

**SUMMARY OF BRISTOL BAY SOCKEYE SALMON CATCHES
BY GEAR TYPE, 1965-2000**

**REPORT TO THE ALASKA
BOARD OF FISHERIES**



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Regional Information Report¹ No. 2A00 - 35

**Alaska Department of Fish and Game
Division of Commercial Fisheries, Central Region
333 Raspberry Road
Anchorage, Alaska 99518**

December 2000

¹ Contribution 2A00-35 from the Anchorage regional office. The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc information purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

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INTRODUCTION

The purpose of this report is to provide the Board of Fisheries with background information regarding the fishing effort and sockeye salmon catches by gear type. Data in this report was obtained from a previous report to the Board of Fisheries in 1997 (Weiland, 1997), from the Commercial fisheries Entry Commission, and from the commercial fisheries fish ticket database. The information in this report is considered final for all years through 1998, but data for 1999 and 2000 are still preliminary.

Per regulation (5AAC 06.330), drift and set gillnets are the only two types of legal fishing gear in the Bristol Bay commercial salmon fishery. Drift gillnet fishers are limited to 150 fathoms of gear while set gillnet fishers are limited to 50 fathoms. Set gillnets fished in the Naknek-Kvichak, Egegik, Ugashik, and Togiak districts must be at least 300 feet apart, while in the Nushagak District set nets must be at least 450 feet apart. There is no minimum distance required between drift gillnets, but drift gillnets must be at least 300 feet from the side of a setnet or at least 100 feet from the offshore end of a setnet out to the allowable offshore distance for setnets (see 5AAC 06.335 and 5AAC 06.331 (m) and (n)).

Figure 1 illustrates the five fishing districts of Bristol Bay. The drift fleets' mobility enables them to fish more than one district and many drift fishers will land fish in more than one district in a given season. Most setnetters usually only fish one district in a season. Setnet fishers are much less mobile and are limited by availability of fishing sites, existing tideland leases, and the base of

operation that is necessary to conduct set net fishing activities; mainly fish delivery logistics. However, both gear groups have evolved to take full advantage of available fishing opportunity. Both gear groups are currently effective in harvesting substantial numbers of salmon in relatively short time periods and they compete intensely for these fish.

For the purposes of this report, the total annual effort in a district is defined as the total number of permits that made at least one sockeye delivery in that district for the season. The average sockeye catches were calculated using total effort for each district.

The Bristol Bay commercial salmon fishery became a "Limited Entry" fishery in 1975, and due to court adjudication, the numbers of permits has fluctuated since then (Table 13). According to the Commercial Fisheries Entry Commission the number of Bristol Bay commercial salmon fishing permit holders that could have received licenses to fish during the 2000 season totaled 2,902 permits, or 1,890 drift gillnet and 1,012 set gillnet permits (Table 1). Of these active permits, 1,863 drift gillnet and 992 set gillnet permits were actually renewed, and of these renewed permits, 1,852 drift gillnet and 942 set gillnet permits actually recorded landings.

Effort

Fishing efforts by district from 1975 to 2000 are listed in Table 1. Effort has been the greatest in the districts with the largest sockeye harvest predictions. The Naknek/Kvichak and Egegik Districts have had the largest sockeye harvest predictions in recent times. The largest annual drift gillnet effort recorded for a single district was 1,389 permit holders in the Naknek/Kvichak District during 1990. The Naknek/Kvichak District drift gillnet effort has exceeded 1,000 permit holders in

14 of the 26 years from 1975 to 2000. The Egegik District has exceeded 1,000 drift fishers three times during that interval and the other three districts have yet to reach that level of effort. The largest set gillnet effort has also occurred in the Naknek/Kvichak District with a peak level of 438 permit holders in 1990. The largest recent increases in drift gillnet effort have occurred in the Nushagak and Naknek/Kvichak Districts, while the Egegik and Ugashik Districts show slight decreases. Drift effort in the Naknek-Kvichak District increases on pre-peak and peak years with the exception of 2000 when only 805 drift permit holders made landings in the district. Set gillnet effort has remained relatively stable in most districts with the exception of Togiak District where effort has increased by approximately 37% in the last ten years.

Sockeye Harvest

The 1965 to 2000 Bay-wide percentages of sockeye catch by gear type are listed in Table 2. Over the last 20 years, the average percent of the drift gillnet harvest is 86%, and for set gillnet harvest it is 14% . The average percent of the set gillnet harvest is up 1% from what it was three years ago, due primarily to the allocation plans adopted by the Board of Fisheries in 1997. For the four districts the allocations are as follows: 1) Naknek/Kvichak , 84% drift gillnet, and 16% set gillnet which is split between Kvichak and Naknek setnetters at 8% each, 2) Nushagak, 74% drift gillnet, and 26% set gillnet which is split between Igushik and Nushagak setnetters at 6% and 20%, respectively; the Wood River Special Harvest Area (WRSHA) also has a 74% drift and 26% set gillnet split; 3) Egegik, 86% drift gillnet, and 14% set gillnet; and 4) Ugashik, 90% drift gillnet and 10% set gillnet. . Since 1998, managers in the Naknek/Kvichak, Nushagak, Egegik, and Ugashik Districts have attempted to achieve the allocations by adjusting fishing times for the two gear

groups, which, in some cases, has resulted in separate periods for each.

