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AN OVERVIEW OF THE KODIAK MANAGEMENT AREA
COMMERCIAL SALMON FISHERIES WITH EMPHASIS ON
MANAGEMENT ACTIVITIES, HARVEST STRATEGIES, HISTORICAL HARVESTS,
AND EFFORT DISTRIBUTION DURING JULY

By

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INTRODUCTION

The intent of this report is to provide an overview of the Kodiak Management Area (KMA) commercial salmon fisheries, stock status, a brief review of the 1995 season, and to explain the various harvest strategies which are in effect during the month of July. In addition, this report will review historical harvests by species and effort levels (measured in terms of landings) by geographic area during the July 6-25 time period. July 6 marks the first general opening for Kodiak's pink salmon fishery, while July 25 defines the start of the peak harvest period for pink salmon. This time period also spans the peak bycatch period of non-local sockeye salmon. For a majority of the KMA the first fishing time in July starts with the July 6 pink and chum fishery.

When reviewing the tables and graphics provided in this report it is important to realize that due to the 1989 EXXON VALDEZ oil spill most of the KMA remained closed to commercial salmon fishing for the entire season. Where average harvest information is used, 1989 is not included.

Much of the information in this report was also presented to the Alaska Board of Fisheries during its March, 1995 meeting in Kodiak.

KODIAK MANAGEMENT AREA DESCRIPTION

Location and Boundaries

The Kodiak Management Area (KMA) is comprised of western Gulf of Alaska waters surrounding the Kodiak Archipelago, and along that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas and Kilokak Rocks at Imuya Bay (Figure 1). The archipelago is approximately 150 miles long extending from Shuyak Island south to the Trinity Islands. The Alaska Peninsula portion is about 160 miles long and is separated from the archipelago by Shelikof Strait which averages 30 miles in width. Chirikof Island, located approximately 40 miles south southwest of the Trinity Islands, is also included in the Kodiak Management Area. The regulatory description of the KMA is all waters of Alaska south of a line extending east from Cape Douglas at 58°52' North latitude, west of 150° West longitude, north of 55°30' North latitude, and east of a line extending south from the southern entrance of Imuya Bay near Kilokak Rocks at 156°20'13" West longitude¹.

Physical Description

Glaciation shaped the Kodiak Archipelago. Kodiak's topography ranges from sharp crested alpine peaks (which run down the northeast-southwest axis of the island), to broad U shaped alpine valleys, to low flat bottomed wetlands. The coastline is mostly rocky and irregular, deeply

¹ All latitudes and longitudes currently used in ADF&G Commercial Fishing Regulations (ADF&G 1993a) are based on North American datum of 1927 (5 AAC 39.997(b)). This document also follows that system.

indented by numerous glacially scoured straits, inlets, and branching fjords. Though the archipelago covers approximately 5,000 square miles of land area, there is no place on Kodiak Island that is more than 15 miles from the ocean (Buck et al. 1975). The southwest end of the island is lower with more subdued topography and a relatively smooth rounded coastline. Streams are generally short and steep, draining deep mountain lakes or small glaciers. In the southwest part of Kodiak streams are somewhat longer, flowing along wide valleys (the longest rivers, the Karluk and Ayakulik, are located in this zone and each extend about 30 miles). The western portion of the Kodiak Management Area lies along the Alaska Peninsula. While similar in many ways to the Kodiak Archipelago, and also shaped by glaciation, it is an area strongly influenced by volcanism. The rugged Aleutian Range dominates the topography, running in a northeast-southwest direction down the peninsula, and forms the boundary of the watersheds which drain into Shelikof Strait. The mountains are higher than those of the Kodiak Archipelago, with many large glaciers. Generally, temperatures are lower on average with less annual precipitation. Again, streams are relatively short and steep. Because of the local occurrence of deep beds of volcanic ash some streams are unstable with shifting stream channels.

The marine waters of the area are influenced by the Alaska Current, which moves north along the Southeast Alaska panhandle, west by the north shore of the Gulf of Alaska (past Yakutat and Prince William Sound), then moves south and west past Kodiak Island. The current narrows and intensifies near the archipelago, and becomes the Alaska Stream, which passes down along the Alaska Peninsula. Actual surface currents are greatly influenced by tides and strong winds associated with frequent storms in the gulf. The climate of the Kodiak region is dominated by this strong marine influence. It is characterized by mild temperatures (the overall mean annual temperature is 40° F), predominantly cloudy skies (days are overcast more than half the year) with moderate to heavy precipitation (averaging over 68 inches per year, with up to 200 inches per year documented in specific locations).

The marine waters around Kodiak are among the most productive in the North Pacific. Offshore upwelling combines with abundant freshwater runoff to make near shore waters rich in nutrients. There are hundreds of species of marine fish native to the KMA, including 5 species of salmon: chinook *Oncorhynchus tshawytscha*, sockeye *O. nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho *O. kisutch* salmon.

Population and Communities

Kodiak is one of the most rapidly expanding communities in the state of Alaska, with a population growth of 16.3% from 1990 to 1994 (A. Brigitta, Alaska Department of Labor, Anchorage, personal communication). Approximately 15,500 people currently reside within boundaries of the Kodiak Management Area. The majority of area residents reside in the city of Kodiak (approximately 7,500) and along the connecting road system (approximately 6,800; including the U.S. Coast Guard Base adjacent to town, and outlying communities of Monashka Bay, Bell's Flats, Pasagshak, and Chiniak). The remaining 1,200 people reside in small communities scattered around the island, including the cities of Akhiok, Larsen Bay, Old Harbor, Ouzinkie, Port Lions, the village of Karluk, and a logging camp located in Danger Bay (Figure 2). Approximately 15% of the population is of Alaska Native heritage (Northern Economics 1991).

Commercial fishing and processing account for 55% of the private sector work force (Northern Economics 1991). During the commercial salmon fishing season (approximately June through September) 4,200 to 5,000 people may be involved in the KMA commercial salmon fishery. This includes approximately 1,800 to 2,000 fishers and crew, 200 to 300 tender operators and crew, and 2,200 to 2,700 processing personnel (based on ADF&G estimate and Alaska Department of Labor statistics). The economic value of the commercial salmon fishery, based solely on the average price paid to fishers (exvessel value), has averaged over \$41,000,000 annually since 1990 (Figure 3).

SALMON RESOURCES

Salmon Producing Streams

There are approximately 800 streams within the KMA in which salmon migration or spawning has been documented (ADF&G 1993a). Of these, 440 streams are shown on the current Kodiak Area Salmon Statistical Area Map (Figure 4; Appendices A.1-A.8). Four streams support chinook salmon stocks, 39 streams support sockeye salmon stocks of varying size, 174 have coho salmon runs, approximately 150 have chum salmon runs, and all 440 streams support pink salmon stocks. Of these streams, 92 are located in the Mainland District on the Alaska Peninsula, 18 are on Shuyak Island, 84 are on Afognak Island, 234 are on Kodiak Island, and 12 are on the Trinity Island group (Table 1).

Biological Escapement Goals

The Alaska Department of Fish and Game (ADF&G) Commercial Fisheries Management and Development Division (CFMDD) has established biological escapement goals, or the annual number of spawning salmon required inriver to sustain production, for each salmon species. Escapement goals are expressed as a range; the low end of the range is considered a minimum escapement, and the high end of the range is the maximum escapement goal (Table 2). These escapement goals have been formulated for sockeye, pink, and chum salmon by river system (Appendices B.1-B.3). Escapement goals have also been prepared for most coho and major chinook salmon producing streams (Appendices B.4 and B.5). The KMA commercial salmon fisheries are managed to achieve escapement levels which are within the biological range. The "targeted" escapement goals for KMA salmon are: 15,000 chinook, 2,100,000 sockeye, 3,000,000 to 4,500,000 pink², 1,020,000 chum and 150,000 coho salmon (Table 3).

² Pink salmon production in individual systems tend to be large one year, then small the next. On Kodiak there has been an "even year dominance"; that is, during even numbered years the major pink salmon systems produce larger returns. Hence the escapement goal is different between odd and even years, with odd numbered years having lower goals, and even years having higher goals.

Salmon Production Potential (Wild Stocks)

An "average salmon production potential" for the KMA can be calculated by multiplying the escapement goal by an assumed average return per spawner, for each species (Table 3). The annual "potential harvest" is calculated by subtracting the targeted escapement goal. Assuming that escapement requirements are achieved, and that the actual return per spawner values for each species are near the assumed values, the potential annual harvests could average 22,500 chinook, 3,150,000 sockeye, 7,500,000 to 11,250,000 pink, 1,836,000 chum, and 225,000 coho salmon. However, due to the variable environmental conditions encountered throughout the life cycle of these species, fluctuations in salmon production occur. In recent years (1983-87), the actual return per spawner estimates for Kodiak's major sockeye salmon systems has approached 3.7:1 which would result in approximately 5.7 million sockeye being available for harvest (Table 4).

Supplemental Production

There are two hatcheries located in the KMA which produce salmon to supplement natural salmon production (Figure 2). Both hatcheries, Kitoi Bay and Pillar Creek, are operated by the Kodiak Regional Aquaculture Association (KRAA). Kitoi Bay hatchery has a rearing capacity of 230,000,000 eggs, and is located on the east side of Afognak Island. The Kitoi Bay facility produces primarily pink salmon, plus some sockeye, chum, and coho salmon. Some outstocking of coho and sockeye fry or smolt occurs, but the majority of the salmon are intended to return to the hatchery for common property harvest. Pillar Creek hatchery, with a rearing capacity of 20,000,000 eggs, is located north of the city of Kodiak at Monashka Bay. It is utilized primarily as an incubation facility for sockeye salmon stocking projects.

The Kodiak Regional Planning Team (KRPT) identified sockeye salmon as the # 1 priority species for supplemental production. KRAA and ADF&G are involved in limnological studies of KMA lakes and ongoing lake fertilization to increase sockeye salmon fry growth and survival. Lake fertilization is being conducted on Afognak, Malina, Laura, Portage and Little Waterfall Lakes and has been completed at Frazer and Karluk Lakes. Through the use of remote egg takes and hatchery incubation, sockeye salmon fry are being stocked to enhance future sockeye salmon harvest potential. Stocking of sockeye salmon occurs at Spiridon, Hidden, Crescent, Little Kitoi, and Waterfall Lakes.

ADF&G Sport Fish Division annually stocks rainbow trouts and coho salmon fingerlings and chinook smolt to enhance sport fishing opportunities (Schwarz 1995). Chinook salmon smolt were stocked into Island and Mission Lakes near the city of Kodiak until 1995, when Buskin River was stocked. Coho salmon presmolt have been stocked into Island, Kalsin, Mayflower, Dark, Mission, Orbin, and Potato Patch Lakes near the city of Kodiak, into Crescent Lake near the city of Port Lions, into Ouzinkie Lake on Spruce Island near the city of Ouzinkie, and into Little Kitoi, Hidden, Jennifer, and Ruth Lakes on Afognak Island. Most of the coho salmon stocking is intended to produce put-and-take fisheries, where all returning adults are expected to be harvested, and no escapement and subsequent spawning is possible.

Supplementing KMA salmon fisheries is an ongoing long term project. The first harvestable adult sockeye returns occurred in 1994 at Telrod Cove/Spiridon Bay. In 1996 supplemental

harvests of sockeye, pink, coho, and chum salmon are expected (Table 5). The *Kodiak Regional Comprehensive Salmon Plan* (KRPT 1992) states an objective of increasing the harvest of salmon (over and above the KMA wild salmon harvest) by an additional 3,000 chinook, 1,700,000 sockeye, 383,000 coho, 11,500,000 pink, and 1,100,000 chum salmon by the year 2002.

"Non Local" Salmon in the KMA

Salmon tagging studies have been conducted in the KMA to aid in management of commercial fisheries by estimating the stock composition present at a particular time and place, and to determine average travel time of major stocks through fishery management units. The earliest tagging study was done in 1927 (Rich and Morton 1929) and there were intermittent tagging studies through 1981 (Bowe 1941; Bevan 1959; Simon et al. 1969; Tyler et al. 1986). Most occurred along the south and west sides of the Kodiak Archipelago to learn more about the migration pathways of sockeye salmon travelling to the major systems of Kodiak (Karluk, Ayakulik, Upper Station, and Frazer). Some sockeye salmon tagging was done along the north and east sides of the archipelago (Tyler et al. 1986) and at the south west end of the KMA, along the Alaska Peninsula near Wide Bay (Simon et al. 1969). Salmon migrating through KMA waters to the Chignik and Cook Inlet Management Areas as well as salmon migrating through portions of Cook Inlet to Kodiak were documented in some of those studies.

Based on coded wire tag recoveries, chinook salmon originating from Canadian hatcheries in British Columbia were documented in 1994 as contributing to the commercial harvest.

Recent stock composition studies in the KMA used scale pattern analysis, run timing, and analysis of shifts in average weights of commercial catches (Barrett and Swanton 1992; Barrett and Nelson 1994; Swanton and Nelson 1994; Vining and Barrett 1994). Samples of KMA spawning chinook, sockeye, and chum salmon have been collected to establish baseline data for genetic stock identification.

SALMON FISHING ACTIVITY

The salmon resources of the KMA have been exploited commercially for over 150 years (Roppel 1986). The first commercial fisheries were small salted salmon ventures by the occupying Russians in the early 1800's. Salmon streams were blocked and salmon captured as they became schooled behind these barriers. Sockeye salmon returning to the Karluk River brought fishermen and processors to Kodiak soon after the territory was transferred from the Russians in 1867. A record of commercial sockeye salmon harvest dating back to 1882 exists (Table 6). Intense competition led to expansion of the fishery to other areas and species. By the early 1900's fisheries for coho, pink, and chum salmon had developed.

Commercial Gear Use

Beach seines were the first gear type effectively used commercially. In the late 1800's, beach seines 40 fathoms in length were used to harvest sockeye salmon in Karluk Lagoon. As competition for fish grew the primary harvest location for Karluk sockeye salmon moved outside the lagoon, using heavily manned beach seines averaging 450 fathoms in length. The first fish trap was built in Kodiak in 1896, and until the late 1950's the Kodiak commercial salmon fishery was dominated by cannery owned fish traps, with some independent fishers owning purse seine, beach seine and set gillnet operations. When Alaska was granted statehood in 1959, fish traps were prohibited, and the KMA commercial salmon fishery was conducted by purse seine, set gillnet, and beach seine gear (in decreasing order of abundance). In 1974 a "limited entry system" was adopted by the State of Alaska which restricted the number of individuals allowed to participate in commercial salmon fisheries. This system formally established post statehood levels of purse seine, beach seine, and set gillnet gear participation.

There are 614 commercial salmon permits for the KMA: 391 purse seine (making this the second largest purse seine fleet in the state), 33 beach seine, and 190 set gillnet. Actual numbers of permits fished annually varies slightly (Table 7). Seventy-seven percent of KMA permits are owned by Alaska state residents, with ownership varying little since 1987 (Table 8). Sixty percent of all permits are owned by Kodiak area residents, representing all communities (Table 9).

Management Units

The KMA is one of 13 designated salmon net registration areas in the State of Alaska. Inseason management of the commercial salmon fishery is structured around 7 districts subdivided into 52 sections. These sections are occasionally subdivided inseason to adjust fishing effort on unexpected salmon surpluses or deficits. Each management unit (section) defines a traditional geographic harvest area, managed for specific stocks or traditional fishing patterns (Appendices A.1-A.8).

Legal Commercial Gear Areas

In the KMA there are restrictions on which gear types can operate in specific management units, based on historical gear use patterns. Both purse and beach seine gear are allowed to operate in the entire management area, except for the Moser-Olga Bay Section of the Alitak Bay District, where set gillnets are the only legal gear³. In the Central Section of the Northwest Kodiak District both set gillnet and seine gear are allowed. Since 1974, the geographical areas currently open to specific gear types have, with few exceptions, remained unchanged.

³ Prior to Alaska being granted statehood, this management unit was designated set gillnet only. In 1970 this rule was amended such that the Moser-Olga Bay Section remains gillnet only prior to September 5. Seine gear is then legal in the entire Alitak Bay District. The Dog Salmon Flats, Inner and Outer Akalura, and the Inner and Outer Upper Station Sections are normally closed to commercial fishing. In the event of over escapement "mop up" fisheries can occur in these sections. Prior to September 5 only set gillnet gear would be allowed in these sections.

In the mid 1970's, that portion of the Karluk District between Rocky Point and Cape Uyak was closed to set gillnet gear in an attempt to accelerate the rebuilding of the Karluk sockeye and pink salmon stocks. No gillnet gear had fished there since the early 1960's. Several purse seine locations within this area, which could impact Karluk stocks, were brought under direct management control. This area was used to provide an expanded closed water sanctuary for severely depleted Karluk sockeye and pink salmon stocks.

In the late 1970's, a gear and area adjustment occurred in the Alitak District. The common boundary between the Cape Alitak, Moser-Olga Bay, and Humpy-Deadman Sections was adjusted in an effort to reduce gear conflicts caused by an unclear boundary description. The area open to set gillnet gear was reduced from Cape Alitak to Tanner Head and was increased in Deadman Bay to a point northwest of Fox Island.

A gear and area adjustment was made in Zachar Bay to alleviate fixed and mobile gear conflicts. In the late 1970's closed water sanctuary markers were reduced (moved further into the bay) and the new area was designated "seine gear only". The creation of this small area adjacent to the closed waters within Zachar Bay was consistent with that of other major westside Kodiak bays.

In the mid to late 1980's, there were two adjustments made to boundaries in the Moser-Olga Bay Section to allow for continued use of set gillnet sites; one adjustment was in the closed water portion of Chip Cove and the other at the north end of the "Fox Island line".

In the early 1990's there was a slight adjustment to the gillnet boundary in Spiridon Bay to allow for a setnet to be fished at Hook Point.

Also, as a result of purse seine fishing activity in Shelikof Strait in 1988, the Alaska State Board of Fisheries stated that commercial salmon fishing activities should be restricted to those waters located within the State of Alaska territorial sea boundary (three mile limit). Due to conflicts between state and federal regulations, Kodiak ADF&G staff issued an emergency order closing all waters of the KMA seaward of the state territorial sea boundary for the 1991 and 1992 seasons. Beginning in 1993, a new regulation was in effect which states that all KMA district and section boundaries do not extend beyond the three mile limit.

Commercial Salmon Processing

Commercial salmon processing within the KMA began in the late 1860's with small salting and pickling operations located around Kodiak Island near major harvest areas. In 1882 processing evolved to canning, when the first cannery was built at Karluk. Kodiak's processing plants have further evolved from those scattered, seasonally operated, canning operations to today's efficient multi-tasked plants, mainly congregated within the city of Kodiak. The majority of these plants are now year-round operations, processing crab and groundfish in addition to salmon. Kodiak's processors now produce fresh and frozen salmon products, supplemental to canned salmon. Recent technology used in processing other fish species has been adapted to salmon processing, yielding new, diverse salmon products (such as fillets, surimi, hams, nuggets, and burgers).

Up to 15 salmon buyers or processors participate annually in KMA salmon fisheries. Processing plants are located in the city of Kodiak, Port Bailey, Uganik Bay, Larsen Bay, and Alitak Bay (Figure 2). The latest estimate of the sustained processing capacity of Kodiak's shorebased salmon processors is approximately one million salmon per day. With this high processing capacity, it is common for Kodiak processors to "import" salmon harvested elsewhere in the state. At times, salmon from Bristol Bay, Cook Inlet, Prince William Sound, Alaska Peninsula, and Chignik Management areas are processed in Kodiak plants.

Subsistence Salmon Fishery

The KMA staff issues subsistence salmon permits annually to obtain harvest data. Only residents of the state of Alaska are eligible to take salmon for subsistence purposes. Since 1989 ADF&G staff have mailed out permits, regulations, and a map showing closed water areas to past participants. Additional permits are issued to Alaska residents at the Kodiak ADF&G office. Subsistence fishermen are requested to return their permits to ADF&G after the salmon season, listing areas fished by date and salmon harvest by species.

With few restrictions, the entire KMA is open to subsistence salmon fishing. Reported harvests have averaged 26,300 fish annually for the 10 year period 1985-1994 (Table 10). Sockeye salmon accounts for 62% of the harvest, followed by coho salmon at 27%. The most utilized subsistence fishing areas include the north end of Kodiak Island and the southeast side of Afognak Island.

Salmon Sport Fishery

Since the early 1980's, commercial sport fishing activities have been increasing, particularly in remote areas of the KMA (Schwarz 1995). Salmon sport fishing opportunities continue to be discovered in the KMA. Commercial sport activity includes lodge operations, charter vessels, guiding, and directed air charter flights. Although sport caught salmon may not be sold, the lodge, guiding, and charter activities are considered commercial uses since the owner is compensated monetarily for directing and providing fishing opportunities. Most charter boat operations are based out of the city of Kodiak. Remote lodges are currently being operated at Karluk Lagoon, Ayakulik River mouth, Olga Bay, Larsen Bay, Old Harbor, Saltery Lake, Port Lions, Port Bailey, Raspberry Straits, Seal Bay, Port Williams, Zachar Bay, Uyak Bay, Uganik Bay, and Kukak Bay. Floating cabins are located in Paramanoff and Perenosa Bays. Fly in sport fishing areas include virtually all KMA chinook and sockeye salmon systems, and most major coho salmon systems.

Sport fishing activities are regulated by ADF&G's Sport Fish Division. The KMA sport fishery salmon harvest is estimated by an annual Sport Fish Division statewide mailout survey. Sport fish salmon harvest varies each year, but by looking at averages over the last 17 years (1978-82, 1983-87, and 1988-94) an increasing trend is evident (Table 11). The harvest has averaged 11,400 pink, 16,800 coho, 7,200 sockeye, 2,400 chinook, and 800 chum salmon, over the 1988-94 period.

ADF&G STAFF INVOLVEMENT

The ADF&G, Commercial Fisheries Management and Development Division (CFMDD) is responsible for the management of commercial harvest activities on Alaska's salmon stocks. KMA staff responsible for regulation of the commercial salmon fishery consists of an Area Management Biologist, two Assistant Area Management Biologists, and approximately 15 seasonal employees. The Kodiak salmon research staff includes an Area Research Biologist and approximately 10 seasonal employees. A Regional Salmon Management Coordinator and a Regional Salmon Research Biologist oversee these operations. The Kodiak salmon development staff (formerly the Fisheries Rehabilitation and Enhancement Division) includes an Area Biologist, and Assistant Area Biologist, and approximately 10 seasonal employees. Biologists and technicians from the Division of Sport Fish, Alaska State Parks, U.S. Fish and Wildlife Service (Kodiak National Wildlife Refuge), and KRAA, aid in the collection of data at various times during the salmon fishing season.

Preseason Activities

Forecasts

Preseason salmon forecasts are developed jointly by management and research biologists. Pink salmon returns to the KMA are predicted by broad geographic area, while individual forecasts are made for major sockeye salmon stocks. Projected harvests are estimated by fishery and area (Table 12).

The KMA pink salmon forecast is based on a preemergent pink salmon sac fry survival study. This study has been generated each spring by the KMA management staff since 1966. This annual program examines pink salmon overwinter egg to fry survival in specific streams during March and April (Table 13). Each year, data are compared to previous year's results to develop a preseason forecast of return and potential harvest. The KMA pink salmon forecasts are reliable in projecting extremes for major systems and total production. This forecast assists fishery managers in making preseason decisions concerning fishing time and areas open to fishing, especially during the early portion of the pink salmon run.

System specific sockeye salmon forecasts are developed for major stocks. Information which is used to develop these forecasts are: previous run strength information (escapement and catch); sockeye salmon smolt outmigration data; and samples of sockeye salmon escapement and commercial catch age data.

Formal forecasts are not prepared for chinook, coho, or chum salmon. Potential harvest is estimated by the Area Management Biologist based on previous escapements and observed escapement/return relationships. Similarities exist between pink and chum salmon freshwater and early marine survival. Pink salmon forecasting information (egg to fry overwinter survival estimates) are used along with escapement data to predict chum salmon production.

Inseason Activity

By regulation, the commercial salmon fishing season in the Kodiak Management Area may extend from June 5 through October 31 (ADF&G 1993b). Inseason management activities focus around daily evaluations of actual run strength in comparison to preseason expectations (forecasts) by species. Commercial salmon fisheries may be allowed if there are salmon surplus to escapement needs.

Escapement Estimation

The majority of KMA sockeye and all chinook salmon escapement counts are obtained with the use of fish weirs (Brodie 1994). Weirs are used on up to 12 different spawning systems (Table 14; Figure 2). Escapement counts through fish weirs are hand tallied total counts, by species. Sonar, video, or timed periodic counts are not used. Escapement gates are closed when personnel are not present to count. All four major sockeye salmon systems and several of the minor sockeye salmon systems are monitored by seasonal ADF&G staff at fish weirs. The remainder are monitored by aerial observation using small fixed wing aircraft. Escapement counts are collected daily from fish counting weir stations by single side band radio contact. The timely and accurate data from weir camps allows for more precise stock specific management.

While some KMA pink, chum, and coho salmon escapement counts are obtained from weirs, most counts for these species are estimated by aerial survey, and a few streams are surveyed by foot. Aerial survey and foot survey counts are considered an index of the actual escapement, for use inseason to aid fishery management⁵. Salmon buildup estimates and escapement index counts are collected from frequent fixed wing aircraft surveys of KMA bays and streams (Table 15).

Commercial Salmon Harvest Strategy

There is a general chronology related to salmon run timing by species within the KMA (Figure 5). There are "early run" sockeye salmon present in the KMA throughout June to about mid July, and "late run" sockeye salmon are available from mid July through late September. Pink and chum salmon are available and targeted during July through August. Coho salmon are present in the KMA from about August through October. Commercial salmon fisheries are structured around the seasonal abundances of salmon. Inseason management actions follow a plan described in an annual harvest strategy (Prokopowich et al. 1995). This strategy recognizes a specific chronology of management actions related to salmon run timing by species. Included in this annual harvest strategy are descriptions of the seven BOF approved regulatory management plans which also guide inseason management actions.

⁵ Expansion of index counts to estimate total return strength can be accomplished by various methods, and is done postseason by research staff. All escapement values in past Annual Management Reports are total counts from weir plus index counts, and this document follows that pattern.

SALMON STOCK STATUS

Chinook Salmon

The Kodiak area has two naturally occurring chinook salmon populations, in the Ayakulik and Karluk Rivers. A small introduced chinook salmon run occurs in the Dog Salmon River. There are no directed commercial fisheries targeting these stocks and any commercial harvest occurs as bycatch in fisheries targeting sockeye and pink salmon. Sport fishing pressure on chinook salmon runs in the Ayakulik and Karluk Rivers is increasing, as commercial sport fish operators and recreational anglers continue to discover fishing opportunities in the Kodiak area. In the Dog Salmon River, to aid establishment of a viable spawning stock, sport fishing for chinook salmon is prohibited.

There are two other chinook runs in the KMA, both introduced. One is at Pasagshak River, where in the late 1970's eggs taken from Chignik River chinook salmon were used to establish a chinook run accessible by road to Kodiak sport fishers. The productivity of this run has been less than expected, and chinook sport fishing has remained closed in Pasagshak River. The second introduced chinook salmon run is located at Mill Bay near the city of Kodiak. This introduction was designed to support put-and-take recreational fisheries. Since 1989 ADF&G Sport Fish Division has stocked up to 100,000 chinook salmon presmolt from the Elmendorf Hatchery in Anchorage into Island Lake annually. Beginning in 1995 the chinook salmon stocking location was moved to the Buskin River.

Currently, chinook salmon stocks are considered healthy. Minimum escapement requirements have been met annually since 1982, while the upper end of the escapement range has been met or exceeded each year since 1987 (Table 15, Figure 6). Harvests have increased as well, for the subsistence, sport, and commercial fisheries (Tables 6, 10, and 11). Over the 10 year period (1985-1995), the commercial harvest has averaged approximately 19,000 chinook salmon (Table 6, Figure 7).

Sockeye Salmon

There are 39 known sockeye salmon runs in the KMA. Large returns (greater than 500,000 fish) occur in four lake systems: Karluk, Ayakulik, Upper Station, and Frazer (Dog Salmon River). The first three support naturally occurring runs, while the Frazer Lake sockeye stock is a very successful introduced run. There is a large set of falls below Frazer Lake which blocks natural migration; this run is maintained through the use of a large "fish ladder".

These systems provide approximately 80% of the current KMA sockeye salmon production. Directed fisheries on these stocks are intense and require extensive management activities from June 5 through September 20. The Karluk and Upper Station systems have distinct early (May 25 through July 15) and late runs (July 16 through September 20). Frazer is primarily an early returning stock with most sockeye entering fresh water by July 20. Ayakulik also has an early returning stock which continues into mid August. The overall escapement goals for these four major systems have been achieved annually since 1988.

Twelve sockeye systems in the KMA have minor but significant runs. These include the Afognak, Uganik, Akalura, Saltery, Kafliia, Pauls, Buskin, Swikshak, Little, Malina, Thorsheim, and Perenosa systems. These systems annually account for approximately five percent of KMA's current sockeye salmon production. Escapement into each system is generally less than 60,000 sockeye salmon. These minor stocks offer a relatively high yield per unit effort to directed commercial seine effort, and so, are vulnerable to overexploitation. The exception is the sockeye salmon run into Buskin Lake, which is not targeted by a commercial fishery. All fish surplus to escapement requirements are currently harvested in a subsistence fishery and, to a lesser degree, in a recreational sport fishery. All these minor sockeye salmon stocks are considered to be moderately healthy with the exception of Malina, Pauls, and Perenosa which are under rehabilitation by KRAA. A more conservative management approach for these systems is currently in effect.

The remaining 23 systems are comparatively minor systems and are not usually exploited by directed commercial effort.

Commercial salmon harvest strategies have not limited sockeye salmon subsistence or sport fishing opportunities in the KMA. Both the Buskin and Barabara sockeye stocks receive substantial subsistence effort due to their proximity to communities. These two systems may be approaching maximum exploitation from subsistence effort alone. Sport fish interest in Barabara is low, while the Buskin is receiving increased effort. These systems will require close monitoring in the future to ensure biological protection and that future subsistence use will not be jeopardized.

As mentioned previously, the Kodiak Regional Planning Team (KRPT)⁶ established sockeye as the priority species for supplemental production (Kodiak Regional Planning Team 1992). Currently, the Kodiak Regional Aquaculture Association (KRAA) in conjunction with ADF&G is active in providing additional sockeye salmon production, both by introducing sockeye runs into previously unutilized lakes and by enhancing weak natural runs.

Overall, KMA sockeye stocks are healthy. The lower escapement goal for KMA sockeye salmon has been met or exceeded annually since 1984 (Table 15, Figure 8). Commercial harvest has averaged 3,638,000 sockeye salmon over the 1985-1995 period (Table 6, Figure 9).

Pink Salmon

All salmon streams within the KMA support pink salmon runs. Pink salmon represent the foundation of Kodiak salmon production, and may comprise over 80% of the total annual harvest (Table 4). Primarily due to the cyclic production from Ayakulik and Karluk Rivers, KMA pink

⁶ The RPT is a group consisting of representatives of ADF&G, regional aquaculture associations, and the public, mandated by Alaska Statutes (16.10.375-470) to develop and amend comprehensive salmon production plans for salmon production regions.

salmon runs are usually larger during the even numbered years. However since 1989 odd year production has surpassed even year production⁷.

Except for occasional local variations, KMA pink salmon stocks are considered very healthy. Escapement goals have been met or exceeded in each year since 1975 (Table 15, Figure 10). Over the last 10 year (1985-1995) period, the annual harvest has averaged 14,958,000 pink salmon; even year pink salmon harvest has averaged 9,086,000, odd year pink salmon harvest averaged 21,181,000 (Table 6; Figure 11). Pink salmon survival and subsequent returns are strongly influenced by environmental factors (Groot and Margolis 1991). Wild stock pink salmon production should remain above average as long as existing management strategies are retained (to ensure adequate escapement) and adverse environmental conditions do not persist. The long term outlook for Kodiak's wild pink salmon stocks is very good.

The Kitoi Bay Hatchery on Afognak Island primarily produces pink salmon. In recent years pink salmon returns to this hatchery have ranged from approximately 1,000,000 to 13,000,000 fish.

Chum Salmon

Chum salmon are present in at least 150 streams of the KMA. KMA chum salmon production has been variable, and has been at low levels for the past 3 years. Escapement estimates have been near or above the targeted goal (1 million fish) in only 2 of the past 10 years, while the minimum escapement goal has been achieved in 7 of the past 10 years⁸ (Table 15; Figure 12). The annual commercial harvest for the last 10 years (1985-1995) has averaged 881,000 chum salmon (Table 6; Figure 13).

Chum salmon management has received increasing emphasis. Increases in directed fishing on specific chum salmon stocks combined with efforts to harvest better quality fish (bright vs. dark fish) requires that more intensive chum salmon stock management strategies continue to be developed to prevent overexploitation. Currently, KMA management staff evaluate chum salmon escapement goals, historical harvest and escapement data, age class information, and inseason harvest and escapement data to improve management of this species. It may be possible to improve chum salmon management by developing improved escapement estimation methods and implementing a catch sampling program to collect more age class data. The future status of this species is expected to be good.

The Kitoi Bay Hatchery has developed an early run chum salmon return to the hatchery. In recent years the majority of chum salmon returning to the hatchery have been needed for brood stock. However, significant supplemental production occurred in 1995 with an estimated 215,000 chum salmon harvested near the hatchery.

⁷ Kodiak odd year pink salmon production was generally greater than even year production prior to 1948. The mechanism which has led to switches in odd vs. even year dominance is not known.

⁸ Low escapement counts for chum salmon may be related to factors other than absolute abundance. Complete estimations may be hampered by difficulties associated with surveying chum salmon populations.

Coho Salmon

About 174 systems have been identified which support coho runs in the KMA. Twenty percent of KMA coho salmon systems (35 streams) produce 80% of the total KMA production. Concern exists for the other 80 percent (139 streams) where coho runs are relatively small and maybe more susceptible to overexploitation. To provide adequate protection for these smaller stocks all user groups must be monitored inseason for potential changes in harvest rates which may not correspond with fluctuation in run strength.

The Kitoi Bay Hatchery, located on Afognak Island, produces coho salmon for returns to the hatchery. Coho salmon smolt are also produced for stocking, to provide additional sport and subsistence fishing opportunities. These are mostly put-and-take operations, with all returning adults expected to be harvested, and no escapement and subsequent spawning possible. Coho salmon have been stocked into streams and lakes along the Kodiak road system, and into small lakes near the communities of Port Lions and Ouzinkie.

In recent years, coho salmon have experienced a large increase in exploitation by commercial, sport, and subsistence users within the KMA (Tables 6, 10, and 11). The escapement goal for this species has been achieved annually since 1983 (Table 15; Figure 14). Over the past 10 years (1985-1995) commercial harvests have averaged 276,000 coho salmon (Table 6; Figure 15). Most stocks appear healthy. The future status of this species is expected to be very good.

KODIAK COMMERCIAL SALMON FISHERY SEASON SUMMARY, 1995

The 1995 Kodiak commercial salmon fishery began on June 9 with a 33 hour fishing period in the Northwest Kodiak and Alitak Bay Districts. In addition there was also a 27 hour fishing period in the Inner and Outer Ayakulik Sections and the Foul Bay and Waterfall Lake Terminal Harvest Areas opened to continuous fishing. The Southeast Afognak Section opened to harvest sockeye bound to Afognak Lake while the Duck Bay, Izhut Bay, and Kitoi Bay Sections opened to harvest early run chum salmon bound to Kitoi Bay Hatchery.

The last reported landing this season was on September 19. Of the 610 eligible permit holders, 493 participated this season making a total of 23,700 landings. By gear type, a total of 8 beach seine, 173 set gillnet, and 312 purse seine permit holders fished. Throughout the season 15 different buyer/processors, representing 10 companies were also involved in the fishery.

Listed below are the actual 1995 harvests by species in numbers of fish compared to the 1995 preseason harvest expectations.

1995 Actual Harvest (Preliminary)

<u>Chinook</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
18,700	4,485,000	308,000	42,832,000	1,523,000	49,166,700

1995 Preseason Harvest Projections

<u>Chinook</u>	<u>Sockeye</u>	<u>Coho</u>	<u>Pink</u>	<u>Chum</u>	<u>Total</u>
25,000	2,400,000	310,000	18,235,000	800,000	21,770,000

The chinook salmon harvest of 18,700 (avg. wt. 13.8 lb.) is below the recent five year (1990-94) average harvest of 26,000 fish. Although there are two very healthy chinook spawning systems (Ayakulik and Karluk Rivers) in the Kodiak area, chinook salmon are only harvested during directed sockeye and pink salmon fisheries and are not subjected to a directed fishery. The highest chinook salmon harvest on record was 42,000 fish caught in 1993.

The sockeye salmon harvest of 4.49 million fish (avg. wt. 5.1 lb.) is very close to the recent five year (1990-94) average harvest of 4.48 million fish. This years harvest was the fourth highest harvest on record. The highest sockeye salmon harvest on record was 5.7 million fish caught in 1991. This years sockeye harvest includes a minimum of 90,000 sockeye harvested from four different enhancement projects.

The 42.8 million pink salmon (avg. wt. 3.5 lb.) harvested this year shattered the previous all time record harvest of 34 million fish which were caught in 1993. The recent five year (1990-94) average harvest is 13.6 million fish. Approximately 4.5 million pink salmon (included in harvest total) were harvested in the vicinity of the Kitoi Bay Hatchery. The peak harvest day of 1.9 million pinks occurred on August 8. There were 19 days when over 1.0 million pink were harvested with the first occurring on July 27 and the last on August 19. All major buyers put their fleets on some type of catch limit during the peak of the run. Catch restrictions ranged from 10,000 lb. to 25,000 lb. daily delivery limits to one to two days of suspended buying.

The 308,000 coho salmon harvested (avg. wt. 8.0 lb.) this year is very near the recent five year (1990-94) average harvest of 302,000 fish. The highest coho salmon harvest on record is 344,000 fish caught in 1982. Approximately 40,000 of this years coho harvest were harvested in the vicinity of the Kitoi Bay Hatchery.

This years chum salmon harvest of 1.52 million (avg. wt. 7.5 lb.) fish is second only to the 1.54 million fish harvested in 1970. The recent five year (1990-94) average harvest is 723,000 fish. Included in this years chum harvest are approximately 215,000 fish which were harvested from a very successful enhancement project at the Kitoi Bay Hatchery.

The estimated exvessel value of this years commercial salmon harvest is \$50.5 million (Table 16). The recent five year (1990-94) average exvessel value is \$38.8 million. The highest exvessel value for Kodiak's commercial salmon harvest was \$104 million in 1988 (Table 17). By species, the sockeye harvest accounted for 47 percent, pinks 45 percent, chums 5 percent, coho 2 percent, and chinook less than one percent of the exvessel value.

By gear type, beach seiners averaged \$12,860, set gillnetters \$66,500, and purse seiners \$124,700 per permit holder fished.

Escapement

Salmon counting weirs were operated on 12 different spawning systems this year (Table 14). Escapement counts for all major sockeye and chinook systems were enumerated through the use of salmon counting weirs. Weirs were operated from late May to late September. Aerial surveys were utilized to enumerate escapements into most pink, chum, coho, and minor sockeye systems.

Sockeye salmon escapements, overall, were excellent with 1.84 million fish counted as escapement. Approximately 1.7 million sockeye were counted into systems with fish weirs. The overall biological escapement goal (BEG) for sockeye ranges from 1.4 to 2.1 million fish.

Pink salmon escapements were excellent. Overall, the indexed pink salmon escapement totaled 10.45 million fish. The overall BEG for odd year pink salmon ranges from 1.0 to 3.0 million fish.

Chum salmon escapements overall were good. Poor weather/flying conditions were responsible for some of the lower escapement counts. Area wide, 470,000 chum salmon were counted as an indexed escapement. The area wide BEG for chum salmon ranges from 510,000 to 1,530,000 fish.

Coho escapements were excellent overall with 80,300 fish out of the total indexed escapement of 204,900 fish being counted into salmon systems with fish weirs. The overall BEG for coho salmon ranges from 90,500 to 150,200 fish.

A total of 30,830 chinook salmon were counted as escapement into the Ayakulik, Karluk, and Dog Salmon rivers. Escapement counts were 12,660 chinook salmon into Karluk and 17,700 chinook salmon into the Ayakulik River. An additional 470 chinook salmon entered Dog Salmon River. The overall BEG for chinook salmon ranges from 11,100 to 19,300 fish.

Outlook for 1996

At this time, forecasts for sockeye and pink salmon are still being compiled. Very preliminary estimates of Kodiak's 1996 commercial salmon harvest indicate that approximately 3-4 million sockeye, 6.0 million pinks, 280,000 coho, 900,000 chum, and 20,000 chinook salmon may be available for harvesting.

1995 Summary of the Cape Igvak Salmon and North Shelikof Strait Sockeye Salmon Management Plans

The Kodiak Management Area has two Alaska Board of Fisheries approved management plans which affect Kodiak seine permit holders ability to target their fishing activities on sockeye salmon bound to other registration areas.

Cape Igvak Salmon Management Plan

The Cape Igvak Salmon Management Plan covers the time period from June 5 through July 25 for fishing activity in the Cape Igvak section of the Mainland District. This plan has been in effect since 1978 and allocates a percentage of the available Chignik sockeye harvest (approximately 15.0 percent) to Kodiak permit holders when specific biological and harvest criteria are met in Chignik.

The initial fishing period this year began at 12:01a.m. June 13. The fishery was opened for a total of five days between June 13 and June 27. During June fish availability was good. Additional fishing time occurred from July 22 through July 25, however, fish availability was relatively poor.

Through July 25, one hundred thirty seven (137) permit holders participated in harvesting a total of 211,910 sockeye, 2,770 coho, 54,400 pinks, 31,360 chum, and 1,030 chinook salmon. The percent harvest of Chignik bound sockeye is 13.1 percent. A comparison of previous years sockeye harvests and percentages to 1995 is listed in Figure 16.

North Shelikof Strait Sockeye Salmon Management Plan

The North Shelikof Strait Sockeye Salmon Management Plan covers the time period from July 6 through July 25 and limits purse seine fishing opportunities in the southwest Afognak Section and North Shelikof units in designated seaward zones through the use of sockeye harvest "caps". These "caps" are to protect Cook Inlet bound sockeye salmon which are migrating through management units located in Shelikof Strait from Dakavak Bay to Cape Douglas in the Mainland District and from Raspberry Cape to Shuyak Island in the Afognak District. This plan has been in effect since 1990.

By regulation the "seaward zone" of the southwest Afognak Section will close to fishing if more than 50,000 sockeye are harvested between July 6 through July 25. Also by regulation the "seaward zone" of the Dakavak Bay, Outer Kukak Bay, Hallow Bay, Big River, Shuyak Island, and Northwest Afognak Sections will close to fishing if more than 15,000 sockeye salmon are harvested between July 6 through July 25.

Beginning in 1993, the "seaward zone" boundary of the Southwest Afognak Section was modified by the Alaska State Board of Fisheries to allow for an additional 1/2 mile seaward of a line running cape to cape in order to provide traditional harvest opportunities on pink salmon.

Permit holders who intend to fish in management units covered by this plan are advised that "in period" closures of the "seaward zones" may occur. In order to provide for an orderly in period closure, permit holders are notified of specific times when to listen for potential closure announcements. In 1990 those times were at 8:00a.m. and 6:00p.m. daily. Beginning in 1991 in order to provide for more timely "zone" closures, initial announcement times were changed to 8:00 a.m., 10:00 a.m., 2:00 p.m., or 6:00 p.m. daily.

The ADF&G vessel K-Hi-C was utilized this year to monitor on the grounds effort and harvest levels in order to implement the regulatory intent of this plan. A brief summary of the 1995 fishery for this plan in comparison to the previous five years is reported in Table 18.

KODIAK'S JULY COMMERCIAL SALMON FISHERIES

Historical Background

During July, fisheries occurring in most of the KMA are dependent on a pink salmon harvest strategy which sets the initial fishing periods based on the strength of the preseason pink salmon forecast (Table 12; Figure 17). Kodiak's fjord like bays provide for large closed water sanctuaries to protect pink salmon needed to meet escapement requirements (Appendices A.1-A.8). These large closed water sanctuaries allow for an orderly harvest of ocean bright pink salmon on the outer capes.

Pink salmon represent the most abundant species of salmon commercially harvested in the KMA (Table 6). With the overall collapse of the sockeye salmon fisheries in the early 1950's, pink salmon began to support the commercial fishery. Pink salmon continued to provide for most of Kodiak's "exvessel value" until the 1980's when the overall sockeye salmon production began to increase as a direct result of the intensive sockeye rebuilding programs initiated in 1971 (Table 19; Figure 18).

Year-to-year fluctuations in the numbers of pink salmon returning can be quite variable (Figure 11). In order to assist industry planning, a forecasting program was initiated in the mid 1960's using a preemergent fry index. Sampling major pink salmon systems for "overwinter" egg to fry survival proved to be a reliable method for predicting Kodiak pink salmon returns. This project evolved into the current day pink salmon forecasting program in which preemergent fry sampling is conducted annually on selected "index streams" (Table 13).

During the first decade of statehood (1960's), weekly fishing periods in July were set preseason and usually ran from Monday through Friday. As part of a major effort to start rebuilding Kodiak's depleted sockeye salmon stocks (Figure 9) in the early 1970's, the method of adjusting fishing time was changed from emergency order (E.O.) closures to emergency order openings. This new use of the emergency order process changed the actual regulatory announcement for fishing time from preseason to inseason.

Switching to emergency order openings was a monumental step in allowing for orderly inseason adjustments of fishing time based on observed run strength.

Coincidentally, there was a major drop in pink salmon production beginning in 1972 (Figure 11), due to severe cold winters combined with poor early marine survival conditions. For the next three years (1973-1975), fishing time in July was drastically reduced as part of a pink salmon rebuilding program.

Although the inseason announcement of fishing periods started in 1971; the length of the initial fishing periods were based on the preseason forecast. However, the date of the first general pink salmon opening was not fixed, and varied between July 5 and July 10 from 1971 to 1977 (generally the first Monday after July 4). Due to the July 5 opening date in 1971 and the disastrous years of 1972-1975, problems with early pink salmon buildups near the stream mouths were not encountered until 1977.

In 1977, the initial fishing period for the general pink salmon season did not occur until July 10. With Kodiak's pink salmon production on the rebound, large quantities of pink salmon had built up inside closed water sanctuaries prior to the initial opening. In order to provide for harvest opportunities on surplus pink salmon, closed water sanctuaries were reduced. Overall, the quality of the fish harvested were poor. This type of unorderedly startup of the pink salmon season, which had the large seine fleet jockeying for position on buildup sets of poor quality fish, lead to an earlier fixed opening date.

Current Pink Salmon Harvest Strategy

In order to provide for an orderly start and improve the overall quality of the fish harvested, July 6 was selected as the initial date for the first general pink salmon opening in 1978. Although the length of time of the initial fishing periods continues to vary based on the preseason forecast (Figure 19), July 6 has remained the first day of the general pink salmon opening. The duration of each of the first three weekly fishing periods remained consistant through 1987. Beginning in 1988, the initial fishing period for "even year" returns was limited to no more than 57 hours. This change reflected the differences in early production between "odd" and "even" years.

This type of harvest strategy has received excellent support from Kodiak's fishing industry. The fixed opening date (with preset fishing periods) provides for an orderly start of the pink salmon fishery with inseason adjustments of fishing time (either increase or decrease) occurring during peak abundance periods in late July and early August based on actual run strength. Due to a decline in fish prices in the mid 1980's, the overall quality of salmon harvested became more of a statewide concern. Kodiak's harvest strategy for pink salmon was used as an example of the departments ability to prosecute a fishery on high quality fish while still ensuring escapement.

In order to evaluate inseason harvest rates, which in turn reflects a particular area's actual run strength, the Kodiak Area is divided into 25 "tender reporting areas" (Table 20). These report areas are specific geographic locations structured around specific fisheries and harvest locations. Harvest data are collected daily from all fish buyers. These "initial harvest data" are a compilation of the previous days deliveries to each companies tenders or dock by each tender reporting area. Additional inseason data are collected and evaluated via aerial surveys of initial buildups and escapement levels of pink salmon combined with observations of traveling schools of fish.

Expected fishing periods are detailed preseason in an annually issued harvest strategy (Table 21). In general, adjustments in fishing periods are not made until after the third fishing period which occurs during the week ending July 25. On average (1970-95), 20% of the pink salmon harvest

has been taken by the end of the third fishing period. By the end of July, approximately 40% of the pink salmon harvest has occurred (Figure 20; Table 22).

Management Plans in Effect in July

Although initial fishing time in July for a major portion of the Kodiak Area is affected by the harvest strategy based on the forecasted pink salmon run strength, other salmon species, predominantly chum and sockeye salmon, are also harvested during this time period. There are several regulatory management plans which address fisheries directed toward chum and sockeye salmon (Figure 21).

The *Cape Igvak Salmon Management Plan*, (5AAC 18.360) which begins in June and remains in effect until July 25, provides both allocative and biological guidelines for a directed fishery on sockeye salmon bound for Chignik. The *Westside Kodiak Management Plan* (5AAC 18.362) provides guidelines for early run sockeye and chum salmon fisheries through July 5 for all westside management units. In addition, this plan provides guidelines for directed sockeye salmon fisheries throughout July in the Southwest Kodiak District. In the Alitak Bay District, directed sockeye fisheries occur through July 15, under the *Alitak Bay District Management Plan* (5AAC 18.361). The *Eastside Afognak Management Plan* (5AAC 18.365) addresses a directed sockeye salmon fishery in the Southeast Afognak Section through July 5. During the time period July 6 through July 25 the *North Shelikof Strait Sockeye Salmon Management Plan* (5AAC 18.363) is in effect. This plan reduces directed fishing opportunities on migrating sockeye salmon through the use of sockeye salmon harvest caps which trigger "seaward zone" closures while still providing for harvest opportunities on local stocks in more nearshore waters. The sockeye salmon harvest pattern which occurred in 1988 resulted in the adoption of the *North Shelikof Strait Sockeye Salmon Management Plan* in 1990. In addition, the Board also stated its intent that all fishing activities be restricted to only those waters within the "three mile limit" even though previously adopted state regulations defined Shelikof Strait as state waters. A portion of the *North Shelikof Strait Sockeye Salmon Management Plan* pertaining to the "seaward zone" of the Southwest Afognak Section was changed in 1993 to provide for a ½ mile "corridor" along the coast (Figure 22). This corridor, when in effect, eliminates vessels from being completely displaced from traditional fishing locations while providing increased protection for migrating sockeye salmon and retaining harvest opportunities on pink salmon. The *Spiridon Lake Sockeye Salmon Management Plan* (5AAC 18.366) is also in effect during July. This plan directs terminal fishing activities for an enhanced sockeye salmon run in Spiridon Bay.

While not in a specific regulatory plan, major restrictions resulted from board action in 1990 and again in 1993 which clarified that all waters seaward of the state territorial sea boundary (three mile limit) are closed to salmon fishing. This action confined the Kodiak purse seine fleet's fishing activities to more traditional inshore waters and provided for a large closed water corridor in Shelikof Strait for migratory fish to pass through.

The *Eastside Kodiak Management Plan* (currently not in regulation) provides for directed sockeye fisheries in the Inner Ugak Bay Section through July 10 (Table 23). This plan details which species affect fishing time in specific management units over time.

Whenever possible, specific fisheries are coordinated to occur simultaneously, in order to provide for less concentrated fishing conditions which in turn lessen the potential for gear and allocative conflicts (Figure 23).

July Chum Salmon Harvest

Chum salmon are harvested in directed fisheries and in pink salmon fisheries. The geography of many of the Alaska Peninsula bays do not allow for large closed water sanctuaries. In order to provide additional protection for specific chum salmon stocks in the Mainland District, initial fishing periods are limited to no more than 57 hours per week. To a limited degree chum salmon are also harvested during directed sockeye salmon fisheries in the Alitak District, Southwest Kodiak District, and in the Cape Igvak Section.

On average (1970-95), approximately 26% of the annual chum salmon harvest is taken from July 6 through July 25 (Table 22; Figure 20).

July Chinook and Coho Salmon Harvests

There are no directed coho or chinook salmon fisheries in the KMA in July. Although directed coho salmon fisheries occur later in the season, directed chinook salmon fisheries do not occur in the KMA at any time during the year.

Any coho or chinook salmon which are harvested during July, are caught during fisheries directed toward pink, chum, or sockeye salmon. On average (1970-1995), 13% of the annual coho salmon harvest is taken during the time period July 6 through July 25 (Table 24). On average (1970-95), 34% of the annual chinook salmon harvest has been taken during the time period July 6 through July 25 (Table 24).

July Sockeye Harvest

It is quite normal for sockeye salmon to be harvested in July as shown by the regulatory management plans in effect.

On average (1970-87), 27% of Kodiak's annual sockeye salmon harvest is taken during the time period July 6 through July 25 (Table 25; Figure 24). In recent years, major departures from this "July average sockeye salmon harvest" have occurred. In 1988 and again in 1992 approximately 50% of the sockeye salmon harvest was taken during the July 6 to July 25 period. It should be noted that the increase in the July harvest percentage in 1988 and 1992 coincided with very strong sockeye salmon returns to Cook Inlet (Table 26; Figure 25). In previous years, there have also been seasons where a high percentage of the annual sockeye salmon harvest has occurred in July, but this was mainly due to harvests in the Cape Igvak fishery (Figure 26).

Historical Harvest and Effort Information

An extensive volume of graphs and tables have been prepared which depict historical effort and harvest dates for the Kodiak commercial salmon fishery. Most of the very detailed summaries

are located in the appendix portion of this report with the contents of each appendix described below.

Graphs and tables depicting the basic management chronology by major harvest area (Figure 27) along with the 1970-95 average harvest by species by week for the entire season, are located in Appendix C.

In Appendix D are graphs and tables depicting historical harvests by species for the time period July 6 through July 25 for the years 1970-95 for the same 10 major geographical areas (Figure 27). Historical effort levels measured in landings, are also shown by year for the same time period.

Appendix E contains graphs and tables depicting historical harvest (1970-1995) and effort information during the July 6 to July 25 time period for the specific harvest areas presented in the agenda change request by the Kenai Peninsula Fishermens Association. These specific areas are: statistical areas 258-10 and 258-40, which are in the Sitkalidak Section (Figure 28) of the Eastside Kodiak District; the Halibut Bay Section (Figure 29) which is located in the Southwest Kodiak District; and the Katmai and Alinchak Sections (Figure 30) located in the Mainland District.

Appendix F contains graphs and tables depicting the chinook salmon catch and escapement (1968-1995) and the coho and chinook salmon harvest (1991-1995) by major harvest area by three time periods: 6/1-7/5, 7/6-25, and 7/26-10/31. Also contained in Appendix F are graphs and tables showing the harvest by species, by year (1970-1995), for selected management units, and graphs depicting the annual 1987-1995 harvest by species and major harvest area for the 6/1-7/5, 7/6-25, and 7/26-10/31 time periods.

Appendix G contains graphs which depict the comparison between the number of active (fished) permits versus the number of landings for the 10 major harvest areas during the time period July 6 through July 25.

Appendix H contains a list of regulatory management plans for Kodiak and tables which depict plans for fisheries occurring on the westside of Kodiak in Alitak, Cape Igvak, along the eastside of Afognak, north Shelikof units, and a basic management chronology by species by major harvest area for the month of July.

While reviewing information presented in graphic formats, it is important to note the "scaling" used to show the number of fish harvested or effort levels when comparing one harvest location to another.

In summary, the information contained in this report provides actual harvest and effort summaries for Kodiak's commercial salmon fisheries. These fisheries have occurred within the framework of the various regulatory and non-regulatory management plans in effect for the KMA.

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Table 1. Estimated number of salmon production systems per district, with species distribution, in the Kodiak Management Area, 1995.

Management District	Number of Streams ^a	Number of Streams with Each Species ^b				
		Chinook	Sockeye	Coho	Pink	Chum
Afognak	102	0	13	48	102	5
Northwest Kodiak	63	0	4	22	63	23
Southwest Kodiak	11	2	2	10	11	6
Alitak	30	1	5	15	30	14
Eastside Kodiak	116	1	8	32	116	47
Northeast Kodiak	26	0	1	20	26	9
Mainland	92	0	6	27	92	46
TOTAL	440	4	39	174	440	150

^a The State of Alaska's Habitat Division identifies over 800 streams in the Kodiak Management Area which have documented use by anadromous fish (ADF&G 1993b). Many of these streams are very small and may only be used by pink salmon in years with very large returns. The streams identified in this table are depicted on the 1995 Kodiak Area salmon statistical map, and have documented use each year.

^b These estimates are based on current knowledge and are expected to change as more system specific data is collected.

Table 2. Indexed peak salmon escapement goals vs. actual escapement, by species, by District, Kodiak Management Area, 1995.

DISTRICT	SOCKEYE ESCAPEMENT		PINK ESCAPEMENT		CHUM ESCAPEMENT		COHO ESCAPEMENT		CHINOOK ESCAPEMENT	
	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL
	Lower/ Upper		Lower/ Upper		Lower/ Upper		Lower/ Upper		Lower/ Upper	
AFOGNAK	83,000	137,021	83,000	588,731		10,221	13,500	43,233		5
	154,000		249,000				23,600			
NORTHWEST	56,000	42,572	220,000	2,532,833	72,000	116,300	9,000	25,103		0
	90,000		660,000		216,000		14,000			
SOUTHWEST	760,500	1,060,893	30,000	147,171	50,000	36,391	33,000	54,064	11,000	30,358
	1,201,000		90,000		150,000		52,000		19,000	
ALITAK	386,000	470,931	212,000	3,796,345	38,000	66,438	10,500	20,188	100	470
	550,000		636,000		114,000		20,000		300	
EASTSIDE	29,500	63,359	120,000	1,857,600	88,000	73,163	10,000	24,950		2
	64,000		420,000		264,000		15,000			
NORTHEAST	10,000	15,551	110,000	807,826	20,000	9,843	10,475	21,037		8
	15,000		330,000		60,000		16,555			
MAINLAND	33,500	49,785	215,000	767,726	242,000	157,500	4,000	42,600		0
	66,000		645,000		726,000		9,000			
TOTAL	1,358,500	1,840,112	1,010,000	10,498,232	510,000	469,856	90,475	231,175	11,100	30,843
	2,140,000		3,030,000		1,530,000		150,155		19,300	

Table 3. Potential vs. actual salmon production (wild stock) in the Kodiak Management Area, 1994.

SPECIES	PRODUCTION POTENTIAL			HARVEST			
	LONG TERM AVERAGE			POTENTIAL	ACTUAL		
	Targeted Escapement Goal ^a	Return Per Spawner ^b	Potential Total Return	Long Term Average	46 Year Average (1948-1995) ^c	10 Year Average (1985-1995) ^c	
CHINOOK	15,000	2.5	37,500	22,500	5,100	18,500	
SOCKEYE	2,100,000	2.5	5,250,000	3,150,000	1,259,500	3,638,400	
COHO	150,000	2.5	375,000	225,000	108,000	276,500	
PINK	Odd Year	3,000,000	3.5	10,500,000	7,500,000	8,732,200	21,180,900
	Even Year	4,500,000	3.5	15,750,000	11,250,000	8,633,400	9,086,400
CHUM	1,020,000	2.8	2,856,000	1,836,000	799,000	881,000	
TOTAL	Odd Year	6,285,000	-	19,018,500	13,454,000	10,903,800	25,995,300
	Even Year	7,785,000	-	24,268,500	16,483,500	10,805,100	13,900,800

^a The expected indexed escapement within the biological escapement goal range. KMA fisheries are normally managed to achieve this level of escapement.

^b Return per spawner will vary each year. These values are averages around which natural survival and return will fluctuate somewhat (Barrett, Personal Communication, October 1993).

^c 1989 harvest data not included in estimates.

Table 4. Sockeye salmon average return per spawner over time, estimated run potential, and average returns for selected Kodiak Management Area systems.

System	Upper Escapement Goal	Average Escapement ^a	Return per Spawner			Estimated Run Potential ^b	Average Return Potential ^c	
			1973-77	1978-82	1983-87			
Red River	300,000	261,000	average range 3.0 (0.9-4.9)	1.8 (0.9-3.9)	3.6 (2.1-5.4)	750,000	1,080,000	
Frazer	200,000	187,000	average range 3.4 (1.1-5.9)	0.9 (0.1-1.9)	8.7 (0.3-17.6)	500,000	1,740,000	
Karluk early (1981-86)	250,000	234,000	average range d	4.1 (3.1-5.0)	1.3 (0.9-1.9)	625,000	325,000	
Karluk late (1981-86)	550,000	288,000	average range d	8.3 (5.4-11.1)	3.7 (2.6-8.4)	1,375,000	2,035,000	
Upper Station early	75,000	59,000	average range 3.8 (2.0-8.0)	1.6 (0.9-2.3)	2.2 (0.7-6.1)	187,500	165,000	
Upper Station late	200,000	169,000	average range 4.1 (1.7-9.1)	7.2 (4.0-16.1)	2.7 (2.3-2.9)	500,000	540,000	
Average Total				3.6	4.0	3.7	3,937,500	5,885,000

^a Average escapement from 1973-1987 unless noted.

^b Upper escapement goal times 2.5 return per spawner.

^c Upper escapement goal times the 1983-87 average return per spawner by system.

^d Not available.

Table 5. Expected harvest from supplemental salmon production, by system and species for the Kodiak Management Area, 1996.^a

System	Sockeye	Pink	Coho	Chum
Kitoy Bay Hatchery Complex ^b	40,000 ^c	2,300,000	25,000	110,000
Spiridon Lake ^d	150,000	0	0	0
Hidden Lake	30,000	0	0	0
Waterfall Lake	20,000	0	0	0
Crescent Lake ^e	15,000	0	5,000	0
Katmai Lake	0	0	2,000	0
Kodiak Road System Lakes	0	0	5,000	0
Total	255,000	2,300,000	37,000	110,000

^a Harvest estimates by KRAA and Kitoy Bay Hatchery staff.

^b See Eastside Afognak Salmon Management Plan.

^c Harvest is expected to occur during fisheries targeting pink salmon.

^d See Spiridon Lake Sockeye Salmon Management Plan.

^e See Crescent Lake Salmon Management Plan.

Table 6. Historical salmon catch (numbers of fish to nearest thousand) by species in the Kodiak Management Area, 1881-1995.

Year ^a	Chinook	Sockeye	Coho	Pink	Chum	Total
1881						0
1882		59,000				59,000
1883		189,000				189,000
1884		282,000				282,000
1885		469,000				469,000
1886		646,000				646,000
1887		1,005,000				1,005,000
1888		2,781,000				2,781,000
1889		3,755,000				3,755,000
1890		3,593,000				3,593,000
1891		3,846,000				3,846,000
1892		3,126,000				3,126,000
1893		3,245,000				3,245,000
1894		3,830,000				3,830,000
1895		2,247,000	8,000			2,255,000
1896		3,329,000				3,329,000
1897		2,786,000	2,000			2,787,000
1898		2,033,000	19,000			2,052,000
1899	1,000	1,935,000	32,000			1,968,000
1900	5,000	3,450,000	32,000			3,488,000
1901	4,000	4,826,000		2,000		4,832,000
1902	3,000	3,868,000	35,000			3,906,000
1903	1,000	1,826,000	120,000	10,000		1,957,000
1904	3,000	2,875,000	103,000	5,000		2,987,000
1905	2,000	2,142,000	87,000			2,232,000
1906	4,000	3,980,000	24,000			4,008,000
1907	4,000	4,232,000	38,000			4,275,000
1908	3,000	2,488,000	74,000	286,000		2,851,000
1909	4,000	1,915,000	52,000	154,000		2,124,000
1910	2,000	1,955,000	44,000	215,000		2,216,000
1911	1,000	2,686,000	22,000	230,000	6,000	2,945,000
1912	1,000	2,246,000	17,000	547,000	25,000	2,836,000
1913	1,000	1,663,000	28,000	590,000	4,000	2,286,000
1914	1,000	1,255,000	32,000	1,726,000	13,000	3,028,000
1915	1,000	1,664,000	52,000	252,000	20,000	1,990,000
1916	1,000	3,373,000	50,000	3,182,000	29,000	6,635,000
1917	1,000	3,646,000	30,000	225,000	16,000	3,919,000
1918	2,000	1,894,000	78,000	2,467,000	82,000	4,524,000
1919	2,000	1,619,000	104,000	283,000	60,000	2,068,000
1920	2,000	1,958,000	89,000	1,977,000	55,000	4,081,000
1921	1,000	2,858,000	46,000	68,000	25,000	2,997,000
1922	1,000	1,097,000	120,000	2,766,000	224,000	4,208,000
1923	2,000	1,090,000	78,000	929,000	39,000	2,137,000
1924	1,000	1,408,000	121,000	5,435,000	118,000	7,082,000
1925	2,000	1,693,000	93,000	2,674,000	212,000	4,674,000
1926	1,000	3,015,000	174,000	4,607,000	325,000	8,122,000
1927	4,000	1,155,000	152,000	5,297,000	418,000	7,026,000
1928	3,000	1,592,000	291,000	1,535,000	726,000	4,147,000
1929	3,000	712,000	144,000	6,108,000	1,058,000	8,026,000
1930	5,000	466,000	229,000	1,651,000	419,000	2,771,000
1931	2,000	1,183,000	170,000	6,840,000	184,000	8,378,000
1932	2,000	1,058,000	52,000	4,720,000	237,000	6,069,000
1933	1,000	1,428,000	91,000	6,574,000	537,000	8,632,000
1934	1,000	1,829,000	90,000	7,642,000	661,000	10,223,000
1935	1,000	1,614,000	77,000	10,781,000	382,000	12,854,000
1936	3,000	2,657,000	184,000	5,648,000	328,000	8,820,000
1937	1,000	1,881,000	165,000	16,787,000	346,000	19,181,000
1938	1,000	1,966,000	155,000	8,398,000	640,000	11,160,000

-Continued-

Table 6. (page 2 of 3)

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1939	2,000	1,786,000	112,000	11,741,000	642,000	14,284,000
1940	1,000	1,318,000	148,000	9,998,000	673,000	12,139,000
1941	3,000	1,730,000	200,000	7,602,000	445,000	9,978,000
1942	1,000	1,282,000	107,000	6,093,000	565,000	8,047,000
1943	1,000	1,991,000	60,000	12,480,000	454,000	14,985,000
1944	1,000	1,818,000	52,000	4,955,000	507,000	7,332,000
1945	2,000	2,041,000	60,000	9,045,000	559,000	11,707,000
1946	0	839,000	56,000	9,546,000	298,000	10,740,000
1947	0	993,000	76,000	8,857,000	295,000	10,221,000
1948	1,000	1,260,000	32,000	5,968,000	331,000	7,594,000
1949	1,000	892,000	54,000	4,928,000	700,000	6,574,000
1950	2,000	921,000	41,000	5,305,000	685,000	6,953,000
1951	2,000	468,000	49,000	2,100,000	483,000	3,103,000
1952	1,000	604,000	52,000	4,577,000	1,243,000	6,476,000
1953	3,000	317,000	42,000	5,175,000	548,000	6,084,000
1954	1,000	325,000	66,000	8,439,000	1,251,000	10,083,000
1955	2,000	164,000	35,000	10,794,000	482,000	11,478,000
1956	1,000	271,000	53,000	3,319,000	705,000	4,349,000
1957	1,000	234,000	35,000	4,716,000	1,208,000	6,195,000
1958	2,000	288,000	21,000	4,039,000	931,000	5,280,000
1959	2,000	330,000	15,000	1,967,000	734,000	3,047,000
1960	1,000	363,000	54,000	6,738,000	1,300,000	8,456,000
1961	1,000	408,000	29,000	3,926,000	519,000	4,882,000
1962	1,000	785,000	55,000	14,114,000	795,000	15,749,000
1963	0	407,000	57,000	5,480,000	305,000	6,250,000
1964	1,000	498,000	36,000	12,044,000	1,134,000	13,714,000
1965	1,000	346,000	27,000	2,887,000	431,000	3,692,000
1966	1,000	632,000	68,000	10,756,000	763,000	12,218,000
1967	2,000	309,000	10,000	188,000	227,000	735,000
1968	2,000	760,000	57,000	8,768,000	750,000	10,338,000
1969	2,000	591,000	49,000	12,501,000	535,000	13,678,000
1970	1,000	917,000	66,000	12,037,000	919,000	13,940,000
1971	1,000	478,000	23,000	4,333,000	1,541,000	6,377,000
1972	1,000	223,000	17,000	2,486,000	1,164,000	3,890,000
1973	1,000	167,000	4,000	519,000	318,000	1,008,000
1974	1,000	419,000	14,000	2,646,000	249,000	3,328,000
1975	0	136,000	24,000	2,943,000	84,000	3,187,000
1976	1,000	641,000	24,000	11,078,000	740,000	12,484,000
1977	1,000	623,000	28,000	6,252,000	1,072,000	7,977,000
1978	3,000	1,072,000	49,000	15,004,000	814,000	16,942,000
1979	2,000	632,000	141,000	11,288,000	358,000	12,420,000
1980	1,000	651,000	139,000	17,291,000	1,076,000	19,157,000
1981	1,000	1,289,000	122,000	10,337,000	1,345,000	13,094,000
1982	1,000	1,205,000	344,000	8,076,000	1,266,000	10,892,000
1983	4,000	1,232,000	158,000	4,603,000	1,085,000	7,082,000
1984	5,000	1,950,000	230,000	10,844,000	649,000	13,678,000
1985	5,000	1,843,000	284,000	7,335,000	431,000	9,898,000
1986	4,000	3,188,000	169,000	11,808,000	1,135,000	16,304,000
1987	5,000	1,793,000	193,000	5,076,000	682,000	7,748,000
1988	22,000	2,699,000	303,000	14,409,000	1,426,000	18,860,000
1989 ^b	5,000	2,629,000	141,000	22,649,000	836,000	26,259,000
1990	19,000	5,248,000	294,000	5,984,000	578,000	12,122,000
1991	22,000	5,704,000	325,000	16,643,000	1,029,000	23,723,000
1992	24,000	4,168,000	280,000	3,311,000	680,000	8,462,000
1993	42,000	4,378,000	313,000	34,019,000	588,000	39,341,000
1994	23,000	2,877,000	296,000	8,163,000	739,000	12,098,000
1995	19,000	4,485,000	308,000	42,831,000	1,523,000	49,166,000

-Continued-

Table 6. (page 3 of 3)

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
<u>AVERAGES^b</u>						
All Years	3,000	1,738,000	97,000	6,655,000	585,000	9,080,000
Years 1948-1995	5,000	1,259,000	108,000	8,682,000	799,000	10,853,000
All Even Years 1948-1994				8,633,000		10,805,000
All Odd Years 1949-1995				8,732,000		10,904,000
Average 1985-1995	19,000	3,638,000	276,000	14,958,000	881,000	19,772,000
Odd Years 1985-1995				21,181,000		25,995,000
Even Years 1984-1994				9,086,000		13,901,000

^a For the period 1882-1947, the harvest data was derived from "casepack" information supplied by commercial buyers and processors. For the period 1948-present, the harvest data was derived from "fish ticket" information summarized by ADF&G.

^b In 1989 there was only limited commercial salmon fishing allowed because of the presence of oil contaminated waters in the Kodiak Area due to the M/V EXXON VALDEZ oil spill. The 1989 harvest data shown is unique from all other years. The 1989 harvest by species in this table is the summation of the actual harvest which did occur and the projected harvest which would have occurred if there had not been restrictions on the 1989 fishery (Barrett, 1990). Averages do not include harvest data for 1989.

Table 7. Summary of limited entry permit activity in the commercial salmon fishery, by gear type, in the Kodiak Management Area, 1975-1995.

	Purse Seine ^a		Beach Seine ^a		Set Gillnet ^a		Total ^a		
	Fishable	Fished	Fishable	Fished	Fishable	Fished	Fishable	Fished	Percent
1975	468	280	26	8	229	116	723	404	56
1976	394	325	23	17	187	140	604	482	80
1977	378	336	32	24	186	147	596	507	85
1978	389	372	34	29	188	160	611	561	92
1979	387	362	34	28	186	164	607	554	91
1980	387	370	35	33	187	168	609	571	94
1981	387	325	35	30	187	169	609	524	86
1982	386	345	35	30	187	170	608	545	90
1983	383	342	35	27	188	174	606	543	90
1984	384	296	35	25	188	168	607	489	81
1985	384	270	34	21	188	169	606	460	76
1986	385	287	34	14	187	174	606	475	78
1987	386	297	33	18	188	173	607	488	80
1988	387	323	33	21	188	179	608	523	86
1989 ^b	388	4	33	1	189	87	610	92	15
1990	388	354	33	21	189	184	610	559	92
1991	388	348	33	17	189	185	610	550	90
1992	391	336	33	12	190	178	614	526	86
1993	387	324	36	9	190	176	613	509	83
1994	387	286	34	5	190	169	611	460	75
1995	386	312	33	8	189	173	608	493	81
<hr/>									
20 Year Average (1975-95) ^c									
	391	325	33	20	190	167	614	511	83
<hr/>									
10 Year Average (1985-95) ^c									
	387	314	34	15	189	176	610	504	83

^a Data from Commercial Fisheries Entry Commission records and ADF&G Fish Ticket summaries. Fishable Permits are the number of permits which were renewed, and so available to be fished; Fished Permits are the number of individual permits which were active (made a delivery) in any year.

^b 1989 effort levels were very low due to extensive fishery closures because of the presence of oil from the Exxon Valdez spill.

^c 1989 data not included in averages.

Table 8. Resident vs. nonresident commercial salmon fishing limited entry permit ownership in the Kodiak Management Area, 1987-1995.

YEAR/STATUS	PURSE SEINE		BEACH SEINE		SET GILLNET		TOTAL	
	Number	%	Number	%	Number	%	Number	%
1995^a								
RESIDENT	293	76	30	91	143	76	466	77
NONRESIDENT	90	23	3	9	45	24	138	23
INTERIM	3	1	0	0	1	<1	4	<1
TOTAL	386		33		189		608	
1994^a								
RESIDENT	289	75	31	89	151	80	471	77
NONRESIDENT	94	24	3	11	37	19	134	22
INTERIM	4	1	0	0	2	1	6	1
TOTAL	387		34		190		611	
1993^a								
RESIDENT	289	75	32	89	153	80	474	77
NONRESIDENT	94	24	4	11	35	19	133	22
INTERIM	4	1	0	0	2	1	6	1
TOTAL	387		36		190		613	
1992^a								
RESIDENT	284	73	30	91	140	74	454	74
NONRESIDENT	103	26	3	9	49	26	155	25
INTERIM	4	1	0	0	1	<1	6	1
TOTAL	391		33		190		614	
1991^a								
RESIDENT	281	73	30	91	138	73	449	74
NONRESIDENT	102	26	3	9	50	27	155	25
INTERIM	5	1	0	0	1	<1	6	1
TOTAL	388		33		189		610	
1990^a								
RESIDENT	283	73	29	88	142	75	454	75
NONRESIDENT	99	25	4	12	46	24	149	24
INTERIM	6	2	0	0	1	1	7	1
TOTAL	388		33		189		610	
1989^a								
RESIDENT	285	73	29	88	145	77	459	75
NONRESIDENT	97	25	4	12	43	23	144	24
INTERIM	6	2	0	0	1	<1	7	1
TOTAL	388		33		189		610	
1988^a								
RESIDENT	286	74	31	86	148	79	465	76
NONRESIDENT	96	24	2	6	39	21	137	23
INTERIM	5	2	0	8	1	<1	6	1
TOTAL	387		33		188		610	

^a Data from Commercial Fisheries Entry Commission records. Numbers reflect only permit ownership and not actual participation in Kodiak Area commercial salmon fisheries.

Table 9. Commercial salmon fisheries limited entry permits issued, by residence of permit holder, for the Kodiak Management Area, 1995.

Fishery	Residence ^a	Total # Permits
PURSE	Anchor Point, AK	3
SEINE	Anchorage, AK	19
	Big Lake, AK	1
	Chignik, AK	1
	Chignik Lagoon, AK	1
	Clam Gulch, AK	1
	Dutch Harbor, AK	1
	Fairbanks, AK	1
	Girdwood, AK	2
	Haines, AK	1
	Homer, AK	16
	Juneau, AK	2
	Kasilof, AK	2
	Kenai, AK	2
	Kodiak, AK	173
	Larsen Bay, AK	4
	Ninilchik, AK	3
	Old Harbor, AK	28
	Ouzinkie, AK	10
	Petersburg, AK	2
	Port Lions, AK	10
	Sand Point, AK	1
	Seldovia, AK	3
	Seward, AK	4
	Soldotna, AK	3
	Togiak, AK	1
	ARIZONA	1
	CALIFORNIA	2
	IDAHO	1
	MARYLAND	1
	MONTANA	1
	NEW MEXICO	1
	OREGON	8
	WASHINGTON	76
Total Number of Permits		386
Total Number of Alaskan Resident Permits		295
% of Total Permits Held by Alaskan Residents		76%
Total Number of Kodiak Resident Permits		225
% of Total Permits Held by Kodiak Residents		58%
BEACH	Anchor Point, AK	1
SEINE	Anchorage, AK	3
	Chugiak, AK	1
	Homer, AK	2
	Kasilof, AK	1
	Kodiak, AK	17

-Continued-

Table 9. (page 2 of 2)

Fishery	Residence ^a	Total # Permits
	Larsen Bay, AK	2
	Old Harbor, AK	1
	Port Lions, AK	1
	Sterling, AK	1
	OREGON	1
	WASHINGTON	2
Total Number of Permits		33
Total Number of Alaskan Resident Permits		30
% of Total Permits Held by Alaskan Residents		91%
Total Number of Kodiak Resident Permits		21
% of Total Permits Held by Kodiak Residents		64%
SET	Akhiok, AK	2
GILLNET	Anchorage, AK	10
	Douglas, AK	3
	Fairbanks, AK	3
	Homer, AK	1
	Kodiak, AK	102
	Larsen Bay, AK	7
	Nikiski, AK	2
	Old Harbor, AK	3
	Ouzinkie, AK	3
	Palmer, AK	5
	Port Lions	1
	Soldotna, AK	2
	ARIZONA	2
	COLORADO	1
	FLORIDA	3
	HAWAII	1
	IDAHO	1
	INDIANA	3
	MINNESOTA	2
	MISSOURI	1
	MONTANA	2
	OREGON	10
	TEXAS	3
	WASHINGTON	16
Total Number of Permits		189
Total Number of Alaskan Resident Permits		144
% of Total Permits Held by Alaskan Residents		76%
Total Number of Kodiak Resident Permits		118
% of Total Permits Held by Kodiak Residents		62%

^a Data from Commercial Fisheries Entry Commission records. Counts are from initial issues and don't reflect the actual number of permits that participated (made at least one delivery). Residence is based on mailing address of the permit holder and does not reflect permit transfers.

