

ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES

ANNUAL
FINFISH MANAGEMENT REPORT
-1980-
LOWER COOK INLET

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PREFACE

The 1980 Lower Cook Inlet Annual Management Report is the first annual report written covering the "off-cycle" even-year salmon returns to the lower inlet since 1974. The new format closely follows the 1981 report format with a slight reduction in tables and appendix tables. All even-year reports will be considerably reduced in the future, except for the written description of the fishery.

The extensive reorganization of this report represents our continuing efforts to update and standardize all data available in the Lower Cook Inlet salmon fishery and to eliminate the backlog of annual reports. The fishery statistics in this report supercede all information contained in reports prior to 1975 and an effort has been made to standardize the data with data contained in the Cook Inlet Stock Status Report by Ken Middleton, 1981.

This report contains no confidential information and may be distributed to the public if desired. Corrections or comments on the contents of this report should be directed to the area office in Homer.

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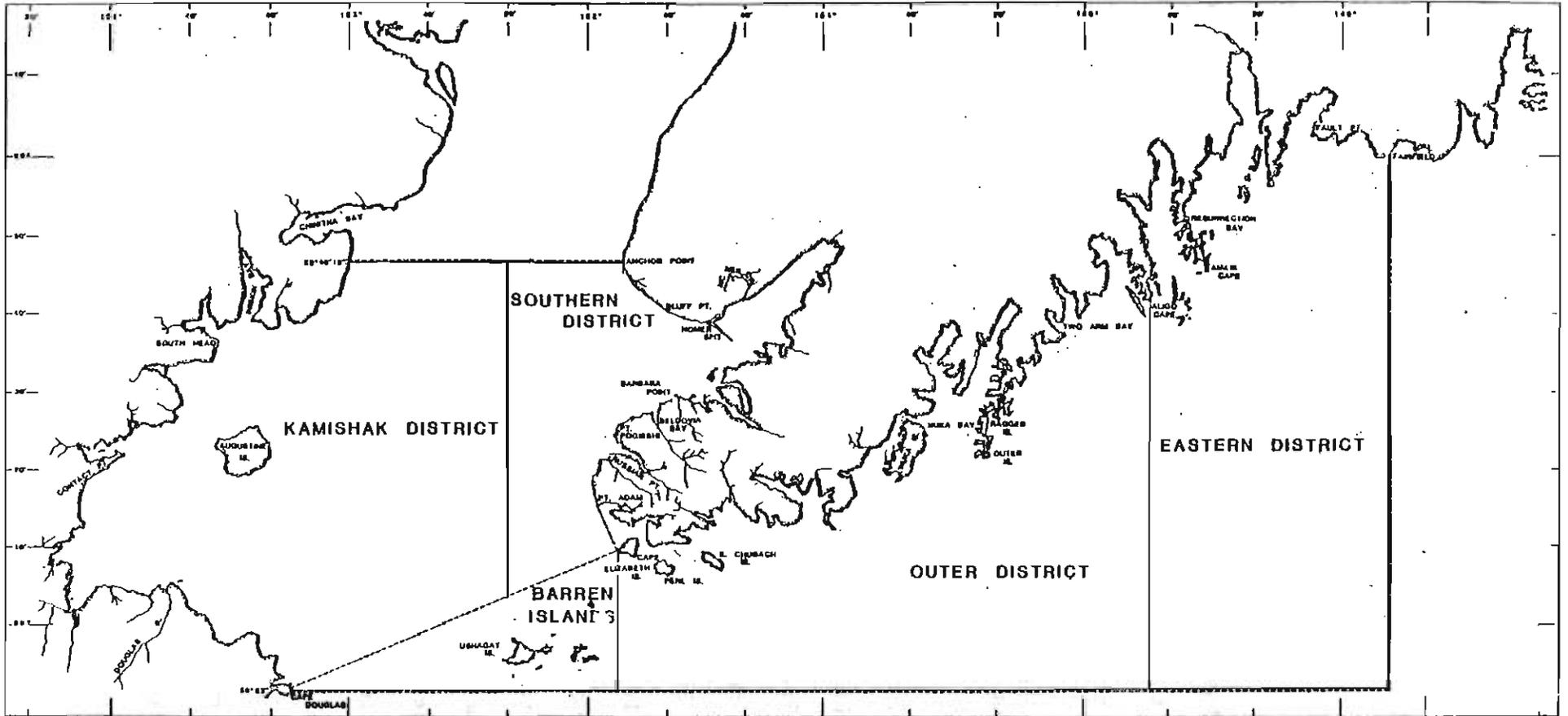


Figure 1. Lower Cook Inlet Management Area.

ANNUAL MANAGEMENT REPORT

LOWER COOK INLET

-1980-

INTRODUCTION

The Lower Cook Inlet management area is comprised of all the waters west of the longitude of Cape Fairfield, north of the latitude of Cape Douglas and south of the latitude of Anchor Point. The area has been divided into five fishing districts all of which are salmon producers except for the Barren Islands district, which is primarily a shellfish district (Figure 1). The remaining four districts have been further divided into 22 subdistricts to facilitate management of discrete stocks of salmon (Figures 2-4).

The 1980 Lower Cook Inlet salmon catch of 1,047,842 was comprised of 401 king, 66,360 sockeye, 11,411 coho, 894,819 pink and 74,851 chum salmon (Table 1). The harvest was 29 percent above the 27 year average harvest for all species (Table 15 and Figure 8). The sockeye harvest was 50% above average due to a strong return to China Foot Bay from a return to a lake stocking program and a higher than projected harvest of sockeye in the Nuka Bay area (Figure 9 and Table 24). The pink salmon harvest was 39% above average and the harvest was highlighted by another excellent pink salmon return to the Tutka Bay hatchery, which resulted in a catch of 321,513, a record harvest of 156,763 pink salmon in Resurrection Bay and an exceptionally good pink salmon return to Bruin Bay (Tables 5 and 11).

The fishery generally saw good returns to all districts, but due to the timing of the various runs, the fleet never dispersed and remained concentrated in various bays throughout the season. The peak of the

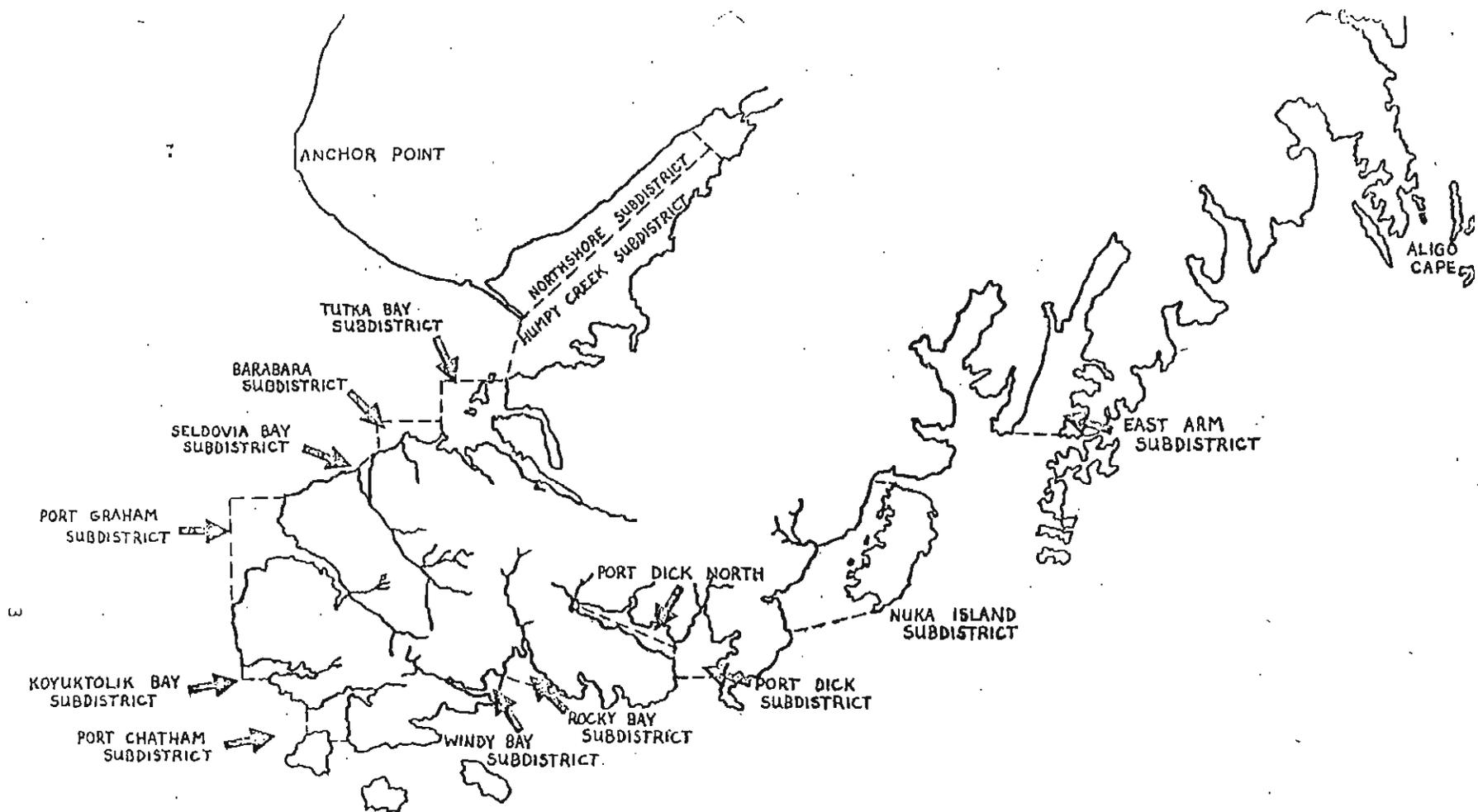


Figure 2. Salmon fishing subdistricts in the Southern and Outer districts of Cook Inlet.

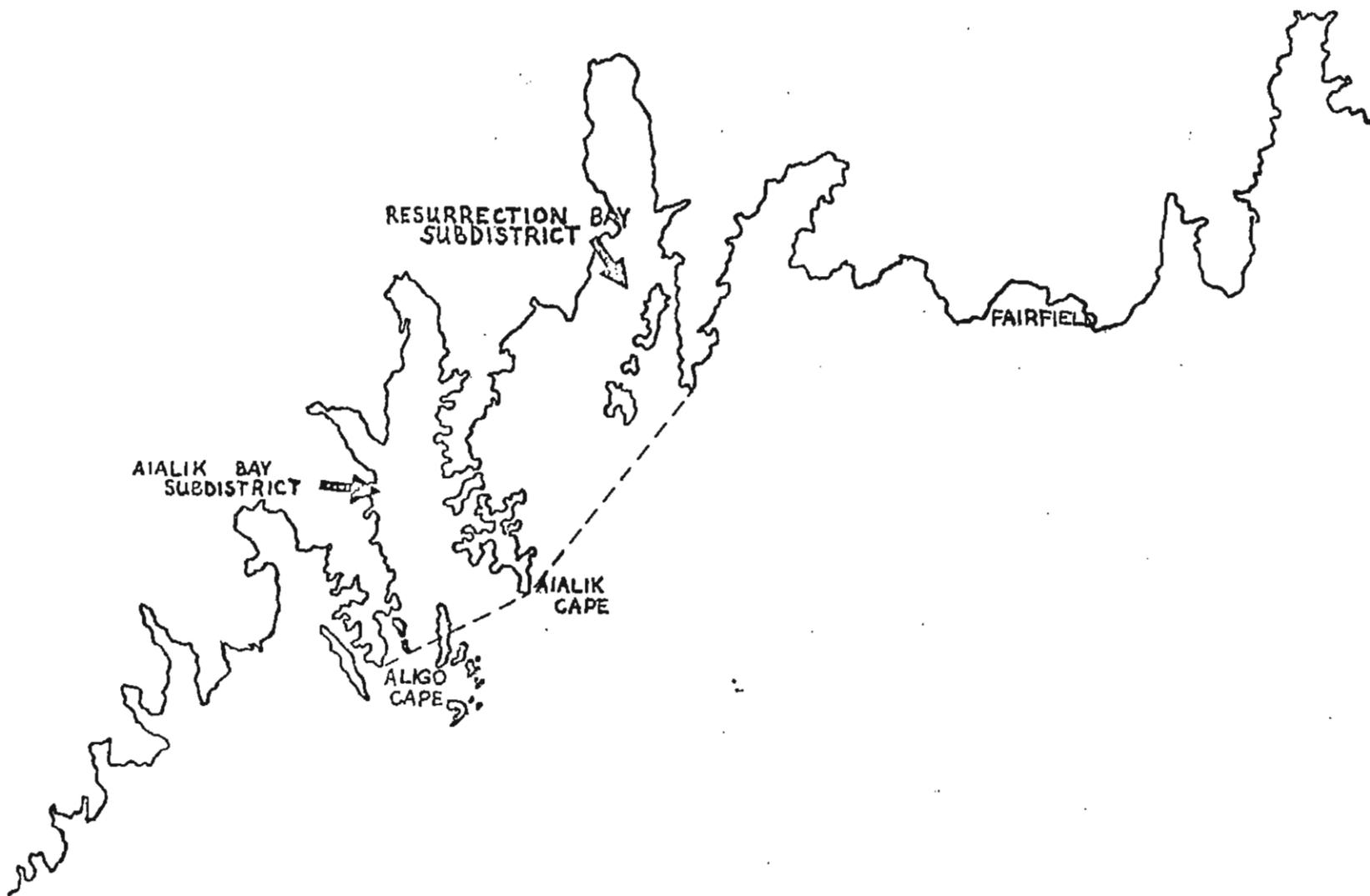


Figure 3. Salmon fishing subdistricts in the Eastern district of Cook Inlet.

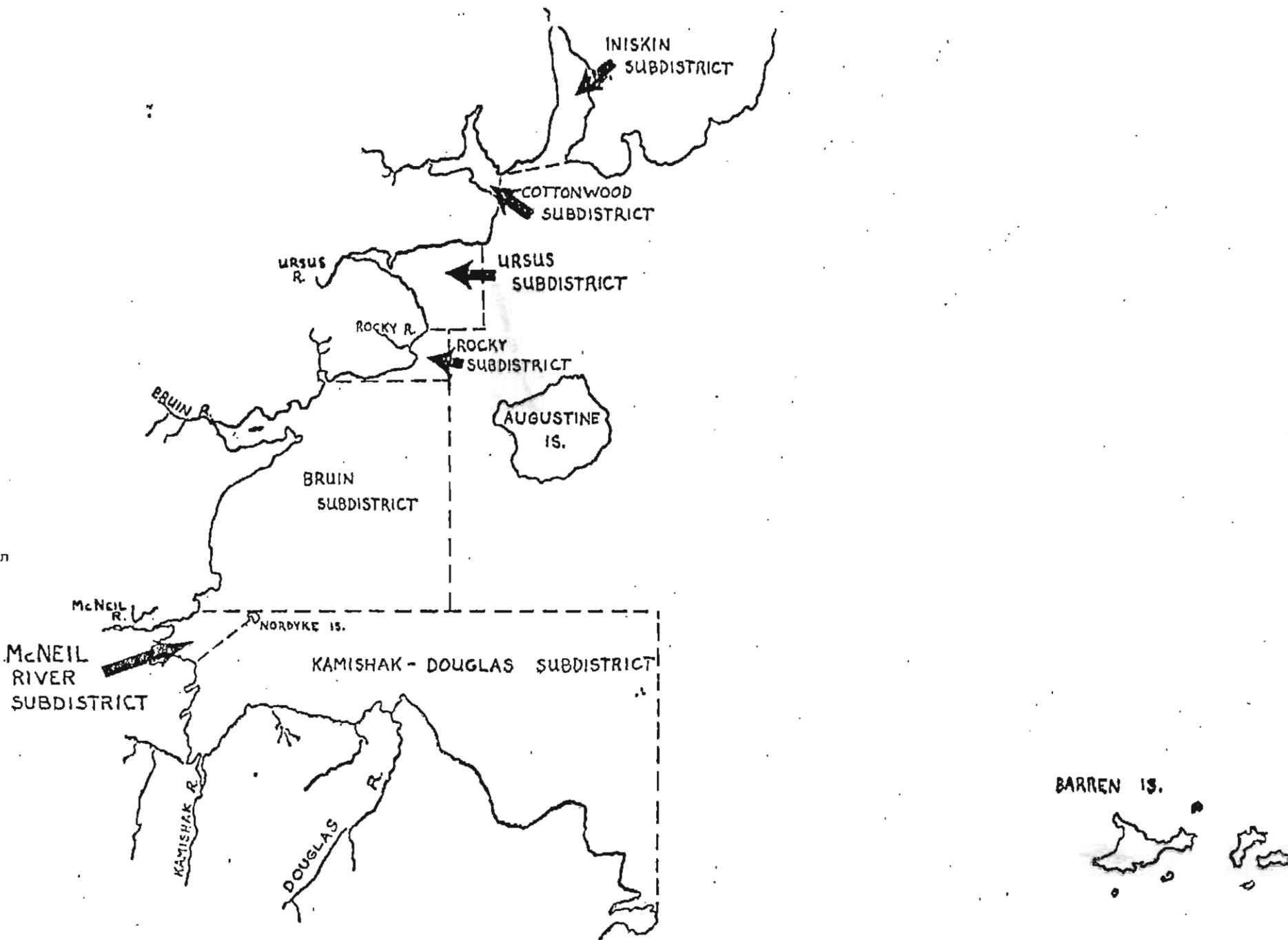


Figure 4. Salmon fishing subdistricts in the Kamishak Bay district of Cook Inlet.

