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ALEUTIAN ISLANDS AND ATKA-AMLIA ISLANDS MANAGEMENT AREAS
ANNUAL SALMON MANAGEMENT REPORT, 1995

4K

By
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and
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INTRODUCTION

This report presents information on Aleutian Islands commercial, subsistence, and personal use salmon harvest and Unalaska Island escapements for 1994 and 1995. It includes information for both the Aleutian Islands and Atka and Amlia Islands Management Areas.

The Aleutian Islands Management Area consists of the Aleutian Islands west of Unimak Island, excluding the Atka-Amlia Islands Management Area which includes all Aleutian Islands waters located between Seguam Pass (172°50'W. long.) and Atka Pass (175°23'W. long.) (ADF&G 1995).

The Aleutian Islands Area is part of salmon permit Area M. Seining is the only legal method to harvest salmon in the Aleutian Islands Area. Legal harvest methods for Atka-Amlia Islands, Area F, includes both set gillnet gear and purse seines. To date, only set gillnets have reported harvest from Atka-Amlia Islands (Holmes 1995).

The Aleutian Islands produce runs of sockeye, coho, pink, and chum salmon. However, only pink salmon have proven to be of commercial importance. Unalaska, Umnak, Unimak, Atka, Amlia, Adak, and Attu Islands produce commercial sized pink salmon runs during some years. Tanaga, Kanaga, and Kiska Islands all have at least one important pink salmon stream.

Nearly all commercial fishing effort has been confined to Unalaska Island, except for occasional fishing on Umnak Island during the early 1960's and probably the 1950's, and a 1963 Attu Island expedition. To date the Atka/Amlia fishery has not been a commercial success. Only small numbers of pink salmon have been landed at Atka Island in 1992, 1993, and 1994 (Holmes 1995).

Aleutian Islands pink salmon runs tend to be much larger during even years. The record Aleutian pink salmon catch of nearly 2.6 million fish was taken on Unalaska Island in 1980. Roughly two million fish were taken out of Makushin Bay alone. Nateekin River in Unalaska Bay had a history of producing large runs during both odd and even years, but hasn't produced a strong odd year run since 1981. Pink salmon runs are often unstable, they can produce very high returns and then collapse for no apparent reason.

Unalaska salmon escapement data is incomplete for most years due to poor weather, remoteness, lack of availability of suitable aircraft, and high cost of aircraft charters. Escapement information is nearly nonexistent for the balance of the Aleutian Islands Area. The only comprehensive escapement and distribution study of the entire Aleutian chain was done by ADF&G in 1982 (Holmes 1982). Limited studies have been conducted at Amchitka Island in 1977 (Seimenstad 1977; Valdez 1977); ADF&G conducted work on Atka and Amlia Islands in 1992, 1993, and 1994 (Holmes 1995); the U.S. Fish and Wildlife Service (USFWS) did additional abundance and distribution research at Adak Island in 1993 and 1994 (Palmer 1995)

Timing of Unalaska pink salmon runs is similar to the South Peninsula, while Atka-Amlia pink salmon run timing can be one to two weeks later. Aleutian Island pink salmon time of entry varies considerably between years and between streams. Pink salmon entry into streams is much more variable than on the South Peninsula. During large runs (usually even years) pink salmon often begin to enter streams early and may trickle in throughout September at both Atka and Unalaska Islands.

Aleutian pink and sockeye salmon (within a given age group) tend to be of smaller size and weight than those of Alaska Peninsula stocks (Shaul and Berceci 1994).

Markets are often a limiting factor of commercial salmon production in the Aleutian Islands. This has been true for both Unalaska Island and the Atka-Amlia Island fisheries. At Unalaska there is often no market unless pink salmon abundance warrants tenders traveling from King Cove. Prior to 1979 some fish (usually sockeye salmon) were salted by local fishermen. From 1979 through 1988, processors located at Unalaska-Dutch Harbor or Akutan, purchased most of the salmon. Due to the decline in demand for frozen pink salmon during recent years, most of the harvest is transported to the Alaska Peninsula for canning. During the four years of the Atka-Amlia Island salmon fishery the lack of market for pink salmon has been the major factor affecting harvest during the stronger even year returns.

1995 SEASON

The commercial salmon fishery was managed by the Alaska Department of Fish and Game staff in Dutch Harbor. This was the first season that a full time salmon management biologist was assigned to this task. The Aleutian Salmon Biologist assisted in the Dutch Harbor food and bait herring fishery, monitored the commercial fisheries at Atka and Unalaska as well as sport and subsistence fisheries and habitat issues. Salmon subsistence permits were issued and the harvest was compiled in Dutch Harbor. Harvest data was summarized by the salmon staff, based in Kodiak during the winter.

Commercial Harvest

The Aleutian Islands remain the State's smallest salmon fishery. There were no commercial landings at Unalaska or Atka Islands in 1995. Historical salmon harvests for the Aleutian Islands and Atka-Amlia Islands Areas are listed in Tables 1 and 2. The Unalaska District pink salmon run was very poor. There was one commercial opening during the season but fishermen chose to participate in other salmon or halibut fisheries (Table 3). Atka Island also had a very weak return of pink salmon. While ten local Atka fishermen obtained permits none chose to fish salmon, instead they all participated in the more lucrative halibut fishery.