Over the last three years, sockeye salmon harvests have generally been within a few percent of the allocations (Tables 3 –6, and Tables 11-13). On average, harvests have been within one or two percent of the allocations, with the exception of the Ugashik District. In the Ugashik District, set gillnet average percent is 13%, or three percent higher than its allocation (Table 5). The Ugashik District inshore runs have been weak in two of the three allocation years. Because of the weak inshore sockeye runs in 1998 and in 2000, drift gillnet fishers fished only 12 and 53 hours, respectively, between June 23 and late July. The average amount of fishing time during this period is approximately 190 hours. With weak runs and the resulting limited amount of fishing time, it has been difficult to achieve the drift gillnet allocation in the Ugashik District.

The season's total set gillnet catches by section for the Nushagak District (1977 to 2000) and the Naknek/Kvichak District (1985 to 2000) are listed in Tables 10 and 12. Tables 11 and 13 list the breakdown by sections and inriver fisheries for the allocation periods. In the last ten years, Igushik section setnet average percent of the total harvest is 6% (Table 10), and in the last three years, during the allocation periods, it has been 6% (Table 11). Nushagak section setnet percent of the harvests have averaged 20% to 21% of the harvest. Naknek section setnet average percent of the catch has been 9%, while Kvichak section setnetters have average 6% (Table 12). Egegik setnetters average percent of the harvest has been 15% over the last three years (Table 4).

Comparisons of the average catches per gear type in numbers of sockeye per permit are listed in Table 8 with pre and post year allocation plan averages calculated. The data indicates that the

average sockeye salmon harvests are down for both gear groups, but since the allocation plan, it has dropped proportionally more for drift gillnet fishers. The average sockeye catch per drift permit has decreased by approximately 41% from a 1988-1997 average of 13,703 to a 1998-2000 average of 8,139 sockeye per permit. For set gillnet fishers the average catch has decreased 9% from a 1988-1997 average of 4,097 to a 1998-2000 average of 3,744. Set gillnet harvests per permit have increased from less than one third to almost half the average drift gillnet harvest.

Average sockeye catches per permit holder by gear type, and by district, from 1981 to 2000, are listed in Table 9. These data indicate that the Egegik District drift gillnet fishers have achieved the largest 20-year average sockeye harvest per permit holder of any district's fishers with 9,259 fish per permittee. The largest, single season, individual drift delivery average of 18,585 sockeye per permit holder was recorded in the Naknek/Kvichak District and occurred in 1983. Egegik District setnet fishers have the highest 20-year average catch among Bristol Bay setnetters with 4,218 sockeye per permit holder but Ugashik setnetters are not far behind with a 20-year average of 3,986 sockeye salmon. Ugashik District fishers posted the largest single season individual setnet average on record with 7,030 sockeye per permit, set in 1981. Togiak District fishers have had the lowest average annual catches for both gear groups with drift gillnet fishers averaging 1,523 sockeye salmon per permit holder, and set gillnetters averaging 1,721 fish.

Table 1. Drift and set gill net effort by year and district, 1975-2000.

Units of Effort (one or more deliveries during season)												
Year	Naknek-Kvichak		Egegik		Ugashik		Nushagak		Togiak		Bristol Bay	
	Drift	Set	Drift	Set	Drift	Set	Drift	Set	Drift	Set	Drift	Set
1975	705	147	235	88	34	8	421	141	92	24	1,235	445
76	664	182	256	96	75	18	422	178	86	31	1,353	501
77	621	179	324	94	47	7	476	166	130	31	1,359	498
78	798	280	386	130	48	4	641	216	151	38	1,575	656
79	1,060	298	332	159	103	23	656	236	162	57	1,714	770
1980	1,011	347	283	179	187	29	666	241	181	47	1,764	807
81	993	348	345	167	270	33	658	260	178	54	1,785	841
82	801	332	420	168	253	49	980	252	202	56	1,792	859
83	1,064	361	483	171	346	47	792	260	251	58	1,797	865
84	1,091	338	573	180	313	53	575	260	225	63	1,804	869
1985	1,165	351	936	181	740	59	406	251	117	54	1,815	872
86	722	298	833	279	844	136	750	340	141	110	1,823	869
87	1,062	318	929	206	633	78	626	284	146	67	1,824	899
88	1,015	354	1,010	193	578	70	534	282	321	123	1,837	922
89	1,213	363	986	213	555	68	375	288	149	97	1,855	971
1990	1,389	438	970	216	425	65	478	350	128	65	1,869	971
91	1,091	362	672	215	451	64	467	312	207	106	1,873	950
92	979	350	951	205	518	67	527	300	278	116	1,879	968
93	835	335	1,189	227	609	71	525	296	155	108	1,875	965
94	1,140	327	1,096	228	484	68	535	295	175	115	1,865	939
1995	1,202	351	954	208	755	70	521	317	181	116	1,882	967
96	761	348	935	204	626	53	627	280	141 ^a	111 ^b	1,884	941
97	551	301	952	243	476	58	616	286	65 ^a	85 ^b	1,883	926
98	1,057	299	950	209	397	52	682	277	62 ^a	82 ^b	1,865	903
99	1,101	311	794	204	456	54	539	299	121 ^a	78 ^b	1,863	935
2000	805	369	828	209	525	55	682	301	190	108	1,852	942
1975-00 Ave.	958	319	716	187	413	52	584	268	163	77	1,766	848
1981-90 Ave.	1,052	350	749	197	496	66	617	283	186	75	1,820	894
1991-00 Ave.	952	335	932	215	530	61	572	296	158	103	1,872	944

^a Drift effort before July 24 is as follows: 1996-37, 1997-38, 1998-31, 1999-44 and before July 21, 2000 -40.

