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Alaska Department of Fish and Game
Division of Commercial Fisheries
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Alaska Peninsula and Aleutian Islands Management Catch, Escapement, and Run Statistics, 1989.

by

Robert L. Murphy

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ABSTRACT

In 1989 the Alaska Peninsula and Aleutian Islands Management Areas commercial salmon catch was 13,531,899 salmon, consisting of 17,993 chinook *Oncorhynchus tshawytscha*, 4,387,643 sockeye *O. nerka*, 7,303,461 pink *O. gorbuscha*, 1,151,408 chum *O. keta*, and 671,394 coho *O. kisutch*. The catch was 4% higher than the 1979-1988 average of 12,933,272 salmon and 1% higher than the 1988 harvest. The South Peninsula catch accounted for 84% of the catch and the North Peninsula and Aleutians represented 16% and < 1%, respectively. The majority of the sockeye (61%), pink (99%), chum (86%), and coho (66%) catch occurred on the South Peninsula, and the majority of the chinook catch (61%) occurred on the North Peninsula.

The Alaska Peninsula and Aleutian Islands Management Areas 1989 escapement for areas monitored was estimated to total 3,854,856 salmon, consisting of 9,274 chinook, 956,648 sockeye, 2,011,761 pink, 581,167 chum, and 296,006 coho salmon. The 1989 combined escapement was 15% lower than the 1988 escapement of 4,562,491 salmon. The 1989 chinook escapement was 53% lower than the 1988 escapement, the sockeye escapement was 21% higher, the pink escapement was 60% lower, the chum escapement was 60% lower, and the coho escapement was 61% higher. The largest chinook escapements occurred on the North Peninsula at Nelson Lagoon (5,850), Black Hills Creek (768), and the Meshik River system (1,149). Pink escapements were largest (> 100,000 salmon) on the South Peninsula at Southern Creek (286,908), Settlement Point (143,502), and Mino Creek (264,691). Chum escapements were largest (> 50,000 salmon) on the South Peninsula at Russel Creek (80,244) and Canoe Bay River (66,457). Coho escapements were largest (> 25,000) on the North Peninsula at Nelson River (76,800), Meshik River (64,800), Ilnik River (60,720), and Swanson Lagoon (26,400).

The North Peninsula chinook catch was 22% age 1.2, 16% age 1.3, 52% age 1.4, and 10% age 1.5. The South Peninsula sockeye catch was 52% age 2.2, 22% age 2.3, and 17% age 1.3. The North Peninsula sockeye catch was 36% age 2.2 and 38% age 2.3. The South Peninsula chum catch was 60% age 0.3 and 36% age 0.4. The North Peninsula chum catch age composition was similar to the South Peninsula: 62% age 0.3 and 33% age 0.4. Coho catch samples from the South Peninsula and North Peninsula were similar. Approximately 71% and 20% of the catch was age 2.1 and age 1.1, respectively.

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

INTRODUCTION

The Alaska Peninsula and Aleutian Islands Management Areas (Figure 1) are divided into three subareas; (1) the South Peninsula, consisting of the Pacific Ocean coastal waters extending west of Kupreanof Point to Scotch Cap; (2) the Aleutian Islands, consisting of the Pacific Ocean and Bering Sea coastal waters extending west of Unimak Pass to the international dateline; and (3) the North Peninsula, consisting of Bering Sea coastal waters extending west from Cape Menshikof to Cape Sarichef (Figures 2-6).

The Aleutian Islands Management Area has about 444 salmon streams, and the Alaska Peninsula Management Area has about 275 salmon streams (ADF&G 1985). The most productive salmon streams are in the Alaska Peninsula Management Area. Commercial salmon fishing only occurs east of Umnak Island.

Five salmon species are commercially harvested in the two areas: chinook salmon *Oncorhynchus tshawytscha*, sockeye salmon *O. nerka*, pink salmon *O. gorbuscha*, chum salmon *O. keta*, and coho salmon *O. kisutch*. Annual 1979-1988 salmon harvests have ranged from 6,036,152 in 1987 to 21,073,500 in 1984 and averaged 12,933,272 salmon (Table 1). Commercial fishing gear in the North and South Peninsula includes: purse seines, hand purse seines, drift gill nets, and set gill nets; 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; ADF&G 1988). Sockeye and pink salmon are of primary economic importance in South Peninsula and Aleutian Islands fisheries, but sockeye and chum salmon are most economically important in North Peninsula fisheries.

In 1989, 394 Area M and 84 Area T limited entry permits were fished, and 11,876 landings were made in the Alaska Peninsula and Aleutian Islands Management Areas. The 1989 catch of 13,531,899 salmon was 4% higher than the 1979-88 average harvest of 12,933,272 salmon but more than twice the 1987 catch of 6,036,152 salmon (Table 1). The greater amount was primarily due to above-average sockeye, pink, and coho salmon catches.

The South Peninsula is comprised of four districts and 43 statistical areas. The Aleutian Islands are comprised of four districts and 40 statistical areas, and the North Peninsula contains two districts and 21 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 in the North Peninsula. During June the majority of the drift net effort occurs in the South Unimak fishery, and purse seining occurs in the Shumagin Islands Section and and also in South Unimak fisheries. The major set gill net effort occurs in the Southeast District Mainland, Shumagin Islands Section, and Nelson Lagoon fisheries. After June, the majority of the purse seine effort is in the South Peninsula for pink and chum salmon: drift gill net effort moves to the North Peninsula in the Harbor Point to Strogonof Point fisheries, and set gill net effort in the Southeast District Mainland, Shumagin Islands Section, and Nelson Lagoon fisheries. In late July, purse seining occurs in the Aleutian Islands when local salmon stocks are large enough to warrant a fishery.

The North Peninsula and Bristol Bay management areas overlap in the Port Heiden and Cinder River Section of the Northern District in May, June, August, and September and in the Ilnik Section of the Northern District 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 overlap area in 1986 (Shaul and Schwarz 1989).

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 the Shumagin Islands Section fisheries (ADF&G 1988), which targets Bristol Bay sockeye salmon. The allocation for South Unimak is 6.8% of the most current projected Bristol Bay inshore sockeye harvest, and the allocation for the Shumagin Islands Section is 1.5% of the projected Bristol Bay sockeye harvest. The second interception fishery occurs in the Southeast District Mainland (Southwest and East Stepovak Sections, Stepovak Flats, and Beaver and Balboa Bays) during June and July. It targets on Chignik River sockeye salmon. The Southeast District Mainland fishery through 25 July is alloted 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 and Schwarz 1989). A third sockeye interception fishery has developed in selected areas of the Shumagin Islands Section and occurs during July and August. Stocks contributing to this fishery are probably Chignik, Kodiak, Cook Inlet, Bristol Bay, and Alaska Peninsula salmon (McCullough 1990). There is currently no guideline harvest established for this fishery. A fourth interception fishery has developed in the Ikatan Bay Section of the Southeastern District and Unimak District and occurs from late-July until mid-August. The fifth interception fishery is in the Strogonof Point area of the Ilnik Section. This fishery occurs from 6 July to about 25 July. Scale pattern analysis estimated the 296,000 Bristol Bay-bound salmon were intercepted in this fishery (Geiger 1989).

This report documents the number, age, sex, and size composition of the salmon catch and escapement in the Alaska Peninsula and Aleutian Islands Management Areas. This data will provide a base for developing brood tables, forecasting runs, evaluating escapement objectives, and identifying future research and management considerations. This report is intended as a reference document, and therefore interpretation and discussion of the data is limited.

METHODS

Commercial catch data were compiled by the Division of Commercial Fisheries of the Alaska Department of Fish and Game (ADF&G). These 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.

Because extended fish ticket editing is usually required to finalize the data for any given year, later reports may contain minor differences from catch information listed in this report. Most of the data in this report were assigned to a statistical week which begins at 0000 h each Sunday and ends at 2400 h 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 two weirs. The Bear River weir, located about 24 km upstream of the river mouth, was operated from 28 May to 28 August. The Nelson River weir, located about 56 km above the entrance to Nelson Lagoon, was operated from 19 June to 23 July.

Escapement to other spawning streams were monitored by aerial and foot surveys. Pink and chum total escapement was calculated for surveyed streams using aerial survey 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 escapement 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 escapement for surveyed streams was determined from data in Minard (1986) by multiplying the peak count by 2.4. No attempt was made to estimate the escapement into systems not monitored by aerial surveys. Escapement estimates of sockeye, pink, and chum salmon in the Alaska Peninsula were considered reliable; chinook and coho estimates and estimates in the Aleutian Islands were considered minimal values.

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

Sockeye escapement sampling was conducted weekly at Nelson and Bear Rivers. The initial sampling plan specified 235 fish to be sampled per week. Samples were collected during weeks 26, 27, 28, and 29 at Nelson River, and at Bear River from week 24 to week 35, except during week 26 when a 64-fish sample was collected. At Nelson and Bear Rivers, a weekly escapement sample of 235 fish was chosen to provide 90% simultaneous confidence levels for age composition of the population with a $\pm$ 7% of the true age composition (Thompson 1987).

Escapement sampling was also conducted at Sandy Lake, Ilnik Lagoon, and Meshik River. A single escapement sample was collected at or near the peak of the escapement at Ilnik Lagoon and Thin Point; at Sandy Lake and the Meshik River a

single escapement sample was collected after the peak of escapement. For single sampling events, a 600-fish sample was chosen to provide 95% simultaneous confidence levels for age composition within ± 5% of the true age composition (Thompson 1987). Fish samples numbered 898 from Nelson River, 478 from Sandy Lake, 315 from Ilnik Lagoon, 516 from Meshik River, 357 from Thin Point, and 2,643 from Bear River (McCullough 1990).

Catches were sampled weekly throughout the season from commercial harvests in the major fishing areas but were sampled less frequently from harvests in minor fishing areas. Catch sampling occurred at King Cove from 12 June to 15 August, where the majority of the South Peninsula catch was landed, and at Port Moller, where the majority of the North Peninsula catch was landed from 6 June to 1 September. Salmon were randomly sampled from tenders before sorting by cannery personnel. The harvest area of each tender sampled was determined through vessel operator interviews and fish ticket information.

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 where the catch was by a single gear type. Tender operators purchased salmon from the 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. Because all catch sampling occurred before sorting within the cannery, there was no preselection of salmon other than from delivery areas; each sample was assumed to be representative of the harvest within a sample area.

The commercial sockeye catch in the South Peninsula (near Orzenoi Lake and in Pavlof Bay) and the chum catch in the Southeast District Mainland (Canoe Bay, Pavlof Bay, Volcano Bay, Belkofski Bay, King Cove, Cold Bay, and Morzhovoi Bay) was harvested mostly by seine gear. In the North Peninsula area, the chum catch in Swanson Lagoon, Bechevin Bay, Izembek-Moffet Bay, and Herendeen Bay was harvested mostly by seine gear. Catch samples from these areas were used to describe the escapement. Seine caught salmon in terminal area fisheries have similar biological characteristics as the spawning population (Roos 1957).

Age was determined by examining scales (Bilton and Ricker 1965; Mosher 1968). Scales were removed from the preferred area which was 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, two scales from coho salmon, and three scales from chinook salmon. Additional scales were taken from chinook and coho salmon because they have higher scale regeneration rates than other salmon. For coho salmon, when one scale was collected there was a 50% chance of regeneration, when two scales were collected the odds of both scales being regenerated was only 25% (McCullough 1990). A microfiche reader was used to read an acetate impression of the scale (Clutter and Whitesel 1956). Because of scale reabsorption in sockeye salmon 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 in which the first digit is the number of winters the salmon spent in

freshwater, and the second digit is the number of winters the salmon spent in the ocean (Mosher 1968). The total age is the sum of these two numbers plus one to account for the incubation time. The accuracy of age determination was not tested, but prior data on sockeye salmon indicate a 98% accuracy rate with experienced readers (McCullough 1989).

Length measurements were taken from mid-eye to the fork of the tail using a caliper or meter stick measuring to the nearest 1 mm. Mean weights were calculated from an unweighted composite of the data collected from each area sampled. Weight measurements were taken using a spring scale and recording weight to the nearest 0.1 kg.

Sex compositions were computed by statistical week for each area sampled. Sex was determined by external morphological examination of kype development, belly shape, trunk depth, and jaw shape, or by internal observation of the gonads, which was not routinely practiced because of quality control in the processing plant. The accuracy of dimorphic sex determination was not tested, but was probably lowest for ocean-bright migratory salmon which display limited sexual dimorphism. Terminally-captured salmon, which generally have some development of secondary sexual characteristics, were probably most accurately sexed. External sex determination of chinook and coho salmon was assumed to have the lowest accuracy rate because secondary sexual characteristics were generally less pronounced and not as reliable as in other species. A small percentage (5-10%) of salmon were internally examined to ensure proper sex identification. Sex composition was computed by statistical week for each area sampled.

RESULTS

In 1989, 119 purse seine, 164 drift gill net, and 111 set gill net Area M limited entry permits were fished in the Alaska Peninsula and Aleutian Islands Management Areas. This was an increase of five purse seine, two drift gill net, and five set gill net Area M permits from the 1988 level. The majority of the Area M purse seine (79%), drift gill net (57%), and set gill net (83%) permits were fished by Alaska residents. In 1989, 66 drift gill net and 18 set gill net Area T permits were fished in the Alaska Peninsula and Aleutian Islands Management Areas. This was an increase of seven drift gill net permits and a decrease of four set gill net permits from the 1988 level.

The total 1989 commercial salmon catch for the Alaska Peninsula and Aleutian Islands Management Areas was 17,993 chinook (< 1%), 4,387,643 sockeye (32%), 7,303,461 pink (54%), 1,151,408 chum (9%), and 671,394 coho salmon (5%; Table 1). The South Peninsula accounted for about 84%, the Aleutian Islands for < 1%, and the North Peninsula for 16% of the harvest (Table 1). The South Peninsula catch was harvested primarily by purse seine gear (83%), followed by drift gill net gear (9%), and set gill net gear (8%; Table 5). The North Peninsula catch was harvested primarily by drift gill net gear (79%), followed by purse seine gear (18%), and set gill net gear (4%). In the Aleutian Islands Area, 100% of the catch was taken with purse seine gear.

In the Alaska Peninsula and Aleutian Islands Management Areas, drift gill net gear accounted for the greatest number of landings (5,919), followed by set gill net gear (3,754) and purse seines (2,203). Purse seine gear harvested 9,558,962 salmon (70%), drift gill net gear harvested 2,680,029 salmon (20%), and set gill net gear harvested 1,292,909 salmon (10%; Table 5).

Fishing Effort

Fishing effort during the last few years has stabilized in some areas but not in the Southeast District, the South Unimak post-June fishery, the Northern District in the Harbor Point to Strogonof Area, and the North Peninsula and Bristol Bay Area overlap fishery.

During the post-June fishery in the Shumagin Islands Section, set gill net effort began to increase in 1985 (Shaul 1989, McCullough 1990). Before 1985 an average of three to eight set gill net permit holders fished the Shumagin Islands Section. In 1985 and 1986, 30 to 40 set gill net permit holders fished this area. In 1987 effort increased to 53 set gill net fishermen. In 1988 the effort decreased to 52 set gill net permit holders, and in 1989 the number of set gill net permit holders increased to 60 (McCullough 1990). The change in effort since 1985 resulted from increased numbers of set gill net permits being used and restricted openings in the mainland portion of the Southeast District, which shifted set gill net effort to the Shumagin Islands Section.

In the Shumagin Islands Section during 1989, liberal fishing time was allowed in the post-June fishery because of large pink salmon runs. The increased effort from 1979 to 1988 also produced high catches of sockeye, pink, and coho salmon (Table 6). The post-June chinook catch of 2,493 salmon was a 19% decrease from the 1979-88 average of 3,088 salmon. The sockeye catch of 418,124 salmon was more than double the 1979-88 anerage (Figure 7). The 1989 pink catch of 2,026,996 salmon was a 19% increase above the 1979-88 mean, the chum catch of 239,366 salmon was a 18% decrease, and the coho catch of 251,206 salmon was a 20% increase from the 1979-88 means (Table 6).

A second area where effort has changed is in the North Peninsula and Bristol Bay overlap fishery located west of Port Heiden. Prior to 1986 Bristol Bay drift gill net permit holders did not fish west of Port Heiden. In 1989 about 66 Bristol Bay drift gill net permit holders, in addition to the regular Port Heiden and Cinder River fishermen, fished the Ilnik Section during the post-July fishery (Shaul 1989). Most of the catch was probably local North Peninsula salmon.

Another area where effort increased was in the Northern District from Cape Seniavin to Strogonof Point. Beginning in 1983 drift gill net fishermen began fishing more to the east in the Northern District (Figure 8). 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 1988). Local sockeye stocks in the Harbor Point to Strogonof Point fisheries are from the Meshik and Cinder Rivers, Ilnik Lagoon, Ocean River, Sandy and Bear Lakes, and Nelson Lagoon. During the 1974-83 period, sockeye catches in the Cape Seniavin to Strogonof Point area averaged 19% of the Harbor Point to Strogonof

Point catch, whereas in the period from 1984-88, the catch averaged 60% (Table 7).

In the Alaska Peninsula and Aleutian Islands Management Areas most salmon used for subsistence and personal use were taken while commercial fishing. The amount of salmon retained from the commercial catch for personal use was unknown. The subsistence salmon harvest was about 20,126 salmon which consisted of 90 chinook, 11,388 sockeye, 2,528 pink, 2,118 chum, and 4,002 coho salmon (Table 8).

Salmon escapement for the Alaska Peninsula and Aleutian Islands Management Areas, for those systems monitored by weirs, aerial and foot surveys, was about 3,854,856 salmon, which included 9,274 chinook, 956,648 sockeye, 2,011,761 pink, 581,167 chum, and 296,006 coho salmon (Table 9). For 10 streams surveyed in the Unalaska District of the Aleutian Islands Management Area, the escapement was 10,308 pink salmon.

South Peninsula

The 1989 projected guideline sockeye harvest for the June South Unimak and Shumagin Islands Section fisheries was 1,463,000 salmon, and the chum catch was limited to a maximum of 500,000 salmon. The Shumagin Islands Section and the South Unimak fisheries were usually opened concurrently. The South Unimak fishery was open during June for four fishing periods totalling 84 h (McCullough 1990). During June the Shumagin Islands Section was open for three fishing periods totalling 72 h (McCullough 1990). The June South Unimak and Shumagin Islands Section catch of 2,401,653 salmon included 2,750 chinook, 1,744,505 sockeye, 199,235 pink, and 455,163 chum (Tables 10-13). The majority of the harvest was sockeye and chum salmon. On 20 June, 179,649 sockeye and 440,833 chum salmon were harvested in the Shumagin Islands and South Unimak fisheries (Table 14).

The 1989 catch in the Southeast District Mainland fishery (Stepovak, Beaver, and Balboa Bays) was 1,217 chinook, 282,258 sockeye, 3,005,086 pink, 132,179 chum, and 74,321 coho salmon (Table 15). About 9% of the catch was landed prior to 26 July, which amounted to 145 chinook, 89,224 sockeye, 210,017 pink, 6,570 chum, and 1,226 coho salmon (Table 15).