Subsistence and Personal Use Harvest

Subsistence salmon harvest is very important to the communities of Unalaska and Atka. (Tables 4,5, and 6). Salmon personal use information for the military community of Adak is presented in Table 7. Sockeye salmon are the most desired species in Aleutian Island communities. The number of sockeye salmon taken at Unalaska Island has increased considerably in recent years. From 1994 to 1995 only ten additional permits were issued while the reported sockeye harvest increased by 61%, to 4,484 fish. Most of the increased sockeye catch were taken at Reese Bay (McLee's Lake). The total Unalaska subsistence harvest was 5,805 salmon as compared to the 5 year average of 4, 571 fish. Only one non-local Alaska resident obtained an Unalaska subsistence permit. Atka subsistence data

is collected by interviews conducted by ADF&G Subsistence Division, the last survey conducted there was in 1994. It is the authors' belief that the subsistence harvest number and harvest methods have remained relatively stable at the small (pop. 83) community of Atka; with a probable catch of 400-500 sockeye out of a total harvest of around 2,500 salmon. Personal use harvest at Adak dropped from the 1988-93 average of 529 sockeye per year to 0 in 1994, with 156 sockeye this year. The lower harvest reflects the Navy's reduction in personnel in preparation for closing the base (Table 7).

Escapements

Pink salmon escapements into many Unalaska streams were weak in 1995 (Table 8). A limited number of surveys were conducted on Unalaska due to budget restrictions, lack of aircraft availability and bad weather. No stream surveys were conducted at Atka or Amlia Islands. Local Atka residents reported that few pink salmon returned to local streams. Escapement data for Unalaska Island for 1994 and 1995 is presented in Tables 8 and 9. The 1994 Unalaska escapement data is included in this report because it was inadvertently omitted from the 1994 report (Table 9). Atka-Amlia Islands escapement information for 1992, 1993, and 1994 is presented in Holmes, 1995

1996 OUTLOOK

The 1996 Unalaska and Atka Islands catch and escapement should follow a pattern of strong even year return, unless unforeseen factors affect the number of returning salmon. If local markets develop about one million pink salmon harvest could occur at Unalaska Island. A small harvest of pink salmon may be caught at Atka and sold locally as bait to halibut fishermen.

LITERATURE CITED

- ADF&G (Alaska Department of Fish and Game). 1995. 1995-1996 Alaska Peninsula, Atka/Amlia Islands, and Aleutian Islands Commercial Fishing Regulations Salmon and Miscellaneous Finfish, 1995 edition. Alaska Department of Fish and Game, Division of Commercial Fisheries, Juneau.
- Holmes, P.B. 1982. Special report to the Alaska Board of Fisheries 1982 Aleutian Islands salmon stock assessment study. Alaska Department of Fish and Game, Division of Commercial Fisheries, Kodiak.
- Holmes, P.B. 1995. Atka/Amlia Islands Management Area Pink Salmon Fishery, 1992,1993,1994. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K95-9, Kodiak..
- Palmer, D.E. 1995. Survey of fisheries resources on Adak Island, Alaska Maritime National Wildlife Refuge, 1993 and 1994. U.S. Fish and Wildlife Service, Technical Report Number 29, Kenai.
- Seimenstad, C.A., J.S. Isakson, and R.E. Nakatani 1977. Marine fish communities. in M.L. Merritt and R.G. Fuller eds. The environment of Amchitka Island, Alaska. United States Energy Research and Development Administration, Technical Information Document 26712, Oak Ridge.
- Shaul, A.R., and R.S. Berceci. 1994.. Aleutians Area Annual Salmon Management Report. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K95- 16, Kodiak..
- Valdez, R.T., W.T. Helm, and J.M. Neuhold, 1977. Aquatic ecology *in* M.L. Merritt and R.G. Fuller eds. The environment of Amchitka Island, Alaska. United States Energy Research and Development Administration, Technical Information Document 26712, Oak Ridge.

Table 1. Aleutian Islands Area (excluding Atka and Amlia Islands) salmon catches (in numbers of fish), 1911-1995.

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1911			0	9,300	0	0	0	9,300
1912-15			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
1928-50								
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	45	361	6	208	135	644,121	3,029	647,499
1971	11	105	0	333	2	45,141	58	45,507
1972	8	28	0	69	1	2,784	6	2,860
1973	3	6	0	0	0	2,042	0	2,042
1974	0	0	0	0	0	0	0	0
1975	5	6	0	19,402	0	659	1,881	21,942
1976-77	0	0	0	0	0	0	0	0
1978	6	32	0	1,829	0	38,109	6	39,944
1979	10	124	0	12,206	0	539,393	242	551,841

- Continued--

Table 1. (page 2 of 2)

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1980	28	263	2	9,226	0	2,597,502	4,874	2,611,565
1981	16	85	16	5,430	188	302,786	6,553	314,973
1982	15	164	0	2,672	28	1,447,818	6,148	1,456,666
1983	2	11	0	4,405	0	2,005	11,361	17,771
1984	37	281	26	67,163	1,923	2,309,665	33,025	2,410,802
1985	3	4	40	2,750	0	90	14,175	17,055
1986	9	31	11	7,702	60	42,621	38,819	89,213
1987	1	1	0	75	0	0	0	75
1988	3	31	0	4,315	7	183,109	450	187,881
1989	2	6	0	8,248	0	6,700	0	14,948
1990	15	49	0	12,435	74	282,823	1,038	296,372
1991	1	2	0	796	0	0	0	796
1992	4	20	0	3,082	0	312,072	1,230	316,348
1993	0	0	0	0	0	0	0	0
1994	10	64	47	6	0	858,787	617	859,457
1995			0	0	0	0	0	0
Average:								
1975-1994	8	59	5	8,089	114	446,205	5,971	460,384
1985-1995	5	21	5	3,945	15	168,620	5,633	178,218

Table 2. Atka-Amlia Area commercial salmon catches (in numbers of fish), 1992-1995.

