

**TECHNICAL FISHERY REPORT 92-08**

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Alaska Department of Fish and Game  
Division of Commercial Fisheries  
P.O. Box 25526  
Juneau, Alaska 99802-5526

August 1992

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**Alaska Peninsula and Aleutian Islands Management Area  
Commercial Salmon Catch and Escapement Statistics, 1990**

**by  
Robert L. Murphy**

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ALASKA PENINSULA AND ALEUTIAN ISLANDS MANAGEMENT  
AREAS COMMERCIAL SALMON CATCH AND ESCAPEMENT STATISTICS, 1990

By

Robert L. Murphy

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## **ACKNOWLEDGMENTS**

Special thanks to ADF&G employees Tracy McKinion, Dave Almond, Louie McQueen, Mark Weinberger, Gregory Gregg, Lisa Lafe, Toni Abagian, and Amy Emerson for their efforts in collecting catch sampling data. Malcolm Bennet, Jon Goodwin, Judy Brandt, Andy deValpine, Brian Westgate, J.D. Johnson, Bob Zanella, and Dave Skordellis assisted in collection of escapement samples. The Alaska Peninsula and Aleutian Islands Management Areas staff, Arnie Shaul and Jim McCullough, provided portions of the catch and escapement data used in this report. Steve Krueger and Mark Stopha were helpful producing fish ticket summaries. Hal Terry and Dave Henley provided aircraft support. Peter Pan Seafoods Inc. personnel at Port Moller and King Cove were extremely helpful in all phases of the project. Patti Roche opscanned, edited, and produced database files. Thanks also to Bruce Barrett for providing supervisory support and editorial assistance, and to Lucinda Neel for administrative and clerical support.

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## ABSTRACT

The 1990 Alaska Peninsula and Aleutian Islands Management Areas commercial salmon catch was 10,364,494 salmon, consisting of 28,823 chinook *Oncorhynchus tshawytscha*, 4,813,884 sockeye *O. nerka*, 3,661,830 pink *O. gorbuscha*, 1,361,530 chum *O. keta*, and 498,433 coho *O. kisutch* salmon. The catch was 21% below the 1980-1989 average of 13,157,092 salmon. The South Peninsula area accounted for 66% of the catch, the North Peninsula area 32%, and Aleutian Islands area <2%. About 57% of the chinook, 50% of the sockeye, 78% of the pink, 91% of the chum, and 61% of the coho salmon were caught in the South Peninsula.

The Alaska Peninsula and Aleutian Islands Management Areas 1990 escapement for streams monitored was an estimated 4,681,207 salmon, consisting of 11,234 chinook, 1,303,153 sockeye, 2,285,497 pink, 741,802 chum, and 339,696 coho salmon. The 1990 escapement was 18% above the 1989 escapement estimate of 3,854,856. The 1990 chinook escapement was 17% lower than the 1989 escapement, the sockeye escapement 27% higher, the pink escapement 12% higher, the chum escapement 22% higher, and the coho escapement was 13% higher. The largest chinook escapements occurred on the North Peninsula at Nelson Lagoon (3,456), in the Meshik River system (1,161), and in the Sandy River (1,152). Nelson and Bear Rivers, on the North Peninsula, had the largest sockeye escapements: 240,700 and 546,800, respectively. Pink escapements were largest on the South Peninsula at Southern Creek (111,620), Settlement Point (269,105), and Mino Creek (166,787). Chum escapements were largest on the South Peninsula in Belkofski Bay River (52,093) and Canoe Bay River (93,922). Coho escapements were largest on the North Peninsula at Nelson River (72,000), and in Inik River (57,600).

Age composition data were not taken for chinook salmon in the South Peninsula area. The North Peninsula chinook catch was 17% age 1.3 and 60% age 1.4%. The South Peninsula sockeye catch was estimated to be 17% age 1.3, 52% age 2.2, and 22% age 2.3, whereas the North Peninsula catch was estimated to be 15% age 1.3, 35% age 2.2, and 40% age 2.3. The South Peninsula chum catch age composition was 59% age 0.3 and 36% age 0.4; the North Peninsula chum catch was estimated to be 61% age 0.3 and 37% age 0.4. An estimated 22% of the coho catch from the North Peninsula was age 1.1, and 74% age 2.1 in the South Peninsula. The Orzinski Lake sockeye escapement was estimated to be 48% age 1.2 and 21% age 2.2, the Nelson River escapement was an estimated 33% age 2.2 and 45% age 2.3, and the Bear River escapement was an estimated 59% age 2.2 and 21% age 2.3.

**KEY WORDS:** Alaska Peninsula, Aleutian Islands, Pacific salmon, catch, escapement, age, length, sex



## INTRODUCTION

Alaska Peninsula and Aleutian Islands commercial salmon management areas are divided into three areas: (1) the South Peninsula, consisting of the Pacific Ocean coastal waters from Kupreanof Point west to Scotch Cap and consisting of the: Southeastern, South Central, Southwestern, and Unimak Districts; (2) the North Peninsula, consisting of Bering Sea coastal waters from Cape Menshikof west to Cape Sarichef and containing two districts, the Northwestern and Northern, and (3) the Aleutian Islands, containing the Pacific Ocean and Bering Sea coastal waters west of Unimak Pass to the international dateline and consisting of the Akutan, Unalaska, Umnak, and Adak Districts (Figures 1,2). The North and South Peninsula are within the Alaska Peninsula Management Area, while the Aleutian Islands form a separate management area.

The Aleutian Islands Management Area has 335 known salmon streams which are primarily pink salmon systems. The Alaska Peninsula Management Area has about 247 salmon streams; pink salmon and chum salmon are found in about one-half of these systems, coho salmon are found in one-third and sockeye in one-fifth of the streams, respectively. The most productive streams are in the Alaska Peninsula Management Area, where most of the commercial salmon fishing occurs.

Five salmon species are commercially harvested in the two management areas: chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho salmon *O. kisutch*. Annual 1980-1989 salmon harvests have ranged from 6.04 million in 1987 to 21.07 million in 1984 and averaged 13.16 million salmon (Table 1). Commercial salmon fishing gear in the North and South Peninsula includes: purse seines, hand purse seines, drift gillnets, and set gillnets; in the Aleutian Islands gear is limited to purse seines (Table 2). The catch by gear type within a district varies depending on other fishing opportunities, weather, and gear regulation (Table 2). Sockeye and pink salmon are of primary economic importance in South Peninsula and Aleutian Islands fisheries, whereas sockeye and chum salmon are the most valuable in the North Peninsula fisheries.

The South Peninsula is comprised of four districts and 43 statistical areas, and the North Peninsula contains two districts and 21 statistical areas. The Aleutian Islands consists of four districts and 40 statistical areas (Table 3). Commercial salmon fishing in South Peninsula waters usually begins during the first week of June, during the last week of June in the Aleutian Islands, and during the last week of May on the North Peninsula. During June the majority of drift net effort occurs in the South Unimak fishery, and purse seining occurs in the Shumagin Islands Section and South Unimak fisheries. The major set gillnet effort occurs in the Southeast District Mainland, Shumagin Islands Section, and Nelson Lagoon Section fisheries. After June, the majority of the purse seine effort is in South Peninsula waters for pink and chum salmon. Drift gillnet effort moves to the North Peninsula in the Harbor Point to Strogonof Point reach, and set gillnet effort in the Southeast District Mainland, Shumagin Islands Section, and Nelson Lagoon Section fisheries. In late July, purse seining occurs in the Aleutian Islands when local salmon runs are sufficiently large to warrant a fishery.

Bristol Bay fishermen can fish in the Port Heiden and Cinder River Sections of the Northern District in May, June, August, and September, and in the Ilnik Section after July. The Board of Fish and Game created the overlap area in 1960 to allow Port Heiden residents the opportunity to commercially fish in

traditional areas. Historically, Port Heiden commercial fishermen fished for chinook and coho salmon in the North Peninsula, and for sockeye salmon in the Bristol Bay Management Area. Bristol Bay drift gillnet fishermen, excluding those from Port Heiden, first fished the Innik and Outer Port Heiden Section in 1986 (Shaul et al. 1990).

In the Alaska Peninsula and Aleutian Islands Management Areas, most salmon fisheries are directed on local stocks. Five major interception fisheries occur in the Alaska Peninsula Management Area. The first is the June South Unimak and Shumagin Islands Section fisheries (ADF&G 1990), which target Bristol Bay sockeye salmon. The allocation for South Unimak and Shumagin Islands is 8.3% of the most current projected Bristol Bay inshore sockeye salmon harvest. A second interception fishery occurs in the Southeast District Mainland (Southwest and East Stepovak Sections, Stepovak Flats, and Beaver Bay and Balboa Bay Sections) during June and July. It targets on Chignik River sockeye salmon. The Southeast District Mainland fishery through 25 July is allotted 6.0% of the total Chignik sockeye catch, which is determined from catches in the Cape Igvak Section of the Kodiak Management Area, the Chignik Management Area, and the Southeast District Mainland fishery (Shaul et al. 1990). A third sockeye interception fishery has developed in selected areas of the Shumagin Islands Section during July and August. Stocks contributing to this fishery are probably Chignik, Kodiak, Cook Inlet, Bristol Bay, and Alaska Peninsula salmon (McCullough 1990). A fourth interception fishery on sockeye and coho salmon by the drift gillnet fishery has developed in the Ikatan Bay Section of the Southwestern and Unimak Districts and occurs from late July until mid-August. The fifth interception fishery occurs from Harbor Point to Strogonof Point reach of the North Peninsula. This fishery occurs mainly from 6 July to about 21 July. Scale pattern analysis estimated a sizable component of Bristol Bay sockeye salmon in the catches during this period (Geiger 1989; Swanton and Murphy 1992).

This report is part of an ongoing series of annual reports documenting the number, age, sex, and length composition of salmon catches and escapements in the Alaska Peninsula and Aleutian Islands Management Areas. The data provides a base for developing brood tables, forecasting runs, evaluating escapement objectives, and identifying future research and management considerations. This report documents resource inventory baseline data; therefore, interpretation and discussion of the data are limited.

## METHODS

Commercial catch data were compiled by the Division of Commercial Fisheries of the Alaska Department of Fish and Game (ADF&G). The data were based on computer tabulations originating from individual sale receipts (fish tickets) given to fishermen at the time of delivery. Fish tickets and computer-generated summaries were edited by ADF&G Alaska Peninsula staff for errors and omissions. Most of the data in this report were assigned to a statistical week which begins at 0000 hours each Sunday and ends at 2400 hours the following Saturday. Statistical weeks were numbered sequentially beginning with the week encompassing the first Sunday in January (Table 4).

Salmon escapements in the Alaska Peninsula and Aleutian Islands Management Areas were monitored by aerial and foot surveys and at three weirs. The Orzinski Lake weir was operated from 27 June to 6 August. The Bear River weir, located about 24 km upstream of the river mouth, was operated from 6 June to 30 August. The Nelson River weir, located about 56 km above the entrance to Nelson Lagoon, was operated from 5 June to 25 July.

Escapements to other spawning streams were monitored by aerial and foot surveys. Pink and chum salmon total escapements were calculated for surveyed streams using aerial counts and an assumed average stream life of 15 d for each species, except for Swanson Lagoon chum salmon and most Southeast District Mainland pink salmon which have an assumed average stream life of 7 d (Cousens et al. 1982; Johnson and Barrett 1988; McCullough 1989). Chinook escapement for surveyed streams was calculated by multiplying the peak escapement count by 1.92 (Neilson and Geen 1981; Barrett et al. 1985). When weirs were not present, sockeye escapements for shallow and clear-water streams were calculated by multiplying the peak escapement count by 1.25 (McCullough 1989), and by 2.0 for all other systems (Barrett 1972; Barrett et al. 1985). Total coho escapements for surveyed streams were determined from data in Minard (1986) by multiplying the peak count by 2.4. No attempt was made to estimate escapement into systems not monitored by aerial surveys. Escapement estimates of sockeye, pink, chum, and coho salmon in Alaska Peninsula streams were considered reliable; estimates in the Aleutian Islands were considered minimal values.

Age data from scales were collected from all salmon that were sampled. Age compositions were computed weekly for catch and escapement samples. Total catch by age within a week was determined by multiplying the proportion of a particular age by the catch during the specific week. Sample sizes of 600 salmon/week/area were taken. Standard errors were computed for each age from escapement samples by taking the square root of the variance, without the finite population correction factor (Cochran 1977). Age compositions were computed by week for each area sampled. No standard errors or variances were calculated across weeks. Catch by age across weeks was obtained by summation.

Sockeye escapement sampling was conducted weekly at Orzinski, Nelson, and Bear Rivers. A weir was constructed on the Ilnik River to obtain escapement data; however, the weir was not successful and only limited escapement sampling was conducted. At Orzinski, Nelson, and Bear Rivers, 235 fish per week were sampled as available. This sample size was chosen to provide 90% simultaneous confidence levels for age composition of the population within a  $\pm 7\%$  of the true age composition (Thompson 1987).

Catches from the major fishing areas were sampled weekly throughout the season; catches from the minor fishing areas were sampled less frequently. Catch sampling occurred at King Cove, where the majority of the South Peninsula catch was landed, from 13 June to 10 September. On the North Peninsula catch sampling occurred at Port Moller from 11 June to 10 September and at Sand Point from 1 July to 10 September.

Tender operators purchased salmon from all gear types operating within their immediate area. This precluded compilation of separate age, sex, and size composition estimates by gear type, except when the catch was by a single gear type. Tender operators purchased salmon from fishermen on a first-come, first-

serve basis. Although salmon were purchased by species, a thorough mixing of salmon by quality and species aboard the tender occurred during subsequent purchases, transport, and off-loading. Catch sampling occurred before sorting within the cannery, and there was no preselection of salmon other than from delivery areas; each sample was assumed to be representative of the harvest from a sample area. Salmon were assumed to be randomly sampled. The harvest area for each tender was determined through vessel operator interviews and fish ticket information.

The commercial salmon catch in the South Peninsula was harvested primarily by seine gear. In the North Peninsula, chum salmon were harvested mostly by seine gear in Swanson Lagoon, Bechevin Bay, Izembek-Moffet Bay, and Herendeen Bay. Seine caught salmon in terminal area fisheries have biological characteristics similar to the spawning population (Roos 1957). Catch samples from these areas were used to describe the escapement.

Age was determined by examining scales (Bilton and Ricker 1965; Mosher 1968). Scales were removed from the preferred area located on the left side of the salmon two rows above the lateral line in an area transected by the posterior insertion of the dorsal fin to the anterior insertion of the anal fin (INPFC 1963). One scale was taken from each sockeye and chum salmon, three scales from chinook salmon, and four scales from coho salmon. Additional scales were taken from chinook and coho salmon to minimize chances of sampling a regenerated scale; these species have higher scale regeneration rates than other salmon (McCullough 1990). For coho salmon, when one scale is collected there is a 50% chance of regeneration, when two scales are collected the odds of both scales being regenerated are only 25% (McCullough 1990). A microfiche reader was used to read an acetate impression of the scale (Clutter and Whitesel 1956). To accommodate the occurrence of regenerated scales among the escapement samples, an adaptation of the MIX program (McDonald and Green 1988) was used to determine the saltwater age of reabsorbed scales by examination of the length frequency modes of the sampled population (McCullough 1989). Ages were recorded in the European notation with the first digit representing the number of winters the salmon spent in freshwater, and the second digit the number of winters the salmon spent in the ocean (Mosher 1968). The total age is the sum of these numbers plus one to account for the incubation time.

Length and sex information were obtained from all escapement samples. Length was recorded to the nearest 1 mm and measured from mid-eye to fork-of-tail. Sex was determined by external morphological examination of kype development, belly shape, trunk depth, jaw shape, and maturation of gonads.

## RESULTS

In 1990, 121 purse seine, 161 drift gillnet, and 114 set gillnet Area M limited entry permits were fished within the Alaska Peninsula and Aleutian Islands Management Areas. This was an increase of two purse seine permits and three set gillnet permits, and a decrease of two drift gillnet permits from the 1989 level (Murphy 1991). In 1990, 63 drift gillnet and 15 set gillnet Area T permits were fished in the Alaska

Peninsula Management Area, a decrease of one drift gillnet and three set gillnet permits from the 1989 level.

The total 1990 commercial salmon catch for the Alaska Peninsula and Aleutian Islands Management Areas was 28,823 chinook (< 1%), 4,813,884 sockeye (47%), 3,661,830 pink (35%), 1,361,530 chum (13%), and 498,433 coho salmon (5%; Table 1). The South Peninsula accounted for about 66% of the harvest, the Aleutian Islands 3%, and the North Peninsula 31% of the harvest (Table 5). The South Peninsula catch was harvested primarily by purse seine gear (78%), followed by drift gillnet gear (13%), and set gillnet gear (9%; Table 5). The North Peninsula catch was harvested primarily by drift gillnet gear (67%), followed by purse seine gear (20%), and set gillnet gear (13%). In the Aleutian Islands Area all of the catch was taken with purse seine gear.

In the Alaska Peninsula and Aleutian Islands Management Areas purse seine gear harvested 6,239,714 salmon, drift gillnet gear 3,092,052, and set gillnet gear harvested 1,033,317 (Table 5). The majority of the seine (60%) and set gillnet (50%) catch occurred in South Peninsula waters, whereas most of the drift gillnet catch occurred in the North Peninsula area.

### *Fishing Effort*

Fishing effort during the last few years has stabilized in most areas but not in the Southeast District, the South Unimak post-June fishery, the Northern District from Harbor Point to Stroganof Point, or the North Peninsula/Bristol Bay "overlap" fishery.

During the post-June fishery in the Shumagin Islands Section, set gillnet effort began to increase in 1985 (Shaul 1989; McCullough 1990). Before 1985 an average of three to eight set gillnet permit holders fished the area. In 1985 and 1986, 30 to 40 set gillnet permit holders fished this area, and in 1987 effort increased to 53. Recent set gillnet effort has increased to about 60 permits (McCullough 1990). The change in effort since 1985 resulted from increased numbers of set gillnet permits being used, and restricted openings in the Southeast District Mainland, which subsequently shifted set gillnet effort to the Shumagin Islands Section.

The Shumagin Islands June sockeye catch has averaged 319,639 between 1979 and 1990 (Figure 3). The 1990 catch of 255,649 was less than the average 1979-89 harvest and less than half of the peak harvest in 1980 (572,090; Table 6).

The increased effort in the Shumagin Islands Section post-June fishery from 1979 to 1989 produced high catches of sockeye, pink, and coho salmon (Table 6). The 1990 post-June chinook catch of 4,939 was a 39% increase from the 1979-89 average of 3,034. The sockeye catch of 424,473 was more than double the 1979-89 average (Table 6). The 1990 pink catch of 1,106,869 was 34% below the 1979-89 average, the chum catch of 347,246 increased 17%, and the coho harvest of 183,386 decreased 11% (Table 6).

The South Unimak June sockeye harvest of 1,080,522 sockeye was below the 1979-89 catch of 1,347,547. Between 1979 and 1990, the sockeye harvest averaged 1,211,461, with a peak in 1980 of 2.73 million and low in 1986 of 315,370 (Figure 4; Table 7).

The South Unimak post-June catch of 300,635 salmon was only slightly above the 1979-89 average of 289,064 (Table 7). The 1990 chinook catch was below average, but the sockeye catch of 164,176 was well above the average of 48,481 (Table 7). The pink and chum catches were below average, and the coho catches were above average.

Another area in which effort has changed is the North Peninsula/Bristol Bay overlap fishery located west of Port Heiden. Prior to 1986, Bristol Bay drift gillnet permit holders did not fish west of Port Heiden. In 1990, 66 Bristol Bay drift gillnet permit holders, in addition to the regular Port Heiden and Cinder River fishermen, fished the Ilnik Section during the post-July fishery. Most of the catch during this period was probably local North Peninsula salmon since most local and Bristol Bay runs are completed by 1 August.

In 1983 effort increased in the Northern District from Cape Seniavin to Strogonof Point. Drift gillnet fishermen began fishing more to the east in the Northern District because of the availability of tender operators in this area and their use of larger fishing boats. In 1983, catches in the Cape Seniavin to Strogonof Point area began to increase (Figure 5).

Traditionally, fishing in the Northern District had been limited to the area west of Cape Seniavin through 24 June, to the area west of the Ilnik Section from 25 June through 4 July, and to the area west of Strogonof Point after 4 July (ADF&G 1990). Local sockeye stocks taken in the Harbor Point to Strogonof Point fisheries are from the Meshik and Cinder Rivers, Ilnik River system, Sandy and Bear Lakes, and Nelson River system. During 1974 to 1983, sockeye catches in the Cape Seniavin to Strogonof Point fisheries averaged 19% of the Harbor Point to Strogonof Point catch, whereas in the period from 1984 to 1990, the catch averaged 58% (Table 8; Figure 6).

In the Alaska Peninsula and Aleutian Islands Management Areas most salmon used for subsistence and personal use are believed to be harvested during commercial fishing activities. A total of 282 subsistence permits were issued in 1990; 188 of them were returned. The amount of salmon retained from the commercial catch for personal use is unknown. The estimated subsistence harvest was 19,758 which consisted of 250 chinook, 10,945 sockeye, 2,164 pink, 1,689 chum, and 4,710 coho salmon (Table 9).