The 1989 Shumagin Islands Section catch of 3,428,225 salmon included 2,980 chinook, 815,082 sockeye, 2,072,063 pink, 286,894 chum, and 251,206 coho salmon (Table 10). About 83% of the catch was landed after June, which amounted to 2,493 chinook, 418,124 sockeye, 2,026,996 pink, 239,366 chum, and 251,206 coho salmon.

The total 1989 South Peninsula salmon catch of 11,398,485 salmon included 7,047 chinook, 2,660,706 sockeye, 7,292,658 pink, 994,231 chum, and 443,843 coho salmon (Table 1). Peak catch occurred for chinook and coho salmon during week 30, for sockeye salmon during week 25, and for pink and chum salmon during week 31 (Table 16).

For those streams that were surveyed, the estimated South Peninsula salmon escapement of 2,472,322 salmon included 95,083 sockeye, 1,997,046 pink, 342,460

chum, and 37,733 coho salmon (Table 17). These figures added to the catch, subsistence, and personnel use fisheries produced an estimated minimum 1989 South Peninsula run (catch + escapement) of 13,887,312 salmon.

Chinook Salmon

A total of 7,047 chinook salmon were harvested in the South Peninsula in 1989 (Table 1). The catch was 27% below the 1979-88 average of 9,672 salmon and 36% below the 1988 catch of 11,075 salmon (Table 1). The Southeast District Mainland fishery, Shumagin Islands Section, Ikatan Bay Section, and the Cape Lutke Section, accounted for 81% of the harvest. The Shumagin Islands Section provided 42% of the total chinook harvest. Peak catch occurred during week 31 in the Southeast District Mainland fishery (575 salmon; Table 15), week 30 in the Shumagin Islands Section (960 salmon; Table 10), and week 25 for both the Ikatan Bay Section (346 salmon; Table 12) and the Cape Lutke Section (773 salmon; Tables 13). The peak catch for the entire South Peninsula occurred during week 31 (Table 16). There are no documented chinook spawning streams on the South Peninsula.

Sockeye Salmon

The 1989 South Peninsula sockeye catch was 2,660,706 salmon, which was 23% higher than the 1979-88 average and 55% higher than the 1988 catch of 1,473,636 salmon (Table 1). The majority (96%) of the salmon were caught in the Southeast District Mainland fishery (282,258 salmon), Shumagin Islands Section (815,082 salmon), Ikatan Bay Section (724,369 salmon), and Cape Lutke Section (739,517 salmon). The peak sockeye catch occurred in the Southeast District Mainland fishery in week 31 (Table 15), the Shumagin Islands Section in week 25 (Table 10), Ikatan Bay Section in week 25 (Table 12), and the Cape Lutke Section during week 25 (Table 13). The majority of sockeye salmon caught in the Southeast District Mainland fishery were taken by set gill net (79%), in the Shumagin Islands Section by purse seine (76%), in the Ikatan Bay Section by drift gill net (58%), and by purse seine (75%) in the Cape Lutke Section (Table 5).

The sockeye harvested in the South Peninsula were 17% age 1.3, 52% age 2.2, and 22% age 2.3 (Table 18). Average sockeye lengths in the South Peninsula ranged from 529 mm (Ikatan Peninsula-Cape Lazaref and Shumagin Islands Section-June) to 582 mm (Southeast District Mainland fishery; Table 19). Overall, the length was 543 mm. The average male to female (m:f) ratio ranged from 1.0:1 (Shumagin Islands Section-June) to 1.6:1 (Southeast District Mainland). The overall m:f ratio was 1.2:1. The average weight of sockeye salmon caught in the South Peninsula ranged from 2.35 kg in the Shumagin Islands Section (June) to 3.41 kg in the Southeast Mainland District Section (Table 20).

The June Shumagin Islands Section sockeye guideline harvest level was set at 264,000 salmon. The actual sockeye harvest was 396,958 salmon, which was 33% greater than the allocation (Table 10). The catch was 19% age 1.3 and 55% age 2.2 (Table 18). The m:f ratio was 1.0:1. Average length was 529 mm for both sexes (Table 19). The average weight was 2.35 kg (McCullough 1990).

The South Unimak June fishery (Ikatan Peninsula to Cape Lazaref and the Cape Lutke Section) sockeye guideline harvest level was 1,199,000 salmon. The actual sockeye harvest was 1,347,547 salmon (Table 14). The sockeye harvest was 11% above the projected allocation. The sockeye catch was 12% age 1.3, 64% age 2.2, and 15% age 2.3 (Table 18). The m:f ratio was 1.2:1 (Table 19). The average length for both sexes was 532 mm (Table 19). The average length in the Cape Lutke Section catch was 535 mm, and the average length in the Ikatan Peninsula to Cape Lazaref June catch was 529 mm (Table 19). The average weight was 2.73 kg (McCullough 1990).

The 1989 total sockeye catch of Chignik River salmon through 25 July in the Southeast District Mainland, Chignik, and Cape Igvak fisheries, without adjustments for run timing, was 506,962 salmon (Thompson and Fox 1990). The Southeast District Mainland catch of Chignik sockeye salmon through 25 July was 4,485 salmon, which was about 1% of the total Chignik sockeye catch through 25 July (Thompson and Fox 1990). The sockeye catch in the Southeast District Mainland was 36% age 1.3 and 54% age 2.3 (Table 18). In the catch the m:f ratio was 1.6:1. Average length for both sexes was 582 mm, while the average weight of sockeye salmon in the Southeast District Mainland was 3.41 kg (Table 19-20).

The sockeye escapement into South Peninsula streams was 95,083 salmon (Table 9). Most sockeye salmon spawned in Orzenoi (Orzinski) Lake (15,000), Mortensen Lagoon (4,600), Thinpoint system (27,000), and Middle Lagoon (16,000), although smaller systems at Acheredin Lake, Kinzarof Lagoon, and Whalebone Bay supported 16% of the sockeye escapement (McCullough 1990).

Pavlof Bay's commercial sockeye catch of 54,128 (84% by purse seine) was sampled to estimate biological characteristics of the harvest; these characteristics are assumed to be the same for the escapement (Roos 1957). The sockeye escapement was 64% age 1.3 and 28% age 2.3 (Table 18). The m:f ratio was 1.5:1 (Table 19). The average length was 572 mm for both sexes, and the average weight was 3.26 kg (Table 19, 20).

Thin Point sockeye escapement was 42% age 1.2 and 49% age 1.3 (Table 21). The m:f ratio was 1.2:1, and average length was 552 mm for both sexes (Table 22).

Pink Salmon

The 1989 South Peninsula pink harvest of 7,292,658 salmon occurred mainly in post-June fisheries (Table 1). Most of the catch was in the Southeast District Mainland fishery (41%), Shumagin Islands Section (28%), and the Deer Island Section (12%) (Table 5). Peak catch for the South Peninsula occurred during week 31 (Table 16). The estimated pink escapement for the South Peninsula was 1,997,046 salmon (Table 9). The largest escapements (over 100,000 salmon) were in Mino, Settlement Point, and Southern Creeks. Together these systems accounted for 36% of the escapement.

Chum Salmon

The 1989 South Peninsula chum catch of 994,231 salmon was 36% lower than the 1979-88 average and 48% lower than the 1988 catch (Table 1). The majority of chum salmon were caught in the Southeast District Mainland fishery, Shumagin Islands Section, and the South Unimak June and post-June fisheries. Peak catches in the Southeast District Mainland fishery occurred during week 31, in the Shumagin Islands Section during week 31, and in the South Unimak fishery during week 25 (McCullough 1990). Purse seiners caught the majority of chum salmon in all fisheries, except the Ikatan Peninsula to Cape Lazaref fishery (Table 5). The South Peninsula chum catch was 60% age 0.3 and 36% age 0.4 (Table 23). Average chum length ranged from 571 mm (Ikatan Peninsula to Cape Lazaref post-June and South Unimak post-June) to 608 mm (Belkofski Bay; Table 24). The m:f ratio ranged from 0.8:1 (Cape Lutke) to 1.4:1 (Belkofski Bay). The m:f ratio for the entire South Peninsula was 1.3:1. Average chum weights ranged from 3.23 kg (Ikatan Peninsula-Cape Lazaref) to 3.78 kg (Belkofski Bay) and averaged 3.40 kg (Table 20).

A total of 286,894 chum salmon were caught in the Shumagin Islands Section during 1989 (Table 5). The June chum harvest of 47,528 salmon in the Shumagin Islands Section was 53% age 0.3 and 43% age 0.4 (Table 23). The m:f ratio was 0.9:1 (Table 24). The average length was 582 mm for both sexes. In the post-June fishery, 239,366 chum were harvested (Table 5). The post-June catch was 77% age 0.3 and 18% age 0.4 (Table 23). The m:f ratio was 1.0:1 (Table 24). The average length sampled was 572 mm, and the average weight was 3.29 kg (Table 20).

The South Unimak June (Unimak District, Bechevin Bay Section of the Northwestern District, and Ikatan Bay Section of the Southwestern District) catch was 407,635 chum salmon (Table 14). The chum harvest was 48% age 0.3 and 48% age 0.4 (Table 23). The m:f ratio was 1.0:1 (Table 24). The average chum length in the catch was 578 mm (Table 24). The average weight of chum salmon in the Cape Lutke Section was 3.32 kg (Table 20).

In the Ikatan Peninsula to Cape Lazaref post-June fishery, 72,188 chum salmon were caught (Table 5). The harvest was 71% age 0.3 and 26% age 0.4 (Table 23). The m:f ratio was 1.1:1 (Table 24). Average length was 571 mm, and average weight was 3.23 kg (Table 20; Table 24).

The chum harvest in the Southeast District Mainland fishery was 132,179 salmon (Table 5). Peak catch occurred during week 31 (Table 15). The harvest was 83% age 0.3 and 11% age 0.4 (Table 23). The m:f ratio was 1.1:1 and average length was 584 mm for both sexes (Table 24). The average weight was 3.30 kg (Table 20).

The majority of the remaining chum harvest in the South Peninsula occurred in terminal purse seine fisheries. The majority of these salmon were harvested in Canoe, Pavlof, and Belkofski Bays (Table 5). The chum harvested in terminal fisheries were 58% age 0.3 and 12% age 0.4 (Table 23). The m:f ratio was 1.4:1 (Table 24). The average chum length and weight for both sexes was 597 mm and 3.56 kg (Table 20).

The South Peninsula chum escapement was 342,460 salmon (Table 17). According to McCullough (1990) the largest escapements occurred in Canoe Bay River (37,200),

Belkofski Bay (26,847), Russell Creek (80,244), Stepovak River (49,132), Sandy Cove (13,520), and Beaver River (22,811).

The chum catch in the terminal fisheries at Canoe, Pavlof, Volcano, Belkofski, King Cove, and Morzhovoi Bays were sampled to determine age, length, and sex composition of the run. Most (99%) of the Canoe Bay catch was taken by seine gear (Table 5). The peak catch occurred during week 29 (McCullough 1990). The escapement was 74% age 0.3 and 20% age 0.4 (Table 23). The m:f ratio was 1.3:1 (Table 24). The average length was 597 mm for both sexes (Table 24), and the average weight was 3.56 kg (Table 20). The Belkofski Bay catch was almost entirely (> 99%) by seine gear (Table 5). The peak catch occurred during week 32 (McCullough 1990). The escapement in Belkofski Bay was 75% age 0.3 and 17% age 0.4 (Table 23). The m:f ratio was 1.4:1 with an average length of 608 mm for both sexes (Table 24). The average weight was 3.78 kg (Table 20). The King Cove catch was mostly by seine gear (85%; Table 5). The peak catch occurred during week 32 (McCullough 1990). The escapement was 75% age 0.2 and 25% age 0.3 (Table 23). The m:f ratio was 1.3:1 with an average length of 587 mm for both sexes (Table 24). The average weight was 3.35 kg (Table 20).

Coho Salmon

A total of 443,843 coho salmon were harvested in South Peninsula fisheries (Table 1). The catch was 41% higher than the 1979-88 average harvest and, historically, was the second largest catch reported with the largest in 1988 when 505,533 salmon were harvested (Table 1). The Shumagin Islands Section harvest was 57% of the South Peninsula catch (Table 5). The peak Shumagin Islands Section catch (89,392) occurred during week 31 (McCullough 1990). The catch was 22% age 1.1 and 71% age 2.1 (Table 25). The m:f ratio was 1.5:1, and the average length was 562 mm for both sexes (Table 26). The average weight was 3.09 kg (Table 20). Coho escapements to the South Peninsula were not closely monitored but were estimated from index systems to be 50,000 to 100,000 salmon (Shaul 1989). Aerial escapement surveys are listed in McCullough (1990).

Aleutian Islands Management Area

In 1989 the Aleutian Islands Management Area was open for 815 h and the only catch was from the Unalaska District. The total catch was 14,948 salmon composed of 8,248 sockeye and 6,700 pink salmon (Table 1). The 1989 catch was only 2% of the 1979-88 average, and only 8% of the 1988 harvest (Table 1). Peak sockeye catch occurred during week 30 and for pink salmon during week 31 (Table 27). Escapement monitoring in the Aleutian Islands was limited to surveys of five salmon streams on Unalaska Island. The total estimated escapement to these streams was 10,308 pink salmon (Table 17). The 1989 Aleutian Islands Management Area run was at least 28,723 salmon (Table 17).

Catch and escapement samples were not collected in the Aleutian Islands Management Area.

North Peninsula

The total 1989 North Peninsula catch was 2,118,466 salmon which included 10,946 chinook, 1,718,689 sockeye, 4,103 pink, 157,177 chum, and 227,551 coho salmon (Table 1). About 79% of the catch was taken with drift gill nets, 18% by set gill nets, and about 4% by purse seine (Table 5). Seine gear accounted for most of the effort in terminal chum salmon fisheries, as well as terminal sockeye fisheries in Urilia Bay, Izembek-Moffet Bay, and Swanson Lagoon. Terminal set gill net fisheries for sockeye and coho salmon occurred in Cinder River, Port Heiden Bay, Ilnik Lagoon, Nelson Lagoon, Swanson Lagoon, and Urilia Bay.

The total observed North Peninsula salmon escapement of 1,372,226 salmon included 9,274 chinook, 861,565 sockeye, 4,407 pink, 238,707 chum and 258,273 coho salmon (Table 17). These figures added to the catch, subsistence, and personal use fisheries, produced an estimated minimum run of 3,491,401 salmon (Table 17).

Chinook Salmon

The 1989 North Peninsula chinook catch was 10,946 salmon (Table 1). The harvest was 46% below the 1979-88 average of 20,108 salmon and 35% below the 1988 catch of 16,805 (Table 1). The peak catch for the North Peninsula occurred during week 24 when 3,684 chinook were harvested (Table 28). Nelson Lagoon Section accounted for 35% of the catch, 24% was from the Harbor Point to Cape Seniavin fishery, and 27% was from the Inner Port Heiden Section (Table 5). The majority of the harvest in the Harbor Point to Cape Seniavin fishery (88%) and the Inner Port Heiden Section (77%) was from drift gill nets (Table 5). The Nelson Lagoon catch was 21% age 1.2, 17% age 1.3, 54% age 1.4, and 10% age 1.5 (Table 29). The m:f ratio was 1.1:1 (Table 30). The Harbor Point to Cape Seniavin catch was 24% age 1.2, 14% age 1.3, 50% age 1.4, and 12% age 1.5 (Table 29). The m:f ratio was 0.9:1. The average North Peninsula chinook length was 768 mm, and the largest chinook salmon were harvested in the Harbor Point to Cape Seniavin fishery where the average length was 789 mm (Table 30). Average weights were 7.99 kg in the Harbor Point to Cape Seniavin area and 6.26 kg in Nelson Lagoon (Table 20).

The estimated chinook escapement to the North Peninsula was about 9,274 salmon (Table 17). The majority of the escapement (57%) was in Nelson River (Figure 9) (McCullough 1990). Black Hills Creek and Meshik River both accounted for 4% of the estimated total escapement.

Sockeye Salmon

The North Peninsula catch of 1,718,689 sockeye salmon was 6% below the 1979-88 average, but 11% greater than the 1988 catch (Table 1). The majority (76%) of the harvest occurred in the Harbor Point to Strogonof Point areas (Table 5). The Harbor Point to Cape Seniavin area produced 33% of the North Peninsula catch, and the Cape Seniavin to Strogonof Point area produced 43% of the North Peninsula sockeye catch (Table 5). The peak catch for the North Peninsula occurred during week 26 (Table 28). The majority of the North Peninsula sockeye catch was taken with drift gill net gear (84%), 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 catch was 18% age 1.3, 36% age 2.2, and 38% age 2.3 (Table 18). The m:f ratio for the North Peninsula catch was 1.1:1 (Table 19). The average sockeye length in the harvest was 539 mm. The largest sockeye salmon were in the Harbor Point to Cape Seniavin area (578 mm), and the smallest were in the Nelson Lagoon Section (532 mm; Table 19). The average weight of sockeye salmon harvested in the North Peninsula was 2.94 kg (Table 20).

The North Peninsula sockeye escapement was 861,565 salmon (Table 17). Nelson (193,000) and Bear Rivers (451,000) supported 75% of the escapement. The moderate-sized systems at Ilnik Lagoon (15,000), Sandy Lake (45,000), and Whaleback Mountain Creek in Urilia Bay (53,750) supported 13% of the escapement (McCullough 1990). Sockeye escapement in the North Peninsula was 10% age 1.3, 55% age 2.2, and 19% age 2.3 (Table 21). The m:f ratio was 1.6:1 (Table 22). The average sockeye escapement length was 509 mm. The largest sockeye salmon escaping to Ilnik Lagoon where the average length was 570 mm, and the smallest (474 mm) were in Nelson Lagoon (Table 22).

The 1989 Bear River (Figure 10) sockeye escapement was 451,000 salmon. The peak escapement occurred during week 28 (McCullough 1990). The sockeye escapement was 59% age 2.2, and 27% age 2.3 (Table 21). In 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 (McCullough 1990). The m:f ratio was 1.3:1 and the average length for both sexes was 497 mm (Table 22).

The Nelson Lagoon system (Coastal and Hoodoo Lakes, and David, Caribou, and Sapsuk Rivers) sockeye escapement was 207,200 salmon (McCullough 1990). About 93% of this escapement (193,000 salmon) occurred in the Sapsuk River-Hoodoo Lake drainage, of which about 75% spawned in Hoodoo Lake and the remainder (25%) spawned in Sapsuk River (McCullough 1990). Peak escapement occurred in week 27 (McCullough 1990). The sockeye escapement in Sapsuk River-Hoodoo Lake was 14% age 1.2 and 68% age 2.2 (Table 21). The m:f ratio was 2.5:1. The high m:f ratio in the escapement was a result of the large number of males (141,317) from all major age classes (1.2, 2.1, 1.3, 2.2, and 2.3; McCullough 1990). The average length was 474 mm for both sexes (Table 22).

