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A BRISTOL BAY ALMANAC FOR 2000

D.E. ROGERS AND R.P. STEEN

Acknowledgments

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Key Words

Bristol Bay, forecasts, *Oncorhynchus* spp., Port Moller, sockeye and chum salmon,

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Introduction

The purpose of the daily summaries provided in this almanac is to provide Bristol Bay processors with the statistics to forecast the total sockeye (*Oncorhynchus nerka*) salmon run in 2000 from the Port Moller index catches starting June 20 (the earliest that forecasts are feasible) and ending July 7 (the recent mid-point in the Bristol Bay catch). Also, by using the daily Alaska Department of Fish & Game (ADFG) summaries of the cumulative catches and escapements, processors can compare the daily 2000 numbers through July 10 with averages and ranges from recent past years (1987–99).

Port Moller Test Boat

The test boat attempts to fish each day at four stations located along a transect line between Port Moller and Cape Newenham. The stations, 2 to 8, are located 33, 43, 53, and 63 mi out from Port Moller (13, 23, 33, and 43 mi from the coastline). An index catch at each of the four stations is the number caught per 100 fm per 60 min. A 200-fm net is usually fished for about 60 min, so the station index is usually about one-half of the actual catch. In past years, the daily index was the sum of the index catches at the four stations, and the cumulative index (used to forecast) was the sum of the daily indices starting with June 11. In 1995, salmon were distributed well offshore with the largest catches made at station 8 (43 mi from the coastline). This unusual distribution resulted in underforecasting the run in 1995 because in past years salmon were usually concentrated at stations 4 or 6.

In 1996, a new daily index was calculated to account for the fact that salmon may be distributed farther out from station 8 than inside station 2. The new daily index gave the catch at station 8 twice the weight of catches made at the other stations. Therefore, we add catches at stations 2, 4, 6, plus 2 times the catch at station 8. This sum divided by 5 and then multiplied by 4 (or the sum multiplied by 0.8) provides the daily index catch. The daily index catches are added each day beginning June 11 to calculate the cumulative indices that are used to forecast the final run. The daily and cumulative indices are given in Tables 1 and 2.

Daily water temperatures off Port Moller are given in Table 3. The timing of the Bristol Bay runs (especially from Port Moller to the bay) is usually related to temperature in the Bering Sea and North Pacific, with fish swimming faster or starting their migrations earlier at warmer temperatures, and slower or later at colder temperatures; however, there have been years with average timing when temperatures were either warm (>8°C) or cold (<5°C) at Port Moller.

About June 20, we will have a forecast of run timing based on an analysis of ocean temperatures in the North Pacific. Spatial and temporal distribution off Port Moller can be examined from index catches of sockeye and chum salmon by station and 5-day periods in Tables 4 and 5.

An early indication of the ocean age composition in the Port Moller catches can be obtained from the average lengths of the fish that are reported daily (scales take longer to be aged). Usually if the average length is over 550 mm, the majority of the sockeye are 3-ocean fish, and if they are under 550 mm, they are mostly 2-ocean fish (Fig. 1). However, in 1990–92, 1994, 1996, and 1998, the 3-ocean fish were very small because ocean growth was poor and average lengths as low as 535 mm were still associated with a majority of 3-ocean fish in the Port Moller catch. Average lengths of sockeye salmon in the Port Moller catches can be converted to average weights from length and weight statistics obtained from Bristol Bay catches (Table 6). When the Port Moller scales are aged, we can then estimate the age composition in the Bristol Bay run (Fig. 2). Because of net selectivity there is not a one-to-one relationship in ocean age between Port Moller catches and the Bristol Bay run. When there are high percentages of 3-ocean fish at Port Moller, we can expect lower percentages in Bristol Bay (e.g., when 75% of the fish caught at Port Moller are 3-ocean we would expect only 64% 3-ocean in the Bristol Bay run).

Bristol Bay Runs

The daily commercial catches and the escapements at towers have been a poor predictor of the total run until about the mid-point of the run (Fig.3). Beginning about July 7, the final run has been closely correlated with the cumulative catch and escapement except for the very late run in 1994 and very early run in 1993. In a typical year with a large run (1995), large numbers of sockeye are first present in the fishing districts between 25 and 30 June, but they have shown up as early as 21 June (1993) or as late as 2 July (1994). The daily catches in Bristol Bay (all districts) and the dates on which 50% of the season's catch were made are given in Table 7. This date is usually 1 to 2 days later than the mid-point in the run and is affected by run timing (early in '79 and '93 and late in '86 and '94), strikes ('80 and '91), or management (restricted early fishing in '87 and '98 and extensive early fishing in '96).

The 2000 preseason forecasts are given in Table 8. About 38% of the run is expected to be 2-ocean fish from the 1995 and 96 brood years. Large runs of 3-ocean fish, especially age 1.3, would seem likely from the large returns of 2-ocean fish in 1999. An early indication of the Bristol Bay run magnitude may come from the False Pass fishery (Table 9). There was a fair correlation between the South Unimak catch and the Bristol Bay run if the 1990 and 1994–98 data were excluded (the same years that are outliers in the Port Moller/Bristol Bay data). Large catches generally indicate a large run; however, small catches do not preclude a large run since weather or fleet conditions (strikes) can influence the South Unimak catch. The age composition in the False Pass catches will probably be of more value than the catches in predicting the strength of the Bristol bay run in 2000.

The Port Moller test boat catches have overforecast the Bristol Bay run in each of the past three years, with 1997 the showing the largest error (Fig. 4). The final inseason forecasts made from a combination of Port Moller statistics and inshore catches and escapements have been fairly close; however, there is a need to make these forecasts earlier (i.e., before July 4. The mean lengths of sockeye salmon in the Port Moller catches were a fair predictor of the size of the Bristol Bay run (small fish–large run, large fish–small run); however, in both 1997 and 1998, the sockeye salmon at Port Moller were relatively small yet the runs were not large. It appears that growth conditions other than competition from numbers of fish were a major factor in influencing growth in 1997 and 1998.

Daily Almanac

The ensuing 21 daily summaries provide the following: (1) the average cumulative catches and escapements through midnight of the date shown and the average and range in the percentages of the season totals that were reached by that date for 1987–99; (2) the average and range in the daily and cumulative Port Moller index catches for 1987–99 for comparison with 2000; (3) a plot of the past Bristol Bay runs on the cumulative indices through the date shown and the predictive equation (through July 7); and (4) Port Moller, fishery and escapement comments. The 1990 run was unusual in that it was a very large run that started late, had a very concentrated peak and then ended as usual, and the 1994 run was late throughout. In those years, the False Pass fishery had difficulty catching their quota because the fish were not distributed in a typical manner. The 1990 and 1994 data points in our predictive equations were thus considered outliers (excluded from calculations) for predictions through June 27 (mid-point at Port Moller). The years 1990 and 94 are shown as open circles on the graphs. The 1997 observation (small run for a relatively large index) is an obvious outlier; it was excluded in calculating the predictive equation for 2000 because environmental conditions were very unusual that year.

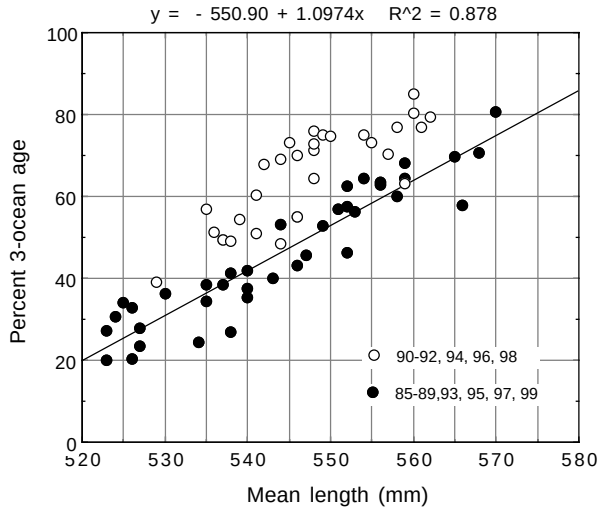


FIGURE 1 Correlation between ocean age and the average length of sockeye salmon off Port Moller.

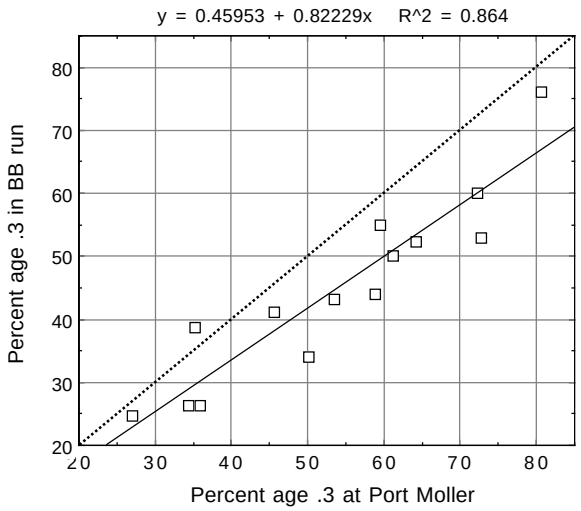


FIGURE 2. Correlation in the percent 3-ocean fish between Bristol Bay and Port Moller.

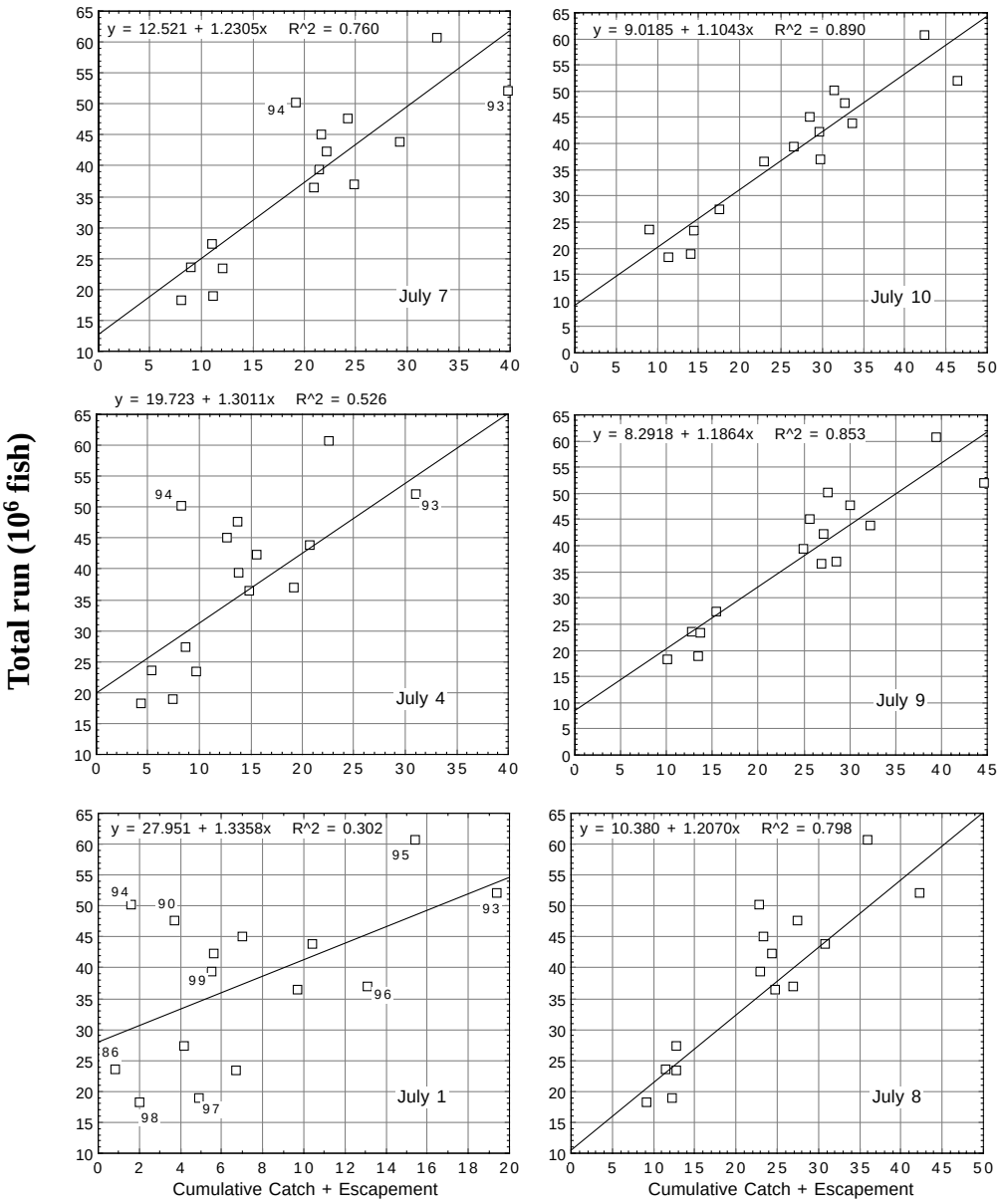


FIGURE 3. Relationship between total run and cumulative catch + escapement, 1985-99.

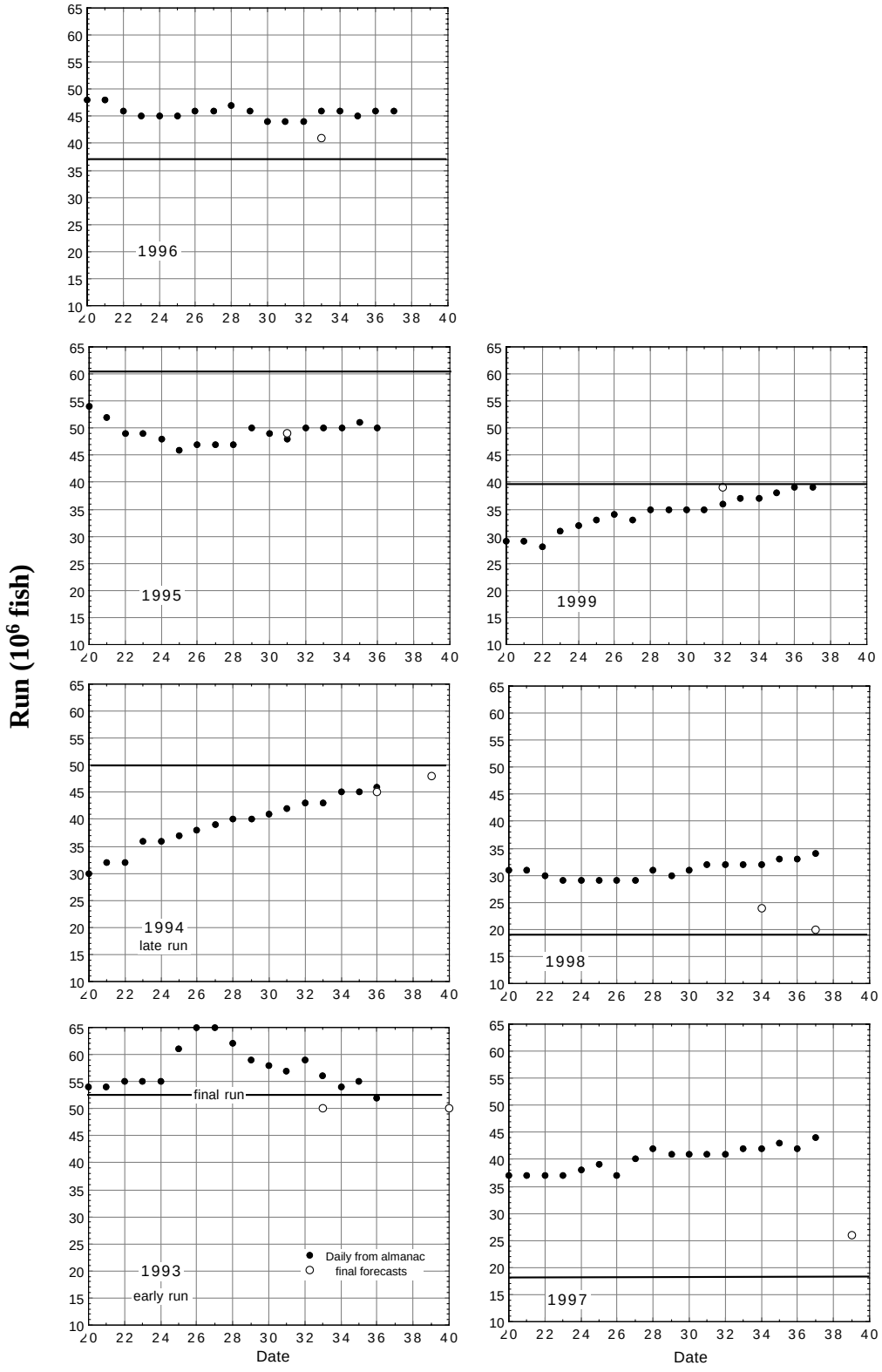


FIGURE 4. Daily forecasts from almanacs, final forecasts, and actual runs, 1993–99.

TABLE 1. Port Moller daily sockeye salmon (*Oncorhynchus nerka*) index catches (traditional method).

	2000	Past index catches													
Date	index	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1985
6/11		16	*5*	13	*21*	*33*	4	18	18	6	7	17	7	*7*	8
12		17	6	17	22	29	3	11	*19*	7	12	26	9	*8*	5
13		13	5	12	24	38	5	28	*19*	6	*12*	23	*12*	7	16
14		7	11	25	53	87	9	89	20	6	11	18	*12*	8	23
15		14	22	30	39	62	17	62	46	17	18	26	15	14	39
16		16	36	47	98	89	17	85	54	*24*	*23*	26	18	*10*	51
17		7	42	46	58	63	10	*89*	6	40	16	57	9	*8*	102
18		23	22	27	76	152	35	*89*	114	58	43	102	7	10	40
19		68	28	82	56	137	45	91	132	81	*41*	*83*	6	14	39
20		73	46	86	106	73	37	118	112	60	*41*	*87*	19	52	21
21		98	*43*	56	100	116	*86*	144	118	*98*	*42*	*83*	15	14	55
22		61	53	102	77	97	110	188	124	157	46	94	26	71	81
23		100	43	94	88	135	152	122	144	96	62	89	*28*	74	73
24		190	61	93	*100*	105	*117*	100	141	180	137	*67*	50	*86*	*63*
25		149	48	76	102	142	95	232	*110*	54	154	57	22	*86*	21
26		97	52	82	132	153	111	*158*	48	55	106	28	51	138	80
27		73	59	140	109	124	141	*158*	108	131	137	*70*	*48*	61	54
28		164	76	154	111	182	149	190	120	68	284	118	33	140	175
29		81	118	114	78	217	135	112	133	95	197	*94*	85	*75*	162
30		125	91	124	130	146	260	287	226	20	243	*94*	51	73	170
7/1		124	119	83	104	187	161	*175*	170	79	173	94	*46*	26	28
2		131	48	133	155	172	167	242	85	50	155	94	*46*	27	44
3		157	131	234	117	188	123	60	162	174	223	118	23	33	78
4		128	82	76	184	149	197	79	*105*	66	101	195	22	*30*	76
5		121	130	132	108	122	*143*	100	*109*	127	62	*140*	48	*30*	98
6		187	102	138	157	182	146	81	103	67	*61*	137	23		94
7		140	42	90	59	106	107	74	64	56	*60*	108	39		
8		101	75	79	96	53	105	33	120	69					
9			98			89	54	62	43	87					
10								35							
Run (10^6 fish)		40	18	19	37	61	50	52	45	42	48	44	23	27	36

TABLE 2. Port Moller daily cumulative sockeye index catches (traditional).

	2000	Past index catches													
Date	Index	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1985
6/11		16	6	13	22	33	4	18	18	6	7	17	7	8	8
12		33	11	30	43	62	7	29	37	13	19	43	16	15	13
13		46	16	42	67	99	12	57	56	19	32	67	28	22	28
14		53	27	67	120	186	21	146	76	25	43	85	40	30	51
15		67	50	97	159	248	38	208	122	42	61	111	56	43	91
16		83	85	144	257	337	55	293	176	66	84	137	74	53	142
17		90	128	190	315	400	66	382	182	106	100	194	82	61	244
18		114	150	217	391	552	101	472	296	164	143	297	89	71	284
19		181	178	299	447	689	146	562	428	245	184	380	95	85	323
20		255	224	386	552	762	183	681	540	305	225	468	114	138	343
21		353	266	441	653	878	269	824	658	404	267	550	128	151	398
22		414	320	543	730	975	379	1012	783	561	313	644	154	223	479
23		514	363	637	818	1110	531	1135	927	657	374	733	181	296	553
24		704	423	730	918	1214	648	1234	1068	837	511	799	231	383	616
25		853	471	806	1020	1356	743	1466	1178	891	665	857	253	469	637
26		950	523	888	1152	1509	854	1624	1226	946	771	885	305	607	717
27		1022	582	1029	1261	1633	995	1783	1334	1077	908	955	353	668	771
28		1186	659	1183	1371	1815	1144	1973	1453	1146	1192	1072	386	808	947
29		1267	776	1297	1449	2033	1279	2085	1586	1241	1389	1166	472	883	1109
30		1392	867	1421	1580	2179	1538	2372	1812	1261	1632	1261	523	956	1279
7/1		1516	986	1504	1684	2365	1699	2547	1981	1340	1804	1354	568	983	1307
2		1647	1034	1637	1838	2537	1866	2789	2066	1390	1960	1448	614	1010	1351
3		1805	1165	1871	1955	2725	1990	2849	2228	1564	2182	1566	637	1043	1429
4		1933	1247	1947	2139	2874	2187	2928	2333	1629	2284	1761	659	1073	1505
5		2054	1377	2079	2247	2995	2330	3028	2443	1756	2345	1901	707	1104	1603
6		2241	1479	2217	2404	3177	2476	3109	2546	1823	2406	2038	730	1135	1697
7		2381	1521	2307	2463	3283	2583	3183	2610	1878	2466	2147	769		
8		2482	1595	2386	2560	3336	2689	3216	2730	1947					
9			1693			3424	2742	3278	2773	2034					
10								3313							
Run, excl. jacks		40	18	19	37	61	50	52	45	42	48	44	23	27	36

Cumulative indices include estimates for missing days (average of 2d before and 2d after missing day or days)

TABLE 3. Daily surface water temperatures off Port Moller.

