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SOUTH UNIMAK - SHUMAGIN ISLANDS

JUNE FISHERY

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By:

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INTRODUCTION

Figures 1, 2, and 3 indicate the location of the South Unimak and Shumagin Islands commercial salmon fisheries. The Shumagin Islands fishery takes place primarily along Popof, Unga, and Korovin Islands in the northern Shumagins. Popof Head is usually the center of activity. The South Unimak (also called False Pass) fishery occurs in two major locations along the south side of Unimak Island. One area is from Ikatan Bay to Cape Lazaref on the southeast end of the island while the other is the vicinity of Cape Lutke on the southwest end. Table 1 lists the Shumagin Islands and South Unimak sockeye and chum salmon catches from 1960 through 1990.

SOUTH UNIMAK (HISTORY)

The South Unimak June fishery dates back to at least 1911, though records prior to Statehood are sporadic.

Traps were operated in Ikatan and Morzhovoi bays with 36 reported in 1919. The number of traps gradually decreased through the 1920's and 1930's and settled at 5-6 through the 1940's and 1950's.

Records first reflect seine gear catches in 1935 (19 vessels), and indicate a little over a dozen seine vessels seasonally through 1940. Records reflect only half-a-dozen seiners from the mid 1940's through the 1950's, although it is believed effort increased to around 50 vessels in the early 1950's.

From 1960 through 1975 seine effort ranged from 5 to 17 vessels. Since 1975 effort has risen until a total of about 85 vessels fished during one day at South Unimak (when the Shumagins were closed) in 1983 and 1990.

Records of gillnet catches prior to 1960 are not clear in the records, although according to verbal information, gillnet gear evidently was used in this fishery (drift nets beginning in the 1950's). Gillnet effort (almost entirely drift nets) generally ran between 20-45 vessels in 1960-1965, increased to 80-110 in 1970-1973 and fell to 65-72 in 1975. In 1986, the number of gillnets increased to about 153 drift gillnetters and 9 set gillnetters at South Unimak. In 1990, 153 drift gillnetters participated in the South Unimak fishery. During most of the 1990 season, 14 set gillnetters fished South Unimak, however an additional 8 set gillnetters moved to South Unimak after June 22, when the Shumagins were closed.

Set gillnetters account for a negligible portion (averaging less than 4%) of the South Unimak catch, although their numbers have increased from 0-1 in 1970-1973, to 5-11 in 1980-1988, and to 14 in 1989-1990 (excluding those who regularly fish in the Shumagin Islands).

SHUMAGIN ISLANDS (HISTORY)

The Shumagin Islands June fishery dates back to at least 1911. However this fishery seems to not have developed significantly until 1922 when 550,000 sockeye were harvested. As with the case at South Unimak, information prior to Statehood is sporadic.

Traps were first recorded in the Shumagin Islands in 1919 and generally totaled 3-6 units (peaked at 8 in 1937). Seine catches have been recorded since 1911 and over 30 seiners fished the islands in 1943 and 1944. From 1962 through 1975, the seine effort usually totaled 15-25 vessels. Due to only a few prime fishing spots in the Shumagins, most of the increased effort during recent years has been concentrated at South Unimak.

During June 1990, approximately 35-40 seiners fished the Shumagins early in the fishery. Some vessels move to South Unimak during mid and late June because of crowded conditions in the Shumagins and the anticipation of better fishing at Unimak by some fishermen.

Prior to 1985 the number of set gillnetters fishing the Shumagins during June was normally 3-8. This increased to 30-40 during periods when the Southeast Mainland was closed in 1985 and 1986, and to 51 during 1989 (when the Southeastern District Mainland was closed). The 1990 effort is believed to be similar to 1989 although fishing was so poor for setnetters that some did not deliver fish. Records show that 44 setnetters delivered fish in the Shumagins during June 1990.

Drift gillnet gear is not allowed in the Shumagin Islands. The total units of gear operated on the South Peninsula during June for the years 1976-90 are listed in Table 2.

REGULATIONS GOVERNING SOUTH UNIMAK AND SHUMAGIN ISLANDS FISHERIES

During the late 1960's and early 1970's much controversy arose between Peninsula-Aleutians and Bristol Bay fishermen in regard to the South Unimak and Shumagin Islands June fisheries.

