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ANNUAL REPORT
COOK INLET DISTRICT
1954 SEASON

THOMAS J. COSTELLO, Jr.
FISHERY MANAGEMENT BIOLOGIST

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INTRODUCTION

The following is a summary report of Fish and Wildlife commercial fishery management activities in Cook Inlet and Resurrection Bay for 1954. Each phase of the management program is covered in an individual section.

Considering particularly the uses made of these management reports, it seems reasonable that an introduction outlining very briefly each matter that has been of concern to management here this past year will serve a useful purpose. Details on each of the subjects mentioned will be found in the body of this report.

Reds and pinks mixed, Swanson Creek (also known as Larson Creek). These pinks are part of the large body of this species spawning in upper Susitna watersheds. These pinks are over 90 water miles from salt water. Photo by Duncan, August 1954.

Herring surveys were conducted in early May in the Kachemak Bay area; results were sketchy and inconclusive. An investigation of herring catches in lower Inlet Fidalgo Island Packing Company traps conducted with the cooperation of Vance Sutter, President of this company, indicated rather conclusively that reports of the excessive take of herring and other food fishes by these traps are certainly exaggerated.

During the early spring we were concerned with reports of a dispute over Cook Inlet fish prices. Fishermen dealing through newly formed cooperative associations finally settled raw fish price disputes one week after the commercial fishery season began. Evaluation of the king run here was obscured somewhat by the fish price dispute and the consequent low fishing intensity for the early season. Judging from all comparative data

available, the 1954 king run can best be described as mediocre.

Observations of the king crab fishery in the early summer indicated two facts of note: (1) A majority of king crabs remained in some stage of soft shell until at least mid June. (2) The lower Inlet crab pot fishery, as anticipated, more than doubled in size from 1953 to 1954.

By early July and the approach of the red season gear registration showed another decided increase in set net fishing. Help from all F.W.S. personnel working the commercial fishery was solicited in documenting the placement of these new set net sites. A usual number of traps were installed, fifty seven, but this year they were predominately hand traps. A rash of disputes over trap sites and set net sites broke out as was expected. Several finally involved legal battles in local courts.

The red run by any measure was good to excellent. Chums were also in fine abundance and drift fishing for the 311 boats fishing the mid July peak was rewarding for all. No field announcement time adjustments were made during the entire season, although one restrictive adjustment was seriously considered in mid July.

Tagging of red salmon in mid Inlet by use of the chartered drum seiner, "Memento" proved this is a workable and desirable method of carrying on this program. Over two per cent of the tagged reds passed through the three small weirs installed here this year. Tag recovery elsewhere was generally good. Upper Inlet pink salmon began showing in abundance two periods before reds had moved to the beaches and by August fifth it was obvious that we were experiencing one of the finest upper Inlet pink runs in the history of this district. Final pack figures backed up observations in the fishery as new record packs of both pinks and chums were produced. Of interest in considering Inlet production is the fact that relatively few salmon were hauled elsewhere for canning this year.

Coverage of red salmon spawning areas by the Pacific Salmon Investigations group headed by Carl Elling, was systematic and thorough. By the time these men have completed two more years here, we will have an invaluable, full cycle, coverage of all Cook Inlet watersheds.

Mark Meyer, Construction Superintendent (Stream Improvement), assigned to Cook Inlet with his stream improvement crew, gave Cook Inlet watersheds the most thorough stream clearance program in history.

Lower Inlet pink runs in dire contrast to the upper Inlet runs were extremely poor. The chum run in this same area was generally good. An expanded streamguard program aided materially in making management measures effective in the lower Inlet. Enforcement coverage of the crab fishery was poor in the late fall season.

King crabs appear to have been slightly more abundant this year than in 1953 and a total commercial catch of approximately one and one half million pounds will be achieved in spite of the restriction on dragging in Kachemak Bay which became effective this year.

Of interest in considering the disposition of king crabs is the fact that approximately one third of all crabs taken here were shipped to Kodiak for processing.

The Cook Inlet fall season followed its usual course with five small plants producing slightly over one thousand cases. Cohos were in fair to good abundance for a short period and weather in effect brought salmon fishing to a close in early September.

The continuing general fine prime condition of king crabs from late July on backed up past years reports and crab fishing continued on until halted by cold weather and storms in early November.

1954 COOK INLET OPERATORS

NAME & BUSINESS ADDRESS	SUPERVISORY PERSONNEL	PLANT LOCATION	LINES	PRODUCTS
Alaska Fresh Company Homer, Alaska	Dick Haltiner, Owner William Ritter, Owner	Homer	None	Crab, Shrimp, Bottomfish & Clams
Alaska Fish & Farm Products Box 74, Anchorage	K. D. Britt, Manager	Anchorage	None	Fresh Fish (King Salmon)
Alaska Products Company Kasilof, Alaska (This company will conduct a fall operation only.)	Paul A. Shadura, Owner	3 mi N of Kasilof	Hand Pack	Limited smoking, hard salting of cohos
Alaska Reduction, Inc. Seldovia, Alaska	Art Wilde, Owner	Seldovia	None	Fish meal & Oil
Alaska Shellfish, Inc. Box 207, Seldovia or 76 University Street Seattle, Washington	E. J. Villa - Outside Superintendent A. E. Dzyacki - Cannery Superintendent	Seldovia	½ lb	Canned Salmon
Alaskan Seafoods Homer, Alaska	Ronald Thomas, Owner Mrs. Thomas, Bkkpr	Homer Spit	None	King Crab, frozen and fresh. Some export.
Berman Packing Company Ninilchik, Alaska or 304 Colman Bldg Seattle, Washington	O. R. Bertosen, Mngr	Ninilchik	½ lb hand pack	Canned salmon
Cook Inlet Packing Co Seldovia, Alaska or 303 & 304 Colman Bldg Seattle, Washington	W. A. Estus, Mngr Margaret Mason, Bkkpr	Seldovia	1 HS	Canned Salmon
(All fish for this company and the Snug Harbor Packing Company will be custom packed at the Snug Harbor Packing Company at Snug Harbor, Alaska.)				
Ekren Packing Company Box 76, Seldovia, Alaska	John A. Ekren, Owner Harley Ekren, Owner Arne Ekren, Owner	Kasitna Bay	Hand Pack	Dungeness Crab
Emard Packing Company Box 599, Anchorage or 615 Loman Bldg Seattle, Washington	H. J. Emard, Mngr Ruth Johnson, Bkkpr	Anchorage	1 HS	Canned Salmon

NAME & BUSINESS ADDRESS	SUPERVISORY PERSONNEL	PLANT LOCATION	LINES	PRODUCTS
Fidalgo Island Packing Co Port Graham, Alaska or 907 Dexter Horton Bldg Seattle, Washington	Carl Johnson, Mngr	Port Graham	2 HS	Canned Salmon
General Fish Company Seldovia, Alaska	J. J. Lind, Supt	Seldovia	1 Automatic Tall	Canned Salmon
Hoekzema Canning Company Kasilof, Alaska or 141 11th Avenue Anchorage, Alaska	John Hoekzema, Owner	Kasilof	Hand Pack	Canned Salmon
Homer Spit Packing Co Box 265, Homer, Alaska	Ella Wilkansen, Owner	Homer Spit	½ lb Hand Pack	Smoked and Canned Salmon
Inlet Seafood Company Star Route, Spenard Alaska	Arnold E. Holub, Partner George Jensen, Partner	Anchorage	None	King Crab
(These men are buying king crab and other fishery products from Kachemak Bay, hauling them to Anchorage and selling them on the fresh market. The operation is strictly one-horse and the volume is of very minor importance. Business began in March and terminated permanently in May.)				
Kenai Packers Kenai, Alaska or 2800 W. Viewmont Way Seattle, Washington	H. A. Daubenspeck, Owner	Kenai	1 HS	Canned Salmon
Libby McNeill & Libby Box 17, Kenai, Alaska or Box 1902, Seattle	Ray McFarland, Supt Earl Greathouse, Bkkpr	Kenai	2 HS ½ lb	Canned Salmon
Moore Packing Company Cooper's Landing, Alaska	Chester C. Moore, Owner	Cooper's Landing	Hand Pack	Fancy pack salmon, salmon eggs, hard smoking mostly kings and silvers. Also canned clams.
Morgan Packing Company 1429 Denali Street Anchorage, Alaska	Frank Morgan, Owner	Anchorage	None	Smoking & Kippering salmon
(No other help, we have arbitrarily given the name of Morgan Packing Company)				
Port Chatham Packing Co Portlock, Alaska	Erling Nilson, Mgr.	Portlock	½ lb	Canned and smoked salmon
(This company is buying fish from the Copper River District, transporting them to the cannery at Portlock, Alaska for processing.)				

NAME & BUSINESS ADDRESS	SUPERVISORY PERSONNEL	PLANT LOCATION	LINES	PRODUCTS
Seldovia Bay Packing Co Seldovia, Alaska	Samuel Rubenstien, Onr Harry Tallman, Supervisor Charles Hendrix, Cold Storage Supervisor O. P. Floe, Bkkpr	Seldovia	1 tuna size 1 HS	Canned salmon, frozen & fresh crab, king and dungeness, frozen halibut, frozen shrimp and bottom-fish.
(Alaska Seldovia Packers and Seldovia Bay Packing Company have joined operations this year. Will be known as Seldovia Bay Pkg Company. Selling some shellfish locally.)				
Snug Harbor Packing Co Snug Harbor, Alaska or 1805 Smith Tower Bldg Seattle, Washington	Eric Fribrock, Mngr	Snug Harbor	1 HS ½ lb	Canned salmon
(All fish for this company and the Cook Inlet Packing Company will be custom packed at the Snug Harbor Packing Company plant at Snug Harbor.)				
Tidewater Packing Co General Fish Co Dock Anchorage, Alaska or 612 K St., Anchorage	Ray Coffin, Owner Richard Coffin, Supt	Anchorage	Hand Pack	Canned salmon, Smoked salmon, mostly reds, cohos, and kings.

POSSIBLE OPERATORS *

Emil Harris Pkg Co Cohoe, Alaska	Emil Harris, Owner Betty Harris, Bkkpr	Cohoe, Alaska	Hand Pack	Fancy pack
Munson Packing Company Kenai, Alaska	A. T. Munson, Owner	Kenai	½ lb Flat	Smoked salmon

(These are two very small hand packers who stated earlier this spring that they were uncertain as to whether or not they would pack salmon this year. No recent word is available from them and if any comes in we will notify you.)

*These two small companies did carry on a minor operation during the fall season.
See page

OUTSIDE OPERATORS

PARKS CANNERIES
309 Colman Bldg
Seattle, Washington

Robert F. Morgan
Superintendent

Salmon taken from the Cook Inlet area including Port Dick were canned at the Uyak Plant, Kodiak, Alaska

ISLAND SEAFOODS, Inc.
Kodiak, Alaska

Peter DeVeau
Superintendent

Salmon and king crab taken from Cook Inlet were canned at Kodiak, Alaska.

ELLAMAR PACKING COMPANY M. G. Brown, Owner

Operating the floating cannery "KAYAK" in Cook Inlet.
See "Pack by Companies", page

NORTH STAR

The freezer ship "NORTH STAR" came into lower Cook Inlet for a period of approximately three days and took aboard a few pinks and chums which were frozen in brine.

NEW CANNERIES

Frank Morgan Packing Company: 1429 Denali, Anchorage, Alaska	Stated his intention to operate but conducted no operation this year.
Alaskan Seafoods Company Homer, Alaska	
Inlet Seafood Company Spenard, Alaska	Operation very small. No actual processing carried on and the company went out of business in about a month's time.

OPERATIONS DISCONTINUED

Beebe Fish Company

Edwards & Wolk Company

Kasilof Packing Company

Kenai Fish Company

Redoubt Bay Packing Company

COMBINED OPERATIONS

Seldovia Bay Packing Company : Alaska Seldovia Packers :	Known as "Seldovia Bay Packing Company"
Snug Harbor Packing Company : Cook Inlet Packing Company :	All fish for these two companies will be custom packed at the Snug Harbor Pkg Co.

IDLE CANNERIES

Cook Inlet Packing Company: No fish were processed at the Cook Inlet Packing Company, Seldovia, this year for the first time in many years. Salmon taken in Cook Inlet Packing Company traps were packed for the Cook Inlet Packing Company by the Snug Harbor Packing Company, Snug Harbor, Alaska.

CHANGE OF LOCATION

Tidewater Packing Company: This plant, formerly located two miles South of Point Possession, moved its location the the General Fish Company dock in Anchorage this year.

OPERATION OF TRAPS COOK INLET 1954

Fifty seven traps were installed in the Cook Inlet district this year; fifty five actually fished. The Fred J. Miller trap license number 54-152 H on Kalgin Island was never opened due to a court order, resulting from a dispute between the Miller trap and a Snug Harbor trap installed a short distance from it. The E. H. Mason trap license number 54-210 H near Ninilchik never opened due to a dispute which developed between it and set nets installed immediately adjacent to the trap site.

Snug Harbor and Miller traps
installed approximately 50 yards apart on
Kalgin Island -- Miller trap was never opened. June 1954

Of particular note in appraising the Cook Inlet trap fishing effort this year is the relationship between the number of hand traps installed as compared to pile traps. This year trap owners showed a decided preference for hand trap installations primarily because of the lower license fee required and because hand traps may be installed at considerably less expense. In 1953, 30 pile traps were installed and 26 hand traps, that is, 46% hand traps. This year 41 hand traps were installed and only 14 pile traps, that is, 74% hand traps. Considering the fact that there will be relatively few pinks in the upper inlet fishery next year, this preference for hand traps will continue or even be extended to other upper inlet pile trap sites which are suitable for hand trap installation. The following pages list all traps installed in Cook Inlet this year with locations and individual trap catches.

INDEPENDENT TRAPS OPERATED

License No.	Name and Address	Location	Company Receiving Fish
54-211 H	Emil Dolchok, Box 83 Kenai, Alaska	Kustatan hand trap located within 1,000 feet of a point, Lat. 60 deg. 46' 15" N., Long 151 deg. 44' 5" West.	Seldovia Bay Packing Co.
54-151 H	Emily E. Engeseth R.F.D. #2, Blaine, Washington, and Harold Johnson, 1950 2nd Ave., San Diego, California	Hand driven stake trap, local name E. E. & H.J. trap, situated on the West coast of Kenai Peninsula, approximately 3.5 nautical miles Southerly of East Foreland light on the East shore of Cook Inlet. Lat. 60 deg. 39' 58" N., Long. 151 deg. 22' 28" W.	Libby, McNiell & Libby
54-212 H	Edwin T. Grabowski Box 42, Ninilchik, Alaska	Hand trap on East coast of Cook Inlet, four miles North of Ninilchik Village. Lat. 60 deg. 05' 57" N., Long 151 deg. 36'.	Libby, McNeill & Libby
54-010 H	Torvald Jensen, 5355 28th Ave. N.W., Seattle, Washington	"T.J. No. 2" hand trap, situated near Cape Starichkof, Kenai Peninsula, East shore of Cook Inlet, Lat. 59 deg. 54' 16" N., Long 151 deg. 46' 00" W.	Alaska Year Round
54-004 H	Jack Lewis, Kenai Alaska	Hand trap located 6 miles North of Kenai at mouth of Salamato Creek, on the East shore of Cook Inlet, called "Homestead Trap". Lat 60 deg. 37' 09" N., Long. 151 deg. 20' 33" W.	Seldovia Bay Packing Company
54-043 H	William Markeley, 1442 H. Street Anchorage, Alaska	Located on Northwest shore of Cook Inlet approx 1.4 miles West of Granite Point and 7.0 miles Southwest of North Forelands light. Lat. 61 deg. 00' 48" N., Long. 151 deg. 23' 44" West.	Kenai Packers
~~54-210~~ H 54-152 H	E. H. Mason, 1920 Edgemont Place, Seattle, Washington	Hand driven trap situated on East coast of Cook Inlet approx 3.1 miles N.E. of Ninilchik Village. Lat. 60 deg. 05' 49" N., Long. 151 deg. 36' 44" West.	(Trap not fished)

License No.	Name and Address	Location	Company Receiving Fish
~~54-152 H~~ 54-210	Frederick J. Miller Box 139 Kenai, Alaska	Hand trap on Kalgin Island. Located USC & GS Chart No. 8553, Lat. 60 deg. 28' 49" N., Long 151 deg. 53' 09" W.	(Trap not fished)
54-077 P	Paul A & Paul P. Shadura 5430 41st St., SW Seattle 6, Wash.	Kalifonsky trap situated on East side of Kalifonsky Beach. Lat. 60 deg. 26' 18" N., Long. 151 deg. 17' 02" West.	Fidalgo Island Packing Company
54-150 H	Luba Lindgren Turner & Alaska Year Round Canneries Company 5355 28th N.W., Seattle, Washington	Luba Lindgren hand trap # 1, local name "Nikishka Bay" trap, situated on the NW coast of Kenai Peninsula approximately 3.2 nautical miles NorthEast of East Foreland light on the East shore of Cook Inlet, Alaska. Lat. 60 deg. 44' 30" N., Long. 151 deg. 18' 16" West.	Libby McNeill & Libby
54-207 H	Oscar H. Vogel c/o Lane Hotel Anchorage, Alaska	"Point Possession" hand trap situated about 2¼ nautical miles Southwesterly from Point Possession East shore of Cook Inlet. Lat. 61 deg. 01' 11" N., Long. 150 deg. 26' 39" West.	Alaska Year Round
54-003 H	Lillian Walli Starisky, Alaska	Pile driven hand trap. Lat. 59 deg. 51' 15" N., Long 151 deg. 48' 03" West.	Alaska Year Round

COMPANY TRAPS

License Number	Location
	ALASKA YEAR-ROUND CANNERIES CO., 5355 28TH AVE. N. W. SEATTLE 7, WASH.
54-117 H	G.F. Co. "Cottonwood" Hand trap No. 1, situated on N.W. shore of Cook Inlet, approximately 1.0 naut. miles N.E. of Three Mile Creek and 7.5 naut. miles N.E. of North Foreland light. Lat. 61 deg. 09' 25" N., Long. 151 deg. 03' or" West.
54-118 P	G.F. Co. No. 2 "Three Mile" pile trap, situated on N.W. shore of Cook Inlet, approximately 0.4 miles S.W. of Shorty Creek and 5.4 naut miles N.E. of North Foreland light. Lat. 61 deg. 07' 32" N., Long. 151 deg. 04' 58" West.
54-119 H	A.Y.R.C. "Clam Gulch" hand trap No. 3, situated on west coast of Kenai Peninsula on Corea Bend beach approximately 10.4 naut. miles N.E. of Ninilchik Village, in Cook Inlet. Lat. 60 deg. 14' 58" N., Long. 151 23' 38" West.
54-120 H	A.Y.R.C. "Corea Bend" hand trap No. 4, situated on west coast of Kenai Peninsula on Corea Bend Beach approximately 10.4 naut. miles N.E. of Ninilchik Village, in Cook Inlet. Lat. 60 deg. 11' 20" N., Long. 151 deg. 27' 27" West.
54-121 H	A.Y.R.C. "Kalgin Island" trap No. 6 hand trap, situated on north shore of Kalgin Island approximately 12 naut. miles N.W. of Kalgin Island light in Cook Inlet. Lat. 60 deg. 30' 05" N., Long. 151 deg. 52' 59" West.
54-122 H	A.Y.R.C. hand trap No. 2, situated on west coast of Kenai Peninsula, approximately 4.0 naut. miles S.W. of Ninilchik Village, in Cook Inlet. Lat. 59 deg. 59' 41" N., Long. 151 deg. 43' 14" W.
54-123 H	A.Y.R.C. "Kalgin Island" trap No. 5 hand trap, situated on S.W. end of Kalgin Island approximately 10.0 nautical miles S.W. of Kalgin Island light in Cook Inlet, Alaska. Lat. 60 deg. 21' 44" N., Long. 152 deg. 03' 51" West.
	COOK INLET PACKING COMPANY, COLMAN BUILDING, SEATTLE, WASHINGTON
54-092 H	CIP No. 1, situated on east shore of Cook Inlet, approximately 2.1 miles nautical N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 04' 56" N., Long 151 deg. 37' 49" West.