Salmon escapement for the Alaska Peninsula and Aleutian Islands Management Areas, for those systems monitored by weirs, aerial and foot surveys, was estimated at 4,681,207, which included 11,234 chinook, 1,303,153 sockeye, 2,285,497 pink, 741,802 chum, and 339,696 coho salmon (Table 10). For 31 streams surveyed in the Aleutian Islands Management Area, the escapement was an estimated 38,600 sockeye and 549,635 pink salmon.

## *South Peninsula*

The 1990 projected guideline sockeye harvest for the June South Unimak and Shumagin Islands Section fisheries was 1,327,000 fish, and the chum catch was limited to a maximum of 600,000. The Shumagin Islands Section and the South Unimak fisheries were usually opened concurrently. The South Unimak fishery was open for 13 d and in the Shumagin Islands for 9 d. The June South Unimak and Shumagin Islands Section catch of 2,248,063 salmon included 10,314 chinook, 1,336,171 sockeye, 516,085 pink, and 509,584 chum, and 510 coho salmon (Tables 11,12). On 17 June the peak daily catch of 191,551 sockeye and 55,474 chum salmon were harvested in the Shumagin Islands and South Unimak fisheries (Shaul et al. 1991).

The 1990 catch in the Southeast District Mainland fishery (Stepovak, Beaver, and Balboa Bays) was 822 chinook, 277,460 sockeye, 249,809 pink, 156,045 chum, and 55,565 coho salmon (Table 13). About 76% of the catch was landed after 25 July; consisting of 138 chinook, 113,432 sockeye, 202,927 pink, 109,163 chum, and 38,784 coho salmon (Table 13).

The 1990 Shumagin Islands Section catch of 2,458,785 salmon included 6,809 chinook, 680,122 sockeye, 1,177,724 pink, 410,744 chum, and 184,304 coho salmon (Table 12). About 84% of the catch was landed post-June; consisting of 4,939 chinook, 424,473 sockeye, 1,106,869 pink, 347,246 chum, and 184,304 coho salmon (Table 12).

The total 1990 South Peninsula salmon catch of 6,803,529 included 16,497 chinook, 2,385,560 sockeye, 2,861,283 pink, 1,234,679 chum, and 305,510 coho salmon (Table 14). Peak catches occurred for chinook, sockeye, and chum salmon during week 25 (17 June - 23 June), for pink salmon during week 32 (5 August - 11 August), and for coho salmon during week 30 (22 July - 28 July; Table 14).

For surveyed streams, the estimated South Peninsula salmon escapement of 2,584,622 salmon included 114,233 sockeye, 2,008,185 pink, 343,308 chum, and 118,896 coho salmon (Table 10). The Southwestern District had the largest escapements of all South Peninsula districts for sockeye, pink, and coho salmon, while the South Central District had the largest chum salmon escapement (Table 10).

### **Chinook Salmon**

A total of 16,497 chinook salmon were harvested in the South Peninsula in 1990 (Table 1): the catch was 62% above the 1980-89 average of 10,167 (Table 1). The Southeast District Mainland fishery, Shumagin Islands Section, Ikatán Bay Section, and the Cape Lutke Section accounted for most (99%) of the harvest. The Shumagin Islands Section provided 41% of the total chinook harvest. The peak catch occurred during week 28 (8 July - 14 July) in the Southeast District Mainland fishery (513; Table 13) and Shumagin Islands Section (2,637; Table 12), and week 25 (17 June - 23 June) for both the Ikatán Bay Section (1,885; Table 15) and the Cape Lutke Section (2,734; Table 16). The peak catch for the entire South

Peninsula occurred during week 25 (17 June - 23 June; 6,116; Table 14). There are no documented chinook spawning streams on the South Peninsula.

### **Sockeye Salmon**

The 1990 South Peninsula sockeye catch was 2,385,560, which was 8% higher than the 1980-89 average of 2,211,057 (Table 1). The majority of the salmon were caught in the Southeast District Mainland fishery (277,460), Shumagin Islands Section (680,122), Ikatan Bay Section (604,950), and Cape Lutke Section (632,506; Table 5). The peak catch occurred in the Southeast District Mainland fishery during week 29 (15 July - 21 July; 88,147; Table 13), in the Shumagin Islands Section during week 25 (17 June - 23 June; 215,739; Table 12), and in the Ikatan Bay Section (293,606) and Cape Lutke (407,532) Sections during week 25 (17 June - 23 June; Tables 15,16). The majority of sockeye salmon caught in the Southeast District Mainland fishery were taken by set gillnets (57%), purse seines in the Shumagin Islands Section (85%), drift gillnets in the Ikatan Bay Section (40%), and purse seines (72%) in the Cape Lutke Section (Table 5). Sockeye salmon harvested in South Peninsula waters were an estimated 17% age 1.3, 52% age 2.2, and 22% age 2.3 (Table 17).

The June Shumagin Islands Section sockeye guideline harvest level was set at 240,000. The actual sockeye harvest was 256,000, which was 7% greater than the allocation. The June catch was an estimated 21% age 1.2, 29% age 1.3, 24% age 2.2, and 22% age 2.3 (Table 17). The post-June catch was 12% age 1.2, 40% age 1.3, 16% age 2.2, and 29% age 2.3 (Table 17).

The South Unimak June fishery (Ikatan Peninsula to Cape Lazaref and the Cape Lutke Section) sockeye guideline harvest level was 1,087,000 salmon; the actual harvest was 1,080,522. The sockeye catch was an estimated 15% age 1.2, 18% age 1.3, 40% age 2.2, and 25% age 2.3 (Table 17). The post-June catch was 156,934 (Table 5).

The pre-July 26 sockeye catch in the Southeast District Mainland was 164,028 (Table 13). The peak sockeye harvest of 88,147 occurred during week 29 (15 July - 21 July). The total harvest was estimated at 56% age 1.3 and 26% age 2.3 (Table 17).

The sockeye escapement into South Peninsula streams was 114,233 (Table 10). Most sockeye salmon spawned in Orzinski Lake (15,000; Table 18), Salmon Bay (8,000), Thinpoint system (35,200), and Middle Lagoon (28,200), although smaller systems at Acheredin Lake, Mortensen, and Deadman's Cove supported 12% of the sockeye escapement (Shaul et al. 1991). The sockeye escapement into Orzinski Lake was about 48% age 1.2, 12% age 1.3, 21% age 2.2, and 14% age 2.3 (Table 19). The male to female (m:f) ratio was 1.3:1; average length was 505 mm for males and 514 mm for females (Tables 20, 21).

Pavlof Bay's commercial sockeye catch of 57,800 (90% purse seine) was sampled to estimate biological characteristics of the harvest. The sockeye age composition was an estimated 11% age 1.2, 60% age 1.3, and 21% age 2.3 (Table 17); these characteristics are assumed to be the same for the escapement (Roos

1957). The Volcano Bay age composition was estimated at 16% age 1.2, 56% age 1.3, and 19% age 2.3 (Table 17).

### **Pink Salmon**

The 1990 South Peninsula pink harvest of 2,861,283 occurred primarily in post-June fisheries with most of the catch from the Shumagin Islands Section (41%) and the Southeast District Mainland (9%; Table 5). Peak catch occurred during week 32 (5 August - 11 August; Table 14). The estimated escapement for the South Peninsula was 2,008,185 (Table 10). The largest escapements (over 100,000 salmon) were in Mino, Settlement Point, and Southern Creeks.

### **Chum Salmon**

The 1990 South Peninsula chum catch of 1,234,679 was 24% below the 1980-89 average (Table 1). The majority were caught in the Southeast District Mainland fishery, the Shumagin Islands Section post-June fisheries, and the South Unimak June and post-June fisheries. Peak catches in the Southeast District Mainland fishery occurred during week 36 (2 August - 8 August; 42,257; Table 13), in the Shumagin Islands Section during week 28 (8 July - 14 July; 110,576; Table 12), and in the South Unimak fishery during week 25 (17 June - 23 June; 245,148; Table 11). Purse seiners caught the majority of chum salmon in all fisheries, except in the Ikatan Peninsula to Cape Lazaref fishery, where drift gillnet fishermen caught 77% of the catch (Table 15). The South Peninsula chum catch was approximately 59% age 0.3 and 36% age 0.4 (Table 22).

A total of 410,744 chum salmon were caught in the Shumagin Islands Section during 1990 (Table 12). The June harvest of 63,498 was estimated at 48% age 0.3 and 50% age 0.4, and the post-June catch of 347,246 was about 68% age 0.3 and 22% age 0.4 (Table 22).

The South Unimak (Unimak District, Bechevin Bay Section of the Northwestern District, and Ikatan Bay Section of the Southwestern District) June catch was 446,086 (Table 11). The harvest was 55% age 0.3 and 42% age 0.4 (Table 22).

The June chum catch in the Ikatan Peninsula to Cape Lazaref fishery was estimated at 58% age 0.3 and 40% age 0.4. In the post-June fishery the harvest was 55,600 (Table 15). The harvest was 65% age 0.3 and 33% age 0.4 (Table 22).

The chum harvest prior to 26 July in the Southeast District Mainland fishery was 43,003, the peak catch occurring during week 29 (15 July - 21 July; 23,849 salmon; Table 13). The harvest after 25 July of 109,163 chum salmon peaked during week 36 (2 September - 8 September; 42,257 salmon; Table 13). The overall age composition was about 66% age 0.3 and 29% age 0.4 (Table 22).

The majority of the remaining chum harvest in South Peninsula waters occurred in terminal purse seine fisheries. The majority of these salmon were harvested in Canoe, Volcano, and Belkofski Bays (Table 5). The chum harvested in the terminal fisheries were approximately 61% age 0.3 and 31% age 0.4 (Table 22).

The South Peninsula chum escapement was 343,308 salmon (Table 10). The largest escapements occurred in Canoe Bay River (93,922), Belkofski Bay (52,093), Russell Creek (20,517), and Stepovak River (27,604; Murphy and Roche 1991).

The chum catch in the terminal fisheries at Canoe, Pavlof, and Belkofski Bays were sampled to determine the age composition of the run (Roos 1957). In Canoe Bay, the peak catch occurred during week 31 (29 July - 4 August) and was composed of 41% age 0.3 and 58% age 0.4. The Pavlof Bay catch peaked during week 32 (5 August - 11 August) and was 75% age 0.3 and 23% age 0.4 (Table 22). The Belkofski Bay catch peaked during week 32 (5 August - 11 August), and the age composition was estimated at 78% age 0.3 and 20% age 0.4 (Table 22).

### **Coho Salmon**

A total of 305,510 coho salmon were harvested in South Peninsula fisheries, a level 12% higher than the 1980-89 average harvest of 271,168 (Table 1). About 60% of the harvest was taken in the Shumagin Islands Section. The peak catch (90,893) occurred during week 30 (22 July - 28 July; Table 12). The South Peninsula coho salmon age composition for all areas that were sampled was about 41% age 1.1 and 57% age 2.1 (Table 23). The estimated total escapement for coho salmon for the entire South Peninsula was about 119,000 (Table 10).

Stock identification research and intensive aerial surveys were conducted in 1990 to better understand the status of coho salmon on the Alaska Peninsula. Based on Geiger (1989), the stock identification of coho salmon from catch samples was not possible using scale pattern analysis. Aerial surveys, however, that were conducted showed the coho stocks on the Alaska Peninsula to be healthy.

### ***Aleutian Islands Management Area***

The Aleutian Islands total salmon catch in 1990 was 296,372, composed of 2 chinook, 12,435 sockeye, 282,823 pink, 1,038 chum, and 74 coho salmon (Table 1). The 1990 catch was only 42% of the 1980-89 average (Table 1). Peak sockeye (6,719) and pink (192,410) salmon catches occurred during week 32 (5 August - 11 August; Table 24). Escapement monitoring in the Aleutian Islands was limited. The estimated total escapement to all streams surveyed was 588,235 of which pink salmon represented 93% (549,635; Table 10). Catch and escapement samples were not collected.

## *North Peninsula*

The total 1990 North Peninsula catch was 3,264,593 salmon which included 12,318 chinook, 2,415,889 sockeye, 517,724 pink, 125,813 chum, and 192,849 coho salmon (Table 1). About 67% of the catch was taken with drift gillnets, 13% by set gillnets, and 20% by purse seine (Table 5). Seine gear accounted for most of the effort in terminal chum and pink salmon fisheries, as well as terminal sockeye fisheries in Urilia Bay, Izembek-Moffet Bay, and Swanson Lagoon. Terminal set gillnet fisheries for sockeye and coho salmon occurred in Cinder River, Port Heiden Bay, Ilnik Lagoon, Nelson Lagoon, Swanson Lagoon, and Urilia Bay.

North Peninsula escapement of 1,929,229 included 11,234 chinook, 1,150,320 sockeye, 148,556 pink, 398,494 chum and 220,800 coho salmon (Table 10).

### **Chinook Salmon**

The 1990 North Peninsula chinook catch was 12,318 (Table 1). The harvest was 27% below the 1980-89 average of 19,493 (Table 1). The peak catch occurred during week 25 (17 June - 23 June) when 3,761 were harvested (Table 25). The Nelson Lagoon Section accounted for 29% of the chinook catch (3,573; Table 26), 18% was from the Harbor Point to Cape Seniavin fishery (2,199; Table 27), and 38% was from the Inner Port Heiden Section (4,699; Table 5). The majority of the harvest in the Harbor Point to Cape Seniavin fishery (97%) and the Inner Port Heiden Section (78%) was from drift gillnets (Table 5). The Nelson Lagoon catch was about 8% age 1.2, 16% age 1.3, 66% age 1.4, and 11% age 1.5 (Table 28). The entire North Peninsula catch was estimated at 13% age 1.2, 17% age 1.3, and 60% age 1.4 (Table 28).

The estimated chinook escapement to the North Peninsula was about 11,234 (Table 10). The majority of the escapement (46%) was in Nelson River system (Figure 7; Murphy and Roche 1991). North Creek, Sandy, King Salmon, and Bear Rivers also had substantial chinook escapements.

### **Sockeye Salmon**

The North Peninsula catch of 2,415,889 sockeye salmon was 25% above the 1980-89 average of 1,802,616 (Table 1). The majority of the harvest (1,824,001) occurred in the Harbor Point to Strogonof Point area (Table 5). The Harbor Point to Cape Seniavin area accounted for 40% (880,101) of the total North Peninsula sockeye catch (Table 27), and the Cape Seniavin to Strogonof Point area accounted for 40% (942,900) of the North Peninsula sockeye catch (Table 29). The peak catch for the North Peninsula occurred during week 28 (8 July - 14 July; 620,932; Table 25). The majority of the North Peninsula sockeye catch was taken with drift gillnet gear (83%), except in the Inner Port Heiden Section, Ilnik Lagoon, Nelson Lagoon, Swanson Lagoon, and Urilia Bay Sections, where set net gear dominated the

catch (Table 5). The entire North Peninsula catch was about 15% age 1.3, 35% age 2.2, and 40% age 2.3 (Table 17).

The North Peninsula sockeye escapement was 1,150,320 (Table 10). Nelson River (240,700; Figure 7; Table 30) and Bear River (546,800; Figure 8; Table 31) supported 69% of the escapement. The moderate-sized systems at Ilnik River (48,725), Sandy Lake (21,875), and Whaleback Mountain Creek in Uruil Bay (50,750) accounted for 10% of the escapement (Murphy and Roche 1991). Sockeye escapements to North Peninsula systems were estimated at 11% age 1.2, 7% age 1.3, 49% age 2.2, and 27% age 2.3 (Table 19).

The Nelson Lagoon system (Coastal and Hoodoo Lakes, and David, Caribou, and Sapsuk Rivers) sockeye escapement was 281,350 (Murphy and Roche 1991). About 86% of the escapement (240,700) occurred in the Sapsuk River-Hoodoo Lake drainage. Peak escapement into Sapsuk River-Hoodoo Lake occurred in week 27 (1 July - 7 July; 40,297; Table 32). The sockeye escapement in Sapsuk River-Hoodoo Lake was about 16% age 1.3, 33% age 2.2, and 45% age 2.3 (Table 19); the m:f ratio was 1.1:1 (Table 32); and the average length was 541 mm for males and 532 mm for females (Table 33).

The 1990 Bear River sockeye escapement was 546,800 salmon (Table 31). The peak escapement occurred during week 27 (1 July - 7 July; Table 34). The sockeye escapement was estimated at 12% age 1.2, 59% age 2.2, and 21% age 2.3 (Table 19). In the Bear River an increase in the proportion of age-2.2 sockeye salmon accompanied by a decrease in age-2.3 fish occurred as the season progressed. The overall m:f ratio was 1.4:1, and the average length was 468 mm for males and 498 mm for females (Tables 34,35).

The sockeye escapement into the Ilnik Lagoon system, (Ocean and Ilnik Rivers and Willie Creek) was about 48,725. Only limited data on the age composition, m:f ratio, and mean length were available for Ilnik because of problems with stabilizing the weir. The escapement was mostly age 1.2 (51%) and age 1.3 (24%; Table 19). The m:f ratio was 1.4:1; the average length was 543 mm for males and 510 for females (Tables 36,37).

Sockeye salmon stock identification study conducted in 1990, estimated that 73% of the salmon caught within the Harbor Point to Strogonof Point area from 8 July to 21 July were of Bristol Bay origin (Swanton and Murphy 1992). Most of the interception of Bristol Bay stocks occurred in the Cape Seniavin to Strogonof Point reach (78%; Swanton and Murphy 1992).

## **Pink Salmon**

Historically, North Peninsula pink runs have been of minor importance. In 1990, 517,724 pink salmon were caught, which represented the largest catch from 1970-90 (Table 1). The 1990 catch was exceptionally high because of the unexpected harvest in Herendeen Bay of 498,047, an area which has not previously produced pink salmon in large numbers. The peak catch of pink salmon in North Peninsula fisheries occurred during week 32 (5 August - 11 August; Table 25). The North Peninsula escapement of 148,556 pink salmon (Table 10) occurred primarily in the Northern District (Herendeen Bay).

## **Chum Salmon**

A total of 125,813 chum salmon were caught in North Peninsula fisheries in 1990 (Table 1). The catch was 74% below the 1980-89 average (474,431; Table 1). Most of the catch occurred in the Herendeen Bay Section (42%; 52,299) and in the Harbor Point to Cape Seniavin fishery (25%; 31,574; Table 5). The peak catch (40,938) for the North Peninsula occurred during week 28 (8 July - 14 July; Table 25). Purse seines harvested 58% and drift gillnets 36% of the chum salmon. Major catches in terminal areas occurred at Herendeen Bay (498,047) and Izembek-Moffet Lagoon Section (23,983; Table 5). The North Peninsula catch was approximately 61% age 0.3 and 37% age 0.4 (Table 22).

The 1989 North Peninsula chum escapement was estimated at 398,494 fish with the majority occurring in the Northwestern District (63%; 251,425 salmon; Table 10). The largest concentrations in the Northwestern District were in the Joshua Green River (154,780), Frosty Creek (16,127), and Moffet Springs (42,028) Creeks, which are all located in the Izembek-Moffet Bay Section (Murphy and Roche 1991). In the Northern District the greatest escapement was in Coal Creek (Herendeen Bay; 28,367; Murphy and Roche 1991)

## **Coho Salmon**

A total of 192,849 coho salmon were harvested in North Peninsula waters, which was 9% above the 1980-89 average of 176,124 (Table 1). The peak catch occurred during week 35 (26 August - 1 September; Table 25). Most of the catch was in the Nelson Lagoon Section (41%; 79,234), followed by the Inner Port Heiden Section (20%; 38,942), and the Cinder River Section (19%; 35,784; Table 5). Drift gillnets harvested 60% and set gillnets 38% of the harvest, respectively (Table 5). Age-1.1 (21%) and age-2.1 (75%) fish were dominant in the catch (Table 23).

Coho escapements to the North Peninsula have, in the past, been poorly monitored due to budget limitations and poor survey conditions. In 1990, however, sufficient funds were available for extensive aerial surveys. The total coho salmon escapement was estimated at 220,800 fish (Table 10). The largest escapements were in the Nelson Lagoon system (73,200), Meshik River (45,600), and the Ilnik River system (60,000; Murphy and Roche 1991).

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Table 1. The commercial salmon catch in the Alaska Peninsula and Aleutian Islands Management Areas, 1970-90.

