

ALEUTIAN ISLANDS AND ATKA-AMLIA ISLANDS MANAGEMENT AREAS
SALMON MANAGEMENT REPORT, 2001

By

Arnold R. Shaul
and
Joseph J. Dinnocenzo

Regional Information Report¹ No. 4K02-14

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

March 2002

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AUTHORS

Arnold Shaul is the Commercial Salmon Area Management Biologist for the Aleutian Islands and Atka-Amlia Islands Areas and part of the Alaska Peninsula Area, Alaska Department of Fish and Game, Division of Commercial Fisheries, 211 Mission Road, Kodiak, Alaska 99615.

Joseph Dinnocenzo is the Assistant Commercial Salmon Area Management Biologist for the Aleutian Islands and Atka-Amlia Islands Areas and part of the Alaska Peninsula Area, Alaska Department of Fish and Game, Division of Commercial Fisheries, 211 Mission Road, Kodiak, Alaska 99615.

ACKNOWLEDGMENTS

The Dutch Harbor shellfish staff, especially Kathleen Herring, were very helpful in issuing and collecting subsistence permits. Dutch Harbor personnel spent considerable time enforcing subsistence regulations. Dodd Shay and Greg Watchers of the Summer Bay weir project (result of *M/V Kuroshima* oil spill) did foot surveys on Unalaska Bay streams.

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ABSTRACT

The Aleutian Islands and Atka–Amlia Islands Areas includes all of the Aleutian Islands west of Unimak Island.

Commercial salmon harvest records date back to 1911. Pink salmon *Oncorhynchus gorbuscha* are the dominant species in the Aleutian Islands, and runs tend to be stronger during even numbered years. Nearly all of the commercial harvests in the Aleutian Islands Area comes from Unalaska Island. The Atka–Amlia Islands Area was created in 1992 and small commercial harvests occurred in 1992 through 1994. There has been only one year (2000) with a commercial harvest since 1994 in either area. In 2001, no commercial salmon harvests occurred in either the Aleutian Islands or Atka-Amlia Islands Areas.

Subsistence salmon fishing for salmon is an important activity on Unalaska and Adak Islands. Permits are not required to subsistence fish for salmon in that part of the Aleutian Islands and Atka–Amlia Islands Areas located outside the Adak and Unalaska Districts. Consequently the Adak and Unalaska Districts are the only locations with harvest estimates. Sockeye salmon *O. nerka* dominate the subsistence salmon harvest in the Adak and Unalaska Districts. In 2001, the estimated Unalaska District subsistence salmon harvest was 4 chinook salmon *O. tshawytscha*, 3,850 sockeye salmon, 563 coho salmon *O. kisutch*, 763 pink salmon, and 100 chum salmon *O. keta*. The estimated Adak District subsistence harvest was 474 sockeye, 19 coho, and 17 pink salmon.

There is very little salmon escapement information in the Aleutian Islands and Atka–Amlia Islands Areas. A brief aerial survey on August 11, 2001 indicated that the Unalaska Island pink salmon escapements were unusually strong for an odd numbered year. A good sockeye salmon escapement was achieved at Unalaska Lake and record high sockeye sockeye salmon escapements were recorded at Summer Bay and McLees Lakes.

INTRODUCTION

This report presents salmon harvest and limited escapement information for the Aleutian Islands and Atka-Amlia Islands Management Areas. The Aleutian Islands Management Area includes the waters of Alaska west of Unimak Island, including the Priblof Islands, but excluding the Atka-Amlia Islands Management Area which encompasses all Aleutian Islands waters between Seguam Pass (172°50.00' W. long.) and Atka Pass (175°23.00' W. long.) (Figure 1; 5 AAC 11.101, 5 AAC 12.100).

The Aleutian Islands Management Area is part of salmon permit Area M. Seining is the only legal commercial method to harvest salmon in the Aleutian Islands Area (5 AAC 12.330). Legal commercial harvest methods for Atka-Amlia Islands Management Area, Area F, include both set gillnetting and purse seining (5 AAC 11.333). To date, only set gillnet fishermen have reported commercial salmon harvests from the Atka-Amlia Islands Area (Shaul and Dinnocenzo 2001).

COMMERCIAL SALMON FISHING

The Aleutian Islands produce runs of sockeye *Oncorhynchus nerka*, coho *O. kisutch*, pink *O. gorbuscha*, and chum *O. keta* salmon. However, only pink salmon have proven to be of commercial importance during most years (Table 1). There have been years when substantial harvests of sockeye and chum salmon have been taken in the Aleutian Islands Area, however some of the catches of these species have been taken in locations where fish destined for distant waters are available. This was the case in 1984 when approximately 64,000 sockeye and 10,000 chum salmon were harvested in Unimak Pass, a major migration area. Also, harvest data in the early years of the fisheries may not always be accurate.

Unalaska, Umnak, Unimak, Atka, Amlia, Adak, and Attu Islands produce large pink salmon runs during some years. Tanaga, Kanaga, and Kiska Islands each have at least one important pink salmon stream. There are no known chinook salmon *O. tshawytscha* producing streams in the Aleutian Islands and Atka-Amlia Islands Management Areas.

Nearly all commercial fishing effort has been confined to Unalaska Island waters (Figure 2), except for occasional fishing on Umnak Island during the 1950s and early 1960s, and an expedition to Attu Island in 1963. The Atka-Amlia Islands fishery has yet to be a commercial success. Only a few pink salmon were landed at Atka Island in 1992, 1993, and 1994 (Table 2; Holmes 1995).

Markets often limit commercial salmon harvests in both the Unalaska Island and the Atka-Amlia Island fisheries. At Unalaska, markets only develop if pink salmon abundance and prices warrant tenders traveling from King Cove or if a floating processor moves into the area. Some fish (usually sockeye salmon) were salted by fishermen prior to 1979. Processors located at Unalaska-Dutch Harbor or Akutan purchased most of the commercially harvested salmon from 1979 through 1988. Due to the decline in demand for pink salmon during recent years, most of the harvest has been transported to the Alaska Peninsula for canning.