Date	81	82	83	84	85	87	88	89	90	91	92	93	94	95	96	97	98	99
6/11	9.3	4.2	8.8		5.0	5.9	8.4	4.4	6.6	4.5	7.1	7.2	7.2			7.1		2.1
12	10.1	4.7	8.5	8.7	3.8	5.4	8.1	4.8	6.7	4.9	6.5	6.9	7.0	7.2	4.9	7.1	6.8	1.3
13	10.6	5.8	8.8	8.1	4.1	4.9	7.5	5.0	6.0	4.7	6.5	7.3	6.2	6.8	5.0	7.4	7.1	1.5
14	10.5	5.6	9.1	7.9	4.1	5.0	7.5	5.3	5.2	4.6	5.9	7.7	5.7	6.8	5.4	6.7	7.5	1.6
15	10.2	5.8	9.4	8.0	5.0	5.0	7.0	6.2	5.8	4.6	5.5	8.0	6.1	6.9	5.6	7.6	7.7	2.1
16	9.8	6.3	9.2	8.5	5.0	4.9	6.8	5.9	6.3	3.8	7.2	7.4	5.6	6.9	5.9	7.6	7.6	1.2
17	9.5	6.9	9.2	9.1	6.1	4.8	6.8	7.2	6.8	4.0	7.1	7.3	5.4	7.1	5.9	8.5	8.3	2.0
18	10.3	6.4	9.3	9.3	5.8	4.7	6.9	7.3	7.4	4.5	7.4	7.2	6.3	6.9	5.8	8.0	8.0	2.2
19	10.1	6.7	9.3	9.8	5.4	5.0	7.2	7.1	7.4	5.0	8.3	7.1	6.9	6.7	5.8	9.8	7.6	2.8
20	10.0	6.5	9.3	9.8	6.0	4.9	7.2	6.7	7.1	5.0	8.3	7.5	6.6	7.2	5.9	9.6	6.3	3.3
21	10.0	6.3	9.3	10.0	6.1	5.1	7.4	6.4	6.8	5.0	9.2	8.4	6.8	6.9	5.8	8.8	6.7	3.8
22	10.0	6.2	9.4	9.8	5.9	5.2	7.0	6.4	6.8	5.0	8.5	8.0	7.1	6.6	6.8	9.5	7.1	4.5
23	10.1	5.9	9.4	9.5	6.0	5.2	6.9	5.9	7.4	4.9	8.2	8.3	7.1	6.8	6.9	10.0	6.8	3.8
24	10.4	5.8	9.4	9.0	5.6	5.4	6.8	5.7	7.0	6.5	9.1	8.6	6.5	7.2	6.6	9.9	7.1	4.3
25	10.4	6.6	9.7	8.9	5.3	5.8	6.9	5.6	6.9	6.0	8.3	9.2	5.9	7.3	6.3	9.6	7.1	5.5
26	10.5	6.9	9.1	9.1	5.5	6.2	6.7	5.8	6.9	6.4	7.5	8.4	6.0	8.4	6.1	9.4	7.6	5.4
27	10.9	6.8	8.7	8.9	5.8	6.7	7.0	6.4	7.3	6.0	7.6	8.3	6.8	7.4	6.4	9.9	7.6	5.2
28	10.5	6.3	9.2	9.3	6.6	7.0	7.2	6.9	7.3	5.9	7.8	7.5	6.8	7.0	6.0	10.0	7.5	6.0
29	10.4	6.0	9.2	9.3	7.1	6.6	8.0	6.1	7.8	5.6	7.9	7.7	7.1	7.4	6.4	11.0	7.6	5.5
30	10.3	6.2	9.7	9.2	7.3	6.1	7.9	6.1	8.5	5.8	8.0	7.7	7.6	7.9	6.1	11.1	9.5	5.5
7/01	10.0	6.6	10.0	9.8	6.9	6.0	7.9	5.4	8.8	5.1	7.8	7.6	6.9	7.6	6.2	11.4	9.3	5.4
2	9.9	6.1	10.4	10.4	6.6	6.7	7.9	6.5	9.3	5.8	7.6	7.4	7.0	7.9	6.3	11.1	8.5	5.5
3	9.9	5.8	10.5	10.6	6.8	6.8	8.0	7.7	9.1	5.9	7.9	7.5	7.0	7.8	6.5	12.0	8.0	5.8
4	10.0	5.6	10.8	10.4	6.9		8.9	8.6	8.7	7.0	7.2	7.6	6.9	7.9	6.5	12.5	9.0	6.7
5					7.0		8.4		9.0	7.1	6.5	7.6	6.6	7.6	6.5	12.5	8.3	6.5
6										8.1	7.0	8.0	6.2	7.9	6.0	12.6	9.2	6.2
7										8.8	7.2	8.2	6.9	7.9	8.0	12.9	9.3	7.2
8										9.7	7.8	8.8	7.1	7.6	7.5	11.4	9.9	8.0
9										8.9	8.5	9.1	7.2	7.4			9.9	
10												9.4						

TABLE 4. Average sockeye salmon catch off Port Moller by station and date; number caught by 100 fathoms fished for 1 hour.

	Station							Station					
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1985							1987						
11-Jun		0.0	0.5	6.1	1.1	0.0	11-Jun		1.9				
12-Jun		0.5	1.6	1.2	0.5	0.5	12-Jun						
13-Jun		1.6	4.7	2.6	1.1	0.0	13-Jun		0.0	2.3	5.0	1.6	
14-Jun		4.6	5.7	2.9	2.1	0.0	14-Jun		1.5	1.6	6.3	0.0	
15-Jun		5.3	17.6	14.7	1.1	1.6	15-Jun		3.4	4.1			
16-Jun		1.1	12.2	27.7	5.9	3.4	16-Jun						
17-Jun		8.2	76.3	34.0	4.7	3.0	17-Jun		2.0				
18-Jun		4.8	6.7	28.3			18-Jun		1.5	3.0	2.5	5.8	
19-Jun		2.2	22.9	11.9	5.9	1.2	19-Jun		8.8	11.1	2.0	0.0	
20-Jun		1.1	10.7	14.1	0.0	0.0	20-Jun		14.5	39.0	5.3	6.7	
21-Jun		6.4	41.5	19.8	0.6	2.8	21-Jun		14.5	3.4	4.7	0.9	
22-Jun		4.8	38.8	26.2	12.6	0.0	22-Jun		36.7	23.5			
23-Jun		2.8	19.0	21.0	24.4	1.1	23-Jun				54.0	6.1	
24-Jun							24-Jun						
25-Jun		14.9	8.2				25-Jun						
26-Jun		52.2	28.9	16.9	1.2	3.0	26-Jun	0.6	6.8	60.0	51.7	27.0	
27-Jun		15.9	42.1	1.5	3.9	2.2	27-Jun		10.8	4.4	46.1	10.3	
28-Jun		110.6	85.3	12.0	5.7	2.9	28-Jun		12.6	85.0	43.9		
29-Jun	3.8	37.6	101.3	20.5	21.7		29-Jun						
30-Jun	14.0	25.7	63.3	46.8	38.3		30-Jun		2.5	10.0	45.7		
1-Jul		33.0	1.2	1.3	0.0		1-Jul		6.6	4.9	1.9	11.4	
2-Jul		25.0	11.9	13.0	2.6	0.6	2-Jul		5.0	4.6			
3-Jul		26.7	32.9	3.7	17.2	0.6	3-Jul		3.6	19.5	11.7	6.3	
4-Jul		46.3	30.3	14.1	1.9	0.0	4-Jul						
5-Jul		15.5	42.9	14.0	25.0	1.3	5-Jul						
6-Jul		3.6	48.6	36.5	14.5	10.4	6-Jul						
7-Jul							7-Jul						
8-Jul							8-Jul						
9-Jul							9-Jul						
10-Jul							10-Jul						
Mean - 7/5	8.9	18.6	29.4	15.4	8.1	1.3	Mean - 7/5	0.6	7.8	18.4	21.6	6.9	
1988							1989						
11-Jun		0.0	4.1	1.9	1.3		11-Jun			1.5	11.4	0.5	
12-Jun		1.9	0.0	3.5	3.2		12-Jun		14.8	11.0	2.5	2.1	
13-Jun							13-Jun		4.7	2.4	18.3	1.9	
14-Jun							14-Jun		8.4	17.5	4.1	0.9	
15-Jun		0.0	1.8	7.0	5.2		15-Jun		5.9	16.1	21.6	0.0	
16-Jun		2.6	1.9	18.3	0.5		16-Jun		8.5	23.5	0.0	0.0	
17-Jun		2.5	4.7	0.0	1.9		17-Jun		18.1	3.1	35.7	18.6	
18-Jun		3.3	2.3	4.2	0.0		18-Jun		5.3	19.9	36.2	38.3	
19-Jun		1.0	1.5	4.8	0.5		19-Jun						
20-Jun		0.0	6.7	15.5	0.5		20-Jun		0.5				
21-Jun		1.0	11.5	3.7	1.0		21-Jun						
22-Jun		6.4	11.1				22-Jun		25.0	0.0	89.8	23.7	
23-Jun							23-Jun		9.0	80.2	20.4	20.7	
24-Jun		28.7	21.7	10.6			24-Jun						
25-Jun		8.8	14.3	4.7	0.0		25-Jun		8.5	51.4	30.4	11.1	
26-Jun		22.3	27.6	12.3	1.0		26-Jun			18.6	9.8	2.1	
27-Jun	0.5						27-Jun						
28-Jun	0.0	0.5	19.0	13.6	4.1		28-Jun		29.7	24.8	94.9	30.1	
29-Jun		6.7	18.1	40.3	20.8		29-Jun						
30-Jun		9.1	24.6				30-Jun						
1-Jul							1-Jul		21.6	36.7	8.3		
2-Jul							2-Jul		9.9	77.0	27.9	20.3	
3-Jul		0.5	25.1	4.1	0.6		3-Jul		12.2	58.2	7.8		
4-Jul		8.8	5.3	13.9	0.0		4-Jul		33.4	64.8	47.5	48.9	
5-Jul		33.3	21.0	9.2	6.3		5-Jul						
6-Jul							6-Jul		12.8	61.2			
7-Jul							7-Jul		51.1	33.1	5.5	22.7	
8-Jul							8-Jul						
9-Jul							9-Jul						
10-Jul							10-Jul						
Mean - 7/5	0.3	7.2	11.7	9.9	2.9		Mean - 7/5		13.5	29.8	27.4	14.6	

TABLE 4—cont.

	Station							Station					
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1990							1991						
11-Jun		0.0	0.5	8.3	0.0		11-Jun		2.8	1.5	1.9	0.6	
12-Jun		0.6	6.1	3.4	2.7		12-Jun		4.1	4.2	1.0		0.0
13-Jun							13-Jun		0.0	4.6	1.5	0.5	
14-Jun		4.2	4.4	2.6			14-Jun	4.5	0.5	2.8	0.6	1.7	
15-Jun		1.9	10.6	7.7			15-Jun		0.5	12.7	0.5	3.7	
16-Jun							16-Jun			8.9			
17-Jun		0.0	8.6	11.3	0.0		17-Jun		14.5	15.6	14.3	2.8	
18-Jun		9.5	14.5	14.8	7.5		18-Jun		11.9	3.8	28.6	13.8	
19-Jun							19-Jun		12.5	28.8	39.7	10.4	
20-Jun							20-Jun		21.5	25.0	16.1	6.2	
21-Jun							21-Jun						
22-Jun		8.4	37.7	11.6	0.0		22-Jun		30.7	56.2	55.2	27.1	
23-Jun		5.1	23.8	32.3	7.9		23-Jun		10.6	9.0	0.7	49.9	
24-Jun		2.4	64.8	57.2	23.2		24-Jun		2.4	5.7	81.5	67.9	21.4
25-Jun		17.0	55.1	55.7	32.2		25-Jun		14.5	23.5	7.4	11.1	
26-Jun		28.3	50.6	29.1	10.5		26-Jun		14.4	30.3	9.5	7.0	
27-Jun		24.8	62.0	35.5	24.3		27-Jun		33.0	43.6	62.0	12.1	
28-Jun		48.5	98.0	103.6	48.7		28-Jun		28.9	37.8	15.5	1.6	
29-Jun		25.0	115.1	67.6	19.3		29-Jun		47.4	33.8	20.5	8.7	
30-Jun		50.1	153.6	63.1	18.3		30-Jun		3.5	14.9	2.3		
1-Jul			90.5	122.8	14.5		1-Jul		35.6	25.1	19.8	9.4	
2-Jul		80.6	150.0				2-Jul		32.6	20.8	7.4	0.6	
3-Jul				30.7	65.1		3-Jul		33.1	62.2	51.4	35.1	
4-Jul		66.3	67.4	97.1			4-Jul		25.2	36.6	14.5	3.1	
5-Jul		64.3	9.0	26.8	10.2		5-Jul		36.8	29.1	64.9	13.7	
6-Jul							6-Jul		25.3	28.4	24.9	2.5	
7-Jul							7-Jul		9.9	16.7	19.2	11.9	
8-Jul							8-Jul		18.4	28.4	26.4	6.3	
9-Jul							9-Jul				46.1	12.9	
10-Jul							10-Jul						
Mean - 7/5		24.3	53.8	41.1	17.8		Mean - 7/5	4.5	18.1	22.4	22.5	13.7	10.7
1992							1993						
11-Jun		0.0	2.3	5.0	7.5		11-Jun		0.5	2.1	6.8	6.6	
12-Jun							12-Jun		0.0	5.0	6.0	3.1	
13-Jun							13-Jun		1.4	1.0	10.9	10.6	
14-Jun		1.5	3.2	0.5	10.0		14-Jun		7.9	14.0	26.9	31.0	
15-Jun			1.0	12.0	21.8		15-Jun		0.8	7.6	34.3	17.5	
16-Jun		0.5	5.7	25.9			16-Jun		5.9	14.9	36.1	24.9	
17-Jun			2.8	1.1	17.6		17-Jun						
18-Jun		6.4	8.7	29.7	49.2		18-Jun						
19-Jun		23.6	53.7	18.7	34.8		19-Jun		5.4	17.3	33.6	28.5	
20-Jun		17.0	4.7	28.0			20-Jun		6.4	12.1	45.9	41.8	
21-Jun		15.8	50.3	29.5	71.4		21-Jun		2.6	25.6	57.3	47.1	
22-Jun		20.7	24.5	24.4	43.2		22-Jun		53.2	29.6	60.4	45.7	
23-Jun		13.1	22.3	30.0	57.5		23-Jun		14.5	36.6	40.9	30.5	
24-Jun		6.9	16.2	29.6	62.2		24-Jun		25.9	23.8	24.8	25.3	
25-Jun							25-Jun		49.5	60.5	41.0	69.3	
26-Jun		7.6	8.7	11.6	15.9		26-Jun						
27-Jun		2.2	19.1	46.3	33.8		27-Jun						
28-Jun		16.1	31.3	37.5	32.5		28-Jun		28.6	49.0	54.4		
29-Jun		23.7	20.7	63.5	29.1		29-Jun		25.6	11.1	35.0		
30-Jun		6.2	65.4	55.9			30-Jun		21.9	51.6	44.8	120.0	
1-Jul					77.6		1-Jul						
2-Jul		7.8	67.3	12.4	48.9		2-Jul		33.6	61.1	90.2	48.3	
3-Jul			51.9	73.0	44.2		3-Jul		5.6				
4-Jul							4-Jul		27.4	24.9	35.4	40.1	
5-Jul		7.9					5-Jul		31.4	26.4	28.2	19.5	
6-Jul		20.1	42.7	31.4			6-Jul		28.5	19.6	30.8	11.1	
7-Jul			48.2	25.1	24.6		7-Jul		16.7	46.9	11.3	8.9	
8-Jul		7.2	22.6	101.9			8-Jul		2.6	19.3	8.7	5.5	
9-Jul		1.1	16.9	6.4	27.3		9-Jul		10.6	19.7	24.9	10.9	
10-Jul							10-Jul		14.7	17.9	5.3	3.0	
Mean - 7/5		10.4	24.2	28.1	38.7		Mean - 7/5		17.4	25.0	37.5	35.9	

TABLE 4—cont.

Year/Dates	Station 0	2	4	6	8	10
1994						
11-Jun		0.0	2.4	3.0	0.0	
12-Jun		1.8	1.3	0.0	0.0	
13-Jun		1.5	3.9	0.9	0.0	
14-Jun		3.2	3.8	1.9	1.4	
15-Jun		10.4	5.0	5.6	0.0	
16-Jun		1.0	8.4	9.1	1.5	
17-Jun		0.9	6.5	3.6	1.0	
18-Jun		3.3	13.1	8.8	9.5	
19-Jun		4.9	13.7	28.3	4.5	
20-Jun		1.4	19.3	17.6	4.2	
21-Jun						
22-Jun		15.5	33.0	14.4	37.4	
23-Jun		42.1	30.5	46.9	35.2	
24-Jun						
25-Jun		47.5	35.1	18.9	8.6	
26-Jun		40.5	20.7	41.4	18.0	
27-Jun		3.2	35.2	32.2	52.9	
28-Jun		11.7	5.4	68.2	50.3	
29-Jun		9.0	45.7	42.2	35.8	
30-Jun		7.3	47.9	68.6	100.5	
1-Jul		26.9	43.8	29.2	50.6	
2-Jul		19.0	51.7	53.7	42.1	
3-Jul		4.5	50.5	35.9	31.7	
4-Jul		73.4	61.7	55.0	28.1	
5-Jul						
6-Jul		11.2	34.9	38.1	49.3	
7-Jul		11.1	44.3	27.2	25.5	
8-Jul		19.8	18.3	70.1	11.8	
9-Jul		1.7	25.1	12.2	14.1	
10-Jul						
Mean - 7/5		15.0	24.5	26.6	23.3	

Year/Dates	Station 0	2	4	6	8	10
1995						
11-Jun						
12-Jun		0.0	5.1	22.1	4.5	
13-Jun	0.5	0.0	14.2	1.5	15.7	
14-Jun		1.9	2.8	28.3	38.6	
15-Jun	0.0	0.9	6.1	22.3	22.2	
16-Jun		1.8	3.6	37.6	34.2	
17-Jun	0.5	0.5	2.6	33.2	21.0	
18-Jun		0.0	12.0	58.8	61.6	
19-Jun		0.0	0.6	39.4	65.5	
20-Jun		2.4	1.9	12.2	37.4	19.6
21-Jun		0.5	2.9	51.1	45.1	
22-Jun		1.0	7.3	41.6	35.5	
23-Jun		0.0	10.9	54.0	51.9	
24-Jun		2.0	5.7	22.9	50.1	12.9
25-Jun		4.3	4.8	25.6	71.3	
26-Jun		4.1	10.8	33.5	73.3	
27-Jun		3.2	16.0	83.8	26.5	
28-Jun		9.4	5.7	40.9	85.2	49.3
29-Jun		3.5	33.0	61.1	86.5	
30-Jun		31.3	6.9	40.3	58.5	
1-Jul		21.7	48.6	46.1	58.6	29.3
2-Jul	0.0	44.3	26.6	39.7		
3-Jul			33.1	61.3	116.4	
4-Jul	27.3	33.9	20.8	22.5		
5-Jul			25.9	33.1	68.0	
6-Jul	0.0	29.1	26.8	42.5		
7-Jul			44.6	33.2	88.6	
8-Jul	1.0	32.8	26.5	1.6		
9-Jul			53.5	26.0	35.0	
10-Jul						
Mean - 7/5	5.7	7.6	12.8	38.0	51.2	27.8

Year/Dates	Station 0	2	4	6	8	10
1996						
11-Jun						
12-Jun		20.2	4.2	0.5	1.0	
13-Jun		23.0	1.5	4.7	0.5	
14-Jun		52.8	8.9	2.9	1.0	
15-Jun	2.1	6.7	29.4	11.1	1.0	
16-Jun		16.0	61.4	26.2	9.3	
17-Jun	7.1	18.6	33.8	5.3	5.8	
18-Jun		17.7	38.4	29.8	4.5	
19-Jun		8.0	34.6	5.3	10.9	
20-Jun		37.6	58.7	21.6	7.0	
21-Jun		7.4	60.0	31.8	12.9	
22-Jun		10.6	60.9	13.0	6.1	
23-Jun		1.5	47.1	41.7	10.1	
24-Jun						
25-Jun		34.5	59.1	29.1	2.1	
26-Jun		30.3	71.0	56.1	3.9	
27-Jun		2.2	55.9	45.5	16.4	
28-Jun		44.0	46.8	41.1	3.2	
29-Jun		60.8	20.8	4.0	5.8	
30-Jun	30.6	28.0	61.9	32.8	20.2	
1-Jul		30.5	35.8	27.9	17.8	
2-Jul		5.9	47.2	63.9	38.3	
3-Jul		17.8	25.9	54.5	24.2	
4-Jul		12.7	81.4	94.5	20.7	
5-Jul		5.9	35.0	9.4	42.2	
6-Jul		1.8	81.0	49.7	32.1	
7-Jul		3.3	8.2	19.7	21.4	
8-Jul		0.0	40.3	53.7	14.7	
9-Jul						
10-Jul						
Mean - 7/5	13.2	21.4	42.6	28.4	11.5	

Year/Dates	Station 0	2	4	6	8	10
1997						
11-Jun		0.0	6.0	6.0	1.9	
12-Jun		0.9	7.6	10.4	1.5	
13-Jun		0.0	3.5	4.4	3.3	
14-Jun		1.4	2.0	23.5	2.6	
15-Jun		0.0	6.5	13.3	8.6	
16-Jun		1.0	7.6	49.5	0.5	
17-Jun		0.0	4.5	14.2	19.2	
18-Jun		1.5	3.2	17.6	5.6	
19-Jun		1.4	8.8	57.6	17.5	
20-Jun		1.9	3.1	31.9	35.6	
21-Jun		3.3	27.3	20.0	9.5	
22-Jun		15.0	45.6	25.5	20.7	
23-Jun		2.7	28.5	55.0	15.6	
24-Jun		18.6	18.5	40.3	19.6	
25-Jun		8.3	29.1	32.6	12.2	
26-Jun		4.5	40.1	31.3	13.6	
27-Jun		17.1	49.1	55.3	30.0	
28-Jun		3.3	34.5	63.4	45.9	
29-Jun		13.5	44.1	47.7	18.8	
30-Jun		33.9	61.5	32.8	13.2	
1-Jul		20.3	25.1	23.2	17.3	
2-Jul		28.7	50.7	40.7	23.1	
3-Jul		31.7	78.4	80.9	51.0	
4-Jul		9.0	35.5	1.8	24.4	
5-Jul		8.6	60.4	40.3	27.8	
6-Jul		49.0	47.2	40.6	17.6	
7-Jul		14.1	52.0	29.6	8.6	
8-Jul		17.1	23.6	19.2	18.7	
9-Jul						
10-Jul						
Mean - 7/5		9.1	27.2	32.8	17.6	

TABLE 4—cont.

