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STATE OF ALASKA
Jay S. Hammond, Governor

BRISTOL BAY SOCKEYE SALMON (*Oncorhynchus nerka*) 1972

A Compilation of Catch and Escapement Data

Compiled and Edited by:
Paul Krasnowski and Richard Randall

1975

ALASKA DEPARTMENT OF FISH AND GAME
Subport Building, Juneau, Alaska 99801

James W. Brooks
Commissioner

ADF&G TECHNICAL DATA REPORTS

This series of reports is designed to facilitate prompt reporting of data from studies conducted by the Alaska Department of Fish and Game, especially studies which may be of direct and immediate interest to scientists of other agencies.

The primary purpose of these reports is presentation of data. Description of programs and data collection methods is included only to the extent required for interpretation of the data. Analysis is generally limited to that necessary for clarification of data collection methods and interpretation of the basic data. No attempt is made in these reports to present analysis of the data relative to its ultimate or intended use.

Data presented in these reports is intended to be final, however, some revisions may occasionally be necessary. Minor revision will be made via errata sheets. Major revisions will be made in the form of revised reports.

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Paul Krasnowski
Alaska Department of Fish and Game
Division of Commercial Fisheries
Anchorage, Alaska

and

Richard Randall
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INTRODUCTION

This publication is the tenth in a series intended to present annual catch and escapement statistics for the Bristol Bay sockeye salmon fishery.

Personnel of the Alaska Department of Fish and Game, Division of Commercial Fisheries collected all data and aged all scales for both the catch and escapement. Final catch data was compiled from fish tickets by the Department's Statistics Section. Age-weight-length data collected by field crews, was card punched by the Data Processing Division of the Alaska Department of Administration. Final tabulation of catch, escapement, and A-W-L data was accomplished by Jerry Hautamaki of the University of Washington Computer Center in Seattle under contract to the Alaska Department of Fish and Game.

METHODS AND MATERIALS

The data used in this report were collected by field crews and catch samplers stationed at counting towers and selected canneries throughout Bristol Bay. Figure 1 shows the approximate locations of these projects.

Each sampling station was supplied with a measuring board or calipers, gum cards, weighing scales, and forms for the compilation of sex, age, weight and length data. Length measurements were recorded to the nearest millimeter and weights to the nearest one-tenth of a pound. Scale samples were placed on numbered gum cards to be pressed to form plastic impressions suitable for age determination.

Catch sample sizes were based on statistical analysis of past sampling efforts which indicated that a 300-fish sample per fishing period was valid for age and sex data. Each period sample was spread out as much as possible among delivering scows. Escapement samples were of similar size, evenly distributed over the days.

Escapement enumeration of sockeye salmon was conducted on nine river systems in Bristol Bay in 1972. These were the Kvichak, Branch, Naknek, Egegik, Ugashik, Wood, Igushik, Nuyakuk and Togiak. Because of extremely high and turbid water conditions, the escapement for the Nushagak-Mulchatna was estimated using previous escapement data and the ratio between the Nushagak and Nuyakuk sockeye escapements. Aerial surveys were used to estimate sockeye salmon escapement into the Snake River and the Togiak tributaries. Escapement counts were made from towers located on the banks of the rivers.

Counts are conducted for ten minutes on each bank, each hour. The counts are expanded to estimate hourly escapements and the expanded counts are summed to determine the daily escapement total.

Age designation in this report follows the Gilbert-Rich notation.

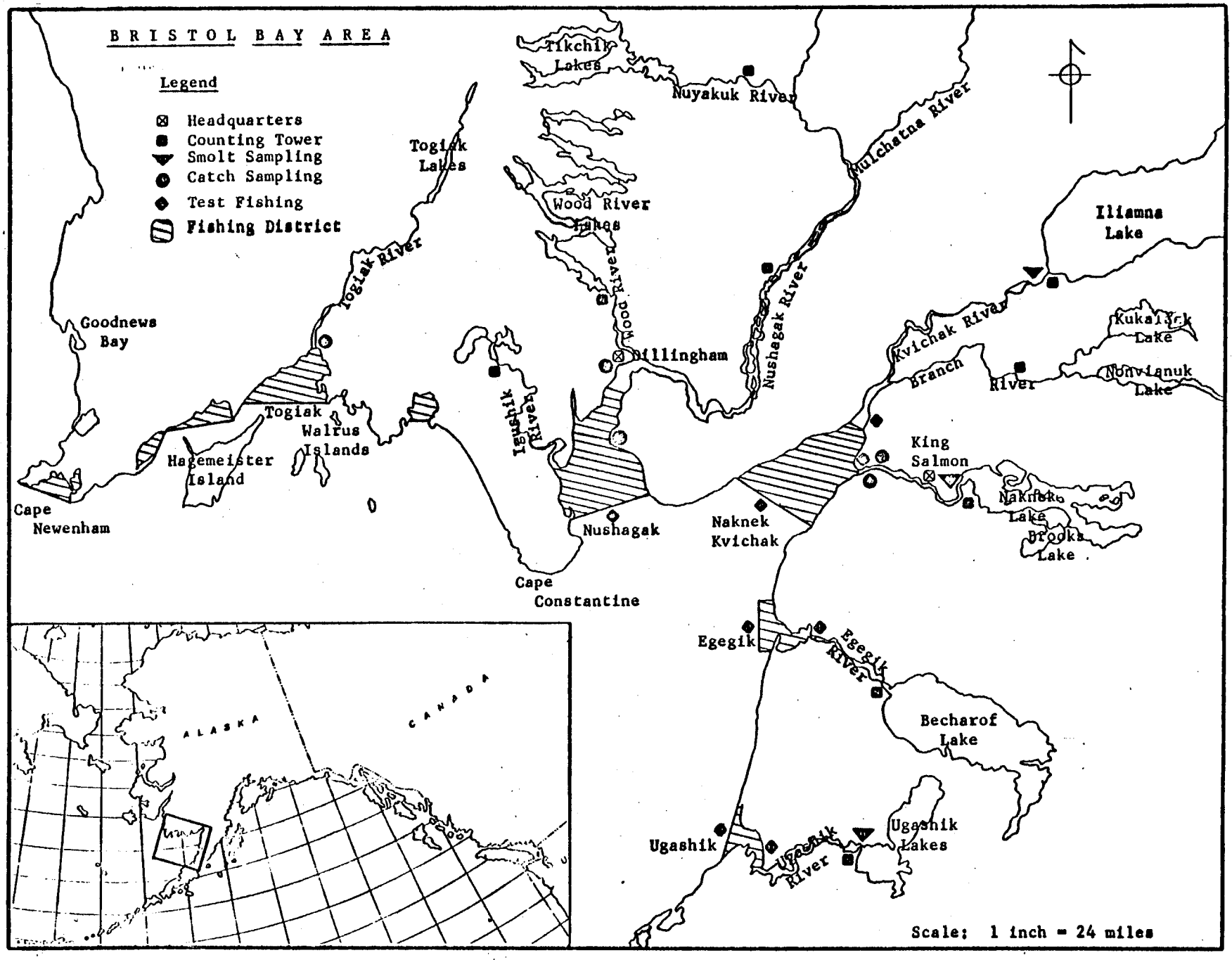

Figure 1. Approximate locations of catch sampling and counting towers, Bristol Bay, 1972.

TABLE 1 BRISTOL BAY SOCKEYE SALMON INSHORE RETURN, BY RIVER, 1972

SYSTEM	CATCH	ESCAPEMENT	TOTAL RETURN
KVICHAK RIVER	342,150	1,009,962	1,352,112
NAKNEK RIVER	728,302	586,518	1,314,820
BRANCH RIVER	31,913	151,188	183,101
SUB-TOTAL NAKNEK-KVICHAK DISTRICT	1,102,365	1,747,668	2,850,033
EGEGIK RIVER	839,820	546,402	1,386,222
UGASHIK RIVER	17,440	79,428	96,868
IGUSHIK RIVER	97,038	60,018	157,056
WOOD RIVER	156,458	430,602	587,060
NUYAKUK RIVER	117,880	28,596	146,476
SNAKE RIVER	868	2,000	2,868
NUSHAGAK-MULCHATNA RIVER	9,103	7,434	16,537
SUB-TOTAL NUSHAGAK-IGUSHIK DISTRICT	381,347	528,650	909,997
TOGIAK RIVER	75,261	74,070	149,331
TOTAL BAY	2,416,233	2,976,218	5,392,451

TABLE 2 BRISTOL BAY SOCKEYE SALMON RETURN, AGE GROUP BY RIVER SYSTEM, NUMBER, 1972

RIVER	AGE GROUP 31	32	41	42	51	52	53	62	63	64	73	74	TOTAL
KVICHAK	--	--	--	238,165	--	187,375	660,556	--	265,521	--	--	494	1,352,112
NAKNEK	--	--	--	123,429	--	430,408	326,028	416	433,656	--	--	883	1,314,820
BRANCH	--	--	--	103,017	--	34,972	37,205	--	7,854	--	--	53	183,101
SUB-TOTAL NAKNEK-KVICHAK	--	--	--	464,611	--	652,756	1,023,789	416	707,031	--	--	1,430	2,850,033
EGEGIK	--	--	--	33,135	--	177,242	541,018	1,201	612,795	6,087	1,078	13,666	1,386,222
UGASHIK	--	28	--	11,707	--	34,701	35,484	295	14,653	--	--	--	96,868
IGUSHIK	--	--	460	71,272	--	64,386	12,589	210	8,139	--	--	--	157,056
WOOD	--	--	--	367,889	--	117,796	57,744	1,830	40,711	--	--	1,090	587,060
NUYAKUK	1,403	108	2,216	23,149	--	105,032	933	1,633	12,002	--	--	--	146,476
SNAKE	--	--	--	1,712	--	672	271	--	213	--	--	--	2,868
NUSHAGAK-MULCHATNA	170	--	3,610	713	--	9,506	--	2,538	--	--	--	--	16,537
SUB-TOTAL NUSHAGAK-IGUSHIK	1,573	108	6,286	464,735	--	297,392	71,537	6,211	61,065	--	--	1,090	909,997
TOGIAK	154	--	999	44,547	61	80,033	14,554	1,266	7,578	108	61	--	149,331
TOTAL BAY	1,727	136	7,285	1,018,735	61	1,242,094	1,686,382	9,389	1,403,122	6,195	1,139	16,186	5,392,451

TABLE 3 BRISTOL BAY SOCKEYE SALMON RETURN, AGE GROUP BY RIVER SYSTEM, PERCENT, 1972

RIVER	AGE GROUP 31	32	41	42	51	52	53	62	63	64	73	74	TOTAL
KVICHAK	--	--	--	17.61	--	13.86	48.85	--	19.64	--	--	.04	25.07
NAKNEK	--	--	--	9.39	--	32.73	24.80	.03	32.98	--	--	.07	24.38
BRANCH	--	--	--	56.26	--	19.10	23.32	--	4.29	--	--	.03	3.39
SUB-TOTAL NAKNEK-KVICHAK	--	--	--	16.30	--	22.90	35.92	.02	24.81	--	--	.05	52.54
EGEGIK	--	--	--	2.39	--	12.78	39.03	.09	44.21	.44	.08	.98	25.71
UGASHIK	--	.03	--	12.09	--	35.82	36.63	.30	15.13	--	--	--	1.80
IGUSHIK	--	--	.29	45.38	--	41.90	8.02	.13	5.18	--	--	--	2.91
WOOD	--	--	--	62.67	--	20.06	9.84	.31	6.93	--	--	.19	10.89
NUYAKUK	.96	.07	1.51	15.80	--	71.71	.64	1.12	8.19	--	--	--	2.72
SNAKE	--	--	--	59.69	--	23.43	9.45	--	7.43	--	--	--	.05
NUSHAGAK-MULCHATNA	1.03	--	21.83	4.31	--	57.48	--	15.35	--	--	--	--	.31
SUB-TOTAL NUSHAGAK-IGUSHIK	.18	.01	.69	51.07	--	32.68	7.86	.68	6.71	--	--	.12	16.88
TOGIAK	.10	--	.67	29.83	.04	53.57	9.75	.85	5.08	.07	.04	--	2.77
TOTAL BAY	.03	--	.14	18.89	--	23.03	31.27	.18	26.02	.12	.02	.30	100.00