Aleutian Islands pink salmon runs tend to be much larger during even numbered years (Shaul and Dinnocenzo 2001). Often there is no commercial harvest during odd numbered years. The average Aleutian Islands Area even-year harvest for 1982-2000 is 569,295 fish; the odd-year average pink salmon harvest for 1983-2001 is 880 fish (Table 1). The largest Aleutian Islands Area pink salmon harvest, of 2,597,502 million fish, was taken in Unalaska Island waters in 1980 (Table 1). Approximately 2.0 million fish of the 1980 pink salmon harvest were caught in Makushin Bay (Figure 2). The Nateekin River, in Unalaska Bay, historically produced large runs during both odd and even-years, but has not produced a strong odd year run since 1981. Pink salmon runs are often unstable, producing very high returns and then collapsing for no apparent reason (Shaul and Dinnocenzo 2001). Stream scouring from violent storms and variations in marine survival are suspected factors. Since 1994, there have been no commercial salmon harvests in the Atka-Amlia Islands Area and only one year (2000) of commercial harvests in the Aleutian Islands Area.

SUBSISTENCE SALMON FISHING

Subsistence salmon fishing is very important to Aleutian Islands communities (Tables 3, 4, 5, and 6; Veltre and Veltre 1981 and 1983; L. Scarborough, Alaska Department of Fish and Game, Anchorage, personal communication). However, due to the remoteness of most villages, subsistence salmon fishing permits are only required in the Unalaska and Adak Districts (5 AAC 01.380; Shaul and Dinnocenzo *in press*). Unalaska and Adak are the only communities where subsistence information (from returned permits) is compiled on an annual basis. Sockeye salmon are the most desired species in Aleutian Island communities.

From 1997 through 2001, the number of subsistence salmon permits issued for Unalaska Island averaged 211, and 203 permits were issued in 2001 (Table 4). The Unalaska Island estimated subsistence harvest averaged 4,978 salmon from 1997 through 2001 and an estimated harvest of 5,280 salmon occurred in 2001 (Table 4). Due to a large population increase on Unalaska Island in recent years, additional restrictions on subsistence use have been implemented to protect salmon stocks. The ADF&G has also increased monitoring efforts for Unalaska Island subsistence salmon fisheries.

The Alaska Board of Fisheries (BOF) eliminated subsistence salmon fishing in the Adak District during 1988-97 and created a personal use salmon fishery for Adak and Kagalaska Islands. Salmon personal use information for the former military community of Adak is presented in Table 6. The fishing effort declined during 1993-96, when the U.S. Navy phased out operations, but rebounded somewhat in 1997 with an increase in the civilian population. In 1998, the BOF reinstated subsistence salmon fishing in the Adak District. From 1998 through 2001, the number of Adak District subsistence permits has ranged from 5 in 1999 to 17 in 2001 for an average of 12 (Table 6).

In the past, Atka subsistence data were collected by interviews conducted by the ADF&G Subsistence Division. Due to budget reductions, the last survey was conducted in 1994 (Table 3). In 1994, 28 of 29 households were surveyed. The 1994 Atka subsistence harvest was 2,504

salmon comprising 12 chinook, 431 sockeye, 567 coho, 1,387 pink, and 107 chum salmon (Table 3).

SALMON ESCAPEMENT

Unalaska Island salmon escapement data are incomplete. Poor weather, remoteness, availability of suitable aircraft, and the high cost of aircraft charters limit survey efforts. Escapement information is nearly nonexistent for the balance of the Aleutian Islands and Atka-Amlia Islands Areas. A comprehensive escapement and distribution study of the entire Aleutian chain was conducted by ADF&G in 1982 (Holmes 1997). The United States Energy Research and Development Administration conducted limited studies on Amchitka Island in 1977 (Seimenstad et al. 1977; Valdez et al. 1977); the ADF&G did repetitive surveys on some Atka and Amlia Islands streams in 1992, 1993, and 1994 (Holmes 1995); and the U.S. Fish and Wildlife Service (USFWS) did additional abundance and distribution research at Adak Island in 1993 and 1994 (Palmer 1995).

The timing of Aleutian Island pink salmon migrating into freshwater varies considerably between years and between streams; it is much more variable than on the south side of the Alaska Peninsula. Pink salmon often begin to enter streams in late July and may trickle in throughout September at both Atka and Unalaska Islands during large runs (usually even-years). Sometimes pink salmon are not observed in streams until mid August. Observations by USFWS indicate a similar pattern at Adak Island. Aleutian Islands pink salmon also tend to be of smaller size than those of Alaska Peninsula stocks (Shaul and Berceci 1995), however Unalaska Island pink salmon were larger than Alaska Peninsula pink salmon during 2000 (Shaul and Dinnocenzo 2001).

2001 SEASON

The commercial salmon fishery was managed by the ADF&G staff in Cold Bay. Salmon subsistence permits were issued by the ADF&G staff in Dutch Harbor. Harvest data was summarized by the salmon staff, based in Kodiak during the winter.

Commercial Harvest

For the seventh consecutive year there were no commercial salmon landings in the Atka-Amlia Islands Area. No commercial salmon landings occurred in the Aleutian Islands Area during 2001 (Table 1). Two emergency orders were issued dealing with commercial fishing in the Aleutian Islands Area during 2001 (Table 7).

Subsistence and Personal Use Harvest

Subsistence fishing effort at Unalaska has increased considerably in recent years. The number of permits increased from 65 in 1985 to 221 in 1997 (Table 4). The average sockeye salmon harvest has increased from 2,180 fish during 1985-1995 to 3,429 during 1997-2001. Most of the sockeye salmon catch in recent years came from Reese Bay (Figure 3). The total 2001 Unalaska Island sockeye salmon harvest was an estimated 3,850 fish of which 3,389 (88%) were caught at Reese Bay, also known as Wislow (Table 5). In 2001, the Unalaska Lake sockeye salmon harvest was an estimated 241 fish (6.3% of the Unalaska Island sockeye salmon harvest; Table 5). Unalaska Lake sockeye salmon are very important to local residents who cannot travel to other places to catch sockeye salmon. In 2001, an estimated 563 coho salmon were harvested under subsistence regulations on Unalaska Island (Table 5), of which 344 (61.1%) were harvested in Broad Bay (Figure 3; Table 4).

The 2001 estimated pink salmon harvest around Unalaska Island for subsistence purposes was 678 fish (Table 4). Chinook and chum salmon are not abundant in Unalaska Island waters and account for only a small portion of the subsistence harvest (Table 4). In 2001, an estimated 4 chinook and 100 chum salmon were caught in the Unalaska District subsistence harvest.

A total of 17 Adak District subsistence salmon permits were issued in 2001, and all but one were filled out and returned (reported). The total Adak subsistence salmon harvest was estimated to be 474 sockeye, 19 coho, and 17 pink salmon (Table 6). At least 203 (43%) of the sockeye salmon harvest came from Quail Bay on Kagalaska Island.