Year	Area	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
1970	South Peninsula	1,800	1,794,600	1,723,400	981,700	32,200	4,533,700
	Aleutians	0	200	672,500	3,300	100	676,100
	North Peninsula	3,200	213,000	7,800	50,200	26,400	300,600
		<u>5,000</u>	<u>2,007,800</u>	<u>2,403,700</u>	<u>1,035,200</u>	<u>58,700</u>	<u>5,510,400</u>
1971	South Peninsula	2,200	715,500	1,450,100	1,366,600	16,800	3,551,200
	Aleutians	0	300	45,400	100	0	45,800
	North Peninsula	2,200	354,200	300	64,200	8,200	429,100
		<u>4,400</u>	<u>1,070,000</u>	<u>1,495,800</u>	<u>1,430,900</u>	<u>25,000</u>	<u>4,026,100</u>
1972	South Peninsula	1,300	557,800	78,000	727,500	8,000	1,372,600
	Aleutians	0	100	2,800	0	0	2,900
	North Peninsula	1,800	179,500	0	84,700	9,600	275,600
		<u>3,100</u>	<u>737,400</u>	<u>80,800</u>	<u>812,200</u>	<u>17,600</u>	<u>1,651,100</u>
1973	South Peninsula	400	330,200	58,000	293,000	6,600	688,200
	Aleutians	0	100	7,000	0	0	7,100
	North Peninsula	4,400	171,800	300	155,700	26,900	359,100
		<u>4,800</u>	<u>502,100</u>	<u>65,300</u>	<u>448,700</u>	<u>33,500</u>	<u>1,054,400</u>
1974	South Peninsula	500	204,700	99,700	71,500	9,400	385,800
	Aleutians	0	0	0	0	0	0
	North Peninsula	5,100	247,900	10,500	35,300	24,000	322,800
		<u>5,600</u>	<u>452,600</u>	<u>110,200</u>	<u>106,800</u>	<u>33,400</u>	<u>708,600</u>
1975	South Peninsula	100	268,400	61,700	132,900	0	463,100
	Aleutians	0	0	0	0	0	0
	North Peninsula	2,100	233,500	300	8,700	28,200	272,800
		<u>2,200</u>	<u>501,900</u>	<u>62,000</u>	<u>141,600</u>	<u>28,200</u>	<u>735,900</u>
1976	South Peninsula	2,100	375,000	2,367,000	532,500	200	3,276,800
	Aleutians	0	0	0	0	0	0
	North Peninsula	4,900	641,100	600	73,600	26,000	746,200
		<u>7,000</u>	<u>1,016,100</u>	<u>2,367,600</u>	<u>606,100</u>	<u>26,200</u>	<u>4,023,000</u>
1977	South Peninsula	500	311,700	1,448,600	243,200	2,100	2,006,100
	Aleutians	0	0	0	0	0	0
	North Peninsula	5,500	471,100	900	129,100	34,100	640,700
		<u>6,000</u>	<u>782,800</u>	<u>1,449,500</u>	<u>372,300</u>	<u>36,200</u>	<u>2,646,800</u>
1978	South Peninsula	800	579,500	5,608,800	547,000	60,700	6,796,800
	Aleutians	0	1,800	38,100	0	0	39,900
	North Peninsula	14,200	896,200	466,600	163,200	63,300	1,603,500
		<u>15,000</u>	<u>1,477,500</u>	<u>6,113,500</u>	<u>710,200</u>	<u>124,000</u>	<u>8,440,200</u>
1979	South Peninsula	2,100	1,149,700	6,570,500	483,000	356,500	8,561,800
	Aleutians	0	12,200	539,400	200	0	551,800
	North Peninsula	17,100	1,979,500	5,000	65,700	112,800	2,180,100
		<u>19,200</u>	<u>3,141,400</u>	<u>7,114,900</u>	<u>548,900</u>	<u>469,300</u>	<u>11,293,700</u>

-Continued-

Table 1. (page 2 of 3).

Year	Area	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
Average 1970-1979							
	South Peninsula	1,180	628,710	1,946,580	537,890	49,250	3,163,610
	Aleutians	0	1,470	130,520	360	10	132,360
	North Peninsula	6,050	538,780	49,230	83,040	35,950	713,050
		<u>7,230</u>	<u>1,168,960</u>	<u>2,126,330</u>	<u>621,290</u>	<u>85,210</u>	<u>4,009,020</u>
1980	South Peninsula	4,800	3,613,000	7,961,500	1,351,200	274,200	13,204,700
	Aleutians	0	9,200	2,597,500	4,900	0	2,611,600
	North Peninsula	16,800	1,397,100	301,700	700,200	127,900	2,543,700
		<u>21,600</u>	<u>5,019,300</u>	<u>10,860,700</u>	<u>2,056,300</u>	<u>402,100</u>	<u>18,360,000</u>
1981	South Peninsula	10,200	2,255,200	5,035,900	1,770,300	162,200	9,233,800
	Aleutians	0	5,400	302,800	6,600	200	315,000
	North Peninsula	18,300	1,844,900	11,200	706,800	155,400	2,736,600
		<u>28,500</u>	<u>4,105,500</u>	<u>5,349,900</u>	<u>2,483,700</u>	<u>317,800</u>	<u>12,285,400</u>
1982	South Peninsula	9,800	2,346,000	6,734,900	2,272,500	256,000	11,619,200
	Aleutians	0	2,700	1,447,800	6,100	0	1,456,600
	North Peninsula	30,100	1,435,300	12,300	331,100	238,000	2,046,800
		<u>39,900</u>	<u>3,784,000</u>	<u>8,195,000</u>	<u>2,609,700</u>	<u>494,000</u>	<u>15,122,600</u>
1983	South Peninsula	26,900	2,556,600	2,827,600	1,707,100	127,700	7,245,900
	Aleutians	0	4,400	2,000	11,400	0	17,800
	North Peninsula	29,500	2,093,400	3,400	348,700	75,100	2,550,100
		<u>56,400</u>	<u>4,654,400</u>	<u>2,833,000</u>	<u>2,067,200</u>	<u>202,800</u>	<u>9,813,800</u>
1984	South Peninsula	9,200	2,318,000	11,589,300	1,656,500	309,100	15,882,100
	Aleutians	0	67,200	2,309,700	33,900	0	2,410,800
	North Peninsula	23,000	1,734,900	27,400	796,700	198,600	2,780,600
		<u>32,200</u>	<u>4,120,100</u>	<u>13,926,400</u>	<u>2,487,100</u>	<u>507,700</u>	<u>21,073,500</u>
1985	South Peninsula	7,884	2,214,583	4,438,598	1,393,285	172,514	8,226,864
	Aleutians	40	2,750	90	14,175	0	17,055
	North Peninsula	23,553	2,600,589	3,055	670,644	167,740	3,465,581
		<u>31,477</u>	<u>4,817,922</u>	<u>4,441,743</u>	<u>2,078,104</u>	<u>340,254</u>	<u>11,709,500</u>
1986	South Peninsula	5,589	1,223,089	4,031,487	1,749,651	235,854	7,245,670
	Aleutians	11	7,702	42,621	38,819	60	89,213
	North Peninsula	11,740	2,463,735	22,630	271,216	165,201	2,934,522
		<u>17,340</u>	<u>3,694,526</u>	<u>4,096,738</u>	<u>2,059,686</u>	<u>401,115</u>	<u>10,269,405</u>
1987	South Peninsula	9,174	1,449,753	1,208,556	1,376,267	224,740	4,268,490
	Aleutians	0	75	0	0	0	75
	North Peninsula	14,186	1,209,435	3,486	368,696	171,784	1,767,587
		<u>23,360</u>	<u>2,659,263</u>	<u>1,212,042</u>	<u>1,744,963</u>	<u>396,524</u>	<u>6,036,152</u>
1988	South Peninsula	11,075	1,473,636	7,044,824	1,908,507	505,533	10,943,575
	Aleutians	0	4,315	183,109	450	7	187,881
	North Peninsula	16,805	1,528,116	65,242	393,077	233,966	2,237,206
		<u>27,880</u>	<u>3,006,067</u>	<u>7,293,175</u>	<u>2,302,034</u>	<u>739,506</u>	<u>13,368,662</u>

-Continued-

Table 1. (page 3 of 3).

Year	Area	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
1989	South Peninsula	7,047	2,660,706	7,292,658	994,231	443,843	11,398,485
	Aleutians	0	8,248	6,700	0	0	14,948
	North Peninsula	10,946	1,718,689	4,103	157,177	227,551	2,118,466
		<u>17,993</u>	<u>4,387,643</u>	<u>7,303,461</u>	<u>1,151,408</u>	<u>671,394</u>	<u>13,531,899</u>
Average 1980-1989							
	South Peninsula	10,167	2,211,057	5,816,532	1,617,954	271,168	9,926,878
	Aleutians	5	11,199	689,232	11,634	27	712,097
	North Peninsula	19,493	1,802,616	45,452	474,431	176,124	2,518,116
		<u>29,665</u>	<u>4,024,872</u>	<u>6,551,216</u>	<u>2,104,020</u>	<u>447,319</u>	<u>13,157,092</u>
1990	South Peninsula	16,497	2,385,560	2,861,283	1,234,679	305,510	6,803,529
	Aleutians	2	12,435	282,823	1,038	74	296,372
	North Peninsula	12,318	2,415,889	517,724	125,813	192,849	3,264,593
		<u>28,823</u>	<u>4,813,884</u>	<u>3,661,830</u>	<u>1,361,530</u>	<u>498,433</u>	<u>10,364,494</u>

Table 2. Alaska Peninsula and Aleutian Islands Management Areas listing of allowable gear by district and section, 1990.

District	Set Gill Net	Drift Gill Net	Purse Seine	Hand Purse Seine	Beach Seine
SOUTH PENINSULA					
Southeastern District	X		X	X	
South Central District <sup>a</sup>	X	X	X		
Southwestern District <sup>b</sup>	X		X	X	
Unimak District	X	X	X	X	
ALEUTIAN ISLANDS AREA			X	X	X
NORTH PENINSULA					
Northwestern District	X	X	X	X	
Northern District					
Black Hills Section	X	X			
Caribou Flats Section	X	X			
Nelson Lagoon Section	X	X			
Herendeen-Moller Bay Section	X	X	X	X	
Bear River Section		X	X	X	
Three Hills Section		X			
Port Heiden Section	X	X			
Cinder River Section	X	X			

<sup>a</sup> Set gill net gear is not allowed in the Canoe Bay Section of the South Central District.

<sup>b</sup> Drift gill net gear is allowed in the Ikatan Bay Section of the Southwestern district.

Table 3. Districts, sections, and statistical areas for the Alaska Peninsula and Aleutian Islands Management Areas, 1990.

Fishing Area Location	Statistical Areas
<b>SOUTH PENINSULA</b>	
Southeastern District	
Southeast District Mainland	281-10; 281-20; 281-31; 281-32; 281-33; 281-35; 283-75; 283-80; 283-90
Shumagin Island Section	282-11; 282-12; 282-13; 282-21; 282-22; 282-23; 282-24; 282-25; 282-26
South Central District	
Canoe Bay	283-63; 283-64
Pavlof Bay	283-61; 283-62; 283-65
Southwestern District	
Volcano Bay	283-51; 283-52
Belkofski Bay	283-42
King Cove	283-33
Cold Bay	283-32; 283-34; 283-35
Deer Island	283-31
Thin Point	283-20
Morzhovoi Bay	283-12
Ikatan Peninsula to Cape Lazaref	311-60 (June catch) 284-40; 284-50; 284-60
Unimak District	
Cape Lutke	284-20
<b>ALEUTIAN ISLANDS AREA</b>	
Unalaska District	302-22
<b>NORTH PENINSULA</b>	
Northwestern District	
Urilia Bay	311-32
Swanson Lagoon	311-52
Bechevin Bay	311-60 (Post-June catch)
Izembek-Moffet Bay Section	312-10; 312-20; 312-40
Northern District	
Black Hills Section	313-10
Nelson Lagoon Section	313-30
Herendeen Bay	314-20
Harbor Point to Cape Seniavin	314-12; 315-11; 315-20
Cape Seniavin to Strogonof Point	316-10; 316-20; 316-22; 316-25
Outer Port Heiden Section	317-10
Inner Port Heiden Section	317-20
Cinder River Section	318-20

Table 4. Statistical weeks and corresponding calendar dates, 1990.

Statistical Week	Calendar Dates	Statistical Week	Calendar Dates
1	01-Jan to 06-Jan	28	08-Jul to 14-Jul
2	07-Jan to 13-Jan	29	15-Jul to 21-Jul
3	14-Jan to 20-Jan	30	22-Jul to 28-Jul
4	21-Jan to 27-Jan	31	29-Jul to 04-Aug
5	28-Jan to 03-Feb	32	05-Aug to 11-Aug
6	04-Feb to 10-Feb	33	12-Aug to 18-Aug
7	11-Feb to 17-Feb	34	19-Aug to 25-Aug
8	18-Feb to 24-Feb	35	26-Aug to 01-Sep
9	25-Feb to 03-Mar	36	02-Sep to 08-Sep
10	04-Mar to 10-Mar	37	09-Sep to 15-Sep
11	11-Mar to 17-Mar	38	16-Sep to 22-Sep
12	18-Mar to 24-Mar	39	23-Sep to 29-Sep
13	25-Mar to 31-Mar	40	30-Sep to 06-Oct
14	01-Apr to 07-Apr	41	07-Oct to 13-Oct
15	08-Apr to 14-Apr	42	14-Oct to 20-Oct
16	15-Apr to 21-Apr	43	21-Oct to 27-Oct
17	22-Apr to 28-Apr	44	28-Oct to 03-Nov
18	29-Apr to 05-May	45	04-Nov to 10-Nov
19	06-May to 12-May	46	11-Nov to 17-Nov
20	13-May to 19-May	47	18-Nov to 24-Nov
21	20-May to 26-May	48	25-Nov to 01-Dec
22	27-May to 02-Jun	49	02-Dec to 08-Dec
23	03-Jun to 09-Jun	50	09-Dec to 15-Dec
24	10-Jun to 16-Jun	51	16-Dec to 22-Dec
25	17-Jun to 23-Jun	52	23-Dec to 29-Dec
26	24-Jun to 30-Jun	53	30-Dec to 31-Dec
27	01-Jul to 07-Jul		

Table 5. Commercial set gill net, drift gill net, and purse seine salmon harvest by area and species in the Alaska Peninsula and Aleutian Islands Management Areas, 1990.

Area	Gear	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
SOUTH PENINSULA							
Southeastern District							
Southeast District	Seine	611	119,395	239,075	134,455	47,387	540,923
Mainland	Set Net	<u>211</u>	<u>158,065</u>	<u>10,734</u>	<u>21,590</u>	<u>8,178</u>	<u>198,778</u>
	Total	822	277,460	249,809	156,045	55,565	739,701
Shumagin Island Section	Seine	1,761	217,968	70,674	59,111	0	349,514
June	Set Net	<u>107</u>	<u>37,617</u>	<u>124</u>	<u>4,390</u>	<u>0</u>	<u>4,390</u>
	June Total	1,870	255,649	70,855	63,498	0	391,872
Shumagin Island Section	Seine	4,748	260,225	1,071,568	308,035	168,410	1,812,986
Post-June	Set Net	<u>168</u>	<u>163,028</u>	<u>30,785</u>	<u>36,061</u>	<u>13,718</u>	<u>243,760</u>
	Post Total	4,939	424,473	1,106,869	347,246	184,304	2,006,913
Shumagin Island Section	Seine	6,509	478,193	1,142,242	367,146	168,410	2,172,787
Total	Set Net	<u>275</u>	<u>200,645</u>	<u>30,909</u>	<u>40,451</u>	<u>13,718</u>	<u>285,998</u>
	Total	6,809	680,122	1,177,724	410,744	184,304	2,458,785
South Central District							
Canoe Bay	Seine	11	1,862	241,672	36,102	6	279,653
	Set Net	<u>0</u>	<u>84</u>	<u>290</u>	<u>121</u>	<u>0</u>	<u>495</u>
	Total	11	1,946	241,962	36,223	6	280,148
Pavlof Bay	Seine	100	52,492	137,573	23,182	3,607	216,954
	Set Net	<u>5</u>	<u>5,308</u>	<u>413</u>	<u>489</u>	<u>126</u>	<u>6,341</u>
	Total	105	57,800	137,986	23,671	3,733	223,295
Southwestern District							
Volcano Bay	Seine	58	65,611	219,046	30,485	3,212	318,412
	Set Net	<u>10</u>	<u>24,368</u>	<u>8,350</u>	<u>2,865</u>	<u>1,167</u>	<u>37,002</u>
	Total	68	89,979	227,396	33,350	4,379	355,414
Belkofski Bay	Seine	12	3,212	167,619	23,944	3	194,790
	Set Net	<u>1</u>	<u>3,031</u>	<u>1,330</u>	<u>855</u>	<u>27</u>	<u>3,914</u>
	Total	13	6,243	168,949	24,799	30	199,822

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Table 5. (page 2 of 4)

Area	Gear	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
Morzhovoi Bay	Seine	0	385	1,185	500	20	2,090
	Set Net	<u>17</u>	<u>11,246</u>	<u>2,412</u>	<u>3,258</u>	<u>728</u>	<u>17,661</u>
	Total	17	11,631	3,597	3,758	748	19,751
SOUTH PENINSULA							
Unimak District South Unimak June	Seine	4,302	619,391	444,150	263,532	0	1,331,375
	Set Net	136	17,069	61	1,510	0	18,776
	Drift Net	<u>4,026</u>	<u>452,484</u>	<u>38</u>	<u>190,002</u>	<u>1</u>	<u>646,551</u>
	Total	8,444	1,080,522	445,230	455,044	1	1,996,702
South Unimak Post-June	Seine	54	17,532	28,811	39,284	184	85,865
	Set Net	26	13,737	1,818	2,346	3,671	21,598
	Drift Net	<u>122</u>	<u>132,907</u>	<u>32,086</u>	<u>46,700</u>	<u>42,659</u>	<u>254,474</u>
	Total	202	156,934	62,715	88,330	46,448	361,937
Ikatan Peninsula To Cape Lazaref	Seine	902	164,361	186,961	46,790	123	399,137
	Set Net	160	30,774	1,879	3,844	3,673	40,330
	Drift Net	<u>2,246</u>	<u>410,214</u>	<u>32,127</u>	<u>171,905</u>	<u>42,654</u>	<u>659,146</u>
	Total	3,308	604,950	220,967	222,539	46,450	1,098,613
Cape Lutke Section	Seine	3,412	457,688	282,485	214,960	0	958,545
	Drift Net	<u>1,902</u>	<u>174,818</u>	<u>0</u>	<u>64,187</u>	<u>1</u>	<u>240,908</u>
	Total	5,314	632,506	282,485	279,147	1	1,199,453
ALEUTIAN ISLANDS AREA	Seine	2	12,435	282,823	1,038	74	296,372
	Total	2	12,435	282,823	1,038	74	296,372
NORTH PENINSULA							
Northwestern District Urilia Bay	Seine	3	53,468	0	43	1,300	54,814
	Set Net	3	17,490	0	0	0	17,493
	Drift Net	<u>8</u>	<u>33,717</u>	<u>0</u>	<u>79</u>	<u>0</u>	<u>33,804</u>
	Total	14	104,675	0	122	1,300	106,111

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Table 5. (page 3 of 4)

Area	Gear	Number of Salmon					Total
		Chinook	Sockeye	Pink	Chum	Coho	
Swanson Lagoon Section	Seine	0	2,538	0	3,679	1,960	8,177
	Set Net	0	1,255	0	459	2,610	4,324
	Drift Net	27	9,725	0	1,317	0	11,069
	Total	27	13,518	0	5,455	4,570	23,570
Izembek-Moffet Bay Section	Seine	1	39,428	130	23,983	0	63,594
	Total	1	39,428	130	23,983	0	63,594
Northern District Nelson Lagoon Section	Set Net	2,575	284,144	8	1,428	49,343	337,510
	Drift Net	998	126,273	14	735	29,891	157,905
	Total	3,573	410,417	22	2,163	79,234	495,415
Herendeen Bay	Seine	0	11	465,354	43,728	0	509,093
	Set Net	0	98	16,003	802	46	16,949
	Drift Net	1	220	16,690	7,769	0	24,680
	Total	1	329	498,047	52,299	46	550,722
NORTH PENINSULA							
Harbor Point To Cape Seniavin	Seine	0	0	13,500	500	0	14,000
	Set Net	60	3,894	59	4,157	559	8,729
	Drift Net	2,139	875,690	4,945	26,917	20,076	929,767
	Total	2,199	880,101	18,504	31,574	20,635	953,013
Cape Seniavin To Strogonof Point	Set Net	7	10,168	0	0	8,658	18,833
	Drift Net	538	932,732	870	7,741	3,807	945,688
	Total	545	943,900	870	7,741	12,465	964,521
Ilnik Lagoon	Set Net	7	8,487	0	0	6,808	15,302
	Drift Net	0	800	0	0	0	800
	Total	7	9,287	0	0	6,808	16,102
Inner Port Heiden	Set Net	1,054	4,458	0	135	5,600	11,247
	Drift Net	3,645	5,243	0	134	33,342	42,364
	Total	4,699	9,701	0	269	38,942	53,611

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Table 5. (page 4 of 4)

Area	Gear	Number of Salmon					Total	Percent
		Chinook	Sockeye	Pink	Chum	Coho		
Cinder River Section	Set Net	1	32	4	2	7,472	7,511	
	Drift Net	<u>62</u>	<u>1,214</u>	<u>147</u>	<u>97</u>	<u>28,312</u>	<u>29,832</u>	
	Total	63	1,246	151	99	35,784	37,343	
SOUTH PENINSULA TOTAL	Seine	11,668	1,362,265	2,771,854	922,741	224,354	5,292,882	77.8
	Set Net	681	437,904	57,302	75,236	38,496	609,619	9.0
	Drift Net	<u>4,148</u>	<u>585,391</u>	<u>32,127</u>	<u>236,702</u>	<u>42,660</u>	<u>901,028</u>	<u>13.2</u>
	Total	16,497	2,385,560	2,861,283	1,234,679	305,510	6,803,529	100.0
ALEUTIAN ISLANDS AREA TOTAL	Seine	<u>2</u>	<u>12,435</u>	<u>282,823</u>	<u>1,038</u>	<u>74</u>	<u>296,372</u>	<u>100.0</u>
	Total	2	12,435	282,823	1,038	74	296,372	100.0
NORTH PENINSULA TOTAL	Seine	4	95,445	478,984	72,767	3,260	650,460	20.0
	Set Net	3,769	321,830	16,080	7,729	74,290	423,698	13.0
	Drift Net	<u>8,547</u>	<u>1,998,772</u>	<u>22,660</u>	<u>45,617</u>	<u>115,428</u>	<u>2,191,024</u>	<u>67.0</u>
	Total	12,318	2,415,889	517,724	125,813	192,849	3,264,593	100.0
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY GEAR TYPE								
	Seine	11,674	1,470,145	3,533,661	996,546	227,688	6,239,714	
	Set Net	4,450	759,734	73,382	82,965	112,786	1,033,317	
	Drift Net	<u>12,695</u>	<u>2,584,163</u>	<u>54,787</u>	<u>282,319</u>	<u>158,088</u>	<u>3,092,052</u>	
	Total	28,819	4,814,042	3,661,830	1,361,830	498,562	10,365,073	
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY REGION								
	SOUTH PENINSULA	16,497	2,385,560	2,861,283	1,234,679	305,510	6,803,529	
	ALEUTIAN	2	12,435	282,823	1,038	74	296,372	
	NORTH PENINSULA	12,318	2,415,889	517,724	125,813	192,849	3,264,593	
	Total	28,819	4,814,042	3,661,830	1,361,830	498,562	10,365,073	
	Percent	0.3	46.4	35.3	13.1	4.8	100.0	

Table 6. Shumagin Islands Section commercial salmon catch, June and post-June, 1979-90.

