

ANNUAL REPORT 1966
COOK INLET AREA
COMMERCIAL FISHERIES DIVISION
ALASKA DEPARTMENT OF FISH AND GAME

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INTRODUCTION

The most spectacular event for the commercial fishery of Cook Inlet in 1965 was the operation of Japanese freezer ships within the Area. The unusual circumstances of run timing, plus the low number of processors in the Inlet for the season caused a glut situation that cost the state and fishermen of the area millions of dollars. It is hoped that by 1968, when another large run is expected that there will be processing facilities available to handle all salmon that can be caught.

This year saw the recovery of the king crab fishery in the Inlet: in 1965 the bulk of the Inlet king crab fleet had gone to Kodiak, and there was very little effort, hence a small catch. The situation appears to be changed now.

The most important change that occurred in 1966 was the authorization of full time research personnel, with a budget, for tackling the imposing biologic problems of the Inlet. The pink salmon forecast published by the Inlet research staff was quite close, considering the fact that it was the first time that any such forecast has ever been made for the Inlet. The work on red salmon smolts, and on racial analysis of red salmon, plus the progress made in developing a sonar salmon counter that will work in silty water are giant steps for a single year of research.

The rebirth of the shrimp trawling industry in the lower Inlet was another encouraging sign of progress.

SALMON

The size of the Cook Inlet salmon run of 1966 brought about a glut situation that was far more serious than that of 1961, 1962, or 1964. At least 250,000 salmon were lost through spoilage: they were caught legally by commercial fishermen who then had to throw them away when canneries were unable to accept them. An additional one and a half million salmon probably could have been harvested had processing facilities been available. Value of the dumped fish to commercial fishermen is estimated at \$206,000. Value of salmon that could have been harvested had fishermen been able to sell them is estimated to be over \$1,000,000. (20 per cent reds, 60 per cent pinks, 10 per cent silvers, and 10 per cent chums, \$1.01

Prices had not been settled when the 1966 salmon season got underway, hence many fishermen did not fish. Relatively few fish were caught in June, and even as late as July 7 the catch totalled only about 150,000 fish.

Early in the season (late June) oil pollution was widespread in the North District in the vicinity of the offshore drilling platforms. Oil slicks varied from light and widespread, to heavy streaks of "gunk" in tide rips and deposits of heavy, sticky oil on the beach at Nikiski near the Standard Oil dock. Widespread publicity and pressure by the state on the oil industry appeared to abate the problem somewhat, but it never completely disappeared.

Prices were settled by the fishing period of Monday, July 11, and on this day approximately 275,000 salmon were taken in the gill net fishery.

On Thursday, July 14, about 800,000 salmon were caught. There was a tremendous volume of salmon in the Inlet; fish were widespread, and schools were dense.

Both set net and drift fishermen shared in the catch. Drift fishermen

reported nets sinking and some nets were cut free because they contained too many fish to handle: fishermen simply couldn't pull their nets back aboard. A number of power reels were broken free from boats and lost overboard: one fisherman had a new 1½ inch shaft on his power reel sheared from the weight of fish in his net. Weather was calm, and by late afternoon of the 14th many boats reported 2,000 or more fish aboard. A total of 383 drift boats were counted by the Department during a late afternoon aerial survey.

Red salmon made up about 61 per cent of the catch for the day; pinks 28 per cent. Kenai Packers' fishermen alone delivered 305,000 salmon; Emards' fishermen delivered 188,000; Columbia Ward's fishermen, 154,000.

Late in the day when it was obvious that the catch was extremely heavy, Columbia Wards announced a limit of 1,500 per boat for their fishermen. All other canneries allowed their fishermen to continue to fish without limits.

Until this date fishing in the North Central and South Central Districts had been limited to Monday and Thursday of each week. Commencing the 18th, fishing time was increased to Monday, Wednesday, and Friday of each week by published regulation, not by emergency order; therefore, the industry was aware that additional fishing time was scheduled. Fishing in the Northern District started three days a week July 11th.

Three major canneries put their fishermen on limits at starting time on the 18th, with limits averaging about 750 per man, although one cannery imposed a limit of 250 per man.

Within an hour of opening time many nets were filled, and again during the day, nets were lost because they filled with fish, sank, and could not be retrieved.

At mid-morning on the 18th a cannery reported that fishermen were "high-grading" salmon -- that is, they were discarding pinks and chums in order to keep only reds to fill their limits.

From a long range fisheries management standpoint no biological damage occurred from "high-grading". It was distasteful and wasteful, and was one of the by-products of the current problem besetting the Inlet's salmon fishery.

A Department Grumman Goose, en route from King Salmon to Anchorage, was diverted to Homer where two staff members went aboard. The aircraft then patrolled constantly over the drift fleet throughout the remainder of the day: a visual reminder of the Department. This may or may not have reduced high-grading.

While the Goose was patrolling, a mass of pink salmon approximately five miles across was located to the west of the center of the drift fleet, and just north of Kalgin Island. These were unquestionably bound for the Northern District. The Outer District (seines only) opened this date. Fishermen who had fished this District for 15 or more years reported that there were more fish present at opening time than they had ever seen. These were pinks, for the earlier chum run into the Outer District (mostly Port Dick) was relatively weak, and no fish was allowed.

The heavy surge of fish into the gill net areas of the Inlet called for heavy tender use, which reduced tender service to the Outer District. On opening day there were about 25 boats at Port Dick and 5 at Windy Bay. A tender capable of handling 30,000 to 40,000 fish per load arrived at Port Dick late on the afternoon of the 18th. It did not clean up the fish held on boats in Port Dick at the time. This tender, the Chena, sailed right by Windy Bay where five seine boats were loaded with fish waiting for a tender. The Chena was instructed to go to Port Dick, and tender service would be offered to boats at Port Dick only. The five loaded seiners had to travel to Port Dick in order to unload.

In 1966 two small tenders, the Chena and the Cape Clear, tendered from the Outer District to Port Ashton, in Prince William Sound. The two tenders were capable of removing from the Outer District approximately 30,000 fish a day, far fewer than the District was expected to produce.

Salmon packers involved in operations in the Outer and Southern District of the Inlet read, but didn't believe, the Department forecast report for run of pinks to these two districts for 1966. As a result, no preparations were made to handle the numbers of fish that arrived in these Districts.

Over 700,000 salmon were caught by the gill net fishery this day of July despite limits imposed by canneries. Erling Nilson, formerly owner of Portl canneries, and skipper-owner of the tender Chatham, an individual with a lifetime of experience in Cook Inlet, reported on the Chatham's radio that he had "never seen a salmon run like it."

The weather was the only calm thing about Wednesday, July 20, on Cook Inlet. All canneries had large numbers of salmon on hand at opening time. Kenai Peninsula Fisheries, Incorporated, a group of about 40 fishermen, found themselves with no processing facilities, hence they were unable to fish: facilities they had been using were glutted. Virtually all fishermen of the Inlet were on limits.

The drift fleet found fish at opening time and the percentage of pink salmon in the catch increased over that of the previous Monday. During that Wednesday morning the fishery of the Northern District was relatively quiet. Wednesday afternoon all hell broke loose. Salmon hit in that district in greater volume than most fishermen of the district had ever seen. Set netters were forced to pull their gear, or to watch it sink, loaded with fish. Dorries were quickly full. Full nets were dragged onto the beach, for it was impossible to remove fish from the nets fast enough to clear them so they would float properly. Some fishermen fished but one 35 fathom shackle of gear, and it was all they could do to handle the volume of fish caught. Fish bumped against dorries. Jumpers were constantly in the air. It was a fantastic run.

The run was heaviest on the west side of the Northern District. Most fishermen were using red gear, with mesh of about 5½ inches; even so pinks made up 35 per cent, reds 15 per cent, silvers 30 per cent and chums 10 per cent of the catch.

That evening a 12 hour extension for the fishing period of the Northern District was announced in what proved to be a vain hope that more fish could be harvested. As it turned out 90 per cent of the fishermen were unable to fish because they had all the fish on hand they could handle. Further, Emards, the sole processor handling fish in the Northern District, announced they would buy no more fish until the following Monday.

The run in the Northern District was to continue in considerable strength through about Sunday, July 24th.

Many independent drift fishermen who make a practice of delivering to all tenders, as they come to them, suddenly found themselves without a market. Most canneries refused fish from any but their own boats or boats they were obligated to.

Limits were caught early in the day of the 20th by the bulk of fishermen and the gear that was fishing by late afternoon was perhaps one third of that available. Seine fishermen were loaded at Port Dick, still waiting for tender service, and some of the fish aboard seiners had been caught on Monday. The tender Chena, assigned to the Outer District, was reported aground in Prince William Sound. The other tender assigned this district, the Cape Clear, was reported to be in Seward with damage from a collision.

Fishermen had been cautioned by the Department to make certain of a market before fishing, but the warning was not very effective.

By the time the 24 hour fishing period ended, over 718,000 salmon had been caught. And some of the canneries of the Inlet were in real trouble.

Shortly before noon of the 20th, Mrs. Doris Schmidt, of Soldotna, called Area Biologist and informed him that she had telephoned Senator E. L. Bartlett and Governor Egan, requesting that Japanese freezer ships be allowed to come to Cook Inlet to help process fish.

Shortly after noon the Regional Supervisor and Governor's Assistant Bill Hopkins from the Governor's office in Anchorage, inspected Emard's cannery in Anchorage, then flew to Kenai, where both major canneries were inspected. It was obvious that all three were plugged with fish. It was also evident, from observations made during the flight to Kenai, that fish had hit the Northern District in tremendous numbers.

Hopkins and the Regional Supervisor arrived in Homer late that evening when all information was reviewed with the Director of Commercial Fisheries, who had arrived from Kodiak, and the Area Biologist. Hopkins then informed the Governor of the situation, and shortly afterward Governor Egan invited the Japanese traders into the Inlet.

At this time Western Alaska Enterprises, Anchorage, informed the state that Japanese freezer ships were within 24 hours sailing time of Cook Inlet. If the ships -- all five of them (the Japanese Fishery Agency made the decision on the number of ships to send) had indeed arrived within 24 hours or even 36 hours, they would most probably have had all the fish they could have handled for several days.

On Thursday, July 21, Emard's cannery in Anchorage announced they had stopped buying fish until probably the following Monday. Kenai Packers made a similar announcement. The first Japanese purchases occurred Saturday, July 23. Concurrent with the arrival of the Japanese ships tender service and cannery efficiency improved markedly. Fishermen repeatedly reported that they had never enjoyed such good tender service, and these reports came from all elements of the American fishery.

The Japanese ships arrived just as Cook Inlet canneries were digging their way from beneath the peak flood of fish. Once the canneries caught up, the run slackened, and no further glut problems occurred.

The Kenai Peninsula Borough Chairman made available the services of Mr.

Ralph Cowles, who was involved in an economic development coordination plan for the Borough. Mr. Cowles was accepted by the fishermen of the gill net areas to control deliveries to the Japanese and American markets. The policy as set by the Governor was that the Japanese would receive only those salmon that American processors could not handle.

Two seine fishermen were designated in the lower Inlet to represent seine fishermen in dealing with the Japanese in southern Cook Inlet. A temporary enforcer was stationed aboard each vessel with detailed instructions (copy follows this page).

Approximately five and a half million salmon were caught and sold by Cook Inlet fishermen in 1966: another 250,000 were caught and eventually dumped. Another one and a half million fish could probably have been taken had processing facilities been able to handle them. Thus the 1966 salmon run harvest could have been approximately 7 3/4 million salmon, which would have exceeded the record catch of 1962.

It is obvious that the increased magnitude of salmon runs, as managed by the state, has exceeded the increase in processing facilities. Unless salmon processing facilities increase markedly in Cook Inlet, it is probable that a glut problem, with the attendant evils (poor quality of pack, wasted fish, loss of revenue) will continue to occur during each even-numbered year.