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 ^c	6	7	0	16	0	896	0	912
1995 ^b	8	0	0	0	0	0	0	0
Average:	9	15	0	68	12	2,253	218	2,550

^a Fisherman were never paid for their catch by processor.

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

^c Small salmon return, no market, fishermen fished for halibut.

Table 3. Emergency orders for Aleutian Islands Area, 1995.

EMERGENCY ORDER NO. 4-FS-M-CB-48-95

EFFECTIVE DATE: 7:00 a.m. July 30, 1995

EXPLANATION:

This emergency order establishes a 7:00 a.m. July 30 until 9:00 p.m. July 31 commercial salmon fishing period in the Makushin Bay and Kashega bay sections.

JUSTIFICATION: The Makushin and Kashega Bay sections are not significant pink salmon producers during odd year. There has been interest in fishing for sockeye and chum salmon in these sections. A 40 hour fishing period should give fishermen an opportunity to harvest sockeye and chum salmon and to test run strength. Effort level is anticipated to be less than three boats.

Table 4. Estimated subsistence salmon harvest by gear type for the community of Atka, 1994.^{a,b}

Salmon 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 ^c	149	40	431
Coho	303	0	0	264	0	567
Pink	715	0	200 ^d	472	0	1,387
Chum	59	0	0 ^c	28	20	107
Total	1,320	0	200	924	60	2,504

^a Twenty eight out of twenty nine households surveyed for 1994, no survey conducted in 1995 assume similar catches in 1995.

^b Data gathered by Lisa Scarbrough, ADF&G, Subsistence Division, and Moses Dirks, USF&WS.

^c One household removed 100 sockeye and 75 chum salmon from commercial catch at Unalaska.

^d Additional 30 pink salmon removed from the commercial catch, area unspecified.

Table 5. Estimated subsistence salmon harvest^a for Unalaska, Island, 1985 - 1995.

Year	Issued	Chinook	Sockeye	Coho	Pink	Chum	Total
Unalaska community resident harvest:							
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
1991-95 Avg.	136	10	2,814	641	1,044	523	4,561
Unalaska non-local, Alaskan resident harvest:							
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
1991-95 Avg.	1	0	8	1	1,4	0	9,8
Total Unalaska Harvest:							
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	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	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
1991-95 Avg.	136	10	2,821	642	1,046	53	4,571

^aHarvest estimated from average catch from returned permits

Table 6. Average subsistence salmon harvest, in number of fish, per successful permit holder, Unalaska Island, 1987-1995.

	Year									Average
	1987	1988	1989	1990	1991	1992	1993	1994	1995	
Average Harvest:	79	78	58	55	55	52	48	38	49	60

Table 7. Adak-Kagalaska Islands estimated personal use catch, 1988-1995.

Year	Permits Issued	Permits Returned	Percent Returned	Est. Catch					
				Chinook	Sockeye	Coho	Pink	Chum	Total
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
1988-93 Average	49	34	69	0	529	20	62	0	611

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

Table 8. Unalaska Island salmon escapements, 1995.

Stream Name and Number ^a	Date	Sockeye	Coho	Pinks	Chum	Comments
Morris Lake and Creek 302.40.11	7/23/95	0	0	0	0	Foot survey, outlet stream only, one jumper in bay,
	8/7/95	131	0	0	0	Foot survey, entire system, including lake.
	8/28/95	1	0	0	0	Foot survey, outlet stream only, too windy for lake, water too shallow for fish passage, dug channel at lake and beach outlets.
Humpie Cove 302.40.10	7/23/95	0	0	0	0	Foot survey, 2 jumpers off mouth
	8/7/95	0	0	20	0	Foot survey.
	8/28/95	0	0	321	0	Foot survey, includes 50 pinks in the mouth 110 additional dead pinks, excellent escapement.
Summer's Bay 302.40.09	7/23/95	0	0	0	0	Foot survey, lake not surveyed (too windy)
	8/7/95	0	0	0	0	Foot survey, lake not surveyed (too windy)
	8/28/95	0	0	12	0	Foot survey, lake not surveyed (too windy), 1 dead sockeye. Probably good numbers of salmon in lake, too windy to survey all season.
Unalaska Village (Illiuliuk outlet, Unalaska Lake, Unalaska Cr. inlet) 302.40.08	7/23-31/95	0	0	0	0	Foot surveys, checked creek daily for fish, Water level generally low, good numbers of pinks milling in Margret's B., probably Unalaska Lk. fish.
	7/31/95	0	0	0	0	Foot survey below bridge, 3 pinks in church hole, Lot of large dollies, didnt survey lake (windy)
	8/1/95	1	0	0	0	Foot survey above lake, 1 male sockeye, 1 additional dead male sockeye, nothing new in outlet stream Some village elders say there used to be a "red run" in the lake's inlet stream until about the 60's.
	8/7/95	0	0	16	0	Foot survey outlet stream., pinks in church hole.
	8/10/95	0	0	200	0	Foot survey, below bridge, pinks in church hole.
	8/13/95	255	0	365	0	Foot survey entire system, 44 pinks in inlet stream, most sockeye on west side of lake, 300 pinks in the church hole.