COOK INLET PACKING COMPANY, COLMAN BUILDING, SEATTLE, WASHINGTON (CONT'D)

54-093 H — CIP No. 2, situated on east shore of Cook Inlet approximately 4-1/4 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 06' 32" N., Long. 151 deg. 35' 05" West.

54-094 H — CIP No. 3, situated on east shore of Cook Inlet, approximately 5 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 07' 05" N., Long. 151 deg. 33' 57" West.

54-095 H — CIP No. 4, situated on east shore of Cook Inlet, approximately 6-1/4 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 07' 57" N., Long. 151 deg. 32' 06" West.

54-096 H — CIP No. 5, situated on east shore of Cook Inlet, approximately 7-1/2 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 08' 54" N., Long. 151 deg. 30' 42" West.

54-097 H — CIP No. 6 situated on east shore of Cook Inlet, approximately 8 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 09' 19" N. Long. 151 deg. 30' 10" West.

54-098 H — CIP No. 7 situated on east shore of Cook Inlet, approximately 8-1/2 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 09' 45" N., Long. 151 deg. 29' 36" West.

54-099 H — CIP No. 8, situated on east shore of Cook Inlet, approximately 12 naut. miles N.E. of Ninilchik Village, Alaska. Lat. 60 deg. 12' 41" No., Long. 151 deg. 25' 25" West.

54-100 H — CIP No. 9, situated on east shore of Cook Inlet, approximately 15-3/4 naut. miles N.E. o f Ninilchik Village, Alaska. Lat. 60 deg. 16' 10" N., Long. 151 deg. 23' 13" West.

FIDALGO ISLAND PACKING CO., 2360 COMMODORE WAY, SEATTLE, WASHINGTON

54-140 P — F.I.P. Co. Port Graham cannery "Boulder Point" pile trap, situated on west coast of Kenai Peninsula, approximately 0.4 naut. miles south of Boulder Point in Cook Inlet. Lat. 60 deg. 45' 58" N., Long. 151 deg. 15' 28" west.

54-141 P — F.I.P. Co. Port Graham cannery "Salamato" pile trap No. 4 situated on west coast of Kenai Peninsula, approximately 5.3 naut. miles S.E. of East Foreland light in Cook Inlet. Lat. 60 deg. 38' 15" N., Long. 151 deg. 20' 59" West.

FIDALGO ISLAND PACKING CO., 2360 COMMODORE WAY, SEATTLE, WASHINGTON (CONT'D)

54-142 P — F.I.P. Co. Port Graham cannery "Salamato" pile trap #5 situated on west coast of Kenai Peninsula on Salamato Beach, approximately 4.6 naut. miles S.E. of East Foreland light in Cook Inlet. Lat. 60 deg. 38' 56" N., Long. 151 deg. 21' 24" West.

54-143 P — F.I.P. Co. Port Graham cannery "The Sisters" pile trap No. 10, situated on the west coast of Kenai Peninsula, approximately 2.2 Naut. miles south of Cape Kasilof in Cook Inlet Lat. 60 deg. 20' 00" N., Long. 151 deg. 22' 57" West.

54-144 P — F.I.P. Co. Port Graham cannery "Bluff Point" pile trap No. 1 situated on the S.W. coast of Kenai Peninsula, approximately 5.2 naut. miles S.E. of Anchor Point light in Cook Inlet. Lat. 59 deg. 41' 46" N., Long. 151 46' 22" West.

54-145 P — F.I.P. Co. Port Graham cannery "Flat Island" pile trap No. 6, situated on S.W. coast of Kenai Peninsula approximately 1.0 naut. miles east of Flat Island light in Cook Inlet. Lat. 59 deg. 19' 47" N., Long. 151 deg. 57' 38" West.

54-146 P — F.I.P. Co. Port Graham cannery "Seldovia" pile trap No. 2, situated on the S.W. coast of Kenai Peninsula, approximately 0.5 naut. miles west of Point Naskowhak, near the west entrance of Seldovia Bay in Cook Inlet. Lat. 59 deg. 26' 50" N., Long. 151 deg. 45' 56" West.

54-147 P — F.I.P. Co. Port Graham cannery "Nubble Point" or "Zenas" pile trap No. 1, situated on S.W. coast of Kenai Peninsula on Nubble Point in Kachemak Bay (an arm of Cook Inlet). Lat 59 deg. 28' 56" N., Long. 151 deg. 34' 40" West.

E. J. FRIBROCK, 2401 ROSEMONT PLACE, SEATTLE, WASHINGTON

54-016 H — E.J.F. No. 2 Salamato, situated on the west coast of Kenai Peninsula on Salamato Beach approximately 7.1 naut miles S.E. of East Foreland light, in Cook Inlet. Lat 60 deg. 36' 27" N., Long. 151 deg. 20' 25" West.

54-017 H — E.J.F. No. 4 Nikishka, situated on the west coast of Kenai Peninsula approximately 1.9 naut. miles S.W. of Boulder Point and 3.6 miles N.E. of East Foreland light, in Cook Inlet. Lat. 60 deg. 44' 44" N., Long. 151 deg. 17' 21" West.

E. J. FRIBROCK, 2401 ROSEMONT PLACE, SEATTLE, WASHINTON (CONT'D)

54-198 H — E.J.F. No. 3, North Kalgin, situated on the north shore of Kalgin Island approximately 2.6 naut. miles N.W. of Kalgin Island light in Cook Inlet. Lat. 60 deg. 30' 36" N., Long. 151 deg. 54' 35" West.

54-199 H — E.J.F. No. 1 (Home Trap), situated on the east shore of Chisik Island approximately 2.7 naut. miles north Chisik Island light, in Cook Inlet Lat. 60 deg. 08' 21" N., Long. 152 deg. 33' 29" West.

LIBBY, MCNEILL & LIBBY, 88 HAMLIN STREET, P.O. BOX 1902, SEATTLE, WASH.

54-180 H — Kenai cannery hand trap, local name Corea Bend No. 9, situated approximately 12 naut. miles southerly of Cape Kasilof, Kenai Peninsula and in Cook Inlet Alaska. Lat. 60 deg. 10' 22" N. Long. 151 deg. 28' 47" West.

54-181 H — Kenai cannery hand trap, local name "Waterfall" situated on east shore of Cook Inlet, approximately 9 naut. miles southerly of Cape Kasilof, Alaska. Lat. 60 deg. 13' 09" N., Long. 151 deg. 24' 51" W.

54-182 H — Kenai Cannery hand trap, local name "Salamato" #2 situated on east shore of Cook Inlet on Salamato Beach approximately 4.0 naut. miles south of East Foreland light in Cook Inlet, Alaska. Lat. 60 deg. 39' 33" N., Long. 151 deg. 21' 57" West.

54-183 H — Kenai cannery hand trap, local name "Tyonek M.M.E. Trap", situated on west shore of Cook Inlet approximately 1.3 naut. miles west of Granite Point, Alaska Mainland shore, Cook Inlet Alaska. Lat. 61 deg. 00' 43" N., Long. 151 deg. 22' 39" West.

54-184 H — Kenai cannery hand trap, local name "Ninilchik" situated on east shore of Cook Inlet, approximately 2-3/4 naut. miles northerly from village of Ninilchik, Alaska. Lat. 60 deg. 05' 26" N., Long. 151 deg. 38' 19" West.

54-185 H — Kenai cannery hand trap, local name "Moose Trap" situated on east shore of Cook Inlet approximately 4.4 nautical miles south of the mouth of the Kenai River, Cook Inlet, Alaska. Lat. 60 deg. 28' 28" N., Long. 151 16' 49" West.

LIBBY, MCNEILL & LIBBY 88 HAMLIN STREET, P. O. BOX 1902 SEATTLE WASH.(CONT'T)

54-186 H — Kenai cannery hand trap, local name "Kalifonski" situated on east shore of Cook Inlet, approximately 5.6 naut. miles south of the mouth of the Kenai River, Cook Inlet, Alaska. Lat. 60 deg. 27' 17" N., Long. 151 deg. 16' 52" West.

54-187 H — Kenai cannery hand trap, local name "Porcupine" situated on the east shore Cook Inlet, approximately 5 ½ miles (nautical) south of Cape Kasilof and just southeast of the Sisters, Alaska. Lat. 60 deg. 16' 43" N., Long. 151 deg. 23' 02" West.

PACIFIC AMERICAN FISHERIES, INC., BELLINGHAM, WASHINGTON

54-039 P — "Kalifonski" pile trap No. 1, situated on west coast Kenai Pen. on Kalifonski Beach approximately 3.7 naut. miles south of Kenai River entrance, in Cook Inlet, Alaska. Lat. 60 deg. 29' 05" N., Long. 151 deg. 16' 44" West.

54-040 P — "Kalifonski" pile trap No. 2 situated on west coast Kenai Pen. on Kalifonski Beach approx. 5.1 naut. miles south of Kenai River entrance, in Cook Inlet, Alaska. Lat. 60 deg. 27' 49" N., Long. 151 deg. 16' 51" West.

54-041 P — "Salamato" pile trap trap No.3, situated on west coast Kenai Pen. on Salamato Beach Approx. 3.4 naut. Miles N.W. of Kenai River entrance and approximately 7.7 naut. miles S.E. of East Foreland light in Cook Inlet, Alaska. Lat. 60 deg. 35' 51" N., Long. 151 deg. 20' 12" West.

54-042 P — "Salamato" pile trap No. 4, situated on west coast Kenai Pen. on Salamato Beach approx. 5.2 naut. miles N.W. of Kenai River entrance and approx. 5.9 naut. miles S.E. of east Foreland light in Cook Inlet, Alaska. Lat. 60 deg. 37' 46" N., Long. 151 deg. 20' 45" West.

SNUG HARBOR PACKING COMPANY, 1805 SMITH TOWER, SEATTLE, WASHINGTON

54-018 H — S.H.P. Co. No. 1, Kalifonski, situated on the west coast of Kenai Pen. on Kalifonski Beach approx. 3.4 naut. miles north of Kasilof River entrance in Cook Inlet. Lat. 60 deg. 26' 47" N., Long. 151 deg. 16' 53" West.

SNUG HARBOR PACKING COMPANY, 1605 SMITH TOWER, SEATTLE, WASHINGTON (CONT'D)

54-200 H — S.H.P. Co. No. 2, east Kalgin Island situated on the east shore of Kalgin Island approximately 2.9 naut. miles south of Kalgin Island light, in Cook Inlet. Lat. 60 deg. 26' 49" N., Long. 151 deg. 53' 09" West.

54-201 H — S.H.P. Co. No. 3 situated on the N.W. corner of Kalgin Island approximately 3.8 naut. miles west of Kalgin Island light in Cook Inlet. Lat. 60 deg. 30' 33" N., Long. 151 deg. 56' 53" West.

54-202 H — S.H.P. Co. No. 4 Harriet Point, situated on the Alaska Mainland shore, approximately 0.7 naut. miles N.W. of Harriet Point. Lat. 60 deg. 24' 11" N., Long. 152 deg. 15' 33" West.

Airphoto typical lower
Inlet pile trap.
Photo by Gross.

INDIVIDUAL COOK INLET TRAP CATCH 1954

Company or Lic. Holder	Lic. No.	Company Designation	Reds	Kings	Cohos	Pinks	Chums	Total
Lillian Walli	54-003 H		1310	1680	3149	18572	49	24760
Oscar Vogel	54-207 H	Pt. Possession	2619	215	1568	8806	1283	14491
Wm. Markley	54-043 H		2141	24	3340	17337	2988	25830
Emil Dolchok	54 -211 H		1950	6	1258	5433	429	9076
Engeseth & Johnson	54-151 H	E.E. & H.S. Trap	986	9	381	4341	——	5717
Paul A. & Paul P. Shadura Jr.	54-077P	Kalifonski	7150	147	1025	73892	13	82227
Jack Lewis	54-004 H	Homestead Trap	19415	98	193	25477	12	45195
E. T. Grabowski	54-212 H		2059	192	938	30596	8	33793
Torvald Jensen	54-010 H	T. J. # 2	1022	1690	4375	11616	36	18739
Lube L. Turner	54-150 H	Nikiskka Bay	1326	——	320	1000	80	2726

Continued

Company or Lic. Holder	Lic. No.	Company Designation	Reds	Kings	Cohos	Pinks	Chums	Total
Frederick Miller	54-210 H	Did not fish during 1954 season						
E. H. Mason	54-152 H	Did not fish during 1954 season						
** Tyonek M.M.E. Trap	54-163 H		2200	24	3400	17400	3000	26024

** Totals for this one trap are estimated as no report was received.

COMPANY TRAPS

Fidalgo Island Pkg Co

54-140 P	Boulder Point	4017	32	370	2217	494	7130
54-141 P	Salamato Pile Tp #4	15339	51	1439	17107	977	34913
54-142 P	Salamato Pile Tp #5	13895	59	1372	15533	977	31836
54-143 P	The Sisters #10	7212	118	2978	63992	2793	77093
54-144 P	Bluff Pt. #1	3268	381	1483	39894	3036	48062
54-145 P	Flat Island #6	542	131	905	20935	3575	26088
54-146 P	Seldovia Pile Tp #2	2897	306	1071	25824	3372	33470
54-147 P	Bubble Pt. #1	2346	482	666	18833	2819	25148

Libby McNeill & Libby

54-180 H	Corea Bend #9	2615	121	1490	17924	—	21210
54-181 H	Waterfall	2300	81	381	20248	—	23010
54-182 H	Salamato #2	2893	2	72	3564	21	6552
54-184 H	Minilchik	2031	105	1229	19854	—	23219
54-185 H	Moose Trap	2138	56	103	18406	2	20705
* 54-186 H	Kalifonski	2920	41	—	1138	—	4099
54-187 H	Porcupine	2278	103	238	19572	—	22196

* Trap went out 7 / 30 / 54

Continued

Company or Lic. Holder	Lic. No.	Company Designation	Reds	Kings	Cohos	Pinks	Chums	Total
Cook Inlet Pkg Co.								
	54-092 H	C.I.P. #1	3858	676	2938	38191	—3	45666
	54-093 H	C.I.P.#2	2082	159	681	22244	—	25166
	54-094 H	C.I.P. #3	1879	156	690	19502	—	22227
	54-095 H	C.I.P. #4	2064	152	479	14808	—	17503
	54-096 H	C.I.P. #5	2059	177	387	14016	—1	16640
	54-097 H	C.I.P. #6	2189	240	559	21436	—4	24428
	54-098 H	C.I.P. #7	1805	63	531	22559	—	24958
	54-099 H	C.I.P. #8	4342	236	1049	27067	—2	32696
	54-100 H	C.I.P. #9	2576	119	213	12713	—2	15623
Kenai Packers								
	No Lic. No.	"Birch Hill"	806	—3	507	2235	105	3656
Alaska Year Round								
	54-117 H	Cottonwood #1 G.F. Co.	2723	—4	3715	41526	3425	51393
	54-118 P	Three Mile #2 G.F. Co.	4292	—	3472	47580	5390	60734
	54-119 H	Clam Gulch #3	5398	294	971	37006	10	43679
	54-120 H	Corea Bend #4	3848	260	641	20648	—	25397
	54-121 H	Kalgin Island #6	1203	38	3700	3094	95	8130
	54-122 H	AYRC #2	3244	1016	2861	28809	—8	35938
	54-123 H	AYRC #5	2842	15	1653	8907	169	13586

Continued

COMPANY TRAPS

Company or Lic. Holder	Lic. No.	Company Designation	Reds	Kings	Cohos	Pinks	Chums	Total
Pacific American Fisheries								
	54-039 P	Kalifonski #1	4476	96	512	19199	150	24433
	54-040 P	Kalifonski #2	9640	199	2412	63991	1167	77409
	54-041 P	Salamato #3	11572	177	1675	46816	335	60575
	54-042 P	Salamato #4	12865	157	1137	31298	321	45778
Snug Harbor Pkg Co								
	54-018 H	S.H.P. Co. #1	7078	176	2631	65794	1590	77269
	54-200 H	S.H.P. Co. #2	3853	18	989	1792	48	6700
	54-201 H	S.H.P. Co. #3	2537	33	2807	6517	236	12130
	54-202 H	S.H.P. Co. #4	1254	50	1474	4790	103	7671
E. J. Fribrock								
	54-016 H	Salamato #2	17323	191	1230	34455	409	53608
	54-017 H	Nikiskka #4	3159	64	1455	4060	560	9298
	54-198 H	North Kalgin #3	1390	116	1378	2570	269	5723
	54 -199H	Home Trap #1	2899	206	1909	6882	2504	14400
		H	134614	8914	56883	702965	17451	920827
		P	99511	2336	20519	487111	25419	634896
		Total	234125	11250	77402	1190076	42870	1555723

SALMON PACK BY COMPANIES
Basis 48/1# Per case

(Summer Season Final Case Up)

Company	Reds	Kings	Pinks	Chums	Cohos	TOTAL
Alaska Shellfish, Inc.	3,081	862	1,560	5,025	232	10,760
Alaska Year Round Co.	8,748	3,943	15,156	12,038	4,987	44,872
Berman Packing Company	3,632	343	3,952	1,330	806	10,063
Emard Packing Company	6,487	8,190	11,335	6,071	10,839	42,922
Fidalgo Island Packing Co.	10,927	1,912	18,475	11,159	1,425	43,898
Hoekzema Pkg Company	30	40	--	--	--	70
Homer Spit Pkg Company	9	6	26	--	20	61
Kenai Packers	15,162	2,575	12,387	5,063	3,004	38,191
Libby McNeill & Libby	22,386	2,299	28,678	10,855	5,787	68,005
* Port Chatham Packing Co.	4,078	184	1,364	3,860	248	9,734
**Seldovia Bay Packing Co.	17,204	2,263	13,743	23,762	3,584	60,556
Snug Harbor Packing Co.	13,789	1,351	26,461	3,815	3,414	48,830
Tidewater Packing Co.	26	27	--	--	30	83
Ellamar Packing Company	--	--	649	2,105	--	2,754
TOTALS	105,559	23,995	133,786	85,083	32,376	380,799

(Fall Season) ***

Berman Packing Company	12	--	78	--	840	930
Hoekzema Packing Company	--	--	--	--	52	52
Tidewater Packing Company	--	--	--	--	50	50
TOTALS (Summer & Fall)	105,571	23,995	133,864	85,083	33,318	381,831

* 167 cases reds and 21 cases chums from Chignik. 1218 cases reds and 132 cases kings from Copper River.

