lasted through 1959. The annual catch during the three highest years, (1944-1946) average 16,500 tons. The average for the 20 years of operation was 3,500 tons.

The present day herring fishery in Cook inlet - Resurrection Bay began in 1969. It is primarily a sac roe fishery for the Japanese market. The fishery operates from early May to mid June. Most of the catch is processed in Cook Inlet with an average roe recovery of about 8 percent. Through the 1974 season, the carcasses were discarded but a reduction plant was due to be installed in Seward prior to the 1975 season. The herring catch peaked in 1970 when 4,800 tons were taken, 2,700 from the Southern District and 2,100 tons from the Eastern District (Figure 74-1). Appendix Table 12 gives the

Cook Inlet commercial herring catch from 1961-1976.

The 1974 season operated from 29 April to 13 June with the peak catch occurring on 18 May when 638 tons were taken, mostly from the Kamishak District. Good prices and fair weather continued in 1974 and a total catch of 2,691 tons was achieved. Effort was not concentrated and catches were made in all districts. A total of 42 vessels participated in the 1974 fishery (Appendix Table 13). The initial fishery was in the Kamishak District and nearly 80 percent of the total catch was taken from that area. Table 74-7 gives the 1974 Cook Inlet - Resurrection Bay herring catch by district and date. Field closures were issued in the herring fishery on five occasions during the 1974 season (Table 74-8). Two were used to keep the fleet off the poor concentrations of herring in the eastern portion of the Outer District and Resurrection Bay, one opened a small portion of Resurrection Bay to bait herring, another was used to close the Kamishak District when the desired level of harvest had been reached and the last two were used to close the herring season in the Central and Northern Districts in both the commercial and subsistence fisheries to prevent an incidental catch of king and sockeye salmon that were beginning to run in these areas.

Analysis of data collected during the 1974 season showed the Kamishak District had the best quality herring and the largest biomass. There appeared to be adequate numbers of herring in the area, spawning was plentiful and the fish harvested were well distributed through several age classes. Herring in the Eastern and Outer Districts were lacking in quantity as well as quality with the harvest depending heavily on age four fish. Southern District herring were of good quality but difficult to locate and herring in the Central District were plentiful but of poor quality and usable only as bait.

The management staff believed the 4,000 ton quota set in 1973 for Cook Inlet - Resurrection Bay area was adequate, but planned to reduce the Eastern and Outer District subquotas from 1,000 tons each to 500 tons each. The herring stocks in these districts appeared weak and needed additional protection. The Kamishak District subquota was to be increased from 1,000 to 2,000 tons prior to the 1975 season because the stocks appeared to be numerous and of good quality during the 1974 season and able to accommodate additional harvest. The subquotas for the Southern and Central Districts remained at 500 tons each.

RAZOR CLAMS

There was no reported commercial razor clam harvest in 1974. Appendix Table 14 lists the historic razor clam harvest in Cook Inlet from 1919 through 1976.

COOK INLET MANAGEMENT AREA

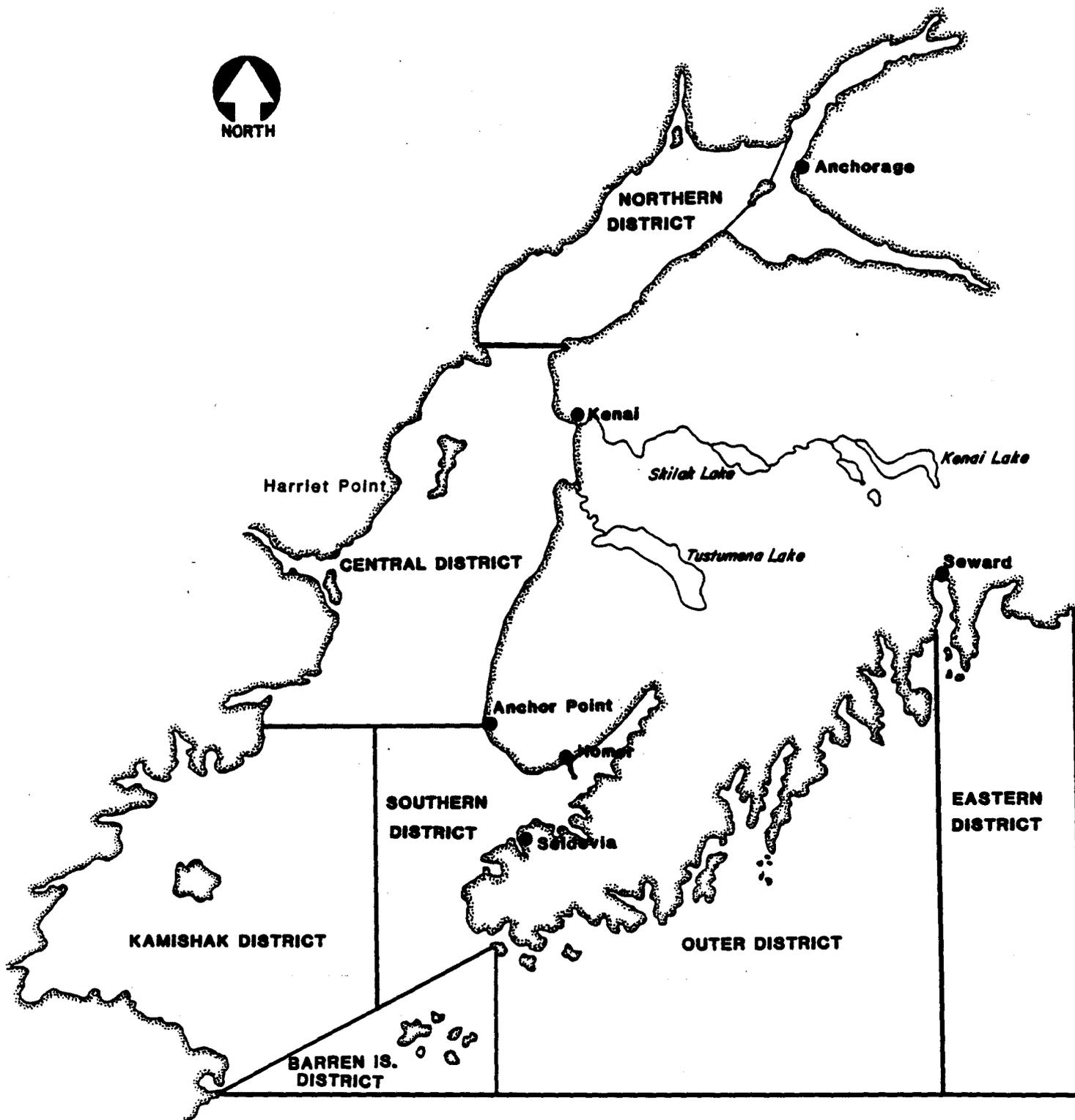


Figure 74-1.

UPPER COOK INLET SALMON DISTRICTS PRE-1975

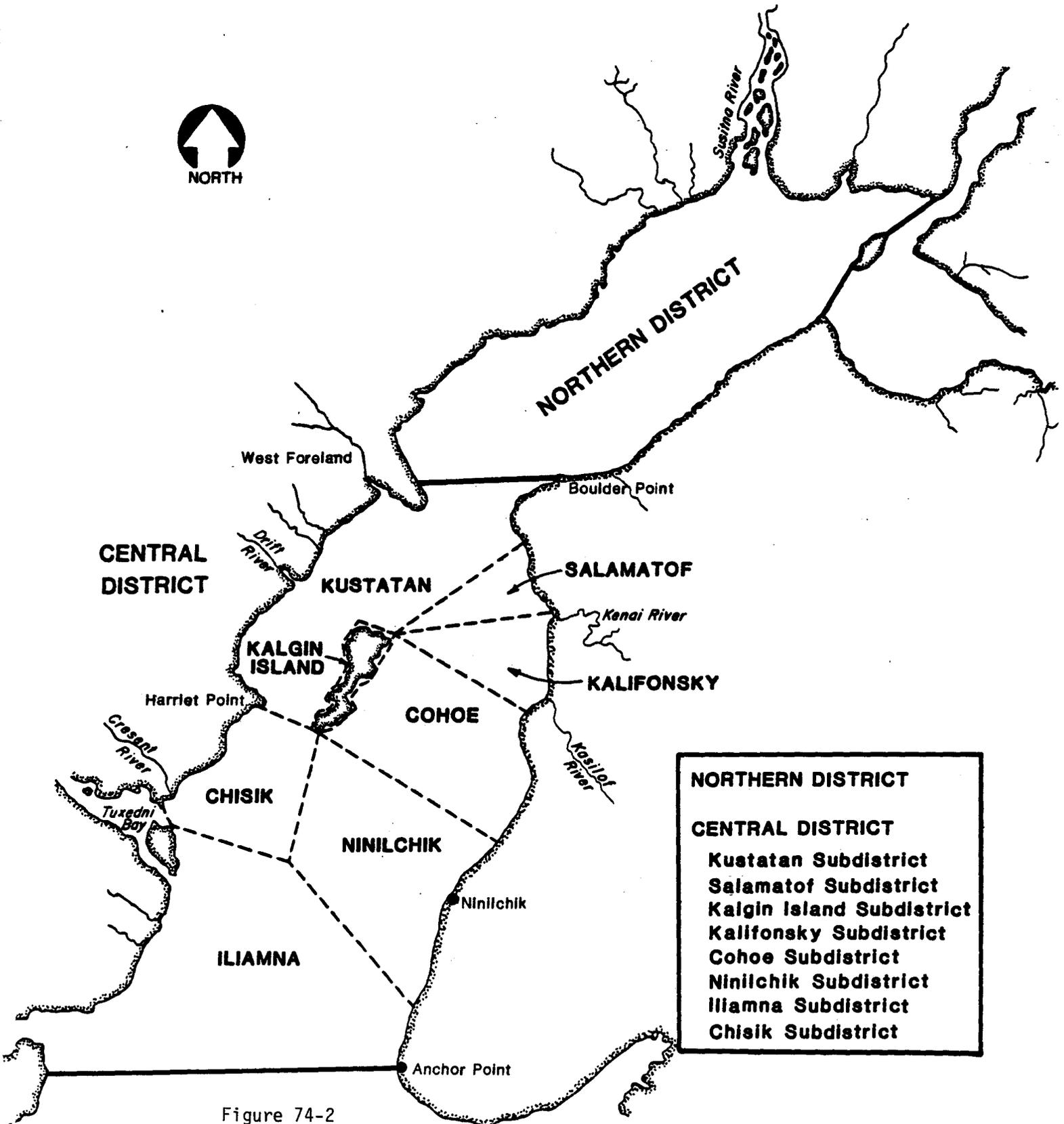


Figure 74-2

Table 74-1. Field announcement summary Upper Cook Inlet salmon, 1974.

Base Time: Two, 12 hour periods per week, 6:00 AM to 6:00 PM Monday and Friday.

Emergency Order	Date	Description
18-74	7/10	Allowed a 12 hour period on Wednesday to make up for poor weather the previous two periods.
19-74	7/12	Reduced the regular 12 hour period on Friday to 6 hours to allow for additional sockeye escapement.
23-74	7/22	The Monday period was closed to allow for more sockeye and pink escapement.
24-74	7/23	Increased salmon movement into spawning systems was detected, a 12 hour period on Friday was allowed to harvest the surplus.
27-74	8/02	Closed the Friday period to allow additional pink salmon escapement into the Susitna Basin.
30-74	8/07	Allowed a 16 hour period for pink harvest on the eastside of the Central District and chum harvest in the Northern District. The westside of the Central District remained closed.
32-74	8/09	Allowed a 30 hour period for pink harvest on the eastside of the Central District and a 16 hour period for chum harvest on the westside of the Central District. The Northern District remained closed.
33-74	8/14	Opened the Northern and Central Districts for an additional 12 hour Wednesday period per week for cohos except Chinitina Bay.

Table 74-2. Upper Cook Inlet commercial salmon catch by period and species, 1974.