TABLE 4 BRISTOL BAY SOCKEYE SALMON RETURN, OCEAN AGE GROUP BY RIVER, NUMBER AND PERCENT, 1972

SYSTEM	OCEAN AGE GROUP 1	2	3	4	TOTAL
KVICHAK					
NUMBER	--	898,721	453,391	--	1,352,112
PERCENT	--	66.47	33.53	--	25.07
NAKNEK					
NUMBER	--	449,457	864,947	416	1,314,820
PERCENT	--	34.18	65.79	.03	24.38
BRANCH					
NUMBER	--	140,222	42,879	--	183,101
PERCENT	--	76.58	23.42	--	3.39
SUB-TOTAL NAKNEK-KVICHAK					
NUMBER	--	1,488,400	1,361,217	416	2,850,033
PERCENT	--	52.22	47.76	.02	52.84
EGEGIK					
NUMBER	--	580,240	803,703	2,279	1,386,222
PERCENT	--	41.86	57.98	.16	25.71
UGASHIK					
NUMBER	28	47,191	49,354	295	96,868
PERCENT	.03	48.72	50.95	.30	1.80
IGUSHIK					
NUMBER	--	83,861	72,985	210	157,056
PERCENT	--	53.40	46.47	.13	2.91
WOOD					
NUMBER	--	425,633	159,597	1,830	587,060
PERCENT	--	72.50	27.19	.31	10.89
NUYAKUK					
NUMBER	108	25,485	119,250	1,633	146,476
PERCENT	.07	17.40	81.41	1.12	2.72
SNAKE					
NUMBER	--	1,983	885	--	2,868
PERCENT	--	69.14	30.86	--	.05
NUSHAGAK-MULCHATNA					
NUMBER	--	883	13,116	2,538	16,537
PERCENT	--	5.34	79.31	15.35	.31
SUB-TOTAL NUSHAGAK-IGUSHIK					
NUMBER	108	537,845	365,833	6,211	909,997
PERCENT	.01	59.11	40.20	.68	16.88
TOGIAK					
NUMBER	--	59,363	88,580	1,388	149,331
PERCENT	--	39.75	59.32	.93	2.77
TOTAL BAY					
NUMBER	136	2,713,039	2,668,687	10,589	5,392,451
PERCENT	--	50.31	49.49	.20	100.00

TABLE 5. Bristol Bay emergency orders by district, 1972.1/

NAKNEK-KVICHAK DISTRICT

E.O. No.	Date and Time		Hours Open
5	June 25 9 am	- June 26 9 am	24
9	June 28 11 am	- June 29 11 am	24
14	July 2 2 pm	- July 3 2 am	12
20 2/	July 7 7 pm	- July 8 7 am	12

UGASHIK DISTRICT

E.O. No.	Date and Time		Hou Ope
6	June 27 11 am	- June 27 11 pm	1
11	June 30 11 pm	- July 1 11 pm	[illegible]
17	July 6 6 pm	- July 7 6 pm	
25	July 11 10 am	- July 11 10 pm	

EGEGIK DISTRICT

E.O. No.	Date and Time		Hours Open
5	June 24 7 am	- June 25 7 am	24
8	June 27 11 am	- June 28 11 am	24
12	July 1 1 am	- July 1 1 pm	12
15	July 3 3 pm	- July 4 3 am	12
16	July 4 3 am	- July 4 3 pm	12
19	July 7 5 am	- July 7 5 pm	12
22	July 8 7 pm	- July 17 9 am	206

NUSHAGAK DISTRICT

E.O. No.	Date and Time		Hc Op
2	June 16 9 am	- June 17 9 am	24
3	June 19 9 am	- June 21 9 am	48
4	June 22 9 am	- June 24 9 am	48
7	June 26 11 am	- June 27 11 am	24
10	June 28 Noon	- June 29 Noon	24
13	July 2 4 am	- July 2 4 pm	12
21 3/	July 8 8 am	- July 9 8 am	24
23 4/	July 9 10 pm	- July 10 10 am	12

TOGIAK DISTRICT 5/

TOGIAK RIVER SECTION

E.O. No.	Date and Time		Hours Closed
24	July 10 9 am	- July 17 9 am	168
26	July 17 9 am	- July 19 9 am	48
27	July 19 9 am	- July 24 9 am	120
28	July 28 9 am	- Aug. 4 9 am	168*

* Hours open to fishery

Osviak-Matogak Sections

E.O. No.	Date and Time
18	Fishery allowed on 7-day-per-week basi until further notice. Effective July 6, 3 pm.
26	Revert back to 5-day-per-week fishery, from 9 am Monday to 9 am Saturday Effective July 22, 9 am.

1/ Emergency order period: Naknek-Kvichak, Egegik, and Ugashik districts - 9 am June 23 to 9 am July 17; Nushagak district - 9 am June 16 to 9 am July 17.
2/ Kvichak section only.
3/ Igushik section only.
4/ Nushagak section only.
5/ Togiak River section open 9 am Monday to 9 am Friday, while Osviak, Matogak, Cape Pierce and Kulukak sections are open 9 am Monday to 9 am Saturday.

NAKNEK-KVICHAK DISTRICT

Gear registration for the district totaled 1,186 units (815 drift units and 371 set units) and, although down from the previous year, it was considerably above levels of the early 1960's. The maximum allowable gear per unit was 150 fathoms for drifters and 50 fathoms for set netters. District boundaries remained unchanged from the previous year.

Run timing appeared normal and peak catches occurred on July 3 but the salmon return to the district was 48% below the forecasted level. The weakness of the run was not detected for certain until July 7 when a 12 hour Kvichak-section-only period produced poor catches. Only four periods totaling 72 hours were permitted in the district during the emergency order period prior to July 4. On June 28-29 a 24-hour period produced a peak catch of 467,000 with 719 units of gear. The total district catch of 1,102,365 was 20% of the 20-year average and accounted for 46% of the total Bristol Bay sockeye catch. Age composition of the catch was 10% 4-year fish, 58% 5-year fish and 32% 6-year fish.

Escapement goals were not achieved in any of the districts' three major river systems. The Kvichak River had an escapement of 1,009,962 and the Naknek River had an escapement of 586,517. The Branch Tower sockeye escapement of 151,188 barely surpassed the lower end of the range of its escapement goal.

The king salmon catch of 2,262 was only 22% of the 20-year average while the chum salmon catch of 115,737 was only 2% below the 20-year average. The coho catch of 402 was 78% below the district average. Pink catches of 57,074 were 12% above this species' exclusively even year catch average.

Sockeye salmon harvested in the Naknek-Kvichak district are caught as mixed stocks. The fish in the catch are apportioned to the individual river systems based on the age and sex composition of the catch samples in comparison with the age and sex composition of the escapement samples in the three river systems. The details of this method are described in McCurdy and Schroeder (1968).

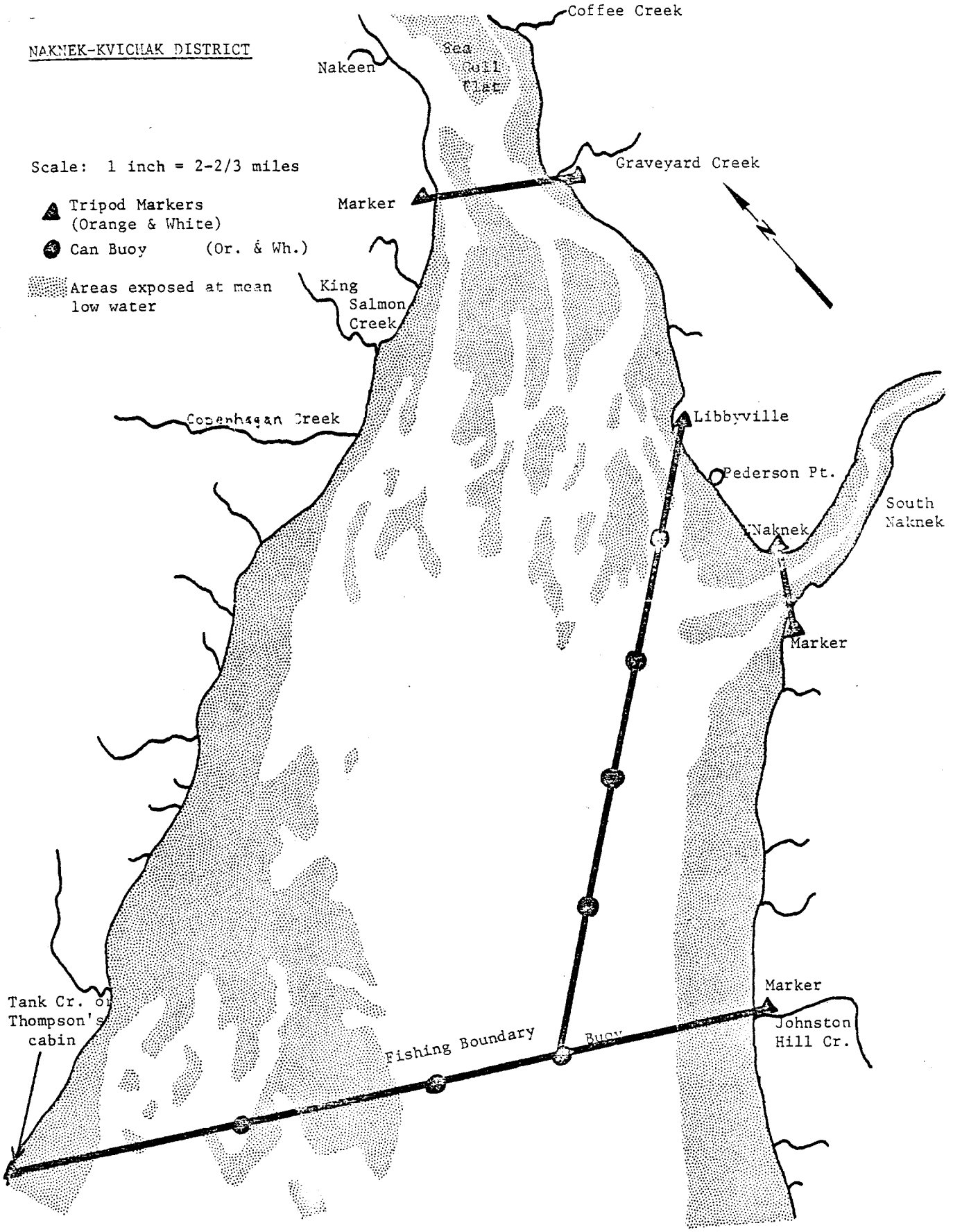

Figure 2. Naknek-Kvichak District commercial fishing boundaries, 1972.

TABLE 6 NAKNEK-KVICHAK DISTRICT INSHORE RUN OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND TOTAL PERCENT, 1972

	AGE GROUP						
	42	52	53	62	63	74	TOTAL
MALES							
ESCAPEMENT	165,998	179,947	351,829	208	184,724	--	882,706
CATCH	82,337	116,488	188,325	--	181,265	1,430	570,345
TOTAL	248,335	296,435	540,654	208	365,989	1,430	1,453,051
PERCENT	17.09	20.40	37.21	.01	25.19	.10	100.00
FEMALES							
ESCAPEMENT	189,532	190,280	313,313	208	171,629	--	864,962
CATCH	26,744	166,041	169,822	--	169,413	--	532,020
TOTAL	216,276	356,321	483,135	208	341,042	--	1,396,982
PERCENT	15.48	25.51	34.58	.02	24.41	--	100.00
SEXES COMBINED							
ESCAPEMENT	355,530	370,227	665,142	416	356,353	--	1,747,668
CATCH	109,081	282,529	358,647	--	350,678	1,430	1,102,365
TOTAL	464,611	652,756	1,023,789	[illegible]		1,430	2,850,033
PERCENT	16.30	22.90				.05	100.00

TABLE 7 KVICHAK RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP						
	42	52	53	62	63	74	TOTAL
CATCH							
MALES							
NUMBER	27,435	24,707	89,692	--	53,002	494	195,330
PERCENT	14.05	12.65	45.92	--	27.13	.25	57.09
FEMALES							
NUMBER	12,345	21,668	82,278	--	30,529	--	146,820
PERCENT	8.41	14.76	56.04	--	20.79	--	42.91
SEXES COMBINED							
NUMBER	39,780	46,375	171,970	--	83,531	494	342,150
PERCENT	11.63	13.55	50.26	--	24.41	.15	100.00
ESCAPEMENT							
MALES							
NUMBER	86,896	80,338	259,049	--	108,210	--	534,493
PERCENT	16.26	15.03	48.47	--	20.24	--	52.92
FEMALES							
NUMBER	111,489	60,663	229,537	--	73,780	--	475,469
PERCENT	23.45	12.76	48.27	--	15.52	--	47.08
SEXES COMBINED							
NUMBER	198,385	141,001	488,586	--	181,990	--	1,009,962
PERCENT	19.64	13.96	48.38	--	18.02	--	100.00
CATCH AND ESCAPEMENT							
MALES							
NUMBER	114,331	105,045	348,741	--	161,212	494	729,823
PERCENT	15.67	14.39	47.78	--	22.09	.07	53.98
FEMALES							
NUMBER	123,834	82,331	311,815	--	104,309	--	622,289
PERCENT	19.90	13.23	50.11	--	16.76	--	46.02
SEXES COMBINED							
NUMBER	238,165	187,376	660,556	--	265,521	494	1,352,112
PERCENT	17.61	13.86	48.85	--	19.64	.04	100.00