	Station							Station						
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1998							1999						
11-Jun							11-Jun		3.4	0.5	0.5	7.7	
12-Jun		1.4	3.9	1.9			12-Jun		11.4	5.3	2.1	1.0	
13-Jun		0.8	0.9	3.8	0.5		13-Jun		1.0	15.3	0.5	0.0	
14-Jun		0.0	0.0	2.8			14-Jun		0.5	0.0	0.5	3.9	
15-Jun		0.4	1.4	5.1	10.4		15-Jun		9.4	1.5	1.0	2.6	0.0
16-Jun		2.2	2.7	8.5	15.7		16-Jun		2.9	17.5	0.0	0.0	0.0
17-Jun		0.5	10.6	12.4	15.0		17-Jun		1.0	0.0	7.1	0.5	9.0
18-Jun		0.0	9.7	11.5	3.2		18-Jun		7.6	16.8	3.0	1.0	5.2
19-Jun		0.0	15.5	11.9	3.8		19-Jun		13.3	51.2	5.7	7.1	0.5
20-Jun		3.1	8.3	15.2	15.6		20-Jun		9.8	24.1	14.8	21.5	7.9
21-Jun							21-Jun		9.3	97.3	2.1	6.7	0.0
22-Jun		0.5	10.2	17.1	19.4		22-Jun		7.3	6.4	61.2	1.0	5.1
23-Jun		12.9	18.6	10.2	6.0		23-Jun		5.5	14.8	36.1	34.6	24.7
24-Jun		3.3	35.8	22.6	7.1		24-Jun		11.5	41.6	54.0	65.0	2.0
25-Jun		13.2	26.2	1.9	9.2		25-Jun		10.5	34.8	95.1	22.6	59.1
26-Jun		1.0	26.4	15.2	11.1		26-Jun		2.0	12.4	34.8	35.9	34.9
27-Jun		12.1	22.6	8.3	15.7		27-Jun		14.3	16.2	53.3	3.6	7.5
28-Jun		8.4	27.4	39.2	10.1		28-Jun		4.1	35.7	61.0	51.8	49.5
29-Jun		0.0	51.0	67.5	14.3		29-Jun		7.6	26.6	49.1	9.2	17.0
30-Jun		3.5	44.2	44.4	10.7		30-Jun		48.0	56.1	35.6	8.0	35.4
1-Jul		6.6	61.8	52.5	13.9		1-Jul		27.2	60.4	41.5	13.0	0.0
2-Jul			6.4	20.3	6.5		2-Jul		53.6	26.1	38.9	22.9	15.5
3-Jul		34.9	37.7	53.7	18.5		3-Jul		14.5	56.4	54.8	35.5	39.3
4-Jul		10.0	20.3	33.2	19.4		4-Jul	11.3	11.4	75.7	24.9	24.0	18.5
5-Jul		18.2	39.5	55.1	24.7		5-Jul	17.4	10.7	76.0	20.5	22.1	23.4
6-Jul		2.7	25.7	49.9	24.8		6-Jul	28.4	35.4	113.8	45.0	19.7	5.6
7-Jul		0.5	5.2	4.3	21.0		7-Jul	0.0	8.5	67.6	57.1	21.0	37.9
8-Jul		8.7	12.1	64.8	4.5		8-Jul	0.0	10.9	37.1	31.9	23.1	25.6
9-Jul		8.1	31.8	41.9	20.2		9-Jul						
10-Jul							10-Jul						
Mean - 7/5		6.0	20.9	22.4	11.9		Mean - 7/5	14.3	11.9	30.8	27.9	16.1	16.9

2000
11-Jun
12-Jun
13-Jun
14-Jun
15-Jun
16-Jun
17-Jun
18-Jun
19-Jun
20-Jun
21-Jun
22-Jun
23-Jun
24-Jun
25-Jun
26-Jun
27-Jun
28-Jun
29-Jun
30-Jun
1-Jul
2-Jul
3-Jul
4-Jul
5-Jul
6-Jul
7-Jul
8-Jul
9-Jul
10-Jul
Mean - 7/5

TABLE 5. Average chum salmon catch off Port Moller by station and date; number caught by 100 fathoms fished for 1 hour.

	Station							Station					
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1985							1987						
11-Jun		0.0	0.0	2.4	0.0	0.5	11-Jun		0.0				
12-Jun		0.0	0.0	0.0	0.0	1.0	12-Jun						
13-Jun		0.0	0.0	1.5	0.5	0.0	13-Jun		0.0	0.0	0.0	1.1	
14-Jun		0.0	0.5	0.0	1.1	2.2	14-Jun		0.0	1.6	0.0	0.0	
15-Jun		0.5	0.5	0.5	1.1	2.1	15-Jun		0.0	0.0			
16-Jun		0.0	0.0	0.5	2.4	3.9	16-Jun						
17-Jun		0.9	1.6	5.5	0.6	2.4	17-Jun		0.0				
18-Jun		0.0	0.0	1.1			18-Jun		0.5	0.5	2.0	0.5	
19-Jun		0.0	1.1	0.0	0.0	0.0	19-Jun		1.0	0.5	2.0	0.0	
20-Jun		0.0	0.0	0.0	0.0	0.0	20-Jun		0.5	1.8	1.5	1.0	
21-Jun		0.0	0.0	0.6	0.0	0.0	21-Jun		2.4	0.5	3.1	1.4	
22-Jun		0.0	0.6	0.6	0.6	0.0	22-Jun		0.4	1.4			
23-Jun		0.0	0.0	0.0	1.2	0.5	23-Jun				8.2	2.2	
24-Jun							24-Jun						
25-Jun		1.1	0.0				25-Jun						
26-Jun		0.5	0.6	0.0	0.6	5.9	26-Jun	0.0	0.0	0.4	1.7	2.2	
27-Jun		3.1	0.6	0.0	7.2	1.1	27-Jun		0.5	0.0	0.8	1.9	
28-Jun		1.2	2.2	0.0	2.5	0.6	28-Jun		0.0	2.5	2.6		
29-Jun	0.0	1.8	0.0	0.0	0.8		29-Jun						
30-Jun	6.0	0.0	0.0	2.9	2.2		30-Jun		0.0	0.5	0.0		
1-Jul		0.8	0.0	0.0	0.0		1-Jul		0.5	0.0	0.0	0.5	
2-Jul		2.2	0.0	0.0	0.6	0.0	2-Jul		0.0	0.0			
3-Jul		1.2	0.6	1.5	4.2	0.6	3-Jul		0.0	0.0	1.4	1.0	
4-Jul		0.0	3.5	0.0	3.2	1.2	4-Jul						
5-Jul		0.7	0.0	0.0	0.0	0.0	5-Jul						
6-Jul		0.0	4.4	5.5	2.9	1.8	6-Jul						
7-Jul							7-Jul						
8-Jul							8-Jul						
9-Jul							9-Jul						
10-Jul							10-Jul						
Mean - 7/5	3.0	0.6	0.5	0.7	1.3	1.2	Mean - 7/5	0.0	0.3	0.6	1.8	1.1	
1988							1989						
11-Jun		0.0	0.4	1.9	0.5		11-Jun			0.0	1.0	0.0	
12-Jun		0.0	0.0	0.0	0.9		12-Jun		0.0	0.5	0.0	0.5	
13-Jun							13-Jun		1.1	0.0	1.4	1.9	
14-Jun							14-Jun		0.0	1.4	0.0	0.0	
15-Jun		0.0	0.0	0.0	0.5		15-Jun		0.0	0.9	2.3	0.0	
16-Jun		0.4	0.0	2.1	0.5		16-Jun		0.5	0.9	0.5	0.0	
17-Jun		0.0	0.0	0.0	1.4		17-Jun		0.0	0.0	0.0	0.5	
18-Jun		0.6	0.5	0.0	0.0		18-Jun		0.0	0.5	1.3	2.2	
19-Jun		1.0	0.0	2.2	0.5		19-Jun						
20-Jun		0.0	1.9	0.0	0.0		20-Jun		0.0				
21-Jun		1.0	2.5	0.5	1.0		21-Jun						
22-Jun		0.4	2.3				22-Jun		1.9	0.5	5.0	1.0	
23-Jun							23-Jun		0.0	0.4	1.0	2.9	
24-Jun		1.8	2.8	2.3			24-Jun						
25-Jun		0.0	0.5	2.1	0.0		25-Jun		0.5	1.2	1.0	1.9	
26-Jun		0.3	1.0	3.0	2.9		26-Jun			1.4	0.0	3.1	
27-Jun	1.0						27-Jun						
28-Jun	0.0	0.0	1.0	0.5	1.5		28-Jun		1.0	0.0	0.8	1.4	
29-Jun		1.5	10.3	3.6	2.4		29-Jun						
30-Jun		1.4	2.8				30-Jun						
1-Jul							1-Jul		0.5	6.5	1.0		
2-Jul							2-Jul		1.5	2.2	0.5	1.0	
3-Jul		0.0	0.9	1.4	0.0		3-Jul		1.1	0.4	0.0		
4-Jul		0.5	2.7	1.5	2.1		4-Jul		0.5	2.2	0.8	2.0	
5-Jul		1.5	2.0	1.0	2.0		5-Jul						
6-Jul							6-Jul		1.0	1.5			
7-Jul							7-Jul		0.8	0.5	0.0	4.4	
8-Jul							8-Jul						
9-Jul							9-Jul						
10-Jul							10-Jul						
Mean - 7/5	0.5	0.5	1.7	1.3	1.0		Mean - 7/5		0.5	1.1	1.0	1.2	

TABLE 5—cont.

	Station							Station						
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1990							1991						
11-Jun		0.0	0.0	0.5	0.0		11-Jun		0.6	0.0	0.5	0.0	
12-Jun		0.0	1.1	1.7	1.1		12-Jun		0.3	0.0	1.0		0.0
13-Jun							13-Jun		0.0	0.0	0.0	0.5	
14-Jun		0.0	0.0	0.5			14-Jun	0.6	0.0	0.6	0.6	1.7	
15-Jun		0.5	0.5	2.8			15-Jun		0.0	8.5	1.1	3.2	
16-Jun							16-Jun			1.0			
17-Jun		0.0	0.0	4.9	1.6		17-Jun		1.7	0.9	4.0	3.3	
18-Jun		0.0	0.9	3.5	1.0		18-Jun		0.5	0.5	3.3	0.0	
19-Jun							19-Jun		1.4	1.9	17.9	2.6	
20-Jun							20-Jun		0.0	0.6	0.0	0.5	
21-Jun							21-Jun						
22-Jun		0.0	0.9	0.0	0.0		22-Jun		0.5	0.5	0.0	1.2	
23-Jun		0.5	0.5	2.3	0.5		23-Jun		0.0	0.0	0.0	1.0	
24-Jun		0.0	0.0	4.2	3.2		24-Jun		0.0	0.0	2.3	3.5	2.1
25-Jun		0.0	0.7	2.3	0.4		25-Jun		0.0	0.5	0.0	0.6	
26-Jun		0.6	0.9	4.2	1.9		26-Jun		0.6	0.6	0.6	1.1	
27-Jun		1.0	0.4	4.1	6.2		27-Jun		0.5	1.5	1.0	0.5	
28-Jun		0.4	0.8	3.2	3.6		28-Jun		3.0	1.9	1.6	0.6	
29-Jun		0.0	3.2	6.3	0.0		29-Jun		3.2	2.3	0.5	1.1	
30-Jun		0.0	0.4	4.1	1.5		30-Jun		1.8	1.6	0.0		
1-Jul			1.4	2.9	1.0		1-Jul		2.3	3.9	4.1	5.4	
2-Jul		0.5	1.3				2-Jul		2.8	5.1	0.0	2.4	
3-Jul				3.3	3.7		3-Jul		1.2	3.3	4.8	2.4	
4-Jul		1.5	2.4	0.8			4-Jul		0.0	2.0	2.5	1.5	
5-Jul		2.6	6.7	5.8	0.6		5-Jul		1.4	2.9	4.6	3.7	
6-Jul							6-Jul		0.0	1.2	1.3	0.0	
7-Jul							7-Jul		0.0	2.0	4.7	3.2	
8-Jul							8-Jul		1.4	2.5	2.6	4.2	
9-Jul							9-Jul				4.2	10.4	
10-Jul							10-Jul						
Mean - 7/5		0.4	1.2	3.0	1.6		Mean - 7/5	0.6	0.9	1.7	2.2	1.8	1.1
1992							1993						
11-Jun		0.0	0.0	0.0	2.7		11-Jun		0.5	0.5	0.5	0.5	
12-Jun							12-Jun		0.0	0.0	1.4	0.5	
13-Jun							13-Jun		0.0	0.0	2.7	0.0	
14-Jun		0.5	0.0	3.1	2.5		14-Jun		0.9	0.9	2.1	1.6	
15-Jun			0.0	3.2	0.8		15-Jun		0.0	1.0	3.2	0.5	
16-Jun		0.0	1.6	0.5			16-Jun		0.0	0.0	2.2	1.7	
17-Jun			0.0	1.6	13.5		17-Jun						
18-Jun		0.0	0.5	2.2	5.7		18-Jun						
19-Jun		0.0	0.9	1.1	2.9		19-Jun		0.0	0.0	3.0	1.3	
20-Jun		0.0	0.0	0.9			20-Jun		0.0	0.5	0.0	0.4	
21-Jun		1.0	2.2	0.9	8.3		21-Jun		0.0	0.0	1.6	0.5	
22-Jun		0.0	0.0	5.5	1.3		22-Jun		1.3	0.0	2.6	0.9	
23-Jun		0.0	0.5	1.3	0.4		23-Jun		1.0	0.0	1.1	0.5	
24-Jun		0.5	1.0	2.5	0.9		24-Jun		0.5	0.5	0.0	0.0	
25-Jun							25-Jun		0.4	0.0	0.0	1.5	
26-Jun		1.1	4.6	1.1	1.5		26-Jun						
27-Jun		0.6	1.9	2.1	2.1		27-Jun						
28-Jun		0.4	0.9	2.3	4.1		28-Jun		1.6	0.0	2.0		
29-Jun		3.8	0.6	2.0	2.8		29-Jun		1.0	1.2	3.6		
30-Jun		0.5	0.0	1.7			30-Jun		1.6	0.5	1.2	3.5	
1-Jul					3.1		1-Jul						
2-Jul		0.0	1.0	0.0	2.3		2-Jul		1.7	2.1	1.6	0.0	
3-Jul			0.5	0.0	0.0		3-Jul		0.0				
4-Jul							4-Jul		0.6	3.1	1.2	1.2	
5-Jul		3.1					5-Jul		2.8	0.6	0.5	2.1	
6-Jul		3.5	3.5	6.6			6-Jul		3.1	2.3	1.1	0.0	
7-Jul			3.7	1.2	1.2		7-Jul		1.1	7.6	2.8	1.9	
8-Jul		2.4	2.3	3.9			8-Jul		2.6	2.5	1.9	1.2	
9-Jul		0.0	1.1	0.0	0.6		9-Jul		3.0	0.5	2.7	1.7	
10-Jul							10-Jul		4.9	1.9	0.0	0.0	
Mean - 7/5		0.7	0.9	1.7	3.2		Mean - 7/5		0.7	0.6	1.6	1.0	

TABLE 5—cont.

Year/Dates	Station 0	2	4	6	8	10
1994						
11-Jun		0.5	0.5	12.6	1.0	
12-Jun		0.0	0.0	1.5	1.0	
13-Jun		0.0	0.5	0.9	0.5	
14-Jun		0.9	0.5	1.5	0.0	
15-Jun		3.0	1.0	8.2	1.0	
16-Jun		2.0	2.5	1.9	1.9	
17-Jun		1.4	0.9	5.8	1.0	
18-Jun		0.0	0.9	6.5	2.2	
19-Jun		0.9	3.4	2.5	0.9	
20-Jun		0.0	3.7	1.8	0.5	
21-Jun						
22-Jun		1.7	5.5	2.7	1.3	
23-Jun		0.0	0.5	10.1	2.3	
24-Jun						
25-Jun		1.4	1.0	1.1	1.1	
26-Jun		0.5	0.0	0.9	1.5	
27-Jun		0.0	1.3	0.9	0.8	
28-Jun		2.0	0.0	0.4	0.4	
29-Jun		1.5	0.4	0.9	0.4	
30-Jun		0.0	0.0	2.5	1.2	
1-Jul		0.0	1.4	3.5	0.0	
2-Jul		1.0	0.0	1.4	1.5	
3-Jul		0.6	2.3	2.7	1.1	
4-Jul		0.0	0.8	1.8	3.9	
5-Jul						
6-Jul		0.5	1.4	0.0	1.1	
7-Jul		0.6	0.9	0.0	0.0	
8-Jul		0.5	0.9	0.0	0.5	
9-Jul		0.0	0.5	1.5	1.6	
10-Jul						
Mean - 7/5		0.8	1.2	3.3	1.2	

Year/Dates	Station 0	2	4	6	8	10
1995						
11-Jun						
12-Jun		0.0	0.0	0.9	0.5	
13-Jun	0.0	0.0	0.9	0.5	1.3	
14-Jun		0.0	0.9	2.6	0.4	
15-Jun	0.0	0.5	0.0	3.6	0.9	
16-Jun		0.4	0.4	1.2	2.1	
17-Jun	0.0	0.0	0.0	0.9	0.9	
18-Jun		0.0	0.9	0.4	0.5	
19-Jun		1.1	0.0	2.7	0.4	
20-Jun		0.5	0.5	0.0	0.8	1.7
21-Jun		0.0	0.5	0.8	3.2	
22-Jun		0.0	1.8	0.9	0.0	
23-Jun		0.0	0.0	0.8	1.4	
24-Jun		0.0	1.0	0.0	0.9	1.4
25-Jun		0.0	0.0	0.0	1.8	
26-Jun		0.0	0.4	0.0	1.3	
27-Jun		0.5	0.5	1.4	3.1	
28-Jun		1.4	0.3	2.7	1.4	0.0
29-Jun		0.0	0.5	1.6	2.8	
30-Jun		0.0	0.5	0.0	0.0	
1-Jul		0.5	0.0	0.0	2.4	0.0
2-Jul		0.5	0.5	0.0		
3-Jul			0.0	0.5	0.5	
4-Jul	0.0	1.0	0.0	0.0		
5-Jul			0.0	1.0	1.4	
6-Jul	0.5	0.0	0.5	0.4		
7-Jul			0.5	0.0	4.0	
8-Jul	0.5	0.5	0.5	0.0		
9-Jul				0.5	0.5	
10-Jul						
Mean - 7/5	0.0	0.3	0.4	0.9	1.3	0.8

Year/Dates	Station 0	2	4	6	8	10
1996						
11-Jun						
12-Jun		2.1	1.9	1.5	0.5	
13-Jun		0.5	0.0	1.4	2.5	
14-Jun		3.2	0.5	1.0	1.0	
15-Jun	0.5	0.6	2.6	5.3	1.0	
16-Jun		2.1	2.5	3.2	5.1	
17-Jun	0.5	1.4	4.7	0.5	3.7	
18-Jun		1.0	1.4	1.3	1.0	
19-Jun		0.0	3.1	0.5	2.8	
20-Jun		0.5	3.0	1.4	2.5	
21-Jun		0.5	2.6	4.6	1.4	
22-Jun		0.0	0.4	2.4	0.0	
23-Jun		1.5	1.3	1.6	1.4	
24-Jun						
25-Jun		0.0	2.7	2.3	2.1	
26-Jun		0.5	2.0	2.1	0.0	
27-Jun		0.0	1.4	2.1	1.5	
28-Jun		0.5	5.3	3.7	0.5	
29-Jun		0.4	0.6	1.7	2.1	
30-Jun	1.1	2.5	0.9	1.0	1.6	
1-Jul		1.0	2.4	1.1	0.5	
2-Jul		0.0	1.0	1.0	1.5	
3-Jul		1.1	1.0	1.5	1.5	
4-Jul		1.7	1.6	0.9	0.0	
5-Jul		0.5	0.6	0.0	2.3	
6-Jul		1.2	1.2	1.9	3.3	
7-Jul		1.1	2.1	0.5	1.6	
8-Jul		0.0	2.3	2.3	1.6	
9-Jul						
10-Jul						
Mean - 7/5	0.7	0.9	1.9	1.8	1.6	

Year/Dates	Station 0	2	4	6	8	10
1997						
11-Jun		0.0	0.0	1.3	2.3	
12-Jun		0.0	0.4	3.0	2.0	
13-Jun		0.0	0.5	0.0	0.0	
14-Jun		0.0	1.0	0.8	2.2	
15-Jun		0.0	0.5	0.4	0.0	
16-Jun		0.0	0.5	0.0	1.0	
17-Jun		0.0	0.4	0.4	5.9	
18-Jun		0.0	0.0	0.5	2.3	
19-Jun		0.5	0.0	0.8	3.3	
20-Jun		0.0	0.0	0.4	6.6	
21-Jun		0.0	0.0	1.3	2.4	
22-Jun		0.0	0.4	0.9	5.4	
23-Jun		0.0	0.0	0.8	4.4	
24-Jun		0.8	0.0	0.0	2.9	
25-Jun		0.0	0.5	1.7	4.1	
26-Jun		0.5	0.4	1.3	0.9	
27-Jun		0.5	0.4	1.6	2.2	
28-Jun		0.0	0.4	0.0	4.7	
29-Jun		0.0	0.8	0.8	4.5	
30-Jun		1.7	0.0	1.2	7.5	
1-Jul		0.4	0.4	0.0	3.8	
2-Jul		0.0	0.4	0.9	3.0	
3-Jul		0.0	0.0	1.1	2.2	
4-Jul		0.0	0.0	0.0	2.6	
5-Jul		0.0	0.4	2.6	3.0	
6-Jul		0.9	1.8	0.8	3.1	
7-Jul		0.5	1.6	2.2	2.0	
8-Jul		0.4	0.0	2.3	0.0	
9-Jul						
10-Jul						
Mean - 7/5		0.2	0.3	0.9	3.2	

TABLE 5—cont.

	Station							Station						
Year/Dates	0	2	4	6	8	10	Year/Dates	0	2	4	6	8	10
1998							1999						
11-Jun							11-Jun		0.0	2.7	0.0	0.5	
12-Jun		0.5	0.0	1.4	0.0		12-Jun		2.4	2.1	2.6	0.5	
13-Jun		0.0	0.0	0.0	1.4		13-Jun		1.0	3.7	0.5	0.0	
14-Jun		0.0	1.0	2.8			14-Jun		0.5	0.0	0.0	0.0	
15-Jun		1.5	0.5	1.3	2.1		15-Jun		0.5	0.0	0.0	0.5	0.0
16-Jun		0.0	0.4	3.0	3.7		16-Jun		0.5	0.0	0.0	0.0	0.0
17-Jun		0.5	0.8	1.7	1.7		17-Jun		0.5	0.0	1.0	0.5	0.0
18-Jun		0.5	1.7	1.4	2.4		18-Jun		0.5	0.5	0.0	0.5	0.6
19-Jun		0.0	2.3	3.5	4.5		19-Jun		0.0	3.1	1.6	0.0	0.5
20-Jun		0.9	0.0	1.8	0.8		20-Jun		1.0	0.5	0.0	2.5	2.0
21-Jun							21-Jun		2.0	2.9	0.5	2.1	1.1
22-Jun		0.0	0.5	2.3	0.4		22-Jun		1.5	1.0	8.7	0.5	0.0
23-Jun		0.0	2.7	1.4	1.3		23-Jun		0.0	1.0	2.2	0.9	1.0
24-Jun		0.0	5.1	2.0	3.1		24-Jun		2.3	0.4	3.0	2.8	0.5
25-Jun		0.5	2.5	1.9	1.0		25-Jun		0.5	2.9	1.0	2.0	1.4
26-Jun		0.0	1.3	1.5	1.8		26-Jun		1.0	1.0	1.0	1.5	0.0
27-Jun		0.9	1.5	0.5	1.9		27-Jun		1.5	0.5	4.8	0.5	1.0
28-Jun		0.0	6.4	1.7	1.3		28-Jun		1.0	2.9	6.3	4.6	2.3
29-Jun		0.0	1.4	2.8	5.4		29-Jun		0.0	1.9	2.3	1.0	0.0
30-Jun		0.9	1.9	3.0	1.3		30-Jun		3.2	2.1	2.8	0.0	2.5
1-Jul		1.4	2.2	3.8	0.4		1-Jul		1.4	1.7	4.6	0.5	0.0
2-Jul			1.8	0.9	2.0		2-Jul		1.5	1.5	2.0	0.5	1.0
3-Jul		4.1	1.0	3.4	3.2		3-Jul		1.0	1.6	0.5	1.5	1.0
4-Jul		2.1	1.3	4.8	1.8		4-Jul	2.3	1.4	3.0	0.0	0.0	0.5
5-Jul		1.4	0.4	3.2	2.9		5-Jul	3.4	0.5	4.1	1.0	2.0	0.5
6-Jul		0.0	1.3	3.4	2.6		6-Jul	2.1	2.0	3.8	3.9	1.0	0.9
7-Jul		0.0	0.9	1.9	0.9		7-Jul	0.0	1.0	8.6	1.9	1.5	1.0
8-Jul		2.0	0.4	2.2	1.8		8-Jul	0.0	2.1	5.1	1.5	2.0	0.0
9-Jul		0.4	2.2	3.1	3.3		9-Jul						
10-Jul							10-Jul						
Mean - 7/5		0.7	1.6	2.2	2.0		Mean - 7/5	2.9	1.0	1.6	1.9	1.0	0.8

2000
11-Jun
12-Jun
13-Jun
14-Jun
15-Jun
16-Jun
17-Jun
18-Jun
19-Jun
20-Jun
21-Jun
22-Jun
23-Jun
24-Jun
25-Jun
26-Jun
27-Jun
28-Jun
29-Jun
30-Jun
1-Jul
2-Jul
3-Jul
4-Jul
5-Jul
6-Jul
7-Jul
8-Jul
9-Jul
10-Jul
Mean - 7/5

TABLE 6. Average lengths (ME-TF) and weights from Bristol Bay catches.