-Continued-

Table 8. (page 2 of 4)

Stream Name and Number ^a	Date	Sockeye	Coho	Pinks	Chum	Comments
	8/14/95	0	0	700	0	Foot survey, church hole to bay.
	8/29/95	186	0	5,699	0	Foot survey whole system, sockeye in lake: 186 live, 14 dead; pinks in inlet stream: 335 live, 25 dead; pinks in outlet stream: 3,500 in church hole, 4,000 in Carls hole. (Total 9,729 pinks, incl. 50 dead)
	10/30/95	0	17	0	0	Peak count in Illiuliuk, H. Hopkins, Unalaska HS instructor estimated 45 coho into system, school spawned 10 for their micro-hatchery.
	11/24/95	0	8	0	0	J.Cofske foot survey inlet stream, no carcasses coho very dark, 7 near death.
	12/12/95	0	30	0	0	R. Morison, hole behind F&G Apt. had 20 coho after big rainstorm, probably more fish, many? caught by eagles.
	12/19/95	0	7	0	0	4 below Town bridge, 2 by F&G APT, 1 lower brdg.
	12/19/95	0	6	0	0	J.Cofske, foot survey, inlet and outlet streams, 4 dark coho in outlet above bridge, 1 (bright) live and 1 dead, plus 2 near death in inlet above lake
Pyramid Creek 302.40.07	7/27/95	0	0	0	0	Foot survey.
	8/17/95	0	0	15	0	Foot survey. Big hunk of web in upperhole (creek robbing?)
	8/30/95	0	0	25	0	Foot survey, prob. creek robbed, add. 12 mort. pinks. water very shallow, made channels and resting pools for fish passage. Very poor escapement.
Shaishnikof River 302.40.06	7/28/95	0	0	0	0	Foot survey lower 3/4 mi. 1 jumper in bay excel. vis.
	8/4/95	0	0	0	0	Foot survey lower 3/4 mi. excellent visibility.
	8/11/95	0	0	693	0	Foot survey to 2nd falls, ex. vis., 50% pinks colored.
	8/17/95	0	0	1,305	21	Foot survey to falls. chum on east side 5/8 mi.
	9/3/95	0	1	2,793	30	Foot survey, add. 214 dead pinks, additional 15 dead chum.

-Continued-

Table 8. (page 3 of 4)



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Stream Name and Number ^a	Date	Sockeye	Coho	Pinks	Chum	Comments
Shaishnikof flats No St. Number	9/3/95	0	0	19	32	Need to nominate new streams to Anadromous Catalogue, 3 small sloughs on west side of bay rearing salmon in all 3, adult chum and pinks in 2nd.
Nateekin R. 302.40.05	7/28/95	0	0	0	0	Foot survey, 2 pink jumpers off the mouth
	8/6/95	1	0	3,981	3	Foot survey, 50 add. pinks in mouth. went 1/4 mile past bluff, poor visibility in lower 1/3 mile.
	8/14/95	1	0	13,570	0	Foot survey, includes 500 in lagoon, vis. poor lower 1/3 mile, survey to big elbow hole.
	10/16/95	1	14211	2,000	0	G.Pappas, 6 mi. foot survey, 0 salmon lowe 1.5 mi. good vis., incl. side streams & sloughs, 4 schools, 95% of coho colored up, 1 "red" sockeye male.
302.40.03	7/28/95	0	0	0	0	Foot survey 1/2 mile lower stream, very muddy, small school of pinks at mouth, no count.
	8/6/95	0	0	0	0	Skiff survey, mouth only , 1 jumper
	8/13/95	0	0	0	0	Skiff survey, mouth only.
	8/14/95	0	0	0	0	Skiff survey, mouth only.
	9/7/95	0	0	0	0	Skiff survey, mouth only. Not possible to survey stream on foot, muddy water for miles.
Wide Bay stream 302.40.02	7/28/95	0	0	0	0	Need to nominate to Anadromous Catalogue Foot survey, 1/3 Mile lot of big dollies.
	8/6/95	0	0	0	0	Foot survey, mouth only
	8/13/95	0	0	13	0	foot s. 1/3mi., big dollies gone, caught with seine?
	8/14/95	0	0	0	0	Foot survey, mouth only.
McLee's Lake 302.15.07	7/30/95	0	0	0	0	Outlet only, 1 mort. sockeye, prob. 20+at mouth good site for a mini-weir Aerial surveys done by grumman goose, very fast, missed some fish, could not survey all bends.

-Continued-

Table 8. (page 4 of 4)

Stream Name and Number ^a	Date	Sockeye	Coho	Pinks	Chum	Comments
	9/1/95	1550	0	0	0	Aerial survey, entire system, additional 1300 dead sockeye in right tributary; 1000 live in left tributary; 500 live sockeye in lake.
Volcano Bay (Makushin Lake) 302.13.10	9/1/95	4000	30	0	0	Aerial survey, Additional 200 dead sockeye morts,. coho in outlet stream, didn't count pinks, too fast.
Makushin village 302.13.20	9/1/95	0	0	80	0	Aerial survey, includes additional 50 pinks at mouth.
Humpback #2 302.14.17	9/1/95	0	0	120	0	Aerial survey, missed 1/3 of bends
Humpback #1 302.14.16	9/1/95	0	0	1,560	0	Aerial survey, 300 additional dead pinks.
Cannery Bay 302.14.11	9/1/95	0	0	0	300	Aerial survey, chum in lower half mile, scary "starwars" approach down valley!
Pumicestone 302.14.11	9/1/95	0	0	0	0	(skip survey with Goose in future?) Aerial survey

^a This report uses historic Commercial Fisheries Division stream numbering system.