Table 10. Subsistence salmon fishery harvest summary by species by year for the Kodiak Management Area, 1962-1995.

Year	Permits Issued	Permits Returned	Percent Returned	Chinook	Sockeye	Coho	Pink	Chum	Total
1962	74	13	18	0	0	433	397	20	850
1963	74	15	20	0	297	576	836	195	1,904
1964	43	9	21	6	332	184	88	71	681
1965	67	7	10	2	19	318	244	12	595
1966	48	13	27	0	295	331	334	393	1,353
1967	84	29	35	2	1,306	571	894	344	3,117
1968	132	28	21	0	658	433	529	45	1,665
1969	242	30	12	1	481	338	620	30	1,470
1970	213	49	23	1	959	939	797	265	2,961
1971	267	131	49	5	3,442	1,720	1,276	472	6,915
1972	329	176	54	11	3,633	1,531	2,516	2,729	10,420
1973	400	149	37	7	4,453	2,289	1,393	1,166	9,308
1974	367	90	25	1	1,909	846	1,094	128	3,978
1975	508	90	18	1	1,141	922	947	221	3,232
1976	536	243	45	4	4,338	962	2,275	370	7,949
1977	739	451	61	54	8,119	2,508	2,849	317	13,847
1978	860	539	63	50	7,239	3,699	2,747	572	14,307
1979	1,085	697	64	111	10,376	3,840	3,300	333	17,960
1980	1,239	756	61	67	13,746	4,407	2,755	566	21,541
1981	1,166	733	63	44	12,756	3,729	2,278	470	19,277
1982	1,276	993	78	110	16,615	7,192	3,558	667	28,142
1983	1,307	1,082	83	111	15,526	6,283	2,536	800	25,256
1984	1,240	1,061	86	265	17,620	5,808	1,877	720	26,290
1985	1,476	1,196	81	172	16,231	8,873	2,756	855	28,887
1986	1,244	1,049	84	91	14,451	7,087	2,371	605	24,605
1987	1,124	904	80	101	13,277	6,737	2,409	1,316	23,840
1988	1,098	706	64	108	10,142	4,074	1,274	366	15,964
1989	2,800 ^a	715	N/A	41	11,998	3,707	1,492	367	17,605
1990	2,900 ^a	1,181	N/A	131	17,972	8,646	1,605	655	29,009
1991	1,406	1,239	88	175	21,590	8,201	1,743	714	32,423
1992	1,561	1,176	75	317	20,218	8,544	1,642	643	31,364
1993	1,496	834	56	243	19,521	7,188	2,696	838	30,486
1994	2550	1,459	57	205	17,976	7,491	1,758	440	27,870
1995 ^b									
Recent 10 Year Average									
1985 - 1994				158	16,368	7,087	1,979	681	26,274
Previous 10 Year Averages									
1975 - 1984				82	10,748	3,935	2,512	504	17,780
1965 - 1974				3	1,716	932	970	558	4,178
TOTAL 1962-1994				2,437	288,935	120,733	55,928	17,720	485,753
AVERAGE 1962-1994				74	8,756	3,659	1,695	537	14,720

^a Permits were mailed to all previous applicants, totaling approximately 2,800. Many were "returned to sender" as "undeliverable". These names were removed from the permittee list.

^b Only partial data available for 1995. Data from permits returned through 10/95 only. Many harvest reports are returned in the spring when subsistence users come into the ADF&G office in Kodiak to renew their subsistence permits.

Table 11. Sport fish salmon harvest in the Kodiak regulatory area of the Kodiak Management Area, 1978-1994.

Year ^a	Pink	Coho	Sockeye	Chinook	Chum	Total
1978	17,739	4,927	1,776	350	1,287	26,079
1979	15,871	11,522	2,436	752	500	31,081
1980	18,969	12,692	2,178	327	525	34,691
1981	12,259	10,584	1,620	789	637	25,889
1982	18,850	13,329	3,055	1,120	1,324	37,678
1983	8,936	7,823	3,150	729	816	21,454
1984	12,779	14,612	5,385	921	1,321	35,018
1985	13,423	13,625	7,536	762	865	36,211
1986	14,509	20,873	5,259	520	336	41,497
1987	11,662	16,912	4,165	379	560	33,678
1988	19,044	18,809	6,222	1,564	1,546	47,185
1989	17,794	19,802	6,789	1,087	631	46,103
1990	7,464	13,728	6,056	996	191	28,435
1991	12,106	17,691	5,049	2,508	1,517	38,871
1992	5,904	13,668	6,240	2,217	625	28,654
1993	12,324	21,241	7,849	5,092	504	47,010
1994	5,336	12,406	12,502	3,166	290	33,700
<hr/>						
1978-82 Average	16,738	10,611	2,213	668	855	31,084
1983-87 Average	12,262	14,769	5,099	662	780	33,572
1988-94 Average	11,425	16,764	7,244	2,376	758	38,565

^a 1978-1993 data from Schwarz (1995); 1994 data preliminary, from L. Schwarz, ADF&G Sportfish Division, Kodiak, personal communication. The Kodiak regulatory area consists of only the Kodiak Island archipelago portion of the commercial fisheries Kodiak Management Area.

Table 12. Commercial salmon harvest in 1995 and harvest projections for the Kodiak Management Area.

	CHINOOK	SOCKEYE	COHO	PINK	CHUM	TOTAL
1995 Projected Harvest	25,000	2,400,000	310,000	18,235,000	800,000	21,770,000
1995 Actual Harvest	18,700	4,485,000	308,000	42,832,000	1,523,000	49,166,700

FISHERY	1995 HARVEST ^a	
	Projection	Actual ^b
Projection as of		
Early Run Sockeye Salmon Fisheries (6/9-7/15)		
Cape Igvak	280,000	191,000
Karluk	200,000	724,000
Ayakulik	45,000	500,000
Frazer	420,000	1,005,000
Upper Station	50,000	80,000
Minor Systems	50,000	86,000
Minor Enhancement	90,000	66,000
Other	70,000	215,000
SubTotal	1,205,000	2,867,000
Late Run Sockeye Salmon Fisheries (7/16-9/15)		
Afognak (Hatchery)	30,000	11,000
Cape Igvak	120,000	21,000
Karluk	350,000	454,000
Ayakulik	30,000	228,000
Frazer	105,000	251,000
Upper Station	300,000	335,000
Minor Systems	75,000	19,000
Spiridon	160,000	150,000
Other	25,000	149,000
SubTotal	1,195,000	1,618,000
TOTAL SOCKEYE	2,400,000	4,485,000
Coho Salmon Fisheries (8/1-10/1)		
Afognak (Hatchery)	15,000	40,000
Afognak (Natural)	35,000	37,000
Westside	135,000	120,000
Alitak	25,000	19,000
Eastside/Northend Kodiak	60,000	72,000
Mainland	40,000	20,000
SubTotal	310,000	308,000

-Continued-

Table 12. (page 2 of 2)

FISHERY	1995 HARVEST ^a	
	Projection	Actual ^b
Pink Salmon Fisheries (7/6-9/5)		
Afognak (Hatchery)	7,965,000	4,500,000
Afognak (Natural)	1,150,000	3,744,000
Westside Kodiak	4,650,000	18,211,000
Alitak	2,365,000	7,060,000
Eastside/Northend Kodiak	1,750,000	8,621,000
Mainland	355,000	696,000
SubTotal	18,235,000	42,832,000
Chum Salmon Fisheries (6/6-9/5)		
Afognak (Hatchery)	150,000	215,000
Afognak (Natural)	31,000	75,000
Westside Kodiak	213,000	625,000
Alitak	38,000	105,000
Eastside/Northend Kodiak	148,000	402,000
Mainland	220,000	101,000
SubTotal	800,000	1,523,000
GRAND TOTAL	21,770,000^c	49,166,700^d

^a Numbers of fish.

^b Actual harvest estimates by fishery as of 10/10/95.

^c Includes 25,000 chinook - projected harvest.

^d Includes 18,700 chinook - actual harvest.

Table 13. Pink salmon preemergent fry sampling results for the 1996 adult pink salmon return to the Kodiak Management Area, 1995.

Stream	Digs	Dig Dates	Fry	Live Eggs	Fry	Dead Eggs	1995 Index LiveFry/M ²	% Digs WithFry	1993 Index	1991 Index	Range of Development	H ₂ O Temp.
Many Afognak streams were not sampled in 1995 due to poor weather conditions.												
Perenosia - Up	0		-	-	-	-	-	-	-	308.54		
Perenosia - Down	0		-	-	-	-	-	-	241.20	95.94		
Perenosia (Total)	(0)		(-)	(-)	(-)	(-)	(-)	(-)	(241.20)	(180.98)		
Paramanoff	0		-	-	-	-	-	-	16.14	126.83		
Malina	0		-	-	-	-	-	-	135.98	345.75		
Afognak	50	3/08/95	163	0	5	908	17.54	24.0	1.61	105.56	70 - 80	2.0°C
Danger	40	4/07/95	1	0	0	290	0.14	2.5	178.49	173.51	95	2.0°C
Marka	60	3/08/95	384	0	227	1,297	34.43	21.7	-	233.04	65 - 80	0.5°C
Seal Bay (N)	(0)		(-)	(-)	(-)	(-)	(-)	(-)	(320.00)	(328.83)		
L. Waterfall (N)	(0)		(-)	(-)	(-)	(-)	(-)	(328.8)	(-)	(754.28)		
Afognak Total	150		548	0	232	2,495	19.66	17.3%	180.13	203.53	65 - 95%	
Baumans	30	4/07/95	841	5	60	2,089	150.82	96.7	362.08	94.69	20 - 90	2.0°C
Terror	40	4/07/95	17	0	0	130	2.29	2.5	21.09	7.21	99	1.5°C
Uganik	60	3/22/95	256	22	72	726	22.96	23.3	38.38	18.29	75 - 95	0.0°C
Little	40	3/31/95	102	0	7	996	13.72	7.5	103.97	137.06	85	2.0°C
Red - Up	60	3/19/95	3,018	19	58	956	270.61	78.3	384.58	562.48	85 - 90	1.0°C
Red - Down	60	3/27/95	3,962	5	45	942	355.26	86.7	223.98	697.79	90 - 95	3.5°C
Red (Total)	(120)		(6,980)	(24)	(103)	(1,898)	(312.94)	(82.5)	(304.28)	(630.13)		
Zachar - Up	30	3/26/95	48	0	1	10	8.61	6.6	52.91	0.0	70 - 90	2.5°C
Zachar - Down	20	3/22/95	101	0	1	387	27.17	35.0	65.91	37.93	50 - 90	0.0°C
Zachar (Total)	(50)		(149)	(0)	(2)	(397)	(16.03)	(18.0)	(58.11)	(15.17)		
Uyak 202	60	3/20/95	1,035	159	5	146	99.98 ^a	30.0 ^a	200.85	63.13	20 - 90	1.5°C
Browns	60	3/29/95	939	0	295	8,580	84.20	26.7	290.52	79.36	40 - 90	2.0°C
Karluk	60	3/31/95	234	0	84	99	20.98	25.0	18.43	22.42	90 - 98	1.5°C
Sturgeon	50	3/27/95	79	0	0	58	8.51	6.0	20.04	35.72	90	2.5°C
Westside Total	570		10,632	210	628	15,119	101.11¹	36.3%¹	151.79	176.66	20 - 98%	

-Continued-

Table 13. (page 2 of 3)

Stream	Digs	Dig Dates	Fry	<u>Live</u> Eggs	Fry	<u>Dead</u> Eggs	1995 Index LiveFry/M ²	% Digs WithFry	1993 Index	1991 Index	Range of Development	H ₂ O Temp.
Deadman	60	3/23/95	2,579	2	97	359	231.25	33.3	229.73	19.64	40 - 95	2.5°C
Narrows	30	3/29/95	415	15	31	159	74.42	33.3	11.84	10.22	40 - 50	1.0°C
Dog Salmon	60	3/29/95	3,361	8	721	390	301.37	85.0	120.42	61.60	50 - 90	2.0°C
Humpy - Up	30	3/30/95	923	0	264	122	165.52	30.0	566.33	127.33	90 - 95	2.0°C
Humpy - Down	60	3/30/95	126	0	28	806	11.30	15.0	568.76	209.82	20 - 95	1.0°C
Humpy (Total)	(90)		(1,049)	(0)	(292)	(928)	(62.71)	(33.3)	(567.95)	(182.32)		
Alitak Total	240		7,404	25	1,141	1,836	165.97	46.3%	302.00	89.96	20 - 95%	
Kiliuda	40	3/26/95	4	0	2	6	0.54	7.5	95.26	42.37	90	3.0°C
Barling	40	3/26/95	1,485	0	79	2,516	199.73	67.5	135.85	88.23	80 - 95	2.0°C
Kaiugnak	50	3/29/95	425	0	52	228	45.73	8.0	362.83	472.36	80 - 90	2.0°C
Seven Rivers - Up	30	3/30/95	86	5	38	178	15.42	26.7	700.12	184.35	90 - 95	3.0°C
Seven Rivers - Down	60	3/30/95	2,925	0	191	4,793	262.28	66.7	785.12	320.56	20 - 80	1.0°C
Seven Rivers(Total)	(90)		(3,011)	(5)	(229)	(4,971)	(179.99)	(53.3)	(756.78)	(275.16)		
Miam	60	3/12/95	0	331	0	33	14.80 ^a	20.0 ^a	0.45	22.78	0	3.0°C
Saltery	50	3/07/95	14	199	2	816	12.27 ^a	26.0 ^a	16.68	9.04	80	3.5°C
Hurst	40	3/07/95	8	0	0	181	1.08	5.0	7.53	4.71	70	0.5°C
Sid Olds	50	3/03/95	164	349	18	772	36.48 ^a	26.0 ^a	179.91	51.43	10 - 85	1.0°C
American	60	3/02/95	103	3	0	286	9.23	6.7	105.45	12.73	60 - 70	3.5°C
Sheratin	40	3/11/95	686	0	71	159	92.27	40.0	240.92	243.61	85 - 95	2.0°C
Buskin - Up	20	2/28/95	1,027	4	6	501	276.26	75.0	151.45	464.83	20 - 80	1.5°C
Buskin - Down	40	2/28/95	1,935	1	131	4,523	260.26	72.5	99.26	256.36	20 - 60	2.5°C
Buskin (Total)	(60)		(2,962)	(5)	(137)	(5,024)	(265.59)	(73.3)	(116.66)	(325.85)		
Monashka (N)	20	3/06/95	483	34	24	1,304	134.50 ^a	95.0	173.24	347.85	80	1.5°C
Beaver Pond (N)	30	3/11/95	839	0	16	201	150.46	46.7	108.68	38.06	40 - 80	1.5°C
Pillar (N)	25	3/06/95	692	22	44	3,245	151.29 ^a	56.0	-	196.69	30 - 80	1.5°C

-Continued-

Table 13. (page 3 of 3)

Stream	Digs	Dig Dates	Fry	<u>Live</u> Eggs	Fry	<u>Dead</u> Eggs	1995 Index LiveFry/M ²	% Digs WithFry	1993 Index	1991 Index	Range of Development	H ₂ O Temp.
General Total	580		8,862	892	590	14,992	86.281 ^a	32.1% ^a	247.22	167.93	20 - 95%	
KODIAK-AFOGNAK TOTAL	1,540		27,446	1,127	2,591	34,442	97.70 ^a	34.4% ^a	205.84	161.01	20 - 99%	

Mainland streams were not sampled due to poor weather and time constraints.

Temperature Data: March Mean Temp. = 29.5°f; Deviation from March Norm = -3.4°f.

April Mean Temp. = 40.8°f; Deviation from April Norm = +3.3°f.

(N) = Non-Index Streams, results not included in District totals.

^a If significant numbers of live pink eggs are found then 50% of the live egg count is included with the live fry count in determining the index.

Table 14. Escapement summary for systems with fish weirs in the Kodiak Management Area, 1995.

Weir Locations	Dates		Salmon Species Enumerated					Total
	Installed	Removed	Sockeye	Chinook	Pink	Coho	Chum	
1. Karluk	5/14	9/25	743,056	12,657	111,066	26,914	136	893,829
2. Ayakulik	5/27	8/27	317,832	17,701	29,005	8,887	55	373,480
3. Dog Salmon	6/02	9/09	222,170	470	204,231	4,172	2,180	433,223
4. Frazer Lake ^a	6/10	8/17	196,362 ^a	296 ^a	156 ^a	0 ^a	0 ^a	196,814 ^a
5. Upper Station	5/30	9/11	245,151	0	10,677	5,243	1	261,072
6. Akalura	6/04 7/31	6/29 9/11	2,010	0	24,641	750	0	27,401
7. Saltery	6/20	8/10	43,859	2	58,794	4	103	102,762
8. Buskin	5/23 8/20	7/31 9/16	15,520	8	72,826	8,694	43	97,091
9. Litnik	5/27	9/12	100,131	3	42,738	10,542	0	153,414
10. Paul,s Bay	6/03	9/07	13,480	0	6,232	10,663	692	31,067
11. Malina	6/01	8/04	10,803	2	8	0	1	10,814
12. Big Bay Cr. (Shuyak)	8/06	9/18	6	0	11,691	1,971	0	13,668
13. Bear Creek (Shuyak)	8/07	9/17	1	0	4,058	2,456	0	6,515
Totals			1,714,019	30,843	575,967	80,296	3,211	2,404,336

^a Numbers not used in species totals as Frazer Lake salmon are initially counted through Dog Salmon weir.

Table 15. Historical indexed salmon escapements by species in the Kodiak Management Area, 1962-1995.

Year	Chinook	Sockeye	Coho	Pink	Chum
1962		922,500		4,600,000	297,900
1963		502,227		1,026,075	75,520
1964		600,346		3,360,000	261,429
1965		561,980		772,874	67,156
1966		652,578		2,100,000	143,700
1967		720,683		698,710	136,079
1968	703	645,612		2,800,000	121,000
1969	7,752	592,020		1,581,335	77,285
1970	3,900	573,603		3,392,577	123,150
1971	4,524	456,197		1,070,173	249,327
1972	3,049	605,491		1,053,391	335,115
1973	4,762	543,111		604,592	258,044
1974	1,622	995,925		2,041,099	86,383
1975	3,059	704,801		1,100,555	156,761
1976	8,411	1,075,226		3,105,320	312,914
1977	13,824	1,269,374	59,095	2,212,488	742,384
1978	14,677	1,000,353	37,479	5,006,273	482,956
1979	14,441	1,410,800	94,000	3,067,647	607,430
1980	5,850	1,831,748	28,000	6,492,822	830,070
1981	15,720	1,391,593	59,000	3,188,869	741,981
1982	10,773	1,603,692	86,000	5,370,049	1,023,923
1983	27,445	1,300,506	104,000	2,089,704	824,954
1984	14,429	1,467,780	123,000	4,512,124	682,936
1985	13,876	2,574,539	191,417	3,168,197	727,883
1986	11,046	2,001,279	170,000	4,068,615	655,817
1987	23,744	1,551,543	153,000	2,978,510	641,579
1988	35,152	1,661,532	96,140	3,236,931	558,531
1989 ^a	26,131	3,022,886	166,622	14,642,587	1,432,609
1990	25,972	2,006,241	151,420	6,024,900	474,620
1991	27,306	2,515,659	259,850	4,317,610	934,336
1992	19,013	1,968,058	289,592	3,515,624	530,128
1993	22,113	1,705,440	159,996	4,291,581	234,381
1994	21,591	2,041,511	206,418	3,994,020	545,391
1995	30,843	1,840,112	231,175	10,498,232	469,856
Recent 10 Year ^b Average (1985-1995)	23,066	1,984,544	190,900	4,613,034	576,803
Odd Year Average ^b (1985-1995)				5,058,050	
Even Year Average (1986-1994)				4,168,018	
Average all years ^b	14,278	1,250,826	123,037	3,254,052	436,552

^a Limited commercial fisheries were conducted due to oil contamination from the Exxon Valdez oilspill.

^b 1989 not included in averages

Table 16. Preliminary commercial salmon harvest and value, by gear type, in the Kodiak Management Area, 1995.

	Chinook ^a	Sockeye ^a	Coho ^a	Pink ^a	Chum ^a	Total	Percent
<i>Purse Seine</i>							
Total #	16,775	2,963,702	264,723	38,503,356	1,287,847	43,036,403	87.53
Avg. Wt.	13.78	5.01	8.02	3.46	7.49		
Total Lbs.	231,090	14,853,884	2,122,011	133,266,739	9,642,551	160,116,275	85.45
Avg. \$/Lb.	0.70	1.05	0.35	0.15	0.25		
Ex-Vessel \$	161,763.00	15,596,578.20	742,703.85	19,990,010.85	2,410,637.75	38,901,693.65	77.02
# of Permits = 312							
Average Value	581.47	49,989.03	2,380.46	64,070.55	7,726.40	124,684.92	
Percent	0.42	40.09	1.91	51.39	6.20	100.00	
<i>Beach Seine</i>							
Total #	3	3,684	123	142,710	2,642	149,162	0.30
Avg. Wt.	24.67	4.24	8.67	3.78	7.95		
Total Lbs.	74	15,627	1,067	538,856	21,013	576,637	0.31
Avg. \$/Lb.	0.70	1.05	0.35	0.15	0.25		
Ex-Vessel \$	51.80	16,408.35	373.45	80,828.40	5,253.25	102,915.25	0.20
# of Permits = 8							
Average Value	6.48	2,051.04	46.68	10,103.55	656.66	12,864.41	
Percent	0.05	15.94	0.36	78.54	5.10	100.00	
<i>Set Gillnet</i>							
Total #	1,926	1,516,958	42,883	4,186,356	232,192	5,980,315	12.16
Avg. Wt.	13.80	5.30	8.15	3.95	7.53		
Total Lbs.	26,580	8,042,175	349,351	16,525,188	1,747,942	26,691,236	14.24
Avg. \$/Lb.	0.70	1.05	0.35	0.15	0.25		
Ex-Vessel \$	18,606.00	8,444,283.75	122,272.85	2,478,778.20	436,985.50	11,500,926.30	22.77
# of Permits = 176							
Average Value	107.55	48,810.89	706.78	14,328.20	2,525.93	66,479.34	
Percent	0.16	73.42	1.06	21.55	3.80	100.00	
<i>Total All Gear</i>							
Total #	18,704	4,484,344	307,729	42,832,422	1,522,681	49,165,880	100.00
Avg. Wt.	13.78	5.11	8.03	3.51	7.49		
Total Lbs.	257,744	22,911,686	2,472,429	150,330,783	11,411,506	187,384,148	100.00
Avg. \$/Lb.	0.70	1.05	0.35	0.15	0.25		
Ex-Vessel \$	180,420.80	24,057,270.30	865,350.15	22,549,617.45	2,852,876.50	50,505,535.20	100.00
% of Total Value	0.36	47.63	1.71	44.65	5.65		100.00
<i>Test Fishery</i>							
Total #	0	977	0	15	24	1,016	
Avg. Wt.	0.00	5.06	0.00	3.67	6.96		
Total Lbs.	0	4,943	0	55	167	5,165	
Avg. \$/Lb.	0.70	1.05	0.35	0.15	0.25		
Ex-Vessel \$	0.00	5,190.15	0.00	8.25	41.75	5,240.15	

^a Numbers and pounds of fish are derived from fish ticket summaries. There were 23,693 fish tickets generated in 1995; each fish ticket represents a "landing". Each gear type had the following number of landings: Purse Seine: 13,922, Beach Seine: 150, and Set Gillnet: 9,621. Average \$/lb. figures are based on inseason estimates and DO NOT reflect additional payments which may be made for dock deliveries and postseason settlements.

Table 17. Estimated salmon harvest and value by gear type in the Kodiak Management Area, 1970-1995.

Year	Total Catch ^a	Total Value ^b	Average Exvessel Value		
			Purse Seine	Beach Seine	Set Net
1970	13,949,206	\$21,658,000	\$41,880	\$10,470	\$21,083
1971	6,378,179	4,973,000	13,397	2,919	3,015
1972	3,883,197	3,909,000	9,233	647	1,451
1973	1,001,343	2,094,000	5,075	251	852
1974	3,329,427	4,808,000	15,993	4,406	4,828
1975	3,187,410	3,831,000	13,300	5,600	3,849
1976	12,484,451	16,976,000	43,017	11,035	14,481
1977	7,976,691	18,873,142	46,942	12,107	19,117
1978	16,942,215	30,357,179	70,685	14,772	22,711
1979	12,420,260	22,958,317	51,263	20,348	23,363
1980	19,157,249	27,410,296	62,363	23,385	21,215
1981	13,094,099	32,647,230	79,877	26,946	34,785
1982	10,891,952	18,803,822	39,309	11,038	28,889
1983	7,081,976	13,405,578	30,239	5,918	16,689
1984	13,678,005	25,948,012	71,550	12,341	26,552
1985	9,897,903	20,428,111	57,782	8,405	27,517
1986	16,304,165	38,723,877	92,696	11,885	68,700
1987	7,746,980	31,107,864	79,814	15,664	41,163
1988	19,009,757	103,816,936	252,403	47,017	119,013
1989 ^c	26,455,944	61,046,024	146,502	28,288	72,955
1990	12,122,389	52,611,853	113,326	10,424	66,715
1991	23,723,008	37,018,734	77,509	5,257	53,817
1992	8,462,464	40,495,222	98,086	5,436	41,984
1993	39,341,025	38,546,098	94,901	8,230	43,886
1994 ^d	12,098,324	27,523,835	67,986	9,489	47,528
1995 ^d	49,166,896	50,505,535	124,685	12,864	66,479
Average 1970-1995 ^e :					
	13,733,143	\$27,577,216	\$66,132	\$11,874	\$32,787
Average 1970-1979:					
	8,155,238	\$13,043,764	\$31,079	\$8,256	\$11,475
Average 1980-1988 ^e :					
	12,984,676	\$34,699,081	\$85,115	\$18,067	\$42,725
Average 1990-1995:					
	24,152,351	\$41,116,841	\$96,082	\$8,617	\$53,402
Average 1985-1995 ^e :					
	19,787,291	\$44,077,784	\$105,919	\$13,467	\$57,680

^a Includes total commercial harvest, test fisheries, and Kitoi Hatchery cost recovery fishery harvests. These figures are in number of fish.

^b 1970-1976, 1994, and 1995 values are exvessel values based upon inseason prices. They may not include additional value associated with dock deliveries or postseason settlements. 1977-1988 and 1990-1993 values are from Commercial Fisheries Entry Commission reports.

^c Actual harvest was limited in 1989 due to fishery closures caused by the presence of oil from the Exxon Valdez spill. Harvest figures for 1989 include actual and projected harvests on wild stocks, and actual harvest of hatchery stocks from a supplemental cost recovery fishery. The 1989 total value is estimated by multiplying price information from the limited actual wild harvest (from CFEC records) by the projected total harvest had there been no oil spill. The 1989 exvessel value by gear type is estimated by using the 1988 gear levels and proportional harvest by gear type, as if a normal fishery had occurred on a normal distribution of fish.

^d 1994 and 1995 data are preliminary, from ADF&G fish ticket summaries.

^e 1989 data are not included in averages.

Table 18. Summary of fishing time, zone closures, effort, and harvest by species, for management units affected by the North Shelikof Sockeye Salmon Management Plan for the Kodiak Management Area, 1990 - 1995.

North Shelikof Units (15,000 Sockeye Harvest Cap) ^{a/}											
YEAR	Total Number of Days Open to Fishing / Number of Days Seaward Zone Closed		Date and Time of Zone Closure	Sockeye Salmon Harvest at Time of Zone Closure	Number of Vessels	Total Harvest By Species July 6 through July 25					Upper Cook Inlet Sockeye Harvest
	MAINLAND	N. AFOGNAK				CHINOOK	SOCKEYE	COHO	PINK	CHUM	
1990	7.1 / 2.4	9.1 / 4.4	7/15 9 PM	36,800	69	140	57,700	3,900	18,600	19,400	3.6 MILLION
1991	7.1 / 0	13.1 / 0	No Zone Closure	N/A	42	2,500	18,800	2,700	44,800	3,800	2.2 MILLION
1992	7.1 / 5.1	9.1 / 7.1	7/8 1 PM	13,500	77	900	128,400	3,100	24,300	12,000	8.9 MILLION
1993	7.1 / 4.7	13.8 / 8.9	7/10 5 PM	15,220	89	1,200	78,400	2,000	75,600	4,200	4.7 MILLION
1994	7.1 / 2.8	9.1 / 4.8	7/14 11 AM	22,830	58	165	38,800	2,400	52,000	10,500	3.5 MILLION
1995	7.1 / 3.3	13.3 / 8.5	7/13 10 PM	15,770	77	150	37,400	1,260	178,800	16,590	2.9 MILLION

a/ In 1988, from 7/6 - 7/25, with 6.9 days open to fishing 392,000 sockeye were harvested in the "North Shelikof Units". In Upper Cook Inlet 6,800,000 sockeye were harvested.

Southwest Afognak Section (50,000 Sockeye Harvest Cap) ^{b/}											
YEAR	Total Number of Days Open to Fishing / Number of Days Seaward Zone Closed		Date and Time of Zone Closure	Sockeye Salmon Harvest at Time of Zone Closure	Number of Vessels	Total Harvest By Species July 6 through July 25					Upper Cook Inlet Sockeye Harvest
	MAINLAND	N. AFOGNAK				CHINOOK	SOCKEYE	COHO	PINK	CHUM	
1990	9.1 / 0		No Zone Closure	N/A	64	300	22,900	3,600	53,800	6,000	3.6 MILLION
1991	13.1 / 0		No Zone Closure	N/A	55	300	34,200	3,600	100,700	4,000	2.2 MILLION
1992	9.1 / 4.7		7/14 1 PM	48,200	84	300	50,600	600	30,000	6,800	8.9 MILLION
1993	13.1 / 7.7		7/14 1 PM	45,900	87	860	74,000	7,100	243,000	7,400	4.7 MILLION
1994	9.1 / 0		No Zone Closure	N/A	45	360	13,600	1,000	64,300	3,100	3.5 MILLION
1995	13.3 / 0		No Zone Closure	N/A	63	760	21,360	1,750	490,510	22,220	2.9 MILLION

b/ In 1988, from 7/6 - 7/25, with 11.1 days open to fishing 86,000 sockeye were harvested in the "Southwest Afognak Unit". In Upper Cook Inlet 6,800,000 sockeye were harvested.

Table 19. Exvessel value of the commercial salmon fishery by species in the Kodiak Management Area, 1975 - 1995.

YEAR	Chinook	Sockeye	Coho	Pink	Chum
1975	836	388,555	108,071	4,240,025	179,565
1976	6,958	2,636,564	102,515	14,552,488	1,826,022
1977	13,512	3,661,365	159,595	9,959,805	5,076,047
1978	43,180	7,713,210	378,732	19,254,365	2,963,584
1979	33,685	4,836,232	1,068,034	15,688,443	1,463,696
1980	9,475	2,814,265	720,496	19,691,404	4,173,758
1981	30,350	8,403,460	796,355	17,575,866	5,888,365
1982	15,625	6,432,027	2,389,854	6,120,582	3,858,698
1983	40,145	6,146,376	695,042	3,833,780	2,688,079
1984	97,661	11,411,174	1,811,065	10,739,311	1,886,142
1985	136,074	10,760,252	1,986,232	6,221,026	1,327,343
1986	73,725	26,342,926	966,832	8,631,348	2,741,828
1987	69,552	19,604,648	1,357,790	7,788,380	2,275,289
1988	428,838	41,860,692	3,283,725	43,803,312	14,372,765
1989 ^a					
1990	236,447	42,405,625	1,856,287	6,254,936	2,234,162
1991	195,336	26,862,557	1,272,601	6,545,230	2,142,782
1992	354,358	34,789,135	1,290,187	2,189,462	1,872,081
1993	385,224	19,444,223	940,302	16,844,916	931,434
1994	218,592	18,595,374	1,809,444	5,618,391	1,282,034
1995	180,421	24,057,270	865,350	22,549,617	2,852,877

^a There were only very limited harvests in 1989, due to the M/V Exxon Valdez oil spill. therefore 1989 is not included for comparison.

Table 20. Tender pickup reporting form for the Kodiak Management Area, 1995.

KODIAK DAILY SALMON CATCH

TENDER PICK-UP AREA	TYSON	WAF	APS	WCP	CIP	KKC	KSP	ISAI	TOTAL
1) Northeast Kodiak Dist.									
2) Ugak Bay Sections									
3) Sitkalidak Section									
4) Two Headed/ 7-Rivers Sect.									
5) Humpy-Deadman Section									
6) Cape Alitak Section									
7) Moser/Olga Bay Section									
8) Ayakulik Sections									
9) Halibut Bay Section									
10) Sturgeon Section									
11) Karluk Sections									
12) Rocky Pt. to Cape Kuliuk									
13) Little River to C. Uganik									
14) Terror/Viekoda Bay Kupreanof									
15) Southwest Afognak Sect.									
16) Northwest Afognak Sect.									
17) Shuyak Island Section									
18) N.E. Afognak Perenosa Sect's									
19) Pillar Cape to Dolphin Point									
20) Kizhuyak/ Spruce Island									
21) Igvak Section									
22) Alinchak Katmai Sect's									
23) Dakavak Section									
24) Kukak Sections									
25) Hallo Bay/Big Rivers Sect's									
TOTAL									

Table 21. Exerpt from the salmon harvest strategy detailing pink salmon fishing period for the Kodiak Management Area, 1995.

Pink Salmon

Preemergent pink salmon fry sampling of the Kodiak Management Area index streams conducted during March and April of 1994 indicated just fair over winter survival of the eggs and sac fry. These fry were from an excellent brood year escapement in 1993 with the indexed escapement estimate at 4.3 million pink salmon. Sampling resulted in an unweighted live fry index of 190.64 live fry per square meter of spawning area. This live fry index is the seventh highest odd year index on record. Early spring conditions in 1994 were fair for outmigration and rearing in the nearshore ocean environment. Ambient air temperatures, as measured in Kodiak, were below average in March, but well above average from April through June. Kitoi Bay hatchery manager Tim Joyce noted that compared to recent years the 1994 spring plankton bloom seemed very good, and should have had a positive affect of marine survival.

Although the live fry index was only the seventh highest on record, the number of pink salmon fry observed by salmon fishermen throughout the summer of 1994 in bays on Kodiak Island was higher than usual. This may have been a result of excellent early marine survival combined with an unusually high percentage of live fry outmigrating early from the streams. The actual 1995 combined harvest of hatchery and wild production is likely to fall between the forecasted midpoint of 18.2 million and the upper end of 26.3 million pink salmon.

In addition to the three management criteria identified in the introduction of this document, the harvest strategy for pink salmon utilizes: 1) a fixed July 6 opening date, 2) a pink salmon forecasting program to set the length of the initial fishing periods, and 3) coordination of multiple fisheries whenever possible to allow for dispersion of the purse seine fleet.

The pattern of fishing periods for management units where pink salmon are the targeted species may vary in consideration of the forecasted pink salmon run. Fishing periods are expected to be 3½ days per week from July 6 through approximately August 25. During the peak harvest period of late-July to mid-August, fishing periods may be extended up to seven days per week.

Listed below is a schedule of fishing periods which may be used for planning purposes by both ADF&G and industry.

First Period: 3½ days (81 hours) - 12:00 Noon July 6 through 9:00 P.M. July 9. This period provides important harvest data to assess early run strength of Area K pink salmon and certain chum salmon stocks. No extensions in fishing time based on pink or chum salmon harvests would occur during this period. The increased closed water area will remain in effect in the East Arm of Uganik Bay.

Second Period: 3½ days (81 hours) - 12:00 Noon July 12 through 9:00 P.M. July 15. This second period will assess run strength for both pink and chum salmon and provide harvest data. No extensions in fishing time based on pink or chum salmon harvests would occur during this period.

Third Period: 3½ days (81 hours) - 12:00 Noon July 19 through 9:00 P.M. July 22. The third period will occur following a 3½ day closure. This will allow an influx of pink and chum salmon into terminal areas to enhance the build-up of potential escapement. At this time a combination of harvest and early escapement or build-up information will provide an indication of the actual run strength for major pink salmon stocks. Extensions in fishing time in the Duck Bay and Izhut Bay Sections may occur.

-Continued-

Table 21. (page 2 of 2)

Fourth Period: 3½ days (81 hours) - 12:00 Noon July 26 through 9:00 P.M. July 29. This fourth period is critical. Harvest should increase substantially and a fairly realistic assessment of total run strength should be evident by the end of the period. Extensions in fishing time commonly occur to this period during years when the pink and chum salmon runs are strong. The initial pink salmon opening for the Kitoi Bay Section is expected to occur at the beginning of this fishing period.

Fifth Period: 3½ days (81 hours) - 12:00 Noon August 2 through 9:00 P.M. August 5. This fifth period should yield the peak harvest day and period, provided that normal run timing occurs. If preseason expectations appear valid, extensions in fishing time could occur in portions of the management area. The first significant announcement of differential fishing time by management unit may occur as heavy production areas are targeted for extensions, while moderate or lower production areas are not.

Sixth Period: 3½ days (81 hours) - 12:00 Noon August 9 through 9:00 P.M. August 12. This sixth period should be the first postpeak period. Returns to major late production systems should be evident by period's end. There may be increases in closed water sanctuaries to enhance escapement levels. Evaluation's of run strength are used to determine if reductions in fishing time are needed for the remaining periods to ensure adequate escapement. A strategy to achieve full escapement in all systems is developed from this period.

Seventh Period: 3½ days (78 hours) - 12:00 Noon August 16 through 6:00 P.M. August 19. During the seventh period, a blended multi-species management approach is used for those sections where pink salmon were the targeted species for the previous six periods. Emphasis will still be on harvesting excess, good quality pink salmon and achieving escapement goals. However, major concern will be directed toward the run strength of late run sockeye and chum salmon.

Eighth Period: 3½ days (78 hours) - 12:00 Noon August 23 through 6:00 P.M. August 26. The eighth period will primarily be a cleanup period for pink salmon stocks. Escapement requirements should be assured at this point. Excess pink salmon of acceptable quality should be available for harvest in near terminal areas. This period also will require a major emphasis on multi-species management. It is a critical management period for late run sockeye and chum salmon stocks, as well as early run coho salmon.

A change to this schedule of fishing periods should be expected if significant deviations in the actual pink salmon return occurs. Less fishing time should be expected in management units where chum salmon are the targeted management species.

Table 22. Management chronology by management unit for eastside salmon stocks in the Kodiak Management Area, 1995.

DATE		6/1	6/14	6/21	7/6	7/10	8/25	9/6	10/31
MANAGEMENT UNIT									
NORTHWEST KODIAK DISTRICT	Outer Chiniak Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Inner Chiniak Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Buskin River	CLOSED			LOCAL PINK BUSKIN SOCKEYE	LOCAL PINK AND CHUM	LOCAL PINK COHO, CHUM	LOCAL COHO	
	Monashka/Mill Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
EASTSIDE KODIAK DISTRICT	Seven Rivers	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Two Headed	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Sitkalidak	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK CHUM, COHO	LOCAL COHO	
	Outer Ugak Bay	CLOSED	CLOSED	PASAGSHAK SOCKEYE	LOCAL AND MIXED PINK		LOCAL PINK CHUM, COHO	LATE CHUM COHO	
	Inner Ugak Bay	CLOSED	CLOSED	SALTRY SOCKEYE	LOCAL PINK & CHUM SALTRY SOCKEYE	LOCAL PINK AND CHUM	LOCAL PINK COHO	COHO	

Local and mixed sockeye 33 hour fishing period.

Table 23. Pink and chum harvest by day, Kodiak Management Area, 1970-1995.

Date	Average		Cumulative		Percent	
	Pink	Chum	Pink	Chum	Pink	Chum
6/01	0	1	0	1	0	0
6/02	0	3	0	3	0	0
6/03	40	26	40	30	0	0
6/04	0	0	40	30	0	0
6/05	0	0	40	30	0	0
6/06	3	0	44	30	0	0
6/07	29	4	72	34	0	0
6/08	73	29	145	63	0	0
6/09	82	315	227	378	0	0
6/10	144	1,232	371	1,610	0	0
6/11	37	421	407	2,031	0	0
6/12	60	455	467	2,486	0	0
6/13	151	421	618	2,907	0	0
6/14	439	1,204	1,058	4,111	0	0
6/15	1,225	1,946	2,282	6,056	0	1
6/16	922	1,626	3,204	7,683	0	1
6/17	985	1,418	4,190	9,101	0	1
6/18	1,532	1,669	5,722	10,769	0	1
6/19	1,585	1,687	7,306	12,457	0	1
6/20	3,746	2,110	11,053	14,566	0	2
6/21	2,786	1,801	13,839	16,367	0	2
6/22	2,198	2,724	16,036	19,091	0	2
6/23	6,662	2,273	22,698	21,364	0	2
6/24	3,627	2,129	26,325	23,493	0	3
6/25	2,437	2,943	28,762	26,436	0	3
6/26	2,901	3,259	31,663	29,695	0	3
6/27	4,562	3,659	36,225	33,354	0	4
6/28	3,587	2,777	39,812	36,131	0	4
6/29	4,558	2,698	44,371	38,829	0	5
6/30	7,007	3,678	51,377	42,507	0	5
7/01	6,839	3,145	58,216	45,652	1	5
7/02	8,275	3,251	66,491	48,903	1	6
7/03	8,305	2,719	74,796	51,622	1	6
7/04	9,380	2,839	84,176	54,461	1	6
7/05	12,934	3,112	97,110	57,574	1	7
7/06	20,287	6,088	117,397	63,661	1	7
7/07	53,337	13,783	170,734	77,444	2	9
7/08	61,664	14,831	232,398	92,275	2	11
7/09	53,829	10,148	286,227	102,424	3	12
7/10	44,117	7,280	330,344	109,704	3	13
7/11	25,366	5,518	355,710	115,222	3	13
7/12	37,439	7,386	393,149	122,608	4	14
7/13	73,809	11,281	466,958	133,888	4	16
7/14	97,047	14,705	564,005	148,594	5	17
7/15	111,644	15,156	675,650	163,750	6	19
7/16	98,884	13,794	774,534	177,544	7	21
7/17	86,770	8,545	861,304	186,089	8	22
7/18	42,804	5,107	904,108	191,196	8	22
7/19	77,886	8,537	981,994	199,733	9	23
7/20	155,546	14,157	1,137,540	213,890	11	25
7/21	187,401	17,397	1,324,941	231,287	12	27
7/22	230,592	15,443	1,555,532	246,730	14	29

- Continued -

Table 23. (page 2 of 3)

Date	Average		Cumulative		Percent	
	Pink	Chum	Pink	Chum	Pink	Chum
7/23	220,299	12,411	1,775,831	259,141	17	30
7/24	195,369	12,009	1,971,200	271,150	18	32
7/25	170,639	11,330	2,141,839	282,480	20	33
7/26	232,595	15,338	2,374,434	297,818	22	35
7/27	319,355	20,358	2,693,789	318,176	25	37
7/28	360,580	20,910	3,054,369	339,086	28	39
7/29	371,720	18,373	3,426,089	357,460	32	42
7/30	411,025	17,954	3,837,114	375,413	36	44
7/31	329,697	15,393	4,166,811	390,807	39	45
8/01	278,486	12,510	4,445,296	403,317	41	47
8/02	372,524	18,938	4,817,820	422,255	45	49
8/03	423,042	28,947	5,240,862	451,202	49	53
8/04	483,017	27,159	5,723,879	478,361	53	56
8/05	466,197	23,117	6,190,076	501,478	58	58
8/06	431,329	20,305	6,621,405	521,783	62	61
8/07	323,659	12,543	6,945,064	534,327	65	62
8/08	288,062	11,264	7,233,126	545,590	67	64
8/09	317,662	20,257	7,550,788	565,848	70	66
8/10	348,640	28,150	7,899,428	593,998	73	69
8/11	376,523	27,943	8,275,951	621,941	77	72
8/12	328,265	22,082	8,604,216	644,023	80	75
8/13	313,687	17,443	8,917,903	661,466	83	77
8/14	226,406	9,905	9,144,309	671,371	85	78
8/15	216,978	9,429	9,361,287	680,799	87	79
8/16	203,663	23,309	9,564,951	704,108	89	82
8/17	158,877	18,302	9,723,828	722,410	90	84
8/18	154,497	15,757	9,878,324	738,167	92	86
8/19	126,695	10,018	10,005,019	748,185	93	87
8/20	129,851	8,413	10,134,869	756,598	94	88
8/21	96,707	5,019	10,231,576	761,617	95	89
8/22	84,339	5,473	10,315,915	767,090	96	89
8/23	82,938	15,579	10,398,853	782,668	97	91
8/24	74,611	10,342	10,473,464	793,010	97	92
8/25	63,102	10,163	10,536,566	803,173	98	93
8/26	48,351	5,783	10,584,917	808,956	98	94
8/27	41,878	3,750	10,626,796	812,706	99	95
8/28	33,160	5,873	10,659,955	818,579	99	95
8/29	30,065	6,176	10,690,020	824,755	99	96
8/30	22,043	4,979	10,712,063	829,733	100	97
8/31	12,937	3,360	10,725,000	833,094	100	97
9/01	11,739	5,665	10,736,739	838,758	100	98
9/02	8,975	3,203	10,745,714	841,962	100	98
9/03	5,900	4,506	10,751,614	846,468	100	99
9/04	3,715	2,384	10,755,329	848,851	100	99
9/05	1,248	955	10,756,577	849,806	100	99
9/06	872	1,987	10,757,448	851,793	100	99
9/07	625	2,311	10,758,074	854,104	100	99
9/08	480	1,544	10,758,553	855,648	100	100
9/09	280	738	10,758,833	856,387	100	100
9/10	216	574	10,759,049	856,960	100	100
9/11	67	662	10,759,116	857,622	100	100
9/12	27	339	10,759,143	857,961	100	100

- Continued -

Table 23. (page 3 of 3)

Date	Average		Cumulative		Percent	
	Pink	Chum	Pink	Chum	Pink	Chum
9/13	30	303	10,759,173	858,265	100	100
9/14	330	109	10,759,503	858,374	100	100
9/15	181	154	10,759,684	858,528	100	100
9/16	14	86	10,759,698	858,614	100	100
9/17	2	115	10,759,700	858,729	100	100
9/18	0	44	10,759,700	858,773	100	100
9/19	154	27	10,759,854	858,800	100	100
9/20	0	29	10,759,854	858,829	100	100
9/21	4	21	10,759,859	858,850	100	100
9/22	0	84	10,759,859	858,933	100	100
9/23	0	11	10,759,859	858,944	100	100
9/24	207	22	10,760,066	858,966	100	100
9/25	2	34	10,760,067	858,999	100	100
9/26	0	17	10,760,067	859,016	100	100
9/27	0	21	10,760,067	859,037	100	100
9/28	52	10	10,760,119	859,047	100	100
9/29	0	70	10,760,119	859,117	100	100
9/30	17	32	10,760,136	859,149	100	100
TOTAL	10,760,136	859,149				

Table 24. Chinook and coho salmon harvest percentages in the Kodiak Management Area during July 6-25, 1970-1995.

	CHINOOK			COHO		
	7/6-7/25	PERCENTAGE	ALL SEASON	7/6-7/25	PERCENTAGE	ALL SEASON
70	542	49	1,089	14,522	22	66,421
71	384	42	920	467	2	22,844
72	703	54	1,300	3,438	21	16,587
73	652	82	800	991	28	3,573
74	235	43	545	688	5	13,631
75	33	33	101	849	4	23,659
76	443	58	766	3,095	13	23,714
77	113	19	585	2,078	7	27,920
78	1,513	47	3,228	2,934	6	48,795
79	1,137	60	1,907	20,260	14	140,629
80	156	30	529	4,135	3	139,154
81	278	20	1,418	4,148	3	121,544
82	251	21	1,214	3,529	1	344,823
83	2,115	55	3,839	12,243	8	157,612
84	1,583	34	4,657	14,391	6	229,524
85	806	16	4,970	6,479	2	284,166
86	1,221	28	4,381	21,952	13	168,690
87	2,050	44	4,613	11,895	6	192,433
88	9,662	43	22,374	26,714	9	303,298
89	33	31	106	14	1	2,599
90	6,858	36	18,806	40,554	14	293,819
91	9,754	44	22,234	73,036	22	324,860
92	5,927	24	24,299	64,536	23	280,085
93	16,415	39	42,199	108,348	35	313,467
94	5,134	23	22,576	44,657	15	296,305
95	3,759	20	18,704	37,931	12	307,729
AVG.	2,870	34	8,326	20,955	13	165,915

Table 25. Comparison of the sockeye salmon harvest, in number and percentage, for the Kodiak Management Area and the Cape Igvak fishery during July 6-25, 1970-1995.

Year	Total Sockeye Harvest	7/6-25 Sockeye Harvest	Percent of Total	7/6-25 Cape Igvak		7/6-25 Remainder of KMA	
				Sockeye	Percent	Sockeye	Percent
1970	917,045	163,327	18	6,894	1	156,433	17
1971	478,479	100,708	21	25,160	5	75,548	16
1972	222,408	152,320	68	42,230	19	110,090	49
1973	167,341	63,027	38	7,244	4	55,783	33
1974	418,761	119,043	28	57,192	14	61,851	15
1975	136,418	69,234	51	29,544	22	39,690	29
1976	641,484	232,532	36	10,575	2	221,957	35
1977	623,468	333,493	53	138,522	22	194,971	31
1978	1,071,782	293,776	27	91,782	9	201,994	19
1979	630,756	188,317	30	7,625	1	180,692	29
1980	651,394	209,862	32	40	0	209,822	32
1981	1,288,949	241,499	19	68,791	5	172,708	13
1982	1,203,787	263,415	22	10,826	1	252,589	21
1983	1,231,989	550,086	45	271,188	22	278,898	23
1984	1,950,439	504,267	26	20,915	1	483,352	25
1985	1,842,731	232,578	13	2,248	0	230,330	12
1986	3,188,046	830,325	26	94,601	3	735,724	23
1987	1,794,224	527,617	29	95,048	5	432,569	24
1988	2,698,637	1,279,103	47	13,150	0	1,265,953	47
1990	5,248,404	1,271,797	24	134,452	3	1,137,345	22
1991	5,704,152	1,724,594	30	77,385	1	1,647,209	29
1992	4,167,877	2,013,272	48	70,163	2	1,943,109	47
1993	4,377,771	1,393,681	32	189,595	4	1,204,086	28
1994	2,877,484	706,876	25	32,755	1	674,121	23
1995	4,485,321	1,146,437	26	20,514	0	1,125,923	25
<hr/>							
Average							
<u>1970-1995</u>							
	1,920,766	584,447	30	60,738	3	523,710	27
<u>1970-1987</u>							
	1,025,528	281,968	27	54,468	5	227,500	22
<u>1988-1995</u>							
	4,222,807	1,362,251	32	76,859	2	1,285,392	30

Table 26. Commercial harvest of sockeye salmon from the Upper and Lower Cook Inlet Areas (combined) and the Kodiak Area, 1883-1995.

Year	Combined Cook Inlet Sockeye Harvest	Total Kodiak Sockeye Harvest	Year	Combined Cook Inlet Sockeye Harvest	Total Kodiak Sockeye Harvest	Year	Combined Cook Inlet Sockeye Harvest	Total Kodiak Sockeye Harvest
1880								
1881			1931	805,526	1,183,074	1981	1,549,490	1,288,980
1882		58,800	1932	1,131,958	1,058,446	1982	3,391,184	1,204,793
1883		188,706	1933	1,336,135	1,428,373	1983	5,237,378	1,231,989
1884		282,184	1934	1,815,267	1,828,953	1984	2,374,810	1,950,439
1885		468,580	1935	1,355,787	1,613,519	1985	4,338,954	1,843,185
1886		646,100	1936	2,390,281	2,657,195	1986	5,022,843	3,188,269
1887		1,004,500	1937	1,581,183	1,881,304	1987	9,749,034	1,792,819
1888		2,781,100	1938	2,425,253	1,965,943	1988	7,153,350	2,698,637
1889		3,754,735	1939	2,334,904	1,786,445	1989	5,173,969	2,628,565
1890		3,592,707	1940	1,648,952	1,318,233	1990	3,807,959	5,248,339
1891		3,846,388	1941	1,293,234	1,730,201	1991	2,499,423	5,704,041
1892		3,126,459	1942	1,540,185	1,281,529	1992	9,284,984	4,167,877
1893	170,000	3,244,609	1943	1,468,279	1,990,557	1993	4,988,532	4,377,688
1894	406,840	3,830,336	1944	1,939,932	1,817,875	1994	3,682,810	2,878,023
1895	324,277	2,246,966	1945	1,556,713	2,041,090	1995	3,217,654	4,485,321
1896	309,863	3,328,846	1946	1,474,473	838,863	1996		
1897	354,800	2,785,515	1947	1,473,973	993,394	1997		
1898	551,168	2,033,094	1948	2,035,306	1,260,465	1998		
1899	558,529	1,934,771	1949	2,153,213	892,336	1999		
1900	585,309	3,450,480	1950	2,642,374	920,885	2000		
1901	482,406	4,826,159	1951	2,481,170	467,875			
1902	710,280	3,868,101	1952	1,502,491	603,677	Overall	1,686,763	1,738,200 ^a
1903	564,189	1,826,163	1953	1,489,972	317,150	Average		
1904	489,348	2,875,118	1954	1,234,607	325,157	1985-95	5,356,319	3,638,366 ^a
1905	95,547	2,142,367	1955	1,059,079	164,482	Average		
1906	225,506	3,980,462	1956	1,294,799	271,249			
1907	460,620	4,232,454	1957	667,753	234,253	DECADE AVERAGES		
1908	670,774	2,487,848	1958	495,947	288,014	1880-1890		1,419,712
1909	582,562	1,915,230	1959	634,728	330,087	1891-1900	407,598	2,982,746
1910	840,187	1,954,717	1960	948,040	362,525	1901-10	512,142	3,010,862
1911	1,249,154	2,685,949	1961	1,185,079	407,979	1911-20	1,443,299	2,200,562
1912	1,194,888	2,246,467	1962	1,172,079	784,664	1921-30	1,210,954	1,508,709
1913	1,369,196	1,663,163	1963	958,101	407,040	1931-40	1,682,525	1,672,149
1914	1,472,829	1,255,444	1964	990,709	498,488	1941-50	1,757,768	1,376,720
1915	1,860,684	1,664,426	1965	1,436,352	346,237	1951-60	1,180,859	336,447
1916	1,699,323	3,373,055	1966	1,867,447	631,646	1961-70	1,180,301	565,373
1917	1,659,907	3,645,914	1967	1,409,106	308,756	1971-80	1,281,219	504,366
1918	1,668,394	1,894,466	1968	1,200,146	760,393	1981-90	4,779,897	2,271,939 ^a
1919	943,694	1,619,101	1969	815,040	591,481	1991-95	4,734,681	4,322,482
1920	1,314,916	1,957,636	1970	768,946	917,045			
1921	983,625	2,857,922	1971	659,032	478,479			
1922	860,019	1,097,359	1972	937,621	222,800			
1923	1,099,465	1,090,117	1973	699,234	167,341			
1924	1,056,090	1,407,525	1974	524,588	418,761			
1925	1,510,861	1,693,057	1975	706,878	136,418			
1926	1,999,720	3,015,366	1976	1,722,290	641,484			
1927	1,459,068	1,155,202	1977	2,152,567	623,468			
1928	1,172,959	1,592,003	1978	2,778,071	1,071,782			
1929	1,049,851	712,126	1979	988,832	631,735			
1930	917,882	466,409	1980	1,643,079	651,394			

^a 1989 not included in averages

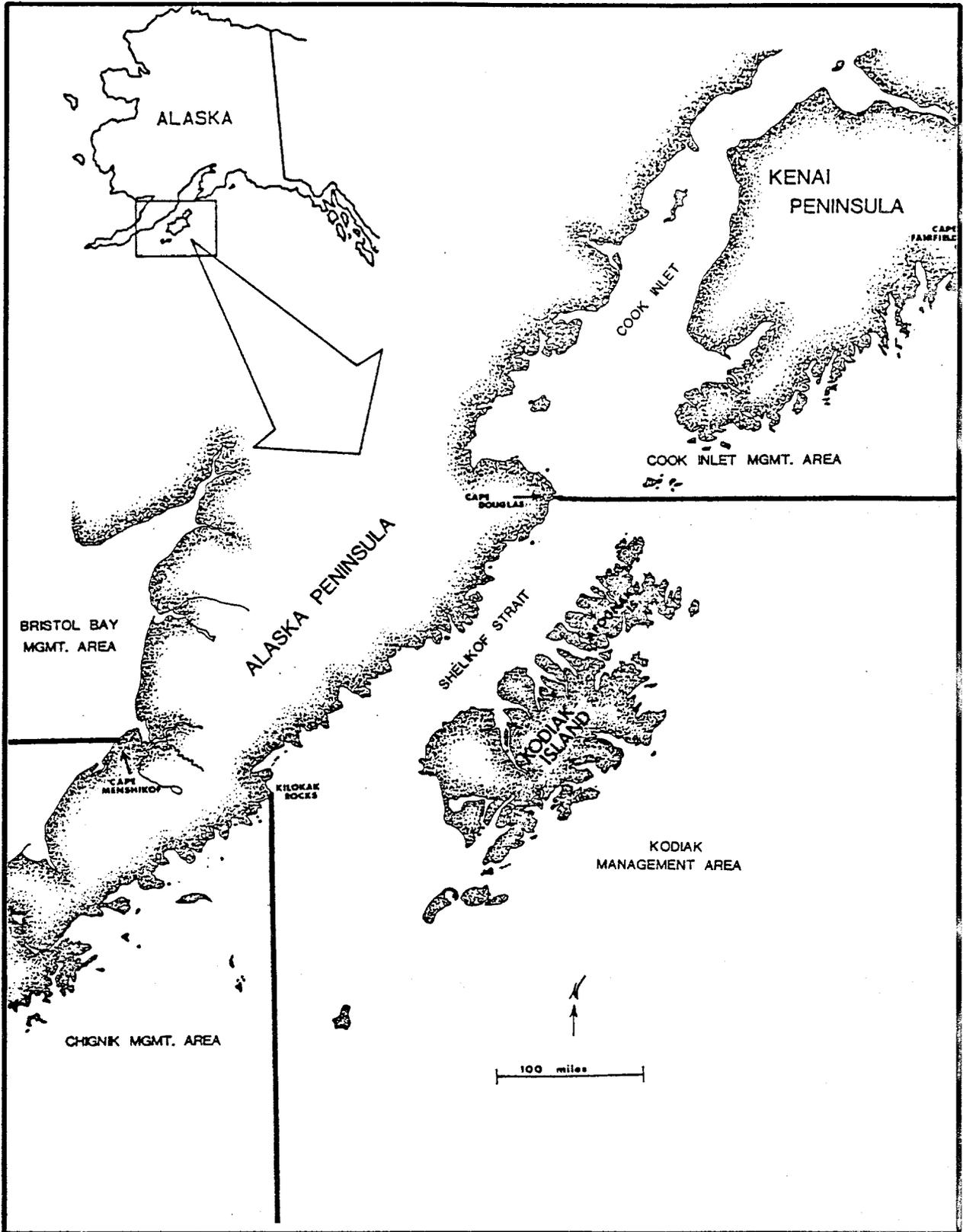


Figure 1. Location of the Kodiak Management Area in relation to the Cook Inlet and Chignik Management Areas.

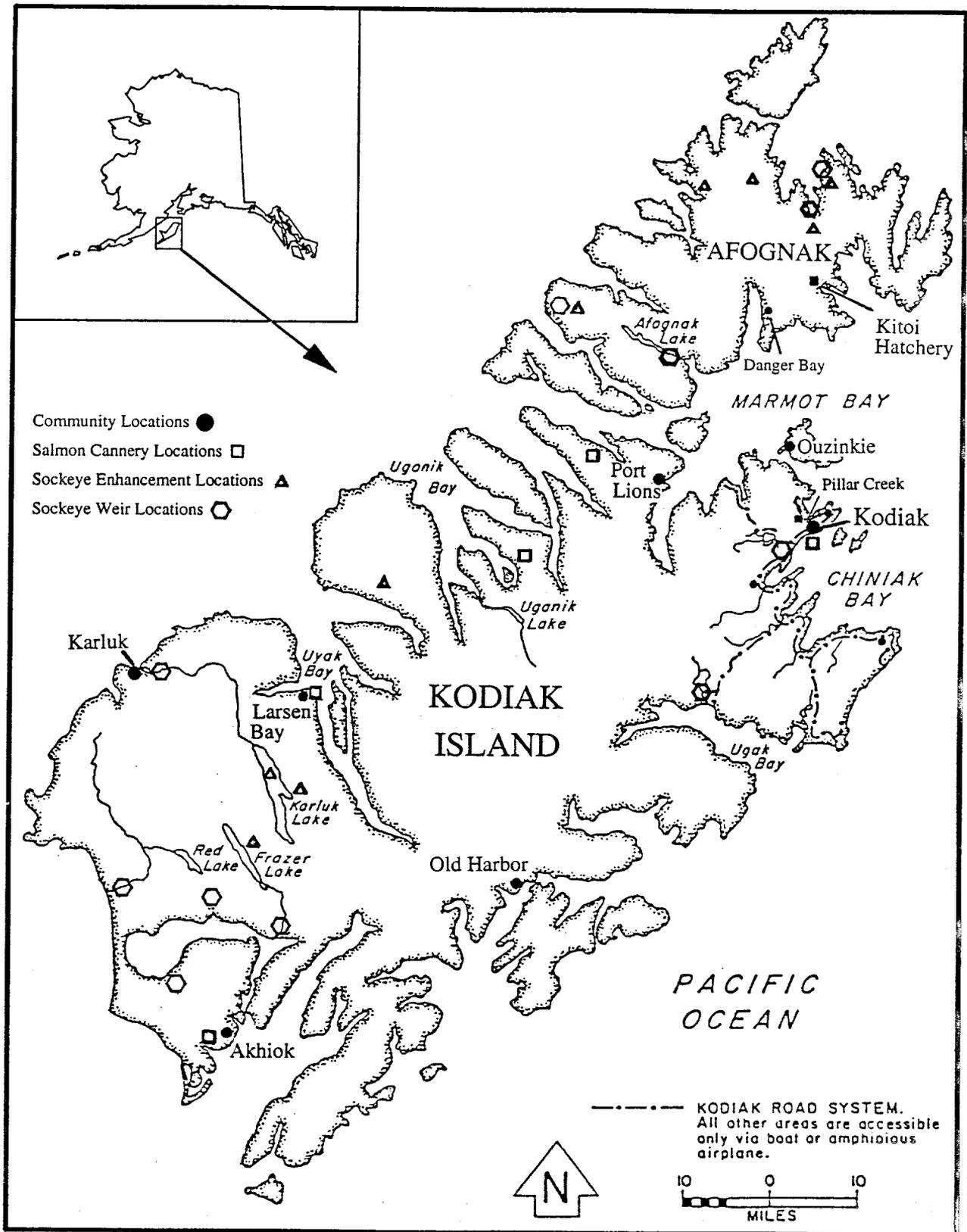


Figure 2. Map of Kodiak Island, showing communities, canneries, and sockeye salmon weir and enhancement locations, 1995.

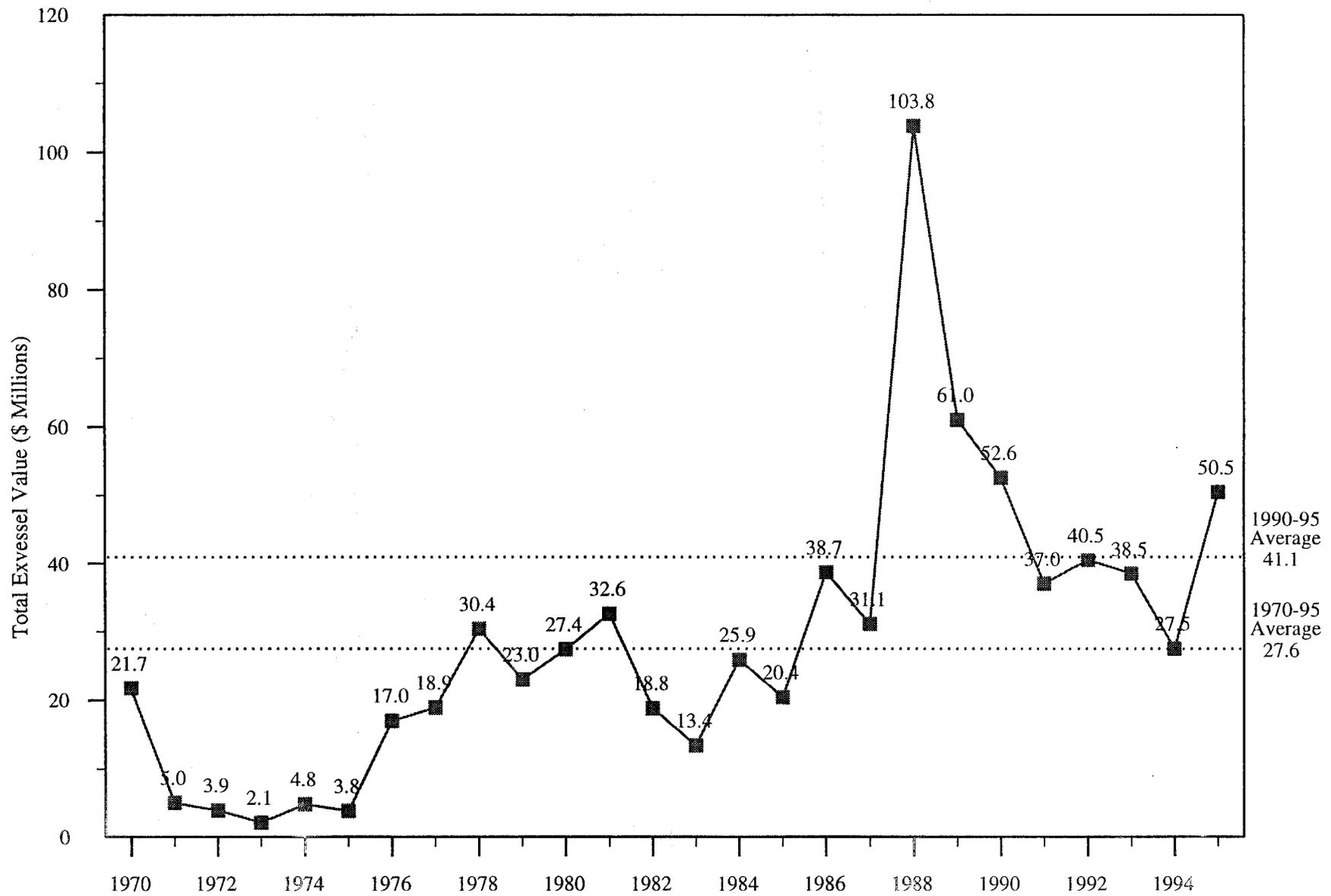
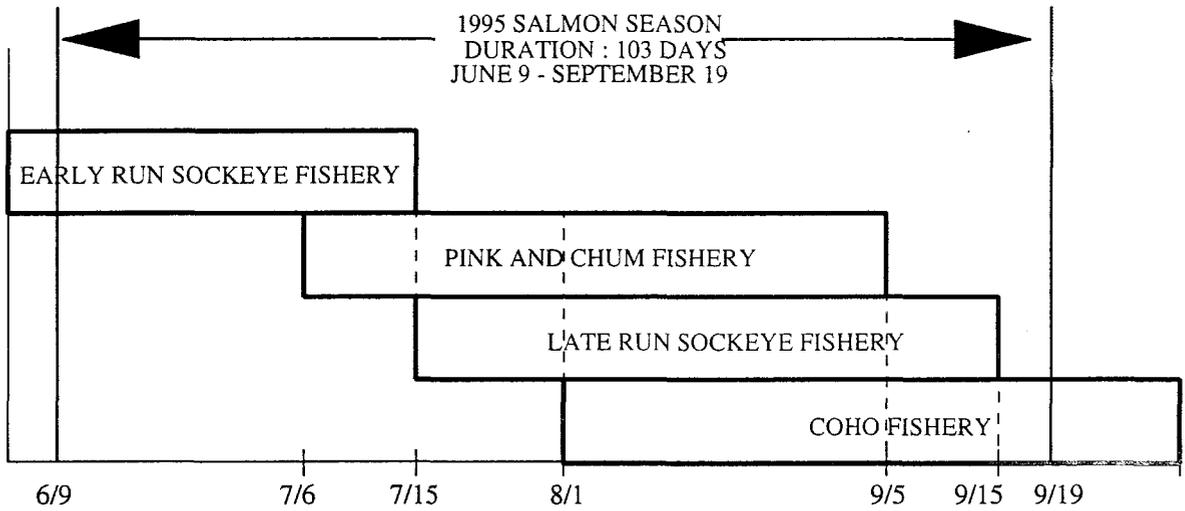


Figure 3. Average exvessel value of the commercial salmon fishery in the Kodiak Management Area, 1970 - 1995.



KODIAK MANAGEMENT AREA
1995 SALMON HARVEST BY SPECIES

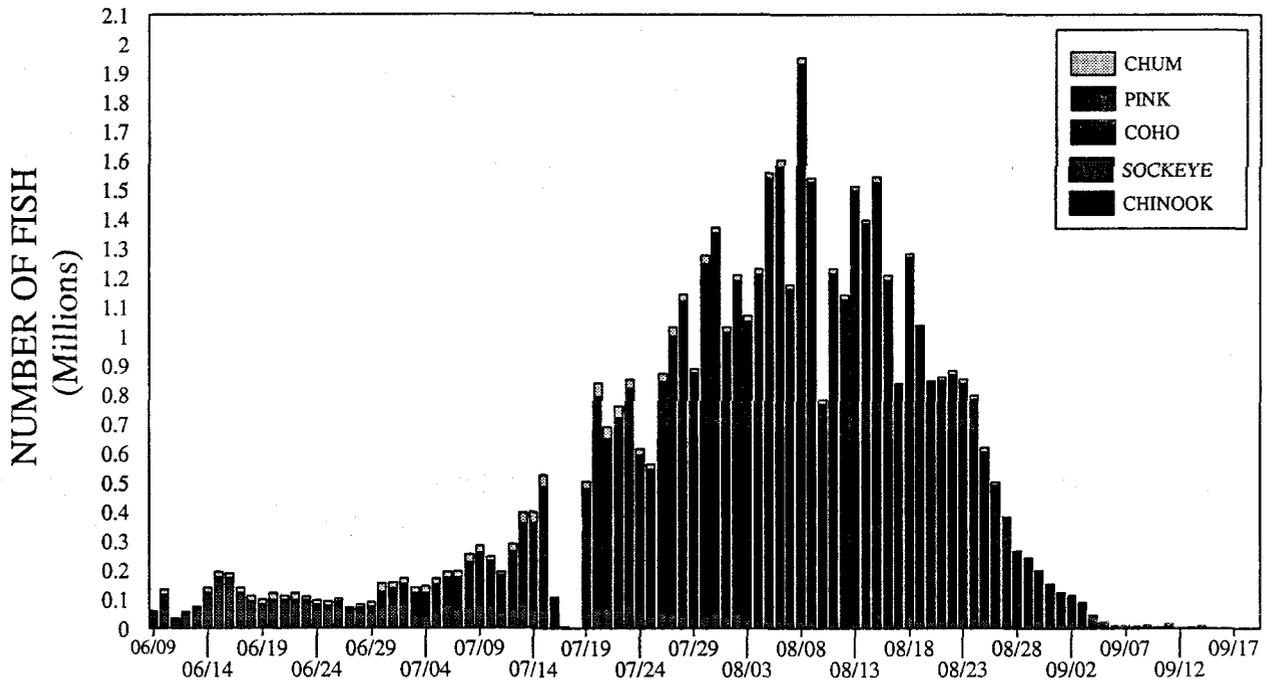


Figure 5. Commercial salmon fisheries management chronology, and salmon harvest by species by day for the Kodiak Management Area, 1995.

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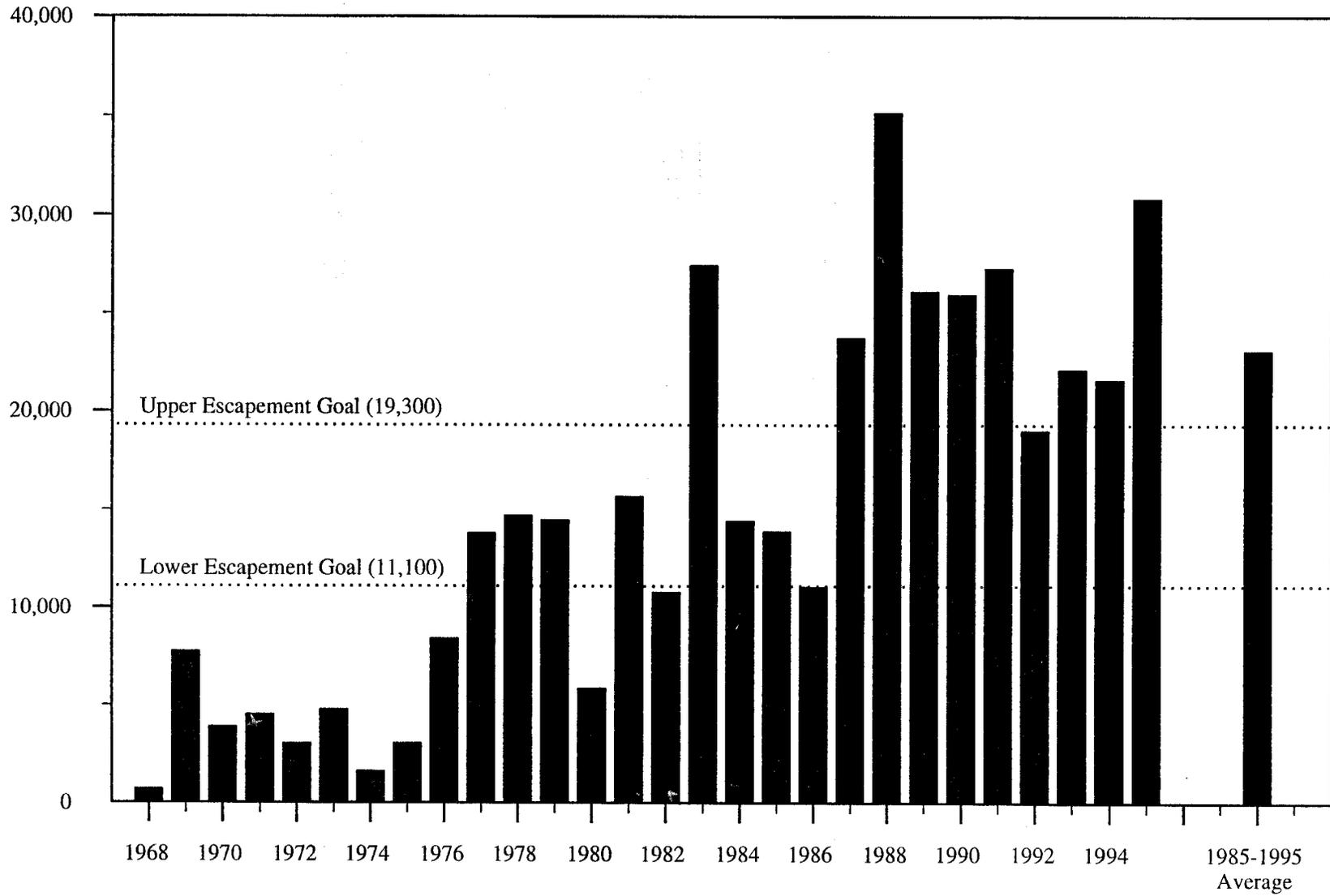


Figure 6. Historical indexed chinook salmon escapements in the Kodiak Management Area, 1968-1995.

