ANNUAL STATISTICAL REPORT

COMMERCIAL FISHERIES DIVISION

CORDOVA AREA

1966

Alaska Department of Fish and Game
Commercial Fisheries Division
P. O. Box 669
Cordova, Alaska

Ralph B. Pirtle, Area Management Biologist
Peter J. Fridgen, Assistant Area Management Biologist

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INTRODUCTION

This is the seventh annual statistical management report since the State assumed management of the commercial fishery in 1960. Prior to statehood statistical reports covering the various commercial fisheries was compiled by the U.S. Bureau of Commercial Fisheries. The reports compiled by federal agencies date back to the early 1930s. Historical data is available from various publications, namely, the "Pacific Fisherman Yearbooks", from the inception of the fishery late in the 1800s. In a manuscript report published in 1964 Seton H. Thompson, "The Red Salmon (Oncorhynchus nerka) of Copper River, Alaska", has compiled and analyzed Copper River red salmon data prior to 1956. A "Statistical Review of the Alaska Salmon Fisheries, Part III: Prince William Sound, Copper River, and Bering River", by Willis H. Rich and Edward M. Ball, 1932, treats historical catch data, 1904 to 1927, for all five species of salmon for the areas described and briefly discusses the history of the salmon fishery from its inception.

Historically, the major fishery has been for salmon, however, both razor clams and Dungeness crab have contributed to the overall economy of the Cordova area. Prior to about 1957 a herring fishery contributed substantially with the peak of the fishery occurring in the 1920s.

Although all five species of salmon are taken, the principal salmon fishery is purse seining for pink and chum salmon in Prince William Sound. A drift gill net fishery for king, red and coho salmon is conducted on the Bering River - Copper River delta areas. A minor drift gill net - set gill net fishery in the Eshamy district and a purse seine - drift gill net fishery in the Coghill district of Prince William Sound is conducted to harvest small runs of red salmon.

The number and kind of fish processors vary to some extent each year depending upon the success of operations and the demand for the fishery products. Processors in the Cordova area included, in 1966, seven shore based salmon canneries, one salmon custom packing operation, five fresh-frozen salmon operations, one small, mild cure salmon operator and one salmon cold storage operator. Other operations included six, small, fresh and canned razor clam operations, four fresh, frozen and canned Dungeness crab operations, one small, shrimp operation, two small, fresh, frozen and canned king crab operation, one fresh-frozen halibut operation and one bait-herring operation, (Table 2).

The economies of the communities of Prince William Sound depend largely on the commercial fishery, the fishing and processing of fish or related activities.

This statistical report summarized historical data and provides a detailed compilation of the 1966 fishery. The primary value of the report has been demonstrated as a guide and reference for management purposes.

The following pages contain detailed statistics and brief, descriptive notes on the fisheries.

GENERAL COMMENTS

The various fishery catches in the Cordova area in 1966 were generally below the fifteen year average. Exceptions to this were the excellent harvest of red salmon in the Copper River drift gill net fishery and a better than average catch of red salmon from the Coghill - Unakwik area and the above average catch of pink salmon in the Eshamy district. The largest slump came from the Prince William Sound purse seine fishery which did not develop to expectations.

The predicted return of pink salmon to Prince William Sound for 1966 was 6.3 million. The commercial catch amounted to 2.7 million and a spawning escapement of approximately 1.3 million for an estimated return of 4.0 million pink salmon. Chum salmon returns, on the other hand, were larger than anticipated which did much to improve the purse seine fishery. The commercial chum catch was slightly over one-half million and the estimated escapement 224,000 for an estimated returning run of ~~724,000~~ 653,193. The chum salmon prediction was for a return of about 580,000.

In contrast to Prince William Sound, the Copper River drift gill net red salmon fishery was the best since 1954. The commercial catches of both king and coho salmon from Copper River were slightly below the fifteen year average. However, the excellent harvest of 1,007,379 red salmon almost doubled the fifteen year average catch of 639,359 reds.

The Dungeness crab harvest is below normal due mainly to the increased competition in the lower coastal states which caused the local cannery to impose catch limits on fishermen. Flooding of the market by increased dungeness crab production from other states and competition of king crab sales was probably an indirect cause of the loss of one cent per pound in price

settlement to the local crab fishermen.

The razor clam fishery is continuing at a low scale with about 80 per cent of the harvested clams being utilized as Dungeness crab bait. Recent recruitment of young razor clams appears to be on an increase which is a healthy sign. The adult razor clam population is continuing at a low level which was aggravated by mortalities caused by the 1964 earthquake.

Post earthquake effects to fishery production is still being evaluated. It now appears the earthquake was more detrimental to the salmon fishery in Prince William Sound than originally suggested. The lower than predicted return of pink salmon in 1966 is probably the result of post earthquake changes in salmon spawning streams.

In 1966 some funds were used to rehabilitate some salmon spawning streams in Prince William Sound. Six important salmon production streams were improved by using a bulldozer tractor to stabilize intertidal spawning areas uplifted by the 1964 earthquake. Observations of the streams through the 1966 spawning season showed improved stabilization in most cases. Natural stabilization by erosion would probably take several years time with high annual losses of potential salmon production.

ECONOMIC CONDITIONS

The town of Cordova and the Prince William Sound village of Tatitlek are primarily fishing communities which derive the major portion of their income from commercial fishing and fish processing. The town of Valdez depends to a lessor extent on commercial fishing and obtains a larger percent of income from other sources.

Post earthquake, since 1964, construction programs in all three communities have contributed substantially to the economy. These construction programs will probably continue through the 1967 season and possibly into 1968 after which the basic economy will again be almost entirely commercial fishing.

The commercial fisheries of the Cordova area in 1966 were generally improved economically over the previous year. The one exception was the small red salmon fishery in the Coghill - Unakwik area which showed a decrease, (Table 1).

Increases in gear occurred in most fisheries in 1966, but in spite of the increase, the average catch and value per fishermen increased over 1965. The Copper River red salmon fishery shows the highest increase with an average catch value per fisherman of $8,122.97, the highest recorded value per fisherman in the seven year period beginning in 1960, (Table 1). Each fisherman fishing the Copper River district caught an average of 33 kings, 3,625 reds, and 1,115 coho.

The drift gill net season on the Bering River delta produced an increased catch over the past year for the 45 fishermen who fished the area. Fishermen caught 24,894 reds, 36 king salmon and 49,580 coho salmon for a gross average income of $4,398.90.

The 1966 average income of fishermen from the Coghill - Unakwik district decreased from $3,465.83 in 1965 to $2,052.88 in 1966. The 1966 average is, however, the second high for the six year period, (Table 1).

During the salmon purse seine season Point Chehalis Packers lost approximately 15,000 salmon when the salmon tender Carolyn C was stranded on rocks. One salmon purse seine vessel, the Ancient Mariner, was lost by sinking July 25, 1966.

The number of purse seine units showed a decrease from 208 in 1965 to 181 in 1966 which accounts in part for the higher average return per fisherman in 1966. The average gross income per fisherman of $4,144.26 is the highest since 1962 and the second highest for the seven year period beginning in 1960.

Thirty-three vessels participated in the crab fishery in 1966 which is the same number that fished in 1965. However, the total pounds of Dungeness crab landed in 1966 was less than one-half that of 1965, (Table 45). The decreased catch reflects, in part, the lowered demands at the market level for Alaskan caught crab, and the local limits imposed on the fishermen.

Dungeness crab fishermen landed 999,341 pounds of crab with an average gross return of $3,637.00 per vessel.

A total of 14 razor clam diggers sold about 27,063 pounds for bait at 20 cents per pound. The average gross return per digger was $315.19.

Copper River and Bering River Districts:

The drift gill net fishing season opened at 6:00 a.m., May 16 and remained open until the end of the year. Fishing activity ceased in late September so it was not necessary to close the season by emergency order. During the red season the Bering River district was closed on July 4 to obtain needed spawning escapement. The district was opened again on August 22 to harvest the coho run.

The weekly fishing period allowed salmon to be taken from 6:00 a.m., Monday to 6:00 a.m. Wednesday and from 6:00 p.m. Thursday to 6:00 a.m. Saturday, prior to August 7. After August 7, the weekly fishing time was from 6:00 a.m. Monday to 6:00 a.m. Saturday, (Table 49).

In an effort to obtain a proper spawning escapement and to allow a maximum harvest, the following emergency orders were issued:

EMERGENCY ORDER NO. 1, July 4, 1966:

Section 112.05 Open fishing season, salmon, shall be amended as follows:

The Bering River district shall be closed to salmon fishing beginning July 4, 1966 until further notice.

Effective July 4, 1966 at 6:00 a.m.

EMERGENCY ORDER NO. 5, July 19, 1966:

Part 206 AREA 2 - Upper Gulf of Alaska - Copper River.

Freshwater

Exceptions:

Amend Section 206.12 to read:

Eyak Lake, Power Creek, Hatchery Creek, Eyak River: Closed to salmon fishing beyond markers at the east end of Power Creek Arm and within 100 yards of Eyak River bridge.

Effective at 12:01 a.m., July 20, 1966.

EMERGENCY ORDER NO. 10, August 15, 1966:

Section 112.05 Open fishing season, salmon, shall be amended as follows:

The Bering River district shall be open to salmon fishing beginning August 22, 1966 at 6:00 a.m. until further notice.

Effective August 16, 1966 at 9:00 a.m.

Prince William Sound, Coghill and Unakwik Districts:

The Coghill district drift gill net and purse seine season and Unakwik district drift gill net season opened as scheduled at 6:00 a.m. June 20, 1966 and closed by emergency order on July 16, 1966 at 6:00 a.m.

The emergency orders effective in these areas were as follows:

EMERGENCY ORDER NO. 2, July 1, 1966.

Section 111.06 Weekly fishing period, shall be amended as follows:

(a) Coghill district and Unakwik district: Beginning July 3, 1966 at 6:00 a.m. salmon may be taken seven days per week until changed by field announcement.

Effective July 3, 1966 at 6:00 a.m.

EMERGENCY ORDER NO. 3, July 14, 1966.

Section 111.05 Open fishing season, salmon, shall be amended as follows:

(a) Coghill district and Unakwik district: The salmon season shall close at 6:00 a.m. Saturday, July 16, 1966. Beginning at 6:00 a.m. July 18, 1966 salmon may be taken by purse seine only from 6:00 a.m. Monday to 6:00 a.m. Saturday each week.

Effective July 14, 1966 at 6:00 p.m.

Prince William Sound, General Districts:

The purse seine season opened as regularly scheduled at 6:00 a.m. July 18, 1966 and closed by Emergency Order No. 9 at 6:00 p.m., August 12, 1966. Fishing time was from 6:00 a.m. Monday to 6:00 a.m. Saturday, 24 hours per day, as allowed in the published regulations, (Table 49).

During the season, several emergency orders were promulgated to allow for an adequate spawning escapement and an orderly harvest. The emergency orders were as follows:

EMERGENCY ORDER NO. 4, July 14, 1966:

Section 111.21 Closed waters, shall be amended as follows:

(c) Olsen Bay: Within the bay north of 60° 44' 15" N. Lat.

(i) Fish Bay: Within the bay north of 60° 49' N. Lat.

Effective July 15, 1966 at 6:00 p.m.

EMERGENCY ORDER NO. 6, August 3, 1966:

Section 111.21 Closed waters, shall be amended as follows:

(u) Port Wells: North of 60° 48' N. Lat. in the Northwestern district is closed to salmon fishing within 2,000 yards of the terminus of any salmon stream; except, that in bays less than 2,000 yards long the closed water shall extend to the mouth of the bay.

Effective August 5, 1966 at 6:00 a.m.

EMERGENCY ORDER NO. 7, August 8, 1966:

Section 111.21 Closed waters, shall be amended as follows:

The following waters of Prince William Sound are closed to fishing:
Northern District
Unakwik District
Montague District

Effective August 9, 1966 at 6:00 a.m.

EMERGENCY ORDER NO. 8, August 9, 1966:

Section 111.21 Closed waters, shall be amended as follows:

The following waters of Prince William Sound are closed to fishing:
Port Gravina east of 146° 09' 30" W. Long.
Northwestern district
Coghill district

Effective August 10, 1966 at 6:00 a.m.

EMERGENCY ORDER NO. 9, August 9, 1966:

Section 111.05 (c) Open fishing season, salmon, shall be amended as follows:

The salmon purse seine fishing season shall close at 6:00 p.m., August 12, 1966 until further notice.

Effective August 11, 1966 at 10:00 a.m.

Prince William Sound, Eshamy District:

The season opened as scheduled in the regulations on July 4, 1966 at 6:00 a.m. and was closed by Emergency Order No. 11 at 6:00 p.m. August 19, 1966.

The weekly fishing time was from 6:00 a.m. Monday to 6:00 a.m. Saturday.

EMERGENCY ORDER NO. 11, August 15, 1966.

Section 111.05 (b) Open fishing season, salmon, shall be amended as follows:

The Eshamy district shall be closed to salmon fishing August 19, 1966 at 6:00 p.m.

Effective August 16, 1966 at 9:00 a.m.

TABLE 1. AVERAGE SALMON CATCH AND CATCH VALUE PER FISHERMAN

1960 - 1966

Year	Average Value Per Fisherman	Average Catch					District
		King	Red	Coho	Pink	Chum	
1960	$1,397.04		162	78	8,460	1,764	Prince William Sound 1/
1961	2,835.24		4	20	21,318	1,951	
1962	4,221.40		87	58	26,945	3,464	
1963	2,630.81		141	110	18,679	3,321	
1964	3,609.77	1*	251	212	29,608	3,791	
1965	2,214.92	4	545	48	14,396	1,577	
1966	4,144.26		3,283	172	18,570	3,089	
1960		Not a separate district this year.					Coghill - Unakwik
1961	1,035.31		518	1	401	96	
1962	461.18		243	1*	39	84	
1963	1,403.21		707	1*	112	219	
1964	1,158.59	1*	573	1*	102	80	
1965 2/	3,465.83		1,418	4	8,402	4,780	
1966 2/	2,052.88		1,012	1*	35	51	
1960			C L O S E D				Eshamy
1961	5,507.00		1,888	47	3,982	883	
1962	4,474.74		954	156	3,054	1,596	
1963			C L O S E D				
1964			C L O S E D				
1965	890.73		533	2.5	12	14	
1966	4,028.02		1,317	47	2,404	527	
1960	4,152.31	41	1,964	897	1	1	Copper River
1961	4,306.68	27	1,944	998	5	1*	
1962	6,118.09	37	2,364	1,658	4	1	
1963	4,607.38	30	1,832	1,170	3	1*	
1964	7,244.45	56	3,988	1,636	2	1*	
1965	6,393.78	50	3,392	577			
1966	8,122.97	33	3,625	1,115			
1960	2,684.29	1	687	1,451			Bering River
1961	4,763.50	1*	1,824	1,620			
1962	6,651.95	6	1,477	3,206			
1963	3,579.40	2	464	1,969			
1964	4,995.64	2	727	2,224			
1965	3,834.33		1,459	1,243			
1966	4,398.90	1	1,236	1,373			

* Less than one fish.

1/ Catch is average catch per boat. Value per fisherman based on an average of 3 fishermen per boat (one share to the boat).

2/ Includes both purse seines and drift gill nets during early Coghill season. Other years represent drift gill net only.

TABLE 2. FISHERY OPERATORS, CORDOVA DISTRICT; 1966

NAME, EXECUTIVE, LOCATION & ADDRESS	LINES OF MACHINERY	PRODUCT PACKED
Channel Packing Company Phil S. Buchanan, Superintendent Location: Big Point Cordova, Alaska	One ½# flats	Salmon Razor Clams
Copper River Co-op Co., Inc. Wm. J. Clemence, President Location: Port Ashton 559 Coleman Building Seattle, Washington	Two 1# talls	Salmon Salmon Eggs
Fairmount Island Seafoods Joseph W. Clark, Superintendent Location: Fairmount Point Fairmount Island, Alaska	Fresh Market	Shrimp Dungeness Crab
Glacier Packing Company Percy Conrad, Superintendent Location: Big Point Box 176 Cordova, Alaska	One 6½ oz. flats One ½# flats One 19 oz. tall	Salmon Razor Clams
Tom Jatzeck - Pete Ochs Location: Copper River Box 441 Cordova, Alaska	Mild Cure	Salmon
R. Melville Location: Copper River 5313 Ballard Avenue Seattle, Washington	Fresh Market	Salmon
Clarence Moy & William Hammer Location: Bering River Pelican, Alaska	Buyer, Boats NOVA, SHAMROCK, LONE FISHERMAN, ROSELINE	Salmon
New England Fish Company J. E. Forsell, Superintendent Location: Orca Bay 618 Second Avenue Seattle, Washington	One ½# flats Three 1# tall	Salmon
Ocean Harvest Packing Company Jack A. E. deVille, Superintendent Location: Cordova Box 178 Cordova, Alaska	One 6½ oz.	Salmon

TABLE 2, cont. FISHERY OPERATORS, CORDOVA DISTRICT, 1966

NAME, EXECUTIVE, LOCATION & ADDRESS	LINES OF MACHINERY	PRODUCT PACKED
Carl J. Olsen Location: Cordova Box 782 Cordova, Alaska	Fresh Market	Razor Clams
Parks Canning Company Robert Morgan, Superintendent Location: Cordova 309 Colman Building Seattle, Washington	Two 1# tall One ½# flats	Salmon Salmon Eggs
Point Chehalis Packers, Inc. James A. Poor, Superintendent Location: Cordova Box 751 Cordova, Alaska	One ¼# One ½# flat	Salmon Razor Clams King Crab Dungeness Crab
Theodore Seafoods, Inc. Christepher Theodore, Superintendent Location: Copper River 2927 Shelton Jackson Street Anchorage, Alaska	Buyer, Freezer Ship TEDDY	Salmon
Henry Wiese Company Henry Wiese, Superintendent Location: Bering River Box 941 Cordova, Alaska	Buyer	Salmon

Salmon price negotations between fishermen and the major canners was completed prior to the opening of the salmon season in 1966, except for the coho which was negotiated in September. Prices paid to fishermen for salmon remained the same as for 1965, except for a one cent raise per pound for coho, (Table 3). A sliding scale was in effect with the same provisions as described in 1965.