Year	Number of Salmon					Total
	Chinook	Sockeye	Pink	Chum	Coho	
June						
1979	475	179,139	105,813	40,953	252	326,632
1980 <sup>a</sup>	342	572,090	465,652	71,330	34	1,109,448
1981	1,263	362,520	129,283	57,338	251	550,655
1982	1,554	450,548	686,671	161,308	0	1,300,081
1983	5,277	416,494	15,434	169,277	3	606,485
1984	1,830	256,838	449,188	109,207	14	817,077
1985	2,142	366,607	37,465	133,542	2,466	542,222
1986	560	156,027	141,315	99,048	1	396,951
1987	1,146	140,567	5,640	37,064	0	184,417
1988	1,939	282,230	93,546	61,946	244	439,905
1989	487	396,958	45,067	47,528	0	490,040
Average	1,547	325,456	197,734	89,867	297	614,901
1990	1,870	255,649	70,855	63,498	0	391,872
Post-June						
1979	910	145,369	2,076,670	93,527	313,573	2,630,049
1980	1,380	138,438	1,545,827	262,462	233,456	2,181,563
1981	4,009	116,297	1,364,026	307,980	126,955	1,919,267
1982	1,889	67,269	1,638,712	296,426	207,273	2,211,569
1983	6,547	108,365	900,726	220,824	92,403	1,328,865
1984	3,222	96,149	1,786,737	259,497	211,648	2,357,253
1985	461	107,792	1,632,827	205,899	113,193	2,060,172
1986	3,121	341,811	1,497,892	557,332	201,518	2,601,674
1987	3,388	248,934	542,383	310,540	157,936	1,263,181
1988	5,955	416,917	3,396,332	415,308	351,118	4,585,630
1989	2,493	418,124	2,026,996	239,366	251,206	2,938,185
Average	3,034	200,497	1,673,557	288,106	205,480	2,370,673
1990	4,939	424,473	1,106,869	347,246	183,386	2,066,913
Combined June and Post-June						
1979	1,385	324,508	2,182,483	134,480	313,825	2,956,681
1980	1,722	710,528	2,011,479	333,792	233,490	3,291,011
1981	5,272	478,817	1,493,309	365,318	127,206	2,469,922
1982	3,443	517,817	2,325,383	457,734	207,273	3,511,650
1983	11,824	524,859	916,160	390,101	92,406	1,935,350
1984	5,052	352,987	2,235,925	368,704	211,662	3,174,330
1985	2,603	474,399	1,670,292	339,441	115,659	2,602,394
1986	3,681	497,838	1,639,207	656,380	201,519	2,998,625
1987	4,534	389,501	548,023	347,604	157,936	1,447,598
1988	7,894	699,147	3,489,878	477,254	351,362	5,025,535
1989	2,980	815,082	2,072,063	286,894	251,206	3,428,225
Average	4,581	525,953	1,871,291	377,973	205,777	2,985,575
1990	6,809	680,122	1,177,724	410,744	184,304	2,458,785

<sup>a</sup>1980 June catch includes catch through 5 July.

Table 7. South Unimak fishery commercial salmon catch, June and post-June, 1979-90.

Year	Number of Salmon					Total
	Chinook	Sockeye	Pink	Chum	Coho	
June						
1979	569	670,241	48,906	62,725	38	782,479
1980	2,927	2,730,004	1,140,611	458,618	853	4,333,013
1981	4,458	1,468,284	324,517	522,091	83	2,319,433
1982	5,569	1,667,303	1,032,154	933,476	1,241	3,639,743
1983	8,179	1,545,075	40,441	616,354	1	2,210,050
1984	2,024	1,131,365	470,688	227,913	0	1,831,990
1985	4,101	1,454,969	69,811	324,825	2	1,853,708
1986	1,364	315,370	150,674	252,721	1	720,130
1987	4,017	652,397	11,342	406,335	0	1,074,091
1988	2,125	474,457	86,678	464,765	11	1,028,036
1989	2,263	1,347,547	154,168	407,635	0	1,911,613
Average	3,418	1,223,365	320,908	425,223	203	1,973,117
1990	8,444	1,080,522	445,230	446,086	510	1,856,191
Post-June						
1979	15	12,863	11,509	7,558	42	31,987
1980	0	3,513	346,372	80,381	173	430,439
1981	86	18,272	17,510	57,773	655	94,296
1982	150	21,194	54,704	56,383	25,596	158,027
1983	4,675	65,436	18,011	217,359	12,709	318,190
1984	558	68,123	337,017	198,231	64,366	668,295
1985	65	36,683	39,130	100,731	29,539	206,148
1986	115	65,796	61,448	40,599	26,821	194,779
1987	134	54,370	6,414	53,621	33,317	147,856
1988	293	70,697	245,581	133,659	84,643	534,873
1989	387	116,339	104,385	72,188	101,520	394,819
Average	589	48,481	112,916	92,589	34,489	289,064
1990	202	164,176	62,718	88,330	46,514	300,635
Combined June and Post-June						
1978	267	419,253	558,819	119,801	8,261	1,106,401
1979	584	683,104	60,415	70,283	80	814,466
1980	2,927	2,733,517	1,486,983	538,999	1,026	4,763,452
1981	4,544	1,486,556	342,027	579,864	738	2,413,729
1982	5,719	1,688,497	1,086,858	989,859	26,837	3,797,770

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Table 7. (page 2 of 2)

Year	Number of Salmon					Total
	Chinook	Sockeye	Pink	Chum	Coho	
1983	12,854	1,610,511	58,452	833,713	12,710	2,528,240
1984	2,582	1,199,488	807,705	426,144	64,366	2,500,285
1985	4,166	1,491,652	108,941	425,556	29,541	2,059,856
1986	1,479	381,166	212,122	293,320	26,822	914,909
1987	4,151	706,767	17,756	459,956	33,317	1,221,947
1988	2,418	545,154	332,259	598,424	84,654	1,562,909
1989	2,650	1,463,886	258,553	479,823	101,520	2,306,432
Average	3,695	1,200,796	444,241	484,645	32,489	2,165,866
1990	8,646	1,244,698	507,948	534,416	47,024	2,156,826

Table 8. North Peninsula Harbor Point to Strogonof Point commercial sockeye salmon harvest, 1974-90.

Year	Catch				Total Number
	Harbor Point to Cape Seniavin		Cape Seniavin to Strogonof Point		
	Number	Percent	Number	Percent	
1974 <sup>a</sup>	160,515	77.4	46,895	22.6	207,410
1975 <sup>a</sup>	169,469	95.1	8,707	4.9	178,176
1976 <sup>a</sup>	320,221	59.3	219,719	40.7	539,940
1977 <sup>a</sup>	275,763	73.8	97,887	26.2	373,650
1978 <sup>a</sup>	592,592	94.9	32,168	5.1	624,760
1979	1,352,903	87.4	194,362	12.6	1,547,265
1980	752,144	74.9	252,227	25.1	1,004,371
1981	1,327,800	95.1	68,900	4.9	1,396,700
1982	1,009,300	87.6	142,500	12.4	1,151,800
1983	1,126,200	60.7	729,600	39.3	1,855,800
Average	708,691	80.6	179,297	19.4	887,987
1984	637,400	46.2	743,700	53.8	1,381,100
1985	827,075	45.8	978,154	54.2	1,805,229
1986	939,131	45.0	1,148,840	55.0	2,087,971
1987	214,637	23.0	719,351	77.0	933,988
1988	498,718	40.1	745,996	59.9	1,244,714
1989	562,137	42.9	748,987	57.1	1,311,124
1990	880,101	48.3	942,900	51.7	1,823,001
Average	651,314	41.6	861,133	58.4	1,512,447

<sup>a</sup> Statistical area 314-12 is not included in Harbor Point to Cape Seniavin data.

Table 9. Alaska Peninsula and Aleutian Islands Management Areas subsistence salmon catch estimated from returned permits, 1990.

Area	Permits			Number of Salmon					
	Issued	Returned	Percent Returned	Chinook	Sockeye	Pink	Chum	Coho	Total
<b>SOUTH PENINSULA</b>									
Sand Point	80	60	75.0	160	5,648	429	1,051	620	7,908
King Cove	43	33	76.7	24	1,054	265	367	2,832	4,542
Cold Bay	9	11	122.2	0	322	1	22	70	415
False Pass	8	8	100.0	1	170	19	79	193	462
Total	140	112	80.0	185	7,194	714	1,519	3,715	13,327
<b>ALEUTIAN ISLANDS</b>									
Aleutians	94	36	38.3	4	2,357	1,428	100	681	4,570
Total	94	36	38.3	4	2,357	1,428	100	681	4,570
<b>NORTH PENINSULA</b>									
Nelson Lagoon- Port Moller	8	7	87.5	11	291	0	0	224	526
Port Heiden	3	3	100.0	21	107	0	27	20	175
Total	11	10	90.9	32	398	0	27	244	701
<b>OTHER</b>									
Alaska Peninsula	35	29	82.9	29	996	22	43	70	1,160
Aleutians	2	1	50.0	0	0	0	0	0	0
Total	37	30	81.1	29	996	22	43	70	1,160
<b>Totals</b>	<b>282</b>	<b>188</b>	<b>76.0</b>	<b>250</b>	<b>10,945</b>	<b>2,164</b>	<b>1,689</b>	<b>4,710</b>	<b>19,758</b>

Table 10.

Alaska Peninsula and Aleutian Islands Management  
Areas estimated salmon escapement by district,  
1990.

Area	Number of Salmon					Total
	Chinook	Sockeye	Pink	Chum	Coho	
<b>SOUTH PENINSULA</b>						
Southeastern District	0	21,925	569,434	114,696	42,168	748,223
South Central District	0	3,468	694,967	137,082	19,320	854,837
Southwestern District	0	74,040	724,244	90,820	56,448	945,552
Unimak District	0	14,800	19,540	710	960	36,010
Total	0	114,233	2,008,185	343,308	118,896	2,584,622
<b>ALEUTIAN ISLANDS</b>						
Unalaska District	0	38,600	549,635	0	0	588,235
Total	0	38,600	549,635	0	0	588,235
<b>NORTH PENINSULA</b>						
Northwestern District	58	142,035	31,954	251,425	20,640	446,112
Northern District	11,177	1,008,108	116,603	147,069	200,160	1,483,117
Total	11,234	1,150,320	148,556	398,494	220,800	1,929,229
<b>TOTAL</b>	11,234	1,303,153	2,285,497	741,802	339,696	4,681,207

Table 11. South Unimak commercial salmon catch by statistical week and species, June and post-June, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	
June										
24	06/10-06/16	47	148	12	1,199	114,972	29,348	35,522	77	181,948
25	06/17-06/23	76	153	14	4,619	701,138	314,898	245,148	19	1,265,822
26	06/24-06/30	86	87	15	2,646	273,469	101,320	174,790	414	552,639
Totals					8,444	1,080,522	445,230	446,086	510	1,980,702
Post-June										
27	07/01-07/07	14	37	8	93	26,246	6,177	42,813	441	75,770
28	07/08-07/14	0	32	6	42	22,912	44	8,041	3,219	34,258
29	07/15-07/21	0 <sup>a</sup>	26	4	16	12,302	597	2,153	5,062	20,130
30	07/22-07/28	-	48	-	36	50,199	7,880	15,937	16,814	90,866
31	07/29-08/04	-	36	-	9	27,185	15,598	10,355	13,433	66,580
32	08/05-08/11	-	37	-	6	24,617	31,101	8,483	6,938	71,145
36	09/09-09/15	0	-	-						
Totals					202	164,176	62,718	88,330	46,514	358,903
Purse seine					4,356	636,923	472,961	302,816	184	1,417,240
Drift net					4,148	585,391	32,127	236,702	42,660	901,028
Set net					162	30,806	1,879	3,856	3,671	40,374
Totals		95	154	19	8,646	1,244,698	507,948	524,416	47,024	2,339,695

<sup>a</sup> Denotes less than three permits were fished.

Table 12. Shumagin Islands Section commercial salmon catch by statistical week and species, June and post-June, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	
June										
24	06/10-06/16	45	0	37	373	39,910	11,969	6,961	0	59,213
25	06/17-06/23	51	0	43	1,497	215,739	58,886	56,537	0	332,659
Total		51	0	44	1,870	255,649	70,855	63,498	0	391,872
Post-June										
27	07/01-07/07	59	0	45	566	31,874	10,888	57,507	1,233	102,068
28	07/08-07/14	68	0	33	2,637	95,621	37,997	110,576	18,220	265,051
29	07/15-07/21	-	0	26	57	26,443	5,354	5,896	4,873	42,755
30	07/22-07/28	76	0	53	1,168	131,838	511,266	99,249	90,893	834,514
31	07/29-08/04	64	0	25	253	69,309	366,224	40,744	43,360	328,883
32	08/05-08/11	63	0	32	254	47,528	227,813	31,739	21,550	328,884
33	08/12-08/18	<sup>a</sup>	0	0						
35	08/26-09/01	-	0	9	0	24,073	560	2,303	504	30,944
36	09/02-09/08	4	0	13	1	7,811	279	805	1,349	10,245
37	09/09-09/15	-	0	13	1	4,913	28	138	1,028	6,108
38	09/16-09/22	0	0	13	0	4,667	0	37	484	5,188
39	09/23-09/29	0	0	7	2	688	0	6	74	770
40	09/30-10/06	0	0	-						
Total		85	0	57	4,939	424,473	1,106,869	347,246	184,304	2,006,913
Purse seine					6,509	478,193	1,142,242	367,146	168,410	2,172,787
Set net					275	200,645	30,909	40,451	13,718	285,998
Totals		85	0	57	6,809	680,122	1,177,724	410,744	184,304	2,458,785

<sup>a</sup>Denotes less than three permits were fished.

Table 13. Southeast District Mainland commercial salmon catch by statistical week and species, pre-26 July and post-25 July, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	Total
Pre 26 July										
28	07/08-07/14	24	0	43	513	75,881	5,474	19,154	1,198	10,222
29	07/15-07/21	65	0	31	171	88,147	41,408	23,849	15,583	169,158
Total					684	164,028	46,882	43,003	16,781	179,380
Post 25 July										
30	07/22-07/28	22	0	30	81	22,743	56,130	14,188	12,352	105,494
31	07/29-08/04	26	0	23	35	31,394	110,625	21,184	15,949	179,187
32	08/05-08/11	11	0	10	19	14,308	36,123	7,287	3,091	60,828
35	08/26-09/01	4	0	20	1	4,915	3	27,410	595	32,924
36	09/02-09/08	4	0	31	1	22,234	46	42,257	3,955	68,493
37	09/09-09/15	0	0	27	1	8,434	0	557	1,580	10,572
38	09/16-09/22	0	0	9	0	46,003	0	128	7,511	53,642
39	09/23-09/29	0	0	7	0	13,401	0	22	292	13,715
40	09/30-10/06	0	0	4	0	3,149	0	9	33	3,191
Total					138	113,432	202,927	109,163	38,784	560,321
Purse seine										
Set net										
Totals		74	0	58	822	277,460	249,809	156,045	55,565	739,701

Table 14. South Peninsula commercial salmon catch by statistical week, gear type, and species, 1990.

Stat. Week	Calendar Date	Permits	Landings	Number of Salmon					Percent		
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear	Total
Purse Seine											
24	06/10-06/16	91	165	799	73,979	41,136	19,401	0	135,315	2.6	1.3
25	06/17-06/23	109	521	4,114	567,292	373,584	170,619	0	1,115,609	21.1	11.1
26	06/24-06/30	87	203	1,150	196,999	103,892	132,931	33	435,005	8.2	4.3
27	07/01-07/07	92	92	585	38,487	17,327	93,895	1,297	151,591	2.9	1.5
28	07/08-07/14	92	270	3,016	124,846	45,646	127,206	19,089	319,803	6.0	3.2
29	07/15-07/21	93	139	177	74,098	59,078	31,027	17,769	182,149	3.4	1.8
30	07/22-07/28	104	354	1,258	143,659	623,165	114,952	102,210	985,244	18.6	9.8
31	07/29-08/04	108	273	292	79,338	701,513	64,615	56,361	902,119	17.0	9.0
32	08/05-08/11	114	302	277	61,453	806,007	98,456	24,168	990,361	18.7	9.8
35	08/26-09/01	8	10	0	464	224	27,806	535	29,029	0.5	0.3
36	09/02-09/08	11	18	0	1,394	254	41,783	2,566	45,997	0.9	0.5
37	09/09-09/15	4	4	0	256	28	50	326	660	0.0	0.0
Total		118	2,343	11,668	1,362,265	2,771,854	922,741	224,354	5,292,882	100.0	52.6
Drift Gill Net											
24	06/10-06/16	148	332	729	71,595	9	22,466	77	94,876	10.5	0.9
25	06/17-06/23	153	876	1,811	306,536	135	126,210	19	434,711	48.2	4.3
26	06/24-06/30	87	237	1,486	74,988	1,186	41,642	254	119,556	13.3	1.2
27	07/01-07/07	37	38	32	10,773	1	3,987	291	15,084	1.7	0.1
28	07/08-07/14	32	69	38	18,311	42	7,479	2,562	28,432	3.2	0.3
29	07/15-07/21	26	49	14	11,950	591	2,065	4,584	19,204	2.1	0.2
30	07/22-07/28	48	186	29	47,351	6,781	15,323	15,596	85,080	9.4	0.8
31	07/29-08/04	36	97	7	25,273	12,286	9,458	12,722	59,746	6.6	0.6
32	08/05-08/11	37	94	2	18,564	11,096	8,042	6,505	44,209	4.9	0.4
36	09/02-09/08	- <sup>a</sup>	-								
Total		154	1,968	4,148	585,391	32,127	236,702	42,660	901,028	100.0	8.9
Set Gill Net											
24	06/10-06/16	49	94	42	9,244	115	600	0	10,001	1.6	0.1
25	06/17-06/23	58	286	191	43,656	65	4,883	0	48,795	8.0	0.5

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Table 14. (page 2 of 2)

Stat. Week	Calendar Date	Permits	Landings	Number of Salmon						Percent	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear	Total
26	06/24-06/30	20	39	11	3,276	90	647	160	4,184	0.7	0.0
27	07/01-07/07	59	71	49	16,400	256	3,803	107	20,615	3.4	0.2
28	07/08-07/14	68	323	231	93,857	1,008	13,209	2,245	110,550	18.1	1.1
29	07/15-07/21	66	195	76	67,346	3,243	7,455	4,153	82,273	13.5	0.8
30	07/22-07/28	64	332	44	71,588	14,848	16,326	6,354	109,160	17.9	1.1
31	07/29-08/04	57	202	17	41,161	18,553	15,180	3,905	78,816	12.9	0.8
32	08/05-08/11	52	157	13	26,398	19,046	9,587	1,731	56,775	9.3	0.6
35	08/26-09/01	30	31	1	8,020	3	472	690	9,186	1.5	0.1
36	09/02-09/08	47	134	2	29,031	75	2,212	12,806	44,126	7.2	0.4
37	09/09-09/15	41	134	2	13,101	0	659	4,524	18,286	3.0	0.2
38	09/16-09/22	22	55	0	11,520	0	165	1,421	13,106	2.1	0.1
39	09/23-09/29	14	30	2	2,759	0	28	366	3,155	0.5	0.0
40	09/30-10/06	6	9	0	547	0	10	34	591	0.1	0.0
Total		81	2,088	681	437,904	57,302	75,236	38,496	609,619	100.0	6.1
All Gears											
24	06/10-06/16	288	591	1,570	154,818	41,260	42,467	77	240,192	3.5	
25	06/17-06/23	320	1,683	6,116	917,484	373,784	301,712	19	1,599,115	23.5	
26	06/24-06/30	194	479	2,647	275,263	105,168	175,220	447	558,745	8.2	
27	07/01-07/07	188	201	666	65,660	17,584	101,685	1,695	187,290	2.8	
28	07/08-07/14	192	662	3,285	237,014	46,696	147,894	23,896	458,785	6.7	
29	07/15-07/21	185	383	267	153,394	62,912	40,547	26,506	283,626	4.2	
30	07/22-07/28	216	872	1,331	262,598	644,794	146,601	124,160	1,179,484	17.3	
31	07/29-08/04	201	572	316	145,772	732,352	89,253	72,988	1,040,681	15.3	
32	08/05-08/11	203	553	292	106,415	836,149	116,085	32,404	1,091,345	16.0	
35	08/26-09/01	40	43	1	8,534	227	28,308	1,275	38,345	0.6	
36	09/02-09/08	58	152	2	30,425	329	43,995	15,372	90,123	1.3	
37	09/09-09/15	45	138	2	13,357	28	709	4,850	18,946	0.3	
38	09/16-09/22	22	55	0	11,520	0	165	1,421	13,106	0.2	
39	09/23-09/29	14	30	2	2,759	0	28	366	3,155	0.0	
40	09/30-10/06	6	9	0	547	0	10	34	591	0.0	
Total		2,172	6,423	16,497	2,385,560	2,861,283	1,234,679	305,510	6,803,529	100.0	
Percent				0.3	35.1	42.0	18.1	4.5	100.0		

<sup>a</sup> Denotes less than three permits were fished.