** 224 cases chums from Resurrection Bay.

*** The Port Chatham Packing Company conducted a fall season operation mild curing Cohos. This will be repvocessed as smoked canned salmon in Seattle and marketed as the "Portlock" fancy pack. Figures for this relatively small pack are not available as this data is being compiled.

SUMMARY COOK INLET PACKS
48/1# Basis
(1930 - 1954)

Year	Reds 5-yr. av.	Coho	Chum	Pink	King	Red
1930	1930-1934	50,098	10,084	53,016	19,388	70,552
1931	92,969	30,046	5,376	31,212	13,123	37,765
1932		32,635	6,317	23,806	17,912	87,932
1933		16,419	5,277	5,951	14,710	98,510
1934		25,665	9,123	49,159	19,148	150,085
1935	1935-1939	14,716	11,651	22,888	19,015	100,855
1936	149,740	31,212	24,000	49,749	19,739	186,535
1937		11,445	12,374	24,200	24,983	108,728
1938		32,753	16,198	54,281	15,909	169,836
1939		13,132	20,750	15,627	15,770	183,916
1940	1940-1944	46,148	26,721	*122,423	16,022	130,159
1941	115,810	30,565	24,367	35,101	27,488	90,886
1942		58,083	39,745	54,992	28,628	98,207
1943		24,702	26,276	60,661	31,311	102,864
1944		25,562	23,203	96,520	25,699	156,932
1945	1945-1949	28,481	28,305	54,205	22,365	118,849
1946	126,390	34,627	31,580	59,465	17,025	105,814
1947		37,170	21,154	30,092	30,590	109,143
1948		29,461	38,087	75,677	32,688	133,828
1949		25,904	23,348	14,959	31,036	164,319
20-yr. average		29,941	20,197	46,449	22,127	121,285
**1950		32,097	50,863	67,857	24,247	208,103
**1951		28,411	30,133	21,750	64,628	221,725
**1952		21,595	45,432	*127,926	24,706	128,401
**1953		20,477	56,627	27,842	28,982	122,079
**1954		32,956	91,979	*135,353	23,996	111,228

1955

*Unique Pink runs in Upper Cook Inlet.
**Fish taken from Cook Inlet to Kodiak are included in these totals.

* COOK INLET 1954 PACK BY WEEK (CUMULATIVE 48/1# BASIS)
(SUMMER SEASON)

WEEK ENDING	REDS	KINGS	PINKS	CHUMS	COHOS	TOTAL
May 29	279	850	- -	- -	- -	1,129
June 5	1,316	6,978	- -	20	- -	8,314
June 12	2,987	14,027	- -	125	- -	17,049
June 19	4,660	18,124	- -	314	- -	23,118
June 26	5,148	18,458	11	1,252	- -	24,869
July 3	8,600	21,125	77	3,656	3	33,461
July 10	22,263	19,656	937	14,515	322	57,693
July 17	65,415	20,380	7,904	38,624	3,914	136,237
July 24	96,246	20,892	22,654	56,442	13,941	210,175
July 31	103,366	21,625	37,356	70,908	20,831	254,086
August 7	104,217	21,718	52,555	77,537	22,863	278,863
August 14	105,559	23,995	133,786	95,083	32,376	380,799

COOK INLET PACK BY WEEK
**INCLUDING KODIAK PACK OF COOK INLET CAUGHT SALMON

Week Ending	Reds	Kings	Pinks	Chums	Cohos	Total
July 10	22465	19656	945	15151	322	58519
July 17	68858	20380	8516	43071	3922	144757
July 24	101220	20892	23741	62235	13953	222041
July 31	109035	21626	38923	77804	21411	268799
August 7	109886	21719	54122	84433	23443	293603
August 14	111228	23996	135353	91979	32956	395512

** Includes very small pack of salmon caught elsewhere and packed in Cook Inlet.

SALMON CAUGHT IN COOK INLET AND
PACKED IN KODIAK (48/1# Basis)

Name of Company	Reds	Kings	Pinks	Chums	Cohos	Total
Parks Canning Co.	5,026	--	1,453	6,397	559	13,435
Island Seafoods Co., Inc.--Custom canned by Wafico.	447	--	68	403	21	939
Washington Fish & Oyster Company	196	--	46	96	--	338
Total	5,669	--	1,567	6,896	580	14,712

UNPROCESSED SALMON TAKEN FROM COOK INLET
FOR CANNING ELSEWHERE (WEEKLY CUMULATIVE IN INDIVIDUALS)

Week Ending	Reds	Kings	Pinks	Chums	Coho	Total
July 10	2,452	4	151	5,792	--	8,399
July 17	41,820	5	10,819	41,827	86	94,557
July 24	60,244	6	19,121	54,489	123	133,983
July 31	67,946	6	27,600	65,040	124	160,716
August 7	67,946	6	27,600	65,040	5,804	166,396

ESTIMATED *TOTAL COOK INLET COMMERCIAL
SALMON CATCH 1954 (Summer Season in Individuals)

REDS	KINGS	PINKS	CHUMS	COHOS
1,242,416	68,868	2,522,979	786,420	302,536

* Does not include a considerable quantity of salmon frozen or sold as a fresh product in Alaska.

ESTIMATED PERCENTAGE OF TOTAL
TAKE BY EACH TYPE OF GEAR

Figures used on the following two pages are in fish converted from summer season pack totals. Cured and fresh fish are not included. Percentages set net caught were computed from weekly reports submitted by Cook Inlet packers throughout the season. Trap caught figures were based on complete 3-1632 form reports furnished by Hinsdale. Beach seine percentages were computed from lower Inlet packers reports and estimated in part. Drift catch percentages were computed as a difference after catches of other three forms of gear was determined.

Figures include the Kodiak pack of Cook Inlet caught salmon. More exact data will be available when fish tickets are read.

Traps percentage of Cook Inlet catch by species 1954:

REDS	Total Trap Catch / Total All Gear	—	234,125 / 1,242,416	=	18.8%
KINGS	" / "	—	11,250 / 68,868	=	16.3%
PINKS	" / "	—	1,190,076 / 2,522,979	=	47.1%
CHUMS	" / "	—	42,870 / 786,420	=	5.4%
COHOS	" / "	—	77,402 / 302,536	=	25.5%
Total all species trap catch - / Total C.I. catch all species -			1,555,723 / 4,923,219	=	31.5% Percent of all salmon taken in C.I. 1954 trap caught.

Drift net percentage of Cook Inlet catch by species:

REDS	Total Drift Catch / Total All Gear	—	625,343 / 1,242,416	=	50.3%
KINGS	" / "	—	14,095 / 68,868	=	20.4%
PINKS	" / "	—	237,903 / 2,522,979	=	9.4%
CHUMS	" / "	—	495,650 / 786,402	=	63.0%
COHOS	" / "	—	62,384 / 302,536	=	20.6%
Total all species drift catch / Total C.I. catch all species		—	1,435,375 / 4,923,219	=	29.1% Percent of all salmon taken in C.I. 1954 drift net caught.

***Set net percentage of Cook Inlet catch by species 1954:**

REDS	Total set net catch / Total all gear	—	377,948 / 1,242,416	=	30.4%
KINGS	" / "	—	43,523 / 68,868	=	63.1%
PINKS	" / "	—	** 932,000 / 2,522,979	=	36.9%
CHUMS	" / "	—	** 153,900 / 786,420	=	19.5%
COHOS	" / "	—	** 160,650 / 302,536	=	53.1%
Total all species set net catch / Total C.I. catch all species		—	**1,668,021 / 4,923,219	=	33.8% Percent of all salmon taken in C.I. 1954 set net caught.

* Computed from data furnished weekly by Cook Inlet packers.

** Estimated in part.

*Beach seine percentage of Cook Inlet catch by species 1954:

REDS	Total beach seine catch / Total all gear	—	5,000 / 1,242,416	=	.4%
KINGS	(Negligible catch of kings by beach seines.)				
PINKS	Total beach seine catch / Total all gear	—	163,000 / 2,522,979	=	6.4%
CHUMS	" / "	—	94,000 / 786,420	=	11.9%
COHOS	" / "	—	2,100 / 302,536	=	.6%
Total all species beach seine catch- / Total C.I. catch all species		—	264,100 / 4,923,213	=	5.3%

*Several of the numerator figures given are estimates in part based on company reports.

Reds, part of the relatively poor run at Fish Creek. July 1954

***PERCENTAGE OF TOTAL (ALL SPECIES) C.I. CAUGHT SALMON PACKED IN KODIAK
(Cases 48/1# Basis)

	C.I.Salmon Packed in Kodiak - -	48,920	=	12.7%
1950	Total C.I. Pack Including - -	383,167		
	Salmon Taken to Kodiak			
1951	" " " "	57,572	=	15.7%
	" " " "	366,647		
1952	" " " "	64,250	=	18.4%
	" " " "	348,060		
1953	" " " "	38,304	=	14.9%
	" " " "	256,007		
1954	" " " "	14,712	=	3.8%
	" " " "	380,799		

***These are approximate figures since some pack was converted from reports given in fish. No more exact data is available.

* AVERAGE NUMBER OF SALMON PER 48/1# CASE

Reds 11.17		Kings 2.87
	Chums 8.55	
Cohos 9.18		Pinks 18.64

* Based on weighted average computed by Hinsdale from reports of seven Cook Inlet Packing companies.

COOK INLET FISHING GEAR
1954

	Units *	Fathoms
Resident Gear:		
Red Drift Net	196	29,400
King Drift Net	140	21,000
Red Set Net	485	50,957
King Set Net	420	44,107
Beach Seines	22	3,280
Purse Seines	1	200
Kodiak Gear Operated in Cook Inlet:		
Red Drift Gear	15	2,250
Cordova Gear Operated in Cook Inlet:		
Red Drift Net	107	16,000
Beach Seines	4	650
Summary of other Gear Operated in Cook Inlet:		
** Number of Crab Pots	562	
Number of Otter Trawls	3	
Number of Clam Shovels	2	
*** Longline (Hooks)	47	

* Units as tabulated above refer to one drift boat or one set net fisherman fishing in each case one legal limit of gear, 150 fathoms in the case of drift boats and 105 fathoms for set nets. Beach seines average about 125 fathoms in length.

** Nine boats were arbitrarily assigned 12 pots each since gear registration was incomplete and these boats were known to be fishing.

*** Halibut Lingline fishing in this district not included since boat plate gear registration not required. Also, a considerable amount of crab bait fishing gear was used in the lower Inlet and never registered as commercial fishing gear.

CURED SALMON

*CHESTER MOORE PACKING COMPANY:

This is a very small "one-man" operation located at Coopers Landing. Mr. Moore purchased the following salmon this year: 68 kings, **10 reds, and 20 silvers. He also obtained salmon eggs for processing as fish bait from various sources.

Production of Moore Packing Company to August 15, 1954:

200 lbs Kippered King Salmon

200 lbs Hard Smoked King Salmon

4 cases Kippered King Salmon

2 cases Kippered Coho Salmon

15 cases (24 one pint jars) Salmon eggs for bait purposes

15 cases (24 one-half pint jars) Salmon eggs for bait purposes

6 (50 gal) barrels cured Salmon eggs for reprocessing later as fish bait.

* Verbal report by Mr. Moore
** Sold fresh

MUNSON PACKING COMPANY:

This small company located at Kenai, Alaska, mild cured ten barrels of salmon for reprocessing as fancy pack sliced smoked salmon.
In addition, to November 1st, this small plant had packed 40 cases (48/½ lb. flats.) These are fancy pack smoked canned cohos. They are a top quality product.

TIDEWATER PACKING COMPANY:

This small plant formerly located at Possession Point (now located in Anchorage) processed the following salmon which can be categorized as cured salmon. This is included as part of Tidewaters total pack shown on page 23.

48 cases (8 oz cans) Smoked
King Salmon

10 cases (7 oz cans) Smoked
Coho Salmon

6 cases (8 oz cans) Kippered
Coho Salmon

EMIL C. HARRIS COMPANY:

This is another very small hand packing operation located on Kalifonski Beach just North of the Kasilof River. Kings, cohos and reds were smoked and kippered. Total production reported for this plant this year - 30 cases.

HOEKZEMA CANNING COMPANY:

Location: One mile North of Kasilof River mouth.
Production (Total for 1954):

Kings	(Canned smoked)	57 cases	(48/6oz.)
Coho	(" ")	59 cases	(48/8oz.)
Coho	(" ")	45 cases	(48/6oz.)

This production of cured salmon is included as part of Hoekzema's total pack shown on page 23.

PORT CHATHAM PACKING COMPANY:

Location: Portlock, Alaska

In addition to their regular canning operation, this company conducted a fall operation and mild cured 37,260 lbs of cohos plus 825 lbs of pinks and chums. This mild cure product will be reprocessed at Seattle, Washington as smoked canned salmon and become the well known "PORTLOCK" fancy pack.

FRESH FISH PRODUCTS

Coverage, to adequately record the total volume of fresh fish handled by the many small markets in this area, is far from complete. The volume of fresh fish products sold through retail outlets has increased during the past three years so at present the total volume cannot be considered incidental. Much of this poundage is not being recorded on fish tickets. To cover the sixteen to eighteen retail stores and see to it that they comply with the fish ticket requirements would require the services of one full time employee. The situation is further complicated by the fact that the markets sell fish shipped in from Washington and Oregon "air fresh". Also, some of the fresh fish sold here is shipped in from Southeastern Alaska. In 1952 I personally attempted to cover all local retailers and informed them of the requirement to record all purchases on fish tickets. They were all furnished fish ticket books at that time. Compliance was poor especially from small meat markets which often purchase a single king salmon in one transaction from a commercial fisherman who walks in the back door dragging his catch. In Seward as well as in Anchorage and Fairbanks, restaurants often deal with individual fishermen for purchase of all kinds of fresh fish products. Singly the transactions amount to very little, but in aggregate the volume is well worth considering and some accurate measure to determine the total volume should be devised.

Listed below are regular firms for which fresh fish volume is known:

Tidewater Packing Company:	Kings	584 pounds
	Coho	494 pounds
Alaska Fish and Farm Products Company:	**Kings	59,500 pounds
	**Halibut	9,130 pounds
Alaska Products Company:	Coho	*2,500 pounds

A small volume of white fish have been marketed here from Mentasta Lake during the month of November.

* This is an approximate figure received in a verbal report.

**Most of this volume was finally frozen for local sale during the winter.

HERRING

Two matters concerned with herring in Cook Inlet this year warrant mention here: (1) Herring air surveys conducted in early May. (2) An investigation of herring taken in lower Inlet salmon traps. This was conducted in June.

Herring breaking the surface as a trap spiller is raised. Nubble Point trap. June 1954

Air Surveys:

The herring surveys began this year with flights on May 4th and 5th covering the entire area from Chugachik Island at the head of Kachemak Bay to Port Graham. Additional flights followed during May. The purpose of these surveys was to establish if possible some measure of herring abundance in this area. Subsequent surveys would then logically indicate whether or not populations were rebuilding toward the body of herring which supported such a substantial fishery in 1925, 1926, 1927, and 1928. Herring were noted in relatively small schools throughout the area, but no actual spawning was observed. A good deal of local information was taken down in contacts made with full time residents of Kachemak Bay. In brief, this information may be summarized as follows:

Herring spawn principally in three areas; Halibut Cove Lagoon, Bear Cove and Peterson Bay. Dates of arrival of these herring in the spawning areas listed have always bracketed May 5th. Spawning takes place a few days after the fish are noted in abundance in the areas listed. In Bear Cove, the following is a record of past spawning dates taken from the diary of Mrs. Ted Peterson, a resident of Bear Cove:

1946 — May 8th
1948 — May 3rd
1950 — May 31st
1951 — May 9th

This year some spawning was reported in Halibut Cove on May 20th. No record of spawning in Bear Cove was ever received for 1954.

As mentioned in the introduction these surveys yielded no information beyond what has been recorded here. Certainly no concluding statement may be made regarding these surveys beyond saying this: (1) A composit of information gathered from residents indicates a gradual build up of herring populations and (2) Herring populations are not at present rebuilt to sufficient size to support a commercial fishery.

Trap Investigation:

For several years, particularly at fishery hearings, independent fishermen have contended that lower Inlet salmon traps take large quantities of herring and other food fishes. My own observations over a period of four years indicated these reports were certainly exaggerated and that the herring and other fishes taken did not constitute any particular problem. During the month of June, Mr. Joseph Gross, employed as a Fishery Aid, was assigned to look into this matter. On the page following this is a report of his observations. Suffice to say that on the basis of this study at least, no further consideration need be given these reports. A summation of my own observations on this matter is reported in my memorandum to the Regional Director, dated December 29, 1953, subject, "Herring in salmon traps".