Beginning in 1975, the Board of Fish and Game established guideline harvest levels (GHL's) based on average historic catch levels. The GHL for the Shumagins is 1.5% of the latest inshore Bristol Bay projected harvest, while the South Unimak fishery was allocated 6.8% of the Bristol Bay inshore catch forecast. The guideline harvest levels were further broken down into four time period harvest levels so that the catches would be spread out through the month of June.

During the 16 years that the present allocation scheme has been in effect, the Bristol Bay forecast has been low 14 years, thereby causing the guideline harvest levels to be set too low. The exceptions were 1982 and 1988 (Tables 3, 4 and 5).

During 1982 and 1983 unusually large numbers of chum salmon were caught incidental to sockeye. This caused concern by fishermen in the Arctic-Yukon-Kuskokwim Region. Beginning with the 1984 season, the Board of Fisheries placed a limit on fishing time; not to exceed 96 hours per week and not more than 72 consecutive hours in order to allow "escapement windows". The purpose of the "windows" was to limit the chum harvest. Due to the high sockeye catch rate (and low chum to sockeye ratios) during 1984 and 1985, these restrictions did not come into use.

In 1986 the Board of Fisheries placed a 400,000 chum salmon catch ceiling on both fisheries combined, eliminated fishing during the first 10 days of June, and eliminated fishing during the last quota period, June 26-30 (along with the sockeye quota for that period). These restrictions were for 1986 only. The additional restrictions during 1986 were the primary reasons for less than half of the combined South Unimak-Shumagin sockeye allocation being harvested.

In 1987, no restrictions were placed on the fishery that were additional to 1985 regulations. However, during 1988 and 1989 an annual 500,000 chum salmon catch ceiling was placed on both fisheries combined, by the Alaska Board of Fisheries.

In 1988, the abundance of chums were comparable to sockeye at South Unimak. This resulted in less than 40% of the South Unimak sockeye allocation being harvested before the chum salmon ceiling was reached. The sockeye abundance seemed higher in the Shumagins and that fishery was able to harvest it's allocation.

In 1989, the sockeye allocations were exceeded due to a very high sockeye abundance. The Shumagin Islands sockeye catch was 397,000 with an allocation of 264,000, while 1,348,000 sockeye were harvested at South Unimak with an allocation of 1,199,000. A total of only 72 hours fishing time was allowed in the Shumagins during 4 days. At South Unimak 84 hours of fishing time was allowed with openings occurring during 5 separate days.

The 1989 chum catch was 48,000 in the Shumagins and 408,000 at South Unimak for a total of 436,700. The ratio of chum to sockeye was high during the early part of the fishery and became unusually low towards the end.

The reason for the sockeye allocation being exceeded was a much higher number of sockeye salmon being available than anticipated. Had the Bristol Bay harvest been accurately predicted, the Shumagin Islands and South Unimak allocations would have been about 431,000 and 1,952,000 respectively.

If the 1989 Bristol Bay sockeye run had been accurately forecasted, the South Unimak fishery would have fallen approximately 620,000 sockeye short of it's allocation because the 500,000 chum salmon ceiling would have been reached prior to obtaining the sockeye allocation. However, the sockeye harvest likely could have been achieved without going over the chum ceiling if other restrictions had been reduced. This would involve adjustments to the sockeye time period guideline harvest levels (basically reallocating June 1-11 sockeye to late period) and elimination of the window regulations.

After the 1989 season, the Board of Fisheries made the following changes in regards to the South Unimak and Shumagin Islands June fisheries:

- (1) The starting date of the fishery was delayed until June 13 as the chum percentage is normally higher during early June.
- (2) The chum salmon ceiling for both fisheries combined was raised from 500,000 to 600,000.
- (3) The "window regulations" were eliminated as there did not seem to be a need for both a chum ceiling and windows.
- (4) The sockeye allocation periods and allocations were changed and are presently the same for each fishery.