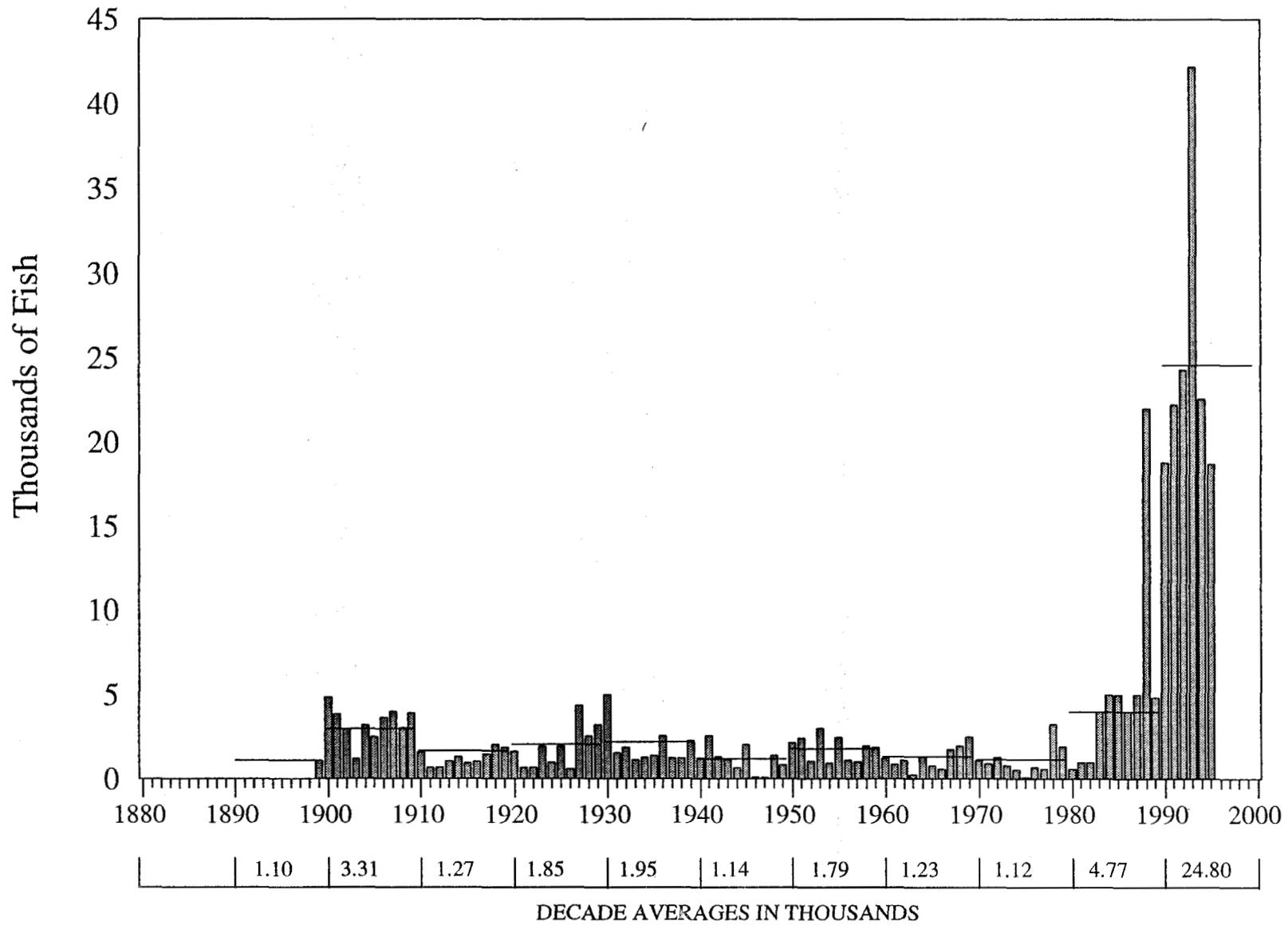


Figure 7. Chinook salmon commercial harvest, all gear combined in the Kodiak Management Area, 1899 - 1995.

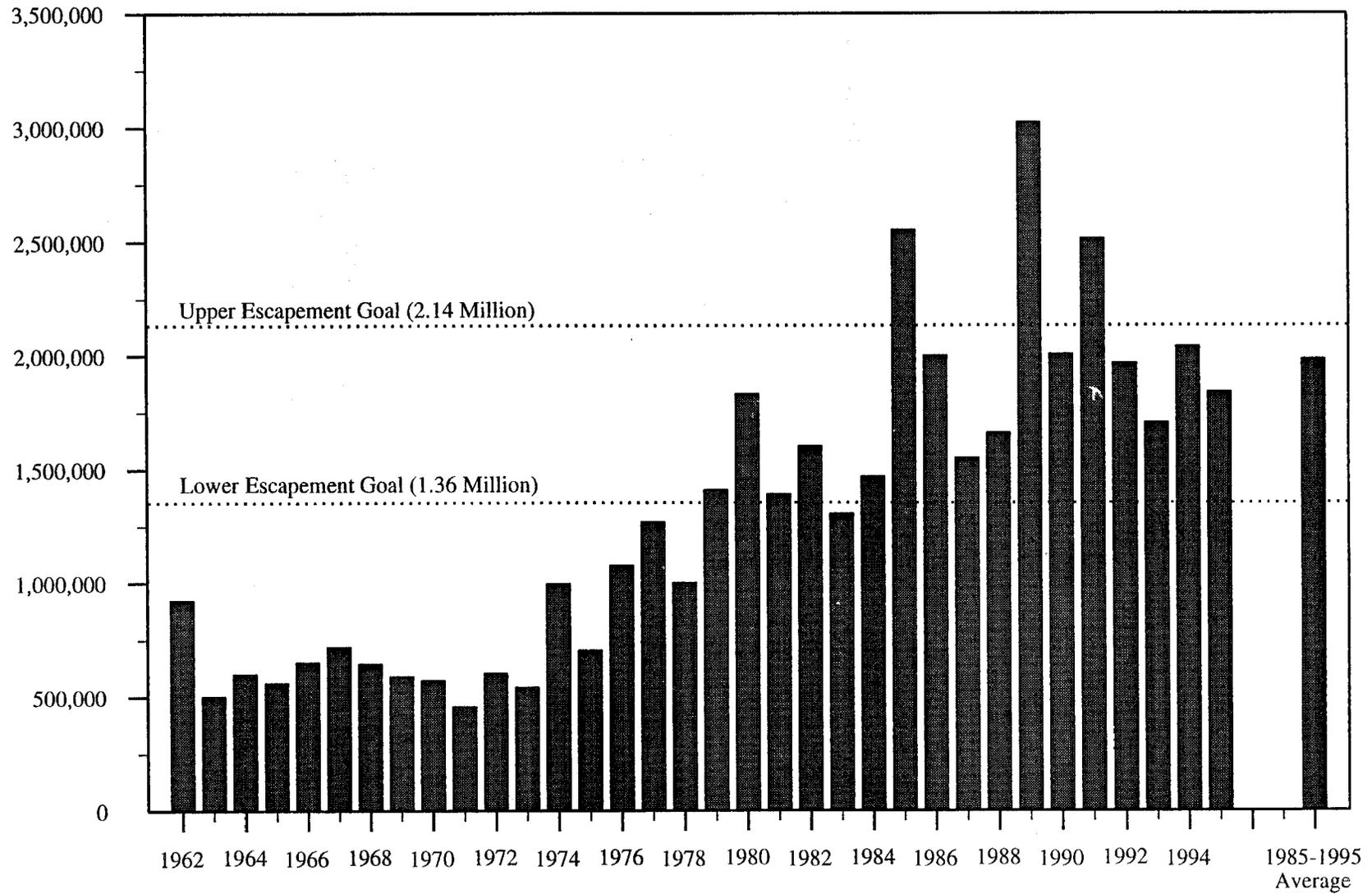


Figure 8. Historical indexed sockeye salmon escapements in the Kodiak Management Area, 1962-1995.

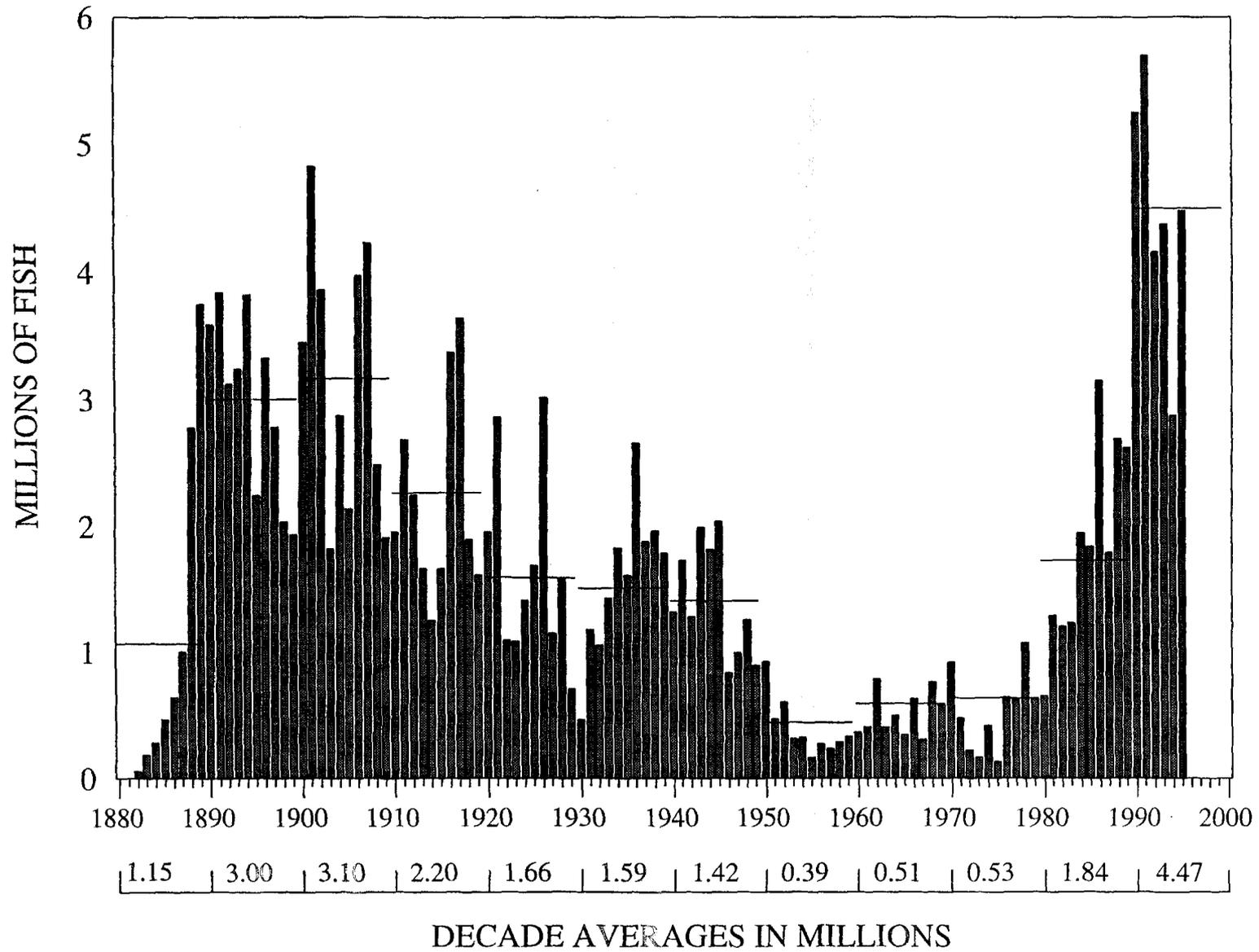


Figure 9. Sockeye salmon commercial harvest, all gear combined, in the Kodiak Management Area, 1882 - 1995.

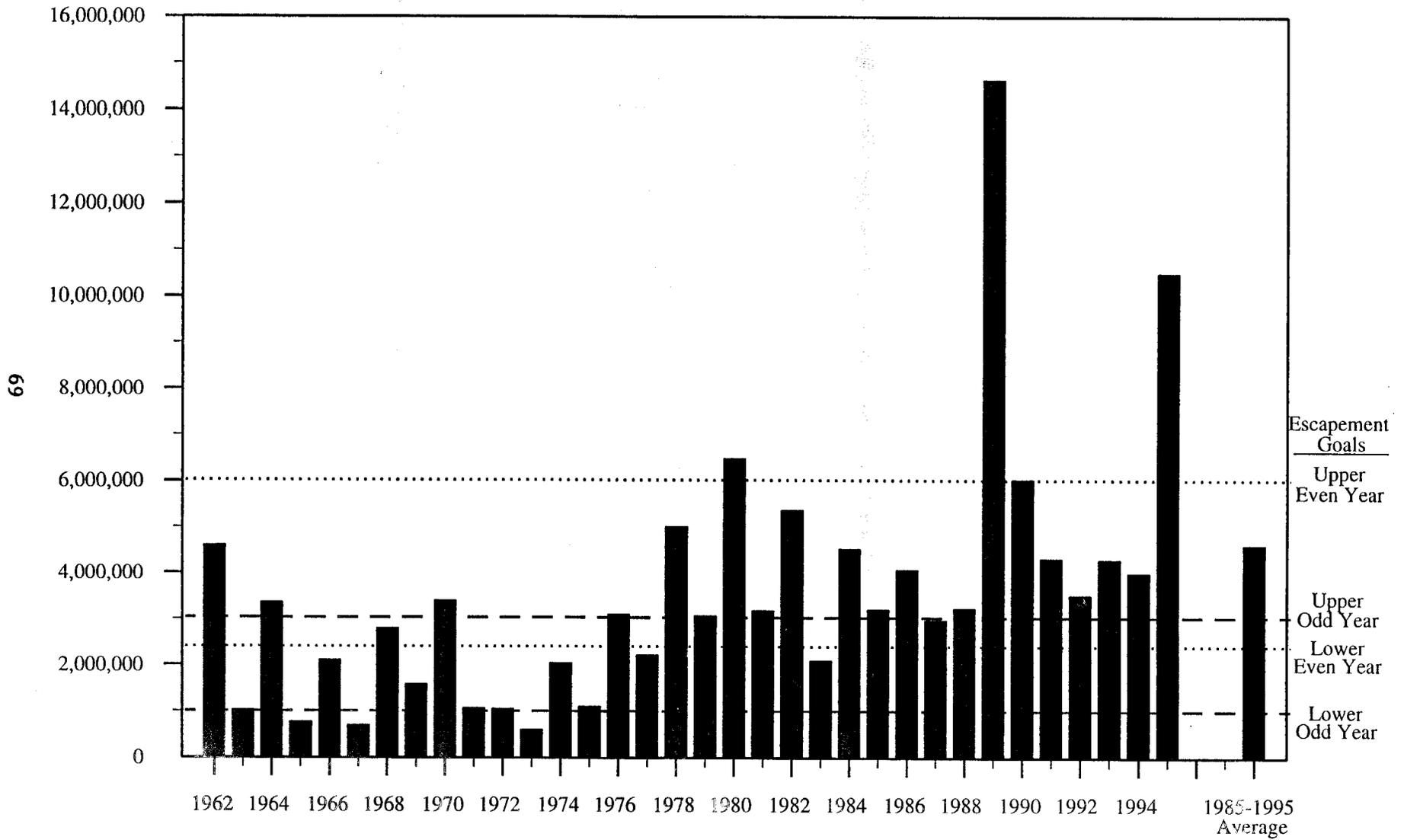


Figure 10. Historical indexed pink salmon escapements in the Kodiak Management Area, 1962-1995.

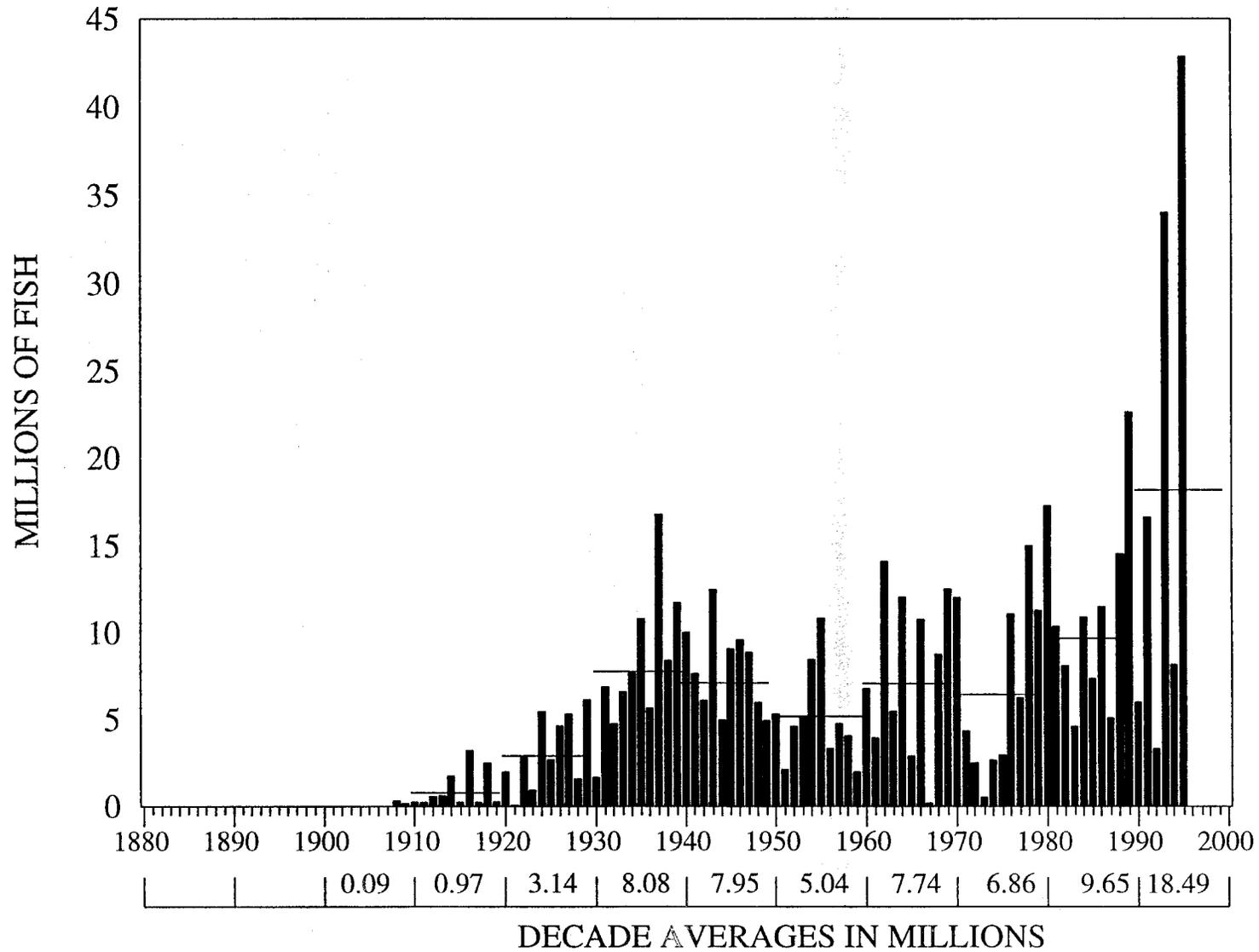


Figure 11. Pink Salmon commercial harvest, all gear combined, in the Kodiak Management Area, 1901 - 1995.

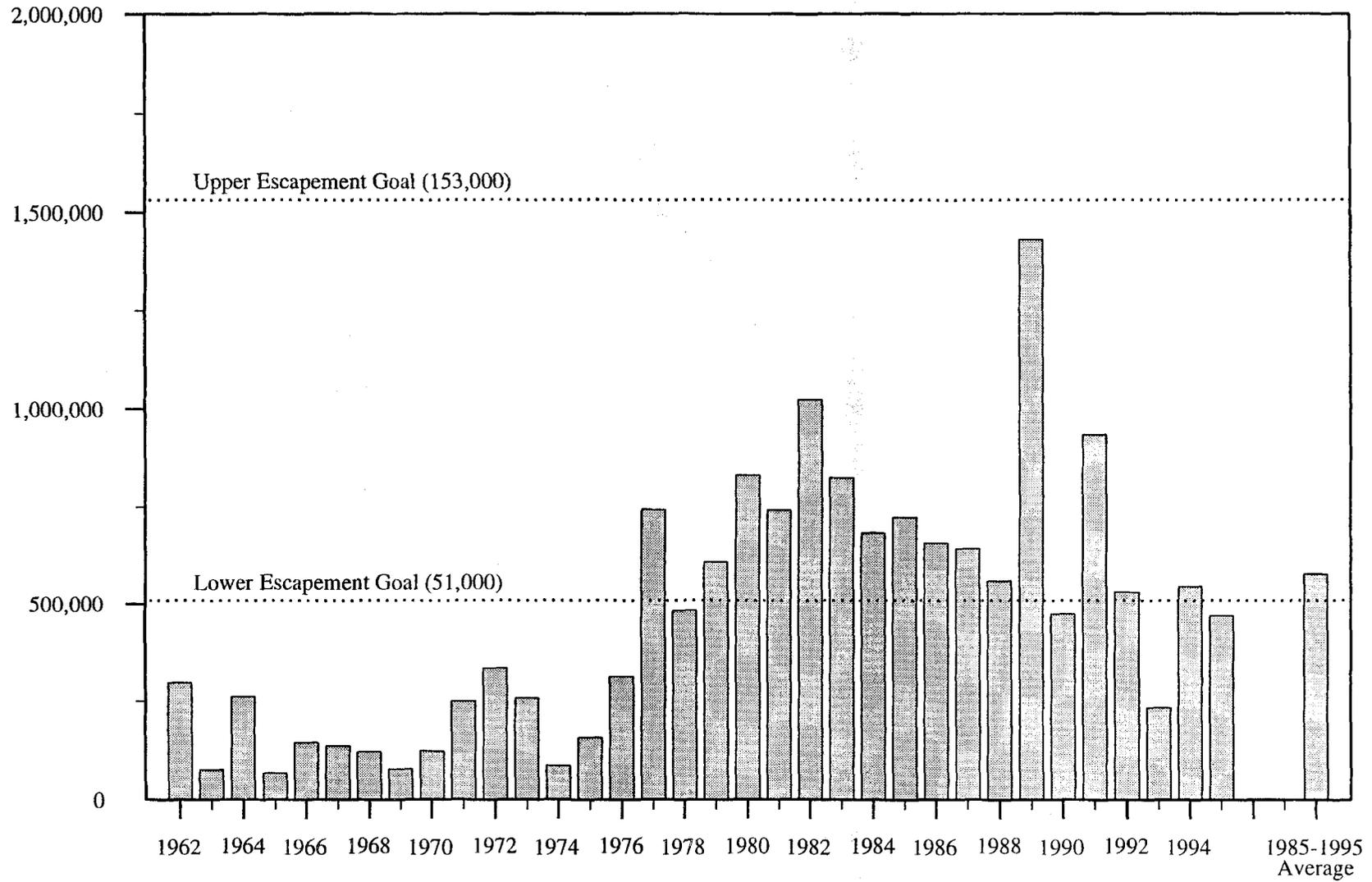


Figure 12. Historical indexed chum salmon escapements in the Kodiak Management Area, 1962-1995.

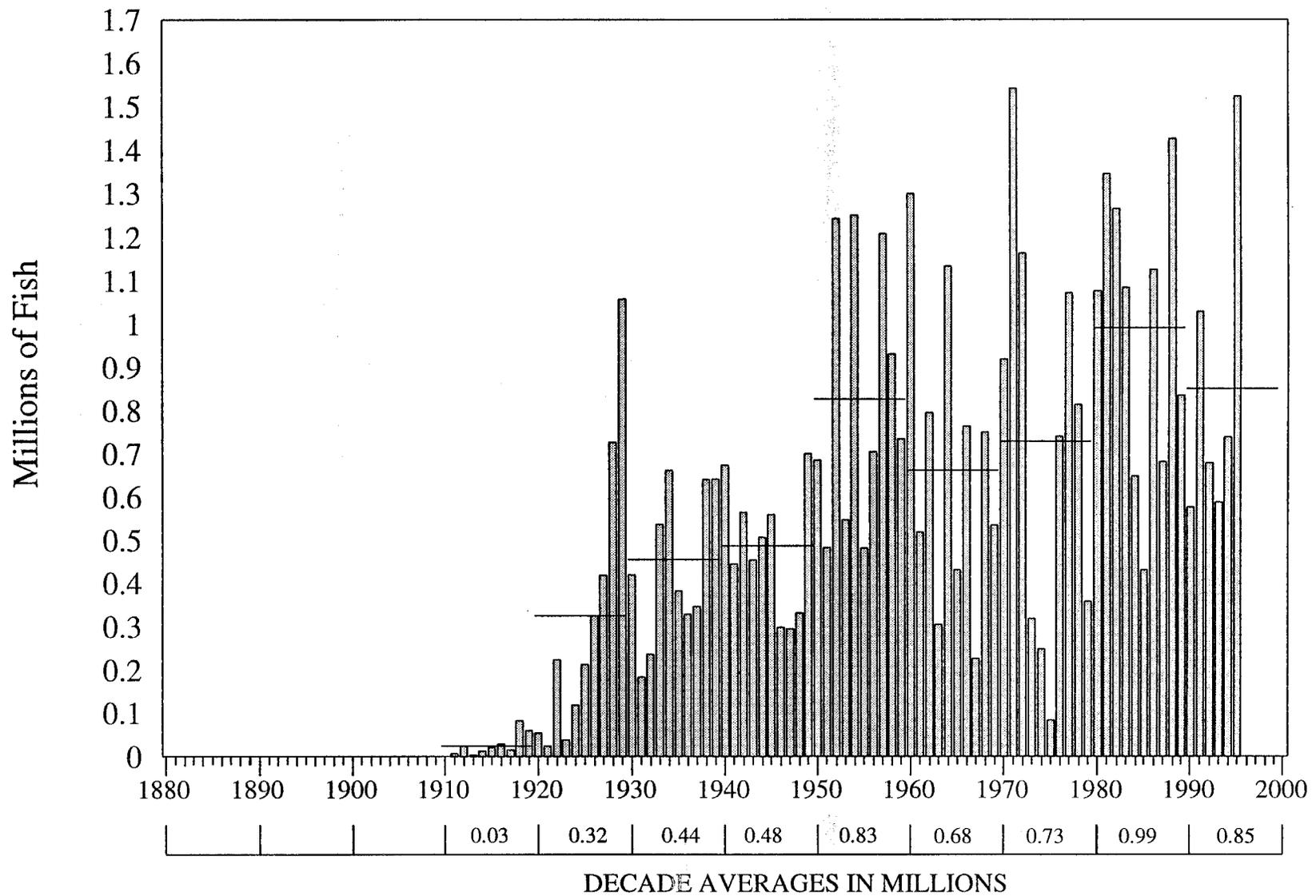


Figure 13. Chum salmon commercial harvest, all gear combined, in the Kodiak Management Area, 1911 - 1995.

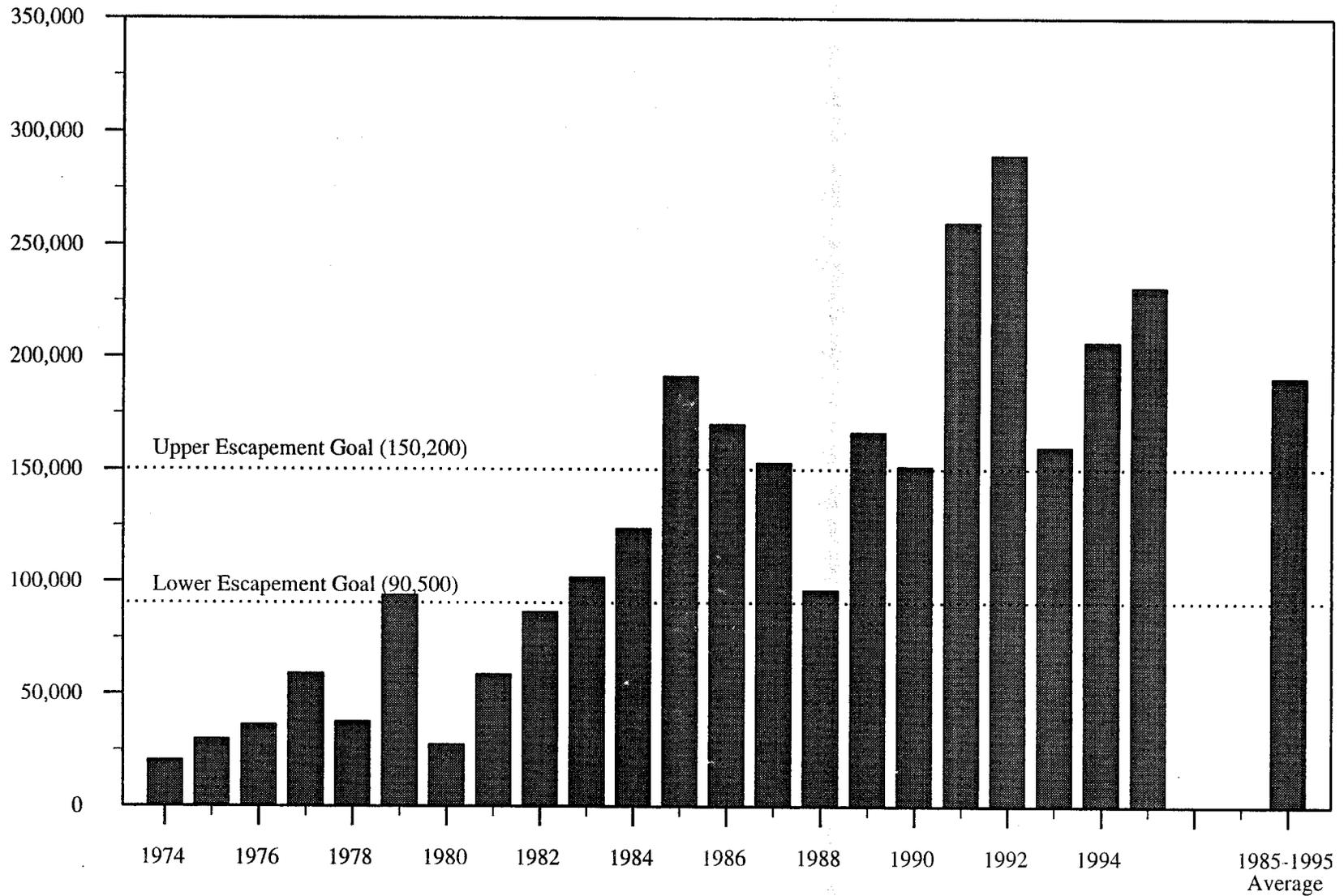


Figure 14. Historical indexed coho salmon escapements in the Kodiak Management Area, 1974-1995.

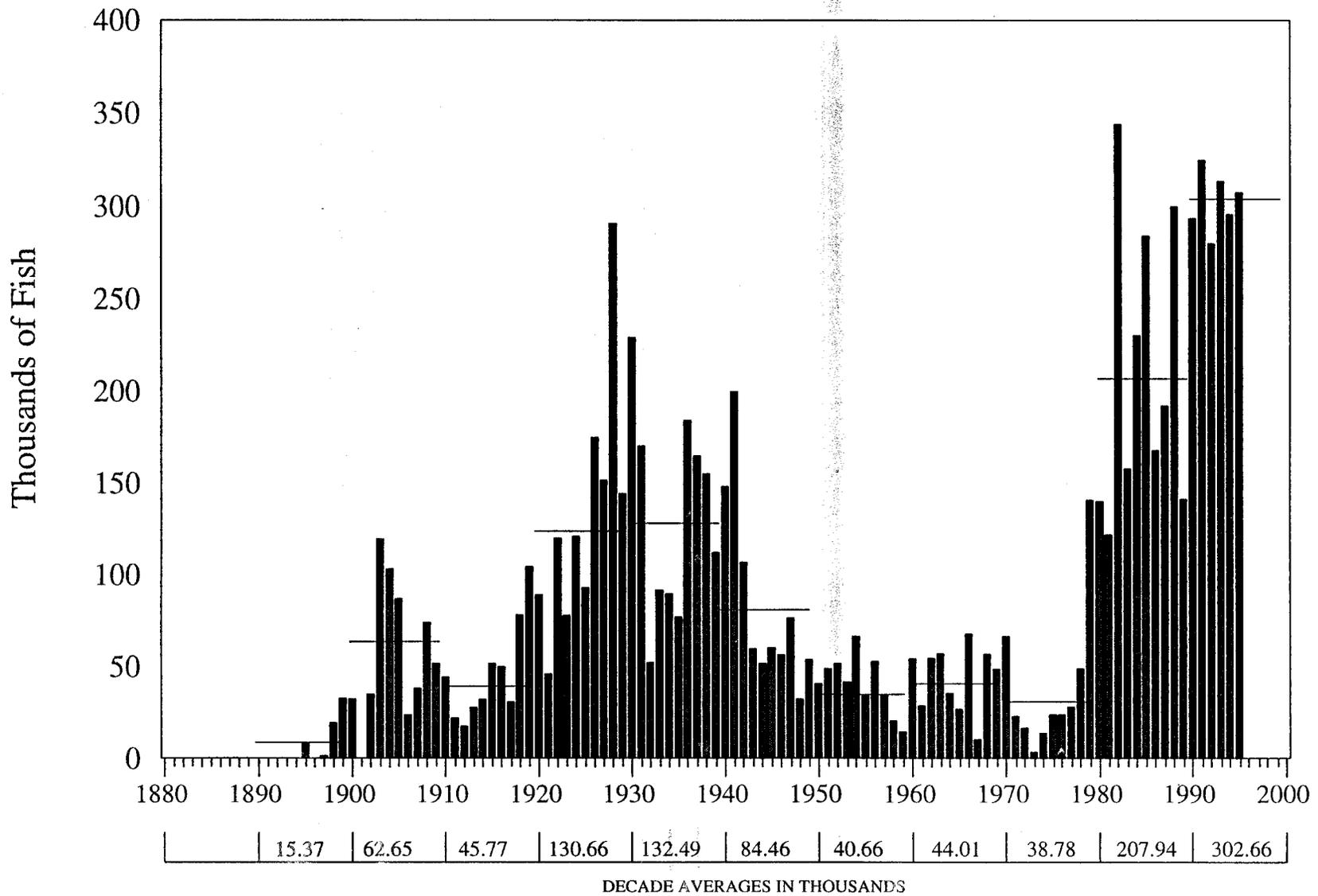
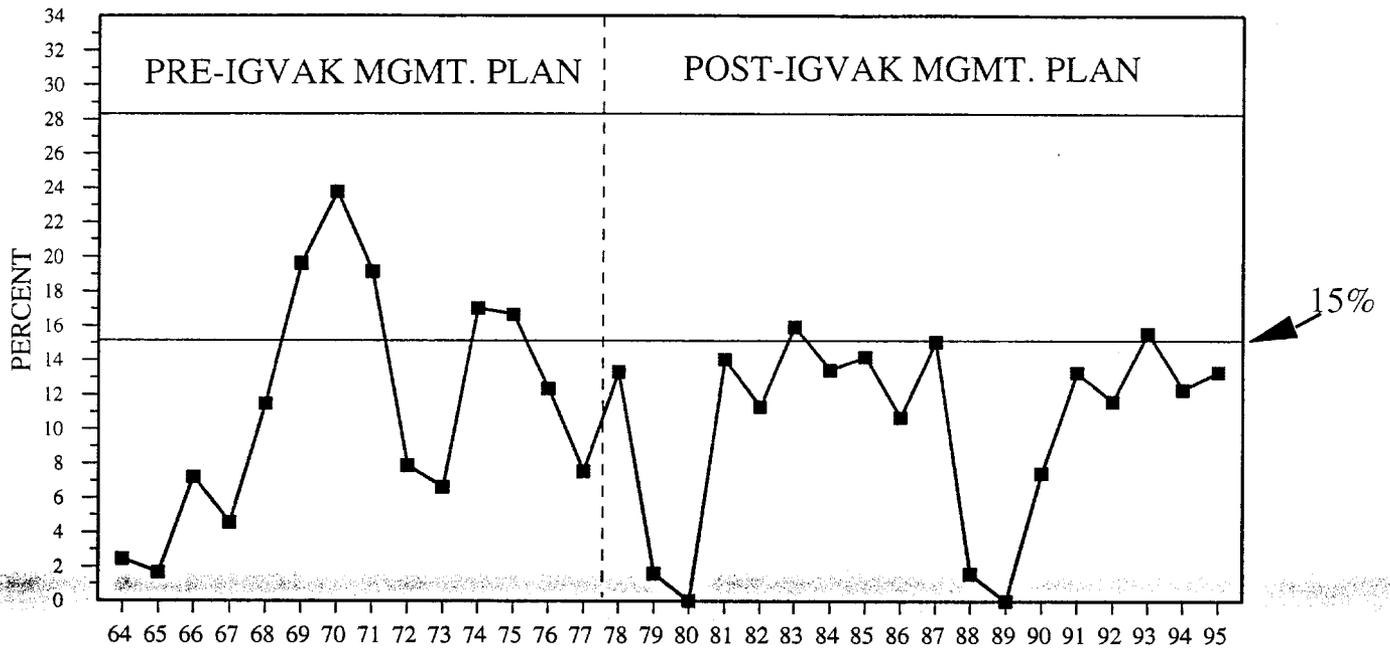


Figure 15. Coho salmon commercial harvest, all gear combined, in the Kodiak Management Area, 1895 - 1995.

PERCENT HARVEST OF CHIGNIK-BOUND SOCKEYE IN CAPE IGVAK FISHERY
 —■— IGVAK % HARVEST OF CHIGNIK BAY SOCKEYE



HARVEST COMPARISONS

—■— CHIGNIK SOCKEYE HARVEST —■— IGVAK SOCKEYE HARVEST (C.B.S.)

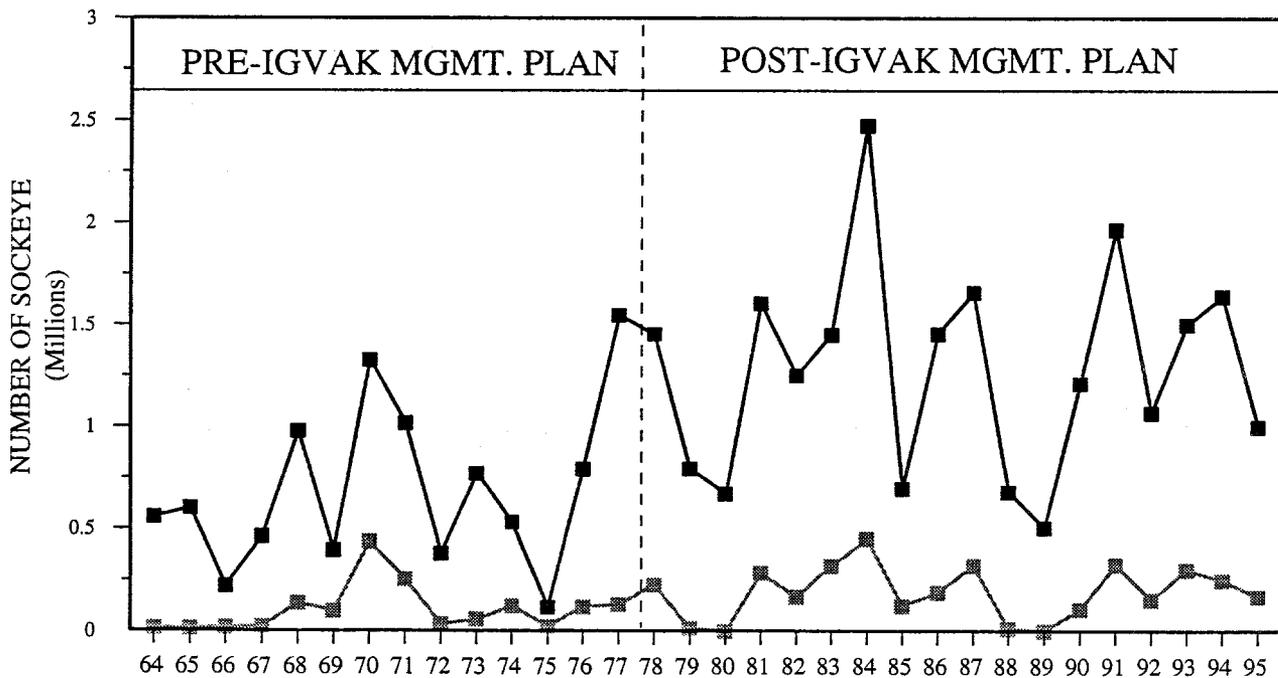


Figure 16. Impact of the Cape Igvak Management Plan of the Kodiak Management Area, 1964 - 1995

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Area Covered by the Pink Salmon Harvest Strategy in the Kodiak Commercial Salmon Fishery

- * Area 1 - North Shelikof
- * Area 2 - Southwest Afognak
- * Area 3 - Northwest Kodiak
- * Area 6 - Eastside Kodiak
- * Area 7 - Northeast Kodiak
- * Area 8 - Eastside Afognak
- * Area 9 - Katmai/Alinchak

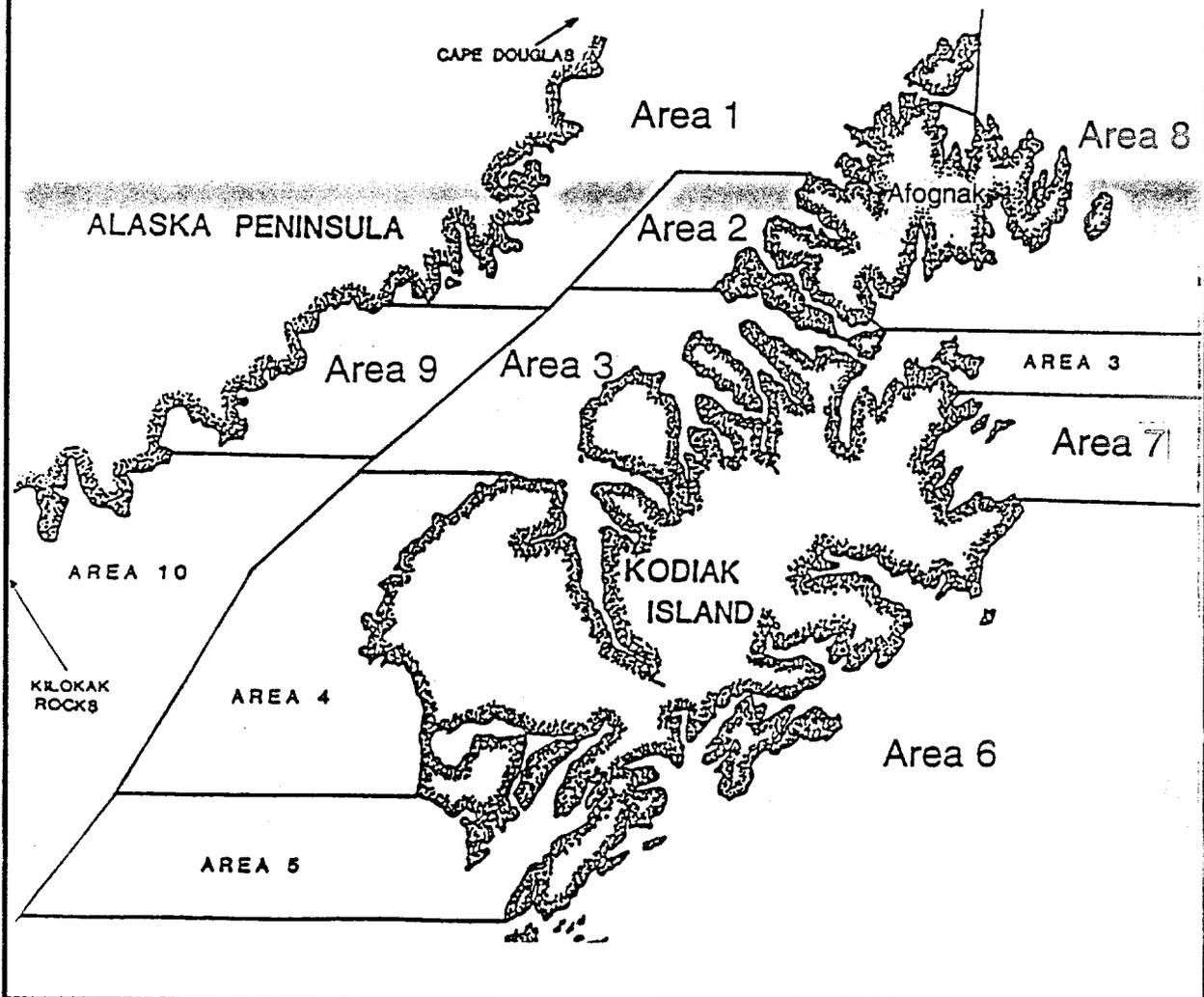


Figure 17. Map of management units which are affected by the Pink Salmon Harvest Strategy of the Kodiak Management Area.

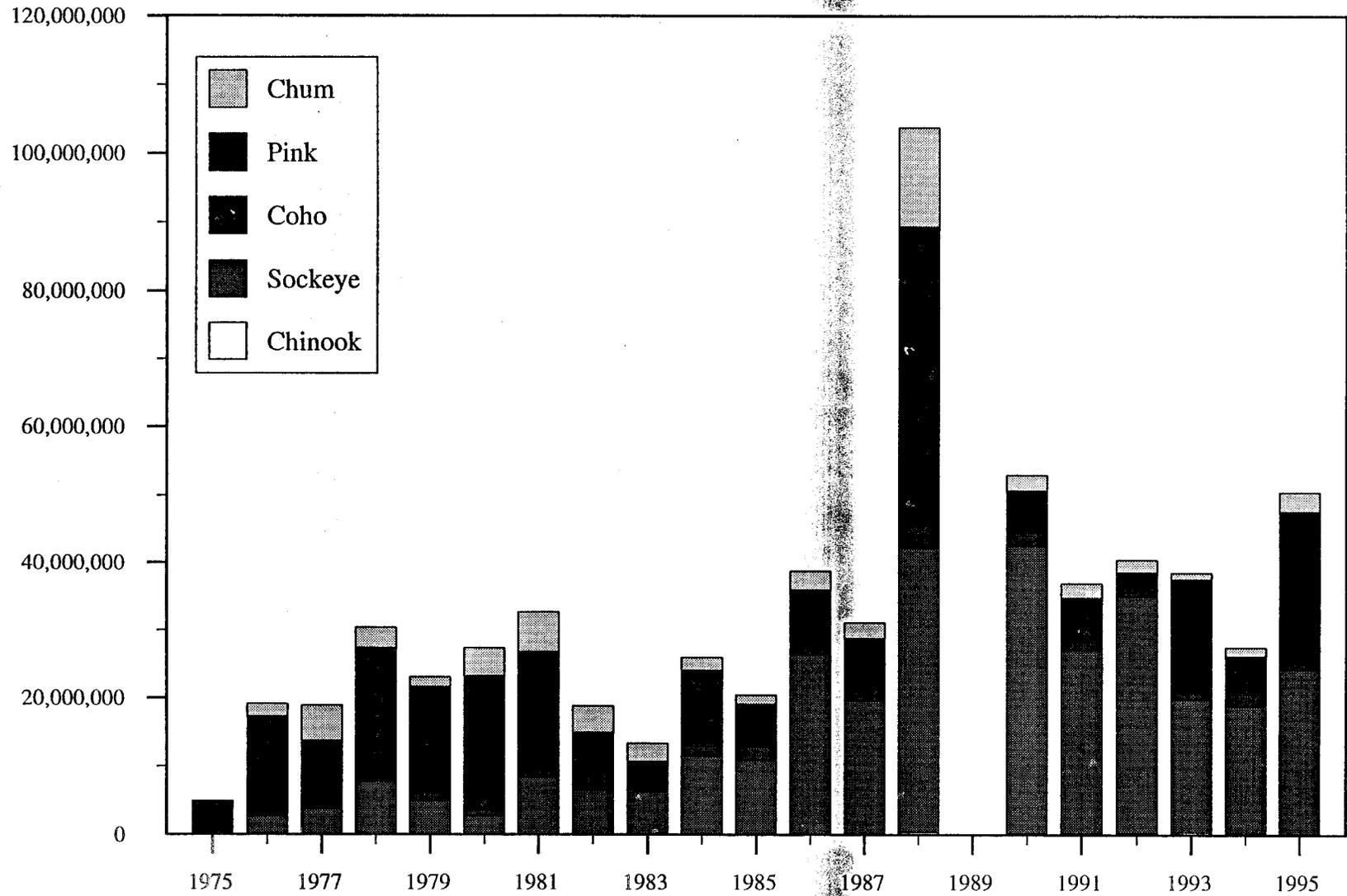


Figure 18. Exvessel value of the commercial salmon fishery, by species, in the Kodiak Management Area, 1975 - 1995.

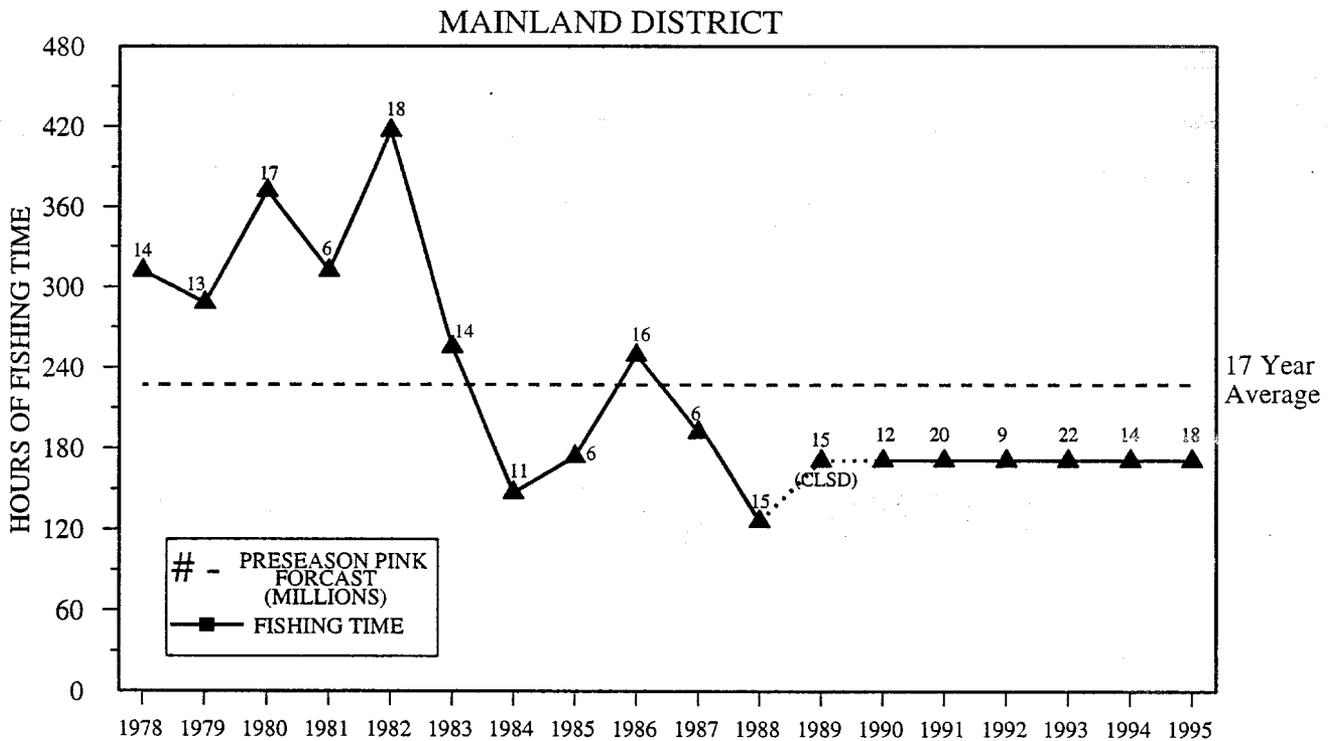
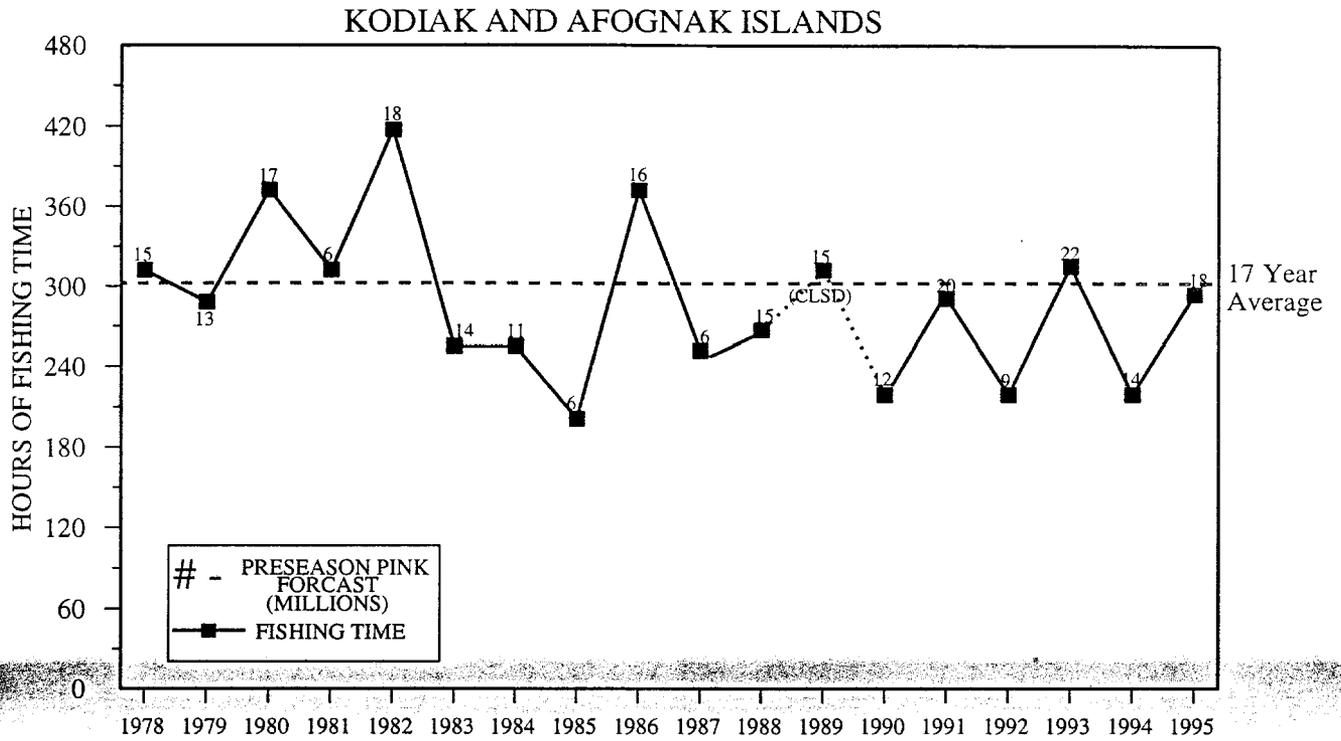


Figure 19. Commercial salmon fishing time vs. preseason pink forecast in areas managed for pink salmon in the Kodiak Management Area July 6-25, 1978-1995.

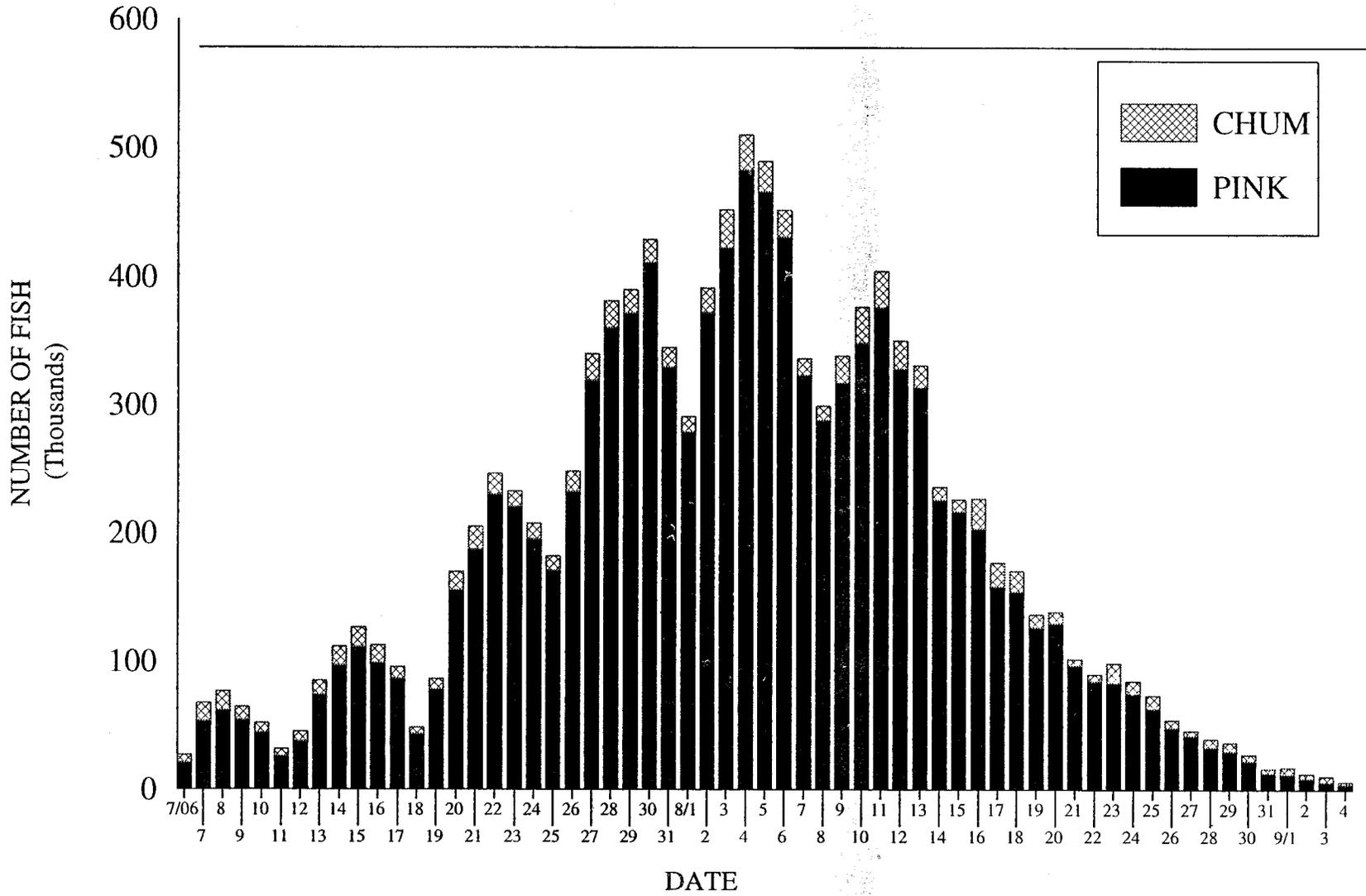


Figure 20. Average pink and chum salmon harvest by day in the Kodiak Management Area, 1970 - 1995.

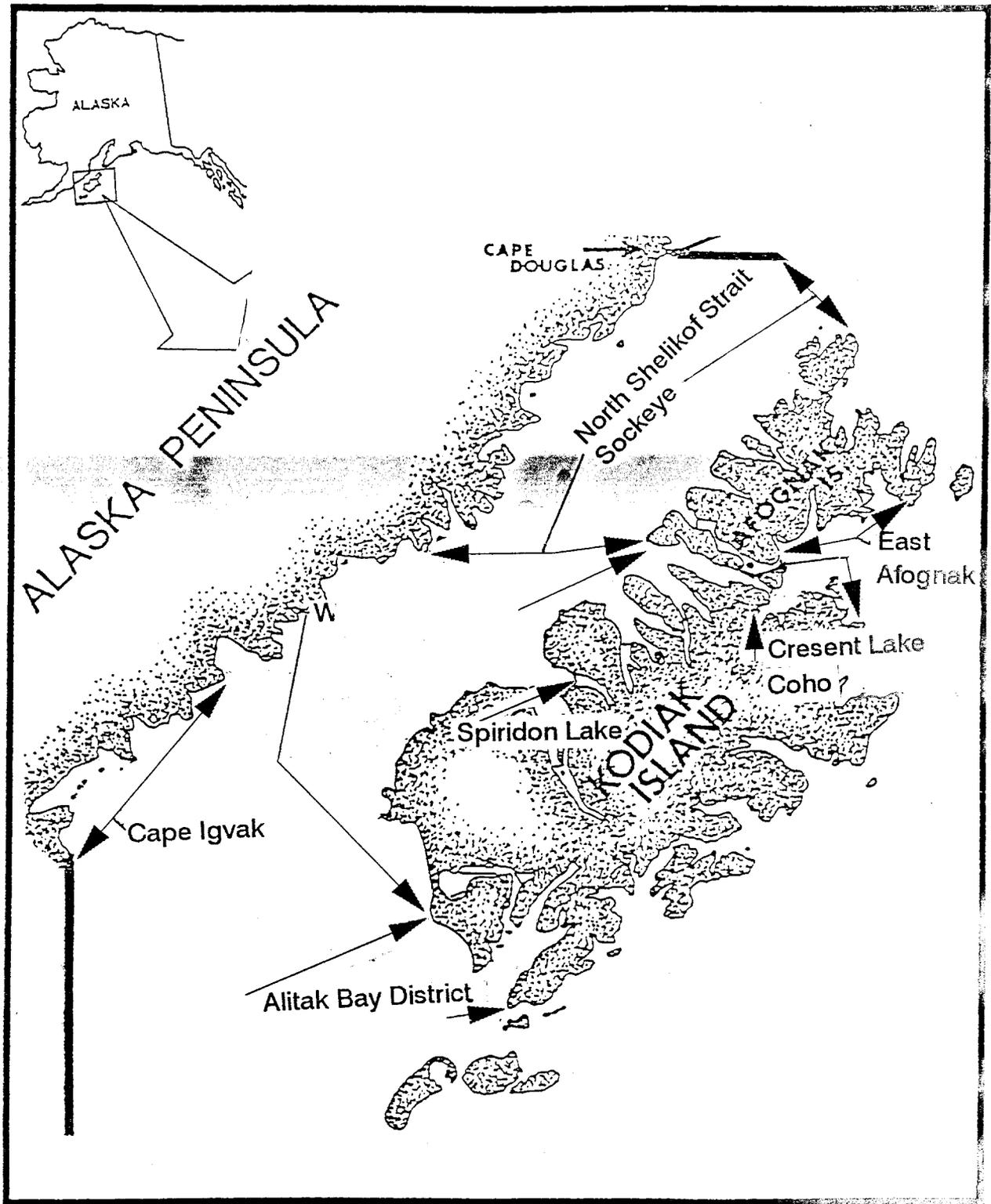


Figure 21. Map of regulatory management plans for the KMA, 1995.

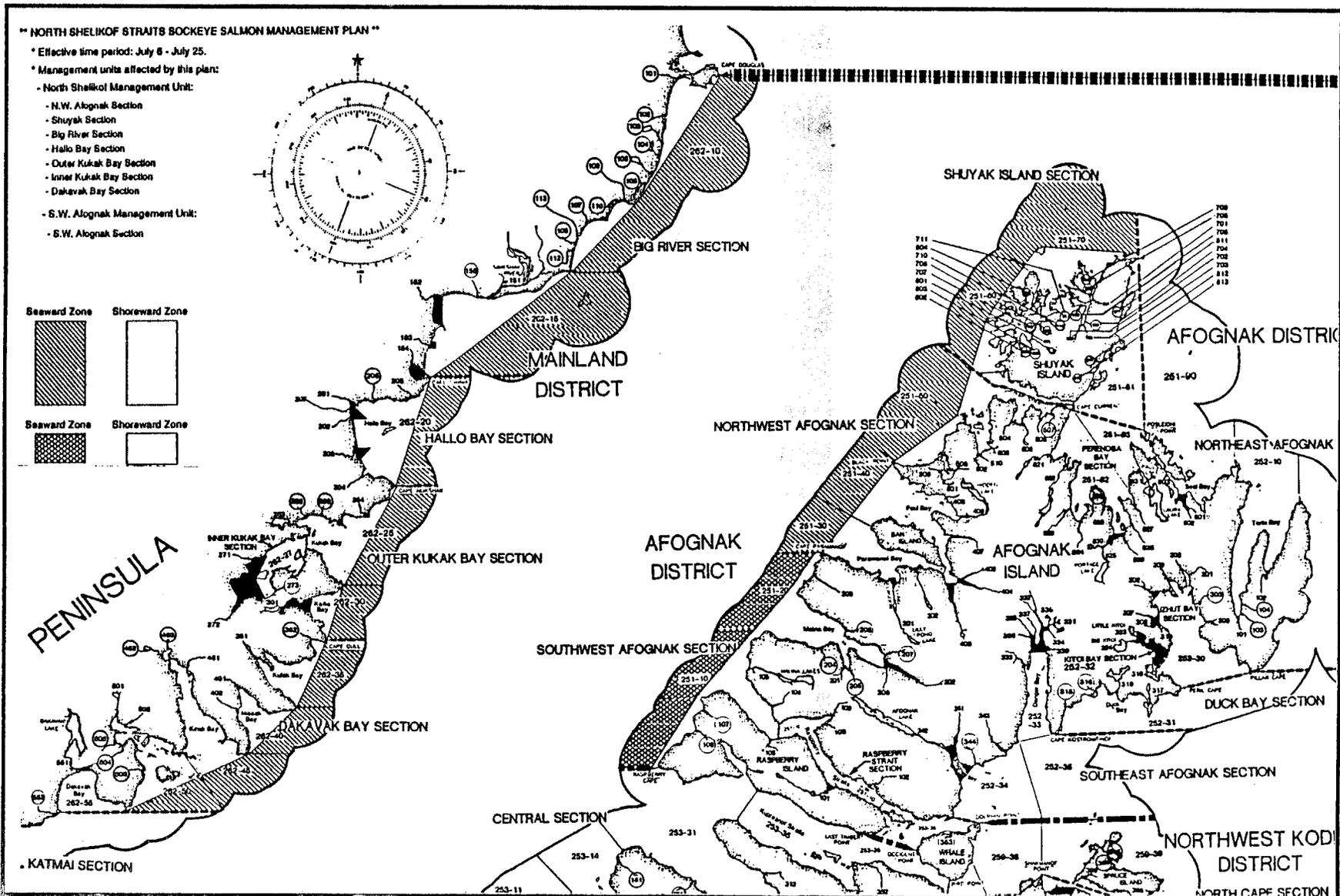


Figure 22. Map of the "North Shelikof Seaward Zone" and the "Southwest Alognak Seaward Zone" of the North Shelikof Strait Sockeye Salmon Management Plan for the Kodiak Management Area, 1995.

Table 23. Management chronology by management unit for eastside salmon stocks in the Kodiak Management Area, 1995.

DATE		6/1	6/14	6/21	7/6	7/10	8/25	9/6	10/31
MANAGEMENT UNIT									
NORTHWEST KODIAK DISTRICT	Outer Chiniak Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Inner Chiniak Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Buskin River	CLOSED			LOCAL PINK BUSKIN SOCKEYE	LOCAL PINK AND CHUM	LOCAL PINK COHO, CHUM	LOCAL COHO	
	Monashka/Mill Bay	CLOSED			LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
EASTSIDE KODIAK DISTRICT	Seven Rivers	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Two Headed	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK COHO	LOCAL COHO	
	Sitkalidak	CLOSED	CLOSED	CLOSED	LOCAL AND MIXED PINK		LOCAL PINK CHUM, COHO	LOCAL COHO	
	Outer Ugak Bay	CLOSED	CLOSED	PASAGSHAK SOCKEYE	LOCAL AND MIXED PINK		LOCAL PINK CHUM, COHO	LATE CHUM COHO	
	Inner Ugak Bay	CLOSED	CLOSED	SALTARY SOCKEYE	LOCAL PINK & CHUM SALTARY SOCKEYE	LOCAL PINK AND CHUM	LOCAL PINK COHO	COHO	

Local and mixed sockeye 33 hour fishing period.

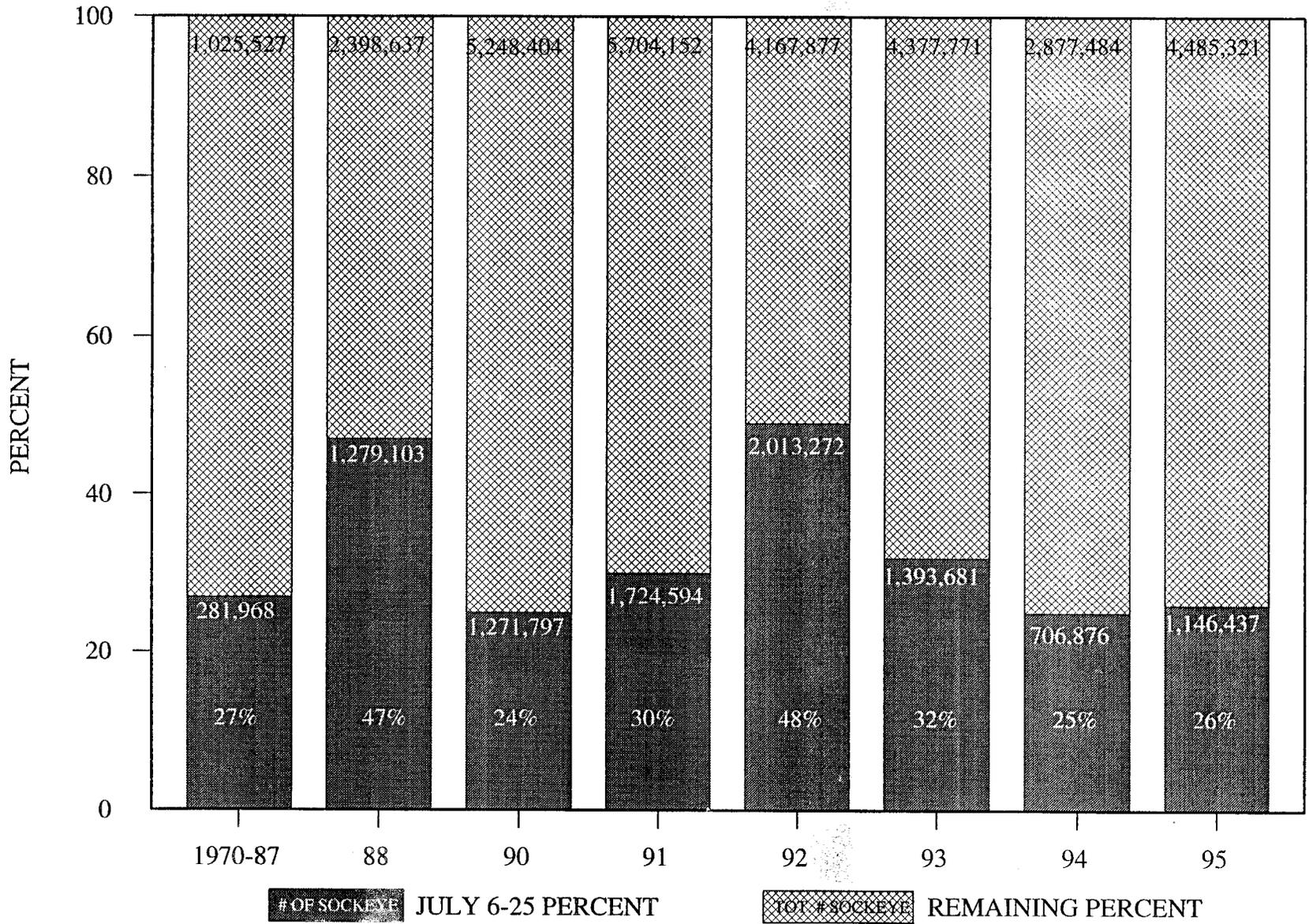


Figure 24. Percent of annual sockeye salmon harvest which occurs in the Kodiak Management Area during July 6-25, 1970-1995.

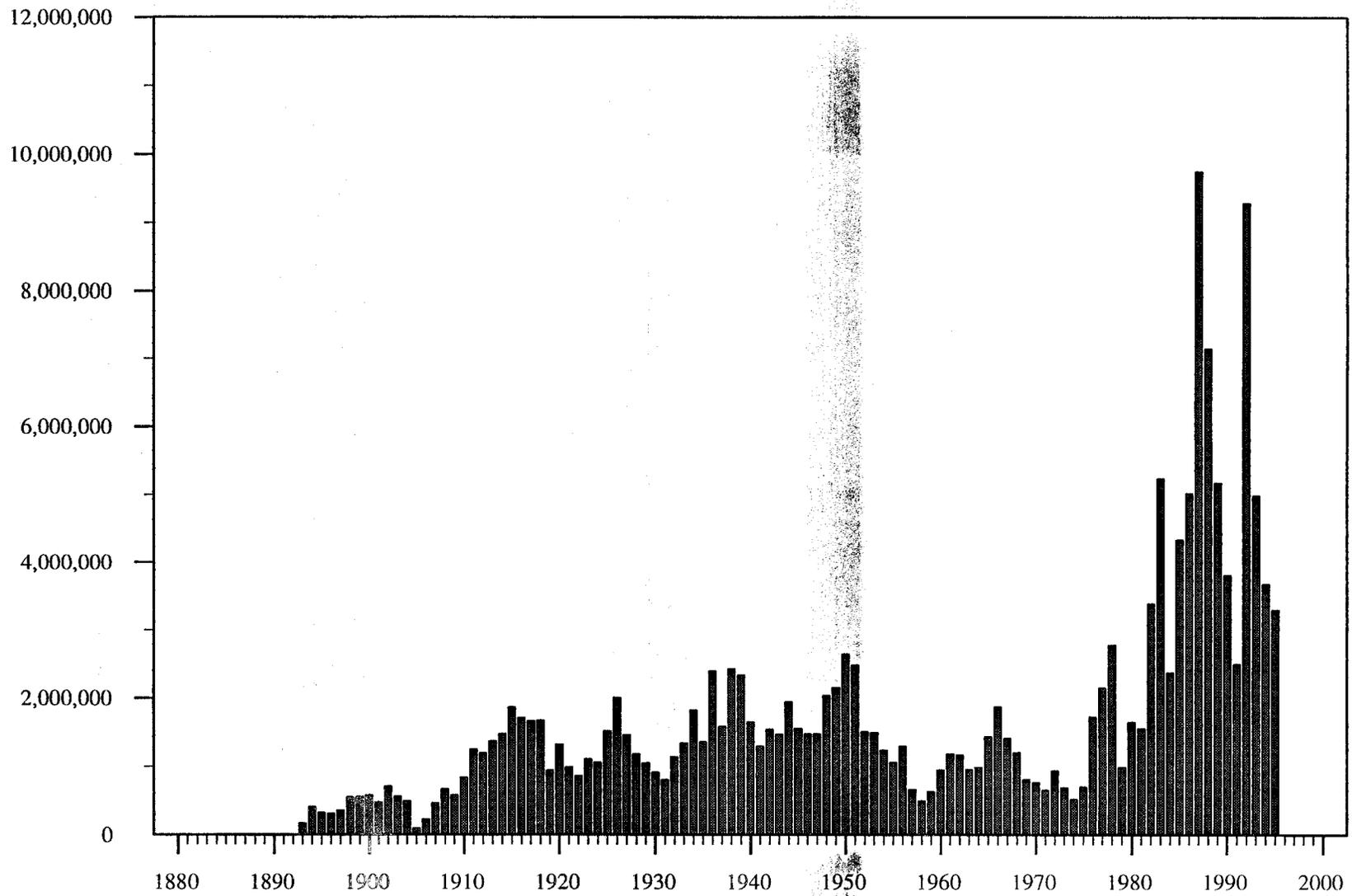


Figure 25. Combined Upper and Lower Cook Inlet sockeye salmon commercial harvest, 1893-1995.