Period Number	Period Date	Species					Total	
		King	Sockeye	Coho	Pink	Chum	Period	Cumulative
1	1/ 6/28	254	5,797	7	16	37	6,111	6,111
2	7/01	265	10,676	49	31	148	11,169	17,280
3	7/05	266	17,172	381	27	200	18,046	35,326
4	7/08	362	28,702	1,762	472	2,284	33,582	68,908
5	7/10	226	29,243	3,204	1,483	2,643	36,799	105,707
6	2/ 7/12	96	45,225	4,882	2,312	4,384	56,899	162,606
7	7/15	726	123,089	32,208	23,630	26,813	206,466	369,072
8	7/19	1,086	127,734	40,386	66,829	44,822	280,857	649,929
9	3/ 7/23	936	62,166	27,703	61,584	65,533	217,922	867,851
10	7/26	919	28,394	23,633	48,648	51,584	153,178	1,021,029
11	7/29	778	10,184	13,614	32,837	59,531	116,944	1,137,973
12	8/05	226	4,363	8,613	79,075	83,352	175,629	1,313,602
13	4/ 8/07	79	771	2,602	58,867	21,899	84,218	1,397,820
14	5/ 8/9-10	135	2,022	6,864	78,849	20,311	108,181	1,506,001
15	8/12	50	565	4,103	17,216	7,259	29,193	1,535,194
16	6/ 8/14	102	346	2,788	8,167	1,908	13,311	1,548,505
17	8/16	39	178	3,192	2,629	3,175	9,213	1,557,718
18	8/19	8	353	2,219	758	1,152	4,490	1,562,208
19	8/21	7	82	2,375	284	147	2,895	1,565,103
20	8/23	14	41	2,400	130	399	2,984	1,568,087
21	8/26	3	18	3,356	47	169	3,593	1,571,680
22	8/28	3	18	2,572	39	285	2,917	1,574,597
23	8/30	0	13	1,732	20	85	1,850	1,576,447
24	9/02	5	2	2,419	16	24	2,466	1,578,913
25	9/04	0	4	1,415	5	3	1,427	1,580,340
26	9/06	0	2	1,208	5	2	1,217	1,581,557
27	9/09	0	0	1,183	1	3	1,187	1,582,744
28	9/11	1	0	823	0	0	824	1,583,568
29	9/13	0	0	797	0	0	797	1,584,365
30	9/16	0	0	308	0	0	308	1,584,673
31	9/18	0	0	183	0	0	183	1,584,856
32	9/20	0	0	486	0	1	487	1,585,343
33	9/23	0	0	289	0	0	289	1,585,632
34	9/25	0	0	127	0	0	127	1,585,759
Total		6,586	497,160	199,883	483,977	398,153		1,585,759

- 1/ Central District opening only. Northern District opened on July 1.
- 2/ 6 hour period (9:00 AM to 3:00 PM).
- 3/ 24 hour delay of regular monday period.
- 4/ 16 hour period (6:00 AM to 10:00 PM) for the Northern District; Ninilchik, Coho, Kalifonsky, Salamatof subdistricts and the Kustatan subdistrict north of Drift River.
- 5/ 30 hour period (6:00 AM 8/9 to 12:00 Noon 8/10) for Ninilchik, Coho, Kalifonsky and Salamatof subdistrict. 16 hour period (6:00 AM to 10:00 PM 8/9) for Kustatan Chisik, Kalgin and Iliamna subdistricts, Northern District remained closed.
- 6/ Opened Upper Cook Inlet to additional 12 hour Wednesday period for the remainder of the season.

Table 74-3. Daily and cumulative sockeye salmon escape-
ment counts into the Kenai River, 1974.

Day	Month/Day	Daily Count	Cumulative Count
1	6/24	1,723	1,723
2	6/25	2,431	4,154
3	6/26	789	4,943
4	6/27	773	5,716
5	6/28	1,095	6,811
6	6/29	1,288	8,099
7	6/30	1,208	9,307
8	7/01	1,691	10,998
9	7/02	982	11,980
10	7/03	2,109	14,089
11	7/04	2,463	16,552
12	7/05	2,013	18,565
13	7/06	3,494	22,059
14	7/07	4,717	26,776
15	7/08	8,694	35,470
16	7/09	5,411	40,881
17	7/10	4,009	44,890
18	7/11	2,513	47,403
19	7/12	1,900	49,303
20	7/13	2,045	51,348
21	7/14	1,449	52,797
22	7/15	3,766	56,563
23	7/16	12,751	69,314
24	7/17	11,238	80,552
25	7/18	7,857	88,409
26	7/19	5,716	94,125
27	7/20	2,156	96,281
28	7/21	1,547	97,828
29	7/22	1,583	99,411
30	7/23	4,106	103,517
31	7/24	6,472	109,989
32	7/25	5,297	115,286
33	7/26	4,862	120,148
34	7/27	7,132	127,280
35	7/28	4,475	131,755
36	7/29	3,091	134,846
37	7/30	2,174	137,020
38	7/31	3,751	140,771
39	8/01	2,689	143,460
40	8/02	3,301	146,761
41	8/03	3,283	150,044
42	8/04	3,912	153,956
43	8/05	2,698	156,654
44	8/06	4,346	161,000

Table 74-4. Daily and cumulative sockeye salmon escape-
ment counts into the Kasilof River, 1974.

Day	Month/Day	Daily Count	Cumulative Count
1	6/28	3,570	3,570
4	7/01	2,415	5,985
7	7/04	4,564	10,549
8	7/05	6,937	17,486
9	7/06	6,629	24,115
10	7/07	2,996	27,111
11	7/08	2,016	29,127
12	7/09	1,673	30,800
13	7/10	3,297	34,097
14	7/11	3,675	37,772
15	7/12	2,505	40,277
16	7/13	1,771	42,048
17	7/14	1,645	43,693
18	7/15	2,205	45,898
19	7/16	1,736	47,634
20	7/17	1,946	49,580
21	7/18	1,681	51,261
22	7/19	1,750	53,011
23	7/20	896	53,907
24	7/21	735	54,642
26	7/23	1,778	56,420
27	7/24	1,288	57,708
28	7/25	1,527	59,235
29	7/26	1,407	60,642
30	7/27	1,043	61,685
31	7/28	1,365	63,050
32	7/29	1,043	64,093
33	7/30	700	64,793
34	7/31	931	65,724
35	8/01	442	66,166
37	8/03	1,449	67,615
39	8/05	1,196	68,811
40	8/06	1,189	70,000

Table 74-5. Peak sockeye salmon counts of index areas and seasonal indices for the Susitna River drainage during 1972, 1973 and 1974.

Index Area	1972 Peak Count 1/	1973 Peak Count	1974 Peak Count
Christmas Tree Creek	50	40	80
Coffee Creek	24	0	0
Fish Lake	107	251	95
Hewitt Creek	137	67	94
Hewitt Lake	990	453	288
Huckleberry Creek	-	512	369
Larson Lake	300	20	19
Prairie Creek	202	21	37
Red Salmon Lake	-	250	160
Red Shirt Lake	160	47	0
Role Jo Creek	40	0	0
Shell Lake	640	295	20
Slim Creek	63	195	195
Spring Creek	33	11	0
Stephen Lake	166	234	78
"T" Creek	239	115	191
Talachulitna 2/	6,501	12,362	6,186
Trinity Lake	350	75	0
Whiskey Lake	20	1	216
Seasonal Total	10,022	14,952	8,033
n =	17	19	19

1/ Base index year

2/ Includes all lakes and streams within the Talachulitna River drainage.

Table 74-6. Talachulitna River escapement by salmon species, as derived from tower count data, for years 1972, 1973 and 1974, Talachulitna River studies, 1974.

Year	Species Abundance				
	Sockeye	Pink	Chum	Coho	Chinook
1972 1/	15,730	202,915	12,783	458	405
1973	19,727	92,496	707	8	291
1974	15,976	50,496	415	193	303 2/

1/ Species apportionment for sockeye and chum salmon was questionable.

2/ Anonymous. 1974. King salmon escapements, Susitna River, Alaska Department of Fish and Game, Sport Fish Division, pp 1-9.

Table 74-7. Cook Inlet herring catch, by district and date, in tons, 1974. 1/

Week	Date	Eastern		Outer		Southern		Kamishak		Central-Northern		Total	
		Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum
18	4/29			5.7	5.7							5.7	5.7
	4/30			27.3	33.0							27.3	33.0
	5/01	8.3	8.3	21.6	54.6							29.9	62.9
	5/02	8.1	16.4	16.7	71.3							24.8	87.7
	5/03	3.5	19.9	4.5	75.8							8.0	95.7
	5/04			11.0	86.8							11.0	106.7
19	5/05			46.1	132.9							46.1	152.8
	5/06			19.2	152.1							19.2	172.0
	5/07			1.6	153.7							1.6	173.6
	5/09			18.5	172.2							18.5	192.1
	5/10									.5	.5	.5	192.6
	5/11			2.5	174.7							2.5	195.1
20	5/12							43.0	43.0	1.7	2.2	44.7	239.8
	5/13							76.0	119.0	1.7	3.9	77.7	317.5
	5/14							252.4	371.4	2.0	5.9	254.4	571.9
	5/15			9.7	184.4			86.0	457.4	2.9	8.8	98.6	670.5
	5/16			11.5	195.9			104.3	561.7	.3	9.1	116.1	786.6
	5/17			19.0	214.9			603.4	1165.1	2.5	11.6	624.9	1141.5
	5/18			6.0	220.9			630.4	1795.5	1.4	13.0	637.8	2049.3
	5/19			18.0	238.9			266.0	2061.5	3.1	16.1	287.1	2336.4
21	5/20			13.0	251.9			11.5	2073.0	3.9	20.0	28.4	2364.8
	5/21	8.5	28.4					35.0	2108.0	6.4	26.4	49.9	2414.7
	5/22	7.5	35.9	21.0	272.9					10.0	36.4	38.5	2453.2
	5/25			36.0	308.9							36.0	2489.2
	5/27					2.6	2.6					2.6	2491.8
22	5/28	2.5	38.4			19.9	22.5					22.4	2514.2
	5/29	1.5	39.9			23.2	45.7			.2	36.6	24.9	2539.1
	5/30			20.0	328.9							20.0	2559.1
	5/31			1.0	329.9							1.4	2560.5
	6/01			2.2	332.1	.4	46.1					2.2	2562.7
	6/02	1.5	41.4									1.5	2564.2
	6/03	3.0	44.4	1.5	333.6	16.5	62.6					21.0	2585.2
23	6/04			7.3	340.9	47.6	110.2					54.9	2640.1
	6/07			6.5	347.5							6.5	2646.6
	6/08			1.5	348.9							1.5	2648.1
	6/09			25.0	373.9							25.0	2673.1
24	6/10			7.0	380.9							7.0	2680.1
	6/13	3.0	47.4	9.2	390.1							12.2	2692.3
	Adjusted Totals 2/			47.2		384.0		109.7		2113.7		36.7	

1/ Daily totals reflect inseason estimates.
 2/ Final harvest figures.

Table 74-8. Field announcement summary of Cook Inlet herring, 1974.

Emergency Order	Date	Description
9-74	5/07	Herring were appearing in insufficient numbers in Resurrection Bay to warrant further harvest. Herring fishing was closed in Resurrection Bay until further notice.
10-74	5/20	The desired harvest level of approximately 2,000 tons had been reached in Kamishak Bay. Herring fishing was closed in Kamishak Bay until further notice.
12-74	5/31	Herring were appearing in insufficient numbers in the eastern part of the Outer District to warrant further harvest. Adult and juvenile salmon were being taken in herring nets in the Central and Northern Districts. Herring fishing was closed in the eastern part of the Outer District and the Central and Northern Districts until further notice.
14-74	6/07	Opened that portion of Resurrection Bay north of a line from Caines Head to Hat Island to bait herring fishing.
15-74	6/12	Closed the subsistence herring fishery in the Central and Northern Districts due to incidental harvest of adult and juvenile salmon.

1975
SALMON

Board of Fish and Game

The December 1974 meeting of the Board of Fish and Game considered numerous proposals for changes in the Cook Inlet commercial salmon regulations. In addition, the season opening dates were set at 27 June for the Central District and 4 July for the Northern District.