Additional subsistence information may be found in Shaul and Dinnocenzo (*in press*).

Escapements

An aerial survey of a portion of Unalaska Island on August 11 indicated that pink salmon escapements were unusually strong for an odd numbered year. The estimate at Nateekin River of 150,000 pink salmon in stream and 100,000 at the mouth (Table 8) was the largest escapement observed for that stream during any year since 1982.

The aerial survey of Unalaska Lake during August 11, estimated the sockeye salmon escapement to be 1,000 fish which was above the peak escapement goal range of 400 to 800 fish.

For the fourth straight year, the ADF&G operated a weir at the outlet of Summer Bay Lake in response to the Kuroshima oil spill. The weir was operated in 2001 from June 1 through September 11. The 2001 sockeye salmon escapement of 5,388 fish was the highest on record, and was far above the goal of 800 to 1,600 fish. The pink salmon escapement of 4,114 fish was far above the indexed total goal of 500 to 800 fish. The 2001 coho salmon escapement of only 23 fish was poor. Detailed weir count information will be given in a future report dealing only with the Summer Bay Lake system. The ADF&G Sport Fish Division closed sport fishing for coho salmon effective September 15 through December 31 within 250 yards of the Summer Bay Lake outlet terminus (the freshwater of the Summer Bay Lake system was already closed to salmon fishing by regulation). A storm which caused the entrance to Summer Bay Lake to be

blocked on September 10-11 along with the low number of coho salmon counted through the weir previously prompted the Sport Fish Division to take action (Len Schwarz personal communication).

The U.S. Fish and Wildlife Service installed and operated a weir at the outlet of McLees Lake from June 15 through July 30 (Table 9). A total of 45,866 sockeye salmon were counted through the weir. This count is considered low as a substantial number of sockeye salmon likely escaped into the lake prior to the weir installation. The weir was fishtight at 8:00 PM on June 15 and 331 sockeye salmon were counted through that evening and another 2,321 the next day. An aerial survey on August 11 confirmed that the sockeye salmon escapement to McLees Lake during 2001 was unusually large. The aerial survey estimate of 34,000 sockeye salmon was far larger than estimates from any previous years. It is likely that this estimate is low because substantial numbers of salmon were probably upstream of where it was possible to fly. The peak escapement goal for McLees Lake sockeye salmon is 3,200 to 6,400 fish.

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Table 1. Aleutian Islands Area (excluding Atka and Amlia Islands) commercial salmon harvests in numbers of fish by year, 1911-2001.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1911	0	9,300	0	0	0	9,300
1912-1915	0	0	0	0	0	0
1916	0	76,500	1,200	180,300	100	258,100
1917	0	70,400	3,800	600	23,100	97,900
1918	0	55,200	4,400	75,600	135,200	270,400
1919	0	3,900	800	4,000	0	8,700
1920	0	10,100	2,800	0	0	12,900
1921	0	0	0	0	0	0
1922	0	14,000	0	0	0	14,000
1923	0	0	0	0	0	0
1924	0	24,900	0	673,800	100	698,800
1925	0	18,600	0	3,800	9,100	31,500
1926	0	1,300	0	521,700	7,800	530,800
1927	0	17,300	0	334,600	0	351,900
1928-1950 ^a						
1951	0	11,700	400	500	94,500	107,100
1952	200	42,800	0	31,800	25,700	100,500
1953	0	4,200	500	69,200	800	74,700
1954	0	6,300	800	566,500	200	573,800
1955	0	12,600	100	31,100	400	44,200
1956	0	400	0	33,900	0	34,300
1957	2,300	27,300	100	500	13,900	44,100
1958	0	300	0	613,200	3,700	617,200
1959	0	6,100	0	12,000	100	18,200
1960	0	7,600	0	444,900	300	452,800
1961	0	2,700	0	94,000	200	96,900
1962	0	5,500	100	2,001,700	1,200	2,008,500
1963	0	4,500	0	93,900	300	98,700
1964	0	200	0	194,100	2,300	196,600
1965	0	0	0	0	0	0
1966	0	1,000	0	63,500	700	65,200
1967	0	200	0	7,900	0	8,100
1968	0	2,000	100	902,800	800	905,700
1969	0	1,900	0	242,200	1,500	245,600
1970	6	208	135	644,121	3,029	647,499
1971	0	333	2	45,141	58	45,507
1972	0	69	1	2,784	6	2,860
1973	0	0	0	2,042	0	2,042
1974	0	0	0	0	0	0
1975	0	19,402	0	659	1,881	21,942
1976-1977	0	0	0	0	0	0
1978	0	1,829	0	38,109	6	39,944
1979	0	12,206	0	539,393	242	551,841

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Table 1. (page 2 of 2)

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1980	2	9,226	0	2,597,502	4,874	2,611,565
1981	16	5,430	188	302,786	6,553	314,973
1982	0	2,672	28	1,447,818	6,148	1,456,666
1983	0	4,405	0	2,005	11,361	17,771
1984	26	67,163	1,923	2,309,665	33,025	2,410,802
1985	40	2,750	0	90	14,175	17,055
1986	11	7,702	60	42,621	38,819	89,213
1987	0	75	0	0	0	75
1988	0	4,315	7	183,109	450	187,881
1989	0	8,248	0	6,700	0	14,948
1990	0	12,435	74	282,823	1,038	296,372
1991	0	796	0	0	0	796
1992	0	3,082	0	312,072	1,230	316,348
1993	0	0	0	0	0	0
1994	47	6	0	858,787	617	859,457
1995-1999	0	0	0	0	0	0
2000	1	0	59	256,050	0	256,110
2001	0	0	0	0	0	0
Average						
1991-2000	5	388	6	142,691	185	143,275
Odd Year Average Pink Harvest, 1983-2001				880		
Even Year Average Pink Harvest, 1982-2000				569,295		

^aThe Aleutian Islands catches cannot be separated from those of the Alaska Peninsula Area during 1928-1950.

Table 2. Atka-Amlia Islands Area commercial salmon harvests in numbers of fish by year, 1992-2001.