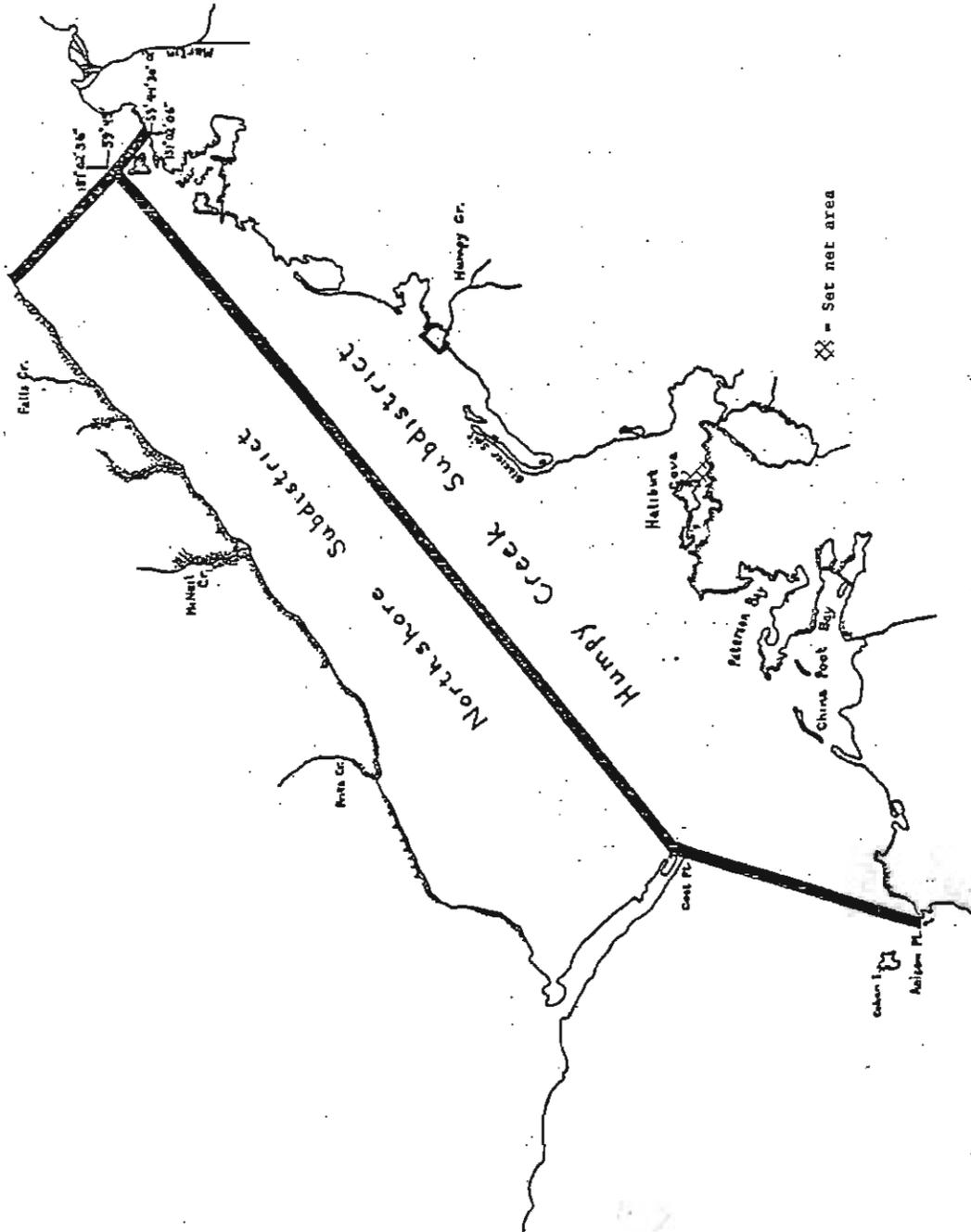


Figure 5 . Set net locations in the Humpy Creek Subdistrict of Lower Cook Inlet.

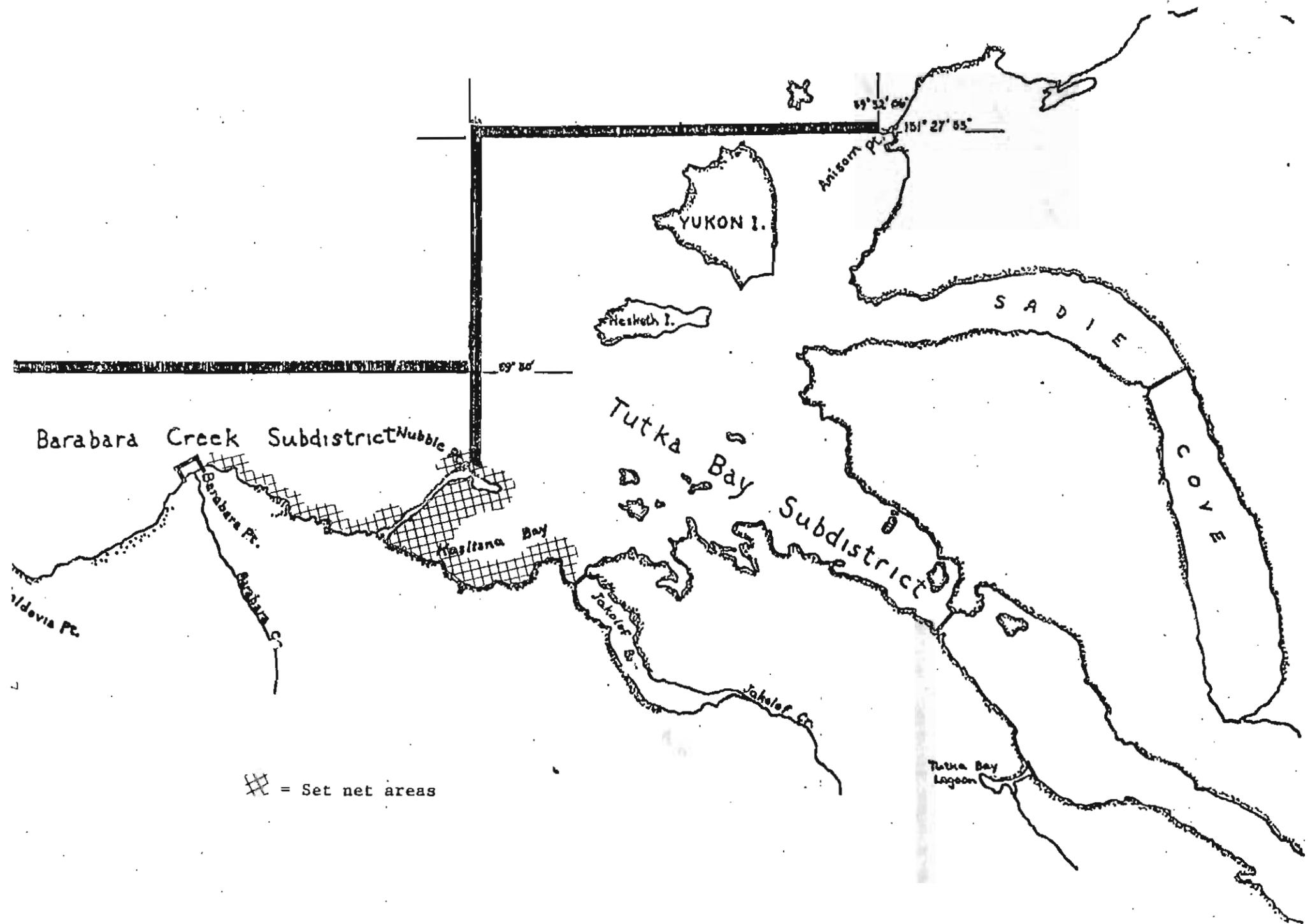
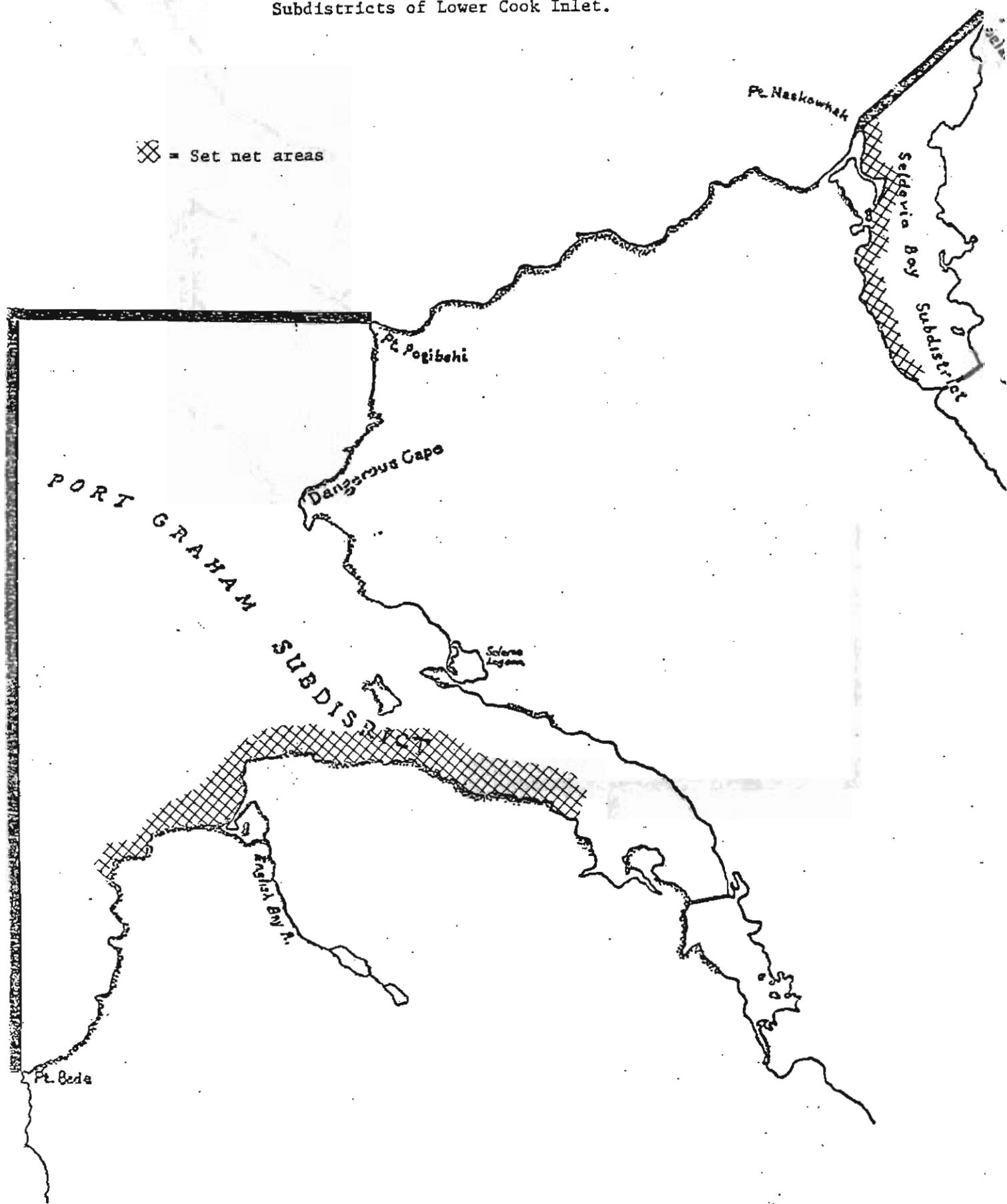


Figure 6 . Set net locations in the Tutka Bay and Barabara Creek Subdistricts of Lower Cook Inlet.

Figure 7. Set net locations in the Seldovia Bay and Port Graham Subdistricts of Lower Cook Inlet.



fishery saw approximately 33 set nets and 55 seine vessels participating; however, 83 of the 91 seine permits issued had fished by the end of the season. This was the highest "off-cycle year" vessel effort on record.

Adequate sockeye escapements were achieved in the major lake systems in the lower inlet. Excellent pink salmon escapements were achieved in all major spawning streams, except for Rocky River, and it appears that many streams in the Outer district have begun to recover from the severe environmental problems in the early 1970's (Tables 2 and 7 and Figure 11). Chum salmon returns were basically failures, when compared to the good escapements in 1976, and the 1980 escapements to many river systems were below average (Tables 3 and 8 and Figure 12).

The harvest had an ex-vessel value of \$1,769,000. While this was 65 percent above the average value for this fishery, it was 25 percent below the 1978 fishery value even though the harvest was 77 percent greater (Appendix Table 2). This was due to a shift in species between the 1978 and 1980 harvests, lower prices paid for sockeye salmon and lower average weights for sockeye, pink and chum salmon (Appendix Tables 3 and 4). The case pack of 415,833 was the fourth largest since 1960 and the fresh, frozen and cured production of 24,252,949 pounds was the second highest on record (Appendix Tables 5 and 6). These high productions were due primarily to large imports of sockeye from the Bristol Bay fishery and pink salmon from the Prince William Sound fishery.

SOUTHERN DISTRICT

Sockeye Salmon

The Southern district is the only area in Lower Cook Inlet where set gill nets are allowed to be used and, then, only in very limited areas along the southern shore of Kachemak Bay (Figures 5, 6 and 7). The set net season opens on the first Monday of June with fishing allowed on the standard two 48 hour weekly fishing periods from 6:00 a.m. Monday until 6:00 a.m. Wednesday and from 6:00 a.m. Thursday until 6:00 a.m. Saturday.

Sockeye and pink salmon comprise over 90 percent of the set net catch (Table 14). The set net fishery on sockeye salmon is primarily an "interception" fishery on fish headed to Upper Cook Inlet spawning systems. The English Bay Lakes sockeye return, the only major natural run in the Southern district, was very strong and the harvest of 16,500 in the Port Graham subdistrict was the third highest harvest in this subdistrict on record (Table 13). A good escapement estimated at 12,000 sockeye was achieved in this system.

An excellent sockeye return occurred to China Poot Bay to the outlet of Leisure Lake. In 1976, the F.R.E.D. Division began stocking the lake with fingerling sockeye salmon reared during the summer at Halibut Cove Lagoon. Over 32,000 smolt left the lake in 1977 and a return of 3,000-4,500 3-ocean adults was expected in 1980. Very few 2-ocean adults were expected in 1980 due to a disease problem with the stocked fingerling and the apparent lack of any large number of smolt leaving the lake in 1978.

China Poot Bay was opened to seining on June 26, along with Tutka Bay, in anticipation of the sockeye return and the fact that returning

adults would not be able to reach the lake due to a series of falls. The seine harvest of over 12,000 sockeye was excellent, but large numbers of fish moved through the seine fleet and into the short 150 yards of stream below the falls. A subsistence dipnet fishery was allowed in China Poot Creek from July 10=23, since snagging could not legally be permitted. A total of 220 permits were issued and the total reported harvest was 953 sockeye and 5 pink salmon.

The Southern district commercial harvest of 41,555 was the third highest on record and 53 percent above average (Table 16). The set net harvest of 28,089 was only 27 percent above average, but represented over 67 percent of the Southern district sockeye harvest (Tables 14 and 16).

Pink Salmon

The Southern district pink salmon harvest of 480,603 was double the average catch for this district since 1954 and was the largest even year catch for this district since 1962 (Table 16). The Tutka Bay return contributed over 66 percent of the Southern district pink salmon harvest with the Tutka Bay hatchery producing 329,933 pink salmon, or 80 percent of the return to that subdistrict (Tables 5 and 11). The harvest in Tutka Bay was below the 1979 record harvest for this area, but was still 13 times the post-earthquake average harvest of 25,000 before hatchery returns began in 1978 (Tables 10 and 11). The return represented survival rates of 5 percent and 2 percent for short-term reared and directly released fry respectively.