INSTRUCTIONS TO ADF&G PERSONNEL ASSIGNED TO JAPANESE FREEZER SHIPS, COOK INLET

1. A complete and accurate (and legible) running log must be kept of activities on your assigned ship. You must log all visitors (American), keep a record of tenders, and drift boats that come to your ship. Log any refusals to buy fish and attempt to indicate the reason you believe fish were refused. Log any item of information that could be of interest to the state, to the government, to the Department. You are involved in an international operation, and you have been delegated the responsibility of representing Alaska, hence the United States, aboard this ship.
2. You are not a policy maker. You are not to discuss fisheries management matters with the Japanese.
3. Study the fish tickets -- know how they are to be completed, and make certain that all fish tickets are completely filled in -- ADF&G numbers, statistical area number of fish by species. We are not much interested in weights.
4. We must have constant communications with you. Any time we don't hear from you, you will be disrupting our routines, and depriving us of invaluable contacts. We want regular reports from you on the numbers of fish delivered, and we want a summary of the fish delivered for the previous day each morning at 0800. Our call letters are KXO 29. Call us on 2512 -- we stand by there at all times. If you cannot reach us on this frequency, try calling KXC 40 on the same frequency, and ask them to phone us that you are calling. Our radio has frequencies as follows 2182, 2450, 2512, 2538, 2638, 3230 (State Fish and Game frequency), 3411.5 and 5167.5.

Communications with you are vital. Don't leave us on a limb wondering what is going on. If there is a lull in fish deliveries, call and report it. If the weather blows up and it appears that deliveries may be difficult, call us and let us know. We may wish to move a ship to a more desirable location and can do so only if we know what is happening weatherwise, and fishwise. Report at 0800 with your fish report. Report at any time that the situation changes or calls for a report to us, and report again at 12:00 noon, and 8:00 p.m.

5. Each morning at 0800 report the catch for the previous day, (see sample of reporting form below).

Boat	District					Date
	Kings	Reds	Coho	Pinks	Chums	Total
Seine						
Drift Net						
Set Net						
Total						

Recorder _____

NORTHERN DISTRICT

The Northern District is an unusually difficult one from a management standpoint. The fishery is extremely ineffective. Fishermen are the least professional of any in the Inlet. Unless fish are running in some strength many Northern District set netters will not bother to put their gear in the water. As a result the catch in this area is less than it would be with effective gear and capable fishermen. To compound the problem, runs for the district are sporadic and give every indication of being depleted, except for pink and silver salmon during even year runs: both of these runs are under harvested.

Fishermen of this district have come to expect special attention from the Department. Normally far more man months of management effort are devoted to the fishery in this district than is warranted by the catch, which averages around 12 per cent of the total salmon taken in the Inlet.

When salmon arrive in real volume in this district, if escapement has occurred or appears to be assured, an immediate increase of fishing time is announced, as is the case in other districts of the Inlet. However, it is often difficult to determine when this time occurs. Waters of the district are silty. Communication with fishermen of the district is poor. Various means of determining volume of fish that are in the district have been used, including test fishing on specific beaches, using the catch of the drift fishery as a crude index (the first real volume of pinks that arrive in the gill net fishery is normally bound for the Northern District in even years), and in 1966, an attempt was made to use drift fishing as a sample means. Drifting was a complete flop as a test fishing method in the Northern District in 1966.

KING SALMON

Two programs were aimed at gathering information on the still depleted runs of king salmon in the Inlet in 1966. The early run of kings is bound for the Susitna basin, and a test fishing program was started in the Susitna River on May 19th. And for the third consecutive year, a man was assigned to tabulate

the total king catch by set net fishermen on the beaches between Ninilchik and the Kenai River. Fish tickets accurately reflect the catch of other species in this area, but they do not for king salmon: many kings are sold to individuals for a higher price than canneries pay, and many kings are used by fishermen as their own food.

Susitna River: Two 100 foot gill nets were fished for king salmon at the Fish Creek test fishing site. This is the same site used for later assessing strength and composition of the runs of "small fish" as the fishermen of that area call all salmon other than kings.

A king net (approximately 6½ inch mesh) and a red net (5½ inch mesh) were used to obtain data on the smaller kings as well as the larger ones. Fishing time was restricted in order to keep the catch small. During 1966 nets were put in the water two hours before high tide (Anchorage time) and pulled two hours after high tide, for a period of four hours of fishing. Two 24 hour sets were made to determine, if possible, whether or not the movement of kings at this station was influenced by tidal action: no correlation was noted.

In 1966 76.3 per cent of the kings taken entered the Susitna River in June, 16.2 per cent in May, 7.0 per cent in July, and .5 per cent in August. The peak of the king run occurred from June 7 to June 22.

Based upon these figures, it is estimated that 82 per cent of the king salmon bound for the Susitna River had entered that river prior to the June 24th opening date of the fishery. In 1965, using the same basis for estimating, 92 per cent and in 1964 86.6 per cent, of Susitna kings had reached the river by opening date of the commercial fishery. The total catch of kings by test fishing on the Susitna River was 215. No noticeable increase in the size of the king run over 1965, or 1964, occurred.

West Side Beaches, Ninilchik to Kenai River: For three successive years (1964-66) a man has been assigned to travel the beach from Ninilchik to the Kenai River during the salmon season. The original assignment for this man was to tabulate all king salmon caught by set net fishermen on this beach. At the time (1964) the Board of Fish and Game had ruled that kings could not be sold. A court decision later in 1964 reversed the Board's action. Nevertheless, because of the differential treatment of kings by set net fishermen on this beach (many are used by the fishermen themselves; many are sold to other than usual outlets because of the higher price obtained) it was felt that a close tabulation should be kept of the king catch by this group of 75 fishermen. Fish were crudely classified as under five pounds, between five and fifteen pounds, and over fifteen pounds. Data for the three years are shown below:

King Salmon Taken by Set Netters, Ninilchik to Kenai River

	<u>1964</u>	<u>1965</u>	<u>1966</u>
Less than five pounds	356	210	368
Five to fifteen pounds	390	722	398
Over fifteen pounds	<u>3,122</u>	<u>4,862</u>	<u>4,874</u>
Kings taken	3,868	5,794	5,640
Percentage of total catch	84	67	59
Total catch for Inlet	4,622	8,595	9,604

From the above data it appears that the total catch for the Inlet is increasing. Further, the percentage of the catch taken by the 75 fishermen in the sample area (Ninilchik to Kenai River) has decreased a bit each year. This could indicate an improvement of stocks of kings in general for areas other than the Kenai-Kasilof. The data are too limited to really draw any valid conclusions, however.

The year 1966 was the first in which any appreciable increase of king salmon production could be expected that could result from management efforts. The f

drastic curtailment of the king season was in 1961, when the season was cut in half; the main return from the 1961 spawning should have occurred in 1966. The second drastic change in season occurred in 1964, when virtually all fish bound for the Northern District were protected against the commercial fishery. The first return from this action should occur in 1969.

Period	SET NETS										DRIFT NETS							
	Ninilchik to Kasilof		Kalifonski		Kenai to Boulder Pt.		Kalgin Island		Harriet Pt. to Snug Harbor		Snug Harbor to Chinitna		Chinitna		1965	1966		
	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966		
1	129	302	79	90	84	127	85	195	12		19		16		10		14	10
2	238	290	77	88	84	108	95	127	24	27	49	52		24		16	21	42
3		235		78		101		103		28		55		22			110	76
4																		
5		132		18		59												**
6			105		79		120	117										300
7				91		127		145										383
8		346		86		114	104*	161									336	335***
9	295	173	107	49	145		97*		20		31						306	162
10		109		60		54												95
11	250	246	77	94	99	103	74*										214	198

*West side of Island only.

** No price settlement

*** Took average of 2 counts on same day - fishermen on limits

NOTE: Periods 1 - 4 are based on 2 periods each week (Monday and Thursday) with period 1 commencing June 23 or 24 of the year. Commencing with period 6 there are 3 periods per week (Monday, Wednesday, Friday)

NORTHERN DISTRICT

SET NETS GEAR COUNT - AERIAL*

Period	Fire Is.		East Side		West Side		Kustatan		Susitna River Pt. MacKenzie	
	1965	1966	1965	1966	1965	1966	1965	1966	1965	1966
1	3	5	132	121	75	63		10	6	0
2	8	8	114	94	87	89		12	5	10
3	6	12	109	114	96	96		11	6	8
4	12	14	145	107		116				4
5	21	17	166	92	163	77		15	21	8
6	20	15	175	125	198	136		18	17	21
7	12	19	159	135	91	156			36*	48
8		22		116		182				42
9	25	24	184	147	197	201		28	31	57
10)	19	13	184	143	203	120		20	40	41
11)***		26		108		2				42
12	18	19	164	99	173	138		19	39	35
13 **	14	24	78	111	138	113		27	15	51
14										
15	18								6	
16	9		112		139				33	

*All periods include data from 2 years that aren't more than 2 days apart (i.e. June 24, 1965 and June 23, 1966 are within the same period.

**In 1966 period 13 was July 26 which actually fit between periods 12 and 13, but separated because of high gear counts.

***In 1966 an extra 12 hours was granted between these periods. This extra 12 hours was incorporated into period 11.

NOTE: From June 23 or 24, a period is each Monday and Thursday, but commencing June 24, a period is each Monday, Wednesday and Friday.

INTENT TO OPERATE 1966

CANNERY	LOCATION	SUPERINTENDENT	NO. OF LINES	PRODUCT
Alaska Star Inc. 1206 West 29th Place Anchorage	Beluga River	Walter B. Swanson	Hand pack	Salmon: kippered, canned
Alcan Fisheries Box 138, Anchorage	Kenai	Alf Nelson		Salmon: fresh, frozen
B-K Fisheries P. O. Box 486 Soldotna	Silver Salmon Creek	Wayne E. Bell		Salmon: Hard salt
Emil R. Bartolowits Box 13, Clam Gulch	Clam Gulch	Emil R. Bartolowits	Hand pack	Salmon: canned, fresh, smoked
Berman Packing Co. P. O. Box 107 Ninilchik	Ninilchik	O. R. Bertosen	1 - 1# talls 1 - 1/2# flats	Salmon: canned, frozen
Church of Jesus Christ of the Latter Day Saints 2501 Maplewood Anchorage	Anchorage	Charles N. Dickey		Salmon: fresh, frozen
Columbia Wards Fisheries P. O. Box 30 University Station Seattle, Washington	Kenai	A. R. Pearmain	2 - 1# talls 1 - 1/2# flats 1 - 1/2# flats	Salmon: canned
Ekren Packing Co. Kasitsna Bay via Homer	Kasitsna Bay	John A. Ekren	1 - 1/2# flats	Salmon: canned, smoked Clams: canned King crab: canned Dungeness crab: canned
Whitman Fidalgo Emerald Packing Co. 2360 Commodore Way Seattle, Washington	Anchorage	J. J. Lind	1 - 1# talls 1 - 1/2# flats	Salmon: canned

CANNERY	LOCATION	SUPERINTENDENT	NO. OF LINES	PRODUCT
Fidalgo Island Packing Co. 2360 Commodore Way Seattle, Washington	Seldovia	Mervin Brun	1 - 1# flats 1 - 1/2# flats	Salmon: canned
Halibut Producers Cooperative Box 796, Seward	Seward	Terrel Schenk		Salmon: fresh, frozen, mild cured Halibut: fresh, frozen
Henry Horton Mile 3 1/2, Seward	Seward	Henry Horton	Hand pack	Salmon: canned, fresh frozen hard salt, smoked
Kenai Packers 1455 N. Northlake Place Seattle, Washington	Kenai	H. A. Daubenspeck	1 - 1# talls 2 - 1/2# flats 1 - 1/4# flats	Salmon: canned
Kenai Peninsula Fisheries, Inc. P. O. Box 526, Soldotna	Cohoe	Bruce C. Monroe		Salmon: fresh, frozen
Mitsubishi International Corp. 810 Third Avenue Seattle, Washington	Cook Inlet	Edwin K. Natori		Salmon: frozen
Osmar's Ocean Specialties Clam Gulch	Clam Gulch	Per E. Osmar	1 - 1#talls	Salmon: canned, fresh frozen
Pacific Alaskan Seafoods Box 487, Homer	Homer	Lee K. Shelford		Salmon: fresh, frozen Shrimp: fresh, frozen, cold pack Dungeness crab: fresh frozen cold pack King crab: fresh, frozen, cold pack Halibut: fresh, frozen
Puget Sound Salmon Egg Co. Inc. 1440 S. Jackson St. Seattle, Washington	Snug Harbor Packing Co. Kenai Packers	Steve Sarjach, Jr.		Salmon eggs
R-Lee Company	Kalifonsky Beach	R. L. Schmidt		Salmon: frozen, smoked