^b Setnet effort before July 24 1997 - 78, 1998 - 76, 1999-69 and before July 21, 2000 - 87.

Table 2. Bristol Bay sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	92	8	22,315	1,940	24,255
66	89	11	8,289	1,025	9,314
67	89	11	3,855	476	4,331
68	90	10	2,514	279	2,793
69	88	12	5,827	795	6,622
1970	93	7	19,271	1,450	20,721
71	90	10	8,626	958	9,584
72	93	7	2,247	169	2,416
73	92	8	700	61	761
74	79	21	1,076	286	1,362
1975	91	9	4,458	441	4,899
76	90	10	5,057	562	5,619
77	89	11	4,341	537	4,878
78	88	12	8,737	1,191	9,928
79	88	12	18,858	2,571	21,429
1980	86	14	20,435	3,327	23,762
81	86	14	22,019	3,584	25,603
82	87	13	13,318	1,942	15,260
83	90	10	33,448	3,924	37,372
84	90	10	22,219	2,486	24,705
1985	90	10	21,352	2,344	23,696
86	85	15	13,356	2,420	15,776
87	87	13	13,911	2,158	16,069
88	86	14	12,038	1,952	13,990
89	86	14	24,642	4,093	28,735
1990	87	13	29,146	4,377	33,523
91	86	14	22,241	3,580	25,821
92	88	13	27,895	3,985	31,880
93	87	13	35,307	5,156	40,463
94	88	12	31,126	4,098	35,224
1995	87	13	38,620	5,649	44,269
96	86	14	25,421	4,138	29,559
97	82	18	9,971	2,188	12,159
98	80	20	8,029	2,007	10,036
99 ^a	82	18	20,733	4,551	25,284
2000 ^a	81	19	16,638	3,903	20,541
1981-00 Ave.	86	14	22,072	3,427	25,498
1965-00 Ave.	87	13	16,057	2,350	18,407
1998-00 Ave.	81	19	15,133	3,487	18,620

^a Preliminary catch figures.

Table 3. Naknek-Kvichak District sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Season Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	95	5	18,206	964	19,170
66	93	7	5,040	358	5,398
67	90	10	2,115	223	2,338
68	89	11	1,085	132	1,217
69	91	9	4,250	405	4,655
1970	96	4	16,757	724	17,481
71	93	7	5,426	431	5,857
72	96	4	1,062	40	1,102
73	88	12	149	20	169
74	82	18	439	99	538
1975	94	6	2,888	198	3,086
76	93	7	2,363	184	2,547
77	90	10	1,956	211	2,167
78	91	9	4,651	473	5,124
79	90	10	13,548	1,443	14,991
1980	88	12	12,330	1,666	13,996
81	89	11	9,732	1,261	10,993
82	87	13	4,509	659	5,168
83	92	8	19,774	1,785	21,559
84	90	10	13,102	1,444	14,546
1985	87	13	7,154	1,025	8,179
86	70	30	2,014	878	2,892
87	86	14	4,272	714	4,986
88	86	14	3,011	470	3,481
89	89	11	12,265	1,545	13,810
1990	88	12	15,189	2,083	17,272
91	89	11	9,322	1,154	10,476
92	89	11	8,366	1,030	9,396
93	84	16	7,461	1,447	8,908
94	89	11	14,529	1,799	16,328
1995	89	11	17,974	2,306	20,280
96	83	17	6,801	1,411	8,212
97	73	27	432	157	589
98	85	15	1,993 ^b	340 ^b	2,595
99 ^a	85	15	7,154 ^b	1,307 ^b	8,942
2000 ^a	80	20	3,402 ^b	831 ^b	4,682
20-yr. Ave.	85	15	8,423	1,182	9,665
1965-00 Ave.	88	12	7,242	867	8,143
1998-00 Ave.	83	17	4,183	826	5,406
<i>Allocation</i>	<i>84</i>	<i>16</i>			

^a Catches are preliminary.

^b Allocation accounting period: June 1-July 17.