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1992 ^a	13	41	0	231	42	7,972	308	8,553
1993 ^b	9	10	0	24	4	145	563	736
1994 ^{b,c}	6	7	0	16	0	896	0	912
1995 ^c	8	0	0	0	0	0	0	0
1996 ^c	10	0	0	0	0	0	0	0
1997 ^c	7	0	0	0	0	0	0	0
1998 ^d	0	0	0	0	0	0	0	0
1999 ^d	0	0	0	0	0	0	0	0
2000 ^d	0	0	0	0	0	0	0	0
2001 ^d	0	0	0	0	0	0	0	0

^a Processor never paid fishermen.

^b No local market for salmon, catch retained for personal halibut bait and subsistence.

^c Small salmon return, no market.

^d No one applied for permits.

Table 3. Estimated subsistence salmon harvest, by gear type, for the community of Atka, 1994.

Species	Subsistence Methods					Total
	Set Gillnet	Beach Seine	Removed From Commercial Catch	Rod and Reel	Other	
Chinook	1	0	0	11	0	12
Sockeye	242	0	0	149	40	431
Coho	303	0	0	264	0	567
Pink	715	0	200 ^a	472	0	1,387
Chum	59	0	0	28	20	107
Total	1,320	0	200	924	60	2,504

^aAn additional 30 pink salmon were removed from the commercial catch, area unspecified.

Note: Twenty eight out of twenty nine households surveyed for 1994; no surveys have been conducted since. Data gathered by Lisa Scarbrough, ADF&G, Subsistence Division, and Moses Dirks, USFWS.

Table 4. Estimated subsistence salmon harvest for Unalaska Island, 1985-2001.

Year	Permits Issued	Chinook	Sockeye	Coho	Pink	Chum	Total
UNALASKA LOCAL COMMUNITY RESIDENTS^a							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	74	1	962	390	2,626	83	4,062
1989	70	2	1,064	470	1,292	36	2,864
1990	94	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	137	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	159	23	4,446	480	784	23	5,756
1996	189	5	1,107	1,033	492	49	2,686
1997	218	8	4,192	864	440	110	5,614
1998	206	4	3,317	731	729	26	4,807
1999	208	0	2,707	1,327	1,018	13	5,065
2000	205	7	3,073	569	315	24	3,988
2001	201	4	3,850	563	763	100	5,280
1997-2001 AVG	208	5	3,428	811	653	55	4,952
UNALASKA-RESIDENTS RESIDING OUTSIDE OF UNALASKA DISTRICT^a							
1985	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0
1988	3	2	4	0	1	0	7
1989	4	0	48	0	0	0	48
1990	2	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	2	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	1	0	38	4	7	0	49
1996	0	0	0	0	0	0	0
1997	3	0	0	0	114	0	114
1998	0	0	0	0	0	0	0
1999	3	0	0	0	0	0	0
2000	7	0	4	1	10	0	15
2001	2	0	0	0	0	0	0
1997-2001 AVG	3	0	1	0	25	0	26
TOTAL UNALASKA^a							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	77	3	966	390	2,627	83	4,069
1989	74	2	1,112	470	1,292	36	2,912
1990	96	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	139	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	160	23	4,484	484	791	23	5,805

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Table 4. (page 2 of 2)

Year	Permits Issued	Chinook	Sockeye	Coho	Pink	Chum	Total
1996	189	5	1,107	1,033	492	49	2,686
1997	221	8	4,192	864	554	110	5,728
1998	206	4	3,317	731	729	26	4,807
1999	211	0	2,707	1,327	1,018	13	5,065
2000	212	7	3,077	570	325	24	4,003
2001	203	4	3,850	563	763	100	5,280
1997-2001 AVG	211	5	3,429	811	678	55	4,978

* Harvest estimated from average catch from returned permits.

Table 5. Estimated Unalaska Island subsistence sockeye and coho salmon harvests by major location, 2001.

Location	Estimated Permits ^a	Sockeye	Coho
Reese Bay (Wislow)	63	3,389	0
Broad Bay	19	0	344
Nateeken Bay	4	0	69
Captains Bay	6	0	75
Unalaska Lake vicinity	9	241	0

^aThe number of permit holders and salmon harvested are extrapolated from returned permits.

Table 6. Adak-Kagalaska Islands estimated personal use salmon catches, 1988-1997 and 1998-2001 Adak District subsistence harvest.

Year	Permits Issued	Permits Returned	Percent Returned	Estimated Catch					
				Chinook	Sockeye	Coho	Pink	Chum	Total
Personal Use									
1988	43	29	67	0	503	23	150	0	676
1989	64	47	73	0	382	0	117	0	499
1990	61	29	48	0	800	47	41	0	888
1991	37	31	87	0	281	6	34	0	321
1992	52	41	79	0	572	30	4	0	606
1993	4	3	75	0	156	0	0	0	156
1994 ^a	0	0	0	0	0	0	0	0	0
1995	4	3	75	0	156	0	0	0	156
1996	6	6	100	0	91	0	0	0	91
1997 ^b	18	12	67	0	229	0	0	4	233
1988-97 ^c									
Average	29	20	67	0	317	11	35	0	363
Subsistence									
1998	13	10	77	0	399	0	25	0	424
1999	5	5	100	0	164	4	0	0	168
2000	13	12	92	0	265	4	78	0	347
2001	17	14	82	0	474	19	17	0	510
1998-01									
Average	12	10	83	0	326	7	30	0	363

^a U.S. Navy personnel reduced at Adak, personal use permits not requested.

^b In 1997, a substantial number of civilians were hired by the Navy to work in a cleanup effort at Adak.

^c Average includes 1994.

Table 7. Emergency order summary for the Aleutian Islands Area salmon fishery, 2001.

E.O.#	Issued	Effective	Action Taken
CB-47	11:00 AM 8/12/01	8:00 AM 8/13/01	<u>Establishes</u> an 8:00 AM August 13 until 9:00 PM August 17 commercial salmon fishing period in the Aleutian Islands Area.
CB-50	8:30 AM 8/16/01	9:00 PM 8/17/01	<u>Extends</u> commercial salmon fishing time 120 hours until 9:00 PM August 22 in the Aleutian Islands Area.