Prices per pound were as follows: red, $0.27; king, $0.23; coho $0.16; pink, $0.09¼; and, chum, $0.07¼. These were the prevailing prices paid throughout the season for salmon in the round delivered to tenders on the fishing grounds or at the cannery dock, (Table 3).

Point Chehalis Packers paid the following prices for salmon delivered at their dock in Cordova: red, $0.30/lb. from Copper River - Bering River; $0.27/lb. from Eshamy; king, $0.23; coho, $0.17; pink, $0.13; and, chum $0.10½.

The price paid to crab fishermen took a one cent per pound drop (Table 4) from 1965 prices making the price $0.11/lb. live weight.

Razor clams were sold primarily for bait and brought $0.20/lb. field weight delivered to the cannery dock, (Table 4). A few razor clams were sold locally for $2.00 per dozen, in the shell.

The prices listed in Table 3 and Table 4 are the general price agreement of the local fishermen's association and major processors. Each year varied prices may be paid by independent buyers and others and may be a few cents more than quoted here.

TABLE 3. Summary of Prices Paid for Salmon, 1952-1966*

Year	Red	King	Coho	Chum	Pink
1952	$1.15 ea.	$4.15 ea.	$1.05 ea.	$0.57 ea.	$0.415 ea.
1953	1.25 ea.	4.15 ea.	1.05 ea.	0.57 ea.	0.415 ea.
1954	1.25 ea.	4.15 ea.	.90 ea.	--	--
1955	1.25 ea.	4.15 ea.	1.05 ea.	0.57 ea.	0.415 ea.
1956	1.35 ea.	4.15 ea.	1.10 ea.	0.60 ea.	0.45 ea.
1957	1.39 ea.	4.15 ea.	1.10 ea.	0.635 ea.	0.45 ea.
1958	1.39 ea.	0.21/lb.	1.10 ea.	0.635 ea.	0.45 ea.
1959	1.40 ea.	0.22/lb.	1.10 ea.	0.635 ea.	0.45 ea.
1960	1.47 ea.	0.23/lb.	1.15 ea.	0.68 ea.	0.48 ea.
1961	1.50 ea.	0.23/lb.	1.25 C. R. 1.15 P.W.S.	0.68 ea.	0.48 ea.
1962	1.55 ea.	0.23/lb.	1.35 C. R. 1.25 P.W.S.	0.76 ea.	0.52 ea.
1963	0.24/lb.	0.23/lb.	0.15/lb.	0.0875/lb.	0.105/lb.
1964	0.27/lb.	0.23/lb.	0.15/lb.	0.0875/lb.	0.105/lb.
1965 1/.	0.27/lb.	0.23/lb.	0.15/lb.	0.0794/lb.	0.0984/lb.
1966	0.27/lb.	0.23/lb.	0.16/lb.	0.0824/lb.	0.1024/lb.

* Some varying prices paid each year by small operators. The prices listed here reflect major fish sales.

1/ Point Chehalis Packers paid the following prices delivered at the plant: King 23¢/lb.; Reds - Copper River 30¢/lb., Eshamy 27¢/lb.; Cohos 17¢/lb., Pink 13¢/lb. and chum 10½¢/lb.

TABLE 4. Summary of Prices Paid for Shellfish and Miscellaneous Fish Products

(1950 - 1966)

Year	Razor Clams	Dungeness Crab	Cockle	King Crab	Other
1950	$0.12/lb.	$0.12/lb. 1/	$6.00/100# sk.	--	--
1951	0.15	0.085	8.00	--	--
1952	0.13	0.085	8.00	--	--
1953	0.13	0.085	--	--	--
1954	0.13	0.08	--	--	--
1955	0.13	0.08	--	--	--
1956	0.13	0.08	0.03/lb.	--	--
1957	0.13	0.05	--	--	Salmon Eggs $0.07/lb.
1958	--	0.06	--	--	--
1959	0.13	0.08	--	0.08	--
1960	0.14	0.10	--	0.10	--
1961	0.15	0.10	--	0.10	--
1962	0.15	0.12	--	0.12	--
1963	--	0.14 2/	--	0.12	--
1964	0.20	0.14 2/	--	0.12	--
1965	0.20	0.12 3/	--	0.12	Halibut $0.16/lb.
1966	0.20	0.11	--	0.12	--

1/ Prices for Dungeness crab $0.14 - $0.15 caught outside.
2/ Prices for Dungeness crab were decreased to $0.12 September 1st.
3/ Sliding scale - 9% of the meat price in Seattle, determined every two weeks.

NUMBER OF SALMON PER CASE

The number of salmon per case for the Cordova area is summarized in Table 6 for Prince William Sound and in Table 7 for Copper River and Bering River salmon.

Numbers of salmon per case vary considerably each year depending upon the weight of the fish, (Table 5). Other factors, including the condition of the fish, transporting and handling methods, and the method and care in canning also influence the number per case.

The numbers per case reported in Tables 6 and 7 were the numbers per case reported by Parks Canning Company. The figures reported by Parks show a decrease in fish per case for all species except chum salmon, from 1965 average. The decrease in numbers per case is reflective of the larger fish in 1966, (Table 5).

TABLE 5. Comparative Average Weights of Salmon by Area, in Pounds, from Catch

1953-1966

Area	Year	King	Red	Coho	Pink	Chum
Prince William Sound	1963	--	6.95	8.71	3.82	9.30
	1964	16.39	6.78	8.67	3.94	8.78
	1965	14.22	6.94	7.43	3.30	7.90
	1966	8.40	7.34	8.39	4.14	7.73
Copper River	1963	25.17	6.10	9.90	--	--
	1964	26.28	5.67	12.99	--	--
	1965	26.62	5.72	7.57	--	--
	1966	28.59	6.46	10.64	4.31	7.96
Bering River	1963	27.07	5.88	9.86	--	--
	1964	28.70	6.28	8.85	--	--
	1965	32.00	5.88	9.06	--	--
	1966	28.61	6.50	10.12	--	--
Average all Areas	1963	25.50	6.20	9.30	3.80	9.30
	1964	26.27	5.74	12.16	3.94	8.78
	1965	25.80	5.89	8.12	3.30	7.90
	1966	28.27	6.54	10.28	4.14	7.73

TABLE 6. Number of Salmon Per Case, 1954 - 1966

(Prince William Sound)

Year	Red	Coho	Pink	Chum
1954	9.5	9.7	16.5 1/	--
1955	9.6	9.4	15.0	8.7
1956 2/	--	--	--	--
1957	9.8	10.5	17.4	8.5
1958 2/	--	--	--	--
1959		C L O S E D S E A S O N		
1960	13.0	13.2	24.4	9.8
1961	10.4	9.0	17.0	9.3
1962	10.93	12.29	24.14	10.71
1963	9.53	7.23	22.89	9.14
1964 4/	13.52 3/	6.89	22.39	8.23
1965 4/	12.69 3/	10.31 5/	25.43 5/	10.23 5/
1966 4/	10.94	8.94	19.57	10.65

1/ Estimated number of salmon per case taken from the average of other years.

2/ The number of salmon per case not separated by area.

3/ Combined pack figure from both Copper River and Prince William Sound.

4/ Figures from Parks Canning Company, except in 1965 the pinks are averaged for all canneries.

5/ New England Fish Company reported fish per case as follows: coho 9.20, pink 24.59, chum 10.02.

TABLE 7. Number of Salmon Per Case, 1951 - 1966
(Copper and Bering Rivers)

Year	King	Red	Coho	Pink	Chum
1951 1/	3.4	11.6	8.1	18.1	9.1
1952	3.4	11.6	8.1	18.1	9.1
1953 2/	3.4	11.1	7.0	16.5	9.1
1954	3.2	11.7	7.5	--	--
1955	3.5	11.5	8.6	--	--
1956 2/	3.6	11.2	8.3	26.0	10.2
1957	3.8	11.6	--	--	--
1958 2/	3.0	11.5	8.3	17.0	9.1
1959	3.2	12.9	8.6	--	--
1960	3.6	13.4	9.3	--	--
1961	3.82	12.0	9.24	17.0	9.3
1962	3.26	11.04	10.92	18.27	11.16
1963	3.08	12.21	7.9	--	--
1964 3/	2.86	13.52	6.89	22.39	8.23
1965 3/	3.17	12.69 4/	10.31 4/	--	--
1966 5/	2.82	11.01	7.6	19.81	10.62

1/ Estimated number of salmon per case taken from the average of other years.
2/ The number of salmon per case not separated by area.
3/ Figures from Parks Canning Company combined for both Copper River and Prince William Sound.
4/ Includes some reds and coho from Prince William Sound.
5/ Figures from Parks Canning Company.

COPPER RIVER DISTRICT

Introduction

The Copper River District includes all waters of Hinchinbrook Island between Hook Point and Boswell Rock including Boswell Bay; and all waters south of a line from Boswell Rock to Whiteshed village. All waters between Whiteshed village and Cape Martin are also included in this district.

Commercial salmon fishing in this district is regulated by scheduled, weekly open and closed fishing periods. Prior to August 7, fishing is permitted from 6:00 a.m Monday to 6:00 a.m. Saturday. Red and coho salmon are the primary important species taken in this fishery although king, chum and pink salmon are also harvested to a lesser degree.

COMMERCIAL FISHERY - 1966

RED SALMON

Table 8 gives the weekly catch statistics for the commercial red salmon drift gill net season. This season was opened on May 16, (Week 21) and continued without interruption through August 7, (Week 33). During this time only a partial weekly fishing period was lost due to stormy weather. This occurred during the first open period, (Week 21), and although the weather was adverse, a total of 308 boats harvested 176,000 red salmon. The season total catch of 1,007,379 red salmon was the highest recorded since 1954.

In comparing the past years' catches, (Table 9), the increased catches made during the past two seasons may possibly be the result of changes in management policies. These regulation changes occurred since statehood and include the following:

1. Opening Dates: Prior to and including 1959, the Copper River fishing season began in early May. Since then the opening periods have been postponed until middle May. This change was put into effect to protect the early run

segments which were declining. It is interesting to note that in 1965 and 1966, the early or upriver run segments were the runs appearing in the greatest strength and contributing the heaviest to the commercial catches.

2. Movement of Fishery Markers Seaward: This has allowed valuable holding areas for salmon escapement which normally would have been forced back into the fishery during low tide stages.

3. Gear Reduction: Prior to statehood, an extra 150 fathoms of $8\frac{1}{2}$" mesh, king salmon gear, was allowed to be fished in addition to the legal limit of 150 fathoms of red salmon gear. Although the regulation change limiting the use of 150 fathoms of king gear was put into effect to protect the king salmon stocks, it can also be reasonably assumed that this extra gear served as an effective red salmon lead while selectively harvesting larger red salmon.

SILVER SALMON:

The silver salmon fishery normally begins during Week 33, (August 7-13), and continues through Week 39, (September 18-24). During this time fishing is permitted from 6:00 a.m. Monday to 6:00 a.m. Saturday. In 1966 silver salmon price agreements between fishermen and cannery operators was not reached until the middle of Week 35, (August 21-27). The season was characterized by extremely adverse weather which discouraged fishing effort, and augmented with the delayed opening because of price disputes, limited the harvest. Although the harvest was approximately 16,000 below the fifteen year average, (Table 9), the run appeared to be quite strong.

KING SALMON:

The king salmon fishery is not regulated as a separate fishery since the commercial catch is incidental to the red salmon harvest. However, a few fishermen supplement their red salmon gear with the addition of 3 to 5 meshes of king gear hung to the bottom mesh of their red gear.

In 1966 a harvest of 11,026 king salmon was recorded, (Table 11). This is approximately 2,000 fish below the fifteen year average.

TABLE 8. COPPER RIVER RED SALMON, 1966

(Weekly Catch and Case Pack)

Week No.	Case Pack 1/ (48-1#/cs.)	Total Catch	Total Pounds	Average Wt./Fish	Number Boats	Number Deliveries	Average No. Fish/Boat	Fathoms 2/ of Gear
21	15,856	176,000	1,053,096	5.98	308	1,320	571	46,200
22	29,800	330,781	2,056,251	6.22	337	1,859	982	50,500
23	12,577	139,609	902,086	6.46	348	1,527	401	52,200
24	8,581	95,244	634,250	6.66	333	1,185	286	49,950
25	8,528	94,659	650,106	6.87	294	1,248	322	44,100
26	5,563	61,750	429,684	6.96	279	993	221	41,850
27	3,952	43,870	313,970	7.16	237	788	185	35,550
28	3,287	36,482	262,529	7.20	205	635	178	30,750
29	1,753	19,459	140,301	7.21	103	290	189	15,450
30	609	6,755	46,220	6.84	41	115	165	6,150
31	201	2,227	15,019	6.74	24	28	93	3,600
32	38	417	2,711	6.50	15	17	28	2,250
33	8	89	594	6.67	20	43	4	3,000
TOTAL	90,753	1,007,342 3/	6,506,817	6.46	2,544	10,048	3,625	381,600

1/ Estimated on the basis of 11.10 red salmon per case.

2/ Based on 150 fathoms per boat.

3/ Does not include 37 red salmon taken after week 33.

TABLE 9. Copper River Drift Gillnet Salmon Catch

(1952 - 1966)

Year	Kings	Reds	Cohos	Pinks	Chums
1952	29,355	1,136,316	163,740	6,284	1,091
1953 1/	12,198	563,708	29,866	166	46
1954	15,764	1,099,564	157,941	135	272
1955	20,438	636,705	158,208	149	12
1956	11,702	540,575	109,248	1,131	54
1957	8,151	541,637	58,705	1,841	1,224
1958	6,965	307,342	81,610	8,872	181
1959	9,833	299,782	132,259	940	67
1960	8,678	360,667	137,957	375	314
1961	8,464	532,455	133,980	1,639	106
1962	14,792	677,626	174,628	1,880	513
1963	11,138	379,913	203,724	1,287	194
1964	12,743	699,299	227,397	548	62
1965	15,259	807,423	71,415	118	171
1966	11,028	1,007,379	115,599	666	114
TOTAL	196,496	9,590,391	1,956,277	26,031	4,421
15 YEAR AVERAGE	13,100	639,359	130,418	1,735	295

1/ No major operation during coho season.

TABLE 10. COPPER RIVER SALMON CASE PACK

(1952 - 1966)

YEAR	KINGS	REDS	COHOS	PINKS	CHUMS	TOTAL
1952	8,634	97,958	20,214	347	120	127,273
1953 1/	3,588	50,785	4,267	10	5	58,655
1954	4,926	93,980	21,059	8	32*	120,005
1955	5,839	55,366	18,396	10	1*	79,612
1956	3,251	48,266	13,162	44	5	64,728
1957	2,145	46,693	5,590	106	144	54,678
1958	2,322	26,725	9,833	522	20	39,422
1959	3,073	23,239	15,379	81	10	41,782
1960 2/	2,174	26,915	15,497	--	--	44,586
1961	2,215	44,371	14,445	--	--	61,031
1962	4,537	61,379	15,992	103	46	82,057
1963	3,620	31,115	25,698	64	19	60,516
1964	4,458	51,719	33,004	24	8	89,213
1965	4,814	63,627	6,928	4	17	75,390
1966	3,911	90,753	15,209	34	11	109,918
TOTAL	59,507	812,891	234,673	1,357	438	1,108,866
AVERAGE	3,967	54,193	15,645	91	29	73,924

1/ No major operation during coho season.
2/ Since 1960 the estimated total case pack (48-1#/case) based on total catch and reported number of salmon per case.
* Estimated.

TABLE 11. COPPER RIVER KING SALMON, 1966

(Weekly Catch and Case Pack)

Week No.	Case Pack 1/ (48-1#/cs.)	Total Catch	Total Pounds	Ave. Wt. Per Fish	Number Boats	Number Deliveries	Ave. No. Fish/Boat	Fathoms 2/ of Gear
21	455	1,284	39,386	30.7	308	1,320	4.2	46,200
22	1,493	4,210	117,171	27.8	337	1,859	12.5	50,550
23	1,159	3,268	91,175	27.9	348	1,527	9.4	52,200
24	602	1,698	49,514	29.2	333	1,185	5.1	49,950
25	171	482	15,322	31.8	294	1,248	1.6	44,100
26	22	61	1,962	32.2	279	993	.2	41,850
27	6.4	18	564	31.3	237	788	.1	35,550
28	1.4	4	99	24.8	205	635	.1	30,750
29	0	0	0	0	103	290	0	15,450
30	--	1	30	30.0	41	115	--	6,150
TOTAL	3,910	11,026	315,223	28.6	2,485	9,960	33.2	372,750

1/ Estimated case pack on basis of 2.82 king salmon per case.

2/ Basis of 150 fathoms per boat.