CANNERY	LOCATION	SUPERINTENDENT	NO. OF LINES	PRODUCT
Snug Harbor Packing Co. 204 Administration Building Fishermen's Terminal Seattle, Washington	Snug Harbor	J. R. Fribrock	1 - 1# talls 1 - 1# flats 1 - 1/2# flats	Salmon: canned
Seafare Shrimp Inc. % Hille P. O. Box 671, Homer	Homer	Carl L. Hille		Shrimp: fresh, frozen, cold pack Clams: canned
Charles L. Simon Seafoods Route 2, Kasilof	Kasilof	Charles L. Simon, Sr.	Hand cannery	Salmon: canned Halibut: canned
Dale Christmas, Sportman Cannery and Smokehouse Clam Gulch	Clam Gulch	Dale Christmas	1 - 1# talls 1 - 1/2# flats	Salmon: canned, fresh, smoked
Tee Pee Cold Storage Star Route, Kenai	Kenai	Bill Roark		Salmon: fresh, frozen, smoked Halibut: fresh, frozen
Theodore Seafoods Inc. 2927 Sheldon Jackson St. Anchorage	Kenai	Christopher Theodore	Freezer ship <u>M/V Teddy</u>	Salmon: frozen
Tidewater Packing Co. P. O. Box 1842, Anchorage	Anchorage	P. Ray Coffin, Jr.	1 - 1/2# flats	Salmon: canned
Torvald Jensen & Co. Box 23, Ninilchik	Ninilchik	Torvald Jensen		Salmon: smoked
Wakefield Fisheries Port Wakefield	Seldovia	J. Richard Pace		King crab: frozen
Waterfall Fisheries, Inc. Clam Gulch	Clam Gulch	Mel C. Jackson	1 - 1/2# flats	Salmon: canned, fresh, froz smoked Halibut: fresh, frozen
Western Alaska Enterprises, Inc. 825 West 8th, Anchorage	Cook Inlet	Noboru Matsuo	Freezer ships <u>M/V Taiyo-Maru No. 82</u> M/V Ruyyo-Maru	Salmon: frozen

CANNERY

LOCATION

SUPERINTENDENT

NO. OF LINES

PRODUCT

Western Alaska Seafoods, Inc. Homer
611 Lowman Building
Seattle, Washington

Shrimp: fresh, frozen,
cold pack
Dungeness crab: fresh, froz
cold pack
King crab: fresh, frozen
cold pack

FROZEN FISH (POUNDS) BY WEEK 1966

WEEK ENDING	KINGS	REDS	COHOS	PINKS	CHUMS	TOTAL
6/26	119					119
7/3	1,740				1,400	3,140
7/10	1,074				2,083	3,157
7/17	18,985	282,082	5,890	63,043	78,298	448,298
7/24	7,357	122,395	1,469	59,841	12,781	203,843
7/31	10,412	45,173	13,219	66,877	22,107	157,788
8/7	3,871	3,418	15,143	100,465	31,418	154,315
8/14	424	825	2,301	48,429	2,644	54,623
8/21	650	89	7,115	48,429	4,044	60,327
Totals	44,639	453,982	45,137	387,084	154,675	1,085,517
Corrected totals from Industry Annual Reports:						
	83,052	483,698	393,996	1,132,168	300,827	2,393,741

TOTAL CUMULATIVE PACK, COOK INLET - 1966

WEEK ENDING	KINGS	REDS	COHOS	PINKS	CHUMS	TOTAL
6/26	89.5	956.5	0	14	19.5	1,079.5
7/3	190	5,301	21	189	214	5,915
7/10	280	10,777	271	677	1,296	13,301
7/17	546	64,145	2,238	16,077	15,757	98,763
7/24	760	124,219	9,072	36,343	26,130	196,524
7/31	1,040	134,996	14,539	42,995	38,919	242,489
8/7	1,152	137,326	18,122	78,180	44,860	279,640
8/14	1,199	137,692	20,135	87,977	47,442	294,445
8/21	1,199	137,779	20,167	88,597	47,849	295,591

Corrected Totals taken from Cannery Annual Reports:

1,494	143,037	23,030	102,788	49,678	320,027
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COOK INLET SALMON PACK IN CASES BY CANNERY - 1966

CANNERY	KINGS	REDS	COHOS	PINKS	CHUMS	TOT
Alaska Star Inc	0	13	3	2	5	
Berman Packing Co.	0	6,002	274	7,899	538	14,7
Columbia Ward	394	32,942	2,869	22,317	10,014	68,5
Horton's Seafood	0	9	0	0	0	
Kenai Packers	976	53,548	6,823	32,222	10,938	104,5
Osmar's Ocean Specialties	0	2,526	773	4,611	98	8,0
Charles L. Simon Seafoods	0	13	0	0	0	
Smoked Alaskan Seafoods	30	0	5	0	0	
Snug Harbor Packing	61	22,084	3,450	8,542	15,051	49,1
Tidewater Packing Co.	0	238	260	294	145	9
Waterfall Fisheries	0	1,597	511	2,972	36	5,1
Whitney-Fidalgo Seafoods	33	24,065	8,062	23,929	12,853	68,9
Totals	1,494	143,037	23,030	102,788	49,678	320,0:

PRICES PAID AND FISH PER CASE, COOK INLET, BY CANNERY, 1966

COMPANY	KINGS		REDS		COHOS		PINKS		CHUMS	
	Fish/Case*	Price	Fish/Case*	Price	Fish/Case*	Price	Fish/Case*	Price	Fish/Case*	Price
Western Alaska Enterprises)		5.00 ea.		1.44 ea		.96 ea		.46 ea		.63
Mitsubishi International)	frozen	0.23/lb	frozen	0.24/lb	frozen	0.16/lb	frozen	0.115/lb	frozen	0.09/1
Waterfall Fisheries, Inc.	frozen	6.45 ea.	13.4	1.58 ea	9.28	1.12 ea	18.0	0.43 ea	15.6	0.68 e
Whitney-Fidalgo Seafoods			11.5	1.65 ea	14.4	1.00 ea	24.7	0.46 ea	11.8	0.64 e
Snug Harbor Packing Co.	3.6	5.00 ea 0.23/lb	11.0	1.44 ea 0.24/lb	11.1	.90 ea 0.15/lb	18.8	.44 ea 0.11/lb	10.6	.70 0.10/1
Tidewater Packing Co.			11.8	1.47 ea	11.2	1.04 ea	22.0	0.40 ea	10.4	0.63 e
Kenai Packers	3.0	6.71 ea	12.3	1.47 ea	11.3	1.03 ea	19.4	0.396 ea	10.4	0.63 e
Columbia-Wards Fisheries	3.7	5.00 ea	12.2	1.47 ea	9.4	1.04 ea	18.1	0.40 ea	9.8	0.63 e
Berman Packing Co.			12.0	1.65 ea** 1.50 ea	11.0	1.10 ea** 1.00 ea	21.0	0.35 ea	11.0	0.70 e

* One case equivalent to 48 1# cans

** Delivered price

1966 SALMON CATCH BY AREA AND GEAR

AREA & GEAR	KINGS	REDS	COHOS	PINKS	CHUMS	TOTAL
232 HPS	0	466	54	115,937	4,898	121,355
241 HPS	29	1,603	4,031	153,747	26,756	186,166
241 SGN	31	10,589	504	23,797	1,998	36,919
242 HPS	1	2,244	303	282,814	82,722	368,084
244 DGN	438	865,693	69,598	510,329	352,822	1,798,880
244 SGN	7,237	480,863	68,405	973,954	7,584	1,538,043
245 DGN	45	242,370	11,841	79,626	72,092	405,974
245 SGN	272	67,964	37,649	40,242	60,392	206,519
246 SGN	129	64,479	21,860	30,265	4,333	121,066
247 SGN	1,422	131,080	80,550	371,960	35,598	620,610
248 HPS	0	21	247	2,945	12,688	15,901
Totals	9,604	1,867,372	295,042	2,585,616	661,883	5,419,517

COOK INLET RESEARCH PROJECTS

Through the use of funds made available to the State of Alaska by Federal Aid to Commercial Fisheries Bill (P.L. 88-309) research projects concerning red and pink salmon were conducted in Cook Inlet during 1966.

The pink salmon program consists of pre-emergent fry sampling, adult escapement enumeration, and data analysis for prediction purposes. The prediction made for the 1966⁶⁷ return of pink salmon to the Southern and Outer Districts was the ~~first~~^{2nd} numerical prediction made for this area. The prediction for the area amounted to ~~1.3 million~~^{500,000} return (catch plus escapement), while the total actual return amounted to ~~911,000~~^{500,000} pink salmon. ~~Prediction error amounted to a 30% over-estimate.~~

Adult enumeration is estimated by foot and aerial surveys conducted during the peak of spawning. A series of surveys are made on each stream to account for waves of spawners.

Pink salmon pre-emergent fry sampling has been attempted in the Northern District streams but high water and extensive ice conditions have prevented success in the program.

The red salmon project is responsible for three main phases of red salmon research in Cook Inlet: adult enumeration, adult sampling, and smolt studies.

The adult enumeration phase of the program consists of development and testing of a sonar salmon counter suitable for use in the glacially turbid salmon streams. The 1966 field tests of the doppler effect model were partially successful, but results indicated that further development and testing were necessary before a useful management tool is produced. Bendix Corporation redesigned the counter and tests in the State of Washington during the month of November were very successful. The new design utilizes a series of transducers mounted on the stream bottom instead of the single transducer of earlier models. It is anticipated that problems will arise maintaining the transducer assembly on the stream bottom in a usable fashion, but with experience these problems can be overcome and the sonar salmon counter will be a usable management tool.

The adult sampling program was established to provide age and racial data on the escapement and commercial catch. Scale samples were collected throughout the fishing season to adequately represent the catch by gear and area. Escapement sampling was concentrated on the Kenai and Kasilof Rivers, ~~where circular fyke nets were used to capture upstream migrating salmon. Approximately 11,000 scales were collected from the commercial fishery and 1,000 scales from the escapement into Kenai and Kasilof Rivers.~~ In addition to the above, about 300 scales and 300 otoliths were collected from the Russian River sports fishery and spawning grounds, respectively.

Phase III encompasses all the smolt work done by this office. Primary objectives are to index the abundance of sockeye smolts migrating from the Kenai River and to define the racial characteristics of smolts from the various river systems. On the Kenai River four inclined screen scoop traps were fished regularly to index abundance and timing during June, July, and August. Sockeye smolts caught were sampled at the rate of 50 every five days to provide age and racial data. Smolt samples of 300 were also taken from Hidden and Russian Lakes of the Kenai River system, Shell, Whiskey and Bulchitna Lakes of the Susitna River system, and from Fish Creek and English Bay stream. These "at large" samples provide freshwater growth patterns to be expected in their respective drainages.

A detailed account of research project activities can be found in the PL 88-309 progress reports written up quarterly.

TEST FISHING - KENAI-KASILOF RIVERS

Kenai River: Due to the silty conditions of the Kenai and Kasilof Rivers, the timing of, and the escapement levels, are estimated by test fishing. The gear used during the 1966 season was the same as for the past four years: red salmon gill nets, 72 feet long, 10 feet deep and 5½ inch mesh.

The fishing sites on the two respective rivers have remained the same the past five years. The fishing sites are located within the intertidal zone. Fishing time is regulated by the tides, with fishing being conducted in the one hour period prior to flood tide.

Test fishing in the Kenai River commenced on June 18. A three day average of 35 red salmon per hour was taken on ~~July~~^{June} 19 (see graph of Kenai Test Fish - Red Salmon). A lull followed this until July 7 when a minor peak of 93 red salmon per hour was reached. The main strength of the red salmon escapement entered the river between the 19th and 22nd of July when 188 and 244 red salmon per hour were taken respectively. The red salmon run dwindled following this surge, with no reds caught in test fishing gear after August 12. As the graph indicates, when the red runs of the past four years are averaged, the 1966 red run is much stronger than the average.