Table 8. Salmon escapement survey counts in the Aleutian Islands Area, 2001

Stream	Date	Observer	Visi- Location	bility	Species				Observer Remarks		
					Chinook	Sockeye	Coho	Pink		Chum	
Volcano Bay, 302-1310	08/11/2001	Arnie Shaul	Stream Mouth Bay	E	0	5,300	0	0	0	0	ALL SCHOOLED ALONG SHORE, 500 WERE IN UPPER LAKE.
Humpback Bay #1, 302-1416	08/11/2001	Arnie Shaul	Stream Mouth Bay	E G	0 0	0 0	0 0	8,600 10,000	0 0	VERY GOOD FOR AN ODD NUMBERED YEAR.	
Humpback Bay #2, 302-1417	08/11/2001	Arnie Shaul	Stream Mouth Bay	E G	0 0	0 0	0 0	9,000 5,000	0 0	VERY GOOD FOR AN ODD NUMBERED YEAR.	
Makushin Village, 302-1420	08/11/2001	Arnie Shaul	Stream Mouth Bay	G	0	0	0	1,000	0	HIGH ALTITUDE.	
McLees Lake, 302-1507	08/11/2001	Arnie Shaul	Stream Mouth Bay	G	0	34,000	0	0	0	13,000 IN TRIBS WITH PROBABLY AT LEAST ANOTHER 4,000 ABOVE WHERE SURVEY BEGAN. 8,000 AT TRIB MOUTH AND 13,000 ALONG LAKE SHORE.	
Nateekin River, 302-4005	08/11/2001	Arnie Shaul	Stream Mouth Bay	E G	0 0	0 0	0 0	150,000 100,000	0 0	A BEAUTIFUL SIGHT, JUST LIKE SOME OF THE OLD DAYS.	
Captain's Bay Stream, 302-4006	08/11/2001	Arnie Shaul	Stream Mouth Bay	G	0	0	0	3,000	0		
Pyramid Creek, 302-4007	08/18/2001	Dodd Shay	Stream Mouth Bay	G G P	0 0 0	0 0 0	0 0 0	294 50 0	0 0 0	PINKS WERE VARIOUSLY DISTRIBUTED BETWEEN THE MOUTH OF THE STREAM AND THE FIRST WATERFALL. TWO DV WERE OBSERVED NEAR THE WHITE FUEL TANKS AND TWO MORE WERE SEEN AT THE FIRST WATERFALL. ONLY A SINGLE 6 INCH TROUT/SMOLT WAS SEEN AT THE TOP OF THE FIRST WATERFALL.	

Continued

Table 8 (page 2 of 4)

Stream	Date	Observer	Location	Visi- bility	Species				Observer Remarks	
					Chinook	Sockeye	Coho	Pink		Chum
	09/09/2001	Dodd Shay	Stream Mouth Bay	G				496		DETAILED NOTES WERE TAKEN ON THIS SURVEY.
Unalaska Village, 302-4008	08/11/2001	Armie Shaul	Stream Mouth Bay	G	0	1,000	0	6,000	0	REDS SCHOOLED IN LAKE, PINKS SCHOOLED IN LOWER END OF OUTLET STREAM.
	08/18/2001	Dodd Shay	Stream Mouth Bay	G P P	0 0 0	0 0 0	1 0 0	2,500 0 0	0 0 0	WATER AT THE MOUTH AND IN THE BAY WAS TOO MURKY TO TELL IF ANY FISH WERE THERE. PINKS WERE MOSTLY CONCENTRATED 250 FT. UPSTREAM OF THE MOUTH, WITH ONE LIKELY SILVER ALSO OBSERVED IN THIS SCHOOL.
Summer Bay, 302-4009	07/14/2001	Dodd Shay	Stream Mouth Bay	F						MANY JUMPERS IN NW CORNER OF LAKE, FEW TO NO JUMPERS ELSEWHERE IN LAKE. THE FISHING GUIDE USUALLY FISHES IN THE NW CORNER AND APPEARS TO CATCH MANY FISH THERE.
	07/22/2001	Dodd Shay	Stream Mouth Bay	F						THE WATER WAS TOO DEEP, TOO DARK, AND TOO RIPPLY TO SEE ANY FISH. ADDITIONALLY, THE NOISY OUTBOARD MOTOR COULD HAVE SCARED THEM OUT OF SIGHT. JUMPERS ARE STILL PRESENT IN NW CORNER HOWEVER.
	07/29/2001	Dodd Shay	Stream Mouth Bay	G	0	200				ABOUT 100 REDS IMMEDIATELY VISIBLE IN NW CORNER OF LAKE, POSSIBLY SEVERAL HUNDRED JUMPING/ NOT IN SIGHT THERE. 90% WERE IN SPAWNING COLORS. A LARGE SCHOOL OF REDS AND DV OBSERVED AT THE MOUTH OF THE OUTLET STREAM.
	07/29/2001	Dodd Shay	Stream Mouth Bay	G	0	200	0	1	0	ABOUT 200 REDS VISIBLE AT THE MOUTH OF THE INLET STREAM. 90% WERE IN SPAWNING COLORS. ABOUT 60 DV IN THE FIRST 500 FT. OF THE INLET STREAM AND 1 PINK AT THE MOUTH OF THE INLET STREAM.
	08/04/2001	Dodd Shay	Stream Mouth Bay	E	0	400				TWO CIRCULAR SCHOOLS OF 100 FISH EACH WERE SWIMMING IN NW CORNER OF LAKE. ONE SCHOOL OF ABOUT 200 FISH WAS WAITING OUTSIDE THE INLET STREAM. THIS SURVEY WAS DONE FROM THE MOUNTAIN.

Continued

Table 8 (page 3 of 4)