Table 9. Unalaska Island salmon escapements, 1994.

Stream	Date M-D-Y	Observer	Visibility			Fish in Stream				Build Up Fish		Observer Remarks
			Str	Mou	Bay	Sockeye	Coho	Pink	Chum	Mouth	Bay	
Morse Cove												
302-4011	8/19/94	V. GOLEMBESKI	G			0	0	28	0			DISTANCE SURVEYED: ENTIRE STREAM. 1 additional
302-4011	8/28/94	BOB BERCELI	G	G	G	300	0	0	0			DISTANCE SURVEYED: ENTIRE STREAM. Hardly any fish!
302-4011	9/5/94	V. GOLEMBESKI	G			0	0	2	0			DISTANCE SURVEYED: OUTLET ONLY. Additional 2
Humpy Cove (Summer Bay)												
302-4010	8/15/94	V. GOLEMBESKI	G			0	0	2490	0			DISTANCE SURVEYED: ENTIRE STREAM. Jumpers off
302-4010	8/28/94	BOB BERCELI	G	G	G	0	0	15400	0			DISTANCE SURVEYED: ENTIRE STREAM. Good show for escapement.
302-4010	9/5/94	V. GOLEMBESKI	G			0	0	10110	0			DISTANCE SURVEYED: ENTIRE STREAM. 2,593 additional carcasses. 12 people sport fishing. Foot survey.
Summer Bay												
302-4009	8/15/94	V. GOLEMBESKI	G			0	0	3	0			DISTANCE SURVEYED: OUTLET ONLY. Foot survey.
302-4009	8/19/94	V. GOLEMBESKI	G			174	0	853	0			DISTANCE SURVEYED: ABOVE LAKE ONLY. 4 additional red and 4 additional pink carcasses. Foot survey.
302-4009	8/28/94	BOB BERCELI				0	0	4300	0	50Co		DISTANCE SURVEYED: ENTIRE STREAM.
Unalaska Village												
302-4008	8/13/94	V. GOLEMBESKI	G			0	0	11000	0			DISTANCE SURVEYED: BELOW LAKE ONLY.
302-4008	8/15/94	V. GOLEMBESKI	G			0	0	576	0			DISTANCE SURVEYED: ABOVE LAKE ONLY. Foot survey.
302-4008	8/28/94	BOB BERCELI	G	G	G	0	0	3200	0			DISTANCE SURVEYED: ENTIRE STREAM. Surveyed at high altitude so as not to disturb residents.
302-4008	9/7/94	V. GOLEMBESKI	G			41	0	8554	0			DISTANCE SURVEYED: ENTIRE STREAM. Additional 185 red carcasses and 4,208 pink carcasses. 717 live pinks above lake, of which 147 were above fish pass. Foot survey.
Pyramid Creek												
302-4007	8/19/94	V. GOLEMBESKI	G			0	0	162	0			DISTANCE SURVEYED: ENTIRE STREAM. Foot survey.

-Continued-

Table 9. (page 2 of 6)

Stream	Date M-D-Y	Observer	Visibility			Fish in Stream			Build Up Fish		Observer Remarks
			Str	Mou	Bay	Sockeye	Coho	Pink Chum	Mouth	Bay	
Captain's Bay Stream											
302-4006	8/13/94	V. GOLEMBESKI	G			0	0	2000	0		DISTANCE SURVEYED: ENTIRE STREAM.
302-4006	8/19/94	V. GOLEMBESKI	G			1	0	5400	8		DISTANCE SURVEYED: ENTIRE STREAM. Foot survey. 20 additional pink carcasses.
302-4006	8/28/94	BOB BERCELI	G	G	G	0	0	1700	0		DISTANCE SURVEYED: ENTIRE STREAM. Looks bleak!
Nateekin River											
302-4005	8/4/94	LARRY BOYLE	G			0	0	8000	0		DISTANCE SURVEYED: ENTIRE STREAM. All below prominent turn in creek, caused by hill.
302-4005	8/5/94	R. WRIGHT	G			0	0	3000	0		DISTANCE SURVEYED: ENTIRE STREAM. In first quarter mile.
302-4005	8/13/94	V. GOLEMBESKI	G			0	0	63000	0		DISTANCE SURVEYED: ENTIRE STREAM.
302-4005	8/15/94	ARNIE SHAUL	G			0	0	58000	0		DISTANCE SURVEYED: ENTIRE STREAM. Most fish in lower end. Beechcraft King Air.
302-4005	8/28/94	BOB BERCELI	G	G	G	0	0	49500	0		DISTANCE SURVEYED: ENTIRE STREAM. Subsistence net fishing front beach. Several groups of sport fishermen on river. Most fish still schooled in lower section.
302-4005	9/5/94	V. GOLEMBESKI	G			0	12	42550	0		DISTANCE SURVEYED: PARTIAL. Didn't survey all the way up. Additional 5,156 pink carcasses and 25 dead coho. 28 sport fishermen. Foot survey.
302-4005	10/16/94	G. PAPPAS				1	1421	2000	0		DISTANCE SURVEYED: PARTIAL. Pinks very old. Coho from first hill to forks. Only surveyed lower part of deep slough above mouth and didn't see any fish in it. Coho had not begun to spawn. Foot survey.
Makushin Valley											
302-4003	8/28/94	BOB BERCELI	P	F	G	0	0	300	0		DISTANCE SURVEYED: FIRST MILE ONLY. Stream too muddy.