The pink salmon return to Tutka Bay began to build in late June. The subdistrict was opened to seining on June 26 in an attempt to concentrate the fleet in Tutka Bay and slow the buildup of fish in the lagoon. Fishing was allowed up to the mouth of Tutka Lagoon throughout the

season on the regular two 48 hour periods per week. The fleet was able to slow the buildup compared to past years, but the fishermen's strike for higher prices between July 2-7 allowed a large buildup of pink salmon in the lagoon.

The peak of the run to Tutka Bay on even years appears to be one or two weeks later than odd year returns. The 1980 return progressed along the 1978 run timing, considering the differences in run strength and management strategies, and appeared to peak during statistical week 29 (Table 6). Aerial surveys of the lagoon indicated a steady buildup of pinks and over 50,000 were observed on July 15. The first of three lagoon openings was allowed on July 18 after fish had been seined up for hatchery egg takes. Thirty-three boats were present for the 30 minute opening which produced 35,000 pinks (Table 6). The run lasted for a week longer than the 1979 return with the last harvest being taken on August 4 during the third lagoon opening.

Seldovia Bay was expected to have a strong pink salmon return because of above average fry levels in brood year 1978 (Table 9). The harvest of 75,000 was excellent and was the fourth highest on record for Seldovia Bay and the highest even year harvest since 1962 (Tables 10 and 11). Run timing in Seldovia was also about 10 days later than the 1979 odd-year run timing. Aerial surveys conducted on July 16 indicated that adequate numbers of pink salmon to meet escapement requirements had built up inside of the waters closed to fishing. The bay was opened on July 17 and fish continued to build warranting marker movements further in the bay on July 20 and 28. Fishermen were unable to stop the run and the final escapement of 65,500 was over 2 1/2 times the escapement goal and 64 percent above the average escapement for Seldovia River (Tables 2 and 7).

Port Graham Bay was not expected to have a strong pink salmon return in 1980 due to a low escapement in 1978 and average alevin densities (Tables 7 and 9). High water in the spring of 1979 prevented sampling all of Port Graham River and the 1980 return was larger than anticipated. The subdistrict was opened for 48 hours from July 24-26 and was then reopened on July 28 with markers moved all the way to the end of the bay. The harvest of 18,000 was slightly above average for the subdistrict and was 46 percent above the even year average harvest of 12,300 (Tables 10 and 11). The escapement of 40,200 was the highest on record for Port Graham and 2 1/2 times the average escapement (Table 7).

The Humpy Creek subdistrict was expected to have an average return because of an average escapement and below average alevin densities in 1978 (Tables 7 and 9). A weir, normally operated at Port Dick, was operated at Humpy Creek in 1980 to reevaluate average stream life data for pink salmon and to compare differences between aerial, ground and weir counts for future calibration of various escapement estimates.

The Humpy Creek subdistrict was opened to fishing for 24 hours on July 18 after aerial surveys indicated a strong movement of fish into the stream. Fishing was extended on July 21 on the standard weekly fishing periods. The escapement level built to over 30,000 and the markers were adjusted on July 28 to allow fishing up to the grass mound at the lower end of the intertidal spawning area. The final escapement of 64,400 was above the desired 45,000 escapement level and the harvest of 65,200 was average for even years (Tables 7 and 11).

Miscellaneous Species

Chum salmon are a relatively minor species in the Southern district with an average catch over the past 14 years of 5,000 (Table 16). This

Year's harvest of 4,376 was below average. The majority of the harvest came from Tutka Bay and Port Graham (Table 12). Chum salmon spawn in numerous small streams in the Southern district with the two largest spawning concentrations occurring in Port Graham and Seldovia Rivers. Escapements to these two streams were low (Tables 3 and 8).

The coho salmon harvest of 9,266 was excellent and was over 2 1/2 times the average harvest since 1954 (Table 16). Set nets accounted for over 81 percent of the harvest and the majority of the harvest occurred in the Port Graham subdistrict on returns to the English Bay Lakes system (Table 1).

OUTER DISTRICT

The salmon returns to the Outer district were poor when compared to the average or odd-year production, but when compared to even-year returns, the 1980 return was good. The total harvest was only 40 percent of the average for the district, but was the highest even-year harvest since 1970 and an 80 percent increase from 1978 (Table 17). The sockeye harvest of 22,577 was almost three times the average for the district (Table 17). Excellent escapements were achieved in many pink and chum salmon spawning systems and indicate substantial improvement in the even-year cycle returns.

Sockeye Salmon

The salmon return to the Outer district began with the sockeye return to Delight and Desire Lakes in the Nuka Bay area. The escapement to Desire Lake built on normal run timing with over 3,000 sockeye in the lake on June 27. An opening was announced for June 30, but due to slower run

timing of Delight Lake an additional one mile radius closure around the mouth of Delight Lake Creek had to be imposed.

The Desire Lake escapement continued to build and the markers were removed, allowing fishing up to the mouth of Desire Lake Creek, from 6:00 a.m. Thursday July 3 until 6:00 a.m. Wednesday July 16. An adequate escapement was finally reached at Delight Lake and the closure and markers were removed from 12:30 Monday July 14 until 6:00 a.m. Wednesday July 16. The subdistrict was closed on July 16 to protect arriving pink salmon, however, a 48 hour opening was allowed from July 24-26 to harvest additional sockeye salmon that had built up in the area. The total harvest of 21,500 was excellent for this area (Table 13) and escapements for Delight and Desire were estimated at 10,000 and 17,000 respectively.

Pink Salmon

The even-year pink salmon return has been severely depressed from the results of the 1964 earthquake and the extremely cold environmental conditions of the early 1970's. Virtually entire closures have been in effect since 1974 except for 1978 in the Port Dick area. The 1980 Outer district pink salmon harvest of 129,730, while still only one-third of the historic average, was 70 percent above 1978 and shows a good recovery for the area over the last two even years and escapements in several spawning systems show considerable promise for the future (Tables 1, 2, 7 and 17).

The even-year return to Port Dick occurs from late July through August and is later than the odd-year run timing due to the return consisting of primarily intertidal spawners at Head End Creek. Port Dick Bay was opened on July 28 after 14,000 pink salmon were protected inside of the markers at the upper end of the bay. The area along the north shore between the marker on the western shore of Middle Creek and the waterfalls

southeast of Island Creek was kept closed to protect chum salmon headed to Island Creek.

The 1980 harvest of 112,400 was almost double the 1978 harvest and was the largest even-year harvest since 1970 (Table 11). The escapement to Head End Creek of 56,100 was excessive compared to the desired intertidal spawning goal of 20-30,000, but additional fish were allowed in the system in an attempt to force fish to move and spawn upstream. The first good pink salmon escapement since 1972 occurred to Island Creek and shows some promise of this system recovering from the effects of the earthquake and environmental conditions that depleted the pink salmon run and caused a shift to chum salmon production (Tables 2, 3, 7 and 8).

Little fishing occurred on pink salmon in the remaining major subdistricts, but excellent escapements were achieved in the Windy Bay streams and Port Chatham. Two minor producing streams, James Lagoon and Desire Lake Creek, had strong returns. The East Nuka subdistrict was opened on August 4 when good escapements had been achieved and 12,800 pinks were harvested (Table 11). Escapements of 16,000 and 5,000 pink salmon to Desire Lake Creek and James Lagoon respectively, should provide good returns in the future.

Chum Salmon

Chum salmon that return to Lower Cook Inlet are primarily four years old. While the 1976 total chum salmon escapement of 101,400 was the highest since 1964, escapements to most of the Outer district streams were below desired levels and very little fishing was anticipated in 1980 (Table 8). The Outer district harvest of 27,850 was 62 percent below average for the district, but was higher than pre-season estimates.

The 1980 chum salmon returns to the Outer district were extremely

erratic. Rocky River, which had the best 1976 chum salmon escapement, had a very poor return, and right next door in Port Dick, Island Creek experienced a 30 to 1 return.

Aerial surveys indicated good numbers of chums were building in Dogfish Bay and Port Chatham throughout July. These two subdistricts were opened on July 24, but the runs dropped off rapidly. While the total harvest to these areas was only 3,900 chum salmon, it was the first even year fishery on chums since 1972 (Table 12). The Petrof Glacier area was opened on July 24 for 48 hours. Fishing was allowed within one mile of shore north of the mouth of Petrof Glacier Creek and approximately 7,800 chum salmon were harvested. The escapement of 5,000 chums to this system was considered excellent (Table 3). Rocky Bay was opened on July 28 for 12 hours after aerial surveys indicated over 14,000 chums in the river. The harvest of 2,100 was very low, but an excellent escapement of 23,000 chum salmon was achieved (Tables 3, 8 and 12).

The Port Dick subdistrict was opened to seining on July 28, but a portion of the north shore was kept closed to protect chum salmon headed for Island Creek. The entire area was finally opened on July 31 after an adequate number of chum salmon had moved inside the closed fishing markers at Island Creek. The harvest of 21,000 was the largest even-year harvest since 1970 and the escapement of 10,900 was excellent (Tables 3, 8 and 12). The parent year chum salmon escapement at Island Creek was only 1,000 and it is possible that a significant contribution of five year old adults from the strong 1979 return occurred this year.

KAMISHAK DISTRICT

The salmon returns to the Kamishak district were poor when compared to the pre-season expectations for the area. One bright spot did occur in

Bruin Bay where a very strong pink salmon run occurred. The total harvest to this district of 173,739 was the second highest on record and over three times the average for the district (Table 18). While catches for all species were above average, the biggest disappointments were the poor chum salmon returns and the excessive pink salmon escapement in Bruin River.

Sockeye Salmon

The Kamishak-Douglas and McNeil River subdistricts both have minor sockeye salmon runs and were opened on June 9. Very little effort occurred in the area and even an opening in McNeil River Lagoon on July 4-5 for 18 hours did not increase the sockeye harvest significantly. The sockeye harvest of 2,213 was 36 percent above average and the majority of the harvest came from the Kamishak-Douglas subdistrict (Table 18).

Pink Salmon

There are three major pink salmon spawning streams in the Kamishak Bay district: Bruin Bay, Sunday Creek and Browns Peak Creek. Occasionally good returns occur to Kamishak River and Amakdedori Creek, but very few pink salmon have even been caught from returns to these two systems. Even-year returns to Sunday Creek and Browns Peak have been weak in recent years and over 125,000 of the total district pink salmon harvest of 127,723 came from Bruin Bay. This year's harvest was the second highest on record and almost five times the average for the district (Table 18).

A strong return was anticipated to Bruin Bay and the subdistrict was opened early on July 7. Large numbers of pink salmon began arriving in mid-July and with less than 5,000 pink salmon in the stream, fishing in the subdistrict was extended to seven days per week on July 19. The difficulty in fishing this subdistrict and the strength of the run resulted in fish moving right through the fleet. By July 28, over 95,000 pink salmon

had moved into the river. The large "pothole" at the end of the intertidal zone was opened at 6:00 a.m. Tuesday July 29 in an attempt to stop the increasing escapement. However, the "pothole" can only be fished on a 17 foot or higher high tide and the tides dropped five days later. The total escapement estimate of 400,000 was a conservative estimate as the entire river was packed solid with fish. The escapement was eight times the upper range of the escapement goal and may have serious effects on the 1982 return (Table 2). The harvest of 125,000 was just slightly below the 1968 record harvest of 126,200 (Tables 10 and 11). The escapement in 1968 could not be estimated because the fish were packed so close together in the river and the resulting return in 1970 was poor (Table 11).

Chum Salmon

The Kamishak district was expected to have strong chum salmon returns to all spawning streams in 1980 based on excellent escapements achieved in 1976 (Table 8). The harvest of 41,790 was 45 percent above average for the district, but was considerably below the anticipated harvest of 75-100,000 (Table 18). The entire harvest came from streams in the southern portion of the district, while the northern subdistricts, Ursus, Cottonwood and Iniskin were kept closed or produced no harvest when opened (Table 12).

The Kamishak-Douglas and McNeil River subdistricts were opened for sockeye salmon fishing on June 9 and remained open until the chum salmon arrived. Harvest rates and aerial surveys of spawning streams indicated the strong expected returns were not going to materialize and the McNeil River subdistrict was closed on August 5. Chum salmon escapements in Douglas and Kamishak Rivers increased during the week following the August 5 closure and reached the lower levels of the escapement ranges. Coho salmon began

building in this subdistrict and the subdistrict was reopened on August 12. The total harvest to these subdistricts was 17,200 and escapements were average, though considerably below the established goals (Tables 8 and 12).

The combination of the early opening in Bruin Bay for pink salmon on July 7 and the extended fishing time to seven days per week resulted in an excellent incidental harvest of chum salmon in this subdistrict. The harvest of 8,000 was the second highest chum harvest for this subdistrict on record and the escapement of 15,000 was considered excellent (Tables 8 and 12).

Escapement to Iniskin River was 2,300 on July 31 and due to problems involved in fishing this subdistrict, fishing was opened on August 1. The run virtually stopped in early August and no harvest occurred in the subdistrict. The final escapement of 9,300 was good, but was not achieved until late August (Table 8).

Chum salmon escapements to Cottonwood Creek and Ursus Cove also reached the lower level of the escapement ranges and the entire Kamishak district was opened from August 18 to 25, but no harvest occurred in either of these subdistricts.

EASTERN DISTRICT

The 1981 salmon harvest of 157,631 set a new record for the district and exceeded all expectations. The harvest surpassed the 1968 record and was over six times the average harvest (Table 19). The run was due entirely to the strong pink salmon return to spawning streams in Resurrection Bay. A good return was expected in 1980 based on excellent escapements and fry levels in 1978 and when small schools of pink salmon began arriving along beaches in Day Harbor and the outer part of Resurrection Bay on July 20, the entire Eastern district was opened for 48

hours on July 24. Resurrection Bay north of the latitude of Caines Head was kept closed during this period to allow maximum utilization of the pink salmon by recreational fishermen before allowing the commercial seine fleet to harvest the fish.

No effort occurred during the first opening and when additional aerial surveys on July 30 indicated 25,000 pink salmon were schooled on the beach near 4th of July Creek, another 48 hour opening was announced for 6:00 a.m. Thursday July 31 until 6:00 a.m. Saturday August 2. Escapements in Bear and Mayor Creeks were building at this time and were considerably ahead of normal run timing into the streams.

Over 90,000 pink salmon were harvested by 13 vessels during the opening with only nine coho salmon being killed and 15 caught and released unharmed. The fishery was very concentrated in two locations, Tonsina Creek and 4th of July Creek, and was easily monitored by three Department biologists.

Escapements in Salmon, Bear and Mayor Creeks continued to build; however, all but Mayor Creek were still below desired escapement levels and high glacial water prevented ground surveys of Salmon Creek. Additional aerial surveys on August 5 showed a new buildup of 15,000 pink salmon on the beach at 4th of July Creek and many schools of fresh fish were scattered along the shore from Caines Head to Tonsina Creek. The increasing escapement rates and aerial surveys resulted in Resurrection Bay being reopened for 18 hours from 12:00 noon August 6 until 6:00 a.m. August 7. Eleven boats harvested over 65,000 pink salmon during this opening and only 16 coho salmon were killed while another 35 were caught and released.

No major recreational and commercial fishery conflicts occurred during any portion of this year's fishery. The extremely low catch of coho

salmon in relation to the record pink salmon harvest in the area, again proves that the two fisheries can exist together. The present management policy prohibits commercial fishing within 48 hours prior to the start of the Seward Silver Salmon Derby and the staff has attempted not to have weekend openings to further reduce the potential for conflicts. Given the large return experienced this year, additional fishing time was warranted, but due to the inflexibility of the policy, this was not possible.

SUBSISTENCE FISHERY

The Alaska Board of Fisheries reviewed the subsistence fisheries of Cook Inlet during the December-January meeting in 1979 and 1980 and eliminated the Kachemak Bay subsistence fishery. The Kachemak Bay Subsistence Group took the State to court and received an injunction against the state. The court directed that there be a season in 1980 and that the regulations and areas open to fishing be as listed in the regulations prior to the 1978 season.

The entire Southern district was opened to commercial and subsistence fishing on August 18 and the court decision allowed the use of 35 fathoms of set net gear and opened the north shore of Kachemak Bay from Anchor Point to Mud Bay, which had been closed for two years. With the increased access for setting nets along the Homer Spit and near Anchor Point and the lack of a subsistence fishery on coho salmon in Upper Cook Inlet along the east shore, the number of permits issued increased 22 percent from 437 in 1979 to 533 this year (Tables 20 and 21). The largest percentage increase in permittees by area of residence occurred from the Kenai-Soldotna area where there was no subsistence fishery allowed (Table 20).