Stream	Date	Observer	Location	Visi- bility	Species					Observer Remarks
					Chinook	Sockeye	Coho	Pink	Chum	
	08/05/2001	Dodd Shay	Stream Mouth Bay	G	0	10	0	0	0	REDS CONCENTRATED IN FIRST 500 FT. OF STREAM, WITH A SINGLE RED OBSERVED 1000 FT UPSTREAM. 60 DV SEEN IN FIRST 600 FT. OF STREAM, WITH A LARGE SCHOOL OF ABOUT 500 VISIBLE AT STREAM MOUTH.
	08/10/2001	Dodd Shay	Stream Mouth Bay	E	0	225	0	10	0	ABOUT 180 REDS AND 10 PINKS IN FIRST 600 FT. OF STREAM. 20 REDS FROM 600 -1000 FT. UPSTREAM AND 25 REDS FROM 1000-2000 FT. UPSTREAM. ABOUT 100 DV WERE ALSO SEEN IN THE FIRST 1000 FT. OF THE INLET STREAM.
	08/11/2001	Dodd Shay	Stream Mouth Bay	E		900				ABOUT 400 REDS AT THE MOUTH TO THE INLET STREAM AND ABOUT 500 INDIVIDUALS SCATTERED ALONG THE SHALLOW EDGE OF THE LAKE. MANY MORE WERE SEEN SPLASHING IN THE DEEP PART OF THE LAKE.
	08/17/2001	Dodd Shay	Stream Mouth Bay	F		3,000				ABOUT 2-3,000 REDS WERE AT THE ENTRANCE TO THE INLET STREAM, NOT REDDING BUT WAITING TO GO UP. ABOUT 500 WERE REDDING IN VARIOUS SHALLOW PARTS OF THE LAKE. LESS JUMPERS THAN BEFORE WERE OBSERVED IN THE DEEP PARTS OF THE LAKE.
	08/17/2001	Dodd Shay	Stream Mouth Bay	G	0	290	0	50	0	ABOUT 210 REDS, 30 PINKS, AND 150 DV WERE OBSERVED IN THE FIRST 1000 FT. OF THE STREAM. THREE DOZEN REDDS WERE SEEN NEAR THE FIRST RIGHT-HAND FORK OF THE STREAM. IN THE NEXT 1000 FT, APPROX. 80 REDS, 50 DV, AND 20 PINKS WERE SEEN. FISH DID NOT APPEAR TO BE REDDING AND MOST WERE IN DEEP POOLS.
	08/24/2001	Dodd Shay	Stream Mouth Bay	G	0	420	0	330	0	110+ DV WERE ALSO PRESENT IN THE STREAM. REDDS NUMBERED ABOUT 10% THE TOTAL NUMBER OF FISH PRESENT. THERE WERE 30 DEAD SPAWNED REDS AND 10 DEAD SPAWNED PINKS.
	08/25/2001	Dodd Shay	Stream Mouth Bay	G	0	3,000	0	0	0	SCHOOL OF 2500+ UNSPAWNED REDS WAITING AT THE MOUTH OF THE INLET STREAM. 670+ REDS AND 505+ REDDS FOUND ALONG THE SW, S, AND E SIDES OF THE LAKE WHERE THERE IS GRAVEL PRESENT. 60 DEAD SPAWNED REDS WERE SEEN AROUND THE LAKE.
	08/29/2001	Dodd Shay	Stream Mouth Bay	F	0	512	0	687	0	PINKS FOUND IN THE STREAM DID NOT APPEAR TO BE SPAWNING YET, WHILE ALL DEAD FISH FOUND 40+ WERE REDS. 120+ DV WERE SEEN BUT LIKELY TO BE HUNDREDS MORE SINCE THEY ARE DIFFICULT TO SEE SOMETIMES.

Continued

Table 8. (page 4 of 4)

Stream	Date	Observer	Location	Visi- bility	Species					Observer Remarks
					Chinook	Sockeye	Coho	Pink	Chum	
	08/29/2001	Dodd Shay	Stream	F	0	2,800	0	21	0	VERY SIMILAR TO LAST WEEKS SURVEY, EXCEPT THE LARGE SCHOOL OF REDS WAITING OUTSIDE THE INLET STREAM HAD MADE MORE OF AN ADVANCE UPSTREAM. 20+ PINKS WERE ALSO SEEN NEAR THE MOUTH OF THE OUTLET STREAM, AS WELL AS ON THE W. SIDE OF THE LAKE.
			Mouth Bay		0	0	0	0	0	
	09/04/2001	Dodd Shay	Stream Mouth Bay	G	0	660	0	860	0	ABOUT 130+ DV SEEN IN STREAM BUT LIKELY TO BE HUNDREDS MORE. 130+ DEAD SPAWNED PINKS AND 70+ DEAD SPAWNED REDS WERE OBSERVED IN THE LOWER 2/3 OF THE STREAM.
	09/05/2001	Dodd Shay	Stream Mouth Bay	F	0	4,000				DISTRIBUTION APPEARED TO BE SIMILAR TO LAST WEEKS WITH THE SCHOOL OUTSIDE THE INLET STREAM SLIGHTLY SMALLER. 11+ REDDS ON THE W SIDE OF THE LAKE WERE ABANDONED. MORE REDS AND REDDS FOUND ON THE SW CORNER OF THE LAKE.
	09/10/2001	Dodd Shay	Stream Mouth Bay	G		3,413 0		755		200 DV WERE OBSERVED.
Humpy Cove(sum. Bay), 302-4010										
	08/11/2001	Arnie Shaul	Stream	G	0	0	0	2,000	0	
			Mouth Bay	G	0	0	0	9,000	0	
	08/27/2001	Dodd Shay	Stream Mouth Bay	G P P	0 0 0	0 0 0	0 0 0	8,000 20 0	0 0 0	60+ DV WERE ALSO FOUND IN THE STREAM, PLUS 10+ JUVENILE DV FOUND ABOVE TWO 3' WATERFALLS. EXCEPT FOR THE FIRST 20 FT. THE STREAM APPEARED TO BE ONE CONTINUOUS REDD WITH EGGS STREWN EVERYWHERE. DEAD PINKS WERE PRESENT EVERYWHERE, AT ABOUT 10% THE NUMBER OF LIVE, UNSPAWNED PINKS.
Morse Cove, 302-4011										
	08/27/2001	Dodd Shay	Stream	E	0	6	0	0	0	ONE DV WAS SEEN IN THE STREAM ALONG WITH NUMEROUS SCULPINS AND SMOLT. ELEVEN SPAWNING REDS FOUND ON THE E SIDE OF THE LAKE NEAR THE INLET STREAM, WITH 14+ DEAD SPAWNED REDS FOUND ALONG THE SHORE. 7+ OLD REDDS WERE SEEN S SIDE OF LAKE.
			Mouth	P	0	2	0	1	0	
			Bay	P	0	0	0	0	0	

Table 9. Sockeye salmon daily and cumulative escapement counts through McLees Lake weir, 2001.