A regulation was adopted setting a minimum distance of 600 feet between drift nets and set nets. In addition, a regulation provided a definition of "operating gear" was adopted. This regulation covers the entire Cook Inlet area and states that, "all salmon gear license holders shall personally operate or assist in the operation of the licensed fishing gear".

There were two changes in subdistrict boundaries adopted for the Central District. Previous to the 1975 season, the line separating the Kustatan and Chisik subdistricts extended from the south tip of Kalgin Island to Harriet Point (Figure 74-2). This boundary was altered to a line extending from the southern tip of Kalgin Island to the Drift River terminal. The other change established a new subdistrict for Chinitna Bay. The boundary line extending from Spring Point to Sea Otter Point (Figure 75-1), and separates Chinitna Bay subdistrict from Iliamna subdistricts. These changes were made to include the few set nets north of Harriet Point in the Chisik subdistrict and also to aid the management staff with the Chinitna Bay chum salmon return where there had been difficulty in attaining the desired escapement.

In addition to the establishment of the Chinitna Bay subdistrict, regulations were adopted defining where drift gillnets and seines could fish in Chinitna Bay. The new regulation restricted drift gillnets and seines from fishing west of a line running from the crane on the south shore of the bay to the largest boulder on the landward end of Glacier Spit on the north shore.

1975 Season Summary

The 1975 preseason harvest outlook for Upper Cook Inlet was projected at 700,000 sockeye, 150,000 coho, 300,000 pink and 500,000 chum salmon. This outlook was based on parent year escapements and standard survival estimates as no formal forecast was calculated for Upper Cook Inlet.

Base fishing time remained at two 12 hour periods per week, however, this schedule was altered by emergency order field announcement on eight occasions during the 1975 season. Table 75-1 gives a brief description of each salmon emergency order.

The 1975 harvest was one of the best odd year catches in recent years. A very strong chum salmon return coupled with an above average coho salmon return and a below average sockeye salmon run produced a catch of 2,191,666 salmon (Table 75-2), with an exvessel value of 6.8 million dollars (Appendix Table 10).

Total effort in the 1975 fishery was less than previous years (Appendix Table 9). This was thought to be the result of anticipated low salmon returns and the availability of high paying construction jobs on the Alyeska Pipeline.

Escapement

Escapement goals for sockeye salmon remained unchanged for the 1975 season. Escapement of sockeye salmon was 142,000 into the Kenai River (Table 75-3), 48,000 to the Kasilof River (Table 75-4), and 30,000 into Fish Creek in the Big Lake system. Escapement studies were expanded in the Susitna River drainage in 1975. A mark-recapture program was instituted in an attempt to obtain an estimate of the total sockeye salmon escapement into that system. The total escapement for the Susitna River for 1975 was estimated to be 108,000 sockeye salmon. In addition, a weir at Shell Creek enumerated 2,027 sockeye salmon. The Talachulitna River weir was not used in 1975. In the index systems, the sockeye salmon escapement appeared to be less than any of the previous three years (Table 75-5). Escapement was considered fair to good in the rest of the areas monitored (Table 75-6). Appendix Table 8 shows the escapement figures for sockeye salmon through 1976 for those systems monitored. Pink salmon escapement was acceptable in the Northern District but far below average in the Central District. Field observations for coho and chum salmon indicated escapements for these species was normal.

Field Projects

Field projects conducted during the 1975 season were similar to those of previous years with the exception of the river mouth testfish project. The Kasilof River testfish project was eliminated and only the Kenai River testfish project was operated.

The eastside beach survey program that was originated in 1963 to determine the chinook salmon catch has, in more recent years, been used to determine fishing conditions along the eastside beach from the Kenai River to Ninilchik. In 1975, the project was expanded to include Salamatof and the lower Northern District eastside beaches. Preliminary work in the Stock Separation project was also initiated in 1975. As stated earlier, a project was instituted using an extensive fishwheel program on the Susitna River for an escapement estimation using mark and recapture techniques.

Management Summary

The 1975 commercial fishing season opened on 28 June in the Central District and 4 July in the Northern District. Catch and escapement were normal for the first four period with strength showing on the lower eastside of the Central District, and on the westside near Crescent River. As of 4 July, only 150 drift boats were participating in the fishery while the set nets were at full strength with 722 nets fishing on 4 July.

Based upon strong sockeye salmon catches on the westside 7 July, an extra period for the Chisik and Iliamna subdistricts was announced for Wednesday, 9 July. The harvest for for this period tallied 42,000 sockeye salmon, 80 percent of which were taken by the 250 drift boats fishing the eastern boundary of the Chisik subdistrict near the Kalgin Island Buoy. The drift fleet was not targeting on the strong Crescent River sockeye salmon return as hoped and additional periods were not granted.

By 14 July the total sockeye salmon catch was 366,000 fish. The escapement into the Kenai River was less than 14,000 (Table 75-3) which was only about 7 percent of the desired escapement goal. A standard period was held on Friday, 18 July with inconclusive results. While the catch was 305,000 salmon, only one third were sockeye salmon and escapement continued to be poor in both the

Kenai and Kasilof Rivers.

Political pressure was focused on Fish and Game Headquarters staff to have a Saturday, 19 July, "test period" to determine run strength for pink and chum salmon. A six hour period (9 AM - 3 PM) was authorized by the Director of the Commercial Fisheries Division. Emergency Order # 25-75 allowed setgill net fishing in the entire Northern District and in the Ninilchik, Coho, Iliamna, Chisik, Kalgin Island and Kustatan subdistricts of the Central District. The closure or "non-opening" of the Chinitna Bay subdistrict to set gillnetting was apparently an oversight in E.O. #25-75. Drift gillnetters were allowed a similar six hour period in the Iliamna, Chisik, Chinitna Bay and Kustatan subdistricts of the Central District. While the pink and chum salmon harvest was fair for that date, the harvest of 47,000 sockeye salmon would have been better utilized as escapement. Peak escapement into the Kasilof River was on 7 July while the Kenai River escapement which was late peaked 23 July.

An additional 12 hour opening was granted on 3 August prior to the standard Monday period (6 PM Sunday to 6 PM Monday) to target on the relatively strong returns of coho and chum salmon. The eastside of Kalgin Island was not granted extra fishing time due to the poor escapement of sockeye salmon to Packers Lake (400 sockeye salmon as of 2 August). This area was allowed to fish the standard 12 hour period on Monday, 4 August.

The good catches of chum and coho salmon on the westside of the Central District along with an apparent good escapement to the westside system prompted the opening of an additional 12 hour period for the Chisik and Iliamna subdistricts on Wednesday, 6 August for both drift and set gillnetting.

Commercial fishing effort had begun to decrease significantly by the Friday, 8 August, regular period. Only 50 percent of the set nets and 30 percent of the drift gill net fleet fished the Friday period.

Sonar equipment was removed from the Kenai and Kasilof Rivers on 5 and 6 August respectively. The final adjusted sonar count for the Kenai River was 142,000 fish (Table 75-3), or 71 percent of the optimum escapement goal of 200,000 sockeye salmon. The final sonar count for the Kasilof River was 48,000 fish (Table 75-4), or 48 percent of the optimum escapement goal of 100,000 fish desired for that system.

There were three additional emergency orders issued during the 1975 season. Emergency Order #39-75 opened the Central District to an extra 12 hour period on Wednesdays until further notice. In addition, that portion of the Northern District from the Susitna River to the District boundary on the westside and from Boulder Point to Otter Creek on the eastside were opened to an additional 12 hour per week period on Wednesdays until further notice. The remainder of the Northern District from the Susitna River east then south to Birch Hill on the Kenai Peninsula, was closed to fishing until Monday, 18 August to allow additional coho salmon escapement into the Knik Arm streams.

Emergency Order #40-75 issued on 9 August restricted the Chinitna Bay subdistrict to the standard two 12 hour periods per week to allow additional chum salmon escapement. Emergency Order #41-75 issued 5 September reinstated the three 12 hour per week periods to allow additional chum and coho salmon

harvest.

Subsistence

The subsistence fishery continued to be a small fishery during 1975. A total of 114 permits were issued in Upper Cook Inlet and 764 salmon were reported taken. The majority of these (659 fish) were coho salmon. Appendix Table 11 lists the subsistence catch by area and species from 1971-1976.

HERRING

The 1975 herring season extended from 2 May to 7 June when the 400 ton quota was reached. Total catch was 4149.2 tons with 99 percent of the harvest coming from the Kamishak District. A total of 44 vessels participated in the 1975 herring fishery (Appendix table 15). Table 75-7 list the herring catch by district and day for the 1975 season. There were six field announcements issued during the 1975 herring season. These announcements are outlined on Table 75-8.

Initial surveys were conducted in the Outer and Eastern Districts for herring moving into that area. No large schools were observed and it was decided, in view of the low numbers and poor quality of the herring harvested there previously, to close those districts until sufficient numbers of herring were observed. No large schools of herring were observed in this area until after the fishery had closed. The Kamishak, Southern and Central Districts remained open throughout the season. Herring taken in the Central District were not of roe quality and bait needs that year were small. Herring in the Southern District were scarce again in 1975.

The 1975 harvest from the Kamishak District was well distributed through several age classes with the fish being older and larger than previously observed. There appeared to be large numbers of herring in the area and spawning was plentiful. The catch in the Central District was composed primarily of 6 and 7 year old fish. A strong 1969 year class was moving through the fishery but with the minimal amount of effort expended on herring fishing in the Central District, the fishery posed no threat to the stocks at that time.

The management staff believed the 4,000 ton quota set for Cook Inlet in 1974 was conservative but should remain in effect until an assessment of the stocks could be made. High quality and plentiful numbers of herring in the Kamishak District made it apparent that the bulk of the catch would continue to come from that area. Herring management strategy in Cook Inlet would be to keep fishing effort off stocks that appeared to be low in numbers which meant there would probably be little or no fishing in the Eastern, Outer and possibly the Southern District in the near future. The comparative herring harvest by district for the years 1961-1976 is shown on Appendix Table 12.

RAZOR CLAMS

A small commercial razor clam harvest of 10,020 pounds was reported taken from the certified beach at Polly Creek during 1975. Appendix Table 14 lists the commercial harvest of razor clams in Cook Inlet from 1919 through 1976.