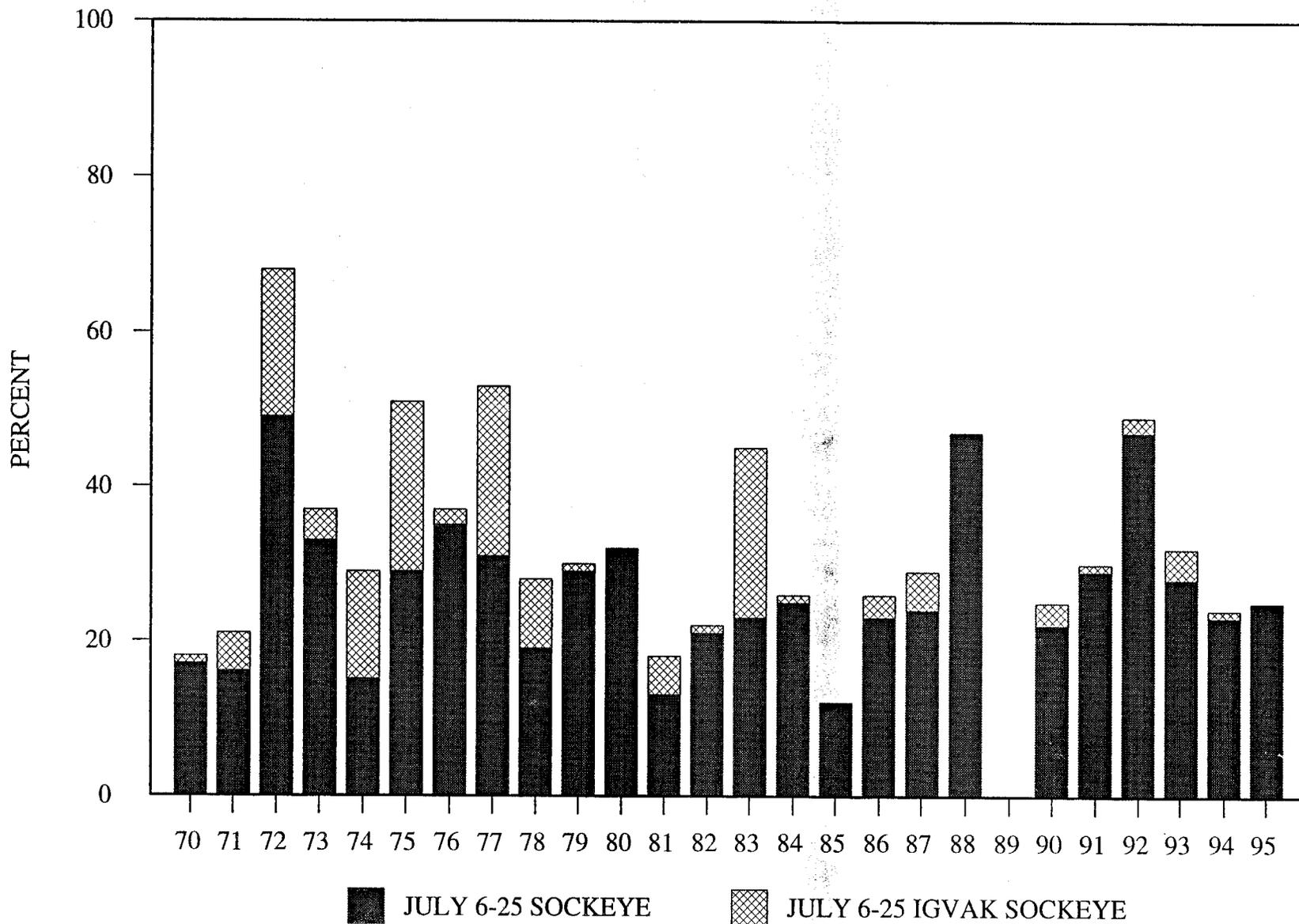


Figure 26. July sockeye salmon harvest, in percent, taken in the Cape Igvak fishery in the Kodiak Management Area, July 6-25, 1970-1995.

MAJOR SALMON HARVEST AREAS

AREA 1 - North Shelikof Sections

AREA 2 - SW Afognak Section

AREA 3 - NW Kodiak District

AREA 4 - SW Kodiak District

AREA 5 - Alitak Bay District

AREA 6 - Eastside Kodiak District

AREA 7 - NE Kodiak District

AREA 8 - Remaining Afognak Sections

AREA 9 - Katmai & Alinchak Sections

AREA 10 - Igvak & Wide Bay Sections

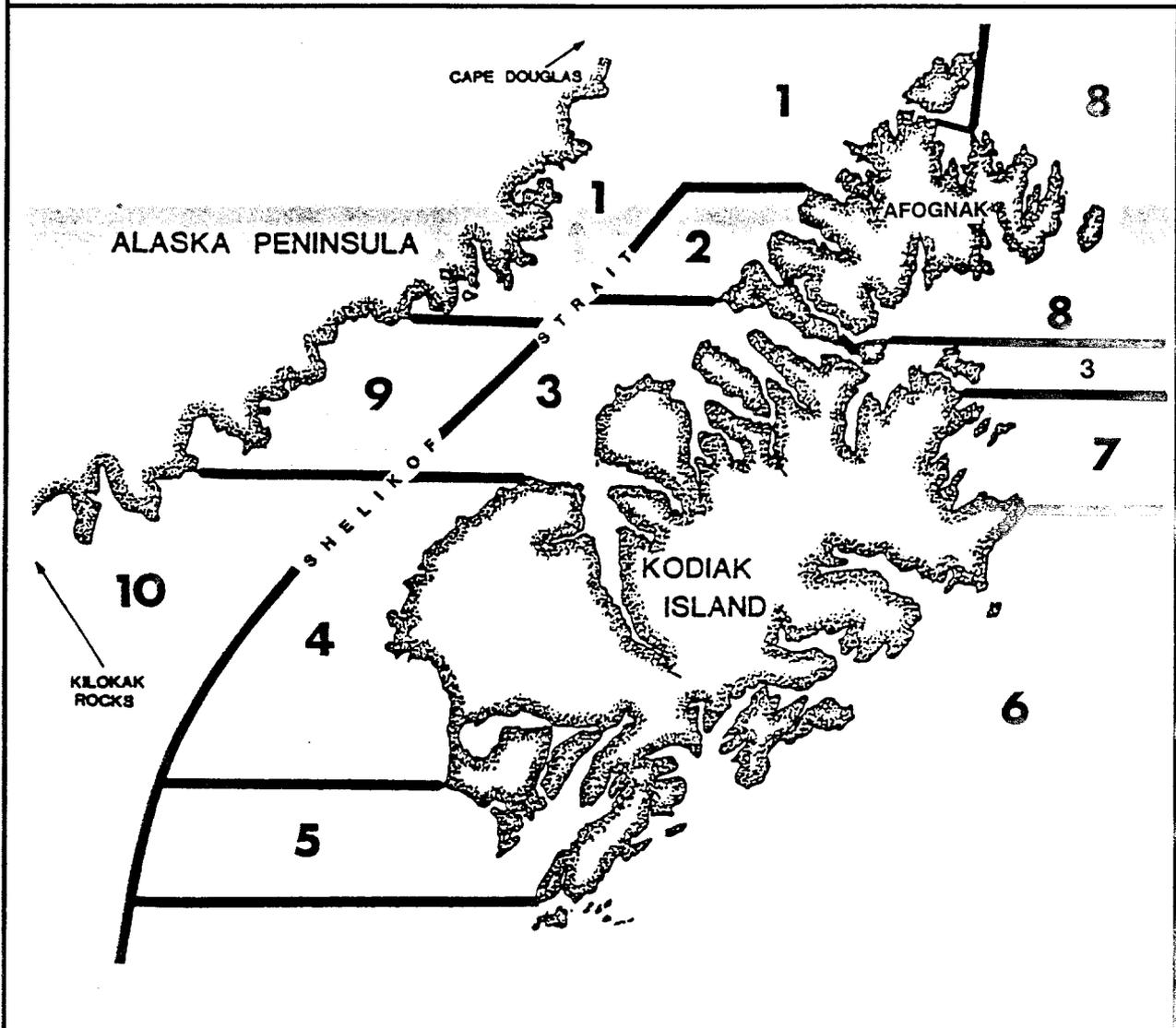


Figure 27. Ten major salmon harvest areas in the Kodiak Management Area.

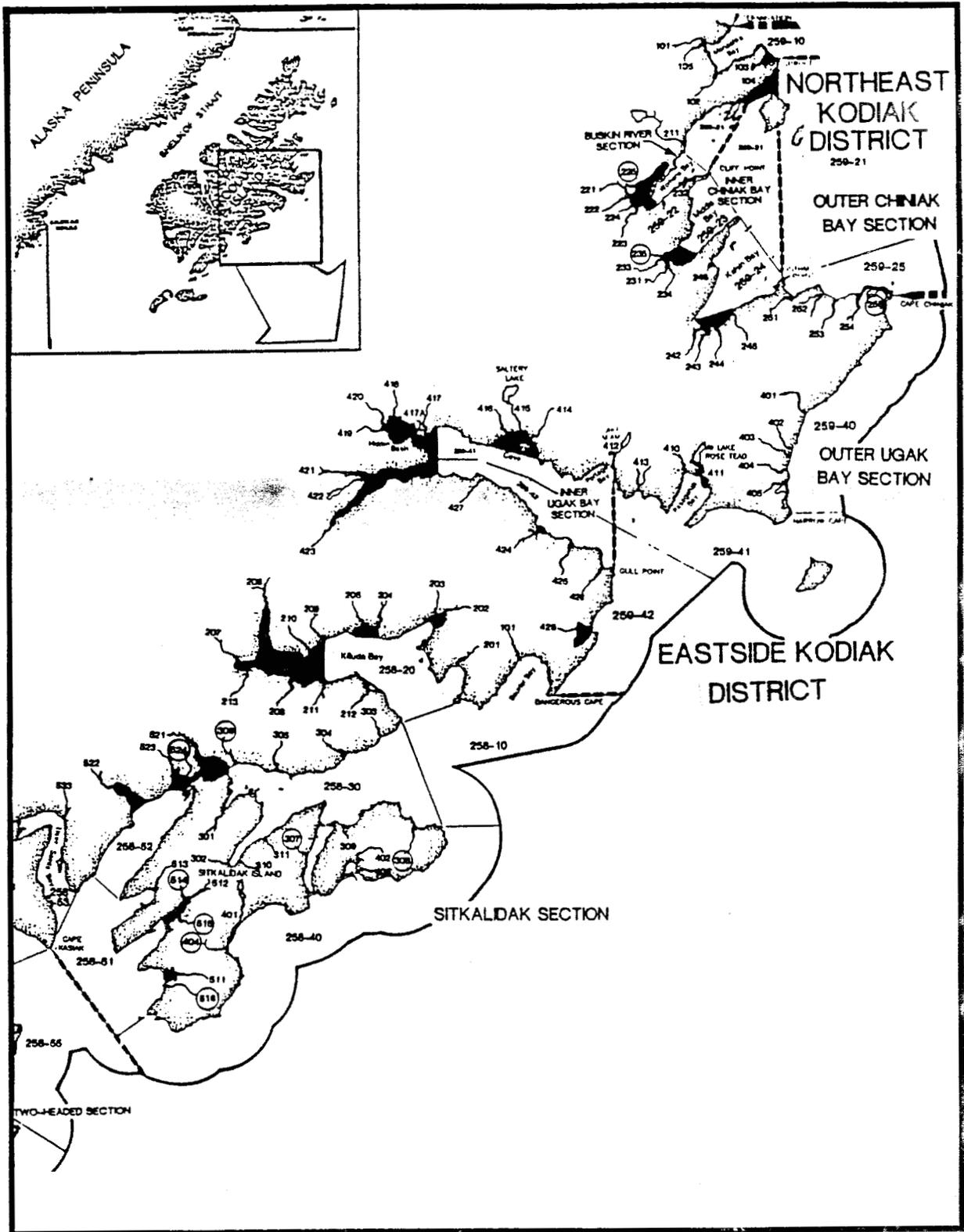


Figure 28. Map of the Sitkalidak Section of the Kodiak Management Area.

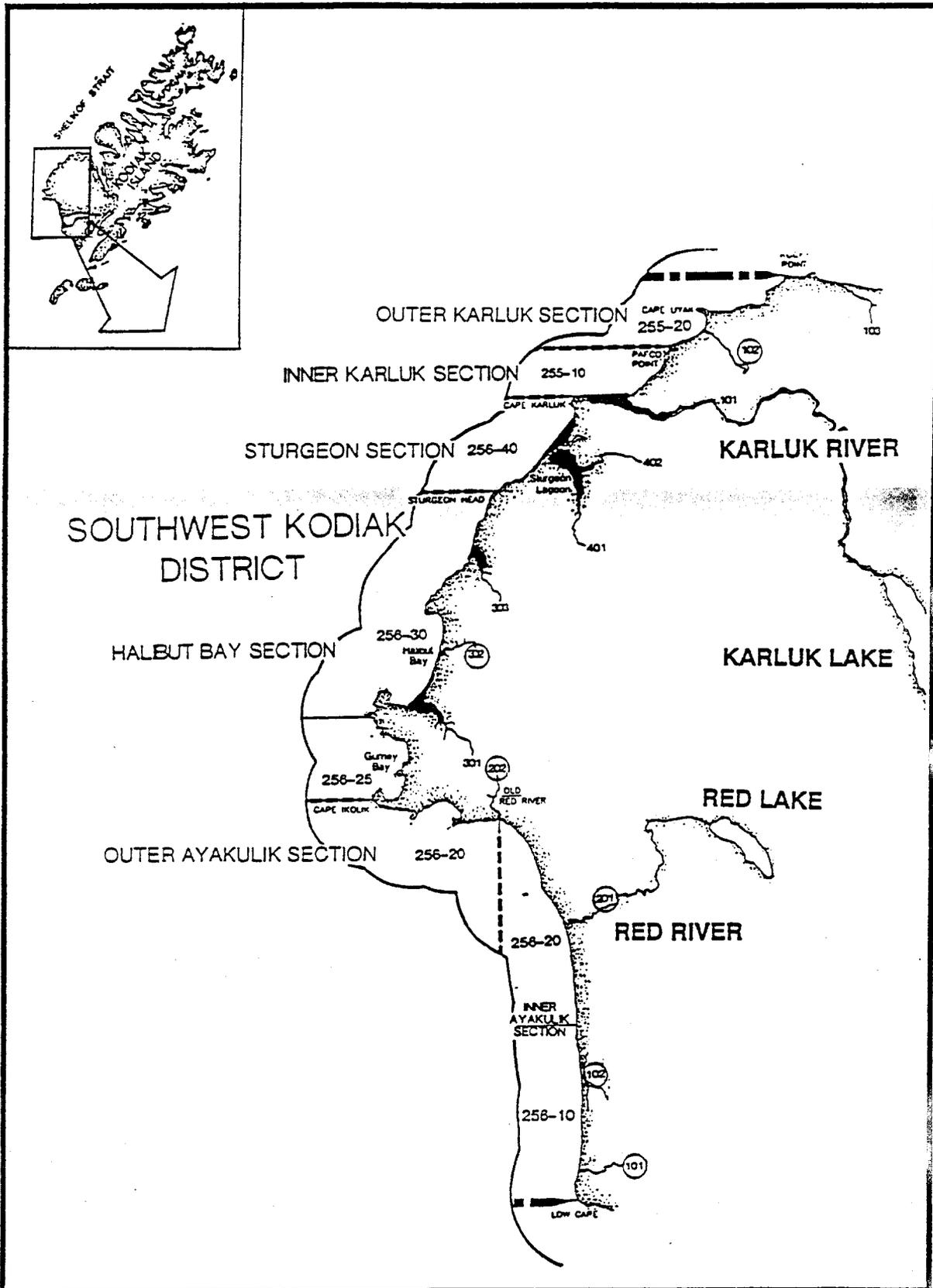


Figure 29. Map of the Halbut Bay Section of the Kodiak Management Area.

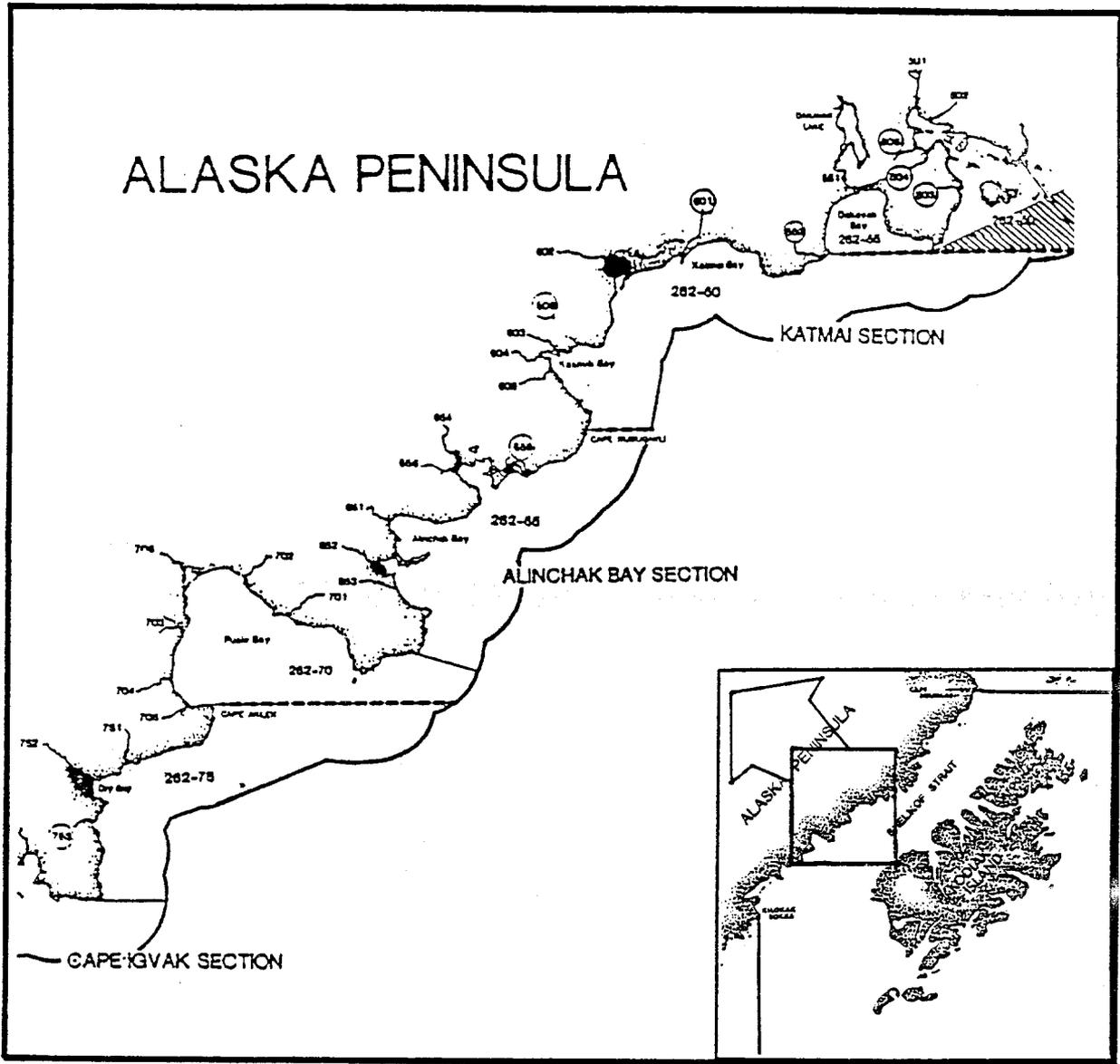
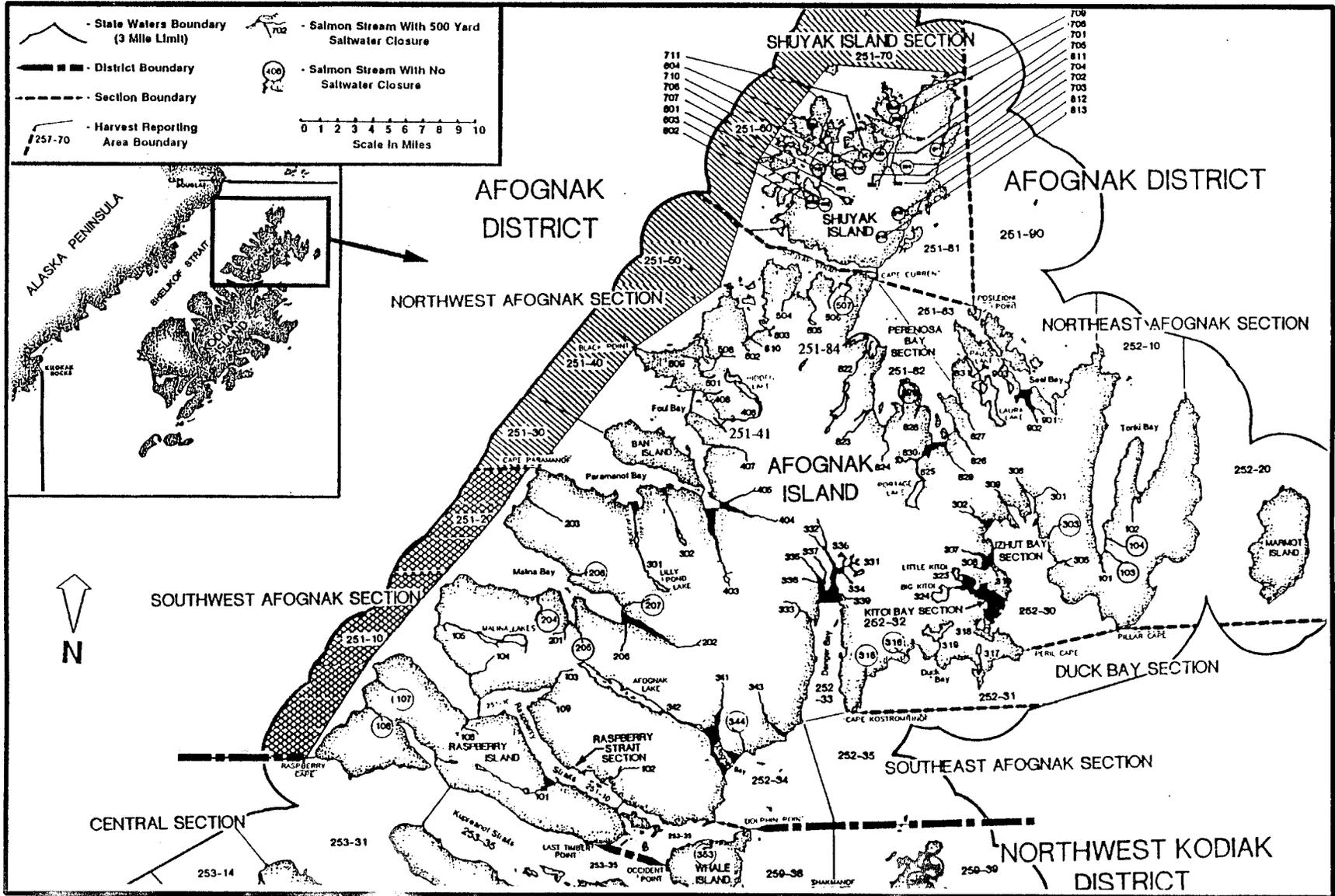
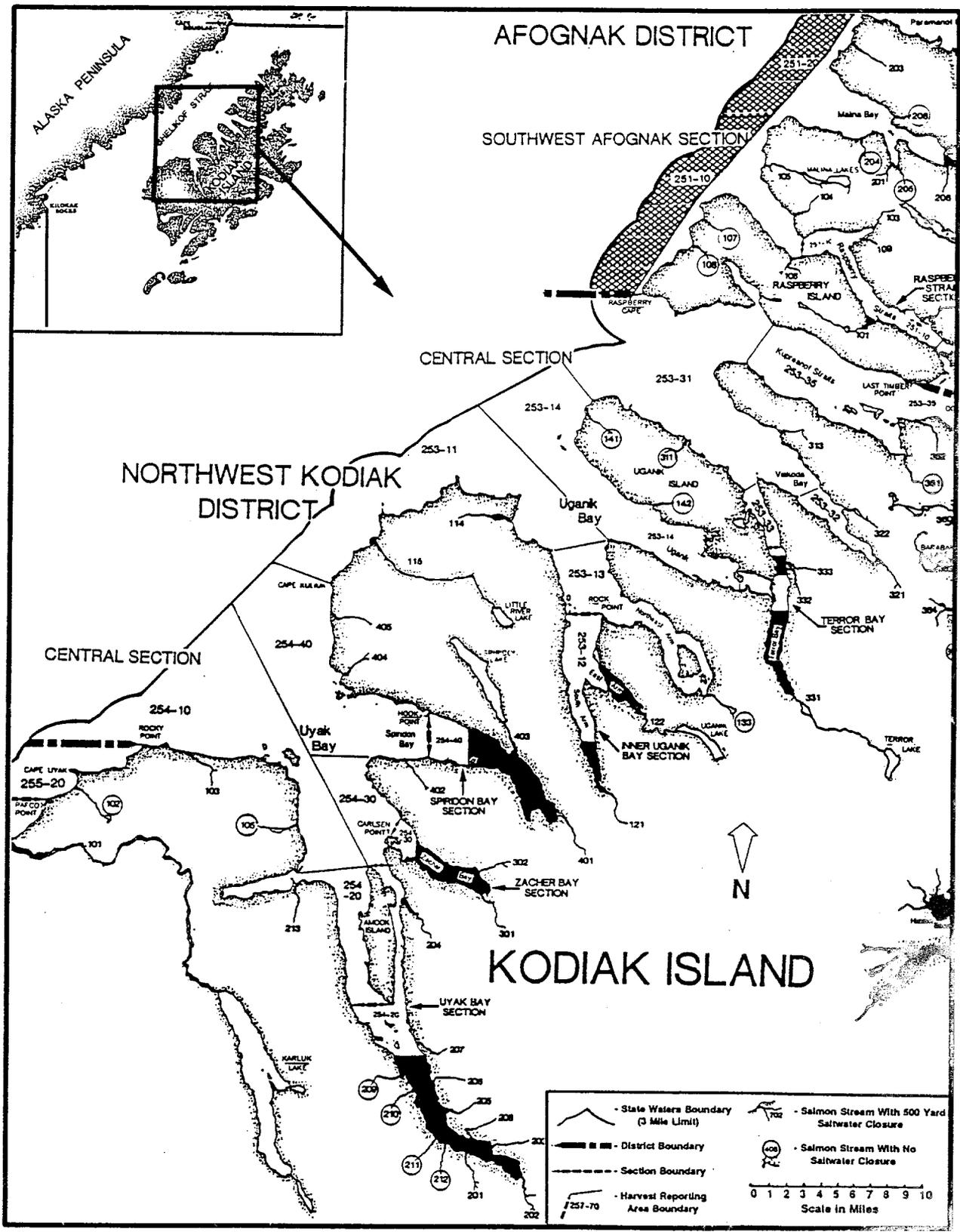


Figure 30. Map of the Katmai and Alinchak Bay Sections of the Kodiak Management Area.

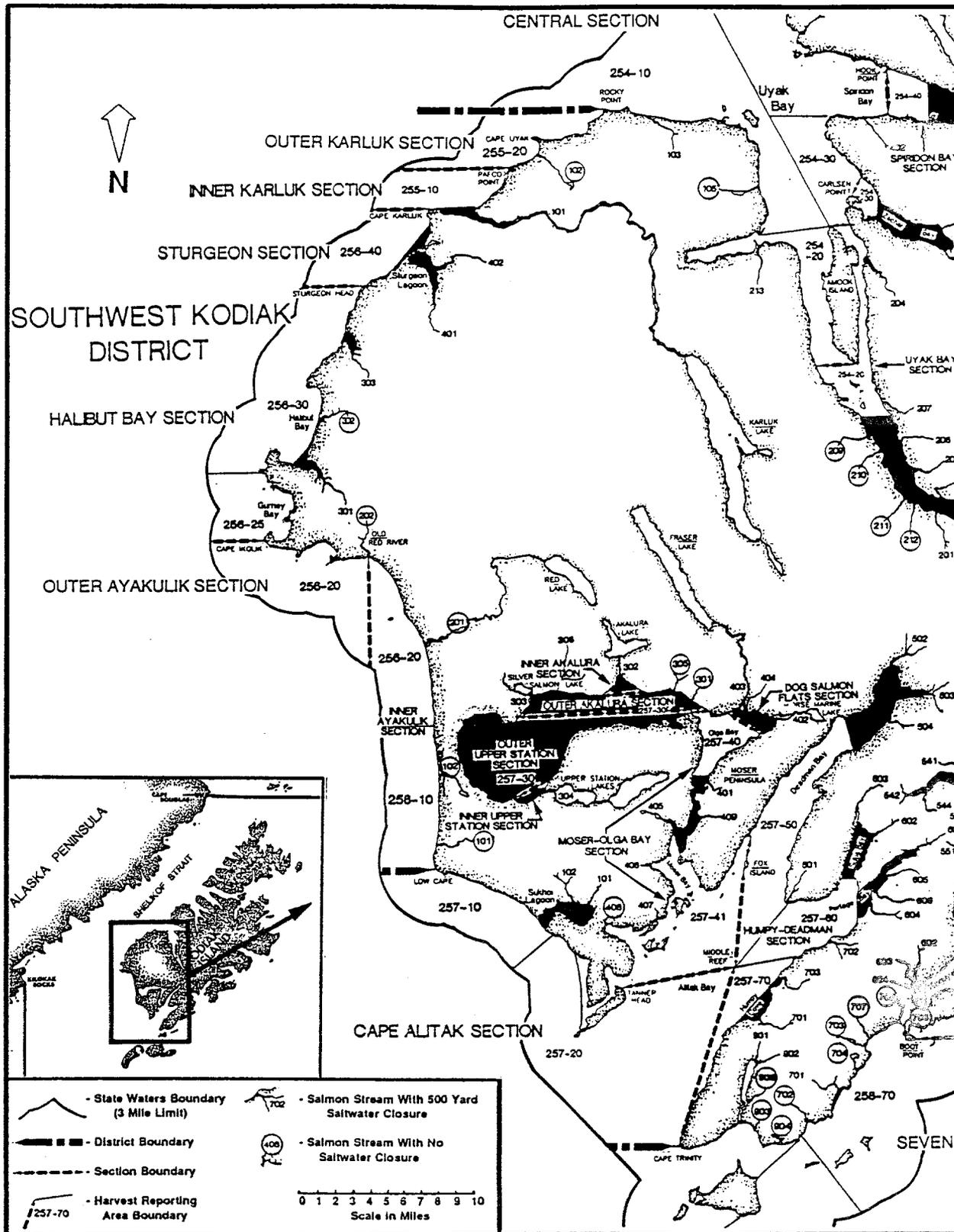
APPENDIX



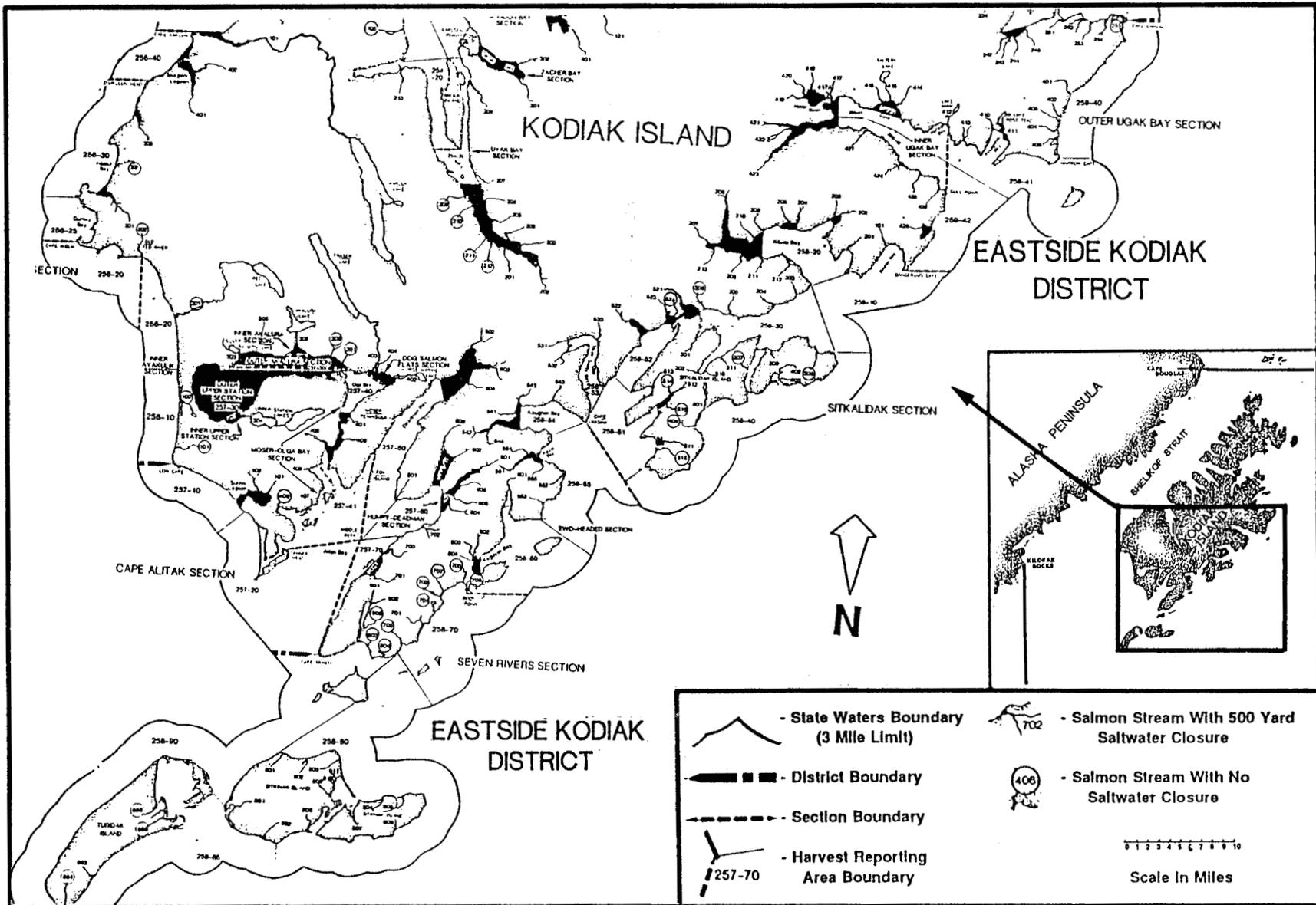
Appendix A.2. Afognak District of the Kodiak Management Area, 1995.



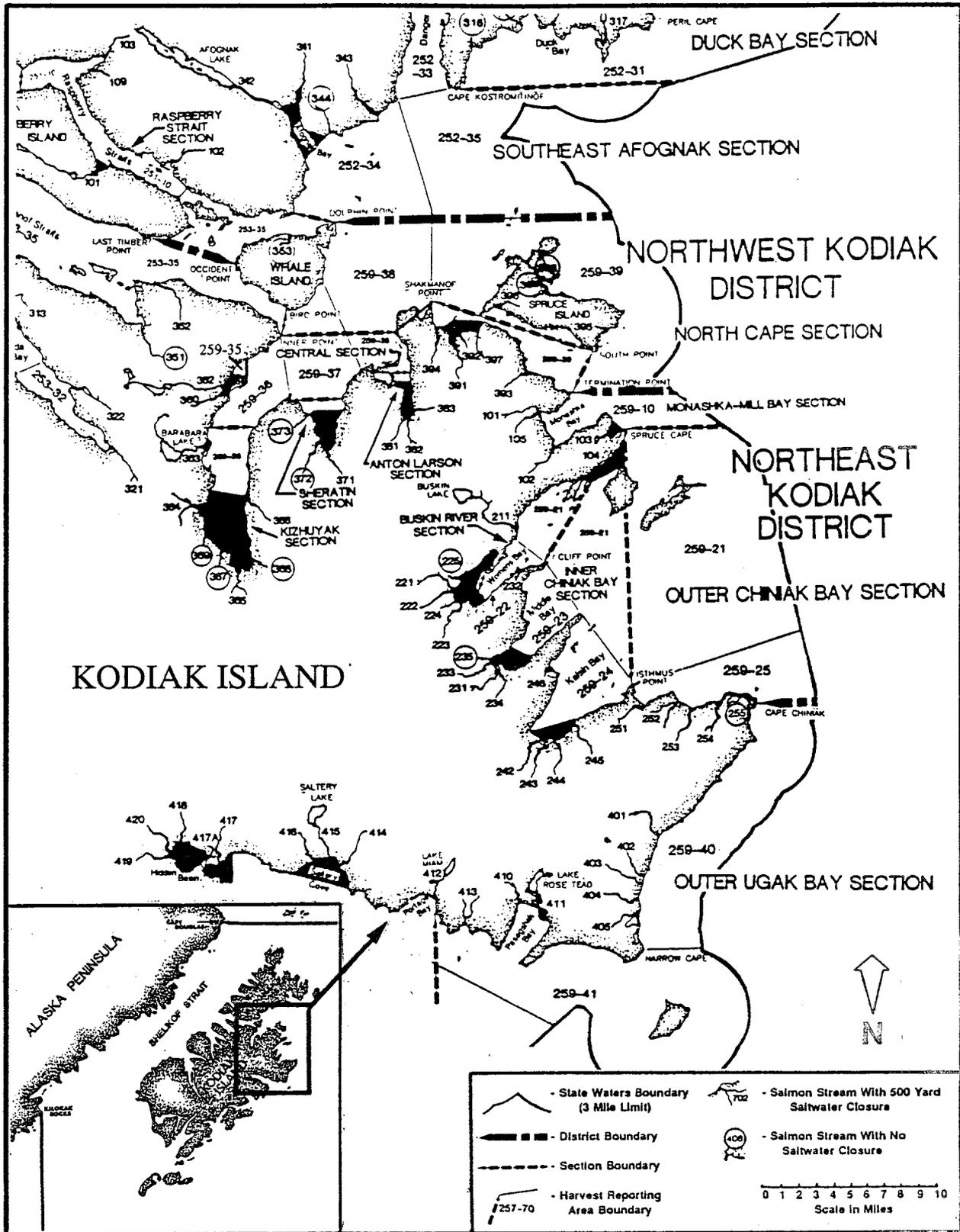
Appendix A.3. Northwest Kodiak District of the Kodiak Management Area, 1995.



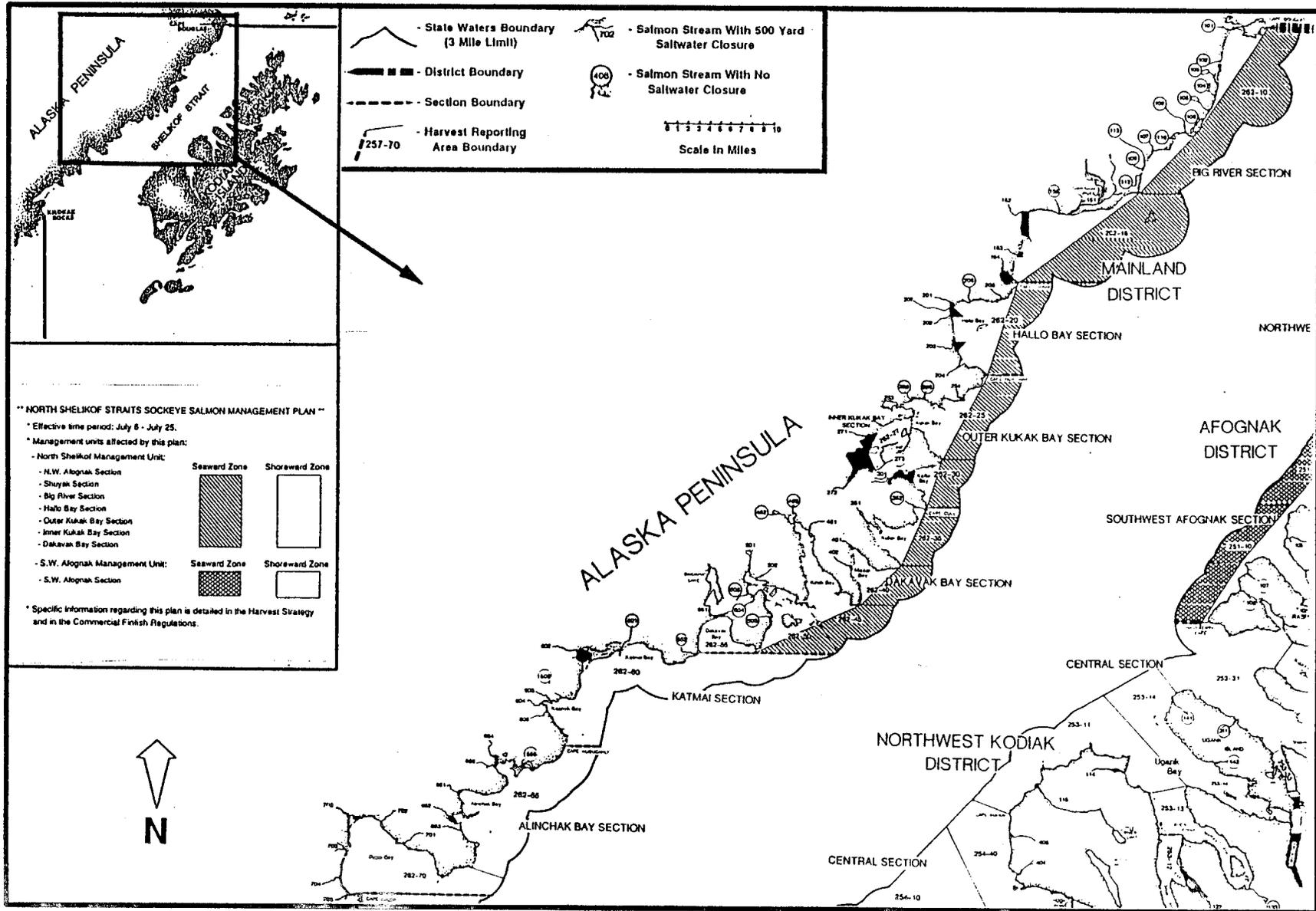
Appendix A.4. Southwest Kodiak and Alitak Bay Districts of the Kodiak Management Area, 1995.



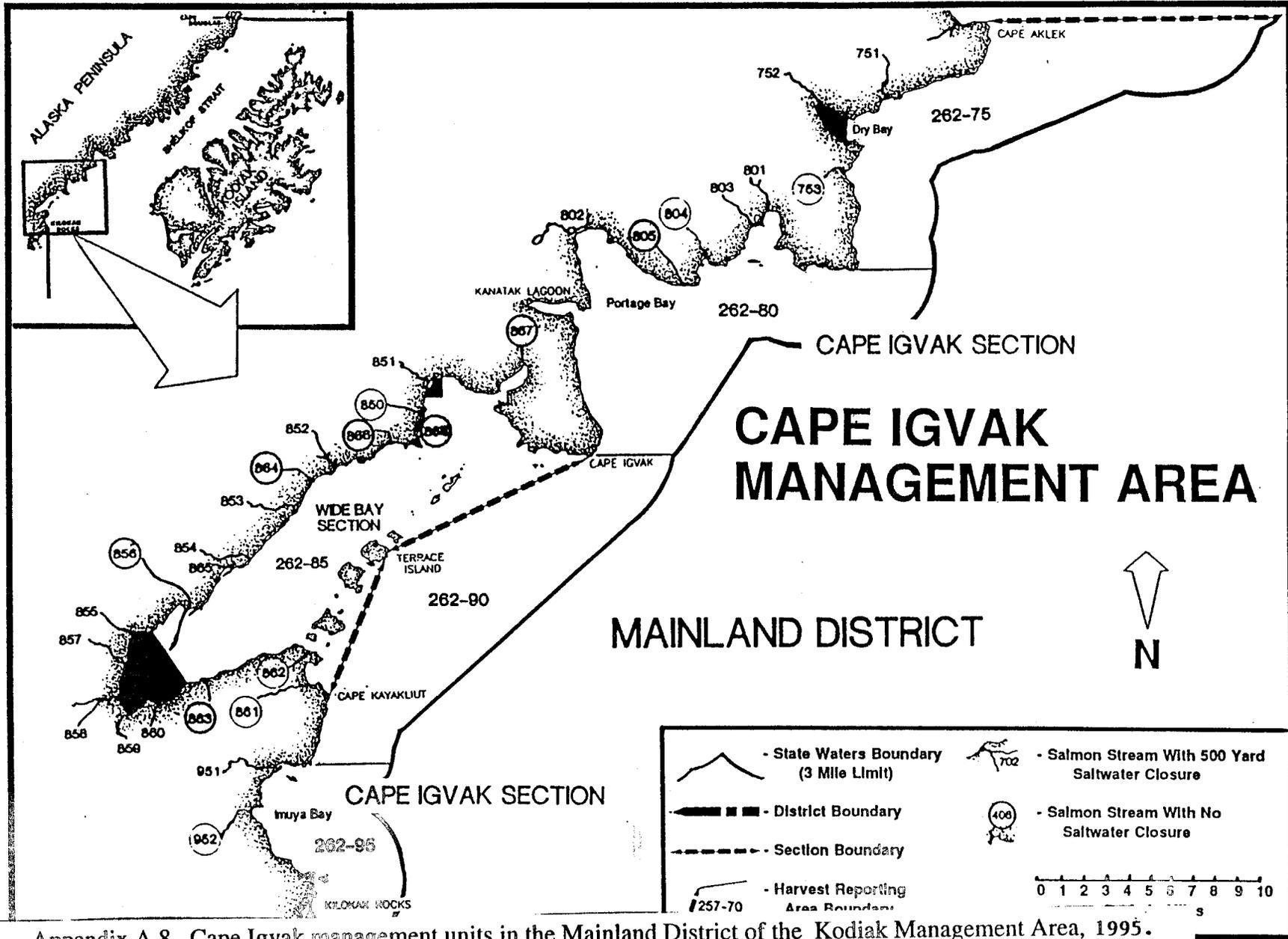
Appendix A.5. Eastside Kodiak District of the Kodiak Management Area, 1995.



Appendix A.6. Northeast Kodiak District, and the North Cape and eastern Central Sections of the Northwest Kodiak District, of the Kodiak Management Area, 1995.



Appendix A.7. North portion of the Mainland District of the Kodiak Management Area, 1995.



Appendix A.8. Cape Igvak management units in the Mainland District of the Kodiak Management Area, 1995.

Appendix B.1. Sockeye salmon escapement goals by spawning system for the Kodiak Management Area, 1995.

Name	System Number	Escapement Goals ^a		
		Lower	Mid Pt.	Upper
Weirs				
Karluk (Early Run) (Late Run)	255-101	150,000	200,000	250,000
		<u>400,000</u>	<u>475,000</u>	<u>550,000</u>
		550,000	675,000	800,000
Ayakulik	256-201	200,000	250,000	300,000
Upper Station (Early Run) (Late Run)	257-304	50,000	68,800	75,000
		<u>150,000</u>	<u>175,000</u>	<u>200,000</u>
		200,000	243,000	275,000
Frazer	257-401	140,000	170,000	200,000
Litnik	252-342	40,000	50,000	60,000
Saltery	259-415	20,000	30,000	40,000
Pauls	251-831	20,000	30,000	40,000
Buskin	259-211	8,000	10,000	13,000
Akalura	257-302	40,000	50,000	60,000
Uganik Lake	253-122	40,000	50,000	60,000
Subtotal		1,258,000	1,558,000	1,848,000
Non weir (indexed escapement)^b				
Barabara Cove	259-363	1,000	3,000	5,000
Bear Lake	262-655	1,000	3,000	5,000
Big Bay	251-601	1,000	3,000	5,000
Horse Marine	257-402	5,000	8,000	10,000
Kaflia	262-301	15,000	20,000	25,000
Kaguyak	258-706	500	1,000	1,000
Kanatak	262-802	1,000	3,000	5,000
Kuliak	262-351	1,000	3,000	5,000
Little Afognak	252-319	1,000	3,000	5,000
Little Danger	252-331	1,000	1,000	1,000
Little Kitoi	252-323	1,000	1,000	1,000
Little River	253-116	15,000	20,000	25,000
Long Lagoon Cr.	251-301	1,000	3,000	5,000
Malina	251-105	5,000	8,000	10,000
Matfay	257-704	500	1,000	1,000
Miam	259-412	1,000	3,000	5,000
Ocean Beach	258-401	5,000	8,000	10,000
Old Red River	258-202	500	1,000	1,000
Paramonof	251-301	1,000	1,000	1,000
Pasagshak	259-411	1,000	3,000	5,000
Perenosa	251-825	5,000	8,000	10,000
Pivot Point	258-212	500	1,000	1,000
Red Fox	251-505	1,000	1,000	1,000
Russian Harbor	258-901	1,000	1,000	1,000
Selief	251-101	1,000	3,000	5,000
Silver Salmon	257-303	1,000	3,000	5,000

-Continued-

Appendix B.1. (page 2 of 2)

Name	System Number	Escapement Goals ^a		
		Lower	Mid Pt.	Upper
Swikshak	262-151	15,000	20,000	25,000
Slough Crk.	262-105	500	1,000	1,000
Thorsheim	251-302	5,000	8,000	10,000
<i>Total indexed escapement^b</i>		88,500	143,000	190,000
<i>Estimated total escapement for indexed systems^c</i>		177,000	286,000	380,000
<i>Estimated total escapement for systems with weirs and indexed by aerial surveys</i>		1,435,000	1,844,000	2,228,000

^a Source: Barrett et al. (1990) and Malloy et al. (1992).

^b Indexed escapement represents a peak aerial escapement count.

^c Indexed escapement expanded by a factor of 2.0 for an estimate of total escapement (Barrett et al. 1985).

Appendix B.2. Pink salmon odd and even year index stream escapement goals for the Kodiak Management Area, 1995.

Index Stream	Stream Number	Even Year Indexed Goal ^{a,b}		Odd Year Indexed Goal ^{a,b}	
		Minimum	Targeted	Minimum	Targeted
AFOGNAK DISTRICT					
Malina	(251-105)	20,000	60,000	5,000	15,000
Paramanof	(251-404)	10,000	30,000	5,000	15,000
Little Waterfall ^C	(251-822)	15,000	45,000	15,000	45,000
Discoverer	(251-830)	20,000	60,000	20,000	60,000
Pauls Bay ^C	(251-831)	3,000	9,000	3,000	9,000
Seal Bay	(251-901)	5,000	15,000	5,000	15,000
Big Danger	(252-332)	15,000	45,000	10,000	30,000
Marka	(252-334)	30,000	90,000	10,000	30,000
Litnik ^C	(252-342)	30,000	90,000	10,000	30,000
	Subtotal	148,000	444,000	83,000	249,000
N.W. KODIAK DISTRICT					
Sheratin	(253-371)	15,000	45,000	10,000	30,000
Baumans	(253-333)	5,000	15,000	5,000	15,000
Terror	(253-331)	40,000	120,000	30,000	90,000
Uganik	(253-122)	80,000	240,000	70,000	210,000
Little	(253-115)	40,000	120,000	15,000	45,000
Zachar	(254-301)	40,000	120,000	20,000	60,000
Browns	(254-204)	40,000	120,000	5,000	15,000
Uyak	(254-202)	50,000	150,000	50,000	150,000
Uyak	(259-203)	5,000	15,000	15,000	45,000
	Subtotal	315,000	945,000	220,000	660,000
S.W. KODIAK DISTRICT					
Karluk ^C	(255-101)	800,000	1,600,000	20,000	60,000
Sturgeon	(256-401)	50,000	150,000	5,000	15,000
Ayakulik ^C	(256-201)	400,000	800,000	5,000	15,000
	Subtotal	1,250,000	2,550,000	30,000	90,000
ALITAK DISTRICT					
Narrows	(257-401)	2,000	6,000	2,000	6,000
Dog Salmon ^C	(257-403)	50,000	150,000	60,000	180,000
Deadman	(257-502)	40,000	120,000	60,000	180,000
Humpy	(257-701)	70,000	210,000	90,000	270,000
	Subtotal	162,000	486,000	212,000	636,000
N.E. KODIAK DISTRICT					
Sid Olds	(259-242)	30,000	90,000	30,000	90,000
American	(259-231)	30,000	90,000	30,000	90,000
Buskin ^C	(259-211)	60,000	180,000	50,000	150,000
	Subtotal	120,000	360,000	110,000	330,000
EASTSIDE KODIAK DISTRICT					
7-Rivers	(258-701)	40,000	120,000	40,000	120,000
Kaiugnak	(258-542)	10,000	30,000	10,000	30,000
Barling	(258-522)	30,000	90,000	30,000	90,000
Kiliuda	(258-207)	20,000	60,000	10,000	30,000
Saltery ^C	(259-415)	20,000	60,000	30,000	90,000
Miam	(259-412)	20,000	60,000	10,000	30,000
Hurst	(259-414)	10,000	30,000	10,000	30,000
	Subtotal	150,000	450,000	140,000	420,000
MAINLAND KODIAK DISTRICT					
Big River	(262-152)	10,000	30,000	10,000	30,000
Village	(262-153)	15,000	45,000	15,000	45,000
Cape Chiniak	(262-205)	5,000	15,000	3,000	9,000
Big Hallo	(262-203)	2,000	6,000	2,000	6,000
Kukak	(262-271)	3,000	9,000	2,000	6,000
Missak	(262-402)	5,000	15,000	3,000	9,000
Kinak	(262-451)	20,000	60,000	20,000	60,000

-Continued-

Index Stream	Stream Number	Even Year Indexed Goals ^{a, b}		Odd Year Indexed Goals ^{a, b}	
		Minimum	Targeted	Minimum	Targeted
<i>MAINLAND KODIAK DISTRICT (continued)</i>					
Geographic	(262-501)	4,000	12,000	4,000	12,000
Dakavak	(262-551)	25,000	75,000	20,000	60,000
Kashvik	(262-604)	25,000	75,000	25,000	75,000
Big Alinchak	(262-651)	30,000	90,000	20,000	60,000
Portage	(262-702)	15,000	45,000	10,000	30,000
Oil	(262-751)	15,000	45,000	10,000	30,000
Jute	(262-801)	2,000	6,000	1,000	3,000
Kanatak	(262-802)	10,000	30,000	10,000	30,000
Big Creek	(262-851)	70,000	210,000	60,000	180,000
	Subtotal	256,000	768,000	215,000	645,000
	GRAND TOTAL ^d	2,401,000	6,003,000	1,010,000	3,030,000

^a Source: Barrett et al. (1990) and Malloy et al. (1992).

^b Index escapement for non weir systems are peak counts.

^c Systems where the escapement is counted through weirs.

^d The 51 listed index streams average 73% of the total KMA escapement based on 1969-87 escapement distribution data from 1966 through 1991.

Appendix B.3. Chum salmon indexed escapement goals and estimated total escapement goals for selected streams, 1995.

Index Stream	Stream Number	Indexed Escapement ^a		Estimated Total Escapement ^a		
		Minimum	Targeted	Minimum	Targeted	Mid Point
NORTHWEST KODIAK DISTRICT						
Red Cloud	(259-382)	3,000	9,000	4,173	12,518	8,345
Slough Trail	(259-383)	1,000	3,000	1,391	4,173	2,782
Sheratin	(259-371)	5,000	15,000	6,954	20,863	13,908
Kizhuyak	(259-365)	8,000	24,000	11,127	33,380	22,253
Terror	(253-331)	5,000	15,000	6,954	20,863	13,908
Uganik	(253-122)	10,000	30,000	13,908	41,725	27,817
Spiridon	(254-401)	15,000	45,000	20,863	62,588	41,725
Zachar	(254-301)	15,000	45,000	20,863	62,588	41,725
Uyak	(254-202)	10,000	30,000	13,908	41,725	27,817
Subtotal		72,000	216,000	100,140	300,421	200,281
SOUTHWEST KODIAK DISTRICT						
Sturgeon	(256-401)	50,000	150,000	69,542	208,626	139,084
Subtotal		50,000	150,000	69,542	208,626	139,084
ALITAK DISTRICT						
Big Sukhoi	(257-102)	20,000	60,000	27,817	83,450	55,633
Dog Salmon ^b	(257-403)	2,000	6,000	2,000	6,000	4,000
Narrows	(257-401)	2,000	6,000	2,782	8,345	5,563
Deadman	(257-502)	5,000	15,000	6,954	20,863	13,908
Sulua	(257-603)	8,000	24,000	11,127	33,380	22,253
Portage	(257-601)	1,000	3,000	1,391	4,173	2,782
Subtotal		38,000	114,000	52,070	156,210	104,140
NORTHEAST KODIAK DISTRICT						
Kalsin River	(259-243)	1,000	3,000	1,391	4,173	2,782
Sid Olds	(259-242)	6,000	18,000	8,345	25,035	16,690
American	(259-231)	6,000	18,000	8,345	25,035	16,690
Salt Creek	(259-233)	2,000	6,000	2,782	8,345	5,563
Salonie Creek	(259-223)	1,000	3,000	1,391	4,173	2,782
Russian River	(259-222)	2,000	6,000	2,782	8,345	5,563
Sargent Creek	(259-221)	2,000	6,000	2,782	8,345	5,563
Subtotal		20,000	60,000	27,817	83,450	55,633
EASTSIDE KODIAK DISTRICT						
Sitkinak Chum	(258-807)	3,000	9,000	4,173	12,518	8,345
Kaguyak	(258-602)	5,000	15,000	6,954	20,863	13,908
Kiavak Portage	(258-551)	1,000	3,000	1,391	4,173	2,782
Kaiugnak	(258-603)	3,000	9,000	4,173	12,518	8,345
Barling	(258-522)	3,000	9,000	4,173	12,518	8,345
Midway	(258-521)	5,000	15,000	6,954	20,863	13,908
Newman	(258-513)	3,000	9,000	4,173	12,518	8,345
Natalia	(258-512)	3,000	9,000	4,173	12,518	8,345
Rolling	(258-511)	4,000	12,000	5,563	16,690	11,127
Amee	(258-301)	1,000	3,000	1,391	4,173	2,782
McCord Beach	(258-302)	1,000	3,000	1,391	4,173	2,782
Pivot Point	(258-212)	1,000	3,000	1,391	4,173	2,782
Marker Grove	(258-211)	1,000	3,000	1,391	4,173	2,782
Dukaluk	(258-208)	2,000	6,000	2,782	8,345	5,563
W. Kiliuda	(258-207)	8,000	24,000	11,127	33,380	22,253
E. Kiliuda	(258-206)	3,000	9,000	4,173	12,518	8,345
Burn's Spit	(258-210)	1,000	3,000	1,391	4,173	2,782
Coxcomb Point	(258-205)	6,000	18,000	8,345	25,035	16,690
Dog Bay	(258-204)	6,000	18,000	8,345	25,035	16,690
Shearwater	(258-202)	1,000	3,000	1,391	4,173	2,782
Gull Cape	(259-428)	8,000	24,000	11,127	33,380	22,253
Eagle Harbor	(259-424)	4,000	12,000	5,563	16,690	11,127
Kiliuda Pass	(259-423)	2,000	6,000	2,782	8,345	5,563
Hidden Basin	(259-418)	4,000	12,000	5,563	16,690	11,127

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Appendix B.3. (page 2 of 2)

Index Stream	Stream Number	Indexed		Est. Total		Mid Point
		Minimum	Desired	Minimum	Desired	
Wild Creek	(259-417)	2,000	6,000	2,782	8,345	5,563
Rough Creek	(259-416)	3,000	9,000	4,173	12,518	8,345
Saltery ^b	(259-415)	2,000	6,000	2,000	6,000	4,000
Miam	(259-412)	2,000	6,000	2,782	8,345	5,563
Subtotal		88,000	264,000	121,612	364,836	243,224
MAINLAND DISTRICT						
Productive Forks	(262-108)	1,000	3,000	1,391	4,173	2,782
Swikshak	(262-151)	2,000	6,000	2,782	8,345	5,563
Big River	(262-152)	40,000	120,000	55,633	166,900	111,267
Village Creek	(262-153)	10,000	30,000	13,908	41,725	27,817
Chiniak Lagoon	(262-154)	8,000	24,000	11,127	33,380	22,253
Ninagiak	(262-201)	5,000	15,000	6,954	20,863	13,908
Serpent	(262-203)	10,000	30,000	13,908	41,725	27,817
Cape Chiniak	(262-205)	1,000	3,000	1,391	4,173	2,782
Kukak River	(262-271)	60,000	180,000	83,450	250,351	166,900
Kukak Valley	(262-272)	3,000	9,000	4,173	12,518	8,345
Kinak Creek	(262-451)	2,000	6,000	2,782	8,345	5,563
Dakavak	(262-551)	10,000	30,000	13,908	41,725	27,817
Alagogshak	(262-602)	25,000	75,000	34,771	104,313	69,542
Kashvik	(262-604)	5,000	15,000	6,954	20,863	13,908
Big Alinchak	(262-651)	2,000	6,000	2,782	8,345	5,563
Little Alinchak	(262-652)	1,000	3,000	1,391	4,173	2,782
East Bear	(262-654)	8,000	24,000	11,127	33,380	22,253
West Bear	(262-656)	3,000	9,000	4,173	12,518	8,345
Portage	(262-702)	1,000	3,000	1,391	4,173	2,782
Teresa	(262-703)	8,000	24,000	11,127	33,380	22,253
Trail Creek	(262-704)	8,000	24,000	11,127	33,380	22,253
Dry Bay	(262-752)	8,000	24,000	11,127	33,380	22,253
Jute	(262-801)	1,000	3,000	1,391	4,173	2,782
Kanatak	(262-802)	1,000	3,000	1,391	4,173	2,782
Big Creek	(262-851)	10,000	30,000	13,908	41,725	27,817
Kialagvik	(262-858)	8,000	24,000	11,127	33,380	22,253
Icy Peak	(262-859)	1,000	3,000	1,391	4,173	2,782
Subtotal		242,000	726,000	336,583	1,009,748	673,165
GRAND TOTAL		510,000	1,530,000	707,764	2,123,291	1,415,528
Estimated Total Kodiak Management Area Escapement ^c				784,440	2,353,321	1,568,881

^a Source: Barrett et al. (1990) and Malloy et al. (1992)

^b Systems where the escapement is counted through weirs.

^c The 78 listed index streams supported 90.2% of the total KMA chum escapement in 1989. The estimated total KMA escapement goal minimum, desired, and mid point values were determined from this relationship.

Appendix B.4. Coho salmon escapement goals for fish weir systems in the Kodiak Management Area, 1995.

Weir Site	Interim Goals ^a	Interim Dates															
		8/15		8/20		8/25		8/31		9/5		9/10		9/15		9/20	
		Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)	Weir	(Bldup)
Karluk (255-101)	Min. Des.	-	-	50	-	100	(1,400)	300	(2,200)	1,500	(3,500)	3,000	(7,000)	8,000	(5,000)	10,000	(5,000)
		-	-	500	-	1,000	(2,000)	3,000	(4,000)	3,000	(6,000)	6,000	(9,000)	9,000	(8,000)	20,000	(5,000)
Ayakulik (256-201)	Min. Des.	500	(1,000)	3,000	(2,000)	4,000	(3,500)	7,000	(5,000)	10,000	(7,000)	12,000	(6,000)	-	(6,000)	-	(2,000)
		2,000	(1,500)	6,000	(2,500)	7,000	(5,000)	13,000	(6,000)	15,000	(8,000)	18,000	(9,000)	-	(8,000)	-	(4,000)
Dog Salmon (257-403)	Min. Des.	-	(100)	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	(1,000)
		-	(200)	200	-	1,500	-	3,000	-	4,500	-	4,500	-	5,500	-	-	(3,000)
Upper Station (257-304)	Min. Des.	-	-	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	-
		-	-	200	-	1,500	-	3,500	-	4,000	-	4,500	-	5,500	-	-	-
Akalura (257-302)	Min. Des.	-	-	-	-	50	-	250	-	500	-	1,000	-	1,500	-	-	-
		-	-	-	-	200	-	1,000	-	1,500	-	2,500	-	3,500	-	-	-
Horse Marine (257-402)	Min. Des.	-	-	-	-	50	-	200	-	400	-	800	-	1,000	-	-	-
		-	-	-	-	100	-	400	-	800	-	1,600	-	2,500	-	-	-
Saltery (259-415)	Min. Des.	-	-	-	(100)	50	(500)	300	(1,000)	1,000	(1,000)	2,000	(1,000)	2,500	(2,000)	3,000	(2,000)
		-	-	-	(500)	100	(1,000)	1,000	(2,000)	2,000	(2,000)	3,000	(2,000)	4,000	(3,000)	5,000	(5,000)
Buskin (259-211)	Min. Des.	25	-	100	-	300	-	400	-	1,000	-	2,000	-	2,000	-	3,000	(3,000) ^b
		100	-	300	-	500	-	1,000	-	2,000	-	3,500	-	4,000	-	5,000	(4,000)
Litnik (252-342)	Min. Des.	500	-	1,000	-	1,500	-	2,000	-	2,500	-	3,000	-	3,500	-	-	-
		2,000	-	3,000	-	4,000	-	5,000	-	6,000	-	7,000	-	8,000	-	-	-
Pauls (251-831)	Min. Des.	500	-	1,500	-	3,000	-	3,500	-	4,500	-	5,500	-	6,500	-	-	-
		2,000	-	3,000	-	5,000	-	6,000	-	7,000	-	8,000	-	9,000	-	-	-
Perenosia (251-830)	Min. Des.	50	-	500	-	1,000	-	1,300	-	1,500	-	1,700	-	2,000	-	-	-
		500	-	1,000	-	3,000	-	2,800	-	3,000	-	3,200	-	3,500	-	-	-
Big Bay (251-601)	Min. Des.	20	-	100	-	150	-	200	-	250	-	300	-	400	(600)	600	(400)
		100	(200)	200	(300)	300	(300)	400	(400)	500	(600)	600	(1,000)	800	(1,200)	1,300	(700)
Bear Creek (251-706)	Min. Des.	10	-	50	-	100	-	125	-	150	-	175	-	150	-	350	-
		50	(50)	150	(100)	200	(150)	250	(200)	300	(400)	350	(600)	500	(500)	700	(400)

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^a Source: Malloy et al. (1992)

^b Includes 2,000 coho for sport fish harvest.

Appendix B.5. Peak indexed coho salmon escapement goals for Northeast District nonweired systems in the Kodiak Management Area, 1995.

Geographical Location	Stream		Escapement Goals ^{a, b}	
	Name	Number	Minimum	Desired
Monashka/Mill Bay	Monashka	(259-101)	20	35
	Virginia	(259-105)	30	45
	Pillar	(259-102)	30	45
	Island Lake	(259-103)	40	60
Subtotal	4 Streams		120	180
Woman's Bay^c	Buskin	(259-211)	2,000 ^d	4,210 ^d
	Sargent	(259-221)	65	100
	Russian	(259-222)	40	60
	Paramanof	(259-224)	20	30
	Salonie	(259-223)	350	500
	Cliff Point	(259-232)	10	20
Subtotal	6 Streams		2,485	4,210
Middle Bay	Short	(259-235)	10	20
	Salt	(259-233)	20	30
	American	(259-231)	300	400
	Slough	(259-234)	100	200
Subtotal	4 Streams		430	650
Kalsin Bay	Mayflower	(259-246)	30	45
	Sid Olds	(259-242)	450	675
	Kalsin	(259-243)	100	150
	Frank	(259-244)	10	20
	Myrtle	(259-245)	30	45
Subtotal	5 Streams		620	935
Outer Chiniak Bay	Rosalyn	(259-251)	600	1,200
	Twin	(259-252)	40	60
	Capelin	(259-253)	20	30
	Chiniak	(259-254)	100	150
	Chiniak Lagoon	(259-255)	10	20
Subtotal	5 Streams		770	1,460

-Continued-

Appendix B.5. (page 2 of 2)

Geographical Location	Stream		Escapement Goals ^{a, b}	
	Name	Number	Minimum	Targeted
<i>Coastal Chiniak</i>	Sacramento	(259-401)	40	60
	Twin Peaks	(259-402)	10	20
	Valley	(259-403)	10	20
	Barry's	(259-405)	10	20
	Burton's	(259-404)	10	20
Subtotal	5 Streams		70	120
GRAND TOTAL	29 Streams		4,475	7,555

^a Total indexed escapement as of October and November aerial and foot surveys.

^b Source: Malloy et al. (1992). These escapement goals were developed by Kodiak Area fishery biologists, Frank VanHulle and Pete Murray with the Sport Fish Division, and Ken Manthey, Larry Malloy and Dave Prokopowich with the Commercial Fisheries Division. The basis for these goals is the annual escapement and subsequent return data derived from approximately 1970 through 1988.

^c Includes the Buskin River actual total escapement obtained by fish weir count.

^d Buskin River actual weir escapement as of 9/10, an important date for management of the freshwater sport fisheries in Buskin River.

Appendix B.6. Chinook salmon escapement goals, by week, for systems with fish weirs, Kodiak Management Area, 1995.

River	Interim Goals ^a	Interim Dates							
		5/30	6/06	6/13	6/20	6/27	7/04	7/11	7/18
Karluk (255-101)	Minimum	100	500	1,500	2,500	3,000	3,500	4,000	4,500
	Desired	300	800	2,800	4,500	6,000	7,000	7,500	8,000
Ayakulik (256-201)	Minimum	500	1,000	3,500	4,500	5,000	5,500	6,000	6,500
	Desired	1,500	3,000	5,000	6,000	7,000	8,000	9,000	10,000
Dog Salmon (257-403)	Minimum	-	-	-	20	40	80	100	110
	Desired	-	-	-	60	120	240	300	330

^a Escapement goals shown in this table are based upon historical escapement database for 10 year period 1980-1989 and the subsequent return from those escapements. As additional research is conducted on the nature of these chinook salmon populations as well as the carrying capacity/production potential for chinook salmon in these systems, adjustments in these goals may be recommended.

MAJOR SALMON HARVEST AREAS

AREA 1 - North Shelikof Sections

AREA 2 - SW Afognak Section

AREA 3 - NW Kodiak District

AREA 4 - SW Kodiak District

AREA 5 - Alitak Bay District

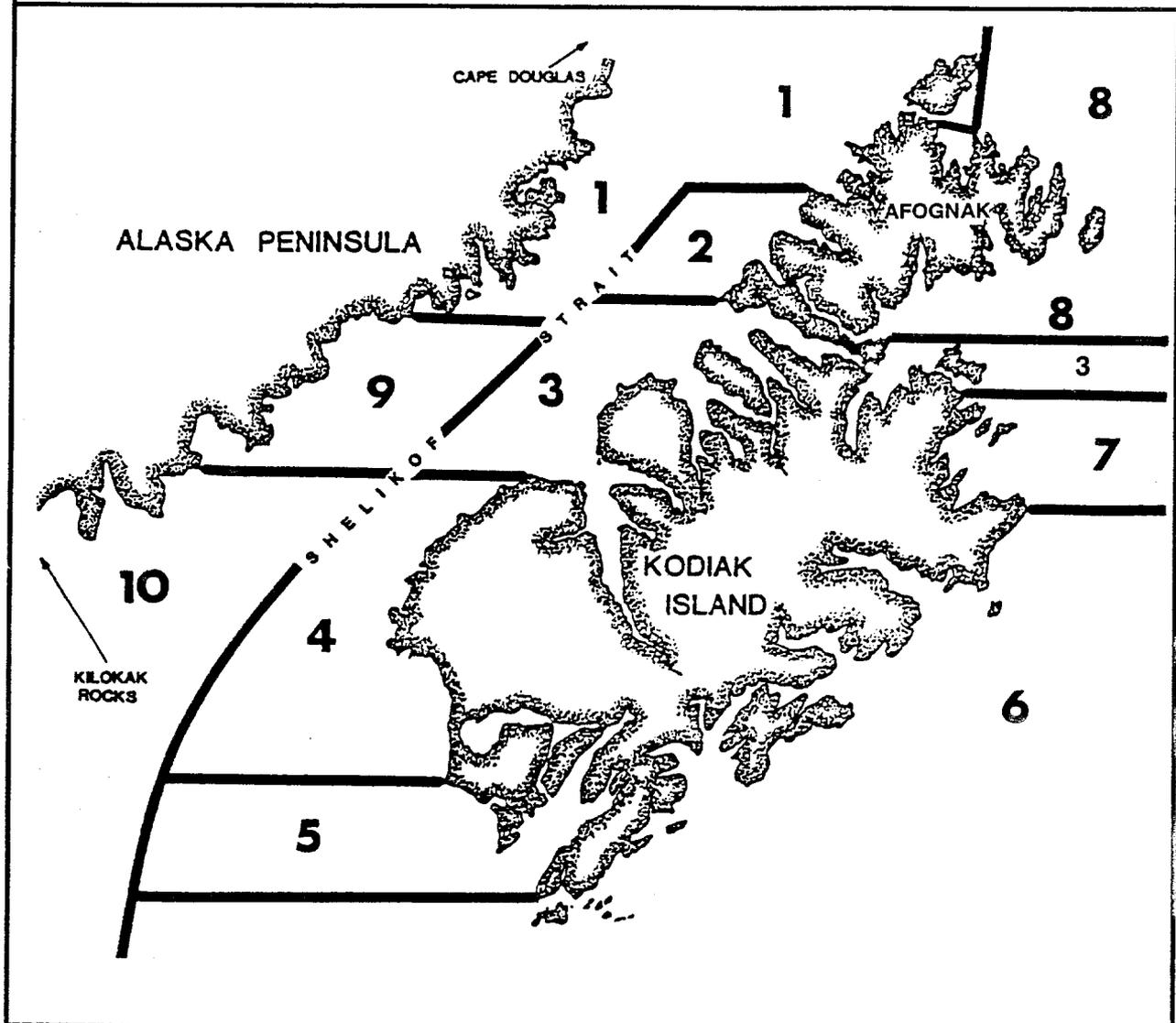
AREA 6 - Eastside Kodiak District

AREA 7 - NE Kodiak District

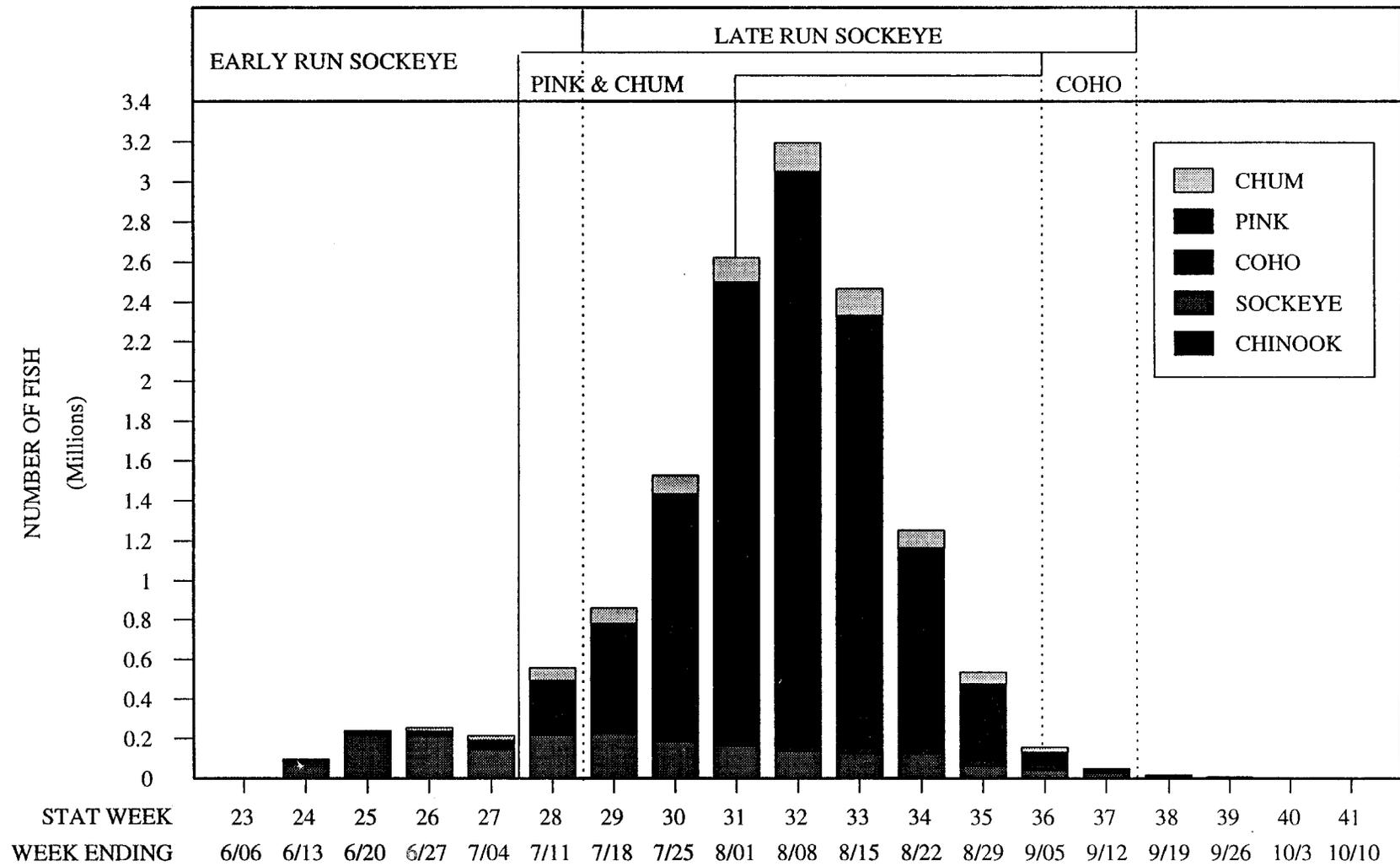
AREA 8 - Remaining Afognak Sections

AREA 9 - Katmai & Alinchak Sections

AREA 10 - Igyak & Wide Bay Sections



Appendix C.1. Key to ten major salmon management units used for harvest averages for the Kodiak Management Area, 1970-1995.