FISH TAKE IN BRAILING FIDALGO ISLAND PACKING COMPANY TRAPS
JUNE 1954 *

DATE	SALMON	HERRING	HERRING BRAILED	FLOUNDER	HALIBUT	OTHER	TRAP NAME
6/12	250	0	0	1	0	2	Seldovia #2
6/12	200	0	0	95	1	2	Bluff Point
6/12	300	1 bbl	0	7	0	2	Nubble Point
6/16	250	75	8	2	0	1	Nubble Point
6/16	390	50	16	0	0	1	Seldovia #2
6/16	250	1 bbl	40	125	1	0	Bluff Point
6/19	150	¼ bbl	50	100	2	0	Bluff Point
6/19	250	50	15	0	0	1	Seldovia #2
6/19	200	¼ bbl	18	35	0	1	Nubble Point
6/23	150	35	13	3	0	1	Seldovia #2
6/23	250	2½ bbl	28	15	0	7	Nubble Point
6/23	Trap did not open because of weather						Bluff Point
6/23	2640	5½ bbl	188	383	4	18	Nubble Point

* All figures given refer to numbers of fish unless some other unit is given following the figure.

Salmon being brailed from Seldovia #2 trap
Very few herring present. June 1954

Halibut, flounders and a few herring brailed with salmon. Bluff Point trap. June 1954. Salmon being removed at upper left hand corner.

Mixed salmon, flounders, herring and halibut in Bluff Point trap, June 1954.

Mixed salmon, flounders, herring and halibut in Bluff Point trap, June 1954.

Herring gilled in spiller web. Nubble Point trap, June 1954.

FISH BY-PRODUCTS

Alaska Reduction, Inc.

This reduction plant, located in Seldovia carried on its usual operation this year. Total production for the season was as follows:

Salmon fish oil	--	19,960 gallons
Salmon fish meal	--	198 tons

Salmon heads, tails and viscera for reduction was obtained from all Seldovia packing plants and from the Fidalgo Island Packing Company at Port Graham. The total salmon waste available to Alaska Reduction this year was somewhat limited by the fact that the Seldovia Bay Packing Company rendered a considerable quantity of oil from early kings for use in their own canning. Also, salmon heads, in quantity which had been ordinarily available to the Alaska Reduction Company were used this year as king crab bait in the growing crab pot fishery. Some salmon heads were frozen for sale as crab bait by the Seldovia Bay Packing Company.

Alaska Reduction, Inc., is most interested in a small quota of herring to be taken from Kachemak Bay for reduction. Regulation changes would be necessary to allow this quota to be taken.

COOK INLET FISH PRICES

A great deal could be written regarding Cook Inlet fish prices in 1954. Much of the information relating to prices is beyond the scope of this report. Briefly points of importance are these:

(1) A very bitter dispute developed here primarily as a result of a Federal Trade Commission ruling which ruled that fishermen's unions were not legal bargaining agencies in negotiating fish prices with Inlet packing companies. By the same ruling, packers were required to deal as individual units.

(2) A second factor contributing to the deadlock over fish prices, which developed in early May, was the contention by packing firms that pack prices were dropping and therefore the raw fish price would need to be substantially reduced. Fishermen's groups generally agreed some slight reduction might be in order, but disagreed as to the percentage decrease.

(3) A third situation of considerable importance in understanding the bitterness which developed was this: Cooperative associations with legal power to negociate fish prices replaced Fishermen's Unions as far as the unions principle function was concerned. Union leaders did everything possible to nullify the worth of these new cooperatives. The conflict ended in a cloud of bitter feeling when the cooperatives finally successfully negociated a salmon price scale acceptable to all.

Independent prices paid fer salmon in 1954 are as follows:

Kings	$4.00
Reds	1.17½
Cohos	.80
Chums	.40
Pinks	.30

Fishermen using company gear as a general rule were paid 75% of the independent price listed. Many individual agreements were written by packers to cover fishermen using company gear. Typical of these agreements was the one drawn up by Libby McNeill & Libby which included a sliding scale clause as an incentive to fishermen to fish more dilligently. By this clause fishermen were paid a higher scale for salmon delivered after a certain minimum had been brought in. This clause, from my personal observations, kept the so called "chiseling" by certain fishermen to a minimum. That is, there was very little sale of fish taken with company gear to other outside buyers at the independent price.

* HALIBUT PRICES

The halibut season opened at $ .08, .10 and .11; the price was up to $ .10, .13 and .14 by the first of June and had advanced to $ .10, .14 and .15 by July first. It remained at this price for the remainder of the season.

The second season price was a steady $ .09, .13 and .14.

* Approximately 420,000 pounds purchased at Seldovia Bay Packing Company.

SHELLFISH PRICES

As in 1953 ** companies paid 9½ cents per pound delivered price for king crabs. (Raw weight.) Very few dungeness crabs were purchased and price varied so much no standard was established.

Fishermen were paid 7½ cents per pound by Kodiak packers for king crab sold here and hauled to Kodiak. The 2 cent difference was considered a hauling charge for delivery to Kodiak.

Shrimp -- Again this year, the poundage processed here was so slight no contract price was ever established.

** Alaska Fresh Company purchased some king crabs in the early summer on the basis of meat recovery. Crabs were in relatively poor condition at that time. Percentage recovery varied too much to make the purchase of crabs at 9½ cents per pound raw weight a sound business venture.

1954 RESURRECTION BAY OPERATORS

NAME & BUSINESS ADDRESS	SUPERVISORY PERSONNEL	PLANT LOCATION	LINES	PRODUCT
Resurrection Bay Co. Box 764 Seward, Alaska	W. M. Everitt	Seward		Canned Sal.

Chums passing through culvert.
Branch of Resurrection River - July 1954
Road building yearly becomes an increasing problem to ascending salmon in this watershed.

RESURRECTION BAY FISHING GEAR - 1954

	Units	Fathoms
Red Drift Net	3	450
Red Set Net	5	500
Beach Seine	6	692
Cordova Operation in Resurrection Bay:		
Beach Seine	1	150
Kodiak Operation in Resurrection Bay:		
Beach Seine	1	140

RESURRECTION BAY 1954 PACK BY WEEK

(CUMULATIVE 48/1# Basis)

WEEK ENDING :	REDS :	KINGS :	PINKS :	CHUMS :	COHO :	TOTAL
July 24	969		174	882		2025
July 31	982		326	905		2213
August 7	982		326	905		2213
August 14	1034		492	973	72	2571
August 21	1034		494	975	199	2702
August 29	1034	1	557	975	446	3014

Operations concluded August 29th due to lack of availability of Cohos.

RESURRECTION BAY DRAINAGE.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Grouse Creek	8/4	3 mi.		2		Survey late. Run reported to enter in June. Considerable snagging reported.
Bear Lake	8/5	Entire	279	3		Fresh fish. Little evidence of earlier spawning.
	8/26	Entire	147	22		All spawning at north end of lake.

STREAM CLEARANCE COOK INLET 1954

The following is a report of the four minor jobs of stream clearance conducted by management personnel in Cook Inlet this year. A complete report covering the extensive stream clearance carried on in Cook Inlet this year and directed by Construction Superintendent, Mark Meyer, is being prepared by the Stream Improvement Branch. Mr. Meyer specifically asked that he be allowed to write his own report on the job done here this year by his crew. The information is not organized into a formal report in time for inclusion here. It will therefore be submitted separately by Mr. Meyer.

Two points should be stressed in appraising the stream clearance job done here this year and in making plans for the next few years operations:

(1) Cook Inlet watersheds received the most thorough well planned clearance job in 1954 that has ever been accomplished. Fourteen key areas were cleared of beaver dams and other obstructions. Clearance was timed to be of maximum benefit to ascending salmon. The areas worked and which will be reported on in detail in the stream improvement report are as follows:

Cottonwood Creek drainage
Elling Lake
Fish Creek-Big Lake drainage
Indian Creek
Kalgin Island-Packers Lake system
Nancy Lake drainage
Seepage Creek
Three Mile Creek
Red Shirt Lake system
Shell Lake outlet
Upper Trail Lake drainage
Judd Lake inlet and outlet
Talachulitna Lake system
Lake Chelatna-Sunflower system

(2) Future projects should definitely be aimed at accomplishing wherever possible stream improvement so annual stream clearance will not be necessary in some of these key areas. We definitely need to have Mark Meyer and his crew back in Cook Inlet next year. If he is allowed to return with his crew at least three permanent type stream improvement projects can be accomplished in addition to regular stream clearance work.

Clearance by Management Men

Martin River System:

Several times in the past three years residents of Bear Cove area have brought to the attention of Fishery Management that beaver dams are now blocking the run of *reds which ascend the Martin River into Patty Lake and one other small unnamed lake. This run begins in late June and an air survey in early June disclosed that the system was blocked as reported. On June 15, 1954, John Cate and Doug Swanson flew to Bear Cove for the purpose of removing beaver dams in two small lakes near the headwaters of Martin River. They were guided to the area by Ted Pederson, a local resident. Several of the small lakes in the area were checked for fish but they seemed barren except for Patty Lake, which contained salmon fingerlings and small dolly varden trout.

A beaver dam was removed from the stream running into Patty Lake—no other clearance was necessary in this lake system. It was impossible to check the other lake reported by Mr. Pederson as Martin River was too high to cross due to a heavy rain earlier in the day. The trip from Bear Cove to the lakes and back covered well over ten miles of mountainous country.

Swanson and Peterson removing a small dam at Patty Lake.

Dam removed--no recent beaver activity precluded necessity for complete removal.

*These are small reds, locally called "Bluebacks".

Fish Creek:

Following the installation of Fish Creek weir July 7, John Cate and Doug Swanson removed one large beaver dam with dynamite approximately three miles upstream from the weir site. This dam had completely blocked Fish Creek and due to excessive beaver activity had to be removed again later in the month.

Kalgin Island--Packers Lake System:

This system has been a constant annual problem due both to excessive beaver populations and the tendency for log jams to form in lower Packers Creek. This year on June 4 and June 9, prior to the arrival of Meyer's stream clearance crew, logs were removed from the creek mouth both by hand labor with saws, and finally with explosives. This system should be listed for a permanent stream improvement job.

Log jam partially removed
Packers Creek, Kalgin Island
June 1954

Portage area:

On September 7 after most stream clearance work was complete for the year, reports were received of one very large beaver dam in the Portage area. The dam was actually located in a branch of Twenty Mile River. Examination of the system disclosed that a dam 70 foot in width was holding back a large quantity of water and was impassible to a run

of cohos immediately below it. A small spillway was opened immediately in this dam and on September 9th the entire dam was removed with explosives--a 30 stick charge was needed for the job.

The only other business relating to stream clearance which requires mentioning here is the need for a permanent type project for Cottonwood Creek in the Matanuska Valley. Throughout late September and early October complaints were received from residents of the Lake Wasilla area to the effect that Wasilla Lake was exceedingly high due to excessive beaver activity in upper Cottonwood Creek. It is desirable to have a surplus of water held in Wasilla Lake throughout the early summer. The water should then be released as needed to keep water levels up in Cottonwood Creek through mid July. A small log dam with a system of boards to adjust the flow would both take care of the situation causing complaints from residents and aid ascending reds.

COOK INLET WEIRS 1954

Three small weirs were installed in the Cook Inlet district by Fishery Management this year. One was installed at Fish Creek, a second in the Swanson River, and a third in Bishop Creek.

Reds passing under a
small bridge in Fish Creek
July 1954 - Photo by Cate

In addition to the specific escapement information obtained at each site, these small weirs were especially useful this year in recording movement of red salmon tagged in mid Inlet by Pacific Salmon Investigations. Information on tagged reds noted at each weir as well as all pertinent information concerning each weir will be found in the pages that follow.

OPERATIONAL REPORT - FISH-CREEK WEIR

KNIK ARM 1954

Fish Creek weir was installed this year on July 7th. Material was moved from storage at Chester Burden's farm and the installation took one day. Twenty pickets were the only additional replacement lumber needed.

The red salmon run in Fish Creek this year was approximately half the 1953 count. Twenty thousand nine hundred and four reds and one thousand fifty seven cohos were counted through the weir from July 13th to August 9th. An estimated four hundred reds were still behind the weir when it was removed and about the same number of cohos. Of the total number of reds counted this year, 2,383 (11.3%) were not marked. The peak of the run was July 24th. Three thousand five hundred fourteen salmon were counted through the weir that day.

Fish Creek Weir, July 1954

ADDITIONAL NOTES

There were constant variations of water level in Fish Creek until a crew of stream improvement construction men under the direction of Mark Meyer removed several beaver dams between Knik Arm and Big Lake.

Pink salmon were first noted in Fish Creek on July 23rd and five hundred ninty six were counted.

Dr. Rousch and Mr. Hilliard of the U. S. Public Health Service contacted T. J. Costello in Anchorage and permission was granted for them to take ten red salmon for experimental purposes.

Carl Elling, Fishery Research Biologist, Pacific Salmon Investigations, on two occasions measured and took scales of fingerling salmon at Fish Creek weir. Schools of fingerlings were noted at the weir as late as August 8th.

Tags

A red salmon tagging program was carried on in Cook Inlet this year. One thousand four hundred and seventy three reds were tagged in mid Inlet from the chartered drum seiner "Memento". Of the 1,473 reds tagged 28 were counted through the Fish Creek weir. Two additional tagged reds were also recovered in the immediate vicinity of Fish Creek. A complete record of these tags is as follows:

Date	Stream or Lake	Right Tag	Left Tag	Remarks
7/20	Knik Arm	Blue	White	Caught in gill net.
7/22	Fish Creek Weir	Blue	White	Fish red
7/22	Fish Creek Weir	Yellow	Blue	good condition
7/22	Fish Creek Weir	Blue	Red	good condition
7/22	Fish Creek Weir	Blue	White	good condition
7/23	Fish Creek Weir	White	Red	good condition
7/23	Fish Creek Weir	Red	Blue	good condition
7/24	Fish Creek Weir	Blue	White	very scarred
7/24	Fish Creek Weir	White	Red	red
7/24	Fish Creek Weir	White	Red	red
7/24	Fish Creek Weir	Blue	White	good condition
7/24	Fish Creek Weir	White	Red	red
7/24	Fish Creek Weir	Red	White	good condition
7/25	Fish Creek Weir	Blue	White	good condition
7/25	Fish Creek Weir	Blue	Yellow	scarred
7/25	Fish Creek Weir	White	Red	red
7/25	Fish Creek Weir	White	Red	good condition
7/25	Fish Creek Weir	White	Red	red
7/26	Fish Creek Weir	Red	White	red
7/26	Fish Creek Weir	Blue	Red	red
7/26	Fish Creek Weir	Red	Blue	good condition
7/26	Fish Creek Weir	Blue	Yellow	good condition
7/29	Fish Creek Weir	White	Red	good condition
7/31	Fish Creek Weir	Red	Blue	very scarred
7/31	Fish Creek Weir	Blue	Yellow	very red
8/2	Fish Creek Weir	Blue	Yellow	good condition
8/3	Knik Arm	White	Red	No. B-243, taken 500 yds from mouth of Fish Creek in set net.
8/5	Fish Creek Weir	Red	White	Fish turning red.
8/8	Fish Creek Weir	Yellow	Blue	good condition.
8/9	Fish Creek Weir	White	Red	seal marked.

FISH CREEK WEIR COUNT 1954

Following is a day by day count of reds and cohos counted through the Fish Creek Weir, starting on July 13th, the first day of the run.

Date	Reds	Cohos	Net Mark
7/13	70	0	5
7/14	214	0	17
7/15	63	0	8
7/16	47	0	7
7/17	0	0	0
7/18	1	0	0
7/19	0	0	0
7/20	43	0	4
7/21	2	0	0
7/22	1772	0	141
7/23	2670	0	217
7/24	3253	0	261
7/25	1987	18	145
7/26	2314	28	216
7/27	1671	25	172
7/28	702	78	82
7/29	328	6	55
7/30	679	34	93
7/31	1667	63	229
8/1	791	44	141
8/2	864	89	160
8/3	604	136	113
8/4	413	98	88
8/5	322	153	74
8/6	164	86	47
8/7	134	102	41
8/8	66	51	24
8/9	63	46	43
TOTALS	20904	1057	2383

FISH CREEK ESCAPEMENT UP TO AND INCLUDING 1954

Year	Red Salmon Count	Escapement Rating
1938	182,463	Excellent
1939	116,558	Excellent
1940	305,982	Excellent
1941	55,077	Fair
1942	--	Poor
1943	--	Fair
1944	--	Good
1945	--	Poor
1946*	57,000	Fair
1947*	150,000	Excellent
1948*	150,000	Excellent
1949	68,240	Fair
1950	29,659	Poor
1951	34,704	Poor
1952	92,724	Good
1953	54,343	Fair
1954	~~20,904~~ 23,257	Poor
1955	37,445	Poor

* Estimated escapement count - No weir installed.

**Large red downstream migrants passing over the Fish Creek counting board. July 1954 Photo by John Cate

**Migrants larger than 200 mm noted.

OPERATIONAL REPORT
BISHOP CREEK WEIR 1954

A weir was installed near the mouth of this small watershed to enable us to properly evaluate the importance of this system. Conclusive surveys of this system in the past have been exceedingly difficult due to the brackish brown color of Bishop Creek water.

Bishop Creek Weir
July 1954 Photo by Gross

Bishop Creek weir was completed and fish-tight on July 6th. The actual weir site is located approximately a quarter of a mile upstream from the creek mouth. Tidal action at this point is noticeable but not damaging. A record of the daily weir count and information on the four tags noted by the weir man is contained in the pages that follow.

The following is a record of the set net catch by a set net fisherman located one mile north of the mouth of Bishop Creek. The three best days catches only are shown and this information is included here to record dates of arrival of salmon along this beach line.

Date	Reds	Cohos	Pinks	Chums	Total
7/21	165	43	16	5	229
7/23	169	40	22	0	231
7/28	245	183	16	4	448

BISHOP CREEK WEIR COUNT 1954

The following is a day by day count of reds counted through the weir at Bishop Creek, starting on July 15th, the first day of the run.

Date	Reds	Net Marks *	Open Sores
7/15	422	50	2
7/16	76	30	1
7/17	17	5	1
7/18	166	15	1
7/19	538	30	1
7/20	1044	348	2
7/21	188	35	1
7/22	204	75	2
7/23	45	15	2
7/24	1956	652	15
7/25	0	0	0
7/26	743	185	6
7/27	4	0	0
7/28	2016	504	9
7/29	824	206	7
7/30	520	75	6
7/31	58	14	4
8/1	84	21	5
8/2	296	74	8
8/3	81	20	7
8/4	4	0	0
8/5	1	0	0
**TOTALS	9287	2354	80

* Net marks estimated in part.