UPPER COOK INLET SALMON DISTRICTS 1975

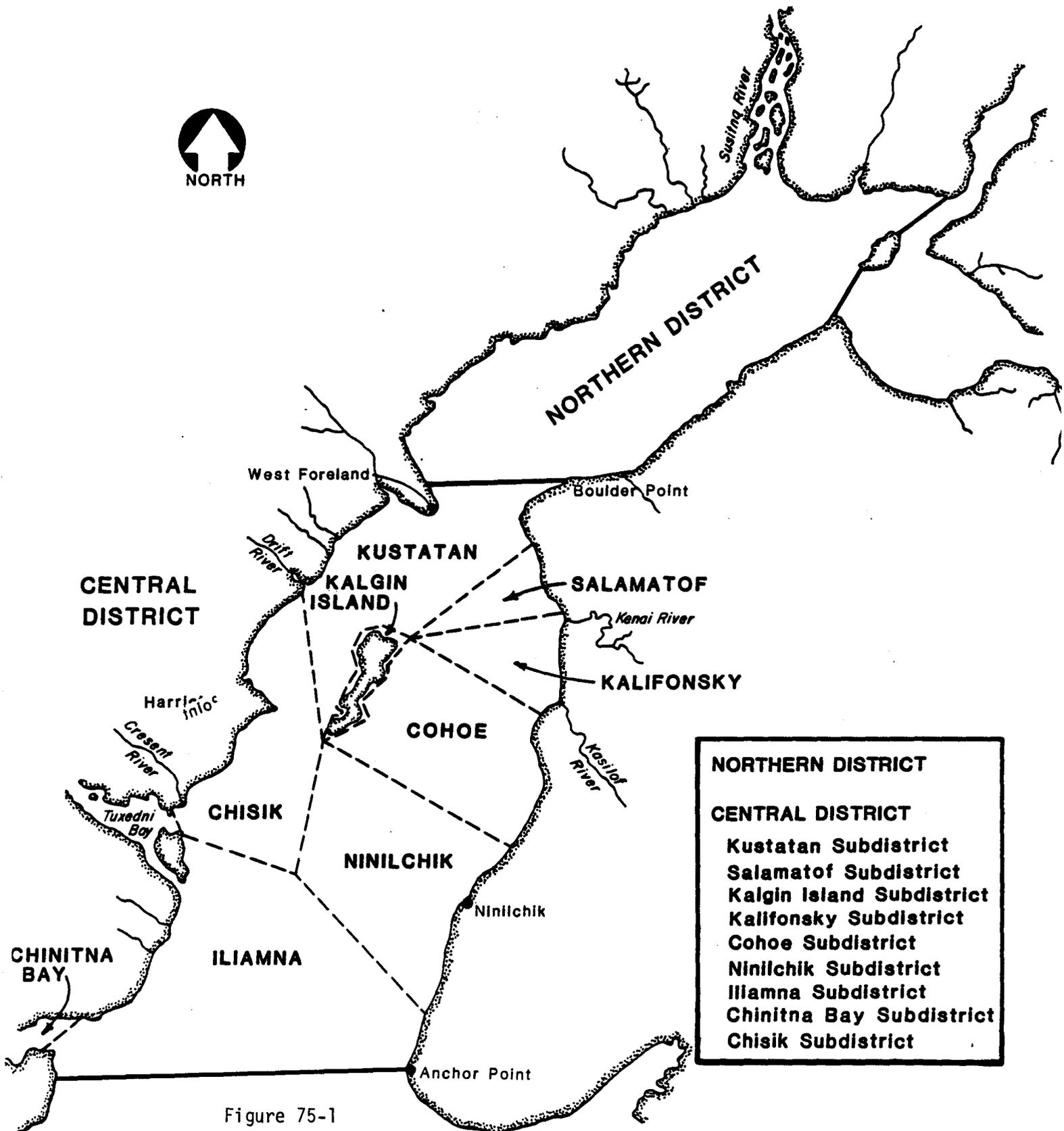


Figure 75-1

Table 75-1. Field announcement summary Upper Cook Inlet salmon, 1975.

Base time: Two, 12 hour periods per week, 6:00 AM to 6:00 PM Monday and Friday.

Emergency Order	Date	Description
17-75	7/09	Additional 12 hour fishery in chisik and Iliamna subdistricts to allow fishing on west side stocks.
25-75	7/19	Additional 6 hour period for set gillnets in Ninilchik, Cohoe, Iliamna, Chisik, Kalgin Island and Kustatan subdistricts of Central District and entire Northern Districts and drift gillnets in Iliamna, Chisik, Chinitna and Kustatan subdistricts of Central Districts. A test fish period for pinks and chums.
26-75	7/21	Restrict regular 12 hour period to 6 hours all areas open, to allow for additional sockeye escapements.
35-75	8/03	24 hour period all areas open to allow for additional chum and coho harvest.
38-75	8/06	Additional 12 hour period in Chisik and Iliamna subdistricts to allow fishing on west side stocks.
39-75	8/13	Additional 12 hour period per week in both Northern and Central Districts until further notice to allow extra fishing on good coho and chum runs. Except Northern District near Knik Arm closed until 8/18.
40-75	8/19	Restrict Chinitna Bay to two 12 hour periods per week until further notice to allow for additional chum escapement.
41-75	9/05	Open Chinitna Bay to three 12 hour periods per week to allow additional harvest on chums and coho.

Table 75-2. Upper Cook Inlet commercial salmon catch by period and species, 1975.

Period Number	Period Date	Species					Total	
		King Period	Sockeye Period	Coho Period	Pink Period	Chum Period	Period	Cumulative
1	6/27	277	3,489	11	331	19	4,127	4,127
2	6/30	262	7,478	10	1,041	86	8,877	13,004
3	7/04	297	31,933	148	8,930	1,797	43,105	56,109
4	7/07	552	53,435	234	19,020	5,909	79,150	135,259
5	1/ 7/09	39	41,937	193	5,126	2,575	49,870	185,129
6	7/11	585	132,014	1,012	47,606	29,152	210,369	395,498
7	7/14	542	96,097	5,061	73,169	20,613	195,482	590,980
8	7/18	471	110,613	14,850	85,774	93,369	305,077	896,057
9	2/ 7/19	96	47,438	7,771	31,313	26,044	112,662	1,008,719
10	3/ 7/21	154	43,311	17,201	30,669	49,080	140,415	1,149,134
11	7/25	375	67,448	36,662	18,160	225,070	347,715	1,496,849
12	7/28	348	25,041	27,659	8,287	107,055	168,390	1,665,239
13	4/ 8/01	226	10,880	19,257	3,472	169,272	203,107	1,868,346
14	8/03-4	180	4,553	24,592	1,913	135,489	166,727	2,035,073
15	5/ 8/06	13	314	3,201	99	6,648	10,275	2,045,348
16	8/08	69	1,323	10,336	242	45,455	57,425	2,102,773
17	8/11	119	538	6,507	124	13,705	20,993	2,123,766
18	6/ 8/13	41	268	3,674	77	2,834	6,894	2,130,660
19	8/15	13	224	4,166	166	4,531	9,100	2,139,760
20	8/18	32	84	4,805	37	5,207	10,165	2,149,925
21	7/ 8/20	38	72	5,271	22	2,177	7,580	2,157,505
22	8/22	20	66	4,440	21	2,518	7,065	2,164,570
23	8/25	13	40	4,932	11	1,661	6,657	2,171,227
24	8/27	6	27	2,897	2	184	3,116	2,174,343
25	8/29	1	25	2,156	10	366	2,558	2,176,901
26	9/01	2	4	2,776	3	42	2,827	2,179,728
27	9/03	0	7	1,694	3	85	1,789	2,181,517
28	9/05	0	1	563	0	22	586	2,182,103
29	9/08	1	72	1,251	0	14	1,338	2,183,441
30	8/ 9/10	0	2	596	0	0	598	2,184,039
31	9/12	1	1	1,046	1	1	1,050	2,185,089
32	9/15	0	1	2,058	0	0	2,059	2,187,148
33	9/17	0	0	1,067	0	0	1,067	2,188,215
34	9/19	0	0	1,118	0	1	1,119	2,189,334
35	9/22	0	0	959	0	0	959	2,190,293
36	9/24	0	0	430	0	0	430	2,190,723
37	9/26	0	0	746	0	0	746	2,191,469
38	9/29	0	0	197	0	0	197	2,191,666
Total		4,773	678,736	221,547	335,629	950,981		2,191,666

- 1/ 12 hour period for Chisik and Iliamna subdistricts.
- 2/ 6 hour test period for Ninilchik, Coho, Iliamna, Chisik, Kalgin Island and Kustatan subdistricts of Central District and Northern District for set gillnets and Iliamna, Chisik, Chinitna, and Kustatan subdistricts for drift gillnets.
- 3/ Restricted all areas to a 6 hour period.
- 4/ Gave an additional 12 hour period prior to the regular 12 hour Monday period for all areas.
- 5/ Additional 12 hour Wednesday period for Chisik and Iliamna subdistricts.
- 6/ Gave an additional 12 hour Wednesday period per week until further notice in Central and Northern Districts except that portion of Northern District from Birch Hill to Susitna River which was closed until 8/18.
- 7/ Limited Chinitna Bay subdistrict and that portion of the Northern District from Birch Hill to the Susitna River to standard periods until further notice.
- 8/ Opened Chinitna Bay subdistrict to three 12 hour periods per week until further notice.

Table 75-3. Daily and cumulative sockeye salmon escapement into the Kenai River, 1975.

Day	Month/Day	Daily Count	Cumulative Count
1	6/24	185	185
2	6/25	312	497
3	6/26	469	966
4	6/27	426	1,392
5	6/28	440	1,832
6	6/29	341	2,173
7	6/30	909	3,081
8	7/01	185	3,266
9	7/02	185	3,451
10	7/03	213	3,664
11	7/04	710	4,374
12	7/05	284	4,658
13	7/06	540	5,198
14	7/07	312	5,510
15	7/08	312	5,822
16	7/09	2,215	8,037
17	7/10	327	8,364
18	7/11	682	9,046
19	7/12	1,178	10,224
20	7/13	710	10,934
21	7/14	2,954	13,888
22	7/15	2,187	16,075
23	7/16	2,655	18,730
24	7/17	3,877	22,607
25	7/18	5,793	28,400
26	7/19	4,501	32,901
27	7/20	5,993	38,894
28	7/21	7,739	46,633
29	7/22	8,207	54,840
30	7/23	10,238	65,078
31	7/24	9,188	74,266
32	7/25	5,680	79,946
33	7/26	6,603	86,549
34	7/27	8,080	94,629
35	7/28	9,457	104,086
36	7/29	8,761	112,847
37	7/30	8,165	121,012
38	7/31	5,683	126,695
39	8/01	4,530	131,225
40	8/02	4,032	135,257
41	8/03	3,933	139,190
42	8/04	2,585	141,775
43	8/05	270	142,045

Table 75-4. Daily and cumulative sockeye salmon escapement into the Kasilof River, 1975.

Day	Month/Day	Daily Count	Cumulative Count
1	6/30	758	758
2	7/01	789	1,547
3	7/02	575	2,122
4	7/03	984	3,106
5	7/04	1,207	4,313
6	7/05	1,383	5,696
7	7/06	1,877	7,573
8	7/07	2,736	10,309
9	7/08	2,629	12,938
10	7/09	1,564	14,502
11	7/10	1,561	16,063
12	7/11	1,520	17,583
13	7/12	791	18,374
14	7/13	998	19,372
15	7/14	966	20,338
16	7/15	2,655	22,993
17	7/16	1,762	24,755
18	7/17	1,547	26,302
19	7/18	1,704	28,006
20	7/19	2,226	30,232
21	7/20	1,750	31,982
22	7/21	2,088	34,070
23	7/22	1,565	35,635
24	7/23	1,610	37,245
25	7/24	1,519	38,764
26	7/25	2,130	40,894
27	7/26	1,128	42,022
28	7/27	810	42,832
29	7/28	1,206	44,038
30	7/29	790	44,828
31	7/30	584	45,412
32	7/31	344	45,756
33	8/01	424	46,180
34	8/02	466	46,646
35	8/03	316	46,962
36	8/04	481	47,443
37	8/05	-	-
38	8/06	557	48,000

Table 75-5. Peak sockeye salmon escapement counts in numerous index areas, Susitna River drainage, 1972-1975.

Index Area	Year			
	1972	1973	1974	1975
Christmas Tree Creek	50	40	80	84
Coffee Creek	24	0	0	0
Fish Lake	107	251	95	187
Hewitt Creek	137	67	94	30
Hewitt Lake	990	453	288	247
Huckleberry Creek	- 1/	512	369	328
Larson Lake 2/	300	20	19	63
Prairie Creek	202	21	37	49
Red Salmon Lake 2/	- 1/	250	160	142
Red Shirt Lake 2/	160	47	1	135
Role Jo Creek 2/	40	0	0	24
Shell Lake 2/	640	295	20	251
Slim Creek	63	195	195	176
Spring Creek	33	11	0	4
Stephen Lake	166	234	78	212
"T" Creek	239	115	191	289
Talachulitna 2/ 3/	6,501	12,362	6,186	5,105
Trinity Lake 2/	350	75	0	0
Whiskey Lake	20	1	216	62
Index Area Escapement 4/	10,000	15,000	8,700	7,400

1/ No counts conducted.

2/ Survey counts were conducted by aircraft.

3/ Includes all lakes and streams within the Talachulitna River drainage.

4/ Rounded to the nearest hundred fish.

Table 75-6. Peak sockeye salmon escapement counts in minor system index areas, Northern District Cook Inlet, 1972-1975.

Index Area	Year			
	1972	1973	1974	1975
Bodenburg Slough	464	252	171	164
Coal Creek 1/	1,250	0	0	0
Coal Creek Lake 1/	30	0	0	0
Fish Creek (Big Lake) 2/	6,981	2,705	16,225 5/	29,880
Nancy Lake	1,731	283	140	84
Williwaw Creek	3/	3/	48	51
Index Area Escapement 4/	10,500	3,200	16,600	30,200

1/ Surveys conducted by aircraft.