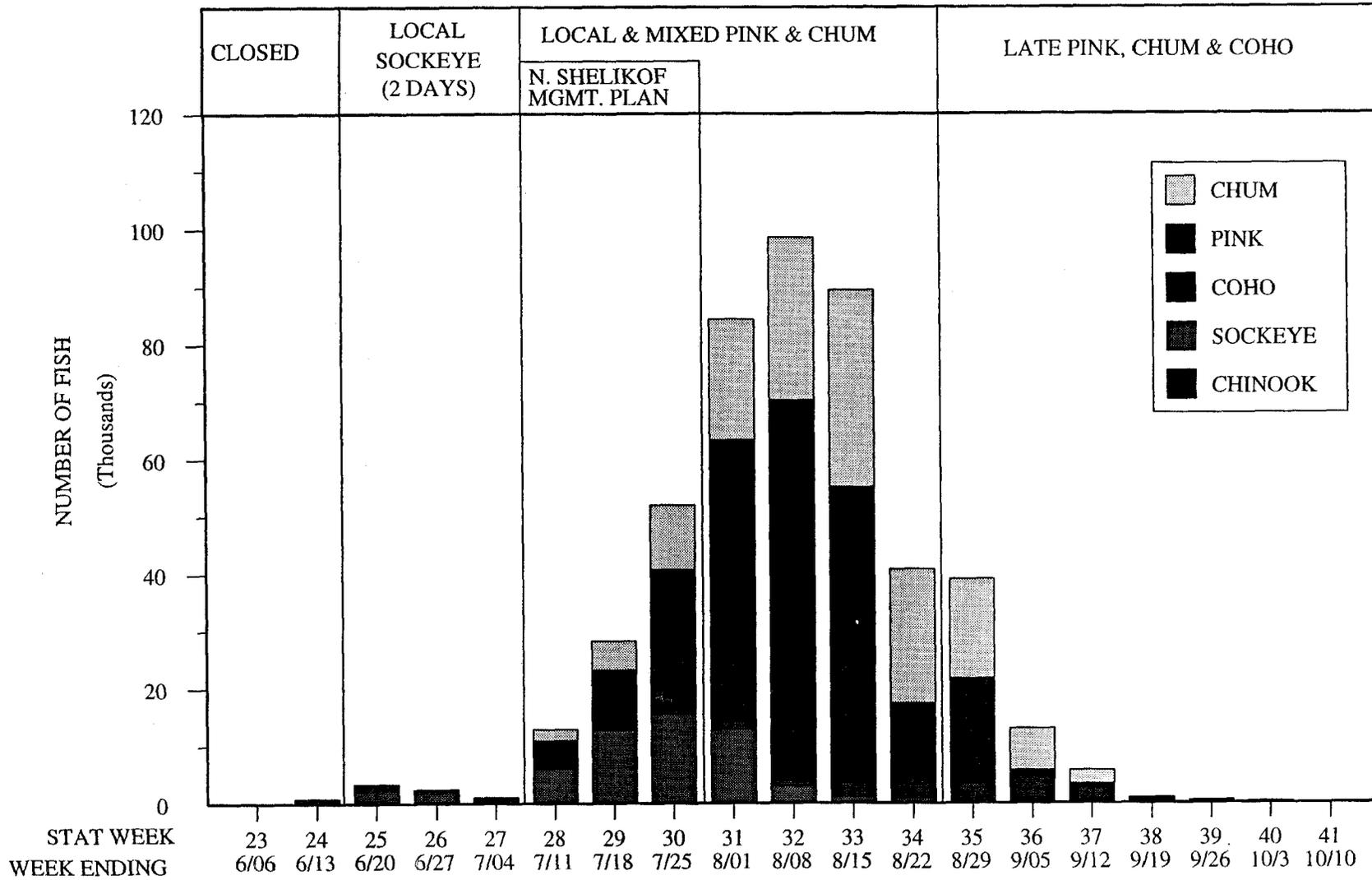


Appendix C.2. Overall area management chronology and average salmon harvest by species by week for the Kodiak Management Area, 1970-1995.

Appendix C.2. (page 2 of 2)

Total Kodiak Management Area catch by statistical week, 1970-1995 (Statistical Areas 251-00 to 262-99)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	1	252	0	44	30
24	649	90,206	113	575	2,877
25	1,371	214,733	70	10,439	11,686
26	962	210,099	97	25,232	18,924
27	609	141,706	280	48,252	21,255
28	1,186	215,754	3,841	273,488	61,273
29	1,022	221,159	7,728	550,924	76,092
30	734	181,704	9,484	1,241,906	91,290
31	624	162,530	12,242	2,326,721	120,498
32	492	134,727	14,780	2,901,031	142,300
33	371	121,179	21,500	2,188,851	135,255
34	145	119,503	24,463	1,020,617	86,318
35	76	58,943	24,367	393,322	57,730
36	42	39,317	23,803	66,581	25,106
37	26	22,961	14,091	2,566	8,153
38	12	10,300	4,982	712	839
39	5	2,760	3,181	213	217
40	0	550	833	69	133
41	0	6	63	0	0

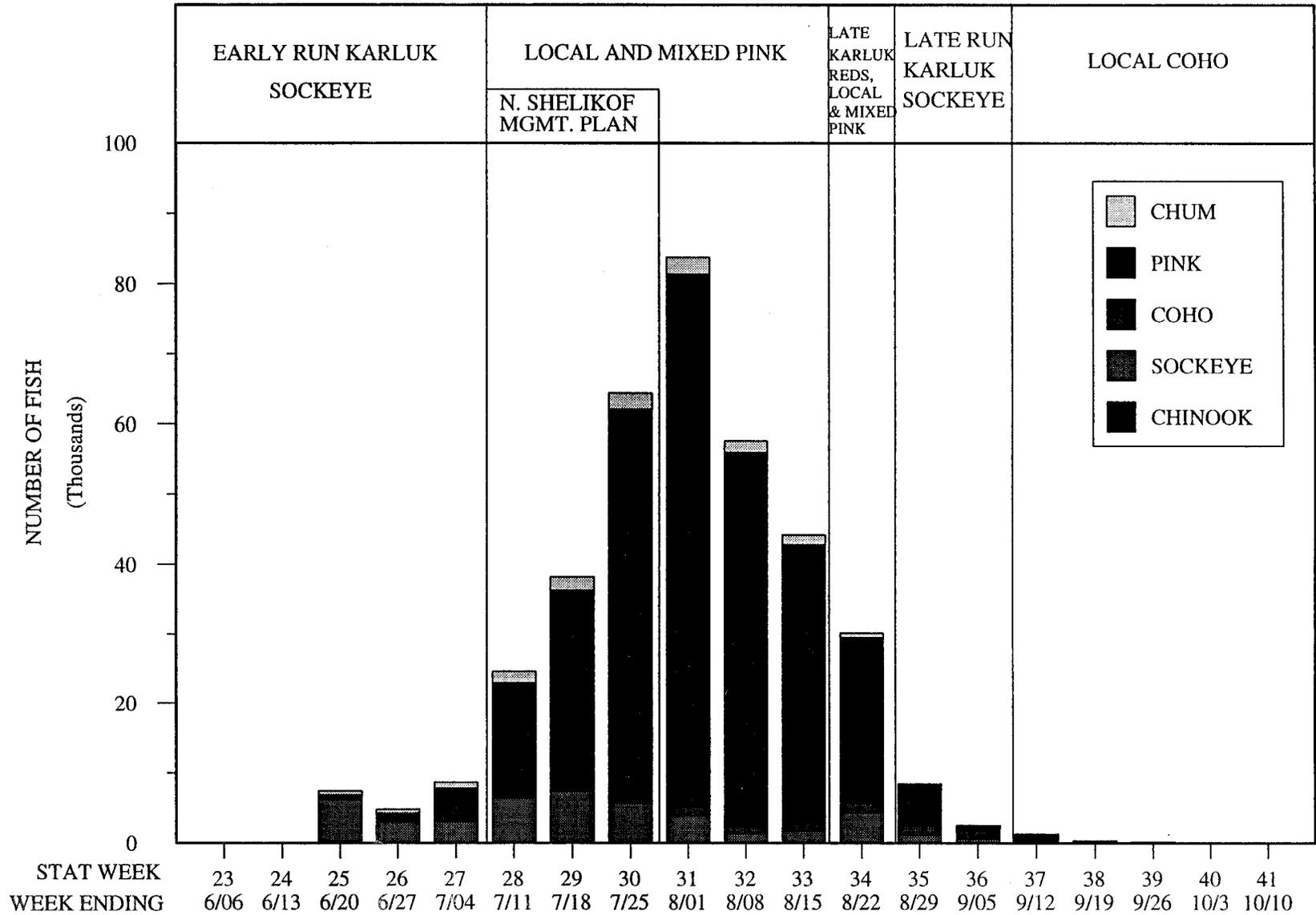
Total	8,326	1,948,392	165,916	11,051,541	859,977



Appendix C.3. North Shelikof sections management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.3. (page 2 of 2)

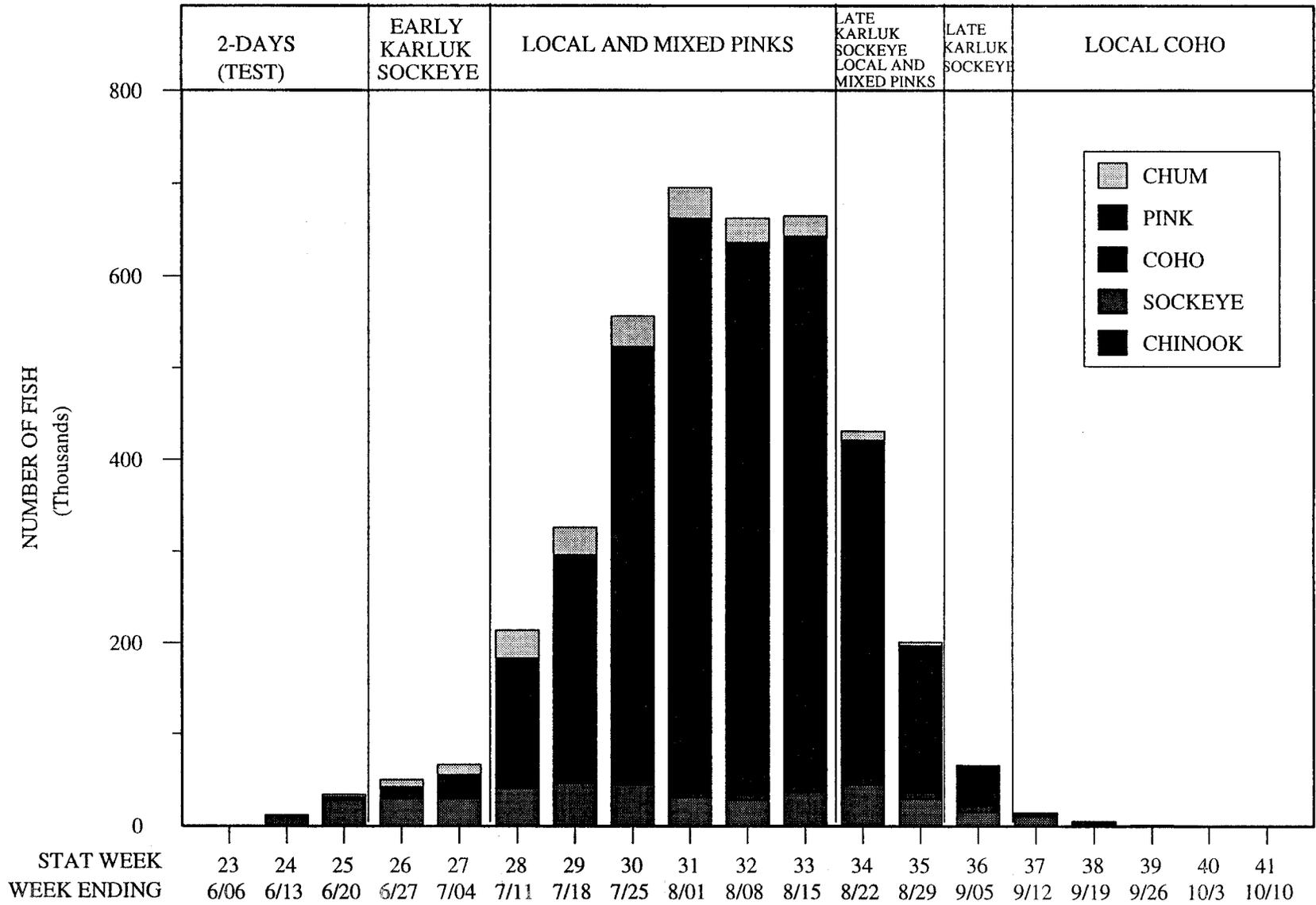
North Shelikof sections catch by statistical week, 1970-1995 (Statistical Areas 251-30 to 251-81 and 262-10 to 262-55)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	5	0	0	0
24	2	833	2	1	63
25	5	3,200	0	44	36
26	14	2,195	0	181	91
27	3	660	9	394	34
28	59	5,766	49	5,036	1,992
29	192	12,507	200	10,339	5,002
30	181	15,215	695	24,689	11,154
31	58	12,725	1,377	49,163	21,014
32	21	2,792	1,059	66,350	28,243
33	5	1,037	2,243	51,791	34,358
34	2	786	3,256	13,381	23,382
35	0	183	3,218	18,336	17,380
36	0	381	4,161	1,156	7,270
37	0	276	3,010	17	2,337
38	0	10	538	6	349
39	0	0	484	0	31
40	0	12	242	0	18
41	0	0	32	0	0
Total	540	58,584	20,577	240,884	152,753



Appendix C.4. Southwest Afognak Section management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.4. (page 2 of 2)

Southwest Afognak Section catch by statistical week, 1970-1995 (Statistical Areas 251-10 and 251-20)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	0	0	0	0
24	6	25	0	1	4
25	252	5,944	4	599	619
26	113	2,802	2	1,279	586
27	92	2,833	10	4,886	824
28	94	6,225	106	16,544	1,649
29	35	7,269	236	28,818	1,884
30	44	5,591	642	55,852	2,313
31	97	3,735	1,160	76,435	2,333
32	38	1,316	899	53,684	1,670
33	26	1,607	1,078	40,078	1,406
34	12	4,299	1,336	23,852	609
35	4	1,211	1,232	5,888	122
36	2	626	988	895	29
37	1	339	1,019	12	6
38	0	142	182	1	1
39	0	33	161	0	8
40	0	0	51	0	0
41	0	0	2	0	0
Total	817	43,998	9,109	308,822	14,062

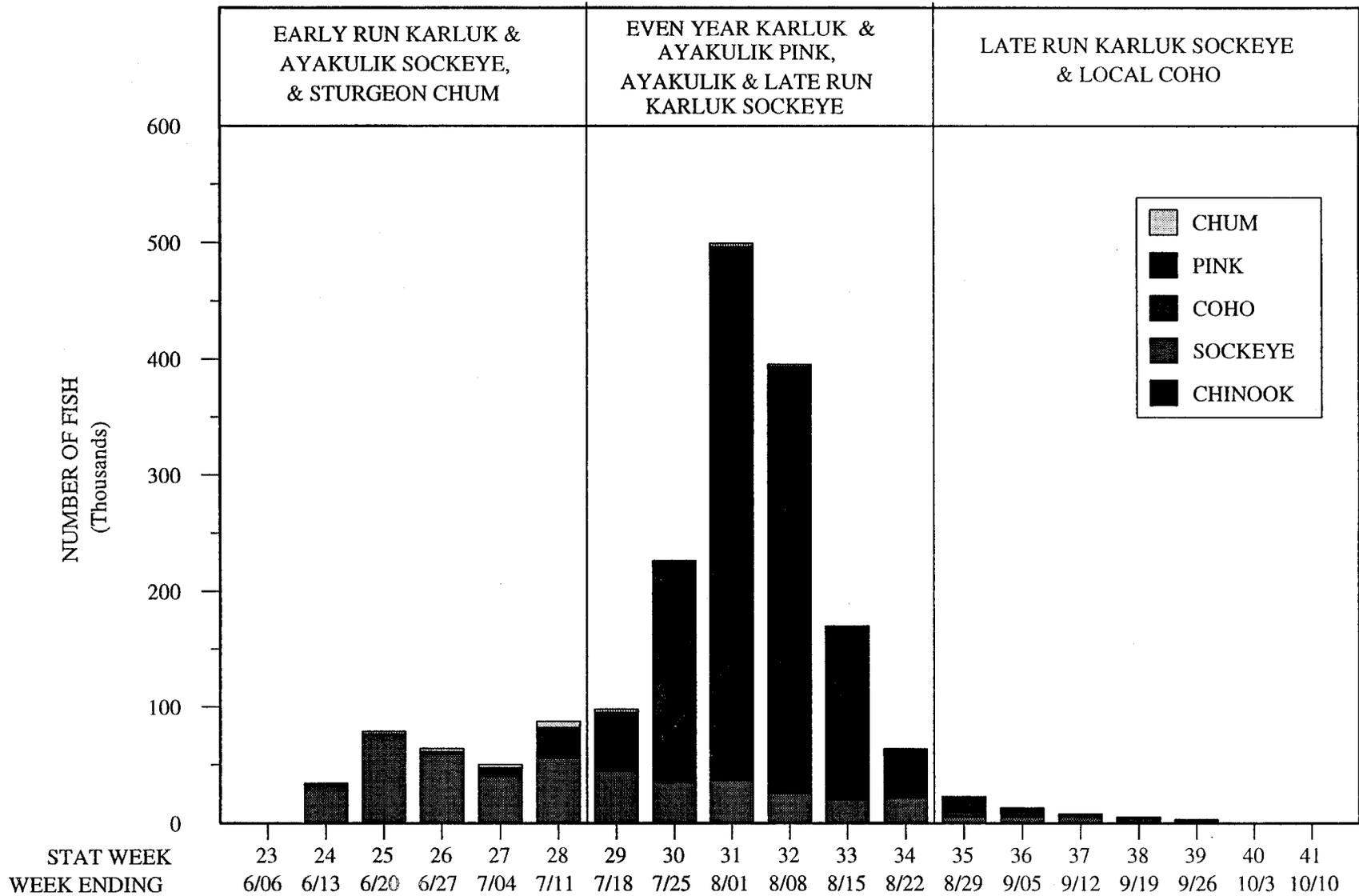


Appendix C.5. Northwest Kodiak District management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.5. (page 2 of 2)

Northwest Kodiak District catch by statistical week, 1970-1995
 (Statistical Areas 253-11 to 253-35, 254-10 to 254-50, and 259-35 to 259-39)

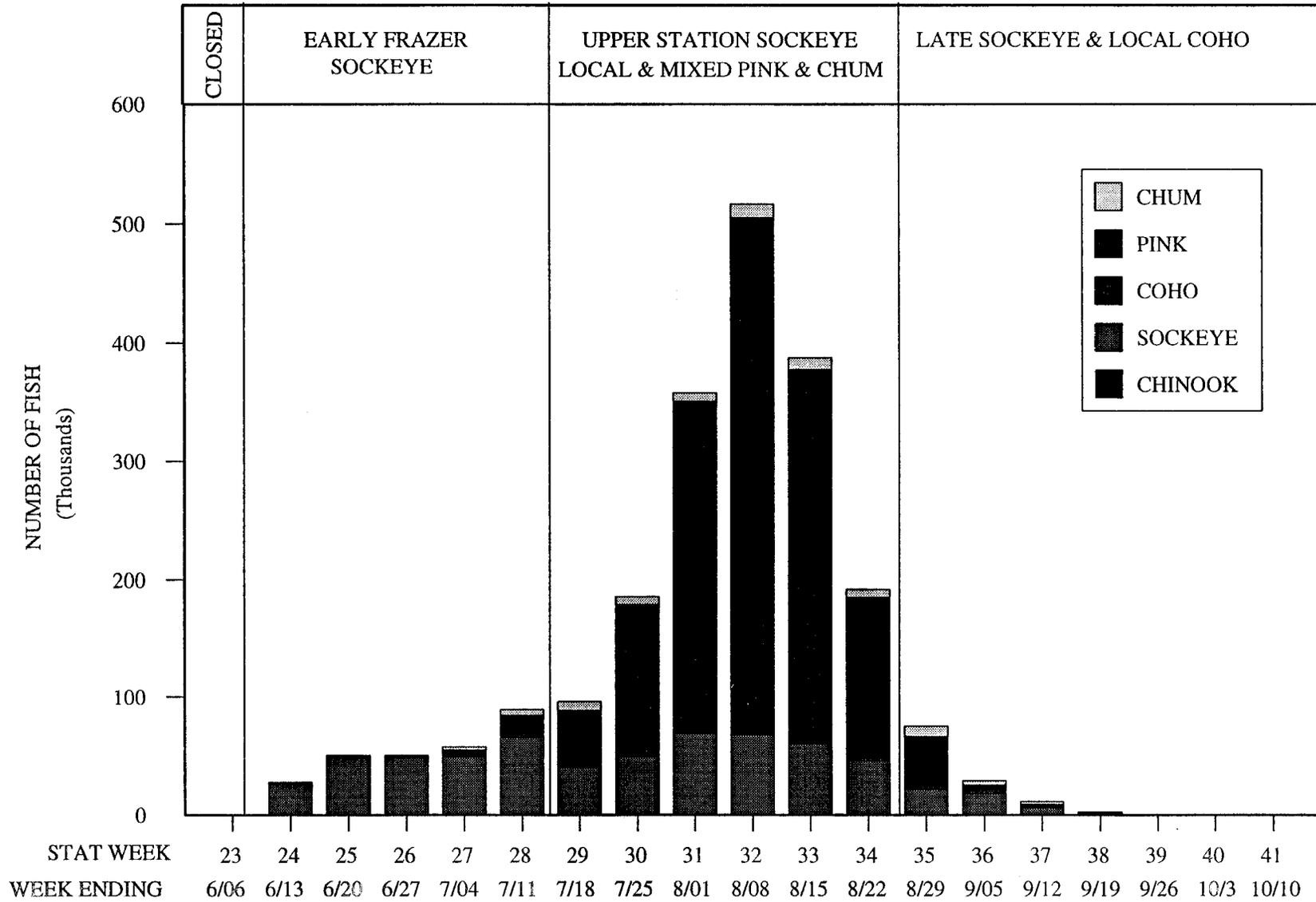
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	52	0	0	0
24	109	10,621	5	147	604
25	236	27,067	6	3,433	2,735
26	231	28,252	27	13,654	7,714
27	239	28,579	171	26,444	10,468
28	220	39,996	760	142,088	30,627
29	198	45,539	1,902	248,323	29,649
30	191	43,863	2,805	476,101	33,476
31	200	29,975	4,278	627,913	33,335
32	193	27,183	4,918	603,771	26,290
33	171	35,715	6,724	600,362	22,105
34	89	43,432	6,697	370,596	9,964
35	55	29,062	6,170	161,549	3,942
36	26	15,114	5,724	43,401	1,193
37	18	10,537	2,517	1,217	208
38	10	4,682	631	38	42
39	3	972	144	211	9
40	0	63	55	0	23
41	0	4	15	0	0
Total	2,188	420,708	43,551	3,319,247	212,384



Appendix C.6. Southwest Kodiak District management chronology and average harvest by week and species in the Kodiak Management Area, 1970-1995.

Appendix C.6. (page 2 of 2)

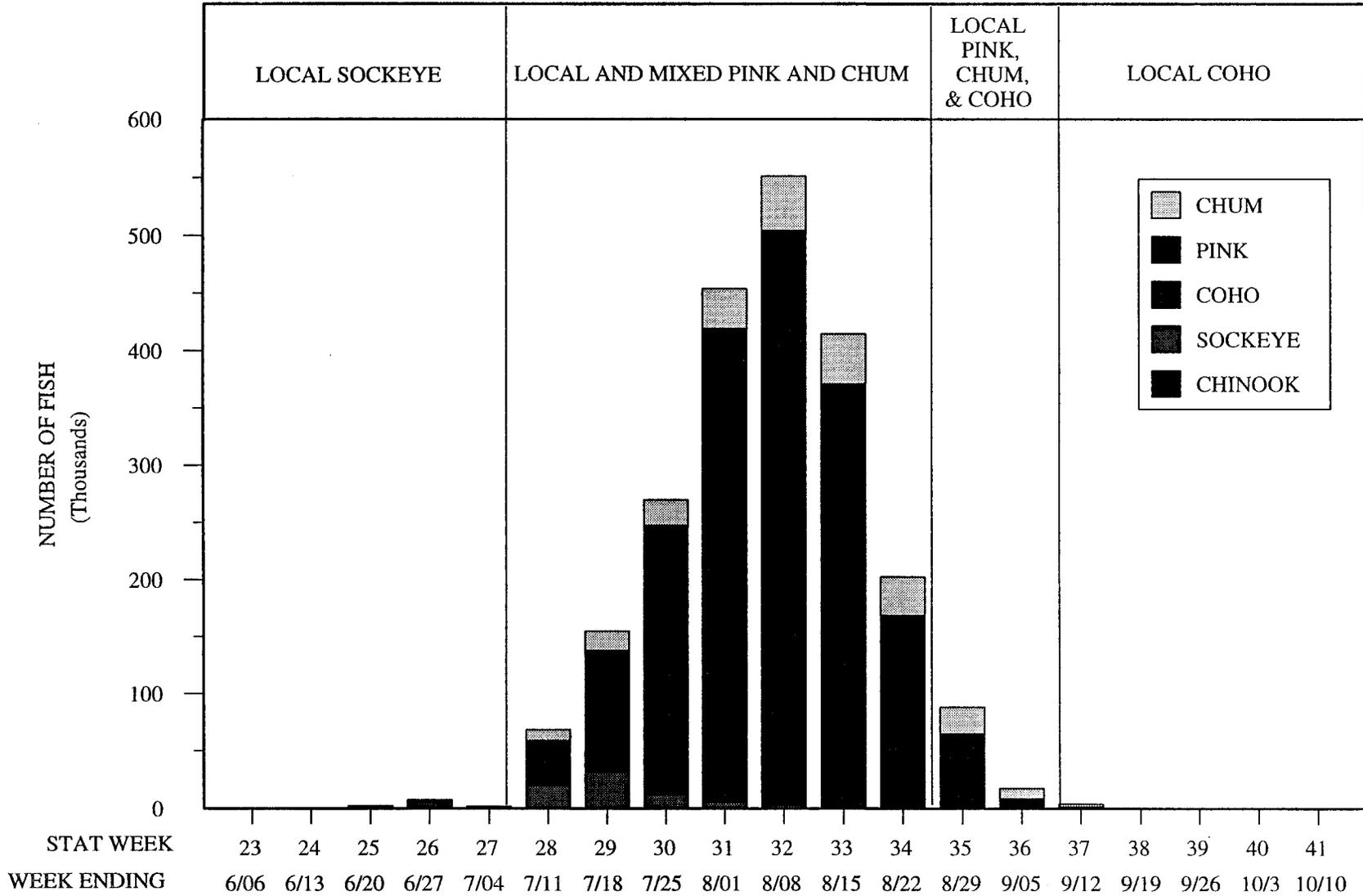
Southwest Kodiak District catch by statistical week, 1970-1995 (Statistical Areas 255-10, 255-20, and 256-10 to 256-40)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	1	86	0	0	1
24	421	33,710	103	35	270
25	653	75,261	32	849	2,212
26	442	58,721	7	2,301	2,707
27	218	40,114	15	7,103	3,046
28	151	55,446	103	26,834	4,920
29	62	44,289	252	50,771	2,495
30	46	34,796	513	189,553	1,738
31	57	36,792	963	459,042	2,762
32	47	25,496	996	367,093	1,795
33	23	19,662	1,668	147,659	888
34	13	21,589	2,008	40,196	387
35	6	5,718	4,188	12,840	212
36	8	5,225	3,986	3,974	129
37	7	5,935	2,213	129	55
38	1	3,802	1,843	3	43
39	1	1,510	2,043	0	43
40	0	452	139	0	18
41	0	0	0	0	0
Total	2,158	468,603	21,071	1,308,382	23,721



Appendix C.7. Alitak Bay District management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.7. (page 2 of 2)

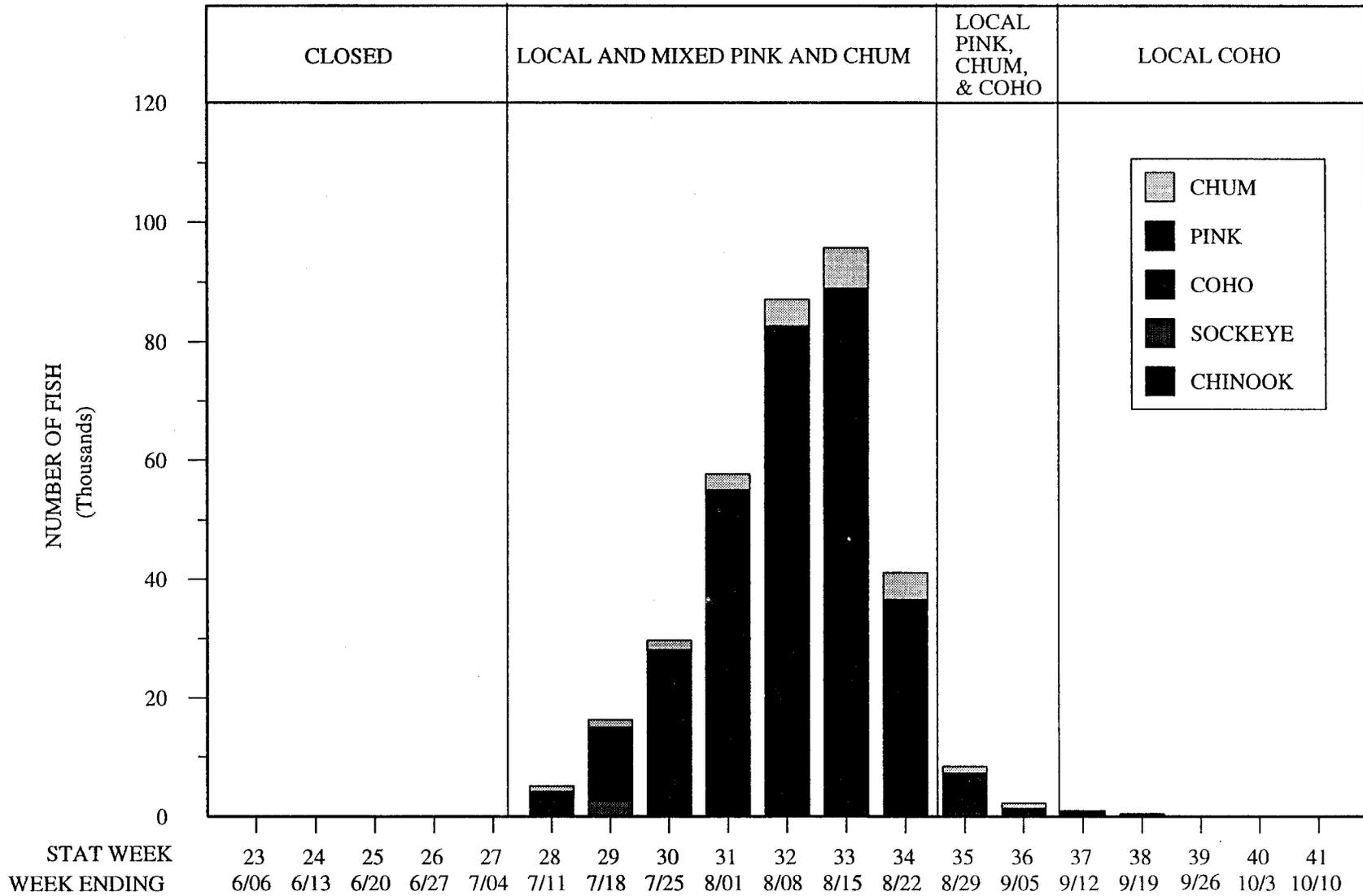
Alitak Bay District catch by statistical week, 1970-1995 (Statistical Areas 257-10 to 257-70)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	41	0	0	0
24	62	27,432	1	8	104
25	65	49,216	1	210	665
26	50	48,619	3	515	926
27	31	49,165	28	5,480	2,519
28	54	65,097	109	18,814	5,026
29	23	40,196	143	47,946	7,706
30	22	48,428	312	130,002	6,759
31	44	68,375	601	281,676	7,059
32	25	67,033	915	437,116	11,286
33	10	60,259	1,671	315,421	9,828
34	5	45,128	2,544	137,166	6,873
35	5	21,538	3,227	41,141	9,162
36	2	17,629	4,127	3,549	3,802
37	1	5,830	2,043	678	2,400
38	0	1,646	518	2	276
39	0	245	33	0	24
40	0	18	95	0	3
41	0	0	0	0	0
Total	398	615,897	16,374	1,419,725	74,417



Appendix C.8. Eastside Kodiak District management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.8. (page 2 of 2)

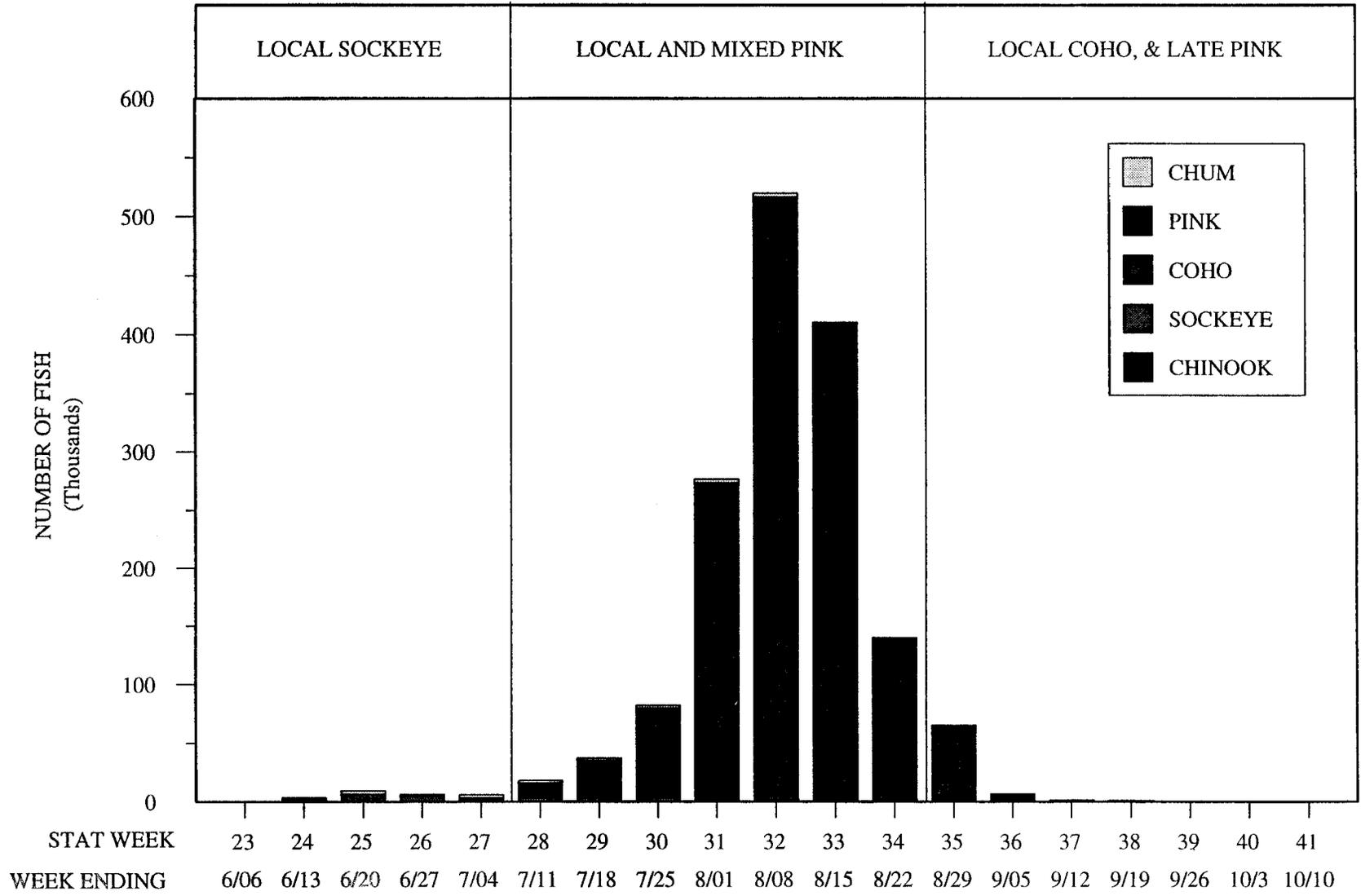
Eastside Kodiak District catch by statistical week, 1970-1995 (Statistical Areas 258-10 to 258-90, and 259-40 to 259-42)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	0	0	0	0
24	0	0	0	23	2
25	9	1,698	2	233	384
26	31	5,217	6	616	1,561
27	2	860	0	787	149
28	350	19,322	2,022	37,106	9,447
29	237	31,339	2,967	102,913	17,143
30	145	11,442	2,330	233,286	22,427
31	79	5,024	1,208	412,807	34,616
32	77	2,968	1,414	499,882	46,870
33	43	1,491	1,594	367,616	43,544
34	15	930	2,024	165,523	33,925
35	5	744	1,984	62,473	23,077
36	2	28	1,630	6,892	8,889
37	0	8	1,073	73	2,552
38	0	2	361	0	54
39	0	0	115	0	31
40	0	4	135	17	72
41	0	0	0	0	0
Total	996	81,079	18,865	1,890,249	244,743



Appendix C.9. Northeast Kodiak District management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.9. (page 2 of 2)

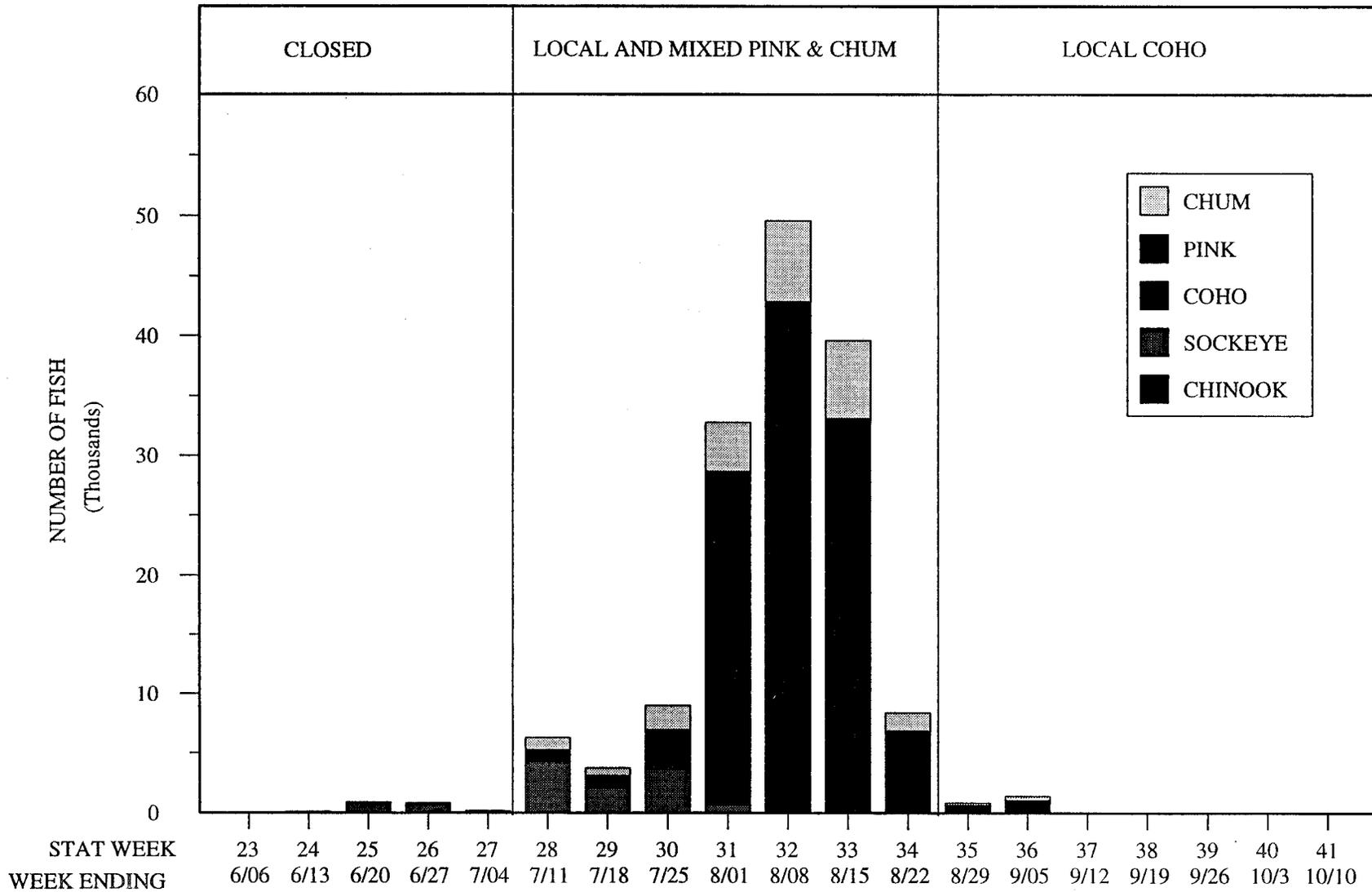
Northeast Kodiak District catch by statistical week, 1970-1995 (Statistical Areas 259-10 to 259-25)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	0	0	40	26
24	0	5	0	0	0
25	0	22	0	2	0
26	0	30	0	5	1
27	0	3	0	28	8
28	22	521	138	3,509	887
29	24	2,462	408	12,092	1,184
30	9	366	183	27,499	1,601
31	16	242	67	54,682	2,657
32	8	95	115	82,440	4,462
33	5	83	420	88,362	6,908
34	1	19	575	35,968	4,498
35	0	6	617	6,599	1,136
36	0	0	616	710	857
37	0	3	805	57	93
38	0	9	368	5	27
39	0	0	71	0	11
40	0	1	7	0	0
41	0	2	3	0	0
Total	88	3,870	4,392	312,000	24,355



Appendix C.10. Remaining Afognak sections management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.10. (page 2 of 2)

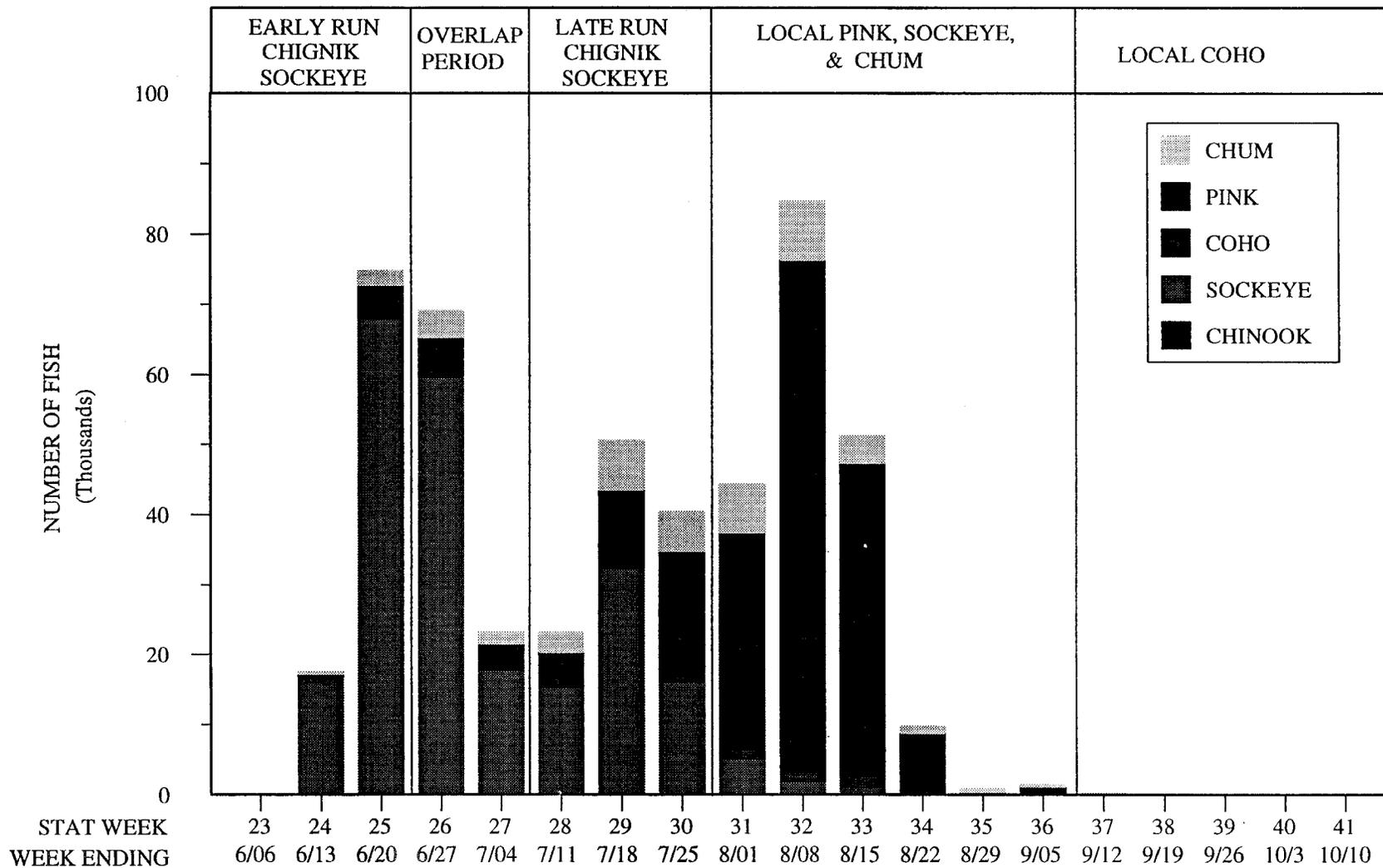
Remaining Afognak sections catch by statistical week, 1970-1995 (Statistical Areas 251-11, 251-82 to 251-90, and 252-10 to 252-35)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	26	0	0	3
24	14	1,936	0	6	1,478
25	23	6,163	0	152	2,991
26	21	4,305	5	639	1,522
27	11	1,976	38	1,386	2,556
28	49	3,142	345	12,397	2,042
29	25	3,436	697	30,886	2,134
30	16	2,591	608	76,695	2,166
31	17	2,225	1,170	269,628	3,290
32	19	1,804	2,583	512,796	2,811
33	10	1,229	4,458	403,301	1,328
34	2	423	4,934	134,089	502
35	0	78	3,276	61,184	881
36	0	23	2,501	4,190	103
37	0	2	1,323	261	20
38	0	0	379	652	0
39	0	0	54	0	0
40	0	0	109	51	0
41	0	0	10	0	0
Total	207	29,359	22,491	1,508,314	23,827



Appendix C.11. Katmai and Alinchak Sections management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.11. (page 2 of 2)

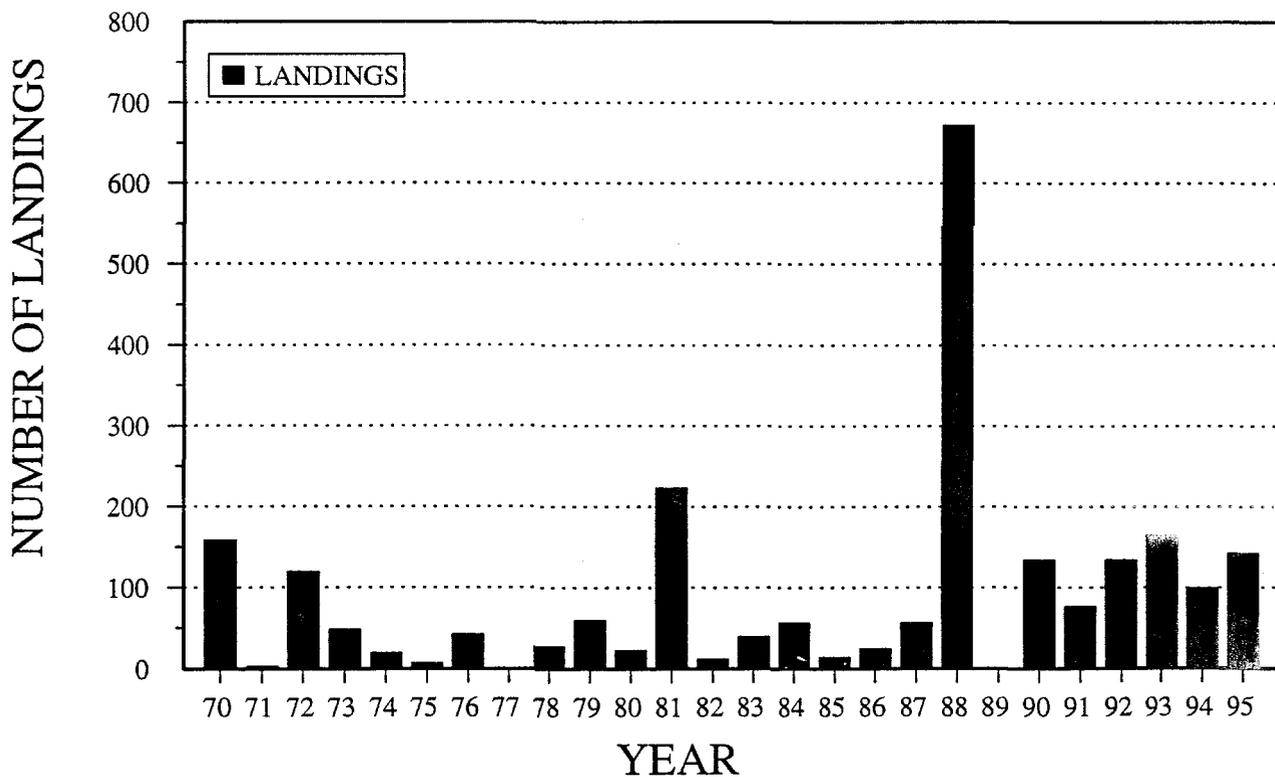
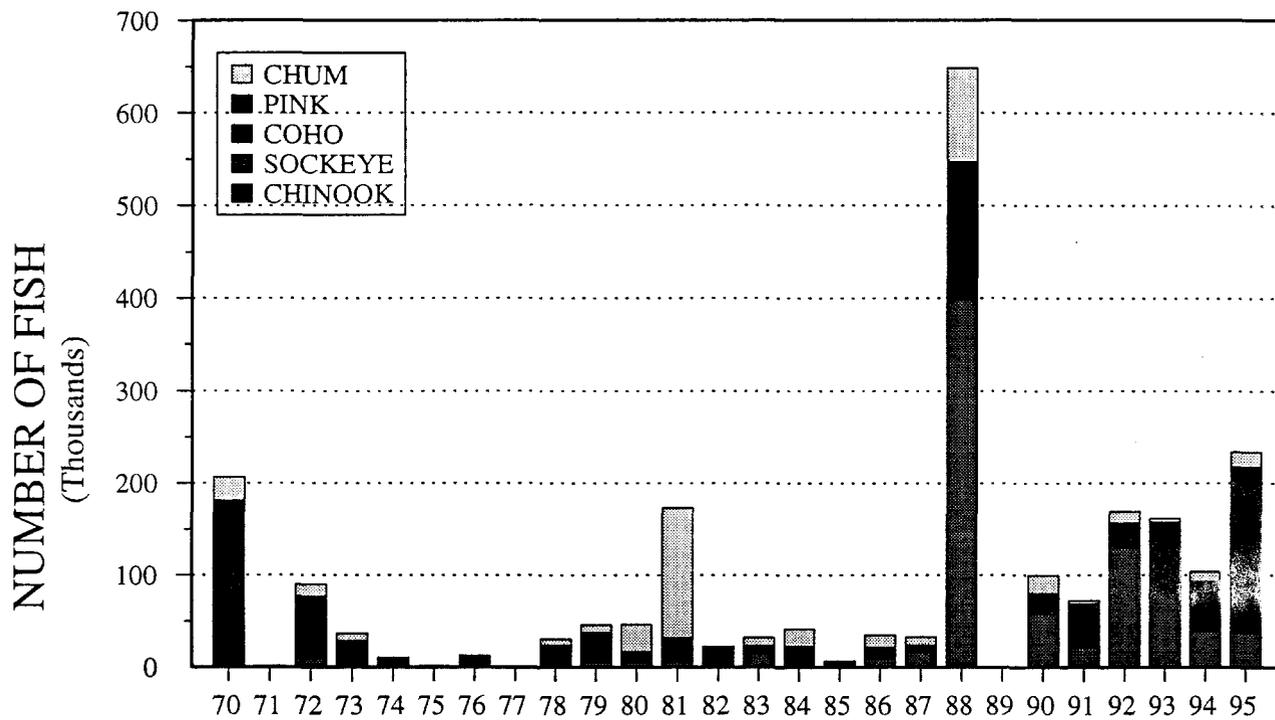
Katmai and Alinchak Sections catch by statistical week, 1970-1995 (Statistical Areas 262-60 and 262-70)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	0	0	0	0
24	0	134	0	1	1
25	1	848	0	28	24
26	1	686	0	104	42
27	0	105	0	57	21
28	74	4,122	33	1,035	999
29	10	2,096	72	920	630
30	15	3,583	306	3,020	2,052
31	4	689	57	27,899	4,109
32	6	149	161	42,573	6,703
33	2	56	159	32,851	6,548
34	0	75	57	6,708	1,528
35	0	0	64	577	211
36	0	4	243	824	360
37	0	0	32	0	13
38	0	0	33	0	8
39	0	0	0	0	0
40	0	0	3	0	0
41	0	0	0	0	0
Total	112	12,548	1,219	116,597	23,247



Appendix C.12. Cape Igvak and Wide Bay Sections management chronology and average harvest by species by week in the Kodiak Management Area, 1970-1995.

Appendix C.12. (page 2 of 2)

Cape Igvak and Wide Bay Sections catch by statistical week, 1970-1995 (Statistical Areas 262-75 to 262-95)					
Stat Week	Chinook Average Catch	Sockeye Average Catch	Coho Average Catch	Pink Average Catch	Chum Average Catch
23	0	11	0	3	0
24	35	16,756	0	353	350
25	126	67,761	24	4,870	2,013
26	59	59,522	47	5,696	3,757
27	16	17,728	1	3,780	1,690
28	110	15,144	83	4,975	2,811
29	209	32,092	657	10,572	7,023
30	64	15,956	906	17,860	5,671
31	51	5,017	1,322	31,071	6,892
32	52	1,728	1,473	73,085	8,292
33	71	1,061	1,503	44,687	3,818
34	4	194	555	7,992	1,034
35	0	51	145	189	482
36	0	305	277	585	215
37	0	10	80	4	144
38	0	5	6	0	0
39	0	0	0	0	0
40	0	0	0	0	0
41	0	0	0	0	0
Total	798	233,340	7,079	205,723	44,193

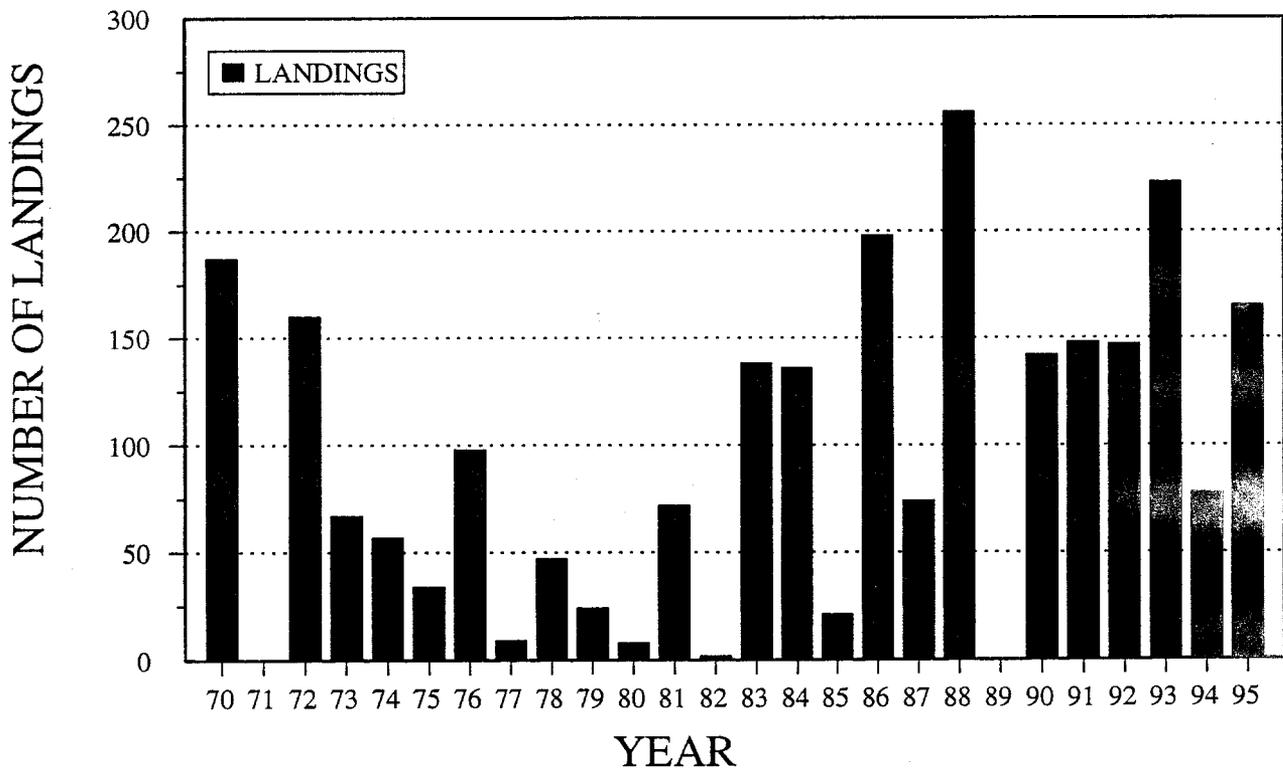
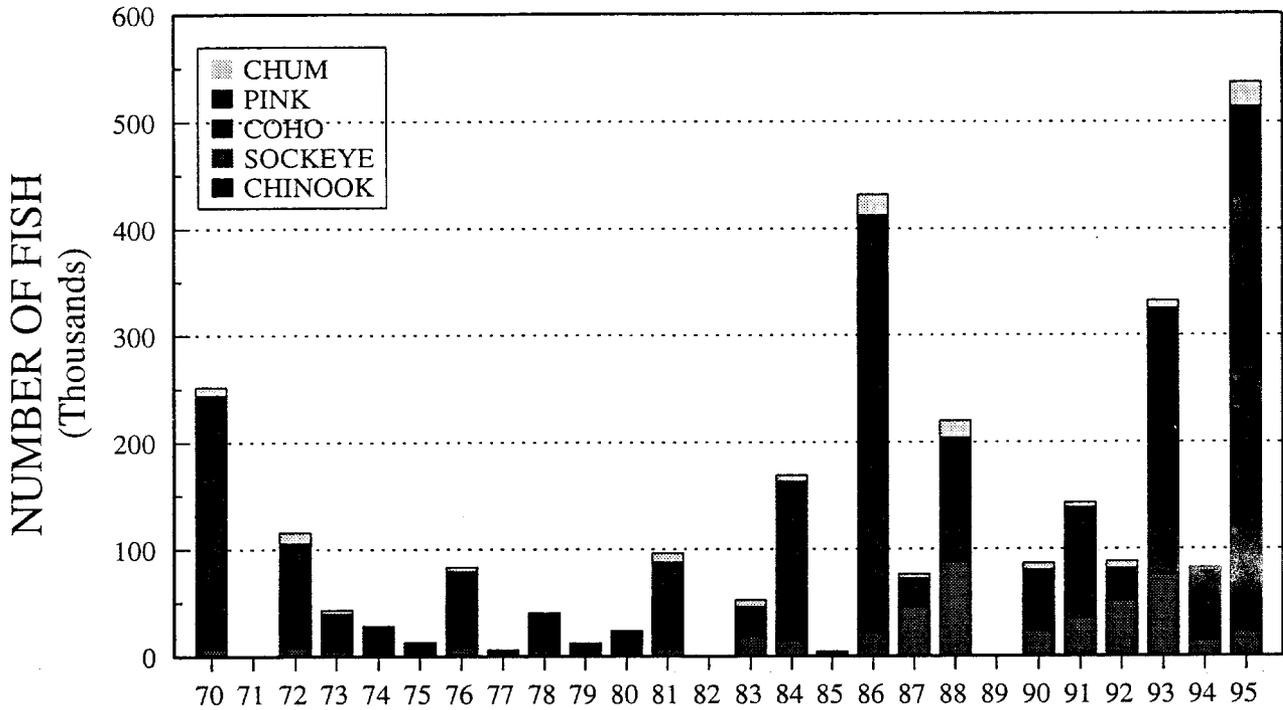


Appendix D.1. North Shelikof sections harvest and landings by species by year, July 6-25, 1970-1995.

J4-NSHELKF
10/23/95

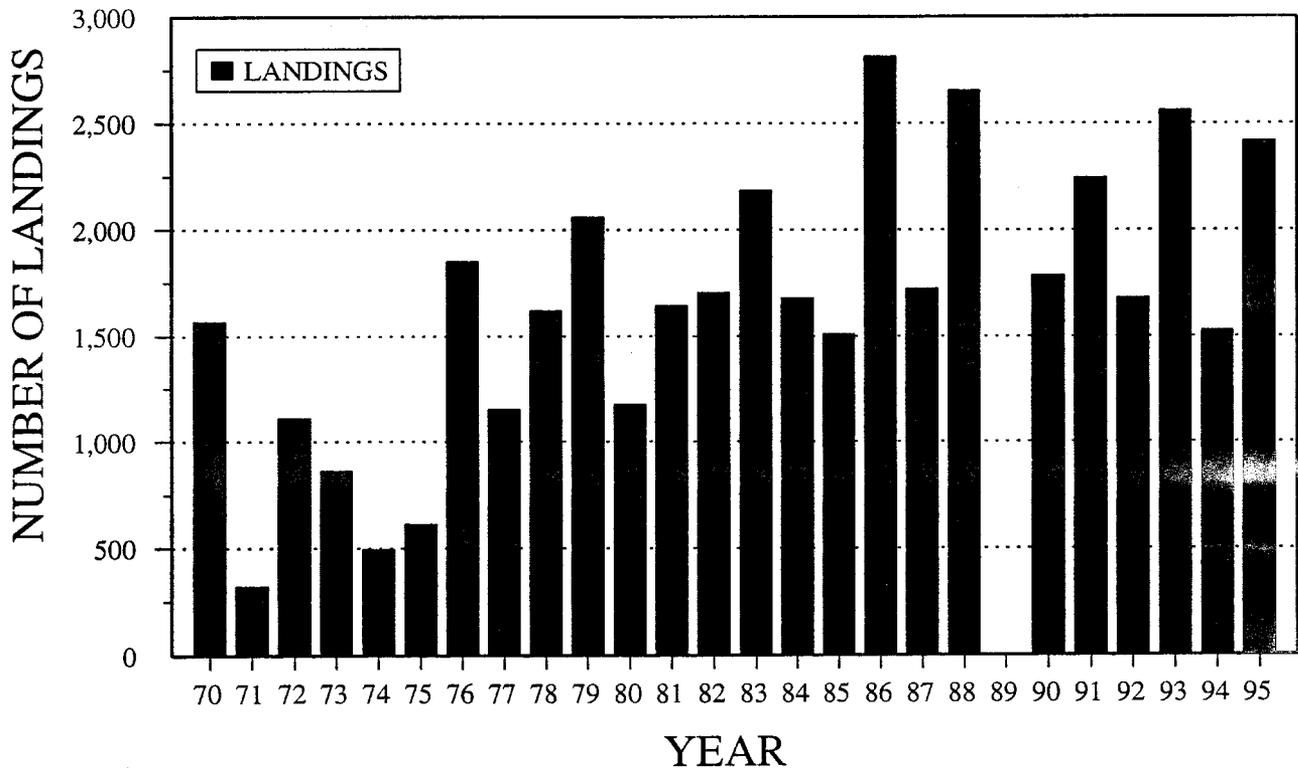
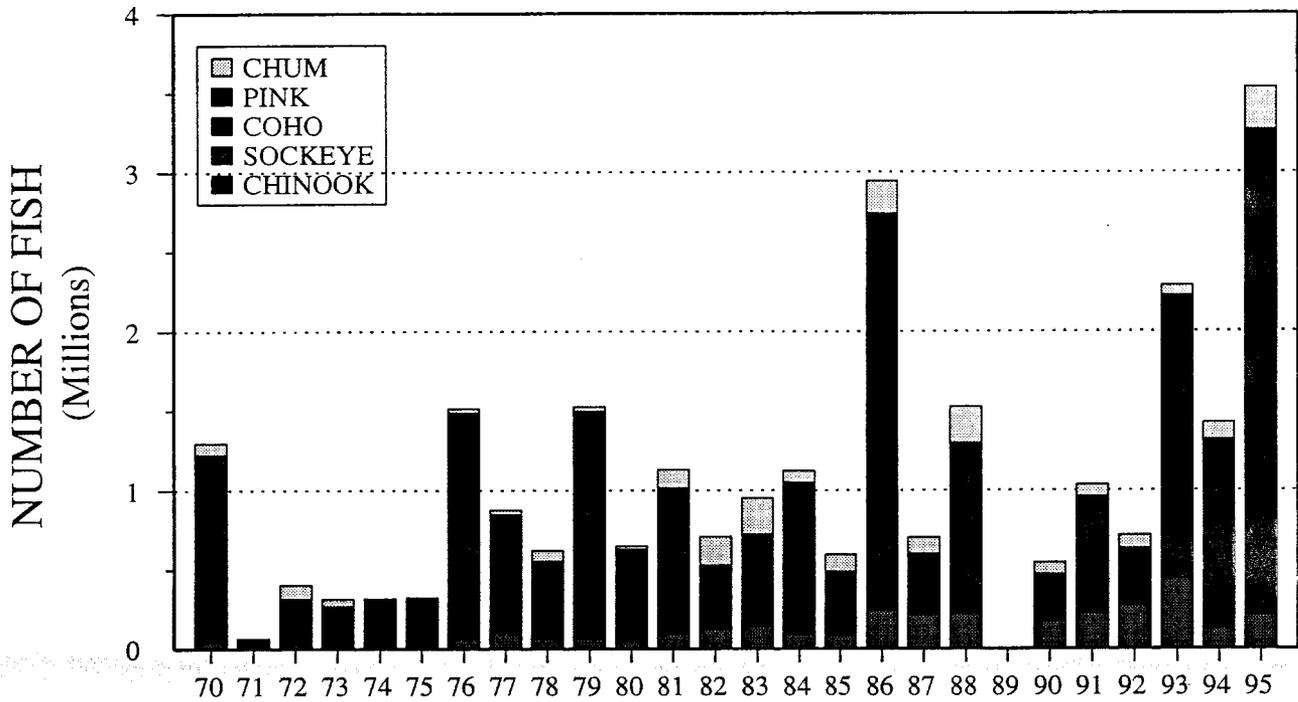
NORTH SHELIKOF SECTIONS, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	158	8	2,917	892	177,260	25,354
71	3	0	1,449	1	54	2
72	119	59	8,785	379	67,849	12,746
73	48	11	909	20	27,419	8,475
74	19	0	2,357	36	7,657	338
75	7	0	264	1	1,046	230
76	42	11	894	39	11,399	261
77	0	0	0	0	0	0
78	27	3	1,580	3	22,159	6,624
79	59	16	5,238	22	32,228	8,634
80	22	2	6,122	4	10,625	29,661
81	223	7	6,087	80	25,473	141,572
82	12	1	2,420	2	18,493	1,165
83	39	22	13,534	59	9,544	8,753
84	56	21	3,601	59	18,991	18,574
85	14	4	3,934	42	1,460	1,051
86	24	48	9,252	269	11,879	13,405
87	56	281	15,563	376	7,878	8,839
88	672	5,198	391,919	5,922	144,373	101,288
89	0	0	0	0	0	0
90	134	139	57,714	3,911	18,607	19,412
91	76	2,467	18,807	2,707	44,835	3,792
92	134	945	128,368	3,065	24,305	12,009
93	164	1,216	78,415	1,954	75,635	4,247
94	99	164	38,840	2,368	51,969	10,469
95	142	151	37,397	1,260	178,800	16,587



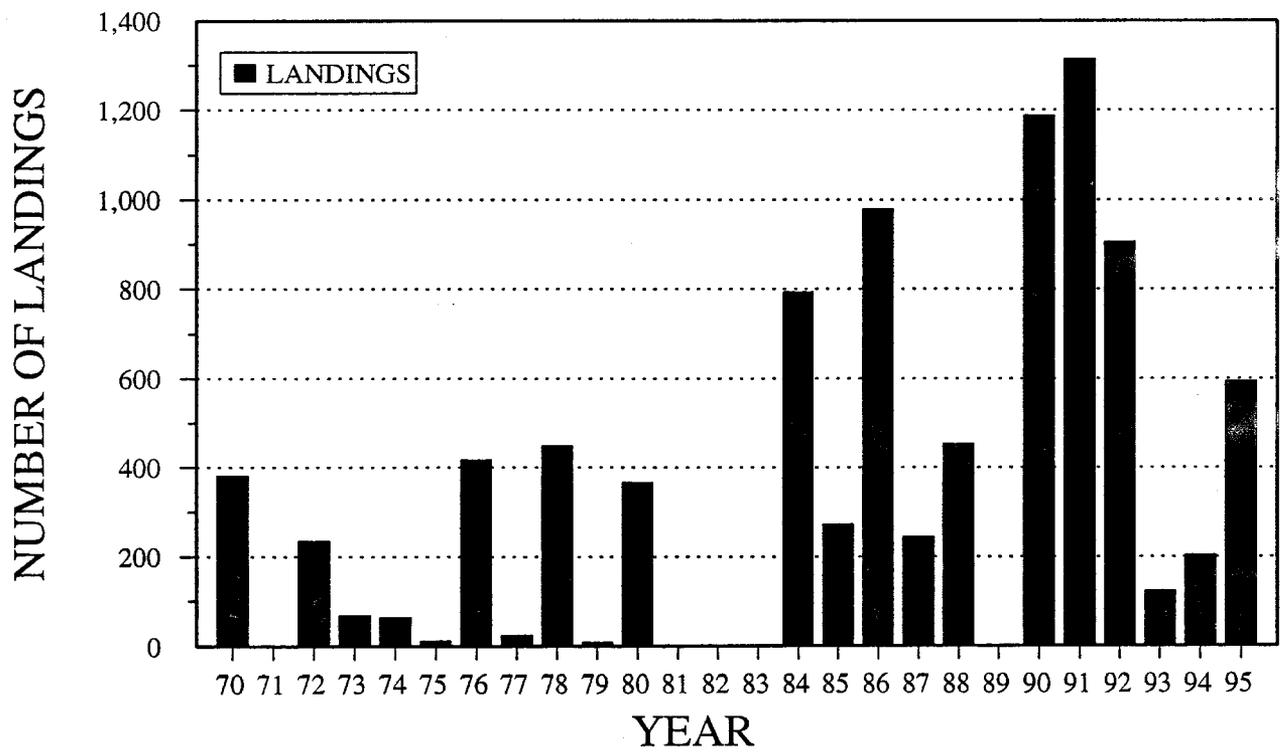
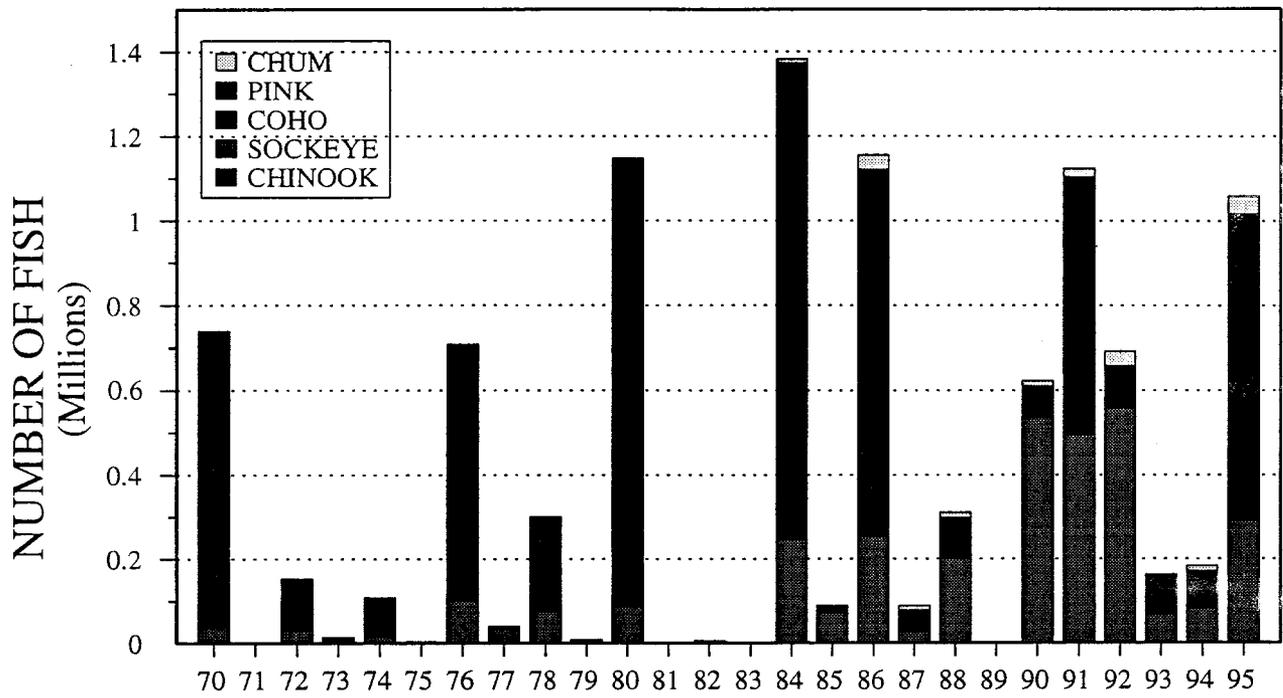
SOUTHWEST AFOGNAK SECTION, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	187	79	6,829	1,023	236,493	7,427
71	0	0	0	0	0	0
72	160	68	8,204	189	97,425	9,795
73	67	11	4,292	74	35,023	3,563
74	57	25	3,746	32	23,718	791
75	34	3	2,405	15	9,772	856
76	98	33	7,297	135	71,749	3,914
77	9	1	730	50	4,571	437
78	47	3	4,172	45	33,946	2,436
79	24	10	1,435	371	10,102	299
80	8	1	286	3	22,906	347
81	72	13	6,036	62	81,696	8,493
82	2	3	241	1	147	13
83	138	48	18,961	692	26,553	6,225
84	136	63	14,111	1,346	147,616	5,717
85	21	16	1,740	16	2,329	370
86	198	82	20,680	1,088	390,770	19,229
87	74	12	45,869	427	25,972	3,973
88	256	338	87,209	1,350	114,980	15,929
89	0	0	0	0	0	0
90	142	277	22,944	3,605	53,752	6,036
91	148	309	34,183	3,586	100,680	4,043
92	147	304	50,576	605	30,018	6,826
93	223	858	74,005	7,100	242,923	7,419
94	78	355	13,560	1,002	64,321	3,090
95	165	764	21,363	1,751	490,510	22,220



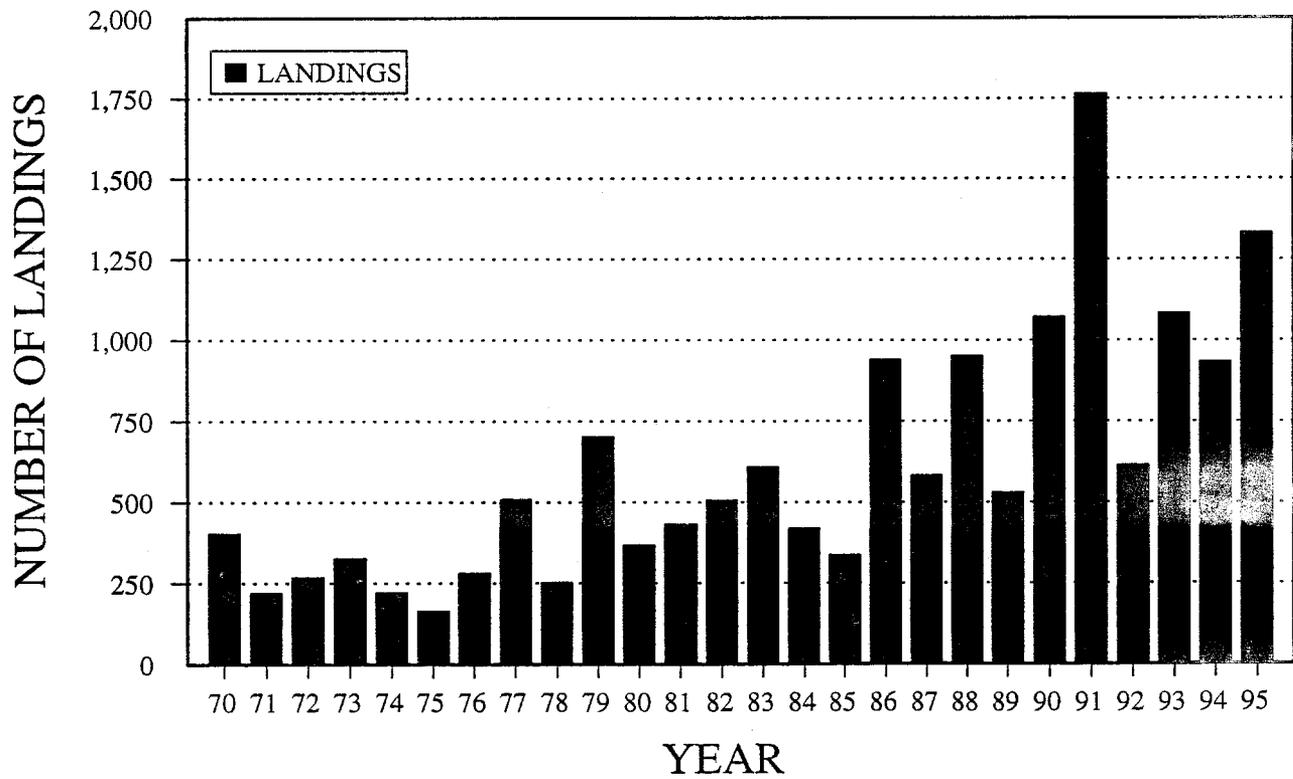
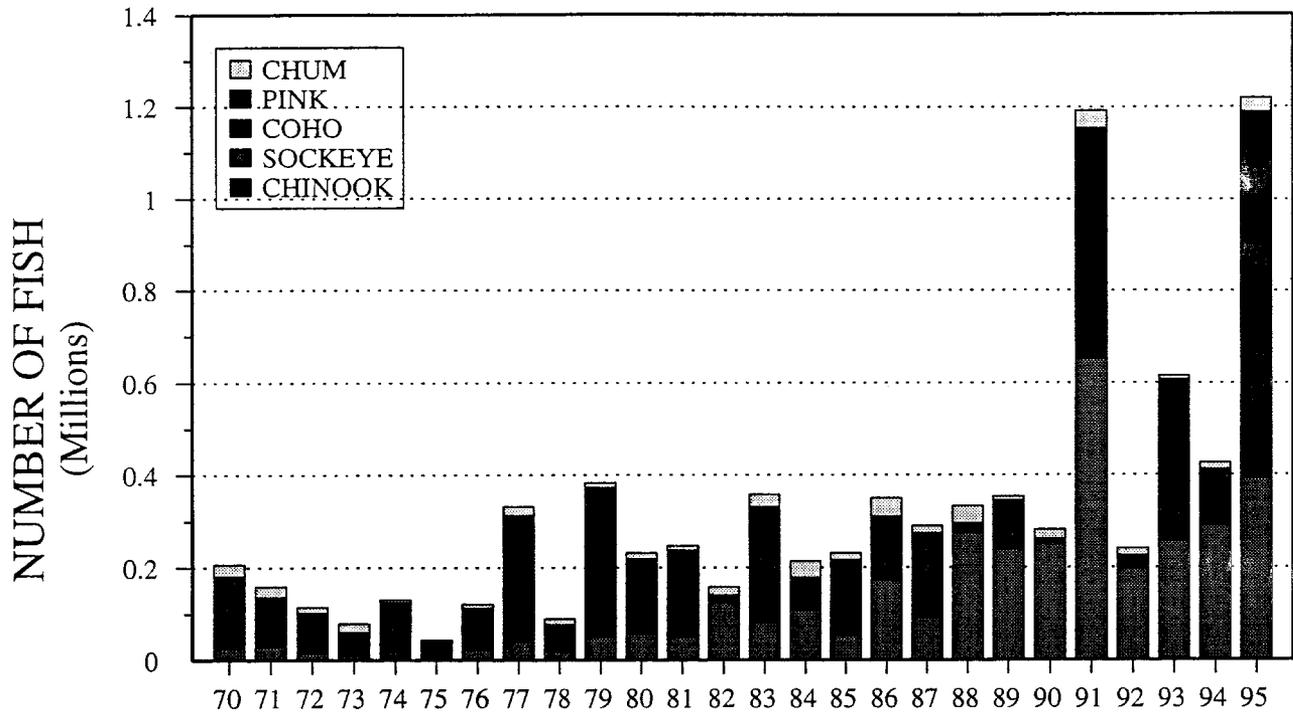
NORTHWEST KODIAK DISTRICT, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	1,567	204	45,282	2,708	1,177,889	72,779
71	319	52	20,354	94	33,342	11,767
72	1,112	266	29,600	572	288,356	86,735
73	865	53	22,768	428	248,999	45,499
74	494	26	23,118	190	285,158	12,030
75	614	17	22,103	240	293,334	10,401
76	1,850	103	61,129	434	1,425,732	24,544
77	1,153	49	97,853	698	750,545	27,114
78	1,619	272	65,036	696	489,125	67,360
79	2,058	307	64,205	8,042	1,424,445	29,104
80	1,176	98	48,284	2,800	576,427	20,842
81	1,643	140	90,278	1,103	925,560	113,942
82	1,703	161	122,632	3,292	402,765	178,478
83	2,185	969	142,765	5,122	573,882	231,227
84	1,677	899	91,552	5,779	952,519	73,176
85	1,508	550	80,850	2,337	403,232	107,722
86	2,813	291	242,332	9,967	2,483,879	207,839
87	1,721	251	213,973	4,206	382,018	99,731
88	2,652	1,542	216,579	8,667	1,070,377	228,796
89	3	0	9	0	1,002	34
90	1,783	1,492	173,052	6,472	288,422	75,102
91	2,244	1,069	222,657	11,707	727,246	72,323
92	1,679	975	271,344	8,416	352,549	82,419
93	2,559	2,224	438,423	25,967	1,753,763	64,072
94	1,525	1,491	126,116	13,145	1,176,929	107,011
95	2,414	1,228	210,266	11,722	3,043,728	263,800



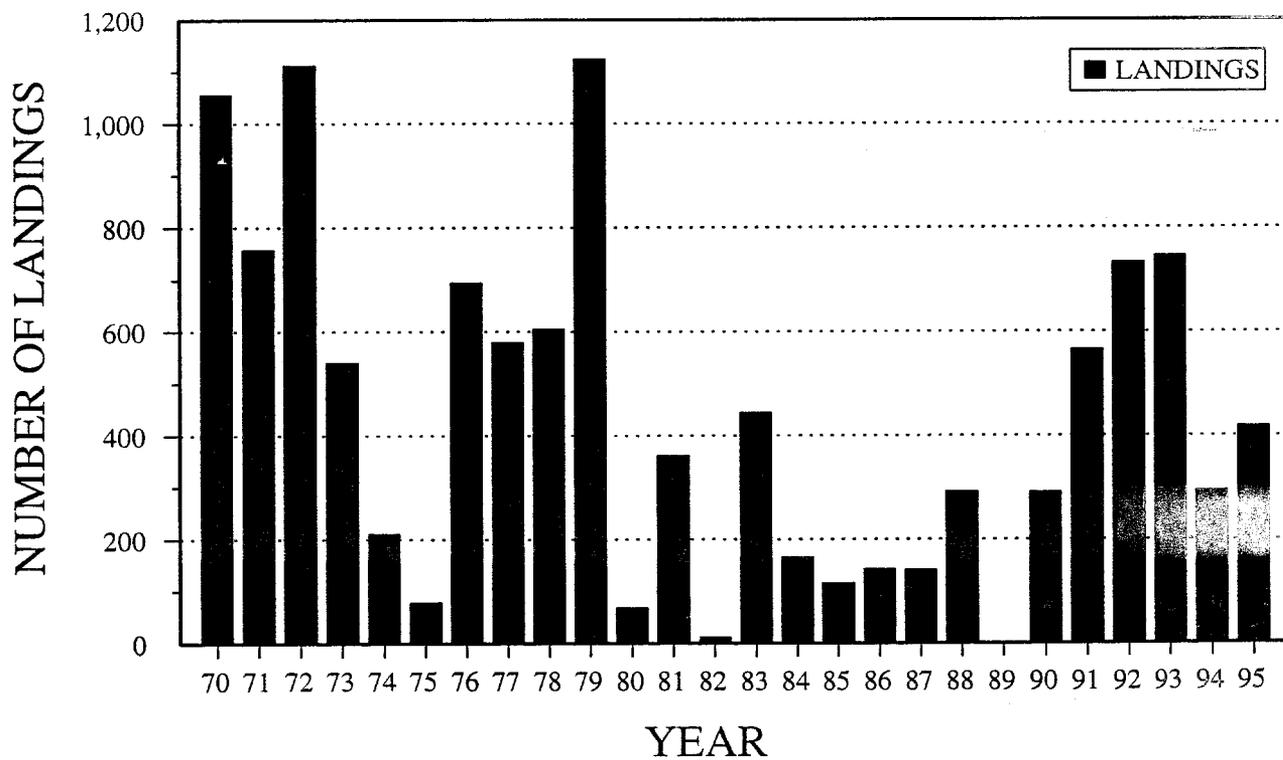
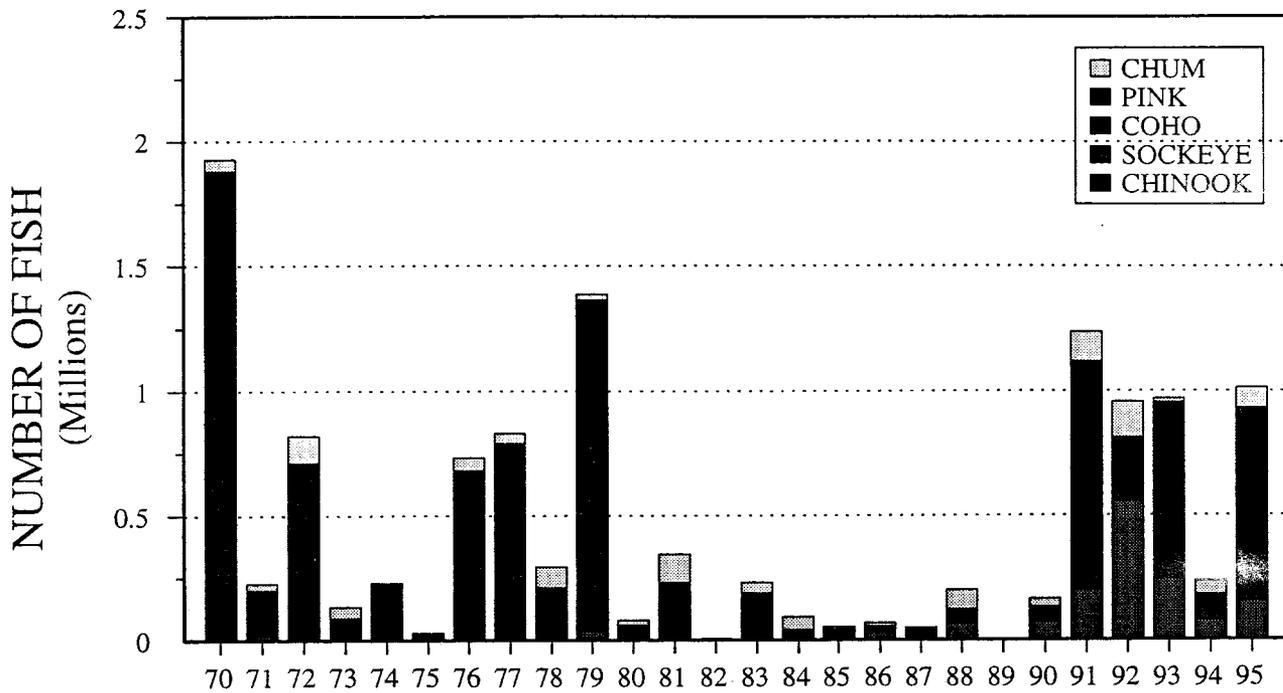
SOUTHWEST KODIAK DISTRICT, JULY 6-25.