June 13-18	35%
June 19-25	45%
June 26-30	<u>20%</u>
TOTAL	100%

If catches in either fishery fall below the guidelines in the June 13-18 period, those unharvested sockeye, up to a maximum of five percent of the total allocation for that fishery, may be harvested during the June 19-25 period. The June 26-30 period cannot be used to make up for underharvests during the first two periods. Available information and thinking was that the sockeye stock composition between the first two periods was very similar, however the June 26-30 stock composition at South Unimak-Shumagins may be dominated by fewer and later stocks.

- (5) Unlimited seine leads were eliminated at South Unimak and leads of 50 to 150 fathoms are the only legal lengths for the entire Alaska Peninsula.
- (6) For the first time, maximum depth restrictions were placed on seine and gillnet gear. For the entire Alaska Peninsula Area seine depth may not exceed 375 meshes in depth. Seine mesh may not exceed 3-1/2 inches except the first 25 meshes above the lead line may not be more than 7 inches. No gillnet gear used along the South Peninsula may exceed 90 meshes in depth.
- (7) The area comprising the South Unimak fishery was extended to include the following

portions of the Southwestern District located outside the Ikatan Bay Section:

- (a) all waters north and west of a line from Cape Pankof Light to Thin Point.

- (b) all waters enclosed by a line from Thin Point to Stag Point on Deer Island to Dolgoi Cape and from Bluff Point on Dolgoi Island to Arch Point.

1990 SEASON SUMMARY

In 1990, sockeye were not available in large numbers at either the Shumagins or South Unimak despite the fact that Bristol Bay experienced one of its largest runs on record. Windy weather plagued fishing operations but fish abundance also seemed low, especially in view of the huge run that arrived in Bristol Bay. The Shumagin Islands sockeye harvest was 256,000 compared to a guideline harvest level of 240,000. The Shumagin Islands were open to fishing for a total of 184 hours during 9 days. At South Unimak, the harvest was 1,091,000 (1,087,000 allocation). The South Unimak fishery was open to fishing for 269 hours during 13 days.

A total of 64,000 chums were caught in the Shumagin Islands and 455,000 were caught at South Unimak for a combined total of 519,000.

Daily 1990 sockeye and chum harvests for both South Unimak and Shumagin Islands June fisheries are listed in Table 6.

If the Bristol Bay sockeye run had been accurately forecasted, the Shumagin Islands and South Unimak quotas would have been 497,000 and 2,255,000 respectively. However, due to the 600,000 chum ceiling, the Shumagin Islands fishery would have fallen

approximately 35,000 sockeye short of its corrected quota while South Unimak would have fallen approximately 1,050,000 sockeye short.

With no chum salmon ceiling, the Shumagin Islands fishery would have easily taken its sockeye allocation with a total chum catch of approximately 135,000.

Even without a chum ceiling, the South Unimak fishery would have only taken about 1.6 million of its corrected allocation while catching approximately 700,000 chums.

The harvest from the extended area in the Southwestern District totaled only 1,800 sockeye and 200 chums.

The impact of the gear depth limitation on gear efficiency is not known at this time. It is also not known the amount, if any, reallocation between gear types due to depth restrictions. Factors such as weather, fish distribution, and fish abundance can influence the catch between gear types to a greater degree than one year's catch data is able to reflect.

Based on the Bristol Bay forecast released in November, the 1991 June sockeye allocations are:

South Unimak	1,573,000
Shumagin Islands	<u>347,000</u>
	1,920,000

Figure 1. Alaska Peninsula and Aleutian Islands Areas Cape Menshikof to Unalaska Island.