The sockeye escapement into Sandy Lake was 45,000 (Table 21). The escapement was 21% age 1.2 and 71% age 1.3 (Table 21). The m:f ratio was 1.5:1 with a combined average length of 534 mm (Table 22).

The sockeye escapement into the Ilnik Lagoon system, (Ocean and Ilnik Rivers and Willie Creek) was 19,325 salmon with the escapement consisting mostly of age 1.3 (73%; Table 21). The m:f ratio was 2.4:1 with an average length of 570 mm for both sexes (Table 22).

The sockeye escapement into Meshik River was 21,960 salmon (Table 21). The escapement was 21% age 0.3, 48% age 1.3, and 16% age 2.3 (Table 21). The m:f ratio was 1.3:1 and the average length for both sexes was 564 mm (Table 22). The total North Peninsula sockeye run was 2,580,667 salmon (Table 17).

Pink Salmon

North Peninsula pink runs have historically been of minor importance. The 1989 North Peninsula catch of 4,103 pink salmon was 96% below the 1970-88 even-year average of 91,477 and 94% below the 1988 harvest (Table 1). The majority (77%) of the pink salmon catch was in the Bechevin Bay Section followed by Harbor Point to Cape Seniavin area (12%; Table 5). The peak catch of pink salmon in North Peninsula fisheries occurred during week 32 (Table 28). The North Peninsula escapement of 4,407 pink salmon spawned in several Northwestern District streams, including Mike's Valley (1,193 salmon), Hungry's Creek (1,536 salmon), and Bear River (1,182 salmon) in the Northern District (McCullough 1990). The total North Peninsula pink run was 8,511 salmon (48% catch and 52% escapement; Table 17).

Chum Salmon

A total of 157,177 chum salmon were caught in North Peninsula fisheries in 1989 (Table 1). The catch was 66% below the 1979-88 average and 60% below the 1988 catch (Table 1). Most of the catch occurred in the Herendeen Bay Section (34%) and in the Harbor Point to Cape Seniavin fishery (34%; Table 5). The peak catch for the North Peninsula occurred during week 29 (Table 28). The North Peninsula catch was 62% age 0.3 and 33% age 0.4 (Table 23). The North Peninsula m:f ratio was 1.1:1 and the average length for both sexes was 592 mm (Table 24). The average weight was 3.30 kg ranging from 2.88 kg (Harbor Point to Cape Seniavin) to 3.64 kg (Izembek-Moffet Bay; Table 20).

The 1989 North Peninsula chum escapement was 238,707 salmon (Table 17). The majority were in the Joshua Green River (20%), Frosty Springs (8%), and Moffet Springs (7%) Creeks of the Izembek-Moffet Bay Section (McCullough 1990). The total North Peninsula chum run was about 395,900 salmon (Table 17).

Major catches in terminal areas occurred at Herendeen Bay (53,212), Izembek-Moffet Lagoon Section (14,458), Bechevin Bay (7,315), and Nelson Lagoon (5,018) (Table 5). Seine gear accounted for 39% of the Herendeen Bay catch and 98% of the Izembek-Moffet Lagoon catch (Table 5). In Herendeen Bay, the catch consisted mainly of 65% age 0.3 and 31% age 0.4, while in Izembek-Moffet Lagoon 57% were age 0.3 and 37% age 0.4 (Table 23).

Coho Salmon

A total of 227,551 coho salmon were harvested in the North Peninsula, which was 28% above the 1979-88 average (Table 1). The increased coho catch was probably the combination of larger coho runs and increased fishing effort. The majority of the catch was in the Nelson Lagoon Section (52%), followed by the Inner Port Heiden Section (11%), and the Cinder River Section (8%) (Table 5). Peak catches occurred in the North Peninsula fisheries during week 35 (Table 28). In the Nelson Lagoon Section the catch mainly consisted of 80% age 2.1, 11% age 1.1, and 10% age 3.1 (Table 25). The largest coho salmon were harvested in the Ilnik Lagoon Section (592 mm) and the smallest (536 mm) were harvested in the Nelson Lagoon Section (Table 26). The average coho length in the North Peninsula catch was 550 mm and the mean weight was 3.51 kg (Table 20).

Coho escapements in the North Peninsula have been poorly monitored due to budget restrictions and survey conditions. The escapement in 11 monitored streams was 258,273 salmon (Table 17). The largest escapements were in the Nelson Lagoon System (30%), Meshik River (25%), and the Ilnik Estuary and Lagoon (24%) (McCullough 1990).

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Table 1. The commercial salmon catch in the Alaska Peninsula and Aleutian Islands Management Areas by species, 1969-89.

Year	Area	Number of Salmon						Percent
		Chinook	Sockeye	Pink	Chum	Coho	Total	
1969	South Peninsula	1,900	912,800	1,219,400	389,200	10,900	2,534,200	79.6
	Aleutians	0	1,900	242,200	1,500	0	245,600	7.7
	North Peninsula	4,800	321,300	100	28,100	49,100	403,400	12.7
	Total	6,700	1,236,000	1,461,700	418,800	60,000	3,183,200	100.0
1970	South Peninsula	1,800	1,794,600	1,723,400	981,700	32,200	4,533,700	82.3
	Aleutians	0	200	672,500	3,300	100	676,100	12.3
	North Peninsula	3,200	213,000	7,800	50,200	26,400	300,600	5.5
	Total	5,000	2,007,800	2,403,700	1,035,200	58,700	5,510,400	100.0
1971	South Peninsula	2,200	715,500	1,450,100	1,366,600	16,800	3,551,200	88.2
	Aleutians	0	300	45,400	100	0	45,800	1.1
	North Peninsula	2,200	354,200	300	64,200	8,200	429,100	10.7
	Total	4,400	1,070,000	1,495,800	1,430,900	25,000	4,026,100	100.0
1972	South Peninsula	1,300	557,800	78,000	727,500	8,000	1,372,600	83.1
	Aleutians	0	100	2,800	0	0	2,900	0.2
	North Peninsula	1,800	179,500	0	84,700	9,600	275,600	16.7
	Total	3,100	737,400	80,800	812,200	17,600	1,651,100	100.0
1973	South Peninsula	400	330,200	58,000	293,000	6,600	688,200	65.3
	Aleutians	0	100	7,000	0	0	7,100	0.7
	North Peninsula	4,400	171,800	300	155,700	26,900	359,100	34.1
	Total	4,800	502,100	65,300	448,700	33,500	1,054,400	100.0
1974	South Peninsula	500	204,700	99,700	71,500	9,400	385,800	54.5
	Aleutians	0	0	0	0	0	0	0.0
	North Peninsula	5,100	247,900	10,500	35,300	24,000	322,800	45.6
	Total	5,600	452,600	110,200	106,800	33,400	708,600	100.0
1975	South Peninsula	100	268,400	61,700	132,900	0	463,100	62.9
	Aleutians	0	0	0	0	0	0	0.0
	North Peninsula	2,100	233,500	300	8,700	28,200	272,800	37.1
	Total	2,200	501,900	62,000	141,600	28,200	735,900	100.0
1976	South Peninsula	2,100	375,000	2,367,000	532,500	200	3,276,800	81.5
	Aleutians	0	0	0	0	0	0	0.0
	North Peninsula	4,900	641,100	600	73,600	26,000	746,200	18.6
	Total	7,000	1,016,100	2,367,600	606,100	26,200	4,023,000	100.0
1977	South Peninsula	500	311,700	1,448,600	243,200	2,100	2,006,100	75.8
	Aleutians	0	0	0	0	0	0	0.0
	North Peninsula	5,500	471,100	900	129,100	34,100	640,700	24.2
	Total	6,000	782,800	1,449,500	372,300	36,200	2,646,800	100.0
1978	South Peninsula	800	579,500	5,608,800	547,000	60,700	6,796,800	80.5
	Aleutians	0	1,800	38,100	0	0	39,900	0.5
	North Peninsula	14,200	896,200	466,600	163,200	63,300	1,603,500	19.0
	Total	15,000	1,477,500	6,113,500	710,200	124,000	8,440,200	100.0

-Continued-

Table 1. (page 2 of 3)

Year	Area	Number of Salmon						Percent
		Chinook	Sockeye	Pink	Chum	Coho	Total	
1979	South Peninsula	2,100	1,149,700	6,570,500	483,000	356,500	8,561,800	75.8
	Aleutians	0	12,200	539,400	200	0	551,800	4.9
	North Peninsula	17,100	1,979,500	5,000	65,700	112,800	2,180,100	19.3
	Total	19,200	3,141,400	7,114,900	548,900	469,300	11,293,700	100.0
1980	South Peninsula	4,800	3,613,000	7,961,500	1,351,200	274,200	13,204,700	71.9
	Aleutians	0	9,200	2,597,500	4,900	0	2,611,600	14.2
	North Peninsula	16,800	1,397,100	301,700	700,200	127,900	2,543,700	13.9
	Total	21,600	5,019,300	10,860,700	2,056,300	402,100	18,360,000	100.0
1981	South Peninsula	10,200	2,255,200	5,035,900	1,770,300	162,200	9,233,800	75.2
	Aleutians	0	5,400	302,800	6,600	200	315,000	2.6
	North Peninsula	18,300	1,844,900	11,200	706,800	155,400	2,736,600	22.3
	Total	28,500	4,105,500	5,349,900	2,483,700	317,800	12,285,400	100.0
1982	South Peninsula	9,800	2,346,000	6,734,900	2,272,500	256,000	11,619,200	76.8
	Aleutians	0	2,700	1,447,800	6,100	0	1,456,600	9.6
	North Peninsula	30,100	1,435,300	12,300	331,100	238,000	2,046,800	13.5
	Total	39,900	3,784,000	8,195,000	2,609,700	494,000	15,122,600	100.0
1983	South Peninsula	26,900	2,556,600	2,827,600	1,707,100	127,700	7,245,900	73.8
	Aleutians	0	4,400	2,000	11,400	0	17,800	0.2
	North Peninsula	29,500	2,093,400	3,400	348,700	75,100	2,550,100	26.0
	Total	56,400	4,654,400	2,833,000	2,067,200	202,800	9,813,800	100.0
1984	South Peninsula	9,200	2,318,000	11,589,300	1,656,500	309,100	15,882,100	75.4
	Aleutians	0	67,200	2,309,700	33,900	0	2,410,800	11.4
	North Peninsula	23,000	1,734,900	27,400	796,700	198,600	2,780,600	13.2
	Total	32,200	4,120,100	13,926,400	2,487,100	507,700	21,073,500	100.0
1985[a]	South Peninsula	7,884	2,214,583	4,438,598	1,393,285	172,514	8,226,864	70.3
	Aleutians	40	2,750	90	14,175	0	17,055	0.2
	North Peninsula	23,553	2,600,589	3,055	670,644	167,740	3,465,581	29.6
	Total	31,477	4,817,922	4,441,743	2,078,104	340,254	11,709,500	100.0
1986	South Peninsula	5,589	1,223,089	4,031,487	1,749,651	235,854	7,245,670	70.6
	Aleutians	11	7,702	42,621	38,819	60	89,213	0.9
	North Peninsula	11,740	2,463,735	22,630	271,216	165,201	2,934,522	28.6
	Total	17,340	3,694,526	4,096,738	2,059,686	401,115	10,269,405	100.0
1987	South Peninsula	9,174	1,449,753	1,208,556	1,376,267	224,740	4,268,490	70.7
	Aleutians	0	75	0	0	0	75	0.0
	North Peninsula	14,186	1,209,435	3,486	368,696	171,784	1,767,587	29.3
	Total	23,360	2,659,263	1,212,042	1,744,963	396,524	6,036,152	100.0
1988	South Peninsula	11,075	1,473,636	7,044,824	1,908,507	505,533	10,943,575	81.9
	Aleutians	0	4,315	183,109	450	7	187,881	1.4
	North Peninsula	16,805	1,528,116	65,242	393,077	233,966	2,237,206	16.7
	Total	27,880	3,006,067	7,293,175	2,302,034	739,506	13,368,662	100.0
Average 1969-1978								
	South Peninsula	1,160	605,020	1,411,470	528,510	14,690	2,560,850	80.1
	Aleutians	0	440	100,800	490	10	101,740	3.2
	North Peninsula	4,820	372,960	48,740	79,280	29,580	535,380	16.7
	Total	5,980	978,420	1,561,010	608,280	44,280	3,197,970	100.0

-Continued-

Table 1. (page 3 of 3)

Year	Area	Number of Salmon						Percent
		Chinook	Sockeye	Pink	Chum	Coho	Total	
Average 1979-1988								
	South Peninsula	9,672	2,059,956	5,744,317	1,566,831	262,434	9,643,210	74.6
	Aleutians	5	11,594	742,502	11,654	27	765,782	5.9
	North Peninsula	20,108	1,828,698	45,541	465,283	164,649	2,524,280	19.5
	Total	29,786	3,900,248	6,532,360	2,043,768	427,110	12,933,272	100.0
1989	South Peninsula	7,047	2,660,706	7,292,658	994,231	443,843	11,398,485	84.2
	Aleutians	0	8,248	6,700	0	0	14,948	0.1
	North Peninsula	10,946	1,718,689	4,103	157,177	227,551	2,118,466	15.7
	Total	17,993	4,387,643	7,303,461	1,151,408	671,394	13,531,899	100.0

[a]Values prior to 1985 are rounded to the nearest hundred fish.

Table 2. Alaska Peninsula and Aleutian Islands Management Areas listing of allowable gear by district and section, 1989.

District	Set Gill Net	Drift Gill Net	Purse Seine	Hand Purse Seine	Beach Seine
SOUTH PENINSULA					
Southeastern District	X		X	X	
Southcentral District[a]	X	X	X		
Southwestern District[b]	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			

[a] In the Southcentral District set gill net gear is not allowed in the Canoe Bay Section.

[b] In the Southwestern District drift gill net gear is allowed in the Ikatan Bay Section.

Table 3. Districts, sections, and statistical areas for the Alaska Peninsula and Aleutian Islands Management Areas, 1989.

Fishing Area Location	Statistical Areas
SOUTH PENINSULA	
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
Southcentral 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
ALEUTIAN ISLANDS AREA	
Unalaska District	302-22
NORTH PENINSULA	
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

-Continued-

Table 3. (page 2 of 2)

Fishing Area Location	Statistical Areas
Northern District (continued)	
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, 1989.

Statistical Week	Calendar Dates	Statistical Week	Calendar Dates
1	01-Jan to 07-Jan	28	09-Jul to 15-Jul
2	08-Jan to 14-Jan	29	16-Jul to 22-Jul
3	15-Jan to 21-Jan	30	23-Jul to 29-Jul
4	22-Jan to 28-Jan	31	30-Jul to 05-Aug
5	29-Jan to 04-Feb	32	06-Aug to 12-Aug
6	05-Feb to 11-Feb	33	13-Aug to 19-Aug
7	12-Feb to 18-Feb	34	20-Aug to 26-Aug
8	19-Feb to 25-Feb	35	27-Aug to 02-Sep
9	26-Feb to 04-Mar	36	03-Sep to 09-Sep
10	05-Mar to 11-Mar	37	10-Sep to 16-Sep
11	12-Mar to 18-Mar	38	17-Sep to 23-Sep
12	19-Mar to 25-Mar	39	24-Sep to 30-Sep
13	26-Mar to 01-Apr	40	01-Oct to 07-Oct
14	02-Apr to 08-Apr	41	08-Oct to 14-Oct
15	09-Apr to 15-Apr	42	15-Oct to 21-Oct
16	16-Apr to 22-Apr	43	22-Oct to 28-Oct
17	23-Apr to 29-Apr	44	29-Oct to 04-Nov
18	30-Apr to 06-May	45	05-Nov to 11-Nov
19	07-May to 13-May	46	12-Nov to 18-Nov
20	14-May to 20-May	47	19-Nov to 25-Nov
21	21-May to 27-May	48	26-Nov to 02-Dec
22	28-May to 03-Jun	49	03-Dec to 09-Dec
23	04-Jun to 10-Jun	50	10-Dec to 16-Dec
24	11-Jun to 17-Jun	51	17-Dec to 23-Dec
25	18-Jun to 24-Jun	52	24-Dec to 30-Dec
26	25-Jun to 01-Jul	53	31-Dec to 31-Dec
27	02-Jul to 08-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, 1989.

Area	Gear	Number of Salmon					Total	Percent
		Chinook	Sockeye	Pink	Chum	Coho		
SOUTH PENINSULA								
Southeastern District								
Southeast District Mainland	Seine	1,077	130,513	2,824,089	95,146	64,247	3,115,072	27.3
	Set Net	140	151,745	180,997	37,033	10,074	379,989	3.3
	Total	1,217	282,258	3,005,086	132,179	74,321	3,495,061	30.6
Shumagin Island Section June	Seine	463	360,860	45,049	44,498	0	450,870	4.0
	Set Net	24	36,098	18	3,030	0	39,170	0.3
	June Total	487	396,958	45,067	47,528	0	490,040	4.3
Shumagin Island Section Post-June	Seine	2,362	253,579	1,876,069	211,912	230,532	2,574,454	22.6
	Set Net	131	164,545	150,927	27,454	20,674	363,731	3.2
	Post Total	2,493	418,124	2,026,996	239,366	251,206	2,938,185	25.8
Shumagin Island Section Total	Seine	2,825	614,439	1,921,118	256,410	230,532	3,025,324	26.5
	Set Net	155	200,643	150,945	30,484	20,674	402,901	3.5
	Total	2,980	815,082	2,072,063	286,894	251,206	3,428,225	30.0
Southcentral District								
Canoe Bay	Seine	11	2,403	246,194	40,819	504	289,931	2.5
	Set Net	2	1,675	1,725	159	0	3,560	0.0
	Total	13	4,078	247,918	40,978	504	293,491	2.5
Pavlof Bay	Seine	77	45,515	296,204	7,818	3,083	352,697	3.1
	Set Net	5	8,613	6,070	1,065	55	15,808	0.1
	Total	82	54,128	302,274	8,883	3,138	368,505	3.2
Southwestern District								
Volcano Bay	Seine	11	11,968	29,757	1,753	954	44,443	0.4
	Set Net	12	10,881	10,570	1,213	719	23,395	0.2
	Total	23	22,849	40,327	2,966	1,673	67,838	0.6
Belkofski Bay	Seine	6	3,292	444,736	9,618	26	457,678	4.0
	Set Net	0	0	240	25	1	266	0.0
	Total	6	3,292	444,976	9,643	27	457,944	4.0
King Cove	Seine	0	6	25,890	1,020	1	26,917	0.2
	Set Net	0	15	2,070	1,202	5	3,292	0.0
	Total	0	21	27,960	2,222	6	30,209	0.2
Cold Bay	Seine	0	125	1,850	1,215	0	3,190	0.0
	Set Net	0	145	555	1,970	0	2,670	0.0
	Total	0	270	2,405	3,185	0	5,860	0.0
Deer Island Section	Seine	6	2,173	880,905	1,113	25	884,222	7.8
	Set Net	0	262	1,750	75	2	2,089	0.0
	Total	6	2,435	882,655	1,188	27	886,311	7.8
Thin Point	Set Net	2	2,614	2,447	348	3,872	9,283	0.0
	Total	2	2,614	2,447	348	3,872	9,283	0.0
Morzhovoi Bay	Seine	0	128	150	83	85	446	0.0
	Set Net	12	4,775	1,895	1,558	1,348	9,588	0.0
	Total	12	4,903	2,045	1,641	1,433	10,034	0.0