	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	381	20	36,581	729	695,037	5,736
71	0	0	0	0	0	0
72	235	38	29,779	49	119,364	4,125
73	68	8	9,849	2	3,239	335
74	64	4	16,729	20	90,426	419
75	12	2	1,370	7	2,049	66
76	417	32	100,572	73	604,217	2,650
77	24	2	39,663	0	304	1
78	449	644	74,683	61	221,698	3,505
79	8	0	1,404	52	6,771	318
80	366	12	88,087	267	1,055,108	4,228
81	0	0	0	0	0	0
82	1	0	67	0	4,940	0
83	0	0	0	0	0	0
84	793	241	246,684	4,718	1,121,334	8,935
85	273	37	71,584	408	13,214	4,214
86	979	331	253,070	4,534	862,299	34,863
87	244	212	26,036	247	50,974	10,646
88	453	390	200,189	302	96,648	12,550
89	0	0	0	0	0	0
90	1,188	687	533,566	1,414	74,739	11,712
91	1,314	1,392	493,918	4,588	604,424	19,985
92	906	433	556,365	905	99,888	34,580
93	123	404	66,566	518	90,208	5,033
94	203	675	80,925	750	88,390	12,065
95	594	417	291,219	1,885	722,570	42,280



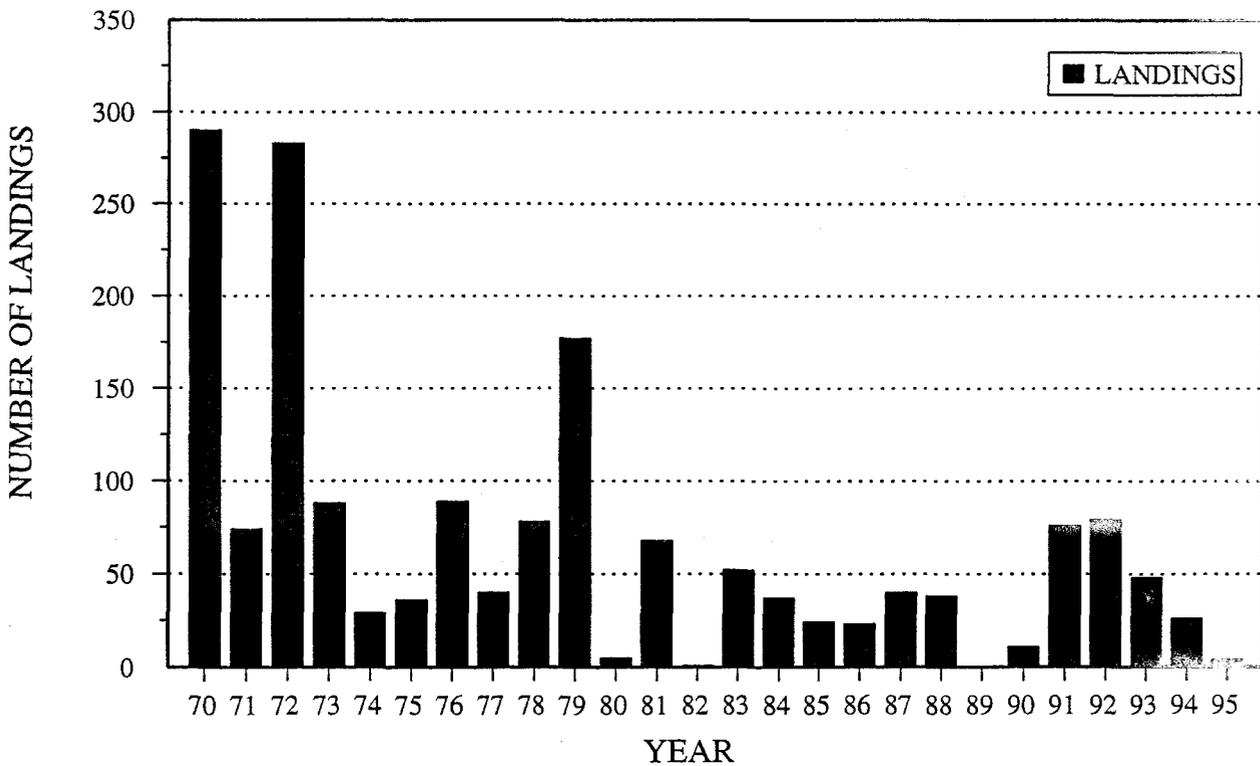
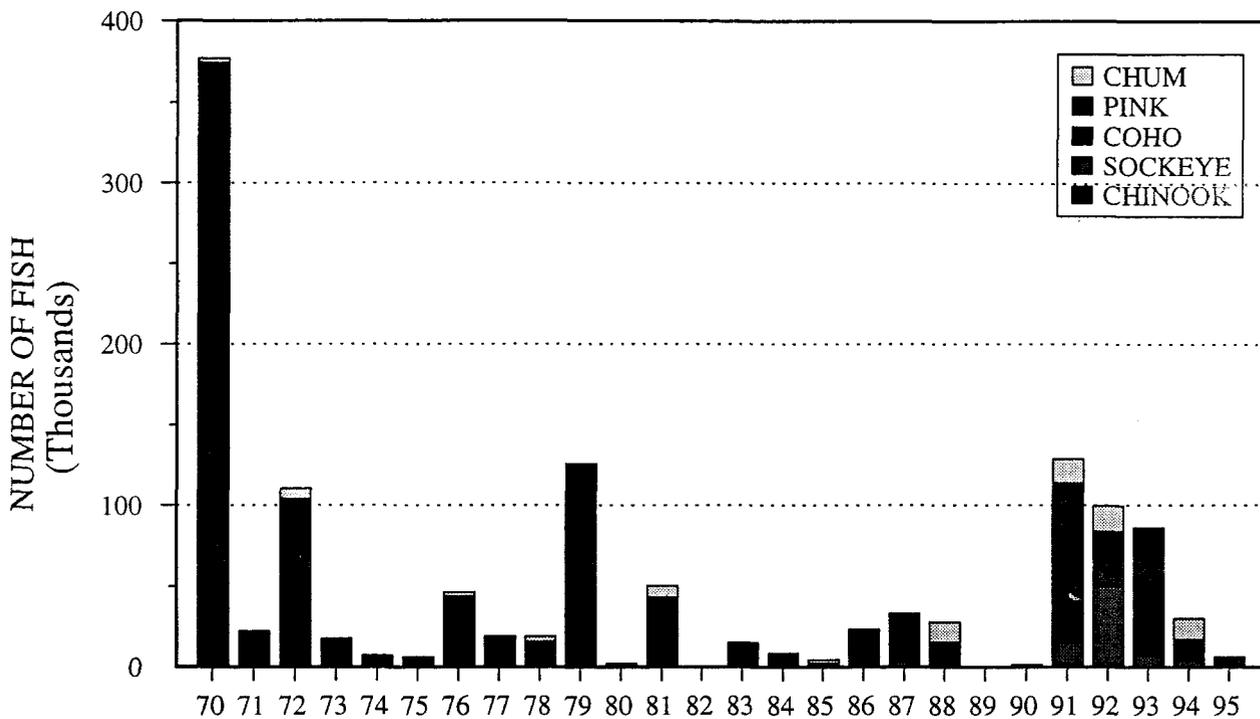
ALITAK BAY DISTRICT, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	403	0	26,503	188	155,157	25,406
71	220	14	28,971	93	107,728	22,899
72	269	9	15,208	272	87,234	12,690
73	327	4	10,239	111	49,868	19,085
74	222	13	8,742	14	116,684	6,838
75	165	0	9,178	21	33,373	1,167
76	281	8	21,181	44	91,506	8,610
77	509	10	39,306	197	273,767	18,994
78	253	19	18,477	7	58,659	12,296
79	703	63	48,991	429	323,533	10,793
80	368	8	57,518	272	161,008	13,716
81	432	2	50,398	273	187,377	9,317
82	506	14	124,044	47	17,399	17,677
83	608	74	80,914	955	250,200	26,173
84	419	72	108,116	662	70,670	34,423
85	336	45	51,369	683	164,810	14,691
86	939	78	172,616	1,922	136,525	39,433
87	583	39	90,752	313	183,140	15,981
88	951	122	274,237	330	21,059	37,394
89	529	33	238,199	14	107,668	8,065
90	1,071	137	252,162	426	10,049	19,353
91	1,764	414	652,681	1,435	499,521	38,944
92	615	152	196,514	845	28,344	15,106
93	1,083	596	255,881	2,791	348,596	7,713
94	933	343	289,577	981	121,069	14,325
95	1,332	93	392,078	949	796,806	29,892



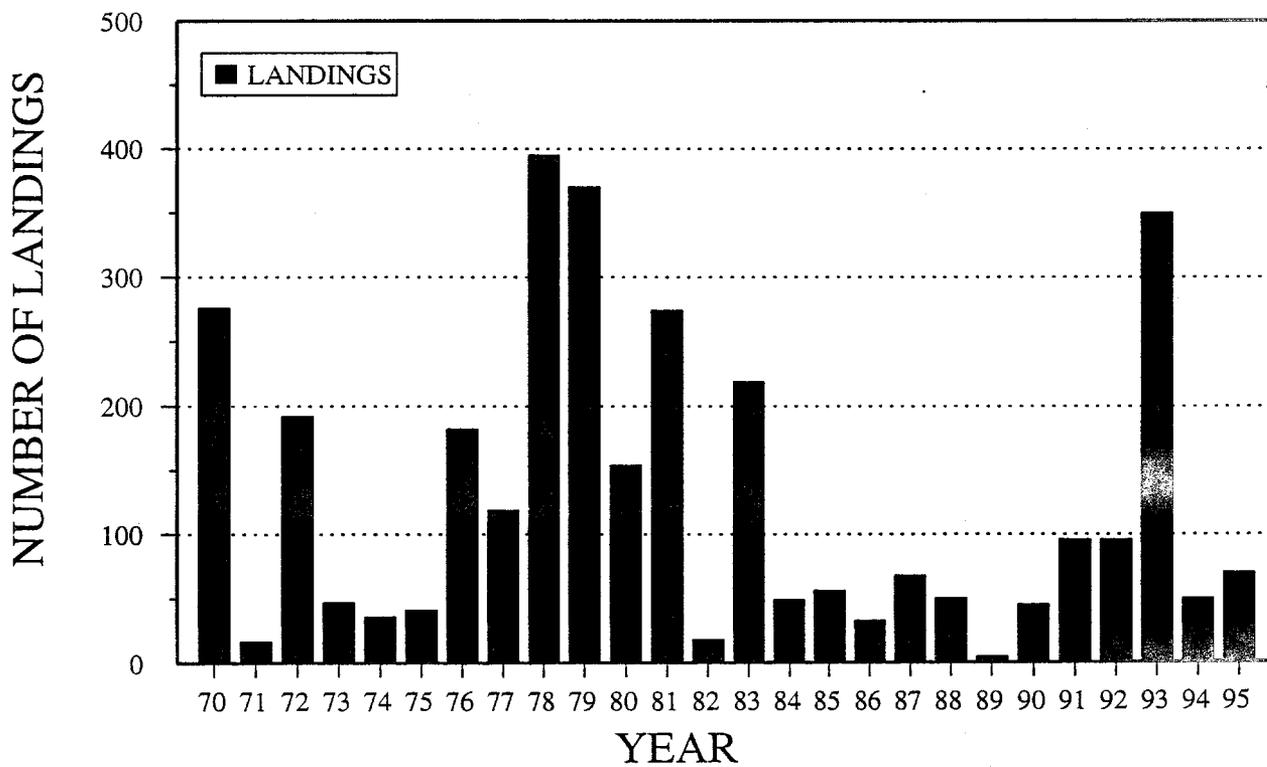
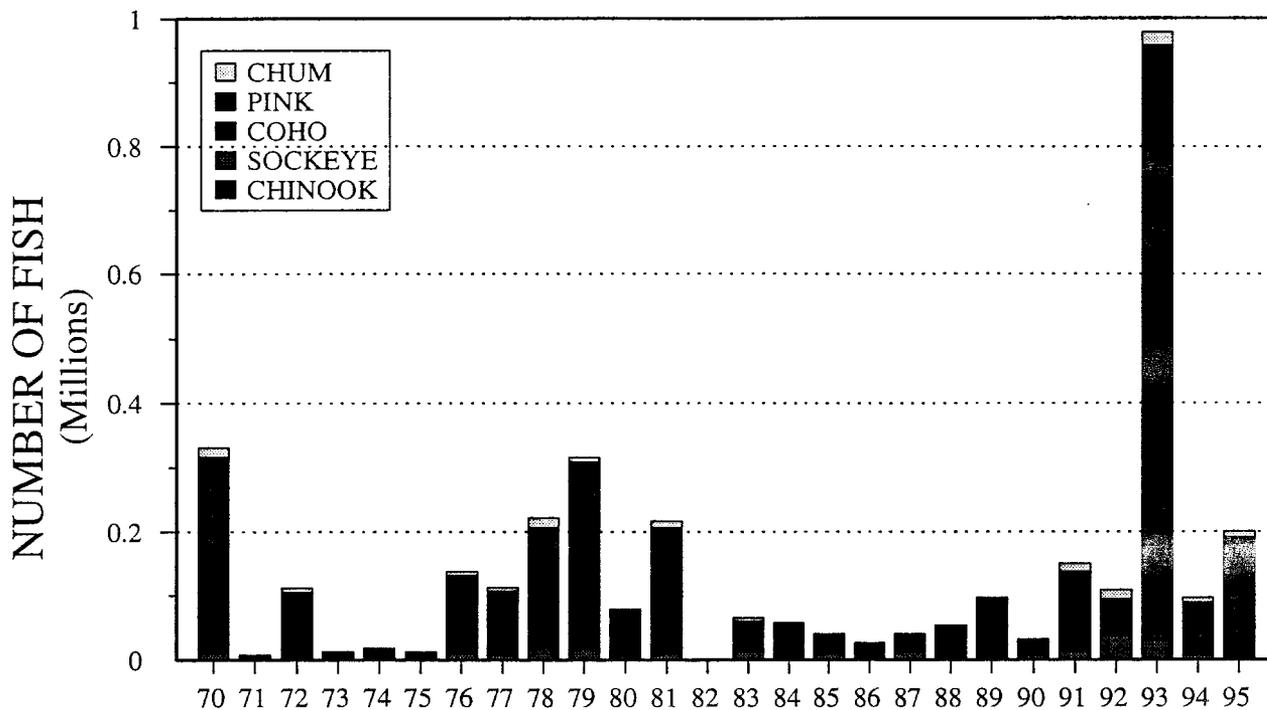
EASTSIDE KODIAK DISTRICT, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	1,056	73	11,444	537	1,866,875	47,339
71	758	277	20,596	227	179,126	25,593
72	1,112	169	8,811	887	700,962	109,780
73	540	466	3,182	239	84,553	44,301
74	210	68	3,530	40	222,101	4,406
75	78	2	1,329	2	27,884	705
76	694	120	10,208	691	669,943	52,072
77	579	16	4,092	202	786,591	40,091
78	605	115	9,315	51	201,634	82,929
79	1,124	676	35,727	3,451	1,322,468	24,302
80	68	5	1,198	20	58,110	19,230
81	361	43	7,746	1,382	220,392	114,543
82	11	7	1,314	105	476	3,040
83	444	210	10,047	577	176,793	42,464
84	165	196	14,687	146	24,861	51,450
85	115	71	12,137	275	28,922	10,914
86	142	178	30,184	278	23,208	14,508
87	141	302	11,198	361	26,175	9,822
88	291	1,413	62,625	5,856	51,896	77,601
89	0	0	0	0	0	0
90	290	1,414	68,693	14,212	47,308	32,507
91	565	2,817	196,917	31,700	886,789	120,056
92	733	1,565	555,240	36,919	217,791	145,512
93	745	6,429	236,578	51,505	659,028	16,416
94	293	732	76,853	17,290	85,226	53,659
95	418	942	154,514	15,897	759,226	81,441



NORTHEAST KODIAK DISTRICT, JULY6-25.

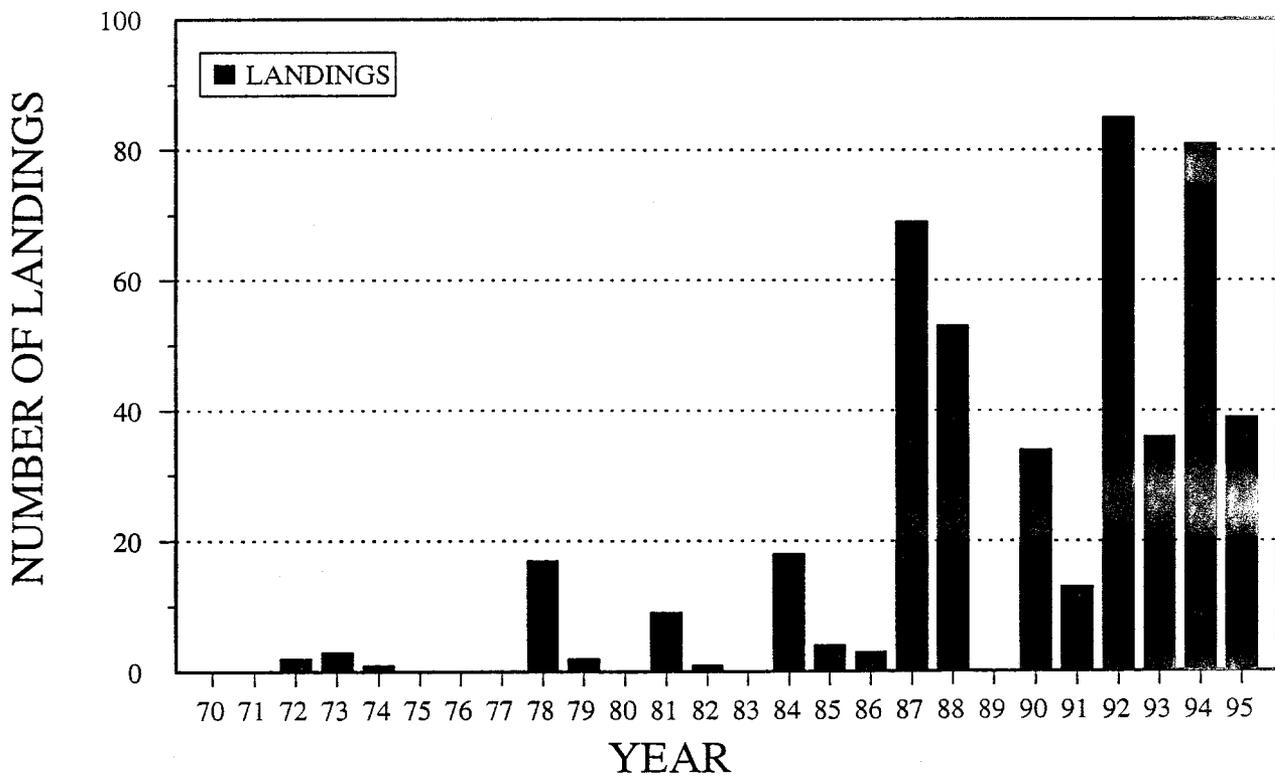
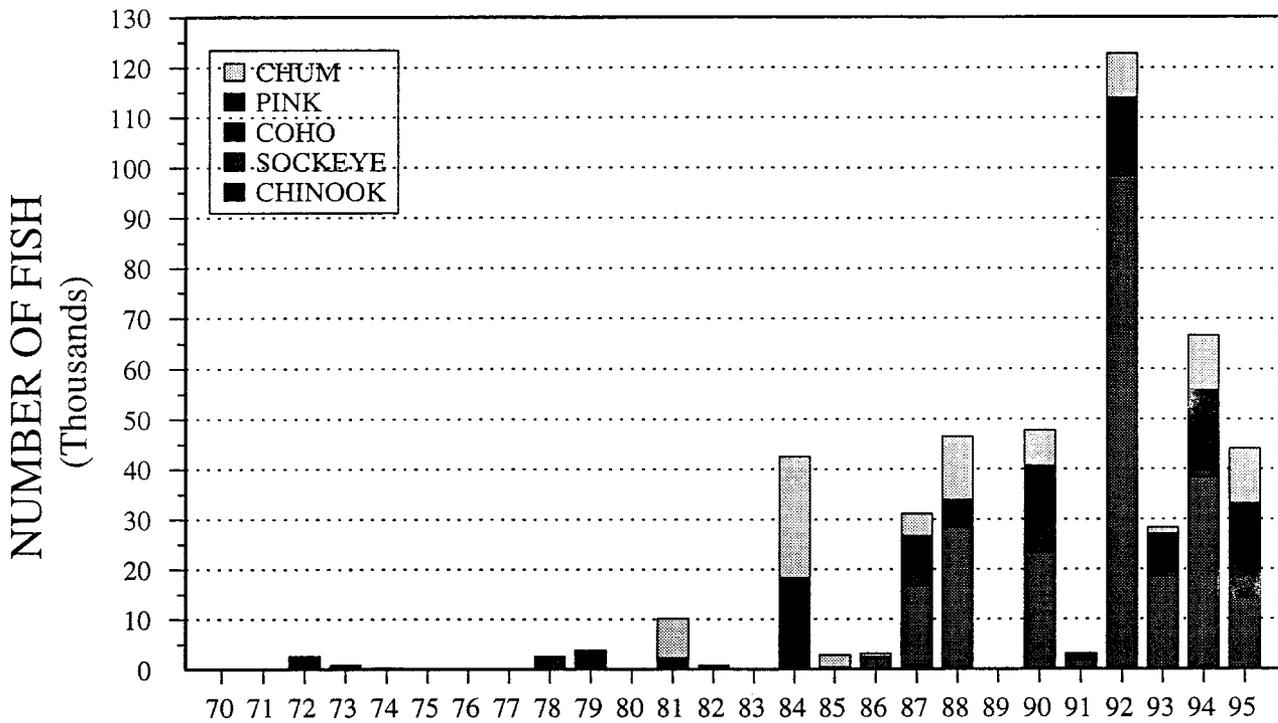
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	290	65	311	122	373,742	2,776
71	74	6	231	4	21,708	518
72	283	38	426	325	103,522	6,479
73	88	19	213	5	16,211	1,423
74	29	9	307	0	6,890	118
75	36	1	237	1	6,052	31
76	89	74	51	3	43,939	2,481
77	40	0	5	1	18,335	1,043
78	78	253	217	59	15,194	3,406
79	177	34	384	317	124,339	874
80	5	15	0	0	2,177	125
81	68	22	196	23	43,307	6,836
82	1	0	39	0	0	0
83	52	75	888	33	13,306	861
84	37	7	1,169	38	6,138	1,339
85	24	4	345	6	2,376	1,878
86	23	0	1,606	12	20,789	1,093
87	40	13	2,596	309	29,272	1,090
88	38	48	263	29	15,094	12,566
89	0	0	0	0	0	0
90	11	3	5	0	892	642
91	76	228	14,273	6,332	93,066	15,023
92	79	149	49,835	6,325	27,622	15,910
93	48	37	6,636	1,414	76,646	1,721
94	26	206	3,301	2,835	10,890	12,799
95	4	0	195	22	5,333	748



Appendix D.8. Remaining Afognak sections harvest and landings by species by year, July 6-25, 1970-1995.

REMAINING AFOGNAK SECTIONS, JULY6-25.

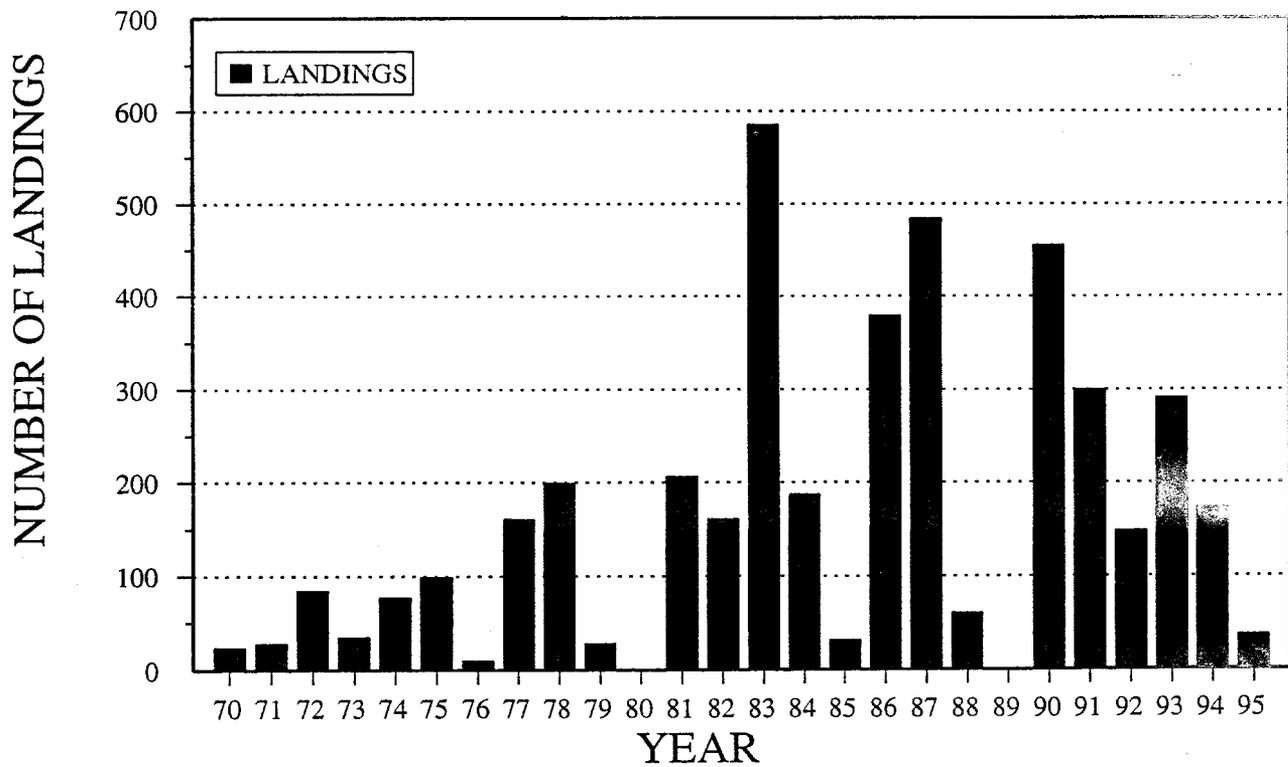
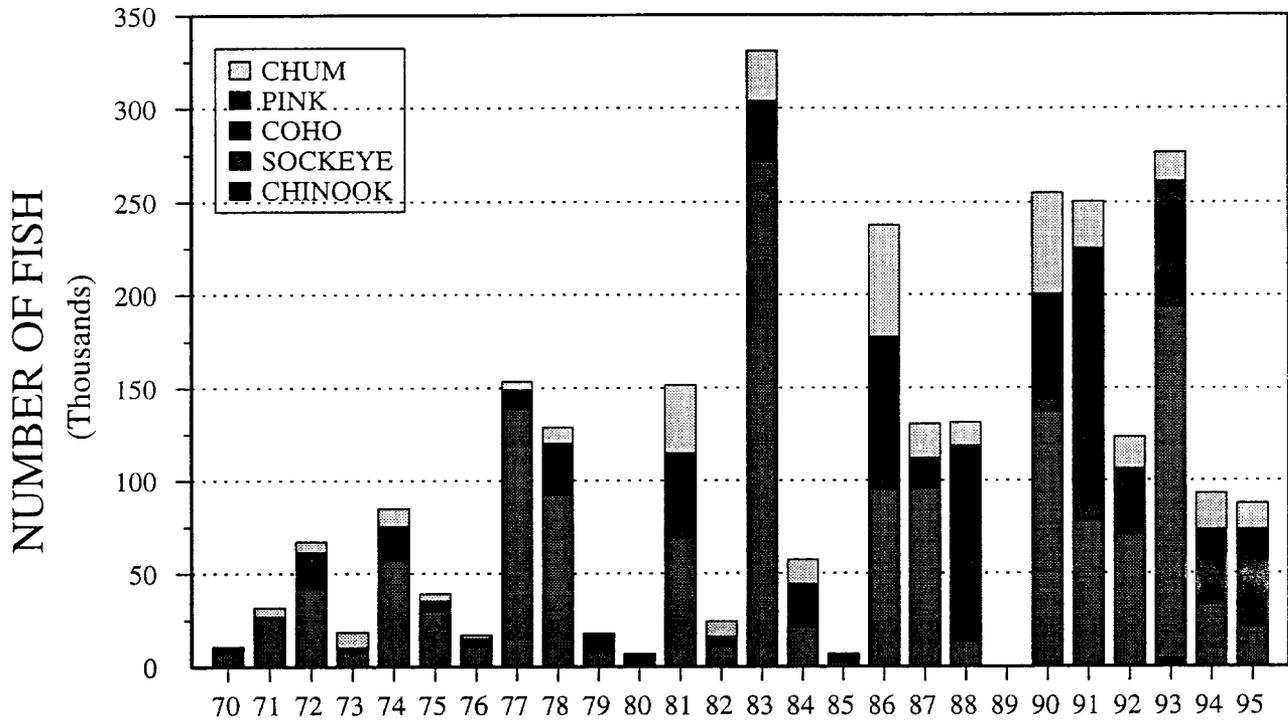
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	276	15	10,186	2,969	303,670	14,417
71	17	3	1,947	3	4,221	1,252
72	192	40	4,279	537	100,281	6,588
73	47	1	1,613	55	8,509	2,737
74	36	1	2,427	27	15,761	196
75	41	6	2,332	259	8,528	1,187
76	182	45	8,831	746	122,040	5,893
77	119	5	7,445	188	99,690	5,305
78	395	170	17,958	1,617	186,824	14,939
79	370	16	16,178	4,066	288,674	6,951
80	154	14	5,326	457	70,153	2,931
81	274	10	8,697	920	196,829	10,364
82	18	21	1,026	58	404	118
83	219	273	11,789	661	48,059	4,515
84	49	5	3,377	523	51,279	2,616
85	56	22	8,355	1,840	28,413	2,421
86	33	5	3,891	204	21,547	1,053
87	68	14	10,812	2,250	25,023	2,440
88	50	11	5,373	853	43,917	3,613
89	5	0	0	0	97,065	0
90	45	49	5,933	459	22,880	2,968
91	96	121	12,203	3,152	122,479	12,104
92	96	391	36,816	4,126	53,153	14,586
93	350	455	29,291	10,923	917,197	20,739
94	50	470	7,026	3,640	77,700	7,681
95	70	100	5,082	702	185,043	9,726



Appendix D.9. Katmai and Alinchak Sections harvest and landings by species by year, July 6-25, 1970-1995.

KATMAI & ALINCHAK SECTIONS, JULY 6-25.

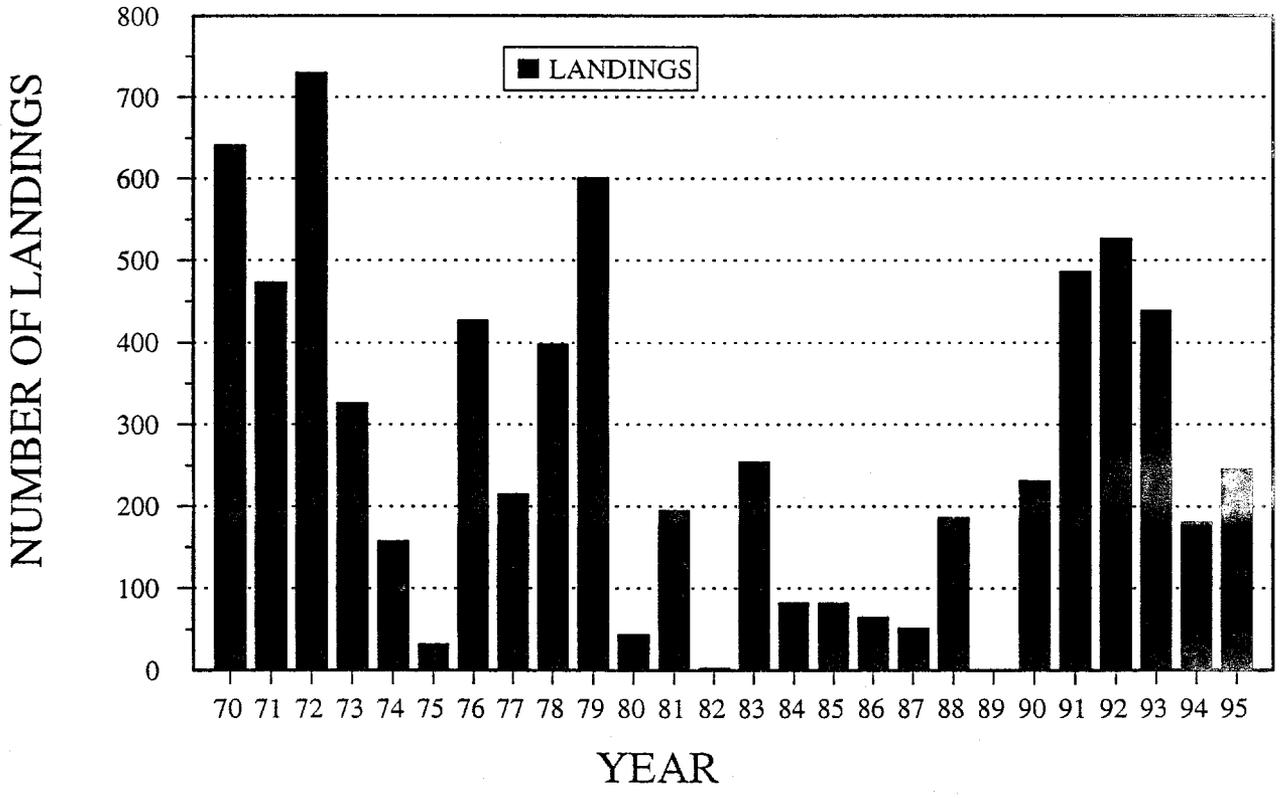
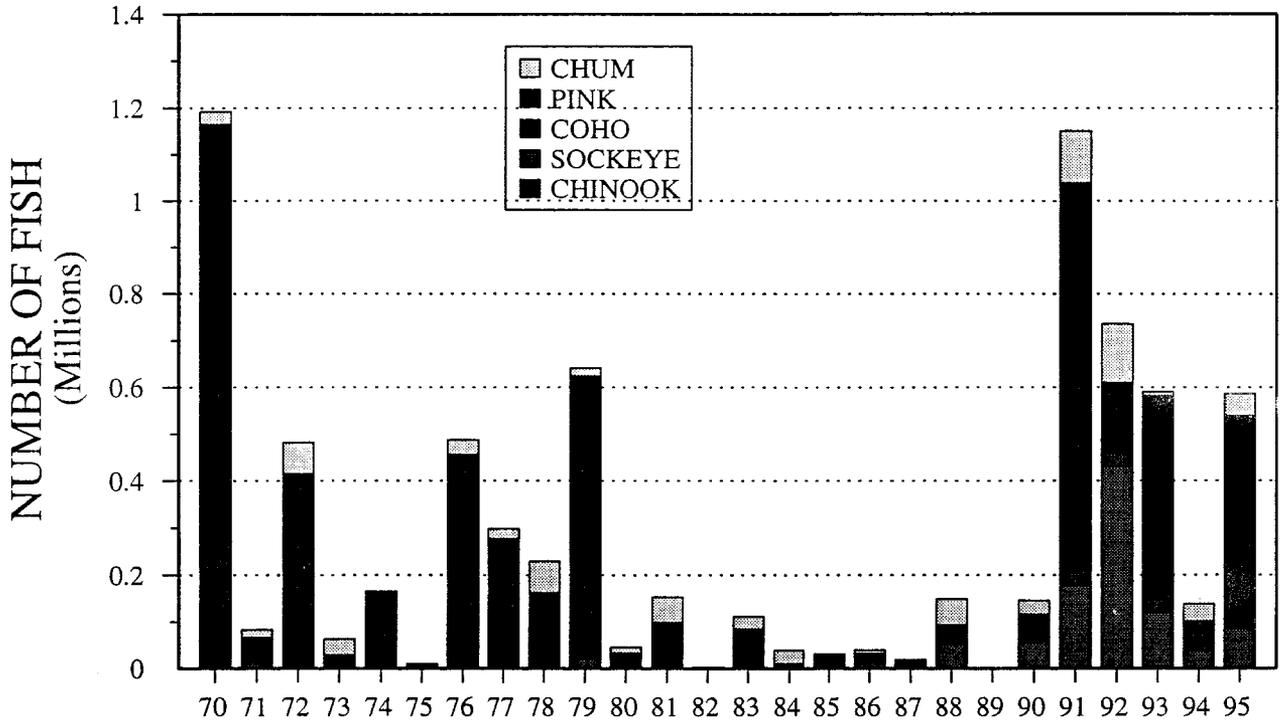
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	2	0	0	0	2,429	212
73	3	1	265	0	427	158
74	1	0	301	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	17	1	2,419	0	102	61
79	2	0	1	0	3,671	148
80	0	0	0	0	0	0
81	9	0	354	0	1,900	7,937
82	1	0	806	0	0	0
83	0	0	0	0	0	0
84	18	1	55	0	18,239	24,218
85	4	1	16	4	451	2,311
86	3	18	2,093	40	329	638
87	69	745	15,824	2,423	7,689	4,486
88	53	385	27,936	118	5,417	12,667
89	0	0	0	0	0	0
90	34	106	23,276	3,266	14,071	7,076
91	13	76	1,570	22	1,369	102
92	85	440	98,051	1,676	13,775	8,792
93	36	278	18,291	563	7,945	1,289
94	81	394	37,943	1,182	16,288	10,915
95	39	33	13,997	994	18,106	10,927



Appendix D.10. Cape Igvak and Wide Bay Sections harvest and landings by species by year, July 6-25, 1970-1995.

CAPE IGVAK & WIDE BAY SECTIONS, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	24	0	6,894	0	3,017	940
71	28	22	25,160	12	1,649	4,731
72	84	1	42,230	0	19,201	5,781
73	35	65	7,244	17	3,085	8,225
74	77	15	57,192	318	17,910	9,618
75	99	1	29,544	95	5,835	3,690
76	10	0	10,575	19	4,405	1,911
77	161	25	138,522	5	10,556	4,505
78	199	27	91,782	71	28,309	8,562
79	28	0	7,625	365	8,712	1,156
80	1	0	40	0	6,800	18
81	206	39	68,791	96	45,735	36,841
82	161	44	10,826	24	5,074	8,369
83	585	444	271,188	4,144	28,218	26,758
84	187	78	20,915	1,120	22,121	13,049
85	32	56	2,248	868	2,778	1,020
86	379	190	94,601	3,638	78,862	60,523
87	484	181	95,048	983	15,915	18,453
88	60	215	13,150	3,287	101,997	12,455
89	0	0	0	0	0	0
90	455	2,556	134,452	6,789	56,813	54,547
91	300	861	77,385	7,807	139,228	25,309
92	148	573	70,163	1,654	33,745	17,143
93	291	3,918	189,595	5,613	62,212	15,285
94	173	214	32,755	1,464	39,038	19,515
95	36	31	20,514	2,749	50,115	14,072

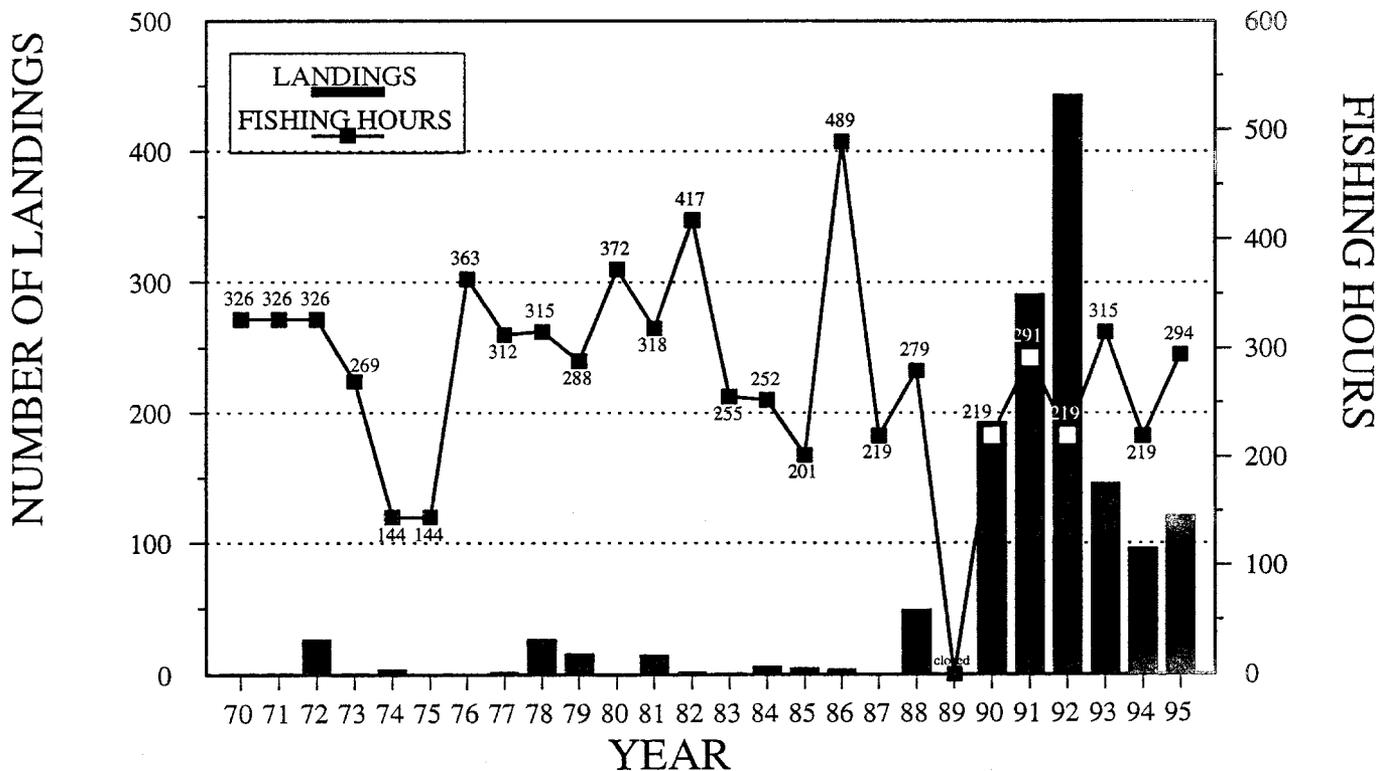
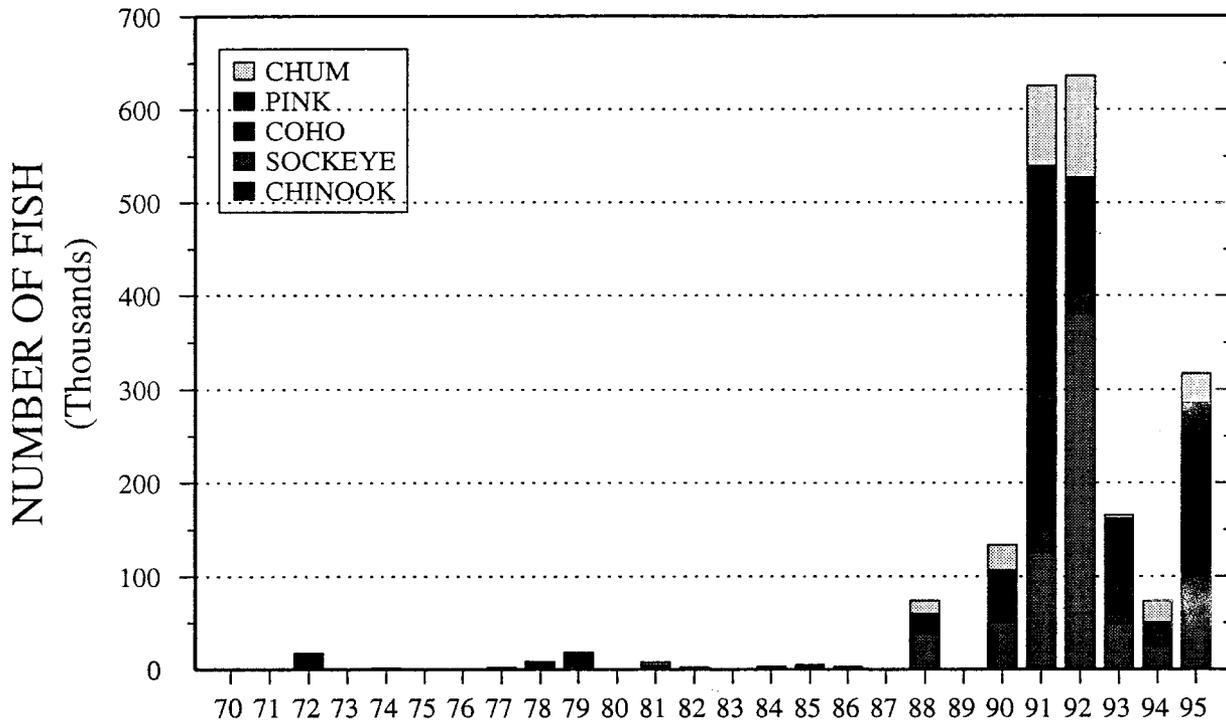


Appendix E.1. Sitkalidak Section harvest and landings by species by year, July 6-25, 1970-1995.

K93-70SITKA
10/24/95

SITKALIDAK SECTION, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	641	31	6,883	404	1,156,913	27,720
71	473	209	11,527	140	54,480	16,231
72	730	99	3,742	660	410,028	67,475
73	326	253	1,415	199	27,312	33,483
74	157	65	1,450	36	160,692	3,208
75	32	1	420	1	9,318	164
76	427	59	6,520	625	448,283	32,140
77	215	8	1,241	74	274,990	21,931
78	398	93	2,853	50	158,882	67,243
79	601	181	19,437	2,689	601,604	17,522
80	44	5	771	10	32,594	11,865
81	195	20	3,460	639	94,353	54,178
82	3	2	718	105	449	1,525
83	254	56	3,618	528	80,420	26,175
84	82	15	1,851	39	7,970	28,641
85	82	43	7,711	256	18,604	4,338
86	65	24	11,643	269	20,969	6,571
87	52	63	5,759	266	9,775	3,212
88	186	196	49,165	5,816	37,811	55,139
89	0	0	0	0	0	0
90	231	1,048	54,871	13,980	45,860	30,015
91	486	2,535	174,666	30,406	830,884	112,466
92	526	812	429,642	27,456	151,741	125,274
93	439	4,149	114,681	29,631	432,587	8,806
94	181	363	36,117	11,656	53,465	36,774
95	245	572	83,948	9,621	444,529	47,138

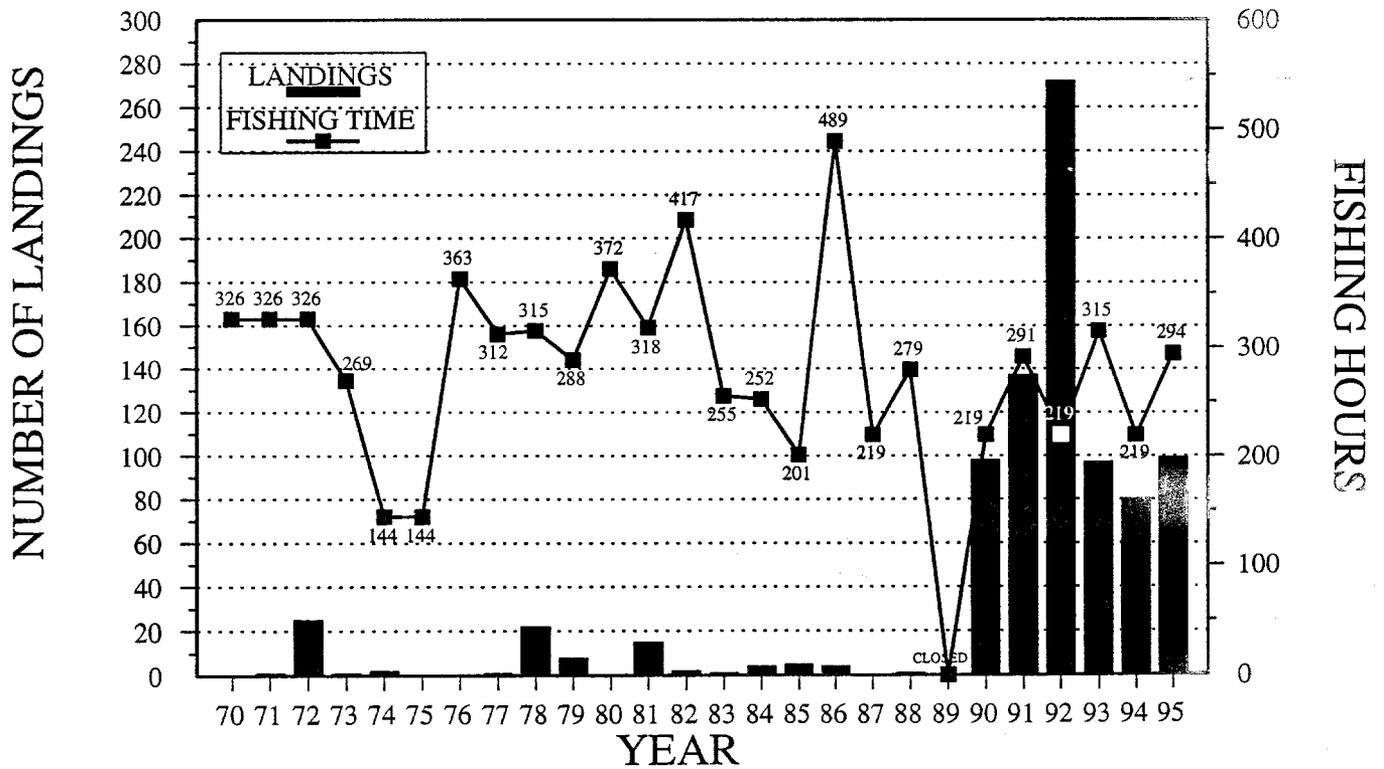
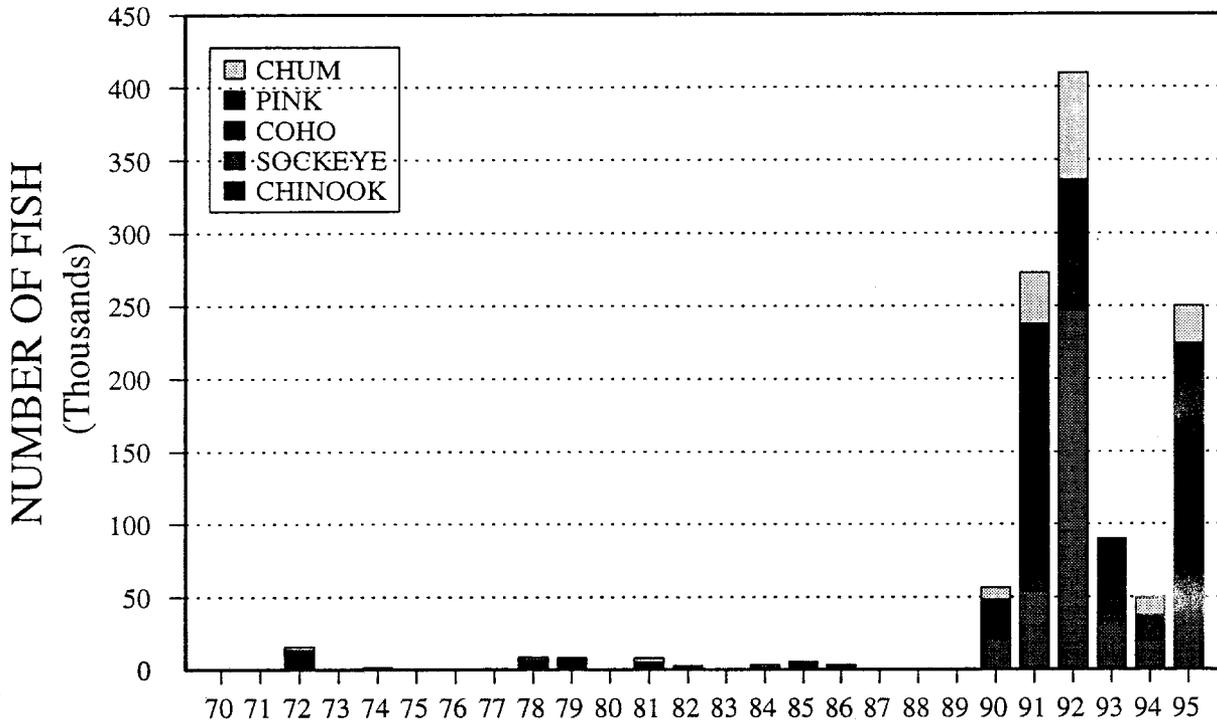


Appendix E.2. Statistical reporting area 258-10 & 258-40 combined, fishing time harvest by species, and landings, by year, July 6-25, 1970-1995.

K93-2581040
10/24/95

STAT AREAS 258-10 & 258-40 COMBINED, JULY 6-25.

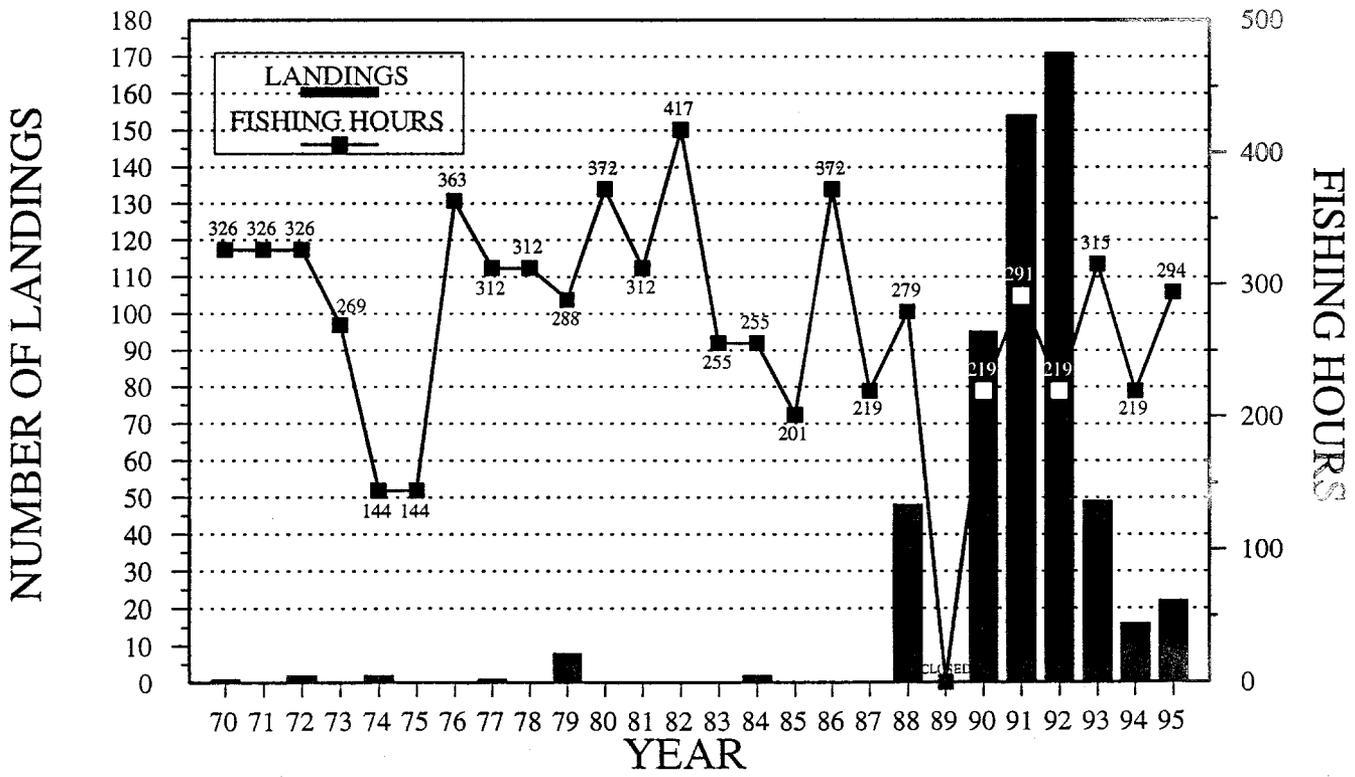
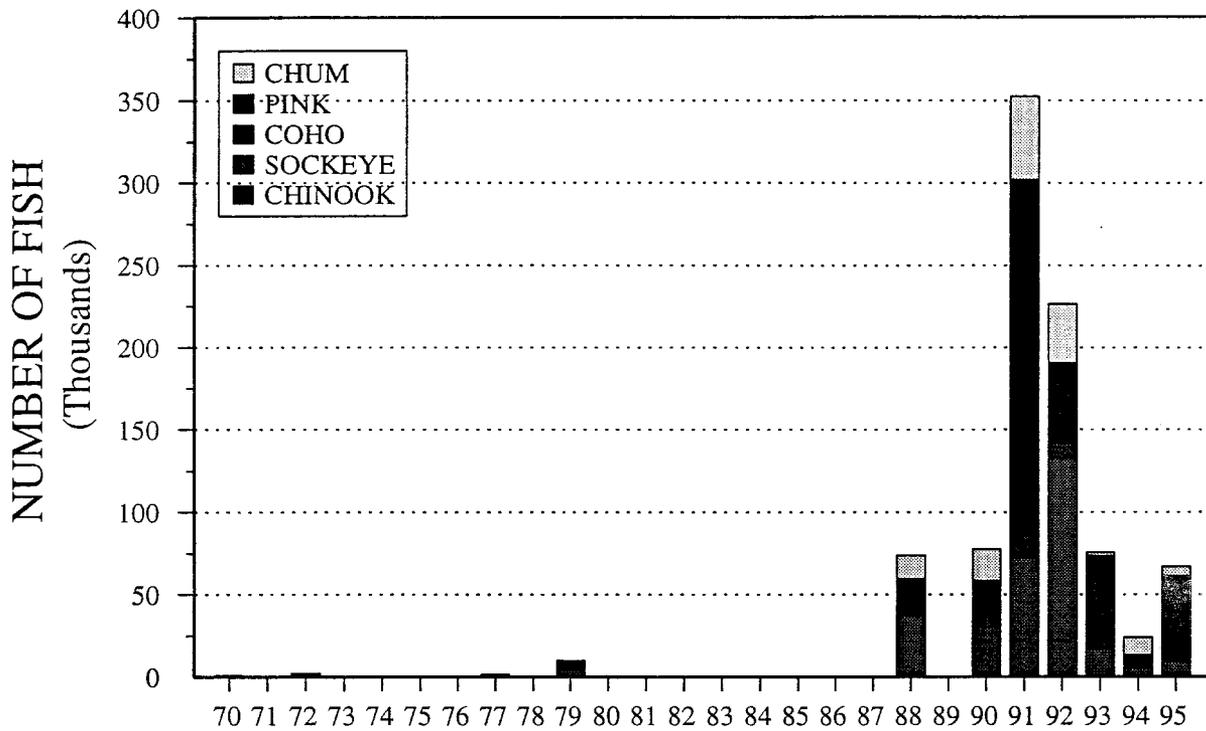
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	1	0	107	0	783	15
71	1	0	52	0	104	27
72	27	0	30	27	15,412	2,491
73	1	0	1	0	19	12
74	4	0	318	3	1,420	20
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	2	0	0	0	2,395	47
78	27	7	509	6	5,939	1,990
79	16	3	4,877	46	13,183	325
80	0	0	0	0	0	0
81	15	0	59	630	4,065	3,039
82	2	2	718	8	249	1,435
83	1	1	0	0	172	9
84	6	6	696	0	1,017	2,049
85	5	13	2,402	26	1,678	1,125
86	4	0	160	20	2,518	465
87	0	0	0	0	0	0
88	49	36	37,663	5,151	16,998	14,301
89	0	0	0	0	0	0
90	193	865	49,867	13,253	42,817	27,090
91	291	2,051	123,812	22,092	391,668	85,586
92	443	651	378,920	22,661	125,032	108,889
93	146	2,228	47,103	13,434	99,338	3,398
94	96	254	25,031	8,242	17,033	22,780
95	121	409	56,782	7,882	220,318	31,538



Appendix E.3. Statistical reporting area 258-10 fishing time, harvest by species, and landings, by year, July 6-25, 1970-1995.

STAT AREA 258-10, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	0	0	0	0	0	0
71	1	0	52	0	104	27
72	25	0	30	27	13,238	2,281
73	1	0	1	0	19	12
74	2	0	59	3	1,418	20
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	1	0	0	0	595	22
78	22	7	509	6	5,939	1,990
79	8	0	153	30	7,960	179
80	0	0	0	0	0	0
81	15	0	59	630	4,065	3,039
82	2	2	718	8	249	1,435
83	1	1	0	0	172	9
84	4	6	203	0	1,013	2,048
85	5	13	2,402	26	1,678	1,125
86	4	0	160	20	2,518	465
87	0	0	0	0	0	0
88	1	0	50	20	45	85
89	0	0	0	0	0	0
90	98	277	20,209	6,446	21,362	8,067
91	137	1,200	52,572	8,259	175,171	35,464
92	272	541	246,220	13,229	76,572	73,137
93	97	1,089	31,356	7,392	48,763	1,354
94	80	124	19,628	5,395	12,040	12,112
95	99	365	47,625	6,324	169,723	25,906

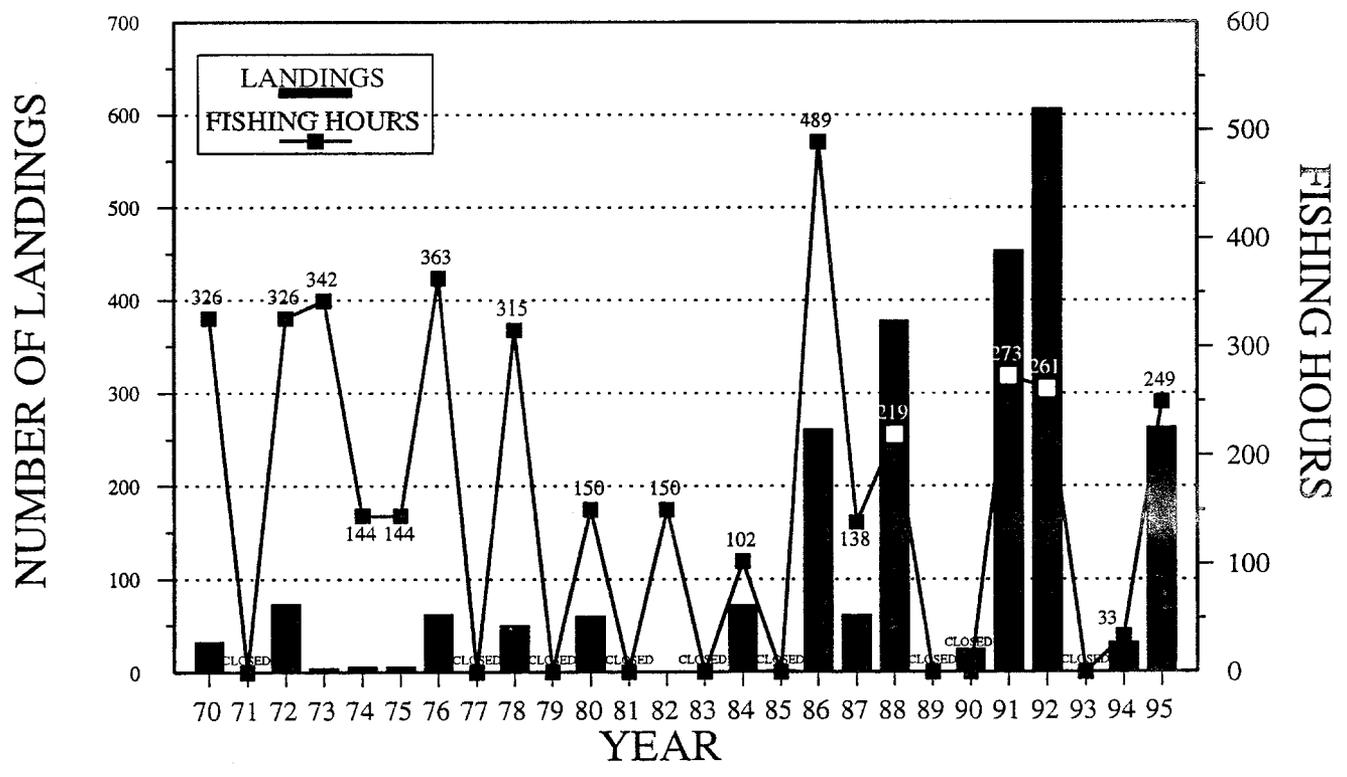
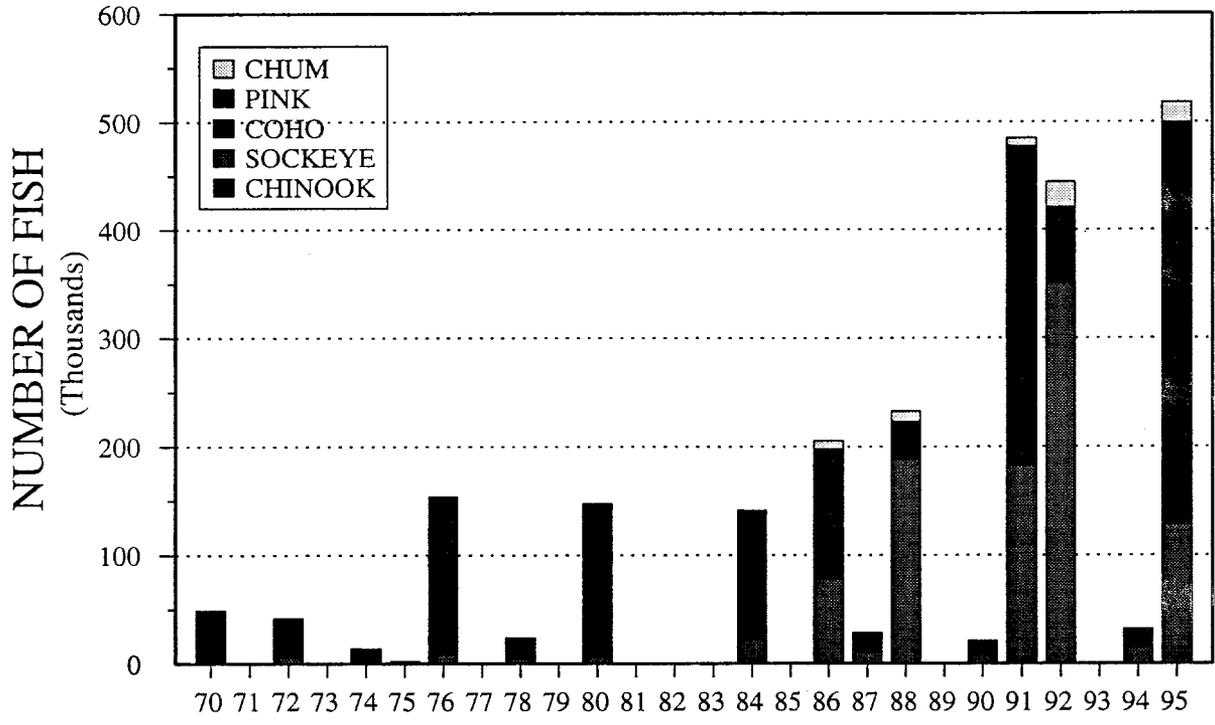


Appendix E.4. Statistical reporting area 258-40 fishing time, harvest by species, and landings, by year, July 6-25, 1970-1995.