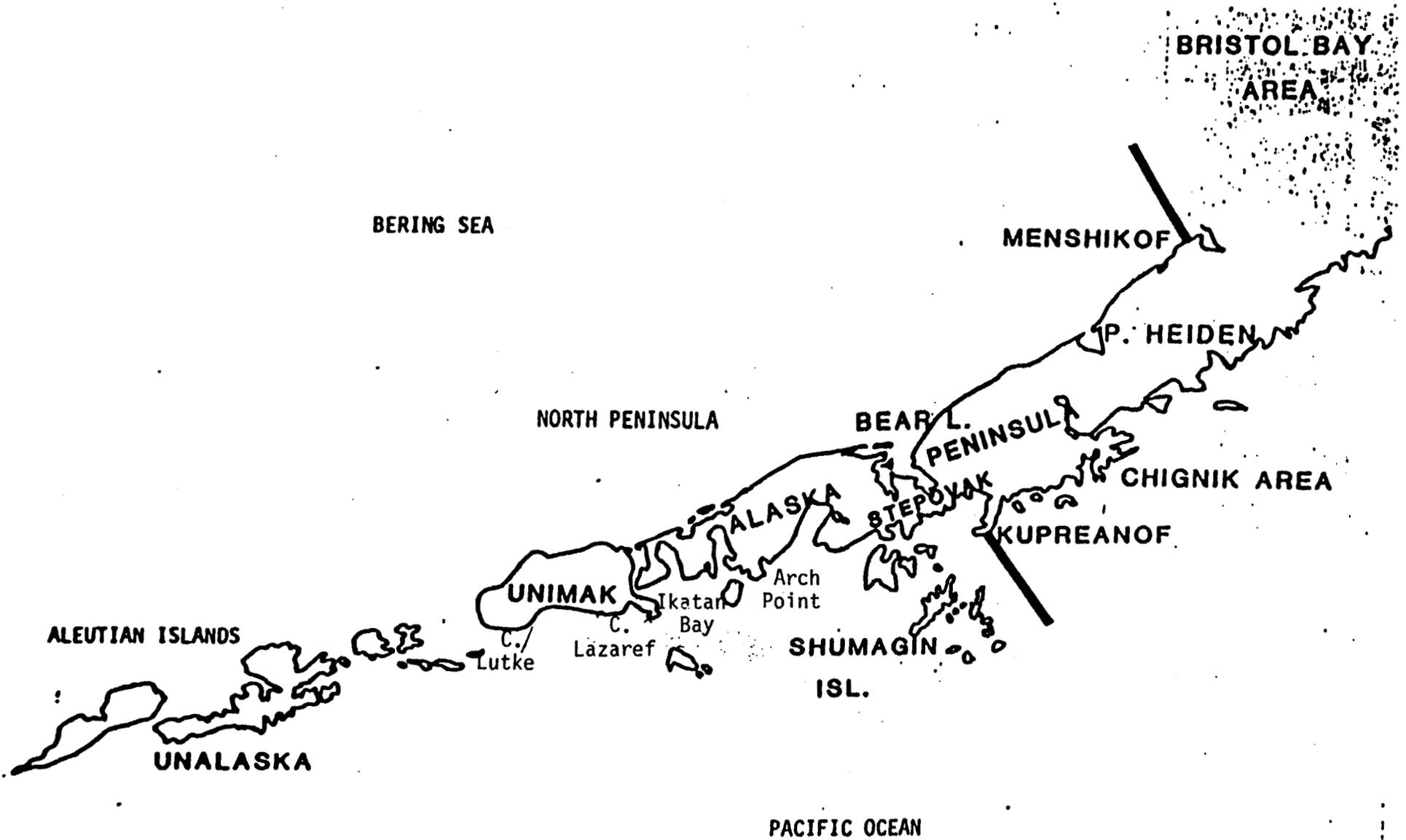


Figure 2.