Table 4. Egegik District sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Season Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	83	17	2,655	525	3,180
66	88	12	1,849	252	2,101
67	90	10	959	112	1,071
68	93	7	627	44	671
69	80	20	713	176	889
1970	85	15	1,196	208	1,404
71	87	13	1,137	170	1,307
72	91	9	761	79	840
73	90	10	199	22	221
74	78	22	134	38	172
1975	90	10	867	97	964
76	91	9	1,204	126	1,330
77	88	12	1,564	217	1,781
78	84	16	1,009	199	1,208
79	78	22	1,756	501	2,257
1980	71	29	1,875	748	2,623
81	77	23	3,349	1,012	4,361
82	83	17	2,023	425	2,448
83	86	14	5,805	953	6,758
84	92	8	4,752	435	5,187
1985	93	7	6,999	539	7,538
86	89	11	4,336	516	4,852
87	91	9	4,859	498	5,357
88	90	10	5,841	616	6,457
89	90	10	7,968	934	8,902
1990	91	9	9,486	886	10,372
91	91	9	6,164	633	6,797
92	91	9	14,270	1,376	15,646
93	93	7	20,037	1,563	21,600
94	92	8	9,920	830	10,750
1995	90	10	13,030	1,396	14,426
96	90	10	9,722	1,087	10,809
97	87	13	6,550	968	7,518
98	86	14	2,936 ^b	462 ^b	3,529
99 ^a	85	15	6,144 ^b	1,121 ^b	7,423
2000 ^a	85	15	5,927 ^b	1,079 ^b	7,104
20-yr. Ave.	89	11	7,506	866	8,392
1965-00 Ave.	87	13	4,684	579	5,274
1998-00 Ave.	85	15	5,002	887	6,019
Allocation	86	14			

^a Catches are preliminary.

^b Allocation accounting period: June 1 to July 17.

Table 5. Ugashik District sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Season Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	82	18	760	166	926
66	83	17	370	75	445
67	81	19	133	31	164
68	80	20	66	16	82
69	84	16	142	28	170
1970	77	23	132	40	172
71	89	11	848	106	954
72	28	72	5	13	18
73	75	25	3	1	4
74	50	50	1	1	2
1975	80	20	12	3	15
76	90	10	158	17	175
77	90	10	84	9	93
78	88	13	7	1	8
79	84	16	328	62	390
1980	88	12	778	108	886
81	89	11	1,884	232	2,116
82	87	13	988	151	1,139
83	93	7	3,116	233	3,349
84	92	8	2,456	202	2,658
1985	96	4	6,212	251	6,463
86	95	5	4,765	238	5,003
87	94	6	2,001	128	2,129
88	91	9	1,383	140	1,523
89	87	13	2,752	394	3,146
1990	91	9	1,960	189	2,149
91	89	11	2,617	328	2,945
92	90	10	2,989	332	3,321
93	90	10	3,764	413	4,177
94	93	7	4,050	303	4,353
1995	95	5	4,288	222	4,510
96	95	5	4,191	220	4,411
97	88	12	1,237	166	1,403
98	85	15	444 ^b	78 ^b	730
99 ^a	90	10	1,699 ^b	199 ^b	2,270
2000 ^a	87	13	1,332 ^b	199 ^b	1,532
20-yr. Ave.	91	9	2,706	231	2,966
1965-00 Ave.	85	15	1,610	147	1,773
1998-00 Ave.	87	13	1,158	159	1,511
Allocation	90	10			

^a Catches are preliminary.

^b Allocation accounting period: 1998 - June 1 to July 26; 1999 - June 1 to July 18; 2000 - June 1 to July 31.

Table 6. Nushagak District sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Season Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	72	28	693	263	956
66	72	28	840	331	1,171
67	86	14	569	89	658
68	90	10	674	75	749
69	81	19	607	142	749
1970	67	33	791	397	1,188
71	77	23	969	288	1,257
72	92	8	352	30	382
73	93	7	252	20	272
74	73	27	371	139	510
1975	80	20	518	128	646
76	85	15	1,071	195	1,266
77	86	14	529	90	619
78	85	15	2,666	471	3,137
79	82	18	2,713	614	3,327
1980	85	15	3,802	696	4,498
81	81	19	6,100	1,393	7,493
82	90	10	5,299	611	5,910
83	84	16	4,287	833	5,120
84	83	17	1,660	332	1,992
1985	64	36	830	477	1,307
86	75	25	2,032	687	2,719
87	78	22	2,551	703	3,254
88	75	25	1,274	433	1,707
89	58	42	1,609	1,179	2,788
1990	67	33	2,384	1,149	3,533
91	76	24	3,816	1,238	5,054
92	65	35	1,820	970	2,790
93	72	28	3,755	1,482	5,237
94	71	29	2,418	975	3,393
1995	68	32	3,009	1,437	4,446
96	81	19	4,589	1,076	5,665
97	70	30	1,760	747	2,507
98	72	28	2,160 ^b	831 ^b	2,991
99 ^a	72	28	4,510 ^b	1,754 ^b	6,264
2000 ^a	78	22	5,017 ^b	1,389 ^b	6,429
20-yr. Ave.	74	26	3,044	985	4,030
1965-00 Ave.	77	23	2,175	657	2,833
1998-00 Ave.	74	26	3,896	1,325	5,228
Allocation	74	26			

^a Catches are preliminary. Totals contains WRSHA totals

^b Allocation accounting period: 1998- June 1 -Sept 30; 1999- June 1 to Sept. 30;
2000 - June 1 to July 17.

Table 7. Togiak District sockeye salmon catch in percent and numbers by gear type, 1965-2000.