Average length (mm)	Average weight (lbs)	Average length (mm)	Average weight (lbs)	Average length (mm)	Average weight (lbs)
490	4.0	530	5.3	570	6.7
495	4.1	535	5.5	575	6.8
500	4.3	540	5.7	580	7.0
505	4.5	545	5.8	585	7.2
510	4.6	550	6.0	590	7.4
515	4.8	555	6.2	595	7.5
520	5.0	560	6.3	600	7.7
525	5.2	565	6.5	605	7.9

TABLE 7. Daily sockeye salmon catches in Bristol Bay.

Date	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
-6/23	.7	.9	.7	.2	.3	1.5	1.5	.3	.1	.6	3.1	.1	.8	.7	.9	.3	.1
24	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.7	.2	.0	.0
25	.0	.2	.0	.0	.2	.0	.2	.0	.0	.7	1.2	.1	1.0	1.0	.3	.2	.0
26	.4	1.0	.0	.0	.0	.1	.7	.0	.0	.0	1.9	.0	.5	.6	.0	.0	.0
27	2.4	.2	1.0	.0	.6	.9	.1	.0	.0	1.0	1.6	.2	1.8	.7	.5	.2	.0
28	.8	.0	1.1	.1	.0	.2	1.2	.1	.0	.0	2.2	.0	1.9	1.4	.4	.0	.0
29	1.4	.9	1.8	.0	.4	.9	1.8	1.1	.0	.5	2.2	.2	1.9	2.2	.2	.0	.5
30	2.8	1.0	2.9	.0	1.1	.0	.9	1.0	.6	1.4	1.5	.1	2.0	2.2	.5	.3	1.1
7/1	1.7	1.6	.4	.3	.2	1.7	.7	.4	1.7	.8	1.8	.6	2.2	2.5	.9	.3	3.1
2	2.1	1.2	1.9	.8	1.1	.5	3.0	2.1	1.7	.7	5.3	2.1	1.4	2.0	.4	.4	4.0
3	3.1	.2	.7	2.0	.2	.4	1.0	3.4	1.6	1.9	2.5	1.1	1.5	1.6	.7	.2	.5
4	2.3	.8	.9	.6	1.1	.1	2.3	1.3	2.8	1.8	2.2	.9	2.5	1.3	.7	.2	1.3
5	2.5	1.9	1.3	1.5	.0	.6	.8	2.8	1.8	3.2	2.4	2.0	2.2	1.5	1.1	.3	2.1
6	2.3	.9	1.3	.3	.2	.3	2.8	2.6	1.1	1.8	1.9	2.5	2.9	1.6	.7	.1	1.9
7	1.6	1.2	1.4	.9	1.2	.1	1.5	1.8	1.7	1.3	2.2	2.9	2.6	1.5	.9	1.3	.9
8	1.9	1.6	1.1	.0	.5	.4	.7	2.4	1.6	1.3	2.0	2.4	1.4	1.7	.5	.9	.8
9	1.3	2.1	1.0	1.7	1.2	.5	.9	1.8	2.2	2.0	1.7	3.5	2.1	1.2	.9	.5	.9
10	1.8	1.9	1.1	.5	1.1	.2	1.1	1.9	2.0	2.6	1.0	2.5	2.2	.9	.0	.6	.9
11	1.8	.9	1.3	2.1	.9	1.1	1.5	1.8	1.9	1.5	.8	1.5	2.2	.7	.5	.9	1.5
12	1.5	.9	1.2	.7	1.2	.7	1.6	1.8	1.1	.8	.6	1.4	1.8	.6	.2	.3	.7
13	1.6	1.2	.5	1.5	1.4	.9	1.2	1.2	.7	1.0	.5	1.1	1.0	.5	.4	1.1	.9
14	.8	1.3	.3	.6	.6	.7	.4	1.3	.7	1.9	.4	1.5	1.7	.3	.4	.3	.8
15	.3	1.0	.1	.5	.5	.4	.7	1.0	.5	1.6	.2	1.9	2.3	.6	.2	.3	.5
16	.4	.7	.3	.4	.4	.4	.5	.7	.6	1.2	.2	1.3	.7	.4	.1	.5	.4
17	.1	.4	.2	.3	.5	.2	.5	.8	.4	.8	.1	1.4	1.2	.4	.1	.1	.3
18	.4	.2	.2	.2	.2	.1	.4	.5	.3	.4	.1	.9	1.0	.2	.1	.2	.5
7/19-	.6	.3	.9	.5	.9	.3	.7	1.2	1.1	1.3	.1	2.8	.5	.5	.3	.5	.6
Total	37	25	24	16	16	14	29	33	26	32	41	35	44	30	12	10	24
Run	46	41	37	24	27	23	44	48	42	45	52	50	61	37	19	18	40
				late					strike		early	late					

[ ] date of 50% of total catch.

TABLE 8. Preseason forecasts of the 2000 Bristol Bay inshore run (millions).

		Age						
	District	1.2	2.2	0.3	1.3	2.3	Total	Catch
1. ADF&G								
	Naknek/Kvichak	3.6	4.1		5.6	2.4	15.7	7.7
	Egegik	0.9	3.9		1.3	2.6	8.5	6.8
	Ugashik	0.6	1.5		1.9	0.6	4.6	3.4
	Nushagak	1.8	0.3	0.1	3.6	0.2	5.8	3.7
	Togiak	0.1	0.0		0.5	0.0	0.7	0.5
	TOTAL	7.0	9.8	0.1	12.9	5.8	35.4	22.3
	Percent	19.8	27.7	0.3	36.4	16.4		
2. FRI	Naknek/Kvichak	2.7	3.5		6.5	1.5	14.2	6.5
	Egegik	1.0	3.6		3.7	3.1	11.4	9.8
	Ugashik	0.5	0.7		3.1	0.6	4.9	3.5
	Nushagak	1.8	0.3	0.1	3.6	0.5	6.3	4.1
	Togiak	0.1	0.0		0.7	0.1	0.9	0.5
	TOTAL	6.1	8.1	0.1	17.6	5.8	37.7	24.4
	Percent	16.2	21.5	0.3	46.7	15.4		

TABLE 9. Daily sockeye salmon catches in the South Unimak June fishery (thousands).

	Year												
Date	87	88	89	90	91	92	93	94	95	96	97	98	99
11													54
12													2
13				12			284		138		46*	65*	39
14	44			34							53*	65*	80
15	48	43			124	223	255		213	61	44*	86*	143
16		79	361	69		143	305		73	6	62*	101*	154
17	85			147	53	258	304	133	62	71	57*	96*	158
18	67	59		91	106	345		71	10	56	99	77	103
19			133	34	110	371	350	172	10	60	105	23*	159
20	56		441	82	226		492	53	77	63	116	66	86
21	98	82		122		359		42	168	66	81	44	128
22	76	35		120		354	203	96	151	63	78	32	
23		116	265	106	189			132	161	2	73	81	
24				88	262			66	128	22	78	55	
25	45				146			47	83	10	79	28	
Totals													
11-20	300	181	935	469	619	1340	1990	429	583	317	577	579	978
11-25	519	414	1200	905	1216	2053	2193	812	1274	480	966	819	1106
11-30	653	474	1348	1091	1216	2053	2367	1001	1451	572	1198	976	1106
Quota	635	1263	1199	1087	1573	1959	2375	2938	2987	2564	1840	1528	1024
BB run	27	23	44	48	42	45	52	50	61	37	19	18	40

TABLE 10. Bristol Bay sockeye salmon catch and escapement by fishing district and date, 1985-1999 (thousands).

	1985									
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	470	7	165	1	4	9	6	0	51	0
24-Jun	0	2	0	0	0	0	4	0	0	0
25-Jun	903	9	0	189	0	0	8	0	95	0
26-Jun	0	44	1114	339	0	0	7	0	0	0
27-Jun	1131	52	407	310	0	2	1	0	255	0
28-Jun	778	75	1450	337	278	8	0	0	425	0
29-Jun	0	69	381	402	0	133	8	0	0	0
30-Jun	601	21	773	303	211	126	16	0	262	0
1-Jul	0	109	62	164	0	119	19	0	657	0
2-Jul	0	132	736	275	150	127	18	0	0	0
3-Jul	536	96	473	370	0	56	14	0	279	0
4-Jul	416	154	0	471	368	48	1	0	550	18
5-Jul	739	48	0	601	0	44	0	0	698	108
6-Jul	357	31	188	751	124	113	3	0	380	26
7-Jul	77	23	570	850	0	129	18	0	287	24
8-Jul	452	46	350	804	6	85	18	0	256	1
9-Jul	42	39	493	711	8	49	17	4	734	1
10-Jul	407	63	708	506	11	49	1	5	52	0
11-Jul	135	32	0	323	11	34	1	6	351	156
12-Jul	113	29	0	356	18	104	0	6	156	249
13-Jul	73	6	0	258	25	121	1	4	6	145
14-Jul	53	2	0	110	34	50	6	3	196	28
15-Jul	47	1	71	46	18	24	5	4	155	11
16-Jul	65	1	0	165	13	14	1	6	164	17
17-Jul	60	2	0	138	10	9	1	5	101	5
18-Jul	21	2	0	95	3	4	3	8	36	15
19-Jul	0	0	0	108	0	3	0	6	0	6
20-Jul-	61	0	238	78	16	5	33	80	323	196
TOTAL	7537	1095	8179	9061	1308	1465	210	137	6469	1006

	1986									
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	112	0	37	0	5	0	6	0	83	0
24-Jun	0	2	0	1	0	0	5	0	0	0
25-Jun	0	5	0	1	0	1	6	0	0	0
26-Jun	0	1	0	0	0	3	6	0	0	0
27-Jun	35	10	0	0	0	4	3	0	0	0
28-Jun	135	9	0	1	0	3	1	0	0	0
29-Jun	0	10	0	14	0	2	0	0	0	0
30-Jun	0	6	0	2	15	2	9	0	0	0
1-Jul	0	24	0	0	245	13	14	0	0	0
2-Jul	793	27	0	379	0	23	14	0	0	0
3-Jul	469	117	251	389	450	13	13	0	793	0
4-Jul	0	57	357	139	210	48	4	0	65	0
5-Jul	540	139	417	179	0	78	2	0	502	0
6-Jul	104	157	149	72	0	105	0	0	25	0
7-Jul	295	74	0	47	0	129	20	0	566	0
8-Jul	0	32	0	137	0	89	32	0	10	0
9-Jul	586	27	203	329	122	112	39	1	708	0
10-Jul	0	29	389	463	126	262	4	1	0	0
11-Jul	469	47	426	153	466	310	7	2	698	0
12-Jul	120	57	204	188	300	270	1	1	33	0
13-Jul	545	68	115	189	179	152	0	1	668	0
14-Jul	194	73	63	146	153	59	22	2	150	359
15-Jul	136	10	26	102	102	37	25	4	233	287
16-Jul	125	50	17	80	65	55	21	6	205	41
17-Jul	63	20	70	56	75	32	8	9	90	47
18-Jul	44	20	38	11	63	25	1	10	61	59
19-Jul	15	10	17	6	50	18	1	5	17	43
20-Jul-	73	70	113	73	93	84	45	126	96	165
TOTAL	4853	1151	2892	3157	2719	1929	309	168	5003	1001

TABLE 10—cont.

	1987										1988									
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik			Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E	Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	165	0	35	0	0	0	7	0	62	0	-23-Jun	1159	17	265	1	0	1	47	0	65	0
24-Jun	0	19	0	0	0	3	2	0	0	0	24-Jun	0	6	0	1	0	2	4	0	0	0
25-Jun	0	6	0	0	196	10	3	0	0	0	25-Jun	0	2	0	16	0	22	0	0	0	0
26-Jun	0	61	0	0	0	8	0	0	0	0	26-Jun	0	7	0	13	100	52	0	0	0	0
27-Jun	626	110	0	0	0	9	0	0	0	0	27-Jun	519	17	361	112	0	41	20	0	0	0
28-Jun	0	51	0	0	0	26	0	0	0	0	28-Jun	0	96	0	197	181	47	24	0	0	0
29-Jun	248	54	130	0	0	109	1	0	0	0	29-Jun	938	111	0	58	0	26	28	0	0	0
30-Jun	801	28	0	31	305	268	10	0	0	0	30-Jun	0	66	0	82	0	9	21	0	0	0
1-Jul	0	83	59	296	78	269	15	0	0	0	1-Jul	1008	39	675	177	0	7	10	2	0	0
2-Jul	543	19	58	566	299	210	9	0	244	0	2-Jul	0	58	0	462	490	16	0	3	0	0
3-Jul	0	53	0	596	162	114	5	0	0	0	3-Jul	0	110	154	536	219	49	0	5	37	0
4-Jul	755	37	0	443	0	52	3	0	319	4	4-Jul	144	126	0	461	0	163	38	4	0	4
5-Jul	0	52	0	190	0	37	0	0	0	1	5-Jul	230	159	376	328	0	98	51	6	0	2
6-Jul	0	67	126	201	11	25	22	0	0	1	6-Jul	327	135	0	193	0	36	21	16	0	1
7-Jul	571	80	125	278	455	65	32	2	0	0	7-Jul	105	82	0	142	0	37	21	29	0	0
8-Jul	7	124	0	874	454	226	30	9	0	3	8-Jul	355	116	0	114	0	42	28	22	0	0
9-Jul	321	123	312	1108	249	130	14	8	349	29	9-Jul	306	65	0	152	0	127	29	13	215	3
10-Jul	296	64	471	877	162	42	2	8	201	28	10-Jul	0	79	150	251	0	149	0	9	0	1
11-Jul	25	35	741	656	113	26	2	7	0	2	11-Jul	183	104	272	409	209	229	28	7	437	1
12-Jul	262	11	695	295	278	21	0	7	0	0	12-Jul	247	42	272	720	163	254	38	9	0	1
13-Jul	208	11	708	261	160	22	18	10	334	0	13-Jul	265	54	82	308	93	39	34	14	425	12
14-Jul	0	20	478	126	49	35	25	12	0	3	14-Jul	92	80	375	109	74	14	37	17	196	66
15-Jul	189	22	226	110	109	31	24	15	0	120	15-Jul	164	10	191	115	61	10	41	8	29	97
16-Jul	28	33	249	70	61	21	5	12	77	310	16-Jul	120	5	158	62	31	8	37	12	100	130
17-Jul	117	47	179	26	31	22	2	7	173	45	17-Jul	52	8	70	36	33	15	25	9	0	35
18-Jul	69	7	92	16	7	24	0	5	54	6	18-Jul	70	11	42	27	22	9	40	7	0	53
19-Jul	0	21	0	21	0	19	0	7	0	4	19-Jul	42	5	31	14	13	3	35	11	0	55
20-Jul-	156	35	265	87	74	70	109	141	306	113	20-Jul-	74	3	75	9	19	16	160	74	28	182
TOTAL	5387	1273	4949	7128	3253	1894	340	250	2119	669	TOTAL	6400	1613	3549	5105	1708	1521	817	277	1532	643

TABLE 10—cont.

1989

	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	494	91	958	2	0	8	9	0	76	0
24-Jun	0	6	0	8	0	17	0	0	0	0
25-Jun	208	12	0	87	0	38	0	0	0	0
26-Jun	0	17	642	277	48	59	5	0	0	0
27-Jun	0	7	0	233	48	56	5	0	0	0
28-Jun	1229	23	0	194	0	42	4	0	0	0
29-Jun	0	14	1462	465	350	18	4	0	0	0
30-Jun	486	59	368	684	0	134	3	0	0	0
1-Jul	0	59	368	616	346	144	0	0	12	0
2-Jul	1107	71	1905	710	0	260	0	0	0	0
3-Jul	0	222	601	843	370	315	0	0	0	0
4-Jul	882	185	1149	1122	238	233	0	0	58	0
5-Jul	0	217	419	1067	287	71	0	0	121	66
6-Jul	917	270	1470	577	205	98	0	1	185	80
7-Jul	358	140	666	691	116	124	0	2	337	101
8-Jul	191	115	82	600	38	107	0	3	352	68
9-Jul	230	37	340	354	83	75	0	4	212	67
10-Jul	270	7	645	156	146	59	9	3	0	58
11-Jul	394	8	583	57	155	41	11	3	385	102
12-Jul	560	7	847	61	117	43	13	6	59	413
13-Jul	337	13	437	73	86	43	10	5	359	221
14-Jul	226	5	37	68	62	50	5	3	65	63
15-Jul	139	5	317	102	25	35	1	1	254	67
16-Jul	140	10	111	156	33	24	0	2	204	54
17-Jul	181	2	178	75	33	20	0	1	139	58
18-Jul	145	2	135	40	25	17	0	2	116	69
19-Jul	57	3	48	46	16	11	0	2	66	47
20-Jul-	150	4	111	115	30	19	9	46	185	147
TOTAL	8701	1611	13879	9479	2857	2161	88	84	3185	1681

1990

	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	79	0	186	7	0	10	8	0	48	0
24-Jun	0	1	0	2	0	4	0	0	0	0
25-Jun	0	1	0	5	0	2	4	0	0	0
26-Jun	0	1	0	70	0	2	6	0	0	0
27-Jun	0	1	0	19	0	4	5	0	0	0
28-Jun	38	5	72	30	0	7	2	0	0	0
29-Jun	315	15	742	150	0	6	0	0	0	0
30-Jun	0	27	961	178	0	10	0	0	0	0
1-Jul	0	41	30	143	388	37	0	0	0	0
2-Jul	1205	261	838	458	9	175	14	0	0	0
3-Jul	1114	334	2107	683	145	169	16	0	0	0
4-Jul	81	350	885	745	71	105	15	1	218	1
5-Jul	793	139	2043	571	0	64	8	2	0	1
6-Jul	1205	138	851	700	527	204	0	1	0	2
7-Jul	424	73	1092	615	333	703	0	1	0	1
8-Jul	980	52	759	652	353	224	0	1	302	11
9-Jul	0	29	1071	586	262	66	17	2	437	21
10-Jul	1174	68	444	689	248	63	30	2	0	29
11-Jul	0	59	1230	481	328	38	25	4	178	53
12-Jul	516	143	831	387	215	54	10	5	178	88
13-Jul	517	119	513	469	122	47	1	6	0	119
14-Jul	533	76	544	439	103	24	31	3	70	99
15-Jul	95	53	649	236	58	17	0	1	192	55
16-Jul	294	118	334	131	89	19	0	4	0	51
17-Jul	192	24	321	130	124	9	0	4	197	33
18-Jul	148	13	179	93	70	7	0	5	93	57
19-Jul	132	14	149	76	52	7	0	4	75	30
20-Jul-	252	36	296	318	72	38	45	96	156	79
TOTAL	10087	2191	17127	9063	3569	2115	237	142	2144	730

TABLE 10—cont.

1991

	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	21	2	92	1	0	8	2	0	28	0
24-Jun	0	7	0	1	16	14	0	0	0	0
25-Jun	0	2	0	0	0	25	0	0	0	0
26-Jun	0	24	0	105	0	20	0	0	0	0
27-Jun	0	11	0	106	0	34	0	0	0	0
28-Jun	0	17	0	159	0	80	0	0	0	0
29-Jun	0	23	0	401	0	102	0	0	0	0
30-Jun	250	47	355	657	23	48	0	0	0	0
1-Jul	807	116	741	981	104	136	4	0	0	0
2-Jul	527	157	851	830	338	80	16	0	0	0
3-Jul	658	301	709	650	262	522	20	0	0	0
4-Jul	522	305	1408	570	808	399	20	0	73	0
5-Jul	559	327	516	375	469	198	8	4	205	0
6-Jul	97	346	475	224	370	138	0	8	135	0
7-Jul	364	343	710	75	316	78	0	8	268	1
8-Jul	482	142	743	81	408	63	15	5	0	207
9-Jul	481	69	652	210	505	51	21	11	523	204
10-Jul	311	37	771	353	488	37	20	17	418	64
11-Jul	533	46	773	472	341	40	22	19	217	20
12-Jul	227	86	350	406	282	39	18	10	224	264
13-Jul	166	55	228	196	114	33	4	8	161	570
14-Jul	197	151	139	123	150	32	0	6	197	225
15-Jul	96	97	155	250	100	26	13	8	126	485
16-Jul	113	12	284	104	37	26	5	16	112	140
17-Jul	45	9	247	118	43	48	27	14	27	31
18-Jul	63	10	147	91	42	45	25	16	72	22
19-Jul	64	11	61	64	31	34	30	13	48	21
20-Jul-	218	34	151	203	42	55	292	92	206	203
TOTAL	6801	2787	10558	7806	5289	2411	562	255	3040	2457

1992

	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	404	29	142	7	29	13	0	0	22	0
24-Jun	0	15	0	10	0	9	0	0	0	0
25-Jun	717	22	0	14	17	8	0	0	0	0
26-Jun	0	41	0	50	0	39	0	0	0	0
27-Jun	688	119	149	116	165	109	0	0	0	0
28-Jun	0	96	0	73	20	69	0	0	0	0
29-Jun	303	131	149	187	0	49	7	0	7	0
30-Jun	643	130	480	240	235	40	18	0	61	0
1-Jul	723	144	0	199	17	47	12	0	0	0
2-Jul	671	46	0	189	6	41	9	0	0	0
3-Jul	1224	8	273	409	380	37	4	0	0	0
4-Jul	1137	11	639	537	0	56	0	0	0	1
5-Jul	1206	54	1716	706	303	139	0	1	0	1
6-Jul	847	84	589	623	231	193	29	2	141	0
7-Jul	750	115	517	466	0	147	30	4	0	1
8-Jul	733	90	466	203	38	107	22	10	0	1
9-Jul	716	110	807	92	31	78	18	9	461	1
10-Jul	1431	156	773	83	356	120	19	6	0	1
11-Jul	775	146	380	318	197	313	21	5	0	7
12-Jul	373	142	351	578	185	350	0	5	0	3
13-Jul	452	83	294	469	156	117	40	4	0	9
14-Jul	434	24	513	321	144	62	47	5	828	66
15-Jul	434	20	307	119	117	40	52	12	642	402
16-Jul	511	23	265	90	76	25	38	21	298	529
17-Jul	187	30	205	68	71	21	37	13	263	544
18-Jul	100	18	76	54	39	11	29	5	181	349
19-Jul	58	25	62	43	29	11	0	5	143	44
20-Jul-	153	33	154	70	55	35	228	75	296	215
TOTAL	15670	1945	9307	6334	2897	2286	660	182	3343	2174

TABLE 10—cont.