Date	Daily Count	Cumulative Count	Date	Daily Count	Cumulative Count
15-Jun	331	331	8-Jul	871	35,444
16-Jun	2,321	2,652	9-Jul	902	36,346
17-Jun	626	3,278	10-Jul	1,164	37,510
18-Jun	603	3,881	11-Jul	1,213	38,723
19-Jun	613	4,494	12-Jul	816	39,539
20-Jun	488	4,982	13-Jul	805	40,344
21-Jun	1,347	6,329	14-Jul	1,110	41,454
22-Jun	1,106	7,435	15-Jul	675	42,129
23-Jun	1,270	8,705	16-Jul	595	42,724
24-Jun	1,938	10,643	17-Jul	627	43,351
25-Jun	2,118	12,761	18-Jul	784	44,135
26-Jun	2,301	15,062	19-Jul	528	44,663
27-Jun	1,729	16,791	20-Jul	420	45,083
28-Jun	2,138	18,929	21-Jul	378	45,461
29-Jun	1,585	20,514	22-Jul	106	45,567
30-Jun	2,008	22,522	23-Jul	67	45,634
1-Jul	2,876	25,398	24-Jul	6	45,640
2-Jul	2,200	27,598	25-Jul	24	45,664
3-Jul	1,046	28,644	26-Jul	16	45,680
4-Jul	1,558	30,202	27-Jul	64	45,744
5-Jul	1,872	32,074	28-Jul	67	45,811
6-Jul	1,623	33,697	29-Jul	13	45,824
7-Jul	876	34,573	30-Jul	42	45,866

Note: Funded and operated by U.S. Fish and Wildlife Service.

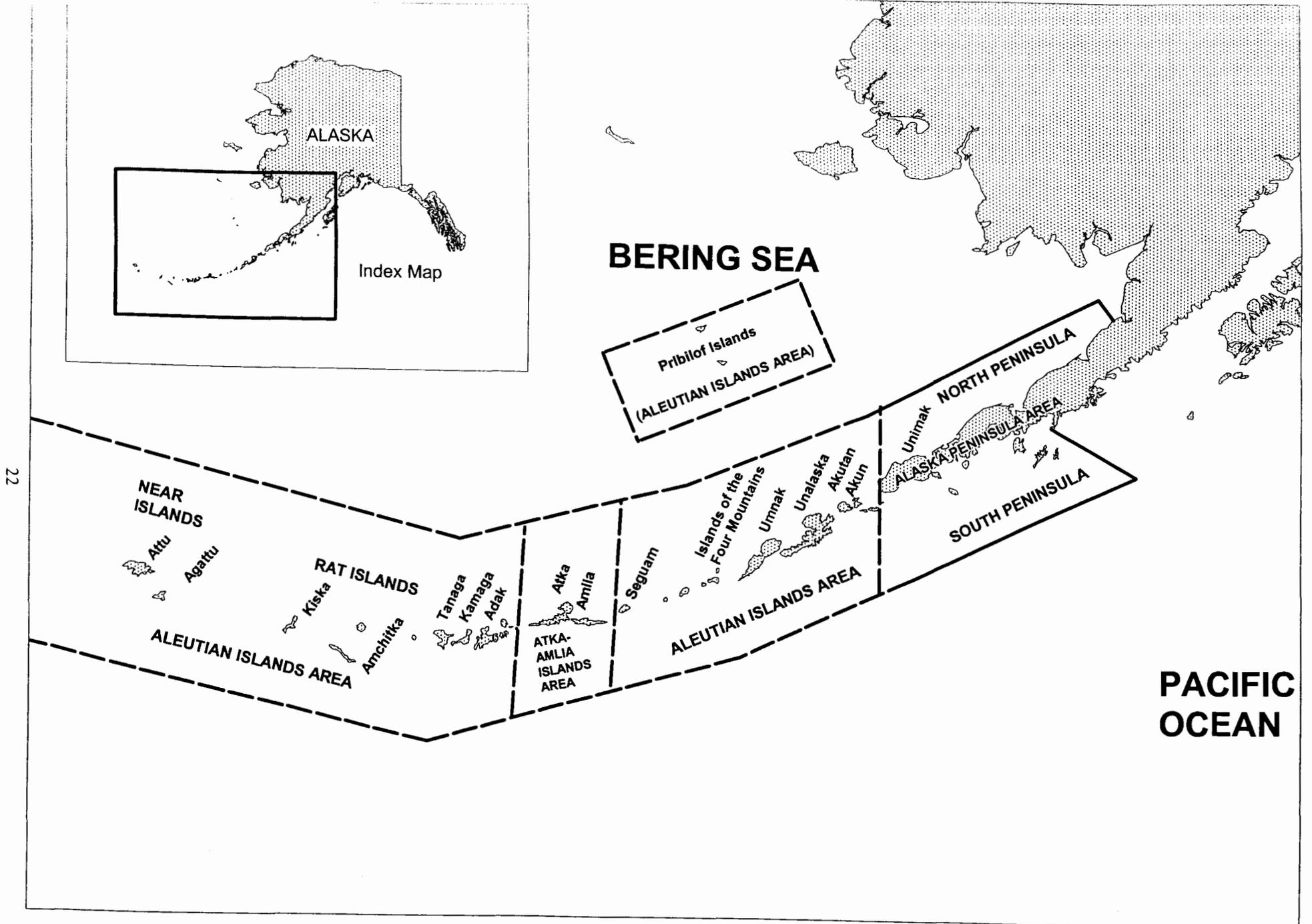


Figure 1. Map of the Aleutian Islands, Atka-Amlia Islands, and Alaska Peninsula Areas.