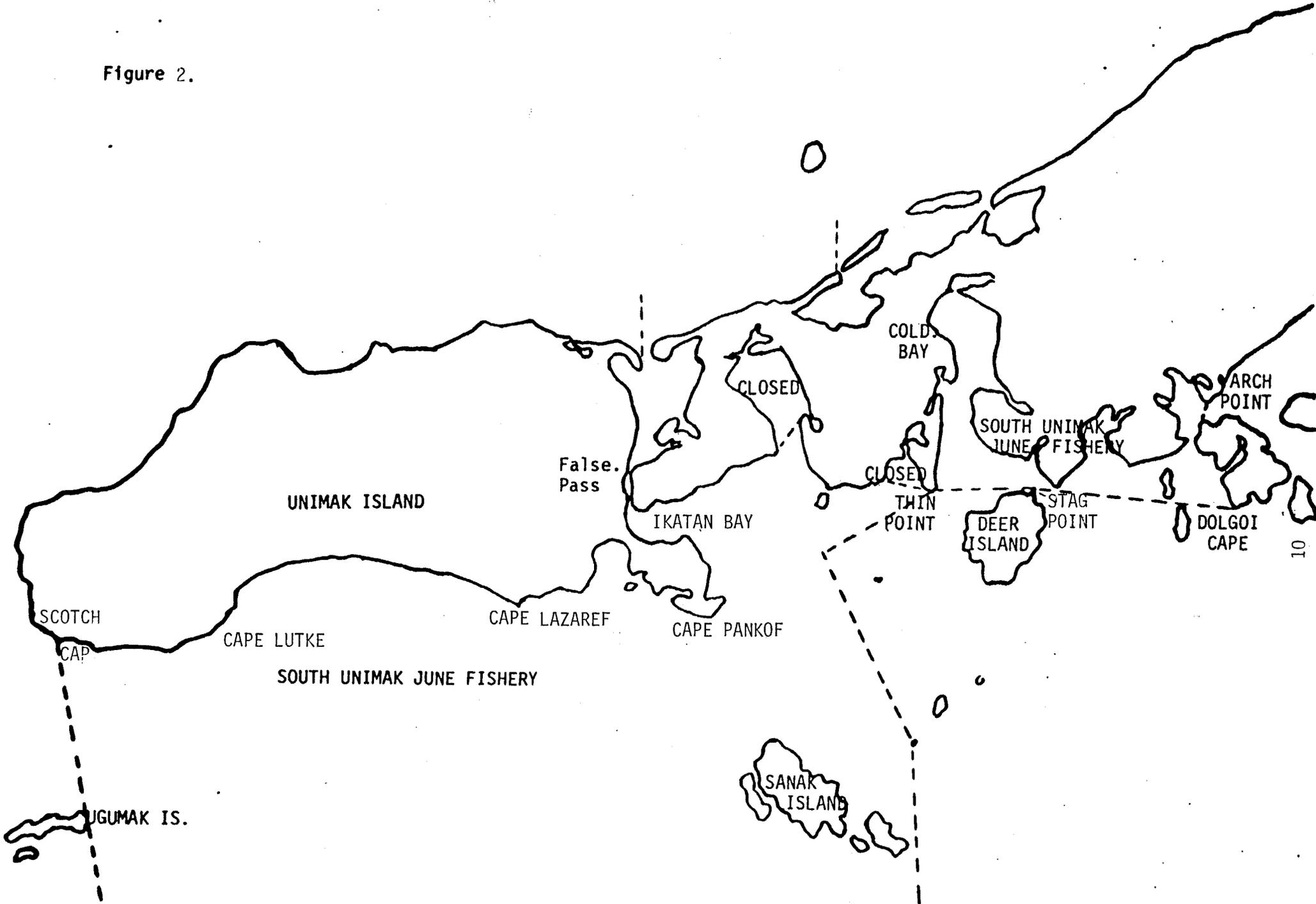


FIGURE 3.