A record subsistence harvest occurred and 92.7 percent of the

permits issued were returned indicating a harvest of 4,765 salmon and steelhead (Table 21). Although the harvest was not much greater than the 1979 harvest, the primary areas of concern were the 65 percent increase in coho harvest, from 2,118 in 1979 to 3,491 in 1980, and the harvest 153 steelhead near Anchor Point, a return of an estimated 500 coho to the Fritz Creek stocking program caused part of the increase in coho harvest.

The major "hot spot" was the Anchor Point area. There was a considerable backlash by sportsmen to allow subsistence fishing near the Anchor Point area due to the interception of steelhead bound for the Anchor River. Approximately 119 permits were issued to fish this area, when historic effort levels had been only 2-7 permits during only two or three years. The area from Anchor Point to Troublesome Creek was closed on September 22 when the catches of steelhead surpassed the coho catches. The entire Southern district was closed on October 29 after all fishing had ceased in order to tally harvests from returned permits.

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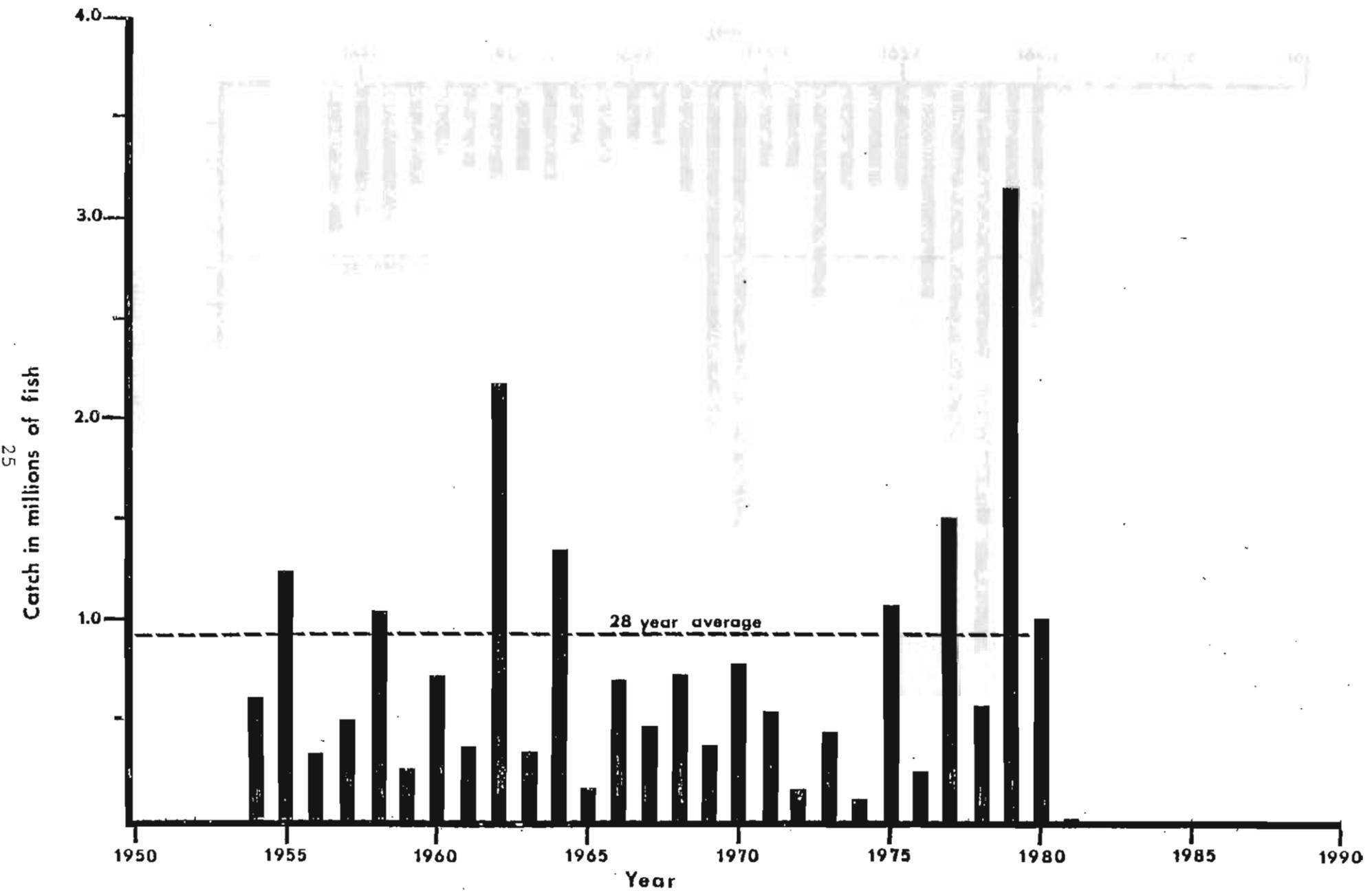


Figure 8. Lower Cook Inlet total salmon catch, 1954-1980.

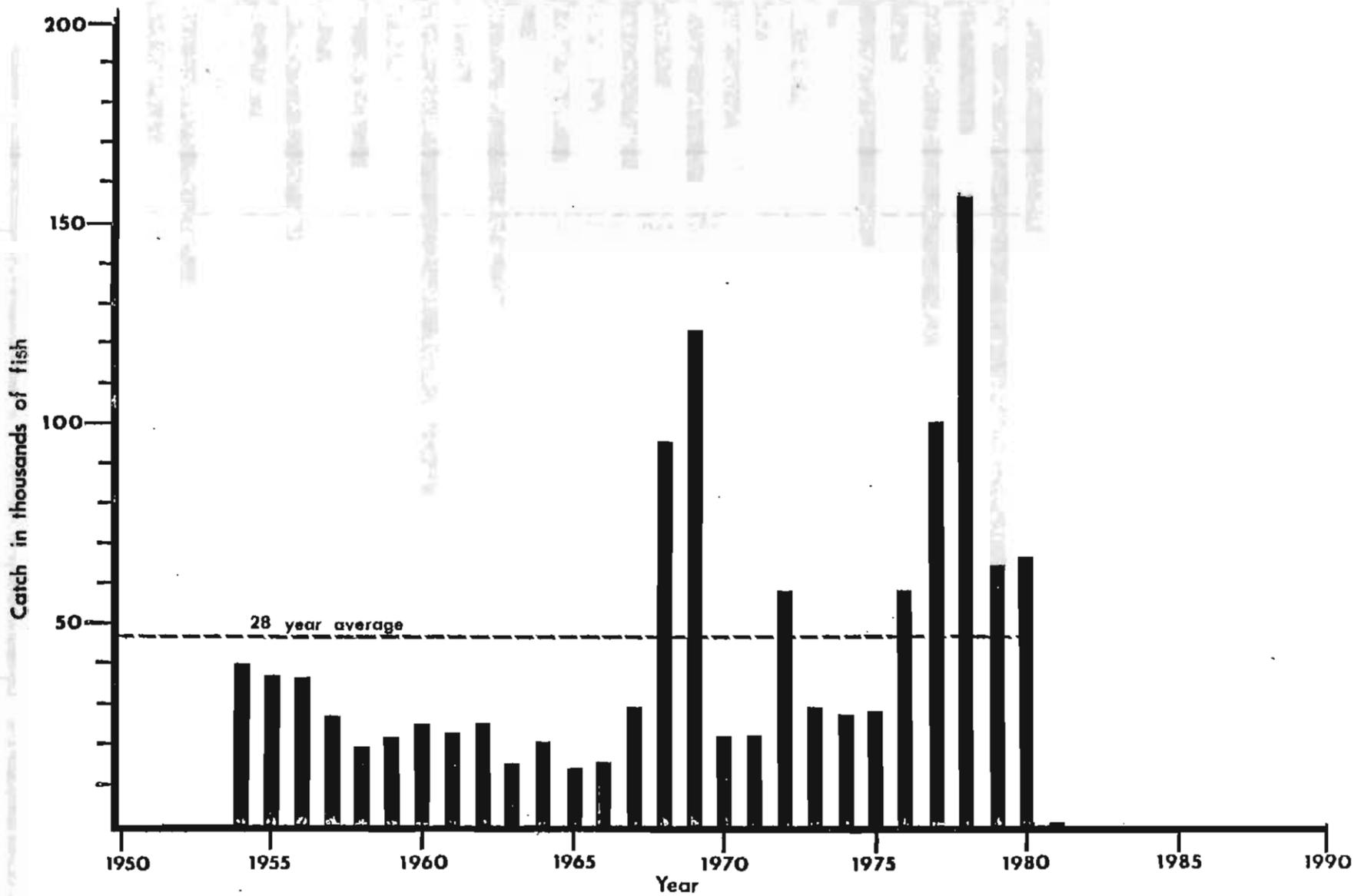


Figure 9 . Lower Cook Inlet sockeye salmon catch, 1954 - 1980.

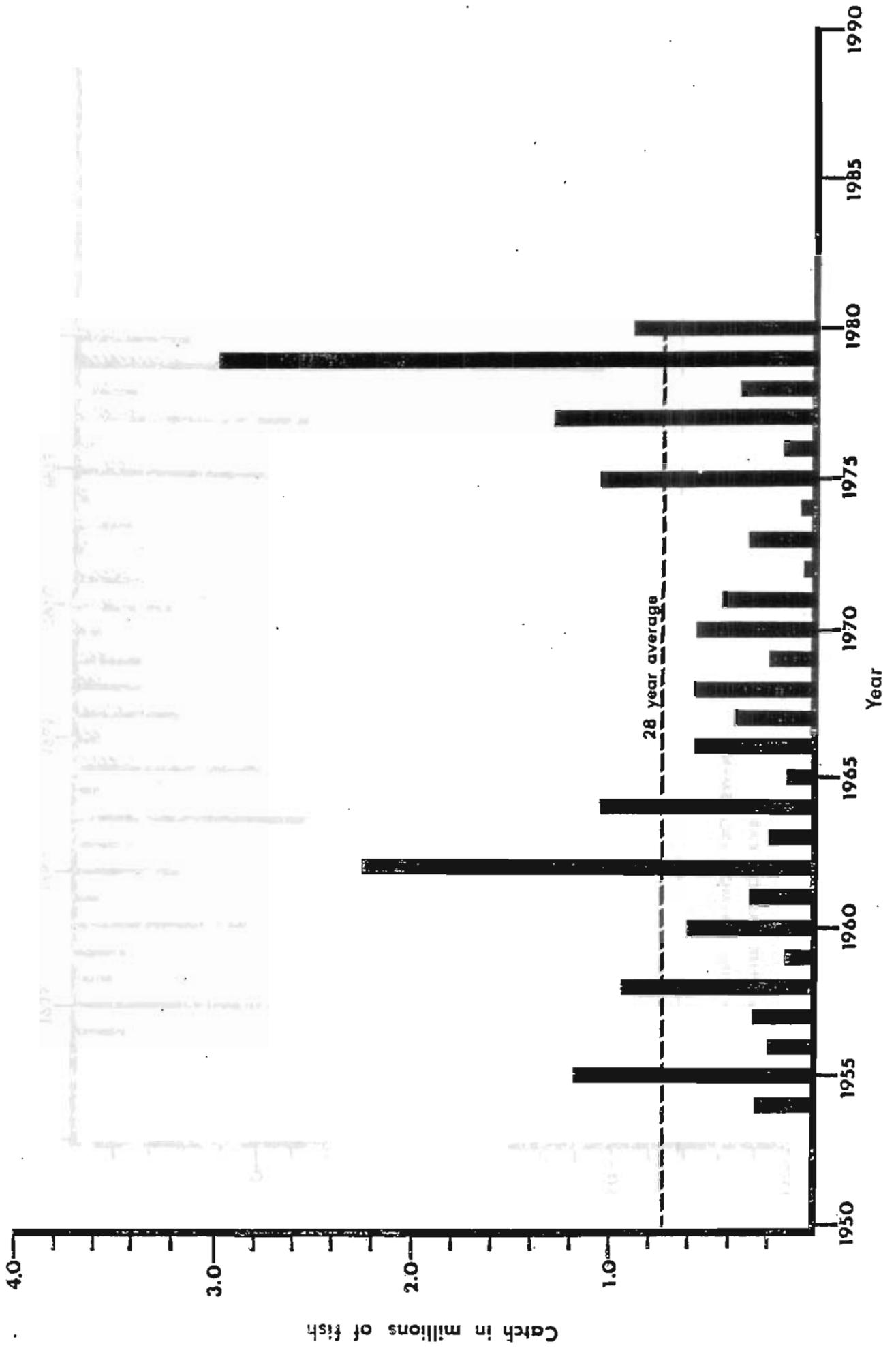


Figure 10. Lower Cook Inlet pink salmon catch, 1954 - 1980.

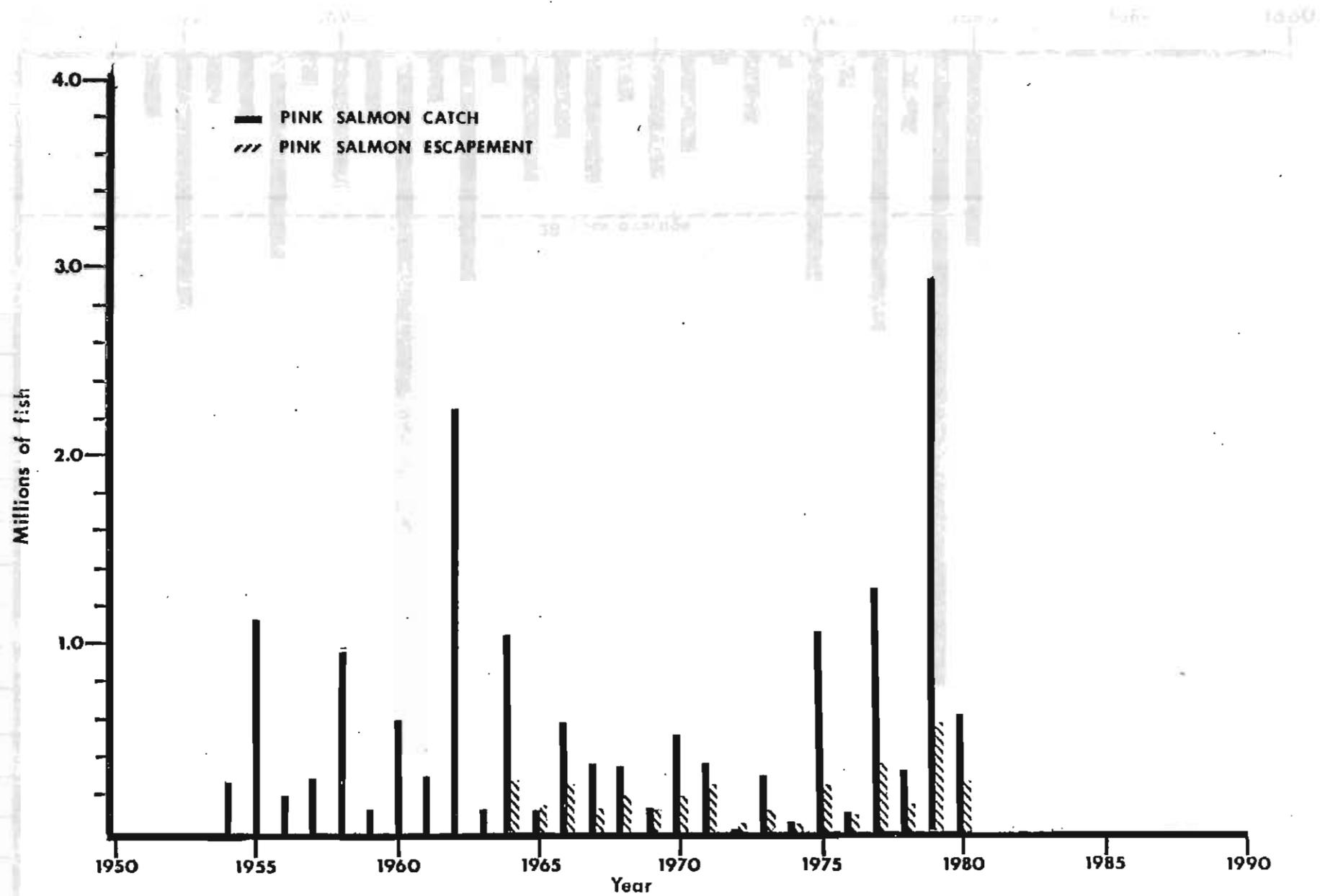


Figure 11. Southern and Outer Districts' pink salmon catch/escapement, 1954 - 1980.