A strong run of pink salmon was evident in the Kenai River this season, relative to former years. Pink salmon were first taken at test fishing site on July 7. However, the main strength of the pink run was not evident until early August. The total catch of all species by year and month since 1962 is observed in the chart "Test Fishing Cumulative Totals - Kenai River 1962-1966."

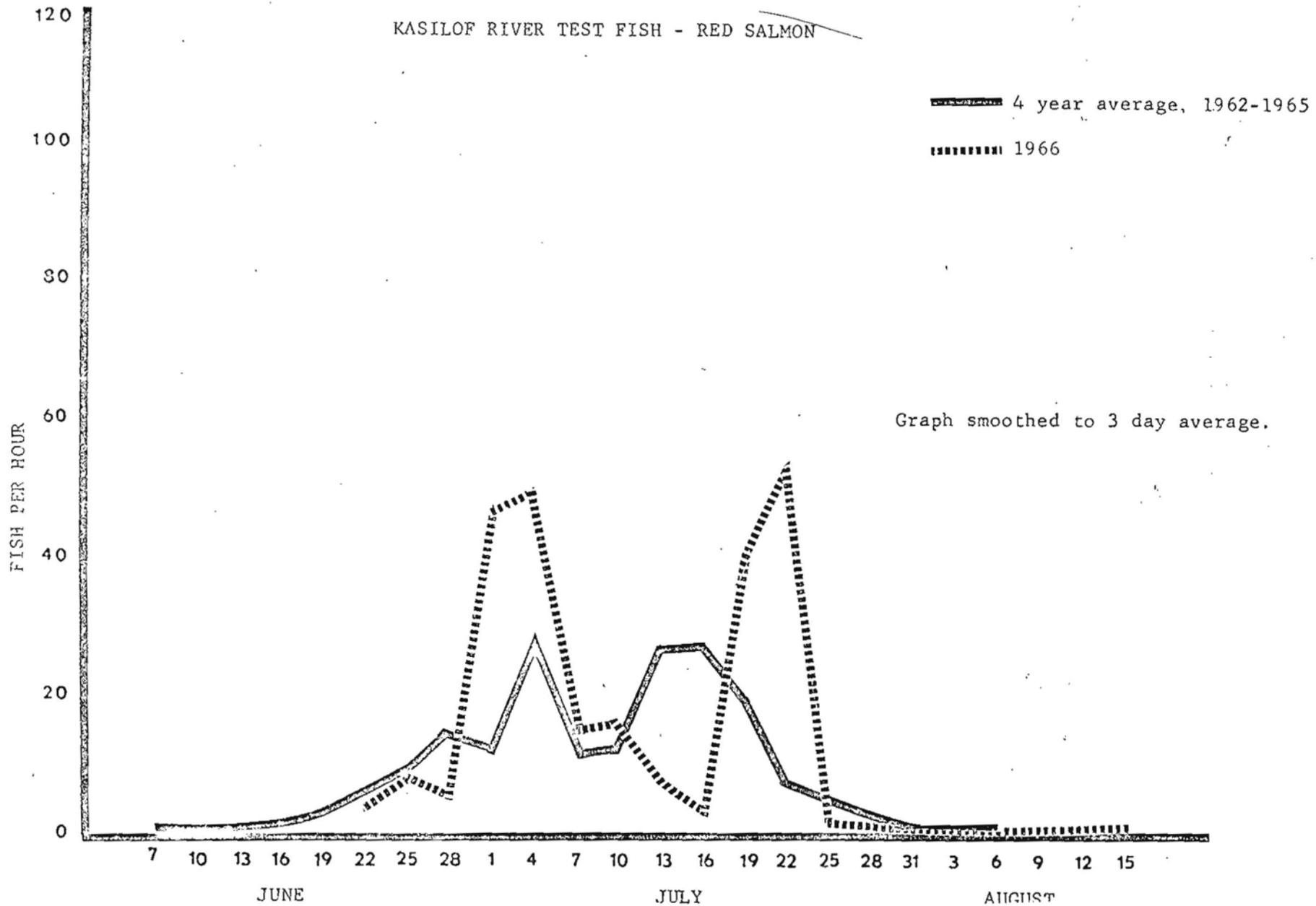
Test fishing in the Kenai River terminated on August 14, when only pink salmon were evident.

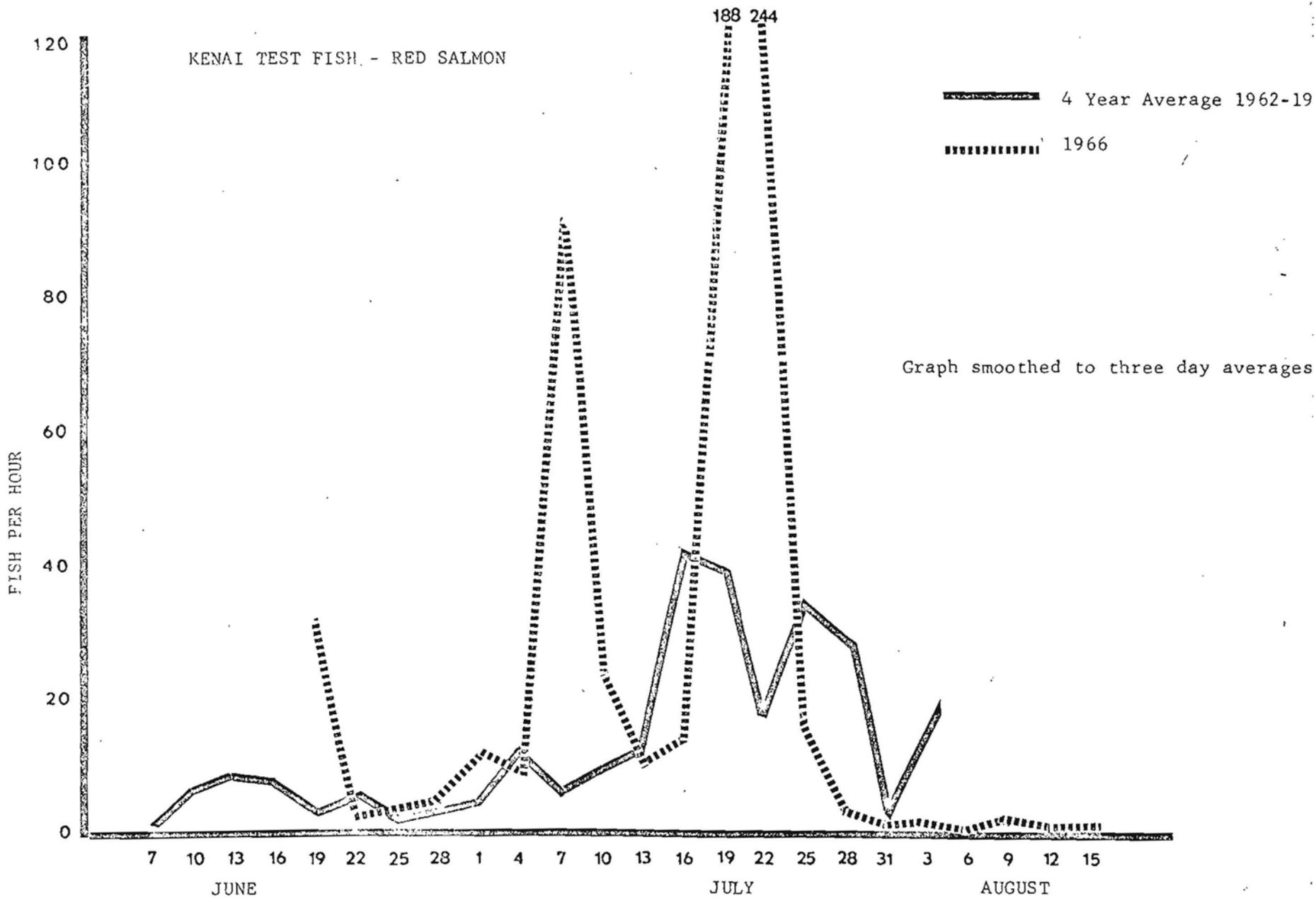
Kasilof River: Test fishing in the Kasilof River commenced on June 22. Less than 5 red salmon per hour were caught at that time (see graph of Kasilof River Test Fishing - Red Salmon). Two peaks of red salmon escapement, of even magnitude, were observed in the Kasilof River this season. The first peak of 50 reds per hour was reached between July 1 and 4. The reds per hour dropped to less than 15 until July 22, when 55 reds per hour were taken. This dropped abruptly, with no red salmon caught after July 31. The 1966 escapement of red salmon into the Kasilof River was in a greater magnitude than the four year average of 1962-1965, as is evident from the graph.

Relative to former years, a good run of pink salmon entered the Kasilof River this season. Pinks were initially caught on the 12th of July, but the major portion of the run didn't enter the Kasilof River until early August.

The total catch of all species by gear and month since 1962 is observed in the chart "Test Fishing Cumulative Totals -- Kasilof River, 1962-1966."

Test fishing in the Kenai River terminated on August 15, when pink salmon in low numbers were the only fish being caught in the test fishing gear.