SOUTHEASTERN DISTRICT

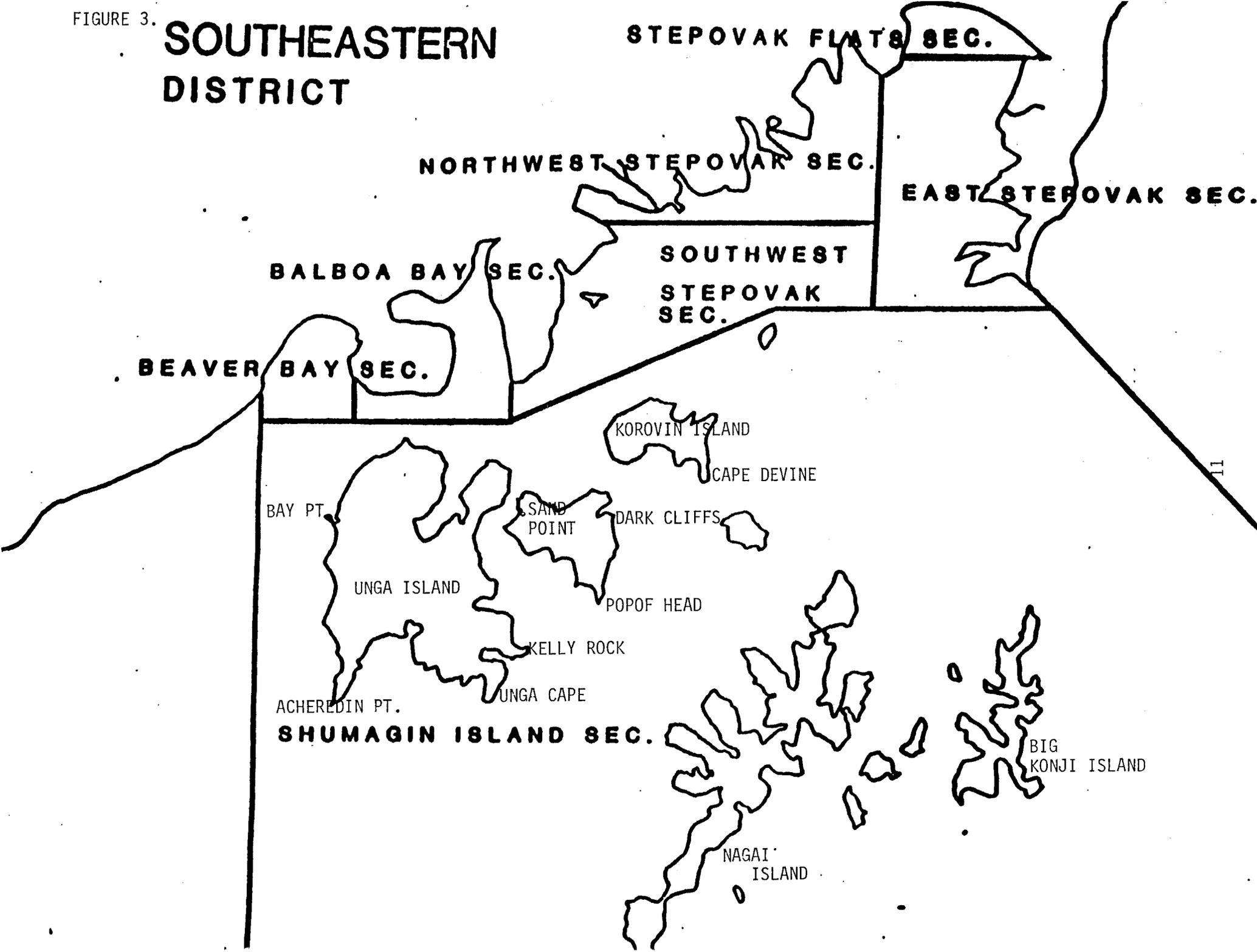


Table 1. Shumagin Island and South Unimak June fisheries, 1960-1990.*

Year	Sockeye			Chum		
	Shumagins	South Unimak	Total	Shumagins	South Unimak	Total
1960	19,000	137,000	156,000	11,000	84,000	95,000
1961	55,000	199,000	254,000	36,000	157,000	193,000
1962	54,000	272,000	326,000	61,000	209,000	270,000
1963	33,000	116,000	149,000	36,000	81,000	117,000
1964	85,000	159,000	244,000	67,000	161,000	228,000
1965	207,000	568,000	775,000	45,000	121,000	166,000
1966	54,000	528,000	582,000	17,000	215,000	232,000
1967	69,000	186,000	255,000	51,000	73,000	124,000
1968	233,000	342,000	575,000	51,000	115,000	166,000
1969	76,000	781,000	857,000	13,000	254,000	267,000
1970	153,000	1,530,000	1,683,000	49,000	403,000	452,000
1971	45,000	565,000	610,000	115,000	554,000	669,000
1972	76,000	443,000	519,000	108,000	468,000	576,000
1973	23,000	239,000	263,000	23,000	189,000	212,000
1974	0	0	0	0	0	0
1975	49,000	190,000	239,000	36,000	65,000	101,000
1976	72,000	235,000	307,000	74,000	327,000	401,000
1977	46,000	193,000	239,000	22,000	93,000	115,000
1978	68,000	419,000	487,000	18,000	105,000	123,000
1979	179,000	683,000	862,000	41,000	64,000	105,000
1980	572,000	2,731,000	3,303,000	71,000	457,000	528,000
1981	351,000	1,474,000	1,825,000	54,000	521,000	575,000
1982	451,000	1,670,000	2,121,000	160,000	934,000	1,094,000
1983	416,000	1,545,000	1,961,000	169,000	615,000	784,000
1984	257,000	1,131,000	1,388,000	109,000	228,000	337,000
1985	367,000	1,495,000	1,862,000	134,000	345,000	479,000
1986	156,000	314,000	470,000	99,000	252,000	351,000
1987	141,000	652,000	793,000	37,000	406,000	443,000
1988	282,000	474,000	756,000	62,000	465,000	527,000
1989	397,000	1,348,000	1,745,000	48,000	408,000	456,000
1990	256,000	1,091,000	1,347,000	64,000	455,000	519,000