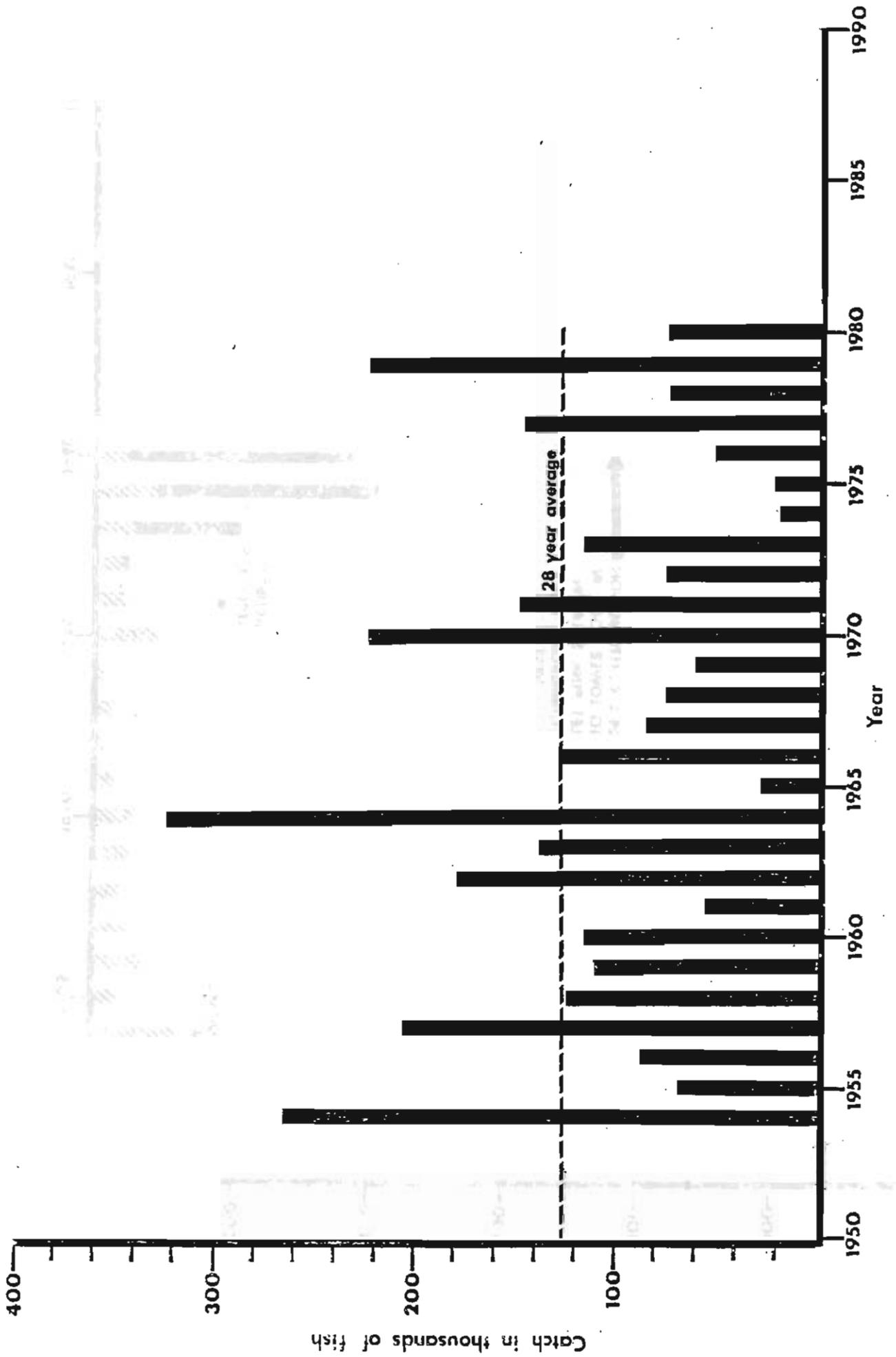


Figure 12. Lower Cook Inlet chum salmon catch, 1954 - 1980.

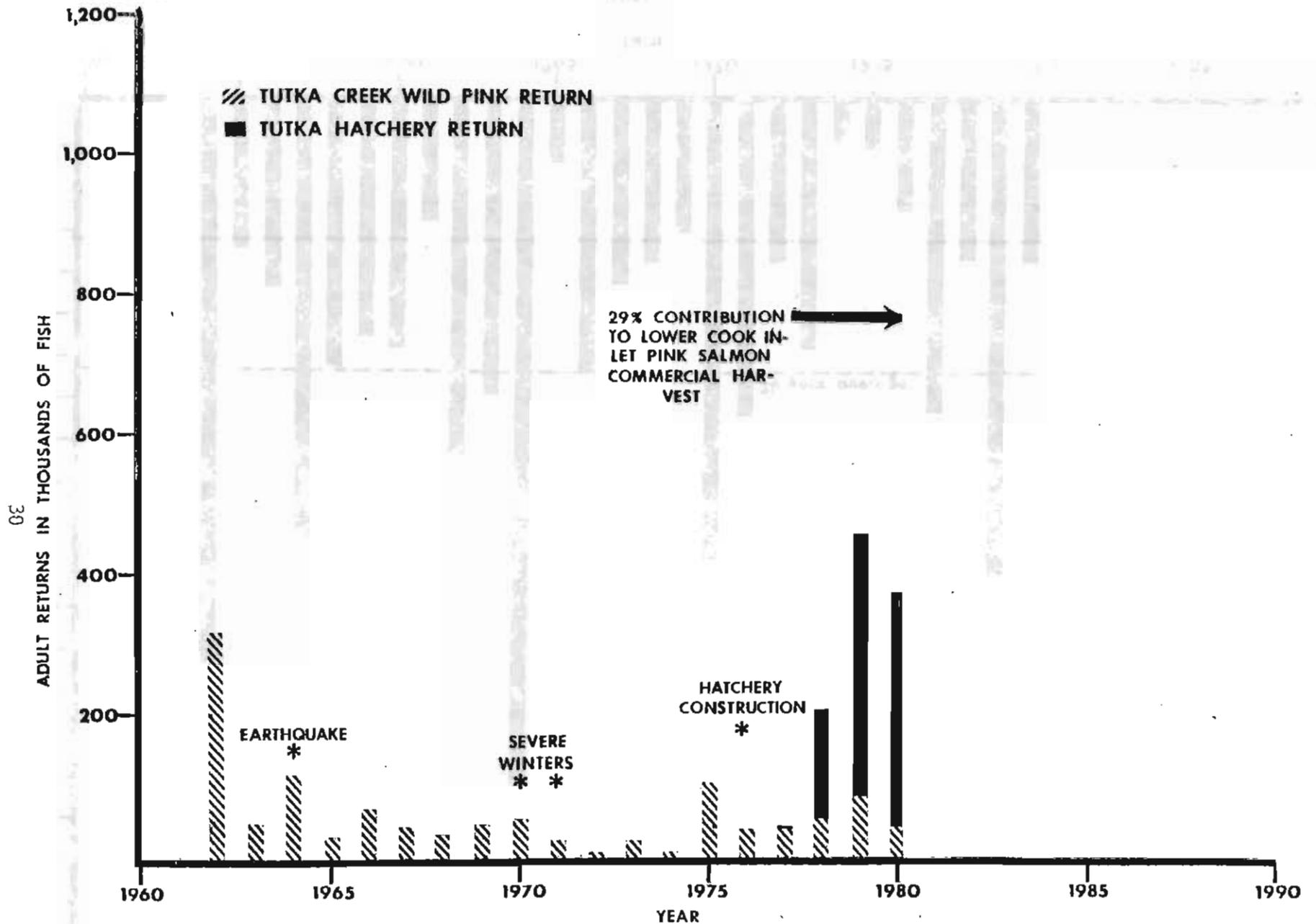


Figure 13. Tutka Creek wild pink salmon returns with recent years' hatchery contribution.

Table 1	Table 2
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TABLES

Table 1. Lower Cook Inlet salmon catchery by species, district and gear, 1980. 1/

	King	Sockeye	Coho	Pink	Chum	Total
Southern District						
Set Net	194	28,089	7,557	22,387	2,387	61,196
Seine	195	13,466	1,709	457,634	1,989	474,993
Total	389	41,555	9,266	480,603	4,376	536,189
Outer District	12	22,577	114	129,730	27,850	180,283
Kamishak District	0	2,213	2,013	127,723	41,790	173,739
Eastern District	0	15	18	156,762	835	157,631
Total	401	66,360	11,411	894,819	74,851	1,047,842

1/ Preliminary data.

Table 2. Escapement goals, average observed, and 1980 escapements of pink salmon in Lower Cook Inlet 1/

<u>Southern District</u>	<u>Esc. Goal</u>	<u>Average Esc.</u>	<u>1980 Escapeme:</u>
Humpy Creek	25,000 - 50,000	50,000	64,400
Tutka Lagoon	6,000 - 10,000	12,000	17,300
Seldovia Creek	25,000 - 35,000	40,000	65,500
Port Graham River	20,000 - 30,000	15,000	40,200
China Poot Bay	5,000	9,000	12,300
Barbara Creek	<u>18,000 - 24,000</u>	<u>5,000</u>	<u>5,800</u>
Total	99,000 - 154,000	131,000	205,500
<u>Outer District</u>			
Rocky River	50,000	21,000	6,400
Windy Left River	30,000 - 50,000	17,000	10,900
Windy Right River	10,000	5,000	3,300
Port Dick Creek	20,000 - 100,000	47,000	56,100
Island Creek	12,000 - 18,000	4,000	2,200
South Nuka Creek	10,000	13,000	300
Port Chatham Streams	<u>10,000 - 15,000</u>	<u>10,000</u>	<u>7,700</u>
Total	142,000 - 253,000	117,000	86,900
<u>Kamishak District</u>			
Big Kamishak River	20,000	31,000	2,000
Little Kamishak River	20,000	22,000	600
Amekedori Creek	5,000	16,000	3,800
Bruin Bay River	25,000 - 50,000	74,000	400,000
Sunday Creek	10,000	11,000	5,200
Brown's Peak Creek	<u>10,000</u>	<u>10,000</u>	<u>2,300</u>
Total	90,000 - 115,000	164,000	413,900
Lower Cook Inlet Total	<u>331,000 - 522,000</u>	<u>402,000</u>	

1/ See footnote on 1981 report.

Table 3. Lower Cook Inlet escapement goals, average observed and 1980 escapements for chum salmon. 1/

<u>OUTER DISTRICT</u>	<u>ESCAPEMENT GOAL (RANGE)</u>	<u>AVERAGE OBSERVED ESCAPEMENT</u>	<u>1980 ESCAPEMENT</u>
Dogfish Lagoon	5,000 - 10,000	6,000	4,000
Port Chatham (streams)	*	1,500	200
Windy Right River	*	1,500	500
Windy Left River	*	1,300	500
Rocky River	20,000	9,000	23,000
Head End Creek	4,000	6,400	4,200
Island Creek	10,000 - 15,000	8,000	10,900
Middle Creek	*	2,000	-
Petrof River	2,000 - 5,000	3,000	5,000
	<u>41,000 - 54,000</u>	<u>38,700</u>	<u>48,300</u>
<u>KAMISHAK DISTRICT</u>			
Silver Beach (streams)	*	4,000	3,200
Main Left (streams)	5,000 - 10,000	6,000	5,600
Big Kamishak River	20,000	13,000	10,000
Little Kamishak River	20,000	9,000	13,000
McNeil River	10,000 - 20,000	26,000	8,000
Cottonwood Creek	10,000	7,500	4,200
Iniskin River	10,000	16,000	9,300
Bruin River	5,000 - 10,000	7,000	15,000
Rocky Cove (Sunday Creek)	*	1,000	200
Ursus Cove (streams)	5,000 - 10,000	4,000	8,000
	<u>85,000 - 110,000</u>	<u>93,500</u>	<u>76,500</u>
<u>SOUTHERN DISTRICT</u>			
Seldovia River	*	1,200	300
Port Graham River	4,000 - 8,000	1,800	1,100
		<u>3,000</u>	<u>1,400</u>
<u>LOWER COOK INLET TOTAL</u>	<u>130,000 - 172,000</u>	<u>135,200</u>	<u>126,200</u>

* No established escapement goal.
1/ 1981 report.

Table 4. Emergency order commercial fishing periods in Lower Cook Inlet 1980.

<u>Number</u>	<u>Date</u>	<u>Description</u>
2H-012-80	June 4	Open the McNeil River and Kamishak-Douglas subdistricts at 6:00 a.m., Monday, June 9.
2H-013-80	June 23	Opens the Tutka Bay subdistrict and China Point Bay at 6:00 a.m., Thursday, June 26. All closed areas in China Point are removed and fishing allowed up to the mouth of Tutka Lagoon.
2H-016-80	June 27	Opens the Aialik Bay and East Nuka subdistricts at 6:00 a.m., Monday, June 30 and establishes a one mile radius closure around the mouth of Delight Lake Creek.
2H-017-80	July 1	Removes markers at mouth of Desire Lake Creek at 6:00 a.m., Wednesday, July 16.
2H-018-80	July 3	Opens McNeil River Lagoon for 18 hours from 12:00 noon, Friday, July 4, until 6:00 a.m., Saturday, July 5.
2H-019-90	July 3	Opens the Bruin Bay subdistrict at 6:00 a.m., Monday, July 7.
2H-021-80	July 10	Opens salmon subsistence fishing with dip nets in China Poot Creek from 6:00 a.m., Monday, July 14 until 6:00 pm, Wednesday, July 23.
2H-022-80	July 14	Removes the closure around the mouth of Delight Lake Creek at 12:30 p.m., Monday, July 14 and allows fishing up to the mouth.
2H-024-80	July 15	Opens Seldovia Bay at 6:00 a.m., Thursday, July 17.
2H-025-80	July 16	Closes the McNeil River subdistrict at 6:00 a.m., Thursday, July 17.
2H-026-80	July 17	Opens Humpy Creek subdistrict at 6 a.m., Friday, July 18 until 6:00 a.m., Saturday, July 19, closes China Poot Bay at 6:00 a.m. Saturday, July 19, and opens Tutka Lagoon by flare for one hour from 2:00 until 3:00 p.m., Friday, July 18.

Table 4. Emergency order commercial fishing periods in Lower Cook Inlet, 1980. (continued - p. 2)

<u>Number</u>	<u>Date</u>	<u>Description</u>
2H-027-80	July 17	Closes the East Nuka subdistrict at 6:00 a.m., Saturday, July 19.
2H-028-80	July 19	Opens the Bruin Bay subdistrict to fishing seven days per week at 6:00 p.m., Saturday, July 19.
2H-029-80	July 20	Opens the Humpy Creek subdistrict at 6:00 a.m., Monday, July 21.
2H-030-80	July 20	Adjusts markers in Seldovia Bay further up the bay 1/4 mile.
2H-031-80	July 22	Opens the Dogfish Bay and Port Chatham subdistricts at 6:00 a.m., Thursday, July 24.
2H-032-80	July 22	Opens the Port Graham Bay, East Nuka and Nuka Island subdistricts and the entire Eastern District for 48 hours from 6:00 a.m., Thursday, July 24 until 6:00 a.m., Saturday July, 26. In the Nuka Island subdistrict, only the waters within one mile of shore between Front Point and Petrof Point are open and waters for one mile south of the mouth of Petrof Creek are closed. Waters north of the latitude of Caines Head in Resurrection Bay are closed.
2H-034-80	July 26	Opens the Port Graham Bay subdistrict at 6:00 a.m., Monday, July 28 and moves the markers further in the bays at both Seldovia and Port Graham.
2H-035-80	July 26	Opens the Port Dick subdistrict at 6:00 a.m., Monday, July 28, but keeps that portion of the Port Dick north section closed between the marker on the west side of Middle Creek and the waterfalls southeast of Island Creek.
2H-036-80	July 26	Opens Tutka Lagoon for one hour from 10:00 a.m. until 11:00 a.m. and the Rocky Bay subdistrict for 12 hours from 10:00 a.m. until 10:00 p.m., Monday July 28.

Table 4. Emergency order commercial fishing periods in Lower Cook Inlet, 1980. (continued - p. 3).