-Continued-

Table 9. (page 3 of 6)

Stream	Date M-D-Y	Observer	Visibility			Fish in Stream				Build Up Fish		Observer Remarks
			Str	Mou	Bay	Sockeye	Coho	Pink	Chum	Mouth	Bay	
McLees Lake												
302-1507	8/5/94	R. WRIGHT	G			0	0	16500	0			DISTANCE SURVEYED: Ralph's estimate - flew survey in conjunction with limnology sampling. Some may have been sockeye.
Volcano Bay												
302-1310	8/28/94	BOB BERCELI				4500	850	0	0	50Co		DISTANCE SURVEYED: ENTIRE STREAM. 1,500 additional sockeye carcasses. Approximately 8 sport fishermen at lower lake. Coho at lower lake.
Makushin Village												
302-1420	8/28/94	BOB BERCELI	G	G	G	0	0	2200	0			DISTANCE SURVEYED: ENTIRE STREAM.
Glacier Valley												
302-1418	8/28/94	BOB BERCELI	G	G	G	0	0	4700	0			DISTANCE SURVEYED: CLEAR WATER SLOUGHS ONLY. All in clear water sloughs to right side entering the valley. Main stream too muddy.
Humpback Bay #2												
302-1417	8/4/94	LARRY BOYLE	G			0	0	600	0			DISTANCE SURVEYED: ALL EXCEPT LOWER 1/4 MILE.
302-1417	8/13/94	V. GOLEMBESKI	G			0	0	27000	0			DISTANCE SURVEYED: ENTIRE STREAM.
302-1417	8/15/94	ARNIE SHAUL	G			0	0	36000	0	5000P		DISTANCE SURVEYED: ENTIRE STREAM. Beechcraft King Air survey.
302-1417	8/28/94	BOB BERCELI	G	G	G	0	0	44700	0			DISTANCE SURVEYED: ENTIRE STREAM. More than 1/2 of the fish schooled at lower end of creek.
Humpback Bay #1												
302-1416	8/4/94	LARRY BOYLE	G			0	0	2500	0			DISTANCE SURVEYED: ENTIRE STREAM.
302-1416	8/5/94	R. WRIGHT	G			0	0	2750	0			DISTANCE SURVEYED: ENTIRE STREAM. All fish in lower portion.

-Continued-

Table 9. (page 4 of 6)

Stream	Date M-D-Y	Observer	Visibility			Fish in Stream			Build Up Fish		Observer Remarks
			Str	Mou	Bay	Sockeye	Coho	Pink Chum	Mouth	Bay	
302-1416	8/13/94	V. GOLEMBESKI	G			0	0	49000	0		DISTANCE SURVEYED: ENTIRE STREAM.
302-1416	8/15/94	ARNIE SHAUL	G			0	0	78000	0	15000P	DISTANCE SURVEYED: ENTIRE STREAM. Beechcraft King Air survey.
302-1416	8/28/94	BOB BERCELI	G	G	G	0	0	1E+05	0		DISTANCE SURVEYED: ENTIRE STREAM. Good show for escapement.
Portage Bay #2											
302-1414	8/28/94	BOB BERCELI	G	G	G	0	0	4500	0	200P	DISTANCE SURVEYED: ENTIRE STREAM.
Portage Bay #3											
302-1413	8/28/94	BOB BERCELI	G	G	G	0	0	7200	0		DISTANCE SURVEYED: ENTIRE STREAM. Additional 400 carcasses.
Cannery Bay											
302-1411	8/28/94	BOB BERCELI	G	G	G	0	0	12400	0		DISTANCE SURVEYED: ENTIRE STREAM. Mostly schooled up in lower end. Some may have been chums.
Skan Bay, Main											
302-1305	8/13/94	V. GOLEMBESKI	G			0	0	40000	0		DISTANCE SURVEYED: ENTIRE STREAM.
302-1305	8/28/94	BOB BERCELI				0	0	40400	0		DISTANCE SURVEYED: ENTIRE STREAM.
Skan Bay, Lake System											
302-1304	8/13/94	V. GOLEMBESKI	G			0	0	23000	0		DISTANCE SURVEYED: PARTIAL. Surveyed below lake only.
302-1304	8/28/94	BOB BERCELI	G	G	G	0	0	34000	0		DISTANCE SURVEYED: ENTIRE STREAM.
Pumicestone Bay											
302-1215	8/28/94	BOB BERCELI	G	G	G	0	0	46000	0	1500P	DISTANCE SURVEYED: ENTIRE STREAM. Several large black schools at lower end.