-Continued-

Table 5. (page 2 of 3)

Area	Gear	Number of Salmon					Total	Percent
		Chinook	Sockeye	Pink	Chum	Coho		
SOUTH PENINSULA								
Unimak District								
Sanak Island	Seine	56	4,890	3,949	24,281	6,116	39,292	0.3
Section	Total	56	4,890	3,949	24,281	6,116	39,292	0.3
Ikatan Peninsula	Seine	367	243,122	43,263	55,715	0	342,467	3.0
To Cape Lazaref	Set Net	46	33,983	40	2,485	0	36,554	0.3
June	Drift Net	297	330,925	300	125,719	0	457,241	4.0
	Total	710	608,030	43,603	183,919	0	836,262	7.3
Ikatan Peninsula	Seine	25	17,533	15,550	23,939	2,431	59,478	0.5
To Cape Lazaref	Set Net	67	12,463	2,889	3,644	10,713	29,776	0.3
Post-June	Drift Net	295	86,343	85,946	44,605	88,376	305,565	2.7
	Total	387	116,339	104,385	72,188	101,520	394,819	3.5
Ikatan Peninsula	Seine	392	260,655	58,813	79,654	2,431	401,945	3.5
To Cape Lazaref	Set Net	113	46,446	2,929	6,129	10,713	66,330	0.6
Total	Drift Net	592	417,268	86,246	170,324	88,376	762,806	6.7
	Total	1,097	724,369	147,988	256,107	101,520	1,231,081	10.8
Cape Lutke	Seine	1,342	557,827	110,552	156,595	0	826,316	7.3
Section	Set Net	0	93	0	190	0	283	0.0
	Drift Net	211	181,597	13	66,931	0	248,752	2.2
		1,553	739,517	110,565	223,716	0	1,075,351	9.5
ALEUTIAN ISLANDS AREA	Seine	0	8,248	6,700	0	0	14,948	100.0
Unalaska District	Total	0	8,248	6,700	0	0	14,948	100.0
NORTH PENINSULA								
Northwestern District								
Urilia Bay	Seine	0	6,604	0	336	0	6,940	0.3
	Set Net	7	9,631	0	124	0	9,762	0.5
	Drift Net	4	11,687	0	300	0	11,991	0.6
	Total	11	27,922	0	760	0	28,693	1.4
Swanson Lagoon	Seine	0	9,757	0	1,927	2,205	13,889	0.7
Section	Set Net	1	3,116	28	1,121	4,797	9,063	0.4
	Drift Net	0	451	4	161	1	617	0.0
	Total	1	13,324	32	3,209	7,003	23,569	1.1
Bechevin Bay	Seine	0	1,065	2,990	6,837	17	10,909	0.5
	Set Net	4	890	129	303	440	1,766	0.1
	Drift Net	1	779	44	175	1,037	2,036	0.1
	Total	5	2,734	3,163	7,315	1,494	14,711	0.7
Izembek-Moffet	Seine	6	8,455	0	14,153	139	22,753	1.1
Lagoon Section	Drift Net	0	155	0	305	2	462	0.0
	Total	6	8,610	0	14,458	141	23,215	1.1
Nelson Lagoon	Set Net	2,890	221,288	20	3,622	68,886	296,706	14.0
Section	Drift Net	932	103,691	13	1,396	50,449	156,481	7.4
	Total	3,822	324,979	33	5,018	119,335	453,187	21.4
Herendeen Bay	Seine	1	69	60	20,670	0	20,800	1.0
	Set Net	0	75	0	2,200	0	2,275	0.1
	Drift Net	1	1,204	22	30,342	1	31,570	1.5
	Total	2	1,348	82	53,212	1	54,645	2.6

-Continued-

Table 5. (page 3 of 3)

Area	Gear	Number of Salmon					Total	Percent
		Chinook	Sockeye	Pink	Chum	Coho		
NORTH PENINSULA								
Harbor Point To	Seine	21	271	0	957	0	1,249	0.1
Cape Seniavin	Set Net	300	4,132	14	11,880	5	16,331	0.8
	Drift Net	2,259	557,734	495	40,336	14,526	615,350	29.1
	Total	2,580	562,137	509	53,173	14,531	632,930	30.0
Cape Seniavin To	Set Net	0	1,659	1	19	72	1,751	0.1
Strogonof Point	Drift Net	479	744,577	244	16,897	10,763	772,960	36.5
	Total	479	746,236	245	16,916	10,835	774,711	36.6
Ilnik Lagoon	Set Net	11	2,726	6	3	15,512	18,258	0.9
	Drift Net	0	25	0	0	1,044	1,069	0.1
	Total	11	2,751	6	3	16,556	19,327	1.0
Outer Port Heiden	Drift Net	1	2,227	14	55	14,273	16,570	0.8
	Total	1	2,227	14	55	14,273	16,570	0.8
Inner Port Heiden	Set Net	685	9,403	0	712	3,794	14,594	0.7
	Drift Net	2,242	1,959	0	438	22,105	26,744	1.3
	Total	2,927	11,362	0	1,150	25,899	41,338	2.0
Cinder River Section	Set Net	1	72	0	8	2,868	2,949	0.1
	Drift Net	117	721	5	19	14,599	15,461	0.7
	Total	118	793	5	27	17,467	18,410	0.8
SOUTH PENINSULA TOTAL	Seine	5,803	1,633,934	6,844,207	675,525	308,004	9,467,473	83.1
	Set Net	441	427,907	362,192	81,451	47,463	919,454	8.0
	Drift Net	803	598,865	86,259	237,255	88,376	1,011,558	8.9
	Total	7,047	2,660,706	7,292,658	994,231	443,843	11,398,485	100.0
ALEUTIAN ISLANDS AREA TOTAL								
	Seine	0	8,248	6,700	0	0	14,948	100.0
	Total	0	8,248	6,700	0	0	14,948	100.0
NORTH PENINSULA TOTAL	Seine	28	26,221	3,050	44,880	2,361	76,540	3.6
	Set Net	3,899	252,992	198	19,992	96,374	373,455	17.6
	Drift Net	7,019	1,439,476	855	92,305	128,816	1,668,471	78.8
	Total	10,946	1,718,689	4,103	157,177	227,551	2,118,466	100.0
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY GEAR TYPE								
	Seine	5,831	1,668,403	6,863,957	720,405	310,365	9,558,961	70.6
	Set Net	4,340	680,899	362,390	101,443	143,837	1,292,909	9.6
	Drift Net	7,822	2,038,341	87,114	329,560	217,192	2,680,029	19.8
	Total	17,993	4,387,943	7,303,461	1,151,408	671,394	13,531,899	100.0
ALASKA PENINSULA AND ALEUTIAN ISLANDS AREAS CATCH BY REGION								
SOUTH PENINSULA		7,047	2,660,706	7,292,658	994,231	443,843	11,398,485	84.2
ALEUTIAN		0	8,248	6,700	0	0	14,948	0.1
NORTH PENINSULA		10,946	1,718,689	4,103	157,177	227,551	2,118,466	15.7
Total		17,993	4,387,643	7,303,461	1,151,408	671,394	13,531,899	100.0
Percent		0.1	32.4	54.0	8.5	5.0	100.0	

Table 6. Shumagin Islands Section commercial salmon catch, June and post-June, 1979-1989.

Year	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
			June			
1979	475	179,139	105,813	40,953	252	326,632
1980[a]	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
Average	1,653	318,306	213,001	94,101	327	627,387
1989	487	396,958	45,067	47,528	0	490,040
			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
Average	3,088	178,734	1,638,213	292,980	200,907	2,313,922
1989	2,493	418,124	2,026,996	239,366	251,206	2,938,185

-Continued-

Table 6. (page 2 of 2)

Year	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
	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
Average	4,741	497,040	1,851,214	387,081	201,234	2,941,310
1989	2,980	815,082	2,072,063	286,894	251,206	3,428,225

[a] 1980 June catch includes catch through 5 July.

Table 7. North Peninsula Harbor Point to Strogonof Point commercial sockeye salmon harvest, 1974-89.

Year	Catch Area: Harbor Point to Cape Seniavin Number	Percent	Catch Area: Cape Seniavin to Strogonof Point Number	Percent	Total Number	Percent
1974[a]	160,515	77.4	46,895	22.6	207,410	100.0
1975[a]	169,469	95.1	8,707	4.9	178,176	100.0
1976[a]	320,221	59.3	219,719	40.7	539,940	100.0
1977[a]	275,763	73.8	97,887	26.2	373,650	100.0
1978[a]	592,592	94.9	32,168	5.1	624,760	100.0
1979	1,352,903	87.4	194,362	12.6	1,547,265	100.0
1980	752,144	74.9	252,227	25.1	1,004,371	100.0
1981	1,327,800	95.1	68,900	4.9	1,396,700	100.0
1982	1,009,300	87.6	142,500	12.4	1,151,800	100.0
1983	1,126,200	60.7	729,600	39.3	1,855,800	100.0
Average	708,691	80.6	179,297	19.4	887,987	100.0
1984	637,400	46.2	743,700	53.8	1,381,100	100.0
1985	827,075	45.8	978,154	54.2	1,805,229	100.0
1986	939,131	45.0	1,148,840	55.0	2,087,971	100.0
1987	214,637	23.0	719,351	77.0	933,988	100.0
1988	498,718	40.1	745,996	59.9	1,244,714	100.0
1989	562,137	42.9	748,987	57.1	1,311,124	100.0
Average	613,183	40.5	847,505	59.5	1,460,688	100.0

[a] Does not include statistical area 314-12 in Harbor Point to Cape Seniavin data.

Table 8. Alaska Peninsula and Aleutian Islands Management Areas subsistence salmon catch estimated from returned permits, 1989.

Area	Permits			Number of Salmon					
	Issued	Returned	Percent Returned	Chinook	Sockeye	Pink	Chum	Coho	Total
SOUTH PENINSULA									
Sand Point	86	61	70.9	53	6,278	754	1,126	1,081	9,292
King Cove	39	24	61.5	3	1,982	294	690	1,973	4,942
Cold Bay	18	13	72.2	0	231	4	22	55	312
False Pass	7	4	57.1	4	336	175	47	100	662
Total	150	102	68.0	60	8,827	1,227	1,885	3,209	15,208
ALEUTIAN ISLANDS									
Aleutians	70	41	58.6	2	1,064	1,292	36	470	2,864
Total	70	41	58.6	2	1,064	1,292	36	470	2,864
NORTH PENINSULA									
Nelson Lagoon-Port Moller	9	9	100.0	21	250	0	11	227	509
Port Heiden	4	3	75.0	7	163	1	5	24	200
Total	13	12	92.3	28	413	1	16	251	709
OTHER									
Alaska Peninsula	25	21	84.0	0	1,036	8	181	72	1,297
Aleutians	4	1	25.0	0	48	0	0	0	48
Total	29	22	75.9	0	1,084	8	181	72	1,345
Total	262	177	76	90	11,388	2,528	2,118	4,002	20,126

Table 9. Alaska Peninsula and Aleutian Islands Management Areas estimated salmon escapements by district, 1989.[a]

Area District	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
South Peninsula						
Southeastern	0	24,075	563,105	103,997	10,080	701,257
Southcentral	0	3,188	735,222	94,107	6,960	839,477
Southwestern	0	67,820	698,103	144,034	20,693	930,650
Unimak	0	0	616	321	0	937
Total	0	95,083	1,997,046	342,460	37,733	2,472,322
Aleutian Islands Area						
Unalaska	0	0	10,308	0	0	10,308
Total	0	0	10,308	0	0	10,308
North Peninsula						
Northwestern	0	98,125	3,212	158,801	36,480	296,618
Northern	9,274	763,440	1,195	79,906	221,793	1,075,608
Total	9,274	861,565	4,407	238,707	258,273	1,372,226
Total	9,274	956,648	2,011,761	581,167	296,006	3,854,856

[a]Estimated escapements do not include streams which were not surveyed.

Table 10. Shumagin Islands Section commercial salmon catch by statistical week and species, June and post-June, 1989.

Statistical Week	Calendar Date	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
				June			
23	6/04-6/10	188	54,362	4,324	22,737	0	81,611
24	6/11-6/17	138	89,165	12,688	6,308	0	108,299
25	6/18-6/24	161	253,431	28,055	18,483	0	300,130
26	6/25-7/01	[a]					
Total		487	396,958	45,067	47,528	0	490,040
				Post-June			
27	7/02-7/08	298	63,879	50,227	37,705	9,145	161,254
28	7/09-7/15	398	106,896	63,090	35,382	13,850	219,616
29	7/16-7/22	83	38,744	35,964	4,035	9,377	88,203
30	7/23-7/29	960	77,626	486,759	54,023	90,456	709,824
31	7/30-8/05	552	66,558	839,530	66,659	89,392	1,062,691
32	8/06-8/12	171	34,107	438,409	30,610	23,108	526,405
33	8/13-8/19	28	12,677	112,578	9,229	8,165	142,677
34	8/20-8/26						
35	8/27-9/02	0	5,139	298	790	1,873	8,100
36	9/03-9/09	2	7,244	131	595	3,743	11,715
37	9/10-9/16	1	4,053	10	319	1,981	6,364
38	9/17-9/23	0	830	0	17	112	959
39	9/24-9/30	0	171	0	0	0	171
40	8/01-8/07	0	200	0	2	4	206
Total		2,493	418,124	2,026,996	239,366	251,206	2,938,185
Total		2,980	815,082	2,072,063	286,894	251,206	3,428,225

[a]Blank indicates no fishery.

Table 11. South Unimak fishery salmon catch, June and post-June 1979-1989.

Year	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
			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
Average	3,533	1,210,947	337,582	426,982	223	1,979,267
1989	2,263	1,347,547	154,168	407,635	0	1,911,613
			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	40,559	26,821	194,739
1987	134	54,370	6,414	53,621	33,317	147,856
1988	293	70,697	245,581	133,659	84,643	534,873
Average	609	41,695	113,770	94,630	27,786	278,489
1989	387	116,339	104,385	72,188	101,520	394,819

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Table 11. (page 2 of 2)

Year	Number of Salmon					
	Chinook	Sockeye	Pink	Chum	Coho	Total
	Combined June and Post-June					
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
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	20,370	1,498,625
Average	4,142	1,252,641	451,352	521,612	28,009	2,257,756
1989	2,650	1,463,886	258,553	479,823	101,520	2,306,432

Table 12. Ikatan Peninsula to Cape Lazaref commercial salmon catch by statistical week and species, 1989.

Statistical Week	Calendar Date	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
				June			
23	6/04-6/10	190	81,934	2,685	52,359	0	137,168
24	6/11-6/17	174	128,686	7,763	44,616	0	181,239
25	6/18-6/24	346	397,410	33,155	86,944	0	517,855
26	6/25-7/01[a]						
	Total	710	608,030	43,603	183,919	0	836,262
				Post-June			
27	7/02-7/08	42	22,954	7,451	23,904	3,043	57,394
28	7/09-7/15	40	28,285	2,090	4,471	8,161	43,047
29	7/16-7/22	157	21,171	5,929	9,686	36,553	73,496
30	7/23-7/29	65	20,959	54,660	15,410	27,399	118,493
31	7/30-8/05	68	17,289	26,162	13,782	17,124	74,425
32	8/06-8/12	15	5,676	8,093	4,924	9,165	27,873
33	8/13-8/18						
34	8/19-8/25						
35	8/26-9/01						
36	9/02-9/08	0	5	0	11	75	91
	Total	387	116,339	104,385	72,188	101,520	394,819

[a]Blank indicates no fishery.

Table 13. Cape Lutke commercial salmon catch by statistical week and species, 1989.

Statistical Week	Calendar Date	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
23	6/04-6/10	194	65,538	4,943	30,640	0	101,315
24	6/11-6/17	586	232,595	36,319	101,306	0	370,806
25	6/18-6/24	773	441,384	69,303	91,770	0	603,230
Total		1,553	739,517	110,565	223,716	0	1,075,351

Table 14. South Unimak and Shumagin Islands Section June sockeye and chum salmon catch by day, 1989.

Date	Shumagin Islands[a]		South Unimak[a]		Total[a]	
	Sockeye	Chum	Sockeye	Chum	Sockeye	Chum
June 10	54,362	22,737	147,472	82,999	201,834	105,736
11						
12						
13						
14						
15						
16	89,165	6,308	361,281	145,922	450,446	152,230
17						
18						
19	73,782	2,560	132,613	38,308		
20	179,649	15,923	440,833	119,873	620,482	135,796
21						
22						
23			265,348	20,533	265,348	20,533
Total	396,958	47,528	1,347,547	407,635	1,744,505	455,163

[a]Blank indicates no fishery.

Table 15. Southeast District Mainland fishery commercial salmon catch by statistical week and species, 1989.

Statistical Week	Calendar Date	Number of Salmon					
		Chinook	Sockeye	Pink	Chum	Coho	Total
				Pre 26 July			
24	6/11-6/17	26	5,203	0	152	0	5,381
25	6/18-6/24						
26	6/25-7/01						
27	7/02-7/08	18	6,525	301	306	5	7,155
28	7/09-7/15	28	12,812	4,049	2,863	124	19,876
20	7/16-7/22	59	52,940	108,350	2,488	984	164,821
30	7/23-7/29	14	11,744	97,317	761	113	109,949
	Total	145	89,224	210,017	6,570	1,226	307,182
				Post 25 July			
30	7/23-7/29	280	55,191	173,648	15,005	26,859	270,983
31	7/30-8/05	575	68,602	1,631,201	48,810	25,135	1,774,323
32	8/06-8/12	189	39,321	859,838	44,311	9,313	952,972
33	8/13-8/19	19	12,612	130,365	9,111	7,622	159,729
34	7/20-8/26						
35	8/27-9/02	0	4,045	17	3,264	1,307	8,633
36	9/03-9/09	0	6,671	0	3,077	1,381	11,129
37	9/10-9/16	8	6,009	0	1,897	1,342	9,256
38	9/17-9/23	1	583	0	134	136	854
	Total	1,072	193,034	2,795,069	125,609	73,095	3,187,879
Total		1,217	282,258	3,005,086	132,179	74,321	3,495,061

Table 16. South Peninsula commercial salmon catch by statistical week, gear type, and species, 1989.