Year	Percentage Catch by gear type		Catch in Numbers by gear type (1,000's)		Season Total Catch (1,000's)
	Drift	Set	Drift	Set	
1965	100	0	261	0	261
66	98	3	195	5	200
67	95	5	95	5	100
68	99	1	72	1	73
69	99	1	133	2	135
1970	99	1	153	1	154
71	100	0	208	1	209
72	100	0	75	0	75
73	99	1	95	1	96
74	91	9	127	12	139
1975	92	8	174	15	189
76	92	8	277	25	302
77	89	11	196	23	219
78	84	16	378	74	452
79	82	18	376	85	461
1980	83	17	528	107	635
81	79	21	503	136	639
82	84	16	500	96	596
83	80	20	468	120	588
84	77	23	249	73	322
1985	75	25	157	52	209
86	68	32	210	99	309
87	66	34	228	115	343
88	64	36	529	293	822
89	55	45	49	40	89
1990	64	36	126	71	197
91	59	41	322	227	549
92	62	38	450	276	726
93	54	46	290	250	540
94	52	48	209	191	400
1995	52	48	317	288	605
96	45	55	207	255	462
97	37	63	52	90	142
98	43	57	82	108	190
99 ^a	53	47	203	182	385
2000 ^a	57	43	456	338	794
20-yr. Ave.	61	39	280	165	445
1965-00 Ave.	76	24	249	102	350
1998-00 Ave.	51	49	247	209	456

^a Catches are preliminary.

Table 8. Bristol Bay average catch in numbers of sockeye by gear type and year, 1965-2000.

Year	Estimated Permits Actually Fished		Average Seasonal Catch of Sockeye (No. of Fish) by Permit Type		Drift Gillnet % of Total Catch	Set Gillnet % of Total Catch
	Drift	Set	Permit Type			
			Drift	Set		
1965	1,395	582	15,996	3,333	92	8
66	1,715	549	4,833	1,867	89	11
67	1,555	439	2,479	1,084	89	11
68	1,237	493	2,032	566	90	10
69	1,633	511	3,568	1,556	88	12
1970	1,674	623	11,512	2,327	93	7
71	1,710	421	5,044	2,276	90	10
72	1,467	490	1,532	345	93	7
73	953	542	735	113	92	8
74	659	214	1,633	1,336	79	21
1975	1,235	445	3,610	991	91	9
76	1,353	501	3,738	1,122	90	10
77	1,359	498	3,194	1,078	89	11
78	1,575	656	5,547	1,816	88	12
79	1,714	770	11,002	3,339	88	12
1980	1,764	807	11,584	4,123	86	14
81	1,785	841	12,336	4,262	86	14
82	1,792	859	7,432	2,261	87	13
83	1,797	865	18,613	4,536	90	10
84	1,804	869	12,317	2,861	90	10
1985	1,815	872	11,764	2,688	90	10
86	1,823	869	7,326	2,785	85	15
87	1,824	899	7,627	2,400	87	13
88	1,837	922	6,553	2,117	86	14
89	1,855	971	13,284	4,215	86	14
1990	1,869	971	15,594	4,508	87	13
91	1,873	950	11,875	3,768	86	14
92	1,879	968	14,846	4,117	88	13
93	1,875	965	18,830	5,343	87	13
94	1,865	939	16,690	4,364	88	12
1995	1,882	967	20,521	5,842	87	13
96	1,884	941	13,540	4,334	86	14
97	1,883	926	5,295	2,363	82	18
98	1,865	903	4,305	2,223	80	20
99 ^a	1,863	935	11,129	4,867	82	18
2000 ^a	1,852	942	8,984	4,143	81	19
1988-97 Ave.	1,870	952	13,703	4,097	86	14
1965-00 Ave.	1,664	748	9,081	2,813	87	13
1998-00 Ave.	1,860	927	8,139	3,744	81	19

^aPreliminary data.

Table 9. Average catch in numbers of sockeye by gear type and district, 1978-2000.^a

Average Catch in Numbers of Sockeye Salmon (Per Permit)										
Year	Naknek-Kvichak		Egegik		Ugashik		Nushagak		Togiak	
	Drift	Set	Drift	Set	Drift	Set	Drift	Set	Drift	Set
81	9,801	3,624	9,707	6,060	6,978	7,030	9,271	5,358	2,826	2,519
82	5,629	1,985	4,817	2,530	3,905	3,082	5,407	2,425	2,475	1,714
83	18,585	4,945	12,014	5,573	9,006	4,957	5,413	3,204	1,865	2,069
84	12,009	4,272	8,293	2,417	7,847	3,811	2,887	1,277	1,107	1,159
1985	6,141	2,920	7,478	2,978	8,395	4,254	2,044	1,900	1,342	963
86	2,789	2,946	5,205	1,849	5,646	1,750	2,709	2,021	1,489	900
87	4,023	2,245	5,230	2,417	3,161	1,641	4,075	2,475	1,562	1,716
88	2,967	1,328	5,783	3,192	2,393	2,000	2,386	1,535	1,648	2,382
89	10,111	4,256	8,081	4,385	4,959	5,794	4,291	4,094	329	412
1990	10,935	4,756	9,779	4,102	4,612	2,908	4,987	3,283	984	1,092
91	8,544	3,188	9,173	2,944	5,803	5,125	8,171	3,968	1,556	2,142
92	8,545	2,943	15,005	6,712	5,770	4,955	3,454	3,233	1,619	2,379
93	8,935	4,319	16,852	6,885	6,181	5,817	7,152	5,007	1,871	2,315
94	12,745	5,500	9,051	3,640	8,367	4,460	4,519	3,306	1,197	1,657
1995	14,953	6,569	13,659	6,710	5,679	3,165	5,775	4,534	1,751	2,487
96	8,937	4,055	10,398	5,330	6,695	4,144	7,318	3,844	1,471	2,299
97	784	521	6,880	3,984	2,599	2,862	2,857	2,612	800	1,058
98 ^b	1,999	1,159	3,164	2,287	1,375	1,696	3,167	3,000	1,323 ^c	1,317 ^d
99 ^b	7,182	4,245	7,787	5,550	3,870	4,146	8,367	5,866	1,678 ^c	2,333 ^d
2,000 ^b	4,458	2,519	7,219	5,163	2,542	3,618	6,982	4,661	2,400 ^c	3,130 ^d
1981-2000 Ave.	8,004	3,551	9,259	4,218	5,764	3,986	4,866	3,181	1,523	1,721
1981-1990 Ave.	8,299	3,328	7,639	3,550	5,690	3,723	4,347	2,757	1,563	1,493
1991-2000 Ave.	7,708	3,502	9,919	4,921	4,888	3,999	5,776	4,003	1,567	2,112
1998-2000 Ave.	4,546	2,641	6,057	4,333	2,596	3,153	6,172	4,509	1,800	2,260