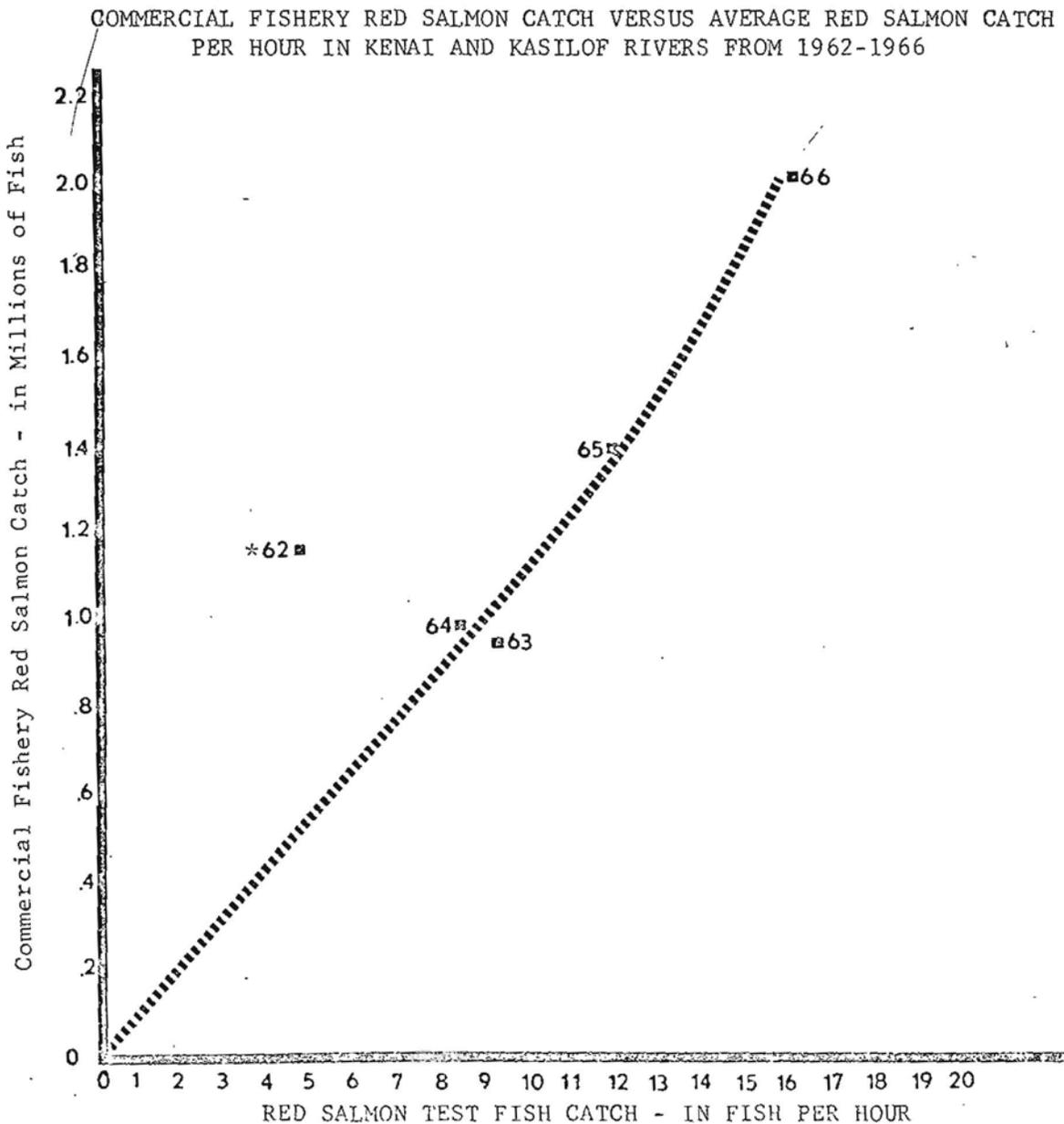
TEST FISHING CUMULATIVE TOTALS
KENAI RIVER
1962 - 1966

	<u>Hrs. Fished</u>	<u>Kings</u>	<u>Reds</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Other</u>
June, 1962	32.0	7	117	0	0	2 Dolly Varden
1963	26.6	7	149	1	1	1 "
1964	29.9	7	121	1	0	2 "
1965	21.0	10	119	0	0	0
1966	17.2	10	230	0	0	0
July, 1962	22.4	0	181	3	99	1
1963	59.1	17	755	73	4	42 Dolly Varden
1964	58.8	14	698	26	209	12 "
1965	48.8	38	849	37	2	21 "
1966	34.8	16	1,097	59	333	18 "
Aug., 1962	13.3	0	3	2	456	0
1963	2.5	0	3	11	0	0
1964	10.5	0	2	4	284	0
1965	10.9	6	207	53	0	0
1966	16.1	1	7	7	308	13 Dolly Varden
Total 1962	67.7	7	301	5	555	3 Dolly Varden
1963	84.2	24	907	85	5	43 "
1964	99.10	21	821	31	493	14 "
1965	80.7	54	1,175	90	2	21 "
1966	68.1	27	1,334	66	641	31 "

TEST FISHING CUMULATIVE TOTALS
KASLOF RIVER
1962 - 1966

	<u>Hrs. Fished</u>	<u>Kings</u>	<u>Reds</u>	<u>Cohos</u>	<u>Pinks</u>	<u>Other</u>	
June, 1962	37.7	14	171	0	0	0	
1963	23.4	21	84	0	0	0	
1964	30.1	12	232	1	0	2	Steelhead
1965	19.5	19	171	0	0	0	
1966	13.2	11	193	0	0	0	
July, 1962	13.2	7	182	1	17	0	
1963	44.5	19	442	9	1	0	
1964	53.0	24	561	4	23	0	
1965	51.0	60	558	14	2	0	
1966	39.4	28	686	5	39	0	
Aug., 1962	14.8	0	1	4	289	0	
1963	2.9	0	0	0	0	0	
1964	4.0	1	2	2	40	0	
1965	14.4	7	36	8	1	0	
1966	15.0	0	0	2	310	0	
Total 1962	65.6	21	354	5	306	0	
1963	70.8	40	526	9	1	0	
1964	87.5	37	795	7	63	2	Steelhead
1965	84.9	86	765	22	3	0	
1966	67.5	39	879	7	349	0	

Relationship between Commercial Catch of Red Salmon, and Escapement into the Kenai and Kasilof Rivers determined by Test Fishing: The total number of red salmon taken and total hours of test fishing done each season on the Kenai and Kasilof Rivers were determined for the 1962-1966 seasons. The red salmon catch per hour was calculated by year for each river. The catches per hour for each river were added together and an average of the two determined for each year from 1962-1966. This average was then plotted against the commercial fishery red salmon catch with the following results:



*See text for discussion of the elimination of this year in determining the line

The point for the 1962 data was not included when the line was determined to show the above relationship. 1962 was the first season test fishing was attempted in the Kenai and Kasilof Rivers and one-third to one-half of the season was spent standardizing the method: i.e. fishing sites, length and depth of net, amount of weight needed on lead lines, and when to fish in relation to the tide. For these reasons, the average catch per hour of reds is not felt to be as indicative of the strength of the run in the rivers as the last four seasons.

TEST FISHING PROGRAM OF THE NORTHERN DISTRICT

Two locations were used as test fishing sites in the Northern District during 1966 -- the Susitna River site (near the mouth of Fish Creek), and at the Susitna mouth. The Chuit River site which was test fished for the past three years was used in 1966, rather, drift fishing was attempted in its place. The drift fishing attempted in the Northern District on two different occasions proved unsuccessful.

Test fishing methods used in the Northern District do not readily lend themselves to comparison from one year to the next. Fishing is done in such a manner as to learn what species are present in the Susitna, and in what relative abundance in order to have up-to-the-minute information for management purposes. Variations in time fished have occurred from year to year.

The Susitna River test fishing site is on the east shore of the river about eight miles upstream. Tidal influence is noticed only during periods of very low river water -- usually only in early spring. Normally two 100 foot gill nets are fished. During the king run one king net (8½" mesh) and one red net (5½" mesh) are used. For the remainder of the season two red nets are used. Test fishing in 1966 commenced May 19, and continued through August 14.

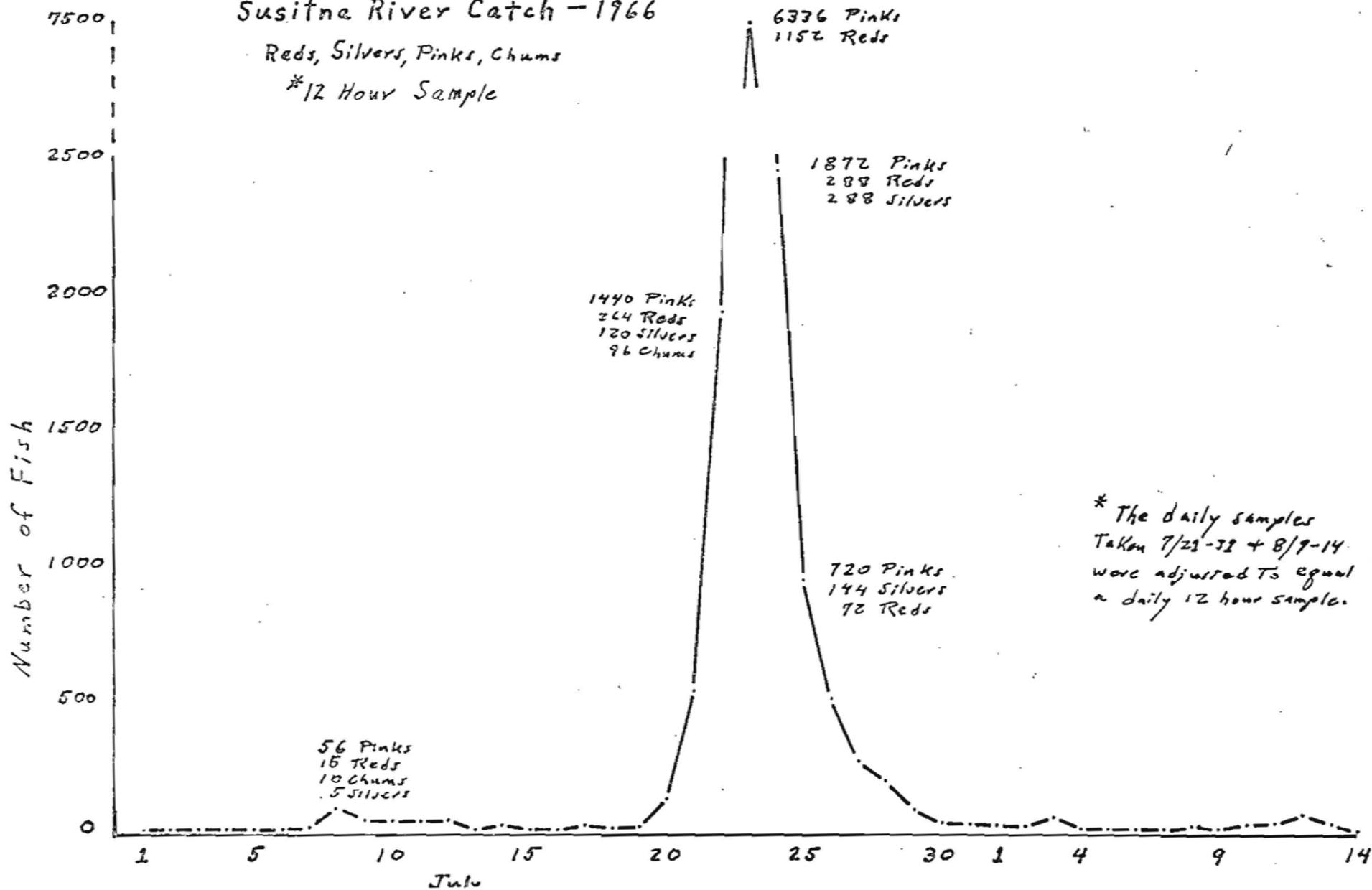
In conjunction with the test fishing at the above described site, the same crew test fished at Carl Thiel's commercial fishing location at the mouth of the Susitna during closed periods only. But one 100' net was used here, normally for three hours during high tide. Test fishing was carried out sporadically at this site from July 12 to July 23.

The graphs following show the total catch of salmon, and the individual catch of salmon for red, silver, pink, and chum salmon. During the peak of the runs, fishing time was reduced drastically, and the rate at which salmon were caught was projected for a 12-hour period so that data from early and late in the season would be comparable to that collected during the height of the run.