** An estimated 600 mixed reds and cohos were still in the lower creek behind the weir when it was removed.

TAG OBSERVATIONS -- BISHOP CREEK 1954

Date	Stream or Lake	Right Tag	Left Tag	Remarks
7/19	Bishop Creek	Blue	Yellow	Not marked.
7/20	Bishop Creek	Blue	Yellow	Not marked.
7/24	Bishop Creek	Blue	Yellow	Not marked.
7/24	Bishop Creek	Blue	Yellow	Not marked, dorsal fin severed.

OPERATIONAL REPORT
SWANSON RIVER WEIR 1954

As in Bishop Creek, a small weir was installed in the Swanson River this year primarily to confirm the fact that this stream and watershed supports few if any spawning salmon. The weir was installed approximately seven miles upstream from the river mouth to avoid the damaging effect of tidal action. The weir was fish-tight on July 9th and was removed August 3rd. No salmon were counted through or observed near the weir in this twenty six day period. A few small reds were reported above the weir site in late June by local residents. Also a small run of cohos was observed in the lower Swanson River by the weir man on August 6th.

Swanson River Weir nearing completion.
July 1954 Photo by Lindley

COOK INLET SHELLFISH

This season four Cook Inlet plants processed shellfish and two Kodiak companies hauled king crabs to the Island for processing there. Only king crabs were processed in any substantial quantities. Small quantities of shrimp, dungeness crabs and clams were handled, but the total volume was insignificant.

A large prime king crab from Kachemak Bay cooked 18 minutes in sea water ready for shipment to Anchorage for sale as fresh product. September 1954.

Fish ticket totals furnished by Hinsdale show a total production to November 29th of 1,212,348 pounds of whole king crabs for area 241. This figure is considerably below the 1953 total, but considering the fact that these were*<u>all</u> pot caught crabs, production was surprisingly good. This fish ticket total is a minimum figure since some fishing was still in progress in late November and all fish tickets had not been turned in.

Of importance in considering future management of king crabs is the fact that <u>over one third</u> of the total poundage listed was hauled to Kodiak and processed there by Island Seafoods Company and the Kodiak Seafood Packing Company. This hauling began July 15th and the final load was delivered to Kodiak September 22nd. The total poundage of crabs taken to Kodiak was 426,163 pounds (raw weight).

* Dragging for king crabs in Kachemak Bay restricted beginning with the 1954 season.

As anticipated the Cook Inlet crab pot fishery expanded again this year. Final gear registration figures show 260 pots fishing in 1953; 562 pots fishing in 1954.

Again this year copious field notes were taken on all observations made of the king crab fishery. Most of the information gathered has already been reported in regular semi-monthly reports. It seems unnecessary to repeat this information. A season for king crab commercial fishing has again been recommended as a result of field observations.

The following is a summation of production information from the four Cook Inlet companies handling king crabs in 1954:

SELDOVIA BAY PACKING COMPANY:

This company handled the largest volume of king crabs of the four companies processing shellfish in Cook Inlet. The total weight of crabs purchased was approximately 500,000 pounds (raw weight). Of this total 45,664 pounds were purchased prior to August 1st, 260,308 pounds were purchased August 1st to August 31st and the remainder were purchased from September 1st to October 30th.

Charles S. Hendrix, Superintendent of this plant, reported: "For commercial purposes the crab caught during our operation here this spring and summer did not show any definite * signs of improvement until the latter part of July and the first part of August."

Crabs purchased before August 1st were processed whole. Crabs taken after August 1st were butchered, cooked and the meat removed from the shell by air blowing. A few hundred pounds of shrimp were cooked and frozen by this company. No exact figure is available.

* Hendrix, in this quote, refers to the crab's shell condition and meat content.

HOMER SPIT PACKING COMPANY:

This very small company handled a total of approximately 6,000 pounds of king crabs. The entire poundage was given a regular 18 minute cook in sea water and sold as a fresh product in Homer and Anchorage.

ALASKA FRESH COMPANY:

This company handled approximately 204,000 lbs (raw weight) king crabs in the period from January 1, 1954 to August 15, 1954. From the 204,000 lbs (raw weight) king crabs, 700 cases of crab meat were packed. These were 4#1 lb flats. In addition to the 700 cases which required approximately 168,000 lbs of the 204,000 lbs listed, approximately 36,000 lbs (raw weight) king crabs were sold as a fresh product. The only processing given this fresh product was a cooking of from 18 to 20 minutes in sea water.

Crab Meat Recovery:

Throughout the spring and early summer, meat recovery from Kachemak Bay king crab was so poor that this company was forced to purchase crabs on the basis of meat recovery. The first noticeable change in this condition occurred in the last days of July when meat recovery came up to 17%. By mid-August meat recovery was running 20% or better.

Tanner Crab:

Alaska Fresh Company reported they will try to run a commercial operation on Tanner crabs (Chionoecetes bairdii) next spring to allow them to operate while king crabs are in soft shell stages.

Shrimp:

Alaska Fresh Company handled approximately 10,000 lbs of shrimp this year. Most of these were sold as a fresh product. A majority of this poundage was "Pinks".

ALASKAN SEAFOOD COMPANY:

This is a small new operation which began in June of this year located at the end of Homer Spit.

This company handled 22,113 lbs (gross raw weight) of king crab from June 1 to October 15, 1954. Of the total poundage handled 798 lbs were frozen and the remaining 21,315 lbs were marketed as a fresh product. No other product was handled this year.

From a business standpoint this business was a successful venture to date. Mr. Thomas plans to expand his operation in 1955.

CLAMS

Again this year no commercial use was made of Cook Inlet clams as a product for canning. (The last year a commercial operation occurred was in 1951.)

A few clams taken from east shore beaches near Ninilchik were dug by individual fishermen and marked locally. The actual poundage was small and no exact check on this operation was possible. Fish tickets were used when at least part of this small poundage of clams were sold in the Anchorage area. A far greater number of clams were taken for personal use than were dug for commercial purposes. Residents of the lower Kenai Peninsula are somewhat alarmed over what they consider excessive digging for personal use. There is no evidence to support the contention that digging there has been damaging to the beds.

The Alaska Fresh Company on Homer Spit marketed a few hundred pounds of butter clams from Kasitna Bay.

Red Tide Investigation:

This year Mr. Douglas K. Hilliard, Acquatic Biologist from the U. S. Public Health Service, conducted an investigation to determine whether or not Cook Inlet shellfish are contaminated at certain times of the year by the Dinoflagellata, gymondinium brevis, ordinarily referred to as "Red Tide." Mr. Hilliard was extended use of transportation in FWS aircraft when space was available and when we had business in an area he wished to visit. I informed Mr. Hilliard of the areas where clams are found in abundance, and on several occasions spent a short time working with him on this project. The samples taken were confined to three mollusks; razor clams, butter clams and blue muscles. Samples were taken from early May to mid September. Results show there is no red tide contamination concentrated enough to be toxic to human being in lower Cook Inlet.* Traces were found in a few areas where there is a strong tidal exchange. No traces were found in protected bays where tidal exchange is relatively small. A detailed report of this work will be published by the U. S. Public Health Service.

* Toxic concentrations noted by U.S. Public Health Service in Kodiak and on the Alaska Peninsula.

OYSTERS

The Japanese oysters (Ostrea gigas) which had been planted in Halibut Cove in 1952 have now all but disappeared. A few promising patches were noted in 1953, but a relatively severe winter froze and killed a majority of these. Mr. Tillion spread no more spat in the Cove this year.

TEMPORARY EMPLOYEES

John Cate	Weir operator, Enforcement Patrolman, Stream Clearance
	GS - 5
Employed	5/24/54 - 8/20/54
Earned	$1,147.58
Joseph A. Gross	Weir operator, Enforcement Patrolman, Stream Survey, Herring investigation.
	GS - 5
Employed	5/24/54 - 9/2/54
Earned	$1,213.16
Richard J. Lindley	Weir operator, Enforcement Patrolman, Stream Survey, Stream Clearance.
	GS - 3
Employed	6/28/54 - 9/2/54
Earned	$694.97
Frank D. Swanson	Stream Clearance, Stream Survey, Enforcement Patrolman, Annotated Charts.
	GS - 5
Employed	5/10/54 - 10/22/54
Earned	$1,639.40
TOTAL EARNINGS	$4,695.11

ADDITIONAL OPENINGS - ADDITIONAL CLOSURES

No adjustment was made in Cook Inlet fishing time during the 1954 season. One restrictive adjustment was seriously considered in mid July, but was finally dropped. Several requests for liberalizing adjustments were received from packers and fishermen in mid July.

COOK INLET STREAM AND LAKE SURVEYS AND ANALYSIS 1954

As has been standard practice in the past, analysis of stream and lake surveys will be given in two parts:

(1) Upper Inlet, which includes all watersheds except those originating in the lower Kenai Peninsula including one lower Kenai Peninsula system, English Bay. Excluded from upper Inlet, and placed under lower Inlet surveys are the four king salmon streams; Anchor River, Deep Creek, Stariski Creek and the Ninilchik River.

Pile of spawned-out reds after they passed over the measuring machine. Meadow Creek, August 1954. Photo by Duncan.

(2) Lower Inlet, includes all watersheds originating in the lower Kenai Peninsula, plus the four king salmon streams listed above.

Upper Inlet Analysis:

In checking through the complete surveys listed on pages that follow, and making an analysis strictly on a comparative basis, I am in complete accord with the analysis given by Research Biologist, Carl Elling. I quote his analysis and an introduction to it as follows: "The 1954 Cook Inlet spawning ground surveys marked the third successive year that comparative examinations have been conducted on the red salmon producing waters of this district. During the past season surveys covered approximately 200 lake and stream areas. The principal production areas were checked at least twice during the spawning period and several were covered as many as three or four times. While the surveys primarily are concerned with red salmon, the abundance of other species was also recorded.

The task of surveying this vast spawning area was largely accomplished by four 2-man parties, each party covering specified drainage areas. At least one man in each party had prior experience in the area assigned him. This continuity of personnel and the fact that counts were again made in established count areas assures a quantitative comparison with the two previous observations.

The majority of surveys were again conducted from the ground, but as the transportation of field parties required considerable air travel, incidental air observations were made whenever possible. The latter are recorded separately and follow the record of ground observations in each of the survey regions listed in the following pages. All established ground count areas are noted with an asterisk.

Stream levels and other physical conditions were generally quite favorable for survey activity in August. During September, however, the weather continued mild, and as a consequence a number of glacial watersheds failed to clear, considerably hampering the surveys in these areas. We have previously noted that the prevailing glacial nature of many of the Cook Inlet drainages makes it difficult, indeed, to estimate with even fair accuracy the total red escapement. For this reason the appraisal of red escapements is based solely on ground counts made in clear water areas.

Summary of 1954 Red Salmon Escapements

Surveys during the past season indicate that the overall red salmon escapement was slightly above that obtained in 1953 and perhaps equal to or a trifle above that of 1952. A comparison with the 1953 escapement record is as follows:

Kenai River - about 10 to 15 per cent improvement in virtually all areas examined.

Kasilof River - Over 50 per cent improvement. Bear and moose creeks indicated excellent seedings.

Fish Creek - Over 50 per cent decline. The low count (1954 weir figures lowest on record)may be related to cyclic nature of runs in this system.

Susitna River - Most areas indicate minor declines.

English Bay - Slightly below the 1953 level.

West Side - Limited observations point to somewhat smaller runs in most systems. As in 1953 glacial run-off again hampered survey activity in this area.

The slightly improved total red escapement of the past year resulted from the increase in spawners entering the Kenai and Kasilof drainages which more than compensated for declines in other areas.

Pink Salmon Escapements, Upper Inlet

Without question pink salmon runs to the upper Inlet were among the largest on record. A conservative estimate of pink escapement into streams north of Cape Kasilof places the spawning population of this species at 4,000,000 fish. Excellent escapements were noted in the Talachulitna and Deshka Rivers, Big and Little Willow Creek, Sunshine Creek, and Chunilna Creek. The lower Kenai and Kasilof Rivers were also reported to contain great numbers of pinks."

Again this year, the careful planning and well directed program headed by Carl Elling, has given us a thorough informative record of escapement in Cook Inlet. With the establishment of ground count areas I believe sound reliable surveys may be possible with fewer men in the field once we have a full cycle of coverage with the present crew. The most illadvised thing that could happen here would be to reduce Elling's work here prior to 1957. I wish to point out that the information listed for upper Inlet surveys was gathered almost entirely by the P.S.I. crew. It is my intention to set up established count areas for upper Inlet pinks and chums and to extend this system to kings and cohos if practical. Aside from the analysis given by Elling which aptly covers the situation, comparison of individual areas can be easily accomplished by reference to specific figures in the pages that follow:

Lower Inlet Analysis:

Since at least one very restrictive recommendation will be based on surveys of the lower Inlet this year, the data needs to be qualified at least by saying that lower Inlet surveys in 1954 were thorough and accurate.

We may first of all generalize by saying that the lower Inlet chum run was fair to good and the lower Inlet pink run was very poor. Escapements of each species reflect the abundance already stated. How good chum escapement was and how very poor pink escapement was can be better assessed by reference to individual survey figures. (See page 112 for recommendations on lower Inlet 'Outer District' seasons for 1956)

WEST SIDE COOK INLET
Stream and Lake Surveys, 1954

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Chilligan River (Chackachamna Lake.)	8/31	4 mi.	402	7		Water partially glacial. Accurate counts not possible. Most fish in lower mile.
Chackachamna Lake	9/1	2 mi.	0	0		Very glacial. No evidence of beach spawning.
3 Mile Lake	8/8	Entire	17	0		Estimate 200 reds entered lake. Resident reports small run this year.
3 Mile Creek	8/9	2½ mi.	48	1	200 pink	Green reds moving up lake.
Packers Lake (Kalgin Island)	8/5	Entire	66	22		Only beach spawning area on this date in N.E. corner of lake.
	9/8	Entire	202	13		Scattered spawning all along shoreline. Water coppery, making observation difficult. Estimate season total for lake and feeders 6000 reds.
N.W. Spring #1 (Packers Lake)	8/5	100 yds.*	166	210		50 reds off mouth.
	9/8	100 yds.*	171	173		100 reds off mouth. New group of reds in springs.
North Stream #2	8/5	¼ mi.	59	31		Stream area heavily silted. Many beaver dams.
	9/8	100 yds.	2	0		--

* Established Count Area.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
N.E. Spring #3	8/5	½ mi.	20	106		Many beaver dams. Considerable silting.
	9/8	½ mi.	20	Few		25 reds off mouth. Fish digging through silt to reach gravels.
Packers Lake Outlet	8/6	2 mi.	56	0		Fresh reds moving up to lake.
Blue Lake	9/16	Entire	740	1		Beaver dam at outlet removed. Estimate 3000 reds total in lake.
Grecian Streams #1 and #2	9/6	2 mi.	67	60		All reds seen in clear. Seepage areas joining main streams were very glacial. No counts possible in streams.
Grecian Stream #3	9/5	Mouth	0	1		Very glacial
	9/17	Mouth	0	6		Very glacial
Grecian Stream #4	9/4	Mouth	15	20		Poor showing compared with two previous years.
	9/17	Mouth	0	3		
Grecian Lake	9/5	3 mi.	70	5		Survey of S.W. & S.E. shores.
	9/17	6 mi.	51	81		Survey of West & S.E. shores. Considerably less indication than last year. Water very glacial.
Coal Creek	7/28	10 mi.	Blank			Water slightly discolored. No salmon at mouth in Beluga Lake
	8/11	10 mi.	Reds present			Water murky. Reds observed in shallow areas. Count not possible.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Coal Creek Lake	7/28	Entire			Blank	
	8/18	Entire			Blank	
	8/25	Entire			Blank	Landing made. Check of last year's spawning site revealed no reds.
	9/5	Entire			Blank	
Lone King Cr. (Beluga Lake)	8/11	1 Mi.			100 reds	Water slightly muddy from recent rains.
Legend Lake (McArthur R.)	9/16	Entire			Blank	Outlet rocky and steep.
Flat Lake (McArthur R.)	9/16	Entire			Blank	2 mi. S.E. of Legend Lake. Outlet to McArthur R. has moderate gradient.
Grecian Lake Streams #1 & #2	9/4	3 mi.				Streams very turbid. No counts possible.
	9/16	2 mi.				Warm weather--streams very glacial. Impossible to observe salmon.
Lake Nancy	8/3	1/8 mi.*	10	0		Early. Large school of reds outside of spawning area.
	8/5	1/8 mi.*	150	0		Fish schooled, not spawning.
	9/1	1/8 mi.*	280	52		Count area at N.W. corner of lake.
	9/1-2	Entire	1944	220		Includes school of 600 reds off 182.5 Cr. Estimate season total 7000 reds.
Nancy Creek	8/4	200 yds.*	98	0		Reds just entering. Est. 500 reds off mouth.
	8/31	200 yds.*	6	136		Spawning complete.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Lake Creek (Nancy Lake Outlet)	7/28	Brief	0	0		Air survey. Large rock dam near outlet of Nancy Lake.
	8/3	1/4 mi.	6	0		Reds moving to Nancy Lake. Dam removed by clearance crew several days previous.
	8/5	1¼ mi.	106	0		Float trip downstream. Reds moving up.
	9/2	Brief	0	0		Brief check - no salmon entering lake.
182.5 Creek (Nancy Lake)	8/5	100 yds.	0	0		300 fresh reds off mouth.
	9/1	1/2 mi.	1	1		600 fresh reds off mouth. No evidence of spawning in stream.
	9/28	1/2 mi.	0	0		Air survey. Continued activity at mouth but no apparent spawning in stream.
Big Lake (Knik Arm)	8/16	3 mi.	3	0		Boat survey of north shore. Very little beach spawning in evidence.
	8/19	100 yds.	52	0		Area bordering Big Lake Lodge. Est. not over 300 reds in Lake.
Fish Creek (Big Lake outlet) (see weir count)	8/18	1/8 mi.*	4	0		Small lagoon area 1 mi. below lake. Virtually no spawning.
	8/30	1/8 mi.*	84	0		Spawning about two weeks later this year than on two previous years.
	8/18	1½ mi.	823	4		50% of count made up of jacks.
	8/30	1½ mi.	2466	11	2 pink 5 coho	60% jacks.