TABLE 12. COPPER RIVER COHO SALMON, 1966

(Weekly Catch and Case Pack)

Week No.	Case Pack 1/ (48-1#/cs.)	Total Catch	Total Pounds	Ave. Wt. Per Fish	Number Boats	Number Landings	Ave. No. Fish/Boat	Fathoms 2/ of Gear
29		4	26	6.5	103	290		15,450
30	5	37	258	7.0	41	115	.9	6,150
31	21	156	1,079	6.9	24	28	6.5	3,600
32	105	799	5,352	6.7	15	17	53.3	2,250
33	366	2,785	24,248	8.7	20	43	139.3	3,000
34	146	1,113	10,296	9.3	8	8	139.1	1,200
35	2,967	22,546	229,242	10.2	160	473	140.9	24,000
36	6,528	49,615	532,503	10.7	202	845	245.6	30,300
37	4,406	33,482	372,152	11.1	165	650	202.9	24,750
38	603	4,588	52,260	11.4	43	132	107	19,800
39	62	474	5,454	11.5	6	7	79	1,050
TOTAL	15,209	115,599 *	1,232,870	10.7	787	2,608	1,115	131,550

1/ Estimated case pack on basis of 7.6 coho per case.

2/ Basis of 150 fathoms per boat.

* Three cohos taken prior to Week 29 not included in the total.

Objectives:

Primarily this program was initiated to provide age, length and sex compositions of the various red salmon runs into the Copper River. This information is used in aiding run predictions. In 1966 sampling was broken down into weekly periods in an effort to separate stocks by age groups and run timing.

Methods:

Sampling was conducted at local canneries as deliveries were made. Fish for sampling were randomly selected; scales were taken from the preferred area, lengths were taken from mid eye to fork of tail and sex was determined by examination of gonads.

Results:

Age and Sex Composition: During the sampling period approximately 2,300 individual fish were examined and a sample size of 1,763 readable scales was obtained. Table 12a gives the age classification by sex, week and overall percentages of age classes by combined sexes.

The 5_2 age class dominated the run and made up 84.3 percent of the sample. It is of interest to note that the younger ages classes, (3_2, 4_1, 4_2), increased in strength as the season progressed. The 6_3 age class appeared quite strong, second to the 5_2 age class, during the first week of the fishery but did not appear in any numbers after that period. The overall sex ratio favored the females by 11.24 percent. This may be due to a biased sample of a fishery made selective by mesh size which does not effectively harvest the smaller, precocious males.

Length Composition:

Table 12b presents average orbit lengths, in milimeters, by age class, by weekly period, by sex. This table also gives mean lengths of the combined sexes

and the seasonal average lengths by age class.

In most cases lengths increased with age, with the fish spending more of their life cycle in the ocean exhibiting the greater amount of growth. The exceptions to this were the 6 year age group which were smaller than the 5_2 and 4_1 age groups, but similar in size to the 5_1 and 5_3 age classes.

TABLE 12a. AGE COMPOSITION OF COMMERCIALLY CAUGHT COPPER RIVER RED SALMON, 1966
By Sex and Week

AGE CLASS	3_1		3_2		4_1		4_2		4_3		5_1		5_2		5_3		6_2		6_3	
WEEK	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀	♂	♀
22					6	3	4	1			1	4	182	217	1			1	23	21
23													20	26						
24					2	7	2		1				58	64					1	2
25					3	6	8	3					102	116					1	3
26					1	4	6	7			1	1	60	92	1				1	1
27					5	3	15	9				2	44	72	2	2		1	2	1
28			1		7	3	13	17					76	136	1	2			1	1
29	1	1	2		6	2	16	14	1		1		60	93	1					
30					4	1	13	6					28	41						
TOTAL	1	1	3		34	26	73	56	2		3	7	630	857	6	4		2	29	29
PERCENT	.05	.05	.2		1.93	1.47	4.1	3.2	.1		.2	.4	35.7	48.6	.4	.2		.1	1.7	1.7
COMBINED SEXES																				
Number	2		3		60		129		2		10		1487		10		2		58	
Percent	.1		.2		3.4		7.3		.1		.6		84.3		.6		.1		3.3	

Total number = 1,763. Total percent male = 44.38. Total percent female = 55.62.

TABLE 12b. LENGTH 1/ COMPOSITION OF COMMERCIALLY CAUGHT COPPER RIVER RED SALMON, 1966
By Age Class, Week, Sex and Sexes Combined

AGE CLASS	3_1		3_2 3/	4_1		4_2		4_3 3/	5_1		5_2		5_3		6_2 3/	6_3	
WEEK	♂	♀	♂	♂	♀	♂	♀	♂	♂	♀	♂	♀	♂	♀	♀	♂	♀
22				565	532 (547) 2/	511	508 (510)		561	545 (548)	565	545 (554)	587		547	551	505 (529)
23											572	569 (570)					
24				568	553 (558)	510	(510)	462			587	564 (575)				534	568 (557)
25				593	565 (577)	636	509 (541)				589	574 (581)				600	570 (580)
26				590	576 (579)	530	495 (518)		605	557 (581)	591	569 (578)		572 (572)		564	546 (555)
27				606	573 (593)	480	574 (505)			562	597	535 (577)	579	500 (540)	585	622	520 (571)
28			578	612	564 (596)	497	534 (517)				607	575 (586)	535	517 (526)			
29	457	455 (456)	471	596	610 (607)	521	529 (526)	463	558		605	575 (586)		524 (524)		617	
30				586	604 (589)	489	518 (498)				595	580 (586)					
Seasonal Average Length	457	456 (456)	521 (521)	592	567 (578)	504	525 (513)	462 (462)	583	551 (558)	585	576 (580)	545	523 (532)	560 (560)	558	517 (538)
No. in Sample	2		3	60		129		2	10		1487		10		2	58	

1/ Length measurements taken from mid eye to fork of tail recorded in milimeters.
2/ Average length by sex, sexes combined in parenthesis.
3/ Only one sex sampled.

Test Fishing Program

Objectives:

The primary objectives of this program were: (1) To determine timing of various runs into the delta area, and (2) To determine main migration waterways of the runs after leaving the fishery for the purpose of locating possible sites for future installation of Bendix Sonar Counters. A secondary objective was to provide management with an indicator as to the relative magnitude of run escapement through the fishery.

Methods:

Test fishing was conducted with gill nets in the fishery during closed fishing periods and in the slough area well behind the fishery markers during open fishing periods. The test netting was restricted, in most cases, to set gill nets placed in eddys of sloughs. Drift netting was conducted in the fishery, but when attempted in the sloughs, underwater snags limited the success of this type of fishing.

Results:

During the duration of this project eight different sites were fished. They were as follows:

1. Steamboat Channel
2. Pete Dahl Slough - Wal Halla
* 3. Castle Slough
* 4. Storey Slough
* 5. Kokenhenik
6. Charlie Mohr's Hole
7. Alaganik Slough
8. Grass Island

Of the eight sites fished, three were classified as key migration ways (*) and Pete Dahl Slough was considered semi important. The early run fish appear to enter the west end of the flats and utilize Castle, Storey and Pete Dahl - Wal Halla Sloughs as migration ways to the main Copper River. These sloughs carry the heaviest volume of water at this time while the Kokenhenik - Softuk areas become more important as migration ways later in the season as the main

Copper River rises and water volume through that area increases.

Discussion:

The 1966 test fishing program of the Copper River flats began on May 12 and continued through July 5. During this time eight different sites were fished resulting in three being selected as main red salmon migration ways. Although all of the objectives of this program were not realized during this first year, more is known of red salmon migration patterns and possible Sonar counting sites were located.

Test fishing should be expanded in the future to allow the simultaneous fishing of several sites in a more systematic approach. With a systematic approach quantitative run indexing may be a possibility prior to the introduction of electronic counters.

The red salmon commercial drift gill net season, although officially opened on May 16, (Week 21), did not take place until June 5, (Week 24). The red salmon runs into this system normally appear and peak 3 to 4 weeks after the Copper River district opening.

This system, like the Copper River, is characterized by its glacial, turbid waters. Salmon escapements cannot be estimated until they appear on 2 to 3 clear water spawning areas. During the 1966 season aerial surveys indicated poor escapements and the season was closed during Week 27. A Department test fishing boat test netted this area for a week after the closure and since there was no significant run build up, the area remained closed during the remainder of the red salmon season.

The season catch of 24,894 red salmon, (Table 13), was 11,000 red salmon higher than the 1965 harvest, but was approximately 4,000 fish below the fifteen year average.

SILVER SALMON

Commercial fishing effort for silver salmon occured during Week 35, (August 21-27), and continued through Week 39, (September 18-24). Price disputes between fishermen and cannery operators delayed the opening and adverse weather discourage fishing effort. The season total catch, (Table 14), of 49,580 salmon was 2,582 below the 1965 recorded figure and approximately 5,000 below the fifteen year average, (Table 15).

TABLE 13. BERING RIVER RED SALMON, 1966

(Weekly Catch and Case Pack)

Week No.	Case Pack 1/ (48-1#/cs.)	Total Catch	Total Pounds	Ave. Wt. Per Fish	Number Boats	Number Deliveries	Ave. No. Fish/Boat	Fathoms 2/ of Gear
24	577	6,407	42,981	6.7	20	165	320	3,000
25	665	7,377	48,864	6.6	20	98	369	3,000
26	787	8,735	54,802	6.3	24	110	364	3,600
27	214	2,375	15,260	6.4	13	50	183	1,950
TOTAL	2,243	24,894	161,907	6.5	77	423	1,236	11,550

1/ Based on 11.1 red salmon per case.

2/ Basis of 150 fathoms per boat.

In addition to the red salmon catch, a total of 36 king salmon were also caught.

TABLE 14. BERING RIVER COHO SALMON, 1966

(Weekly Catch and Case Pack)

Week No.	Case Pack 1/ (48-1#/cs.)	Total Catch	Total Pounds	Ave. Wt. Per Fish	Number Boats	Number Deliveries	Ave. No. Fish/Boat	Fathoms 2/ of Gear
35	341	2,590	28,597	11.0	12	8	216	1,800
36	1,666	12,664	128,140	10.1	25	108	507	3,750
37	3,850	29,263	293,668	10.0	45	314	650	6,750
38	604	4,588	52,260	11.4	32	60	143	4,800
39	62	474	5,454	11.5	7	7	68	1,050
TOTAL	6,524	49,580	508,119	10.3	121	497	1,584	18,150

1/ Estimated case pack on the basis of 7.6 coho per case.

2/ Based on 150 fathoms of gear per boat.

TABLE 15. Bering River Drift Gillnet Salmon Catch

(1953 - 1966)

Year	Kings	Reds	Cohos	Pinks	Chums
1953	26	8,572	0	0	0
1954 1/	0	129	91,964	9	1
1955	125	34,121	70,100	50	2
1956	147	41,437	53,484	46	5
1957	71	29,142	27,441	27	22
1958	72	23,947	21,202	32	1
1959	77	27,384	58,560	6	0
1960	63	32,890	68,255	101	5
1961	29	55,084	50,883	30	1
1962	246	72,230	55,502	--	2
1963	72	21,525	87,075	56	0
1964	47	16,911	77,360	0	0
1965	7	13,536	52,162	7	164
1966	36	24,894	49,580	0	0
TOTAL	1,018	401,802	763,568	364	204
AVERAGE	73	29,700	54,540	26	15

1/ Set gill nets caught 129 reds and 7,665 cohos in 1954.

TABLE 16. Bering River Salmon Case Pack 1/

(1953 - 1966)

Year	Kings	Reds	Cohos	Pinks	Chums	Total
1953	8	772	0	0	0	780
1954	0	11	12,262	*	*	12,273
1955	36	2,967	8,151	3	*	11,157
1956	41	3,700	6,444	1	*	10,186
1957	19	2,512	2,613	1	3	5,148
1958	24	2,082	2,554	2	*	4,662
1959	24	2,123	8,809	*	*	10,956
1960	16	2,454	7,257	0	0	9,727
1961	8	4,590	5,506	2	0	10,106
1962	75	6,543	5,083	0	0	11,701
1963	23	1,763	11,022	2	0	12,810
1964	16	1,251	11,288	0	0	12,555
1965	2	1,067	5,059	*	16	6,042
1966	13	2,243	5,858	0	0	8,114
TOTAL	305	34,078	91,906	11	19	126,319
AVERAGE	22	2,434	6,565	1	1	9,023

1/ Estimated total case pack (48-1#/case) based on reported number of salmon per case and total salmon catch.

* Less than one case.

The 1966 Copper River red salmon commercial fishing season with a harvest of over 1,000,000 red salmon was the most successful since 1954. Only one-half of a fishing period was lost due to adverse weather. Prices paid to fishermen, $0.27 per pound, was the highest paid in the State and since the majority of the returning red salmon were three, ocean year fish, brought a price per fish of approximately $1.75.

The silver salmon fishery opening was delayed by fishermen and industry price disagreements. Adverse weather also discouraged fishing pressure and many fishermen, after enjoying a successful red salmon season, did not participate in the fishery. All of these factors led to a decreased harvest, and the total catch fell below the fifteen year average.

The red salmon run to the Bering River area appeared strong, but quickly fell off making it necessary to close the area to commercial fishing by emergency regulation. A Department test net boat fished the area for a week after the closure, but the run remained weak and the area remained closed.

Adverse weather and price disputes curtailed fishing effort during the Bering River silver salmon season. This decreased the season total catch and was responsible for only partial fishing of the run peaks. Comparisons with past years' run sizes are difficult to make because of the sporadic effort, but the run appeared strong, and if fished consistently, probably would have compared to the fifteen year average.

COPPER RIVER - BERING RIVER SPAWNING ESCAPEMENT SURVEYS

Escapement surveys in this area consist of both aerial and foot surveys. Survey schedules have been compiled from past observations and coincide with spawning peaks.

In 1966 aerial surveys were hampered by unavailability of survey aircraft and extremely adverse weather during survey periods. Foot surveys were attempted but because of high water conditions were, in most cases, limited and minimum counts recorded. Tables 17, 18, 19 give counts on index streams for both the Copper River delta and upriver areas. Comparisons with past years' escapement estimates and 1966 estimates are hard to make. In 1966 red salmon utilizing spawning grounds in the upper Copper River basin were appearing in these areas in early June, and reported by Department observers as being in greater numbers than observed for many years. However, surveys could not be made until later in the season, and due to high, abnormal stream conditions counts were below average.

Bering River and Copper River delta streams were surveyed early in the season, but due to the unavailability of a survey aircraft during peak spawning periods, counts were low and do not reflect true densities.

TABLE 17. ESTIMATED SPAWNING ESCAPEMENT OF RED SALMON

BERING RIVER DISTRICT, 1966

System	Estimated Escapement 1/
Bering Lake	3,180
Dick Creek	3,000
Shepard Creek	turbid
Carbon Creek	"
Lake Charlotte	"
Oh & Bee Lakes	"
Kushtaka Lake	1,730
Shokum Creek	0
Stillwater Creek	turbid
Trout Creek	muddy
Clear Creek	263
Grandel River	muddy
Nichawk River	"
Okalee River	"
Edwards River	"
Campbell River	"
Katalla Creek	0
Kahuntla Creek	0
TOTAL	8,173

1/ Derived from both aerial and ground surveys.

TABLE 18. ESTIMATED RED SALMON SPAWNING ESCAPEMENTS

LOWER COPPER RIVER DELTA AREA, 1966

System	Estimated Escapement 1/
Eyak Lake	2,000
Hatchery Creek	3,400
Scott Lake	0
Bear Lake	0
Ibek Creek	0
McKinley Lake	4,000
Salmon Creek	2,100
25.6 Mile Creek	2,600
27 Mile Creek	53
39 Mile Creek	4,550
Goat Mountain Creek	495 (turbid)
Pleasant Creek	195
Deadwood Lake	0
Tokun Lake	4,900
Martin Lake	7,210
Little Martin Lake	1,050
Pothole Lake	300
Ragged Point Lake	0
Martin River Sloughs	2,145
Martin Creeks	6,045
TOTAL	40,953

1/ Early counts. Unable to survey at a later date due to adverse weather and unavailability of survey aircraft.

TABLE 19. Estimated Spawning Escapement 1/ of Red and King Salmon Upper Copper River, 1966

System	Red Salmon Estimated Escapement	King Salmon Estimated Escapement
Bremner Lake	no survey	
Peninsula Lake	"	
Little Bremner River	"	
Salmon Creek	"	
Tiekel Lake	"	
Chitina Lakes	"	
Long Lake	"	
Canyon Creek	"	
Tana Lake	"	
Tana Lake Outlet	"	
Nizina River	"	
Tanada Lake	17	104
Copper Lake	no survey	
Suslota Lake	320	0
Sinona Creek	4	4
Mentasta Lake & Fish Creek	1,700	
Slana River	150	
Ahtell Creek	turbid	
Indian Creek	"	
Mankomen Lake	"	
East Fork Chistochina	18	152
Gunn Creek	0	0
Fish Lake	3,000	0
Summit Lake	turbid	
Gulkana River		
Summit Lake to Paxson	4,200	
Paxson, Mud Creek, Mud Lake	18,750	
Paxson Lake Outlet	5,300	
Middle Fork	3,200	250
Swede Lake	turbid	turbid
Dickey Lake	"	"
West Fork Gulkana	"	"
Oldman Lake & Mendeltna Creek	4,800	12
Tazlina Lake	glacial	
Kiana Creek	680	272
Saint Anne Creek	4,800	48
Klutina Lake	glacial	
Mahlo Creek	3,750	0
Manker Creek	0	64
Tonsina Lake	glacial	
Grayling Creek	5	22
Little Tonsina River	0	42
TOTAL	50,694	970

1/ Derived from aerial and/or ground counts.