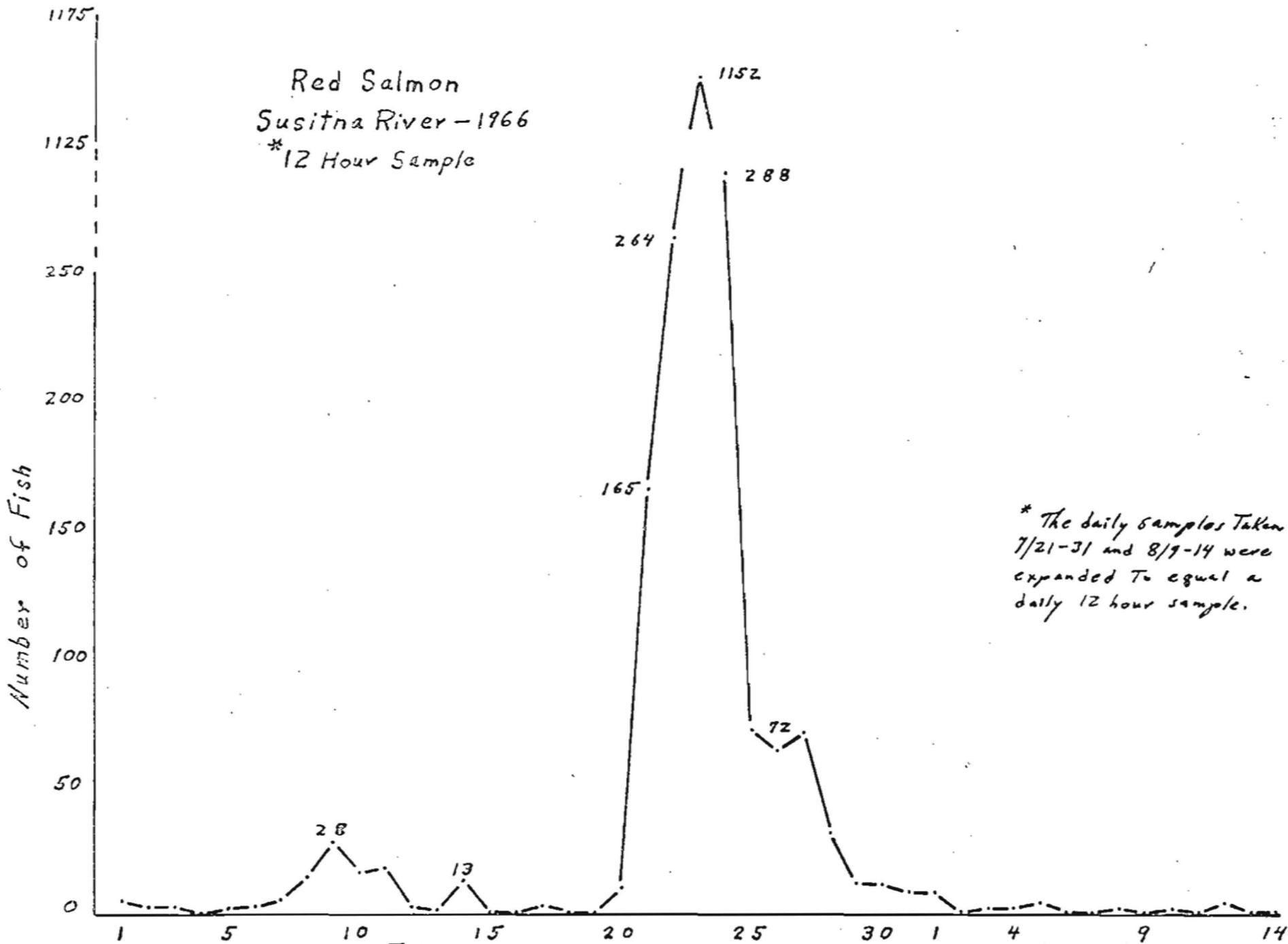
Susitna River Catch - 1966

Reds, Silvers, Pinks, Chums

* 12 Hour Sample

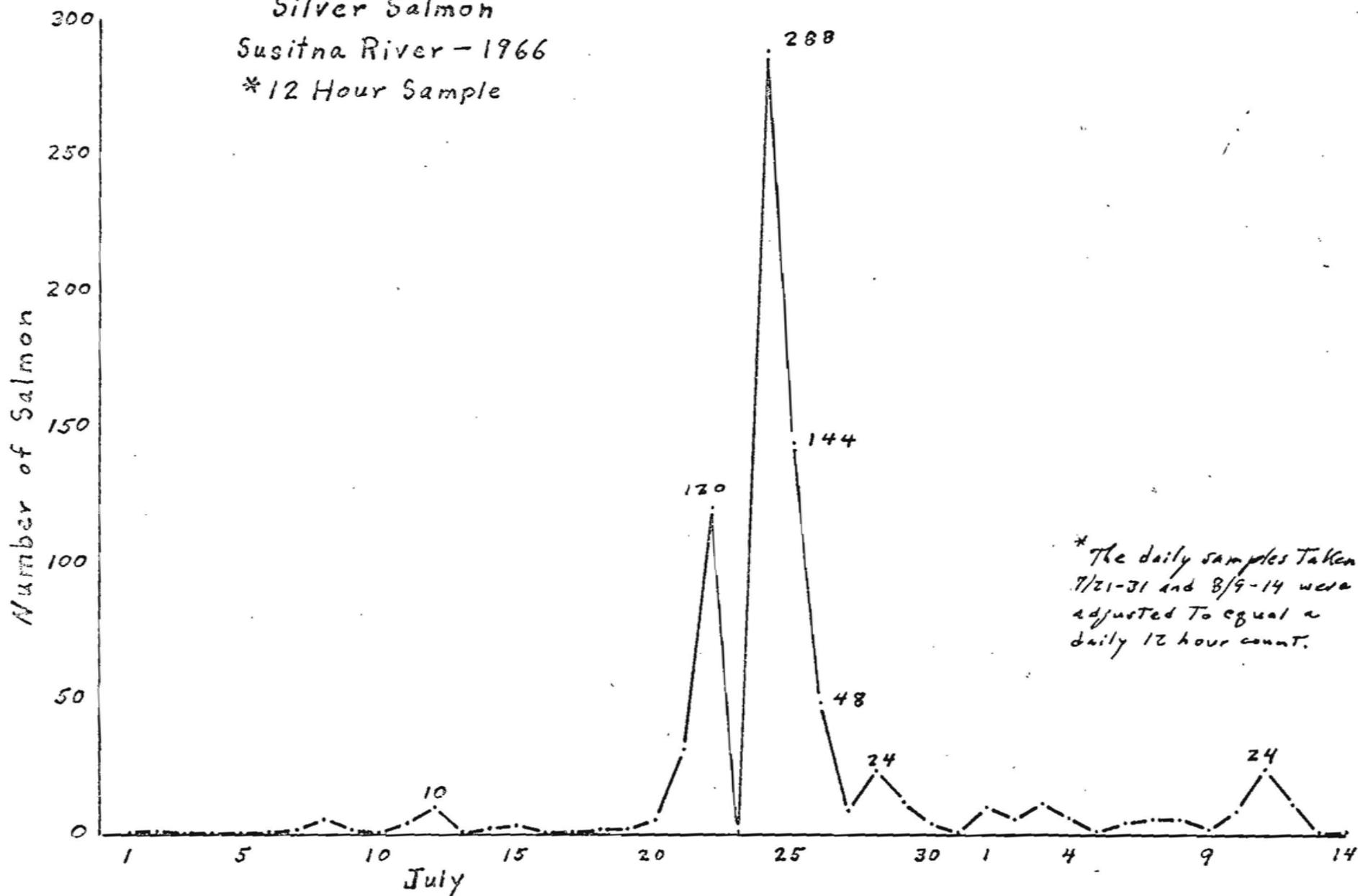


* The daily samples
Taken 7/23-28 + 8/9-14
were adjusted to equal
a daily 12 hour sample.



* The daily samples Taken 7/21-31 and 8/9-14 were expanded to equal a daily 12 hour sample.

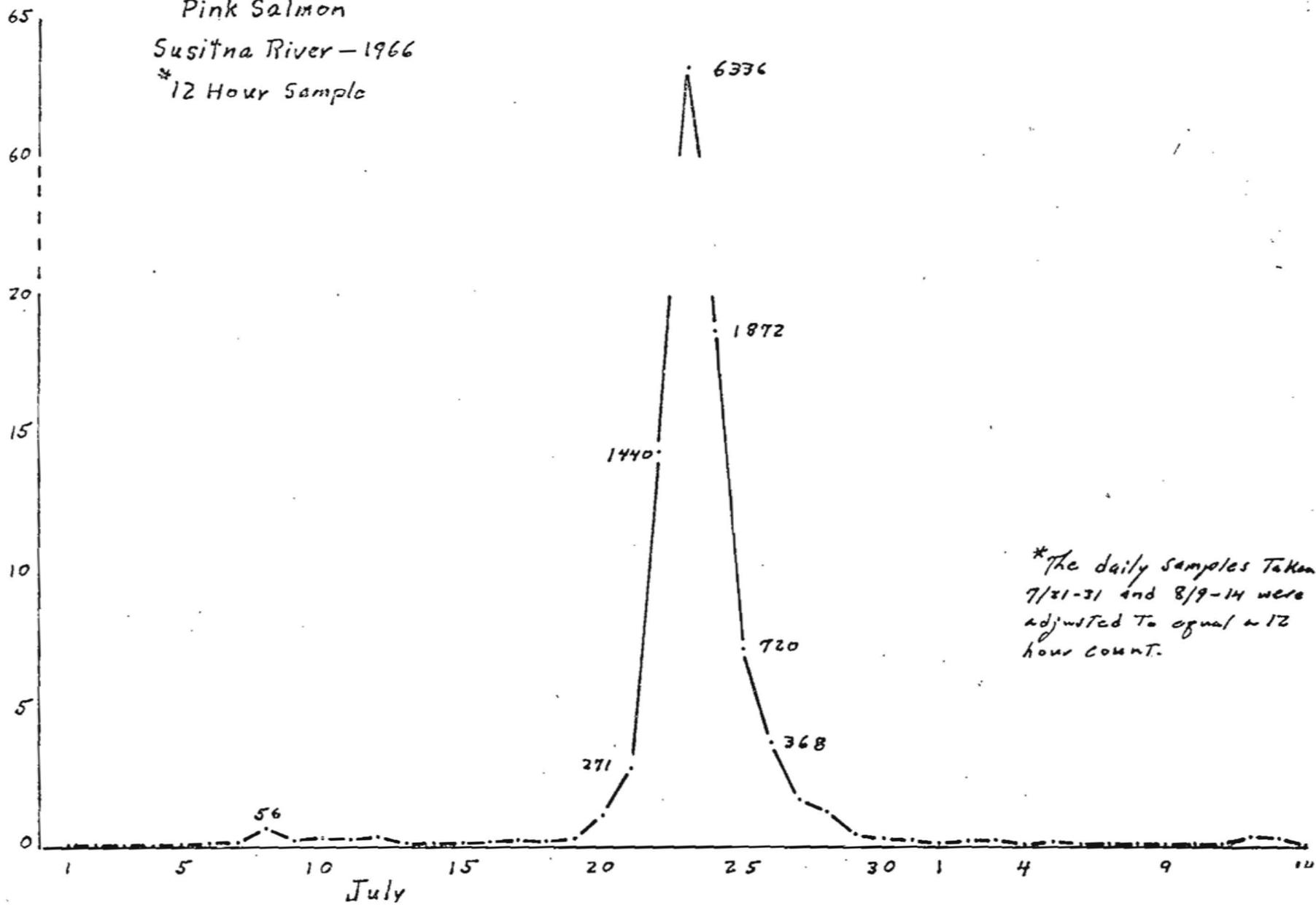
Silver Salmon
Susitna River - 1966
* 12 Hour Sample



* The daily samples taken 7/21-31 and 8/9-14 were adjusted to equal a daily 12 hour count.

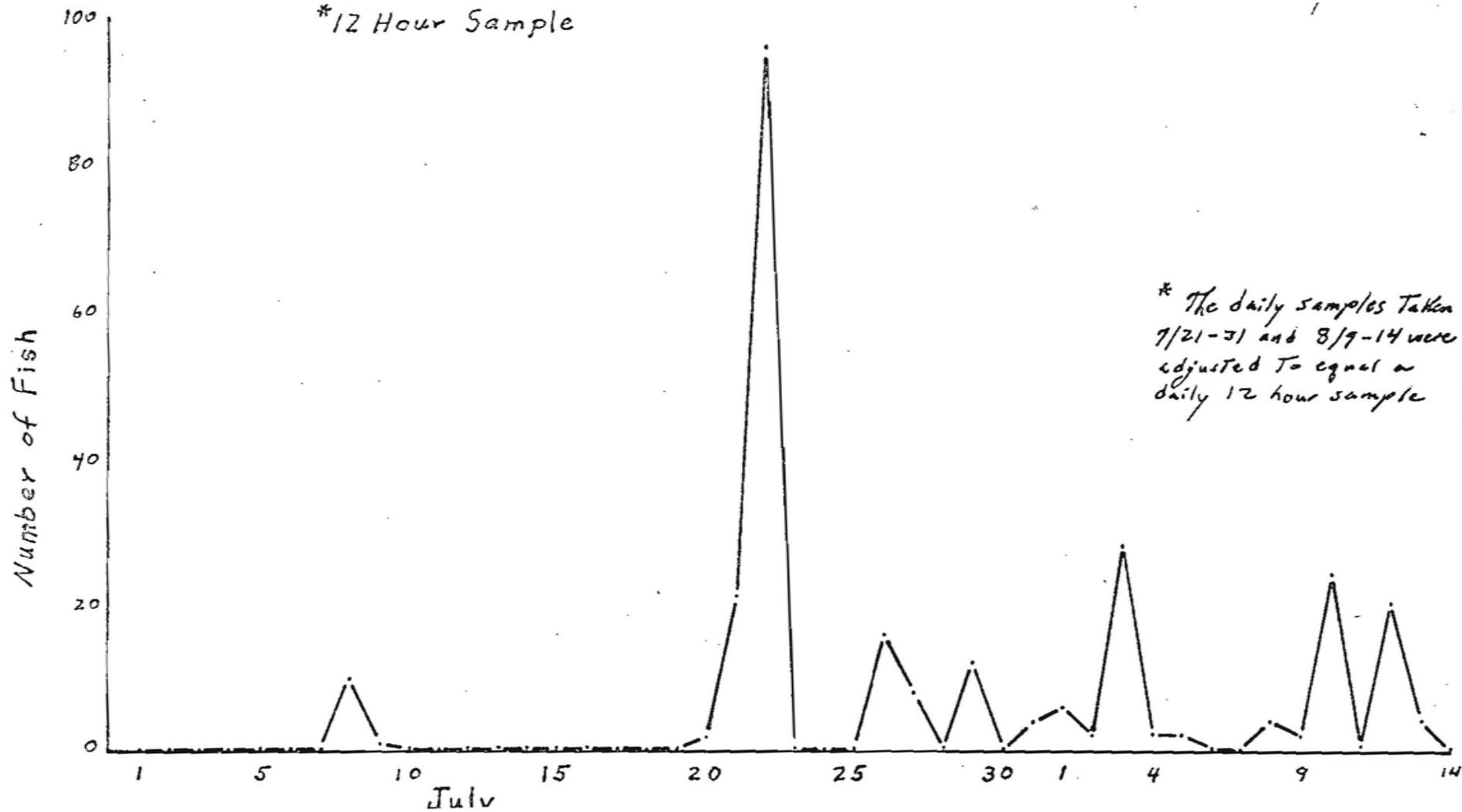
Number of Fish in Hundreds

Pink Salmon
Susitna River - 1966
* 12 Hour Sample



*The daily samples taken 7/21-31 and 8/9-14 were adjusted to equal a 12 hour count.