K93-7025840
10/24/95

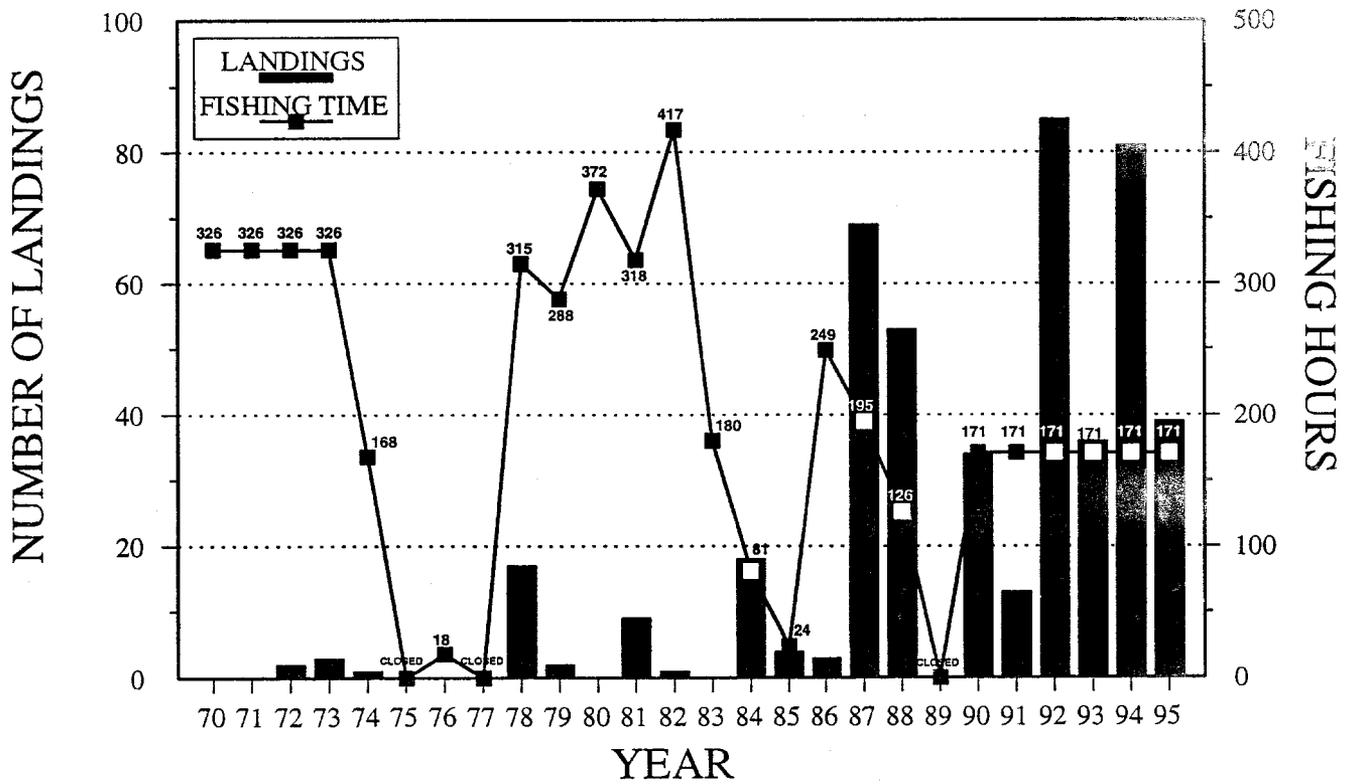
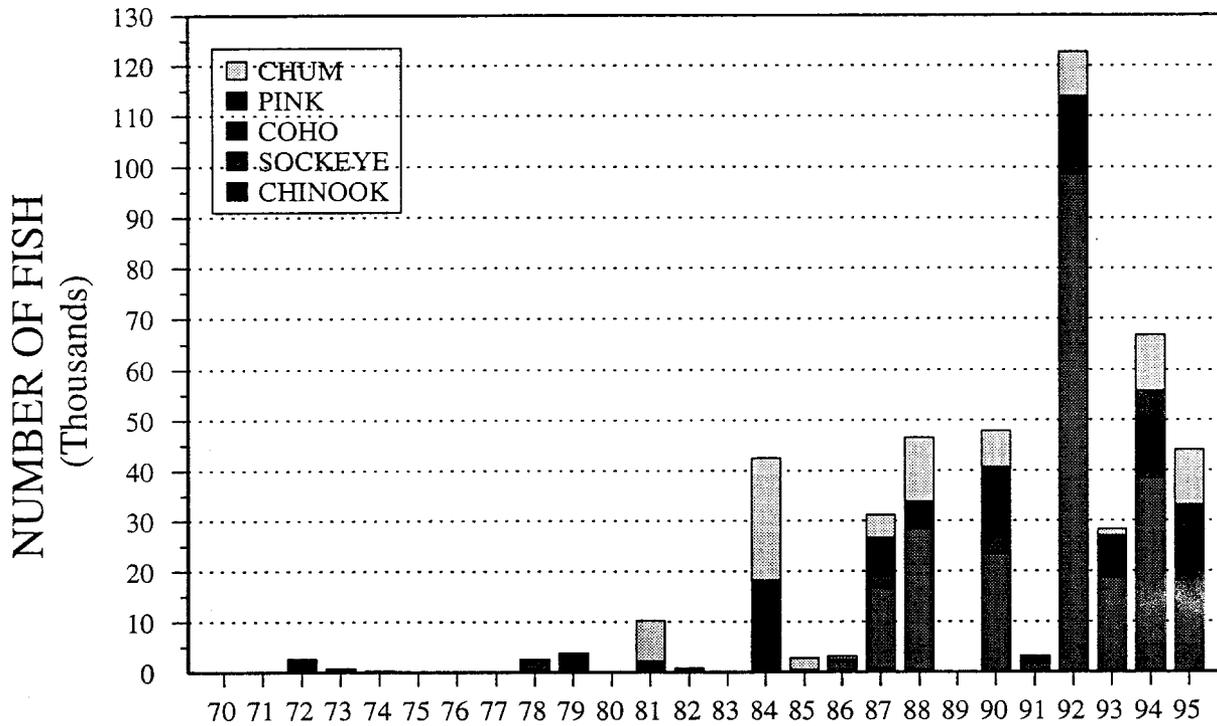
STAT AREA 258-40, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	1	0	107	0	783	15
71	0	0	0	0	0	0
72	2	0	0	0	2,174	210
73	0	0	0	0	0	0
74	2	0	259	0	2	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	1	0	0	0	1,800	25
78	0	0	0	0	0	0
79	8	3	4,724	16	5,223	146
80	0	0	0	0	0	0
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	2	0	493	0	4	1
85	0	0	0	0	0	0
86	0	0	0	0	0	0
87	0	0	0	0	0	0
88	48	36	37,613	5,131	16,953	14,216
89	0	0	0	0	0	0
90	95	588	29,658	6,807	21,455	19,023
91	154	851	71,240	13,833	216,497	50,122
92	171	110	132,700	9,432	48,460	35,752
93	49	1,139	15,747	6,042	50,575	2,044
94	16	130	5,403	2,847	4,993	10,668
95	22	44	9,157	1,558	50,595	5,632



HALIBUT BAY SECTION, JULY 6-25.

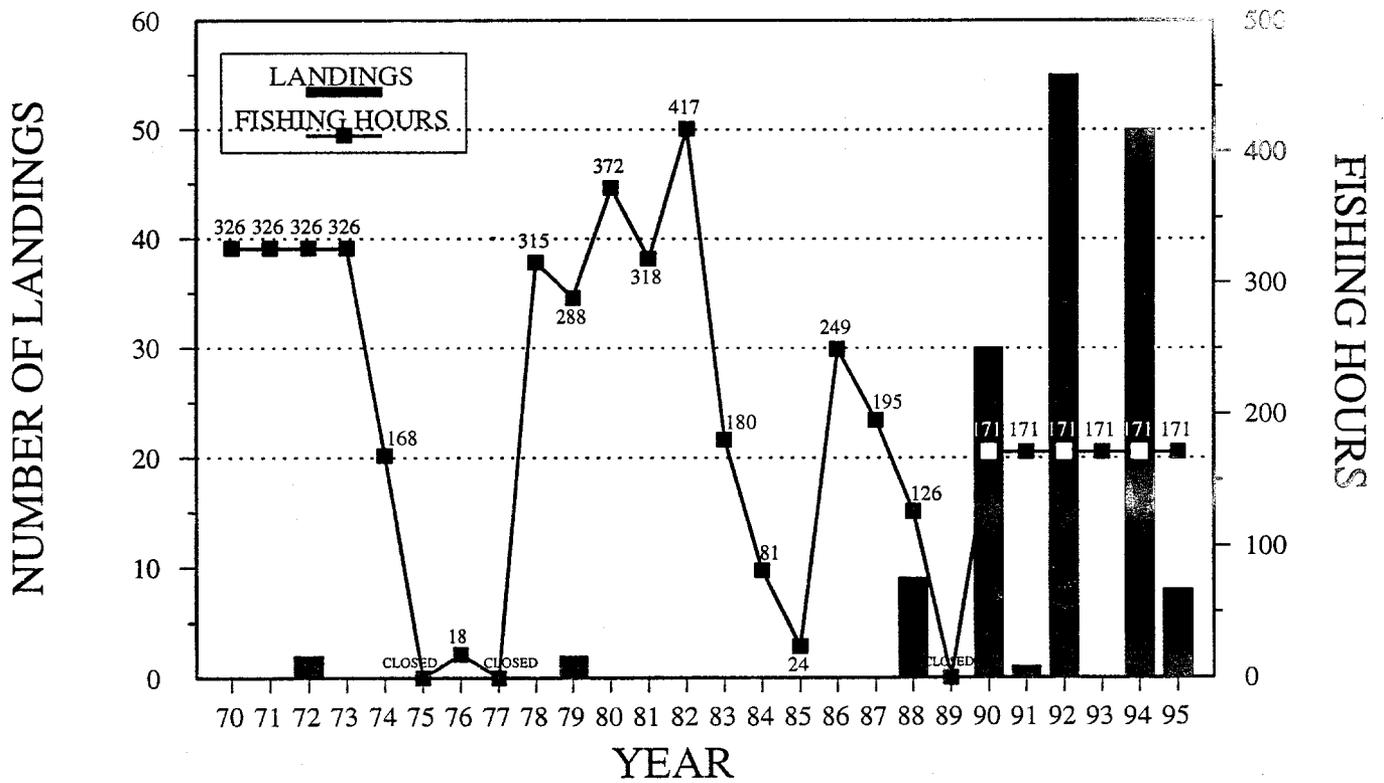
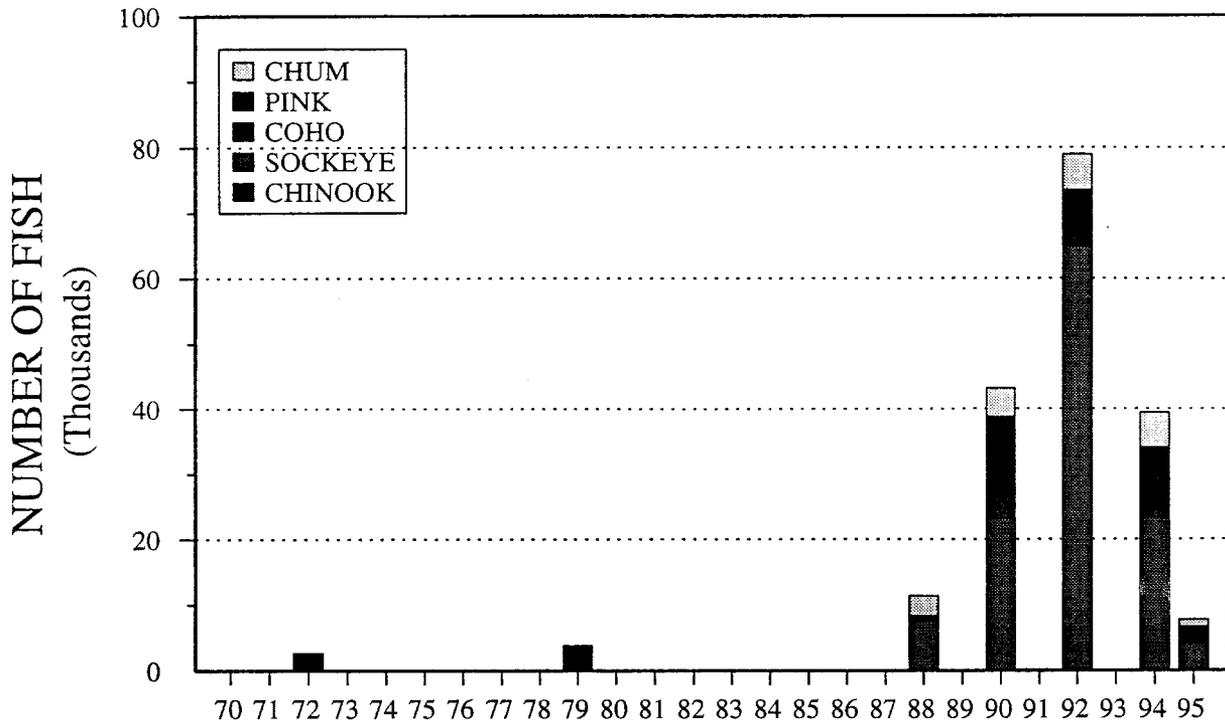
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	33	1	3,185	256	45,206	704
71	0	0	0	0	0	0
72	73	11	5,812	25	35,053	1,065
73	5	0	240	0	197	37
74	6	0	1,166	0	12,514	23
75	6	1	698	0	1,132	4
76	62	6	8,815	12	144,169	847
77	0	0	0	0	0	0
78	50	34	4,564	26	18,752	452
79	0	0	0	0	0	0
80	60	1	6,098	87	140,806	524
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	72	27	21,889	363	117,697	1,091
85	2	0	820	6	128	2
86	261	92	77,894	2,482	117,205	7,565
87	61	12	10,487	116	16,611	1,394
88	378	355	187,230	265	34,962	9,627
89	0	0	0	0	0	0
90	25	9	7,740	223	12,494	251
91	453	508	182,063	2,726	292,170	7,481
92	606	279	349,691	490	70,406	23,538
93	1	0	11	0	525	6
94	32	26	14,692	110	17,077	310
95	263	127	127,659	966	370,716	18,811



Appendix E.6. Katmai and Alinchak Bay Sections fishing time, harvest by species, and landings, by year, July 6-25, 1970-1995.

KATMAI & ALINCHAK SECTIONS, JULY 6-25.

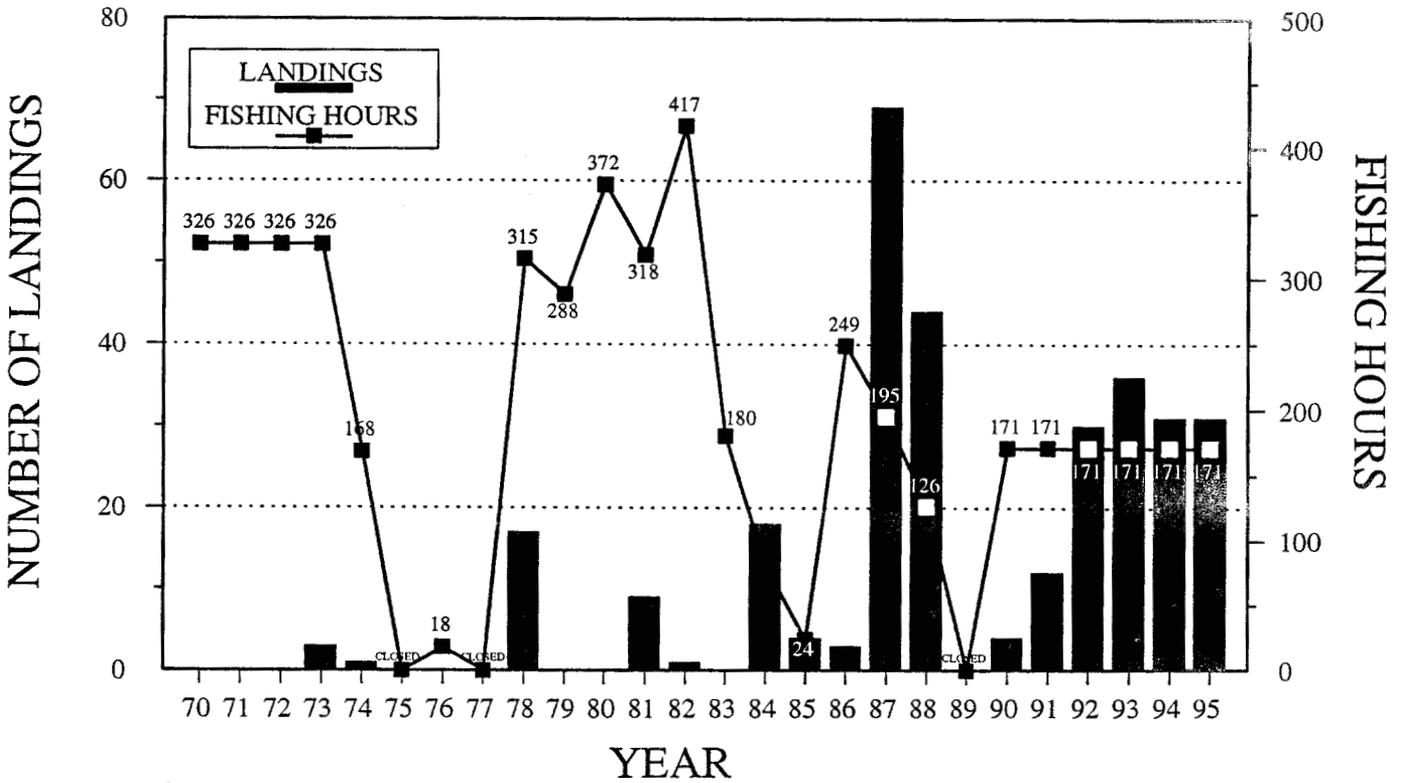
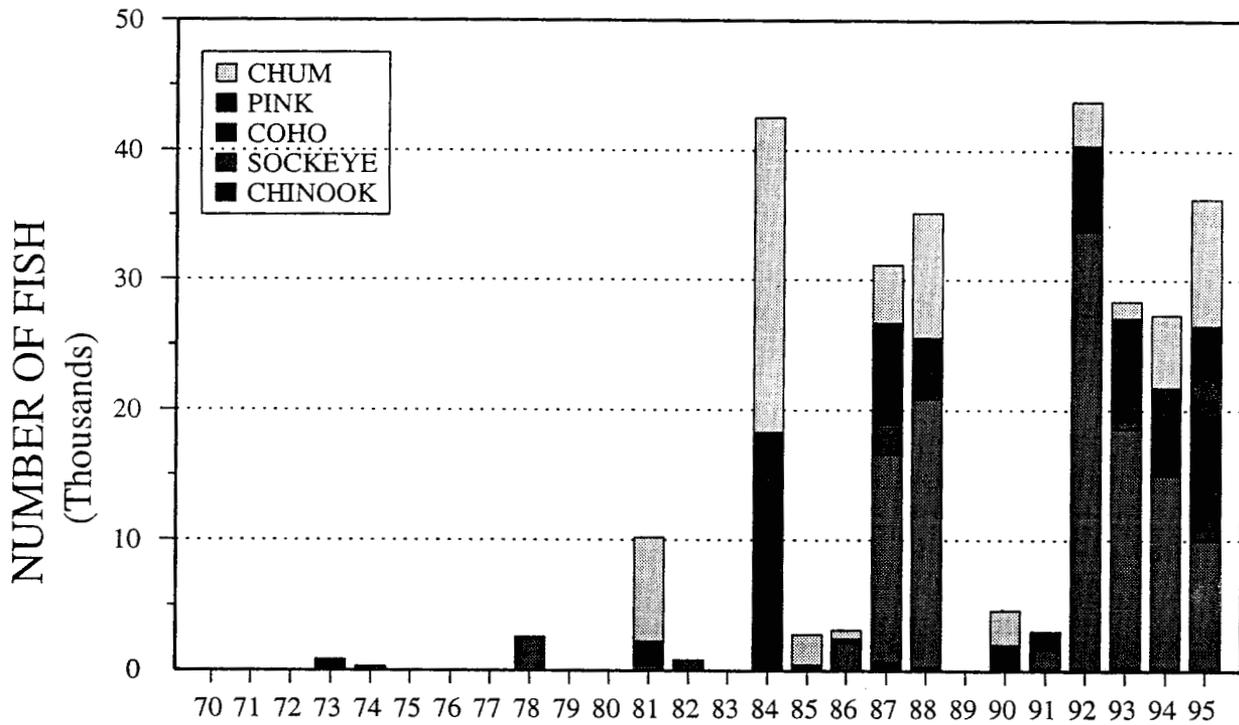
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	2	0	0	0	2,429	212
73	3	1	265	0	427	158
74	1	0	301	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	17	1	2,419	0	102	61
79	2	0	1	0	3,671	148
80	0	0	0	0	0	0
81	9	0	354	0	1,900	7,937
82	1	0	806	0	0	0
83	0	0	0	0	0	0
84	18	1	55	0	18,239	24,218
85	4	1	16	4	451	2,311
86	3	18	2,093	40	329	638
87	69	745	15,824	2,423	7,689	4,486
88	53	385	27,936	118	5,417	12,667
89	0	0	0	0	0	0
90	34	106	23,276	3,266	14,071	7,076
91	13	76	1,570	22	1,369	102
92	85	440	98,051	1,676	13,775	8,792
93	36	278	18,291	563	7,945	1,289
94	81	394	37,943	1,182	16,288	10,915
95	39	33	13,997	994	18,106	10,927



Appendix E.7. Katmai Section fishing time, harvest by species, and landings, by year, July 6-25, 1970-1995.

KATMAI SECTION, JULY 6-25.

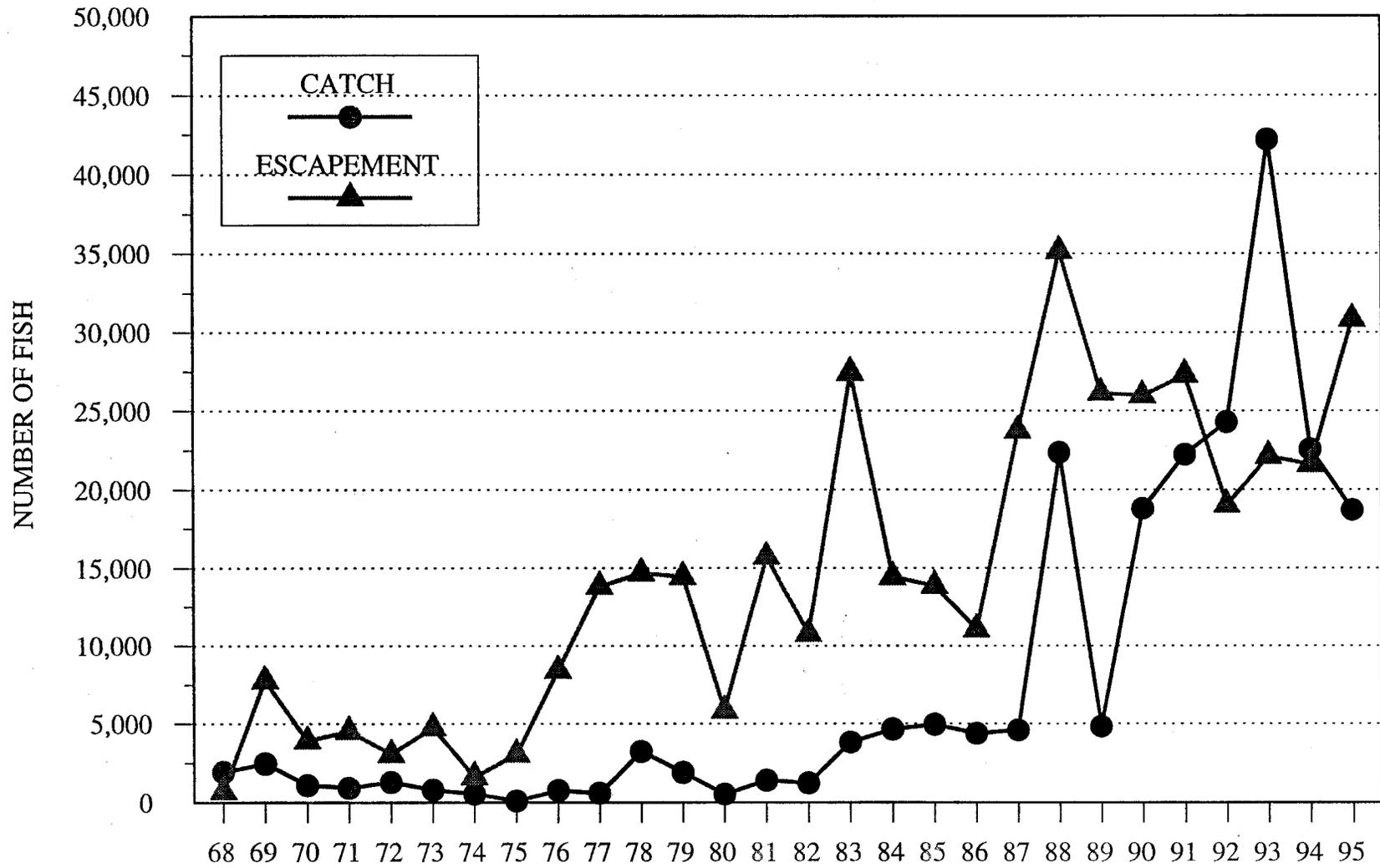
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	2	0	0	0	2,429	212
73	0	0	0	0	0	0
74	0	0	0	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	0	0	0	0	0	0
79	2	0	1	0	3,671	148
80	0	0	0	0	0	0
81	0	0	0	0	0	0
82	0	0	0	0	0	0
83	0	0	0	0	0	0
84	0	0	0	0	0	0
85	0	0	0	0	0	0
86	0	0	0	0	0	0
87	0	0	0	0	0	0
88	9	115	7,395	19	731	3,120
89	0	0	0	0	0	0
90	30	106	23,096	3,266	12,234	4,472
91	1	34	46	0	34	1
92	55	401	64,401	1,457	7,272	5,416
93	0	0	0	0	0	0
94	50	228	23,107	1,090	9,608	5,367
95	8	6	4,042	85	2,511	1,129



Appendix E.8. Alinchak Section fishing time, harvest by species, and landings, by year, July 6-25, 1970-1995.

ALINCHAK SECTION, JULY 6-25.

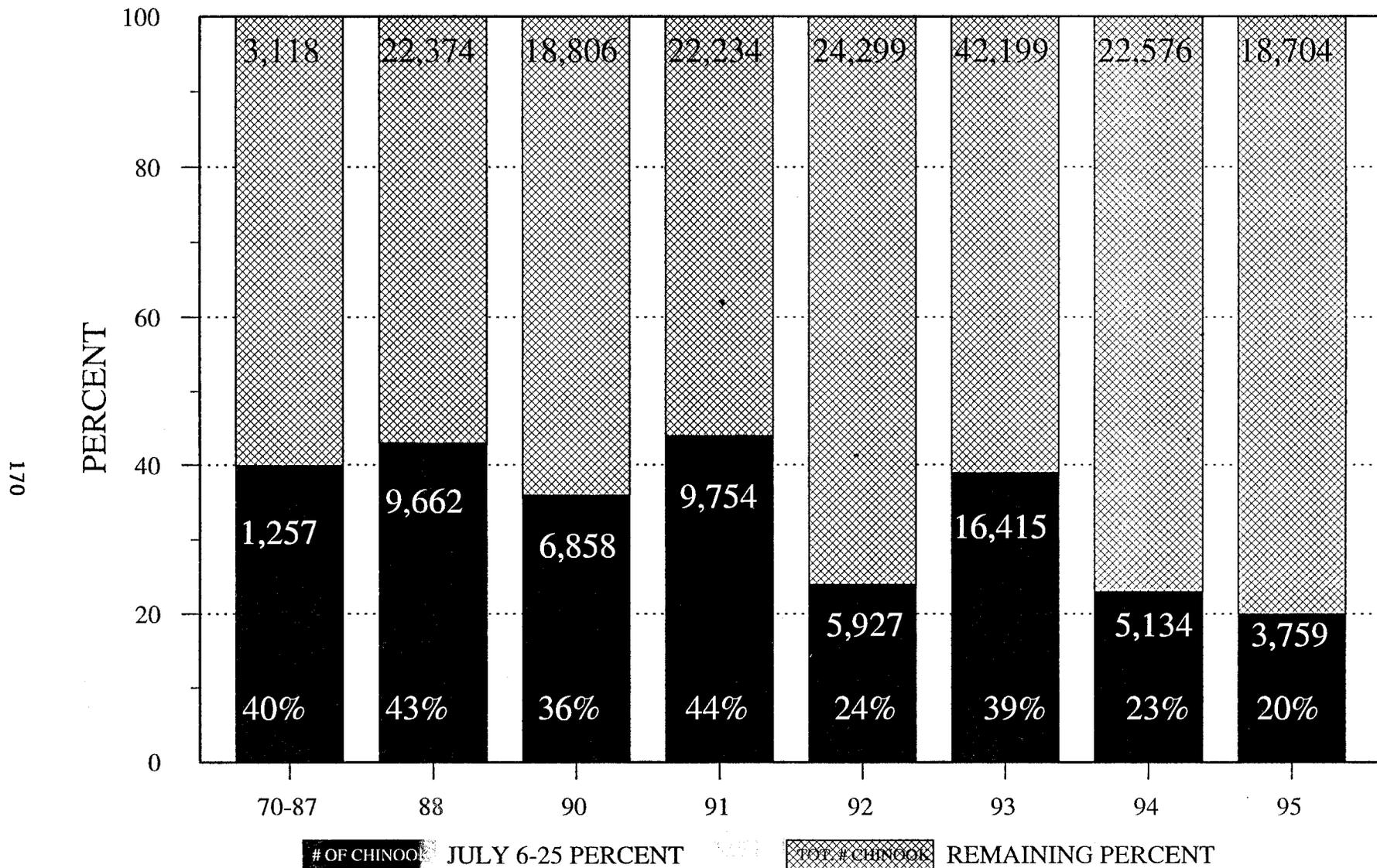
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	0	0	0	0	0	0
73	3	1	265	0	427	158
74	1	0	301	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	17	1	2,419	0	102	61
79	0	0	0	0	0	0
80	0	0	0	0	0	0
81	9	0	354	0	1,900	7,937
82	1	0	806	0	0	0
83	0	0	0	0	0	0
84	18	1	55	0	18,239	24,218
85	4	1	16	4	451	2,311
86	3	18	2,093	40	329	638
87	69	745	15,824	2,423	7,689	4,486
88	44	270	20,541	99	4,686	9,547
89	0	0	0	0	0	0
90	4	0	180	0	1,837	2,604
91	12	42	1,524	22	1,335	101
92	30	39	33,650	219	6,503	3,376
93	36	278	18,291	563	7,945	1,289
94	31	166	14,836	92	6,680	5,548
95	31	27	9,955	909	15,595	9,798



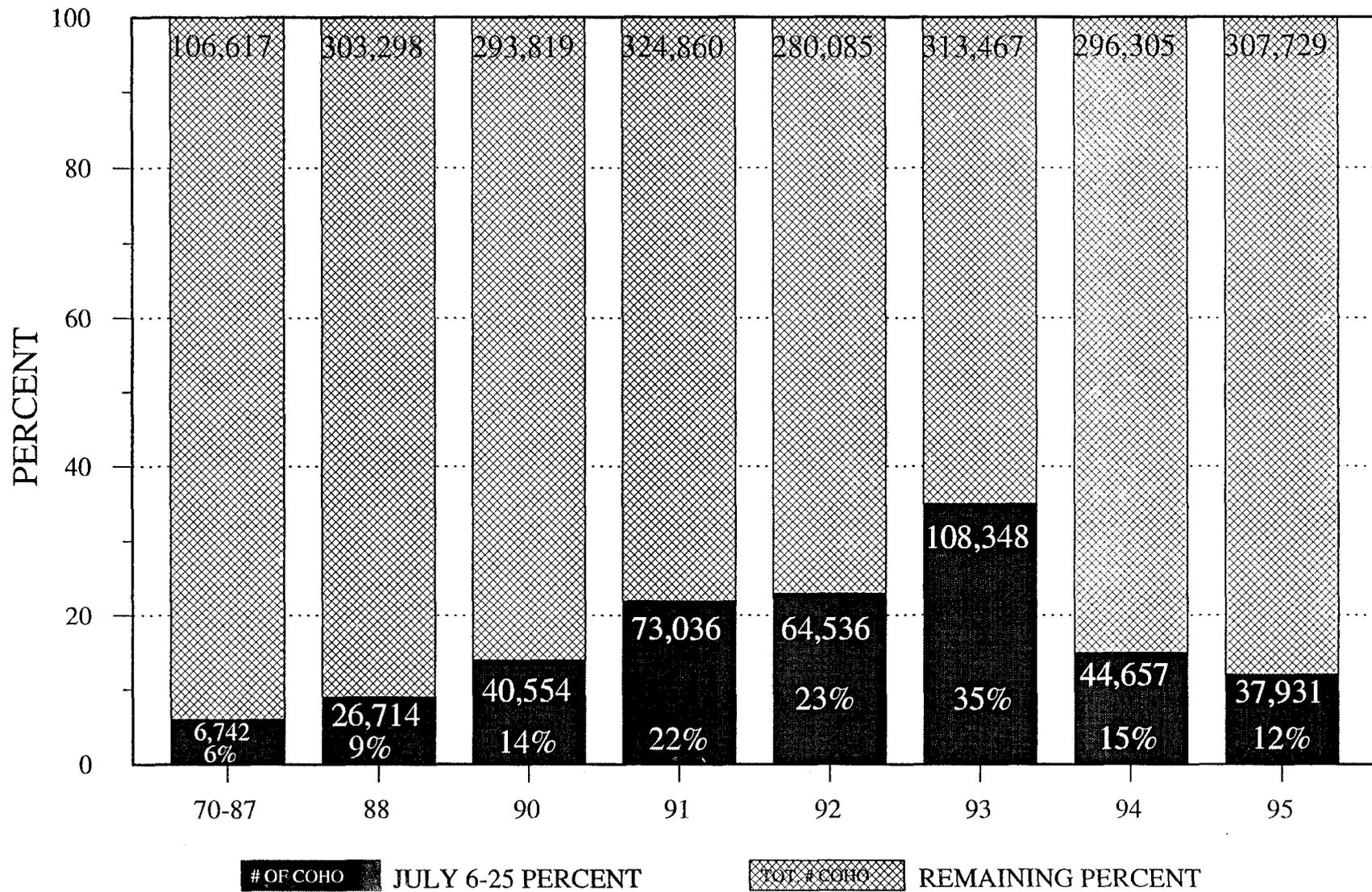
Appendix F.1. Kodiak Management Area chinook salmon catch and escapement, 1968-1995.

KODIAK MANAGEMENT AREA
CHINOOK SALMON CATCH & ESCAPEMENT
1968 - 1995

	CATCH	ESCAPEMENT
68	1,936	703
69	2,469	7,752
70	1,089	3,900
71	920	4,524
72	1,300	3,049
73	800	4,762
74	545	1,622
75	101	3,059
76	766	8,411
77	585	13,824
78	3,228	14,677
79	1,905	14,441
80	529	5,850
81	1,418	15,720
82	1,238	10,773
83	3,839	27,445
84	4,657	14,429
85	4,970	13,876
86	4,381	11,046
87	4,612	23,744
88	22,374	35,152
89	4,851	26,131
90	18,806	25,972
91	22,233	27,306
92	24,299	19,013
93	42,199	22,113
94	22,575	21,591
95	18,704	30,843



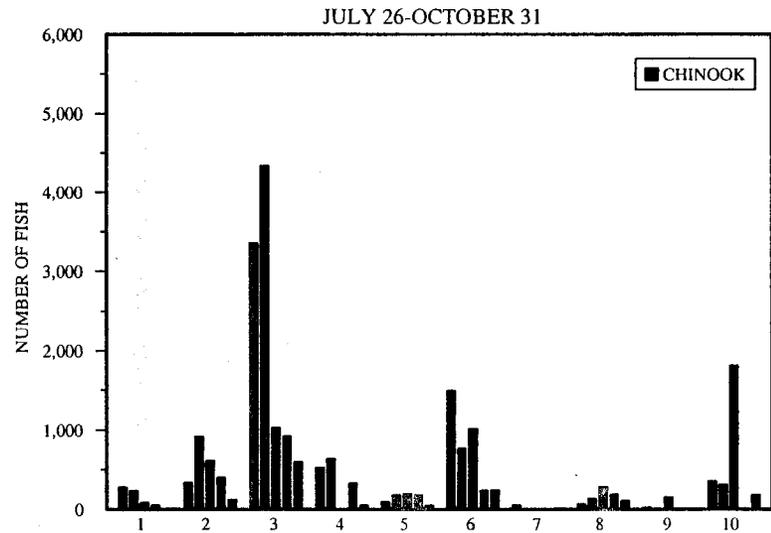
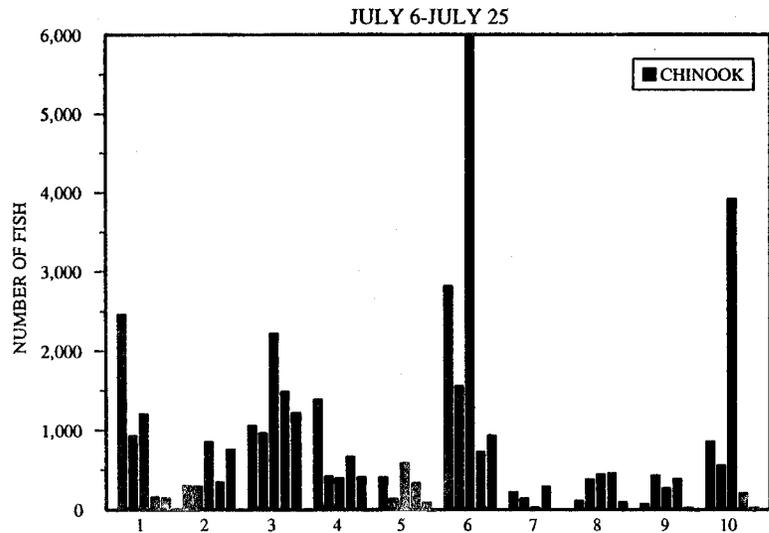
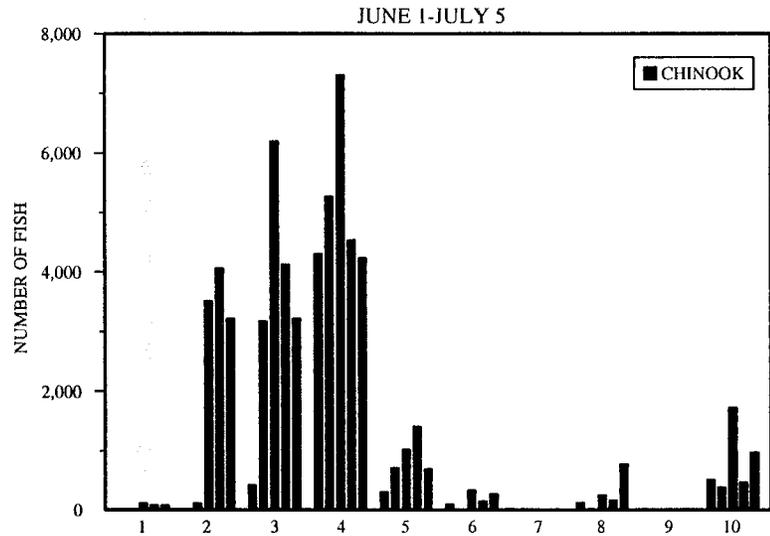
Appendix F.2. Percent of annual chinook salmon harvest which occurs from July 6 through July 25, 1970-1995.



Appendix F.3. Percent of annual coho salmon harvest which occurs from July 6 through July 25, 1970-1995.

CHINOOK HARVESTS

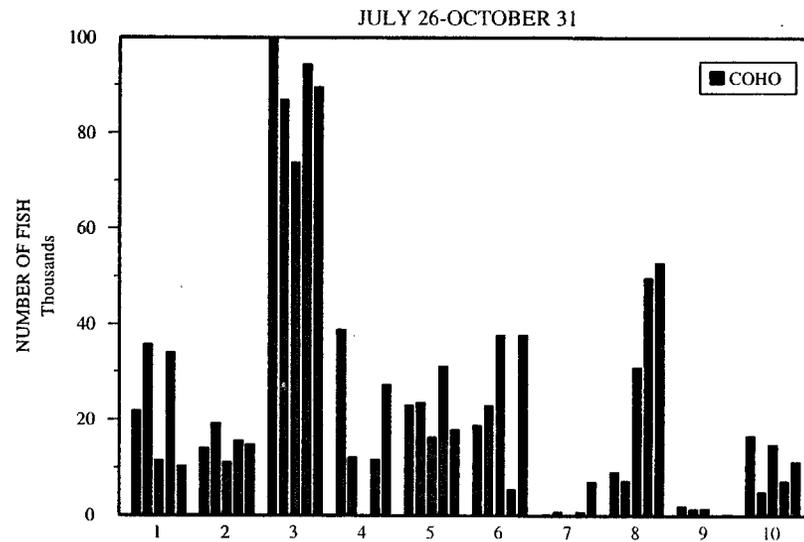
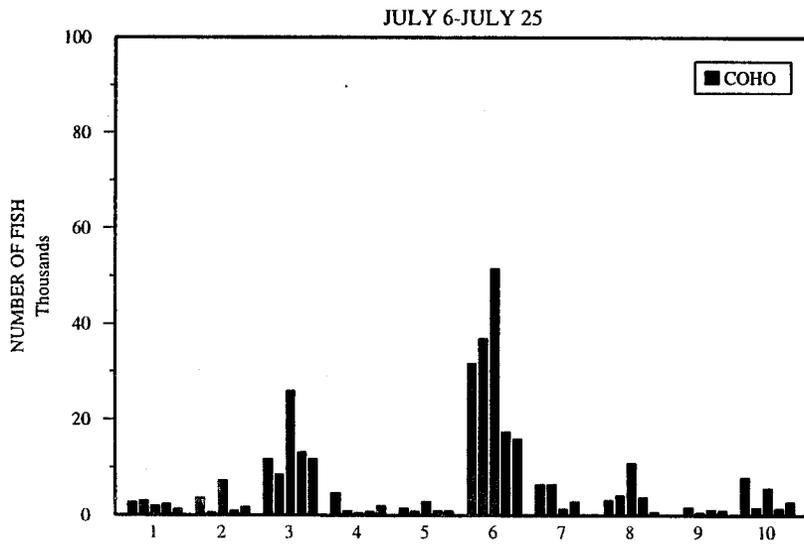
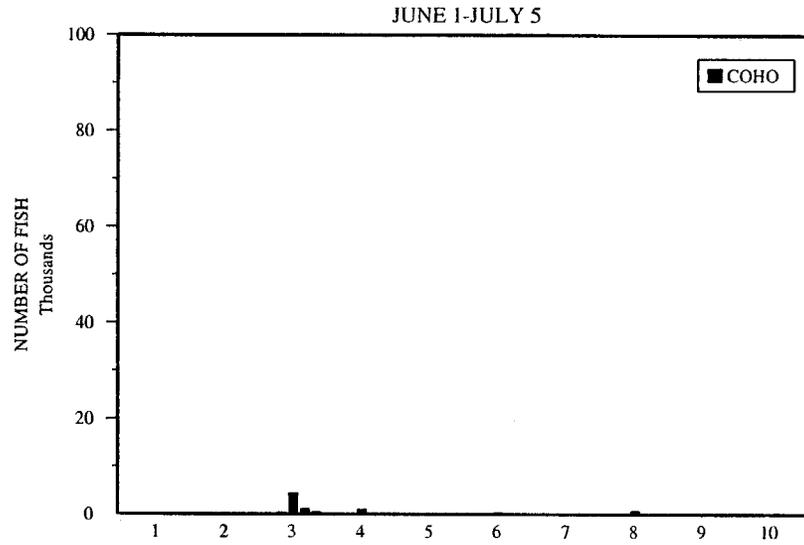
- AREA 1 .. N. SHELIKOF SECTIONS
- AREA 2 .. S.W. AFOGNAK SECTION
- AREA 3 .. N.W. KODIAK DISTRICT
- AREA 4 .. S.W. KODIAK DISTRICT
- AREA 5 .. ALITAK BAY DISTRICT
- AREA 6 .. E. KODIAK DISTRICT
- AREA 7 .. N.E. KODIAK DISTRICT
- AREA 8 .. REMAINING AFOGNAK SECTIONS
- AREA 9 .. KATMAI & ALINCHAK SECTIONS
- AREA 10 . IGVAK & WIDE BAY SECTIONS



Appendix F.4. Chinook and coho salmon harvest by major harvest locations, by selected time periods, 1991-1995.

COHO HARVESTS

- AREA 1 .. N. SHELIKOF SECTIONS
- AREA 2 .. S.W. AFOGNAK SECTION
- AREA 3 .. N.W. KODIAK DISTRICT
- AREA 4 .. S.W. KODIAK DISTRICT
- AREA 5 .. ALITAK BAY DISTRICT
- AREA 6 .. E. KODIAK DISTRICT
- AREA 7 .. N.E. KODIAK DISTRICT
- AREA 8 .. REMAINING AFOGNAK SECTIONS
- AREA 9 .. KATMAI & ALINCHAK SECTIONS
- AREA 10 .. IGVAK & WIDE BAY SECTIONS

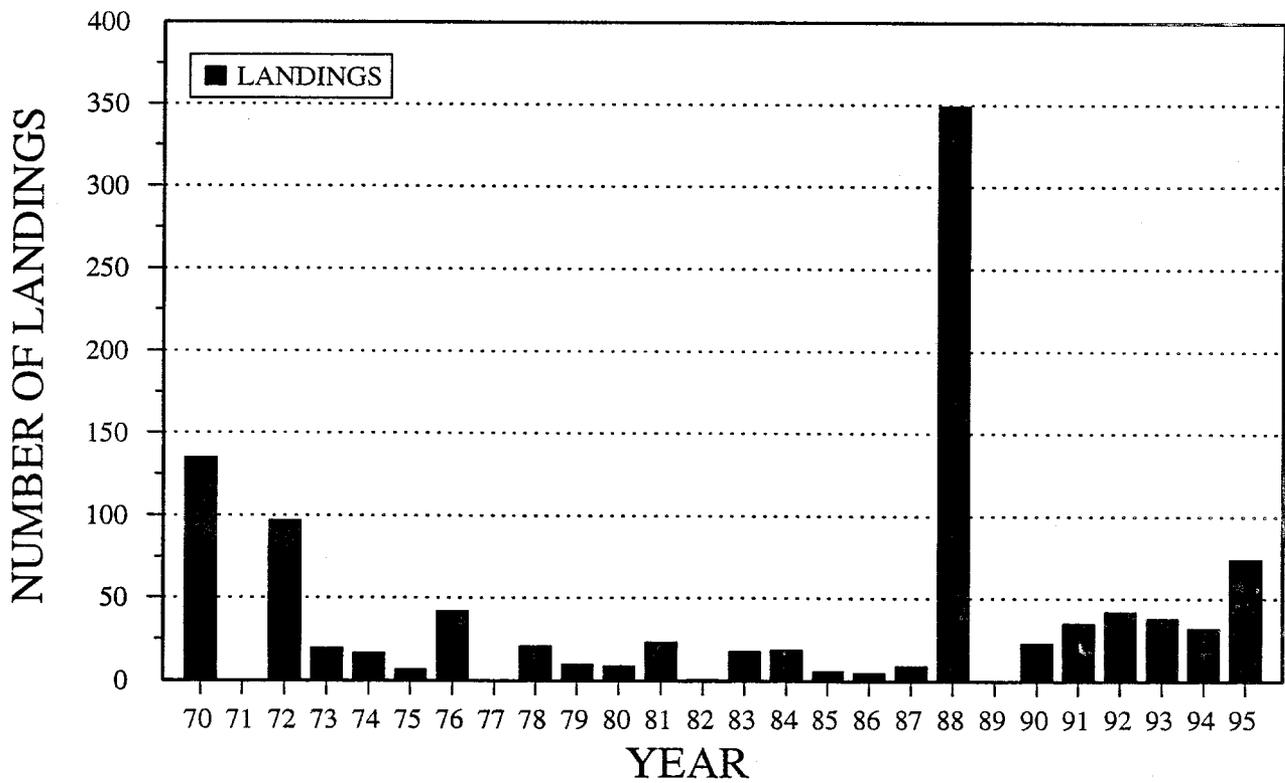
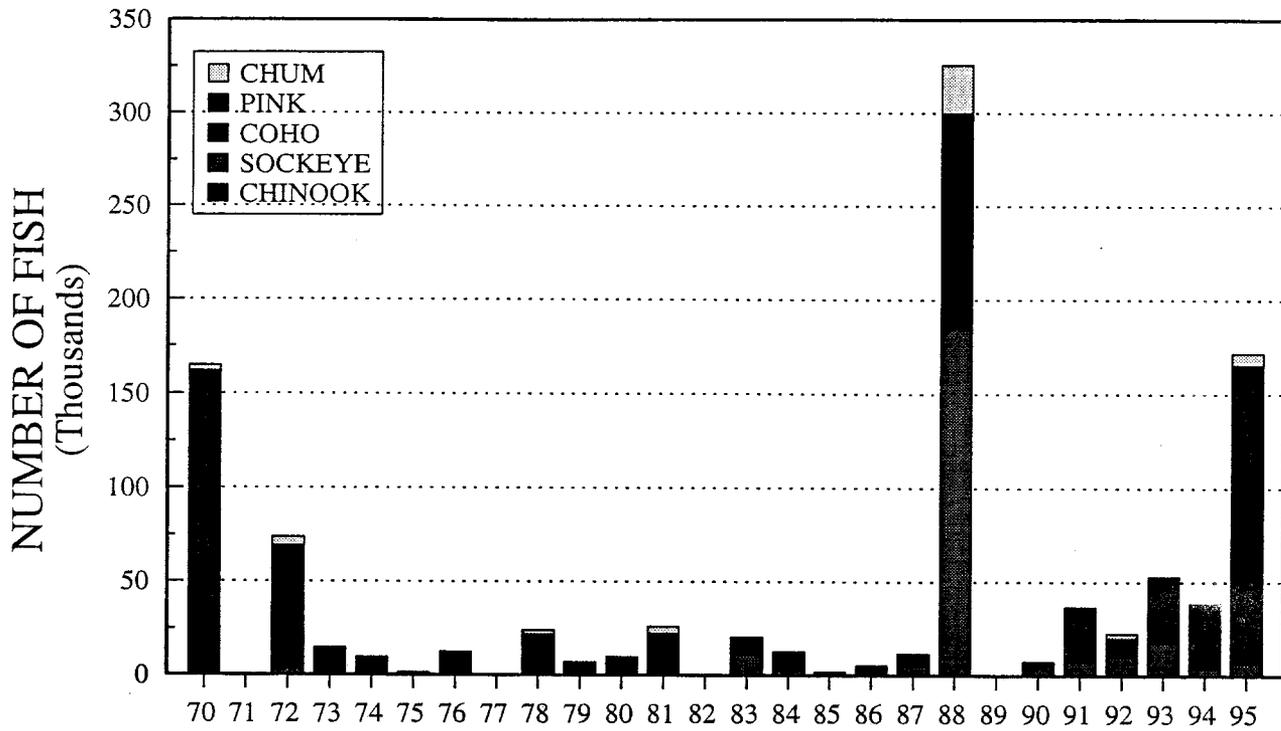


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CHINOOK HARVEST

COHO HARVEST

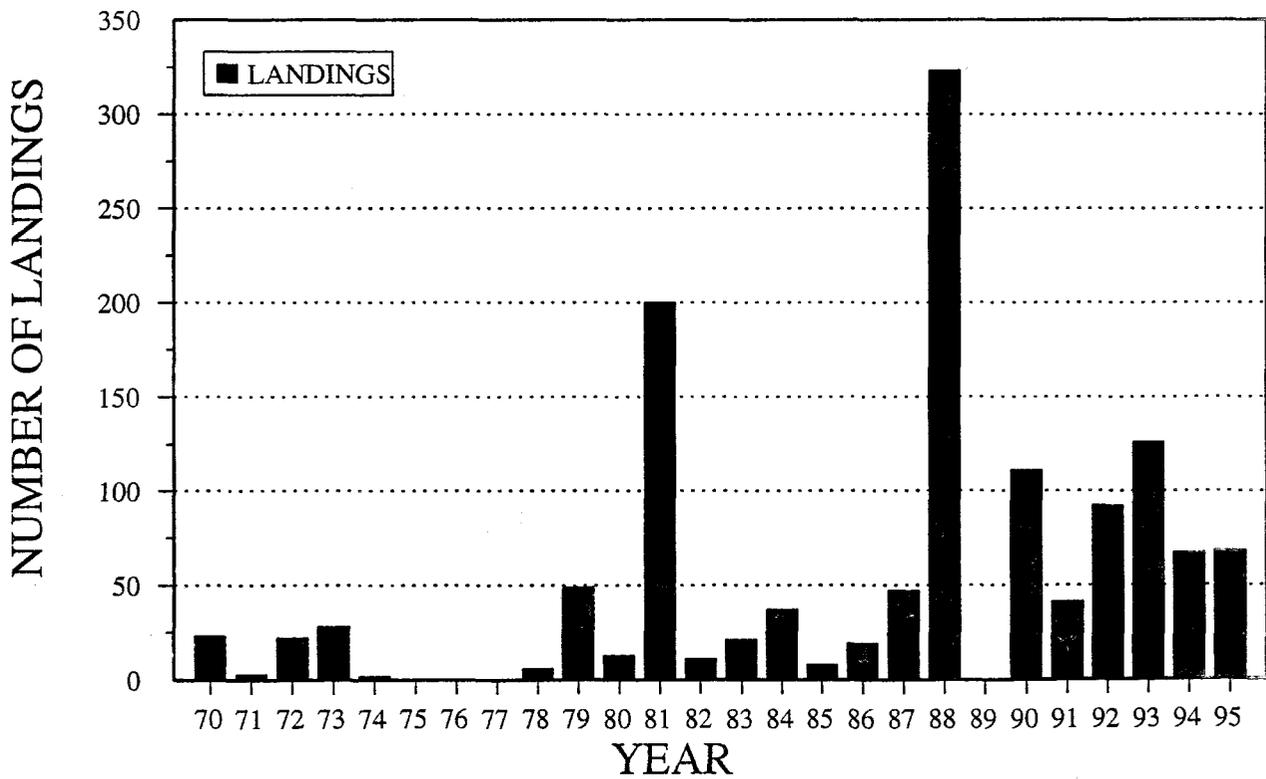
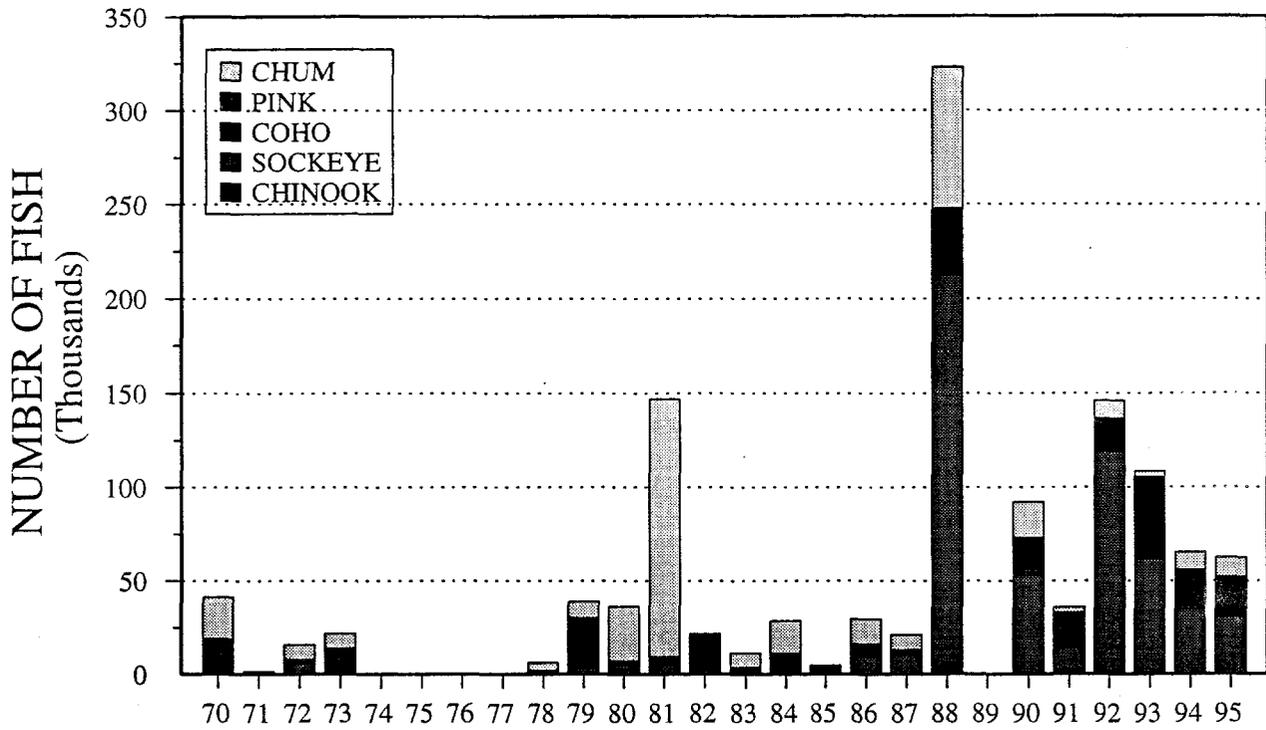
AREA	YEAR	6/1-7/5	7/6-7/25	7/26-10/31	6/1-7/5	7/6-7/25	7/26-10/31
N.SHELIKOF SECTIONS	91	0	2,467	283	0	2,707	21,923
	92	6	945	237	0	3,065	35,632
	93	127	1,216	90	0	1,954	11,505
	94	88	215	60	0	3,050	32,201
	95	86	151	10	1	1,260	10,334
S.W.AFOGNAK SECTON	91	24	309	340	0	3,586	14,085
	92	117	304	917	40	605	19,211
	93	3,523	858	621	280	7,100	11,208
	94	4,069	355	405	103	1,002	13,027
	95	3,227	764	127	47	1,756	14,800
N.W.KODIAK DISTRICT	91	435	1,068	3,361	18	11,707	106,930
	92	3,175	975	4,341	308	8,415	86,996
	93	6,204	2,224	1,036	4,462	25,967	73,985
	94	4,129	1,495	874	1,120	13,217	92,610
	95	3,225	1,228	604	420	11,722	89,596
S.W.KODIAK DISTRICT	91	4,315	1,392	535	30	4,588	38,908
	92	5,277	433	645	56	905	12,200
	93	7,312	404	7	946	518	31
	94	4,544	675	332	30	750	11,268
	95	4,240	417	58	97	1,885	27,376
ALITAK BAY DISTRICT	91	311	414	96	24	1,435	23,142
	92	720	152	184	20	845	23,683
	93	1,032	596	200	90	2,791	16,390
	94	1,418	343	173	66	981	22,690
	95	695	93	60	68	949	17,920
EASTSIDE KODIAK DISTRICT	91	109	2,817	1,502	0	31,700	18,829
	92	22	1,565	773	3	36,919	23,016
	93	342	6,429	1,024	252	51,505	37,682
	94	158	731	239	8	17,290	3,917
	95	274	942	247	19	15,897	37,709
N.E.KODIAK DISTRICT	91	0	228	55	0	6,332	175
	92	0	149	10	0	6,325	790
	93	0	37	8	0	1,414	219
	94	8	296	4	0	2,835	223
	95	0	0	14	0	22	6,997
REMAINING AFOGNAK SECTIONS	91	136	121	69	7	3,152	9,046
	92	25	391	139	0	4,126	7,227
	93	266	455	289	741	10,923	30,920
	94	182	470	193	66	3,640	48,881
	95	777	100	114	71	697	52,746
KATMAI & ALINCHAK SECTIONS	91	5	76	27	0	22	1,933
	92	0	440	10	0	1,676	1,405
	93	0	278	155	0	563	1,519
	94	0	339	0	0	428	0
	95	16	33	3	0	994	266
IGVAK & WIDE BAY SECTIONS	91	516	861	361	77	7,807	16,697
	92	401	573	319	5	1,654	4,957
	93	1,731	3,918	1,817	59	5,613	14,830
	94	481	339	16	22	428	7,226
	95	983	31	185	20	2,749	11,311



Appendix F.5. Northwest Afognak and Shuyak Island Sections harvest by species and landings, by year, July 6-25, 1970-1995.

N.W.AFOGNAK & SHUYAK SECTIONS COMBINED, JULY 6-25.

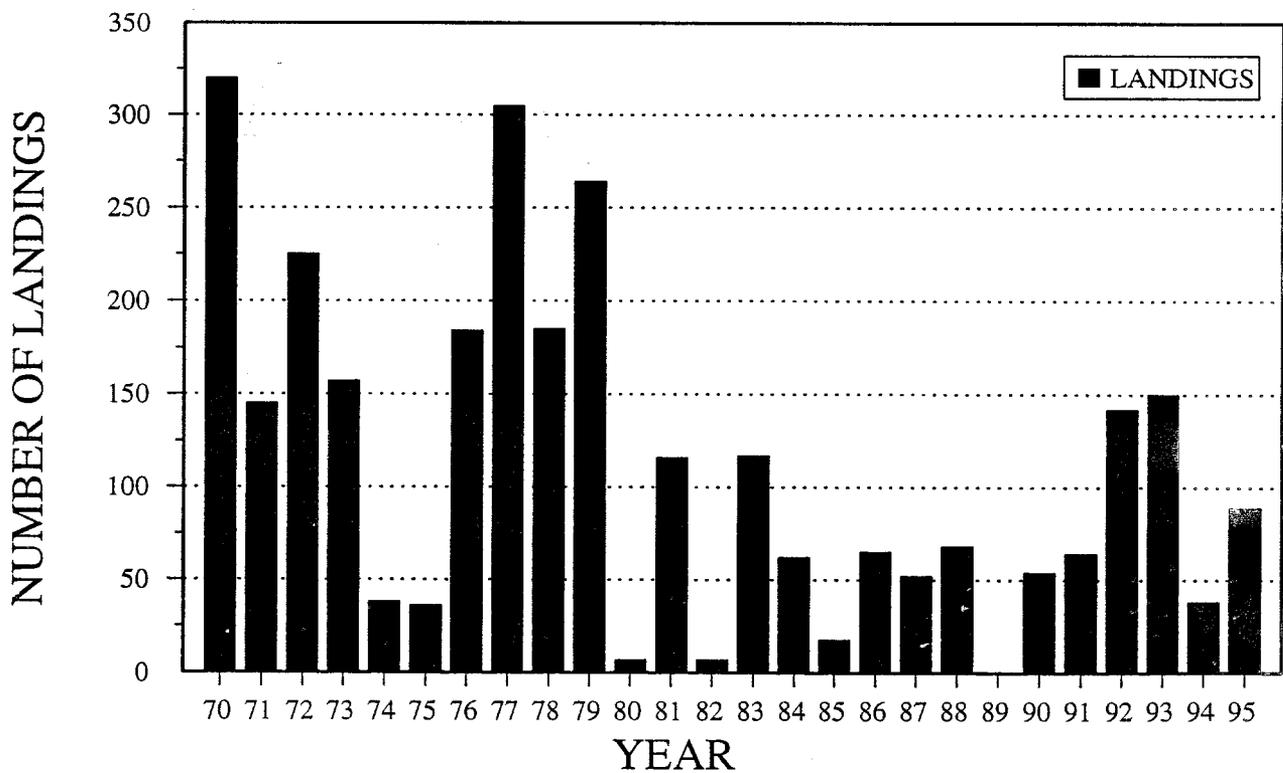
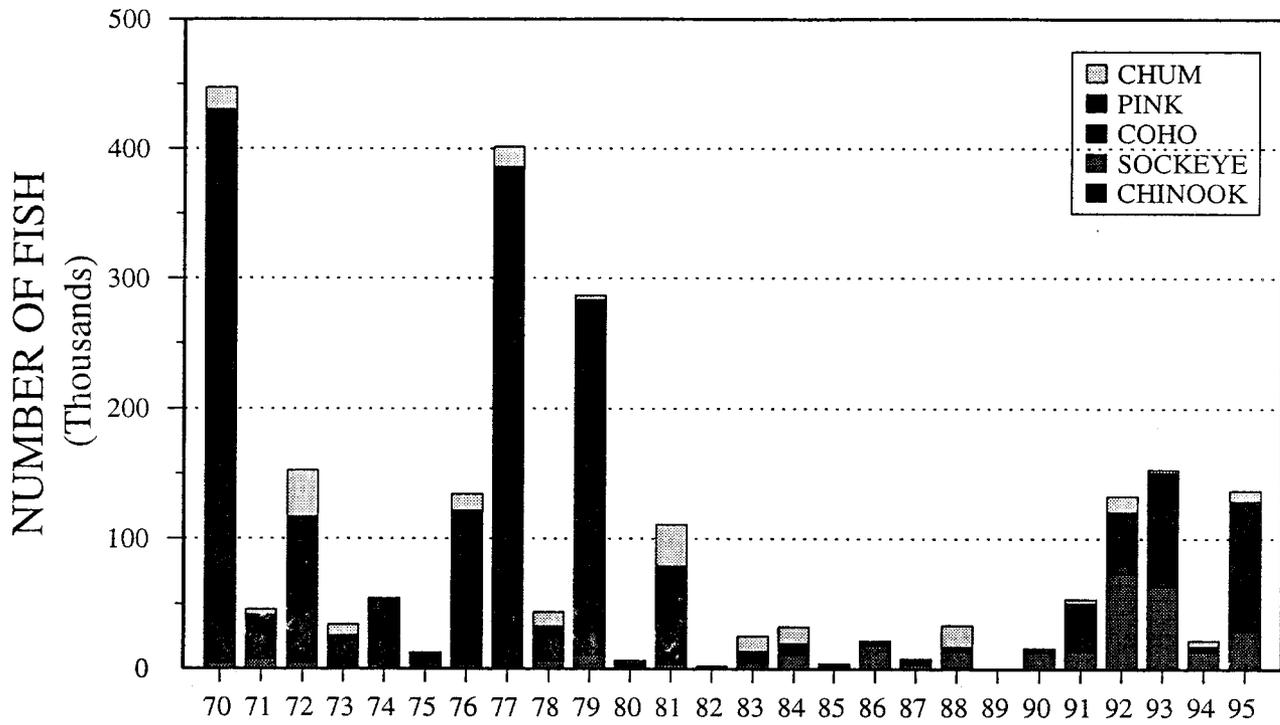
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	135	0	1,745	889	159,367	3,112
71	0	59	0	0	0	0
72	97		2,987	237	65,925	4,692
73	20	11	679	19	13,703	421
74	17	0	1,742	36	7,657	338
75	7	0	264	1	1,046	230
76	42	11	894	39	11,399	261
77	0	0	0	0	0	0
78	21	2	1,415	2	20,452	2,137
79	10	1	1,940	18	5,134	43
80	9	2	152	4	9,540	256
81	23	0	1,179	64	21,103	3,886
82	1	0	370	2	55	28
83	18	18	10,719	53	8,806	972
84	19	8	2,204	24	9,196	1,257
85	6	0	1,116	13	429	143
86	5	0	113	4	5,110	145
87	9	1	5,344	280	5,222	841
88	349	344	184,031	3,454	112,002	25,917
89	0	0	0	0	0	0
90	23	10	5,157	47	2,153	238
91	35	88	7,203	1,115	27,133	1,156
92	42	21	10,193	188	9,679	2,602
93	38	35	17,874	265	33,596	1,089
94	32	21	4,335	259	32,897	1,136
95	74	87	6,726	365	158,292	6,379



Appendix F.6. Dakavak, Inner and Outer Kukak, Hallo Bay and Big River sections combined, harvest by species and landings, by year, July 6-25, 1970-1995.

DAKAVAK, IN. & OUT. KUKAK, HALLO BAY, & BIG RIVER SECTIONS, JULY 6-25

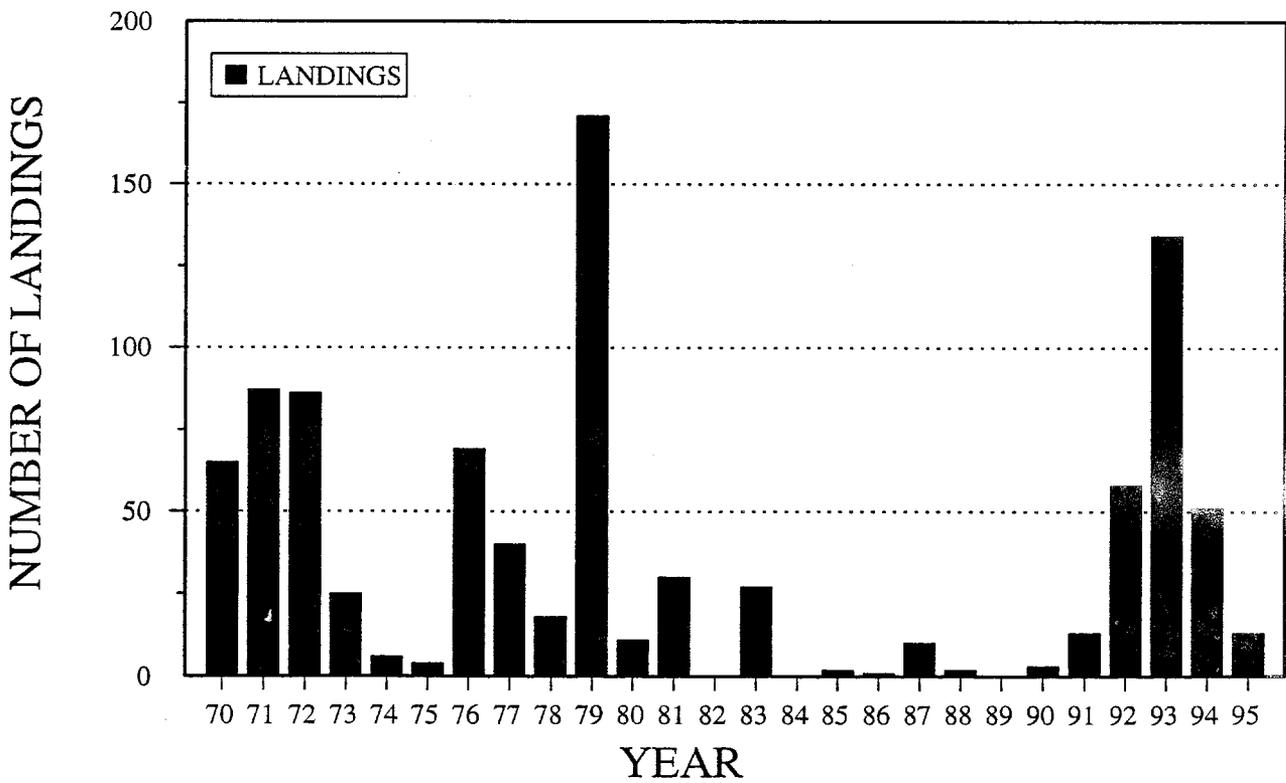
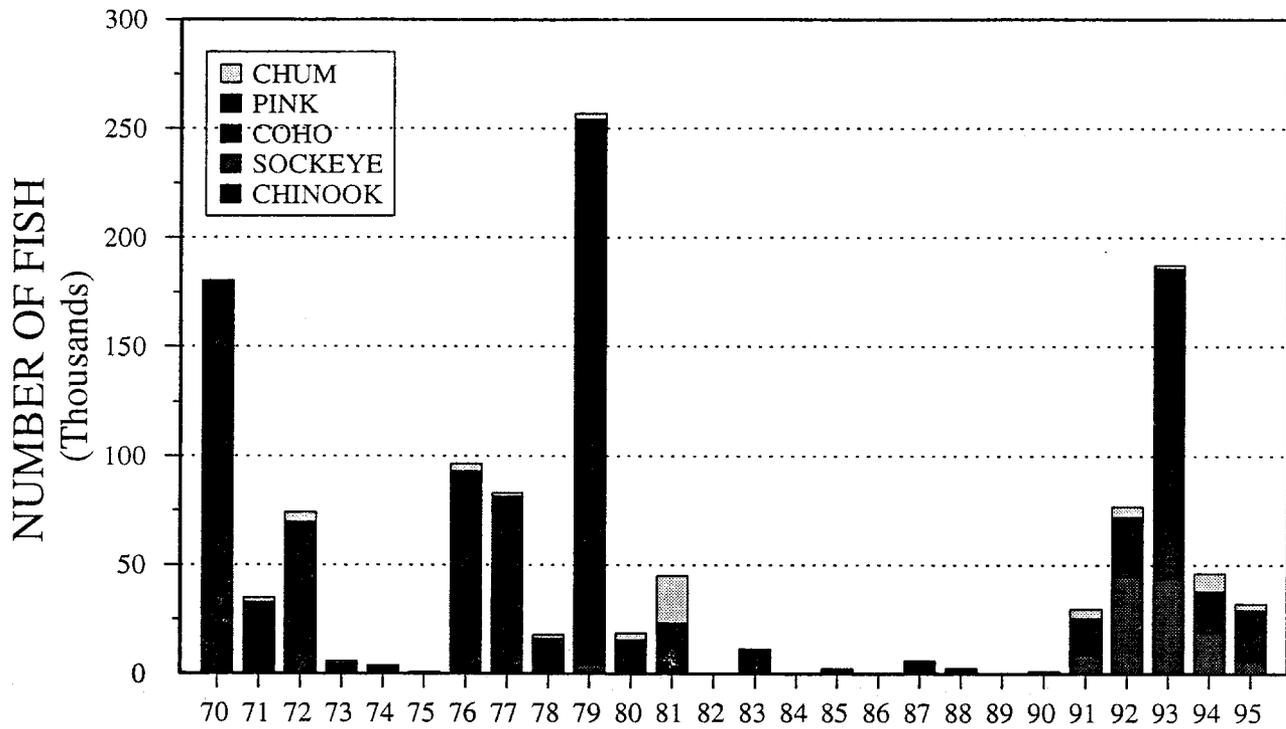
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	23	0	1,172	3	17,893	22,242
71	3	0	1,449	1	54	2
72	22	0	5,798	142	1,924	8,054
73	28	0	230	1	13,716	8,054
74	2	0	615	0	0	0
75	0	0	0	0	0	0
76	0	0	0	0	0	0
77	0	0	0	0	0	0
78	6	1	165	1	1,707	4,487
79	49	15	3,298	4	27,094	8,591
80	13	0	5,970	0	1,085	29,405
81	200	7	4,908	16	4,370	137,686
82	11	1	2,050	0	18,438	1,137
83	21	4	2,815	6	738	7,781
84	37	13	1,397	35	9,795	17,317
85	8	4	2,818	29	1,031	908
86	19	48	9,139	265	6,769	13,260
87	47	280	10,219	96	2,656	7,998
88	323	4,854	207,888	2,468	32,371	75,371
89	0	0	0	0	0	0
90	111	129	52,557	3,864	16,454	19,174
91	41	2,379	11,604	1,592	17,702	2,636
92	92	924	118,175	2,877	14,626	9,407
93	126	1,181	60,541	1,689	42,039	3,158
94	67	143	34,505	2,109	19,072	9,333
95	68	64	30,671	895	20,508	10,208



Appendix F.7. Inner and Outer Ugak Sections harvest by species and landings, by year, July 6-25, 1970-1995.

INNER & OUTER UGAK BAY SECTIONS, JULY 6-25.