2/ Total escapement as determined by weir counts.

3/ No counts conducted.

4/ Rounded to the nearest hundred fish.

5/ 2,609 adults, 13,616 precocious males

Table 75-7. 1975 Cook Inlet herring catch, by district and date, in tons. 1/

Week	Date	Central		Kamishak		Southern		Total	
		Catch	Accum.	Catch	Accum.	Catch	Accum.	Catch	Accum.
18	5/02	.25	.25					.25	.25
20	5/13			24.00	24.00			24.00	24.25
	5/14			370.00	394.00			370.00	394.25
	5/15	.25	.50	788.00	1,182.00			788.25	1,182.50
	5/16	.75	1.25	419.00	1,601.00			419.75	1,602.25
	5/17	1.75	3.00	350.00	1,951.00			351.75	1,954.00
21	5/18	1.00	4.00	68.00	2,019.00			69.00	2,023.00
	5/19			134.00	2,153.00			134.00	2,157.00
	5/20	1.25	5.25	22.00	2,175.00	18.00	18.00	41.25	2,198.25
	5/21	.25	5.50			6.00	24.00	6.25	2,204.50
	5/24	.10	5.60					.10	2,204.60
22	5/27	.05	5.65					.05	2,204.65
	5/29	.25	5.90					.25	2,204.90
	5/30	.10	6.00					.10	2,205.00
	5/31			190.00	2,365.00			190.00	2,395.00
23	6/01			15.00	2,380.00			15.00	2,410.00
	6/02			57.00	2,437.00			57.00	2,467.00
	6/03			420.00	2,857.00			420.00	2,887.00
	6/04			416.00	3,273.00			416.00	3,303.00
	6/05			635.00	3,908.00			635.00	3,938.00
	6/06			201.00	4,109.00			201.00	4,139.00
	6/07			10.00	4,119.00			10.00	4,149.00
Adjusted Totals 2/			6.20		4,118.6		24.00		4,149.20

1/ Daily totals reflect inseason estimates.

2/ Final harvest figures.

Table 75-8. Field announcement summary Cook Inlet herring, 1975.

Emergency Order	Date	Description
5-75	3/05	Allowed for a herring fishery in the Resurrection Bay small boat harbor until midnight March 31, 1975.
8-75	5/04	Herring fishing closed in the Outer District until further notice due to weak herring runs.
9-75	5/07	Closed the Eastern District to herring fishing except that portion of Resurrection Bay north of the latitude of Caines Head to allow for a small bait fishery. The herring population in the remainder of the Eastern District were too small to allow any harvest.
10-75	5/17	Closed Iniskin Bay portion of Kamishak Bay to herring fishing because the desired harvest level had been reached.
11-75	5/31	Closed the Central and Northern Districts for herring fishing due to incidental catch of salmon.
13-75	6/06	Closed all of Cook Inlet to herring fishing due to quota being reached.

1976
SALMON

Board of Fish and Game

The Board of Fisheries meeting adopted significant regulatory changes for Upper Cook Inlet during their December 1975 meeting. The most notable was the restructure of the subdistrict boundaries within the Central District (Figure 76-1). These boundaries were altered to conform to the existing salmon management philosophy. Three new subdistricts were created including the Upper, Lower and Western subdistricts. The boundary for the Kustatan subdistrict was altered. Only the Chinitna Bay and Kalgin Island subdistricts remained unchanged.

Other regulatory changes included the deletion of a regulation requiring the display of signs showing set gillnet registration numbers at shore sites, and the regulation setting the minimum size for ADF&G numbers to be displayed on salmon gillnet vessels was modified to include set net skiffs. Numbers assigned had to be at least 12 inches in height with lines at least one inch wide and be plainly visible and unobscured on both sides of the hull or cabin in contrasting colors to the background.

1976 Season Summary

The preseason outlook of the salmon harvest for the 1976 season was for an average to above average return of sockeye salmon. This outlook was based on the large escapement in 1971 and indications of good freshwater survival from that brood year. The coho salmon return was expected to be below average due to the poor parent year return in 1972. The early run of pink salmon destined mainly for systems in the Northern District was expected to be very weak. Pink salmon escapement in 1974 was the lowest even year escapement in twenty years. The later pink salmon run headed primarily for the Kenai and Kasilof Rivers had a fair to good escapement in the 1974 parent year and fishing was expected to be fair for the Central District. The chum salmon return was expected to be below the even year average because the 1972 parent year escapement was only fair through out Upper Cook Inlet.

Fishing periods for the 1976 season remained at two 12 hour periods per week on Monday and Friday. The first day of fishing for the Central District was Friday, 25 June and Monday, 2 July for the Northern District. There were 15 Emergency Orders issued during the 1976 season. Table 76-1 gives a brief description of each Emergency Order.

The 1976 salmon harvest was approximately equal to the even year average since statehood, and the largest harvest since 1968. A strong sockeye salmon return and surprisingly strong pink salmon return were primarily responsible for the 3.6 million salmon harvest. A weak coho salmon return to the Northern District coupled with strong returns to the eastside and westside of the Central District produced an average coho salmon harvest. The Northern District chum salmon return was weak with the harvest being about 35 percent less than the even year average. Table 76-2 gives a species by date harvest summary for the 1976 season. The exvessel value for the Upper Cook Inlet salmon harvest for 1976 was 13.6 million dollars (Appendix Table 10).

Escapement

The 1976 daily escapements are shown on Tables 76-3 and 76-4 for the Kenai and

Kasilof Rivers, respectively. Appendix Table 8 includes escapement counts from the other systems monitored from 1960-1976.

Although actual escapement counts were made on only a few systems, a rough indication of escapement by species was derived by a combination of actual counts, indexing and sportfish creel census. The 1976 escapement can be summed up as follows:

Sockeye Salmon: The 380,000 fish escapement into the Kenai River system and the 139,000 fish escapement into the Kasilof River system were both above the optimum levels desired for those systems. (Kenai River escapement goal for 1976 was 150-250 thousand fish with an optimum of 220-230 thousand fish. Kasilof River escapement goal was 75-150 thousand fish with a 1976 optimum of 115-120 thousand fish). MTS (multiple transducer sonar) was used for the first time in 1976 in the Susitna River. Although use of the MTS system was primarily a feasibility study, the sockeye salmon escapement estimate based on sonar counts from the Susitna River was 111,000 fish.

Susitna River drainage index area escapements for sockeye salmon appeared to be appreciably larger than escapements since 1972. About 47 percent of the index areas had escapements greater than the previous four year means. (Table 76-5). Sockeye salmon escapement into the minor systems within the Northern District was generally lower than the previous four years (Table 76-6). The escapement into the Big Lake system was showed a decrease from the 1975 season with 14,000 sockeye salmon being counted through the Fish Creek weir. The minimum escapement goal for Big Lake had been established at 20,000 fish prior to the 1976 season.

Coho Salmon: Below average in most systems that drain into the Northern District; average in most systems that drain into the Central District.
Pink Salmon: Average to above average in most systems.
Chum Salmon: Below average in the Susitna River and good in the westside streams of the Central District.

Field Projects

During the 1976 season, field projects employed were similar to those previously described in the 1975 summary. The stock separation project was expanded during the 1976 season to include testing of a method to determine genetic differences of various spawning populations by analyzing protein samples through electrophoresis. This study was initiated in 1975 and expanded to include more spawning stocks and some commercial catch during the 1976 season.

The Cook Inlet offshore testfish project was initiated during the 1976 season. The project consisted of one 34 foot drift gillnet boat making one hour sets every five miles along the latitude of Anchor Point, utilizing 200 fathoms of 5 1/4 inch gillnet gear. Operations began on 25 June and continued through 10 July with the boat fishing daily (weather permitting) except on commercial fishing days. The goal of the project was to provide managers with an early indication of run strength and species composition. As stated earlier, sonar units were deployed in the Susitna River in 1976 near Susitna Station with encouraging results.

Management Summary

the commercial fishery for 1976 opened with relatively high catches reported from the Western subdistrict, Kalgian Island and the Coho-Ninilchik beaches of the Upper subdistrict. An extra 12 hour period was announced for Wednesday, 30 June, for the Western subdistrict for both set and drift gillnetting, although there was no significant drift effort until Friday, 2 July. The Northern district fishery opened Friday, 2 July. Escapement into the Kenai and Kasilof Rivers were above average for this date.

All areas received an extra 12 hour fishing period on Wednesday, 7 July because of the large strong catches and good escapement of sockeye salmon during the first week of July. Expected weak returns of pink salmon and coho salmon due to arrive later in July dictated an early harvest on the strong return of sockeye salmon. The Wednesday, 7 July period produced good sockeye salmon catches on the eastside beaches south of Humpy Point and light but steady catches for the remainder of the Central District and the Northern District.

For the period 9 July to 15 July the majority of the catch was from the drift fleet which was concentrated east and south of Kalgian Island. Catches from the eastside beaches were light, and escapement was average with about 6,000 fish per day for the Kenai River and 4,000 fish per day for the Kasilof River. The test fishing project at the Susitna River indicated only minimal escapement into that system.

By 15 July, the milling school of sockeye salmon east of Kalgian Island apparently had begun to disperse and move toward the beaches. Catches at the Susitna River sampling station had increased significantly which indicated good numbers of sockeye were moving into that river.

Few sockeye salmon had passed through the Fish Creek weir by 15 July, although fish were observed at the mouth of the creek. It was felt the fish were not entering the stream due to the unusually warm water temperatures of Fish Creek.

By 20 July, it was determined that the escapement goals would be reached in both the Kenai and Kasilof Rivers. Peak escapement occurred on 19 July in the Kasilof River (Table 76-4) and on 20 July in the Kenai River (Table 76-3). The catch of sockeye on the east beach was excellent and especially strong on Salamatof Beach. The drift catch of sockeye salmon decreased on the 19 July period while the catch for other species remained about the same. The drift fleet was widely dispersed, indicating there were no large concentrations of sockeye salmon present in the Inlet.

The total catch of pink salmon and coho salmon was poor for the third week of July and the chum salmon catch was only fair. However, because it was believed there were excess sockeye salmon bound for the Kenai and Kasilof Rivers, Emergency Order #S-10-76 was issued on Friday, 23 July opening the Upper subdistrict of the Central District to set nets only for 24 hours from noon Saturday, 24 July until noon Sunday, 25 July.

An additional 12 hour period was announced for Wednesday, 28 July for the eastside beaches from Ninilchik to the Day Marker at the East Forelands. The remainder of the Upper Inlet remained closed as did the drift fishery.

Reasoning for this extra period was that the escapement goals had been reached in the Kenai and Kasilof Rivers and excess harvestable sockeye salmon remained in the Inlet. The majority of the catch from the eastside beaches during the previous two periods had been sockeye salmon. The pink salmon and coho salmon taken on these beaches were from the later return destined for the Kenai and Kasilof Rivers, and at that point were not of major concern to the management staff. The harvest from the other areas (drift fleet, Kalgin Island, westside and Northern District westside), in addition to sockeye salmon, consisted of chum salmon, early run pink salmon and coho salmon bound for streams in the Northern District. The catches of chum salmon and coho salmon had been small, an indication of potential weak returns of these species. The pink salmon catches were indicative of a stronger run than had been anticipated. However, run strength was still relatively weak and additional escapement was needed.

The eastside set nets of the Northern District were harvesting sockeye salmon bound primarily for Knik and Turnagain Arm streams. The sockeye salmon escapement indicator for that area was the weir on Fish Creek (Big Lake system). An attempt was being made to rebuild that sockeye salmon return, which had diminished drastically in recent years, due to overharvesting and the development around the Big Lake system. The escapement goal for Fish Creek had been set at a minimum of 20,000 sockeye salmon. The Fish Creek weir had passed only 6,500 sockeye salmon by 27 July, and no extra fishing time was announced for the set net fishery of the Northern District eastside. The regular period for Friday, 30 July was altered by closing drift fishing in the Kustatan subdistrict and that portion of the Upper subdistrict north of a line from the Kenai River to light House Point on Kalgin Island, until 2:00 p.m. (Emergency Order #S-12-76). The purpose of this closure was to provide additional protection for Susitna River bound chum and coho salmon. Northern District chum salmon catch was decreasing as was chum salmon escapement into the Susitna River. Set netting was allowed to continue in all areas. By reasoning that the tide sequence on 30 July would not be favorable for that gear type and therefore no restrictions were necessary.