Statistical Week	Calendar Date	Permit	Landings	Number of Salmon						Percent	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear Type	Total
Purse Seine											
23	6/04-6/10	90	91	423	111,939	11,940	54,271	0	178,573	1.9	1.6
24	6/11-6/17	95	102	682	283,278	56,729	85,314	0	426,003	4.5	3.7
25	6/18-6/24	98	254	1,067	766,592	130,195	117,223	0	1,015,077	10.7	8.9
26	6/25-7/01								0	0.0	0.0
27	7/02-7/08	86	137	295	67,175	56,692	60,554	9,830	194,546	2.1	1.7
28	7/09-7/15	90	128	428	86,471	109,363	69,537	18,282	284,081	3.0	2.5
29	7/16-7/22	76	127	181	69,399	227,700	25,977	7,983	331,240	3.5	2.9
30	7/23-7/29	97	259	1,220	83,918	951,702	62,918	112,684	1,212,442	12.8	10.6
31	7/30-8/05	115	528	1,115	99,408	3,237,128	110,747	110,279	3,558,677	37.6	31.2
32	8/06-8/12	105	353	345	47,902	1,790,977	70,871	29,602	1,939,697	20.5	17.0
33	8/13-8/19	55	89	45	14,019	271,361	13,618	13,914	312,957	3.3	2.7
34	8/20-8/26								0	0.0	0.0
35	8/27-9/02	9	11	0	658	279	2,259	1,147	4,343	0.0	0.0
36	9/03-9/09	4	11	2	2,222	131	1,990	2,874	7,219	0.1	0.1
37	9/10-9/16		7	0	953	10	246	1,409	2,618	0.0	0.0
	Total	117	2,097	5,803	1,633,934	6,844,207	675,525	308,004	9,467,473	100.0	83.1
Drift Gill Net											
23	6/04-6/10	130	134	122	78,192	2	48,751	0	127,067	12.6	1.1
24	6/11-6/17	141	153	202	149,783	27	65,883	0	215,895	21.3	1.9
25	6/18-6/24	137	376	184	284,547	284	78,016	0	363,031	35.9	3.2
26	6/25-7/01								0	0.0	0.0
27	7/02-7/08	11	20	11	6,643	185	914	1,222	8,975	0.9	0.1
28	7/09-7/15	32	58	22	21,380	547	3,482	6,271	31,702	3.1	0.3
29	7/16-7/22	48	90	141	19,041	5,498	8,823	33,710	67,213	6.6	0.6
30	7/23-7/29	64	161	60	19,774	52,699	14,691	24,840	112,064	11.1	1.0
31	7/30-8/05	63	192	53	14,963	22,669	12,341	14,229	64,255	6.4	0.6
32	8/06-8/12	26	67	8	4,537	4,348	4,343	8,029	21,265	2.1	0.2
33	8/13-8/19								0	0.0	0.0
34	8/20-8/26								0	0.0	0.0
35	8/27-9/02								0	0.0	0.0
36	9/03-9/09			0	5	0	11	75	91	0.0	0.0
	Total	147	1,253	803	598,865	86,259	237,255	88,376	1,011,558	100.0	8.9
Set Gill Net											
23	6/04-6/10	55	70	27	11,703	10	2,714	0	14,454	1.6	0.1
24	6/11-6/17	65	92	40	22,588	14	1,185	0	23,827	2.6	0.2
25	6/18-6/24	55	134	29	41,086	34	1,958	0	43,107	4.7	0.4
26	6/25-7/01								0	0.0	0.0
27	7/02-7/08	61	150	59	27,661	2,269	2,210	1,474	33,673	3.7	0.3
28	7/09-7/15	65	233	78	75,181	12,110	4,335	3,366	95,070	10.3	0.8
29	7/16-7/22	67	211	71	56,874	38,766	6,575	10,338	112,624	12.2	1.0
30	7/23-7/29	58	271	47	68,813	67,860	9,231	7,915	153,866	16.7	1.3

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Table 16. (page 2 of 2)

Statistical Week	Calendar Date	Permit	Landings	Number of Salmon						Percent	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear Type	Total
31	7/30-8/05	57	373	52	46,946	132,607	23,643	8,017	211,265	23.0	1.9
32	8/06-8/12	52	278	26	34,432	91,389	19,251	4,261	149,359	16.2	1.3
33	8/13-8/19	35	102	2	11,506	17,097	4,722	1,873	35,200	3.8	0.3
34	8/20-8/26								0	0.0	0.0
35	8/27-9/02	39	78	0	8,526	36	1,795	2,033	12,390	1.3	0.1
36	9/03-9/09	39	117	0	11,693	0	1,704	4,275	17,672	1.9	0.2
37	9/10-9/16	36	114	9	9,114	0	1,975	3,659	14,757	1.6	0.1
38	9/17-9/23	13	18	1	1,413	0	151	248	1,813	0.2	0.0
39	9/24-9/30			0	171	0	0	0	171	0.0	0.0
40	8/01-8/07		5	0	200	0	2	4	206	0.0	0.0
	Total	76	2,247	441	427,907	362,192	81,451	47,463	919,454	100.0	8.1
All Gears											
23	6/04-6/10	275	295	572	201,834	11,952	105,736	0	320,094	2.8	2.8
24	6/11-6/17	301	347	924	455,649	56,770	152,382	0	665,725	5.8	5.8
25	6/18-6/24	290	764	1,280	1,092,225	130,513	197,197	0	1,421,215	12.5	12.5
26	6/25-7/01								0	0.0	0.0
27	7/02-7/08	158	307	365	101,479	59,146	63,678	12,526	237,194	2.1	2.1
28	7/09-7/15	187	419	528	183,032	122,020	77,354	27,919	410,853	3.6	3.6
29	7/16-7/22	191	428	393	145,314	271,964	41,375	52,031	511,077	4.5	4.5
30	7/23-7/29	219	691	1,327	172,505	1,072,261	86,840	145,439	1,478,372	13.0	13.0
31	7/30-8/05	235	1093	1,220	161,317	3,392,404	146,731	132,525	3,834,197	33.6	33.6
32	8/06-8/12	183	698	379	86,871	1,886,714	94,465	41,892	2,110,321	18.5	18.5
33	8/13-8/19	90	191	47	25,525	288,458	18,340	15,787	348,157	3.1	3.1
34	8/20-8/26								0	0.0	0.0
35	8/27-9/02	48	89	0	9,184	315	4,054	3,180	16,733	0.1	0.1
36	9/03-9/09	45	130	2	13,920	131	3,705	7,224	24,982	0.2	0.2
37	9/10-9/16	38	121	9	10,067	10	2,221	5,068	17,375	0.2	0.2
38	9/17-9/23	13	18	1	1,413	0	151	248	1,813	0.0	0.0
39	9/24-9/30			0	171	0	0	0	171	0.0	0.0
40	8/01-8/07		5	0	200	0	2	4	206	0.0	0.0
Total		340	5,597	7,047	2,660,706	7,292,658	994,231	443,843	11,398,485	100.0	100.0
Percent				0.1	23.3	64.0	8.7	3.9	100.0		

Table 17. The commercial salmon catch, escapement, and run by species for the Alaska Peninsula and Aleutian Islands Management Areas, 1989.

Area	Species	Catch	Escapement	Subsistence	Run
South Peninsula	Chinook	7,047	0	60	7,107
Aleutians		0	0	2	2
North Peninsula		10,946	9,274	28	20,248
	Total	17,993	9,274	90	27,357
South Peninsula	Sockeye	2,660,706	95,083	9,863	2,765,652
Aleutians		8,248	0	1,537	9,785
North Peninsula		1,718,689	861,565	413	2,580,667
	Total	4,387,643	956,648	11,813	5,356,104
South Peninsula	Pink	7,292,658	1,997,046	1,235	9,290,939
Aleutians		6,700	10,308	1,422	18,430
North Peninsula		4,103	4,407	1	8,511
	Total	7,303,461	2,011,761	2,658	9,317,880
South Peninsula	Chum	994,231	342,460	2,066	1,338,757
Aleutians		0	0	36	36
North Peninsula		157,177	238,707	16	395,900
	Total	1,151,408	581,167	2,118	1,734,693
South Peninsula	Coho	443,843	37,733	3,281	484,857
Aleutians		0	0	470	470
North Peninsula		227,551	258,273	251	486,075
	Total	671,394	296,006	4,002	971,402
South Peninsula		11,398,485	2,472,322	16,505	13,887,312
Aleutians		14,948	10,308	3,467	28,723
North Peninsula		2,118,466	1,372,226	709	3,491,401
	Total	13,531,899	3,854,856	20,681	17,407,436

Table 18. Estimated age composition of sockeye salmon catches from the Alaska Peninsula Management Area, 1989.

Area	Ages 0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Other[a]	Total
SOUTH PENINSULA										
Southeast District Mainland										
Number	0	1,480	5,669	101,124	19,395	1,606	151,877	423	684	282,258
Percent	0.0	0.5	2.0	35.8	6.9	0.6	53.8	0.1	0.2	100.0
Shumagin Islands Section (June)										
Number	2,216	4,753	31,651	73,303	219,155	807	62,868	154	2,050	396,957
Percent	0.6	1.2	8.0	18.5	55.2	0.2	15.8	0.0	0.5	100.0
Shumagin Islands Section (Post-June)										
Number	700	4,898	13,123	115,212	57,158	2,543	220,677	1,295	2,518	418,124
Percent	0.2	1.2	3.1	27.6	13.7	0.6	52.8	0.3	0.6	100.0
Pavlof Bay										
Number	46	564	1,024	34,392	2,738	279	14,940	112	34	54,129
Percent	0.1	1.0	1.9	63.5	5.1	0.5	27.6	0.2	0.1	100.0
Thin Point										
Number	49	0	1,103	1,282	65	16	98	0	0	2,613
Percent	1.9	0.0	42.2	49.1	2.5	0.6	3.8	0.0	0.0	100.0
Ikatan Peninsula-Cape Lazaref (June)										
Number	1,154	4,481	47,687	59,030	408,443	0	84,546	826	1,864	608,031
Percent	0.2	0.7	7.8	9.7	67.2	0.0	13.9	0.1	0.3	100.0
Ikatan Peninsula-Cape Lazaref (Post-June)										
Number	391	1,020	11,432	25,648	45,588	411	31,601	39	206	116,336
Percent	0.3	0.9	9.8	22.0	39.2	0.4	27.2	0.0	0.2	100.0
Cape Lutke										
Number	2,473	13,274	54,663	105,451	449,683	0	111,293	1,599	1,080	739,516
Percent	0.3	1.8	7.4	14.3	60.8	0.0	15.0	0.2	0.1	100.0
South Unimak (June)										
Number	3,556	16,686	103,447	159,133	864,421	0	194,802	2,373	3,130	1,347,548
Percent	0.3	1.2	7.7	11.8	64.1	0.0	14.5	0.2	0.2	100.0
South Unimak (Post-June)										
Number	391	1,020	11,432	25,648	45,588	411	31,601	39	206	116,336
Percent	0.3	0.9	9.8	22.0	39.2	0.4	27.2	0.0	0.2	100.0
SOUTH PENINSULA TOTAL										
Number	10,976	48,176	281,231	700,223	2,112,234	6,073	904,303	6,860	11,772	4,081,848
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	771	12,418	2,700	11,338	154	154	231	0	154	27,920
Percent	2.8	44.5	9.7	40.6	0.6	0.6	0.8	0.0	0.6	100.0
Swanson Lagoon										
Number	0	411	411	6,732	164	0	328	0	0	8,046
Percent	0.0	5.1	5.1	83.7	2.0	0.0	4.1	0.0	0.0	100.0
Swanson Lagoon-Saint Catherine Cove										
Number	0	209	1,010	3,553	1,951	105	1,150	0	35	8,013
Percent	0.0	2.6	12.6	44.3	24.3	1.3	14.4	0.0	0.4	100.0
Nelson Lagoon										
Number	161	919	42,061	85,912	133,946	898	60,132	519	434	324,982
Percent	0.0	0.3	12.9	26.4	41.2	0.3	18.5	0.2	0.1	100.0

-Continued-

Table 18. (page 2 of 2)

Area	Ages 0.2	0.3	1.2	1.3	2.2	1.4	2.3	2.4	Other[a]	Total
Harbor Point-Cape Seniavin										
Number	0	2,453	25,105	55,187	206,566	1,383	264,652	2,822	3,969	562,137
Percent	0.0	0.4	4.5	9.8	36.7	0.2	47.1	0.5	0.7	100.0
Ilnik Lagoon										
Number	0	152	120	1,360	543	80	439	0	56	2,750
Percent	0.0	5.5	4.4	49.5	19.7	2.9	16.0	0.0	2.0	100.0
Cape Seniavin-Strogonof Point										
Number	93	9,652	21,513	134,296	263,650	1,460	311,192	1,225	3,158	746,239
Percent	0.0	1.3	2.9	18.0	35.3	0.2	41.7	0.2	0.4	100.0
Inner Port Heiden										
Number	0	1,111	598	2,050	5,467	150	1,858	43	85	11,362
Percent	0.0	9.8	5.3	18.0	48.1	1.3	16.4	0.4	0.7	100.0
NORTH PENINSULA TOTAL										
Number	1,025	27,325	93,518	300,428	612,441	4,230	639,982	4,609	7,891	1,691,449
Percent	0.1	1.6	5.5	17.8	36.2	0.3	37.8	0.3	0.5	100.0
ALASKA PENINSULA TOTAL										
Number	12,001	75,501	374,749	1,000,651	2,724,675	10,303	1,544,285	11,469	19,663	5,773,297
Percent	0.2	1.3	6.5	17.3	47.2	0.2	26.7	0.2	0.3	100.0

[a]Other ages include: 0.1, 1.1, 2.1, 0.4, 3.2, 3.3

Table 19. Estimated mean length (mid eye to tail fork) and sex ratio of sockeye salmon catches from the Alaska Peninsula Management Area, 1989.

Area	Length (mm)			Sex			
	Number	Mean	SE	Number	Male	Female	M:F Ratio
SOUTH PENINSULA							
Southeast District Mainland	226	582	3	1,977	1,205	772	1.6 : 1
Shumagin Islands Section (June)	533	529	2	1,591	811	780	1.0 : 1
Shumagin Islands Section (Post-June)	138	571	4	3,678	2,062	1,616	1.3 : 1
Pavlof Bay	223	572	3	2,354	1,413	941	1.5 : 1
Thin Point	320	552	2	357	195	162	1.2 : 1
Ikatan Peninsula-Cape Lazaref (June)	745	529	2	1,852	1,056	796	1.3 : 1
Ikatan Peninsula-Cape Lazaref (Post-June)	86	550	5	3,043	1,729	1,314	1.3 : 1
Cape Lutke	707	535	2	1,558	803	755	1.1 : 1
South Unimak (June)	1,452	532	1	3,410	1,859	1,551	1.2 : 1
South Unimak (Post-June)	86	550	5	3,043	1,729	1,314	1.3 : 1
Total	4,516	543[a]		19,820	11,133	8,687	1.2 : 1
NORTH PENINSULA							
Urilia Bay	362	538	3	397	233	164	1.4 : 1
Swanson Lagoon	98	555	3	77	77	47	1.6 : 1
Swanson Lagoon-Saint Catherine Cove	199	551	2	256	126	130	1.0 : 1
Nelson Lagoon	4,988	532	1	5,656	2,561	3,095	0.8 : 1
Harbor Point-Cape Seniavin	217	578	2	6,071	3,334	2,737	1.2 : 1
Ilnik Lagoon	734	554	1	796	451	345	1.3 : 1
Cape Seniavin-Strogonof Point	232	568	2	5,391	2,966	2,425	1.2 : 1
Inner Port Heiden	258	555	2	598	437	161	2.7 : 1
Total	7,088	539[a]		19,242	10,185	9,104	1.1 : 1
Total	11,604	540[a]		39,062	21,318	17,791	1.2 : 1

[a]Mean is weighted by sample size.

Table 20. Average weights of commercially harvested salmon in the Alaska Peninsula Management Area by species and area, 1989.

Species Location	Sample Size	Mean[a] Weight (kg)	90% Confidence Interval	Standard Deviation
Chinook				
North Peninsula				
Harbor Point-Cape Seniavin	272	7.99	0.58	2.63
Nelson Lagoon	252	6.26	0.68	2.99
Average	262	7.13		
Sockeye				
South Peninsula				
Southeast Mainland	248	3.41	0.14	0.62
Shumagin Islands	276	2.69	0.15	0.71
Pavlof Bay	250	3.26	0.16	0.69
Ikatan Peninsula-Cape Lazaref	246	2.75	0.12	0.53
Cape Lutke	248	2.59	0.11	0.49
Average	254	2.94		
Sockeye				
North Peninsula				
Port Heiden	282	2.79	0.12	0.56
Ilnik Lagoon	173	2.98	0.16	0.59
Cape Seniavin-Strogonof Point	258	3.12	0.13	0.57
Harbor Point-Cape Seniavin	252	3.28	0.12	0.53
Nelson Lagoon	253	3.01	0.17	0.73
Swanson Lagoon	50	2.77	0.27	0.53
Urilia Bay	96	2.63	0.21	0.57
Average	195	2.94		
Chum				
South Peninsula				
Southeast Mainland	199	3.30	0.23	0.90
Shumagin Islands	247	3.29	0.19	0.84
Canoe Bay	196	3.56	0.22	0.86
King Cove	96	3.35	0.25	0.66
Belkofski Bay	99	3.78	0.33	0.91
Ikatan Peninsula-Cape Lazaref	352	3.23	0.14	0.74
Cape Lutke	165	3.32	0.20	0.71
Average	193	3.40		

-Continued-

Table 20. (page 2 of 2)

Species Location	Sample Size	Mean[a] Weight (kg)	90% Confidence Interval	Standard Deviation
Chum				
North Peninsula				
Cape Seniavin-Strogonof Point	249	3.04	0.13	0.59
Harbor Point-Cape Seniavin	251	2.88	0.11	0.47
Herendeen Bay	198	3.51	0.19	0.74
Nelson Lagoon	253	3.41	0.19	0.83
Izembek-Moffet Bay	99	3.64	0.34	0.93
Average	210	3.30		
Coho				
South Peninsula				
Shumagin Islands	98	3.09	0.27	0.74
Average	98	3.09		
Coho				
North Peninsula				
Cape Seniavin-Strogonof Point	228	4.11	0.23	0.96
Nelson Lagoon	289	2.90	0.22	1.04
Average	259	3.51		

[a]Mean is weighted by sample size.

Table 21. Estimated age composition of sockeye salmon escapements from the Alaska Peninsula Management Area, 1989.