TABLE 8 NAKNEK RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP						
	42	52	53	62	63	74	TOTAL
CATCH							
MALES							
NUMBER	45,327	87,366	95,678	--	126,722	883	355,976
PERCENT	12.73	24.54	26.88	--	35.60	.25	48.88
FEMALES							
NUMBER	9,780	141,533	82,772	--	138,241	--	372,326
PERCENT	2.63	38.01	22.23	--	37.13	--	51.12
SEXES COMBINED							
NUMBER	55,107	228,899	178,450	--	264,963	883	728,302
PERCENT	7.57	31.43	24.50	--	36.38	.12	100.00
ESCAPEMENT							
MALES							
NUMBER	41,935	81,971	80,181	208	72,734	--	277,029
PERCENT	15.14	29.59	28.94	.08	26.25	--	47.23
FEMALES							
NUMBER	26,387	119,538	67,397	208	95,959	--	309,489
PERCENT	8.53	38.62	21.78	.07	31.00	--	52.77
SEXES COMBINED							
NUMBER	68,322	201,509	147,578	416	168,693	--	586,518
PERCENT	11.65	34.36	25.16	.07	28.76	--	100.00
CATCH AND ESCAPEMENT							
MALES							
NUMBER	87,262	169,337	175,859	208	199,456	883	633,005
PERCENT	13.79	26.75	27.78	.03	31.51	.14	48.14
FEMALES							
NUMBER	36,167	261,071	150,169	208	234,200	--	681,815
PERCENT	5.30	38.29	22.03	.03	34.35	--	51.86
SEXES COMBINED							
NUMBER	123,429	430,408	326,028	416	433,656	883	1,314,820
PERCENT	9.39	32.73	24.80	.03	32.98	.07	100.00

TABLE 9 BRANCH RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP						
	42	52	53	62	63	74	TOTAL
CATCH							
MALES							
NUMBER	9,575	4,415	3,455	--	1,541	53	19,039
PERCENT	50.29	23.19	18.15	--	8.09	.28	59.66
FEMALES							
NUMBER	4,619	2,840	4,772	--	643	--	12,874
PERCENT	35.88	22.06	37.07	--	4.99	--	40.34
SEXES COMBINED							
NUMBER	14,194	7,255	8,227	--	2,184	53	31,913
PERCENT	44.48	22.73	25.78	--	6.84	.17	100.00
ESCAPEMENT							
MALES							
NUMBER	37,167	17,638	12,599	--	3,780	--	71,184
PERCENT	52.21	24.78	17.70	--	5.31	--	47.08
FEMALES							
NUMBER	51,656	10,079	16,379	--	1,890	--	80,004
PERCENT	64.57	12.60	20.47	--	2.36	--	52.92
SEXES COMBINED							
NUMBER	88,823	27,717	28,978	--	5,670	--	151,188
PERCENT	58.75	18.33	19.17	--	3.75	--	100.00
CATCH AND ESCAPEMENT							
MALES							
NUMBER	46,742	22,053	16,054	--	5,321	53	90,223
PERCENT	51.81	24.44	17.79	--	5.90	.06	49.27
FEMALES							
NUMBER	56,275	12,919	21,151	--	2,533	--	92,878
PERCENT	60.59	13.91	22.77	--	2.73	--	50.73
SEXES COMBINED							
NUMBER	103 [illegible]		37,205	--	7,854	53	183,101
PERCENT			20.32	--	4.29	.03	100.00

TABLE 10 NAKNEK-KVICHAK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	CATCH	NUMBER IN CATCH MALES	NUMBER IN CATCH FEMALES
1	01/01-07/01	406	197	209	48.52	51.48	580,753	281,794	298,959
2	07/02-08/06	517	286	231	55.32	44.68	521,612	288,551	233,061
TOTAL		923	483	440	51.74	48.26	1,102,365	570,345	532,020

TABLE 11 NAKNEK-KVICHAK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 42	52	53	63	74	TOTAL
MALES								
1	01/01-	COUNT	32,900	52,926	92,978	101,560	1,430	281,794
	07/01	PERCENT	11.68	18.78	32.99	36.04	.51	49.41
2	07/02-	COUNT	49,437	63,562	95,847	79,705	--	288,551
	08/06	PERCENT	17.13	22.03	33.22	27.62	--	50.59
COLUMN TOTALS		COUNT	82,337	116,488	188,825	181,265	1,430	570,345
		PERCENT	14.44	20.42	33.11	31.78	.25	100.00
FEMALES								
1	01/01-	COUNT	8,583	94,408	90,117	105,851	--	298,959
	07/01	PERCENT	2.87	31.58	30.14	35.41	--	56.19
2	07/02-	COUNT	18,161	71,633	79,705	63,562	--	233,061
	08/06	PERCENT	7.79	30.74	34.20	27.27	--	43.81
COLUMN TOTALS		COUNT	26,744	166,041	169,822	169,413	--	532,020
		PERCENT	5.03	31.21	31.92	31.84	--	100.00
SEXES COMBINED								
1	01/01-	COUNT	41,483	147,334	183,095	207,411	1,430	580,753
	07/01	PERCENT	7.14	25.37	31.53	35.71	.25	52.68
2	07/02-	COUNT	67,598	135,195	175,552	143,267	--	521,612
	08/06	PERCENT	12.96	25.92	33.65	27.47	--	47.32
COLUMN TOTALS		COUNT	109,081	282,529	358,647	350,678	1,430	1,102,365
		PERCENT	9.90	25.63	32.53	31.81	.13	100.00

TABLE 12 KVICHAK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JUNE 26	0	0	0.00	0.00
27	12	12	0.00	0.00
28	0	12	0.00	0.00
29	0	12	0.00	0.00
30	96	108	.01	.01
JULY 1	42	150	0.00	.01
2	336	486	.03	.04
3	1,080	1,566	.11	.15
4	672	2,238	.07	.22
5	198	2,436	.02	.24
6	204	2,640	.02	.26
7	79,356	81,996	7.86	8.12
8	265,284	347,280	26.27	34.39
9	186,276	533,556	18.44	52.83
10	115,608	649,164	11.45	64.28
11	170,202	819,366	16.85	81.13
12	94,626	913,992	9.37	90.50
13	39,204	953,196	3.88	94.38
14	22,782	975,978	2.26	96.64
15	17,796	993,774	1.76	98.40
16	7,212	1,000,986	.71	99.11
17	2,514	1,003,500	.25	99.36
18	3,312	1,006,812	.33	99.69
19	1,284	1,008,096	.13	99.82
20	696	1,008,792	.07	99.89
21	276	1,009,068	.03	99.92
22	252	1,009,320	.02	99.94
23	288	1,009,608	.03	99.97
24	354	1,009,962	.03	100.00

TABLE 13 KVICHAK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT		PERCENT		ESCAPEMENT	NUMBER IN ESCAPEMENT	
			MALES	FEMALES	MALES	FEMALES		MALES	FEMALES
1	06/26-07/24	616	326	290	52.92	47.08	1,009,962	534,493	475,469

TABLE 14 NAKNEK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JUNE 27	0	0	0.00	0.00
28	882	882	.15	.15
29	6,180	7,062	1.05	1.20
30	45,240	52,302	7.71	8.91
JULY 1	6,270	58,572	1.07	9.98
2	5,370	63,942	.92	10.90
3	16,854	80,796	2.87	13.77
4	70,824	151,620	12.08	25.85
5	109,158	260,778	18.61	44.46
6	95,028	355,806	16.20	60.66
7	80,370	436,176	13.70	74.36
8	35,064	471,240	5.98	80.34
9	28,776	500,016	4.91	85.25
10	27,732	527,748	4.73	89.98
11	15,606	543,354	2.66	92.64
12	13,386	556,740	2.28	94.92
13	9,864	566,604	1.68	96.60
14	4,248	570,852	.72	97.32
15	2,490	573,342	.43	97.75
16	4,434	577,776	.76	98.51
17	4,176	581,952	.71	99.22
18	1,656	583,608	.28	99.50
19	738	584,346	.13	99.63
20	1,008	585,354	.17	99.80
21	492	585,846	.08	99.88
22	378	586,224	.07	99.95
23	294	586,518	.05	100.00

TABLE 15 NAKNEK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	06/27-07/05	444	212	232	47.75	52.25	260,778	124,516	136,262
2	07/06-07/08	445	216	229	48.54	51.46	210,462	102,157	108,305
3	07/09-07/23	554	242	312	43.68	56.32	115,278	50,356	64,922
TOTAL		1,443	670	773	47.23	52.77	586,518	277,029	309,489

TABLE 16 NAKNEK RIVER ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 42	52	53	62	63	TOTAL
MALES								
1	06/27-	COUNT	21,144	25,843	42,876	--	34,653	124,516
	07/05	PERCENT	16.98	20.75	34.43	--	27.83	44.95
2	07/06-	COUNT	13,716	35,944	26,485	--	26,012	102,157
	07/08	PERCENT	13.43	35.19	25.93	--	25.46	36.87
3	07/09-	COUNT	7,075	20,184	10,820	208	12,069	50,356
	07/23	PERCENT	14.05	40.08	21.49	.41	23.97	18.18
COLUMN TOTALS		COUNT	41,935	81,971	80,181	208	72,734	277,029
		PERCENT	15.14	29.59	28.94	.08	26.25	100.00
FEMALES								
1	06/27-	COUNT	10,572	48,749	33,478	--	43,463	136,262
	07/05	PERCENT	7.76	35.78	24.57	--	31.90	44.03
2	07/06-	COUNT	10,405	45,403	20,810	--	31,687	108,305
	07/08	PERCENT	9.61	41.92	19.21	--	29.26	34.99
3	07/09-	COUNT	5,410	25,386	13,109	208	20,809	64,922
	07/23	PERCENT	8.33	39.10	20.19	.32	32.05	20.98
COLUMN TOTALS		COUNT	26,387	119,538	67,397	208	95,959	309,489
		PERCENT	8.53	38.62	21.78	.07	31.00	100.00
SEXES COMBINED								
1	06/27-	COUNT	31,716	74,592	76,354	--	78,116	260,778
	07/05	PERCENT	12.16	28.60	29.28	--	29.96	44.46
2	07/06-	COUNT	24,121	81,347	47,295	--	57,699	210,462
	07/08	PERCENT	11.46	38.65	22.47	--	27.42	35.88
3	07/09-	COUNT	12,485	45,570	23,929	416	32,878	115,278
	07/23	PERCENT	10.83	39.53	20.76	.36	28.52	19.66
COLUMN TOTALS		COUNT	68,322	201,509	147,578	416	168,693	586,518
		PERCENT	11.65	34.36	25.16	.07	28.76	100.00

TABLE 17 BRANCH RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY 5	0	0	0.00	0.00
6	1,758	1,758	1.16	1.16
7	44,874	46,632	29.68	30.84
8	43,188	89,820	28.57	59.41
9	5,856	95,676	3.87	63.28
10	23,544	119,220	15.57	78.85
11	14,340	133,560	9.49	88.34
12	7,410	140,970	4.90	93.24
13	5,778	146,748	3.82	97.06
14	2,022	148,770	1.34	98.40
15	960	149,730	.64	99.04
16	408	150,138	.27	99.31
17	228	150,366	.15	99.46
18	576	150,942	.38	99.84
19	180	151,122	.12	99.96
20	66	151,188	.04	100.00

TABLE 18 BRANCH RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/05-07/20	240	113	127	47.08	52.92	151,188	71,184	80,004

EGEGIK DISTRICT

Total gear registration for the district amounted to 392 units (232 drift nets and 160 set nets) and was down considerably from the previous few years. The maximum allowable gear per net in the district as well as for the remainder of Bristol Bay was 150 fathoms for drifters and 50 fathoms for set netters. District boundaries remained unchanged from the previous year.

Run timing appeared normal and the peak catches occurred on July 3 - 4. The sockeye salmon return to the district was 80% of the forecast but early season catches and test fishing indices indicated the possibility of a stronger run. Based on these early indications two 24-hour and four 12-hour periods were permitted prior to July 8 with continuous fishing allowed thereafter until the end of the emergency order period. The peak period of July 3-4 produced a sockeye catch of 353,000 with 446 units of gear participating. The total district catch of 839,820 was 32% below the 20-year average and accounted for 35% of the total Bristol Bay sockeye catch. Age composition of the catch was 3% 4-year fish, 47% 5-year fish, 48% 6-year fish and 1% 7-year fish.

The run failed to materialize as strong as either the forecast or early season catches indicated might be the case. However, the final escapement of 546,402 fell only slightly short of the 600,000 midpoint of this system's goal.

The king salmon catch of 1,097 was 63% below the 20-year average while the chum salmon catch of 42,172 exceeded the 20-year average by 59%. The coho catch of 1,249 was 60% below the district average. The pink salmon catch in this district is almost negligible in most years.