	1993									
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	1653	452	999	56	287	66	2	0	110	0
24-Jun	934	99	0	26	0	107	0	0	0	0
25-Jun	1079	69	76	110	0	76	0	0	0	0
26-Jun	1326	111	305	157	238	59	0	0	0	0
27-Jun	924	45	470	261	176	161	0	0	0	0
28-Jun	1384	20	685	289	104	182	0	0	0	0
29-Jun	1098	7	493	299	573	125	0	0	0	0
30-Jun	690	8	482	110	159	141	20	4	122	0
1-Jul	886	27	541	93	324	102	21	5	0	0
2-Jul	2690	49	1890	82	720	115	17	5	0	0
3-Jul	1836	20	0	232	383	284	26	5	260	1
4-Jul	1360	25	512	559	304	185	18	4	0	1
5-Jul	1187	71	492	521	325	144	24	4	329	1
6-Jul	967	103	304	722	271	125	18	2	386	2
7-Jul	913	62	463	425	317	87	30	4	452	6
8-Jul	765	48	262	281	256	56	34	3	715	138
9-Jul	610	38	280	210	258	31	5	6	498	406
10-Jul	358	31	123	213	179	21	0	5	346	411
11-Jul	239	62	161	188	176	19	0	6	263	235
12-Jul	207	42	82	180	87	29	36	5	197	67
13-Jul	143	44	110	196	64	29	21	15	127	11
14-Jul	133	24	55	74	21	38	20	15	131	8
15-Jul	87	10	0	53	24	24	24	14	95	5
16-Jul	58	9	15	52	21	20	17	8	59	8
17-Jul	54	7	8	34	21	26	14	5	15	8
18-Jul	71	10	8	58	14	18	15	4	0	8
19-Jul	46	8	9	31	11	11	20	2	37	7
20-Jul-	122	16	42	48	14	16	92	56	143	67
TOTAL	21820	1517	8867	5560	5327	2297	474	177	4285	1390

	4				1994					
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	53	1	37	1	20	12	0	0	16	0
24-Jun	0	5	0	1	30	3	0	0	0	0
25-Jun	123	32	0	3	8	5	0	0	0	0
26-Jun	0	71	0	3	5	7	0	0	0	0
27-Jun	188	17	0	9	6	7	0	0	4	0
28-Jun	0	11	0	17	4	8	0	0	13	0
29-Jun	153	6	0	3	0	6	0	0	0	0
30-Jun	76	35	0	7	0	5	0	0	11	0
1-Jul	418	31	0	15	64	11	5	0	67	0
2-Jul	1455	5	689	94	3	55	3	0	0	0
3-Jul	66	30	673	412	249	111	0	0	64	0
4-Jul	372	222	336	1358	232	117	9	0	0	1
5-Jul	932	185	779	1214	279	80	11	0	0	0
6-Jul	882	179	1173	849	68	98	8	0	342	1
7-Jul	1015	180	1516	795	368	70	11	0	0	0
8-Jul	488	151	1892	973	0	46	4	1	58	0
9-Jul	1049	177	1303	743	574	340	0	1	569	5
10-Jul	539	80	1394	696	434	496	0	0	180	102
11-Jul	289	106	957	615	139	188	17	1	145	205
12-Jul	451	100	639	255	115	93	20	2	159	207
13-Jul	163	42	418	80	50	63	12	3	468	50
14-Jul	195	43	687	70	38	59	9	6	559	24
15-Jul	451	50	858	136	288	33	9	8	252	31
16-Jul	241	23	567	76	205	78	4	5	263	63
17-Jul	312	22	907	131	74	102	0	5	139	38
18-Jul	208	46	442	264	86	73	18	4	142	39
19-Jul	115	21	157	260	45	46	18	3	220	56
20-Jul-	564	27	838	249	49	214	164	116	610	259
TOTAL	10798	1898	16262	9329	3433	2426	322	155	4281	1081

TABLE 10—cont.

	1995										1996									
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik			Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E	Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	526	23	192	2	42	6	0	0	61	0	-23-Jun	345	44	186	24	37	48	3	0	109	0
24-Jun	0	4	2	2	0	4	0	0	0	0	24-Jun	501	27	139	31	18	46	4	0	0	0
25-Jun	986	28	5	130	0	28	0	0	0	0	25-Jun	437	25	185	61	221	64	5	0	157	0
26-Jun	0	82	264	107	105	126	0	0	94	0	26-Jun	318	2	175	41	149	64	6	0	0	0
27-Jun	510	88	1113	346	162	168	0	0	0	0	27-Jun	286	1	317	35	63	67	2	0	0	0
28-Jun	725	189	655	373	476	63	2	0	0	0	28-Jun	743	37	244	10	364	75	0	0	0	0
29-Jun	627	116	793	259	182	140	4	0	263	0	29-Jun	1141	36	300	106	507	34	0	0	258	0
30-Jun	955	122	856	210	185	154	0	0	0	0	30-Jun	1053	35	671	44	506	67	0	0	0	0
1-Jul	546	80	1313	509	265	92	0	0	82	0	1-Jul	1004	36	1078	47	145	86	8	0	255	0
2-Jul	330	7	761	754	120	89	0	0	219	0	2-Jul	837	46	585	67	403	135	14	0	184	0
3-Jul	581	18	439	470	221	55	6	1	215	3	3-Jul	441	61	572	292	393	177	14	1	198	6
4-Jul	1224	79	694	340	267	33	8	1	271	5	4-Jul	599	31	382	135	0	195	13	2	279	29
5-Jul	627	56	1051	384	478	53	6	4	0	4	5-Jul	734	17	308	56	0	142	14	2	471	63
6-Jul	728	41	1925	731	134	70	8	3	58	22	6-Jul	0	9	430	65	710	150	14	1	466	97
7-Jul	1041	3	827	980	49	257	2	4	696	56	7-Jul	498	35	406	118	258	171	0	1	341	51
8-Jul	462	65	871	1149	90	302	4	2	0	42	8-Jul	250	51	303	207	604	139	15	1	490	37
9-Jul	248	62	1410	1114	176	195	0	4	285	12	9-Jul	0	62	287	123	647	79	13	1	295	14
10-Jul	656	5	1267	674	279	78	18	5	0	11	10-Jul	236	235	443	117	168	80	10	2	78	7
11-Jul	738	24	1269	369	203	52	23	7	0	11	11-Jul	233	226	340	113	162	110	13	5	0	8
12-Jul	522	21	1000	232	232	42	20	12	0	18	12-Jul	260	21	227	113	132	104	17	6	0	7
13-Jul	403	15	432	284	109	37	23	11	0	10	13-Jul	217	2	159	189	70	90	10	3	1	5
14-Jul	474	11	940	233	220	27	25	7	0	8	14-Jul	146	3	104	132	71	66	0	6	2	6
15-Jul	360	5	923	243	176	24	22	4	813	6	15-Jul	108	10	54	109	46	44	14	6	331	10
16-Jul	301	9	316	149	83	40	0	6	0	24	16-Jul	128	18	63	82	12	42	16	7	219	58
17-Jul	288	11	348	163	54	23	28	3	454	46	17-Jul	120	6	100	39	12	25	19	6	131	89
18-Jul	282	6	204	123	50	16	21	5	415	278	18-Jul	85	0	38	54	18	63	0	7	48	67
19-Jul	135	7	163	272	40	17	23	5	166	358	19-Jul	25	0	11	56	16	46	0	8	40	33
20-Jul-	186	89	382	548	52	45	277	101	409	390	20-Jul-	97	0	81	63	18	146	165	92	57	81
TOTAL	14461	1266	20415	11150	4450	2236	520	185	4501	1304	TOTAL	10842	1076	8188	2529	5750	2555	389	157	4410	668

TABLE 10—cont.

1997

Date	Egegik C	Egegik E	Nak-Kvi C	Nak-Kvi E	Nushagak C	Nushagak E	Togiak C	Togiak E	Ugashik C	Ugashik E
-23-Jun	775	101	21	3	20	35	4	0	55	0
24-Jun	244	6	1	11	0	19	4	0	0	0
25-Jun	247	6	0	16	8	36	2	0	0	0
26-Jun	93	7	11	29	17	45	0	0	0	0
27-Jun	486	25	8	34	0	49	0	0	0	0
28-Jun	332	43	72	22	0	67	0	0	0	0
29-Jun	187	44	8	10	0	66	0	0	0	0
30-Jun	364	35	99	23	0	68	7	0	0	0
1-Jul	452	16	82	37	293	76	10	0	71	0
2-Jul	336	7	83	25	0	117	10	0	3	0
3-Jul	380	14	1	58	333	142	8	0	0	1
4-Jul	525	8	1	112	0	146	9	0	175	2
5-Jul	769	9	3	124	297	78	10	0	6	2
6-Jul	11	18	2	223	431	121	0	0	217	2
7-Jul	478	171	0	231	114	89	16	0	238	9
8-Jul	309	128	2	310	198	89	16	0	26	14
9-Jul	362	39	54	313	215	175	8	0	183	31
10-Jul	30	12	24	206	90	54	0	1	1	34
11-Jul	312	176	2	112	35	82	0	1	176	48
12-Jul	169	81	0	144	70	93	0	1	11	49
13-Jul	123	68	30	114	101	94	0	1	74	37
14-Jul	172	38	28	106	142	54	18	7	57	44
15-Jul	87	42	0	87	62	46	13	5	42	61
16-Jul	69	6	13	44	29	30	0	5	33	21
17-Jul	90	4	13	37	32	29	0	4	0	36
18-Jul	24	0	8	30	44	31	0	3	0	25
19-Jul	141	0	42	69	87	85	8	104	43	202
20-Jul-										
TOTAL	7567	1104	608	2530	2618	2016	143	132	1411	618

1998

Date	Egegik C	Egegik E	Nak-Kvi C	Nak-Kvi E	Nushagak C	Nushagak E	Togiak C	Togiak E	Ugashik C	Ugashik E
-23-Jun	226	20	54	0	20	22	3	0	15	0
24-Jun	0	21	0	2	7	8	1	0	0	0
25-Jun	170	28	0	10	24	22	0	0	0	0
26-Jun	0	22	0	9	0	31	0	0	0	0
27-Jun	219	32	0	13	28	23	0	0	0	0
28-Jun	0	26	1	15	0	26	0	0	0	0
29-Jun	0	50	1	20	0	39	9	0	0	0
30-Jun	258	46	2	25	0	37	10	0	0	0
1-Jul	273	96	2	18	0	26	8	0	0	0
2-Jul	412	85	2	125	0	54	3	0	1	0
3-Jul	167	14	2	164	0	134	6	0	1	2
4-Jul	195	51	2	280	0	588	0	0	0	1
5-Jul	0	15	0	333	282	660	0	0	0	1
6-Jul	9	71	0	241	36	167	18	0	1	2
7-Jul	272	102	245	264	793	138	25	0	1	7
8-Jul	378	36	157	154	325	148	14	0	1	10
9-Jul	144	17	110	259	275	77	8	0	2	15
10-Jul	38	45	79	479	330	52	4	0	134	15
11-Jul	254	59	185	448	144	28	0	0	284	34
12-Jul	0	24	168	303	148	21	0	5	0	55
13-Jul	187	30	562	149	254	20	21	1	85	98
14-Jul	79	64	152	69	19	19	25	1	0	163
15-Jul	64	65	124	37	106	22	9	5	1	92
16-Jul	85	14	366	38	95	19	0	8	0	27
17-Jul	0	20	84	12	27	10	14	6	1	17
18-Jul	41	37	107	13	18	6	7	4	0	19
19-Jul	28	13	48	16	14	7	0	4	0	18
20-Jul-	59	8	100	2	16	30	4	120	197	315
TOTAL	3558	1111	2553	3498	2961	2434	189	154	724	891

TABLE 10—cont.

	1999										2000										
	Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik			Egegik		Nak-Kvi		Nushagak		Togiak		Ugashik	
Date	C	E	C	E	C	E	C	E	C	E	Date	C	E	C	E	C	E	C	E	C	E
-23-Jun	28	0	35	0	0	0	1	0	75	0	-23-Jun										
24-Jun	0	0	0	3	0	7	0	0	0	0	24-Jun										
25-Jun	28	0	0	1	0	5	0	0	0	0	25-Jun										
26-Jun	0	0	0	1	0	3	0	0	0	0	26-Jun										
27-Jun	0	0	0	4	0	11	0	0	0	0	27-Jun										
28-Jun	1	0	1	5	0	18	4	0	0	0	28-Jun										
29-Jun	471	3	2	105	0	12	4	0	0	0	29-Jun										
30-Jun	827	6	223	165	1	35	3	0	0	0	30-Jun										
1-Jul	1403	56	1202	180	528	31	0	0	1	0	1-Jul										
2-Jul	1216	61	1970	350	782	151	0	0	0	0	2-Jul										
3-Jul	0	212	0	482	484	420	0	0	0	0	3-Jul										
4-Jul	399	98	640	511	283	280	0	0	0	0	4-Jul										
5-Jul	461	100	1179	642	410	293	10	0	72	0	5-Jul										
6-Jul	444	173	862	400	496	177	17	2	38	0	6-Jul										
7-Jul	214	263	296	455	308	148	6	6	87	0	7-Jul										
8-Jul	155	163	283	543	241	97	0	5	92	33	8-Jul										
9-Jul	235	194	180	424	224	76	0	3	290	204	9-Jul										
10-Jul	203	142	27	435	465	52	0	3	224	190	10-Jul										
11-Jul	347	90	731	288	298	115	0	5	160	183	11-Jul										
12-Jul	206	86	28	342	238	46	14	5	207	329	12-Jul										
13-Jul	142	23	54	353	614	34	16	5	120	354	13-Jul										
14-Jul	212	17	56	360	346	41	20	4	162	79	14-Jul										
15-Jul	119	20	143	407	112	21	27	3	117	88	15-Jul										
16-Jul	69	8	142	242	69	29	20	3	72	46	16-Jul										
17-Jul	57	12	104	327	35	25	18	4	87	21	17-Jul										
18-Jul	65	0	270	438	105	25	0	4	60	11	18-Jul										
19-Jul	37	0	123	203	70	15	13	3	181	3	19-Jul										
20-Jul-	84	0	388	158	154	54	175	101	226	107	20-Jul-										
TOTAL	7423	1727	8939	7824	6263	2221	348	156	2271	1648	TOTAL	0	0	0	0	0	0	0	0	0	0

TABLE 11. Sockeye salmon brood table for the Kvichak system.

	Age class							
Brood year	1.1	1.2	1.3	2.1	2.2	2.3	3.2	3.3
1952		10.79	4.02		1.90	0.60		
1953		0.06	0.06		0.34	0.06		
1954		0.07	0.03	0.02	0.61	0.00		0.02
1955	0.00	0.24	0.09	0.01	0.53	0.39	0.02	0.00
1956	0.01	21.98	5.11	0.00	4.84	1.14	0.00	0.00
1957	0.00	0.18	0.21	0.00	3.00	0.22	0.00	0.00
1958	0.00	0.07	0.04	0.00	0.12	0.02	0.00	0.00
1959	0.00	0.18	0.11	0.00	0.20	0.01	0.00	0.00
1960	0.00	1.26	0.42	0.13	41.38	5.63	0.01	0.01
1961	0.00	0.30	0.16	0.00	2.05	0.60	0.00	0.00
1962	0.00	0.09	0.14	0.00	4.21	0.34	0.01	0.00
1963	0.00	0.04	0.04	0.00	0.54	0.22	0.00	0.01
1964	0.01	1.89	0.25	0.10	2.15	0.51	0.01	0.00
1965	0.02	9.03	0.37	0.48	29.17	1.03	0.00	0.00
1966	0.01	0.44	0.89	0.01	3.92	0.27	0.00	0.00
1967	0.00	0.30	0.19	0.00	0.66	0.07	0.00	0.00
1968	0.00	0.24	0.03	0.00	0.07	0.12	0.00	0.00
1969	0.00	0.11	0.29	0.01	4.14	0.52	0.01	0.02
1970	0.00	0.04	0.01	0.04	14.01	0.57	0.32	0.01
1971	0.00	0.26	0.07	0.02	1.84	0.15	0.00	0.00
1972	0.00	0.19	0.11	0.00	1.04	0.28	0.00	0.00
1973	0.00	0.46	0.96	0.00	0.26	0.52	0.03	0.00
1974	0.01	6.14	1.93	0.30	16.38	0.72	0.02	0.00
1975	0.01	5.50	1.18	0.30	28.18	0.55	0.00	0.00
1976	0.01	5.04	0.76	0.04	3.85	0.24	0.00	0.00
1977	0.04	1.82	0.84	0.00	0.18	0.09	0.00	0.00
1978	0.00	1.66	1.09	0.02	1.24	0.80	0.01	0.00
1979	0.06	17.60	2.14	0.07	17.01	3.28	0.00	0.00
1980	0.00	2.81	1.49	0.02	7.79	0.38	0.00	0.00
1981	0.00	0.77	0.22	0.00	0.91	0.16	0.00	0.00
1982	0.00	0.44	0.52	0.00	0.50	0.14	0.00	0.00
1983	0.00	8.38	2.98	0.00	1.13	0.54	0.00	0.00
1984	0.00	2.46	1.87	0.04	16.35	2.39	0.01	0.00
1985	0.01	1.00	1.24	0.03	13.08	1.51	0.00	0.00
1986	0.00	0.66	1.05	0.00	1.34	1.23	0.00	0.00
1987	0.00	4.04	2.38	0.03	4.24	0.68	0.00	0.00
1988	0.00	2.43	2.37	0.02	4.02	0.53	0.01	0.01
1989	0.00	2.01	1.56	0.12	18.47	3.24	0.01	0.00
1990	0.01	1.50	1.14	0.08	20.55	1.22	0.00	0.00
1991	0.00	2.59	1.23	0.00	0.67	0.16	0.00	0.00
1992	0.00	0.41	0.21	0.00	0.51	0.14	0.00	0.01
1993	0.00	0.79	0.84	0.00	0.59	0.55	0.00	
1994	0.00	1.75	1.12	0.03	3.60			
1995	0.02	7.31						
1996	0.00							

TABLE 12. Sockeye salmon brood table for the Naknek system.

	Age class						
Brood year	1.1	1.2	1.3	1.4	2.1	2.2	2.3
1952	0.00	0.11	0.69	0.01	0.00	0.07	0.16
1953	0.00	0.02	0.12	0.00	0.00	0.16	0.19
1954	0.00	0.08	0.28	0.00	0.02	2.03	0.52
1955	0.00	0.69	0.73	0.00	0.00	0.19	0.06
1956	0.00	0.43	1.24	0.02	0.00	0.00	0.26
1957	0.00	0.04	0.28	0.01	0.00	0.45	0.57
1958	0.00	0.10	0.18	0.01	0.00	0.46	0.16
1959	0.00	0.30	0.33	0.00	0.01	0.71	0.53
1960	0.00	1.35	0.47	0.00	0.01	0.62	1.11
1961	0.00	0.21	0.65	0.01	0.00	0.28	0.57
1962	0.00	0.07	0.20	0.01	0.00	0.32	0.33
1963	0.00	0.12	0.33	0.00	0.01	0.71	0.38
1964	0.00	0.38	0.16	0.00	0.02	1.04	0.14
1965	0.01	0.50	0.28	0.00	0.04	0.65	0.36
1966	0.00	0.64	1.90	0.01	0.00	0.15	0.43
1967	0.00	0.28	0.43	0.00	0.01	0.33	0.22
1968	0.00	0.12	0.15	0.01	0.00	0.06	0.23
1969	0.00	0.03	0.28	0.00	0.00	0.96	0.97
1970	0.00	0.15	0.28	0.00	0.02	1.67	0.48
1971	0.00	0.35	0.51	0.01	0.02	1.55	1.69
1972	0.00	0.14	0.25	0.01	0.00	0.23	0.56
1973	0.00	0.53	0.57	0.00	0.00	0.51	0.51
1974	0.00	0.23	0.19	0.01	0.00	1.06	0.74
1975	0.00	0.45	1.67	0.00	0.01	1.30	1.50
1976	0.00	1.03	3.74	0.02	0.00	1.47	1.31
1977	0.01	0.60	2.04	0.06	0.00	0.08	0.36
1978	0.00	0.30	1.60	0.01	0.00	1.06	0.49
1979	0.00	2.34	0.90	0.01	0.00	0.76	0.38
1980	0.00	0.68	1.37	0.01	0.01	1.15	0.77
1981	0.00	0.76	2.48	0.01	0.01	0.46	1.46
1982	0.00	0.18	0.75	0.02	0.00	0.21	0.45
1983	0.00	0.14	0.48	0.01	0.01	0.32	0.45
1984	0.00	0.46	0.88	0.02	0.02	1.17	1.76
1985	0.00	0.64	3.41	0.04	0.02	1.26	1.40
1986	0.00	1.90	6.95	0.35	0.01	1.23	2.61
1987	0.00	0.32	1.18	0.09	0.00	0.53	3.11
1988	0.00	0.27	0.76	0.04	0.01	0.47	0.52
1989	0.00	0.21	0.87	0.00	0.01	1.13	0.55
1990	0.00	0.39	1.18	0.01	0.05	1.30	1.30
1991	0.01	0.53	5.08	0.04	0.00	0.24	0.33
1992	0.00	0.25	0.52	0.01	0.00	0.23	0.32
1993	0.00	0.27	1.27	0.02	0.01	0.44	0.62
1994	0.01	0.48	0.57		0.02	0.50	
1995	0.01	1.90			0.00		
1996	0.00						

TABLE 13. Sockeye salmon brood table for the Wood River system.