-Continued-

Table 9. (page 5 of 6)

Stream	Date		Visibility			Fish in Stream				Build Up Fish		Observer Remarks
	M-D-Y	Observer	Str	Mou	Bay	Sockeye	Coho	Pink	Chum	Mouth	Bay	
Pumicestone Bay												
302-1211	8/5/94	R. WRIGHT	G			0	0	3500	0			DISTANCE SURVEYED: ENTIRE STREAM. In first 1/4 mile.
302-1211	8/28/94	BOB BERCELI	G	G	G	0	0	29400	0	2000P		DISTANCE SURVEYED: ENTIRE STREAM.
McIver Bight												
302-1209	8/28/94	BOB BERCELI	G	G	G	3000	0	19700	0			DISTANCE SURVEYED: ENTIRE STREAM.
Kashega Lake System												
302-1207	8/5/94	ARNIE SHAUL	G			0	0	1500	0			DISTANCE SURVEYED: OUTLET ONLY.
302-1207	8/28/94	BOB BERCELI	G	G	G	4400	0	78600	0	2000P		DISTANCE SURVEYED: ENTIRE STREAM. Very fishy place! 1,700 reds in A (Lake Kudrin) and 2,000 reds in B (Brennen Lake).
Kismaliuk Bay, East												
302-1205	8/28/94	BOB BERCELI	G	G	G	0	0	53100	0	2000P		DISTANCE SURVEYED: ENTIRE STREAM.
Kismaliuk Bay												
302-1204	8/28/94	BOB BERCELI	G	G	G	0	0	2100	0			DISTANCE SURVEYED: ENTIRE STREAM.
Kismaliuk Bay, West												
302-1203	8/28/94	BOB BERCELI	G	G	G	0	0	8200	0	1500P		DISTANCE SURVEYED: ENTIRE STREAM.
Aspid Bay												
302-1201	8/28/94	BOB BERCELI	G	G	G	0	0	25600	0			DISTANCE SURVEYED: ENTIRE STREAM.
Chernofski Harbor Creek												
302-1108	8/28/94	BOB BERCELI	G	G	G	0	0	46000	0	5000P		DISTANCE SURVEYED: ENTIRE STREAM.

-Continued-

Table 9. (page 6 of 6)

Stream	Date M-D-Y	Observer	Visibility			Fish in Stream				Build Up Fish		Observer Remarks
			Str	Mou	Bay	Sockeye	Coho	Pink	Chum	Mouth	Bay	
Station Bay, East												
302-1106	8/28/94	BOB BERCELI	G	G	G	0	0	24150	0			DISTANCE SURVEYED: ENTIRE STREAM.
Station Bay, Ctr.												
302-1105	8/28/94	BOB BERCELI	G	G	G	0	0	700	0			DISTANCE SURVEYED: ENTIRE STREAM.
Station Bay, W. Arm												
302-1104	8/28/94	BOB BERCELI	G	G	G	0	0	4200	0			DISTANCE SURVEYED: ENTIRE STREAM.