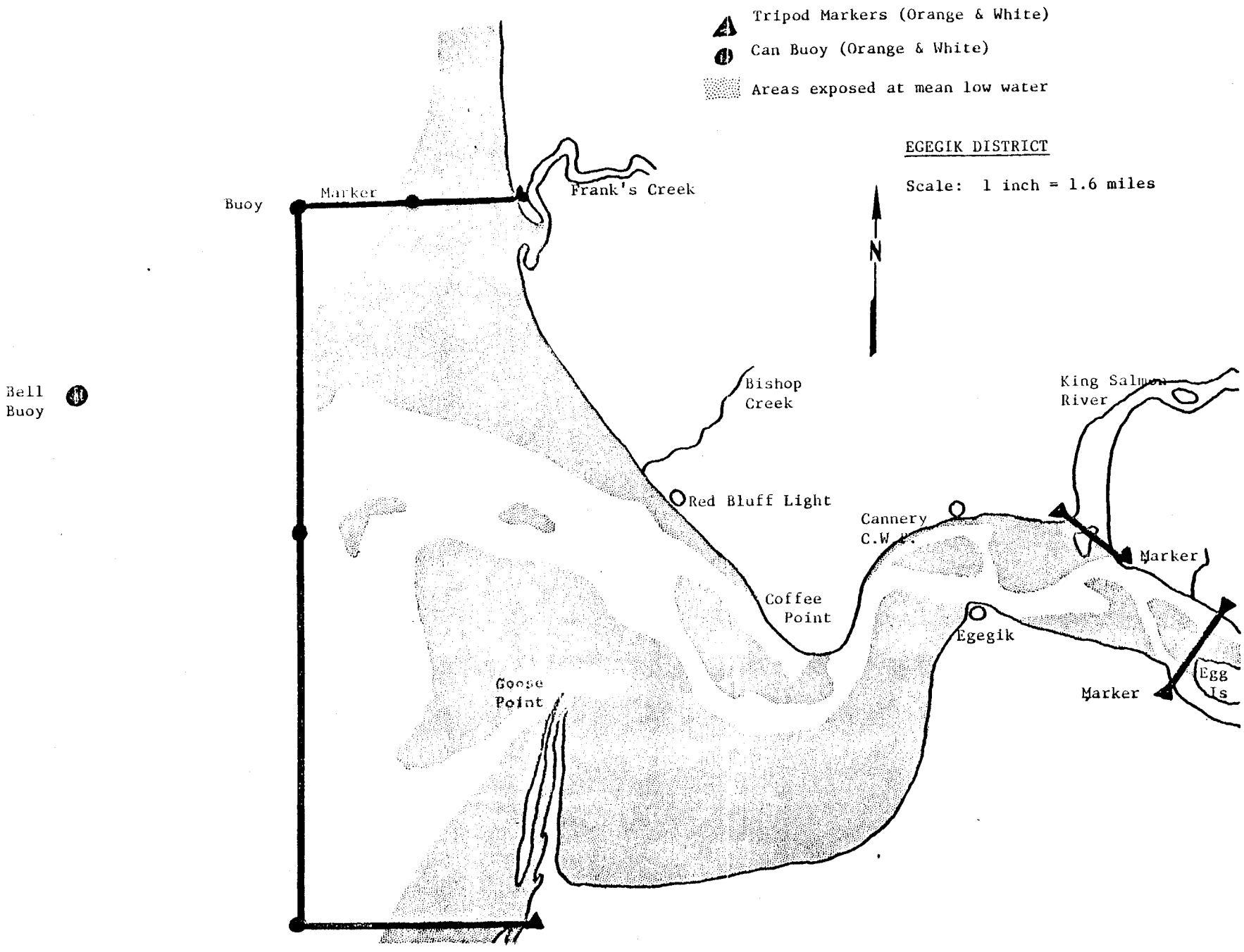

Figure 3. Egegik District commercial fishing boundaries, 1972.

TABLE 19 EGEGIK RIVER CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP								
	42	52	53	62	63	64	73	74	TOTAL
CATCH									
MALES									
NUMBER	16,396	65,426	155,441	1,201	173,575	3,187	539	5,296	421,061
PERCENT	3.89	15.54	36.92	.28	41.22	.76	.13	1.26	50.14
FEMALES									
NUMBER	10,145	64,582	112,645	--	224,059	2,525	539	4,264	418,759
PERCENT	2.42	15.42	26.90	--	53.51	.60	.13	1.02	49.86
SEXES COMBINED									
NUMBER	26,541	130,008	268,086	1,201	397,634	5,712	1,078	9,560	839,820
PERCENT	3.16	15.48	31.92	.14	47.35	.68	.13	1.14	100.00
ESCAPEMENT									
MALES									
NUMBER	4,717	32,639	130,837	--	138,530	375	--	2,464	309,562
PERCENT	1.52	10.54	42.27	--	44.75	.12	--	.80	56.65
FEMALES									
NUMBER	1,677	14,595	142,095	--	76,631	--	--	1,642	236,840
PERCENT	.79	6.16	60.00	--	32.36	--	--	.69	43.35
SEXES COMBINED									
NUMBER	6,594	47,234	272,932	--	215,161	375	--	4,106	546,402
PERCENT	1.21	8.64	49.95	--	39.38	.07	--	.75	100.00
CATCH AND ESCAPEMENT									
MALES									
NUMBER	21,113	98,065	286,278	1,201	312,105	3,562	539	7,760	730,623
PERCENT	2.89	13.42	39.18	.17	42.72	.49	.07	1.06	52.71
FEMALES									
NUMBER	12,022	79,177	254,740	--	300,690	2,525	539	5,906	655,599
PERCENT	1.83	12.08	38.86	--	45.86	.39	.08	.90	47.29
SEXES COMBINED									
NUMBER	33,135	177,242	541,018	1,201	612,795	6,087	1,078	13,666	1,386,222
PERCENT	2.39	12.78	39.03	.09	44.21	.44	.08	.98	100.00

TABLE 20. EGEGIK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	CATCH	NUMBER IN CATCH MALES	NUMBER IN CATCH FEMALES
1	01/01-07/02	620	349	271	56.29	43.71	334,031	188,027	146,004
2	07/03-07/30	764	352	412	46.07	53.93	505,789	233,034	272,755
TOTAL		1,384	701	683	50.14	49.86	839,820	421,061	418,759

TABLE 21 EGEGIK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 42	52	53	62	63	64	73	74	TOTAL
MALES											
1	01/01-	COUNT	6,465	32,325	70,039	539	77,581	539	539	--	188,027
	07/02	PERCENT	3.44	17.19	37.25	.29	41.26	.29	.29	--	44.66
2	07/03-	COUNT	9,931	33,101	85,402	662	95,994	2,648	--	5,296	233,034
	07/30	PERCENT	4.26	14.20	36.65	.28	41.19	1.14	--	2.27	55.34
COLUMN TOTALS		COUNT	16,396	65,426	155,441	1,201	173,575	3,187	539	5,296	421,061
		PERCENT	3.89	15.54	36.92	.28	41.22	.76	.13	1.26	100.00
FEMALES											
1	01/01-	COUNT	4,849	21,550	37,174	--	79,737	539	539	1,616	146,004
	07/02	PERCENT	3.32	14.76	25.46	--	54.61	.37	.37	1.11	34.87
2	07/03-	COUNT	5,296	43,032	75,471	--	144,322	1,986	--	2,648	272,755
	07/30	PERCENT	1.94	15.78	27.67	--	52.91	.73	--	.97	65.13
COLUMN TOTALS		COUNT	10,145	64,582	112,645	--	224,059	2,525	539	4,264	418,759
		PERCENT	2.42	15.42	26.90	--	53.51	.60	.13	1.02	100.00
SEXES COMBINED											
1	01/01-	COUNT	11,314	53,875	107,213	539	157,318	1,078	1,078	1,616	334,031
	07/02	PERCENT	3.39	16.13	32.10	.16	47.10	.32	.32	.48	39.77
2	07/03-	COUNT	15,227	76,133	160,873	662	240,316	4,634	--	7,944	505,789
	07/30	PERCENT	3.01	15.05	31.81	.13	47.51	.92	--	1.57	60.23
COLUMN TOTALS		COUNT	26,541	130,008	268,086	1,201	397,634	5,712	1,078	9,560	839,820
		PERCENT	3.16	15.48	31.92	.14	47.35	.68	.13	1.14	100.00

TABLE 22 EGEGIK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE		DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY	2	0	0	0.00	0.00
	3	36	36	.01	.01
	4	3,192	3,228	.59	.60
	5	498	3,726	.09	.69
	6	70,212	73,938	12.85	13.54
	7	124,416	198,354	22.77	36.31
	8	71,544	269,898	13.09	49.40
	9	82,380	352,278	15.08	64.48
	10	92,298	444,576	16.89	81.37
	11	44,628	489,204	8.17	89.54
	12	41,256	530,460	7.55	97.09
	13	4,446	534,906	.81	97.90
	14	6,360	541,266	1.16	99.06
	15	3,522	544,788	.65	99.71
	16	1,386	546,174	.25	99.96
	17	120	546,294	.02	99.98
	18	108	546,402	.02	100.00

TABLE 23 EGEGIK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/02-07/09	429	227	202	52.91	47.09	352,278	186,404	165,874
2	07/10-07/18	517	328	189	63.44	36.56	194,124	123,158	70,966
TOTAL		946	555	391	56.65	43.35	546,402	309,562	236,840

TABLE 24 EGEGIK RIVER ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 42	52	53	63	64	74	TOTAL
MALES									
1	07/02-	COUNT	2,464	17,244	72,262	91,970	--	2,464	186,404
	07/09	PERCENT	1.32	9.25	38.77	49.34	--	1.32	60.22
2	07/10-	COUNT	2,253	15,395	58,575	46,560	375	--	123,158
	07/18	PERCENT	1.83	12.50	47.56	37.80	.30	--	39.78
COLUMN		COUNT	4,717	32,639	130,837	138,530	375	2,464	309,562
TOTALS		PERCENT	1.52	10.54	42.27	44.75	.12	.80	100.00
FEMALES									
1	07/02-	COUNT	--	8,212	98,539	57,481	--	1,642	165,874
	07/09	PERCENT	--	4.95	59.41	34.65	--	.99	70.04
2	07/10-	COUNT	1,877	6,383	43,556	19,150	--	--	70,966
	07/18	PERCENT	2.65	8.99	61.38	26.98	--	--	29.96
COLUMN		COUNT	1,877	14,595	142,095	76,631	--	1,642	236,840
TOTALS		PERCENT	.79	6.16	60.00	32.36	--	.69	100.00
SEXES COMBINED									
1	07/02-	COUNT	2,464	25,456	170,801	149,451	--	4,106	352,278
	07/09	PERCENT	.70	7.23	48.48	42.42	--	1.17	64.47
2	07/10-	COUNT	4,130	21,778	102,131	65,710	375	--	194,124
	07/18	PERCENT	2.13	11.22	52.61	33.85	.19	--	35.53
COLUMN		COUNT	6,594	47,234	272,932	215,161	375	4,106	546,402
TOTALS		PERCENT	1.21	8.64	49.95	39.38	.07	.75	100.00

UGASHIK DISTRICT

Pre-season gear registration for the district amounted to 138 units (88 drift units and 50 set units) and was only slightly above levels of the previous few years. An emergency order was announced prior to the commencement of the fishery which restricted fishing to the use of set net gear only during the emergency order period. Special late licensing was made available to those persons who wished to fish set gear but had only licensed as a drifter before the April 15 licensing deadline. The maximum allowable gear per net was 50 fathoms for set nets. District boundaries remained unchanged from the previous year.

The restriction to set net only fishery was intended to serve not only as an indicator of the run strength as it developed, but also to prevent the possibility of over-escapement in the event the returning run exceeded the forecast. Four 12-hour periods were allowed between June 27 and July 11 with peak catches occurring on June 30 - July 1. The sockeye salmon return accounted for only 37% of the forecasted return to the district. The peak period produced a sockeye catch of 6,253 with 22 units of gear participating. The total district catch of 17,440 was only 4% of the 20-year average and accounted for less than 1% of the total Bristol Bay catch. Age composition of the catch was 10% 4-year fish, 70% 5-year fish and 20% 6-year fish.

The run failed to materialize as strong as forecasted and the final escapement of 79,428 was only 18% of the goal.

The king salmon catch of 166 was 8% of the 20-year average while the chum salmon catch of 9,689 was 66% below the 20-year average. No pink or coho salmon were caught in the Ugashik district in 1972.