<u>Number</u>	<u>Date</u>	<u>Description</u>
2H-037-80	July 26	Removes the markers at Humpy Creek and allows fishing up to the buoys on the grassy knoll in the creek at 6:00 a.m., Monday, July 28.
2H-039-80	July 28	Removes the markers at Bruin Bay and allows fishing in the "pothole" at 6:00 a.m., Tuesday, July 29.
2H-040-80	July 30	Opens the Resurrection Bay subdistrict for 48 hours from 6:00 a.m., Thursday, July 31 until 6:00 a.m. Saturday, August 2.
2H-042-80	July 31	Opens the Iniskin Bay subdistrict at 6:00 a.m., Friday, August 1.
2H-043-80	August 3	Opens the East Nuka subdistrict at 6 a.m. on Monday, August 4 and allows fishing up to the mouth of Desire Lake Creek.
2H-045-80	August 4	Closes the Kamishak-Douglas subdistrict at 6:00 a.m. on Tuesday, August 5.
2H-046-80	August 6	Opens China Poot Bay and moves the markers back in Seldovia Bay and Port Graham Bay at 6:00 a.m., Thursday, August 7.
2H-047-80	August 5	Opens the Resurrection Bay subdistrict for 18 hours from 12:00 noon, Wednesday, August 6 until 6:00 a.m., Thursday, August 7.
2H-048-80	August 3	Opens Tutka Lagoon at 8:00 p.m., Monday, August 4 until further notice.
2H-049-80	August 6	Closes Tutka Lagoon at 6:00 a.m., Thursday, August 7.
2H-051-80	August 12	Reopens the Kamishak-Douglas subdistrict at 6:00 p.m., Tuesday, August 12 and allows fishing through the normal Wednesday closure until 6:00 a.m., Saturday, August 16.
SH-052-80	August 14	Opens the entire southern district to commercial and subsistence fishing at 6:00 a.m., Monday, August 18, as directed by the court.

Table 4. Emergency order commercial fishing periods in Lower Cook Inlet, 1980.(continued - p.4)

<u>Number</u>	<u>Date</u>	<u>Description</u>
2H-052-80	August 15	Closes the outer district at 6:00 a.m., Monday, August 18.
2H-054-80	August 17	Opens the entire Kamishak Bay district at 6:00 p.m., Monday, August 18.
2H-056-80	August 25	Closes the entire Kamishak Bay district at 6:00 p.m., Monday, August 25.
2H-066-80	October 27	Closes the southern district to commercial and subsistence fishing at 6:00 a.m., Wednesday, October 29.

Table 5. Preliminary Estimate of Adult Pink Salmon return to Tutka Bay and Lagoon, 1980.

Commercial Harvest:

Seine	308,177	
Set Net	<u>13,336</u>	
	321,513	Subtotal
Sport Catch	5,000	
Escapement:		
Tutka Creek & Channel	17,300	
Egg-Take	<u>26,897</u>	
Total Return	<u>370,710</u>	

Tutka Lagoon Hatchery Contribution estimated at 329,933 or 89% of total run.

Table 6 Tutka Bay (241-16) Pink Salmon Seine Catches by Statistical Week.

Week	1978		1979		1980	
	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only	Entire Subdistrict	Lagoon Only
25						
26			3,786		3,691	
27			129,659		17,630	
28	24,683		178,178	68,500	76,810	
29	19,077		50,873	24,000	130,608	35,074
30	83,681	47,143	22,574	20,700	34,669	
31	19,980	17,143	15,392	14,500	22,014	20,500
32	12,357	11,100			22,755	21,481
33	818					
34						
Total Seine Catch	160,596	75,386	400,462	127,700	308,177	77,055
Set Net Catch	7,266		21,354		13,336	
Sport Catch	---		2,000		5,000	
Egg Take	21,100		21,200		26,897	
Escapement	15,000		10,600		17,300	
Total Return	203,962		455,616		370,710	

1/ Preliminary Data only

Table 7. Estimated Pink Salmon Escapements in Thousands of Fish for the Nine Index Streams in the Southern and Outer Districts of Cook Inlet. 1/

YEAR	HUMPY	TUTKA <u>3/</u>	SELDOVIA	PORT GRAHAM	WINDY LEFT <u>6/</u>	WINDY RIGHT	ROCKY <u>8/</u>	PORT DICK <u>6/</u>	ISLAND CREEK	TOTAL
1964	18.52	20.0	60.0	16.0	7.7	6.2	80.0	31.5	30.0	269.9
1965	28.0	20.0	30.0	1.5	10.0	2.0	.3	50.0	.5	142.3
1966	30.0	12.0	86.0	24.0	7.0	7.0	44.0	35.0	7.0	252.0
1967	25.0	7.0	55.0	2.0	6.0	6.0	1.0	20.0	.5	122.5
1968	24.7	7.9	53.2	24.4	6.9	2.8	43.1	29.0	4.3	196.3
1969	5.4	6.5	60.0	4.0	23.0	3.2	1.0	12.0	.1	115.2
1970	55.2	6.5	23.0	16.6	13.0	2.1	32.0	34.5	5.5	188.4
1971	45.0	16.7	31.1	13.2	35.4	13.0	1.6	97.8 <u>2/</u>	.1	253.9
1972	13.8	1.5	5.8	2.4	.4	.1	8.2	10.0 <u>2/</u>	1.7	43.9
1973	36.9	6.5	14.5	7.0	12.9	4.6	2.0	26.4 <u>2/</u>	.5	111.3
1974	17.4	2.6	13.7	2.8	.1	.1	1.5	1.5 <u>2/</u>	.5	40.2
1975	64.0	17.6	36.2	27.3	18.7	9.7	4.4	62.8 <u>2/</u>	.1	240.8
1976	27.2	11.5	25.6	6.5	0.2	0.2	2.7	12.7	0.0	86.6
1977	86.0	14.0	35.7 <u>4/</u>	20.6 <u>4/</u>	47.3	11.1	36.7	109.3	0.6	361.3
1978	46.1	15.0	24.6	6.7	1.1	0.3	8.2	44.9	0.4	147.3
1979	200.0	10.6	43.8	32.7	74.8	10.4	85.3 <u>4/</u>	116.9	0.5	574.7
1980	64.4	17.3	65.5	40.2	10.9	3.3	6.4 <u>4/</u>	56.1 <u>7/</u>	2.2	266.3
Total	787.6	193.2	663.7	247.9	278.4	82.1	358.1	747.4	54.5	3,409.9
Avg	46.3	11.4	39.0	14.6	16.2	4.8	21.1	43.9	3.2	200.6
Escape. Range	22.5-30	4.5-7 <u>5/</u>	24-30	20-40	7.5-10	7.5-10	37.5-50	22.5-30	10-15	156-222 even 221-317 odd

- 1/ Escapement estimate derived from peak counts or calculated from counts made throughout the spawning season. When series counts were available, the total fish/days was divided by average stream life (2.5 weeks to estimate total escapement).
- 2/ Weir counts.
- 3/ Does not contain F.R.E.D. egg facility adult harvests of 3,400 in 1975; 10,814 pinks in 1976, 6,528 in 1977, 21,100 in 1978, 21,200 in 1979, 26,897 in 1980
- 4/ Due to flooding, expanded aerial survey counts were used to fill vacancies in ground counts.
- 5/ An additional 20,000 adults are needed for hatchery egg-take requirements.
- 6/ Escapement ranges have been increased to 25-35,000 for Windy Left and 70-100,000 in Fort Dick in years where large numbers of upstream spawners return.
- 7/ 3,000 pinks transplanted in Scurvey Creek in 1980.
- 8/ 500 and 1,000 chums transplanted in Scurvey Creek in 1980 and 1981, respectively, along with 3,600 pinks in 1981.

Table 8. Estimated Chum Salmon Escapements in Thousands of Fish in the Major Spawning Systems in Lower Cook Inlet. ^{1/}

YEAR	PORT GRAHAM	DOGFISH LAGOON	ROCKY RIVER	PT DICK HEAD	ISLAND CREEK	BIG KAMISHAK	LITTLE KAMISHAK	McNEIL RIVER	BRUIN BAY	URSUS COVE	COTTONWOOD CREEK	INISKIN BAY	TOTAL
1964	1.0	12.0	5.0	8.0	8.0	25.0	*	90.0	*	*	*	11.0	160
1965	*	3.5	*	3.5	4.0	*	*	*	*	*	*	0.7	11
1966	*	11.0	7.0	4.0	6.0	5.0	0.5	*	*	*	*	*	33
1967	*	15.0	5.0	3.0	5.0	*	*	*	*	*	*	*	28
1968	1.5	1.5	3.0	20.0	1.5	*	*	*	*	*	5.0	5.0	37
1969	*	*	3.0	4.5	4.0	*	*	*	*	*	*	*	11
1970	0.9	5.0	*	6.0	8.5	*	*	*	*	*	0.6	*	21
1971	1.0	5.0	7.0	3.0	3.5	*	*	*	1.0	*	9.0	13.0	42
1972	1.5	3.0	3.0	6.0	2.0	*	*	*	1.0	1.6	4.0	10.0	32
1973	2.0	1.0	2.0	9.0	7.0	4.0	1.0	10.0	8.0	3.0	4.0	12.0	63
1974	0.5	0.6	1.0	0.8	5.0	7.1	0.6	1.5	3.0	3.5	2.5	7.0	33
1975	3.0	5.0	25.0	4.0	7.4	1.1	1.9	1.5	1.5	5.0	8.0	7.0	70
1976	0.4	3.0	12.0	1.5	1.0	24.0	21.0	10.0	4.0	6.0	5.0	13.5	101
1977	5.2	6.4	10.5	5.0	11.1	*	*	20.0	18.0	9.3	10.0	4.4	99
1978	4.8	9.3	6.3	8.9	16.9	23.0	30.0	45.0	4.0	9.7	12.5	11.4	181
1979	2.2	8.2	35.0	4.0	16.8	15.0	15.0	8.0	15.0	5.0	2.5	4.0	130
1980	1.1	4.0	23.0	4.2	10.9	10.0	13.0	8.0	15.0	8.0	4.2	9.3	110
17 Year													
Total	25.1	93.5	147.8	95.4	118.6	114.2	83.0	194.0	70.5	51.1	67.3	108.3	1,161
Avg	1.9	5.8	9.8	5.6	7.0	12.7	10.4	21.6	7.1	5.7	5.6	8.3	68
Escape.													
Goal	4.0-5.0	10-15	20-40	4.0-5.0	10-15	20-50	20-30	20-50	5-10	8-12	10-15	10-15	141-

* No surveys conducted due to numerous factors: i.e. weather, money.

^{1/} Most of these estimated escapements are either peak counts from aerial surveys or adjusted figures from aerial surveys based on survey conditions and time of surveys.

Table 9. Pink Salmon alevin density by brood year for index streams in the Southern and Outer districts of Cook Inlet, 1964-1979 7/.

YEAR	HUMPY	TUTKA	SELDOVIA	PORT GRAHAM	WINDY LEFT	WINDY RIGHT	ROCKY	PORT DICK	ISLAND CREEK	CHINA POOT 1/	AVE. !
1964	199.1	195.8	284.1	242.1	100.1	75.3	131.3	222.7	80.7	0.0 6/	170.1
1965	245.7	154.7	151.3	40.5	21.2	48.4	0.0 2/	149.6	0.0	244.3	90.2
1966	131.3	120.5	136.6	165.7	28.3	13.9	11.4	43.4	67.4	673.8	79.8
1967	42.0	40.5	177.8 3/	58.1	39.8	83.9	0.0 2/	319.6	0.0	973.8	84.6
1968	628.4 5/	516.5	506.5	302.2	94.6	195.2	142.0 0/	236.1	67.3	1,933.6	298.8
1969	161.4 5/	348.0	493.2	247.9	325.8	779.0	0.0 2/	195.8	0.0	0.0 6/	283.5
1970	517.6	0.0 6/	0.0 6/	106.3	44.1	67.8	0.0 6/	62.4	23.7	0.0 6/	
1972	94.7	149.3	208.3	79.2	0.0 2/	0.0 2/	18.0	39.8	11.8	1,035.1	66.8
1973	377.6	495.4	405.1	187.6	157.7	422.2	0.0	90.6	0.0 2/	0.0 6/	237.4
1974	391.1	584.3	553.2	167.7	0.0 2/	0.0 2/	0.2	25.4	0.0 2/	1,181.5	191.3
1975	724.1	581.3	368.1 8/	379.6	174.5	448.9	22.6	192.2 8/	0.0 2/	1,667.8	321.3
1976	214.0	372.8	315.7	85.7	0.0 2/	0.0 2/	0.5	144.5	0.0 2/	445.7	125.9
1977	1,005.5	353.2	398.0	207.8	405.0	611.3	30.4 8/	480.0	1.7	951.9	388.1
1978	306.8	491.2	394.8	191.7 10/	27.0 11/	27.0	29.8	208.5	4.5	657.1	186.8
1979	764.6	342.0	279.2	283.9	198.2 12/	260.4 12/	204.4	561.5	68.5	268.6	329.2
Total	5,803.9	4,755.5	4,670.9	2,746.0	1,616.3	3,033.3	590.4	2,972.1	325.6	10,036.2	2,874.3
Average	386.9	317.0	311.4	183.1	107.8	202.2	39.4	198.1	21.7	669.1	191.6

- 1/ This stream was not used in further calculations (weighted averages).
- 2/ Estimated zero fry density since escapements were estimated to be below 300 spawners.
- 3/ Used average pre-emergent fry density from previous two odd years. Not sampled for 1967.
- 4/ Average even-year density from years 1962, 1964 and 1966.
- 5/ Used sample size of 150 points.
- 6/ Not sampled due to ice conditions.
- 7/ Sampling invalid due to lateness in 1971.
- 8/ Possibly had some early outmigration of pink salmon fry.
- 9/ Averages do not include China Poot.
- 10/ Incomplete sampling due to high water.
- 11/ Not sampled - assumed to be similar to Windy Right.
- 12/ Sampled late. Fry already emerged.

Table 10. Pink Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay During Odd Numbered Years. 1/

Catch Location	1959	1961	1963	1965	1967	1969	1971	1973	1975	1977	1979
Humpy Creek	13.2	67.9	57.4	13.8 ²	40.4	0.6	11.4	44.3	339.4	26.9	298.0
Tutka Bay	14.4	106.8	37.7	44.6	31.6	32.4	10.3	20.0	89.2	21.9	411.3
Seldovia Bay	4.9	15.1	1.6	19.2	11.7	28.7	27.3	19.4	429.6	47.6	140.8
Port Graham Bay	5.3	1.0	2.7	12.4	5.1	2.0	1.0	13.9	18.3	44.8	124.7
Dogfish Bay	1.6	0	0	0.1	2.3	0	10.4	0.3	0	5.0	7.4
Port Chatham	1.2	0	0.8	0	0	0	26.3	12.0	16.0	1.4	174.4
Windy Bay	3.1	2.2	0	5.4	0	0	57.3	68.5	18.1	173.2	551.4
Rocky Bay	2.3	0	1.4	0.1	0	0	0.1	0.2	0	11.6	122.2
Port Dick Bay	28.2	92.9	19.0	15.3	259.9	51.5	94.6	96.6	90.3	880.3	962.9
Nuka Bay	33.3	2.0	0.3	0	0.1	0	119.7	8.1	35.4	56.3	121.7
Resurrection Bay	8.4	0	0	0	1.2	0	0	0	0	0	0
Bruin Bay	0	0	12.3	0.9	2.1	0	11.7	0	0	6.2	40.3
Rocky-Ursus Coves	3.7	2.7	44.2	0	13.0	52.8	16.4	7.9	0	0	14.4
Iniskin-Cottonwood Bays	1.5	3.3	21.8	0	0.1	26.0	0	4.7	0	0.1	0.2
Miscellaneous	3.6	9.5	4.4	3.8	8.0	8.4	6.4	11.5	27.1	16.9	16.8
Total	124.7	303.4	203.6	113.6	375.5	202.4	392.9	307.4	1,063.4	1,292.2	2,986.5

1/ Data source IBM computer runs, 1959- 1979.

Table 11. Pink Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay During Even Numbered Years. 1/

Catch Location	1960	1962	1964	1966	1968	1970	1972	1974	1976	1978	1980 <u>2/</u>
Humpy Creek	71.6	108.8	82.4	40.7	43.9	114.1	2.1	35.4	73.1	44.0	65.2
Tutka Bay	87.6	279.5	100.9	53.5	26.9	43.9	5.2	5.5	18.0	167.9	321.0
Seldovia Bay	42.6	142.8	37.4	44.1	23.6	28.6	0.2	3.5	3.0	35.4	75.0
Port Graham Bay	7.1	18.1	38.4	5.1	23.0	12.5	1.1	4.5	3.9	4.0	18.0
Dogfish Bay	1.8	1.4	0.1	7.1	0	9.8	0.3	0	0	0	4.7
Port Chatham	15.7	102.2	67.1	6.7	10.0	1.9	0	0	0	0	1.8
Windy Bay	29.2	85.5	68.6	20.1	3.4	0.8	0	0	0	0	0
Rocky Bay	17.0	225.9	53.2	0	10.8	39.8	0	0	0	0	1.4
Port Dick Bay	257.4	1,118.3	526.3	296.8	55.0	193.8	0	0.6	0	63.6	112.4
Nuka Bay	26.6	129.8	23.8	0	90.2	48.4	0.3	0.7	0.1	6.3	12.8
Resurrection Bay	5.8	0.1	0.3	0	37.4	40.2	18.2	0	35.4	29.7	156.0
Bruin Bay	2.6	0	0	0	126.2	10.2	0	0	0	0	125.0
Rocky-Ursus Coves	6.6	3.2	13.5	2.9	18.0	7.5	0	0	0	0.1	0
Iniskin-Cottonwood Bays	2.1	3.2	4.3	0	9.9	3.5	0	0	0.1	0.1	0
Miscellaneous	37.9	29.5	39.1	102.2	107.1	19.3	1.3	0.4	2.8	1.5	1.5
Total	611.6	2,248.3	1,055.4	579.2	585.4	574.3	28.7	50.6	136.4	352.6	894.8

1/ Data source IBM computer runs, 1960-80.