Due to strong returns of coho salmon and chum salmon to the westside streams, the Western subdistrict was allowed a 12 hour fishing period for both set and drift gillnet gear on Wednesday, 4 August (Emergency Order #S-13-76).

Emergency Order #S-14-76 opened the eastside set nets at 6:00 p.m. on Sunday, 8 August to continue through the regular Monday period. The purpose of this opening was to target on coho salmon and pink salmon stocks bound for the Kenai and Kasilof River systems.

Emergency Order #S-15-76 issued by the Soldotna staff on Monday, 9 August opening the Northern and Central Districts to three days a week fishing effective Wednesday, 11 August. The Director of the Commercial Fisheries Division reversed the decision with Emergency Order #S-16-76 on Tuesday, 10 August, reinstating the standard Monday and Friday fishery for the Northern and Central Districts. Weak coho salmon and chum salmon returns in the Northern District prompted this reversal. In addition, the Chinitna Bay subdistrict was closed on Friday 13 August, due to inadequate chum salmon escapement into Clearwater Creek. The escapement into Clearwater Creek was approximately 1,000 fish by 5 August, and the 1976 desired escapement goal was 20,000 chum salmon into that system with a minimum goal of 10,000 fish.

Emergency Order #S-17-76 opened the Upper subdistrict to set gill netting from 6:00 A.m. Thursday, 12 August, through the regular Friday period. The intent of this opening was to target on pink salmon and coho salmon bound for the Kenai and Kasilof Rivers. That portion of Emergency Order S-16-76 which closed Chinitna Bay subdistrict on 13 August was rescinded by Emergency Order #S-18-76 after aerial surveys flown on Thursday, 12 August showed chum salmon escapement was progressing satisfactorily in Clearwater Creek.

Emergency Order #S-19-76 granted an extra Wednesday period on 18 August for the Upper subdistrict set nets and for all legal gear types in the Western and Chinitna Bay subdistricts. The strong coho salmon, chum salmon and pink salmon returns in the Central District were the target of this opening.

Emergency Order #S-20-76 issued on 20 August opened the Upper subdistrict to set nets, and the Western and Chinitna Bay subdistricts to all legal gear types on Wednesdays, until further notice, to target on the strong local chum salmon and coho salmon stocks.

The Northern District, Kustatan, Kalgin Island, and Upper subdistrict were closed for the season on Friday, 27 August to protect coho salmon. This action was based on the Commissioner of Fish and Game's decision that any remaining harvestable coho should be allocated to the recreational users. However, after a meeting between the Commissioner and a group of commercial fishermen in the Soldotna, Upper subdistrict was reopened on Monday, 6 September for two 12-hour periods per week, until further notice.

The poor coho salmon return to the Northern District in 1976 in conjunction with the targeting of the eastside set nets on local coho salmon stocks was the primary reason for the Cook Inlet sport fishing groups demand for protective action for coho salmon by the Board of Fisheries. These demands generated the 1977 coho salmon management plan and were the driving force behind the 1978 Upper Cook Inlet Salmon Management Plan.

Subsistence

A total of 111 subsistence permits was issued in 1976. Permit holders reported a catch of 714 salmon, 567 of which were coho salmon. Appendix Table 11 lists the subsistence catch by district and species for the years 1971-1976.

HERRING

There were six emergency orders and one emergency regulation issued during the 1976 commercial herring season (Table 76-8). A decision was made to close the Southern, Outer and Eastern Districts prior to the season and to await the arrival of sufficient numbers of herring present before any openings would occur. The Central and Kamishak Districts remained open. The fishery began on 13 May in the Kamishak District, and a quota of 4,000 tons was reached on 21 May. At that time there were still large number of herring in the district and the management staff felt that an additional 500 to 1,000 tons could be taken. Permission was received from the Board of Fisheries on 28 May for an additional harvest. Relocation of the herring schools and establishment of areas for the fishery were accomplished, and at that time the decision was made that an additional 700 tons of herring could be taken. The fishery was opened on 2 June and 756 tons were taken, which brought the total harvest in

the Kamishak District to 4,842 tons.

Large quantities of herring appeared in the Southern District for the first time in 5 years. An estimated 3,500 tons were observed in the district, however, samples taken from the various schools showed that most of these fish were of poor roe quality and no fishery was opened. Few herring were observed in the Outer or Eastern Districts during 1976. A small bait fishery occurred in the Central District and a total of six tons was taken. Table 76-7 lists the 1976 catch by district and date.

Appendix Table 12 lists the comparative annual district catch since 1961. The 1976 seine effort increased 65% over the 1975 seine effort, which represents nearly a sevenfold increase since the fishery began in 1969 (Appendix Table 13). It was felt that if effort continued to increase at this rate, the fishery would become very difficult to manage.

A deficiency showed in the age composition of the Kamishak fish as the 1971 and 1972 brood classes (4 and 5 year olds) appeared to be very weak. Normally 4 and 5 year old fish would make up about 35 percent of the Kamishak harvest, but in 1976 approximately three percent of the harvest was composed of these age classes. The problem was expected to become more acute, in 1977, as these age classes would normally be expected to produce 60-70 percent of the harvest. There appeared to be ample numbers of fish and sufficient spawning to justify the harvest in the Kamishak District during 1976. However, a recommendation was made to the Board of Fisheries that caution should be exercised for the next two or three seasons to allow weak year classes to move through the fishery.

RAZOR CLAMS

There was no commercial harvest of razor clams reported in Cook Inlet for the 1976 season.

UPPER COOK INLET SALMON DISTRICTS 1976

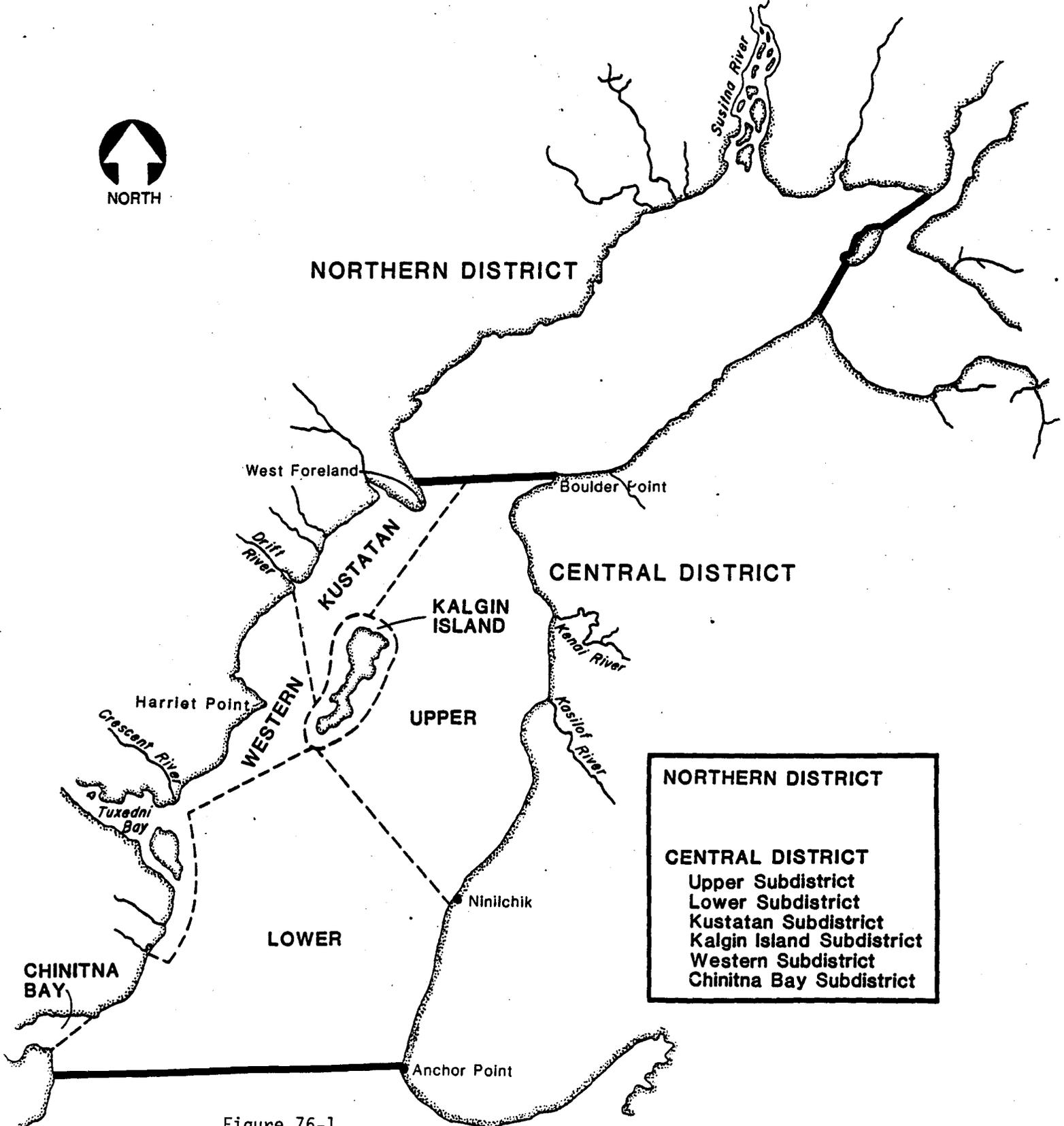


Figure 76-1

Table 76-1. Field announcement summary Upper Cook Inlet salmon, 1976.

Base Time: Two 12 hour periods per week,
6 a.m. to 6 p.m. Monday and Friday

Emergency Order	Date	Description
S-07-76	6/30	Additional 12 hour period for Western subdistrict for sockeye salmon.
S-08-76	7/7	Additional 12 hour period area wide for sockeye salmon.
S-09-76	7/21	Additional 12 hour period area wide for sockeye salmon and early run pink salmon.
S-10-76	7/24	Additional 24 hour period for east side Central District set nets for Kenai and Kasilof River sockeye salmon. Other areas remained closed to protect weak Northern District coho salmon and chum salmon stocks.
S-11-76	7/28	Additional 12 hour period for east side Central District set nets. Same reasoning as S-10.
S-12-76	7/30	Restricted drift fleet to 6 hour period in Kustatan subdistrict and that portion of Upper subdistrict north of latitude of south Kalgin light to protect weak Northern District coho salmon and chum salmon. Other drift areas and all set net areas open for regular 12 hour period.
S-13-76	8/4	Additional 12 hour period in Western subdistrict for chum salmon and coho salmon.
S-14-76	8/8	Additional 12 hour period for east side Central District set nets for Kenai and Kasilof pink salmon and coho salmon.
S-15-76	8/11	Additional 12 hour period per week until further notice for Northern and Central District.
S-16-76	8/11	Closed regular 12 hour period on 8/13 in Chinitna Bay to protect apparent weak chums and recinded S-15 due to weak coho salmon and chum salmon runs in Northern District.
S-17-76	8/12	Additional 36 hours fishing for east side Central District set nets for Kenai, Kasilof pink salmon and coho salmon.
S-18-76	8/13	Restored 12 hour period in Chinitna Bay closed by S-16 as chum escapements began to pink up.
S-19-76	8/18	Additional 12 hour period for east side Central District set nets for Kenai, Kasilof pink salmon and coho salmon and for Western and Chinitna subdistricts to all legal gear for local chum salmon and coho salmon. drift nets in Upper subdistrict and all gear in Kustatan subdistricts and Northern District remained closed to protect Northern District coho salmon stocks.
S-20-76	8/20	Additional 12 hour period per week until further notice for east side Central District set nets for Kenai, Kasilof coho salmon and for Western and Chinitna subdistrict to all legal gear for local chum salmon and coho salmon stocks.
S-21-76	8/27	Closed Northern District, and Kustatan, Kalgin Island and Upper subdistricts for the season to protect coho salmon stocks.
S-22-76	9/4	Open east side Central District set net to two 12 hour periods per week until further notice for Kenai, Kasilof coho salmon.