Area	Ages 0.3	1.2	2.1	1.3	2.2	1.4	2.3	2.4	Other[a]	Total
SOUTH PENINSULA										
Thin Point										
Number	0	15,778	0	18,349	935	234	1,403	0	701	37,400
Percent	0.0	42.2	0.0	49.1	2.5	0.6	3.8	0.0	1.9	100.0
Total										
Number	0	15,778	0	18,349	935	234	1,403	0	701	37,400
Percent	0.0	42.2	0.0	49.1	2.5	0.6	3.8	0.0	1.9	100.0
NORTH PENINSULA										
Nelson Lagoon										
Number	0	27,652	6,843	15,049	131,301	101	11,033	521	497	193,000
Percent	0.0	14.3	3.5	7.8	68.0	0.1	5.7	0.3	0.3	100.0
Bear Lake										
Number	0	13,988	37,568	1,274	265,796	2,752	123,174	4,756	1,693	451,000
Percent	0.0	3.1	8.3	0.3	58.9	0.6	27.3	1.1	0.4	100.0
Sandy Lake										
Number	94	9,603	377	32,103	565	0	1,977	0	282	45,000
Percent	0.2	21.3	0.8	71.3	1.3	0.0	4.4	0.0	0.6	100.0
Ilnik Lagoon										
Number	613	736	0	14,172	491	736	1,472	0	1,104	19,325
Percent	3.2	3.8	0.0	73.3	2.5	3.8	7.6	0.0	5.7	100.0
Meshik River										
Number	4,554	1,702	128	10,512	426	255	3,575	43	766	21,960
Percent	20.7	7.8	0.6	47.9	1.9	1.2	16.3	0.2	3.5	100.0
Total										
Number	5,261	53,681	44,916	73,110	398,579	3,844	141,231	5,320	4,342	730,283
Percent	0.7	7.4	6.2	10.0	54.6	0.5	19.3	0.7	0.6	100.0
Total										
Number	5,261	69,459	44,916	91,459	399,514	4,078	142,634	5,320	5,043	767,683
Percent	0.7	9.0	5.9	11.9	52.0	0.5	18.6	0.7	0.7	100.0

[a]Other ages include: 1.1, 0.2, 0.4, 3.1, 3.2, 3.3

Table 22. Estimated mean length (mid eye to tail fork) and sex ratio of sockeye salmon escapements from the Alaska Peninsula Management Area, 1989.

Area	Length (mm)			Sex			
	Number	Mean	SE	Number	Male	Female	M:F Ratio
SOUTH PENINSULA							
Thin Point	320	552	2	357	195	162	1.2 : 1
Total	320	552[a]		357	195	162	1.2 : 1
NORTH PENINSULA							
Nelson Lagoon	895	474	2	1,055	751	304	2.5 : 1
Bear Lake	2,457	497	1	2,643	1,514	1,129	1.3 : 1
Sandy Lake	478	534	3	489	296	193	1.5 : 1
Ilnik Lagoon	315	570	3	373	262	111	2.4 : 1
Meshik River	516	564	2	560	318	242	1.3 : 1
Total	4,661	509[a]		5,120	3,141	1,979	1.6 : 1
Total	4,981	512[a]		5,477	3,336	2,141	1.6 : 1

[a]Mean is weighted by sample size.

Table 23. Estimated age composition of chum salmon catches from the Alaska Peninsula Management Area, 1989.

Area	Ages 0.2	0.3	0.4	0.5	0.6	Total
SOUTH PENINSULA						
Southeast District Mainland						
Number	4,858	109,464	15,134	2,722	0	132,178
Percent	3.7	82.8	11.4	2.1	0.0	100.0
Shumagin Islands Section (June)						
Number	50	25,140	20,321	1,953	65	47,464
Percent	0.1	53.0	42.8	4.1	0.0	100.0
Shumagin Islands Section (Post-June)						
Number	4,831	183,344	43,578	7,486	127	239,239
Percent	2.0	76.6	18.2	3.1	0.1	100.0
Canoe Bay						
Number	305	30,256	8,226	2,138	53	40,925
Percent	0.7	73.9	20.1	5.2	0.0	100.0
Belkofski Bay						
Number	438	7,196	1,662	347	0	9,643
Percent	4.5	74.6	17.2	3.6	0.0	100.0
King Cove						
Number	1,667	556	0	0	0	2,223
Percent	75.0	25.0	0.0	0.0	0.0	100.0
Ikatan Peninsula-Cape Lazaref (June)						
Number	93	87,411	89,675	6,661	80	183,840
Percent	0.1	47.5	48.8	3.6	0.1	100.0
Ikatan Peninsula-Cape Lazaref (Post-June)						
Number	688	51,026	18,547	1,907	8	72,168
Percent	1.0	70.7	25.7	2.6	0.0	100.0
Cape Lutke						
Number	0	110,961	105,848	6,438	468	223,247
Percent	0.0	49.7	47.4	2.9	0.4	100.0
South Unimak (June)						
Number	147	196,972	196,604	13,464	449	407,187
Percent	0.0	48.4	48.3	3.3	0.3	100.0

-Continued-

Table 23. (2 of 2)

Area		Ages 0.2	0.3	0.4	0.5	0.6	Total
South Unimak (Post-June)							
	Number	688	51,026	18,547	1,907	8	72,168
	Percent	1.0	70.7	25.7	2.6	0.0	100.0
South Peninsula Total							
	Number	13,765	853,352	518,142	45,023	1,258	1,430,282
	Percent	1.0	59.7	36.2	3.1	0.1	100.0
NORTH PENINSULA							
Izembek-Moffet Bay							
	Number	16	8,281	5,393	768	0	14,458
	Percent	0.1	57.3	37.3	5.3	0.0	100.0
Nelson Lagoon							
	Number	34	2,386	2,548	50	0	5,018
	Percent	0.7	47.5	50.8	1.0	0.0	100.0
Herendeen Bay							
	Number	81	34,800	16,454	1,879	0	53,214
	Percent	0.2	65.4	30.9	3.5	0.0	100.0
Harbor Point-Cape Seniavin							
	Number	113	31,600	18,683	2,746	31	53,173
	Percent	0.2	59.4	35.1	5.2	0.1	100.0
Cape Seniavin-Strogonof Point							
	Number	41	11,235	4,634	994	13	16,917
	Percent	0.2	66.4	27.4	5.9	0.1	100.0
South Peninsula							
	Number	285	88,302	47,712	6,437	44	142,780
	Percent	0.2	61.8	33.4	4.5	0.3	100.0
Total	Number	14,050	941,654	565,854	51,460	1,302	1,573,062
	Percent	0.9	59.9	36.0	3.3	0.1	100.0

Table 24. Mean length (mid eye to tail fork) and sex ratio of chum salmon catches from the Alaska Peninsula Management Area, 1989.

Area	Length (mm)			Sex			
	Number	Mean	SE	Number	Male	Female	M:F Ratio
SOUTH PENINSULA							
Southeast District Mainland	1,059	584	1	1,147	606	541	1.1 : 1
Shumagin Islands Section (June)	137	582	4	1,093	545	548	0.9 : 1
Shumagin Islands Section (Post-June)	87	572	5	3,557	1,811	1,746	1.0 : 1
Canoe Bay	1,441	597	1	1,536	892	644	1.3 : 1
Belkofski Bay	274	608	3	557	325	232	1.4 : 1
King Cove	124	587	3	134	76	58	1.3 : 1
Ikatan Peninsula-Cape Lazaref (June)	148	582	3	1,796	962	834	1.1 : 1
Ikatan Peninsula-Cape Lazaref (Post-June)	189	571	3	2,676	1,410	1,266	1.1 : 1
Cape Lutke	157	574	3	1,023	457	566	0.8 : 1
South Unimak (June)	305	578	2	2,819	1,419	1,400	1.0 : 1
South Unimak (Post-June)	189	571	3	2,676	1,410	1,266	1.1 : 1
Total	4,110	590[a]		19,014	8,503	7,835	1.1 : 1
NORTH PENINSULA							
Izembek-Moffet Bay	623	595	1	671	369	302	1.2 : 1
Nelson Lagoon	844	601	1	920	393	527	0.7 : 1
Herendeen Bay	746	591	1	805	572	233	2.5 : 1
Harbor Point-Cape Seniavin	287	569	2	4,317	2,196	2,121	1.0 : 1
Cape Seniavin-Strogonof Point	233	581	2	1,846	865	981	0.9 : 1
Total	2,733	592[a]		8,559	4,395	4,164	1.3 : 1
Total	2,733	592[a]		27,573	12,898	11,999	1.1 : 1

[a]Mean is weighted by sample size.

Table 25. Estimated age composition of coho salmon catches from the Alaska Peninsula Management Area, 1989.

Area		Ages 1.1	2.1	3.1	Total
SOUTH PENINSULA					
Shumagin Islands Section					
	Number	56,116	178,148	16,942	251,206
	Percent	22.3	70.9	6.7	100.0
Ikatan Peninsula-Cape Lazaref					
	Number	21,552	74,319	5,574	101,445
	Percent	21.2	73.3	5.5	100.0
NORTH PENINSULA					
Nelson Lagoon Section					
	Number	13,018	94,993	11,323	119,334
	Percent	10.9	79.6	9.5	100.0
Ilnik Lagoon					
	Number	5,268	10,213	1,075	16,556
	Percent	31.8	61.7	6.5	100.0
Cape Seniavin to Strogonof Point					
	Number	2,276	7,865	693	10,834
	Percent	21.0	72.6	6.4	100.0
Total	Number	98,230	365,538	35,607	499,375
	Percent	19.7	73.2	7.1	100.0

Table 26. Estimated mean length (mid eye to tail fork) and sex ratio of coho salmon from the Alaska Peninsula Management Area, 1989.

Area	Length (mm)			Sex			
	Number	Mean	SE	Number	Male	Female	M:F Ratio
SOUTH PENINSULA							
Shumagin Island Section	440	562	2	1,278	772	506	1.5 : 1
Ikatan Peninsula-Cape Lazaref	202	569	3	324	192	132	1.5 : 1
Total	642	564[a]		1,602	964	638	1.5 : 1
NORTH PENINSULA							
Nelson Lagoon Section	845	536	2	2,364	1,566	798	2.0 : 1
Cape Seniavin to Strogonof Point	154	572	3	178	113	65	1.7 : 1
Ilnik Lagoon	198	592	3	1,757	864	893	1.0 : 1
Total	1,197	550[a]		4,299	2,543	1,756	1.4 : 1
Total	1,839	555[a]		5,901	3,507	2,394	1.5 : 1

[a]Mean is weighted by sample size.

Table 27. Aleutian Islands Management Area commercial salmon catch by statistical week, gear type, and species, 1989.

Stat. Week	Calendar Date	Permit Landings	Number of Salmon			
			Sockeye	Pink	Total	Percent
Purse Seine						
27	7/02-7/08		265	0	265	1.8
28	7/09-7/15		883	0	883	5.9
29	7/16-7/22		900	200	1,100	7.4
30	7/23-7/29		4,500	500	5,000	33.4
31	7/30-8/05	6	1,700	6,000	7,700	51.5
	Total	6	8,248	6,700	14,948	100.0

Table 28. North Peninsula commercial salmon catch by statistical week, gear type, and species, 1989.

Statistical Week	Calendar Date	Permit	Landings	Number of Salmon						Percent	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear	Total
Purse Seine											
23	6/04-6/10		5	0	292	0	0	0	292	0.4	0.0
24	6/11-6/17	5	6	0	2,470	0	410	0	2,880	3.8	0.1
25	6/18-6/24	0	0	0	0	0	0	0	0	0.0	0.0
26	6/25-7/01	11	18	26	5,707	0	2,203	0	7,936	10.4	0.4
27	7/02-7/08	10	14	1	6,759	425	5,988	17	13,190	17.2	0.6
28	7/09-7/15	10	22	0	4,602	3	21,171	0	25,776	33.7	1.2
29	7/16-7/22	10	24	1	3,906	292	13,719	0	17,918	23.4	0.8
30	7/23-7/29	0	0	0	0	0	0	0	0	0.0	0.0
31	7/30-8/05	0	0	1	0	0	0	0	1	0.0	0.0
32	8/06-8/12			0	215	2,330	1,012	0	3,557	4.6	0.2
33	8/13-8/19	0	0	0	0	0	0	0	0	0.0	0.0
34	8/20-8/26	0	0	0	0	0	0	0	0	0.0	0.0
35	8/27-9/02	0	0	0	0	0	0	0	0	0.0	0.0
36	9/03-9/09	5	9	0	2,270	0	377	2,344	4,991	6.5	0.2
	Total	16	100	29	26,221	3,050	44,880	2,361	76,541	100.0	3.6
Drift Gill Net											
22	5/28-6/03	7	14	202	101	0	200	0	503	0.0	0.0
23	6/04-6/10	36	78	1,160	2,870	0	791	0	4,821	0.3	0.2
24	6/11-6/17	44	112	2,290	11,629	0	2,556	0	16,475	1.0	0.8
25	6/18-6/24	34	87	782	30,376	0	1,326	0	32,484	1.9	1.5
26	6/25-7/01	139	572	894	595,094	21	3,176	0	599,185	35.9	28.3
27	7/02-7/08	151	249	1,070	180,551	1	2,578	0	184,200	11.0	8.7
28	7/09-7/15	132	451	342	140,173	41	13,319	57	153,932	9.2	7.3
29	7/16-7/22	133	399	60	62,338	155	50,929	1,128	114,610	6.9	5.4
30	7/23-7/29	86	371	76	57,812	89	5,851	168	63,996	3.8	3.0
31	7/30-8/05	74	305	54	82,245	106	5,912	1,217	89,534	5.4	4.2
32	8/06-8/12	126	444	36	79,286	166	3,284	3,706	86,478	5.2	4.1
33	8/13-8/19	155	521	29	78,604	160	1,458	15,249	95,500	5.7	4.5
34	8/20-8/26	127	501	17	68,903	83	664	42,731	112,398	6.7	5.3
35	8/27-9/02	110	360	6	29,599	30	207	40,174	70,016	4.2	3.3
36	9/03-9/09	49	156	1	15,312	3	49	19,952	35,317	2.1	1.7
37	9/10-9/16	17	46	0	4,583	0	5	4,434	9,022	0.5	0.4
	Total	221	4,666	7,019	1,439,476	855	92,305	128,816	1,668,471	100.0	78.8
Set Gill Net											
21	5/21-5/27			17	0	0	0	0	17	0.0	0.0
22	5/28-6/03		5	86	0	0	7	0	93	0.0	0.0
23	6/04-6/10	25	65	549	2,564	0	1,165	0	4,278	1.1	0.2
24	6/11-6/17	32	95	1,394	8,492	0	1,803	0	11,689	3.1	0.6
25	6/18-6/24	27	54	526	1,894	0	3,840	0	6,260	1.7	0.3
26	6/25-7/01	35	157	655	66,593	0	4,148	0	71,396	19.1	3.4
27	7/02-7/08	37	163	319	77,709	86	899	10	79,023	21.2	3.7
28	7/09-7/15	36	166	295	45,641	9	1,817	10	47,772	12.8	2.3
29	7/16-7/22	35	136	30	22,359	50	3,158	435	26,032	7.0	1.2
30	7/23-7/29	23	80	9	8,034	7	1,047	26	9,123	2.4	0.4
31	7/30-8/05	20	69	2	5,843	9	922	207	6,983	1.9	0.3
32	8/06-8/12	22	69	7	6,589	27	957	1,732	9,312	2.5	0.4
33	8/13-8/19	30	75	7	3,036	3	200	5,570	8,816	2.4	0.4
34	8/20-8/26	35	124	3	1,407	7	22	17,314	18,753	5.0	0.9
35	8/27-9/02	39	126	0	514	0	5	33,706	34,225	9.2	1.6
36	9/03-9/09	23	79	0	2,069	0	2	30,594	32,665	8.7	1.5
37	9/10-9/16	18	41	0	248	0	0	6,770	7,018	1.9	0.3
	Total	65	1,507	3,899	252,992	198	19,992	96,374	373,455	100.0	17.6

-Continued-

Table 28. (page 2 of 2)

Statistical Week	Calendar Date	Permit	Landings	Number of Salmon						Percent	
				Chinook	Sockeye	Pink	Chum	Coho	Total	Gear	Total
All Gears											
21	5/21-5/27			17	0	0	0	0	17	0.0	0.0
22	5/28-6/03	9	19	288	101	0	207	0	596	0.0	0.0
23	6/04-6/10	63	148	1,709	5,726	0	1,956	0	9,391	0.4	0.4
24	6/11-6/17	81	213	3,684	22,591	0	4,769	0	31,044	1.5	1.5
25	6/18-6/24	61	141	1,308	32,270	0	5,166	0	38,744	1.8	1.8
26	6/25-7/01	185	747	1,575	667,394	21	9,527	0	678,517	32.0	32.0
27	7/02-7/08	198	426	1,390	265,019	512	9,465	27	276,413	13.0	13.0
28	7/09-7/15	178	639	637	190,416	53	36,307	67	227,480	10.7	10.7
29	7/16-7/22	178	559	91	88,603	497	67,806	1,563	158,560	7.5	7.5
30	7/23-7/29	109	451	85	65,846	96	6,898	194	73,119	3.5	3.5
31	7/30-8/05	94	374	56	88,088	115	6,834	1,424	96,517	4.6	4.6
32	8/06-8/12	149	515	43	86,090	2,523	5,253	5,438	99,347	4.7	4.7
33	8/13-8/19	185	596	36	81,640	163	1,658	20,819	104,316	4.9	4.9
34	8/20-8/26	162	625	20	70,310	90	686	60,045	131,151	6.2	6.2
35	8/27-9/02	149	486	6	30,113	30	212	73,880	104,241	4.9	4.9
36	9/03-9/09	77	244	1	19,651	3	428	52,890	72,973	3.4	3.4
37	9/10-9/16	35	87	0	4,831	0	5	11,204	16,040	0.8	0.8
Total		302	6,273	10,946	1,718,689	4,103	157,177	227,551	2,118,466	100	100

Table 29. Estimated age composition of chinook salmon catches from the North Peninsula, 1989.

Area	Ages 1.2	1.3	1.4	1.5	Total
Nelson Lagoon Section					
Number	790	633	2,034	367	3,824
Percent	20.7	16.6	53.2	9.6	100.0
Harbor Point to Cape Seniavin					
Number	626	362	1,295	296	2,579
Percent	24.3	14.0	50.2	11.5	100.0
Total					
Number	1,416	995	3,329	663	6,403
Percent	22.1	15.5	52.0	10.4	100.0

Table 30. Estimated mean length (mid eye to tail fork) and sex ratio of chinook salmon from the North Peninsula, 1989.

Area	Length (mm)			Sex			
	Number	Mean	SE	Number	Male	Female	M:F Ratio
Nelson Lagoon Section	1,679	762	3	1,856	951	905	1.1 : 1
Harbor Point to Cape Seniavin	486	789	5	976	455	521	0.9 : 1
Total	2,165	768[a]		2,832	1,406	1,426	1.0 : 1

[a]Mean is weighted by sample size.