	Age class					
Brood year	1.1	1.2	1.3	1.4	2.2	2.3
1952	0.00	0.82	0.33	0.01	0.01	0.02
1953	0.00	0.20	0.33	0.01	0.06	0.04
1954	0.01	1.17	0.26	0.01	0.77	0.06
1955	0.01	2.36	0.63	0.01	0.55	0.12
1956	0.00	0.61	0.45	0.00	0.02	0.00
1957	0.00	0.10	0.23	0.00	0.04	0.00
1958	0.00	1.91	0.31	0.00	0.10	0.02
1959	0.00	0.84	0.38	0.01	0.38	0.03
1960	0.01	1.36	0.74	0.01	0.10	0.08
1961	0.00	0.27	0.86	0.01	0.02	0.03
1962	0.00	1.01	0.37	0.01	0.11	0.03
1963	0.00	0.53	0.59	0.00	0.06	0.03
1964	0.00	0.36	0.26	0.00	0.30	0.06
1965	0.00	0.46	0.76	0.00	0.07	0.15
1966	0.01	0.85	0.70	0.01	0.04	0.04
1967	0.00	0.53	0.12	0.01	0.06	0.04
1968	0.00	0.37	0.30	0.01	0.00	0.02
1969	0.00	0.05	0.39	0.01	0.19	0.09
1970	0.00	1.47	0.84	0.00	0.19	0.04
1971	0.00	0.42	0.52	0.01	0.18	0.04
1972	0.00	0.68	0.55	0.18	0.03	0.02
1973	0.00	0.19	1.04	0.01	0.07	0.03
1974	0.00	2.85	1.57	0.01	0.41	0.05
1975	0.05	1.54	1.86	0.01	0.38	0.64
1976	0.00	2.17	2.18	0.01	0.51	0.25
1977	0.02	0.92	2.08	0.00	0.07	0.03
1978	0.00	1.18	1.10	0.01	0.80	0.11
1979	0.01	2.46	1.56	0.01	0.03	0.02
1980	0.00	0.46	0.95	0.01	0.10	0.10
1981	0.00	0.60	1.14	0.00	0.08	0.09
1982	0.00	0.50	0.90	0.01	0.13	0.02
1983	0.00	1.91	1.23	0.01	0.02	0.07
1984	0.00	0.52	1.32	0.02	0.03	0.02
1985	0.00	1.11	1.37	0.01	0.03	0.01
1986	0.00	1.16	1.94	0.01	0.07	0.06
1987	0.00	1.36	0.74	0.01	0.09	0.09
1988	0.00	1.59	1.39	0.01	0.09	0.03
1989	0.00	2.17	1.82	0.00	0.01	0.04
1990	0.00	1.08	1.15	0.00	0.28	0.16
1991	0.01	2.53	2.43	0.06	0.05	0.07
1992	0.00	2.32	1.60	0.00	0.09	0.05
1993	0.00	1.67	0.98	0.00	0.13	0.19
1994	0.01	2.77	1.93		0.43	
1995	0.01	3.37				
1996	0.00					

TABLE 14. Sockeye salmon brood table for the Nushagak system.

	Age Class					
Brood year	0.2	1.2	1.3	1.4	2.2	2.3
1952	0.00	0.00	0.09	0.00	0.01	0.05
1953	0.00	0.03	0.37	0.00	0.07	0.00
1954	0.00	0.02	0.00	0.00	0.35	0.00
1955	0.00	0.13	0.13	0.00	0.00	0.00
1956	0.00	0.30	0.14	0.00	0.00	0.00
1957	0.00	0.01	0.01	0.00	0.00	0.00
1958	0.01	0.09	0.28	0.00	0.03	0.02
1959	0.01	0.01	0.06	0.00	0.01	0.01
1960	0.01	0.15	0.32	0.00	0.02	0.01
1961	0.01	0.04	0.34	0.00	0.01	0.01
1962	0.00	0.02	0.13	0.01	0.01	0.01
1963	0.00	0.01	0.19	0.00	0.01	0.01
1964	0.01	0.02	0.05	0.00	0.01	0.01
1965	0.01	0.09	0.54	0.01	0.03	0.04
1966	0.01	0.10	0.46	0.00	0.01	0.01
1967	0.01	0.02	0.12	0.01	0.01	0.01
1968	0.01	0.02	0.24	0.01	0.00	0.01
1969	0.01	0.01	0.08	0.01	0.01	0.01
1970	0.00	0.10	0.63	0.00	0.12	0.02
1971	0.01	0.09	0.73	0.00	0.02	0.14
1972	0.01	0.08	0.45	0.04	0.04	0.13
1973	0.01	0.08	1.13	0.01	0.01	0.03
1974	0.01	0.13	0.40	0.01	0.02	0.04
1975	0.01	0.53	4.61	0.01	0.12	0.26
1976	0.01	0.37	3.03	0.04	0.06	0.24
1977	0.00	0.36	1.75	0.13	0.01	0.01
1978	0.00	0.09	0.74	0.00	0.02	0.01
1979	0.00	0.47	0.81	0.04	0.01	0.01
1980	0.01	0.08	0.32	0.01	0.16	0.14
1981	0.00	0.16	1.43	0.08	0.01	0.03
1982	0.01	0.16	0.85	0.06	0.01	0.01
1983	0.00	0.11	0.62	0.02	0.01	0.01
1984	0.00	0.12	0.55	0.02	0.01	0.01
1985	0.01	0.06	0.59	0.01	0.01	0.02
1986	0.06	0.11	0.67	0.18	0.00	0.06
1987	0.14	0.04	0.52	0.10	0.03	0.01
1988	0.07	0.21	1.39	0.06	0.01	0.01
1989	0.07	0.12	0.66	0.02	0.00	0.00
1990	0.05	0.04	0.24	0.01	0.02	0.01
1991	0.01	0.17	0.99	0.12	0.00	0.02
1992	0.08	0.22	0.59	0.05	0.01	0.00
1993	0.04	0.06	0.68	0.12	0.00	0.05
1994	0.00	0.08	0.06		0.01	
1995	0.00	0.16				
1996	0.00					

TABLE 15. Sockeye salmon brood table for the Igushik system.

	Age Class			
Brood year	1.2	1.3	2.2	2.3
1952	0.15	0.18	0.01	0.02
1953	0.06	0.18	0.01	0.06
1954	0.05	0.25	0.20	0.10
1955	0.43	0.69	0.10	0.07
1956	0.15	0.38	0.01	0.03
1957	0.00	0.02	0.02	0.02
1958	0.01	0.06	0.02	0.03
1959	0.09	0.15	0.09	0.02
1960	0.06	0.23	0.04	0.05
1961	0.03	0.34	0.02	0.01
1962	0.02	0.13	0.01	0.01
1963	0.16	0.23	0.03	0.02
1964	0.17	0.30	0.14	0.04
1965	0.30	0.36	0.20	0.09
1966	0.07	0.44	0.01	0.01
1967	0.07	0.06	0.01	0.01
1968	0.07	0.08	0.00	0.01
1969	0.00	0.11	0.28	0.11
1970	0.02	0.17	0.09	0.06
1971	0.06	0.17	0.05	0.04
1972	0.09	0.14	0.01	0.01
1973	0.02	0.69	0.02	0.02
1974	0.34	0.74	0.36	0.02
1975	0.82	2.39	0.13	0.49
1976	0.52	1.41	0.21	0.17
1977	0.32	1.56	0.01	0.00
1978	0.05	0.27	0.06	0.01
1979	0.32	0.38	0.02	0.01
1980	0.01	0.21	0.04	0.06
1981	0.15	0.83	0.00	0.05
1982	0.05	0.48	0.01	0.01
1983	0.15	0.33	0.01	0.03
1984	0.03	0.63	0.05	0.03
1985	0.51	0.90	0.08	0.08
1986	0.23	2.20	0.03	0.03
1987	0.16	0.57	0.01	0.03
1988	0.19	1.02	0.04	0.04
1989	0.48	1.05	0.06	0.05
1990	0.16	1.36	0.18	0.15
1991	0.31	1.31	0.00	0.02
1992	0.04	0.13	0.01	0.02
1993	0.12	0.29	0.02	0.04
1994	0.24	0.84	0.93	
1995	0.65			

TABLE 16. Sockeye salmon brood table for the Egegik system.

	Age Class							
Brood year	1.2	1.3	1.4	2.1	2.2	2.3	3.2	3.3
1952	0.61	0.26	0.01		0.15	0.27	0.02	0.01
1953	0.02	0.04	0.00		0.40	0.32	0.24	0.01
1954	0.01	0.01	0.00	0.00	1.13	0.57	0.08	0.03
1955	0.02	0.15	0.00	0.00	0.61	0.29	0.01	0.01
1956	1.83	2.34	0.01	0.00	0.69	0.59	0.01	0.01
1957	0.03	0.04	0.00	0.00	0.99	0.78	0.06	0.06
1958	0.04	0.06	0.00	0.00	0.71	0.29	0.02	0.01
1959	0.06	0.15	0.00	0.00	0.99	0.35	0.01	0.02
1960	0.43	0.25	0.01	0.02	3.94	2.22	0.04	0.04
1961	0.07	0.20	0.01	0.00	0.40	0.70	0.02	0.01
1962	0.02	0.06	0.00	0.00	0.86	0.32	0.02	0.02
1963	0.01	0.09	0.01	0.00	0.46	0.31	0.07	0.01
1964	0.11	0.04	0.00	0.01	1.34	0.19	0.06	0.01
1965	0.10	0.06	0.01	0.04	1.78	0.70	0.01	0.01
1966	0.22	0.62	0.01	0.00	0.55	0.61	0.01	0.01
1967	0.05	0.18	0.00	0.00	0.54	0.42	0.01	0.01
1968	0.03	0.04	0.00	0.00	0.06	0.22	0.01	0.01
1969	0.01	0.10	0.00	0.00	1.06	0.96	0.28	0.10
1970	0.05	0.07	0.01	0.00	0.74	0.15	0.09	0.02
1971	0.05	0.08	0.00	0.00	1.35	0.89	0.06	0.05
1972	0.05	0.05	0.01	0.00	1.34	1.17	0.04	0.02
1973	0.07	0.12	0.00	0.00	0.56	0.82	0.04	0.01
1974	0.13	0.10	0.00	0.02	2.17	0.47	0.05	0.01
1975	0.14	0.23	0.00	0.01	2.28	0.73	0.01	0.01
1976	0.58	0.73	0.01	0.06	2.81	0.74	0.00	0.00
1977	0.77	1.76	0.01	0.00	0.59	0.59	0.01	0.01
1978	0.36	0.48	0.01	0.01	5.72	2.02	0.03	0.01
1979	0.68	0.51	0.01	0.01	2.98	1.53	0.00	0.00
1980	0.78	2.04	0.01	0.03	4.34	0.88	0.01	0.00
1981	0.52	0.95	0.01	0.06	3.30	1.39	0.01	0.01
1982	1.01	1.79	0.01	0.01	1.74	1.59	0.01	0.01
1983	1.72	2.69	0.01	0.01	3.03	2.61	0.02	0.02
1984	0.58	0.93	0.01	0.08	6.17	4.74	0.21	0.04
1985	0.54	1.33	0.01	0.03	4.17	1.22	0.01	0.02
1986	1.76	3.59	0.09	0.01	3.79	4.21	0.09	0.03
1987	0.86	4.34	0.09	0.06	8.41	10.73	0.12	0.06
1988	0.40	1.43	0.00	0.06	10.24	5.48	0.25	0.16
1989	0.59	0.43	0.00	0.03	5.98	3.92	0.17	0.03
1990	0.40	0.84	0.00	0.07	9.28	4.61	0.02	0.03
1991	1.33	3.87	0.05	0.02	2.98	2.49	0.02	0.01
1992	0.32	1.04	0.00	0.05	4.51	2.80	0.05	0.02
1993	0.46	0.53	0.01	0.03	0.84	0.98	0.01	
1994	0.36	0.94		0.07	4.13			
1995	3.05			0.00				

TABLE 17. Sockeye salmon brood table for the Ugashik system.

	Age class						
Brood year	1.1	1.2	1.3	1.4	2.1	2.2	2.3
1952		0.50	0.23	0.00	0.00	0.13	0.07
1953		0.14	0.23	0.01	0.00	0.39	0.20
1954		0.02	0.03	0.00	0.00	0.38	0.05
1955	0.00	0.02	0.03	0.00	0.00	0.11	0.01
1956	0.01	2.86	0.61	0.01	0.00	0.06	0.03
1957	0.00	0.03	0.09	0.01	0.00	0.32	0.08
1958	0.00	0.06	0.09	0.00	0.00	0.38	0.06
1959	0.00	0.02	0.04	0.01	0.00	0.30	0.10
1960	0.00	0.64	0.22	0.01	0.01	1.38	0.42
1961	0.00	0.21	0.43	0.01	0.00	0.22	0.11
1962	0.00	0.07	0.12	0.00	0.00	0.17	0.02
1963	0.00	0.01	0.02	0.00	0.00	0.08	0.01
1964	0.00	0.03	0.01	0.00	0.01	0.22	0.01
1965	0.00	0.08	0.03	0.01	0.00	0.22	0.13
1966	0.00	0.64	1.22	0.01	0.00	0.08	0.02
1967	0.00	0.05	0.04	0.00	0.00	0.04	0.02
1968	0.00	0.01	0.01	0.00	0.00	0.01	0.00
1969	0.00	0.00	0.00	0.00	0.00	0.05	0.02
1970	0.00	0.00	0.00	0.01	0.00	0.25	0.02
1971	0.00	0.17	0.19	0.00	0.00	0.27	0.12
1972	0.00	0.03	0.05	0.00	0.00	0.11	0.03
1973	0.00	0.01	0.01	0.00	0.00	0.01	0.04
1974	0.00	0.01	0.01	0.00	0.01	0.60	0.08
1975	0.00	1.43	0.55	0.00	0.00	1.60	0.30
1976	0.00	1.92	1.41	0.01	0.06	1.17	0.38
1977	0.00	0.55	1.43	0.01	0.00	0.23	0.17
1978	0.00	0.22	0.39	0.01	0.01	0.81	0.50
1979	0.02	2.95	0.81	0.01	0.01	1.39	0.52
1980	0.00	1.14	2.10	0.01	0.04	3.19	0.78
1981	0.00	1.51	2.51	0.01	0.00	2.20	0.90
1982	0.00	0.41	0.69	0.01	0.00	0.58	0.72
1983	0.00	0.60	0.34	0.01	0.01	0.59	0.30
1984	0.00	0.45	0.55	0.01	0.05	3.50	0.69
1985	0.00	0.49	0.69	0.01	0.00	0.95	0.46
1986	0.00	0.48	2.38	0.07	0.00	1.83	1.63
1987	0.00	0.81	1.55	0.02	0.01	1.78	2.26
1988	0.00	0.45	0.67	0.04	0.03	2.03	2.18
1989	0.01	0.66	0.37	0.01	0.01	2.43	0.93
1990	0.00	0.34	0.67	0.00	0.02	2.23	1.18
1991	0.01	1.93	3.08	0.01	0.00	0.57	0.30
1992	0.00	0.18	0.54	0.00	0.00	0.88	0.74
1993	0.00	0.24	0.32	0.02	0.01	0.23	0.20
1994	0.01	0.32	0.31		0.01	0.67	
1995	0.02	2.71			0.00		
1996	0.00						

TABLE 18. Sockeye salmon brood table for the Togiak system.

	Age Class				
Brood year	1.2	1.3	1.4	2.2	2.3
1952	0.15	0.03	0.00	0.01	0.01
1953	0.02	0.08	0.00	0.01	0.02
1954	0.02	0.14	0.00	0.01	0.02
1955	0.13	0.17	0.00	0.01	0.03
1956	0.10	0.23	0.00	0.02	0.01
1957	0.04	0.06	0.00	0.02	0.03
1958	0.06	0.10	0.00	0.05	0.02
1959	0.12	0.09	0.00	0.05	0.01
1960	0.18	0.21	0.00	0.02	0.05
1961	0.08	0.19	0.00	0.01	0.02
1962	0.04	0.09	0.00	0.00	0.01
1963	0.04	0.06	0.00	0.02	0.02
1964	0.04	0.05	0.00	0.04	0.01
1965	0.14	0.14	0.00	0.03	0.03
1966	0.18	0.35	0.00	0.00	0.01
1967	0.02	0.07	0.00	0.01	0.03
1968	0.04	0.12	0.00	0.01	0.01
1969	0.02	0.12	0.00	0.02	0.01
1970	0.05	0.19	0.00	0.05	0.06
1971	0.10	0.28	0.00	0.06	0.06
1972	0.09	0.13	0.00	0.02	0.03
1973	0.14	0.41	0.00	0.02	0.03
1974	0.26	0.29	0.00	0.07	0.04
1975	0.19	0.81	0.00	0.08	0.05
1976	0.18	0.52	0.00	0.13	0.15
1977	0.22	0.55	0.00	0.01	0.01
1978	0.14	0.41	0.00	0.06	0.02
1979	0.26	0.28	0.00	0.01	0.00
1980	0.04	0.21	0.00	0.01	0.02
1981	0.05	0.24	0.00	0.02	0.02
1982	0.11	0.24	0.01	0.01	0.03
1983	0.28	0.91	0.00	0.01	0.02
1984	0.02	0.11	0.00	0.00	0.02
1985	0.03	0.21	0.00	0.04	0.08
1986	0.08	0.44	0.01	0.08	0.11
1987	0.19	0.53	0.01	0.03	0.08
1988	0.11	0.39	0.00	0.03	0.05
1989	0.12	0.31	0.00	0.01	0.04
1990	0.10	0.43	0.01	0.07	0.04
1991	0.18	0.42	0.01	0.03	0.03
1992	0.05	0.11	0.00	0.03	0.03
1993	0.06	0.25	0.00	0.01	0.02
1994	0.04	0.16		0.03	
1995	0.33				

2000 ALMANAC

Through June 20
1987-99

District Catch	Cumulative through 6/20 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	54	1	0	3
Egegik	149	2	0	7
Nushagak	9	0	0	1
Togiak	3	1	0	5
Ugashik	31	1	0	4
All districts	239	1	0	4

River Escapement	Cumulative through 6/20 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	0	0	0	0
Naknek	0	0	0	0
Egegik	7	0	0	4
Wood	0	0	0	0
Igushik	0	0	0	0
Nushagak	4	1	0	3
Togiak	0	0	0	0
Ugashik	0	0	0	0

Port Moller sockeye index	6/20 daily	Cumulative through 6/20
1987-99		
Average	70	372
Lowest	19	114
Highest	118	762
2000=		

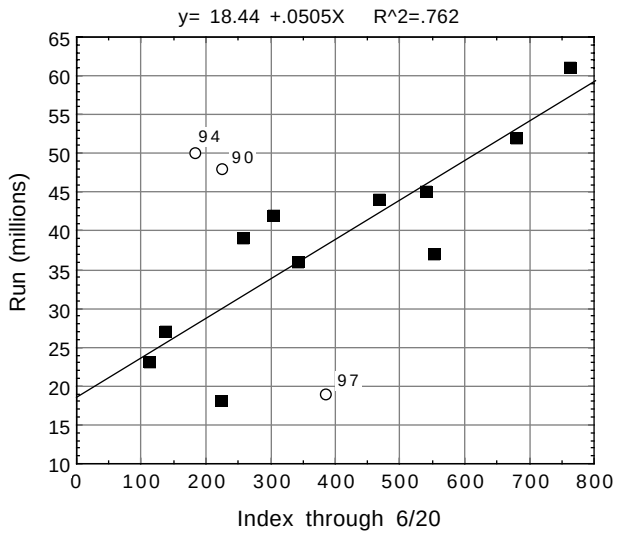
Forecast of total run (millions)

In past years the index through 6/20 accounted for 34% of the variation in Bristol Bay runs (76% excluding 1990, 94 & 97)

(2000 cumulative index)X(.051)+(18.4)= total run

example: if 2000 index was 372 (average for past years) we would forecast the total run by: (372)X(.051)+18.4= 37.4 a run of 37 million

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61



Comments

This is the first date that the Port Moller test fishery catches are used to forecast the total run. Prior to 6/19, Port Moller catches explained less than 50% of the variation in past runs. Sockeye passing Port Moller on this date will arrive in the Bay 6 to 9 days later (main body of the run). If water temperatures at Port Moller are averaging less than 4 C, we would expect a late run and if temperatures are over 8 C we can expect an early run.

There was very little fishing effort through June 20 and , in recent years , little fishing time, so catches were usually small through this date (except for the early run in 1993).

Tower counting usually begins now in the major rivers but few fish are present.

Through June 21
1987-1999

District Catch	Cumulative through 6/21 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	110	2	0	4
Egegik	211	2	0	10
Nushagak	12	0	0	1
Togiak	4	1	0	7
Ugashik	39	1	0	4
All districts	369	2	0	6

River Escapement	Cumulative through 6/21 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	0	0	0	0
Naknek	2	0	0	1
Egegik	22	2	0	10
Wood	1	0	0	1
Igushik	0	0	0	0
Nushagak	5	1	0	3
Togiak	0	0	0	0
Ugashik	0	0	0	0

Port Moller sockeye index	6/21 daily	Cumulative through 6/21
1987-99		
Average	75	447
Lowest	14	128
Highest	144	878
2000=		

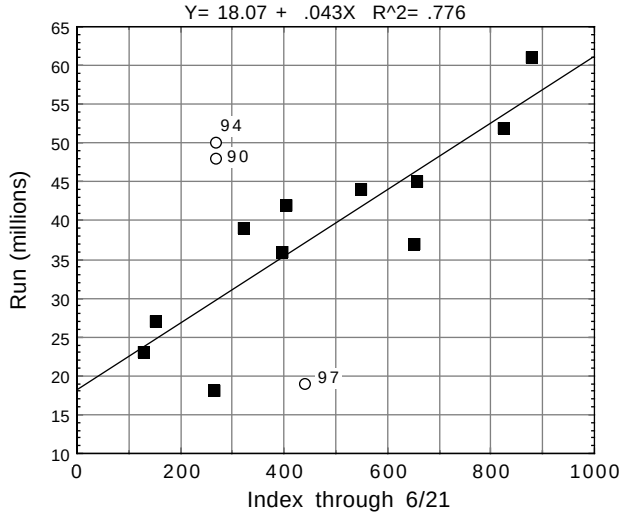
Forecast of total run (millions)

In past years the index through 6/21 accounted for 40% of the variation in Bristol Bay runs (78% excluding 1990, 94 & 97).

(2000 cumulative index)X(.043)+(18.1)= total run

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

example: if 2000 index was 447 (average for past years) we would forecast the total run by: (447)X(.043)+18.1= 37.3 a run of 37 million



Comments

The Port Moller index through June 21, 1994 was only 269 (well below average) yet the run turned out to be 50 million (the 3rd largest in recent years). Except for 1990 &94, the relation between index catch and run is very close. The Port Moller test boat has been blown out 4 out of 13 years on this date.

Bristol Bay catches were usually small on this date (except for the early 1993 run)

There were Egegik escapements on this date only in 1989, 92, 93, 95 & 97. Usually, escapements are in the hundreds of fish this early in the season.

Through June 22
1987-1999

District Catch	Cumulative through 6/22 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	201	3	0	10
Egegik	299	3	0	14
Nushagak	16	0	0	1
Togiak	6	2	0	9
Ugashik	54	2	0	4
All districts	567	2	0	9

River Escapement	Cumulative through 6/22 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	1	0	0	0
Naknek	3	0	0	2
Egegik	43	3	0	20
Wood	2	0	0	1
Igushik	0	0	0	0
Nushagak	6	1	0	4
Togiak	0	0	0	0
Ugashik	0	0	0	0

Port Moller sockeye index	6/22 daily	Cumulative through 6/22
1987-99		
Average	95	538
Lowest	26	154
Highest	188	1012
1999=		

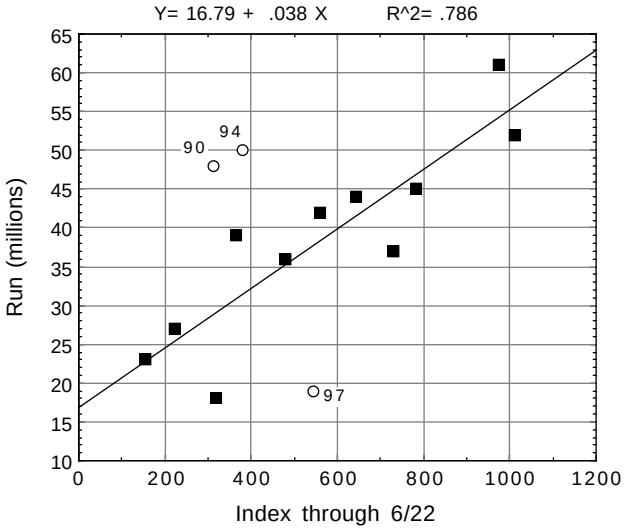
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 6/22 accounted for 40% of the variation in Bristol Bay runs (79% excluding 1990, 94 & 97).