2/ Preliminary data.

Table 12. Chum Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay. 1/

Catch Location	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969
Tutka	0.1	2.4	1.8	2.9	2.4	5.6	1.1	3.9	4.0	1.3	0.7
Port Graham	2.3	1.8	0.5	4.0	3.8	2.1	0.9	5.3	3.0	2.3	1.3
Dogfish	4.9	0.4	0.1	0	0.2	0	0	7.0	15.3	0.1	0
Port Chatham	1.0	2.5	0	2.8	4.3	5.2	0	17.8	0	1.0	0
Rocky-Windy	14.9	6.4	2.2	8.5	0.3	33.8	8.1	1.7	0	0.5	0
Port Dick	42.4	53.9	36.8	112.0	110.8	227.4	14.2	60.9	36.0	10.9	5.4
Nuka	1.7	8.4	1.7	0.5	1.5	0	0	0	1.5	6.9	0
Resurrection	0.1	0.5	0	0	0	0	0	0	0.1	0.7	0
Douglas River	0.2	0	0	0	0	0	0	0	0	0	0
Kamishak River	0	0	0	0	0	0	0	0	0	3.7	0
McNeil River	0	0.4	0	0	0	2.7	0.9	0	0.4	8.3	4.4
Bruin	0	0.3	0.5	0	0.1	0	0.4	0	1.0	7.5	0
Ursus-Rocky Coves	8.5	8.6	1.8	1.1	2.8	1.2	0	4.0	2.9	1.0	3.6
Cottonwood-Iniskin	12.1	35.4	10.2	41.7	10.9	38.4	0	0	19.0	25.5	44.4
Miscellaneous	23.7	0	0	5.8	1.4	6.9	2.5	28.5	2.2	5.4	1.4
Total	110.8	116.1	55.6	179.3	138.5	323.3	28.1	129.1	85.4	75.1	61.2

Table 12. Chum Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay. 1/ (continued)

Catch Location	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 2/
Tutka	1.6	0.5	1.3	0.8	1.4	2.0	0.9	0.8	2.6	4.9	1.8
Port Graham	4.8	2.0	3.2	2.6	1.0	2.2	0.5	5.0	2.4	4.3	2.3
Dogfish	50.9	114.5	41.1	0.4	0	0	0	9.4	0	8.4	2.6
Port Chatham	0.1	2.4	0	0.2	0	0.6	0	0.1	0	1.7	1.3
Rocky-Windy	39.4	1.4	0	0.9	0	0.3	0	17.7	0	76.7	2.1
Port Dick	21.8	0.7	0	33.4	8.1	6.8	0	25.6	9.1	79.0	21.0
Nuka	5.9	0.1	2.3	40.8	3.9	3.6	0.4	17.4	0.4	14.7	7.8
Resurrection	0.6	0.4	0.7	0	0	0	0	0	0.1	0	0.8
Douglas River	0	0	0	0	0	0.1	7.1	4.0	2.9	0.7	8.1
Kamishak River	0	0	2.4	0	0	0	10.5	0	23.9	17.8	2.8
McNeil River	1.9	0	2.3	0	2.0	0	16.9	38.5	4.9	6.5	6.3
Bruin	12.8	1.6	1.8	0	0.7	0	0	0	0	4.0	8.0
Ursus-Rocky Coves	8.9	10.3	0.2	5.7	0	2.0	2.8	7.8	1.9	0.5	0
Cottonwood-Iniskin	71.9	14.5	19.7	29.9	0	2.8	11.5	15.3	14.9	0.2	0
Miscellaneous	3.6	0.2	0.5	0.8	2.1	1.2	0.2	4.2	10.4	3.6	10.0
Total	224.2	148.6	75.5	115.5	19.2	21.6	50.8	145.8	73.5	223.0	74.9

1/ Data source IBM computer runs, 1959-80.

2/ Preliminary data.

Table 13. Sockeye Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay ^{1/}.

Catch Location	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
Resurrection Bay	0	0.1	0	0	0	0	0	0	0	74.5	99.4	1.7
Aialik Bay	1.3	0.2	4.3	2.6	0.5	0	0	0	0	0	0	3.1
Nuka Bay	8.3	6.7	8.2	5.1	0.5	0	2.0	0	2.2	1.5	0	1.0
Humpy Creek	1.3	1.4	0.8	2.0	1.1	0.7	1.4	1.5	1.9	2.7	1.6	1.3
Tutka Bay	1.1	1.7	3.0	5.2	2.9	9.0	5.2	6.0	11.8	6.3	4.9	6.0
Seldovia Bay	0.4	1.2	1.2	1.7	1.2	2.1	0.9	1.0	2.2	1.9	0.8	1.2
Port Graham Bay	6.6	7.8	5.2	6.8	7.8	5.5	3.5	2.7	10.4	7.7	4.3	3.7
Kamishak Bay	1.5	0.8	0	0	0	2.0	0.8	0	0.2	0.5	10.7	2.9
Miscellaneous	1.1	4.8	1.0	1.9	1.1	1.4	2.0	4.1	3.0	0.1	11.0	1.4
Total	21.6	24.7	22.8	23.3	15.1	20.7	14.0	15.3	29.0	95.2	122.8	22.3

Table 13. Sockeye Salmon Catches for Lower Cook Inlet in Thousands of Fish by Bay ^{1/} (continued).

Catch Location	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980 ^{2/}
Resurrection Bay	2.2	0.1	0	0	0	0	0	0	0	0
Aialik Bay	0	0.3	3.1	0.2	0.6	0	5.8	0	0	0.1
Nuka Bay	1.6	26.1	1.5	0.2	0	18.9	32.5	10.7	24.4	21.5
Humpy Creek	1.3	3.7	2.1	3.0	3.5	5.4	3.8	12.9	6.2	11.5
Tutka Bay	10.0	14.8	8.1	10.8	12.6	14.2	21.0	92.1	15.6	13.0
Seldovia Bay	1.5	2.3	2.2	2.3	2.1	2.1	3.0	5.6	2.6	1.6
Port Graham Bay	5.6	10.5	11.7	10.9	9.2	13.6	26.6	30.5 ¹	12.9	16.5
Kamishak Bay	0	0	0	0	0	4.0	7.4	4.6	1.8	2.2
Miscellaneous	0	1.0	5.0	0	1.0	0	0	0	9.0	0
Total	22.2	57.9	29.2	27.4	28.1	58.2	100.1	156.4	64.4	66.4

^{1/} Data source IBM computer runs, 1959-80.

^{2/} Preliminary data.

Table 14. Salmon Catches by Species for Set Gill Nets in the Southern District of Lower Cook Inlet, 1958-1980. 1/

YEAR	KINGS	SOCKEYE	COHOS	PINKS	CHUMS	TOTAL
1958	42	3,872	165	2,293	2,274	8,646
1959	49	6,148	377	4,342	361	11,277
1960	6	7,007	398	3,894	347	11,652
1961	15	8,631	216	8,201	425	17,488
1962	13	11,793	1,281	12,207	1,558	26,852
1963	9	8,305	314	1,490	812	10,930
1964	5	16,632	1,576	25,935	1,972	46,120
1965	9	10,998	314	7,267	679	19,267
1966	31	10,317	505	24,981	1,790	37,624
1967	112	22,097	504	13,962	1,929	38,604
1968	31	15,741	1,431	12,614	1,289	31,106
1969	33	11,570	246	10,717	1,298	23,864
1970	26	11,455	1,154	18,512	1,575	32,722
1971	41	18,398	1,449	8,564	1,352	29,804
1972	69	31,340	323	6,303	2,819	40,854
1973	134	23,970	1,089	20,222	2,374	47,789
1974	175	26,996	3,010	11,097	2,713	43,991
1975	96	26,588	2,337	49,490	4,020	82,531
1976	176	33,993	1,321	13,431	1,353	50,274
1977	175	54,404	869	38,064	2,765	96,277
1978	1,052	86,934	3,053	11,556	4,117	106,712
1979	483	34,367	7,595	69,368	5,266	117,079
1980 <u>2/</u>	194	28,089	7,557	22,969	2,387	61,196
23 Yr Total	2,976	509,645	37,084	397,479	45,475	992,659
23 Yr Avg	129	22,158	1,612	17,282	1,977	43,159
% of Total	0.30	51.34	3.74	40.04	4.58	100.00

1/ Data source: Final IBM computer runs 1958-1979.

2/ Preliminary data.

Table 15. Lower Cook Inlet Salmon Catches By Species, 1954-1980. 1/

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1954	1,545	39,626	15,159	270,744	265,591	592,665
1955	573	36,600	9,675	1,184,328	68,710	1,299,886
1956	333	36,306	9,345	207,920	88,218	342,122
1957	419	26,917	1,765	285,613	206,450	521,164
1958	120	19,450	1,796	949,766	124,482	1,095,614
1959	132	21,637	6,352	124,748	110,838	263,707
1960	27	24,726	2,692	611,647	116,082	755,174
1961	41	22,776	1,619	303,377	55,593	383,406
1962	60	25,286	7,727	2,248,341	179,259	2,460,673
1963	96	15,121	6,736	203,616	138,510	364,079
1964	191	20,654	9,460	1,055,417	323,335	1,408,957
1965	10	14,002	862	115,598	28,076	158,548
1966	62	15,333	5,411	579,240	129,062	729,108
1967	176	29,044	2,726	375,488	85,445	492,879
1968	64	95,242	4,883	585,441	75,134	760,764
1969	64	122,796	623	202,444	61,203	387,130
1970	107	22,312	4,860	574,284	224,158	825,721
1971	73	22,234	4,561	392,871	148,602	568,341
1972	88	57,897	2,234	28,663	75,543	164,425
1973	145	29,209	2,101	307,403	115,513	454,371
1974	183	27,428	6,514	50,601	19,210	103,936
1975	143	28,142	6,211	1,063,432	21,646	1,119,574
1976	450	58,159	3,216	136,445	50,822	249,092
1977	217	100,058	2,872	1,292,153	145,778	1,541,078
1978	1,747	156,404	6,529	352,561	73,518	590,759
1979	1,238	64,417	12,250	2,986,534	223,028	3,287,467
1980 2/	401	66,360	11,411	894,819	74,851	1,047,842
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27 Yr Total	8,605	1,198,136	149,590	17,383,494	3,228,657	21,968,482
27 Yr Avg	319	44,375	5,540	643,833	119,580	813,647
% of Total	0.04	5.45	0.68	79.13	14.70	100.00

1/ Data source: Final IBM computer runs, 1954-1980, and processor catch reports.

2/ Preliminary data.

Table 16. Southern District Salmon Catch By Species 1954-1980. 1/

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1954.	1,532	22,913	12,235	180,977	150,769	368,426
1955	562	30,848	3,230	565,216	24,398	624,254
1956	310	33,054	4,693	150,486	53,515	242,058
1957	286	19,431	1,507	130,511	57,403	209,138
1958	119	17,731	1,713	209,798	24,096	253,457
1959	71	7,720	709	50,244	13,967	72,711
1960	12	12,239	1,237	209,989	4,100	227,577
1961	39	10,104	1,149	191,867	2,916	206,075
1962	58	16,569	2,095	564,050	9,078	591,850
1963	88	13,142	4,020	99,820	7,523	124,593
1964	84	17,283	8,905	266,412	11,529	304,213
1965	10	11,185	733	90,260	2,458	104,646
1966	60	12,192	4,807	177,544	28,754	223,357
1967	173	26,349	2,379	92,793	23,416	145,110
1968	61	18,716	4,671	154,033	4,403	181,884
1969	59	12,578	485	70,753	2,600	86,475
1970	91	13,480	3,705	208,114	8,174	233,564
1971	41	18,403	3,151	50,066	2,857	74,518
1972	69	31,345	1,283	9,126	4,936	46,759
1973	139	24,145	1,241	97,574	3,588	126,687
1974	182	27,029	3,054	48,875	2,725	81,865
1975	142	27,393	3,039	893,709	5,428	929,711
1976	442	35,280	1,905	99,817	1,517	138,961
1977	182	53,124	1,239	156,696	6,723	217,964
1978	1,511	141,088	4,318	251,761	5,525	404,203
1979	1,199	37,342	10,688	982,529	12,759	1,044,517
1980 2/	389	41,555	9,266	480,603	4,376	536,189
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27 Yr Total	7,911	732,238	97,457	6,483,623	479,533	7,800,762
27 Yr Avg	293	27,120	3,610	240,134	17,760	288,917
% of Total	0.10	9.39	1.25	83.11	6.15	100.00

1/ Data source: Final IBM computer runs, 1954-1980, and processor catch reports.

2/ Preliminary data.

Table 17. Outer District Salmon Catch By Species, 1954-1980. 1/

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1954	13	4,927	368	82,205	112,877	200,390
1955	7	701	277	557,997	40,887	599,869
1956	23	2,889	190	42,368	19,248	64,718
1957	13	2,982	110	149,197	138,171	290,473
1958	1	1,719	83	739,768	100,386	841,957
1959	3	8,049	109	69,054	59,996	137,211
1960	4	11,614	574	381,375	67,187	460,754
1961	2	12,671	456	105,491	40,212	158,832
1962	2	8,697	1,893	1,684,023	126,767	1,821,382
1963	6	1,974	369	21,471	117,095	140,915
1964	2	1,370	431	767,473	269,514	1,038,790
1965	0	2,009	7	21,886	22,443	46,345
1966	1	3,120	357	398,751	87,620	489,849
1967	2	2,165	70	262,258	37,533	302,028
1968	1	1,550	106	191,691	20,398	213,746
1969	0	92	11	51,533	5,400	57,036
1970	5	4,177	243	302,831	118,746	426,002
1971	11	1,630	174	310,710	118,995	431,520
1972	7	26,423	17	1,005	43,490	70,942
1973	1	5,063	31	197,259	76,341	278,695
1974	1	399	28	1,678	11,931	14,037
1975	0	720	7	160,291	11,350	172,368
1976	7	18,886	0	93	412	19,398
1977	34	33,733	1,528	1,127,800	70,167	1,233,262
1978	236	10,695	45	70,080	19,224	100,280
1979	30	25,297	150	1,945,521	180,558	2,151,556
1980 2/	12	22,577	114	129,730	27,850	180,283
<hr/>						
27 Yr Total	424	216,129	7,748	9,773,539	1,944,798	11,942,638
27 Yr Avg	16	8,005	287	361,983	72,030	442,320
% of Total	+	1.81	0.07	81.84	16.28	100.00

1/ Data source: Final IBM computer runs, 1954-1980, and processor catch reports.

2/ Preliminary data.

Table 18. Kamishak Bay District Salmon Catches By Species, 1954-1980. 1/

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1954	0	0	0	0	0	0
1955	0	2	8	5,121	278	5,409
1956	0	67	701	193	14,936	15,897
1957	0	4,335	29	5,905	10,856	21,125
1958	0	0	0	0	0	0
1959	0	1,549	43	5,325	23,574	30,491
1960	11	768	28	11,563	44,328	56,698
1961	0	1	14	6,019	12,465	18,499
1962	0	20	11	219	43,404	43,654
1963	2	4	97	82,314	13,892	96,309
1964	5	1,979	115	20,719	42,280	65,098
1965	0	808	122	3,452	3,175	7,557
1966	1	21	247	2,945	12,688	15,902
1967	1	182	74	17,340	24,221	41,818
1968	0	492	101	198,253	49,461	248,307
1969	2	10,723	121	80,157	53,193	144,196
1970	0	2,888	220	23,113	96,605	122,826
1971	0	3	121	32,094	26,327	58,545
1972	0	47	31	342	26,374	26,794
1973	0	1	28	12,568	35,584	48,181
1974	0	0	2,915	48	4,554	7,517
1975	0	29	3,041	9,432	4,868	17,370
1976	1	3,988	1,111	1,112	48,848	55,060
1977	1	7,425	105	6,308	65,659	79,498
1978	0	4,619	1,584	982	48,669	55,854
1979	9	1,778	1,116	58,484	29,711	91,098
1980 2/	0	2,213	2,013	127,723	41,790	173,739
<hr/>						
27 Yr Total	33	43,942	13,996	711,731	777,740	1,547,442
27 Yr Avg	1	1,627	518	26,360	28,805	57,313
% of Total	+	2.84	0.91	45.99	50.26	100.00

1/ Data source: Final IBM computer runs, 1954-1980, and processor catch reports.