TABLE 20. COMPARABLE ESTIMATED RED SALMON SPAWNING ESCAPEMENT ON SELECTED SYSTEMS, COPPER - BERING RIVER DISTRICTS, 1962 - 1966

System	1962	1963	1964	1965	1966
Eyak Lake	20,200	17,900	13,550	15,995	5,400
McKinley Lake	4,200	2,900	1,470	1,080	4,000
39 Mile	1,800	2,400	1,850	2,100	4,550
Tokun Lake	8,000	10,000	8,900	31,000	4,900
Little Martin Lake	1,880	1,450	650	230	1,050
Martin Lake	8,400	9,900	6,600	10,885	7,510
Martin River Slough	5,400	8,280	2,650	3,300	2,145
COPPER RIVER SUBTOTAL	49,880	43,830	35,670	64,590	29,550
Bering Lake	200	15	400	280	3,180
Dick Creek	16,000	4,500	2,700	4,100	3,000
Kushtaka Lake	2,100	1,580	1,450	525	1,730
Clear Creek	2,200	1,800	1,500	1,600	turbid
Trout Creek	250	150	50	20	263
BERING RIVER SUBTOTAL	20,750	8,045	6,100	6,525	8,173
Mentasta Lake	2,000	10,050	800	6,500	1,700
Gulkana River	46,318	39,240	16,800	13,180	31,450
St. Anne Creek	2,250	1,950	1,500	5,800	4,800
Mahlo Creek	270	6,530	150	3,300	turbid
Manker Creek	0	10	0	0	0
Bad Crossing	1,385	70	30	6,030	150
Mendeltna Creek	4,650	11,940	760	3,000	4,800
UPPER COPPER RIVER SUBTOTAL	56,873	69,790	20,040	37,810	42,900
Copper Delta	49,800	43,830	35,670	64,590	29,550
Bering River District	20,750	8,045	6,100	6,525	8,173
Upper Copper River	56,873	69,790	20,040	37,810	42,900
TOTALS	127,503	121,665	61,810	108,925	80,623 *

* . Aerial survey counts for 1966 were not comparable with past years due to abnormal weather conditions during the peak spawning periods which caused high runoffs & poor visability, resulting in minimal counts.

General Purse Seine Season

The general purse seine season in Prince William Sound opened as scheduled in the regulations on July 18 and continued until closed by field announcement on August 12, (Table 21). A full text of regulatory changes promulgated during the season is given earlier under the section entitled "Salmon Fishing Seasons". Table 21 shows a summary of Prince William Sound fishing seasons since 1951. Earlier reports summarized fishing season data from 1924.

Fish prices were settled before the season opened. The combination of an early price settlement and a late opening date of July 18 resulted in a heavy fishing pressure the first week of the season, Week 30, (Tables 25 to 28). Table 25 to 28 also lists the purse seine catches from the earlier season in the small Coghill district. Fishing continued strong until the season closed in Week 33.

Prediction studies of pink and chum salmon runs indicated a fair to poor return of pinks to Prince William Sound waters in 1966. The studies further indicated a weak early run necessitating the late season opening date. Aerial observations of migrating and spawning runs prior to the season opening date bore out the prediction for a poor early run of pinks. Catches of gill net and purse seine fishermen in the Coghill district in late June and early July substantiated aerial observations, (Table 40).

Weekly catch and case pack by species is shown in Tables 25 to 28. The general purse seine season began during Week 30 and continued into Week 33. Fishing pressure and peak catch occurred during Week 31, however, the fishing pressure was maintained at a high level during the entire season. In the opening week, contrary to what was expected, the catch was relatively light and remained fairly stable throughout the week. During the first day or two of the

of the opening week it was expected that some cleanup would occur from a buildup of early run fish but most of the spawning escapements within closed areas apparently were not molested. Small buildups of salmon occurred over the closed week-ends which is indicated by the slightly larger daily catch on Mondays. However, the five day fishing week, (Table 49), prevented any major buildup in bays except in closed areas. The five day fishing week appears to maintain the major portion of the catch on new arriving salmon at hook-hauling fishing locations with less of the catch from schooled salmon in bays. This helps to maintain a higher quality fish and subsequently case packs of superior quality.

Throughout the fishing season repeated aerial and ground surveys and daily catch records indicated the pink salmon run would not exceed expectations and, in fact, would probably be less than predicted. In order to assure adequate spawning escapement of pinks it was necessary to make several adjustments to closed areas. The first of these was extensions of closed waters in Olsen Bay and Fish Bay in the Eastern district, (see section under salmon fishing seasons).

One relaxation of closed waters was allowed in the western Port Wells section of the Northwestern district after an adequate spawning escapement was assured. No appreciable catches were made as a result of the relaxation, however.

Late in the season, on August 8, the entire Northern, Unakwik and Montague districts were closed to allow some limited fishing time in other districts receiving adequate spawning escapements.

Spawning escapements were generally adequate commensurate with the returning runs to the various districts. The total estimated pink salmon spawning escapement is 1,299,520 which compares with the parent escapement of 1,8~~44~~,690. In 1966, escapements to the Eastern and Montague districts were the only districts receiving a larger escapement than the parent year. The ~~fair~~ poor pink salmon escapement to the Montague district, ~~(420,000)~~ (42,000), was the result of both light fishing

pressure and the closure of August 8. Pink escapement was down about one-half the parent escapement in the Northwestern and Southwestern districts and down about one-third in the Northern district.

Chum salmon spawning escapements in all districts was below parent escapements particularly in the Eastern and Northwestern - Coghill districts. An exception was Montague district which received an escapement slightly larger than the parent run. The total estimated chum spawning escapement of 223,540 is about one-half the parent escapement and is below the seven year average beginning in 1960.

TABLE 21. Prince William Sound Summary of Fishing Seasons, 1951 - 1966

	GENERAL AREA:							DISTRICT OPENINGS AND CLOSURES:			
	Opening Date		Closing Day		Season Extensions	Special Closures	Weekly Closures	Eshamy Open	Eshamy Closed	Coghill - Unakwik Open	Coghill - Unakwik Closed
1951	0600	7/1	0600	8/1	None	8/1-6	48 hrs.		8/22	None	
1952	0600	8/4	1800	8/30	None	None	48 hrs.		8/22	None	
1953	0600	7/13	1800	8/8	8/5 - 8	None	48 hrs.		8/22	None	
1954		CLOSED					48 hrs.		8/22	None	
1955		CLOSED					48 hrs.		8/22	None	
1956	0600	7/10	0600	8/6	None	None	48 hrs.		8/22	None	
1957	0600	7/10	0600	8/5	None	8/5 - 10	48 hrs.		8/22	None	
1958	0600	7/10	0600	8/6	None 1/	8/6 - 9	48 hrs.		CLOSED	None	
1959		CLOSED							CLOSED		
1960	1201	7/11	1800	8/3	None	7/4 - 10 2/	72 hrs.		CLOSED	None	
1961	Eastern		Southeastern 3/					7/1	8/18	6/12	7/14
	0600	8/1	1800	8/14							
	Montague 3/										
	0600	8/8	1800	8/14							
1962	General 4/										
	0600	7/9	2400	8/13			119 hrs. 5/	7/2	8/15	6/18	7/14
1963	0500	7/1	1900	8/19 5/					CLOSED	6/18	7/14
1964	0600	7/13	0600	8/15 5/	8/16 - 21		48 hrs.		CLOSED	6/18	7/14
1965	0600	7/5	1800	8/3 5/	None		48 hrs.		CLOSED 5/	6/21	7/17
1966	0600	7/18	1800	8/12	None		48 hrs.	7/4	8/19	6/20	7/16

1/ Season closure by time table released to allow all gear to fish until closure 8/6.
2/ Fishing days by gear time table during season. On 8/2-3 fishing allowed 12-hour day. Fishing closed 1800 8/3.
3/ 12-hour fishing day.
4/ 14-hour fishing day.
5/ Refer to special regulatory changes by field announcement. (Also Table 52 for fishing time in 1965).

For fishing seasons prior to 1951 refer to 1964 Annual Report.

TABLE 22. Summary of Salmon Gear Operated, 1953 - 1966 1/

	PRINCE WILLIAM SOUND			COPPER RIVER DRIFT GILLNETS 2/	
Year	Traps	Purse Seines	Gillnets 2/	Red Season	Coho Season
1953	21	76	15,450 3/	75,000	7,900
1954	CLOSED	CLOSED	4,725 4/	87,000	27,000
1955	CLOSED	CLOSED	4,400 4/	88,050	25,000
1956	26	132	4,600 4/	74,100	--
1957	11	152 5/	4,400 4/	77,700	30,000
1958	13	183	CLOSED	75,900	--
1959 6/		CLOSED	CLOSED	53,250	25,050
1960		223	CLOSED	59,400	34,050
1961		102	3,750-Coghill 4,200-Eshamy 7/	50,550	25,650
1962		237	8,550-Coghill 3,750-Eshamy 7/	59,100	27,450
1963		281	3,450-Coghill	61,650	37,950
1964		154	8,850-Coghill	43,350	30,900
1965		208	3,900-Coghill 6,150-Eshamy 7/	50,100	26,850
1966		181	8,850-Coghill & Unakwik 2,700-Eshamy 7/	52,200	30,300

1/ Peak effort.
2/ Fathoms of gear.
3/ Including Eshamy.
4/ Eshamy only.
5/ 50 purse seines operated during a special chum season.
6/ Fish traps declared illegal when Alaska became a State.
7/ Includes set and drift gill nets.

TABLE 23. PRINCE WILLIAM SOUND ANNUAL SALMON CASE PACK, 1946 - 1966, 1/ 4/

Year	Reds	Kings	Pinks	Chums	Cohos	Total
1946	9,529	372	315,972	72,571	15,674	414,118
1947	17,176	180	376,125	63,676	6,240	463,397
1948	18,460	45	120,765	46,010	3,663	188,943
1949	8,272	160	273,226	82,409	11,107	375,174
1950	7,049	74	105,397	53,450	8,625	174,595
1951	19,996	1,469	47,809	54,942	5,295	129,511
1952	6,997	5	115,451	66,254	5,508	194,215
1953	4,929	37	122,236	34,552	4,085	165,839
1954 *	654	--	746	695	56	2,151
1955 *	1,346	--	1,795	550	63	3,754
1956	15,442	31	185,664	48,772	3,313	253,222
1957	6,322	171	35,431	74,716	1,892	118,532
1958	1,117	6	358,860	77,922	597	438,502
1959			C L O S E D			
1960 2/	2,701	2	70,554	39,711	1,267	114,235
1961	6,589	106	135,189	24,129	1,221	167,234
1962	5,454	33	270,797	81,856	1,457	359,597
1963	5,835	119	228,077	101,561	3,914	339,506
1964	2,773	16	187,114	63,392	4,487	257,782
1965	9,880	345	93,870	19,435	1,345	124,875
1966	10,599	50	146,069	43,271	2,225	202,164
TOTAL 3/	159,121	3,221	3,188,606	1,048,629	81,915	4,481,441
AVERAGE 3/	8,840	179	177,145	58,257	4,551	248,969

1/ Case pack on the basis of 48-1 pound cans per case. Case pack estimates include Eshamy and Coghill Districts and troll catches.
2/ Beginning in 1960, the case pack is estimated by using the total catch and the number of salmon per case at Cordova plants.
3/ Excluding the years 1954, 1955 and 1959 when purse seining closed.
4/ For case pack data prior to 1946 refer to 1964 Annual Report.
* Eshamy only.

TABLE 24. PRINCE WILLIAM SOUND ANNUAL SALMON CATCH, 1946 - 1966 1/ 5/

Year	Reds	Kings	Pinks	Chums	Cohos	Total
1946	110,787	1,669	8,026,032	757,173	159,011	9,054,672
1947	199,208	781	8,077,210	706,189	66,335	9,049,723
1948	208,159	207	2,460,760	457,618	35,168	3,161,912
1949	93,396	643	6,089,394	827,665	115,556	7,126,654
1950	74,585	558	1,850,731	455,900	74,445	2,456,219
1951 2/	119,976	4,407	1,051,798	467,007	37,065	1,680,253
1952	80,467	--	2,339,500	458,880	41,356	2,920,203
1953	54,712	126	2,016,894	314,423	28,595	2,414,750
1954 3/	6,213	--	12,309	6,047	543	25,112
1955 3/	12,921	--	26,925	4,785	592	45,223
1956 2/	172,950	111	4,827,264	497,474	27,498	5,525,297
1957	61,966	599	616,499	524,841	19,761	1,223,656
1958	13,821	54	6,289,435	687,263	8,196	6,998,769
1959			C L O S E D			
1960	35,176	1,580	1,841,899	381,858	30,722	2,291,235
1961	55,551	406	2,287,766	221,951	3,335	2,569,009
1962	44,679	1,834	6,543,081	871,858	17,888	7,479,340
1963	39,746	449	5,248,773	933,133	30,998	6,253,099
1964	37,517	65	4,189,505	521,711	30,914	4,779,712
1965	118,563	1,095	2,387,131	198,824	13,863	2,719,476
1966	100,752	174	2,719,236	429,653	17,218	3,267,033
TOTAL 4/	1,622,001	14,758	68,862,908	9,713,421	757,924	80,971,012
AVERAGE 4/	90,111	820	3,825,717	539,635	42,107	4,498,390

1/ Catch by all gear from all districts of Prince William Sound.
2/ Estimated catch using conversion of case pack.
3/ Eshamy district catch only. General season closed.
4/ Excluding the years 1954, 1955 and 1959.
5/ For catch data prior to 1946 refer to 1964 Annual Report.

TABLE 25. PRINCE WILLIAM SOUND PINK SALMON - 1966

PURSE SEINE (Weekly Catch and Case Pack) 3/

Week 4/	Case Pack 1/ (48-1#/case)	Total Catch	Total Pounds	Ave. Pounds Per Fish	No. Units of Gear	Number Landings	Ave. No. Fish/Boat	No. Fishing Days/Week 2/
26	111	2,173	8,357	3.85	5	22	434	5
27	271	5,303	20,135	3.80	7	53	778	5
28	910	17,804	68,992	3.88	16	148	1,113	5
29	1,330	26,024	104,889	4.03	30	96	867	5
30	22,513	440,572	1,755,795	3.99	156	671	2,818	5
31	42,073	823,363	3,350,414	4.07	181	780	4,549	5
32	38,156	746,704	3,113,854	4.17	170	723	4,392	5
33	31,667	619,714	2,656,700	4.29	171	568	3,619	4½
TOTAL	137,031	2,681,657	11,079,136	4.13	736	3,061	18,570	39½

1/ Estimated pack on basis of 19.57 pink salmon per case from average reported by Parks Canning Co.
2/ Fishing day from 6:00 a.m. to 6:00 a.m., 24 hours per day except during week 33 the fishing day was 6:00 a.m. to 6:00 p.m.
3/ In addition a total of 174 kings were taken.
4/ Week 26 through 29 catches taken during early Coghill district season.

TABLE 26. PRINCE WILLIAM SOUND CHUM SALMON - 1966

PURSE SEINE (Weekly Catch and Case Pack)

Week 2/	Case Pack 1/ (48-1#/case)	Total Catch	Total Pounds	Ave. Pounds Per Fish	No. Units of Gear	Number Landings	Ave. No. Fish/Boat	No. Fishing Days/Week
26	56	599	5,076	8.47	5	22	10	5
27	103	1,102	8,975	8.14	7	53	157	5
28	363	3,861	30,620	7.93	16	146	241	5
29	828	8,819	70,313	7.97	30	94	293	5
30	9,777	104,130	818,635	7.86	156	813	667	5
31	13,104	139,555	1,066,607	7.64	181	808	771	5
32	9,313	99,186	758,304	7.65	170	782	583	5
33	5,899	62,821	482,123	7.67	171	480	367	4½
TOTAL	39,443	420,073	3,240,653	7.71	736	3,061	3,089	39½

1/ Estimated on the basis of 10.65 chum salmon per case from average reported by Parks Canning Co.

2/ Week 26 through 29 catches taken during early Coghill district season.

TABLE 27. PRINCE WILLIAM SOUND RED SALMON - 1966

PURSE SEINE (Weekly Catch and Case Pack)

Week 2/	Case Pack 1/ (48-1#/case)	Total Catch	Total Pounds	Ave. Pounds Per Fish	No. Units of Gear	Number Landings	Ave. No. Fish/Boat	No. Fishing Days/Week
26	312	3,416	26,179	7.66	5	22	683	5
27	559	6,119	45,961	7.51	7	53	874	5
28	477	5,219	39,290	7.53	16	148	326	5
29	334	3,658	26,187	7.16	30	96	1,219	5
30	638	6,979	46,368	6.64	156	652	45	5
31	705	7,716	55,643	7.21	181	797	43	5
32	690	7,552	54,495	7.22	170	672	44	5
33	763	8,343	58,030	6.96	171	437	49	4½
TOTAL	4,478	49,002	352,153	7.19	736	2,877	3,283	39½

1/ Estimated on the basis of 10.94 red salmon per case as reported by Parks Canning Company.

2/ Week 26 through 29 catches taken during early Coghill district season.