* The South Unimak figures include some early July catches.

Table 2. Salmon gear on south side of Alaska Peninsula Area during June, 1976-1990.^a

Year	Purse Seine	Drift Gill Net	Set Gill Net
1976	25	94	16
1977	15	98	16
1978	22	106	17
1979	33	100	22
1980	51	123	24
1981	74	126	32
1982	85	126	33
1983	92	139	41
1984	104	143	52
1985	105	140	51
1986	102	153	50
1987	84	140	62
1988	89	147	63
1989	96	144	65
1990	109	153	65

^a During the peak of the South Unimak-Shumagin June fishery (June 12-25), approximately 30-40 seiners fish the Shumagins. During the few occasions when South Unimak is open and Shumagins closed, nearly the entire purse seine fleet is at Unimak. Drift net effort declines after June 20 as the fleet begins moving to Port Moller.

Table 3. South Peninsula June fishery vs. actual Bristol Bay harvest, sockeye salmon, 1975-1990.

Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol Bay Catch	Actual South Peninsula Catch	S. Peninsula % of Actual Bristol Bay Catch	Actual Bristol Bay Catch	S. Peninsula GHL if Actual Bristol Bay Catch Was Forecasting
1975	215,000	4.39	239,000	4.88	4,899,000	407,000
1976	425,000	7.56	307,000	5.46	5,619,000	466,000
1977	237,000	4.86	239,000	4.90	4,878,000	405,000
1978	522,000	5.26	487,000	4.91	9,928,000	824,000
1979	1,100,000	5.13	862,000	4.02	21,429,000	1,779,000
1980 ^a	3,068,000	12.91	3,303,000	13.90	23,762,000	1,972,000
1981	1,760,000	6.87	1,825,000	7.13	25,503,000	2,125,000
1982	2,258,000	14.95	2,121,000	14.04	15,104,000	1,254,000
1983	1,793,000	4.80	1,961,000	5.25	37,372,000	3,102,000
1984	1,356,000	5.49	1,389,000	5.62	24,710,000	2,051,000
1985	1,685,000	7.11	1,862,000	7.86	23,703,000	1,967,000
1986 ^b	1,107,000	7.02	470,000	2.98	15,776,000	1,310,000
1987	775,000	4.82	793,000	4.93	16,069,000	1,334,000
1988 ^{b,c}	1,542,000	11.01	756,000	5.40	14,006,000	1,162,000
1989 ^c	1,463,000	5.10	1,745,000	6.08	28,710,000	2,383,000
1990 ^c	1,327,000	4.00	1,347,000	4.06	33,165,000	2,752,000

^a 1980 Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

^b The guideline harvest level if chum salmon restrictions were not placed on the fishery. Includes only South Unimak and Shumagin June fisheries. Target percentage is 8.3.

^c Bristol Bay catch figures are preliminary.

Table 4. South Unimak June fishery vs. actual Bristol Bay harvest sockeye salmon, 1975-1990.

Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol Bay Catch	Actual S. Unimak Catch	S. Unimak % of Actual Bristol Bay Catch	Actual Bristol Bay Catch	S. Unimak GHL if Actual Bristol Bay Catch Was Forecasted
1975	165,000	3.37	190,000	3.88	4,899,000	333,000
1976	350,000	6.23	235,000	3.18	5,619,000	382,000
1977	195,000	4.00	193,000	3.96	4,878,000	332,000
1988	428,000	4.31	419,000	4.22	9,928,000	675,000
1989	900,000	4.20	683,000	3.19	21,429,000	1,457,000
1980 ^a	2,513,000	10.58	2,731,000	11.49	23,762,000	1,616,000
1981	1,442,000	5.63	1,474,000	5.76	25,603,000	1,741,000
1982	1,850,000	12.21	1,670,000	11.03	15,146,000	1,030,000
1983	1,469,000	3.93	1,545,000	4.13	37,372,000	2,541,000
1984	1,111,000	4.50	1,132,000	4.58	24,710,000	1,680,000
1985	1,380,000	5.82	1,495,000	6.31	23,703,000	1,612,000
1986 ^b	907,000	5.75	314,000	1.99	15,776,000	1,073,000
1987	635,000	3.95	652,000	4.06	16,069,000	1,093,000
1988 ^{b,c}	1,263,000	9.02	474,000	3.38	14,005,000	952,000
1989 ^c	1,199,000	4.18	1,348,000	4.70	28,710,000	1,952,000
1990 ^c	1,087,000	3.28	1,091,000	3.29	33,165,000	2,255,000

^a 1980 Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

^b The guideline harvest level if chum salmon restrictions were not placed on the fishery. Target percentage is 6.8

^c 1988 through 1990 Bristol Bay catch figures are preliminary.

Table 5. Shumagin Islands June fishry vs. actual Bristol Bay harvest, sockeye salmon, 1975-1990.

Year	Guideline Harvest Level (GHL)	GHL % of Actual Bristol Bay Catch	Actual Shumagins Catch	Shumagins % of Actual Bristol Bay Catch	Actual Bristol Bay Catch	Shumagin GHL if Actual Bristol Bay Catch was Forecasted
1975	50,000	1.02	49,000	1.00	4,899,000	73,000
1976	75,000	1.33	72,000	1.28	5,619,000	84,000
1977	42,000	0.86	46,000	0.94	4,878,000	73,000
1978	94,000	0.95	68,000	0.68	9,928,000	149,000
1979	200,000	0.93	179,000	0.84	21,429,000	321,000
1980 ^a	555,000	2.34	572,000	2.41	23,762,000	356,000
1881	318,000	1.24	351,000	1.37	25,603,000	384,000
1982	408,000	2.70	451,000	2.99	15,104,000	227,000
1983	324,000	0.87	416,000	1.11	37,372,000	561,000
1984	245,000	0.99	257,000	1.04	24,710,000	371,000
1985	305,000	1.29	367,000	1.55	23,703,000	356,000
1986 ^b	200,000	1.27	156,000	0.99	15,776,000	237,000
1987	140,000	0.87	141,000	0.88	16,069,000	241,000
1988 ^{a,b}	279,000	1.99	282,000	2.01	14,005,000	210,000
1989 ^c	264,000	0.92	397,000	1.38	28,710,000	431,000
1990 ^c	240,000	0.72	256,000	0.77	33,165,000	497,000

^a 1980 Bristol Bay sockeye catch would have been much larger had it not been for a lengthy strike.

^b The guideline harvest level if chum salmon restrictions were not placed on the fishery. Target percentage is 1.5.

^c Bristol Bay catch figures are preliminary.

Table 6. 1990 SHUMAGIN ISLANDS AND SOUTH UNIMAK SOCKEYE AND CHUM SALMON CATCHES - ALL GEAR

		SHUMAGINS		SOUTH UNIMAK	
		Sockeye	Chums	Sockeye	Chums
June	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13	8,335	1,008	12,444	5,116
	14			33,525	11,774
	15	3,231	862		
	16	28,280	5,075	68,538	18,801
	17	44,101	13,553	147,450	41,921
	18	44,201	16,344	91,284	25,668
	19	9,849	3,846	33,703	9,070
	20	9,126	1,465	81,510	28,608
	21	42,479	9,015	122,209	57,519
	22	65,983	12,333	119,937	35,621
	23			106,452	46,784
	24			87,875	76,045
	25				
	26			172,743	92,361
	27				
	28			13,040	5,950
	29				
	30				
TOTAL		255,585	63,501	1,090,710	455,238

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