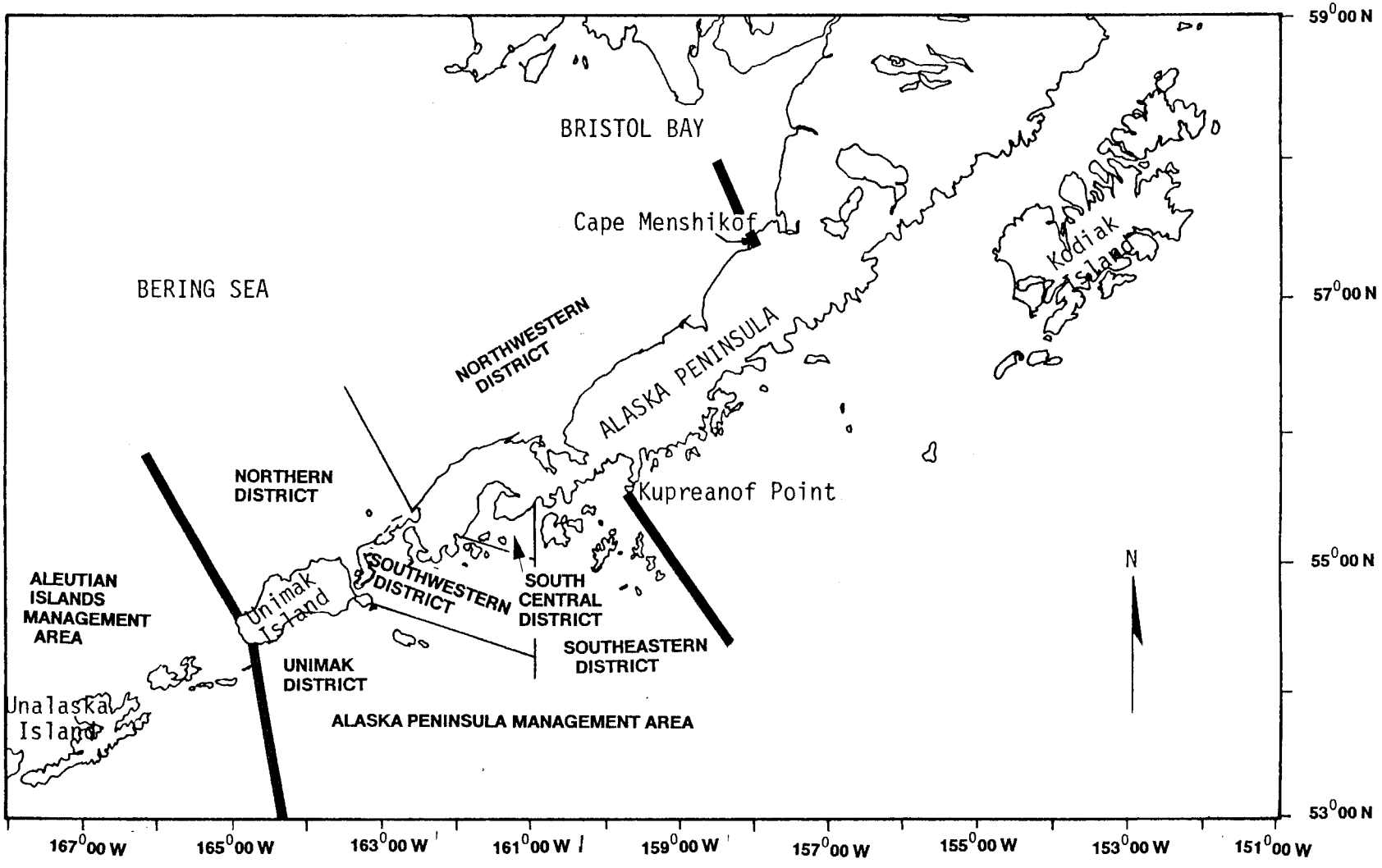

Figure 1. Map of the Alaska Peninsula and Eastern Aleutian Islands Management Areas; the study area on the Pacific Ocean portion of the map is from Kupreanof Point to Unalaska Island and on the Bering Sea from Unalaska Island to Cape Menshikof. Districts of the Alaska Peninsula Management Area are shown.

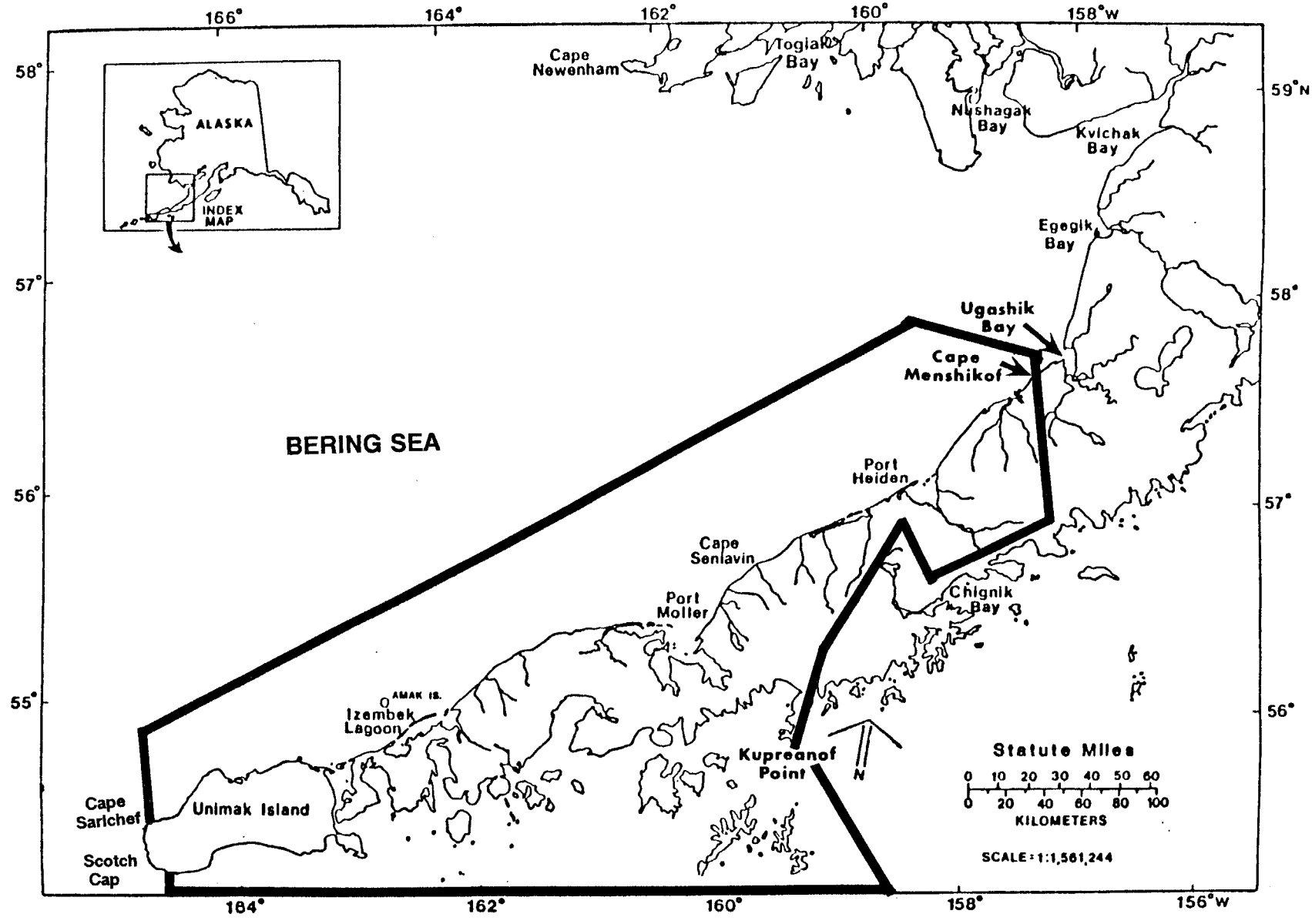

Figure 2. Map of the Alaska Peninsula Management Area from Kvichak Bay to Unimak Island and the Alaska Peninsula Management Area inside the blocking.

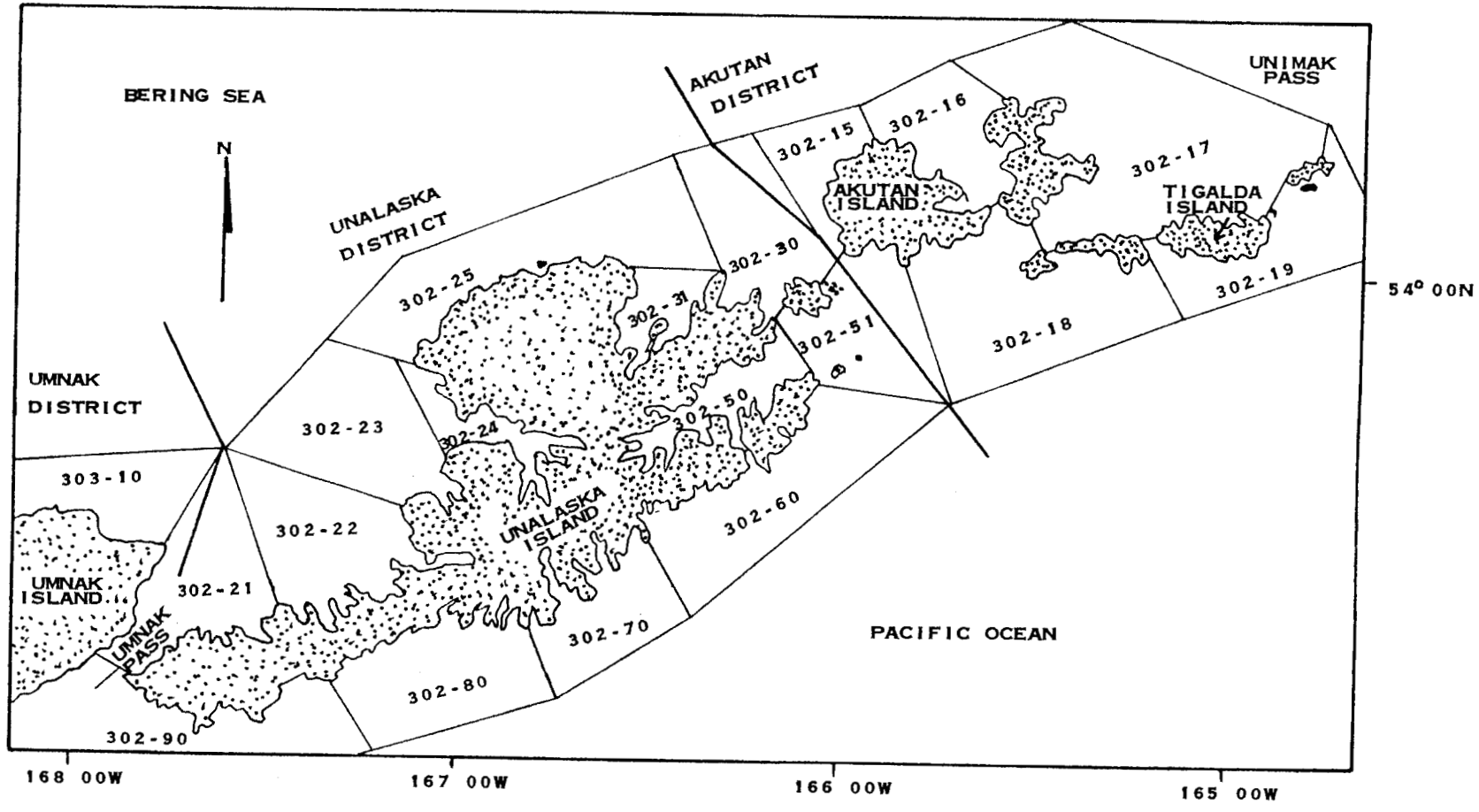

Figure 3. Map of the Aleutian Islands Area from Umnak Pass to Unimak Pass and the districts and statistical salmon fishing areas.

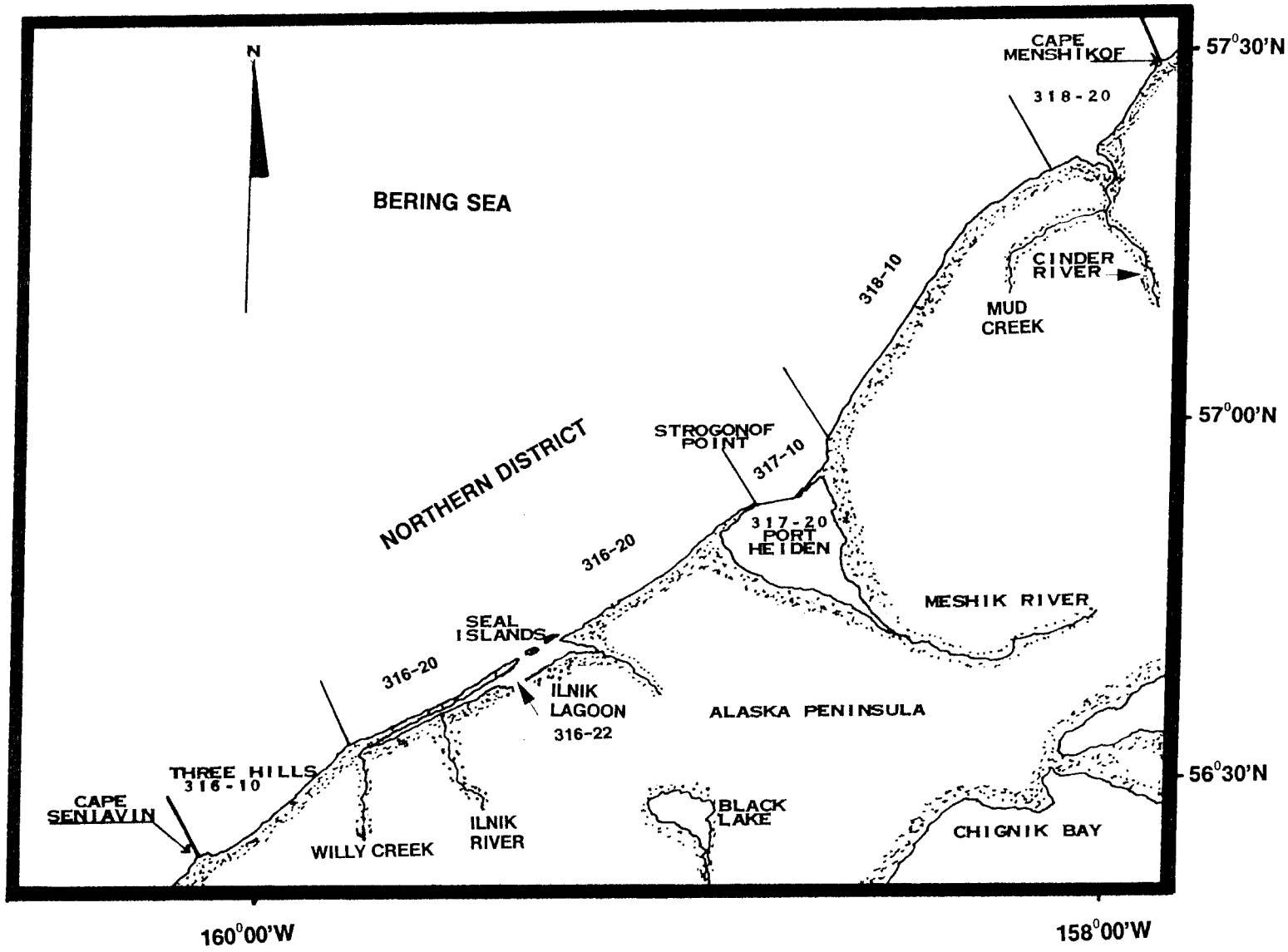

Figure 4. Map of the North Alaska Peninsula from Cape Seniavin to Cape Menshikof and the district and statistical salmon fishing areas.

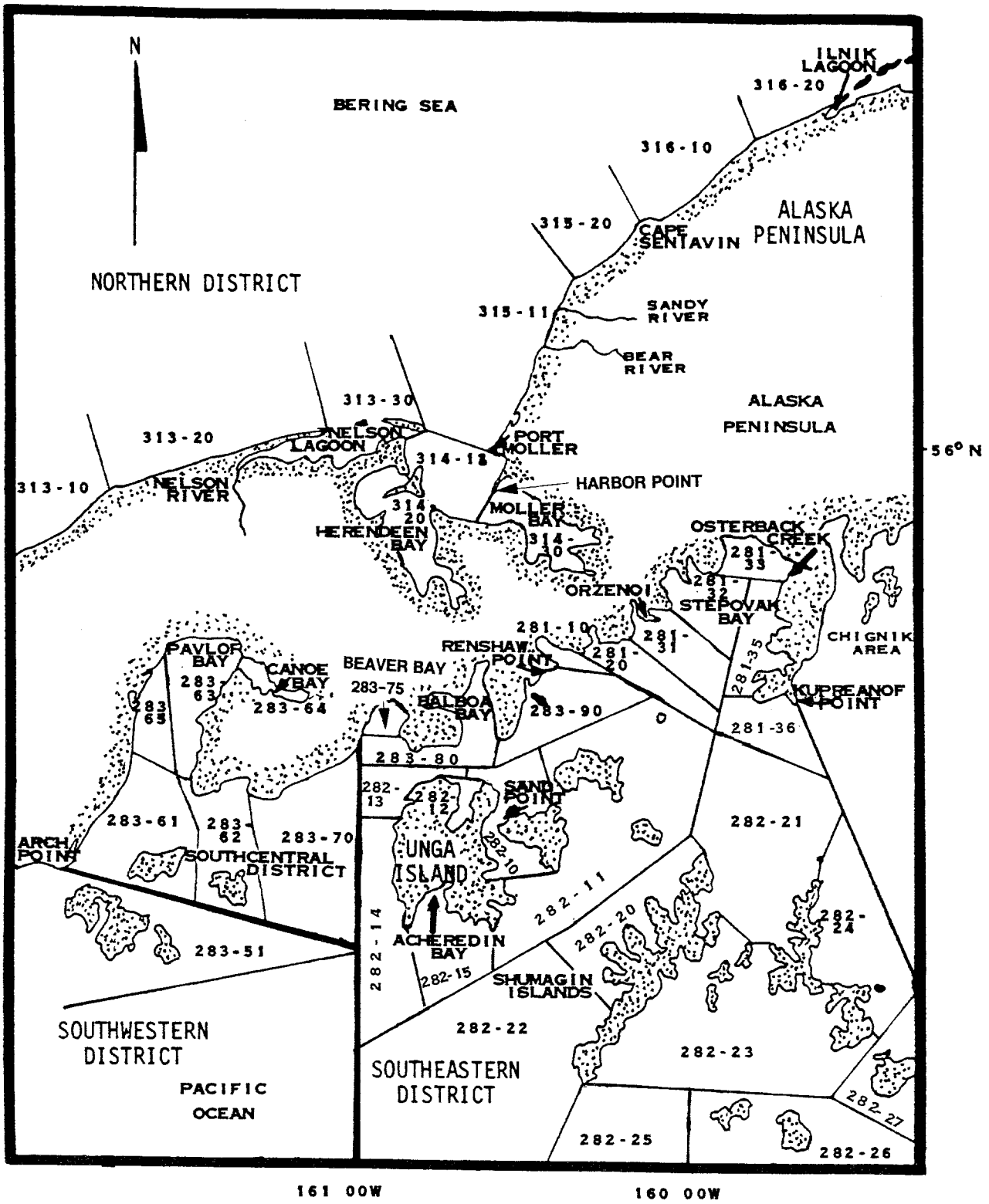

Figure 5. Map of the Alaska Peninsula Area from Arch Point to Kupreanof Point and the districts and statistical salmon fishing areas.