* Established count area.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Meadow Creek	8/17	½ mi.*	1173	103		A few jacks present.
Blodgett Lakes	8/29	Entire	1088	293		No reds in Blodgett Lake #1 and few in #2. Nearly all fish counted in Blodgett #4. Estimate 2,000 total red count.
Connecting Streams, Blodgett chain	8/29	#1 to #2 *	0	0		
		#2 to #3 *	0	0		
		#3 to #4 *	0	0		A fish trap was found in stream at entrance to Blodgett Lake #4.
Wasilla Lake	8/20	Entire	63	0		Lake Mgt. Survey party has taken over 100 reds in gill nets. All spawning along north shore.
Cottonwood Cr.	8/19	200 yds.	0	0		Area between Wasilla and Mud Lakes.
Mud Lake	8/19	Entire	20	0		Small lake between Wasilla and Cottonwood Lakes.
Cottonwood Lake	8/19	Entire	539	0		Most spawning along north shore-mid lake. Estimate 15000 reds in lake.
	9/12	Entire	2	91		Spawning complete.

* Established count areas.

Stream or Lake	Date	Distance Surveyed	Counts		Others	Remarks
			Reds alive	Dead		
Cornelius Lake	8/20	Entire	103	0		Spawning just beginning. Estimate 400 reds in lake.
	9/14	Entire	8	52		Spawning complete.
Upper Cottonwood Creek	8/20	½ mi.	2	0		Headwaters above Cornelius Lake.
Niklason Lake	8/20	Entire	143	0		Estimate total reds in lake at 600. Some deep spawning. No reds in stream connecting Niklason and Cornelius.
	9/14	Entire	3	37		Spawning complete.
Cornelius #3	8/20	Entire	2	0		Small lake below Niklason. No spawning in area.
Palmer Creek	8/16	¼ mi.*	0	0		Early.
	8/30	¼ mi.*	2	0		
	9/12	¼ mi.*	34	0		
	9/28	¼ mi.*	4	3		
Palmer Creek Slough	8/16	1/8 mi.	0	0		Early.
	8/30	1/8 mi.	24	0		Area adjoining Glenn Highway.
	9/12	1/8 mi.	76	0		
	9/28	1/8 mi.	34	19		
Eagle River	8/16	Brief	0	0	Pinks present.	Check of small tributary stream on east side Glenn Highway.
Portage Creek (Turnagain Arm)	8/13	2 mi.	106	11		Clear water tributary to Portage Creek. Portage Creek very cold, approx. 32°.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Horseshoe Lake	8/30	Entire		Blank		Check of shoreline.
Beaver Lakes	9/3	3 mi.		Blank		Lakes appeared clear this year. May contain salmon.
Little Susitna River.	9/3	8 mi.		Blank		Water clearing, but visibility not too good.
Stephen Lake	8/31	Entire		Blank		Goose Creek drainage.
7-Mile Lake	8/31	Entire		Blank		Goose Creek Drainage.
Lake Chelatna	8/5	Entire	Present	-		Glacial coloration prevented count.
	8/23	Entire	Present	74		Counts of live reds not possible, water very turbid.
	9/9	Entire	2	133		Continued glacial, estimate 7000 reds season total.
Lake Creek	8/4	3 mi.	1	0	1 King	Water glacial, counts not possible.
Cripple Creek	8/22	1 mi.	0	0		Very glacial, counts not possible.
	9/9	mouth	-	-		Stream was clear, no counts made.
Spring Creek	8/5	1 mi.	40	0		Not spawning. Beaver dams present.
	8/24	½ mi.*	141	1		No reds beyond second dam. Fish spawning.
	9/9	½ mi.*	77	3		Spawning about complete.

* Established count areas.

Stream or Lake	Date	Distance Surveyed	Reds Alive	Reds Dead	Counts Others	Remarks
Coffee Creek	8/24	¼ mi.	-	-		Water very glacial, counts not possible.
Upper Talachulitna River (Outlet Judd Lake)	8/8	3½ mi.*	621	2	42,939 live & 12 dead pinks. 8 live & 9 dead kings. 330 live & 19 dead chums.	All reds green and moving up. Pinks just beginning to spawn. Most pinks small (30 est per case.)
	8/18	3½ mi.*	1685	10	46,860 live & 3,854 dead pinks. 59 live & 178 dead chums.	Reds are fresh & unspawned. Many eggs strewn about above gravels.
Grayling Creek	8/8	3/4 mi.*	1	0	77 live & 9 dead chum. 1962 pink.	Chum spawning at peak.
	8/18	3/4 mi.*	0	0	3250 live & 301 dead pinks. 25 live & 72 dead chums.	Many eggs in stream gravels.
Judd Lake	8/7	Entire	Present	-	Pinks & chums present.	400 reds, 15 chum & 30 pinks off mouth of Talachulitna Creek. No beach spawning.
	8/19	Entire	659	0	1259 live & 4 dead pinks.	Reds just commencing spawning along beach.
	9/8	1/2 mi.*	2142	164		2880 reds total count for entire lake. 500 fresh reds just entering lake.
North Judd	8/9	3/8 mi.*	0	0		20 reds off mouth.
	8/19	3/8 mi.*	22	0	6 pink, 1 chum	20 reds off mouth.
	9/7	3/8 mi.*	89	34	1 pink	200 fresh reds off mouth.

* Established count areas.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
*2 Judd Springs	8/9	100 yds	5	0		20 reds off mouth.
	8/19	1/8 mi.*	33	2	12 pinks	85 reds off mouth.
	9/7	1/8 mi.*	224	51	1 pink	Peak of spawning.
South Judd Springs	8/9	1/8 mi.	0	0		70 reds off mouth.
	8/19	1/8 mi.	17	0	4 pinks	100 reds off mouth.
	9/7	1/2 mi.*	503	12		500 reds off mouth.
Talachulitna Creek	8/7	3½ mi.*	1936	5	364 pinks 1 chum	400 reds, 50 pinks, 15 chums off mouth.
	8/17	3½ mi.*	1685	295	10,342 live & 152 dead pinks	100 reds off mouth.
	9/6	3½ mi.*	942	382	4 pinks	400 reds off mouth. Reds in stream fresh run.
Talachulitna Lake	8/7	Entire	Present			No reds spawning in lake.
	8/17	½ mi.	55	1		Fresh reds - no spawning.
	9/6	½ mi.	145	2		Majority of spawners near outlet.
Upper Talachulitna Creek	8/7	3/4 mi.	125	2		100 reds off mouth. No salmon beyond 2nd beaver dam (3/4 mi. point.)
	8/17	2 1/8 mi.*	411	10	104 pinks	200 reds off mouth.
	9/6	2 1/8 mi.*	965	31	12 cohos & 9 pinks.	100 reds off mouth.

* Established count areas

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds Alive	Reds Dead	Others	
Hewitt Lake	8/14	Entire*	112	1		Many reds in lake not visible.
	8/28	Entire*	172	1		Reds just commencing spawning activity.
	9/13	Entire*	1713	89		Many reds out in lake not yet spawning.
Hewitt Creek	8/12	2¼ mi.*	59	2	3 pinks	Spawning just beginning.
	8/26	2¼ mi.*	109	2		Peak of spawning.
	9/14	2¼ mi.*	96	6	312 cohos	Cohos all fresh.
Whisky Lake (Island Lake)	8/13	Entire	Present	0		Early. Reds observed in offshore areas, but no beach spawning.
	8/27	Entire	0	0		No beach spawning.
	9/14	Entire	9	27		Very little beach spawning.
Christmas Tree Creek (Whisky Lake)	8/13	300 yds.	0	0		Early.
	8/27	300 yds.	16	0		Fresh reds.
	9/14	300 yds.	21	2		Spawning near completion.
Brush Creek (Whisky Lake)	8/13	½ mi.	39	0		No spawning.
	8/27	200 yds.	0	0		Considerable black bear activity.
Huckleberry Creek.	8/27	1 mi.*	336	0		Spawning just beginning.
	9/14	1 mi.*	509	28		Spawning near completion.

* Established count areas.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Shell Lake	8/25	-	3810	0		5 hour count at Lake outlet. Reds just beginning to enter lake last night. Estimate 7000 reds entered lake in 24 hour period.
	9/11	Entire	1777	115		Many additional reds in deeper areas beyond lake shelf. 874 reds in Shell Creek, all fresh and just entering lake. Est. season total 10,000 reds.
Swanson Lake	8/6	½ mi.*	9	0		Early. 42 reds and 9 pinks observed entering lake.
	8/14	1/2 mi.*	87	0		Reds just beginning to spawn.
	9/3	½ mi.*	56	18		177 live and 62 dead reds in south half of lake. Est. 800 reds season total.
Fish Lake	9/13	Entire	43	11		Spawning near complete. Est 500 reds season total.
Lake Stepan	8/8	½ mi.*	34	0		Count in #1 area. 71 reds in south half of lake.
	9/4	½ mi.*	58	15		
	8/8	¼ mi.*	16	0		Count in #2 Area.
	9/4	¼ mi.*	103	6		Total count in lake 311 live and 115 dead reds. Estimate 800 reds season total for entire lake.
Prairie Creek (including Murder Lake)	8/9	2 mi.*	269	0	5 dead kings	From Lake Stepan to East Fork Prairie Creek only 25 reds in vicinity of Vogel's bridge.
	9/8	2 mi.*	10	98	20 cohos	Red spawning near complete.

* Established count area.

Stream or Lake	Date	Distance Surveyed	Counts		Others	Remarks
			Reds Alive	Dead		
Inlet Stream (Lake Stepan)	8/8	¼ mi.	0	0		
Duncan Lake (Tokichitna R.)	8/12	Entire	Present	0		Water murky. Lake shallow, 8 to 15 feet.
	9/9	Entire	97	2		Most spawning on west shore. Murky water prevents accurate count. Estimate 400 reds in lake.
T. Creek (South Inlet, Duncan Lake)	8/12	½ mi.*	400	0		100 reds off mouth. Most fish are green, schooled up below forks. Right fork provides best gravel.
	9/8	½ mi.*	58	8		Right fork. Heavy bear (black) kill. 200 reds off mouth.
Slim Creek (Duncan Lake)	8/13	150 yds.	150	0		All reds at mouth. Small inlet at N.W. corner of lake.
	9/9	300 yds.	93	50		200 reds off mouth. Heavy bear predation.
Deshka Lake	8/14	½ mi.*	0	0		Survey of S.W. shoreline.
	8/30	½ mi.*	46	1		Estimate 350 reds season total.
Red Shirt Lake	9/12	200 yds.*	109	21		Most reds are fresh. Est. 500 reds total.
	9/26	200 yds.*	139	40		Peak of spawning.
Ro-Le-Jo Creek	9/11	1 mi.	37	4	coho present	A few fresh reds are entering stream.
	9/26	½ mi.	1	0	100 coho	

* Established Count areas.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Lake Creek (Lake Chelatna)	8/3	40 mi.				Water very muddy due to heavy rain.
	8/6	15 mi.			Pinks present	Upper stream. Water turbid. Fish observed only in shallow areas.
Shell Lake	7/28	Entire			Blank	Survey of entire shoreline.
	8/6	4 mi.			Blank	Survey of east shore.
	8/21	Entire			Blank	See ground surveys for later counts. No reds in lake at this date.
Shell Lake	7/28	7 mi.			200 (Species ?)	Salmon (species ?) observed in lower stream. Many beaver dams.
Trinity Lakes drainage.	7/28	Entire	Salmon (species ?) present.			Salmon were observed in outlet stream. Possibly pinks. Many beaver dams.
	9/8	Entire			Blank	Air check of beach areas on main lake.
Talachulitna River	7/28	30 mi.			50,000 pink, Chum, reds & kings present.	Conservative estimate of pinks. Chum, king and reds in lesser numbers.
	8/6	Entire			500000 pinks. Chum, Red and kings also present.	More pinks than observed in Figure is considered a mimimum estimate.
	9/8	Entire	500 reds at outlet of Judd Lake.			Pink spawning long complete.
Talachulitna Creek	7/28	3½ mi.	200 reds			Reds present were distributed from Judd to Talachulitna Lake. 5-700 reds at mouth in Judd Lake.

Stream or Lake	Date	Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Upper Talachulitna Creek	7/28	1 mi.			Blank	Several large beaver dams noted.
Sucker Lake	7/28	Entire			Blank	Large beaver dam at outlet.
	8/25	Entire			Blank	Also ground check of west shore.
Kahiltna Lake (East side Kahiltna River)	8/11	Entire			Blank	Outlet stream very steep at junction with Kahiltna River.
Alexander Creek	7/28	8 mi.			200 kings	From mouth of Sucker Lake Creek to Alexander Lake. Many king reported in lower reaches of stream.
Red Shirt Lake	7/28	Entire			Blank	Early. Many beaver dams noted in outlet.
	8/30	Entire			200 reds	Fish observed in cove just south of lodge on east shore.
7 Mile Lake (Skwentna R.0	7/28	Entire			Blank	Small outlet. Possibly accessible to salmon.
8 Mile Lake (Talachulitna R.)	7/28	Entire			Blank	Not accessible to salmon. High falls near lake outlet.
Big Willow Creek	8/6	Brief			Kings prsent	Crossed stream above willow.
	8/14	Brief		Good show of pinks		Crossing only.
	8/30	5 mi.		Few pinks remaining. Samll numbers of dead chums(?).		From mouth to Alaska Railroad.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Little Willow Creek	8/6	Brief			Many pinks	Lower stream crossing only.
	8/14	Brief			Good showing pinks	Brief air crossing.
	8/30	4 mi.			Few pinks	Pink spawning near completion.
Caswell Lake	8/14	Entire			Blank	No salmon observed in outlet.
	8/30	Entire			Blank	
	9/7	Entire			Blank	Check of Caswell and two small lakes to South.
Kashwitna River	8/14	Brief			-	Very glacial.
	9/7	Brief			Blank	Water clearing.
Montana Creek	8/6	Brief			-	Turbid
	8/14	Brief			Blank	Clearing.
	8/30	Brief			Blank	Partially turbid.
	9/7	Brief			Blank	Crossing only. Clear water.
Sunshine Creek	8/6	Brief	Many pinks			Crossing only. Clear
	8/14	Brief	Pinks in good numbers			Brief crossing only.
Fish Lake & Outlet	8/6	Entire	2000 pinks and 200 reds			All pinks & reds in outlet of lake. No fish seen in lake.
	8/14	Entire	Good show of pinks			No reds observed in lake.
	9/3	Entire	150 reds			Spawning along south shore. See ground counts.
Answer Lake	8/6	Entire			Blank	

0

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Talkeetna River	9/3	30 mi.		-		Turbid. Many salmon reported in slough areas a week previous
	9/7	30 mi.		Blank		Turbid, but clearing up since previous visit.
Chunilna Creek	8/6	1 mi.		Pinks present		Turbid. No counts made.
	8/14	5 mi.		75,000 pinks		Slightly turbid. Large school at mouth.
	9/3	1 mi.	Few pinks - 150 coho (?) at mouth.			Clear. Pink spawning near completion.
Hour Glass Lake (East Fork of Chunilna Creek)	8/6	Entire	5000 pinks in outlet of stream. Reds present.			No spawners in lake.
	8/14	Entire	50 reds. 15,000 pinks			Limited red spawning in lake. All pinks below lake.
	9/3	Entire	200 reds			Pink spawning completed.
Prairie Creek (Lake Stepan)	8/6	Entire	200 reds			Ascending to Murder Lake.
Liscom Lake (Chulitna R.)	8/11	Entire		Blank		Survey of lake, outlet and inlet.
	8/14	Entire		Blank		Survey of Lake shore and inlet.
	9/7	Entire		Blank		Lake shore and inlet.
Lucy Lake (Chulitna R.)	8/14	Entire		Blank		Small outlet draining into Coal Creek.
Spink Lake (Chulitna R.)	9/7	Entire		Blank		Clear lake. Outlet has steep gradient just below lake.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Deshka River	8/11	50 mi.			300,000 pinks 3,000 kings 50 dead kings	Survey of lmain form from Peter Creek road to mouth.
	8/30	20 mi.			few dead pinks	From Deska Lake to mouth. Poor light.
	9/7	15 mi.			Pinks(?) several thousand	North of Peters Creek road.
Figure 8 Lake	8/30	East shore			Blank	Light poor. Some gravel beach areas. Lower east Susitna flats.

LAKE TUSTUMENA - KASILOF RIVER

Stream or Lake	Date	Distance Surveyed	Counts: Reds Alive	Reds Dead	Others	Remarks
Bear Creek	8/11	4 mi.*	12,583	925	3 pinks	500 reds off mouth-206 gill net marks. Estimate 25,000 reds in entire stream.
	8/16	2½ mi.	8,158	1445	20 pinks	4 brown bear seen.
	8/22	2½ mi.	2,504	5536	25 pinks	50 reds off mouth. Spawning near completion.
Moose Creek	8/12	2 mi.*	4,185	131	15 pinks	400 reds off mouth. Estimate 12,000 reds in stream.
	8/24	2 mi.*	1,919	2386	few pinks	100 reds off mouth.
Seepage Creek	8/12	2 mi.	369	6		Stream clearance crew has removed all beaver dams in lower 2 miles.
Cliff House Creek	8/12	¼ mi.	338	9		100 reds off mouth.
Nikolai Creek	8/17	1 mi.	788	311		200 reds off mouth (est.)
	8/26	1 mi.	42	144		1 brown bear encountered.
Olsen Creek	8/16	½ mi.	15	19		Minor spawning area.
Corral Creek	8/16	200 yds	7	0		Not an important spawn area.
Lake Tustumena	8/16	10 mi.			Present	Survey of shore from Bear Cr. to Corral Cr.-a few salmon jumps observed. Very glacial.
	8/23	--	31	0		10 fath. of 5-9/16" gill net set for 24 hr period 1 mi. east of Bear Creek.

*Established count area.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Lake Tustumena (Cont'd)	8/23		20	0	1 coho	Same gear set 3 mi. east of Bear Creek for 6 hour period. Reds all very ripe.
Kasilof River	8/25				Great numbers of pinks	Reported by hunters coming up river from Kasilof.
Bear Creek	7/21	Mouth	Blank			Brief check for presence of spawners.
	7/27	Mouth	2000 reds			M. Meyer, stream clearance crew.
	8/21	12 mi.	20,000 live reds 5,000 dead			Excellent show well into headwaters.
Moose Creek	8/21	3 mi.	Many live & dead reds.			Accurate observation hindered by brushy nature of stream banks.
Seepage Creek	7/27	Entire	Blank			Mark Meyer.
	8/21	3 mi.	300 live - 50 dead reds.			
Nikolai Creek	7/21	1 mi.	Blank			Early
	8/11	¼ mi.	Good showing of reds.			Brief check preparatory to ground survey.
	8/21	15 mi.	3 - 4,000 reds			Considerably less reds in upper area than observed in 1953.
Lake Emma	8/21	Entire	--			Not accessible to salmon. Outlet very steep.
Indian Creek	8/21	3 mi.				Extremely glacial. No count possible.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Cliff House Creek	8/21	½ mi.		1,000 reds		Most fish at or near mouth.