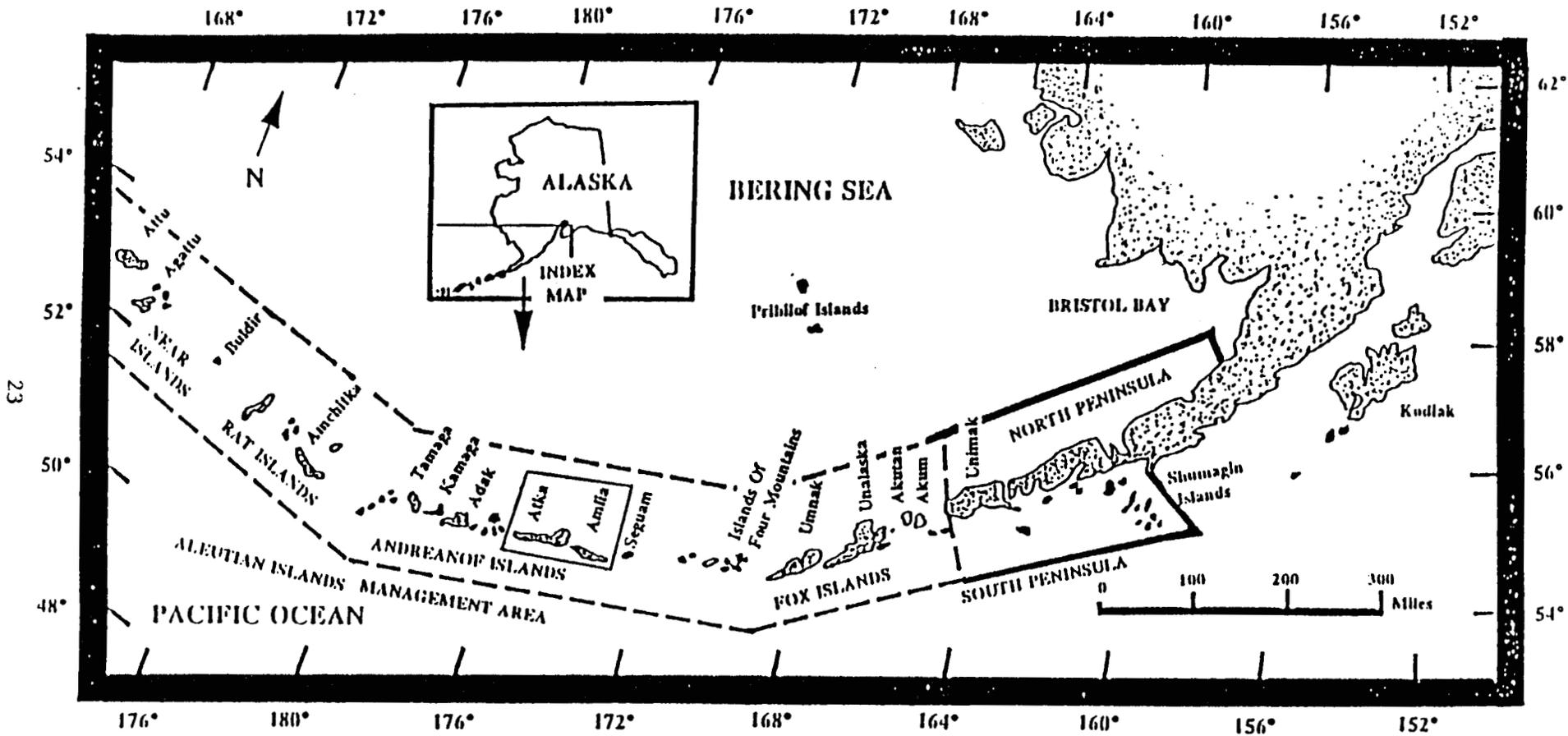


Figure 1. Map of the Aleutian Islands, Atka - Amlia Islands, and Alaska Peninsula Areas.

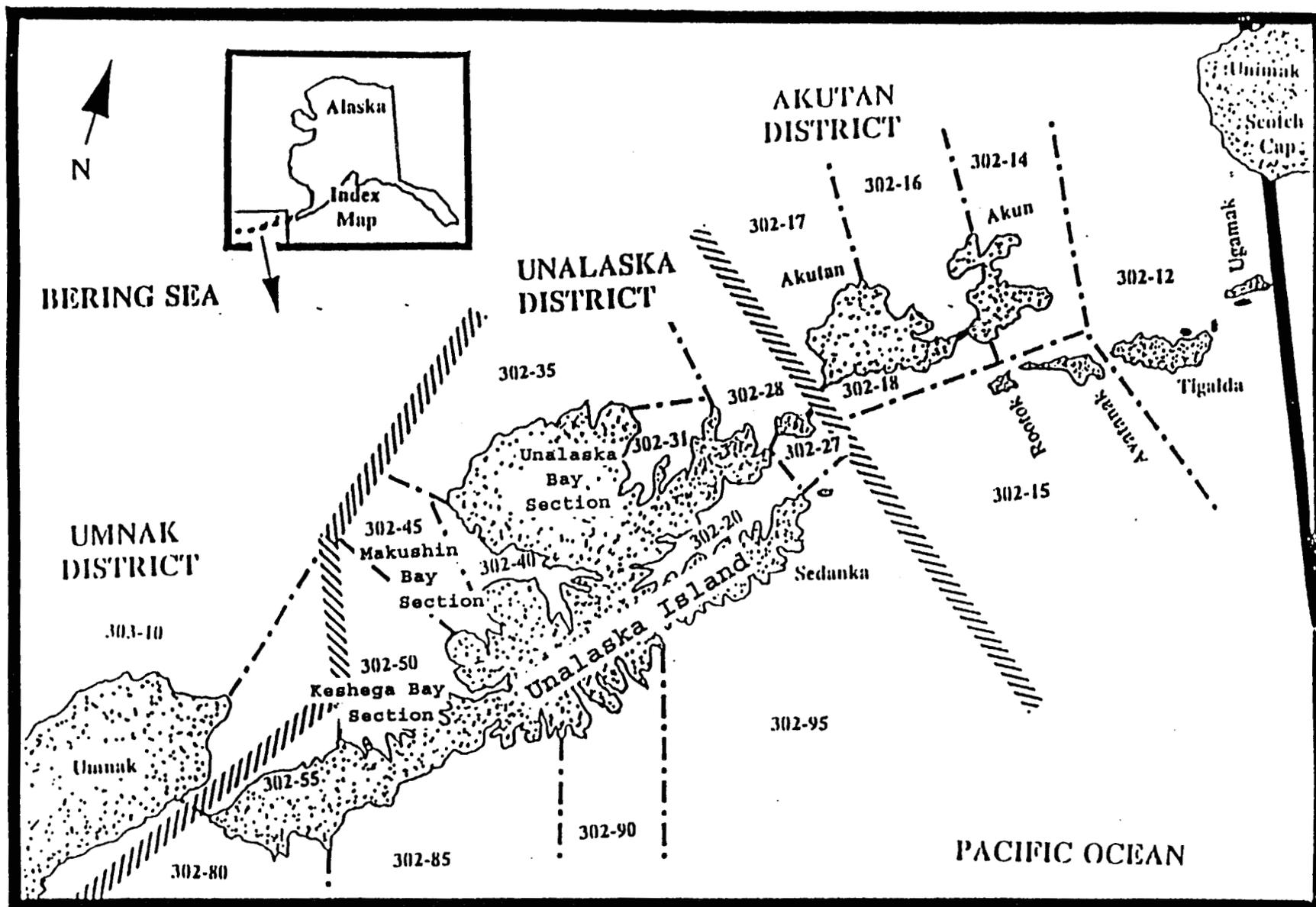


Figure 2. Map of the Aleutian Islands Management Area from Unimak Island to Umnak Island with the statistical salmon fishing areas defined.

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