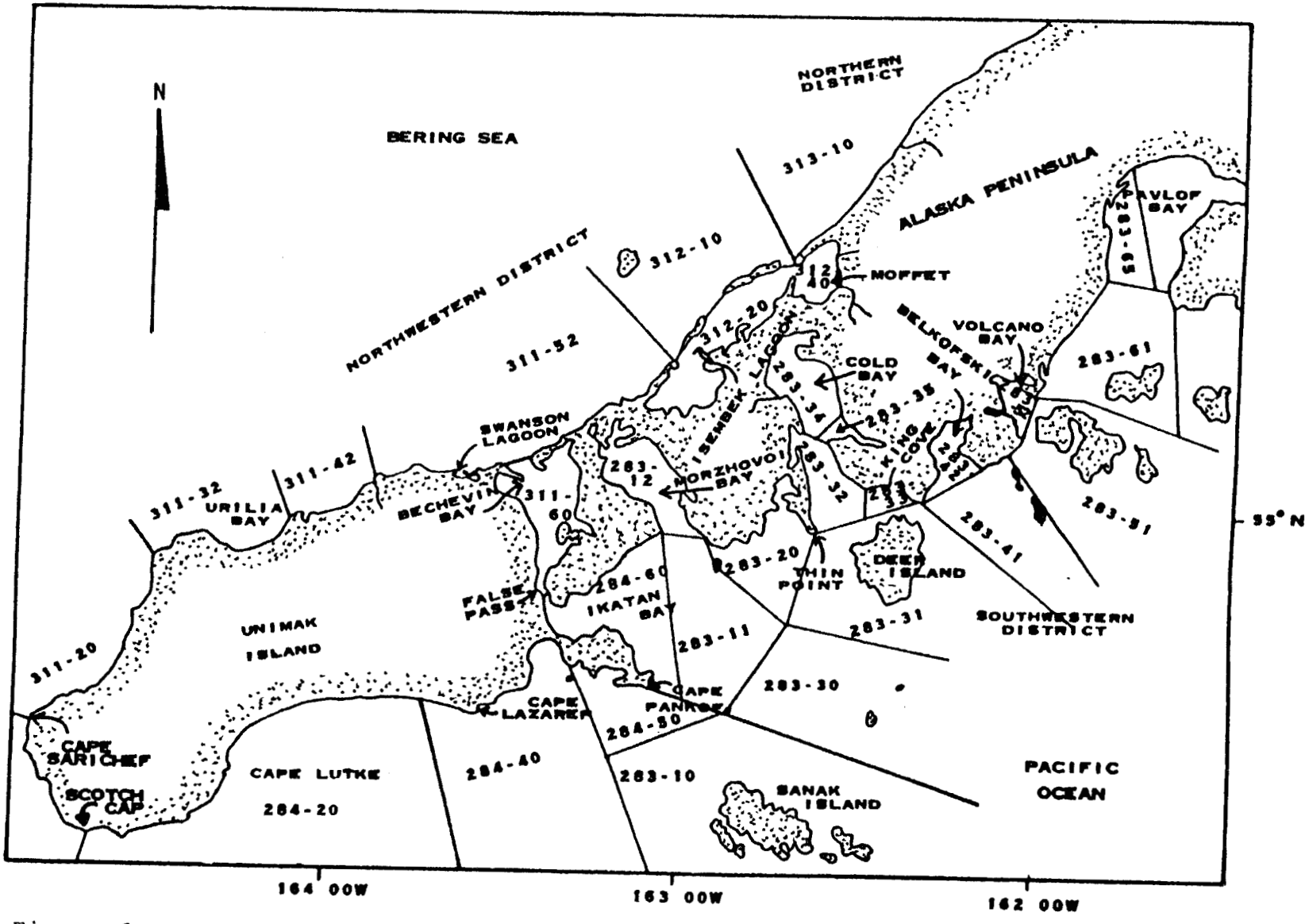

Figure 6. Map of the Alaska Peninsula Management Area from Cape Sarichef to Pavlof Bay and the districts and statistical salmon fishing areas.

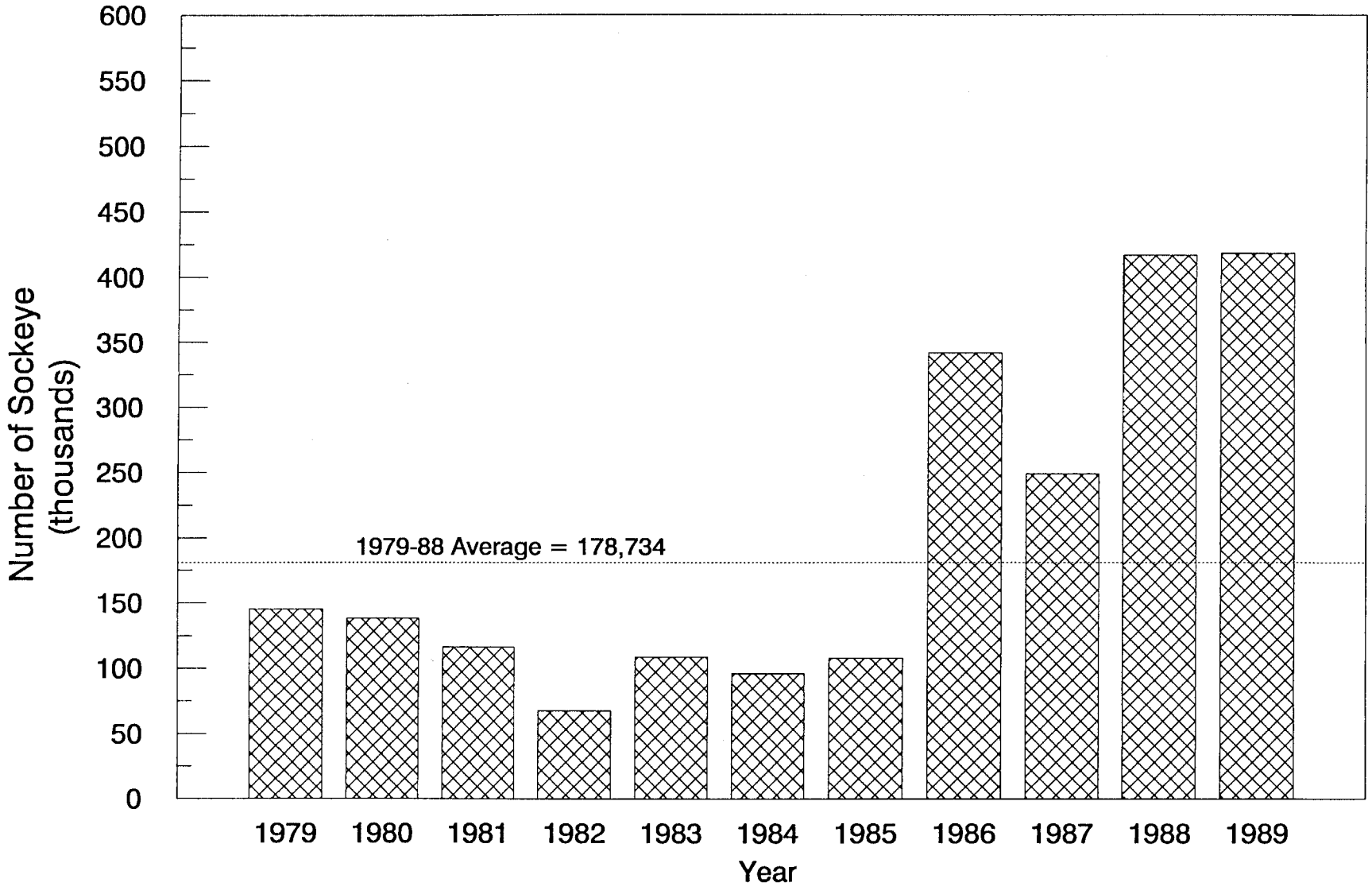

Figure 7. Shumagin Islands Section sockeye salmon catch, post-June, 1979-89.

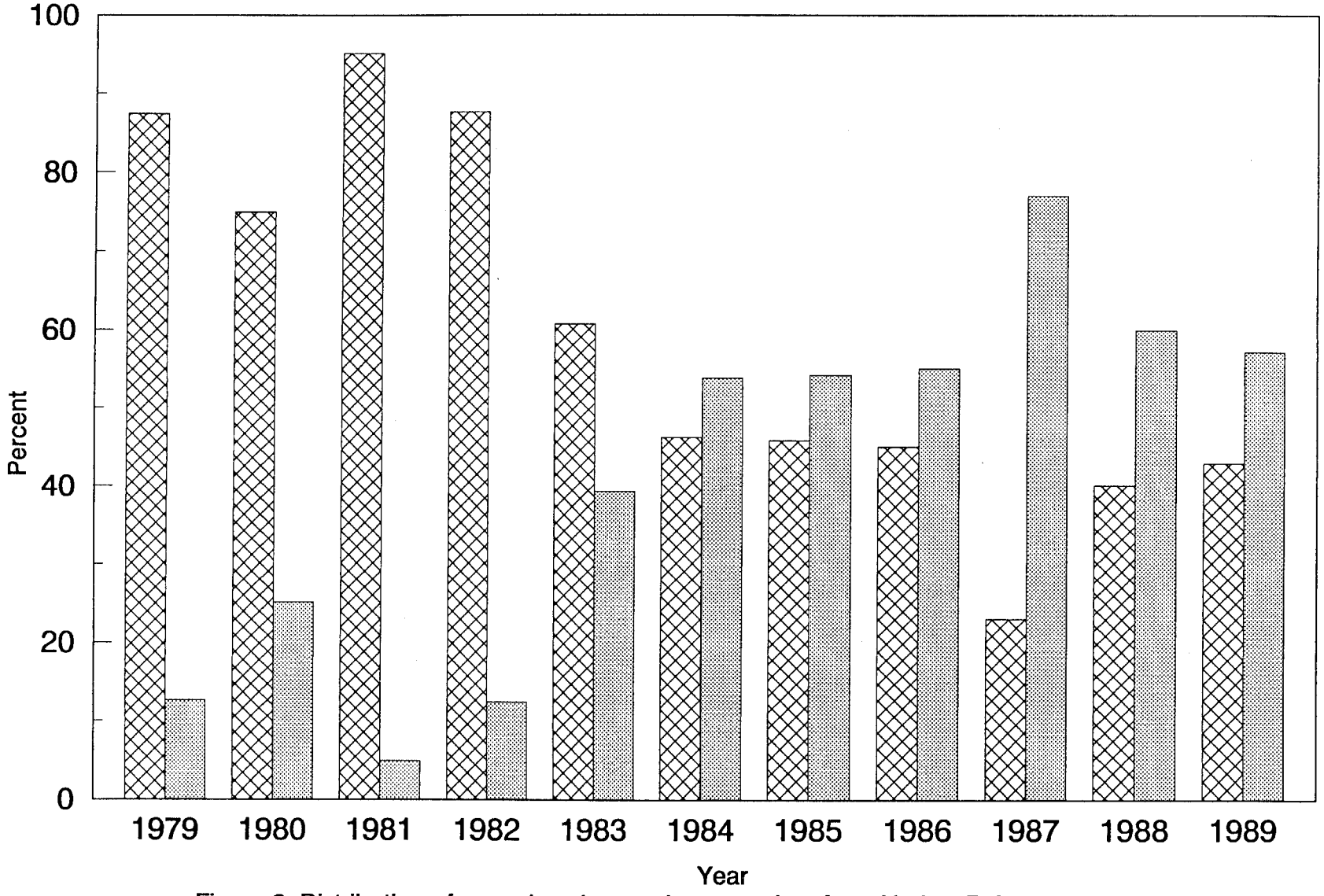

Figure 8. Distribution of annual sockeye salmon catches from Harbor Point to Cape Seniavin (hatched) and Cape Seniavin to Strogonof Point (dotted), 1979-89.

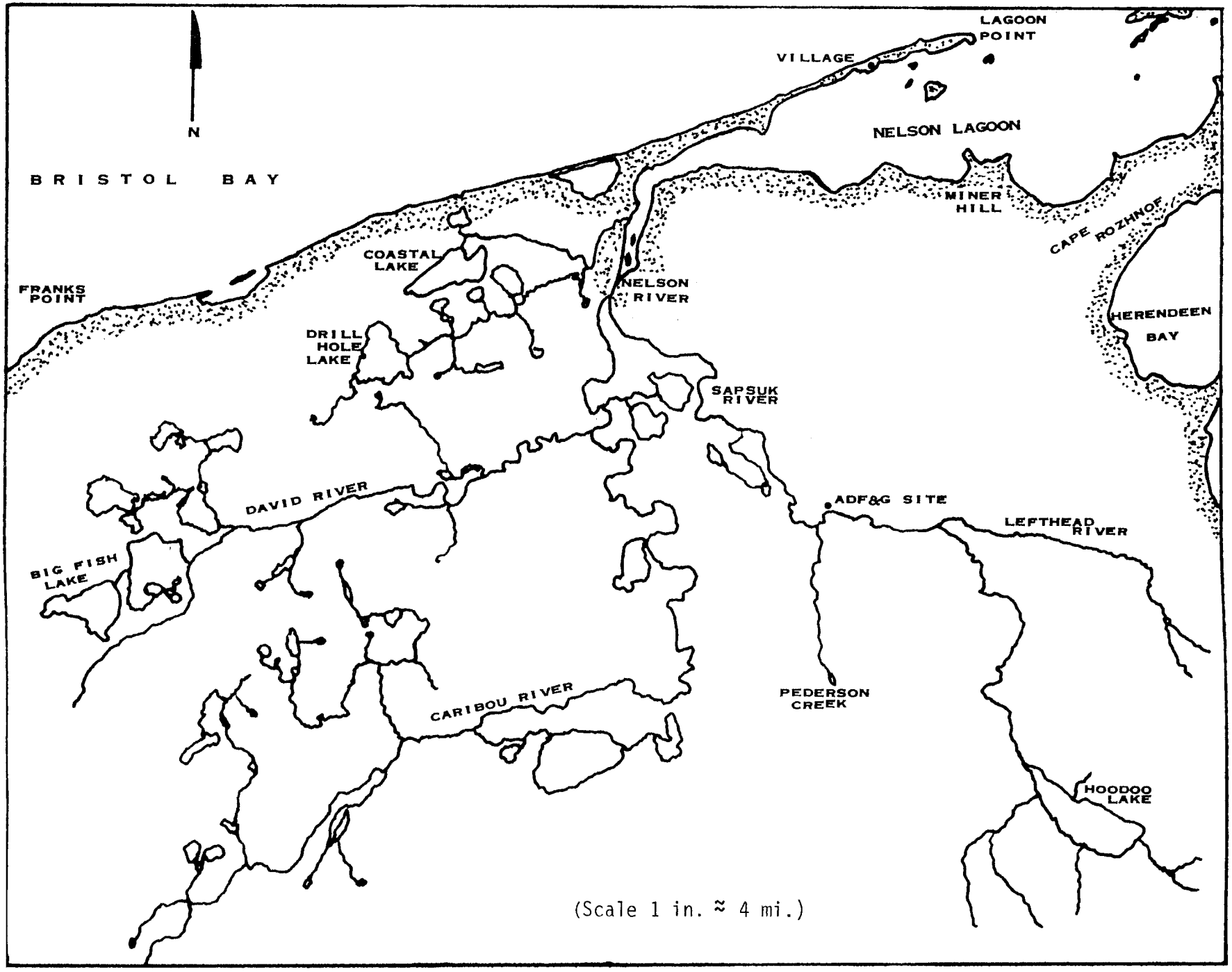

Figure 9. Map of the Nelson River drainage.

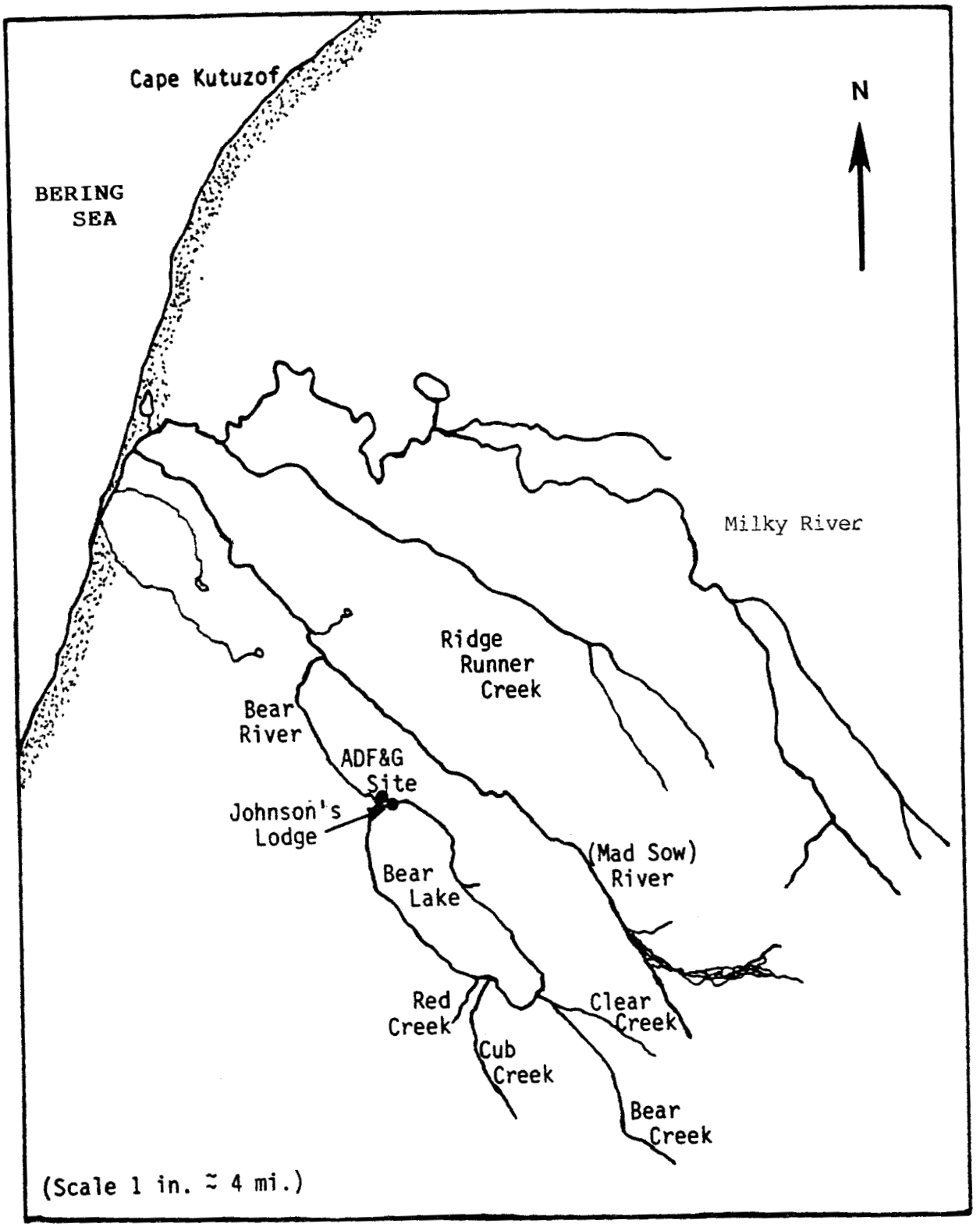

Figure 10. Map of the Bear River drainage.