UPPER KENAI PENINSULA
Stream and Lake Surveys, 1954

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Swanson River	-	Weir	0	0		Weir in operation from July 9 to August 3. No salmon were counted through this weir during the entire 26 day period shown. Local residents reported one small group of reds had passed this weir site prior to the weir installation July 9th. This cannot be considered a confirmed report. A few cohos were actually observed by the weir man, Richard Lindsey, in Swanson River near the mouth on August 6th.
Bishop Creek	-	Weir count	9287		Few coho and pinks. Steelhead	Weir in operation from July 6 to August 5. In addition to the 9287 reds actually counted through Bishop creek weir, an estimated 600 salmon, mostly reds, were still in the lower creek behind the weir when it was removed August 5th. Part of this number were cohos, and a few pinks were also noted. Weir man, Joe Gross, stated that a few of the 9287 reds listed may have been cohos and also a few may have been Steelhead trout. Bishop Creek water, throughout the entire system, is a brownish color probably due to high iron content. This made positive identification of all salmon passing through difficult.
Bishop Lake	9/19	Entire *	1790	27		Most spawning along mid S.W. shore. Spawning near peak.

*Established count area.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Bishop Lake Outlet	9/19	3/4 mi.	0	2		Movement to lake appears complete.
Owl Lake (lower Pincher Lake)	8/26	Entire	0	0		Survey of lake inlets and outlet.
Swan Lake (Chickaloon River)	8/23	Entire *	186	208		Survey late. Spawning nearly complete. Estimate 600 reds in lake. Season total may be much higher as run appears to be an early one.
Thurman Creek (Chickaloon River)	8/21	Entire	0	0		Air Survey, of creek and upper ponds below Trout Lake.
Chickaloon Lake	8/28	Entire	0	0		Air survey and ground survey of small lakes in lower east Chickaloon drainage.

Stream or Lake	Date	Distance Surveyed	Counts: Reds Alive	Reds Dead	Others	Remarks
Lower Russian River	8/7	Entire*	2154	2	29 kings	From mouth to Lower Russian Lake. Intense sport fishery in this area.
	8/18	Entire*	6485	87	82 live & 5 dead kings, 2 coho, & 50 pinks.	500 reds estimated at mouth in Kenai River.
	9/5	Entire*	1183	1957	Many cohos, 10 dead kings	Estimate 12,000 reds season total.
Upper Russian River	8/26	1/2 mi.*	2322	18	5 kings	Spawn area approx. 2 mi. below Upper Russian Lake. Remainder of stream virtually void of reds except at outlet Upper Russian Lake. Slightly glacial.
	9/11	1/2 mi.*	475	345		
	8/26	100 yds	697	2		Outlet area, Upper Russian Lake.
	8/12	200 yds	300	0		Brief check at outlet Upper Russian Lake.
	9/22	1 mi.	5	74		From Upper Russian Lake downstream. Estimate season total Upper River at 6,000 reds.
Upper Russian Creek	8/11	2 mi.*	8439	1740		200 reds off mouth. Approx. 1000 reds above count area.
	9/12	2 mi.*	640	1600		Live reds are fresh run.
Upper Russian Lake	8/26	Entire	3500	0		Air Survey. Estimate of spawners on east and north shores. Many more in depths. Lake partially glacial.
	9/10	Entire	1179	37		All spawning on east and north shores. Boat survey.

* Established count areas.

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
Upper Russian Lake (Cont'd)	9/23	Entire	1137	270		Estimate 6000 reds total for season.
Upper Russian Stream #1	8/12	Brief	0	0		Stream very glacial due to overflow from Resurrection Bay drainage.
	9/12	1/8 mi.	78	0		300 reds off mouth, water murky.
Upper Russian Stream #2	8/12	Brief	10	0		A few reds off mouth.
	9/12	Brief	1	5		Dead are bear kill.
Upper Russian Stream #3	8/12	Mouth	35	0		All fish at mouth. Beaver dams block entry.
	9/12	Mouth	0	0		
Upper Russian Lake	8/7	Entire	2	0		Boat survey. Many kings reported to have passed through to Upper Russian River.
	8/18	Entire	0	0		No spawning in lake.
Upper Kenai River	9/7-8	3 mi.	400	350		Survey of right and left banks below mouth Lower Russian River. Figures are estimates as water very glacial.
Lower Kenai River	August				Many pinks	Reported by F.W.S. enforcement agent. Heavy pink concentrations observed along shallow bars.
Moose Creek	8/5	3 mi.*	1059	2	3 chums 1 pink	Large beaver dam noted between 1st & 2nd road crossing.

* Established count area.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Moose Creek (Cont'd)	8/19	2 mi.	371	117		Spawning near completion.
Carter Creek	8/5	¼ mi.	141	1		
	8/19	¼ mi.	23	5		
Hidden Lake	8/26	Entire	1500	0		Air survey. All reds at west end of lake.
	9/2	Partial	-	-		High winds-impossible to continue survey.
	9/25	4 mi.	450			West end of lake, very small reds.
Hidden Creek	8/17	Mouth	1000	0		Figure is an estimate of school off mouth in Skilak Lake which is very glacial.
	9/13	Mouth	200	0		Air survey.
Jean Lake	8/8	1½ mi.	19	2		Resident reports about 1500 reds in lake about June 20.
Quartz Creek	8/22	3 mi	1230	226	10 chum, 9 kings, 1 pink, coho present.	From Daves Creek down to mouth at Kenai Lake. Water murky.
	9/4	3 mi.	171	300	Coho present.	From Daves Creek to mouth. Stream somewhat turbid.
Mud Lake	8/6	½ mi.	151	0		
	8/21	½ mi.	121	5		
	9/3	½ mi.	68	90		
Grant Creek	8/27	3/4 mi.	42	3	5 live & 1 dead king.	Glacial water.

Stream or Lake	Date	Distance Surveyed	Counts			Remarks
			Reds		Others	
			Alive	Dead		
Trail River	8/28	2 mi.	4	0		Check of stream bank. Water very glacial, virtually ruling out any count.
Johnson Creek	8/27	½ mi.	17	8		
Ptarmigan Creek	8/25	1½ mi.*	1382	18	7 kings & 3 cohos.	Many dead reported later in season. Count includes est. 200 off mouth.
Meadow Creek (Kenai Lake)	8/29	¼ mi.	0	0		Locals report stream never used by salmon.
Ship Creek (Kenai Lake)	8/29	1 mi.	0	0		No record of salmon utilizing this stream.
Moose River (East Fork)	8/5-8/7	Entire	0	0		Float trip by FWS Refuge personnel. Coverage from headwater lakes west of Hidden Lake to main branch of Moose River to Sterling Highway.

LOWER INLET STREAMS

In listing lower Inlet streams the numbering system established several years ago was followed again this year. Should any question arise as to area in reviewing the following data, reference to 1952 and 1953 annual reports will readily clarify the situation.

Large chums, part of a fine escapement into Island Creek
Photo by Stewart - August 1954

A pictorial explanation as well as a thorough discussion of stream names in the lower Inlet is contained in these two reports. Again this year survey coverage of lower Inlet streams, both in air and foot surveys, was complete and conclusive. Comments of particular importance this year evaluating lower Inlet escapements follow the survey figures.

Chum Carcasses, Upper Port Dick Creek. Part of even, well distributed chum escapement.

August 1954, Photo by Costello.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Port Dick Island Creek No. 5	7/9	2 mi.	1,800 chums	Air survey. This is a fair showing on this date. Jumpers at mouth.
	7/14	2 mi.	8,200 chums No pinks	Fair to good chum showing for this date.
	8/3	2 mi.	11,000 chums 3,000 pinks	Good chum seeding. Very poor pink showing. Air.
	8/5	2½ mi.	13,500 chums 3 pinks	This was a complete foot survey. Many chums dead. Only pinks noted in the stream were the 3 listed. A school of about 3,000 at the mouth.
	8/21	1½ mi.	11,000 chums 3,800 pinks	Most of chums now dead. No fresh fish. Pink escapement very poor. This creek should get about 38,000 pinks instead of 3,800.
Port Dick Creek No. 6	8/5	1/8 mi.	400 pinks	This is a spawning area of very minor importance. Pinks at mouth, fresh fish.
	8/21	1 mi.	240 chums 1,700 pinks	Poor to fair for this system.
Port Dick Creek No. 8	7/9	3 mi.	3,800 chums	These were at least 3/4 mile upstream. Fair showing for this date.
	7/14	3 mi.	16,000 chums 350 pinks	Carcasses from early chums in shallow water at creek mouth. Good chum showing, pink showing to date very poor. Fewest pinks ever noted on this date for this important system.
	8/3	3 mi.	17,000 chums 600 pinks	Air survey

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Port Dick Creek No. 8 (Cont'd)	8/4	3 mi.	17,277 chums 103 pinks	This was a complete foot survey. Note almost complete absence of pinks. Chums about half dead.
	8/21	3 mi.	17,000 chums 8,400 pinks	At least half of the chums are dead. Pinks all fresh fish, well up from creek mouth. No more fish near mouth. Pink escapement very very poor. This system should have 60,000 pinks for good escapement.
Rocky River No. 9	7/6	1 mi.	1,000 chums	Air.
	(7/8 (((7/12 ((7/14 ((7/17 ((7/21 ((7/27	7 mi. 1 mi. 2 mi. 2 mi. 2 mi. 4 mi.	2,000 chums 500 pinks	This is an estimate of all fish in this system figured on the six foot surveys shown.
	7/9	6 mi.	1,200 chums	Air survey. Poor showing to date. Jumpers in Rocky Bay. No estimate.
	7/14	4 mi.	3,000 chums 450 pinks	Air survey. Very poor showing of chums and pinks.
	8/3	4 mi.	4,000 pinks 5,500 chums	Poor showing of both pinks and chums. Air survey.
	8/4 ((((	1 mi. 	5,000 chums 500 pinks	Estimate of total spawners from six foot surveys shown. Note pinks given on air survey were in upper reaches above foot surveys.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Rocky River No. 9 (Cont'd)	(8/6	3 mi.	5,000 chums 500 pinks	
	(8/9	5 mi.		
	(8/11	2 mi.		
	(8/13	1 mi.		
	(8/16	3 mi.		
	8/21	5 mi.	6,000 chums 11,000 pinks	Escapement for this system both pinks and chums very poor. Light optimum. These figures should be considered as accurate as is possible for an air survey. Brush does not obstruct air survey of this system. Pinks in groups approximately 3 miles from stream mouth. Pinks all fresh fish. Numerous seals and beluga noted at stream mouth.
Windy Bay Stream No. 10	(7/13	2¼ mi.	4,400 chums	Escapement figures given is best estimate of total chums in this stream computed on three foot surveys. Many black bear in area. Schools of salmon at stream mouth 7/16/54. Escapement rated fair.
	(7/15	1 mi.		
	(7/19	2 mi.		
	8/21	¼ mi.	850 pinks	Fresh fish.
Windy Bay Stream No. 11	7/9	1½ mi.	600 chums	Fresh fish. Too bushy for accurate air survey.
	7/14	1 mi.	300 chums	Chums at mouth. Low clouds, light poor. No accurate estimate possible
	(7/15	1 mi.	1,100 chums	The total given includes all chums noted in the three surveys made. Escapement rated poor.
	(7/18	3 mi.		
	(7/19	6 mi.		

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Windy Bay Stream No. 11 (Cont'd)	8/3	2 mi.	Few chums	Light poor for accurate estimate.
	8/21	½ mi.	Few dead chums 300 pinks	Pinks fresh. Area too bushy for accurate air survey.
Dogfish Bay (Koyuktulik Bay) Stream #14 and #14 A	8/29	Entire System	None	Two fishing boats waiting for chums to arrive. A few jumpers outside stream mouth.
	8/13	Entire		No accurate estimate possible. Light poor. Large body of chums noted in upper lagoon and in stream No. 14. This area presents probably the most difficult system of all lower Inlet streams to survey accurately. The lagoon contains large quantities of zostera which makes the quantity of spawners in each school obscure. Escapement of chums this year rated fair to good.

Chum carcasses - part of good to excellent escapement in Port Dick Island Creek, August 1954.

ENGLISH BAY DRAINAGE

Stream or Lake	Date	Distance Surveyed	Counts Reds Alive	Reds Dead	Others	Remarks
English Bay Stream #1 (Lower lake to sea.)	8/18	1½ mi.	0	0	50 pinks	Many dolly varden.
English Bay Stream #2 (between 1st & 2nd lakes.)	8/18	1 mi.*	1223	33	A few pinks	200 reds off mouth.
	8/28	1 mi.*	1321	249		100 reds off mouth. Peak of spawning.
English Bay Stream #3 (between 2nd & 3rd lakes)	8/19	½ mi.*	448	9		150 reds off mouth. Count area reduced. Extremely dense concentration of dolly varden trout.
	8/21	Entire	3000	200	300 pinks(?)	Air Survey. Upper section spawning more advanced.
	8/29	½ mi.*	359	84	2 coho	Peak of spawning. Dolly varden less numerous than on previous visit.
English Bay Lake #1 (Lower lake)	8/18	1 mi.*	268	2		Boat survey of N & W shore. Est. 1,000 reds in lake.
	8/30	1 mi.*	291	54		Survey of N. & W shore. Est. 1,200 reds in lake.
English Bay	8/19	1 mi.	Present			Strong winds prevent counts
	8/21	Entire	2,000			Air survey
	8/29	Entire*	618	25		Estimate 2,500 reds in lake.
English Bay Lake #3 (Lost Lake)	8/21	Entire	1,500	500		Air Survey. Spawning past peak. Less than in 1953.

*Established count areas.
All surveys by P.S.I. group.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Port Graham Creek (at right at head of bay. No. 16	8/29	2½ mi.	285 Alive Pinks 0 Dead " 0 Alive Chums 25 Dead " 205 Alive Cohoes 0 Dead " 277 Unidentified (Dead - Carcasses)	This is a difficult creek to survey. It is wide and contains numerous deep holes. It has three tributaries of fair size with good head of water. It had been reported by cannery superintendent that one tributary is a pink stream and one a chum stream. Also that there is a lake about 4 - 5 miles from the mouth of the creek. It is necessary to wait for low or half tide before checking this stream. The mouth of the creek is to the extreme right at the head of the bay. The tide will run up stream about ½ or ¼ mile. When going in at high tide one must leave the skiff where the F.W.S. markers are posted. Two nets (gill) were discovered laying by the stream approximately 500 yards from the mouth. Apparently they have been put to much use for they were in good shape. A close watch should be kept of this stream during the height of the salmon run.
Port Graham Creek (at left at head of bay. No. 16 A	8/29	2 mi.	14 Alive Pinks 20 Dead " 14 Alive Chums 3 Dead "	The same thing holds true for this creek as for No. 16 and the extreme right of the bay. The creek is best at low tide or ½ tide. It is an easy creek to work, having a sudden incline of about 1½ up with a fast flow of water. This creek has a small log jam ¼ mile from mouth of creek. No hinderance at this time.
Seldovia River No. 17	8/3	3 mi.	800 Chums 2,200 Pinks	Poor pink showing. Chums mostly dead.
	8/13	1 mi.	2,800 Pinks	Poor escapement for this important system.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Seldovia River No. 17 (Cont'd)	8/21	1¼ mi.	3,000 pinks Few dead chums	Poor escapement for this stream.
	8/26	3 mi.	6 Alive Reds 0 Dead " 215 Dead Pinks 27 Alive " 0 Dead Kings 1 Alive " 23 Alive Chums 25 Dead " 230 Unidentified (Dead, Carcasses)	Stream easy to survey, the walking was easy and the water was clear, making identification positive. Foot survey on 8/26 too late to be accurate since part of pinks already dead and carried out with tidal and stream action. Total escapement in this system rated very poor this year. This system should get not less than 30,000 pinks.
Barabara Point (Fish Creek) No. 18	8/29	3 mi.	245 Alive Pinks 57 Dead "	3 hours and 25 minutes on the this stream. Easy to survey. Escapement rated poor.
Jackalof Bay Creek No. 19	8/28	2 mi.	48 Alive Pinks 3 Dead Pinks	The mouth of this creek can be found to the left of the head of the bay. There are several streams running into the bay but only one was stream that has any fish. We found four leg jams ½ mile from the mouth of the creek and found four places of logs jammed the rest of the way. This creek branches into a Y shape 1½ miles from mouth. This is a small, relatively unimportant system. More chums enter this stream than pinks--a more valuable survey could be made about July 15th to check chum escapement.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Tutka Bay Lagoon Stream No. 20	6/30	Entire upper area	800 chums	This was a foot survey, the count given is for the upper creek South of the lagoon. Jumpers were noted in the lagoon, but no good estimate of the number was possible. Chums mature enough to indicate they had been in fresh water several days. Note the unusually early arrival date for chums in this system.
	7/9	Entire stream	800 to 1,000 chums	Air survey. No new fish since foot survey on 6/30. Noted about 300 chums in lagoon in typical pod formation like a ball of herring.
	8/21	Entire stream	12,000 pinks 5,400 chums	These are fresh pinks, chums are mostly carcasses. Good showing of pinks.
	8/27	1 mi.	5,929 Alive Pinks 4,548 Dead "	Complete foot survey. Best time of day to survey this stream is from ½ to low tide. Lagoon is shallow enough to walk the creek bed at low tide. The skiff can be pulled up the neck of the lagoon, from the bay and floated down. The neck does not go dry at low tide. (Nine bears were noted at the lagoon during this survey.) Note that practically all trace of earlier spawning chums had disappeared by this date--even chum carcasses had been carried out by tidal action. About half of the pinks noted 8/21 were also spawned out and gone.
Mallard Bay Stream No. 24	7/27	Entire stream	1,000 Pinks Few chums	Fresh pinks
	8/6	Entire stream	200 chums 4,000 pinks	Light very poor--estimate may not be accurate. Fish at least 1/8 mile up from mouth. Chums old, pinks fresh.
	8/13	Entire		No new fish since survey on 8/6. 600 to 800 pinks entered creek each day up till 8/9 then no new fish.