TABLE 28. PRINCE WILLIAM SOUND COHO SALMON - 1966

PURSE SEINE (Weekly Catch and Case Pack)

Week 2/	Case Pack 1/ (48-1#/case)	Total Catch	Total Pounds	Ave. Pounds Per Fish	No. Units of Gear	Number Landings	Ave. No. Fish/Boat	No. Fishing Days/Week
26	0	0	0					5
27	1	11	90	8.18	7	22	2	5
28	21	184	1,342	7.29	16	144	12	5
29	21	192	1,465	7.63	30	88	64	5
30	375	3,354	26,401	7.88	156	651	22	5
31	625	5,583	46,816	8.39	181	799	31	5
32	465	4,152	36,518	8.80	170	711	24	5
33	323	2,891	25,925	8.97	171	495	17	4½
TOTAL	1,831	16,367	138,557	8.47	731	2,910	172	39½

1/ Estimated on basis of 8.94 coho salmon per case as reported by Parks Canning Co.

2/ Week 27 through 29 catches taken during early Coghill district season.

The 1966 pink salmon forecast indicated a light to poor return from the parent run of 1964 which was the first returning run that would show the effects of the Good Friday earthquake. Expectations were for a weak early run with the majority of the pinks returning as middle and late run fish. Regulatory measures were taken to assure protection of the early run pinks through a late opening on July 18 for purse seine fishing and extensions of closed areas in several bays where spawning streams were damaged by the earthquake.

Early aerial surveys were conducted periodically to determine the general size of the returning pink run and to evaluate spawning escapements. Observations of spawning escapements and catches of pinks and chums in the Coghill district in June and early July did not indicate an early pink run of a magnitude to warrant an early opening. Escapement of pink salmon to early run Port Wells streams was adequate which allowed a relaxation of the closed waters but apparently most of the run had escaped into closed waters before the area was opened on August 5.

Several adjustments in closed waters were necessary during the season to obtain more spawning escapement. The specific closed waters are referred to in the section entitled, "Salmon Fishing Seasons".

Prince William Sound salmon spawning escapements are summarized in Tables 29, 30a to 30h, 31, 32a to 32e, and 33. The spawning escapement of both pink and chum salmon were down from the parent run, however, an adequate escapement of pinks was achieved except in areas where runs have been reduced due to earthquake damage. Spawning escapement of both pinks and chums was poor in the Montague District streams. Pink escapements were down from the parent run in all districts, although, the eastern district pink escapement was down only slightly and compared favorable with the parent run.

TABLE 29. PRINCE WILLIAM SOUND PINK, CHUM AND RED SALMON

Total Estimated Spawning Escapement by District 1/

1966

District	Number of Streams Surveyed	Pinks	Chums	Reds
Eastern	52	489,450	85,480	*
Northern	25	255,710	39,520	3,500
Northwestern - Coghill	36	200,940	42,130	80,000
Southwestern - Eshamy	29	110,450	3,460	28,090
Montague	27	41,950	29,610	10
Southeastern	31	201,030	23,340	0
TOTAL	200	1,299,530	223,540	111,600

1/ Number of salmon rounded to nearest ten.

* Robe Lake not surveyed in 1966.

TABLE 29a. PRINCE WILLIAM SOUND ANNUAL ESTIMATED SALMON SPAWNING ESCAPEMENT, BY SPECIES 1952 - 1966.

Year	Reds	Pinks	Chums	Total
1952	52,690	237,520	124,900	415,110
1953	9,090	196,530	138,690	344,310
1954	5,900	895,870	199,730	1,101,500
1955	21,560	550,640	93,750	665,950
1956	53,380	1,001,950	176,700	1,232,030
1957	53,650	97,580	269,440	420,670
1958	6,640	922,250	82,280	1,011,170
1959	14,610	350,970	175,700	541,280
1960	166,520	1,350,820	201,880	1,719,220
1961	104,260	2,188,730	341,200	2,634,190
1962	41,080	2,001,220	486,860	2,529,160
1963	80,480	1,344,710	371,100	1,796,290
1964	114,840	1,844,690	442,550	2,402,080
1965	210,260	975,960	195,640	1,381,860
1966	111,600	1,299,530	223,540	1,624,670

TABLE 30a. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	EASTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
26	Simpson River	0	0	0	0	300				1950			2420
35	Koppen Creek	200	2000	8400	24930	9000	1300	3490	6000	5000			25770
36	Sheep River	0	5	400	2500	3500	4000	1600	4000	13500			13000
48	Beartrap River	0	0	2500	9700	4100		8000		5040			19240
50	Gravina River	0	0	0	0								5420
51	Olsen Creek	100	1000		6000	3800	1000		6915	6393			15460
52	Control Creek	0	0	900	5260	4000	1200	2690		2570			8080
56	St. Mathews Creek	0	0	0	500	500		2100	6000	7900			9200
76	Irish Creek	0	1500	1500	1270	700	440		4000	2010			6520
80	Whalen Creek	0	0	0	620	700		1400		2610			4210
83	Keta Creek	0	0	0	40	80	0	0		5500			8650
87	Sunny River	0	0	0		0	0	0		4770			7210
89	Fish Creek	0	1000	600	1700	7000	620	1120		11260			15700
94	~~Fish Bay~~ Rock Cr.	0	0	0	0	3000	2000	5250		2100			6080
99	Lagoon Creek	300	200	1000	13300	16000	12350	10500		14300			39160
114	Turner Creek	0	0	0	0		200	260		2600			2585
115	Millard Creek	0	0	5000	40000	21000	12690	21500		47000			51650 4/
116	Duck River	0	0	0	2000	3000	6100	12000		100000			23280
117	Indian Creek	0	200	4670	4300	10000	3420	5000		15020			29040
120	Donaldson Creek	0	0		500	900	500	1020		1920			2440
121	Levshakoff Creek	0	200	2100	1800	1200	690	2060		2650			7230
123	Gregorieff Creek	0	100	460	500	1200	710	600		2690			3950
127	Naomoff River	0	0				2300	5200		28720			37220
129	Vlasoff Creek	0	0		1200		1900	4320		11550			18460
131	Port Valdez	0	0	0	4000		3000			950			6940
133	Sawmill Creek	0	200		1700		1680			970			4720
152	Twin Falls Creek	0	0							2700			2930
153	Stellar Creek	0	500	4500	11000		7330			16300			39850
Other Streams (76) 2/ 3/		0	0	80	1850	2700	1409	5500	5057	5699			13540
District Total 3/ (104 Streams)		600	6905	38910	136635	135980	79979	118145	231427	329037	180285	40530	409445

1/ Ground counts underlined. 2/ From records maintained on small streams which had a total of less than 2000 pinks in 1966. 3/ Contains interpreted data where surveys lacking on certain weeks. 4/ Stream life factor 4.0 weeks, these calculated from stream life factor of 2.5 weeks. 5/ Stream numbering revised in 1962.

TABLE 30b. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 2/	NORTHERN DISTRICT Stream or Bay	WEEK ENDING 7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
214	Long Creek		0	0		0	560			3000				3560
216	Vanishing Creek		0	0		0	2300			8000				11920
217	Long Bay		0	0		0				3000				4160
224	Backyard Creek		0	0		0				2000				2960
229	Cedar Creek		0	0	50	150	1000	1600		4000		28070		29630
234	Wells River		300	12000	12000	11380		26000		38000		17100		77910
241	Cannery Creek		0	0	0	300	2000	4000	6000	3500		6600		7350 4/
257	Jonah Bay		0	0	0	300	2100			3000				5120
258	Jonah ~~Bay~~ Crk.		0	0	0	15700	54000	48000		31000				51680 4/
264	Siwash River		0	0	0	1200	1600	5500	10500	19000		12350		28260
265	Unakwik Creek		0	0	0	500	100		3330			380		5360
279	Canyon Creek	0	0	0	0	1000	1000	3000		300				3160
282	Eaglek River Delta	0	0	0	0	100	1200	3400		12000		3000		14000
284	Eaglek River Delta	0	0	0	0	100				100		2400		2320
Other Streams (30) 2/ 3/		0	0	0	0	200	1100	300	100	3750		1770		8720
District Total		0	300	12000	12050	30930	82300	104800	121830	137550	109750	81370	34950	255710

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 30c. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	III COGHILL DISTRICT Stream or Bay	WEEK ENDING 7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
322	Coghill River	0	0	250	1200									6260
(Other Streams) (5) 2/ 3/		0	0	0	0	950	400	1900		1800		170		4250
District Totals 3/ (12 Streams)		0	0	250	1200	3450	7400	6900	2900	2700	1300	170		10510

1/ Ground counts underlined; other are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 30d. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	IV NORTHWESTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
421	Mill Creek	0	7500		7000	4100	5000		18000		2900		29200
422	Bettles River	0	0	0	200				2000		1000		2800
424	Hummer Bay	0	0		1300		400		7000		420		6450
425	Hummer ~~Bay~~ Ck.	0	800		500	1300	1500		8000		270		9050
428	Pirate Creek	0	0	0	500	0	2500		400		15		2650
430	Meacham Creek	0	3300		5250	4200	4000		4000		940		12760
432	Swanson Creek	0	5000		20000	32000	21000		15000		12100		57840
435	Logging Camp Creek	0	106	700	2400	1100			3000		390		4920
450	Tebenkoff Creek	0	0	500		700							3000
451	Blackstone Creek	0	0	700		900							4000
454	Halferty Creek	0	0	900		2000			8000		910		11120
455	Paulson Creek	0	200	360	2310	1300			3500		110		5090
458	Parks Creek	0	0	1750		2000			8000		3300		12420
469	Wickett Creek	0	28	50	2000						190		2850
476	Shrode Creek	0	0	100	3000	2300			4000		4060		6240 4/
480	Mink Creek	0	420	800	700				7000		310		7690
485	West Finger Creek	0	0	200	600	2000					670		3230
Other Streams (22) 2/ 3/		0	425	1000	3240	2454		1000	820	1310	4		9120
District Totals 3/ (39 Streams)		0	17779	25660	57540	62454	55970	73550	96820	59300	29049	7300	190430

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 30e. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	V. ESHAMY DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
510	Eleshansky Creek	0	0	700									6220
511	Eshamy River	0	0	22									5070
Other Streams (None) 2/ 3/													
District Totals 3/ (6 Streams)		0	0	722	1800	4400	7200	6000	5000	2500	500	100	11290

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life of 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 30f. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	VI. SOUTHWESTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
603	Ewan Creek	0	0	0	700	1500			6000				6960
604	Erb Creek	0	700	900	700	100			3000		110		4280
608	Jackpot River	0	0	0	1300	15000			26000				27820 4/
610	~~Jackpot Bay, West Arm~~ KAMISHAK RIVER	0	0	0	1000	1500			5000				6800
613	Jackson Creek	0	0	0		1200			2300		550		3640
621	Totemoff Creek	0	0		400	300			6000		23		6330
630	Bainbridge Creek	0	0	0	1400	300			3200				2020
633	Pablo Creek	0		4000	1800	300			1200				4380
636	Whale Creek	0		2500	1100	400			700				2680
666	O'Brien Creek	0	0	0	100	2900			9000		210		10880
670	Montgomery Creek	0	0	0	0	600			1800				2440
673	Falls Creek	0	0	0	300	1100			6700		120		6690
674	Falls Creek	0	0	0	0	700			1700				2180
677	Hayden Creek	0	0	0	0	100			5000		140		5300
Other Streams (13) 2/ 3/		0	0	600	1250	1430			3670		700		7760
District Total 3/ (48 Streams)		0	3200	8100	10100	27650	44500	62110	80870	46325	7993	1300	99160

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life of 2.5 weeks.
5/ Stream numbers revised in 1962.

TABLE 30g. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	VII. MONTAGUE DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
740	Kelez Creek	0	0	0	0	2100	4000		1500		870		5130
741	Chalmers River	0	0	0	0	100	6000		500		100		4030
747	Cabin Creek	0	0	0	0	100			3900		400		3720
748	Gilmore Creek	0	0	0	0	100	3000		3000		150		3330
749	Shad Creek	0	0	0	0	600	2000		4000		200		4760
752	Stockdale Creek	0	0	0	0	0	1500		2000				2240
753		0	0	0	0	700	3000		300				2280
775	Pautzke Creek	0	0	0	0	10			2000		1600		3180
Other Streams (19) 2/ 3/		0	0	0	0	1320	2500		9475	2300	1400		13278
District Totals 3/ (47 Streams)		0	0	0	0	5030	23970	27390	26675	15340	5490	1215	41948

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life 2.5 weeks.
5/ Stream numbering revised in 1962.

TABLE 30h. 1966 PRINCE WILLIAM SOUND PINK SALMON
(Live Counts in Streams) 1/

Stream No. 5/	VIII. SOUTHEASTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
810	Garden Creek	0	0	0	0	40	700		8000				8340
812	Nuchek Creek	0		200	300	3000	7000		31000				30960
815	Constantine Creek	0		500	1800	3000	3800		29000				30420
817	Deer Creek	0				1600			2000				3640
818	Juania Creek	0							8000				10800
821	Brown Bear Creek	0			10	1200			3000				4480
827	Captain Creek	0				3000	7000		3100				7720
828	Cook Creek	0			120	1600	2200		2500				4090
829	King Creek	0				900			2950				3980
831	Double Creek	0				700	1300	1800					3840
833	Bates Creek	0	0	50		200			3600				3640
834	Hardy Creek	0	0	0		1900			6000				7840
835	Scott Creek	0	0	0		100			12000				14720
836	Dan's Creek	0	0	0		2600			4000				6560
844	Makarka Creek	0	0	0					4600				6880
847	Hawkins Creek	0	0	0	170	3500			9450	100			12000
849	Rollins Creek	0	0	0	0				2200				2320
850	Canoe Creek	0	0	200	20	300			1900				2370
855	West of Cedar Bay	0	0	0	0	2000							5800
856	West Lagoon	0	0	0	0	1000			4560				6540
858	North Lagoon	0	0	0	0	400			4000				4680
861	Bernard Creek	0	0	0	1570	1700			12560				14850
Other Streams (9) 2/ 3/		0	0	0	0	700	1125		2381		12		4560
District Total 3/ (55 Streams)		0	300	950	4290	32340	66225	115950	165051	90860	21542	5350	201030

1/ Ground counts underlined; others are aerial counts.
2/ From records maintained on small streams which had a total of less than 2000 pinks each in 1966.
3/ Contains interpreted data where surveys lacking on certain weeks.
4/ Stream life factor 4.0 weeks, these calculated from stream life of 2.5 weeks.
5/ Stream numbers revised in 1962.

TABLE 31. 1966 RECAPITULATION OF WEEKLY PINK SALMON COUNTS BY DISTRICT
(Live Counts in Streams) 1/

No. of Streams	District	WEEK ENDING 7/2	7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/30	9/17	Calculated Season Total
52	Eastern		600	6905	38910	136635	135988	79979	118145	231427	329037	160285	40530	489445
25	Northern	300	300	12000	12050	30930	82300	104800	121830	137550	109750	81370	34950	255710
36	Northwestern-Coghill		0	18029	26860	60990	69854	62870	76450	99520	60600	29219	7300	200940
29	Southwestern-Eshamy		0	3200	8822	11900	32050	51700	68110	85870	48825	8493	1400	110450
27	Montague		0	0	0	0	5030	23970	27390	26675	15340	5490	1215	41948
31	Southeastern		0	300	950	4290	32340	66225	115950	165051	90860	21542	5350	201030
200	Prince William Sound Total	300	900	40434	87592	244745	357554	389584	527875	746093	654432	326399	98745	1299523

1/ The counts were derived from 407 Aerial surveys and 191 ground surveys. Total surveys 598.

TABLE 32a. 1966 PRINCE WILLIAM SOUND CHUM SALMON
(Live Counts in Streams) 1/

Stream No.	I. EASTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
26	Simpson River	0							6000	2500			5560
35	Koppen Creek	800	1500	3200	5500	2360				100			6360
36	Sheep River	0		300		400				3350			4500
48	Bear Trap River	25	5000	5000	6000	6500		1000		950			11750
51	Olsen Creek	360	3000	3000	1500	900			413	661			4690
87	Sunny ~~Bay~~ River			0				400		3100	12200	9000	10800
116	Duck River							5000		4000			9560
127	Naomoff River	0					2200			4660			8740
129	Vlasoff Creek		300		600					2580			5490
145	Crooked Creek												3200
Other Streams (20)		150	2100	3230	2055	510	645	1722		2231			32535
District Totals 3/ (46 Streams)		1535	12800	16880	19655	18255	17445	19517	24883	25232	27000	16800	85480

1/ Ground survey counts underlined; others are aerial counts.
2/ Streams with less than 2000 chum salmon total escapement.
3/ Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 2.5 weeks unless otherwise noted.

TABLE 32b. 1966 PRINCE WILLIAM SOUND CHUM SALMON
(Live Counts in Streams) 1/

Stream No.	II. NORTHERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
214	Long Creek	100	600				700		8700				10760
216	Vanishing Creek	0	250				600		9000				9340
234	Wells River	2700	6000		2050				1700	200			9220
257	Jonah Creek	0			50				3500				4540
264	Siwash River	50						920		1500			2190
281	Eaglek River	0			600				3200		200		2260
Other Streams (3) 2/ 3/		0			4						300		1210
District Totals 3/ (21 Streams)		2850	6850	5000	3954	5500	7000	15020	25700	19300	6300	1050	39520

1/ Ground survey counts underlined; others are aerial counts.
2/ Streams with less than 2000 chum salmon total escapement.
3/ Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 2.5 weeks unless otherwise noted.