Table 15. Ikatan Peninsula to Cape Lazaref commercial salmon catch by statistical week and species, June and post-June, 1990.

Stat. Calendar Week Date	No. Permits			Number of Salmon					Total				
	Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho					
June													
24	06/10-06/16	47	148	12	690	63,564	3,095	17,700	77	85,126			
25	06/17-06/23	76	153	14	1,885	293,606	117,803	108,693	18	522,005			
26	06/24-06/30	86	87	15	555	90,846	41,847	40,546	414	174,208			
Total					3,130	448,016	162,745	166,939	509	781,339			
Post-June													
27	07/01-07/07	14	35	6	68	22,598	5,998	9,847	375	38,886			
28	07/08-07/14	0	32	6	42	22,912	44	8,041	3,219	34,258			
29	07/15-07/21	-	26	4	16	12,343	597	2,652	5,062	21,670			
30	07/22-07/28	-	48	-	36	50,199	7,880	15,937	16,814	90,866			
31	07/29-08/04	-	36	-	9	27,185	15,598	10,355	13,433	66,580			
32	08/05-08/11	-	37	-	6	21,617	28,101	8,483	6,938	65,145			
36	09/02-09/08	- <sup>a</sup>	-	-									
Total					178	156,934	58,222	55,600	45,941	317,274			
Purse seine					902	164,361	186,961	46,790	123	399,137			
Drift net					2,246	410,214	32,127	171,905	42,654	659,146			
Set net					160	30,774	1,879	3,844	3,673	40,330			
Totals					-	-	-	3,308	604,950	220,967	222,539	46,450	1,098,613

<sup>a</sup> Denotes less than three permits were fished.

Table 16. Cape Lutke commercial salmon catch by statistical week and species, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	
24	06/10-06/16	32	30	0	509	51,408	26,253	17,822	0	95,992
25	06/17-06/23	54	62	0	2,734	407,532	197,095	136,455	1	743,817
26	06/24-06/30	52	28	0	2,071	173,566	59,137	124,870	0	359,644
Purse seine					3,412	457,688	282,485	214,960	0	958,545
Drift net					1,902	174,818	0	64,187	1	240,908
Totals					5,314	632,506	282,485	279,147	1	1,199,453

Table 17. Estimated age composition of sockeye salmon catches from the Alaska Peninsula Management Area, 1990.

Area	Ages									Total
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Other <sup>a</sup>	
SOUTH PENINSULA										
Southeast District Mainland										
Number	1,120	1,962	31,231	154,715	15,318	1,522	71,211	381	0	277,460
Percent	0.4	0.7	11.3	55.8	5.5	0.5	25.7	0.1	0.0	100.0
Shumagin Islands Section (June)										
Number	404	4,072	54,523	75,252	61,827	840	57,115	0	1,616	255,649
Percent	0.2	1.6	21.3	29.4	24.2	0.3	22.3	0.0	0.6	100.0
Shumagin Islands Section (Post-June)										
Number	1,104	8,656	52,382	168,458	66,550	2,183	122,830	709	490	424,473
Percent	0.3	2.0	12.3	39.7	15.7	0.5	28.9	0.2	0.1	100.0
Pavlof Bay										
Number	63	874	6,184	34,915	3,437	153	12,033	53	89	57,800
Percent	0.1	1.5	10.7	60.4	5.9	0.3	20.8	0.1	0.2	100.0
Volcano Bay										
Number	461	2,307	14,535	50,296	5,306	231	16,612	231	0	89,979
Percent	0.5	2.6	16.2	55.9	5.9	0.3	18.5	0.3	0.0	100.0
Ikatan Peninsula-Cape Lazaref (June)										
Number	1,127	2,923	67,222	87,096	167,770	249	120,851	0	780	448,016
Percent	0.3	0.7	15.0	19.4	37.4	0.1	27.0	0.0	0.1	100.0
Ikatan Peninsula-Cape Lazaref (Post-June)										
Number	0	8,805	17,067	71,925	13,977	43	44,620	107	341	156,934
Percent	0.0	5.6	10.9	45.9	8.9	0.1	28.4	0.1	0.2	100.0
Cape Lutke										
Number	2,668	11,984	97,368	98,725	273,482	272	147,005	0	1,001	632,506
Percent	0.4	1.9	15.4	15.6	43.2	0.1	23.2	0.0	0.2	100.0
South Unimak (June)										
Number	3,367	12,930	165,320	191,524	431,954	638	272,852	0	1,731	1,080,522
Percent	0.3	1.2	15.3	17.7	40.0	0.1	25.3	0.0	0.2	100.0
South Unimak (Post-June)										
Number	0	8,805	17,067	71,975	13,977	43	44,620	107	64	156,934
Percent	0.0	5.6	10.9	45.9	8.9	0.0	28.4	0.1	0.0	100.0
SOUTH PENINSULA TOTAL										
Number	10,314	73,632	596,531	1,004,881	1,053,598	6,174	909,749	1,588	6,112	3,662,579
Percent	0.3	1.2	6.9	17.2	51.7	0.1	22.2	0.2	0.3	100.0
NORTH PENINSULA										
Urilia Bay										
Number	3,248	48,312	6,459	40,959	516	211	2,960	0	0	104,675
Percent	3.1	46.2	6.2	39.1	0.5	0.2	2.8	0.0	0.0	100.0
Swanson Lagoon										
Number	0	898	1,347	6,584	848	150	3,691	0	0	13,518
Percent	0.0	6.6	10.0	48.7	6.3	1.1	27.3	0.0	0.0	100.0
Izembek-Moffet Bay										
Number	287	477	14,449	9,771	10,788	0	3,613	0	43	39,428
Percent	0.7	1.2	36.6	24.8	27.4	0	9.2	0.0	0.1	100.0
Nelson Lagoon										
Number	36	2,596	20,902	69,712	136,746	230	170,504	1,605	8,093	410,417
Percent	0.0	0.6	5.1	17.0	33.3	0.1	41.5	0.4	2.4	100.0
Harbor Point-Cape Seniavin										
Number	454	4,994	48,122	167,946	361,952	326	292,195	1,613	2,497	880,101
Percent	0.1	0.6	5.5	19.1	41.1	0.1	33.2	0.2	0.4	100.0
Ilnik Lagoon										
Number	115	1,643	1,987	2,675	994	229	1,643	0	0	9,287
Percent	1.2	17.7	21.4	28.8	10.7	2.5	17.7	0.0	0.0	100.0

-Continued-

Table 17. (page 2 of 2)

Area	Ages									Total
	0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Other <sup>a</sup>	
Cape Seniavin-Strogonof Point										
Number	0	10,186	29,830	58,946	326,833	457	482,046	3,773	30,563	942,900
Percent	0.0	1.1	3.2	6.3	34.7	0.1	51.1	0.4	3.3	100.0
NORTH PENINSULA TOTAL										
Number	4,140	69,106	123,096	356,593	838,677	1,603	956,652	6,991	41,196	2,398,054
Percent	0.0	2.9	5.1	14.9	35.0	0.0	39.9	0.0	1.7	100.0
ALASKA PENINSULA TOTAL										
Number	14,454	142,738	719,627	1,361,474	1,892,275	7,777	1,866,401	8,579	47,308	6,060,633
Percent	0.0	2.4	11.9	22.5	31.2	0.0	30.8	0.0	0.0	100.0

<sup>a</sup> Other ages include: 0.1, 1.1, 2.1, 0.4, 3.2, 3.3

Table 18. Sockeye salmon daily and cumulative escapement counts through the Orzenoi Lake weir, 1990.

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
June 27	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
28	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
29	0	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0
30	0	1	1	0	1	1	0.0	0.0	0.0	0.0	0.0
July 1	2	1	3	2	2	4	0.0	0.0	0.0	0.0	0.0
2	36	4	40	38	6	44	0.2	0.0	0.3	0.0	0.3
3	0	0	0	38	6	44	0.0	0.0	0.3	0.0	0.3
4	0	0	0	38	6	44	0.0	0.0	0.3	0.0	0.3
5	275	11	286	313	17	330	1.8	0.1	2.1	0.1	2.2
6	233	7	240	546	24	570	1.6	0.0	3.6	0.2	3.8
7	52	7	59	598	31	629	0.3	0.0	4.0	0.2	4.2
8	10	0	10	608	31	639	0.1	0.0	4.1	0.2	4.3
9	0	0	0	608	31	639	0.0	0.0	4.1	0.2	4.3
10	120	3	123	728	34	762	0.8	0.0	4.9	0.2	5.1
11	199	9	208	927	43	970	1.3	0.1	6.2	0.3	6.5
12	787	73	860	1,714	116	1,830	5.2	0.5	11.4	0.8	12.2
13	0	0	0	1,714	116	1,830	0.0	0.0	11.4	0.8	12.2
14	3	0	3	1,717	116	1,833	0.0	0.0	11.4	0.8	12.2
15	29	21	50	1,746	137	1,883	0.2	0.1	11.6	0.9	12.6
16	526	27	553	2,272	164	2,436	3.5	0.2	15.1	1.1	16.2
17	39	103	142	2,311	267	2,578	0.3	0.7	15.4	1.8	17.2
18	4,374	199	4,573	6,685	466	7,151	29.2	1.3	44.6	3.1	47.7
19	63	2	65	6,748	468	7,216	0.4	0.0	45.0	3.1	48.1
20	907	92	999	7,655	560	8,215	6.0	0.6	51.0	3.7	54.8
21	774	114	888	8,429	674	9,103	5.2	0.8	56.2	4.5	60.7
22	195	33	228	8,624	707	9,331	1.3	0.2	57.5	4.7	62.2
23	260	22	282	8,884	729	9,613	1.7	0.1	59.2	4.9	64.1
24	666	83	749	9,550	812	10,362	4.4	0.6	63.7	5.4	69.1
25	38	20	58	9,588	832	10,420	0.3	0.1	63.9	5.5	69.5
26	25	4	29	9,613	836	10,449	0.2	0.0	64.1	5.6	69.7
27	8	0	8	9,621	836	10,457	0.1	0.0	64.1	5.6	69.7
28	113	37	150	9,734	873	10,607	0.8	0.2	64.9	5.8	70.7
29	331	68	399	10,065	941	11,006	2.2	0.5	67.1	6.3	73.4
30	385	101	486	10,450	1,042	11,492	2.6	0.7	69.7	6.9	76.6
31	577	92	669	11,027	1,134	12,161	3.8	0.6	73.5	7.6	81.1
Aug 1	0	0	0	11,027	1,134	12,161	0.0	0.0	73.5	7.6	81.1
2	41	6	47	11,068	1,140	12,208	0.3	0.0	73.8	7.6	81.4
3	264	70	334	11,332	1,210	12,542	1.8	0.5	75.5	8.1	83.6
4	142	88	230	11,474	1,298	12,772	0.9	0.6	76.5	8.7	85.1
5	376	150	526	11,850	1,448	13,298	2.5	1.0	79.0	9.7	88.7
6 <sup>a</sup>	163	6	169	12,013	1,454	13,467	1.1	0.0	80.1	9.7	89.8
Post 6 <sup>b</sup>	1,150	383	1,533	13,163	1,837	15,000	7.7	2.6	87.8	12.2	100.0
Total	13,163	1,837	15,000	13,163	1,837	15,000	87.8	12.2	87.8	12.2	100.0

<sup>a</sup> August 6 escapement reflects only a partial daily count (through noon).

<sup>b</sup> Counts after August 6 are estimated from aerial surveys.

Table 19. Estimated age composition of sockeye escapements from the Alaska Peninsula Management Area, 1990.

Area	Ages											TOTAL
	0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	3.3	3.2	Other <sup>a</sup>	
SOUTH PENINSULA												
Orzenoi River												
Number	0	7,258	423	1,875	3,145	60	2,117	0	60	0	60	15,000
Percent	0.0	48.4	2.8	12.5	21.0	0.4	14.1	0.0	0.4	0.0	0.4	100.0
SOUTH PENINSULA TOTAL												
Number	0	7,258	423	1,875	3,145	60	2,117	0	60	0	60	15,000
Percent	0.0	48.4	2.8	12.5	21.0	0.4	14.1	0.0	0.4	0.0	0.4	100.0
NORTH PENINSULA												
Nelson Lagoon												
Number	1,648	7,821	0	37,527	79,852	171	107,282	1,192	1,091	4,040	75	240,700
Percent	0.7	3.2	0.0	15.6	33.2	0.1	44.6	0.5	0.5	1.7	0.0	100.1
Bear Lake												
Number	0	66,468	5,508	14,322	322,058	0	114,942	1,102	367	21,299	734	546,800
Percent	0.0	12.2	1.0	2.6	58.9	0.0	21.0	0.2	0.1	3.9	0.1	100.0
Ilnik Lagoon												
Number	2,769	18,069	0	8,451	2,186	1,894	2,040	0	0	0	291	35,700
Percent	7.8	50.6	0.0	23.7	6.1	5.3	5.7	0.0	0.0	0.0	0.8	100.0
NORTH PENINSULA TOTAL												
Number	4,417	92,358	5,508	60,300	404,096	2,065	224,264	2,294	1,458	25,339	1,100	823,200
Percent	0.5	11.2	0.7	7.3	49.1	0.3	27.2	0.3	0.2	3.1	0.1	100.0
ALASKA PENINSULA TOTAL												
Number	4,417	99,616	5,931	62,175	407,241	2,125	226,381	2,294	1,518	25,339	1,160	838,200
Percent	0.5	11.9	0.7	7.4	48.6	0.3	27.0	0.3	0.2	3.0	0.1	100.0

<sup>a</sup>Other ages include: 1.1, 0.2, 0.4, 3.1

Table 20. Estimated sex composition of sockeye escapement from Orzenoi Lake by statistical week, 1990.

Statistical Week	Calendar Date	Males	Females	Total	Ratio m:f
26-32	6/24-8/11	8,327	6,673	15,000	1.3:1
Totals		8,327	6,673	15,000	1.3:1

Table 21. Lengths of sockeye in escapement samples from Orzenoi Lake by age and sex, 8 July through 4 August, 1990.

	Ages							Total	
	1.1	1.2	2.1	1.3	2.2	1.4	2.3		3.3
<b>Females</b>									
Mean Length	-	490	-	561	492	590	572	-	514
SE	-	4	-	9	6	0	10	-	5
Range	-	430-600	-	469-600	410-530	590	440-620	-	410-620
Sample Size	-	49	-	17	27	1	16	-	110
<b>Males</b>									
Mean Length	320	479	354	569	514	-	597	610	505
SE	-	6	7	18	9	-	8	-	6
Range	320	385-590	320-375	430-650	430-585	-	520-640	610	320-650
Sample Size	1	70	7	14	25	-	19	1	137
<b>All Fish</b>									
Mean Length	320	484	354	565	503	590	586	610	509
SE	-	4	7	9	5	-	6	-	4
Range	320	385-600	320-375	430-650	410-585	590	440-640	610	320-650
Sample Size	1	119	7	31	52	1	35	1	247

Table 22. Estimated age composition of chum salmon catches from the Alaska Peninsula Management Area, 1990.

Area	Ages				Total
	0.2	0.3	0.4	0.5	
SOUTH PENINSULA					
Southeast District Mainland					
Number	8,352	102,807	44,468	417	156,045
Percent	5.4	65.9	28.5	0.3	100.0
Shumagin Islands Section (June)					
Number	543	30,292	31,613	950	63,498
Percent	0.9	47.9	49.8	1.5	100.0
Shumagin Islands Section (Post-June)					
Number	34,435	234,716	76,575	1,517	347,246
Percent	9.9	67.6	22.1	0.4	100.0
Pavlof Bay					
Number	519	17,628	5,456	69	23,671
Percent	2.2	74.5	23.0	0.3	100.0
Canoe Bay					
Number	192	14,765	21,147	120	36,223
Percent	0.5	40.8	58.4	0.3	100.0
Belkofski Bay					
Number	433	19,383	4,969	13	24,799
Percent	1.7	78.2	20.0	0.1	100.0
Ikatan Peninsula-Cape Lazaref (June)					
Number	1,219	96,426	66,379	2,915	166,939
Percent	0.7	57.8	39.8	1.7	100.0
Ikatan Peninsula-Cape Lazaref (Post-June)					
Number	759	36,198	18,094	398	55,447
Percent	1.4	65.3	32.6	0.7	100.0
Cape Lutke					
Number	472	146,638	122,507	9,529	279,147
Percent	0.2	52.5	43.9	3.4	100.0
South Unimak (June)					
Number	2,053	244,524	188,039	11,468	446,086
Percent	0.5	54.8	42.2	2.6	100.0
South Unimak (Post-June)					
Number	759	36,198	18,094	398	55,447
Percent	1.4	65.3	32.6	0.7	100.0
SOUTH PENINSULA TOTAL					
Number	49,736	979,575	597,341	27,794	1,651,446
Percent	3.0	59.2	36.1	1.7	100.0
NORTH PENINSULA					
Izembek-Moffet Bay					
Number	259	15,191	8,339	194	23,983
Percent	1.1	63.3	34.8	0.8	100.0

-Continued-

Table 22. (page 2 of 2)

Area	Ages				Total
	0.2	0.3	0.4	0.5	
Nelson Lagoon					
Number	90	1,461	607	6	2,163
Percent	4.2	67.5	28.1	0.3	100.0
Herendeen Bay					
Number	397	32,261	19,221	420	52,229
Percent	0.8	61.7	36.8	0.8	100.0
Harbor Point-Cape Seniavin					
Number	129	18,849	12,311	286	31,574
Percent	0.4	59.7	39.0	0.9	100.0
Cape Seniavin-Strogonof Point					
Number	13	4,590	3,097	39	7,741
Percent	0.2	59.3	40.0	0.5	100.0
<b>NORTH PENINSULA TOTAL</b>					
Number	888	72,352	43,575	945	117,760
Percent	0.8	61.4	37.0	0.8	100.0
<b>ALASKA PENINSULA TOTAL</b>					
Number	50,624	1,051,927	640,916	28,739	1,772,206
Percent	2.8	59.4	36.2	1.6	100.0

Table 23. Estimated age composition of coho salmon catches from the Alaska Peninsula Management Area, 1990.

Area	Ages				Total
	1.1	2.1	3.1	Other <sup>a</sup>	
<b>SOUTH PENINSULA</b>					
Southeast District Mainland					
Number	23,078	30,633	1,854	0	55,565
Percent	41.5	55.1	3.3	0.0	100.0
Shumagin Islands Section					
Number	82,850	98,894	2,408	154	184,304
Percent	45.0	53.7	1.3	0.1	100.0
Ikatan Peninsula-Cape Lazaref					
Number	10,376	34,113	1,890	65	46,448
Percent	22.3	73.4	4.1	0.1	100.0
<b>SOUTH PENINSULA TOTAL</b>					
Number	116,304	163,640	6,152	219	286,315
Percent	40.6	57.2	2.2	0.0	100.0
<b>NORTH PENINSULA</b>					
Nelson Lagoon					
Number	13,413	61,603	4,218	0	79,234
Percent	16.9	77.7	5.3	0.0	100.0
Harbor Point-Cape Seniavin					
Number	6,257	13,679	661	39	20,635
Percent	30.3	66.3	3.2	0.2	100.0
Cape Seniavin-Strogonof Point					
Number	3,568	8,809	88	0	12,465
Percent	28.6	70.7	0.7	0.0	100.0
<b>NORTH PENINSULA TOTAL</b>					
Number	23,238	84,091	4,967	39	112,334
Percent	20.7	74.9	4.4	0.0	100.0
<b>ALASKA PENINSULA TOTAL</b>					
Number	139,542	247,731	11,119	258	398,650
Percent	35.1	62.1	2.8	0.0	100.0

<sup>a</sup> Other ages include age 2.2 and 4.1

Table 24.