2/ Preliminary data.

Table 19. Eastern District Salmon Catches By Species, 1954-1980. 1/

<u>Year</u>	<u>King</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
1954	0	11,786	2,556	7,562	1,945	23,849
1955	4	5,049	6,160	55,994	3,147	70,354
1956	0	296	3,761	14,873	519	19,449
1957	120	169	119	0	20	428
1958	0	0	0	200	0	200
1959	58	4,319	5,491	125	13,301	23,294
1960	0	105	853	8,720	467	10,145
1961	0	0	0	0	0	0
1962	0	0	3,728	49	10	3,787
1963	0	1	2,250	11	0	2,262
1964	0	22	9	813	12	856
1965	0	0	0	0	0	0
1966	0	0	0	0	0	0
1967	0	348	203	3,097	275	3,923
1968	2	74,484	5	41,464	872	116,827
1969	3	99,403	6	1	10	99,423
1970	11	1,767	692	40,226	633	43,329
1971	21	2,198	1,115	1	423	3,758
1972	12	82	903	18,190	743	19,930
1973	5	0	801	2	0	808
1974	0	0	517	0	0	517
1975	1	0	124	0	0	125
1976	0	5	200	35,423	45	35,673
1977	0	5,776	0	1,349	3,229	10,354
1978	0	2	582	29,738	100	30,422
1979	0	0	296	0	0	296
1980 <u>2/</u>	0	15	18	156,763	835	157,631
<hr/>						
27 Yr Total	237	205,827	30,389	414,601	26,586	677,640
27 Yr Avg	9	7,623	1,126	15,356	985	25,098
% of Total	0.04	30.37	4.49	61.18	3.92	100.00

1/ Data source: Final IBM computer runs, 1954-1980, and processor catch reports.

2/ Preliminary data.

Table 20. Summary of Subsistence Fishermen in Lower Cook Inlet by Area of Residence.

Area Residence of Permittee	1973		1975		1976		1977		1978		1979		1980	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Homer	108	73.0	118	75.2	182	70.0	153	77.3	214	68.8	276	62.7	310	58.2
Anchorage Area	20	13.5	13	8.3	24	9.2	8	4.0	40	12.9	67	15.2	81	15.2
Halibut Cove	6	4.1	6	3.8	9	3.5	8	4.0	5	1.6	2	0.5	0	0
Anchor Point	4	2.7	7	4.5	25	9.6	17	8.6	30	9.6	61	13.9	80	15.0
Seldovia	1	0.7	5	3.2	5	1.9	7	3.6	12	3.8	3	0.7	7	1.3
Port Graham & English Bay	3	2.0	2	1.3	4	1.5	0	0	3	1.0	0	0	0	0
Kenai-Soldotna	5	3.4	4	2.5	6	2.3	2	1.0	4	1.3	11	2.5	42	7.9
Other	1	0.7	2	1.3	5	1.9	3	1.6	3	1.0	20	4.6	13	2.4
	<u>148</u>		<u>157</u>		<u>260</u>		<u>198</u>		<u>311</u>		<u>440</u>		<u>533</u>	

(Compiled 11-19-81)

Table 21. Subsistence Fishery Catches for the Southern District of Cook Inlet, 1969-1980 ^{1/}

YEAR	ISSUED	RETURNED	PERMITS NOT FISHED	PERCENT RETURNED	KING	SOCKEYE	COHO	PINK	CHUM	OTHER	TOTAL
1969	47	44	9	93.6	0	9	752	38	0	17	816
1970	78	73	18	93.6	0	12	1,179	143	13	39	1,386
1971	112	95	42	84.8	2	16	1,549	44	7	20	1,638
1972	135	105	41	77.8	1	11	975	48	69	19	1,123
1973	143	128	46	89.5	0	18	1,304	84	40	9	1,455
1974	147	118	66	80.3	0	16	376	43	77	27	539
1975	292	276	55	94.5	4	47	1,960	632	61	95	2,799
1976	242	221	83	91.3	16	46	1,962	1,513	56	75	3,668
1977	197	179	42	90.9	12	46	2,216	639	119	84	3,116
1978	311	264	113	84.9	4	35	2,482	595	34	89	3,239
1979	437	401	163	91.8	6	37	2,118	2,251	41	130	4,583
1980 ^{3/}	533	494	195	92.7	43	32	3,491	1,021	25	153 ^{2/}	4,765
12 Year Total	2,674	2,398	873	---	88	325	20,364	7,051	542	757	29,127
12 Yr Avg	223	200	73	88.8	7	27	1,697	588	45	63	2,427

^{1/} A subsistence fishery occurred in Resurrection Bay from 1970 to 1972 with a total catch of 222 salmon of which 92 percent were red salmon.

^{2/} Steelhead.

^{3/} Data for 1980 do not contain 953 reds and 5 pinks taken in the China Foot dipt not fishery. 220 permits were issued, 206 returned and 112 did not fish.

Appendix. Fishing licenses and permits issued and fished in
 Table 1. Lower Cook Inlet, 1960 - 1980.

SEINES

<u>Year</u>	<u>Gear License</u>	<u>Permanent Permit</u>	<u>Interim Permit</u>	<u>Total</u>	<u>Seines Fished</u>	<u>Set Nets Fished</u>
1960	95			95		
1961	89			89		
1962	91			91		
1963	112			112		
1964	108			108		
1965	72			72		
1966	77			77	75	
1967	58			58	54	
1968	91			91	88	
1969	75			75	17	
1970	89			89	9	
1971	81			81	32	
1972	83			83	52	
1973	86			86	49	
1974	110			110	49	32
1975		40	48	88	63	27
1976		74	16	90	53	25
1977		70	12	82	72	26
1978		77	9	86	72	39
1979		82	5	87	90	38
1980		81	10	91	83 1/	40 1/
<hr/>						
Total	1,317	424	100	1,841	858	227
Avg:	88	71	17	88	57	32

1/ Preliminary data.

* Data source: CFEC microfiche printouts and final IBM computer runs.

Appendix Exvessel Value of Lower Cook Inlet Commercial Salmon Harvest
 Table 2. in Thousands of Dollars by Species, 1960-1980. 1/

Year	King	Sockeye	Coho	Pink	Chum	Total
1960	0	36	3	287	127	453
1961	0	33	2	144	36	215
1962	0	37	8	1,056	108	1,209
1963	1	22	7	87	84	201
1964	0	30	9	369	194	602
1965	0	21	1	34	20	76
1966	0	23	5	237	82	347
1967	1	45	3	157	58	264
1968	0	152	5	311	57	525
1969	0	219	1	137	46	403
1970	1	35	6	273	215	530
1971	1	38	7	248	144	438
1972	1	130	6	22	146	305
1973	3	113	5	310	251	682
1974	5	283	30	100	77	495
1975	3	106	27	1,456	71	1,663
1976	7	287	13	207	217	731
1977	7	620	9	1,719	604	2,959
1978	62	1,516	47	370	360	2,355
1979	37	644	80	4,460	1,107	6,328
1980	11	321	56	1,088	304	1,769
Total	140	4,711	330	13,072	4,308	22,561
Average	7	224	16	622	205	1,074

1/ Values obtained by using the formula: average price per pound X average weight of fish X catch = Ex-vessel value.

Appendix
Table 3.

Average Salmon Price per Pound by Species in Dollars,
Lower Cook Inlet. 1/

YEAR	KING	SOCKEYE	COHO	PINK	CHUM
1960	0.25 2/	0.27	0.18	0.15	0.16
1961	0.24 2/	0.24	0.15	0.11	0.08
1962	0.23 2/	0.27	0.16	0.15	0.07
1963	0.25 2/	0.27	0.15	0.13	0.08
1964	0.24 2/	0.27	0.15	0.10	0.07
1965	0.22 2/	0.24	0.11	0.08	0.08
1966	0.22 2/	0.24	0.14	0.11	0.08
1967	0.26	0.26	0.15	0.11	0.08
1968	0.00	0.25	0.17	0.18	0.09
1969	0.00	0.27	0.23	0.17	0.13
1970	0.35	0.27	0.18	0.12	0.13
1971	0.53	0.28	0.24	0.18	0.15
1972	0.45	0.36	0.44	0.20	0.28
1973	0.93	0.48	0.39	0.27	0.29
1974	0.76	1.54	0.72	0.48	0.56
1975	0.61	0.61	0.49	0.37	0.43
1976	0.91	0.77	0.59	0.37	0.48
1977	1.07	0.86	0.55	0.35	0.45
1978	1.09	1.31	0.97	0.30	0.54
1979	1.54	1.53	0.89	0.43	0.60
1980	1.30	0.88	0.85	0.38	0.52

- 1/ 1960-1974 values obtained (except as noted) by using formula:
- Avg.price/lb X Avg.weight/fish X Catch = Exvessel value.
 - Exvessel and catch values obtained from Tables 34 & 39 in Lower-Cook Inlet status report.
 - Avg weight/fish from commercial fish catch & production statistical leaflet for Cook Inlet.
 - Values do not reflect any retroactive price increases paid after the fishing seasons.

- 2/ Values obtained by using formula:
- Avg price/lb = $\frac{\text{Avg price/fish}}{\text{Avg weight/fish}}$
 - Avg weight/fish from statistical leaflet
 - Avg price/fish from annual management reports.

Appendix
Table 4.

Salmon Average Weight/Fish in Pounds, Lower Cook Inlet. 1/

YEAR	KING	SOCKEYE	COHO	PINK	CHUM
1960	20.2	5.4	6.2	3.2	6.8
1961	20.5	6.0	8.2	4.5	7.8
1962	21.5	5.4	6.4	3.2	8.0
1963	19.7	5.4	7.1	3.4	7.2
1964	20.8	5.4	6.3	3.5	8.4
1965	22.2	6.2	10.1	3.6	8.7
1966	23.1	5.9	6.4	3.6	7.5
1967	21.9	6.0	7.2	3.9	8.1
1968	26.2	6.3	5.9	3.0	8.3
1969	18.2	6.7	7.0	3.9	7.3
1970	26.6	5.8	6.8	3.9	7.1
1971	25.9	6.0	6.3	3.5	6.6
1972	25.0	6.2	6.1	3.9	6.9
1973	22.3	8.1	6.1	3.7	7.4
1974	36.1	6.7	6.4	4.1	7.2
1975	33.2	6.2	8.8	3.7	7.6
1976	16.1	6.4	7.0	4.1	8.9
1977	30.1	7.2	5.9	3.8	9.2
1978	32.3	7.4	8.2	3.5	8.6
1979	18.9	6.3	6.2	3.5	8.2
1980	21.7	5.5	5.2	3.2	7.8
Total	502.5	130.5	143.8	74.0	156.4
Average	23.9	6.2	6.8	3.5	7.4

1/ 1960-1974 values obtained from commercial fish catch & production statistical leaflets for all Cook Inlet.

2/ Values obtained from preliminary data.

Appendix
Table 5.

Salmon Case Pack by Species, Cook Inlet, 1960-1980. 1/

48 1-lb. Cans per Case						
YEAR	KING	SOCKEYE	COHO	PINK	CHUM	TOTAL
1960	9,279	65,478	24,091	87,575	62,709	249,132
1961	12,942	88,687	10,673	30,401	39,092	181,795
1962	8,721	89,231	28,611	208,392	107,724	442,679
1963	8,138	74,185	20,898	13,509	46,209	162,939
1964	921	75,944	40,137	188,373	135,466	440,841
1965	1,221	109,663	11,999	5,911	27,187	155,981
1966	1,472	142,987	22,985	102,796	49,680	319,920
1967	1,909	118,853	15,355	21,492	38,654	196,263
1968	447	58,365	29,290	104,382	122,164	314,648
1969	1,277	43,408	6,985	86,038	26,580	164,288
1970	412	78,453	19,010	80,572	73,633	252,080
1971	1,036	68,357	8,847	91,880	52,223	222,343
1972	396	101,105	10,109	25,195	56,527	193,332
1973	712	53,954	7,049	47,829	87,214	196,758
1974	1,193	52,990	13,482	44,610	85,288	197,563
1975	169	60,359	6,298	55,454	40,491	162,771
1976	872	127,434	11,238	103,260	51,171	293,975
1977	780	232,956	9,558	104,088	92,284	439,666
1978	1,070	156,803	8,525	155,460	56,339	378,197
1979	457	104,022	2,386	249,422	26,190	382,477
1980	4,860	144,742	6,367	231,897	27,967	415,833
Total	58,284	2,047,976	313,893	2,038,536	1,304,792	5,763,481
Average	2,775	97,523	14,947	97,073	62,133	274,451

1/ Includes Cook Inlet salmon and salmon imported from other areas and processed in Cook Inlet.

2/- Preliminary data.

Appendix
Table 6.

Commercial Production of fresh, frozen and cured salmon
by species, Cook Inlet, 1960-1980. 1/

Production in Pounds

Year	King	Sockeye	Coho	Pink	Chum	Total
1971	1,122,833	858,298	230,995	29,043	2,147,814	4,388,983
1972	697,871	661,537	126,717	647,952	1,904,750	4,038,827
1973	434,283	2,251,760	478,334	326,169	5,032,885	8,523,431
1974	474,170	1,239,399	964,636	1,164,061	4,902,531	8,744,797
1975	274,563	1,490,354	851,260	581,883	5,923,465	9,121,525
1976	511,231	5,428,655	684,206	2,274,473	4,243,440	13,142,005
1977	842,240	8,265,220	754,610	580,070	5,439,190	15,881,330
1978	1,463,785	20,243,930	1,475,932	5,533,116	7,533,722	36,250,485
1979	426,710	9,479,792	1,578,032	2,375,713	4,076,813	17,937,060
1980	729,612	13,523,357	1,780,131	4,272,809	3,947,040	24,252,949
Total	6,977,298	63,442,302	8,924,853	17,785,289	45,151,650	142,281,392
Average	697,730	6,344,230	892,485	1,778,529	4,515,165	14,228,139

1/ Includes Cook Inlet salmon and salmon imported from other areas and processed in Cook Inlet.

2/ Preliminary data.

Appendix Table 7.

Pink salmon alevin density by brood year for non-index salmon streams in Lower Cook Inlet

<u>YEAR</u>	<u>MAYOR</u>	<u>BEAR</u>	<u>SALMON</u>	<u>CLEAR</u>	<u>TONSINA</u>	<u>BARBARA</u>	<u>SOUTH NUKA</u>
1974	---	---	---	---	---	---	---
1975	---	---	---	---	---	500.3	318.5
1976	19.9	293.7	50.6	---	---	---	---
1977	---	---	---	---	---	---	741.2
1978	39.0	871.6 1/	---	3.2	89.6	---	---
1979	---	---	---	---	---	---	---

1/ Incomplete sampling due to ice

Appendix
Table 8.

Summary of return per spawner and forecast variations
which have occurred in the pink salmon runs to the
Southern and Outer districts of Cook Inlet, 1964 - 1978.

Brood Year	Escapement	Return	Return/ Spawner	Forecast	Variation From Forecast
1964	269.9	828	3.07	1,300	- 36.3
1965	142.3	478	3.36	500	- 4.4
1966	252.0	542	2.15	462	+ 17.3
1967	122.5	238	1.94	500	- 52.4
1968	196.3	699	3.56	2,000	- 65.0
1969	115.2	615	5.34	640	- 3.9
1972	43.9	91	2.07	340	- 73.5
1973	111.3	1,298	11.66	620	+ 109.4
1974	40.2	197	4.90	780	- 74.9
1975	240.8	1,652	6.86	845	+ 102.0
1976	86.6	488	3.90 <u>2/</u>	635	- 24.0
1977 <u>1/</u>	361.3	3,507	8.67 <u>2/</u>	1,647	+ 112.9
1978 <u>1/</u>	147.3	899	3.96 <u>2/</u>	1,295	- 30.6
Total	2,129.6	11,532	61.44	11,564	
Average	163.8	887.1	4.73	889.5	

1/ Preliminary data.

2/ Calculated by subtracting hatchery return from total return: 150,000 in 1978,
370,000 in 1979,
315,000 in 1980

3/ Includes projected hatchery return.