TABLE 32c. 1966 PRINCE WILLIAM SOUND CHUM SALMON
(Live Counts in Streams) 1/

Stream No.	NORTHWESTERN AND COGHILL DISTRICTS Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
322	Coghill River		600	1700									10360
421	Mills Creek	1200			550		1500				500		4800
425	Hummer Creek	350	1000						1200		310		2940
430	Meacham Creek	0	500		1250				2000		350		4460
432	Swanson Creek	1400	1100		900				1500		1300		4560
454	Halferty-Creek		0	100			2000		1000		130		3190
458	Park Creek			300					2000		40		2860
Other Streams (14) 2/ 3/			100	529	2085		3065		1600		961		9100
District Totals 3/ (38 Streams)		2150	5150	7249	12435	19840	17965	15550	13050	7500	3591	850	42130

1/ Ground survey counts underlined; others are aerial counts.
2/ Streams with less than 2000 chum salmon total escapement.
3/ Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 2.5 weeks unless otherwise noted.

TABLE 32d. 1966 PRINCE WILLIAM SOUND CHUM SALMON
(Live Counts in Streams) 1/

Stream No.	ESHAMY AND SOUTHWESTERN DISTRICT Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
	Other Streams (10) 2/ 3/			50	220	400	825	1250	1700	1150	440	100	3160
	District Totals 3/ (16 Streams)			50	220	400	825	1250	1700	1150	440	100	3460

1/ Ground survey counts underlined; others are aerial counts.
2/ Streams with less than 2000 chum salmon total escapement.
3/ Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 2.5 weeks unless otherwise noted.

TABLE 32c. 1966 PRINCE WILLIAM SOUND CHUM SALMON
(Live Counts in Streams) 1/

Stream No.	Stream or Bay	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
	MONTAGUE AND SOUTHEASTERN DISTRICT												
744	Chalmers River			0	20		2300		25000		7450		26540
747	Wild Creek			0			750		3300		331		3970
812	Nuchek Creek			30	300		200		2000				2370
815	Constantine Creek			100	1300		400		4000				5640
821	Brown Bear Creek			50	60				2000				2580
834	Hardy Creek			0			300		1500				2080
836	Dan's Creek			0			200		3000				6700
Other Streams (14) 2/ 3/				0	100		430	450	3890		1746	20	7990
District Totals 3/ (24 Streams)				230	1880	2900	6220	27380	44890	30660	5507	6160	52950

1/ Ground survey counts underlined; others are aerial counts.
2/ Streams with less than 2000 chum salmon total escapement.
3/ Contains interpreted data where surveys lacking on certain weeks.
Stream life factor 2.5 weeks unless otherwise noted.

TABLE 33. 1966 RECAPITULATION OF WEEKLY CHUM SALMON COUNTS BY DISTRICT
(Live Counts in Streams) 1/

No. of Streams	District	WEEK ENDING 7/9	7/16	7/23	7/30	8/6	8/13	8/20	8/27	9/3	9/10	9/17	Calculated Season Total
46	Eastern	1535	12800	16880	19655	18255	17445	19517	24883	25232	27000	16800	85480
21	Northern	2850	6850	5000	3954	5500	7000	15020	25700	19300	6300	1050	39520
38	Northwestern-Coghill	2150	5150	7249	12435	19840	17965	15550	13050	7500	3591	850	42130
16	Southwestern-Eshamy	0	0	50	220	400	825	1250	1700	1150	440	100	3460
24	Montague-Southeastern			250	2560	5560	17110	39200	34860	20747	10220	1720	52590
145	Prince William Sound Total	6535	24800	29429	38824	49555	60345	90537	100193	73929	47551	20520	223540

1/ The counts were derived from 86 aerial surveys and 75 ground surveys. Total surveys 161.

ESHAMY DISTRICT

PRINCE WILLIAM SOUND

The Eshamy district drift and set gill net season opened as scheduled on July 4 and continued until closed by field announcement on August 19. Expectations were for a fair to good run based on the history of the cyclic fishery.

Weekly catch and case pack data for Eshamy is shown in Table 39. The red salmon catch of 20,826 is below the 17 year average of 31,993, (Table 38). The case pack, (Table 37), of 1,904 cases of reds is about one-half the 17 year average. Catch and case pack of other species is also below the average, (Tables 37 and 38).

Eshamy River weir was installed on June 26 and daily escapement counts of salmon was continued through September 15, (Table 34). Total escapement by species was 26,593 reds, 194 coho, 331 pinks and 2 chums. Comparative annual weir counts since 1950 are given in Table 35 which shows the 1966 count to be slightly below the average. Weekly cumulative counts, (Table 36), indicate a normal timing of the 1966 red run.

TABLE 34. ESHAMY RIVER DAILY WEIR COUNT, 1966

Date	Water Temp. 2/	Air Temp. 2/	Water Level 3/	General Weather 4/	RED SALMON COUNT: Daily Count by Sex ♂	Jack	♀	Daily Total	Weekly Total	Cumulative Total	COUNTS OF OTHER SPECIES: COHO	PINK	CHUM
6/26	50°F	50°F	.46'	Cloudy									
27	53	50	.45	Rain									
28	55	59	.45	Fair									
29	56	56	.41	Fair									
30	56	59	.41	Fair	10		6	16		16			
7/ 1	52	48	.41	Rain			1	1		17			
2	52	50	.50	Rain									
3	52	50	.56	Rain									
4	51	50	.57	Rain					17				
5	51	53	.59	Rain									
6	54	52	.56	Cloudy	7	1	7	15		32			
7	55	56	.52	Fair	8	2	7	17		49			
8	54	54	.50	Cloudy	139	11	165	315		364		6	
9	54	56	.45	Fair	49	4	51	104		468		10	
10	56	51	.43	Rain	30	3	24	57		525			
11	56	52	.42	Rain	2			2	510	527			
12	55	51	.45	Rain	25	3	24	52		579			
13	58	58	.47	Fair	56	4	51	111		690			
14	57	54	.43	Cloudy	44	3	47	94		784			
15	56	54	.41	Cloudy	45	2	34	81		865		6	
16	60	60	.38	Fair	72	9	73	154		1019			
17	60	61	.36	Fair	11			11		1030			
18	60	58	.33	Fair	55	5	59	119	622	1149			
19	60	60	.30	Fair	6		4	10		1159			
20	60	58	.30	Cloudy	4		2	6		1165			
21	60	58	.28	Cloudy	8		8	16		1181			
22	61	60	.27	Fair	1			1		1182			
23	64	62	.25	Fair	4		2	6		1188			
24	63	62	.21	Fair			1	1		1189		1	
25	64	65	.19	Fair	35	1	54	90	130	1279			
26	64	58	.18	Rain	477	2	477	956		2235		5	
27	64	57	.17	Rain	180	3	237	420		2655		3	
28	63	57	.16	Rain	59		81	140		2795			
29	62	56	.17	Rain	1	1		2		2797			
30	60	52	.26	Rain	467	2	481	950		3747		9	
31	60	54	.44	Rain	425	2	509	936		4683		12	

TABLE 34. continued

Date	Water Temp. [2]	Air Temp. [2]	Water Level [3]	General Weather [4]	RED SALMON COUNT: Daily Count by Sex ♂	Jack	♀	Daily Total	Weekly Total	Cumulative Total	COUNTS OF OTHER SPECIES: COHO	PINK	CHUM
8/ 1	60°F	57°F	.39'	Cloudy	23	3	20	46	3450	4729			
2	59	53	.38	Rain	26	1	16	43		4772			
3	58	53	.42	Rain						4772			
4	57	52	.42	Rain	215	5	289	509		5281		4	
5	56	52	.74	Rain	20	2	26	48		5329			
6	55	54	1.12	Rain	688	1	860	1549		6878		6	
7	54	54	1.22	Rain	392	2	589	983		7861	1	8	
8	54	54	1.29	Rain	558	6	701	1265	4397	9126		10	
9	55	54	1.22	Fair	280	3	442	725		9851			
10	54	53	.98	Cloudy	241	1	394	636		10487			
11	54	52	.95	Rain	83	1	99	183		10670		1	
12	54	56	.88	Fair	827	4	942	1773		12443		4	
13	54	54	.77	Cloudy	53	1	61	115		12558		2	
14	56	55	.65	Fair	128		147	275		12833		2	
15	58	56	.50	Cloudy	198	4	229	431	4138	13264		10	1
16	58	53	.43	Cloudy	182	3	193	378		13642		9	
17	59	54	.38	Cloudy	126	5	138	269		13911		8	
18	55	50	.57	Rain	1			1		13912			
19	54	52	.68	Rain	2367	6	2888	5261		19173	24	26	
20	54	50	.57	Rain	562	6	730	1298		20471	20	17	
21	53	50	.91	Rain	13		17	30		20501			
22	53	53	1.98	Rain				4052	11289	24553	50	101	
23	52	52	1.64	Rain				195		24748	21	19	
24	53	51	1.28	Cloudy	204	1	286	491		25239	18	26	
25	53	53	1.09	Fair	99	5	128	232		25471	9	13	
26	54	55	.95	Fair	19	1	24	44		25515	3	3	
27	55	54	.89	Fair	47	1	55	103		25618	6	1	
28	53	50	.78	Rain	1		2	3		25621			
29	54	50	.79	Cloudy	79	3	99	181	1249	25802	13		
30	54	49	.71	Rain	148	3	164	315		26117	3	5	
31	54	50	.70	Rain	41	6	65	112		26229	5		

TABLE 34. continued

Date	Water Temp. 2/	Air Temp. 2/	Water Level 3/	General Weather 4/	RED SALMON COUNT: Daily Count by Sex ♂	Jack	♀	Daily Total	Weekly Total	Cumulative Total	COUNTS OF OTHER SPECIES: COHO	PINK	CHUM
9/ 1	54°F	49°F	.66	Rain	6		3	9		26238			
2	54	50	.61	Cloudy	69	3	65	137		26375	3	2	
3	54	50	.55	Fair	17	1	11	29		26404			
4	54	52	.49	Fair	50	7	47	104		26508	4	2	
5	53	50	.42	Fair	13	4	13	30	736	26538	2		1
6	54	50	.39	Cloudy	5	1	5	11		26549	2		
7	54	50	.36	Rain						26549			
8	53	48	.32	Fair	1	1	5	7		26556	1		
9	53	49	.32	Fair	7	2	7	16		26572	4		
10	53	50	.30	Fair	3		5	8		26580	4		
11	52	47	.29	Rain	1			1		26581			
12	52	51	.87	Rain	5		7	12	55	26593	1		
13	52	49	.85	Rain						26593			
14	51	50	1.02	Rain						26593			
15	50	50	2.00	Rain						26593			
16 1/	50	50	1.72	Cloudy						26593			
TOTAL					10,018	151	12,177			26593	194	331	2

1/ Weir removed at 5:00 a.m. At the time the weir was removed 10 reds and 42 coho were observed below the weir.

2/ Temperatures in degrees F.

3/ Water level measured in tenths of feet.

4/ Ice went out of Eshamy Lake on June 10.

TABLE 35. ESHAMY RIVER WEIR COUNT, 1950 - 1966

Year	Reds	Pinks	Cohos	Chums	Kings
1950	30,870	421	971	0	0
1951	62,661	5,515	1,518	0	0
1952	42,859	119	51	0	0
1953	4,588	718	185	0	0
1954	1,437	418	15	0	0
1955	13,036	6,611	1,505	717	0
1956	46,863	1,166	117	14	2
1957	51,308	4,031	400	16	0
1958	5,224	273	27	3	0
1959	6,908	674	256	0	0
1960	13,515	250	132	0	0
1961	47,275	15,299	57	0	0
1962	9,390	738	1,677	291	0
1963	3,092	2,459	232	0	0
1964	68,129	822	1,825	9	0
1965	108,963	5,441	532	6	0
1966	26,593	331	194	2	0
TOTAL	542,211	45,286	9,694	1,058	2
AVERAGE	31,895	2,664	570	62	0

TABLE 36. ESHAMY RIVER RED SALMON WEEKLY CUMULATIVE WEIR COUNTS, 1957 - 1966

Week Ending	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
6/30				52	2,183	1,096		8	0	16
7/7	61	109	48	1,308	3,421	1,441	116	28	0	49
7/14	479	245	371	3,220	4,317	1,768	168	1,948	885	784
7/21	510	1,123	502	4,633	5,381	1,877	195	3,379	1,553	1,181
7/28	690	1,588	852	6,214	6,209	2,024	211	5,336	5,110	2,795
8/4	842	2,183	1,450	7,316	7,438	2,132	222	6,706	8,271	5,281
8/11	922	2,909	3,960	8,252	21,412	3,704	546	8,657	11,252	10,670
8/18	2,064	4,030	5,858	10,509	31,580	5,538	716	17,604	28,568	13,912
8/25	27,625	4,796	6,908	12,209	38,474	7,450	2,063	45,994	41,965	25,471
9/2	45,170	5,198	--	13,217	45,072	8,720	2,588	65,672	51,150	26,375
9/9	50,658	5,224	--	--	46,400	9,297	3,064	67,730	53,053	26,572
9/16	51,308	--	--	--	47,275	9,390	3,092	--	90,438	26,593
9/23	--	--	--	--	--	--	--	--	108,934	--
TOTAL	51,308	5,224	6,908	13,217	47,275	9,390	3,092	67,730	108,963	26,593

TABLE 37. ESHAMY DISTRICT SALMON CASE PACK, 1950--1966 1/

Year	Reds	Pinks	Chums	Cohos
1950	2,231	1,109	497	78
1951	6,530	2,990	1,194	158
1952	3,594	525	359	72
1953 2/	1,319	2,515	1,144	107
1954	654	746	695	56
1955	1,346	1,795	550	63
1956	7,997	1,713	1,497	88
1957	3,775	1,469	1,632	80
1958		SEASON CLOSED		
1959		SEASON CLOSED		
1960		SEASON CLOSED		
1961	5,490	7,093	2,335	148
1962	2,183	3,164	3,726	318
1963		SEASON CLOSED		
1964		SEASON CLOSED		
1965	299	9	26	1
1966	1,904	1,870	742	83
TOTAL	37,322	24,998	14,397	1,252
AVERAGE 3/	3,393	2,273	1,309	114

1/ 48/1# cans per case.
2/ One seiner made one delivery of Prince William Sound fish to the Eshamy cannery and several set nets fished outside the Eshamy District during the Prince William Sound season but delivered their fish to the Eshamy cannery. All of these fish were included in the Eshamy pack.
3/ Average of years fished except years of closed seasons and 1965 which was opened by emergency order.

TABLE 38. ESHAMY DISTRICT SALMON-CATCH, 1950 - 1966

Year	Reds	Pinks	Chums	Cohos	Total
1950	23,294	14,710	4,217	564	42,785
1951	72,483*	49,335*	10,865	1,106*	133,789
1952	32,998	7,714	2,757	471	43,940
1953	11,740	41,497*	10,410*	749*	64,396
1954	6,185	12,365	6,133	441	25,124
1955	12,919	26,857	4,806	595	45,177
1956	75,355	32,101	14,439	788	122,683
1957	33,665	22,672	12,183	738	69,258
1958		S E A S O N C L O S E D			
1959		S E A S O N C L O S E D			
1960		S E A S O N C L O S E D			
1961	55,133	113,326	22,918	1,324	192,701
1962	23,857	76,345	39,909	3,895	144,006
1963		S E A S O N C L O S E D			
1964		S E A S O N C L O S E D			
1965	15,456	550	649	71	16,726
1966	20,826	36,584	7,896	745	66,051
TOTAL	383,911	434,056	137,182	11,487	966,636
AVERAGE 1/	31,993	36,171	11,432	957	80,553

* Estimated from case pack.

1/ Average of years fished.

TABLE 39. ESHAMY DISTRICT DRIFT AND SET GILLNET FISHERY STATISTICS, 1966

	CATCH				CASE PACK 1/				
Week	Reds	Cohos	Pinks	Chums	Reds	Cohos	Pinks	Chums	Units of Gear
28	2009	71	2336	1680	184	8	119	158	13
29	2211	83	3026	1875	202	9	155	176	18
30	2807	137	6541	1716	257	15	334	161	12
31	3598	111	9883	1131	329	12	505	106	18
32	3582	131	8061	913	327	15	412	86	17
33	5025	148	5298	474	459	17	271	45	17
34	1594	64	1439	107	146	7	74	10	19
TOTAL	20826	745	36584	7896	1904	83	1870	742	114

1/ Estimated on basis of 10.94 red, 8.94 coho, 19.57 pink, and 10.65 chum salmon per case.

ESHAMY LAKE -PLANKTON SAMPLES

Plankton samples were taken in Eshamy Lake south from the western end of the most northerly island in the lake. Sampling began on June 17 which was seven days after the ice cover went out of the lake on June 10. Samples were taken with the center of the half meter plankton net one meter below the water surface.

The volume of plankton was measured in a 100 milliliter graduated cylinder after the sample had settled for 24 hours. Each sample was taken at the approximate time of local sunset.

The following table lists the volume of plankton by date.

Date	Revolutions	Volume (ml.)
6/17	198	15
6/25	293	40
7/1	165	37
7/7	225	30
7/15	272	36
7/21	197	44
7/29	343	88
8/4	253	198
8/11	107	296
8/18	166	45
8/25	198	83
9/1	133	71
9/8	119	69
9/16	126	88

In 1966 a smolt trap was installed in Eshamy River with the objective to gather information on the feasibility of trapping out-migrants; to determine relative abundance of migrants; and, determine timing of out-migration.