(2000 cumulative index)X(.038)+(16.8)= total run

example: if 2000 index was 1012 (highest for past years) we would forecast the total run by: (1012)X(.038)+16.8= 55.3 a run of 55 million



Comments

In 1988, some fish arrived early in the Bay and provided exceptional catches at Egegik (14% of total catch through 6/22). This led some to expect a large run that unfortunately did not materialize. The low index catches at Port Moller correctly forecast the relatively small run of 23 million. In contrast, the large 1990 & 94 runs were slow to develop, both at Port Moller and in the Bay. The indices through the 22nd (313 & 379) did not indicate runs of 48 & 50 million were on the way.

The high Port Moller index (188) on June 22, 1993 did correctly indicated that a large and early run (52 million) was coming.

Through June 23
1987-1999

District Catch	Cumulative through 6/23 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	246	3	0	11
Egegik	455	5	0	18
Nushagak	35	1	0	5
Togiak	7	2	0	10
Ugashik	63	2	0	4
All districts	796	4	0	11

River Escapement	Cumulative through 6/23 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	0	0	0	0
Naknek	6	0	0	2
Egegik	60	4	0	30
Wood	8	1	0	3
Igushik	1	0	0	1
Nushagak	9	2	0	5
Togiak	0	0	0	0
Ugashik	0	0	0	0

Port Moller sockeye index	6/23 daily	Cumulative through 6/23
1987-99		
Average	94	632
Lowest	28	181
Highest	152	1135

2000=

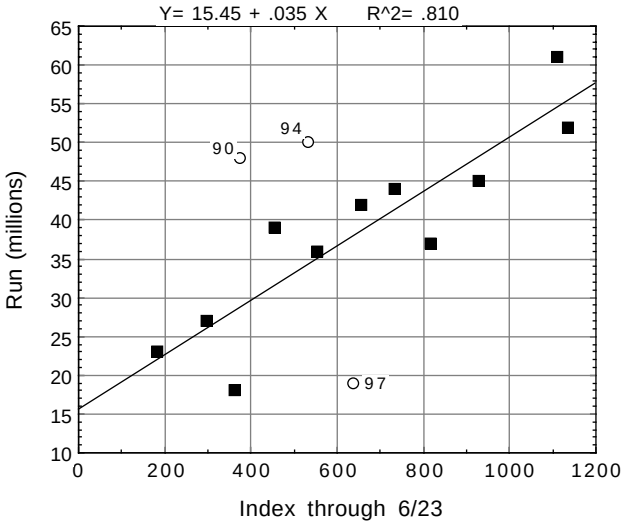
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 6/23 accounted for 44% of the variation in Bristol Bay runs (71% excluding 1990 & 94).

(2000 cumulative index)X(.034)+(16.2)= total run

example: if the2000 index was 181 (lowest for past years) we would forecast the total run by: (181)X(.034)+16.2= 22.3
a run of 22 million



Comments

The accuracy of forecasts from the Port Moller catches through 6/23 is still rather poor because of the 1990, 94 & 97 indices and runs (374, 531, & 637) with runs of 48, 50 &19 million); however, for other years, there has been a very close correlation between the index and the final run.

There were major fishery openings on this date in only 6 of the past 13 years. The catches were 311,000 (88), 569,000 (89), 432,000 (92), 379,000 (93), 444,000 (95) & 419,000 (97). There was only one opening (1993) in the Nushagak over the past 13 years on 6/23.

Escapements are just beginning at Naknek and Wood River towers. Egegik has had 2,000 or more past the tower on this date in 9 of the past 13 years. The largest daily escapement at Egegik in 1993 (156,000) occurred on this early date.

Through June 24
1987-1999

District Catch	Cumulative through 6/24 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	257	3	0	11
Egegik	585	6	0	18
Nushagak	41	1	0	5
Togiak	8	3	0	10
Ugashik	60	2	0	4
All districts	943	4	0	11

River Escapement	Cumulative through 6/24 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	3	0	0	1
Naknek	13	1	0	5
Egegik	77	5	0	36
Wood	9	1	0	7
Igushik	2	1	0	3
Nushagak	18	4	0	13
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/24 daily	Cumulative through 6/24
Average	108	740
Lowest	50	231
Highest	180	1234

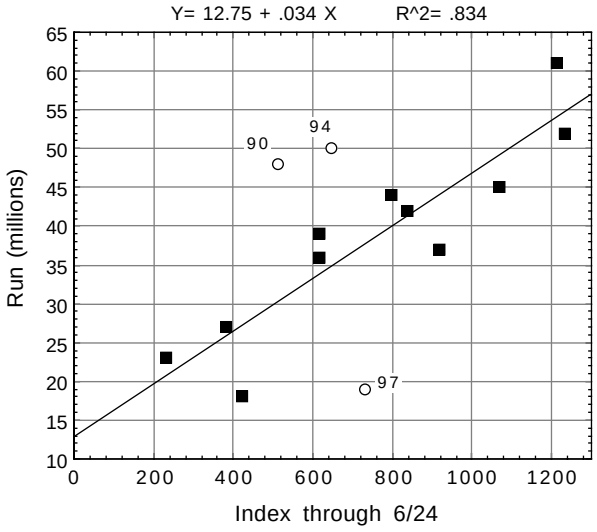
Forecast of total run (millions)

In past years the index through 6/24 accounted for 49% of the variation in Bristol Bay runs (83% excluding 1990, 94 & 97).

2000= **(2000 cumulative index)X(.034)+(12.7)= total run**

example: if 2000 index was 740 (average for past years) we would forecast the total run by: (740)X(.034)+12.7= 37.9 a run of 38 million

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61



Comments

The relation between the Port Moller index catch and the total Bristol Bay run improves on this date, but the 1990, 94 & 97 indices and runs are still unusual. The test boat has been blown out on the 24th 4 times in the past 13 years. Sockeye passing Port Moller on this date will arrive in Bristol Bay about July 1-2.

There have been only two major fishery openings on this date (Egegik, 93 & 96) during the past 13 years. On average, 4% of the Nushagak runs, 6% of the Nak/Kvichak runs, and 8% of the Egegik runs passed through the fishing district by this date.

The Naknek tower count was 1,000 or more on this date in every year except 1987, whereas the Kvichak tower count was less than 1,000 except in 1992, 93, and 97.

Through June 25
1987-1999

District Catch	Cumulative through 6/25 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	278	4	0	12
Egegik	892	9	0	18
Nushagak	77	2	0	6
Togiak	9	3	0	10
Ugashik	74	2	0	6
All districts	1327	6	1	13

River Escapement	Cumulative through 6/25 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	10	0	0	1
Naknek	41	3	0	12
Egegik	95	7	0	41
Wood	33	2	0	11
Igushik	4	1	0	4
Nushagak	26	5	1	16
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/25 daily	Cumulative through 6/25
Average	99	839
Lowest	22	253
Highest	232	1466

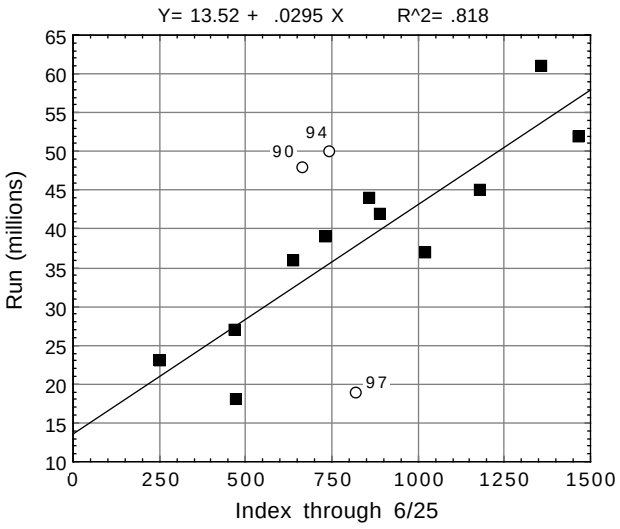
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 6/25 accounted for 52% of the variation in Bristol Bay runs (82% excluding 1990, 94 &97)

2000= **(2000 cumulative index)X(.030)+(13.5)= total run**

example: if 2000 index was 1466 (highest for past years) we would forecast the total run by: (1466)X(.030)+13.5= 57.5 a run of 57 million



Comments

This is the first date on which we made forecasts from Port Moller index catches in past years. The relation between index and run is now fairly close as we are about 3 days from the mid point of the run at Port Moller.
About this time we will compare the age composition of sockeye at Port Moller with the pre-season forecasts and the average lengths by age & sex will be examined--small fish=large run, large fish= small run.

There were major fishery openings on this date in 8 of the past 13 years. Catches were 200,000 in 1987 & 1989; 700,000 in 1992; 1,200,000 in 1993; 130,000 in 1994; 1 million in 1995 and 1996; and 260,000 in 1997.
Escapements are usually just under way, an exception was in 1993 with 10% of the total by 6/25

Through June 26
1987-1999

District Catch	Cumulative through 6/26 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	385	5	0	16
Egegik	1026	9	0	23
Nushagak	128	3	0	10
Togiak	10	4	0	16
Ugashik	81	3	0	6
All districts	1622	7	1	17

River Escapement	Cumulative through 6/26 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	40	1	0	4
Naknek	77	6	0	18
Egegik	129	9	0	48
Wood	56	4	0	14
Igushik	7	2	0	6
Nushagak	41	8	1	19
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/26 daily	Cumulative through 6/26
Average	93	932
Lowest	28	305
Highest	158	1624

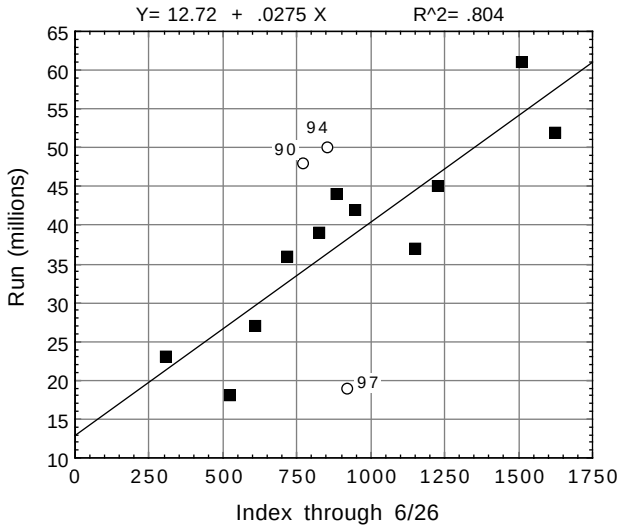
Forecast of total run (millions)

In past years the index through 6/26 accounted for 53% of the variation in Bristol Bay runs (80% excluding 1990, 94 & 97).

2000= **(2000 cumulative index)X(.0275)+(12.7)= total run**

Bristol Bay runs 1987-99	
Average	39
Lowest	19
Highest	61

example: if 2000 index was 932 (average for past years) we would forecast the total run by: (932)X(.0275)+12.7= 38.3 a run of 38 million



Comments

The weather at Port Moller was fishable on this this date every year except 1993. We are about 2 days before the mid point in the run at Port Moller (average timing).

There were only 4 major fishery openings on this date: 1989 (695,000); 1993 (all districts 1,155,000); 1995 (991,000); and 1996 (1,005,000).

On the average through 6/26, 8% of the Nushagak run, 10% of the Naknek/Kvichak run, and 14% of the Egegik run had passed through the fishing district. However in 1993, 17%, 19% and 24% of these runs were through the districts. At the other extreme, only 1% of the BB run was through the districts by 6/26 in 1986.

Through June 27
1987-1999

District Catch	Cumulative through 6/27 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	571	7	0	21
Egegik	1360	13	0	27
Nushagak	178	5	0	13
Togiak	13	5	0	22
Ugashik	82	3	0	6
All districts	2201	8	1	21

River Escapement	Cumulative through 6/27 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	109	2	0	8
Naknek	109	8	0	20
Egegik	165	11	0	51
Wood	87	7	0	20
Igushik	14	4	0	9
Nushagak	59	13	1	29
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/27 daily	Cumulative through 6/27
Average	104	1036
Lowest	48	353
Highest	158	1783

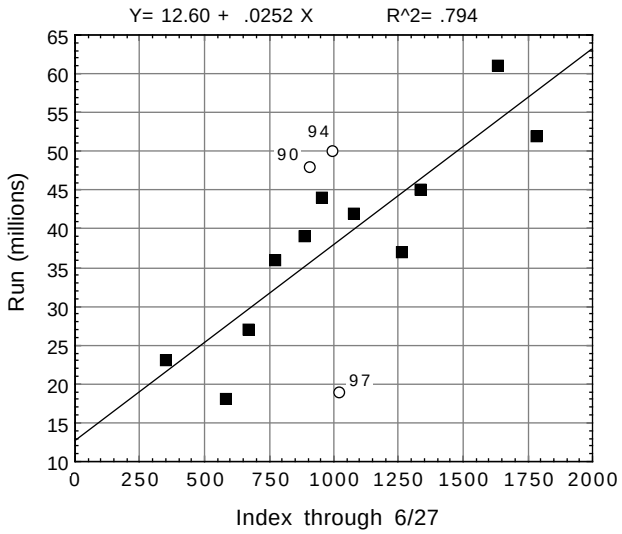
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 6/27 accounted for 54% of the variation in Bristol Bay runs (79% excluding 1990, 94 & 97).

1999= **(2000 cumulative index)X(.025)+(12.6)= total run**

example: if 2000 index was 353 (lowest for past years) we would forecast the total run by: (353)X(.025)+12.6= 21.4 a run of 21 million



Comments

Sockeye passing Port Moller on this date usually take about 7 days to reach the fishing districts. Earlier (6/11-15) the fish take longer (8-10 days) because temperatures are usually colder. The sockeye may take only 5-6 days to reach the districts in July.

On this date, there were only 3 major openings in the Nushagak (1992,1993, 1995; ca 170,000 ea) and in Naknek/Kvichak (1988, 361,000; 1993, 470,000 and 1995, 1.1 million) however, there have been 8 openings at Egegik since 1987 with an average catch of 528,000.

The average BB cumulative catch plus escapement on this date was 2.7 million. An average of 7% of the annual runs were accounted for by the C+E through 6/27 as reported by ADF&G.

Through June 28
1987-1999

District Catch	Cumulative through 6/28 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	704	8	0	29
Egegik	1710	16	0	33
Nushagak	266	6	0	18
Togiak	15	6	0	26
Ugashik	83	3	1	6
All districts	2769	10	1	26

River Escapement	Cumulative through 6/28 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	190	4	0	14
Naknek	209	10	0	22
Egegik	212	115	0	52
Wood	113	8	0	28
Igushik	26	7	0	14
Nushagak	75	15	2	40
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/28 daily	Cumulative through 6/28
Average	138	1172
Lowest	33	386
Highest	284	1973
2000=		

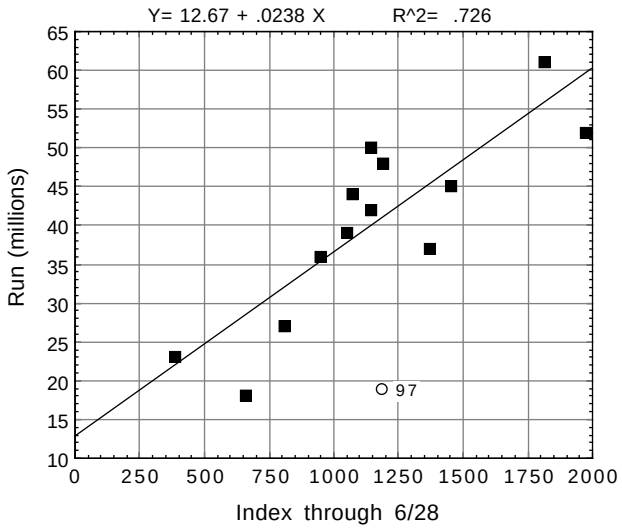
Forecast of total run (millions)

In past years the index through 6/28 accounted for 73% of the variation in Bristol Bay runs and all years,except 97, are included in forecasting from this date on.

(2000 cumulative index)X(.024)+(12.7)= total run

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

example: if 2000 index was 1172 (average for past years) we would forecast the total run by: (1172)X(.024)+12.7= 40.8, a run of 41 million



Comments

The average daily index catch (sum of catches at stations 2-8) has been highest on the 28th to 30th, which is about the mid point in the run past Port Moller. The largest recorded daily indices were 284 made on 6/28/90 and 287 made on 6/30/93.

Prior to 1993, when all districts were open with a total catch of 2.2 million, there had been only one major opening on this date for: Egegik (1989; 1.2 million), Naknek/Kvichak (1985; 1.1 miliion), and Nushagak (1988; 181,000) since 1985.
The total BB catch in 1995 was 1.9 million on 6/28.

This has usually been the first date of large escapement to the Kvichak (50,000+); however, there was no escapement through 6/28 in 1986, 87 and1999, and only 5,000 in 1990 and 24,000 in 1994. Naknek has had over 100,000 escapement by 6/28 except in 1987, 94 and 97-99.

Through June 29
1987-1999

District Catch	Cumulative through 6/29 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	1106	11	0	34
Egegik	2132	20	0	41
Nushagak	390	9	0	26
Togiak	20	8	0	31
Ugashik	128	4	1	12
All districts	3673	14	1	32

River Escapement	Cumulative through 6/29 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	271	5	0	21
Naknek	209	14	0	32
Egegik	259	18	0	53
Wood	147	11	1	33
Igushik	36	9	0	19
Nushagak	87	8	2	45
Togiak	0	0	0	0
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/29 daily	Cumulative through 6/29
Average	118	1291
Lowest	75	472
Highest	217	2085

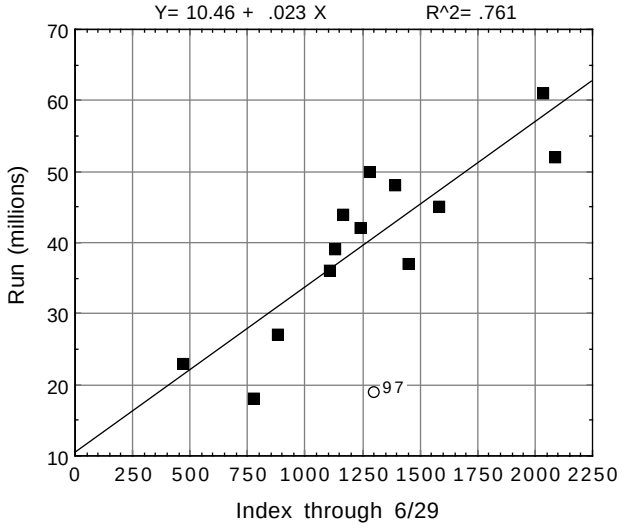
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 6/29 accounted for 76% of the variation in Bristol Bay runs, excluding 1997.

2000= **(2000 cumulative index)X(.023)+ (10.5)= total run**

example: if the 2000 index was 2085 (highest for past years) we would forecast the total run by: (2085)X(.023)+10.5= 58.5, a run of 58 million



Comments

The middle of the Bristol Bay run passes Port Moller at this time and index catches have been relatively high in all years. Forecasts from the Port Moller daily cumulative index catches have about the same reliability from 6/29 to 7/3.

Fishery openings on this date in either the Naknek/ Kvichak or Egegik districts have produced an average of 600,000 fish. There were only four Nushagak openings on 6/29 since 1987: 1989 (350,000), 93 (570,000),95 (180,000) & 96 (500,000).

On the average, the cumulative catch plus escapement through 6/29 has accounted for 12% of the final run (range: 2%-30%).

Through June 30
1987-1999

District Catch	Cumulative through 6/30 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	1364	14	0	39
Egegik	2624	25	4	42
Nushagak	498	12	0	32
Togiak	27	6	0	34
Ugashik	143	4	0	12
All districts	4642	17	2	35

River Escapement	Cumulative through 6/30 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	371	7	0	23
Naknek	299	18	2	38
Egegik	309	21	1	53
Wood	197	15	1	39
Igushik	46	12	0	28
Nushagak	107	21	2	52
Togiak	0	0	0	2
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	6/30 daily	Cumulative through 6/30
Average	144	1435
Lowest	20	523
Highest	287	2372

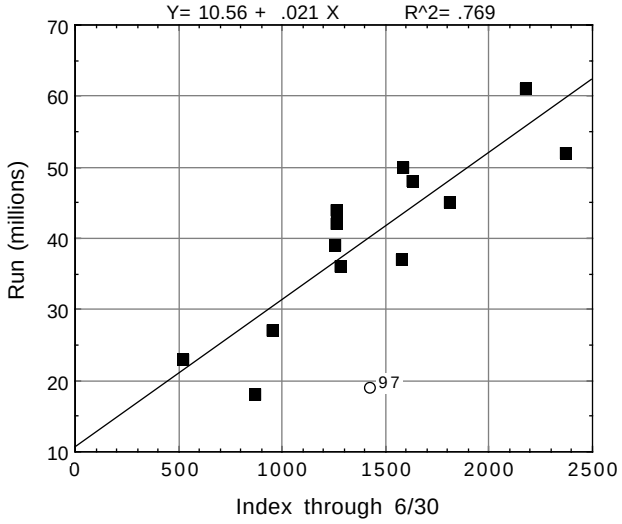
Forecast of total run (millions)

In past years the index through 6/30 accounted for 77% of the variation in Bristol Bay runs, excluding 1997.

2000= **(2000 cumulative index)X(.021)+ (10.6)= total run**

Bristol Bay run 1987-99	
Average	39
Lowest	18
Highest	61

example: if the 2000 index was 1435 (average for past years) we would forecast the total run by: (1435)X(.021)+10.6= 40.7, a run of 41 million



Comments

There was an unusually low index on this date in 1991 (20), but index catches averaged 150 in other years. With average or early run timing, a forecast by district can be made with statistics through 6/30 (forecast made on 7/1). With district forecasts, we can then forecast the total Bristol Bay catch.

On the average since 1987, 19% of the Bristol Bay catch was made by the 30th; however, 22% of the Nushagak runs, 26% of the Naknek/Kvichak runs and 31% of the Egegik runs passed through the fishing district by 6/30. In a very early run in 1979, over 50% of the Bristol Bay run was through the districts by the 30th; in contrast, in the late run of 1971, less than 10% of the run was in the districts by the 30th.

Through July 1
1987-1999

District Catch	Cumulative through 7/1 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	1832	20	0	42
Egegik	3203	31	4	57
Nushagak	695	18	3	35
Togiak	35	11	1	34
Ugashik	185	5	1	18
All districts	5930	23	4	40

River Escapement	Cumulative through 7/1 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	509	9	0	25
Naknek	415	25	3	51
Egegik	372	25	4	58
Wood	250	19	1	42
Igushik	56	14	1	37
Nushagak	130	26	4	58
Togiak	1	1	0	5
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	7/01 daily	Cumulative through 7/01
Average	119	1554
Lowest	26	568
Highest	187	2547

2000=.