Table 76-2. Upper Cook Inlet commercial salmon catch by period and species, 1976.

Period Number	Period Date	Species					Total	
		Chinook	Sockeye	Coho	Pink	Chum	Period	Total
		Period	Period	Period	Period	Period	Period	Total
1	6/25	764	10,257	5	12	109	11,147	11,147
2	6/28	641	15,519	19	19	188	16,386	27,533
3	6/30	94	3,069	6	4	6	3,179	30,712
4	7/02	540	27,122	295	235	3,375	31,567	62,279
5	7/05	1,060	66,802	599	720	12,652	81,833	144,112
6	7/07	622	97,863	803	2,171	13,787	115,246	259,358
7	7/09	760	152,725	2,356	5,662	18,106	179,609	438,967
8	7/12	1,005	229,832	7,628	27,001	47,357	312,833	751,800
9	7/16	1,144	337,073	12,826	77,278	53,940	482,261	1,234,061
10	7/19	859	283,806	20,534	119,279	49,940	474,418	1,708,479
11	7/21	630	136,838	16,765	105,527	40,261	300,021	2,008,500
12	7/23	381	142,173	21,779	195,650	32,626	392,609	2,401,109
13	7/24	164	12,941	1,208	10,269	694	25,276	2,426,385
14	7/25	444	20,716	2,258	15,957	133	39,508	2,465,893
15	7/26	452	76,182	33,296	136,374	45,309	291,613	2,757,506
16	7/28	231	14,253	3,317	31,986	69	49,856	2,807,362
17	7/30	371	26,553	22,355	116,652	44,599	210,530	3,017,892
18	8/02	305	5,909	15,205	75,419	30,817	127,655	3,145,547
19	8/04	12	212	1,395	472	3,396	5,487	3,151,034
20	8/06	95	1,465	4,821	78,855	26,875	112,111	3,263,145
21	8/08	7	44	347	4,114	0	4,512	3,267,657
22	8/09	116	1,402	8,188	119,709	17,433	146,848	3,414,505
23	8/12	43	218	2,431	34,295	13	37,000	3,451,505
24	8/13	54	523	5,059	59,284	12,489	77,409	3,528,914
25	8/14	14	92	729	13,385	299	14,519	3,543,433
26	8/16	22	235	3,945	15,754	7,933	27,889	3,571,322
27	8/18	12	74	2,743	4,132	3,036	9,997	3,581,319
28	8/20	12	114	3,546	3,464	2,478	9,614	3,590,933
29	8/23	4	59	3,206	2,419	1,371	7,059	3,597,992
30	8/25	3	24	1,516	305	220	2,068	3,600,060
31	8/27	5	8	817	237	52	1,119	3,601,179
32	8/30	0	6	664	33	93	796	3,601,975
33	9/01	0	4	592	15	62	673	3,602,648
34	9/03	0	1	563	13	29	606	3,603,254
35	9/06	1	0	1,765	17	36	1,819	3,605,073
36	9/08	0	0	196	7	15	218	3,605,291
37	9/09	0	3	904	7	2	916	3,606,207
38	9/10	0	0	146	4	4	154	3,606,361
39	9/13	0	2	1,231	1	0	1,234	3,607,595
40	9/14	0	0	3	0	0	3	3,607,598
41	9/15	0	0	108	1	0	109	3,607,707
42	9/16	0	1	1,011	5	1	1,018	3,608,725
43	9/17	0	0	9	0	0	9	3,608,734
44	9/20	0	0	557	0	1	558	3,609,292
45	9/23	0	0	442	0	0	442	3,609,734
46	9/27	0	1	151	0	0	152	3,609,886
47	9/30	0	0	226	0	0	226	3,610,112
Total		10,867	1,664,131	208,565	1,256,743	469,809		3,610,112

Table 76-3. Daily and cumulative sockeye salmon escapement counts into the Kenai River, 1976.

Day	Month/Day	Daily Count	Cumulative Count
1	6/20	1,464	1,464
2	6/21	1,098	2,562
3	6/22	884	3,446
4	6/23	1,243	4,689
5	6/24	1,923	6,612
6	6/25	1,184	7,796
7	6/26	1,656	9,452
8	6/27	1,155	10,607
9	6/28	898	11,505
10	6/29	1,156	12,661
11	6/30	971	13,632
12	7/01	1,424	15,056
13	7/02	1,487	16,543
14	7/03	1,758	18,301
15	7/04	1,626	19,927
16	7/05	2,450	22,377
17	7/06	3,749	26,126
18	7/07	3,510	29,636
19	7/08	4,511	34,147
20	7/09	6,640	40,787
21	7/10	5,367	46,154
22	7/11	6,287	52,441
23	7/12	10,159	62,600
24	7/13	3,613	66,213
25	7/14	4,123	70,336
26	7/15	8,900	79,236
27	7/16	13,173	92,409
28	7/17	6,189	98,598
29	7/18	8,910	107,508
30	7/19	25,836	133,344
31	7/20	73,364	206,708
32	7/21	58,314	265,022
33	7/22	29,154	294,176
34	7/23	10,636	304,812
35	7/24	11,198	316,010
36	7/25	8,885	324,895
37	7/26	7,061	331,956
38	7/27	8,529	340,485
39	7/28	6,075	346,560
40	7/29	5,696	352,256
41	7/30	4,350	356,606
42	7/31	5,470	362,076
43	8/01	2,170	364,246
44	8/02	1,615	365,861
45	8/03	2,203	368,064
46	8/04	3,312	371,376
47	8/05	2,982	374,358
48	8/06	1,517	375,875
49	8/07	1,733	377,608
50	8/08	341	377,949
51	8/09	434	378,383
52	8/10	522	378,905
53	8/11	198	379,103
54	8/12	352	379,455
55	8/13	540	380,000

Table 76-4. Daily and cumulative sockeye salmon escapement counts into the Kasilof River, 1976.

Day	Month/Day	Daily Count	Cumulative Count
1	6/26	187	187
2	6/27	253	440
3	6/28	326	766
4	6/29	285	1,051
5	6/30	294	1,345
6	7/01	963	2,308
7	7/02	1,208	3,516
8	7/03	1,808	5,324
9	7/04	2,173	7,497
10	7/05	2,247	9,744
11	7/06	10,582	20,326
12	7/07	8,571	28,897
13	7/08	7,510	36,407
14	7/09	4,766	41,173
15	7/10	3,809	44,982
16	7/11	3,185	48,167
17	7/12	3,975	52,138
18	7/13	6,616	58,754
19	7/14	5,864	64,618
20	7/15	4,722	69,340
21	7/16	6,961	76,301
22	7/17	4,687	80,988
23	7/18	3,114	84,102
24	7/19	11,469	95,571
25	7/20	11,287	106,858
26	7/21	6,119	112,977
27	7/22	3,624	116,601
28	7/23	2,773	119,374
29	7/24	2,119	121,493
30	7/25	2,181	123,674
31	7/26	1,579	125,253
32	7/27	2,051	127,304
33	7/28	2,153	129,457
34	7/29	1,711	131,168
35	7/30	1,200	132,368
36	7/31	1,466	133,834
37	8/01	1,281	135,115
38	8/02	1,127	136,242
39	8/03	1,156	139,398
40	8/04	565	137,963
41	8/05	1,009	138,972
42	8/06	28	139,000

Table 76-5. Peak sockeye salmon escapement counts in numerous index areas, Susitna River drainage, 1972-1976.

Index Area	Year				
	1972	1973	1974	1975	1976
Christmas Tree Creek	50	40	80	84	56
Coffee Creek	24	0	0	0	1/
Fish Lake	107	251	95	187	82
Hewitt Creek	137	67	94	30	17
Hewitt Lake	990	453	288	247	2,017
Huckleberry Creek	2/	512	369	328	182
Larson Lake 3/	300	20	19	63	85
Prairie Creek	202	21	37	49	81
Red Salmon Lake 3/	2/	250	160	142	376
Red Shirt Lake 3/	160	47	1	135	180
Role Jo Creek 3/	40	0	0	24	35
Shell Lake 3/	640	295	20	251	344
Slim Creek	63	195	195	176	69
Spring Creek	33	11	0	4	1/
Stephan Lake	166	234	78	212	381
"T" Creek	239	115	191	289	447
Talachulitna 3/4/	6,501	12,362	6,186	5,105	13,210
Trinity Lake 3/	350	75	0	0	42
Whiskey Lake	20	1	216	62	17
Index area escapement 5/	10,000	15,000	8,000	7,400	17,600

1/ Glacially occluded.

2/ No counts conducted.

3/ Survey counts conducted by aircraft.

4/ Includes all lakes and streams within the Talachulitna River drainage.

5/ Rounded to the nearest hundred fish.

Table 76-6. Peak sockeye salmon escapement counts in numerous minor system index areas, Northern District Cook Inlet, 1972-1976.

Index Area	Year				
	1972	1973	1974	1975	1976
Bodenburg Slough	464	252	171	164	111
Coal Creek 1/	1,250	0	0	0	0
Coal Creek Lake 1/	30	0	0	0	0
Fish Creek (Big Lake) 2/	6,981	2,705	16,225 5/	29,880	14,032
Nancy Lake	1,731	283	140	84	284
Williwaw Creek	3/	3/	48	51	81
Index Area Escapement 4/	10,500	3,200	16,600	30,200	14,500

1/ Survey counts conducted by aircraft.

2/ Total escapement as determined by weir counts.

3/ No counts conducted.

4/ Rounded to the nearest hundred fish.

5/ 2,609 ADULTS, 13,616 precocious males

Table 76-7. 1976 Cook Inlet herring catch, by district and date in tons. 1/

Week	Date	Eastern		Outer		Southern		Kamishak		Central		Total	
		Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum	Catch	Accum
20	5/13	No Fishery		No Fishery		No Fishery		47.2	47.2	0.3	0.3	47.5	47.5
	5/14							265.5	312.7	-	-	265.5	313.0
	5/15							646.8	959.5	0.5	0.8	647.3	960.3
21	5/16							122.5	1,082.0	1.0	1.8	123.5	1,083.8
	5/17							1,048.9	2,130.9	1.3	3.1	1,050.2	2,134.0
	5/18							372.8	2,503.7	2.2	5.3	375.0	2,509.0
	5/19							149.0	2,652.7	-	-	149.0	2,658.0
	5/20							829.9	3,482.6	-	-	829.9	3,487.9
	5/21							577.3	4,059.9	-	-	577.3	4,065.2
	5/22							27.5	4,087.4	-	-	27.5	4,092.7
22	5/28							-	-	0.6	5.9	0.6	4,093.3
23	6/02							755.7	4,843.1	-	-	755.7	4,849.0
Total Adjusted Catch 2/									4,842.2		5.8		4,848.0

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	Total Tons	# Deliveries	Gear Type
Kamishak	4,836.1	422	72 (Purse Seine)
Kamishak	6.12	1	1 (Set Net)
Central	5.8	7	4 (Set Net)
	4,848.0	430	72 (Purse Seine) 5 (Set Net)

1/ Daily totals are preliminary catch figures.

2/ Final catch figures.

Table 76-8. Field announcement summary of Cook Inlet herring, 1976.

Emergency Order	Date	Description
S-01-76	5/4	Closed the Eastern, Outer and Southern Districts through 30 June.
S-02-76	5/17	Closed Iniskin Bay portion of Kamishak District to protect against overharvest.
S-03-76	5/21	Closed entire Cook Inlet area to the taking of herring because the 4,000 harvest quota had been reached.
Emergency Regulation	5/28	Increased the guideline harvest level in Cook Inlet from 4,000 to 5,000 tons.
S-04-76	5/28	Opened Northern District and Central District north of the latitude of Ninilchik for herring from 28 May through 31 May to allow a limited harvest.
S-05-76	6/2	Opened that portion of the Kamishak District east of the longitude of the eastern tip of Iniskin Island from 9:00 a.m. to 1:00 p.m. on 2 June to allow for an additional harvest of 700 tons of herring.
S-06-76	6/2	Extend the opening described in S-05-76 until 10:00 p.m. on 2 June due to poor weather and fishing conditions during the initial time period.