Aleutian Islands Management Area commercial salmon catch by statistical week and species, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	
30	07/22-07/28	- <sup>a</sup>	0	0						
31	07/29-08/04	-	0	0						
32	08/05-08/11	12	0	0	2	6,719	192,410	756	65	231,504
33	08/12-08/18	12	0	0	0	413	63,950	69	9	64,441
<hr/>										
Purse seine					2	12,435	282,823	1,038	74	296,372
Totals		15	0	0	2	12,435	282,823	1,038	74	296,372

<sup>a</sup> Denotes less than three permits were fished.

Table 25. North Peninsula commercial salmon catch by statistical week, gear type, and species, 1990.

Stat. Week	Calendar Date	Permits	Landings	Number of Salmon					Total	Percent	
				Chinook	Sockeye	Pink	Chum	Coho		Gear	Total
Purse Seine											
23	09/03-06/09	- <sup>a</sup>	-								
24	06/10-06/16	3	7	0	2,802	0	0	0	2,802	0.4	0.0
25	06/17-06/23	3	9	1	15,790	0	0	0	15,791	2.4	0.2
26	06/24-06/30	8	24	2	19,690	0	950	0	20,642	3.2	0.2
27	07/01-07/07	9	21	0	16,145	0	3,688	0	19,833	3.0	0.2
28	07/13-07/14	7	16	0	3,341	0	26,540	0	29,881	4.6	0.3
29	07/15-07/21	7	11	0	2,311	31	7,426	0	9,768	1.5	0.1
30	07/22-07/28	7	19	0	11,730	9	2,355	0	14,094	2.2	0.1
31	07/29-08/04	5	19	1	22,930	90	8,230	0	31,251	4.8	0.3
32	08/05-08/11	20	52	0	0	434,804	19,203	0	454,007	69.8	4.5
33	08/12-08/18	9	18	0	10	44,050	4,375	0	48,435	7.4	0.5
36	09/02-09/08	-	-	-	-	-	-	-	-	-	-
37	09/09-09/15	-	-	-	-	-	-	-	-	-	-
Total		26	205	4	95,445	478,984	72,767	0	650,460	100.0	6.5
Drift Gill Net											
23	06/03-06/09	13	28	919	49	0	49	0	1,017	0.0	0.0
24	06/10-06/16	22	41	2,410	914	0	143	0	3,467	0.2	0.0
25	06/17-06/23	26	46	2,381	16,336	0	271	0	18,988	0.9	0.2
26	06/24-06/30	99	270	1,322	147,497	0	540	0	149,359	6.8	1.5
27	07/01-07/07	89	244	972	80,230	0	2,216	0	83,418	3.8	0.8
28	07/08-07/14	153	787	242	542,765	1	12,349	4	555,361	25.3	5.5
29	07/15-07/21	148	842	131	376,203	34	11,913	44	388,325	17.7	3.9
30	07/22-07/28	100	464	77	141,276	363	5,400	107	147,223	6.7	1.5
31	07/29-08/04	94	432	20	114,298	1,608	3,301	219	119,446	5.5	1.2
32	08/05-08/11	111	519	26	114,229	18,554	7,335	818	140,962	6.4	1.4
33	08/12-08/18	140	611	32	175,124	1,147	1,141	13,829	191,273	8.7	1.9
34	08/19-08/25	146	610	9	146,501	552	710	38,061	185,833	8.5	1.8
35	08/26-09/01	129	461	4	87,335	300	219	37,250	125,108	5.7	1.2
36	09/02-09/08	70	266	2	46,510	99	28	20,970	67,609	3.1	0.7
37	09/09-09/15	26	72	0	9,505	2	2	4,126	13,635	0.6	0.1
Total		226	5,692	8,547	1,998,772	22,660	45,617	115,428	2,191,024	100.0	21.8

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Table 25. (page 2 of 2)

Stat. Week	Calendar Date	Permits	Landings	Number of Salmon						---Percent---	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear	Total
Set Gill Net											
23	06/03-06/09	19	47	284	1,298	0	0	0	1,582	0.4	0.0
24	06/10-06/16	26	69	1,196	2,947	0	203	0	4,346	1.0	0.0
25	06/17-06/23	30	104	1,379	13,201	0	610	130	15,320	3.6	0.2
26	06/24-06/30	35	162	689	58,448	0	1,880	0	61,017	14.4	0.6
27	07/01-07/07	39	191	152	81,371	0	235	2	81,760	19.3	0.8
28	07/08-07/14	34	193	52	74,826	2	2,049	0	76,929	18.2	0.8
29	07/15-07/21	31	122	8	25,351	0	776	0	26,135	6.2	0.3
30	07/22-07/28	22	81	2	13,200	1	196	2	13,401	3.2	0.1
31	07/29-08/04	22	104	1	26,227	5	660	60	26,953	6.4	0.3
32	08/05-08/11	22	91	0	12,716	16,021	1,044	368	30,149	7.1	0.3
33	08/12-08/18	33	91	4	6,215	8	57	4,647	10,931	2.6	0.1
34	08/19-08/25	38	99	1	3,257	23	15	10,266	13,562	3.2	0.1
35	08/26-09/01	40	122	1	1,976	20	2	22,726	24,725	5.8	0.2
36	09/02-09/08	33	95	0	696	0	2	30,616	31,314	7.4	0.3
37	09/09-09/15	16	44	0	101	0	0	5,473	5,574	1.3	0.1
Total		60	1,614	3,769	321,830	16,080	7,729	74,290	423,698	100.0	4.2
All Gears											
23	06/03-06/09	33	79	1,203	2,013	0	49	0	3,265	0.1	
24	06/10-06/16	51	117	3,606	6,663	0	346	0	10,615	0.3	
25	06/17-06/23	59	159	3,761	45,327	0	881	130	50,099	1.5	
26	06/24-06/30	142	456	2,013	225,635	0	3,370	0	231,018	7.1	
27	07/01-07/07	137	456	1,124	177,746	0	6,139	2	185,011	5.7	
28	07/08-07/14	194	996	294	620,932	3	40,938	4	662,171	20.3	
29	07/15-07/21	186	975	139	403,865	65	20,115	44	424,228	13.0	
30	07/22-07/28	129	564	79	166,206	373	7,951	109	174,718	5.4	
31	07/29-08/04	121	555	22	163,455	1,703	12,191	279	177,650	5.4	
32	08/05-08/11	153	662	26	126,945	469,379	27,582	1,186	625,118	19.1	
33	08/12-08/18	182	720	36	181,349	45,205	5,573	18,476	250,639	7.7	
34	08/19-08/25	184	709	10	149,758	575	725	48,327	199,395	6.1	
35	08/26-09/01	169	583	5	89,311	320	221	59,976	149,833	4.6	
36	09/02-09/08	105	365	2	47,236	99	30	54,736	102,103	3.1	
37	09/09-09/15	43	117	0	9,606	2	2	9,709	19,319	0.6	
Total		312	7,511	12,318	2,415,889	517,724	125,813	192,849	3,264,593	100.0	
Percent				0.3	74.0	15.9	3.9	5.9	100.0		

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<sup>a</sup> Denotes less than three permits were fished.

Table 26. Nelson Lagoon commercial salmon catch by statistical week and species, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total			
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho				
23	06/03-06/09	0	4	16	460	483	0	0	0	943			
24	06/10-06/16	0	- <sup>a</sup>	19	789	2,621	0	0	0	3,410			
25	06/17-06/23	0	4	23	1,112	12,185	0	0	0	13,297			
26	06/24-06/30	0	13	27	837	61,094	0	1	0	61,932			
27	07/01-07/07	0	17	29	265	114,988	0	13	0	115,266			
28	07/08-07/14	0	14	28	92	101,755	1	31	0	101,879			
29	07/15-07/21	0	11	26	12	32,233	0	366	0	32,611			
30	07/22-07/28	0	11	22	4	19,972	1	323	2	20,302			
31	07/29-08/04	0	10	22	1	33,927	5	982	89	35,004			
32	08/05-08/11	0	7	20	0	17,230	3	377	517	18,127			
33	08/12-08/18	0	7	23	1	7,318	3	58	2,949	10,329			
34	08/19-08/25	0	13	22	0	4,280	8	10	12,606	16,904			
35	08/26-09/01	0	14	24	0	1,691	1	1	21,733	23,426			
36	09/02-09/08	0	13	24	0	545	0	7	33,918	34,470			
37	09/09-09/15	0	11	14	0	95	0	0	7,420	7,515			
Drift net					998	126,273	8	735	29,891	157,905			
Set net					2,575	284,144	14	1,428	49,343	337,510			
Totals					0	17	30	3,573	410,417	22	2,163	79,234	495,415

<sup>a</sup> Denotes less than three permits were fished.

Table 27. Harbor Point to Cape Seniavin commercial salmon catch by statistical week and species, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total		
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho			
23	06/03-06/09	0	4	0	169	45	0	48	0	262		
24	06/10-06/16	0	- <sup>a</sup>	0								
25	06/17-06/23	0	9	-	969	9,925	0	738	129	11,761		
26	06/24-06/30	0	56	-	483	46,457	0	1,875	0	48,815		
27	07/01-07/07	0	0	-								
28	07/08-07/14	0	63	-	44	57,713	1	7,407	0	65,165		
29	07/15-07/21	0	86	-	59	60,444	19	9,793	9	70,324		
30	07/22-07/28	0	86	0	19	80,415	304	4,408	48	85,194		
31	07/29-08/04	0	90	0	16	88,769	1,274	2,791	73	92,923		
32	08/05-08/11	-	115	-	24	102,797	15,160	2,353	226	120,560		
33	08/12-08/18	0	128	-	31	156,751	896	1,069	1,914	160,661		
34	08/19-08/25	0	108	-	8	137,934	489	667	5,659	144,757		
35	08/26-09/01	0	85	-	5	84,296	271	210	7,071	91,853		
36	09/02-09/08	0	58	0	2	44,841	88	28	4,835	49,794		
37	09/09-09/15	0	16	0	0	9,476	2	2	671	10,151		
Purse seine					0	0	13,500	500	0	14,000		
Drift net					2,139	875,690	4,945	26,917	20,076	929,767		
Set net					60	3,894	59	4,157	559	8,729		
Totals					- 141	4	2,199	880,101	18,504	31,574	20,635	953,013

<sup>a</sup> Denotes less than three permits were fished.

Table 28. Estimated age composition of chinook salmon catches from the Alaska Peninsula Management Area, 1990.

Area	Ages					Total
	1.1	1.2	1.3	1.4	1.5	
NORTH PENINSULA						
Nelson Lagoon						
Number	8	269	557	2,364	375	3,573
Percent	0.2	7.5	15.6	66.2	10.5	100.0
Harbor Point-Cape Seniavin						
Number	42	499	401	1,097	161	2,199
Percent	1.9	22.7	18.2	49.9	7.3	100.0
NORTH PENINSULA TOTAL						
Number	50	768	958	3,461	536	5,773
Percent	0.8	13.3	16.6	60.0	9.3	100.0

Table 29. Cape Seniavin to Strogonof Point commercial salmon catch by statistical week and species, 1990.

Stat. Week	Calendar Date	No. Permits			Number of Salmon					Total
		Purse Seine	Drift Net	Set Net	Chinook	Sockeye	Pink	Chum	Coho	
25	06/17-06/23	0	- <sup>a</sup>	0						
26	06/24-06/30	0	55	-	254	71,161	0	62	0	71,477
27	07/01-07/07	0	0	-						
28	07/08-07/14	0	134	-	157	453,538	1	4,462	4	458,162
29	07/15-07/21	0	124	0	67	307,288	15	2,062	35	309,467
30	07/22-07/28	0	43	0	56	54,089	59	865	59	55,128
31	07/29-08/04	0	25	0	4	17,829	334	188	117	18,472
32	08/05-08/11	0	11	0	2	6,642	222	74	249	7,189
33	08/12-08/18	0	17	-	0	16,635	183	26	934	17,778
34	08/19-08/25	0	8	-	1	6,920	45	2	2,193	9,161
35	08/26-09/01	0	-	-						
36	09/02-09/08	0	6	-	0	1,645	11	0	5,359	12,517
37	09/09-09/15	0	0	-						
<hr/>										
Drift net					538	932,732	870	7,741	3,807	945,688
Set net					7	10,168	0	0	8,658	18,833
Totals		0	146	4	545	942,900	870	7,741	12,465	964,521

<sup>a</sup> Denotes less than three permits were fished.

Table 30. Sockeye salmon daily and cumulative escapement counts through the Nelson River weir, 1990.

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
June 5	2	1	3	2	1	3	0.0	0.0	0.0	0.0	0.0
6	0	0	0	2	1	3	0.0	0.0	0.0	0.0	0.0
7	4	0	4	6	1	7	0.0	0.0	0.0	0.0	0.0
8	4	1	5	10	2	12	0.0	0.0	0.0	0.0	0.0
9	18	2	20	28	4	32	0.0	0.0	0.0	0.0	0.0
10	6	1	7	34	5	39	0.0	0.0	0.0	0.0	0.0
11	2	1	3	36	6	42	0.0	0.0	0.0	0.0	0.0
12	10	0	10	46	6	52	0.0	0.0	0.0	0.0	0.0
13	23	8	31	69	14	83	0.0	0.0	0.0	0.0	0.0
14	28	5	33	97	19	116	0.0	0.0	0.0	0.0	0.0
15	298	32	330	395	51	446	0.1	0.0	0.2	0.0	0.2
16	128	12	140	523	63	586	0.1	0.0	0.2	0.0	0.2
17	53	6	59	576	69	645	0.0	0.0	0.2	0.0	0.3
18	120	11	131	696	80	776	0.0	0.0	0.3	0.0	0.3
19	134	11	145	830	91	921	0.1	0.0	0.3	0.0	0.4
20	142	31	173	972	122	1,094	0.1	0.0	0.4	0.1	0.5
21	619	206	825	1,591	328	1,919	0.3	0.1	0.7	0.1	0.8
22	449	114	563	2,040	442	2,482	0.2	0.0	0.8	0.2	1.0
23	1,522	492	2,014	3,562	934	4,496	0.6	0.2	1.5	0.4	1.9
24	2,234	830	3,064	5,796	1,764	7,560	0.9	0.3	2.4	0.7	3.1
25	5,988	1,055	7,043	11,784	2,819	14,603	2.5	0.4	4.9	1.2	6.1
26	3,970	1,484	5,454	15,754	4,303	20,057	1.6	0.6	6.5	1.8	8.3
27	3,576	324	3,900	19,330	4,627	23,957	1.5	0.1	8.0	1.9	10.0
28	4,702	1,820	6,522	24,032	6,447	30,479	2.0	0.8	10.0	2.7	12.7
29	7,726	1,029	8,755	31,758	7,476	39,234	3.2	0.4	13.2	3.1	16.3
30	8,064	1,275	9,339	39,822	8,751	48,573	3.4	0.5	16.5	3.6	20.2
July 1	15,264	1,324	16,588	55,086	10,075	65,161	6.3	0.6	22.9	4.2	27.1
2	14,963	404	15,367	70,049	10,479	80,528	6.2	0.2	29.1	4.4	33.5
3	10,824	654	11,478	80,873	11,133	92,006	4.5	0.3	33.6	4.6	38.2
4	8,139	279	8,418	89,012	11,412	100,424	3.4	0.1	37.0	4.7	41.7
5	8,072	419	8,491	97,084	11,831	108,915	3.4	0.2	40.3	4.9	45.2
6	5,248	112	5,360	102,332	11,943	114,275	2.2	0.0	42.5	5.0	47.5
7	15,336	617	15,953	117,668	12,560	130,228	6.4	0.3	48.9	5.2	54.1

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Table 30. (page 2 of 2)

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
July 8	13,570	309	13,879	131,238	12,869	144,107	5.6	0.1	54.5	5.3	59.9
9	8,508	255	8,763	139,746	13,124	152,870	3.5	0.1	58.1	5.5	63.5
10	8,483	276	8,759	148,229	13,400	161,629	3.5	0.1	61.6	5.6	67.1
11	3,858	215	4,073	152,087	13,615	165,702	1.6	0.1	63.2	5.7	68.8
12	6,992	630	7,622	159,079	14,245	173,324	2.9	0.3	66.1	5.9	72.0
13	13,505	1,276	14,781	172,584	15,521	188,105	5.6	0.5	71.7	6.4	78.1
14	7,543	477	8,020	180,127	15,998	196,125	3.1	0.2	74.8	6.6	81.5
15	5,237	290	5,527	185,364	16,288	201,652	2.2	0.1	77.0	6.8	83.8
16	5,993	166	6,159	191,357	16,454	207,811	2.5	0.1	79.5	6.8	86.3
17	4,532	72	4,604	195,889	16,526	212,415	1.9	0.0	81.4	6.9	88.2
18	4,382	70	4,452	200,271	16,596	216,867	1.8	0.0	83.2	6.9	90.1
19	3,103	52	3,155	203,374	16,648	220,022	1.3	0.0	84.5	6.9	91.4
20	3,617	128	3,745	206,991	16,776	223,767	1.5	0.1	86.0	7.0	93.0
21	4,081	79	4,160	211,072	16,855	227,927	1.7	0.0	87.7	7.0	94.7
22	2,676	69	2,745	213,748	16,924	230,672	1.1	0.0	88.8	7.0	95.8
23	1,607	61	1,668	215,355	16,985	232,340	0.7	0.0	89.5	7.1	96.5
24	1,112	53	1,165	216,467	17,038	233,505	0.5	0.0	89.9	7.1	97.0
25 <sup>a</sup>	1,102	40	1,142	217,569	17,078	234,647	0.5	0.0	90.4	7.1	97.5
Post July 25	5,908	145	6,053	223,477	17,223	240,700	2.5	0.1	92.8	7.2	100.0
Total	223,477	17,223	240,700	217,569	17,078	234,647	92.8	7.2	92.8	7.2	100.0

<sup>a</sup> July 25 escapement reflects only a partial daily count. Counts after July 25 are estimated from the escapement during years when weir counts continued late into the run.

Table 31. Sockeye salmon daily and cumulative escapement counts through the Bear River weir, 1990.

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
June 6	3	1	4	3	1	4	0.0	0.0	0.0	0.0	0.0
7	36	11	47	39	12	51	0.0	0.0	0.0	0.0	0.0
8	57	16	73	96	28	124	0.0	0.0	0.0	0.0	0.0
9	30	7	37	126	35	161	0.0	0.0	0.0	0.0	0.0
10	8	1	9	134	36	170	0.0	0.0	0.0	0.0	0.0
11	18	9	27	152	45	197	0.0	0.0	0.0	0.0	0.0
12	206	44	250	358	89	447	0.0	0.0	0.1	0.0	0.1
13	28	17	45	386	106	492	0.0	0.0	0.1	0.0	0.1
14	333	64	397	719	170	889	0.1	0.0	0.1	0.0	0.2
15	201	54	255	920	224	1,144	0.0	0.0	0.2	0.0	0.2
16	62	30	92	982	254	1,236	0.0	0.0	0.2	0.0	0.2
17	0	0	0	982	254	1,236	0.0	0.0	0.2	0.0	0.2
18	0	0	0	982	254	1,236	0.0	0.0	0.2	0.0	0.2
19	923	164	1,087	1,905	418	2,323	0.2	0.0	0.3	0.1	0.4
20	507	71	578	2,412	489	2,901	0.1	0.0	0.4	0.1	0.5
21	542	38	580	2,954	527	3,481	0.1	0.0	0.5	0.1	0.6
22	121	54	175	3,075	581	3,656	0.0	0.0	0.6	0.1	0.7
23	132	39	171	3,207	620	3,827	0.0	0.0	0.6	0.1	0.7
24	834	112	946	4,041	732	4,773	0.2	0.0	0.7	0.1	0.9
25	306	45	351	4,347	777	5,124	0.1	0.0	0.8	0.1	0.9
26	3,209	181	3,390	7,556	958	8,514	0.6	0.0	1.4	0.2	1.6
27	2,311	140	2,451	9,867	1,098	10,965	0.4	0.0	1.8	0.2	2.0
28	1,827	188	2,015	11,694	1,286	12,980	0.3	0.0	2.1	0.2	2.4
29	695	42	737	12,389	1,328	13,717	0.1	0.0	2.3	0.2	2.5
30	994	61	1,055	13,383	1,389	14,772	0.2	0.0	2.4	0.3	2.7
July 1	2,521	94	2,615	15,904	1,483	17,387	0.5	0.0	2.9	0.3	3.2
2	4,436	258	4,694	20,340	1,741	22,081	0.8	0.0	3.7	0.3	4.0
3	10,445	503	10,948	30,785	2,244	33,029	1.9	0.1	5.6	0.4	6.0
4	8,050	396	8,446	38,835	2,640	41,475	1.5	0.1	7.1	0.5	7.6
5	3,068	174	3,242	41,903	2,814	44,717	0.6	0.0	7.7	0.5	8.2
6	14,809	717	15,526	56,712	3,531	60,243	2.7	0.1	10.4	0.6	11.0
7	20,499	935	21,434	77,211	4,466	81,677	3.7	0.2	14.1	0.8	14.9

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Table 31. (page 2 of 3)