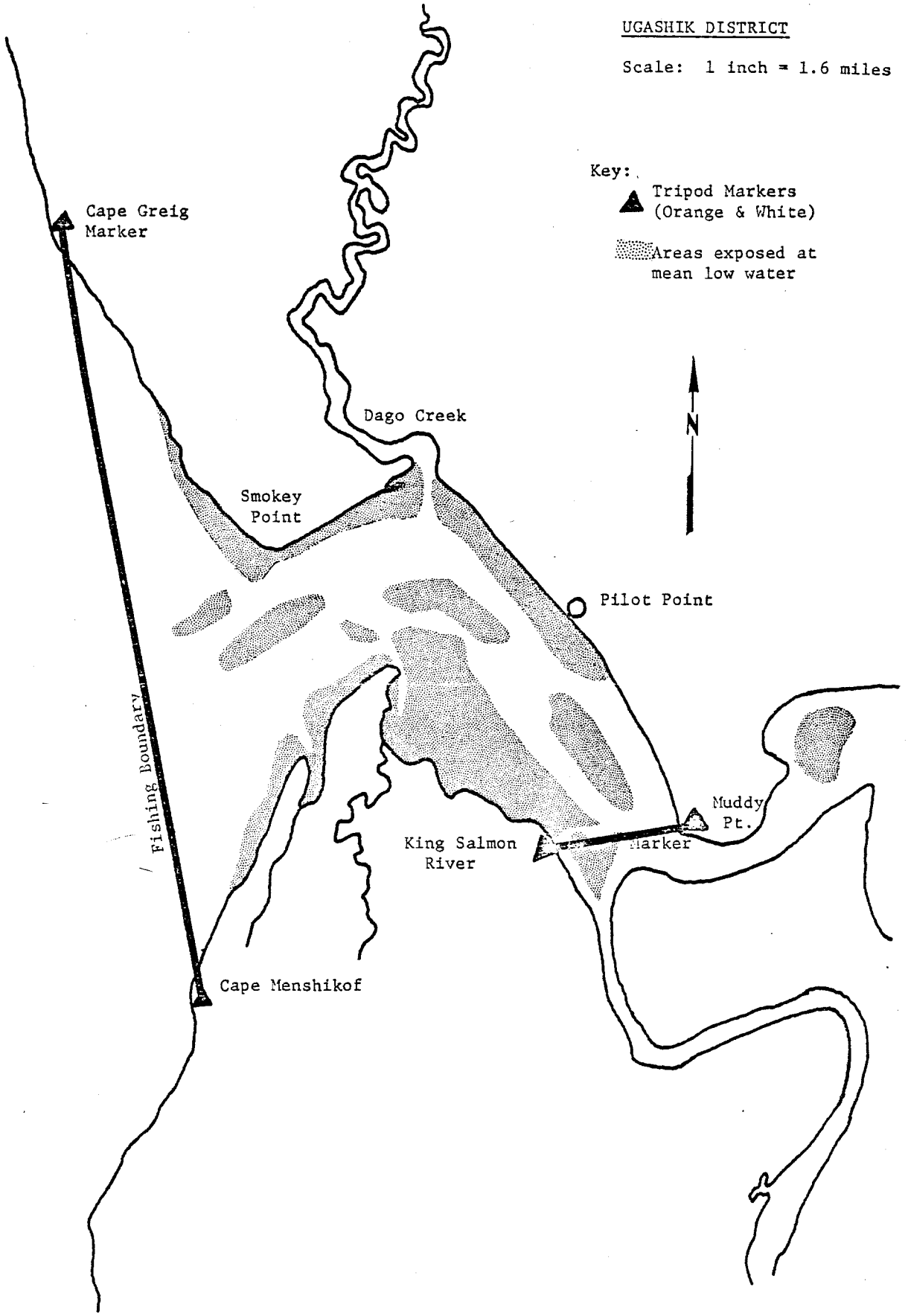

Figure 4. Ugashik District commercial fishing boundaries, 1972.

TABLE 25 UGASHIK RIVER CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP						
	32	42	52	53	62	63	TOTAL
CATCH							
MALES							
NUMBER	28	1,078	2,269	3,658	28	1,418	8,479
PERCENT	.33	12.72	26.76	43.14	.33	16.72	48.62
FEMALES							
NUMBER	--	596	3,289	2,921	28	2,127	8,961
PERCENT	--	6.65	36.70	32.60	.31	23.74	51.38
SEXES COMBINED							
NUMBER	28	1,674	5,558	6,579	56	3,545	17,440
PERCENT	.16	9.60	31.87	37.72	.32	20.33	100.00
ESCAPEMENT							
MALES							
NUMBER	--	5,733	15,288	14,811	--	5,136	40,968
PERCENT	--	13.99	37.32	36.15	--	12.54	51.58
FEMALES							
NUMBER	--	4,300	13,855	14,094	239	5,972	38,460
PERCENT	--	11.18	36.02	36.65	.62	15.53	48.42
SEXES COMBINED							
NUMBER	--	10,033	29,143	28,905	239	11,108	79,428
PERCENT	--	12.63	36.69	36.39	.30	13.99	100.00
CATCH AND ESCAPEMENT							
MALES							
NUMBER	28	6,811	17,557	18,469	28	6,554	49,447
PERCENT	.06	13.77	35.51	37.35	.06	13.25	51.05
FEMALES							
NUMBER	--	4,896	17,144	17,015	267	8,099	47,421
PERCENT	--	10.33	36.15	35.88	.56	17.08	48.95
SEXES COMBINED							
NUMBER	28	11,707	34,701	35,484	295	14,653	96,868
PERCENT	.03	12.09	35.82	36.63	.30	15.13	100.00

TABLE 26 UGASHIK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT		PERCENT		CATCH	NUMBER IN CATCH	
			MALES	FEMALES	MALES	FEMALES		MALES	FEMALES
1	06/19-07/30	615	299	316	48.62	51.38	17,440	8,479	8,961

TABLE 27 UGASHIK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY 6	0	0	0.00	0.00
7	108	108	.14	.14
8	354	462	.45	.59
9	390	852	.49	1.08
10	4,704	5,556	5.92	7.00
11	11,742	17,298	14.78	21.78
12	4,458	21,756	5.61	27.39
13	2,664	24,420	3.35	30.74
14	16,134	40,554	20.31	51.05
15	12,744	53,298	16.05	67.10
16	9,204	62,502	11.59	78.69
17	10,158	72,660	12.79	91.48
18	1,590	74,250	2.00	93.48
19	2,832	77,082	3.57	97.05
20	840	77,922	1.06	98.11
21	126	78,048	.16	98.27
22	234	78,282	.29	98.56
23	468	78,750	.59	99.15
24	534	79,284	.67	99.82
25	48	79,332	.06	99.88
26	96	79,428	.12	100.00

TABLE 28 UGASHIK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/06-07/26	665	343	322	51.58	48.42	79,428	40,968	38,460

NUSHAGAK DISTRICT

Total gear registration for the district amounted to 786 units (548 drift nets and 238 set nets) which was about on par with levels of the previous few years. The maximum allowable gear per net was 150 fathoms for drifters and 50 fathoms for set netters. The district boundaries remained unchanged from 1971.

A total of seven processors operated in the district during the season (3 canning and 4 handling fresh and frozen fish). The total sockeye salmon return to the district of 910,000 was 43% of the forecast and only 40% of the average of the last 10 years (1962-71). This catch accounted for 38% of the entire Bristol Bay sockeye salmon catch. The Nushagak district was open to fishing for 192 hours during the 32 day emergency order period (June 16 through July 17). The Igushik section of the district was open for an additional 24 hours for a total of 216 hours. The Snake River section remained closed for the twelfth straight year. A total effort of 399 drift gear units and 45 set net units during the 12 hour period on July 2 produced a peak sockeye catch of 152,826. Age composition of the catch was 33% 4-year fish, 54% 5-year fish, and 11% 6-year fish.

Escapement goals were not achieved in any of the five systems of the Nushagak district. Total sockeye salmon escapement was 58% lower than the 20-year average of 1,245,000.

The Nushagak district has significant runs of other species during most years. Preseason harvest levels for these species are forecasted for the district each year. The king salmon harvest of 46,045 and the coho salmon harvest of 3,654 fell far below the forecast while the chum salmon harvest of 310,126 was very close to the forecast. The 1972 king and coho salmon harvests were 33% and 87% below their 20-year averages respectively while the chum salmon harvest exceeded the average by 28%. The pink salmon run was forecasted to be 1,460,000 although it was feared that unusually cold weather in the previous two years may have contributed to poor survival on these 2 year old fish. The actual return of 127,000 fish was only 9% of the forecast and was the lowest return on record since adequate records were begun in 1958.

The Nushagak district sockeye catch was apportioned in a multi-step process. Igushik section fish were treated with Igushik beach sampling age composition data and deducted from the drift catch. The remainder were apportioned to the rivers in the Nushagak section based on the age and sex composition of the remaining catch sampling in comparison with the age and sex composition of the escapement sampling on the various river systems in the Nushagak section.

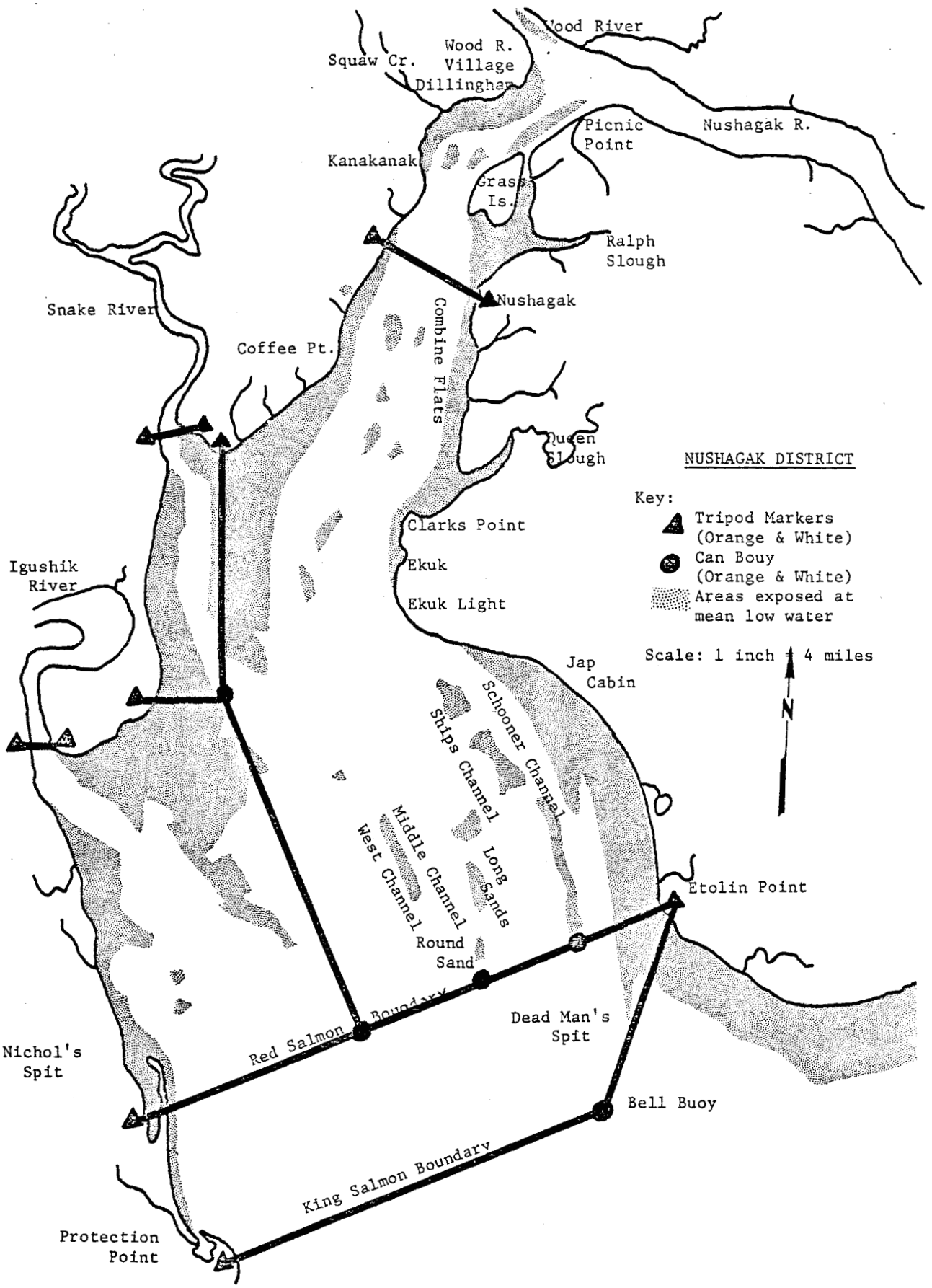

Figure 5. Nushagak-Igushik District commercial fishing boundaries, 1972.