Chum Salmon
Susitna River - 1966
*12 Hour Sample

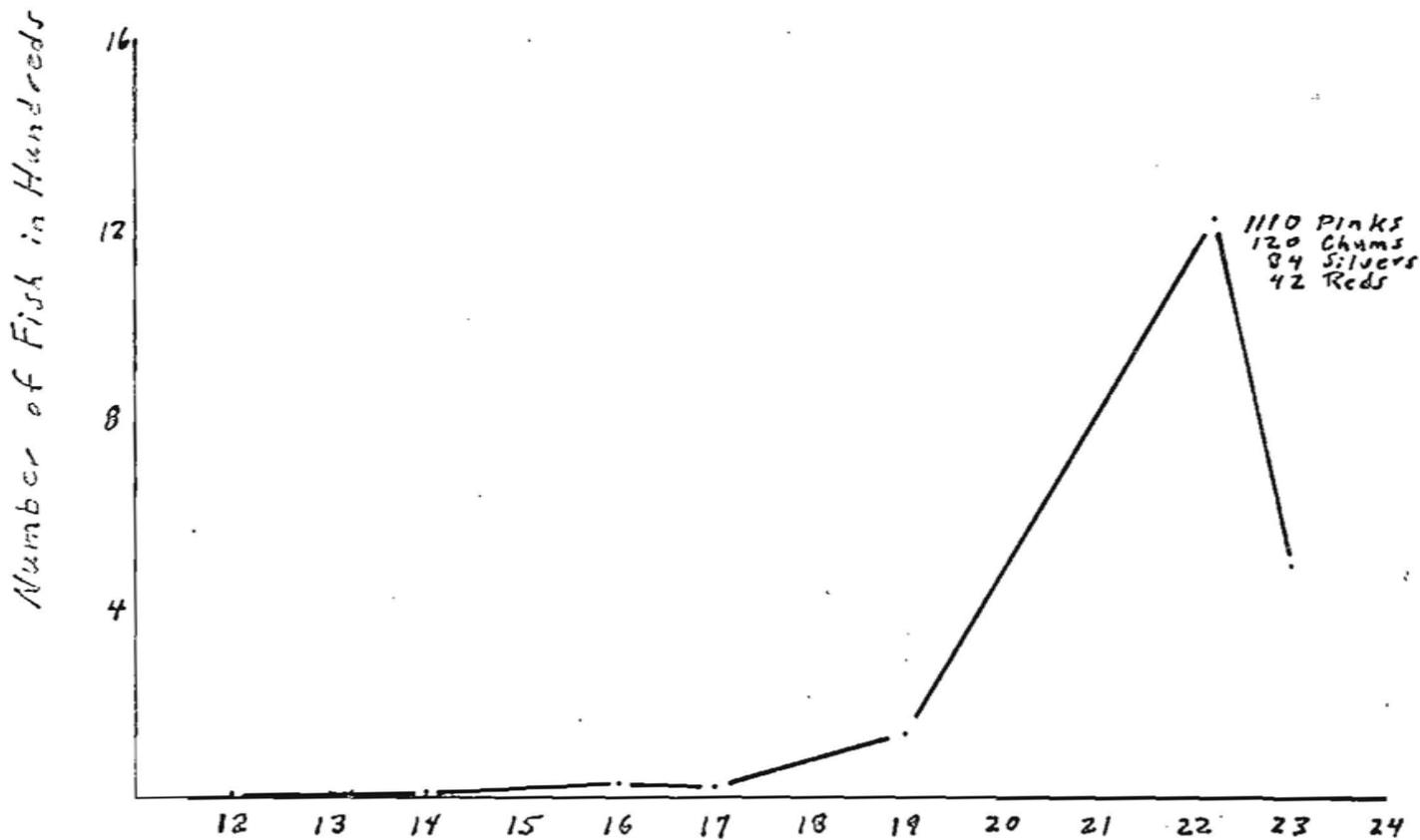


* The daily samples taken 7/21-31 and 8/9-14 were adjusted to equal a daily 12 hour sample

Susitna Mouth Catch - 1966

Reds, Silvers, Pinks, Chums

* 3 Hour Samples



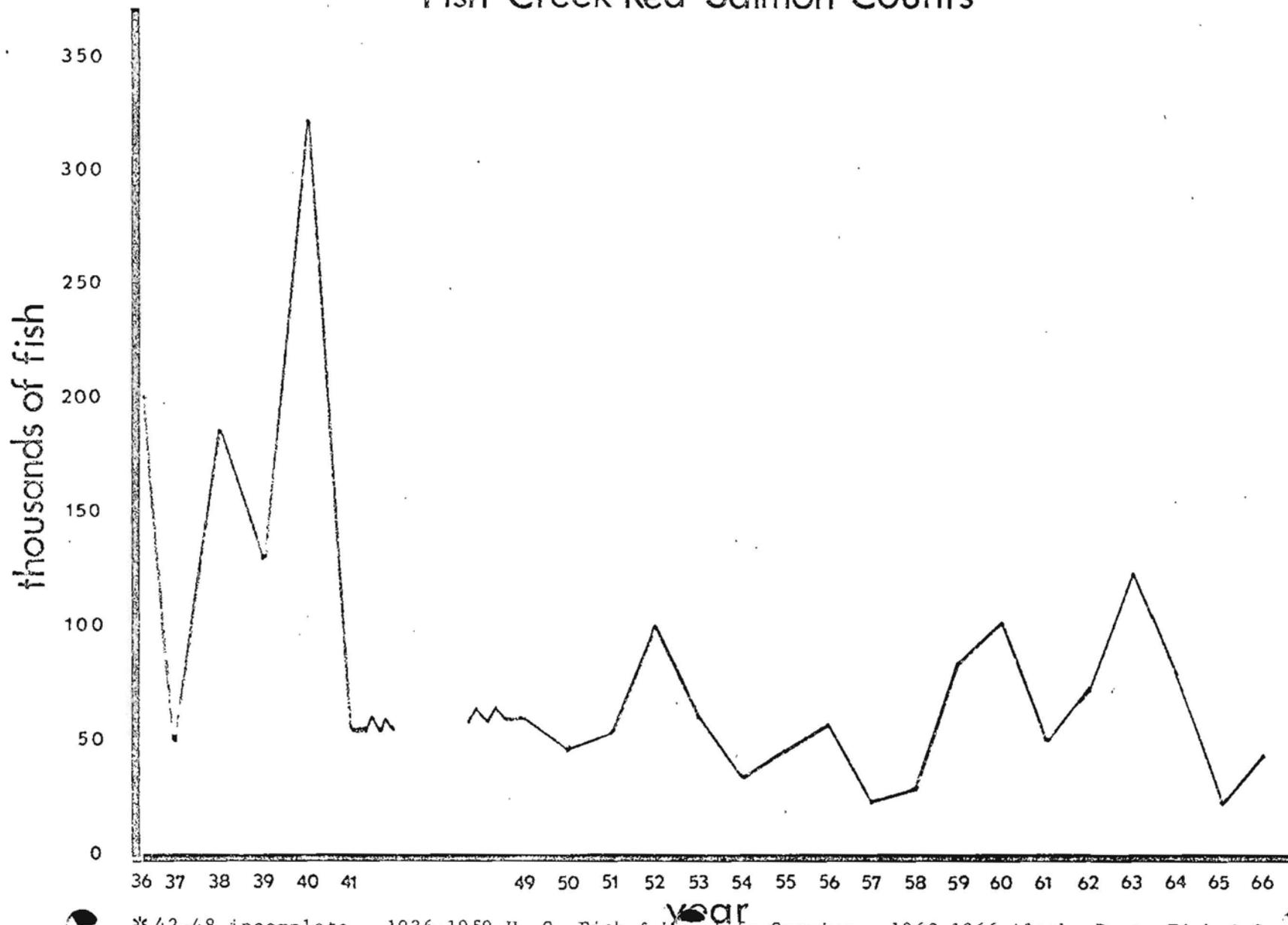
* The samples taken July 14, 22 & 23 were expanded to give a daily 3 hour sample.

FISH CREEK COUNTING TOWER

From July 5 to July 31, 1966, the red salmon escapement into Fish Creek Knik Arm was enumerated. The red salmon escapement was estimated at 41,312, which 5,873 were red salmon jacks. This total escapement is 33 per cent below the seven year average of 62,142.

The method of estimation is as follows: one 15 minute count is taken every hour for a 12 hour period, and then 16 hours are passed before the next 12 hour sequence of counts. The actual observed count figure is multiplied by eight to project the total estimated escapement.

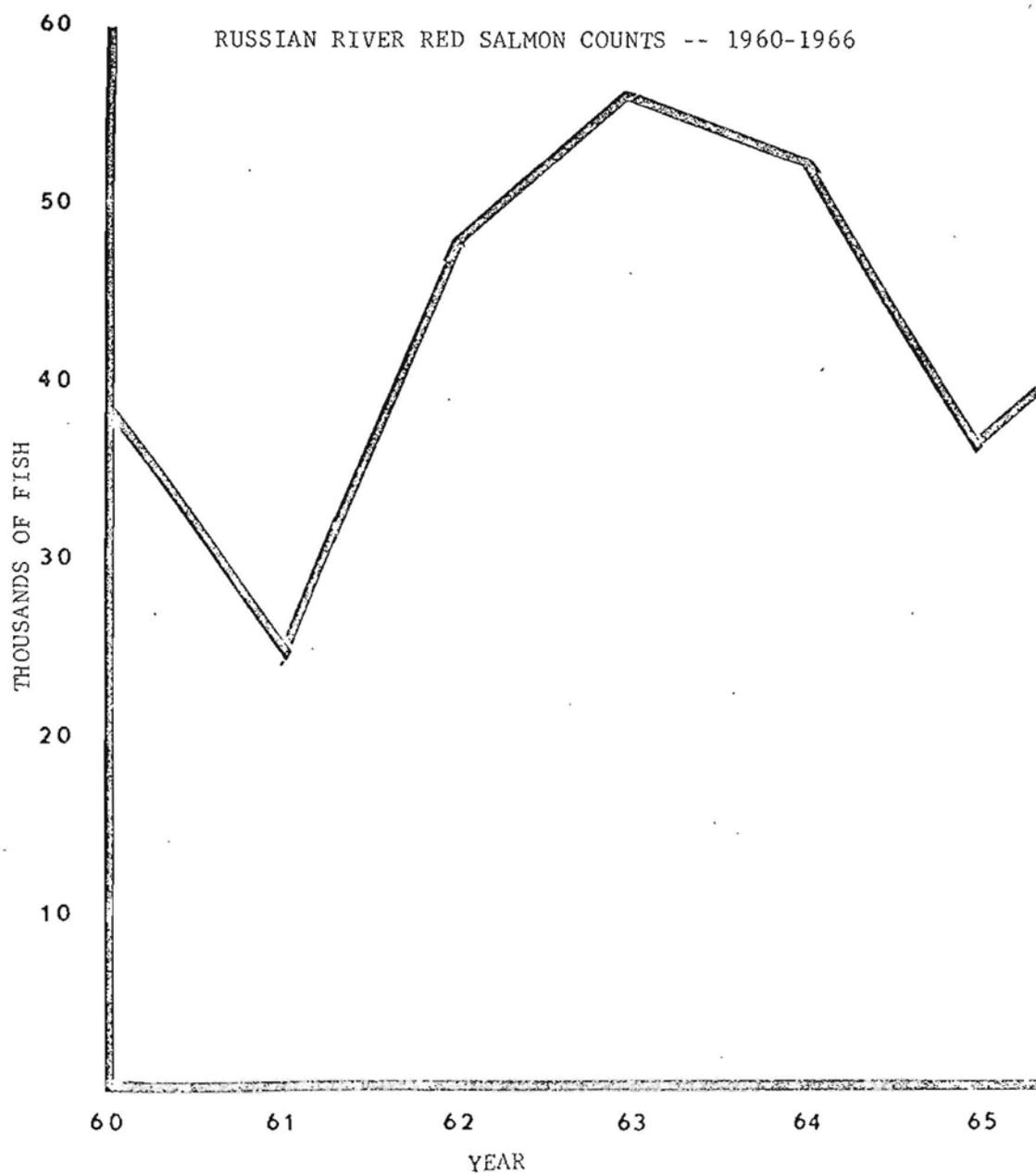
Fish Creek Red Salmon Counts*



* 42-48 incomplete. 1936-1959 U. S. Fish & Wildlife Service. 1960-1966 Alaska Dept. Fish & Game

RUSSIAN RIVER COUNTING TOWER

A counting tower has been maintained on the Russian River since 1960. The total escapement is estimated by the same method used at Fish Creek. Enumeration of the run this season commenced on June 20 and terminated August. The 1966 estimate of 43,880 red salmon escapement is above the seven-year average for the river.