^a Averages computed using total effort (see Table 1).

^b Data for 1998, 1999, and 2000 are for the allocation periods only.

^c 33 drift gillnet fishers fished exclusively through July 23 in 1998 and averaged 2,337 sockeye per permit; 44 in 1999 averaged 3,393; and 40 setnetters through July 20 in 2000 averaged 6,846 sockeye per permit.(1998-2000 ave. = 4,192)

^d 76 set gillnet fishers fished exclusively through July 23 in 1998 averaged 1,347 sockeye per permit; 69 in 1999 averaged 2,157; and 87 setnetters through July 20 in 2000 averaged 3,343 sockeye per permit.(1998-2000 ave. = 2,282)

Table 10. Nushagak District sockeye catch by gear type, in numbers of fish and percent of total catch, 1977-2000.

Year	Set Net				Combined Sections	Drift Net	Total		
	Igushik Section		Nushagak Section						
1977	14,512	2%	75,088	12%	89,600	14%	529,425	86%	619,025
78	83,414	3%	387,730	12%	471,144	15%	2,666,022	85%	3,137,166
79	106,010	3%	508,219	15%	614,229	18%	2,712,883	82%	3,327,112
1980	113,149	3%	582,873	13%	696,022	15%	3,801,765	85%	4,497,787
81	236,129	3%	1,157,209	15%	1,393,338	19%	6,099,755	81%	7,493,093
82	131,468	2%	479,496	8%	610,964	10%	5,298,763	90%	5,909,727
83	145,225	3%	687,885	13%	833,110	16%	4,286,634	84%	5,119,744
84	46,485	2%	285,712	14%	332,197	17%	1,660,484	83%	1,992,681
1985	99,944	8%	377,108	29%	477,052	36%	830,209	64%	1,307,261
86	154,013	6%	533,479	20%	687,492	25%	2,031,821	75%	2,719,313
87	138,889	4%	564,346	17%	703,235	22%	2,551,485	78%	3,254,720
88	56,557	3%	376,479	22%	433,036	25%	1,273,680	75%	1,706,716
89	238,887	9%	940,396	34%	1,179,283	42%	1,608,911	58%	2,788,194
1990	312,455	9%	836,091	24%	1,148,546	33%	2,383,997	67%	3,532,543
91	399,745	8%	837,990	17%	1,237,735	24%	3,816,110	76%	5,053,845
92	130,827	5%	839,067	30%	969,894	35%	1,819,947	65%	2,789,841
93	308,822	6%	1,173,070	22%	1,481,892	28%	3,754,665	72%	5,236,557
94	242,273	7%	732,943	22%	975,216	29%	2,417,927	71%	3,393,143
1995	492,937	11%	944,230	21%	1,437,167	32%	3,008,733	68%	4,445,900
96	243,006	4%	795,250	14%	1,076,320 ^a	19%	4,588,549	81%	5,664,869
97	28,887	1%	491,076	20%	746,985 ^a	30%	1,759,833	70%	2,506,818
98 ^b	116,398	4%	676,264	23%	835,400 ^a	28%	2,155,197	72%	2,990,597
99 ^{bc}	287,003	5%	1,073,905	17%	1,754,065 ^a	28%	4,509,616	72%	6,263,681
2000 ^{bc}	304,613	5%	1,167,596	18%	1,472,209 ^a	23%	4,956,583	77%	6,428,792
1977-97 Ave.	177,316	5%	647,892	19%	837,831	24%	2,804,838	76%	3,642,669
20-yr. Ave.	205,728	5%	748,480	20%	989,257	26%	3,040,645	74%	4,029,902
10-yr. Ave.	255,451	6%	873,139	20%	1,198,688	28%	3,278,716	72%	4,477,404
1998-00 Ave.	236,005	5%	972,588	20%	1,353,891	26%	3,873,799	74%	5,227,690

^a Combined Sections catches include Wood River Special Harvest Area catches.

^b Allocation plan in place.

^c Preliminary data.