Following is a summary of data collected in 1966.

SPECIES AND NUMBER OF SMOLT TRAPPED BY DATE

DATE	REDS	COHO	DATE	REDS	COHO	DATE	REDS	COHO
5/21	236		6/13	38	2	7/6	15	
5/22	707		6/14	72	2	7/7	6	
5/23	705		6/15	114	4	7/8	8	
5/24	491		6/16	100	1	7/9	6	
5/25	368		6/17	38	1	7/10	9	
5/26	293		6/18	41	0	7/11	5	
5/27	399		6/19	48	1	7/12	6	
5/28	298		6/20	12	0	7/13	5	
5/29	261		6/21	56	1	7/14	6	
5/30	331		6/22	22		7/15	2	
5/31	183		6/23	21		7/16	7	
6/1	112	1	6/24	13		7/17	12	
6/2	226	2	6/25	10		7/18	1	
6/3	96	1	6/26	9		7/19	0	
6/4	157	2	6/27	7		7/20	1	
6/5	101	3	6/28	32		7/21	0	1
6/6	135	0	6/29	6		7/22	0	
6/7	164	1	6/30	2		7/23	1	
6/8	23	1	7/1	8		7/24	1	
6/9	65	8	7/2	6		7/25	1	
6/10	109	0	7/3	9		7/26	0	
6/11	116	2	7/4	24		7/27	0	
6/12	164	4	7/5	8		7/28	0	
						7/29 *	0	
Sub Total	5,740	25		696	12		92	1

TOTAL RED SMOLT - 6,528 COHO SMOLT - 13

* Trap removed at 12:00 noon.

The above data suggests the date of May 21 is not early enough to capture initial migrants. Out-migration was apparently well underway when the smolt trap was installed on May 21. In 1967, the smolt trap will be installed in the

river as soon as ice break up will allow.

A mark and recovery experiment was done in conjuction with smolt trapping to determine relative abundance of downstream migrants. Between May 22 and June 22 a total of 1940 red salmon smolt were marked with Bismark Brown of which 2.06 per cent or 40 were recovered. Using the total smolt catch of 6,528 it is estimated from mark recoveries that from May 21 to July 29 approximately 317,000 red smolts moved downstream.

Following is a summary of smolt mark and recovery data.

RED SALMON SMOLT MARKING AND RECOVERY

Date	Number Marked	Number Recovered
5/22	100	1
5/23	200	4
5/24	200	4
5/25	140	3
5/26	260	3
5/27	200	5
5/28	200	4
5/30	200	3
5/31	50	3
6/4	100	2
6/7	100	3
6/14	100	1
6/19	40	2
6/22	50	2
TOTAL	1,940	40

Length frequency samples were taken from 300 red salmon smolt trapped from Eshamy River. Three samples of 100 smolts each were taken on May 22, June 1 and June 11. Measurements were made from the tip of the nose to the fork of the tail to the nearest millimeter.

Following is a summary of the length frequency data.

RED SALMON SMOLT LENGTHS IN MILLIMETERS

MAY 22					JUNE 1					JUNE 11				
A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
75	78	69	67	67	79	72	79	67	71	74	71	74	64	59
71	66	66	67	57	73	79	67	72	68	84	59	56	59	66
77	64	66	80	68	59	88	66	71	77	55	51	62	60	74
76	60	70	73	74	78	64	68	81	82	65	65	65	58	59
86	61	73	56	81	74	63	61	69	72	54	59	58	53	61
81	58	63	81	71	63	60	78	63	62	75	62	52	63	66
60	67	70	67	62	76	71	67	68	62	65	72	60	62	64
76	61	71	67	67	63	59	63	61	74	75	62	60	64	54
76	68	67	68	68	73	71	68	64	79	60	139	56	60	56
79	86	79	68	59	69	66	73	71	70	75	62	74	57	54
80	76	59	72	70	69	71	73	75	79	72	61	59	61	57
76	89	80	58	64	71	70	65	73	74	58	63	59	62	61
84	57	71	72	75	72	73	85	75	66	73	62	59	65	74
86	74	59	62	71	78	64	64	65	66	61	56	56	66	58
76	65	79	80	61	83	66	69	78	75	64	59	54	60	56
62	67	62	68	71	76	67	80	73	68	63	59	66	61	54
71	64	69	74	71	68	60	65	63	66	66	54	52	64	58
70	60	80	71	71	65	60	78	63	69	55	69	56	56	64
80	80	77	75	62	74	60	72	64	59	60	69	56	61	56
81	72	81	62	57	71	61	60	69	73	71	60	51	60	55

Fecundity samples from 20 red salmon showed an average of 4,152 eggs per female. Samples were taken from July 10 to July 17.

PRINCE WILLIAM SOUND

The Coghill purse seine and drift gill net fishery opened as scheduled on June 20 and was closed to drift gill net fishing by field announcement on July 16. Purse seine fishing was allowed to continue through the general purse seine season which closed by field announcement on August 12.

Catch data by gear for the weekly fishing periods is given in Table 40. Comparative catch data for drift gill nets is presented in Table 41 which shows the 1966 catch of reds to compare favorably with other years. The catch of other species was down from previous years.

Spawning escapement counts at the Coghill River counting tower were conducted throughout the season. The counts showed an excellent escapement of red salmon in Coghill River during the week of June 26 which allowed a relaxation in regulations permitting seven days per week fishing by field announcement. A red salmon spawning escapement estimate of 80,000 was calculated using the Coghill River tower count through July 13. An aerial survey made on July 13 produced an estimate of 85,000 reds, of which 75,000 were counted in the lake, and 15,000 in the lagoon immediately below the lake.

TABLE 40. COGHILL AND UNAKWIK DISTRICT FISHERY STATISTICS,

PURSE SEINE AND DRIFT GILLNET, 1966 1/

PURSE SEINE 2/

Week	CATCH 4/				CASE PACK 3/				Units of Gear
	Reds	Cohos	Pinks	Chums	Reds	Cohos	Pinks	Chums	
26	3,416		2,173	599	312		111	56	5
27	6,119	11	5,303	1,102	559	1	271	103	7
28	5,219	184	17,804	3,861	477	21	910	363	16
29	3,658	192	26,024	8,819	334	21	1,330	828	13
Sub-total	18,412	387	51,304	14,381	1,682	43	2,622	1,350	58
	DRIFT GILLNET								
26	3,075		236	58	281		12	5	20
27	17,693	2	305	189	1,617		16	18	31
28	5,146		197	660	470		10	62	59
29	5,010	4	257	777	458	1	13	73	25
Sub-total	30,924	6	995	1,684	2,826	1	51	158	135
TOTAL	49,336	393	52,299	16,065	4,508	44	2,673	1,508	193

1/ Data from early Coghill-Unakwik season, June 20 to July 16.
2/ Purse seine catch also appears in Prince William Sound catch, Table 25, 26, 27 and 28.
3/ Case pack determined using Prince William Sound fish per case average.
4/ In addition 30 kings were taken.

TABLE 41. COCHILL DISTRICT GILLNET COMPARATIVE EFFORT AND CATCH, 1961 - 1966

Year	Reds	Pinks	Chums	Cohos	Average Units of Gear
1961	12,961	10,019	2,412	13	25
1962	13,846	2,241	4,817	15	41
1963	16,965	2,689	5,265	20	19
1964	28,864	5,790	4,494	2	44
1965 *	22,855	1,905	4,363	18	19
1966 *	26,204	921	1,681	6	24
TOTAL	121,695	23,565	23,032	74	
AVERAGE	20,283	3,928	3,839	12	

* Purse seines also fished these years.

SUBSISTENCE FISHERY

Subsistence fishing in Alaska is allowed, usually by authority of a permit, as a means for low income families to supplement their diet. Unfortunately, a complete control of the fishery has not been maintained which has allowed abuse of the subsistence fishery by persons actually seeking recreation and sport rather than actual need of the resource for livelihood.

The major subsistence fishery is on the main Copper River between the towns of Chitina and Gakona. Fishwheels are strategically located at various places along this section of the river and a large dip net fishery operates on the river at Chitina.

Total catch from the two types of gear have remained relatively stable since 1960 when systemized reporting was first initiated. The catch, however, does not reflect the large increase in gear that has occurred through the past seven years, (Table 43). Since 1960 the number of fishwheels has remained almost constant in the fishery with a slight decrease in numbers in 1965 and 1966. The numbers of dip nets on the other hand have shown a steady increase from 32 in 1960 to 1132 in 1966. With the increase in dip net permits the catch has shown a reverse of the original trend. From 1960 to 1963 the catch of salmon was largely from fishwheels, but in 1964 and 1965 the fishwheel catch started dropping sharply while the salmon catch from dip nets steadily increased surpassing the fishwheel catch in 1965. The subsistence catch for 1966, (Table 42), shows the trend in catch to again reverse. If the large catch of the combination dip net - fishwheel, which is primarily dip net fishermen, is added to the dip nets the catch for the two types of gear is almost equal. The success of dip net fishermen, located downriver from the fishwheel fishery, apparently directly affects the fishwheel catch.

Table 42 shows 16,896 reds, 602 kings, 19 coho, 20 pink, 50 chum, and 303 other fish were taken by subsistence fishing from reports received through February 8, 1967.

TABLE 42. SUBSISTENCE FISHING, 1966 1/

AREA	Number Permits Issued	Number Permits Returned	Type of Gear	Unsuccessful Fishermen	Unused Permits	Reds	Kings	Cohos	Pinks	Chums	Other 2/
Upper Copper River	110	83	Fishwheel	1	7	8862	326				2
Upper Copper River	1132	694	Dip Net	98	169	7240	212				301
Upper Copper River	28	19	Fishwheel & (or) Dip Net		5	616	17				
Upper Copper River	1	1	Gill Net	1							
Copper River Delta	45	31	Gill Net	2	10	175	47				
Prince William Sound	2	2	Gill Net		1			19			
Prince William Sound	1	1	Snag Hook			3			20	50	
TOTAL	1,319	831		102	192	16,896	602	19	20	50	303

1/ Compiled from reports received through February 8, 1967.

2/ Includes whitefish, lamprey and grayling.

TABLE 43. SUBSISTENCE FISHERY, UPPER COPPER RIVER

1948 - 1966 1/ 6/

Year	No. Permits Issued	Reds	Kings	Cohos	Pinks	Chums	Other 5/	Unknown	Total
1948 2/								5,100	5,100
1949 2/								5,500	5,500
1952 3/		1,601	535						2,136
1954 4/		3,057	88				1		3,145
1955 7/		1,767	319						2,086
1957 3/		7,241	281	108			123		7,753
1960	60	6,739	136	25	15	167	100		7,182
1961	194	15,472	388	550	188	88	639	87	17,412
1962	375	14,543	848	381	50	49	3	148	16,022
1963	295	14,055	464	558	52*	48*	23		15,200
1964	1,002	11,915	725	103			507		13,250
1965	1,127	12,760	644	52			964		14,420
1966	1,319	16,896	602	19	20	50	303		17,890**

1/ Data from years 1948, 1949, 1952, 1954, 1955, 1957, 1960 to 1966. Other years not reported.
2/ Estimated catches probably obtained by interview.
3/ Reported catch.
4/ Data from sample checks of fishwheels. Observations of fish in boxes of wheel, drying racks and reports of fishermen.
5/ Includes rainbow, whitefish, lamprey, grayling and steelhead.
6/ Refer to individual annual reports for information concerning delinquent reports and permittees who indicated they did not fish.
7/ Estimated catches obtained by interview from 13 fishwheel fishermen.
* No record or knowledge of upper Copper River ever having pinks and chums.
** Includes 178 reds, 47 kings, 19 cohos, 20 pinks and 50 chums from Copper River Delta and Prince William Sound.

TABLE 44. RAZOR CLAM STATISTICS, 1966 1/

(ALL AREAS)

Week	Total Beach Weight	Pounds Canned or Used Fresh	Pounds of Crab Bait	Number of Landings 2/
6	425	425		2
7	85	85		1
8	255	255		1
9	50	50		1
12	159	159		1
13	50	50		1
14	65	65		1
15	685	685		6
16	220	220		1
17	405	405		3
18	2,260	2,260		9
20	630	280	350	3
21	694		694	3
22	2,636		2,636	9
23	3,048		3,048	10
24	2,673		2,673	9
25	1,347		1,347	10
26	4.921		4,921	24
27	1,218		1,218	5
28	1,464		1,464	8
29	1,365		1,365	7
30	1,921		1,921	7
31	246		246	1
32	78		78	1
33	163		163	2
TOTAL	27,063	4,939	22,124	126

1/ Refer to the 1965 Annual Report for catch statistics for prior years.

2/ Landings do not represent individual daily digs as many landings may be two or more days of effort.

The Dungeness crab catch in 1966 was the lowest harvest since 1957 due primarily to the decreased market demand and the competition from other crabbing areas. The 1966 harvest of 999,341 pounds, (Table 46), compares to the sixteen year average of 1,941,433 pounds, (Table 45), and is less than one-half the catch of recent years.

Fishing in 1966 did not begin until Week 23, (May 29 - June 4), because of a decreased market and the inability of the local processor and crab fishermen to come to an agreement on prices. Crab prices were not agreed upon until Week 30, (July 17 - 23), with a settlement of $0.11 per pound or one cent below 1965 prices. One landing was made during Week 23, (Table 46), prior to negotiated price.

TABLE 45. DUNGENESS CRAB CATCH FROM PRINCE WILLIAM SOUND, COPPER AND BERING RIVER AREAS, 1951 - 1966 1/

Year	OUTSIDE Crab	OUTSIDE Pounds	INSIDE 5/ Crab	INSIDE 5/ Pounds	TOTAL Crab	TOTAL Pounds
1951	729,630	1,459,260	608,939	1,217,878	1,338,569	2,677,138
1952 2/					509,288	1,018,576
1953 2/					627,942	1,255,884
1954 2/					752,855	1,505,710
1955	567,500	1,135,000	414,914	829,829	982,414	1,964,829
1956 3/			406,422	812,844	406,422	812,844
1957 3/			108,562	217,123	108,562	217,123
1958 3/			596,459	1,192,918	596,459	1,192,918
1959	670,394	1,340,788	576,749	1,153,499	1,247,143	2,494,287
1960	599,072	1,198,144	762,163	1,524,326	1,361,235	2,722,470
1961	882,976	1,765,952	495,121	990,242	1,378,097	2,756,194
1962	645,292	1,290,585	676,595	1,353,190	1,321,887	2,643,775
1963	896,683 4/	2,017,537	608,423	1,216,846	1,505,106	3,234,383
1964	902,250 6/	2,102,242	614,728 7/	1,290,929	1,516,978	3,393,171
1965	400,821 6/	933,915	620,250 1/	1,240,372	1,021,072	2,174,287
1966 3/			499,671 1/	999,341	499,671	999,341
TOTAL	6,294,618	13,279,423	6,988,796	14,039,337	15,173,700	31,062,930
AVERAGE	699,402	1,475,391	537,600	1,079,949	948,356	1,941,433

1/ Pounds reported in live weight. A two pound average weight was used to convert pounds to crab, 1951 to 1962.
2/ No record these years of where crab were caught.
3/ No "outside" fishing these years.
4/ Pounds converted to crab on basis of 2.25 pounds per crab.
5/ The area designated as "inside" is located in the southeast corner of Prince William Sound and is described in the 1966 Commercial Fishing Regulations. The majority of the crab from the "inside" area are taken in Orca Inlet.
6/ Basis of 2.33 pounds per crab.
7/ Basis of 2.1 pounds per crab.

TABLE 46. DUNGENESS CRAB, WEEKLY CATCH, 1966 1/

Week	Catch		Number Landings
	Crab 2/	Pounds	
23	1,024	2,048	1
30	37,408	74,816	6
31	39,714	79,429	5
32	18,940	37,879	3
33	48,533	97,065	6
34	18,576	37,152	2
35	10,102	20,204	2
36	19,091	38,181	5
37	18,018	36,036	3
38	7,700	15,399	1
40	2,551	5,102	1
41	91,013	182,025	93
42	71,763	143,526	108
43	40,614	81,227	87
44	26,432	52,864	62
45	20,615	41,231	52
46	14,591	29,183	?
47	7,536	15,073	27
48	5,450	10,901	21
TOTAL	499,671	999,341	

1/ Catch from the "Inside" area only. No fishing "Outside" in 1966.
2/ Estimated on the basis of 2 pounds per crab.

MISCELLANEOUS SHELLFISH

The razor clam harvest in 1966 was about one-third of the previous year because of the decreased demand for crab bait. Table 44 shows a total harvest of 27,063 pounds dug of which 22,124 pounds were used as crab bait. The remaining poundage was canned and sold on the local fresh market.

A small catch of king crab was taken by Dungeness crab fishermen fishing king crab pots in conjunction with their Dungeness crab fishing. Table 58 shows 11,358 pounds (net weight) of king crab for 1966 all of which was taken in Orca Bay.

COMMERCIAL FISHING LICENSE SALES

License receipts for 1966 were slightly above 1965, (Table 47), and compared favorably with recent years. The total receipts of $49,340, (Table 47), compares with $47,697 for 1965.

Comparisons of the number and type of licenses by residency is presented in Table 48 for each year since 1961.