FRITZ CREEK

Approximately 2,000 to 2,500 adult pink salmon were transplanted each year from 1961 through 1963 into Fritz Creek. A return of 185 adults was observed in 1964, 6 in 1965, and approximately 12 for 1966.

The Fritz Creek transplant effort at this time appears to have been a failure. Perhaps a more massive plant would have succeeded. Perhaps it could have been accomplished using eggs. Perhaps a mechanical means of working loose the bottom of this small stream should have been tried.

Until further effort appears desirable, nothing further will be done to reintroducing pink salmon to Fritz Creek. The steep pass ladder will be removed.

SUBSISTENCE FISHING

A total of 330 subsistence permits for salmon were issued in 1966: 96 Palmer, 153 in Anchorage, 1 in Soldotna, and 80 in Homer. Of the permit holders 73 did not fish, 29 failed to return their catch reports, and 220 caught 50 fewer fish, and 8 caught over 50 fish.

The reported catch by species was:

KINGS	REDS	COHO	CHUMS	PINKS	OTHER*	TOTAL
8	1,656	3,533	356	598	23	6,174

* 17 flounder, 2 trout, 4 sharks

KING CRAB

The 1966 landings of 3,900,163 pounds of king crab still reflects the lack of effort in the Cook Inlet area that came about in 1965 because of the mass emigration of large crab boats from this area to Kodiak and Westward. The 1965 landings in Cook Inlet were the lowest since state management: 1966 landings come next. The trend now, however, seems to be upward. Average weight of crab for both Kamishak and Kachemak Bay areas appears to be satisfactory (see table following), with no drastic change which could indicate overharvest.

The Board of Fish and Game passed a regulation that closed the Kodiak Area to king crab fishing from May 1 to June 30 in 1966: at the same time Area Registration for Kodiak and Cook Inlet was combined, thus allowing king crab fishermen free movement between these two fishing areas. There was concern that when the Kodiak area closed May 1 that unusual fishing pressure would be exerted on Cook Inlet, which in 1966 continued to remain open to king crab fishing.

This did come about, but not to the degree expected. During the last week of April soft shell crab appeared in considerable quantities in Kachemak Bay. Crab pots from seven boats fishing Kachemak were sampled by observing as the fishermen pulled them. Pots were distributed throughout the commonly fished areas of Kachemak. From 50 to 100 per cent of the legal sized male crab were soft shell. An even higher proportion of the females were soft. Three of the seven fishermen recommended that the area be closed to king crabbing immediately. Based upon this biological data, and upon recommendations from these fishermen, the Southern District was closed to king crab fishing by field announcement at 9:00 a.m. May 1. The Kamishak Bay District remained open. A program to sample crab from pots currently fishing Kamishak was then started. It was found that a fairly large body of hardshell crab existed north of Augustine Island. North of the boundary between Kamishak and the Southern District it was found that many softshells existed.

Also crab south of Augustine were almost uniformly softshell. Despite this boat brought in a load of 1,000 softshells that were caught south of August and attempted to deliver them to a cannery. These crab were refused and the fisherman was forced to dump them. Mortality of these crabs was probably very high. Department staff informed fishermen and processors that as long as crab boats did not fish in the area south of Augustine Island, the Kamishak Bay Inlet would remain open. This appeared to be agreeable to the industry, and it seemed to work out satisfactorily.

On June 15 the Department announced that king crab waters deeper than 10 fathoms were open to crab fishing: all areas were opened without restriction on July 1.

For the 1967 season the Board of Fish and Game acted to establish a closed season paralleling the Kodiak closure for Cook Inlet.

COOK INLET KING CRAB LANDINGS, 1960-1966

YEAR	KACHEMAK BAY			KAMISHAK BAY			OUTER DISTRICT			TOTAL COOK INLET	
	CRAB	POUNDS	AVE. WT.	CRAB	POUNDS	AVE. WT.	CRAB	POUNDS	AVE. WT.	CRAB	POUNDS
1960	455,000	4,219,776	9.20	No Fishery						455,000	4,219,776
1961	349,783	2,988,880	8.50	139,300	1,205,679	8.60				489,083	4,194,559
1962	240,852	1,968,980	8.17	473,601	4,305,444	9.09	55,271	577,197	10.44	232,749	6,274,424
1963	330,146	2,667,279	8.08	635,225	5,538,349	8.71	16,950	175,535	10.35	965,371	8,205,628
1964	220,326	1,731,577	7.86	586,010	4,934,366	8.42	5,078	43,908	8.64	806,336	6,665,943
1965	220,455	1,811,022	8.21	108,019	963,412	8.92	No Fishery			328,474	2,774,434
1966	222,737	1,887,948	8.47	225,537	1,974,559	8.75	3,820	37,656	9.85	452,094	3,900,163
1967	162,721	1,284,789	7.9	213,285	1,821,269	8.5	1,614	16,451	10.2	377,620	3,124,509

DUNGENESS CRAB

The Dungeness crab catch for Cook Inlet for 1966 was up somewhat from that of 1965, although even then it was far from a strong fishery. All landings were made between late May and mid-October.

The interesting aspect to the 1966 Dungeness fishery is the location of the catch. For the first time of recent record significant catches were made in the Kamishak Bay District. Two Kodiak based vessels made five fall trips into this district and returned with catches ranging from 2,631 to 9,361 crabs (average 5,046). The Kamishak Bay District catch made by these boats totalled 117,037 pounds: the Kachemak Bay catch totalled 13,462 pounds.

An increase of landings in Washington, Oregon and California made it economically impractical in 1966 for Alaska caught Dungeness to compete for the major markets of the west coast.

YEAR	CRAB	POUNDS
1960	No fishery	
1961		191,588
1962	204,573	460,725
1963		1,677,204
1964	177,708	421,452
1965	32,378	82,280
1966	45,625	130,499

SHRIMP

The entire 1966 Cook Inlet shrimp catch was caught in Kachemak Bay by trawls and pots.

Two shrimp processing plants operated in Homer in 1966: one of these plants operated two shrimp peelers starting in December.

Fishing effort was up from 1965 with two boats trawling and four boats utilizing pots.

Fishing was conducted throughout the year except during the peak of the salmon season.

GEAR	POUNDS-1966	POUNDS-1965
Trawl	270,149	62,157
Pots	<u>23,037</u>	<u> </u>
Total	293,186	62,157

SEISMIC EXPLORATION, COOK INLET, 1966

<u>TYPE OF PERMIT</u>	<u>NUMBER ISSUED</u>
Land	14
Aquatic	5 (#66-158-CI, cancelled 9/30/66)
Gas Exploder	5
Tideland (Mudflat)	2
Marine Refraction	<u>2</u>
Total	28

Aquatic Permits Issued

1. Seismic Permit #66-147-CI

Shooting: May 5-30 (Date of permit May 1, 1966 to December 1, 1966)

Area: Cook Inlet; boundary north: East and West Forelands, boundary so
Augustine Island

Type: Refraction survey of six 8 mile lines - 750# maximum charge of
nitro-carbo-nitrate. Of 16 days shooting $\frac{1}{2}$ of time in refraction
and $\frac{1}{2}$ in reflection.

Boats Used: Sitkin 178'; Peggy Jo 100'; Oceanic 82'; Royal Lady 36' (used
for a week)

Mortality of fish observed:

Pacific Tomcod	177
Herring	3
Stickleback	<u>6</u>
	186

Observer: Bob Jonas

2. Seismic Permit #66-146-CI

Shooting: April 15 to June 1, 1966 with an extension to June 4, 1966

Area: Cook Inlet west side, between Harriet Point and Chinitna Bay

Type: Reconnaissance seismic - 5# to 50# charges of nitro-carbo-nitrate.

On June 1 ADF&G limited charges to 16 2/3#.

Boats Used: Corregidor, Arctic Wind, plus skiffs and rafts

Mortality Observed:

Pacific Herring	300
Pacific Tomcod	94
Stickleback	<u>7</u>
Total	401

Observer: Patrick C. Collier

3. Seismic Permit #66-148-G

Shooting: April 28 to August 1, 1966 (dates varied according to areas being surveyed).

Area: Lower Cook Inlet and the Gulf of Alaska

Type: Refraction and reflection: 100# charges of nitro-carbo-nitrate, with larger charges up to a maximum of 1,000# being allowed with special permission.

Boats Used: Pacific Salvor, Hugh Tide, Warbler (Party 1). Sitkin, Peg Jo, Oceanic, Addington (Party 2).

Mortality Observed:

Cod	2,699
Rockfish	1,196
Whiting	879
Red Snapper	2
Herring	1
Silver Salmon	<u>39</u>
Total	4,816

Observers: Ken Maederer, Bob Jonas, Cliff Wright, Pat Collier, Keith O

4. Seismic Permit #66-157-CI

Shooting: August 15 to September 30, 1966

Area: East side of Cook Inlet between Ninilchik and Clam Gulch

Type: Nitro-carbo-nitrate with a maximum amount of power of 50#,
except slung charges may be used only between September 1 and 30,
1966.

Mortality Observed:

None

5. Seismic Permit #66-158-CI .

Permit cancelled 9/30/66 - no work actually done under this permit.

LOOKING TO THE FUTURE

The rebuilding of salmon stocks in Cook Inlet has created problems. When so many fish arrive that their sheer volume plugs all canning facilities, and fishermen are unable to sell their catch, all the time and effort towards managing and building such runs seems wasted. Salmon must be caught when they are available and a day or two or a week after they are available is usually too late. When salmon have reached Cook Inlet they move rapidly into spawning areas.

The weakest link in the present salmon industry of the Inlet is the number and quality of canneries. The quality of product varies wildly. Two canneries of the Inlet ran into trouble in marketing their pack of 1966 because of quality problems. One cannery had a relatively small amount of salmon involved -- worth perhaps \$100,000 on the wholesale level. The other cannery had products valued at well over \$1,000,000 involved.

The agency of the state assigned the task of overseeing sanitation in canneries wasn't aware of either problem until the salmon had either reached Seattle, or had gone on the market. In each instance it was another agency that spotted the problem.

Alaska's salmon is its greatest seafood asset. And yet the state shows little interest in a salmon once he has been caught by a fisherman. If Alaska is to get full return on its salmon resource, a change in policy or program appears to be needed.

A large fleet of fine quality king crab fishing boats is based at Kodiak. Many of these boats are going to be searching for new king crab grounds, and it is probable that some of them will reach into the Cook Inlet area. It is expected that the 1967 catch of king crab for the Inlet will be considerably higher than that of 1966.