Table 11. Nushagak District sockeye salmon catch by gear type, in numbers of fish and percent of the total catch through the allocation period, 1998-2000.

Year	Drift Nushagak District	Set Net		Set Net		Set Net		Wood River Special Harvest		Nushagak District			
		Nushagak Section	Igushik Section	Combined Section	Drift Net	Set Net	Total						
1998 ^a	2,019,861	72%	676,264	24%	116,398	4%	792,662	28%	135,336	76%	42,738	24%	2,990,597
1999 ^{ac}	3,081,212	69%	1,073,905	24%	287,003	6%	1,360,908	31%	1,428,404	78%	393,157	22%	6,263,681
2000 ^{bc}	4,120,186	79%	771,059	15%	303,529	6%	1,074,588	21%	818,753	68%	392,381	32%	6,405,908
3-year ave.	3,073,753	73%	840,409	21%	235,643	6%	1,076,053	27%	794,164	74%	276,092	26%	5,220,062
Allocation		74%		20%		6%		26%		74%		26%	

^a Allocation Period June 1 to September 30.

^b Allocation Period June 1 to July 17.

^c Data for 1999 and 2000 is preliminary.

Table 12. Naknek-Kvichak District sockeye catch by gear type, in numbers of fish and percent of total catch, 1985-2000.

Year	Set Net				Combined Sections	Drift Net	Total		
	Naknek Section		Kvichak Section						
1985	556,969	7%	84,078	1%	641,047	8%	7,144,809	92%	7,785,856
86	557,705	36%	19,992	1%	577,697	37%	971,066	63%	1,548,763
87	312,400	6%	296,197	6%	608,597	12%	4,272,334	88%	4,880,931
88	214,059	6%	255,936	7%	469,995	14%	3,010,841	86%	3,480,836
89	663,558	5%	881,849	6%	1,545,407	11%	12,264,549	89%	13,809,956
1990	1,045,752	6%	1,034,462	6%	2,080,214	12%	15,189,248	88%	17,269,462
91	655,722	6%	496,732	5%	1,152,454	11%	9,321,417	89%	10,473,871
92	779,371	8%	262,147	3%	1,041,518	11%	8,441,331	89%	9,482,849
93	825,331	9%	569,432	6%	1,394,763	16%	7,513,113	84%	8,907,876
94	556,696	3%	1,261,049	8%	1,817,745	11%	14,529,192	89%	16,346,937
1995	992,429	5%	1,313,263	6%	2,305,692	11%	17,973,847	89%	20,279,539
96	824,221	10%	249,069	3%	1,073,290	14%	6,800,835	86%	7,874,125
97	127,203	22%	29,752	5%	156,955	27%	432,356	73%	589,311
98	210,816	8%	219,055	8%	429,871	17%	2,165,386	83%	2,595,257
99 ^a	715,357	8%	625,937	7%	1,341,294	15%	7,600,669	85%	8,941,963
2000 ^a	445,172	10%	199,788	4%	644,960 ^b	18%	3,836,574 ^b	82%	4,681,999
1985-97 Ave.	623,955	10%	519,535	5%	1,143,490	15%	8,297,303	85%	9,440,793
1998-00 Ave.	457,115	9%	348,260	7%	885,583	17%	4,534,210	83%	5,406,406
Allocation		8%		8%		16%		84%	

^a Preliminary data.

^b Includes Naknek inriver harvest.

Table 13. Naknek/Kvichak District sockeye salmon catch by gear type, in numbers of fish and percent of total catch through the allocation period, 1998-2000.

Year	Drift		Set Net		Set Net			Naknek River Special Harvest		District Total	
	Naknek/Kvichak District ^a		Naknek Section		Kvichak Section	Combined Section ^b		Drift Net	Set Net		
1998 ^c	1,992,743	85%	163,933	7%	175,764	8%	339,697	15%	482,480	2,332,440	
1999 ^{cd}	7,153,711	85%	722,677	9%	584,676	7%	1,307,353	15%	149,229	8,461,064	
2000 ^{cd}	3,401,511	80%	445,695	11%	187,835	4%	831,419	20%	415,189	197,889	4,232,930
3-year ave.	4,182,655	83%	444,102	9%	316,092	6%	826,156	17%	348,966	197,889	5,008,811
Allocation		84%		8%		8%		16%			

^a Includes all drift catches, district and in-river.

^b Includes all set net catches, district and in-river.

^c Allocation Period June 1 to July 17.

^d Data for 1999 and 2000 is preliminary.

Table 14. Bristol Bay interim-use and permanent entry permits, and permits actually fished, 1980-00.