Stream or Lake	Date	Distance Surveyed	Counts	Remarks
Mallard Bay Stream No. 24	8/27	4 mi.	4,845 Alive Pinks 1,406 Dead " 0 Alive Chums 5 Dead "	Complete foot survey. About 3½ miles up stream we found the creek branches into 3 different creeks--the main stream is to the right,,but all had fish. 595 fish were counted in the three streams (branches). One stream on the left runs back into the middle stream ¼ mile from where they first branch out. Escapement for this stream rated poor to fair this year.

Entrance to Tutka Bay Lagoon

SUMMARY AND COMMENTS ON
1954 COOK INLET SALMON
RUNS AND ESCAPEMENT

The following are general comments based on both observations of abundance in the fishery and in the watersheds. In the case of kings, escapement figures are sparse and sketchy. The rating given kings is based primarily on observations in the fishery.

Species	Ratings and Comments
KINGS	Fair — Kings were less abundant this year than at any time in recent years. In spite of a very intense set net fishery on the north west shore of the Inlet, the smallest pack of kings since 1946 was taken. Drift boat catches of kings in mid June could never be rated better than fair. What reliable survey was gathered shows a fair to good escapement of kings into the upper west shore watersheds and poor escapement in the four king streams on the Kenai Peninsula.
REDS	Good to very good — As a general statement reds were more abundant in the fishery than at any time since 1951. Catches by drift boats in mid July were the best since a check of these catches per day began in 1951. Runs of reds into the Kasilof and Kenai systems were particularly good although the total spawners in the Kenai does not measure up to some previous years. As an exception to the generally optimistic picture of red abundance, Fish Creek, by weir count had the poorest run on record.
CHUMS	Excellent in the upper Inlet, fair to good in the lower Inlet — Chums were abundant from early July till about August 3rd in the upper Inlet. The upper Inlet run was in fact the best run of chums in recent years and a new record pack for this species was achieved. Surveys indicate good to excellent escapement of chums in all upper Inlet watersheds. In the lower Inlet, with the exception of the very important Rocky River system, chums were generally abundant. The new chum season, July 12th to 17th, proved profitable for seine boats fishing there in preference to fishing reds in the upper Inlet. Escapement of chums in the lower Inlet was generally good.

Species	Ratings and Comments
PINKS	Excellent in the upper Inlet, very poor in the lower Inlet -- By any measure, pinks were more abundant in upper Cook Inlet than at any time for which we have a reliable record. An all time record pack of 135,353 cases of pinks was taken in spite of the fact that the lower Inlet contributed far less than average to this total. Both east and west shore upper Inlet watersheds had pinks far in excess of what would be ordinarily rated excellent escapement. In contract to upper Inlet pink abundance, the entire lower Inlet receives a positive rating of very poor. Fishermen seining in the Port Dick, Windy Bay and Rocky Bay areas rated their catches the worst on record. Not one of the important spawning areas received even a satisfactory number of pinks in spite of the very small take by the commercial fishery. Based on escapement, the even year cycle of pinks in the outer district should support no commercial fishery in 1956.
COHOS	Fair to good -- This species is difficult to rate since far more cohos are available than are utilized by the present fishery. Cohos were in very fine abundance in the upper Inlet in late July and better than average numbers were taken by set nets in the area from west forelands to the Susitna River. Again in the fall season fair to good catches were taken in set nets on east shore beaches. No reliable escapement data was recorded for this species.

RECOMMENDATIONS FOR REGULATION CHANGES

Shuman's memo dated June 28, 1954, stated that the Service hopes to prepare 1955 regulations with a "minimum of changes". I must preface these recommendations, therefore, with this clearcut statement: Cook Inlet could be satisfactorily managed in 1955 with only the regular odd year season ending changes made in the present Regulatory Announcement 42. If for some valid reason, the service feels a "no change" policy should be adopted here, our announcement of proposed changes for Cook Inlet could follow this line. As difficult as needed changes will be under our present limited authority, I can easily understand how this approach may ultimately be adopted. I should point out, however, that a "no change" policy for Cook Inlet gives little cognizance to the real and immediate problems here; no consideration to more problems now developing.

I recommend:

A general gear curtailment program for Cook Inlet to take effect in 1955. Every conceivable approach to this program has apparently been discussed in the past two years without any fully satisfactory conclusion. I recommend the curtailment take this form:

(1) Separate all set nets to a distance of 900 feet.

(2) Close all West shore beaches to set net fishing which are not occupied this year. This would include most of the beach line in Redoubt Bay from a point two miles South of Kustatan River to a point two miles North of Harriet Point.

(3) Restrict all drift gill net fishing after July first each year to the area South of the Southernmost point on Kalgin Island.

(4) Separate all Cook Inlet traps to a distance of one statute mile and eliminate the additional traps necessary to constitute 50% of the total trap catching potential. Eliminate specifically F.I.P. Seldovia No. 2 trap near Point Naskowhak as part of this trap curtailment.

(5) Decrease the total drift gill net length per boat to 125 fathoms and consider also the advisability of increasing the total aggregate length of set nets to be used by any one person to 125 fathoms. This would in effect not add any fishing intensity on the beach, but would quell the gear fight between set nets and drift gear and nullify the perennial argument by set net fishermen that we are favoring drift boats by allowing them more gear.

(6) Increase the total open period per week after July first from 48 hours to 72 hours. The open periods to be noon Monday to noon Tuesday, noon Wednesday to noon Thursday and Noon Friday to noon Saturday.

Justification:

As a general statement, gear curtailment for this area can be justified simply on the basis of manageability. The total fathoms of red set nets have increased on Cook Inlet beaches from 29,625 fathoms in 1951 to 49,667 fathoms this year. The 49,667 fathoms registration figure for this year may be slightly exaggerated since a few set netters registering gear this year have been unable to find enough contiguous open beach to use a full legal limit of gear. Nevertheless, in three years time, the gear on the beach has virtually doubled. A somewhat obscure but important point in considering the necessity for gear curtailment is this: The number of set net sites will continue to increase here as long as any beach line is open regardless of the fact that drift fishing seems to be fishing traps and set nets out of business. This is true primarily because each year a greater majority of fishermen on Cook Inlet beaches are strictly "part time" fishermen. They are men and women whose chief source of income is not obtained from fishing. Many consider set net fishing a paid vacation. The recruitment of new fishermen has come almost exclusively from this group, and recruitment will continue. Seton Thompson predicted early this spring that the number of drift units fishing Cook Inlet would decrease again this year--he was right. Nevertheless, the number of boats fishing here is largely a function of salmon abundance in adjacent districts. Had the number of drift units risen to 400, as I expected it would, we would have needed to cut the Cook Inlet fishing week in mid July below the already restrictive 48 hour week. We may anticipate just such a development, perhaps next year, if no gear curtailment program is enacted. The industry and fishermen's groups should be made aware of this possibility.

The 72 hour week, in three separate 24 hour periods, if proposed, will meet some opposition from set net fishermen. Drift fishermen would prefer this arrangement. I favor this punctuating of open periods because it would lend itself most easily to time adjustment and also allow packers here to arrange their canning operations most efficiently.

The 900 foot separation for set nets is obviously an arbitrary figure as is the drift restriction line. However, based on my own observations each restriction would accomplish the purpose intended and we need some figure to work from.

The recommendation to close F.I.P. Company trap, "Seldovia No. 2", is based on its proximity to Seldovia Bay. The pink run to this bay is fished down to a very low level of productivity. It seems obvious that this trap fishes at least primarily from pinks headed for upper Seldovia Bay--the entire upper Bay is closed to seining--the trap should be closed if it can be easily included in a general gear curtailment program.

Paramount in the thinking on gear curtailment is this: If we announce proposals for gear curtailment, these proposals must be specific. Our proposal can naturally be strictly tenative, and stated as such, but a general working proposal naming no figures simply promotes confusion.

Seasons:

As mentioned, only the regular odd year closing date changes are needed. The special outer district chum season which began this year, worked very nicely and should be continued. The dates July 12th to July 17th are satisfactory. No change is needed in fall season dates.

Beach Seines:

I recommend we delete the words "Anchor Point light" in Section 109.4a, and replace them with the words "Cape Starichkof".

Justification:

This matter was discussed in some detail with George Kelez on his recent visit to Anchorage. As pointed out to Mr. Kelez the line prohibiting beach seines in the upper Inlet was rather arbitrarily set when it became a regulation. At that time we did not give due consideration to the fact that at times some beach seining is normally carried on in Chinitna Bay. As a matter of fact, this is the only feasible way to take pinks and chums in that area since we have essentially clear water as far North as Cape Starichkof. Gill nets would be very ineffective in the Chinitna Bay area. In watching what fishery does develop along the West shore of Cook Inlet from Snug Harbor South to the closure which begins at Tignagvik Point, this is the situation:

At times relatively large numbers of chums move in Ursus Cove, Illiamna Bay, Iniskin Bay and Chinitna Bay. Most of these are transient fish. Beach seines are used effectively occasionally. Actually for the past two years (1952 and 1953) very little fishing was done in this region. This year large numbers of chums moved into Chinitna Bay and other adjacent Bays to the South and were taken in beach seines. By present regulations what beach seining was done in Chinitna Bay this year was illegal. The original line closing Chinitna Bay to beach seining was arbitrary--beach seining should be allowed in this area.

Shellfish:

I recommend: (1) A closed season for commercial fishing of Cook Inlet king crabs November 15 to May 15. (2) Establishment of a yearly quota of 1,500,000 pounds (raw weight) for Cook Inlet until we can determine that the local fishery will produce this quantity on a sustained yield basis.

Justification:

More evidence gathered this year indicates crabs are in soft shell stages from late November till at least mid May. A sizeable number of crabs were wasted in the lower Inlet this year from March till June 10th, because they were brought in and found to be unacceptable to shellfish operators. Whereas the time of soft shell stages varies considerably from year to year, fishermen and shellfish packers alike agree that Inlet king crabs are not really prime until mid-summer. The weight difference between crabs of similar size in March

and July is often two to one. Meat recovery from crabs taken in March or April runs about 17%. In July or August this recovery may run 27%. One local operator, the Alaska Fresh Company, was forced to pay fishermen for crabs on the basis of meat recovery this spring since the percentage of meat recovery made any other proposition a poor business venture.

Many crabs sold on the Anchorage fresh market this spring were not worth carrying home. These crabs, handled by local truckers, were not saleable through regular shellfish companies. This practice will continue if no season is placed on commercial crab fishing. The point is, crabs should be harvested when they will yield the prime product in the greatest quantity.

Noon to noon opening and closing hours for commercial fishing:

This matter has been discussed many times with Regional and Central office officials. It is difficult to understand the opposition to this proposal when practically everyone favors the idea. The only objection voiced to date was that time adjustments might be more difficult with noon to noon hours in effect. A review of the past five years of management here shows that on no occasion to date would noon to noon hours have made time adjustments more difficult. I again recommend this change for Cook Inlet only, on a trial basis. The following is a statement submitted last year to justify this recommended change:

"For several years throughout Region 6, various FWS employees have mildly suggested that the 6:00 a.m. and 6:00 p.m. opening and closing hours for commercial fishing periods might be better set at 10:00 a.m., or 12:00 o'clock noon. These progressive suggestions were not made without solid justification. Especially in the early and late season here in Cook Inlet, noon to noon hours would be definitely preferable. The statutory 36-hour weekend closure poses no particular problem in drafting changes in opening or closing hours, since practically all Alaskan areas are now fished far less than the original maximum 132 hour week.

Justifications for a change to noon to noon fishing hours may be catagorized as follows: (1) Enforcement workability. As the hours now stand, prevailing weather conditions work decidedly in favor of fishermen who may wish to begin fishing four to six hours early, or continue fishing two to three hours late. Typically, in lower Cook Inlet, we have advection fog and low scud in late July and August, from about 1:00 a.m. to about 9:00 or 10:00 a.m. Effective patrol is often impossible during this time. Ordinarily, by 10:00 a.m. each day, our boats and plane can cover the area thoroughly. Since fishing legally begins at 6:00 a.m., the "early fishermen" run little risk having illegally caught fish aboard in the early morning. Trap watchmen often can remove seals several hours early when this prevailing low fog condition exists. A complete check of traps may be impossible during the hours from 4:00 a.m. to 6:00 a.m.; the check would be relatively simple two hours before noon, after the fog has "burned off". If the season opening hour were 12:00 noon, the number of fishermen willing to risk early fishing would be definitely reduced.

Obscure as it may seem, a definite beneficial psychological advantage is involved. The fact that probably no other piece of gear will fish early or late tends to make "Mr. Average Fisherman" feel, short as the hours may be, that he is at least on an equal plane with his fellow mariners. Violations, or even rumors of violations, breeds contempt for our Service. "Early or late" fishing is now prevalent, at least when weather conditions are ideal to foster it. I believe noon to noon fishing would help reduce this particular infringement.

(2) Equipment Utility. This particular subject has been discussed thoroughly with fishermen, packers and our own employees for the past three years. Packers and fishermen apparently have no objection to noon to noon hours. Some operators even feel July fish spoilage would be reduced by noon to noon fishing. FWS aircraft men all favor this change and note that our patrol plane ordinarily leaves Anchorage, Kenai, Seldovia or wherever it has been based about 4:00 a.m., with the season opening hour as it now stands. When any last minute equipment trouble develops at this hour, there is only the pilot, myself, and perhaps an Enforcement Agent to work on the plane. With a noon opening, the entire aircraft crew would be available. From certain bases, fuel, oil and supplies sometimes needed just prior to take-off are available at 8:00 or 9:00 a.m., but not available at 3:00 or 4:00 a.m. FWS boat operators constantly bring up parallel situations.

(3) Safety. The definite safety factor involved should not be overlooked. Our planes and boats, at present, are required to run in semi-darkness day after day. We will always have a considerable amount of night and early morning running, but under present conditions this movement of our equipment at a time of maximum risk is over emphasized, without any natural reason. No doubt, if noon to noon hours are adopted, it would be preferable, eventually, to adopt them throughout Alaska. I suggest we at least enact this change for Cook Inlet next year on a trial basis."

I cannot conclude these recommendations without noting the following: Unquestionably the most advisable and orderly way to solve the problem of "too much gear and too little control" is through changes in basic legislation. We need area licensing for Alaska, and we need several other basic changes which require Congressional action. Certainly the matter of defining the rights of beach fishermen as regards to fishing locations is the "Gordian Knot" in legislation. We are on questionable grounds in our personal use regulation authority. The 36 hour statutory weekly closure serves no useful purpose now, in spite of the fact that our season openings and closures are built around this outdated statute. I only hope when the time comes to draft these basic changes that I may serve in this work. This is a matter of primary interest to me.

RECOMMENDATIONS FOR COOK INLET
OUTER DISTRICT SEASONS 1956

The early chum season which began July 12th and closed July 17th in 1954 is very satisfactory. For 1955 and 1956 at least, I recommend these dates be continued. In 1956, the outer district should have no regular pink salmon season. Ordinarily, the outer district would be opened on July 25th until August 8th in 1956. I recommend the outer district be closed for the entire period after July 17th in 1956.

Justification: Escapement data speaks for itself. Our surveys were accurate and complete in the outer district in 1954 and pink escapement was so very poor that it is impossible to justify any further fishing of even year pinks in the outer district for at least one cycle. Poor escapement in 1954 did not result primarily from over fishing--there were just very few pinks in the area in 1954.

COOK INLET RED SALMON TAGGING 1954

Since a complete detailed report of the Cook Inlet tagging program is being prepared by Fishery Research Biologist, Carl Elling, only a few general comments seem pertinent here.

The drum seiner "Memento" completing a set in mid Inlet. Tagging crew standing by ready to begin work. July 1954

First of all, this program was set up with the basic idea in mind that, if nothing else was accomplished, at least we could learn whether or not reds could be successfully tagged from a seine boat in mid Inlet.

Second, no attempt was made, the first year, to carry on a tagging program as large as would be advisable considering the problem involved.

Third, Carl Elling planned the entire project and it was carried out in an efficient systematic manner. To him and the Pacific Salmon Investigation group goes all the credit for this work.

Fourth, considering the success of this years work, and the importance of this kind of data in guiding our management policies, we should continue with tagging in 1955.

Fifth, some specific data on lower Inlet pink salmon is badly needed to serve as a basis for regulations. Tagging of pinks with a seiner just north of English Bay would give us this information. This work could and definitely should be included in next years tagging program.

The following is information taken from a preliminary report on the tagging program submitted by Elling. The data includes all recoveries turned in up to September 10th. Rates of migration had not been completed at this time, but will naturally be completed in the final report on this program.

Commercial Fishery Recovery Data:

Number tagged:	1,473
Number recovered:	373
Percent recovery:	25.3

Recovery by gear:	Recoveries	Percent
Drift gill net	119	31.9
Set net	158	42.4
Trap	87	23.3
Unknown	9	2.4
	373	100.0

The disperaion of tag recoveries indicate a strong north easterly movement to Salamato, upper Inlet (north of Forelands), and Kalifonski Beaches. By count, 88 recoveries were made on Salamato Beach, 55 on beaches north of the Forelands, and 35 on Kalifonski beach. There was apparently very little migration to the south and west of the points of tagging.

Stream Recovery Data:

A total of 69 tags were observed or recovered in Cook Inlet spawning areas. This represents 4.7 percent of the total tagged. Tagged red salmon were observed in the following systems:

Susitna River: Skwentna River
Shell Lake
Judd Lake
Talachulitna Creek
Upper Talachulitna Creek

Little Susitna River: Nancy Lake
Nancy Creek
Lake Creek

Fish Creek: Meadow Creek
Blodgett Lakes

Bishop Creek

Kenai River: Moose Creek
Russian River

Kasilof River: Bear Creek
Moose Creek

The stream recoveries again indicate a rather wide dispersion to the north and east from point of tagging. No tags have been observed in west side spawning areas or in the English Bay system which is the only known major red salmon producer in the south end of Cook Inlet. As mentioned previously, present stream survey activity may add to the present picture of dispersal on the spawning grounds. The important observation for the present is that the dispersal is not to any particular spawning section of the Inlet, but rather to a number of widely scattered points. We, of course, are in no position to assess the intensity of that dispersion in the present preliminary summary.

Aboard the "Memento"
Salmon being *held ready
for tagging. July 1954

* One of the strongest points in favor of using a drum seiner for tagging is the manner in which salmon can be handled. Tagging mortality is held to a minimum.

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