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
July 8	18,661	1,225	19,886	95,872	5,691	101,563	3.4	0.2	17.5	1.0	18.6
9	11,188	882	12,070	107,060	6,573	113,633	2.0	0.2	19.6	1.2	20.8
10	14,263	540	14,803	121,323	7,113	128,436	2.6	0.1	22.2	1.3	23.5
11	9,517	339	9,856	130,840	7,452	138,292	1.7	0.1	23.9	1.4	25.3
12	4,930	456	5,386	135,770	7,908	143,678	0.9	0.1	24.8	1.4	26.3
13	1,190	23	1,213	136,960	7,931	144,891	0.2	0.0	25.0	1.5	26.5
14	2,341	101	2,442	139,301	8,032	147,333	0.4	0.0	25.5	1.5	26.9
15	3,940	402	4,342	143,241	8,434	151,675	0.7	0.1	26.2	1.5	27.7
16	7,855	539	8,394	151,096	8,973	160,069	1.4	0.1	27.6	1.6	29.3
17	6,621	498	7,119	157,717	9,471	167,188	1.2	0.1	28.8	1.7	30.6
18	10,745	456	11,201	168,462	9,927	178,389	2.0	0.1	30.8	1.8	32.6
19	6,560	348	6,908	175,022	10,275	185,297	1.2	0.1	32.0	1.9	33.9
20	2,813	144	2,957	177,835	10,419	188,254	0.5	0.0	32.5	1.9	34.4
21	10,130	521	10,651	187,965	10,940	198,905	1.9	0.1	34.4	2.0	36.4
22	2,291	103	2,394	190,256	11,043	201,299	0.4	0.0	34.8	2.0	36.8
23	3,003	132	3,135	193,259	11,175	204,434	0.5	0.0	35.3	2.0	37.4
24	2,238	138	2,376	195,497	11,313	206,810	0.4	0.0	35.8	2.1	37.8
25	7,107	432	7,539	202,604	11,745	214,349	1.3	0.1	37.1	2.1	39.2
26	5,791	555	6,346	208,395	12,300	220,695	1.1	0.1	38.1	2.2	40.4
27	2,012	152	2,164	210,407	12,452	222,859	0.4	0.0	38.5	2.3	40.8
28	24,555	1,235	25,790	234,962	13,687	248,649	4.5	0.2	43.0	2.5	45.5
29	13,433	672	14,105	248,395	14,359	262,754	2.5	0.1	45.4	2.6	48.1
30	9,315	475	9,790	257,710	14,834	272,544	1.7	0.1	47.1	2.7	49.8
31	10,823	487	11,310	268,533	15,321	283,854	2.0	0.1	49.1	2.8	51.9
Aug 1	4,274	163	4,437	272,807	15,484	288,291	0.8	0.0	49.9	2.8	52.7
2	4,598	219	4,817	277,405	15,703	293,108	0.8	0.0	50.7	2.9	53.6
3	11,290	498	11,788	288,695	16,201	304,896	2.1	0.1	52.8	3.0	55.8
4	9,714	276	9,990	298,409	16,477	314,886	1.8	0.1	54.6	3.0	57.6
5	7,433	45	7,478	305,842	16,522	322,364	1.4	0.0	55.9	3.0	59.0
6	9,515	235	9,750	315,357	16,757	332,114	1.7	0.0	57.7	3.1	60.7
7	8,325	228	8,553	323,682	16,985	340,667	1.5	0.0	59.2	3.1	62.3
8	3,327	188	3,515	327,009	17,173	344,182	0.6	0.0	59.8	3.1	62.9
9	9,823	280	10,103	336,832	17,453	354,285	1.8	0.1	61.6	3.2	64.8

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Table 31. (page 3 of 3)

Date	Daily			Cumulative			Daily Percent		Cumulative Percent		
	Adults	Jacks	Total	Adults	Jacks	Total	Adults	Jacks	Adults	Jacks	Total
10	8,394	337	8,731	345,226	17,790	363,016	1.5	0.1	63.1	3.3	66.4
11	659	42	701	345,885	17,832	363,717	0.1	0.0	63.3	3.3	66.5
12	11,735	980	12,715	357,620	18,812	376,432	2.1	0.2	65.4	3.4	68.8
13	8,558	249	8,807	366,178	19,061	385,239	1.6	0.0	67.0	3.5	70.5
14	7,480	378	7,858	373,658	19,439	393,097	1.4	0.1	68.3	3.6	71.9
15	2,000	100	2,100	375,658	19,539	395,197	0.4	0.0	68.7	3.6	72.3
16	3,540	144	3,684	379,198	19,683	398,881	0.6	0.0	69.3	3.6	72.9
17	3,382	122	3,504	382,580	19,805	402,385	0.6	0.0	70.0	3.6	73.6
18	3,085	23	3,108	385,665	19,828	405,493	0.6	0.0	70.5	3.6	74.2
19	19,759	267	20,026	405,424	20,095	425,519	3.6	0.0	74.1	3.7	77.8
20	11,702	235	11,937	417,126	20,330	437,456	2.1	0.0	76.3	3.7	80.0
21	2,159	58	2,217	419,285	20,388	439,673	0.4	0.0	76.7	3.7	80.4
22	508	4	512	419,793	20,392	440,185	0.1	0.0	76.8	3.7	80.5
23	3,469	17	3,486	423,262	20,409	443,671	0.6	0.0	77.4	3.7	81.1
24	2,933	2	2,935	426,195	20,411	446,606	0.5	0.0	77.9	3.7	81.7
25	4,399	63	4,462	430,594	20,474	451,068	0.8	0.0	78.7	3.7	82.5
26	1,941	43	1,984	432,535	20,517	453,052	0.4	0.0	79.1	3.8	82.9
27	2,639	39	2,678	435,174	20,556	455,730	0.5	0.0	79.6	3.8	83.3
28	12,789	142	12,931	447,963	20,698	468,661	2.3	0.0	81.9	3.8	85.7
29	11,542	617	12,159	459,505	21,315	480,820	2.1	0.1	84.0	3.9	87.9
30	10,995	367	11,362	470,500	21,682	492,182	2.0	0.1	86.0	4.0	90.0
Post August 30	53,269 <sup>a</sup>	1,349	54,618	523,769	23,031	546,800	9.7	0.2	95.8	4.2	100.0
Total	523,769	23,031	546,800	470,500	21,682	546,800	95.8	4.2	95.8	4.2	100.0

<sup>a</sup> August 30 escapement reflects only a partial daily count.

Table 32. Estimated sex composition of sockeye escapement from Nelson River by statistical week, 1990.

Statistical Week	Calendar Date	N	Male	Females	Total	Ratio m:f
23	6/03-6/09	0	15	17	32	0.9:1
24	6/10-6/16	522	257	297	554	0.9:1
25	6/17-6/23	339	1,620	2,290	3,910	0.7:1
26	6/24-6/30	510	20,009	24,068	44,077	0.8:1
27	7/01-7/07	518	41,358	40,297	81,655	1.0:1
28	7/08-7/14	519	33,057	32,840	65,897	1.0:1
29	7/15-7/21	520	14,640	17,162	31,802	0.9:1
30	7/22-7/28	561	2,861	3,859	6,720	0.7:1
31	7/29-8/04	576	2,642	3,411	6,053	0.8:1
Totals		5,578	124,242	116,458	240,700	1.1:1

Table 33. Estimated length composition of sockeye escapement samples from Nelson River by age and sex, 10 June through 25 August, 1990.

	Ages												Total
	0.2	0.3	1.2	2.1	0.4	1.3	2.2	1.4	2.3	3.2	2.4	3.3	
<b>Females</b>													
Mean Length	543	544	495	-	590	550	498	593	553	509	579	550	532
SE	-	5	2	-	-	1	1	6	1	10	4	5	1
Range	543	489-579	413-589	-	590	439-630	399-585	587-599	442-652	424-576	559-601	521-585	399-652
Sample Size	1	20	276	-	1	645	783	2	1,130	16	10	14	2,898
<b>Males</b>													
Mean Length	-	570	505	310	-	575	507	596	576	503	599	568	541
SE	-	5	2	-	-	2	1	9	2	5	8	21	1
Range	-	514-609	380-598	310	-	410-657	389-610	577-613	405-662	410-585	556-635	410-640	310-662
Sample Size	-	16	270	1	-	521	988	4	741	56	8	9	2,614
<b>All Fish</b>													
Mean Length	543	556	499	310	590	561	503	595	562	504	588	558	536
SE	-	4	2	-	-	1	1	6	1	5	5	9	1
Range	543	489-609	380-598	310	590	410-657	389-610	577-613	405-585	410-585	556-635	410-640	310-662
Sample Size	1	36	547	1	1	1,176	1,790	6	1,897	72	18	24	5,569

Table 34. Estimated sex composition of sockeye escapement from Bear River by statistical week, 1990.

Statistical Week	Calendar Date	N	Males	Females	Total	Ratio m:f
23	6/03-6/09	0	122	39	161	3.1:1
24	6/10-6/16	0	816	259	1,075	3.2:1
25	6/17-6/23	0	1,966	625	2,591	3.2:1
26	6/24-6/30	220	8,127	2,818	10,945	2.9:1
27	7/01-7/07	217	41,783	25,122	66,905	1.7:1
28	7/08-7/14	223	36,415	29,241	65,656	1.3:1
29	7/15-7/21	214	34,540	17,032	51,572	2.0:1
30	7/22-7/28	214	30,762	18,982	49,744	1.6:1
31	7/29-8/04	187	38,064	28,173	66,237	1.4:1
32	8/05-8/11	214	27,316	21,515	48,831	1.3:1
33	8/12-8/18	0	23,254	18,522	41,776	1.3:1
34	8/19-8/25	0	25,125	20,450	45,575	1.2:1
35	8/26-9/01	0	22,665	18,449	41,114	1.2:1
36	9/02-9/08	0	30,110	24,508	54,618	1.2:1
Totals		1,489	321,062	225,738	546,800	1.4:1

Table 35. Lengths of sockeye escapement in samples from Bear River by age and sex, 24 June through 18 August, 1990.

	Ages									Total
	1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	
<b>Females</b>										
Mean Length	469	-	547	479	-	545	478	530	-	498
SE	4	-	10	2	-	3	7	-	-	2
Range	428-562	-	452-620	399-593	-	430-611	422-534	530	-	399-620
Sample Size	44	-	17	343	-	156	20	1	-	581
<b>Males</b>										
Mean Length	432	350	526	455	343	549	456	531	587	468
SE	3	10	11	1	5	4	6	44	-	2
Range	255-564	314-452	430-630	336-589	338-347	415-656	391-560	487-574	587	314-656
Sample Size	137	13	22	561	2	159	37	2	1	934
<b>All Fish</b>										
Mean Length	441	350	535	464	343	547	464	530	587	480
SE	3	10	8	1	5	3	5	25	-	1
Range	335-564	314-452	430-630	336-593	338-347	415-656	391-560	487-574	587	314-656
Sample Size	181	13	39	904	2	315	57	3	1	1,515

Table 36. Estimated sex composition of sockeye escapement from Ilnik River by statistical week, 1990.

Statistical Week	Calendar Date	N	Males	Females	Total	Ratio m:f
22-36	5/27-7/28	272	20,605	15,095	35,700	1.4:1
Totals		272	20,605	15,095	35,700	1.4:1

Table 37. Lengths of sockeye in escapement samples from Ilnik River by age and sex, 1 July through 14 July, 1990.

	Ages						Total	
	0.3	1.2	0.4	1.3	2.2	1.4		2.3
<b>Females</b>								
Mean Length	543	486	-	557	494	607	546	510
SE	8	5	-	9	18	19	20	5
Range	515-572	409-588	-	489-630	438-560	588-625	479-615	409-630
Sample Size	6	60	-	20	7	2	6	101
<b>Males</b>								
Mean Length	590	474	663	604	494	649	606	543
SE	12	5	8	8	20	6	13	7
Range	500-648	383-578	655-670	458-662	430-587	612-675	555-652	382-675
Sample Size	13	64	2	38	8	11	8	144
<b>All Fish</b>								
Mean Length	575	480	663	588	494	642	580	529
SE	10	4	8	7	13	7	14	5
Range	500-648	382-588	655-670	458-662	430-587	588-675	479-652	382-675
Sample Size	19	124	2	58	15	13	14	245

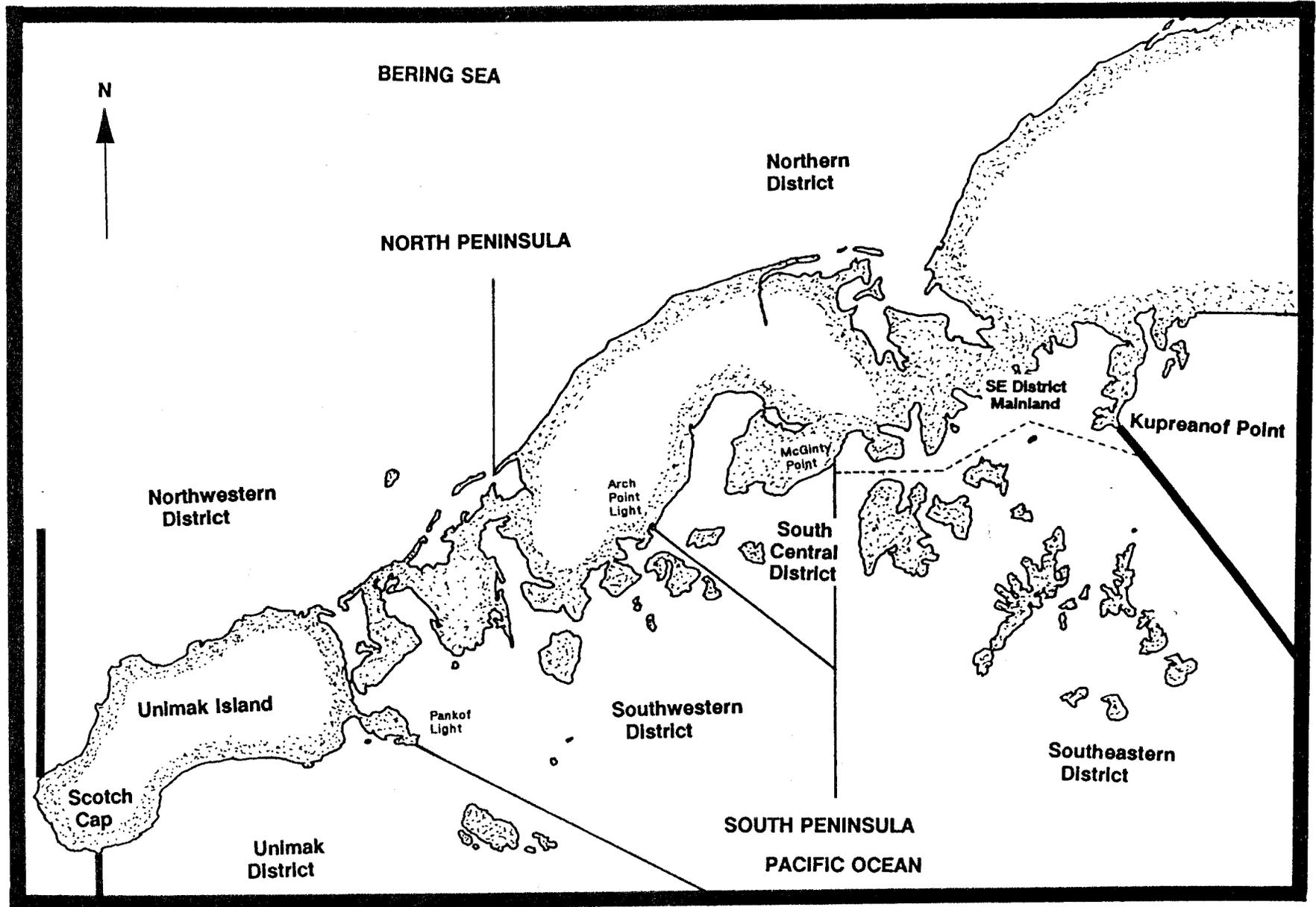


Figure 1. Alaska Peninsula Management Area with districts on the South and North Peninsula depicted.

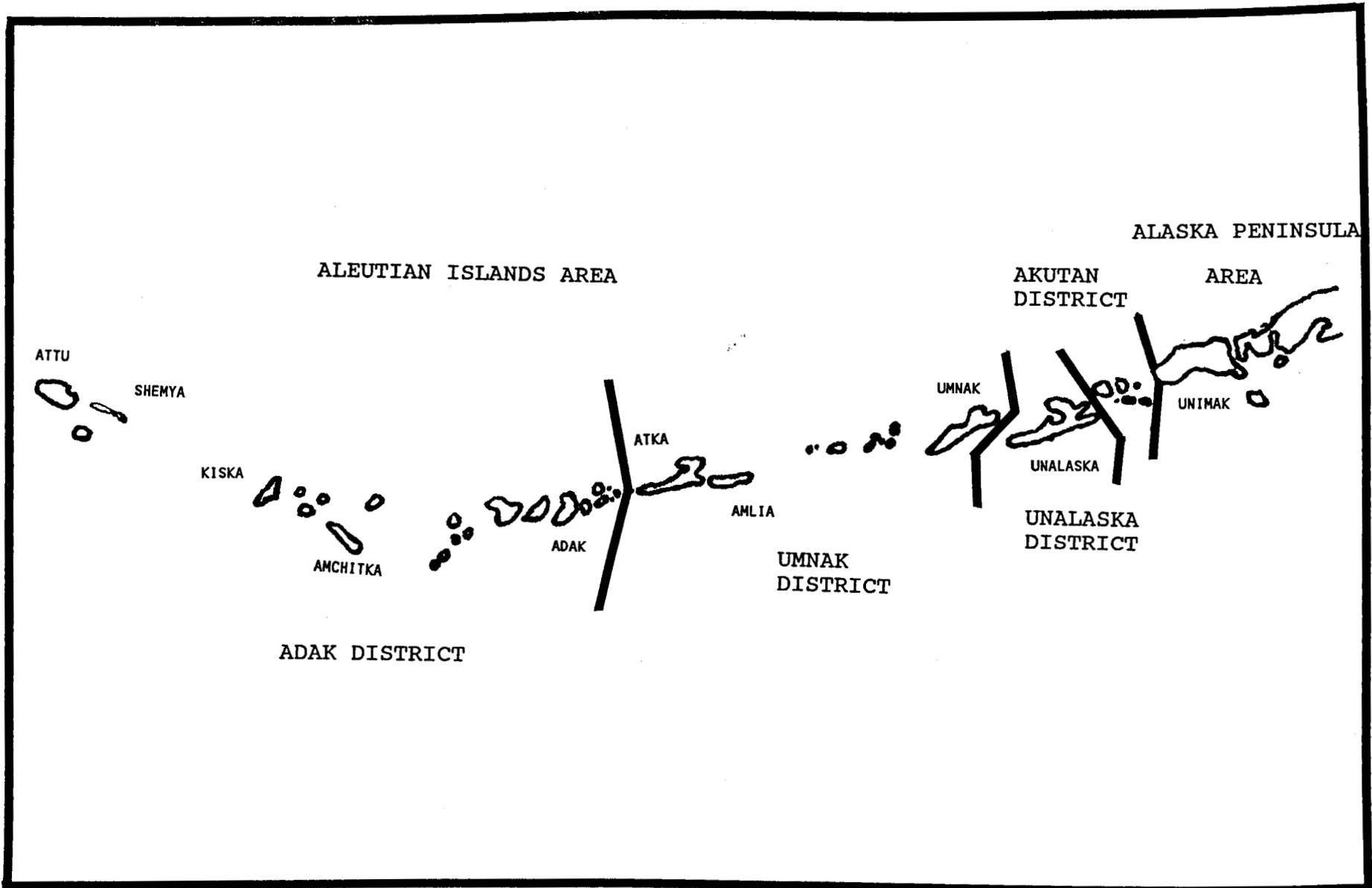


Figure 2. Aleutian Islands Management Area with districts shown.