YEAR	Number of Permits Issued			Number of Permits Fished	
	Interim Use	Permanent	Total	Number	Percent
DRIFT GILL NET:					
1980	110	1,717	1,827	1,764	97
81	107	1,720	1,827	1,785	98
82	100	1,724	1,824	1,792	98
83	94	1,727	1,821	1,797	99
84	89	1,729	1,818	1,804	99
1985	96	1,738	1,834	1,815	99
86	95	1,743	1,838	1,823	99
87	91	1,746	1,837	1,824	99
88	90	1,749	1,839	1,837	100
89	91	1,776	1,867	1,855	99
1990	93	1,785	1,878	1,869	100
91	88	1,793	1,881	1,873	100
92	86	1,797	1,883	1,879	100
93	81	1,805	1,886	1,875	99
94	77	1,810	1,887	1,865	99
1995	75	1,813	1,888	1,882	100
96	70	1,821	1,891	1,884	100
97	67	1,832	1,899	1,883	99
98	55	1,844	1,899	1,865	98
99 ^a	52	1,846	1,898	1,863	98
2000 ^a	38	1,852	1,890	1,852	98
Average	83	1,779	1,862	1,842	99
SET GILL NET:					
1980	34	913	947	807	85
81	42	914	956	841	88
82	41	916	957	859	90
83	31	929	960	865	90
84	31	931	962	869	90
1985	28	931	959	872	91
86	22	940	962	869	90
87	18	942	960	899	94
88	17	941	958	922	96
89	18	1007	1025	971	95
1990	15	1011	1026	971	95
91	12	1012	1024	950	93
92	8	1017	1025	968	94
93	8	1014	1022	965	94
94	7	1012	1019	939	92
1995	8	1011	1019	967	95
96	6	1011	1017	941	93
97	7	1012	1019	926	91
98	6	1009	1015	903	89
99 ^a	6	1008	1014	935	92
2000 ^a	6	1006	1012	942	93
Average	18	976	993	913	92

^a Preliminary data.

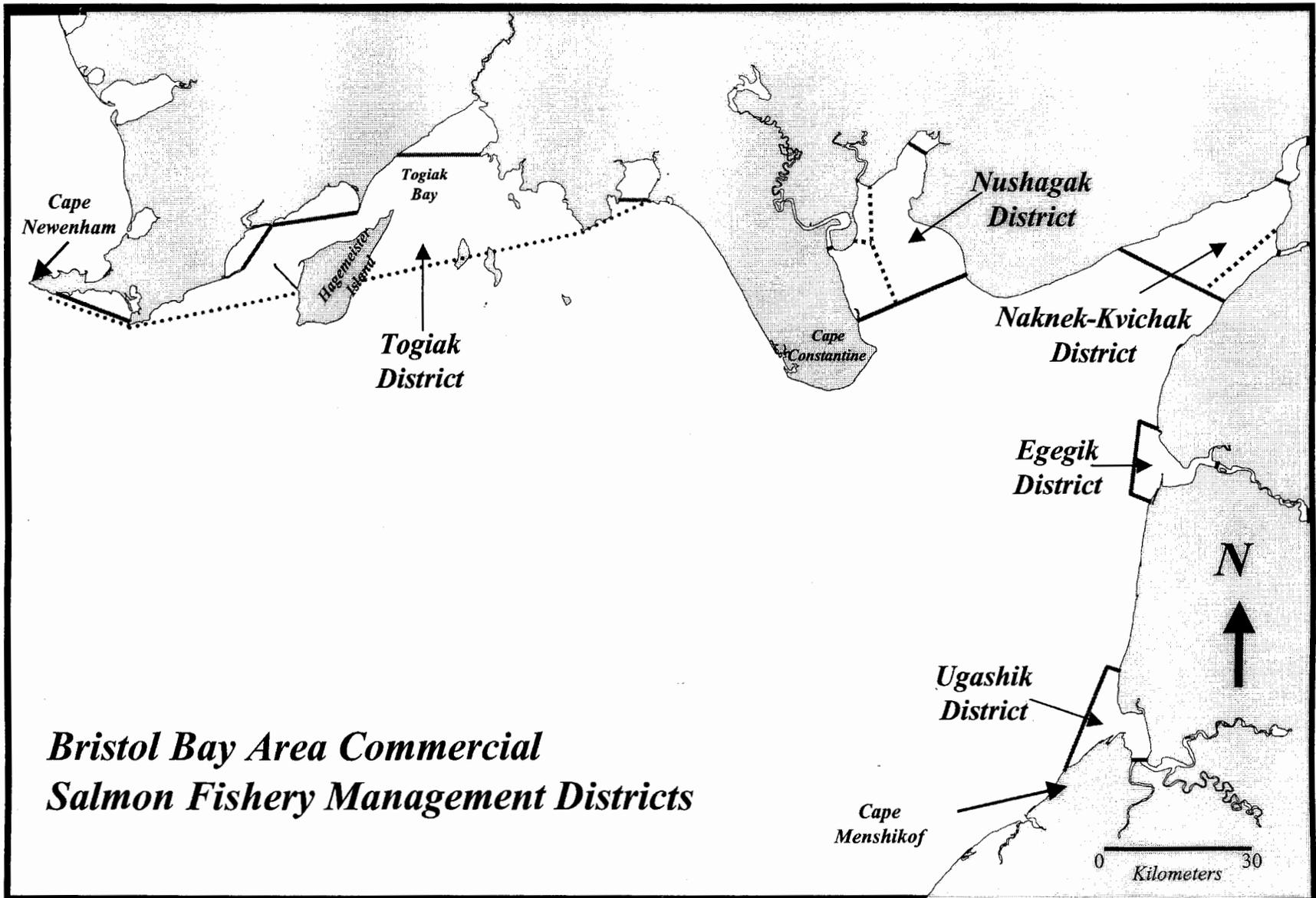


Figure 1. Bristol Bay commercial fishing districts.

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