Appendix Table 1. Commercial harvest of Upper Cook Inlet chinook salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	4	81	15
1967	6	92	2
1968	4	86	10
1969	3	74	23
1970	4	78	18
1971	1	50	49
1972	2	67	31
1973	5	92	3
1974	6	91	3
1975	5	92	3
1976	7	86	7
Average	4.3	80.8	14.9

Appendix Table 2. Commercial harvest of Upper Cook Inlet sockeye salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	60	33	7
1967	64	27	9
1968	51	35	14
1969	54	40	6
1970	63	28	9
1971	67	26	7
1972	58	32	10
1973	56	34	10
1974	54	37	9
1975	54	36	10
1976	57	38	5
Average	58.0	33.3	8.7

Appendix Table 3. Commercial harvest of Upper Cook Inlet coho salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	29	34	37
1967	30	42	28
1968	36	27	37
1969	36	37	27
1970	41	27	32
1971	35	40	25
1972	28	46	26
1973	30	38	32
1974	41	32	27
1975	40	43	17
1976	38	40	22
Average	34.9	36.9	28.2

Appendix Table 4. Commercial harvest of Upper Cook Inlet pink salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	29	51	20
1967	23	48	29
1968	39	36	25
1969	25	47	28
1970	42	37	21
1971	21	50	29
1972	18	66	16
1973	28	28	44
1974	29	61	10
1975	35	37	29
1976	48	40	12
Average	30.6	45.6	23.8

Appendix Table 5. Commercial harvest of Upper Cook Inlet chum salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	82	2	16
1967	82	7	11
1968	92	2	6
1969	90	6	4
1970	90	7	3
1971	84	10	6
1972	90	7	3
1973	93	2	5
1974	87	4	9
1975	93	4	3
1976	87	10	3
Average	88.2	5.5	6.3

Appendix Table 6. Commercial harvest of Upper Cook Inlet salmon in percent by gillnet gear type, 1966-1976.

Year	Total UCI % Drift	Central District % Set Net	Northern District % Set Net
1966	47	37	16
1967	63	26	11
1968	53	27	20
1969	60	32	8
1970	62	25	13
1971	66	24	10
1972	54	35	11
1973	63	21	16
1974	53	35	12
1975	66	23	11
1976	57	35	8
Average	57.6	29.1	13.3

Appendix Table 7. Commercial catch of Upper Cook Inlet salmon in numbers of fish by species, 1954-1976.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1954	63,780	1,207,046	321,525	2,189,307	510,068	4,291,726
1955	45,926	1,207,528	170,777	101,680	248,343	1,594,254
1956	64,977	1,258,789	198,189	1,595,375	782,051	3,899,381
1957	42,158	643,712	125,434	21,228	1,001,470	1,834,002
1958	22,727	477,392	239,765	1,648,548	471,697	2,860,129
1959	32,651	612,676	106,312	12,527	300,319	1,064,485
1960	27,512	923,314	311,461	1,411,605	659,997	3,333,889
1961	19,737	1,162,303	117,778	34,017	349,628	1,683,463
1962	20,210	1,147,573	350,324	2,711,689	970,582	5,200,378
1963	17,536	942,980	197,140	30,436	387,027	1,575,119
1964	4,531	970,055	452,654	3,231,961	1,079,084	5,738,285
1965	9,741	1,412,350	153,619	23,963	316,444	1,916,117
1966	9,541	1,851,990	289,690	2,006,580	531,825	4,689,626
1967	7,859	1,380,062	177,729	32,229	296,037	1,894,716
1968	4,536	1,104,904	470,450	2,278,197	1,119,114	4,977,201
1969	12,398	692,254	100,952	33,422	269,855	1,108,881
1970	8,348	731,214	275,296	813,895	775,167	2,603,920
1971	19,765	636,303	100,636	35,624	327,029	1,119,357
1972	16,086	879,824	80,933	628,580	630,148	2,235,571
1973	5,194	670,025	104,420	326,184	667,573	1,773,396
1974	6,586	497,160	199,883	483,977	398,153	1,585,759
1975	4,773	678,736	221,547	335,629	950,981	2,191,666
1976	10,867	1,664,131	208,565	1,256,743	469,806	3,610,112

Appendix Table 8. Upper Cook Inlet sockeye salmon escapements, 1960-1976.

Year	Kenai Sonar	Russian Late Run Escapement 1/	Jean Creek Weir	Hidden Creek Weir	Kasilof Sonar	Packers Creek Weir	Fish Creek Weir	Talachulitna Tower	Susitna
1960	-	34,839	-	-	-	-	80,000	-	-
1961	-	18,669	-	-	-	-	40,000	-	-
1962	-	55,653	-	-	-	-	60,000	-	-
1963	-	51,100	-	-	-	-	105,000	-	-
1964	-	46,921	-	-	-	-	65,000	-	-
1965	-	21,459	-	-	-	-	16,544	-	-
1966	-	34,521	-	-	-	-	41,312	-	-
1967	-	49,458	-	-	-	-	22,264	-	-
1968	88,000	48,862	-	-	89,000	-	20,000	-	-
1969	53,000	30,020	-	-	46,000	-	6,233	-	-
1970	73,000	28,420	-	-	38,000	-	19,881	-	-
1971	300,000 2/	64,430	-	1,958	90,000 2/	-	31,470	-	-
1972	317,000	85,000	-	4,956	113,000	-	6,981	15,730	-
1973	367,000	31,660	-	690	40,000	7,477	2,705	19,727	-
1974	161,000	26,860	1,199	Not Counted	70,000	1,454	16,225	15,976	-
1975	142,000	32,660	-	Not Counted	48,000	883	29,880	Not Counted	108,000 3/
1976	380,000	35,420	-	4,850	139,000	124	14,032	Not Counted	111,000 4/

1/ Tower counts 1960-1968, weir counts 1969-1976 (includes weir counts and escapement below falls).

2/ Estimates, sonar counters malfunctioned during 1971.

3/ Mark-recapture estimate (index only).

4/ MTS sonar estimate (index only).

Appendix Table 9. Upper Cook Inlet commercial fishing effort 1960-1976.

Expressed in number of gear license holders landing salmon.

Year	Set Gillnet	Drift Gillnet	Year	Set Gillnet	Drift Gillnet
1960	558	288	1968	632	599
1961	590	372	1969	462	608
1962	513	352	1970	522	625
1963	500	417	1971	436	463
1964	606	460	1972	495	457
1965	457	487	1973	488	462
1966	616	489	1974	555	540
1967	491	521	1975	530	438
			1976	521	472

Appendix Table 10. Exvessel value of Upper Cook Inlet commercial salmon harvest in thousands of dollars by species, 1960-1976.

Year	King	Sockeye	Coho	Pink	Chum	Total
1960	140	1,334	307	663	343	2,787
1961	100	1,687	118	16	204	2,125
1962	100	1,683	342	1,274	582	3,981
1963	89	1,388	193	13	236	1,919
1964	20	1,430	451	1,131	646	3,687
1965	50	2,099	109	70	230	2,558
1966	50	2,727	295	823	338	4,233
1967	49	2,135	187	13	202	2,586
1968	30	1,758	515	1,209	843	4,355
1969	70	1,231	109	23	204	1,637
1970	49	1,135	354	387	745	2,670
1971	189	1,102	143	22	316	1,772
1972	179	1,980	224	478	1,214	4,075
1973	97	2,587	255	330	1,449	4,718
1974	194	2,987	923	955	1,583	6,642
1975	68	2,680	847	418	2,747	6,760
1976	269	8,648	837	1,876	1,985	13,615

Appendix Table 11. Upper Cook Inlet subsistence fishery by district and species 1971-1976.

District	Chinook	Sockeye	Coho	Pink	Chum	Total	Permits Issued
<u>1971 Catch by Species</u>							
Northern	-	-	10	-	-	10	9
Central	-	-	138	-	-	138	28
Total	-	-	148	-	-	148	37
<u>1972 Catch by Species</u>							
Northern	-	4	23	10	15	52	9
Central	-	-	32	17	-	49	21
Total	-	4	55	27	15	101	30
<u>1973 Catch by Species</u>							
Northern	-	24	104	3	37	168	19
Central	-	11	228	9	-	248	104
Total	-	35	332	12	37	416	123
<u>1974 Catch by Species</u>							
Northern	-	13	27	-	1	41	12
Central	1	1	264	17	1	284	97
Total	1	14	291	17	2	325	109
<u>1975 Catch by Species</u>							
Northern	-	-	68	-	14	82	17
Central	1	4	591	8	78	682	97
Total	1	4	659	8	92	764	114
<u>1976 Catch by Species</u>							
Northern	-	6	111	24	5	146	21
Central	-	15	456	89	8	568	90
Total	-	21	567	113	13	714	111

Appendix Table 12. Cook Inlet herring catches in tons by district, 1961-1976.

Year	Southern	Kamishak	Eastern	Outer	Central	Northern	Total
1961	0	0	0.6	0	0	0	0.6
1962	0	0	0	0	0	0	0
1963	0.8	0	0	0	0	0	0.8
1964	0.2	0	0	0	0	0	0.2
1965	1.6	0	0	0	0	0	1.6
1966	0	0	6.6	0	0	0	6.6
1967	0	0	0	0	0	0	0
1968	20.0	0	0	0	0	0	20.0
1969	550.5	0	758.0	38.0	0	0	1,346.5
1970	2,708.7	0	2,100.3	0	0	0	4,809.0
1971	12.5	0	831.0	0	0	0	843.5
1972	1.0	0	30.0	0	0	0	31.0
1973	203.8	243.1	830.8	300.5	13.9	0	1,592.1
1974	109.7	2,113.7	47.2	384.0	36.2	0.5	2,691.3
1975	24.4	4,118.6	0	0	6.2	0	4,149.2
1976	0	4,842.2	0	0	5.8	0	4,848.0
Average	330.3	2,829.4	575.6	240.8	15.3	0.5	1,452.9

Appendix Table 13. Cook Inlet herring effort, 1969-1976.

	Southern	Outer	Eastern	Kamishak	Central	Total
<u>1969</u>						
Landings	41	1	32	0	0	74
Vessels	5	1	7	0	0	11
<u>1970</u>						
Landings	104	0	81	0	0	185
Vessels	11	0	11	0	0	18
<u>1971</u>						
Landings	4	0	129	0	0	133
Vessels	3	0	20	0	0	23
<u>1972</u>						
Landings	1	0	14	0	0	15
Vessels	1	0	5	0	0	6
<u>1973</u>						
Landings	20	19	53	33	15	140
Vessels	12	7	22	9	6 1/	30
<u>1974</u>						
Landings	20	91	18	127	58	314
Vessels	7	22	10	26	12 1/	42
<u>1975</u>						
Landings	9	0	0	294	11	315
Vessels	5	0	0	39	1 1/	44
<u>1976</u>						
Landings	0	0	0	422 + 1	7	430
Vessels	0	0	0	1 1/ + 72 2/	4 1/	72

1/ Set Nets
2/ Purse Seine

Appendix Table 14. Commercial harvest of razor clams in Cook Inlet, 1919-1976.

Year	Number of Pounds	Year	Number of Pounds
1919	76,968	1948	2,160
1920	11,952	1949	9,672
1921	72,000	1950	304,073
1922	510,432	1951	112,320
1923	470,280	1952	0
1924	156,768	1953	0
1925	0	1954	0
1926	0	1955	0
1927	25,248	1956	0
1928	0	1957	0
1929	0	1958	0
1930	0	1959	0
1931	No Record	1960	372,972
1932	93,840	1961	277,830
1933	No Record	1962	195,650
1934	No Record	1963	0
1935	No Record	1964	0
1936	No Record	1965	0
1937	8,328	1966	0
1938	No Record	1967	0
1939	No Record	1968	0
1940	No Record	1969	0
1941	0	1970	0
1942	0	1971	15,171
1943	0	1972	32,166
1944	0	1973	56,759
1945	15,000	1974	No Record
1946	11,424	1975	10,020
1947	11,976	1976	No Record