TABLE 29 NUSHAGAK-IGUSHIK DISTRICT INSHORE RUN OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND TOTAL PERCENT, 1972

	AGE GROUP									
	31	32	41	42	52	53	62	63	74	TOTAL
MALES										
ESCAPEMENT	1,333	108	693	154,645	76,101	18,310	122	11,946	--	263,258
CATCH	--	--	2,587	77,701	81,365	21,787	2,364	21,406	161	207,371
TOTAL	1,333	108	3,280	232,346	157,466	40,097	2,486	33,352	161	470,629
PERCENT	.28	.02	.70	49.37	33.46	8.52	.53	7.09	.03	100.00
FEMALES										
ESCAPEMENT	240	--	710	183,518	50,423	18,958	1,199	10,344	--	265,392
CATCH	--	--	2,296	48,871	89,503	12,482	2,526	17,369	929	173,976
TOTAL	240	--	3,006	232,389	139,926	31,440	3,725	27,713	929	439,368
PERCENT	.05	--	.68	52.89	31.85	7.16	.85	6.31	.21	100.00
SEXES COMBINED										
ESCAPEMENT	1,573	108	1,403	338,163	126,524	37,268	1,321	22,290	--	528,650
CATCH	--	--	4,883	126,572	170,868	34,269	4,890	38,775	1,090	381,347
TOTAL	1,573	108	6,286	464,735	297,392	71,537	6,211	61,065	1,090	909,997
PERCENT	.18	.01	.69	51.07	32.68	7.86	.68	6.71	.12	100.00

TABLE 30 IGUSHIK RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP							
	41	42	52	53	62	63	74	TOTAL
CATCH								
MALES								
NUMBER	--	25,487	20,801	2,686	--	3,133	--	52,107
PERCENT	--	48.91	39.92	5.16	--	6.01	--	53.70
FEMALES								
NUMBER	460	20,583	17,777	4,539	210	1,362	--	44,931
PERCENT	1.02	45.81	39.57	10.10	.47	3.03	--	46.30
SEXES COMBINED								
NUMBER	460	46,070	38,573	7,225	210	4,495	--	97,038
PERCENT	.47	47.48	39.76	7.44	.22	4.63	--	100.00
ESCAPEMENT								
MALES								
NUMBER	--	12,955	18,015	1,822	--	2,733	--	35,525
PERCENT	--	36.47	50.71	5.13	--	7.69	--	59.19
FEMALES								
NUMBER	--	12,247	7,793	3,542	--	911	--	24,493
PERCENT	--	50.00	31.82	14.46	--	3.72	--	40.81
SEXES COMBINED								
NUMBER	--	25,202	25,808	5,364	--	3,644	--	60,018
PERCENT	--	41.99	43.00	8.94	--	6.07	--	100.00
CATCH AND ESCAPEMENT								
MALES								
NUMBER	--	38,442	38,816	4,508	--	5,866	--	87,632
PERCENT	--	43.87	44.30	5.14	--	6.69	--	55.80
FEMALES								
NUMBER	460	32,830	25,570	8,081	210	2,273	--	69,424
PERCENT	.66	47.29	36.83	11.64	.30	3.28	--	44.20
SEXES COMBINED								
NUMBER	460	71,272	64,386	12,589	210	8,139	--	157,056
PERCENT	.29	45.38	41.00	8.02	.13	5.18	--	100.00

TABLE 31 WOOD RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP							
	41	42	52	53	62	63	74	TOTAL
CATCH								
MALES								
NUMBER	--	38,744	16,281	18,190	--	12,387	161	85,763
PERCENT	--	45.18	18.98	21.21	--	14.44	.19	54.82
FEMALES								
NUMBER	--	25,134	24,793	7,906	871	11,062	929	70,695
PERCENT	--	35.55	35.07	11.18	1.23	15.65	1.32	45.18
SEXES COMBINED								
NUMBER	--	63,878	41,074	26,096	871	23,449	1,090	156,458
PERCENT	--	40.83	26.25	16.68	.56	14.99	.69	100.00
ESCAPEMENT								
MALES								
NUMBER	--	137,140	46,033	16,304	--	8,631	--	208,108
PERCENT	--	65.90	22.12	7.83	--	4.15	--	48.33
FEMALES								
NUMBER	--	166,871	30,689	15,344	959	8,631	--	222,494
PERCENT	--	75.00	13.79	6.90	.43	3.88	--	51.67
SEXES COMBINED								
NUMBER	--	304,011	76,722	31,648	959	17,262	--	430,602
PERCENT	--	70.60	17.82	7.35	.22	4.01	--	100.00
CATCH AND ESCAPEMENT								
MALES								
NUMBER	--	175,884	62,314	34,494	--	21,018	161	293,871
PERCENT	--	59.85	21.20	11.74	--	7.15	.06	50.06
FEMALES								
NUMBER	--	192,005	55,482	23,250	1,830	19,693	929	293,189
PERCENT	--	65.49	18.92	7.93	.62	6.72	.32	49.94
SEXES COMBINED								
NUMBER	--	367,889	117,796	57,744	1,830	40,711	1,090	587,060
PERCENT	--	62.67	20.06	9.84	.31	6.93	.19	100.00

TABLE 32 NUYAKUK RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP									
	31	32	41	42	52	53	62	63	74	TOTAL
CATCH										
MALES										
NUMBER	--	--	1,171	13,131	42,278	825	--	5,819	--	63,224
PERCENT	--	--	1.85	20.77	66.87	1.31	--	9.20	--	53.63
FEMALES										
NUMBER	--	--	829	3,004	44,517	--	1,417	4,889	--	54,656
PERCENT	--	--	1.52	5.50	81.45	--	2.59	8.94	--	46.37
SEXES COMBINED										
NUMBER	--	--	2,000	16,135	86,795	825	1,417	10,708	--	117,880
PERCENT	--	--	1.70	13.69	73.63	.70	1.20	9.08	--	100.00
ESCAPEMENT										
MALES										
NUMBER	1,187	108	108	3,561	9,065	108	--	539	--	14,676
PERCENT	8.09	.73	.74	24.26	61.77	.74	--	3.67	--	51.32
FEMALES										
NUMBER	216	--	108	3,453	9,172	--	216	755	--	13,920
PERCENT	1.55	--	.78	24.81	65.89	--	1.55	5.42	--	48.68
SEXES COMBINED										
NUMBER	1,403	108	216	7,014	18,237	108	216	1,294	--	28,596
PERCENT	4.91	.38	.75	24.53	63.77	.38	.76	4.52	--	100.00
CATCH AND ESCAPEMENT										
MALES										
NUMBER	1,187	108	1,279	16,692	51,343	933	--	6,358	--	77,900
PERCENT	1.52	.14	1.64	21.43	65.91	1.20	--	8.16	--	53.18
FEMALES										
NUMBER	216	--	937	6,457	53,689	--	1,633	5,644	--	68,576
PERCENT	.31	--	1.37	9.42	78.29	--	2.38	8.23	--	46.82
SEXES COMBINED										
NUMBER	1,403	108	2,216	23,149	105,032	933	1,633	12,002	--	146,476
PERCENT	.96	.07	1.51	15.80	71.71	.64	1.12	8.19	--	100.00

TABLE 33 SNAKE RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP							
	41	42	52	53	62	63	74	TOTAL
CATCH								
MALES								
NUMBER	--	214	139	86	--	67	--	506
PERCENT	--	42.29	27.47	17.00	--	13.24	--	58.29
FEMALES								
NUMBER	--	119	150	37	--	56	--	362
PERCENT	--	32.87	41.44	10.22	--	15.47	--	41.71
SEXES COMBINED								
NUMBER	--	333	289	123	--	123	--	868
PERCENT	--	38.36	33.30	14.17	--	14.17	--	100.00
ESCAPEMENT								
MALES								
NUMBER	--	624	212	76	--	43	--	955
PERCENT	--	65.34	22.20	7.96	--	4.50	--	47.75
FEMALES								
NUMBER	--	755	171	72	--	47	--	1,045
PERCENT	--	72.25	16.36	6.89	--	4.50	--	52.25
SEXES COMBINED								
NUMBER	--	1,379	383	148	--	90	--	2,000
PERCENT	--	68.95	19.15	7.40	--	4.50	--	100.00
CATCH AND ESCAPEMENT								
MALES								
NUMBER	--	838	351	162	--	110	--	1,461
PERCENT	--	57.36	24.02	11.09	--	7.53	--	50.94
FEMALES								
NUMBER	--	874	321	109	--	103	--	1,407
PERCENT	--	62.12	22.81	7.75	--	7.32	--	49.06
SEXES COMBINED								
NUMBER	--	1,712	672	271	--	213	--	2,868
PERCENT	--	59.69	23.43	9.45	--	7.43	--	100.00

TABLE 34 NUSHAGAK-MULCHATNA RIVER APPORTIONED CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP								
	31	41	42	52	53	62	63	74	TOTAL
CATCH									
MALES									
NUMBER	--	1,416	125	1,866	--	2,364	--	--	5,771
PERCENT	--	24.54	2.17	32.33	--	40.96	--	--	63.40
FEMALES									
NUMBER	--	1,007	31	2,266	--	28	--	--	3,332
PERCENT	--	30.22	.93	68.01	--	.84	--	--	36.60
SEXES COMBINED									
NUMBER	--	2,423	156	4,132	--	2,392	--	--	9,103
PERCENT	--	26.62	1.71	45.39	--	26.28	--	--	100.00
ESCAPEMENT									
MALES									
NUMBER	146	585	365	2,776	--	122	--	--	3,994
PERCENT	3.66	14.65	9.14	69.50	--	3.05	--	--	53.73
FEMALES									
NUMBER	24	602	192	2,598	--	24	--	--	3,440
PERCENT	.70	17.50	5.58	75.52	--	.70	--	--	46.27
SEXES COMBINED									
NUMBER	170	1,187	557	5,374	--	146	--	--	7,434
PERCENT	2.29	15.97	7.49	72.29	--	1.96	--	--	100.00
CATCH AND ESCAPEMENT									
MALES									
NUMBER	146	2,001	490	4,642	--	2,486	--	--	9,765
PERCENT	1.49	20.49	5.02	47.54	--	25.46	--	--	59.05
FEMALES									
NUMBER	24	1,609	223	4,864	--	52	--	--	6,772
PERCENT	.35	23.76	3.29	71.83	--	.77	--	--	40.95
SEXES COMBINED									
NUMBER	170	3,610	713	9,506	--	2,538	--	--	16,537
PERCENT	1.03	21.83	4.31	57.48	--	15.35	--	--	100.00

TABLE 35 NUSHAGAK-IGUSHIK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972 1/

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	CATCH	NUMBER IN CATCH MALES	NUMBER IN CATCH FEMALES
1	06/12-07/01	187	96	91	51.34	48.66	30,154	15,480	14,674
2	07/02-07/07	398	236	162	59.30	40.70	152,826	90,620	62,206
3	07/08-07/09	355	195	160	54.93	45.07	71,059	39,032	32,027
4	07/10-12/31	393	189	204	48.09	51.91	101,721	48,919	52,802
TOTAL		1,333	716	617	54.55	45.45	355,760	194,051	161,709

1/ Does not include Igushik Beach sub-district commercial catch.

TABLE 36 NUSHAGAK-IGUSHIK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972 1/

SAMPLE PERIOD	DATE		AGE GROUP 41	42	52	53	62	63	74	TOTAL
MALES										
1	06/12-	COUNT	--	6,773	4,354	2,096	161	1,935	161	15,480
	07/01	PERCENT	--	43.75	28.12	13.54	1.04	12.50	1.04	7.98
2	07/02-	COUNT	1,152	32,639	35,326	8,448	768	12,287	--	90,620
	07/07	PERCENT	1.27	36.02	38.98	9.32	.85	13.56	--	46.70
3	07/08-	COUNT	400	11,610	19,616	3,203	400	3,803	--	39,032
	07/09	PERCENT	1.03	29.74	50.26	8.21	1.03	9.74	--	20.11
4	07/10-	COUNT	1,035	21,224	16,048	7,247	1,035	2,330	--	48,919
	12/31	PERCENT	2.12	43.39	32.80	14.81	2.12	4.76	--	25.21
COLUMN TOTALS		COUNT	2,587	72,246	75,344	20,994	2,364	20,355	161	194,051
		PERCENT	1.33	37.23	38.83	10.82	1.22	10.49	.08	100.00
FEMALES										
1	06/12-	COUNT	161	4,031	5,805	1,774	484	2,258	161	14,674
	07/01	PERCENT	1.10	27.47	39.56	12.09	3.30	15.38	1.10	9.07
2	07/02-	COUNT	768	15,743	34,175	4,992	768	4,992	768	62,206
	07/07	PERCENT	1.23	25.31	54.94	8.02	1.23	8.02	1.23	38.47
3	07/08-	COUNT	200	7,006	18,616	1,001	400	4,804	--	32,027
	07/09	PERCENT	.63	21.88	58.13	3.13	1.25	15.00	--	19.81
4	07/10-	COUNT	1,035	17,083	25,624	3,365	777	4,918	--	52,802
	12/31	PERCENT	1.96	32.35	48.53	6.37	1.47	9.31	--	32.65
COLUMN TOTALS		COUNT	2,164	43,863	84,220	11,132	2,429	16,972	929	161,709
		PERCENT	1.34	27.13	52.08	6.88	1.50	10.50	.57	100.00
SEXES COMBINED										
1	06/12-	COUNT	161	10,804	10,159	3,870	645	4,193	322	30,154
	07/01	PERCENT	.53	35.83	33.69	12.83	2.14	13.91	1.07	8.48
2	07/02-	COUNT	1,920	48,382	69,501	13,440	1,536	17,279	768	152,826
	07/07	PERCENT	1.26	31.66	45.48	8.79	1.00	11.31	.50	42.96
3	07/08-	COUNT	600	18,616	38,232	4,204	800	8,607	--	71,059
	07/09	PERCENT	.84	26.20	53.80	5.92	1.13	12.11	--	19.97
4	07/10-	COUNT	2,070	38,307	41,672	10,612	1,812	7,248	--	101,721
	12/31	PERCENT	2.03	37.66	40.97	10.43	1.78	7.13	--	28.59
COLUMN TOTALS		COUNT	4,751	116,109	159,564	32,126	4,793	37,327	1,090	355,760
		PERCENT	1.33	32.64	44.85	9.03	1.35	10.49	.31	100.00

1/ Does not include Igushik Beach sub-district commercial catch.