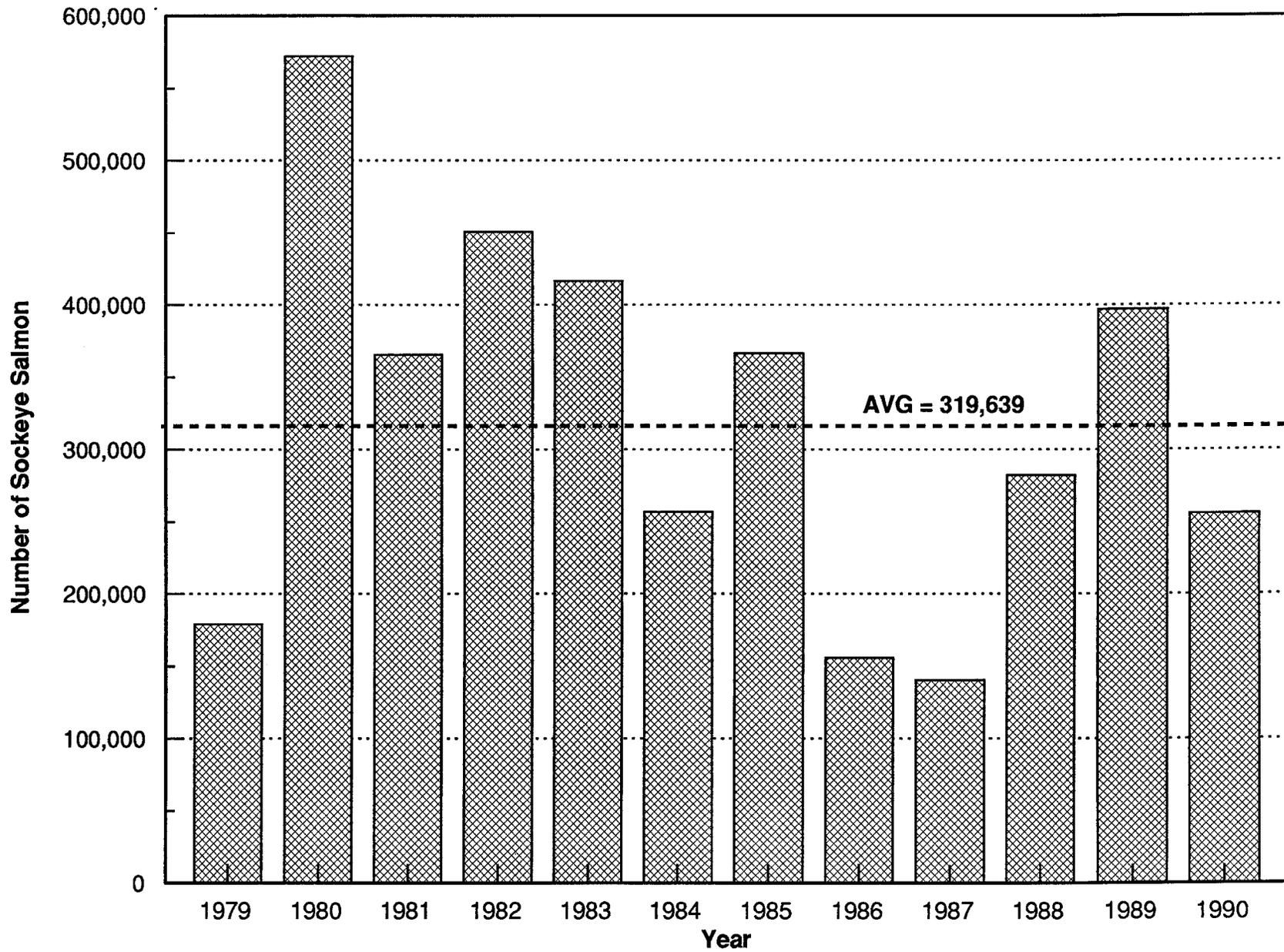


Figure 3. Annual sockeye salmon harvest in the June Shumagin Islands Section fishery, 1979-90.

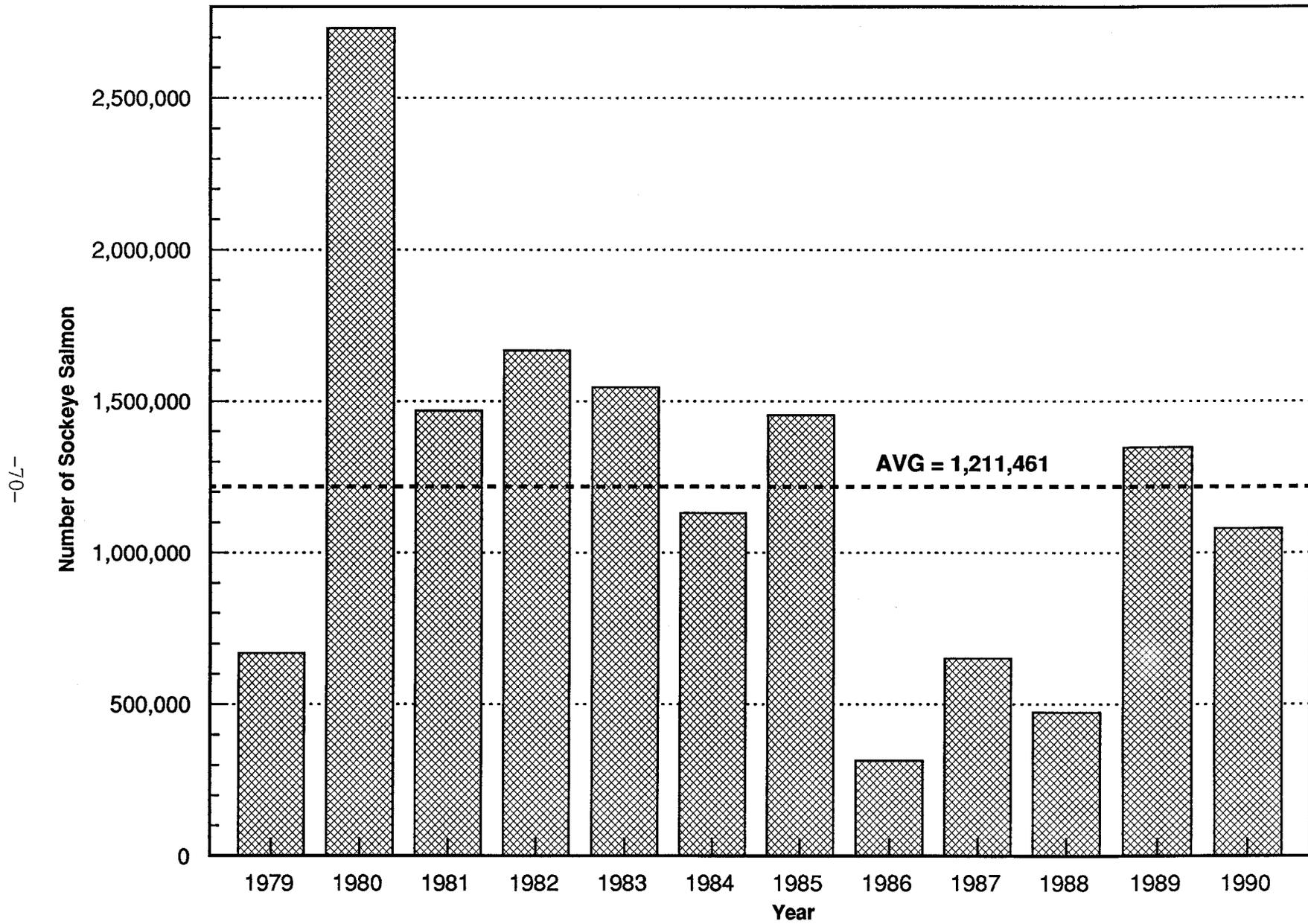


Figure 4. Annual sockeye salmon harvest in the June South Unimak fishery, 1979-90.

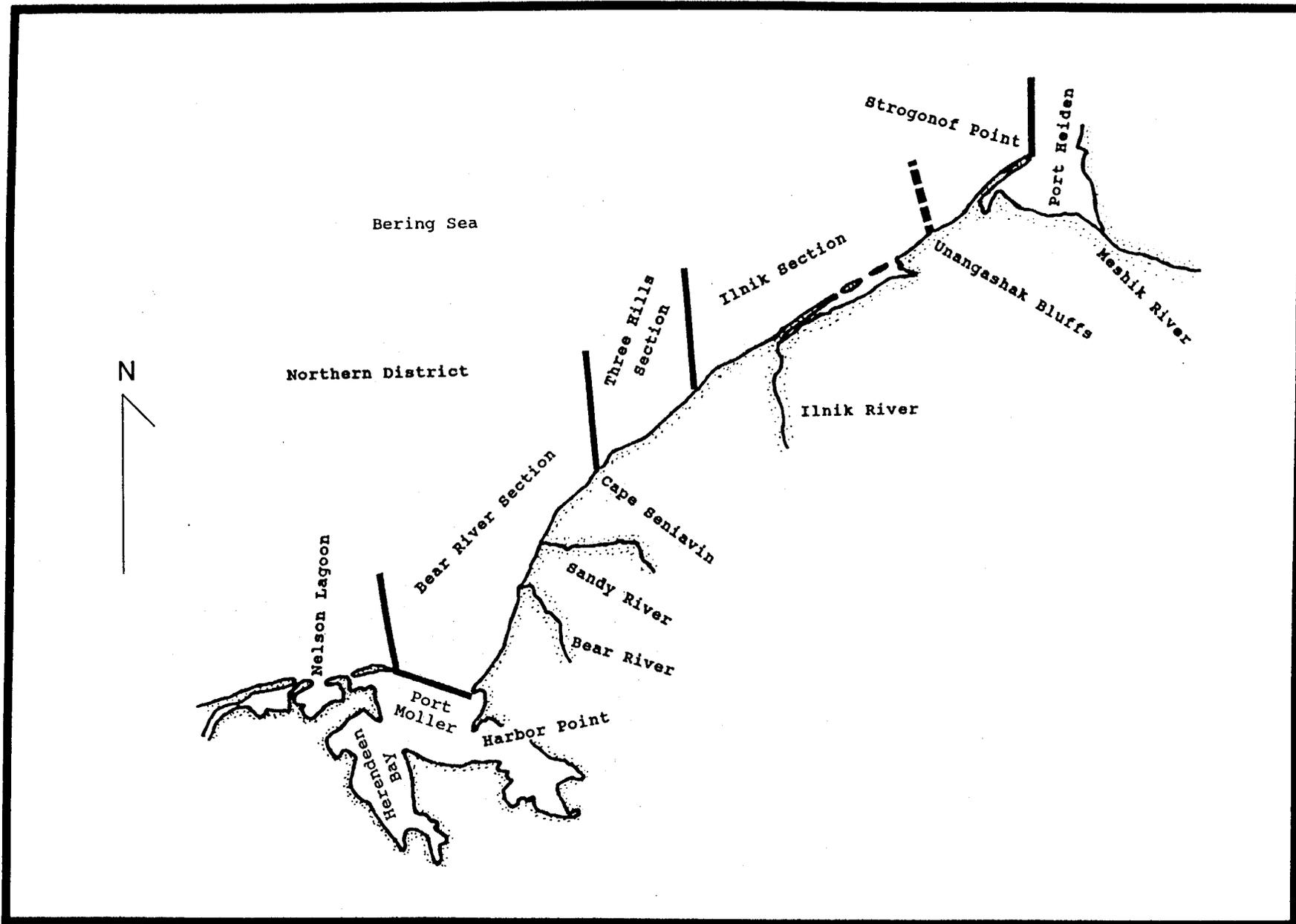


Figure 5. Harbor Point to Strogonof Point reach, with fishing sections and major water bodies depicted.

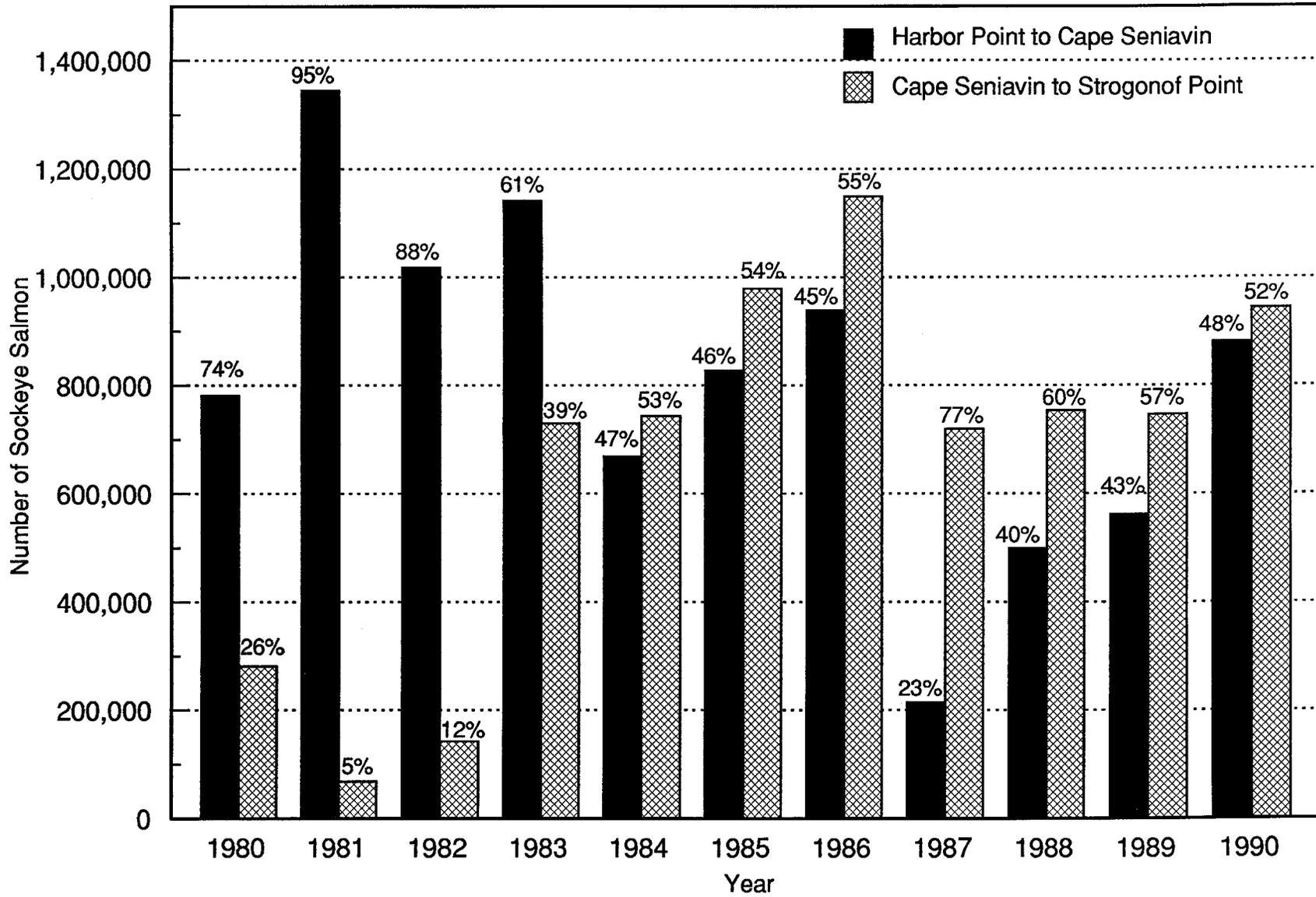


Figure 6. Annual sockeye salmon harvest in the Harbor Point to Cape Seniavin and Cape Seniavin to Strogonof Point areas, 1980-90.

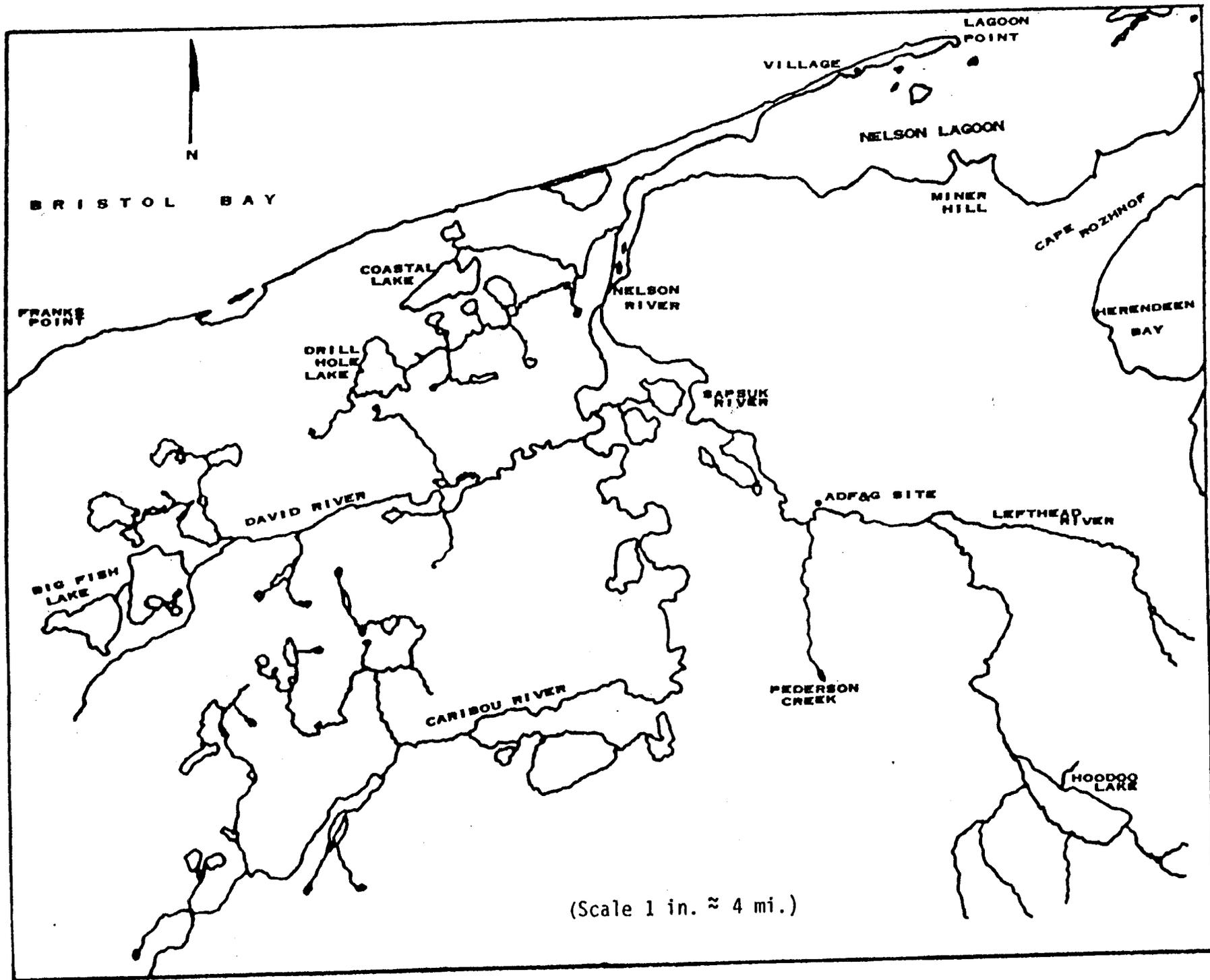


Figure 7. The Nelson River system.

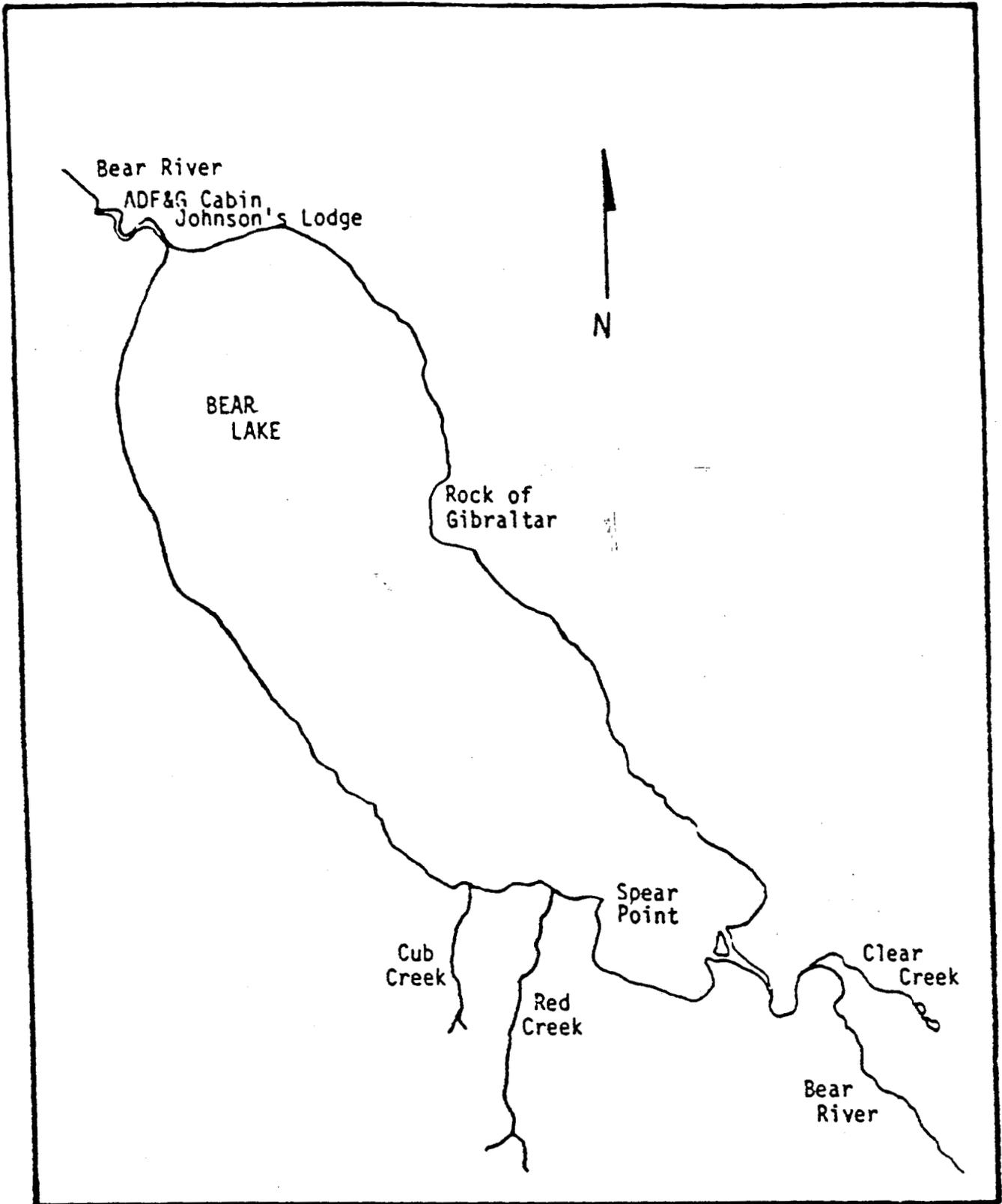


Figure 8. The Bear Lake drainage.

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