Bristol Bay runs 1987-99

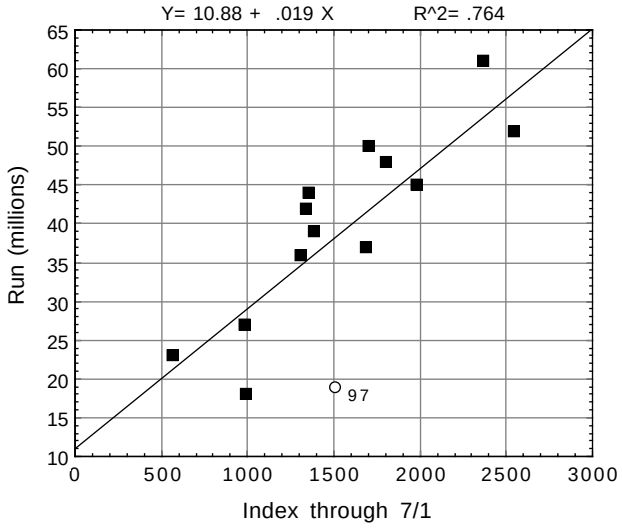
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 7/1 accounted for 76% of the variation in Bristol Bay runs, excluding 1997.

(2000 cumulative index)X(.019) + (10.9)= total run

example: if the2000 index was 568 (lowest for past years) we would forecast the total run by: (568)X(.019) +10.9 = 21.7, a run of 22 million



Comments

Over the past 13 years with runs over 40 million, the daily index catches ranged from 79 to 187 on July 1 and the cumulative indices were over 1340.

The average cumulative catch + escapement through 7/1 was 20% of the total Bristol Bay run (range: 3% in 1994 and 37% in 1993).

By July1, the Kvichak escapements were under way except in1994. In 1989 and 1993, 25% of the total escapement passed the tower by 7/1.

On average, 37% of the Egegik runs, 33% of Naknek/ Kvichak runs, and 28% of Nushagak runs have passed through the fishing districts by July 1.

Through July 2
1987-1999

District Catch	Cumulative through 7/2 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	2572	29	2	67
Egegik	4075	40	16	58
Nushagak	939	23	3	48
Togiak	42	12	1	34
Ugashik	239	7	1	22
All districts	7843	29	10	53

River Escapement	Cumulative through 7/2 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	750	13	0	31
Naknek	537	32	12	65
Egegik	439	29	7	58
Wood	342	25	4	49
Igushik	70	18	1	48
Nushagak	160	33	9	61
Togiak	1	1	0	8
Ugashik	0	0	0	0

1987-99 Port Moller sockeye index	7/02 daily	Cumulative through 7/02
Average	116	1669
Lowest	27	614
Highest	242	2789

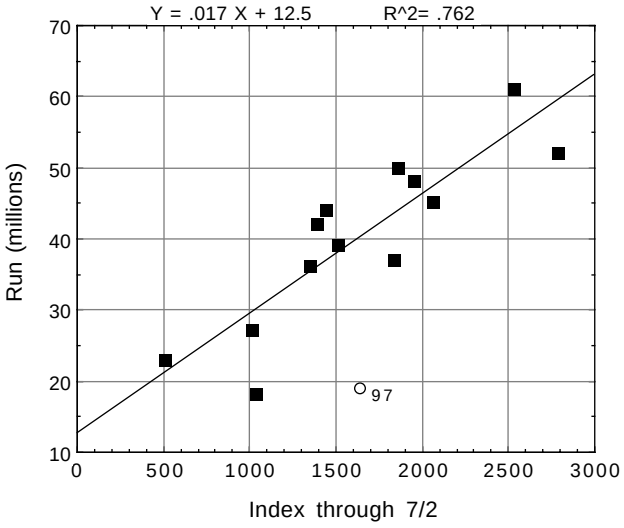
Forecast of total run (millions)

In past years the index through 7/2 accounted for 76% of the variation in Bristol Bay runs, excluding 1997.

2000= **(2000 cumulative index)X(.017) + (12.5)= total run**

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

example: if the 2000 index was 2789 (highest for past years) we would forecast the total run by: (2789)X(.017)+12.5= 59.9, a run of 60 million



Comments

The Egegik fishery was open 11 of the past 13 years on 7/2 and the catches ranged from 330,000 to 2.7 million. The average Bristol Bay catch on this date was 1.9 million. The all-time record single-day catch in Bristol Bay (5.3 million) was on 7/2/93. The Nushagak has had a major opening on 7/2 in only 7 of the past 13 years.

Although an average of 30% of the seasons catch was made by 7/2, 43% of the Egegik runs, 40% of the Naknek/Kvichak runs and 34% of the Nushagak runs had passed through the fishing districts by July 2. Escapements have come more from the early part of the runs while catches have come from the later part.

Total catch + escapement through July 2 has averaged 26% of the final run (1987-99 range: 8%-48%).

Through July 3
1987-1999

District Catch	Cumulative through 7/3 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	2998	31	2	67
Egegik	4572	44	23	66
Nushagak	1216	31	3	58
Togiak	50	16	2	34
Ugashik	304	9	1	26
All districts	9110	33	13	59

River Escapement	Cumulative through 7/3 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	1068	19	3	40
Naknek	667	41	15	74
Egegik	547	35	13	60
Wood	474	36	8	65
Igushik	83	22	2	53
Nushagak	200	41	16	71
Togiak	2	1	0	11
Ugashik	1	0	0	0

1987-99 Port Moller sockeye index	7/03 daily	Cumulative through 7/03
Average	134	1804
Lowest	23	637
Highest	234	2849

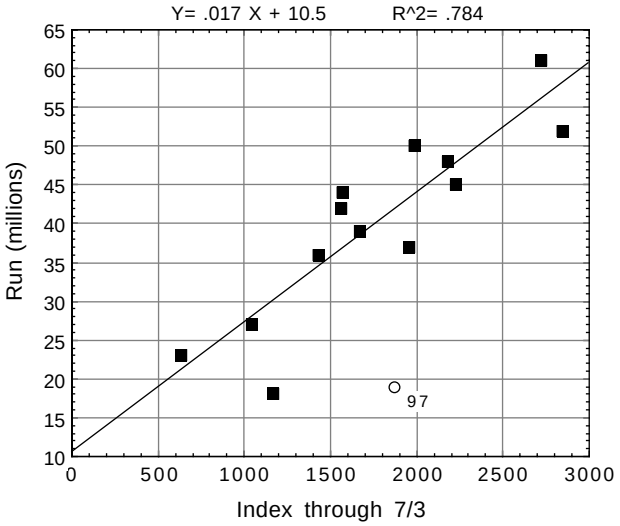
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 7/3 accounted for 78% of the variation in Bristol Bay runs, excluding 1997.

2000= **(2000 cumulative index)X(.017) + (10.5)= total run**

example: if the 2000 index was 2849 (highest for past years) we would forecast the total run by: (2849)X(.017)+10.5 = 58.9, a run of 59 million



Comments

The middle part of the Bristol Bay run is still passing Port Moller on July 3 and the daily index catches have been over 60 when a large run was on the way.

Major openings at Egegik have produced an average catch of about 1 million on 7/3. The Nushagak was open each of the past 13 years on 7/3 and catches averaged 283,000 per opening. Sockeye have usually arrived inside Ugashik Bay by July 3. Openings in 1993, 1995 and 1996 produced catches of 260,000, 215,000 and 198,000.

Total catch and escapement through July 3 as reported by ADF&G, has averaged 31% of the final run.

In 12 of the past 13 years the Naknek and Egegik escapements have exceeded 300,000 by 7/3.

Through July 4
1987-1999

District Catch	Cumulative through 7/4 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	3508	36	2	73
Egegik	5202	51	27	73
Nushagak	1386	35	3	61
Togiak	61	18	4	38
Ugashik	421	12	2	33
All districts	10540	38	16	64

River Escapement	Cumulative through 7/4 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	1490	21	10	53
Naknek	797	50	22	80
Egegik	664	41	25	66
Wood	610	45	13	73
Igushik	101	27	8	55
Nushagak	243	50	25	81
Togiak	3	2	0	13
Ugashik	3	0	0	1

1987-99 Port Moller sockeye index	7/04 daily	Cumulative through 7/04
Average	109	1912
Lowest	22	659
Highest	197	2928

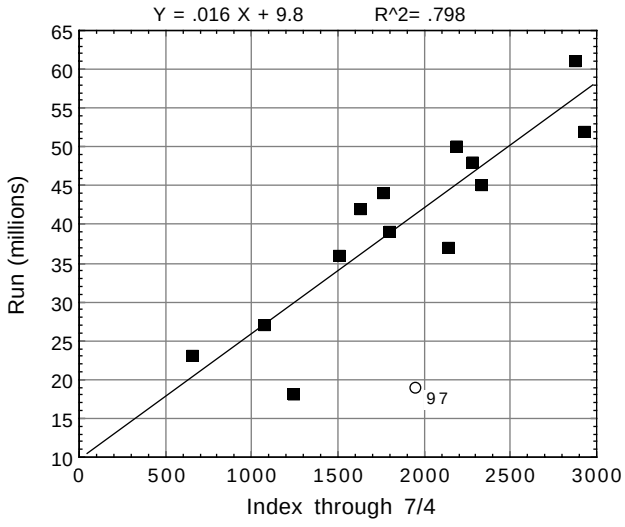
Forecast of total run (millions)

In past years the index through 7/4 accounted for 80% of the variation in Bristol Bay runs, excluding 1997

2000= **(2000 cumulative index)X(.016) + (9.8)= total run**

Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

example: if the 2000 index was 1912 (average for past years) we would forecast the total run by: (1912)X(.016)+9.8 = 40.4, a run of 40 million



Comments

Numbers of sockeye passing Port Moller should start declining after this date. Forecasts from the cumulative index catches have the greatest reliability for today and the next 2 days, because past indices have accounted for about 80% of the variation in the Bristol Bay runs (the data points on the graphs are close to the prediction line).

July 4 is the half way point in the average Egegik and Naknek/Kvichak run (July 5 for the Nushagak); however, only 36% of the average Naknek/Kvichak catch was made by July 4 over the past 13 years.

Total Bristol Bay catch + escapement through July 4 averaged 37% of the final runs since 1987 (range: 16% in 1994 to 60% in 1993).

The largest single day's escapement of 1.7 million was recorded on this date in 1994.

Through July 5
1987-1999

District Catch	Cumulative through 7/5 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	4192	42	2	78
Egegik	5770	56	36	78
Nushagak	1626	41	12	67
Togiak	72	20	5	45
Ugashik	522	15	2	43
All districts	12144	45	21	70

River Escapement	Cumulative through 7/5 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	1903	34	14	65
Naknek	884	56	29	81
Egegik	772	47	29	70
Wood	704	52	15	79
Igushik	127	33	11	58
Nushagak	271	56	28	87
Togiak	5	3	0	15
Ugashik	11	1	0	15

1987-99 Port Moller sockeye index	7/05 daily	Cumulative through 7/05
Average	106	2018
Lowest	30	707
Highest	143	3028

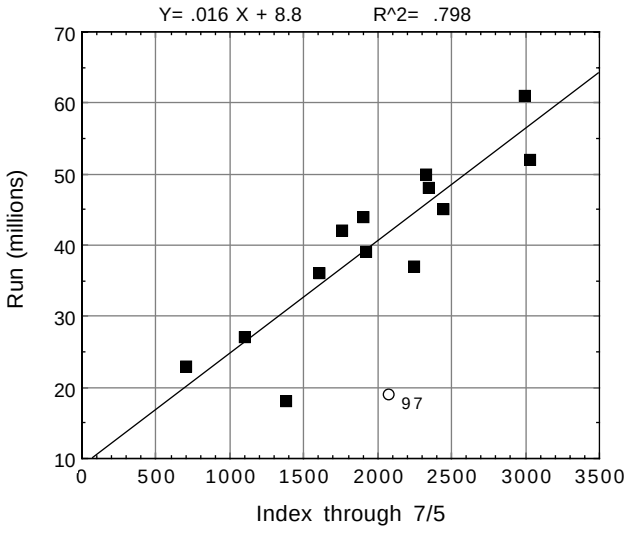
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 7/5 accounted for 80% of the variation in Bristol Bay runs, excluding 1997.

2000= **(2000 cumulative index)X(.016) + (8.8)= total run**

example: if the 2000 index was 3028 (highest for past years) we would forecast the total run by: (3028)X(.016)+8.8= 57.2, a run of 57 million



Comments

Sockeye passing Port Moller today should be in the fishing districts about the 11th or 12th.

The Ugashik runs are usually well under way by now but few fish are past the tower. Ugashik catches on 7/5 have averaged about 282,000. The Egegik run is still near the peak and catches have averaged 782,000 on this date, whereas Naknek/Kvichak catches averaged 856,000. There have been 7 openings on the 5th in the Nushagak district, and catches on those openings averaged 348,000.

Escapement goals are usually assured by July 5 in Egegik, Naknek and Wood River, although the goals (1 million) may not be reached until another 2 or 3 days.

52% of the Nushagak runs have usually passed through the fishery by July 5.

Through July 6
1987-1999

District Catch	Cumulative through 7/6 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	4823	47	2	82
Egegik	6273	61	44	83
Nushagak	1845	48	13	73
Togiak	83	23	7	45
Ugashik	686	20	2	54
All districts	13703	50	25	75

River Escapement	Cumulative through 7/6 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	2275	41	20	71
Naknek	955	61	42	82
Egegik	898	51	31	78
Wood	774	57	20	83
Igushik	154	40	13	61
Nushagak	296	61	34	90
Togiak	8	4	0	16
Ugashik	24	2	0	15

1987-99 Port Moller sockeye index	7/06 daily	Cumulative through 7/06
Average	108	2127
Lowest	23	730
Highest	182	3177

2000=

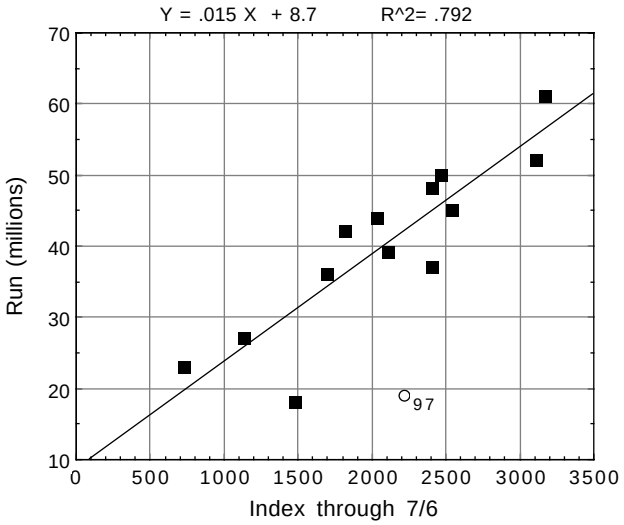
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In past years the index through 7/6 accounted for 794% of the variation in Bristol Bay runs, excluding 1997.

(2000 cumulative index) X (.015) + (8.7)= total run

example: if the 2000 index was 2127 (average for past years) we would forecast the total run by: (2127)X(.015)+8.7 = 40.6, a run of 41 million



Comments

Sockeye catches at Port Moller were still relatively high on this date except in 1988 (year of the small run). The cumulative indices show a very close correlation with past runs, except for 1997.

Over half of the Egegik catch has been made by July 6 and half of the total Bristol Bay catch (50%) since 1987. For the years with openings on 7/6, Nushagak catches averaged 360,000; Egegik catches averaged 839,000 and Naknek/Kvichak catches averaged 900,000. For 7 openings on this date in Ugashik the catches averaged 267,000.

On the average, 45% of the Bristol Bay escapement was counted by 7/6 and the total catch + escapement as reported by ADF&G through July 6 averaged 48% the final runs (range: 30% in 1994 to 71% in 1993).

Through July 7
1987-1999

District Catch	Cumulative through 7/7 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	5351	52	11	87
Egegik	6812	67	52	87
Nushagak	2158	55	39	78
Togiak	95	26	7	56
Ugashik	889	25	2	62
All districts	15234	55	37	80

River Escapement	Cumulative through 7/7 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	2637	47	29	79
Naknek	1019	67	51	83
Egegik	1025	62	41	86
Wood	869	64	22	86
Igushik	176	45	17	69
Nushagak	339	68	38	93
Togiak	13	6	0	23
Ugashik	46	5	0	29

1988-89, 1991-99 Port Moller sockeye index	7/07 daily	Cumulative through 7/07
only 8 years		
Average	74	2272
Lowest	39	769
Highest	108	3283
2000=		

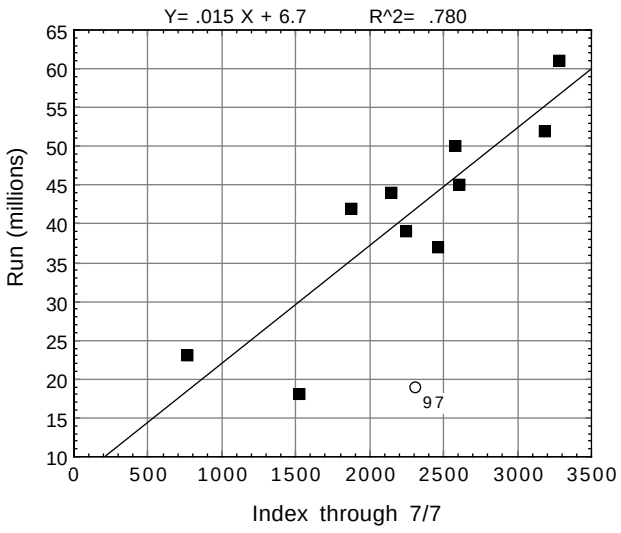
Bristol Bay runs 1987-99	
Average	39
Lowest	18
Highest	61

Forecast of total run (millions)

In the 10 available years the index through 7/7 accounted for 78% of the variation in Bristol Bay runs, excluding 1997.

(2000 cumulative index) x (.015) + (6.7)=(total run)

example: if the 2000 index was 2272 (average for 9 years) we would forecast the total run by (2272)X(.015) + 6.7 = 40.8 a run of 41 million



Comments

Sockeye salmon passing Port Moller today and tomorrow will probably be in the fishing districts by July 15.

This forecast is based only on 9 years but in another year or two we will make daily forecasts through July 8.

On the average through July 7 (1987-97), 64% of the Egegik runs, 68% of the Naknek/Kvichak runs, and 63% of the Nushagak runs had passed through the fishing districts, but only 66%, 52% and 56% of the catches were made by July 7. Fishing is usually continuous from now until July 20.

Total Bristol Bay catch + escapement through July 7 as reported by ADF&G averaged 54% of the final runs (range: 38% in 1994 to 77% in 1993).

About half of the Kvichak escapement was reached by this date and most escapement goals are assured by 7/7.

Through July 8
1987-1999

District Catch	Cumulative through 7/8 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	5336	56	11	90
Egegik	7239	70	58	90
Nushagak	2389	61	39	83
Togiak	109	30	8	67
Ugashik	1059	30	2	73
All districts	16511	60	43	85

River Escapement	Cumulative through 7/8 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	3034	54	32	86
Naknek	1095	73	62	86
Egegik	1023	69	46	94
Wood	951	70	24	91
Igushik	198	51	18	75
Nushagak	361	73	41	94
Togiak	17	8	0	31
Ugashik	90	8	0	37

1991-98 Port Moller sockeye index	7/08 daily	Cumulative through 7/08	Forecast of total run (millions)
only 8 years			
Average	79	2557	
Lowest	33	1595	
Highest	120	3336	No forecast until more years sampled on this date.
1999=			

Bristol Bay runs 1991-98	
Average	40
Lowest	18
Highest	61

Comments

Bristol Bay catch + escapement through 7/8 has averaged 59% of the final run with a range of 45% in 1994 to 81% in 1993.

The second largest single day escapement of 1.56 million was recorded on this date in 1995.

In an average year, 72% of the Naknek/Kvichak, 74% of Egegik, and 70% of the Nushagak runs have passed through the fishing disctricts by this date.

Cumulative catch+escapement through 7/8 can be used to predict the final run (millions) from: Run = 1.22 x (catch+escapement) + 10.4.
e.g. if cumulative C+E was 10 million through 7/8 we would predict a final run of 22.4 million and if the cumulative C+E was 25 million we would predict a final run of 40.9 million

Through July 9
1987-1999

District Catch	Cumulative through 7/9 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	6323	60	17	93
Egegik	7601	74	62	93
Nushagak	2659	66	51	88
Togiak	119	32	8	73
Ugashik	1419	42	2	79
All districts	18008	66	51	89

River Escapement	Cumulative through 7/9 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	3408	60	39	90
Naknek	1158	78	66	87
Egegik	1202	73	52	96
Wood	1028	76	44	93
Igushik	219	57	20	80
Nushagak	377	77	48	95
Togiak	22	11	0	36
Ugashik	170	13	0	42

1991-95, 98 Port Moller sockeye index	7/09 daily	Cumulative through 7/09	Forecast of total run (millions)
only 6 years			
Average			
Lowest	43	1693	
Highest	98	3424	No forecast until more years sampled on this date.
1999=			

Bristol Bay runs 1991-98	
Average	
Lowest	18
Highest	61

Comments

Bristol Bay catch + escapement through 7/9 has averaged 65% of the final run with a range of 55% in 1994 to 86% in 1993.

In the average year, 63% of the final Bristol Bay escapement was accumulated by July 9.

Togiak and Ugashik escapement counts were under way by this date in 10 of the past 13 years.

The Ugashik fishery has been open on July 9 each year since 1987 and the average catch has been 366,000 with a range of 183,000 in 1997 to 569,000 in 1994.

Through July 10
1987-1999

District Catch	Cumulative through 7/10 average 1,000s	Percent of season total (%) Average	Low	High
Naknek/Kvichak	6829	64	25	94
Egegik	7559	78	72	95
Nushagak	2916	74	58	91
Togiak	133	37	11	73
Ugashik	1539	47	21	81
All districts	18074	71	58	92

River Escapement	Cumulative through 7/10 average 1,000s	Percent of season total (%) Average	Low	High
Kvichak	3761	68	46	92
Naknek	1207	82	69	90
Egegik	1276	78	62	96
Wood	1097	81	56	95
Igushik	237	62	24	82
Nushagak	397	81	56	96
Togiak	27	13	0	39
Ugashik	243	19	0	69

Port Moller sockeye index	7/10 daily	Cumulative through 7/10	Forecast of total run (millions)
only one year			
Average			
Lowest			
Highest			No forecast from Port Moller available for this date
1999= ?			

Bristol Bay runs 1987-98	
Average	39
Lowest	18
Highest	61

Comments

Bristol Bay catch + escapement through 7/10 has averaged 70% of the final run with a range of 61% in 1988 & 98 to 89% in 1993.

In the average year, 68% of the final Bristol Bay escapement was also accumulated by July 10.

82% of the Egegik and Naknek/Kvichak runs and 80% of the Nushagak runs have passed through the fishing districts by midnight of July 10 with average run timing.

In 10 of the past 13 years the escapement to Egegik through July 10 had exceeded the escapement goal. The same has occurred at Naknek in 7 of the13 years. The escapement goal to Wood River was assured by July 10 in 12 of the past 13 years and in 7 of the years the escapement exceeded the goal.

The final run (millions)= 1.184x(C+E) + 6.2. If C+E is 20 million, the final run is predicted as 30 million.