TABLE 37 IGUSHIK BEACH SUB-DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	CATCH	NUMBER IN CATCH MALES	NUMBER IN CATCH FEMALES
1	06/27-06/29	245	139	106	56.73	43.27	8,551	4,851	3,700
2	07/09-07/09	175	87	88	49.71	50.29	17,036	8,469	8,567
TOTAL		420	226	194	52.06	47.94	25,587	13,320	12,267

TABLE 38 IGUSHIK BEACH SUB-DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 41	42	52	53	62	63	TOTAL
MALES									
1	06/27-	COUNT	--	2,827	1,640	209	--	175	4,851
	06/29	PERCENT	--	58.27	33.81	4.32	--	3.60	36.42
2	07/09-	COUNT	--	2,628	4,381	584	--	876	8,469
	07/09	PERCENT	--	31.03	51.72	6.90	--	10.34	63.58
COLUMN		COUNT	--	5,455	6,021	793	--	1,051	13,320
TOTALS		PERCENT	--	40.95	45.20	5.96	--	7.89	100.00
FEMALES									
1	06/27-	COUNT	35	1,990	1,291	279	--	105	3,700
	06/29	PERCENT	.94	53.77	34.91	7.55	--	2.83	30.16
2	07/09-	COUNT	97	3,018	3,992	1,071	97	292	8,567
	07/09	PERCENT	1.14	35.23	46.59	12.50	1.14	3.41	69.84
COLUMN		COUNT	132	5,008	5,283	1,350	97	397	12,267
TOTALS		PERCENT	1.08	40.82	43.07	11.00	.79	3.24	100.00
SEXES COMBINED									
1	06/27-	COUNT	35	4,817	2,931	488	--	280	8,551
	06/29	PERCENT	.41	56.33	34.28	5.71	--	3.27	33.42
2	07/09-	COUNT	97	5,646	8,373	1,655	97	1,168	17,036
	07/09	PERCENT	.57	33.14	49.15	9.71	.57	6.86	66.58
COLUMN		COUNT	132	10,463	11,304	2,143	97	1,448	25,587
TOTALS		PERCENT	.52	40.89	44.18	8.37	.38	5.66	100.00

TABLE 39 IGUSHIK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY 4	84	84	.14	.14
5	1,164	1,248	1.94	2.08
6	1,242	2,490	2.07	4.15
7	276	2,766	.46	4.61
8	480	3,246	.80	5.41
9	2,724	5,970	4.54	9.95
10	3,708	9,678	6.18	16.13
11	4,500	14,178	7.50	23.63
12	6,042	20,220	10.06	33.69
13	5,934	26,154	9.89	43.58
14	6,912	33,066	11.51	55.09
15	5,184	38,250	8.64	63.73
16	5,988	44,238	9.97	73.70
17	4,020	48,258	6.70	80.40
18	2,592	50,850	4.32	84.72
19	3,078	53,928	5.13	89.85
20	2,928	56,856	4.88	94.73
21	1,398	58,254	2.33	97.06
22	744	58,998	1.24	98.30
23	300	59,298	.50	98.80
24	294	59,592	.49	99.29
25	246	59,838	.41	99.70
26	126	59,964	.21	99.91
27	54	60,018	.09	100.00

TABLE 40 IGUSHIK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/04-07/27	593	351	242	59.19	40.81	60,018	35,525	24,493

TABLE 41 WOOD RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JUNE 21	18	18	0.00	0.00
22	0	18	0.00	0.00
23	0	18	0.00	0.00
24	0	18	0.00	0.00
25	78	96	.02	.02
26	774	870	.18	.20
27	942	1,812	.22	.42
28	306	2,118	.07	.49
29	72	2,190	.02	.51
30	18	2,208	0.00	.51
JULY 1	96	2,304	.02	.53
2	36	2,340	.01	.54
3	72	2,412	.02	.56
4	48	2,460	.01	.57
5	66	2,526	.01	.58
6	162	2,688	.04	.62
7	168	2,856	.04	.66
8	3,366	6,222	.78	1.44
9	83,784	90,006	19.46	20.90
10	205,878	295,884	47.81	68.71
11	75,258	371,142	17.48	86.19
12	18,222	389,364	4.23	90.42
13	16,800	406,164	3.90	94.32
14	10,104	416,268	2.35	96.67
15	5,982	422,250	1.39	98.06
16	2,862	425,112	.66	98.72
17	3,222	428,334	.75	99.47
18	750	429,084	.17	99.64
19	606	429,690	.14	99.78
20	672	430,362	.16	99.94
21	168	430,530	.04	99.98
22	72	430,602	.02	100.00

TABLE 42 WOOD RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	06/21-07/22	449	217	232	48.33	51.67	430,602	208,108	222,494

TABLE 43 NUYAKUK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE	DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY 8	12	12	.04	.04
9	0	12	0.00	.04
10	12	24	.04	.08
11	18	42	.06	.14
12	42	84	.15	.29
13	126	210	.44	.73
14	1,308	1,518	4.57	5.30
15	1,722	3,240	6.02	11.32
16	2,532	5,772	8.85	20.17
17	6,558	12,330	22.93	43.10
18	3,528	15,858	12.34	55.44
19	2,766	18,624	9.67	65.11
20	3,378	22,002	11.81	76.92
21	2,004	24,006	7.01	83.93
22	1,014	25,020	3.55	87.48
23	966	25,986	3.38	90.86
24	660	26,546	2.31	93.17
25	420	27,066	1.47	94.64
26	324	27,390	1.13	95.77
27	360	27,750	1.26	97.03
28	162	27,912	.57	97.60
29	156	28,068	.55	98.15
30	90	28,158	.32	98.47
31	54	28,212	.19	98.66
AUG. 1	48	28,260	.17	98.83
2	18	28,278	.06	98.89
3	108	28,386	.38	99.27
4	144	28,530	.50	99.77
5	42	28,572	.15	99.92
6	24	28,596	.08	100.00

TABLE 44 NUYAKUK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/08-08/06	265	136	129	51.32	48.68	28,596	14,676	13,920

TOGIAK DISTRICT

Total gear registration for the district amounted to 116 units (81 drift units and 35 set units) and with the exception of one non-resident fisherman was exclusively a resident fleet. The maximum allowable gear per net was 150 fathoms for drifters and 50 fathoms for set netters. Seven processors bought salmon or herring and herring roe-on-kelp in Togiak in 1972. One cannery operated two canning lines while the others purchased salmon or herring for the canned, fresh, frozen and cured markets.

The Togiak district is comprised of five sections (Cape Peirce, Osviak, Matogak, Togiak and Kulukak) and is not managed in the same manner as the other districts in Bristol Bay. Fishing periods are set in advance of the season and are adjusted as required during the course of the salmon season. In 1972, the Togiak section weekly fishing periods were 4 days in length while the other four sections were open 5 days each week. By July 8 catch and escapements were lagging behind forecasted levels and the Togiak River section was closed. Escapements failed to pick up until the 23rd of the month and only after two weeks of continuous closure (17 days) was normal fishing resumed on July 24. During this long closure the fishing time in the outlying sections was extended through the weekends to encourage a shift in effort to these other areas.

Total sockeye return to the district (excluding escapements to the Togiak tributaries and Kulukak River system which is not included in the forecast) was 149,331 and was 19% above the forecast of 126,000. During the 5 day period July 3-8 a peak sockeye catch of 33,747 occurred with 96 units of drift gear. The total district catch of 75,261 was 27% 4-year fish, 66% 5-year fish and 7% 6-year fish.

The final sockeye salmon escapement into the Togiak River was 74,070 and surpassed the escapement goal by over 4,000. The Togiak River escapement was 90% of the district total of 81,970 and this total was 34% below the 20-year average of 125,000.

Harvest levels are also forecasted for king and chum salmon in this district. The king salmon catch of 19,976 was only 5% lower than the forecast of 21,000 while the chum salmon catch of 178,885 was 44% higher than the forecast of 124,000. The coho salmon catch of 8,652 was 50% above the 18-year average while the pink salmon catch of 1,984 was 60% below the largest nine years in the past 20 years (1952-71).

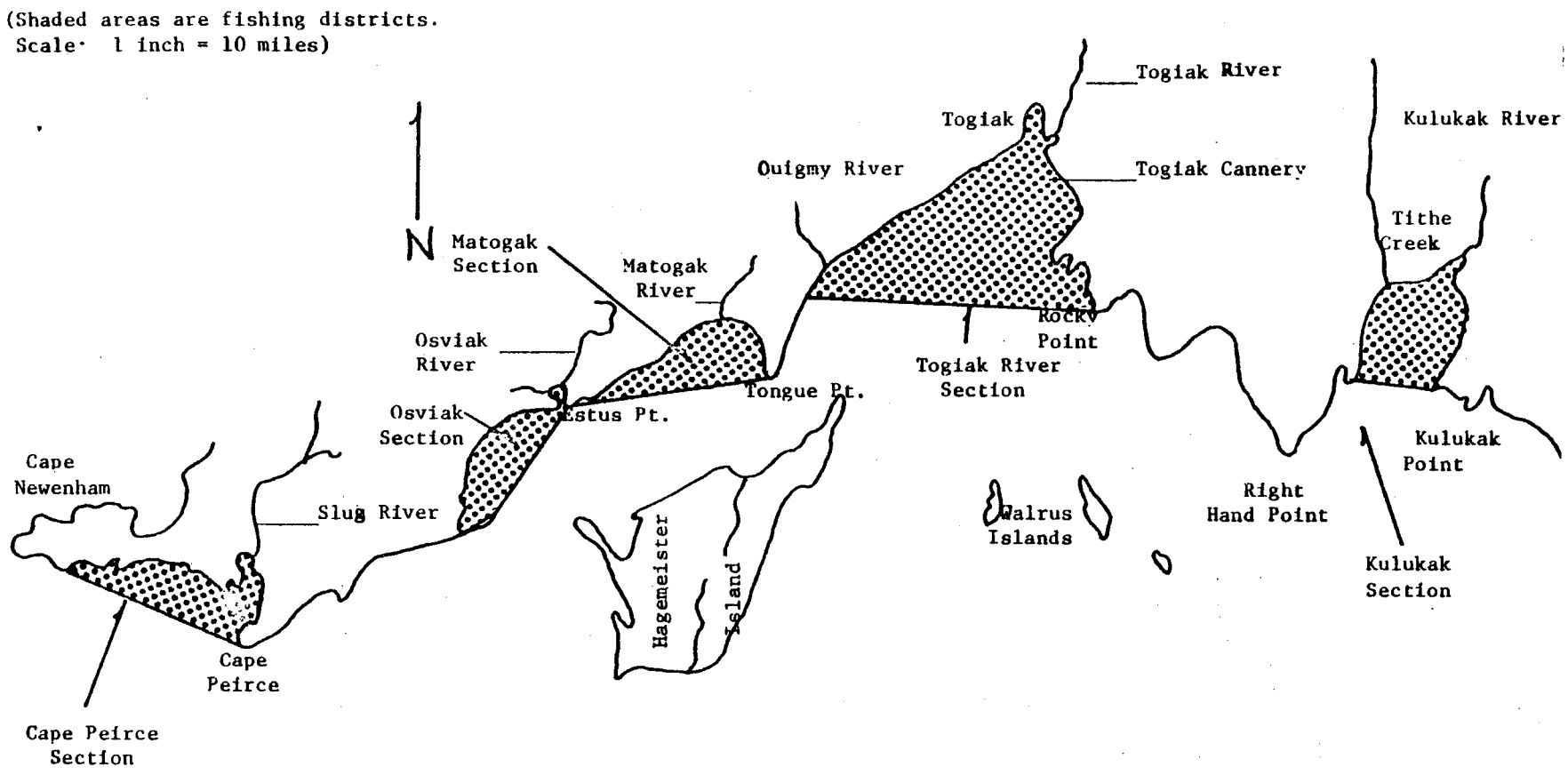

Figure 6. Togiak District commercial fishing boundaries, 1972.