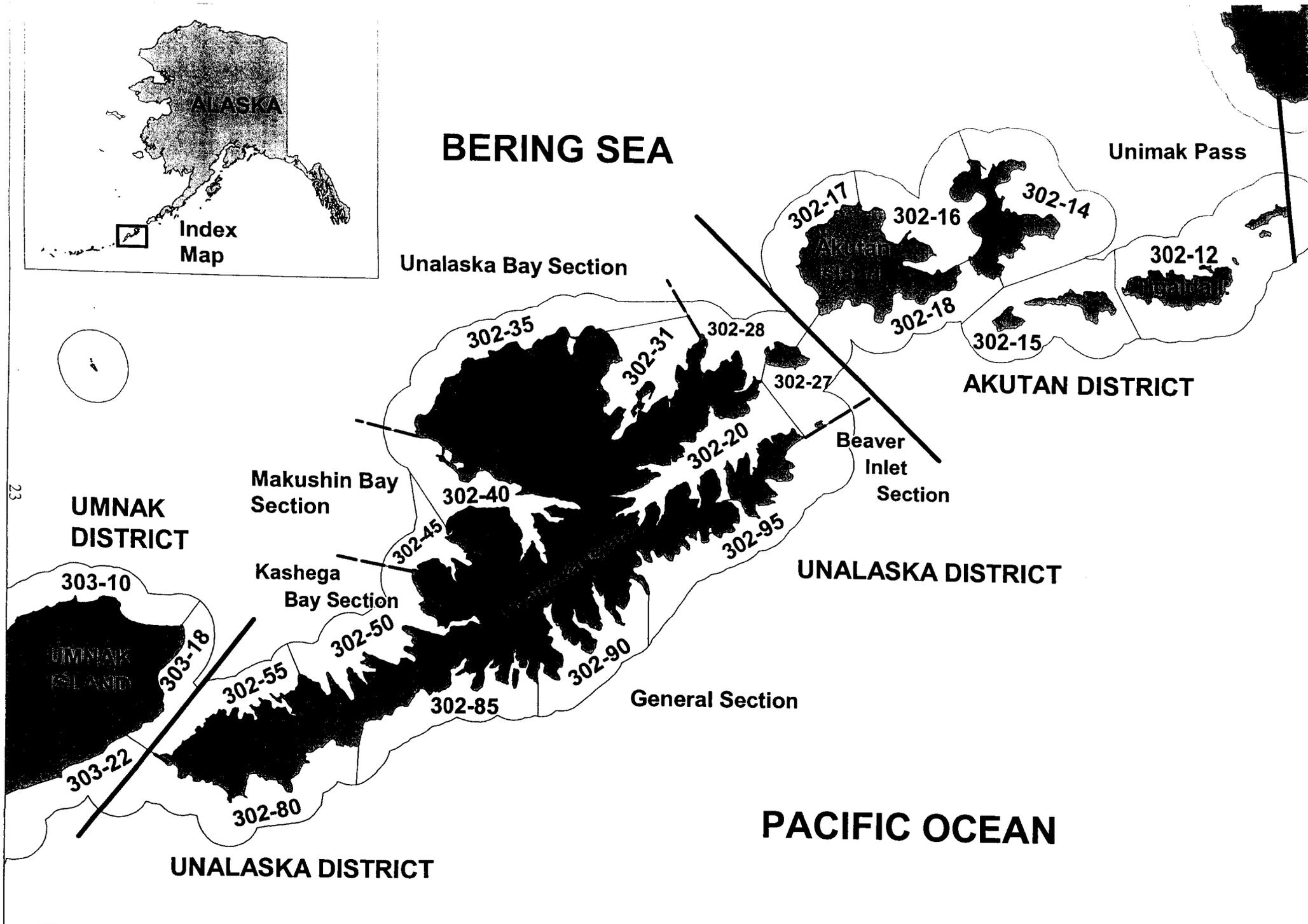


Figure 2. Map of the Aleutian Islands Management Area from Unimak Island to Umnak Island with the statistical salmon fishing areas shown.

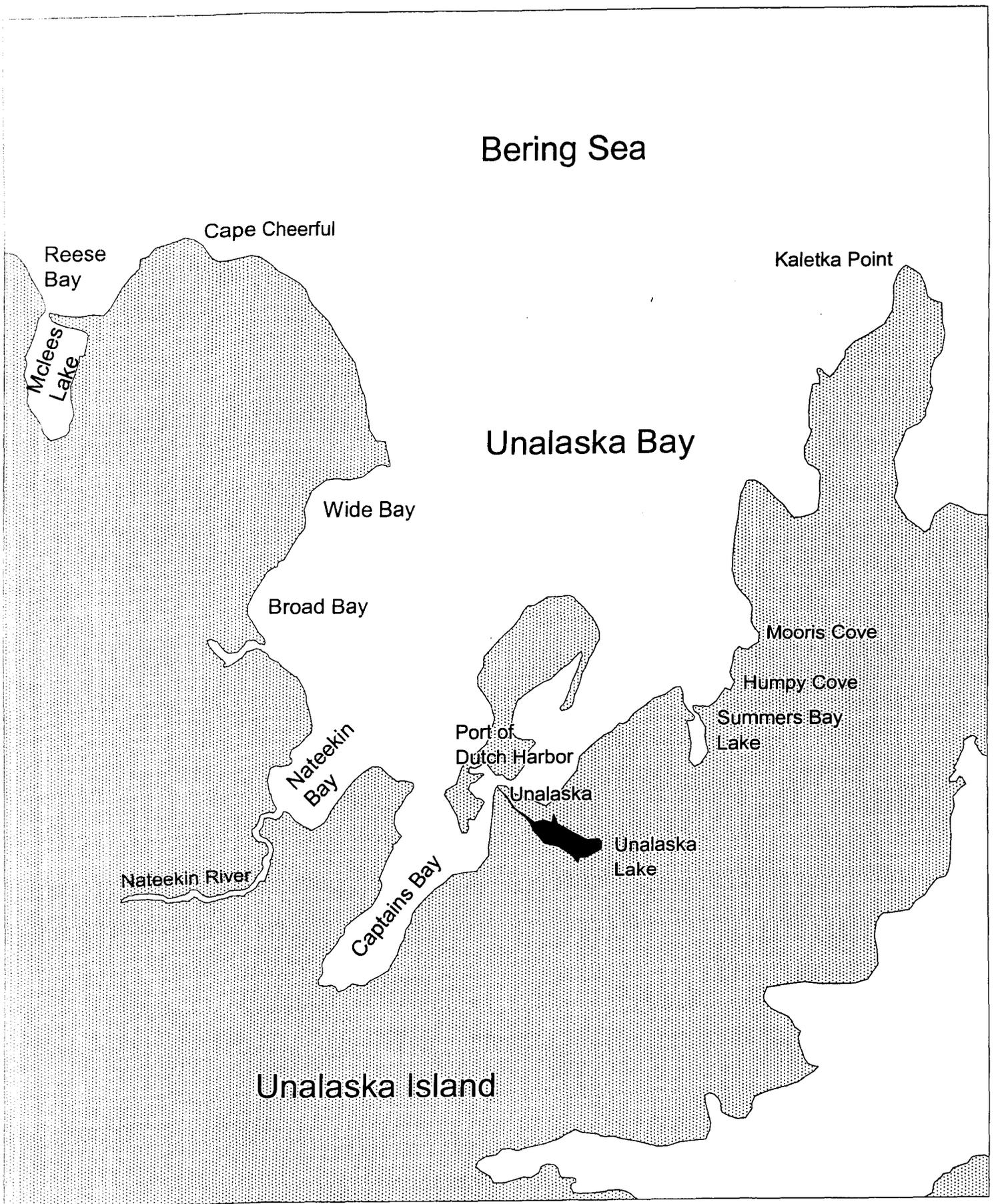


Figure 3. Unalaska Bay vicinity.

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