TABLE 47. SUMMARY OF COMMERCIAL FISHING LICENSES AND RECEIPTS, 1966

LICENSES SOLD IN CORDOVA

	COMMERCIAL FISHING LICENSES		GEAR LICENSES							
	Fishermen 1/	Vessels 2/	Drift Gillnet	Purse Seine	Set Gillnet	Clam Shovels	Crab Pots	Beam Trawl	Troll	Long Line
Resident	570	493	299	145	40	64	32	0	2	32
Non-resident	322	165	118	36	1	7	1	0	1	2
	892	658	417	181	41	71	33	0	3	34

LICENSES FORWARDED TO CORDOVA BY OTHER OFFICES

Resident	83	36	28	13	6	2	4	0	3	4
Non-resident	8	1	2	0	0	0	0	0	0	0
	91	37	30	13	6	2	4	0	3	4

TOTAL LICENSES FOR CORDOVA AREA

Resident	653	529	327	158	46	66	36	0	5	36
Non-resident	330	166	120	36	1	7	1	0	1	2
	983	695	447	194	47	73	37	0	6	38

RECEIPTS FOR LICENSES SOLD 3/

Resident	$ 6530.00	$ 5290.00	$ 4850.	$ 7890.	$600.	$330.	$615.		$ 75.	$ 925.
Non-resident	5790.00	4935.00	5400.	5400.	45.	105.	45.		45.	100.
	$12320.00	$10225.00	$10250.	$13290.	$645.	$435.	$660.		$120.	$1025.

1/ Includes captain and crew of tenders.
2/ Includes tenders.
3/ Total receipts, $49,340.00, includes $370.00 for transfer of licenses to non-residents.

TABLE 48. COMPARATIVE COMMERCIAL FISHING LICENSE STATISTICS
CORDOVA AREA, 1961 - 1966

TOTAL COMMERCIAL FISHING LICENSES	1961	1962	1963	1964	1965	1966
FISHERMEN						
Resident	497	621	728	541	582	653
Non-resident	247	470	574	304	311	330
	744	1091	1302	845	893	983
VESSEL LICENSES						
Resident	452	525	590	477	458	529
Non-resident	196	281	327	214	192	166
	648	806	917	691	650	695
GEAR LICENSES						
Resident Troll Line	9	6	9	9	3	5
Non-resident Troll Line	0	2	1	3	0	1
	9	8	10	12	3	6
Resident Set or Long Line	7	11	13	15	10	36
Non-resident Set or Long Line	0	3	5	2	3	2
	7	14	18	17	13	38
Resident Drift Gill Net	293	315	375	282	298	327
Non-resident Drift Gill Net	127	170	202	133	132	120
	422	485	577	415	430	447
Resident Set Gill Net	42	40	17	23	35	46
Non-resident Set Gill Net	8	18	1	2	5	1
	50	58	18	25	40	47
Resident Purse Seine	97	163	189	167	157	158
Non-resident Purse Seine	23	75	98	65	40	36
	120	238	287	232	197	194
Resident Shellfish Pots	46	49	36	32	24	36
Non-resident Shellfish Pots	17	18	19	9	5	1
	63	67	55	41	29	37
Resident Clam Diggers	165	125	94	105	91	66
Non-resident Clam Diggers	61	38	19	16	11	7
	226	163	113	121	102	73
Resident Otter Trawl	0	2	0	0	0	0
Resident Beam Trawl	0	0	1	2	3	0

TABLE 49. TIME OPEN TO SALMON FISHING BY MONTH, DAY, GEAR AND REGULATORY AREA, 1966 1/

	DISTRICTS								
	Copper-Bering River	Copper-Bering River	Coghill - Unakwik	Copper-Bering River	Coghill - Unakwik	P.W.S. General Purse Seine	Copper-Bering River	P.W.S. General Purse Seine	Copper-Bering River
MONTH	MAY	JUNE		JULY			AUGUST		SEPTEMBER 2/
DAY									
1		6		24	24		18	18	6
2		6		6	6		24	24	24
3		24			18		6	24	6
4		6		18	24		6	24	
5				24	24		24	24	18
6		18		6	24		6	6	24
7		24		6	24				6
8		6		24	24		18	18	6
9		6		6	24		24	24	24
10		24			24		6	24	6
11		6		18	24		6	24	
12				24	24		24	6	18
13		18		6	24		6		24
14		24		6	24				6
15		6		24	24		18		6
16	18	6		6	6		24		24
17	24	24					6		6
18	6	6		18		18	6		
19	6			24		24	24		18
20	24	18	18	6		24	6		24
21	6	24	24	6		24			6
22		6	24	24		24	18		6
23	18	6	24	6		6	24		24
24	24	24	24				6		6
25	6	6	6	18		18	6		
26	6			24		24	24		18
27	24	18	18	6		24	6		24
28	6	24	24	6		24			6
29		6	24	24		24	18		6
30	18	6	24	6		6	24		24
31	24						6		
Total Open Hrs. by Mo. & Gear	MAY	JUNE		JULY			AUGUST		SEPTEMBER
Drift Gillnet	210	348	120	366	342		384		366
Purse Seine/			120*		342*	240		216	

1/ Time open to fishing expressed in hours per day. Blanks denote days closed to fishing.

2/ Fishing terminated September 23, however, the season remained open until the end of the year.

* Coghill district only.

TABLE 50. CALENDAR WEEKS, 1966 1/

WEEK	FROM	THRU
1	Jan. 1	
2	" 2	Jan. 8
3	" 9	" 15
4	" 16	" 22
5	" 23	" 29
6	" 30	Feb. 5
7	Feb. 6	" 12
8	" 13	" 19
9	" 20	" 26
10	" 27	Mar. 5
11	Mar. 6	" 12
12	" 13	" 19
13	" 20	" 26
14	" 27	Apr. 2
15	Apr. 3	" 9
16	" 10	" 16
17	" 17	" 23
18	" 24	" 30
19	May 1	May 7
20	" 8	" 14
21	" 15	" 21
22	" 22	" 28
23	" 29	June 4
24	June 5	" 11
25	" 12	" 18
26	" 19	" 25
27	" 26	July 2
28	July 3	July 9
29	" 10	" 16
30	" 17	" 23
31	" 24	" 30
32	" 31	Aug. 6
33	Aug. 7	" 13
34	" 14	" 20
35	" 21	" 27
36	" 28	Sept. 3
37	Sept. 4	" 10
38	" 11	" 17
39	" 18	" 24
40	" 25	Oct. 1
41	Oct. 2	" 8
42	" 9	" 15
43	" 16	" 22
44	" 23	" 29
45	" 30	Nov. 5
46	Nov. 6	" 12
47	" 13	" 19
48	" 20	" 26
49	" 27	Dec. 3
50	Dec. 4	" 10
51	" 11	" 17
52	" 18	" 24
53	" 25	" 31

1/ The numbered calendar weeks were used in coding fish tickets, 1966 landings.

WHOLESALE VALUE OF FISHERY PRODUCTS

The wholesale value of all fishery products from the Cordova area in 1966 was $10,801,384.00, (Table 58). The 1966 value exceeds 1965 by more than $3 million and exceeds all years since 1962 when these statistics were first compiled. The increase in 1966 over the other years was primarily the result of the excellent red salmon catch from Copper River, (Table 52).

Red salmon was the highest in value in 1966 representing 43% of the total value of all fish products. Pink salmon was next at 37%, chum salmon 10%, coho salmon 5%, and king salmon slightly over 1%. Salmon, including salmon eggs represents about 98% of the total wholesale value of the Cordova area fishery products, (Tables 51 to 55).

The Dungeness crab catch in 1966 was down from previous years. The wholesale value of $231,342.00 is about one-third of the 1965 value. The decrease in local processing is due mainly to competition in sales and does not necessarily reflect the availability of harvestable Dungeness crab.

Other fish products including king crab, salmon eggs and razor clams, (Table 57), contributed about one percent of the total wholesale value.

TABLE 51. WHOLESALE VALUE OF KING SALMOM FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48/½#	Cases 48/1#	Wholesale Value
Copper River Co-op Company	68	Frozen	182 2/	5,086			$ 2,543.00
Glacier Packing Company	Family	Canned	11	315 2/	64		1,280.00
New England Fish Company 3/	190	Canned	5,702	159,889	3,548	169	97,402.50
R. Melville		Frozen	261 2/	4,977 5/			2,488.50
Parks Canning Company	85	Canned	3,448	99,221	2,448		48,960.00
Point Chehalis Packers, Inc.	78	Frozen	1,377 2/	39,378			14,426.00
Theodore Seafoods		Frozen	341 2/	6,817 5/			3,408.50
TOTAL			11,322	315,683	6,060	169	$170,508.50

1/ Data from annual reports of operators (Form FG-122).
2/ Estimated on basis of 28.59 pounds per fish.
3/ New England Fish Company custom canned for Alaska Packers Association. Totals combined.
4/ Plus family operations.
5/ Heads off, eviscerated.

TABLE 52. WHOLESALE VALUE OF RED SALMON FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48-1#	Cases 48-½#	Cases 24-½#	Cases 12-4#	Wholesale Value
Channel Packing Company	Family	Canned	1,532	9,514		309			$ 7,107.00
Copper River Co-op Co.	68	Frozen 4/	12,042 2/	77,792					38,896.00
Copper River Co-op Co.	68	Canned	12,595	81,364	1,145				36,640.00
Glacier Packing Company	Family	Canned	377	2,284		166			3,768.00
New England Fish Company 3/	190	Canned	584,720	3,797,754	18,775	73,654	9,603		2,384,575.45
Parks Canning Company	85	Canned	299,875	1,946,636	661	52,786			1,130,980.00
Point Chehalis Packers	78	Canned	211,277 2/	1,364,853		30,707		3,672	840,711.00
Theodore Seafoods		Frozen 4/	31,153 2/	201,251					100,625.50
TOTAL			1,153,571	7,481,448	20,581	157,622	9,603	3,672	$4,543,302.95

1/ Data from annual reports of operators (Form FG-122).
2/ Estimated on basis of 6.46 pounds per fish.
3/ New England Fish Company custom canned for Alaska Packers Association. Totals combined.
4/ Frozen whole.

TABLE 53. WHOLESALE VALUE OF PINK SALMON FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases				Wholesale Value
					48-1#	48-½#	24-1#	12-4#	
Copper River Co-op Co.	68	Canned	225,918 4/	935,301 2/			10,758		$ 279,695.00
New England Fish Company 3/	190	Canned	1,866,357	7,715,489	75,319	9,114	18,332		2,595,841.00
Parks Canning Company	85	Canned	566,184	2,344,806	14,023	29,128			873,787.00
Point Chehalis Packers	78	Canned	214,737 2/	889,013		9,762		5,246	283,556.00
Total	421		2,873,196	11,884,609	89,342	48,004	29,090	5,246	$4,032,879.00

1/ Data from annual reports of operators (Form FG-122).
2/ Estimated on basis of 4.14 pounds per fish.
3/ New England Fish Company custom canned for Alaska Packers Association. Totals combined.
4/ Estimated on basis of 21 fish per standard 48-1# case.

TABLE 54. WHOLESALE VALUE OF CHUM SALMON FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases				Wholesale Value
					48-1#	48-½#	24-1#	12-4#	
Copper River Co-op Co.	68	Canned	44,820 4/	346,459 2/			8,963		$ 107,562.00
New England Fish Co. 3/	190	Canned	287,117	2,210,888	26,196	1,324	4,065		695,522.75
Parks Canning Company	85	Canned	96,982	769,029	9,002	261			219,441.00
Point Chehalis Packers	78	Canned	34,334 2/	265,408		3,275		1,564	71,997.00
Total	421		463,253	3,591,784	35,198	4,860	13,028	1,564	$1,094,522.75

1/ Data from annual reports of operators (Form FG-122).
2/ Estimated on basis of 7.73 pounds per fish.
3/ New England Fish Company custom canned for Alaska Packers Association. Totals combined.
4/ Estimated on basis of 10 fish per standard 48-1# case.

TABLE 55. WHOLESALE VALUE OF COHO SALMON FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Number of Fish	Pounds of Fish	Cases 48-1#	Cases 48-½#	Cases 12-4#	Cases 24-1#	Wholesale Value
Copper River Co-op Co.	68	Canned	856 5/	7,182 2/				213	$ 2,982.00
Tom Jatzeck	2	Mild Cure	3,553 2/	23,850 4/					17,888.00 *
New England Fish Company 3/	190	Canned	10,501	88,523	1,168	333			41,367.00
Parks Canning Company	85	Canned	78,967	839,182	8,839	3,518			319,655.00
Point Chehalis Packers	78	Canned	67,565	2/566,871		1,484	5,560		187,566.00
Total	423		161,442	1,525,608	10,007	5,335	5,560	213	$569,458.00

1/ Data from annual reports of operators (Form FG-122).
2/ Estimated on basis of 8.39 pounds per fish.
3/ New England Fish Company custom canned for Alaska Packers Association. Totals combined.
4/ Heads on, eviscerated.
5/ Estimated on basis of 8 fish per standard 48-1# case.
* Estimated.

TABLE 56. WHOLESALE VALUE OF DUNGENESS CRAB FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Net Weight Finished Product	Cases 24-6½ oz.	Wholesale Value
Point Chehalis Packers, Inc.	78	Canned		3,228	$ 44,355.00
" " " "	"	Frozen Sections	285,442		114,177.00
" " " "	"	Frozen Whole Cooks, Regular	53,236		15,971.00
" " " "	"	Frozen Whole Cooks, Jumbo	19,691		5,907.00
" " " "	"	Frozen, Fresh Fry Legs	930		2,046.00
" " " "	"	Frozen, Fresh Meat	42,510		48,886.00
Total			401,809	3,228	$231,342.00

1/ Data from annual reports of operators (Form FG-122).

TABLE 57. WHOLESALE VALUE OF MISCELLANEOUS FISH PRODUCTS FROM THE CORDOVA AREA, BY COMPANY, 1966 1/

Name of Company	Peak Number Employees	Type of Product	Net Weight Finished Product	Cases 24-19 oz.	Cases 48-½#	Cases 24-2's	Wholesale Value
Channel Packing Company	Family	Razor Clams, Canned		35	15		$ 1,280.00
Glacier Packing Company	"	Razor Clams, Canned			23	19	900.00
Carl J. Olsen	"	Razor Clams, Fresh, Cleaned	1,610				858.00
" "	"	Razor Clams, Fresh	1,890				654.00
Parks Canning Company	85	Salmon Eggs	150,000 *				150,000.00
Point Chehalis Packers	78	King Crab, Frozen Sections	11,358				5,679.00
TOTAL			164,858	35	38	19	$159,371.00

1/ Data from annual reports of operators (Form FG-122).
* Salted. Salmon eggs were also taken at New England Fish Company, Orca Plant.

TABLE 58. WHOLESALE VALUE OF ALL FISHERY PRODUCTS FROM THE CORDOVA AREA, 1966 1/

Species	Type of Product	Number of Salmon	Number of Pounds	Cases							Wholesale Value
				48-½#	48-1#	24-½#	24-1#	12-4#	24-6½ oz.	24-19 oz.	
King Salmon	Frozen	2161	56258								$ 22,865.00
King Salmon	Canned	9161	259425	6060	169						147,643.50
Red Salmon	Frozen	43195	279043								139,521.50
Red Salmon	Canned	1110376	7202405	157622	20581	9603		3672			4,403,781.45
Pink Salmon	Canned	2873196	11884609	48004	89342		29090	5246			4,032,879.00
Chum Salmon	Canned	463253	3591784	4860	35198		13028	1564			1,094,522.75
Coho Salmon	Mild Cure	3553	23850								17,888.00
Coho Salmon	Canned	157889	1501758	5335	10007		213	5560			551,570.00
Dungeness Crab	Canned								3228		44,355.00
Dungeness Crab	Frozen		401809 *								186,987.00
Razor Clams	Canned			38			19			35	2,180.00
Razor Clams	Fresh		3500 *								1,512.00
Salmon Eggs	Salted		150000 *								150,000.00
King Crab	Frozen		11358 *								5,679.00
TOTAL		4662784	25365799	221919	155297	9603	42350	16042	3228	35	$10,801,384.20

1/ Data from annual reports of operators (Form FG-122).
* Net weight.

PERSONNEL

The Commercial Fisheries Division employed four permanent and nine seasonal employees in the Cordova management area in 1966. Following is a list of personnel, general duty assignment and dates of employment.

PERMANENT EMPLOYEES

Ralph B. Pirtle	Area Management Biologist
Peter J. Fridgen	Assistant Area Management Biologist
Robert S. Roys	Research Biologist
Jeannette Bailey	Clerk - Stenographer

SEASONAL EMPLOYEES

NAME	ASSIGNMENT	DATES OF EMPLOYMENT
William B. Dorsey	Project Leader, Lower Copper River, Surveys & Test Fishing	4/16 - 7/20
Daniel Everly	Upper Copper River Salmon Surveys	6/9 - 6/13
Eleanor L. Glasen	Fish Catch Statistics	5/2 - 9/29
Robert Henrich	Repairman, Warehouseman, Laborer	11/28 - 1/15/67
Daniel A. Hinz	Upper Copper River Salmon Surveys	6/3 - 9/12
Nicholas Jackson	Upper Copper River Salmon Surveys	6/20 - 9/30
David A. Pepi	Lower Copper River, Surveys & Test Fishing	6/7 - 9/6
Richard Schmeltzer	Fish Scale Sampling, Misc.	4/4 - 8/19
John David Solf	Eshamy River Fish Weir	5/3 - 9/30