TABLE 45 TOGIAK RIVER CATCH AND ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SEX, NUMBER AND PERCENT, 1972

	AGE GROUP										
	31	41	42	51	52	53	62	63	64	73	TOTAL
CATCH											
MALES											
NUMBER	51	189	10,813	52	19,013	2,742	544	1,721	--	52	35,177
PERCENT	.14	.54	30.74	.15	54.05	7.79	1.55	4.89	--	.15	46.74
FEMALES											
NUMBER	9	432	8,562	9	25,111	3,087	425	2,440	--	9	40,084
PERCENT	.02	1.08	21.36	.02	62.65	7.70	1.06	6.09	--	.02	53.26
SEXES COMBINED											
NUMBER	60	621	19,375	61	44,124	5,829	969	4,161	--	61	75,261
PERCENT	.08	.83	25.74	.08	58.63	7.74	1.29	5.53	--	.08	100.00
ESCAPEMENT											
MALES											
NUMBER	94	--	10,715	--	15,507	2,418	94	1,094	108	--	30,030
PERCENT	.31	--	35.68	--	51.64	8.05	.31	3.65	.36	--	40.54
FEMALES											
NUMBER	--	378	14,457	--	20,372	6,307	203	2,323	--	--	44,040
PERCENT	--	.86	32.83	--	46.26	14.32	.46	5.27	--	--	59.46
SEXES COMBINED											
NUMBER	94	378	25,172	--	35,879	8,725	297	3,417	108	--	74,070
PERCENT	.13	.51	33.98	--	48.44	11.78	.40	4.61	.15	--	100.00
CATCH AND ESCAPEMENT											
MALES											
NUMBER	145	189	21,528	52	34,520	5,160	638	2,815	108	52	65,207
PERCENT	.22	.29	33.01	.08	52.94	7.91	.98	4.32	.17	.08	43.67
FEMALES											
NUMBER	9	810	23,019	9	45,483	9,394	628	4,763	--	9	84,124
PERCENT	.01	.96	27.36	.01	54.07	11.17	.75	5.66	--	.01	56.33
SEXES COMBINED											
NUMBER	154	999	44,547	61	80,003	14,554	1,266	7,578	108	61	149,331
PERCENT	.10	.67	29.83	.04	53.57	9.75	.85	5.08	.07	.04	100.00

TABLE 46 TOGIAK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	CATCH	NUMBER IN CATCH MALES	NUMBER IN CATCH FEMALES
1	01/01-07/02	579	321	258	55.44	44.56	5,393	2,990	2,403
2	07/03-07/09	655	334	321	50.99	49.01	33,747	17,208	16,539
3	07/10-07/16	382	183	199	47.91	52.09	8,052	3,857	4,195
4	07/17-07/23	565	249	316	44.07	55.93	7,495	3,303	4,192
5	07/24-09/17	421	160	261	38.00	62.00	20,574	7,819	12,755
TOTAL		2,602	1,247	1,355	46.74	53.26	75,261	35,177	40,084

TABLE 47 TOGIAK DISTRICT COMMERCIAL CATCH OF MALE SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD, NUMBER AND PERCENT, 1972

SAMPLE PERIOD MALES	DATE		AGE GROUP 31	41	42	51	52	53	62	63	73	TOTAL
1	01/01-	COUNT	--	37	773	10	1,872	93	56	149	--	2,990
	07/02	PERCENT	--	1.25	25.86	.31	62.62	3.12	1.87	4.98	--	8.50
2	07/03-	COUNT	51	--	5,873	--	9,171	1,082	412	567	52	17,208
	07/09	PERCENT	.30	--	34.13	--	53.29	6.29	2.40	3.29	.30	48.92
3	07/10-	COUNT	--	63	864	42	2,298	232	63	295	--	3,857
	07/16	PERCENT	--	1.64	22.40	1.09	59.56	6.01	1.64	7.65	--	10.96
4	07/17-	COUNT	--	40	517	--	2,056	358	13	319	--	3,303
	07/23	PERCENT	--	1.20	15.66	--	62.25	10.84	.40	9.64	--	9.39
5	07/24-	COUNT	--	49	2,786	--	3,616	977	--	391	--	7,819
	09/17	PERCENT	--	.63	35.63	--	46.25	12.50	--	5.00	--	22.23
COLUMN TOTALS		COUNT	51	189	10,813	52	19,013	2,742	544	1,721	52	35,177
		PERCENT	.14	.54	30.74	.15	54.05	7.79	1.55	4.89	.15	100.00

TABLE 48 TOGIAK DISTRICT COMMERCIAL CATCH OF FEMALE SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD, NUMBER AND PERCENT, 1972

SAMPLE PERIOD FEMALES	DATE		AGE GROUP 31	41	42	51	52	53	62	63	73	TOTAL
1	01/01-	COUNT	9	37	261	9	1,863	28	47	140	9	2,403
	07/02	PERCENT	.39	1.55	10.85	.39	77.52	1.16	1.94	5.81	.39	5.99
2	07/03-	COUNT	--	258	2,834	--	11,490	618	309	1,030	--	16,539
	07/09	PERCENT	--	1.56	17.13	--	69.47	3.74	1.87	6.23	--	41.26
3	07/10-	COUNT	--	84	401	--	3,099	190	42	379	--	4,195
	07/16	PERCENT	--	2.01	9.55	--	73.87	4.52	1.01	9.05	--	10.47
4	07/17-	COUNT	--	53	570	--	2,746	345	27	451	--	4,192
	07/23	PERCENT	--	1.27	13.61	--	65.51	8.23	.63	10.76	--	10.46
5	07/24-	COUNT	--	--	4,496	--	5,913	1,906	--	440	--	12,755
	09/17	PERCENT	--	--	35.25	--	46.36	14.94	--	3.45	--	31.82
COLUMN TOTALS		COUNT	9	432	8,562	9	25,111	3,087	425	2,440	9	40,084
		PERCENT	.02	1.08	21.36	.02	62.65	7.70	1.06	6.09	.02	100.00

TABLE 49 TOGIAK DISTRICT COMMERCIAL CATCH OF SOCKEYE SALMON (SEXES COMBINED), AGE GROUP BY SAMPLE PERIOD, NUMBER AND PERCENT, 1972

SAMPLE PERIOD SEXES COMBINED	DATE		AGE GROUP 31	41	42	51	52	53	62	63	73	TOTAL
1	01/01-	COUNT	9	74	1,034	19	3,735	121	103	289	9	5,393
	07/02	PERCENT	.17	1.37	19.17	.35	69.26	2.24	1.91	5.36	.17	7.16
2	07/03-	COUNT	51	258	8,707	--	20,661	1,700	721	1,597	52	33,747
	07/09	PERCENT	.15	.77	25.80	--	61.22	5.04	2.14	4.73	.15	44.84
3	07/10-	COUNT	--	147	1,265	42	5,397	422	105	674	--	8,052
	07/16	PERCENT	--	1.83	15.71	.52	67.03	5.24	1.30	8.37	--	10.70
4	07/17-	COUNT	--	93	1,087	--	4,802	703	40	770	--	7,495
	07/23	PERCENT	--	1.24	14.50	--	64.07	9.38	.54	10.27	--	9.96
5	07/24-	COUNT	--	49	7,282	--	9,529	2,883	--	831	--	20,574
	09/17	PERCENT	--	.24	35.39	--	46.32	14.01	--	4.04	--	27.34
COLUMN TOTALS		COUNT	60	621	19,375	61	44,124	5,829	969	4,161	61	75,261
		PERCENT	.08	.83	25.74	.08	58.63	7.74	1.29	5.53	.08	100.00

TABLE 50 TOGIAK RIVER DAILY SOCKEYE SALMON ESCAPEMENT COUNTS, 1972

DATE		DAILY COUNT	ACCUMULATIVE COUNT	DAILY PERCENT OF TOTAL	ACCUMULATIVE PERCENT
JULY	6	6	6	.01	.01
	7	6	12	.01	.02
	8	36	48	.05	.07
	9	24	72	.03	.10
	10	24	96	.03	.13
	11	6	102	.01	.14
	12	60	162	.08	.22
	13	78	240	.10	.32
	14	84	324	.11	.43
	15	4,212	4,536	5.69	6.12
	16	3,726	8,262	5.03	11.15
	17	1,128	9,390	1.52	12.67
	18	4,236	13,626	5.72	18.39
	19	4,554	18,180	6.15	24.54
	20	3,852	22,032	5.20	29.74
	21	4,428	26,460	5.98	35.72
	22	4,770	31,230	6.44	42.16
	23	6,858	38,088	9.26	51.42
	24	6,570	44,658	8.87	60.29
	25	6,414	51,072	8.66	68.95
	26	6,078	57,150	8.21	77.16
	27	7,032	64,182	9.49	86.65
	28	2,820	67,002	3.81	90.46
	29	3,066	70,068	4.14	94.60
	30	1,620	71,688	2.19	96.79
	31	1,104	72,792	1.49	98.28
AUG.	1	876	73,668	1.18	99.46
	2	354	74,022	.48	99.94
	3	48	74,070	.06	100.00

TABLE 51 TOGIAK RIVER ESCAPEMENT OF SOCKEYE SALMON, SEX COMPOSITION BY SAMPLE PERIOD, 1972

PERIOD NUMBER	DATE	NO. OF FISH SAMPLED	COUNT MALES	COUNT FEMALES	PERCENT MALES	PERCENT FEMALES	ESCAPEMENT	NUMBER IN ESCAPEMENT MALES	NUMBER IN ESCAPEMENT FEMALES
1	07/06-07/23	352	144	208	40.91	59.09	38,088	15,581	22,507
2	07/24-08/03	381	153	228	40.16	59.84	35,982	14,449	21,533
TOTAL		733	297	436	40.54	59.46	74,070	30,030	44,040

TABLE 52 TOGIAK RIVER ESCAPEMENT OF SOCKEYE SALMON, AGE GROUP BY SAMPLE PERIOD AND SEX, NUMBER AND PERCENT, 1972

SAMPLE PERIOD	DATE		AGE GROUP 31	41	42	52	53	62	63	64	TOTAL
MALES											
1	07/06-	COUNT	--	--	6,276	7,374	1,190	--	433	108	15,581
	07/23	PERCENT	--	--	40.28	48.61	7.64	--	2.78	.69	51.88
2	07/24-	COUNT	94	--	4,439	7,933	1,228	94	661	--	14,449
	08/03	PERCENT	.65	--	30.72	54.90	8.50	.65	4.58	--	48.12
COLUMN		COUNT	94	--	10,715	15,307	2,418	94	1,094	108	30,030
TOTALS		PERCENT	.31	--	35.68	51.64	8.05	.31	3.65	.36	100.00
FEMALES											
1	07/06-	COUNT	--	--	8,224	10,172	2,813	108	1,190	--	22,507
	07/23	PERCENT	--	--	36.54	45.19	12.50	.48	5.29	--	51.11
2	07/24-	COUNT	--	378	6,233	10,200	3,494	95	1,133	--	21,533
	08/03	PERCENT	--	1.75	28.95	47.37	16.23	.44	5.26	--	48.89
COLUMN		COUNT	--	378	14,457	20,372	6,307	203	2,323	--	44,040
TOTALS		PERCENT	--	.86	32.83	46.26	14.32	.46	5.27	--	100.00
SEXES COMBINED											
1	07/06-	COUNT	--	--	14,500	17,746	4,003	108	1,623	108	38,088
	07/23	PERCENT	--	--	38.07	46.59	10.51	.29	4.26	.28	51.42
2	07/24-	COUNT	94	378	10,672					--	35,982
	08/03	PERCENT	.26	1.05	29.6					-	48.58
COLUMN		COUNT	94	378	25,17[illegible]					38	74,070
TOTALS		PERCENT	.13	.51	33.9[illegible]					15	100.00

Table 53. Mean weights by age class for sockeye salmon in the catch samples, Bristol Bay, 1972.

Egegik District

1-Ocean			2-Ocean			3-Ocean			4-Ocean		
Age	Wt.	N	Age	Wt.	N	Age	Wt.	N	Age	Wt.	N
-	-	-	4_2	5.1	10	5_2	7.0	37	-	-	-
			5_3	5.1	109	6_3	6.8	139			
			6_4	4.6	2	7_4	8.2	2			
$\bar{X}$			$\bar{X}$	5.1	121	$\bar{X}$	6.9	178	$\bar{X}$		

Nushagak-Igushik District

1-Ocean			2-Ocean			3-Ocean			4-Ocean		
Age	Wt.	N	Age	Wt.	N	Age	Wt.	N	Age	Wt.	N
-	-	-	4_2	4.5	84	4_1	6.4	3	6_2	7.4	2
			5_3	4.6	26	5_2	6.4	86			
						6_2	5.8	14			
$\bar{X}$			$\bar{X}$	4.6	110	$\bar{X}$	6.3	103	$\bar{X}$	7.4	2

Togiak District

1-Ocean			2-Ocean			3-Ocean			4-Ocean		
Age	Wt.	N	Age	Wt.	N	Age	Wt.	N	Age	Wt.	N
-	-	-	4_2	5.4	145	4_1	5.8	7	5_1	8.8	2
			5_3	5.4	41	5_2	7.4	348	6_2	7.6	10
						6_3	7.7	33			
$\bar{X}$			$\bar{X}$	5.1	196	$\bar{X}$	7.4	388	$\bar{X}$	7.8	12

LITERATURE CITED

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