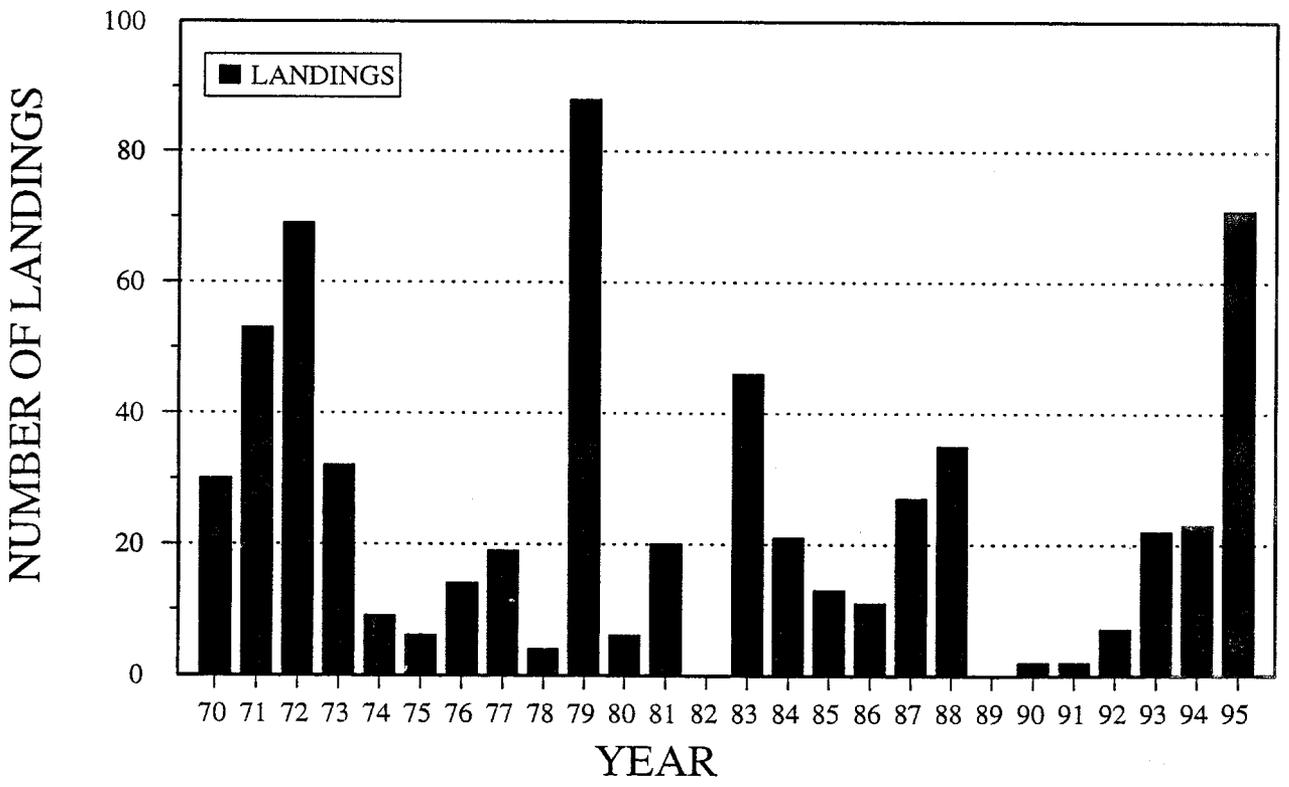
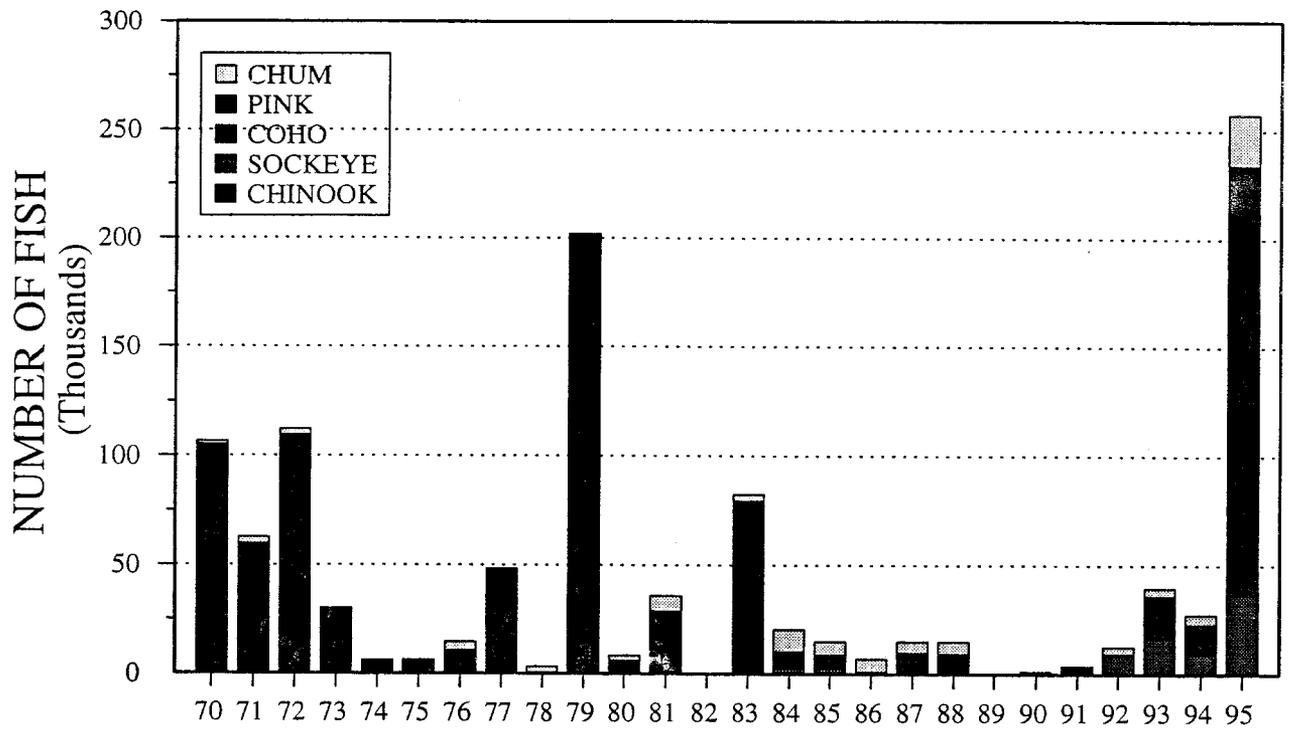
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	320	36	4,165	78	425,872	17,095
71	145	17	7,305	19	33,951	4,423
72	225	48	4,373	191	112,440	35,490
73	157	209	1,254	27	24,176	8,544
74	38	1	1,478	0	51,855	1,090
75	36	1	291	1	11,697	536
76	184	34	2,690	19	118,944	12,688
77	305	6	2,109	40	383,887	15,556
78	185	21	6,095	0	26,724	10,888
79	264	24	10,978	263	271,776	3,397
80	7	0	130	0	4,270	1,889
81	116	7	3,548	741	75,020	31,558
82	7	5	596	0	27	1,515
83	117	129	4,137	23	9,027	12,111
84	62	181	10,395	107	9,091	12,573
85	18	28	1,378	18	2,152	504
86	65	154	18,321	9	1,430	1,876
87	52	192	3,338	3	3,506	754
88	68	1,215	12,147	8	3,740	16,443
89	0	0	0	0	0	0
90	54	365	12,535	0	1,113	1,902
91	64	236	13,022	384	36,797	3,415
92	142	562	73,044	6,366	40,461	12,360
93	150	909	63,029	3,443	83,638	2,233
94	38	141	13,137	824	3,578	4,474
95	89	95	29,296	461	99,044	7,961



Appendix F.8. Two-Headed Section harvest by species and landings, by year, July 6-25, 1970-1995.

TWO-HEADED SECTION, JULY 6-25.

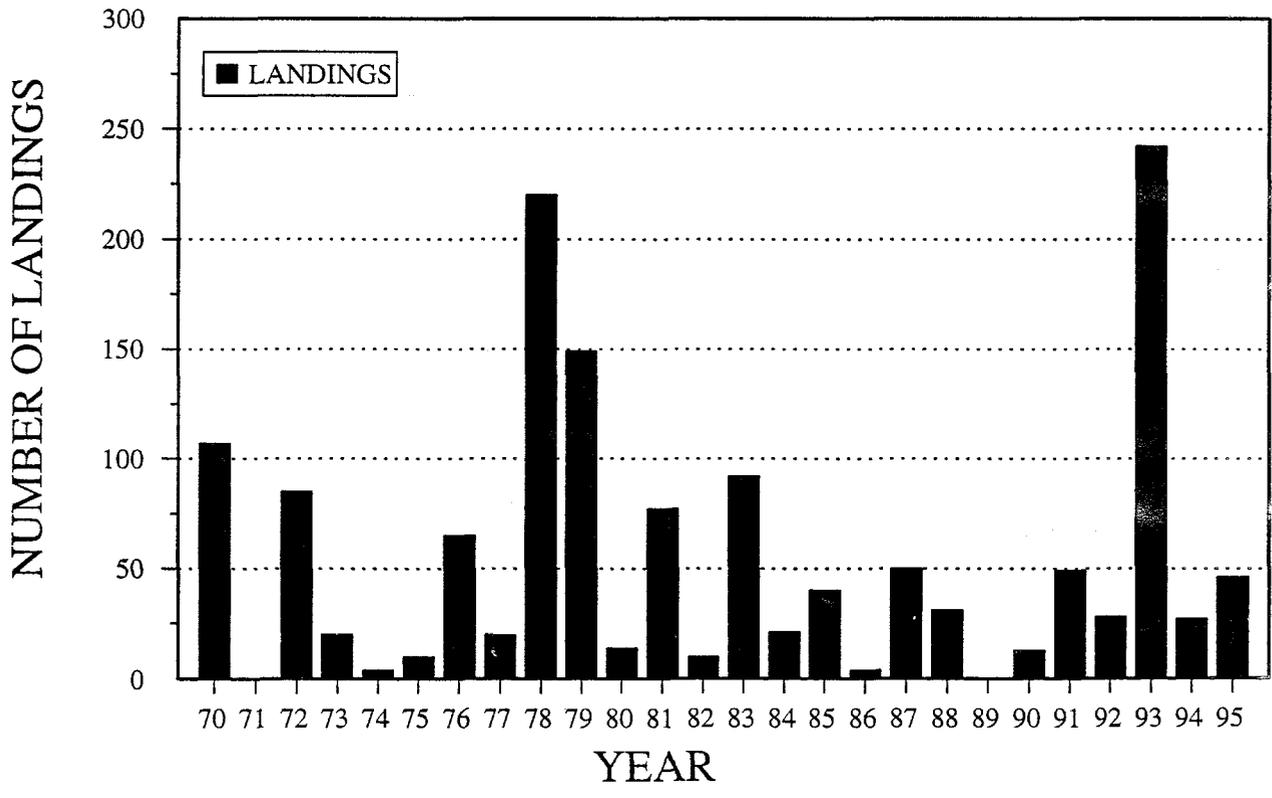
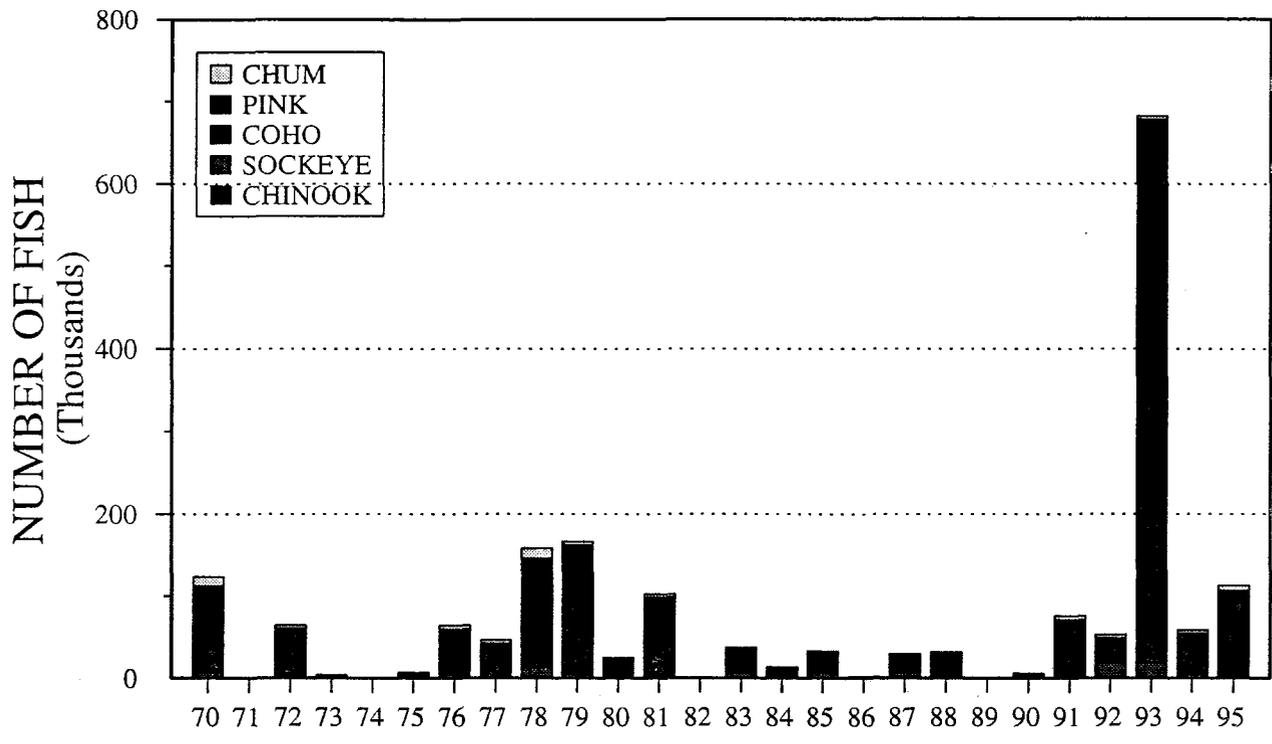
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	65	6	194	43	179,264	1,042
71	87	51	1,379	65	31,306	2,051
72	86	21	190	30	69,459	4,280
73	25	4	235	9	4,387	1,191
74	6	2	52	4	3,900	45
75	4	0	4	0	1,058	0
76	69	26	928	46	92,062	3,412
77	40	2	694	87	80,585	1,522
78	18	1	119	1	15,852	1,877
79	171	471	4,046	483	249,229	2,706
80	11	0	295	10	15,122	3,124
81	30	14	398	1	22,755	21,667
82	0	0	0	0	0	0
83	27	22	1,113	14	9,274	1,012
84	0	0	0	0	0	0
85	2	0	429	0	1,929	44
86	1	0	21	0	44	33
87	10	47	1,267	92	4,019	576
88	2	2	596	22	1,824	347
89	0	0	0	0	0	0
90	3	1	316	232	335	379
91	13	46	8,655	910	15,938	4,175
92	58	179	44,178	2,866	24,876	4,597
93	134	1,209	42,330	15,266	126,999	1,639
94	51	114	18,393	2,812	16,586	8,136
95	13	16	5,345	242	23,617	2,788



Appendix F.9. Seven Rivers Section harvest by species and landings, by year, July 6-25, 1970-1995.

SEVEN RIVER SECTION, JULY 6-25.

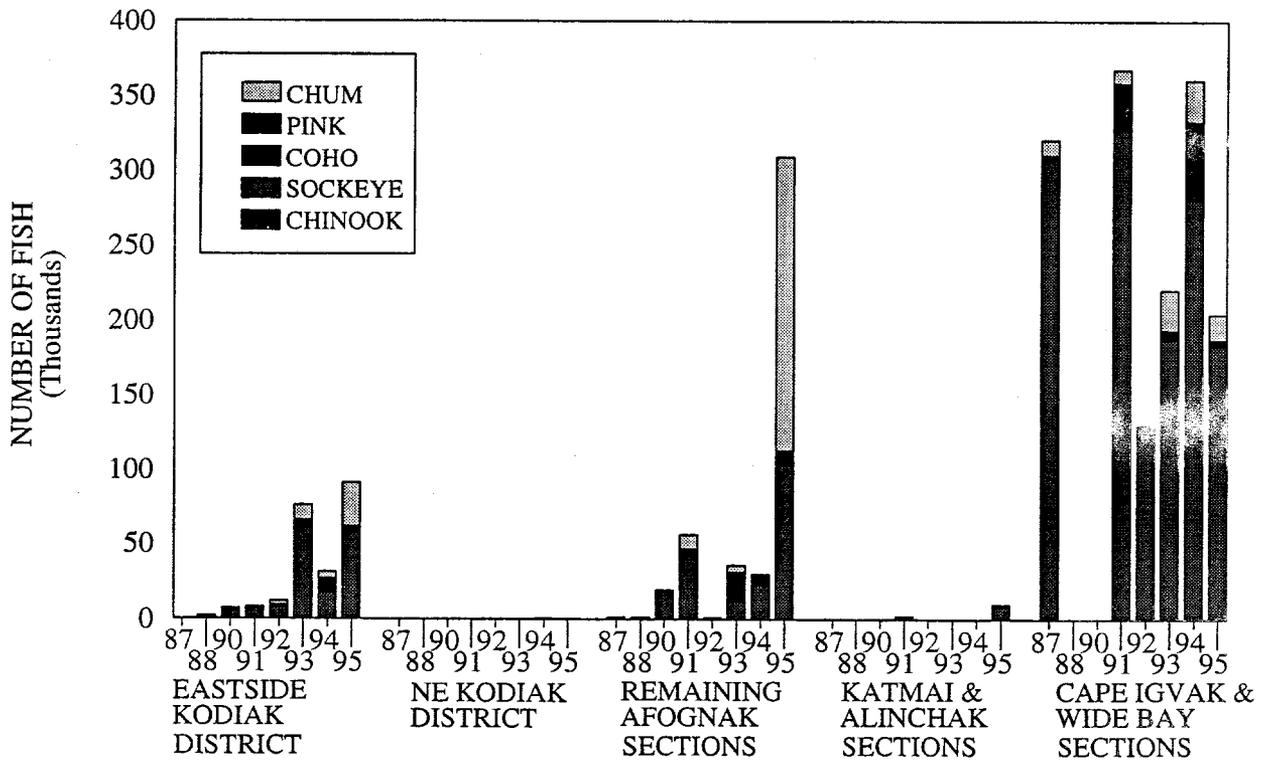
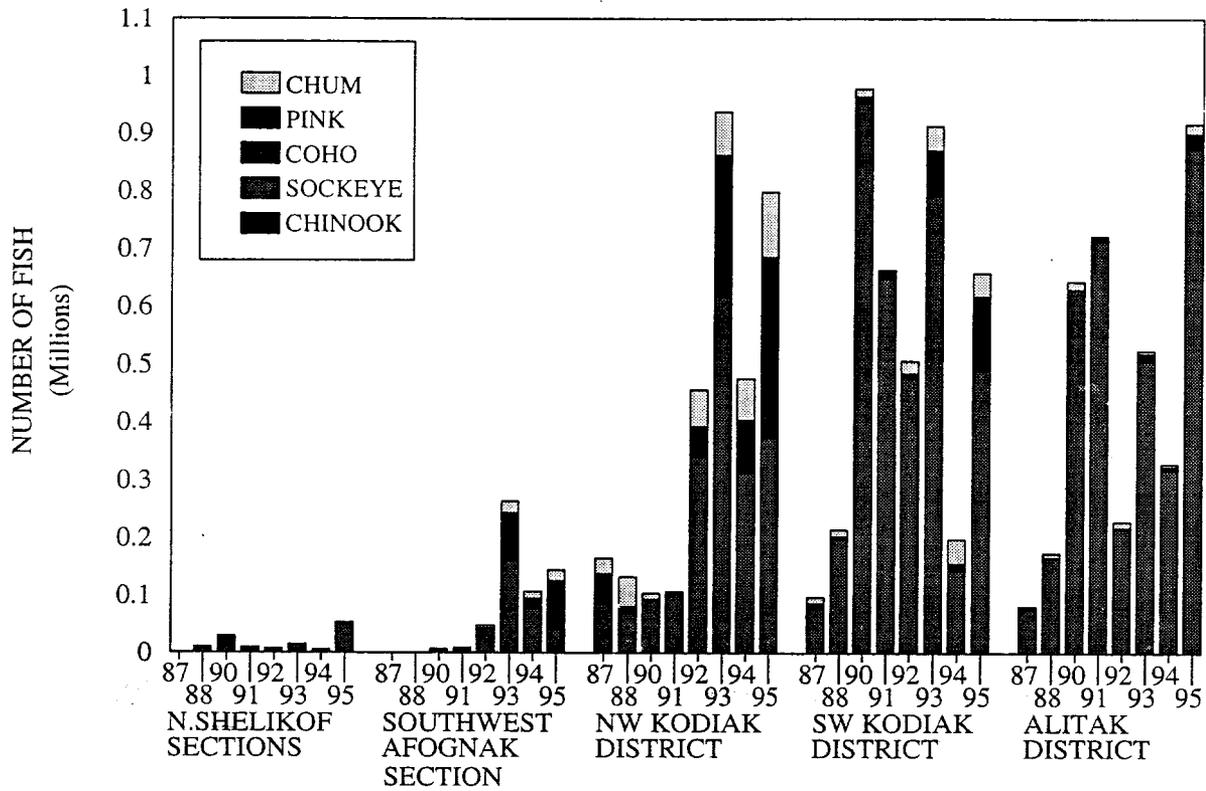
YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	30	0	202	12	104,826	1,482
71	53	0	385	3	59,389	2,888
72	69	1	506	6	109,035	2,535
73	32	0	278	4	28,678	1,083
74	9	0	550	0	5,654	63
75	6	0	614	0	5,811	5
76	14	1	70	1	10,654	3,832
77	19	0	48	1	47,129	1,082
78	4	0	248	0	176	2,921
79	88	0	1,266	16	199,859	677
80	6	0	2	0	6,124	2,352
81	20	2	340	1	28,264	7,140
82	0	0	0	0	0	0
83	46	3	1,179	12	78,072	3,166
84	21	0	2,441	0	7,800	10,236
85	13	0	2,619	1	6,237	6,028
86	11	0	199	0	765	6,028
87	27	0	834	0	8,875	5,280
88	35	0	717	10	8,521	5,672
89	0	0	0	0	0	0
90	2	0	971	0	0	211
91	2	0	574	0	3,170	0
92	7	12	8,376	231	713	3,281
93	22	162	16,538	3,165	15,804	3,738
94	23	114	9,206	1,998	11,597	4,275
95	71	259	35,925	5,573	192,036	23,554



Appendix F.10. Duck Bay, Izhut Bay, and Kitoi Bay Sections combined, harvest by species and landings, by year, July 6-25, 1970-1995.

DUCK BAY, IZHUT BAY, & KITOI BAY SECTIONS COMBINED, JULY 6-25.

YEAR	LANDINGS	CHINOOK	SOCKEYE	COHO	PINK	CHUM
70	107	11	7,133	2,399	103,095	10,934
71	0	0	0	0	0	0
72	85	33	2,755	380	57,483	3,774
73	20	1	457	47	3,240	673
74	4	0	258	8	631	15
75	10	6	1,223	255	4,715	1,074
76	65	40	5,154	720	53,783	4,765
77	20	0	1,343	128	41,106	4,183
78	220	132	13,484	1,488	131,008	12,412
79	149	5	5,081	2,030	155,721	4,138
80	14	3	223	225	24,071	611
81	77	5	2,988	819	95,123	3,971
82	10	21	495	46	339	94
83	92	58	6,201	384	29,670	1,268
84	21	2	1,587	325	11,613	484
85	40	14	5,919	1,452	23,776	1,828
86	4	0	237	3	2,157	61
87	50	3	7,092	1,665	19,095	1,724
88	31	5	3,288	544	26,968	1,299
89	0	0	0	0	0	0
90	13	16	978	184	3,933	958
91	49	16	3,504	1,578	65,909	4,755
92	28	169	17,814	1,922	29,481	3,742
93	242	167	18,708	6,262	652,591	4,043
94	27	253	4,593	2,375	47,162	4,255
95	46	6	1,494	290	105,343	5,747



Appendix F.11. Kodiak Management Area harvest by species, by 10 major harvest locations, June 1 - July 5, 1987-1995.

Appendix F.11. (page 2 of 3)

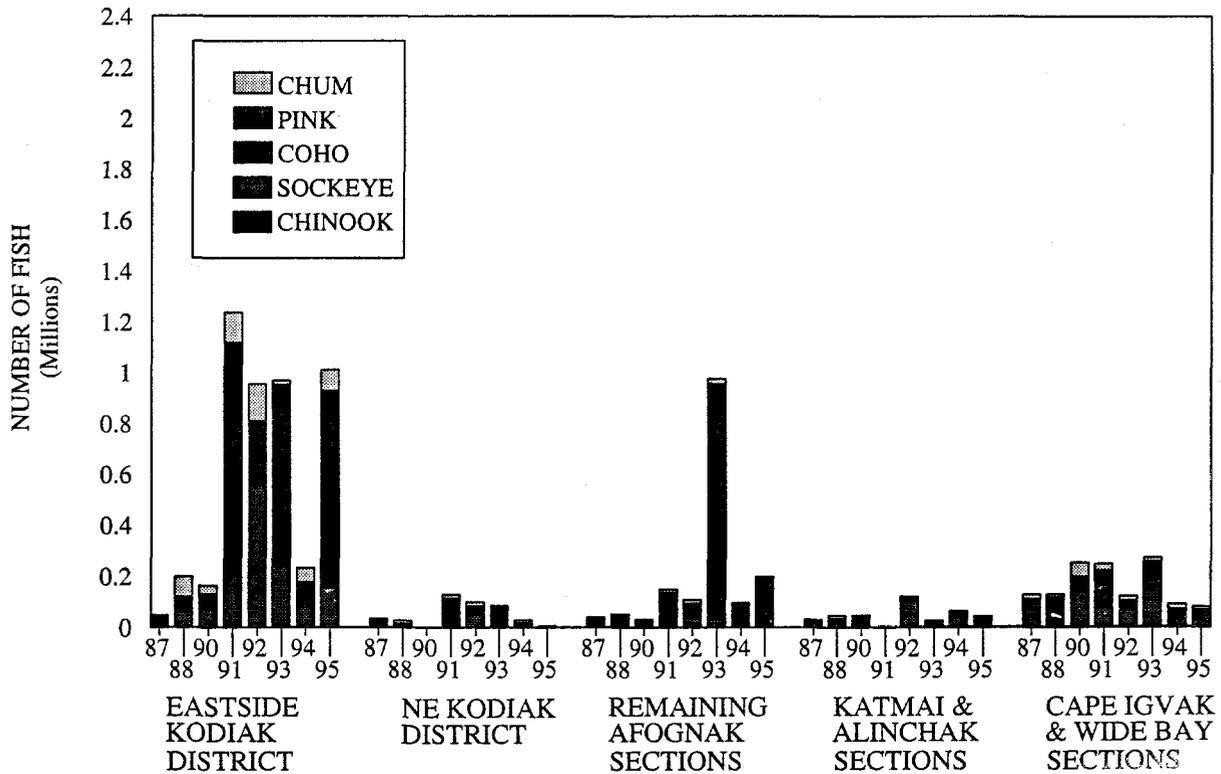
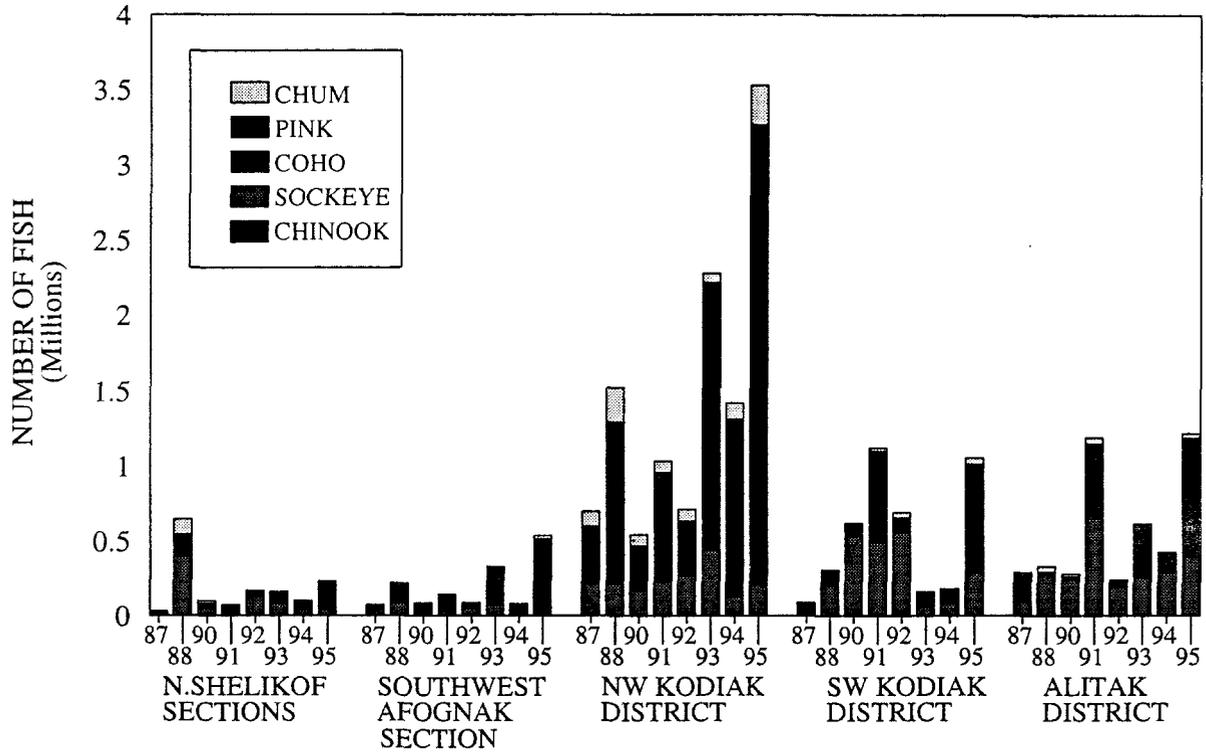
Kodiak Management Area 1987-1995 commercial harvest by species June 1-July 5						
		Chinook	Sockeye	Coho	Pink	Chum
N. SHELIKOF	87	1	1,480	0	0	4
	88	196	8,385	3	71	1,747
	90	13	8,649	365	19,551	388
	91	0	8,306	0	514	61
	92	6	7,189	0	3	75
	93	127	12,931	0	971	369
	94	88	4512	0	420	404
	95	86	49565	1	820	2059
S. W. AFOGNAK	87	0	105	0	0	7
	88	201	286	0	30	238
	90	5	5,533	0	239	686
	91	24	8,411	0	270	312
	92	1,171	29,523	40	11,888	4,587
	93	3,523	156,503	280	82,449	19,890
	94	4069	71929	103	18070	12244
	95	3227	38851	47	82876	18300
N. W. KODIAK	87	398	84,162	77	52,928	26,242
	88	1,650	66,604	115	11,789	51,304
	90	427	91,536	12	1,210	10,648
	91	435	100,797	18	1,214	4,048
	92	3,175	335,539	308	53,332	63,651
	93	6,204	612,492	4,462	238,890	74,875
	94	4134	308193	1120	90705	71343
	95	3225	369609	420	310980	113769
S. W. KODIAK	87	942	76,261	23	9,118	10,319
	88	3,344	194,510	12	4,432	11,786
	90	4,913	946,431	2,717	8,846	14,410
	91	4,315	643,987	30	10,929	3,569
	92	5,277	472,154	56	6,812	20,403
	93	7,312	784,408	946	77,313	41,543
	94	4542	138235	30	12558	42545
	95	4240	484878	97	127348	41059
ALITAK	87	13	80,208	2	199	185
	88	320	165,404	27	127	7,841
	90	402	627,580	50	313	14,301
	91	311	715,284	24	2,979	3,165
	92	720	215,896	20	788	11,167
	93	1,032	504,732	90	12,538	4,893
	94	1418	317403	66	4448	5085
	95	695	873112	68	26437	16204
EASTSIDE KOD	87	0	23	0	0	3
	88	43	1,942	5	40	215
	90	20	5,532	0	555	1,076
	91	109	7,112	0	390	606

-Continued-

Appendix F.11. (page 3 of 3)

Kodiak Management Area 1987-1995 commercial harvest by species
June 1-July 5

		Chinook	Sockeye	Coho	Pink	Chum
EAST SIDE KOD (cont.)	92	22	8,658	3	653	2,924
	93	342	59,972	252	5,212	10,098
	94	158	17792	8	8790	4386
	95	274	57809	19	3425	29669
N.E.KODIAK	87	0	0	0	0	0
	88	1	0	0	13	191
	90	0	0	0	0	0
	91	0	0	0	0	0
	92	0	0	0	0	0
	93	0	0	0	0	0
	94	8	500	0	120	31
	95	0	0	0	0	0
REM AFOGNAK	87	20	1,479	0	0	1
	88	7	1,222	0	67	171
	90	37	19,153	0	86	336
	91	136	43,485	7	3,017	9,649
	92	25	1,157	0	101	87
	93	266	12,364	741	17,900	4,618
	94	182	22762	66	5451	1262
	95	777	102286	71	9701	196061
KATMAI/ALIN	87	0	229	0	0	0
	88	0	0	0	0	0
	90	0	0	0	0	0
	91	5	1,993	0	43	12
	92	0	0	0	0	0
	93	0	0	0	0	0
	94	0	0	0	0	0
	95	16	9511	0	1	508
IGVAK/W.BAY	87	276	306,906	29	3,015	10,406
	88	0	0	0	0	0
	90	0	0	0	0	0
	91	516	327,859	77	30,111	8,811
	92	401	117,880	5	6,235	4,850
	93	1,731	185,474	59	6,150	26,924
	94	481	280,032	11	51,908	28,111
	95	983	181888	20	4280	16781



Appendix F.12. Kodiak Management Area harvest by species, by 10 major harvest locations, July 6-25, 1987-1995.

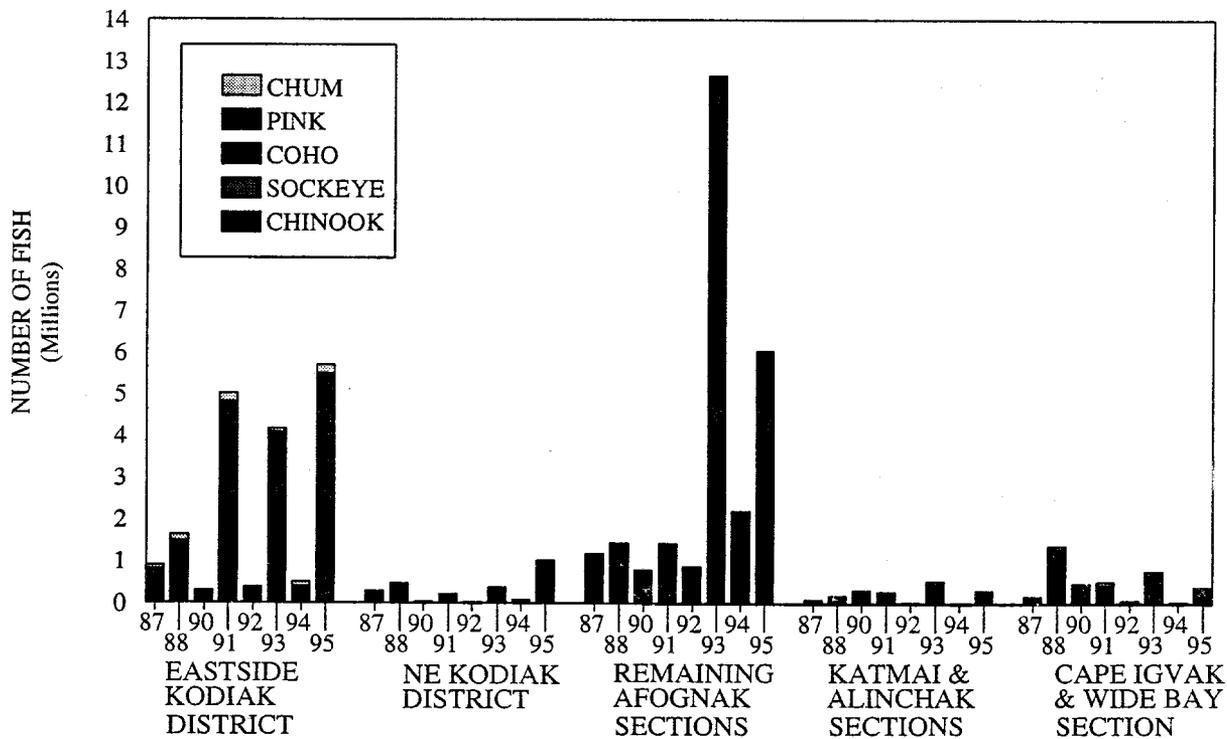
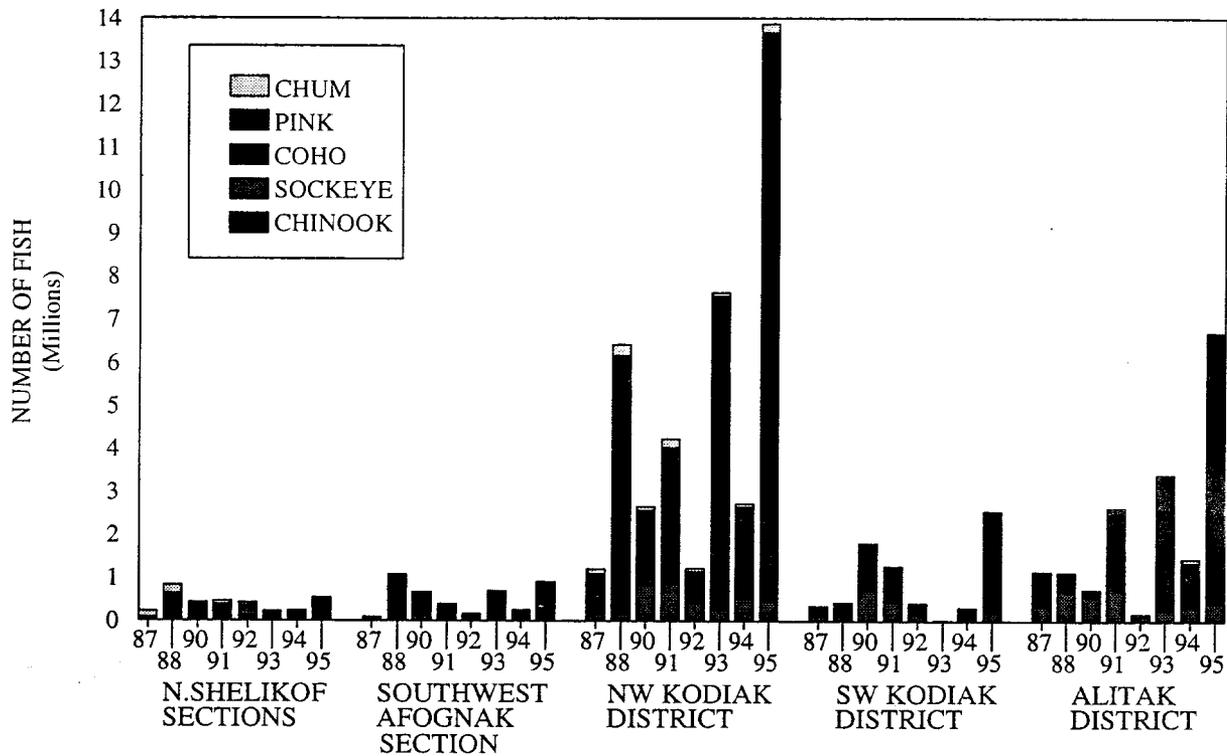
Appendix F.12. (page 2 of 3)

Kodiak Management Area 1987-1995 commercial harvest by species July 6-July 25						
		Chinook	Sockeye	Coho	Pink	Chum
N. SHELIKOF	87	281	15,563	376	7,878	8,839
	88	5,198	391,919	5,922	144,373	101,288
	90	139	57,714	3,911	18,607	19,412
	91	2,467	18,807	2,707	44,835	3,792
	92	945	128,368	3,065	24,305	12,009
	93	1,216	78,415	1,954	75,635	4,247
	94	164	38840	2368	51969	10469
	95	151	37397	1260	178800	16587
	S. W. AFOGNAK	87	12	45,869	427	25,972
88		338	87,209	1,350	114,980	15,929
90		277	22,944	3,605	53,752	6,036
91		309	34,183	3,586	100,680	4,043
92		304	50,576	605	30,018	6,826
93		858	74,005	7,100	242,923	7,419
94		355	13560	1002	64321	3090
95		764	21386	1756	491332	22262
N. W. KODIAK		87	251	213,973	4,206	382,018
	88	1,542	216,579	8,667	1,070,377	228,796
	90	1,492	173,052	6,472	288,422	75,102
	91	1,069	222,657	11,707	727,246	72,323
	92	975	271,344	8,416	352,549	82,419
	93	2,224	438,423	25,967	1,753,763	64,072
	94	1491	126116	13145	1176929	107011
	95	1228	210266	11722	3043728	263800
	S. W. KODIAK	87	212	26,036	247	50,974
88		390	200,189	302	96,648	12,550
90		687	533,566	1,414	74,739	11,712
91		1,392	493,918	4,588	604,424	19,985
92		433	556,365	905	99,888	34,580
93		404	66,566	518	90,208	5,033
94		675	80925	750	88390	12065
95		417	291219	1885	722570	42280
ALITAK		87	39	90,752	313	183,140
	88	122	274,237	330	21,059	37,394
	90	137	252,162	426	10,049	19,353
	91	414	652,681	1,435	499,521	38,944
	92	152	196,514	845	28,344	15,106
	93	596	255,881	2,791	348,596	7,713
	94	343	289577	981	121069	14325
	95	93	392078	949	796806	29892
	EASTSIDE KOD	87	302	11,198	361	26,175
88		1,413	62,625	5,856	51,896	77,601
90		1,414	68,693	14,212	47,308	32,507
91		2,817	196,917	31,700	886,789	120,056

-Continued-

Appendix F.12. (page 3 of 3)

Kodiak Management Area 1987-1995 commercial harvest by species July 6-July 25						
		Chinook	Sockeye	Coho	Pink	Chum
EASTSIDE KOD (cont.)	92	1,565	555,240	36,919	217,791	145,512
	93	6,429	236,578	51,505	659,028	16,416
	94	732	76853	17290	85226	53659
	95	942	154514	15897	759226	81441
N. E. KODIAK	87	13	2,596	309	29,272	1,090
	88	48	263	29	15,094	12,566
	90	3	5	0	892	642
	91	228	14,273	6,332	93,066	15,023
	92	149	49,835	6,325	27,622	15,910
	93	37	6,636	1,414	76,646	1,721
	94	296	3301	2835	10890	12799
95	0	195	22	5333	748	
REM AFOGNAK	87	14	10,812	2,250	25,023	2,440
	88	11	5,373	853	43,917	3,613
	90	49	5,933	459	22,880	2,968
	91	121	12,203	3,152	122,479	12,104
	92	391	36,816	4,126	53,153	14,586
	93	455	29,291	10,923	917,197	20,739
	94	470	7026	3640	77700	7681
95	100	5059	697	184221	9684	
KATMAI/ALIN	87	745	15,824	2,423	7,689	4,486
	88	385	27,936	118	5,417	12,667
	90	106	23,276	3,266	14,071	7,076
	91	76	1,570	22	1,369	102
	92	440	98,051	1,676	13,775	8,792
	93	278	18,291	563	7,945	1,289
	94	394	37943	1182	16288	10915
95	33	13997	994	18106	10927	
IGVAK/W. BAY	87	181	95,048	983	15,915	18,453
	88	215	13,150	3,287	101,997	12,455
	90	2,556	134,452	6,789	56,813	54,547
	91	861	77,385	7,807	139,228	25,309
	92	573	70,163	1,654	33,745	17,143
	93	3,918	189,595	5,613	62,212	15,285
	94	214	32,755	1,464	39,038	19,516
95	31	20,326	2,749	47,862	11,323	



Appendix F.13. Kodiak Management Area harvest by species, by 10 major harvest locations, July 26-October 31, 1987-1995.

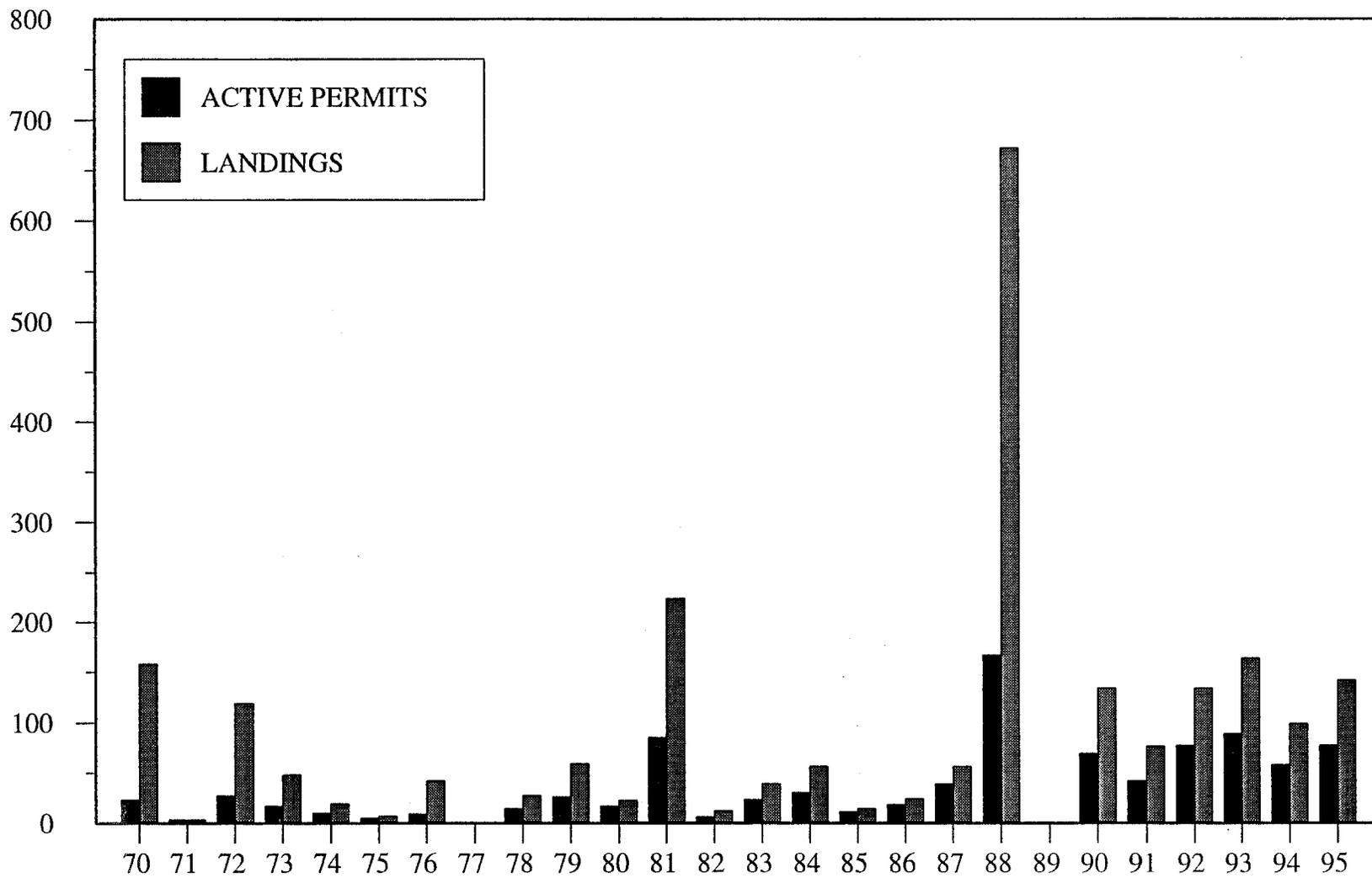
Appendix F.13. (page 2 of 3)

Kodiak Management Area 1987-1995 commercial harvest by species July 26 - October 31						
	Chinook	Sockeye	Coho	Pink	Chum	
N. SHELIKOF	87	12	18,127	23,923	34,203	143,293
	88	1,161	23,825	17,852	583,093	188,929
	90	213	38,354	28,620	321,662	41,142
	91	283	7,935	21,923	346,086	76,871
	92	237	218,363	35,632	116,122	48,368
	93	90	13,360	11,505	197,599	3,779
	94	60	23,337	33,948	171,328	6,614
	95	10	6165	10334	513145	5194
S. W. AFOGNAK	87	62	29,272	2,407	46,064	3,527
	88	1,182	9,064	25,491	1,009,853	28,580
	90	468	117,666	27,490	508,870	12,033
	91	340	29,883	14,085	324,547	24,493
	92	917	34,413	19,211	95,120	5,801
	93	621	28,666	11,208	641,007	7,363
	94	405	14,989	13,027	216,127	5,231
	95	127	16524	14800	855986	11125
N. W. KODIAK	87	117	157,287	40,928	894,382	102,810
	88	3,020	134,951	86,218	5,947,934	256,354
	90	2,978	802,894	101,904	1,660,996	82,023
	91	3,361	854,064	106,930	3,059,187	207,211
	92	4,341	413,247	86,996	637,490	79,903
	93	1,036	264,036	73,985	7,210,277	80,056
	94	927	524,635	97,025	2,033,196	72,584
	95	604	444157	89596	13138140	197096
S. W. KODIAK	87	274	121,980	36,751	181,862	4,356
	88	181	89,503	18,960	318,435	4,409
	90	843	689,729	32,861	1,077,204	6,233
	91	535	454,902	38,908	760,485	10,209
	92	645	143,630	12,200	251,208	4,609
	93	7	271	31	7,250	320
	94	332	86,629	11,753	203,615	3,465
	95	58	204919	27376	2309930	13427
ALITAK	87	53	344,524	17,645	733,544	43,561
	88	182	684,805	29,644	364,549	48,166
	90	268	556,550	17,700	134,565	16,652
	91	96	696,099	23,142	1,871,021	40,908
	92	184	113,857	23,683	30,141	8,326
	93	200	239,501	16,390	3,104,369	41,033
	94	184	324,946	31,177	995,315	92,727
	95	60	405712	17920	6237123	59023
EASTSIDE KOD	87	116	6,804	18,196	791,672	80,781
	88	187	11,003	14,633	1,473,851	138,277
	90	496	20,836	5,390	222,351	53,160
	91	1,502	51,635	18,829	4,763,248	186,195

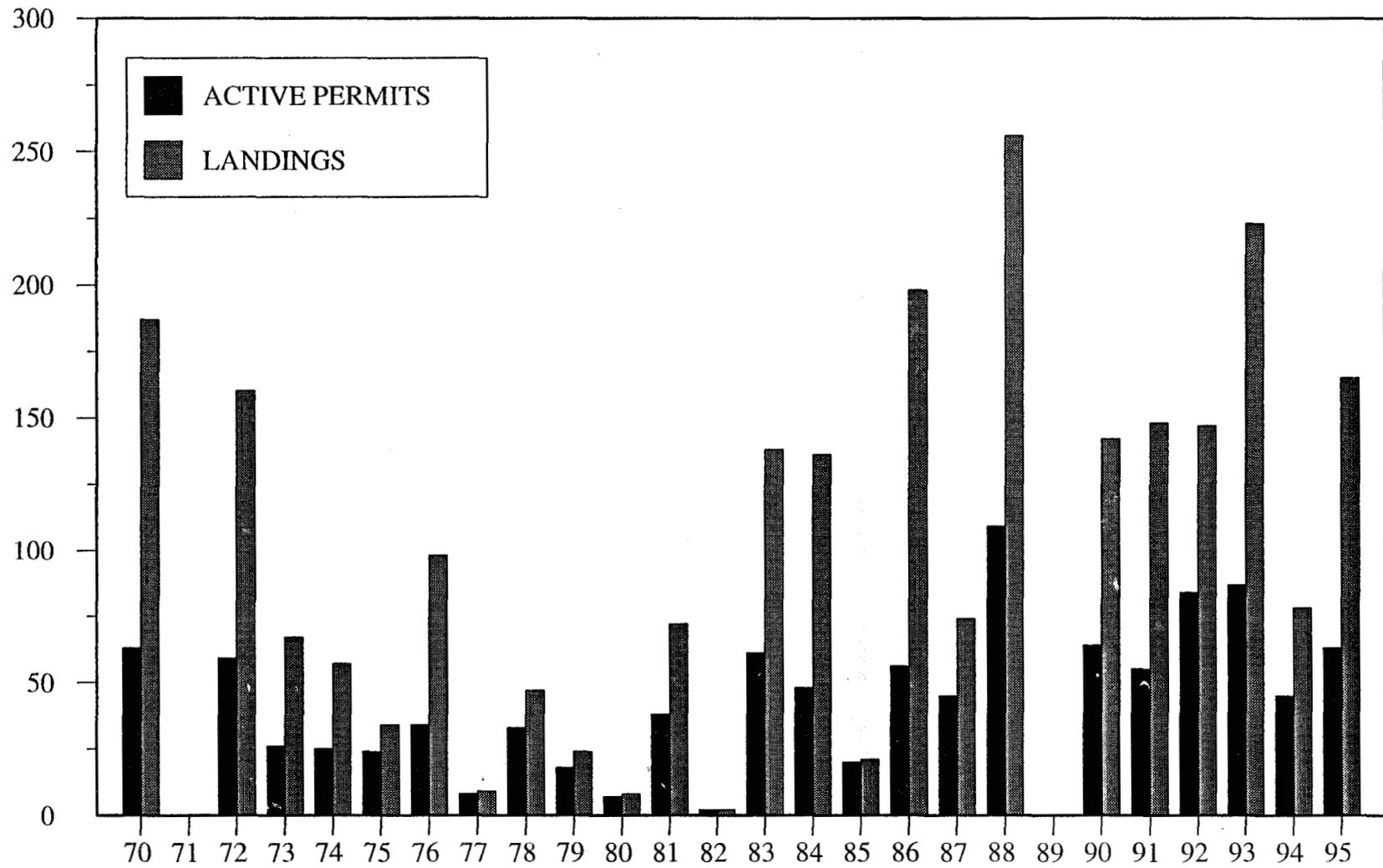
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Appendix F.13. (page 3 of 3)

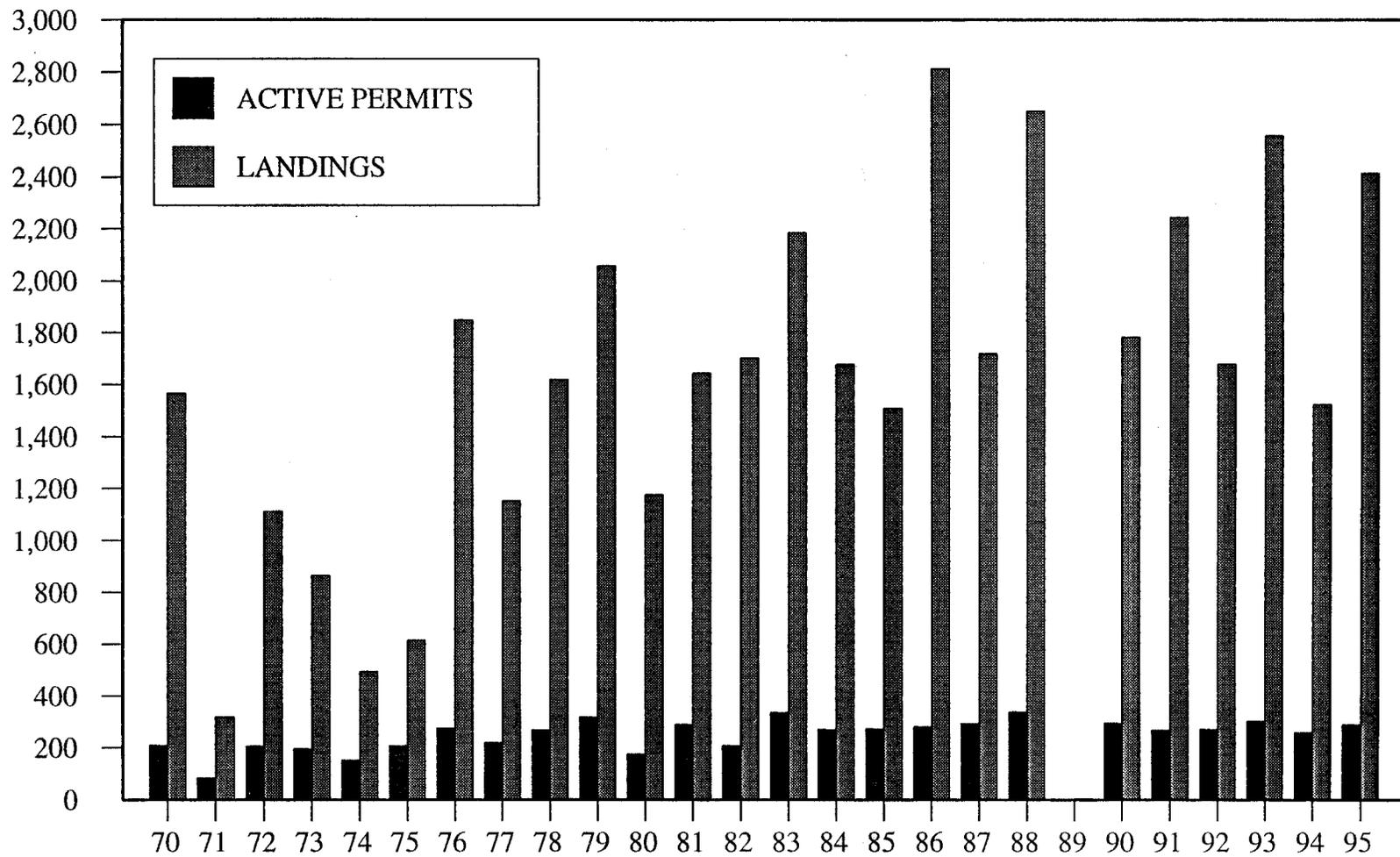
Kodiak Management Area 1987-1995 commercial harvest by species July 26 - October 31						
	Chinook	Sockeye	Coho	Pink	Chum	
EASTSIDE KOD	92	773	20,229	23,016	305,134	35,914
(cont.)	93	1,024	52,291	37,682	4,002,253	81,386
	94	240	15,716	5,453	382,015	110,083
	95	247	37570	37709	5429559	210728
N. E. KODIAK	87	6	1,158	13,276	247,385	28,323
	88	86	468	4,100	404,138	58,923
	90	24	509	100	30,548	5,041
	91	55	132	175	203,372	12,194
	92	10	3,472	790	8,165	1,316
	93	8	200	219	372,236	1,273
	94	4	87	789	80,777	5,801
	95	14	791	6997	982113	32847
REM AFOGNAK	87	38	8,638	15,053	1,154,151	5,326
	88	93	5,459	39,649	1,380,844	7,875
	90	123	10,757	14,871	757,209	7,723
	91	69	4,871	9,046	1,393,343	19,960
	92	139	7,617	7,227	850,986	6,694
	93	289	14,919	30,920	12,608,054	10,657
	94	193	9,384	49,764	2,139,363	7,826
	95	114	18842	52746	5962335	20200
KATMAI/ALIN	87	1	197	2,737	76,763	17,253
	88	17	652	822	148,723	37,521
	90	47	3,705	2,088	292,999	24,036
	91	27	932	1,933	242,571	34,272
	92	10	6,826	1,405	7,777	9,717
	93	155	4,798	1,519	510,173	10,326
	94	0	2	0	5,955	765
	95	3	2818	266	271122	25561
IGVAK/W. BAY	87	234	28,262	9,598	95,759	30,165
	88	841	21,451	39,053	1,245,291	69,024
	90	671	31,189	19,097	359,075	58,507
	91	361	21,819	16,697	409,877	74,044
	92	319	4,949	4,957	47,499	18,284
	93	1,817	37,117	14,830	690,626	24,994
	94	16	9,497	7,226	10,583	16,760
	95	185	33,834	11,311	319,132	24,150

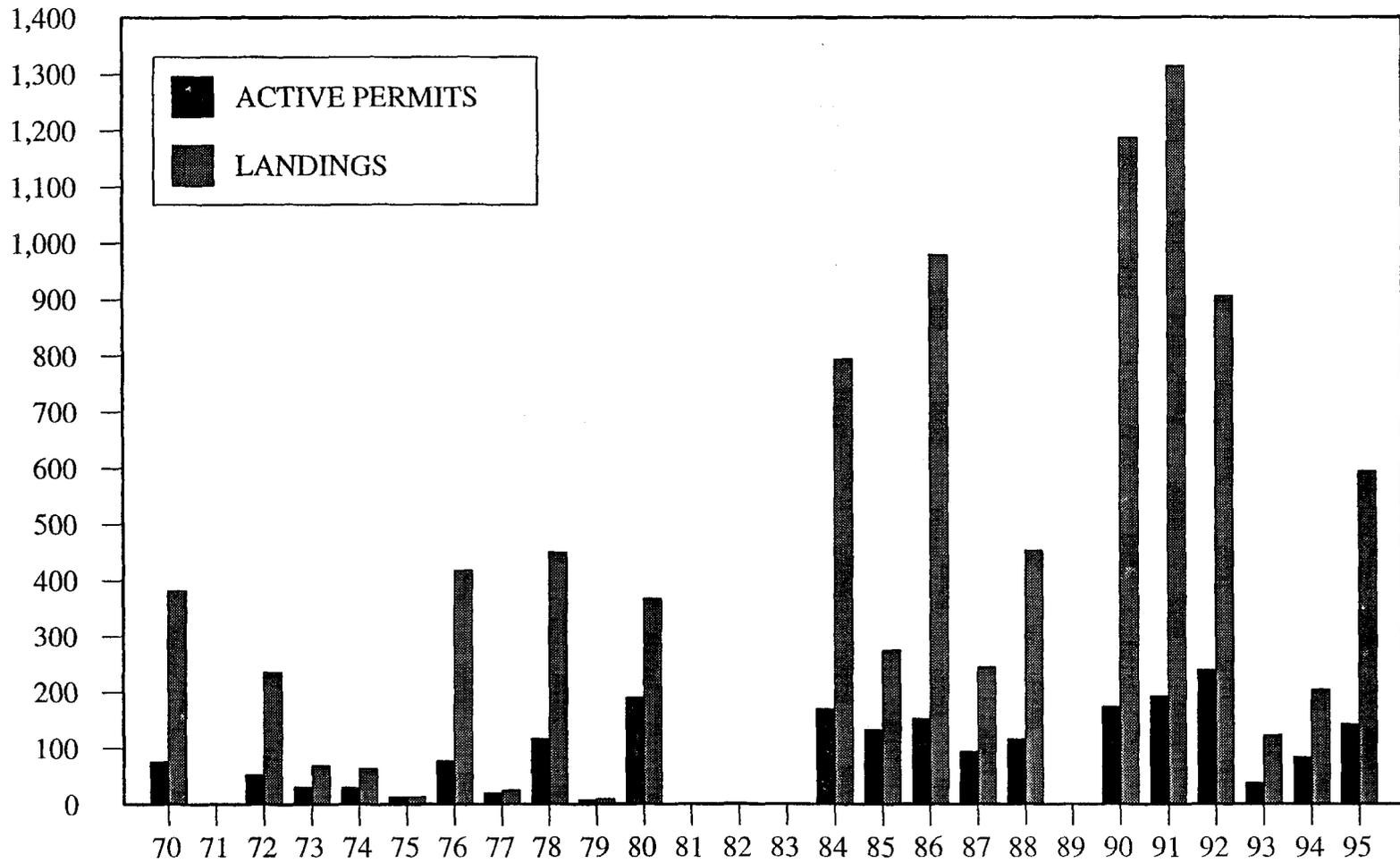


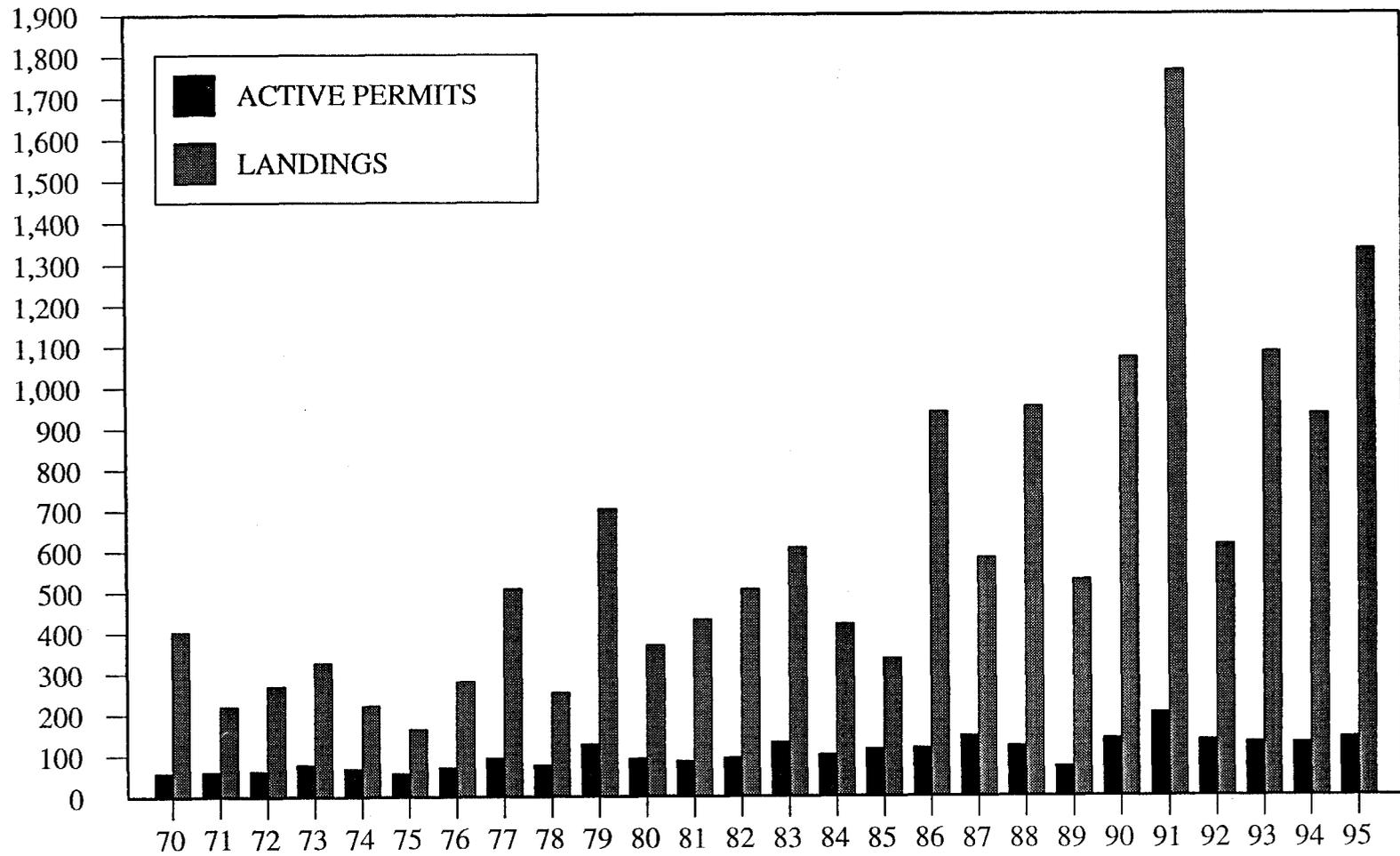
Appendix G.1. North Shelikof sections active permits and landings by year, July 6-25, 1970-1995.

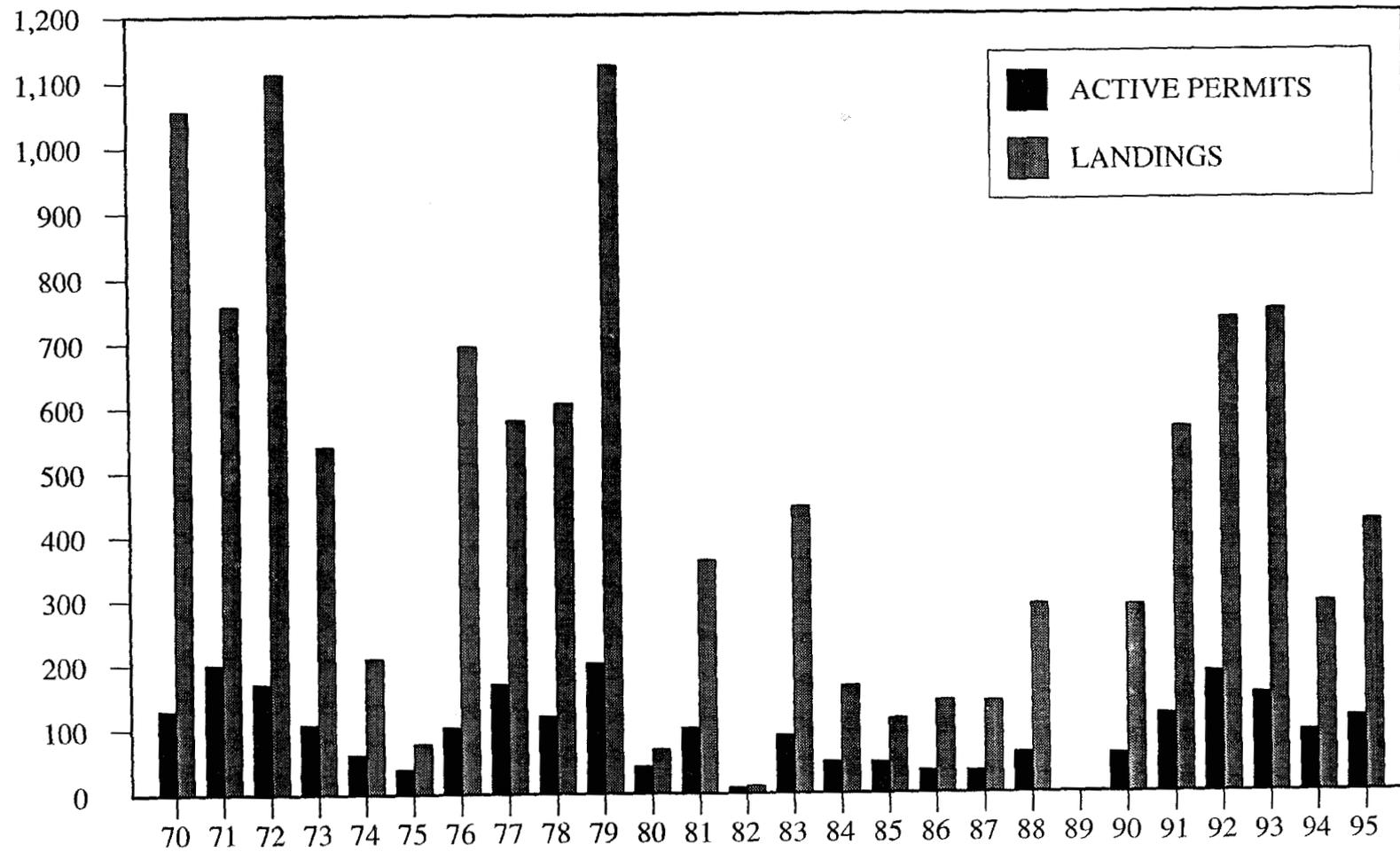


Appendix G.2. Southwest Afognak Section active permits and landings by year, July 6-25, 1970-1995.

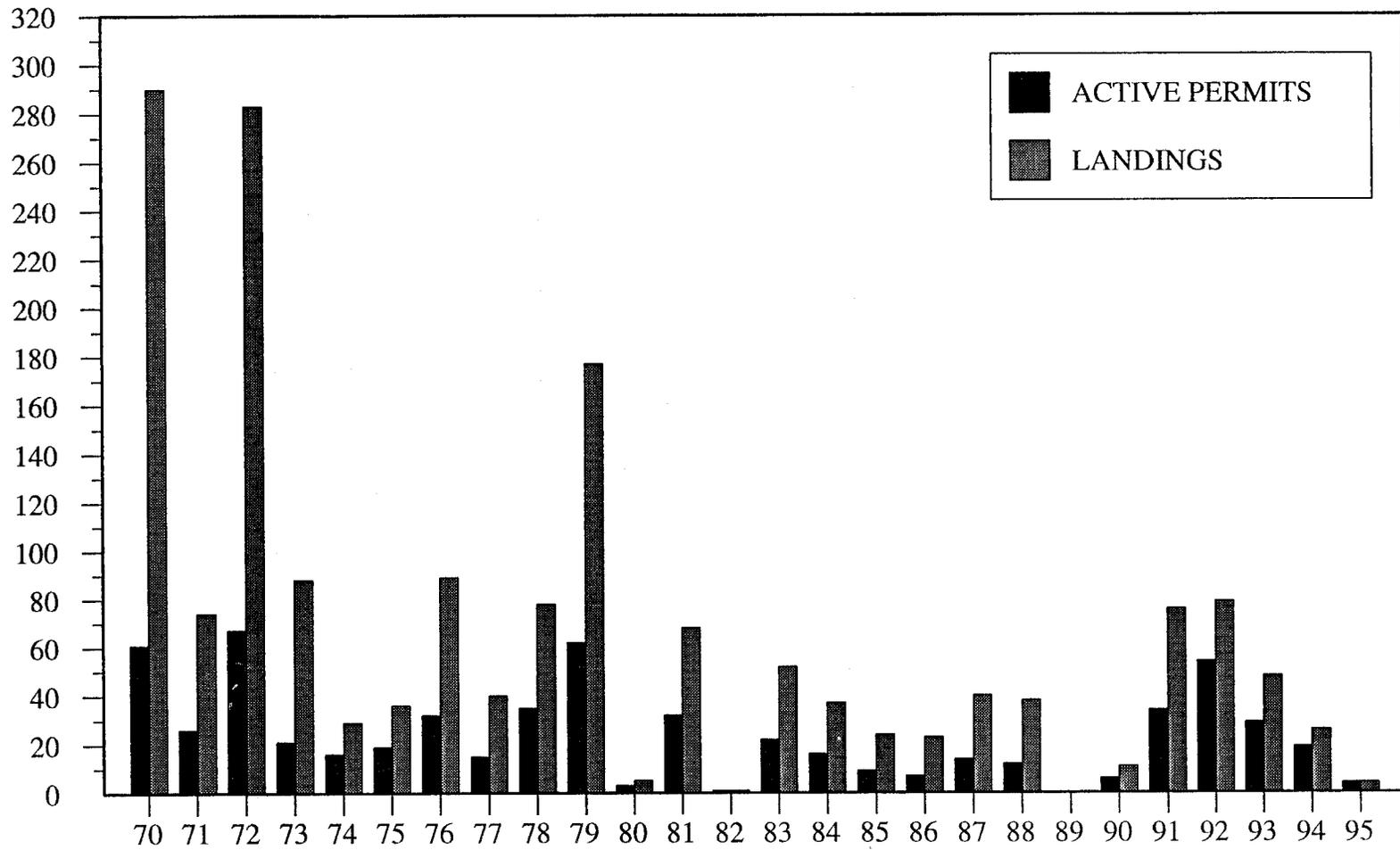


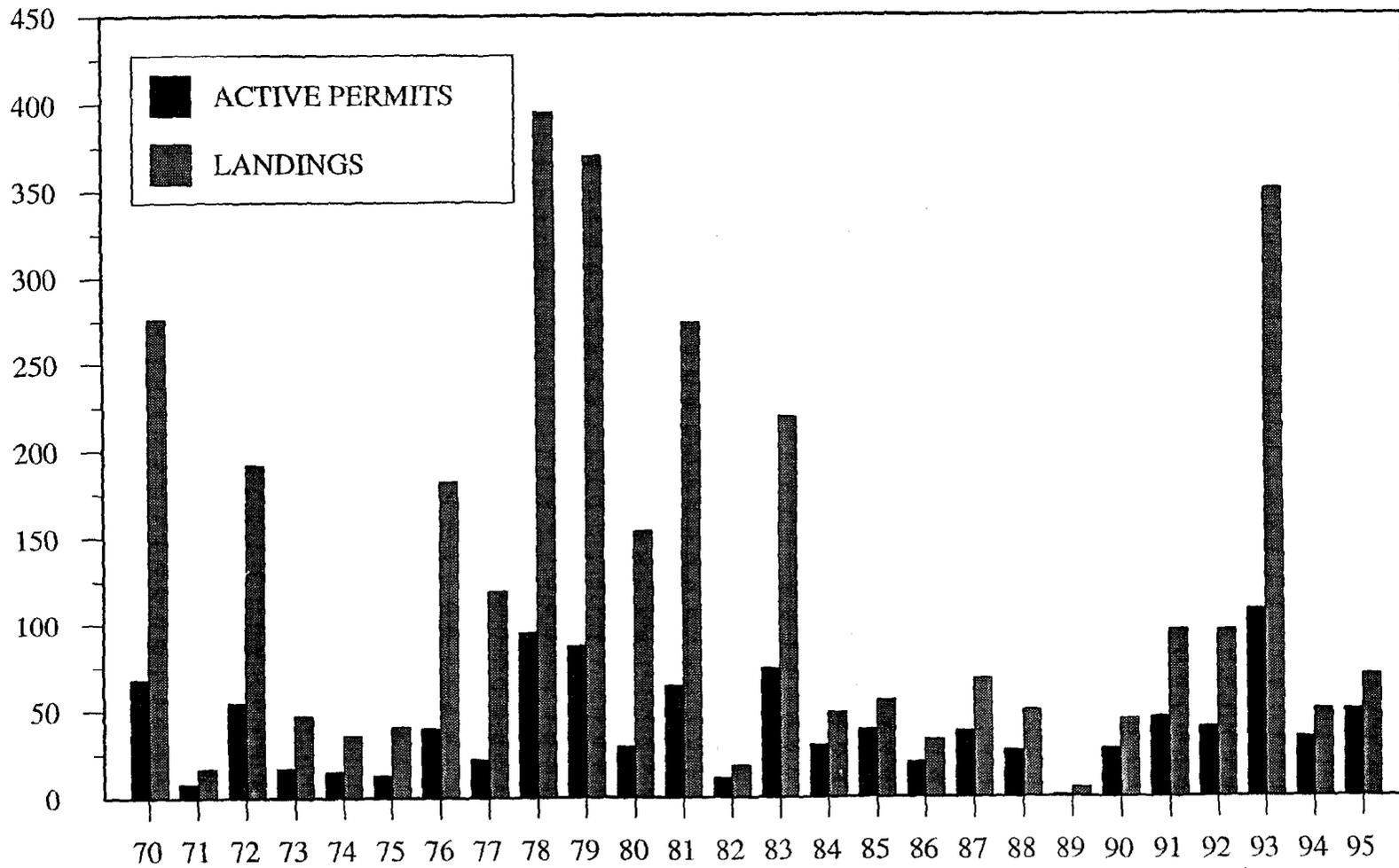


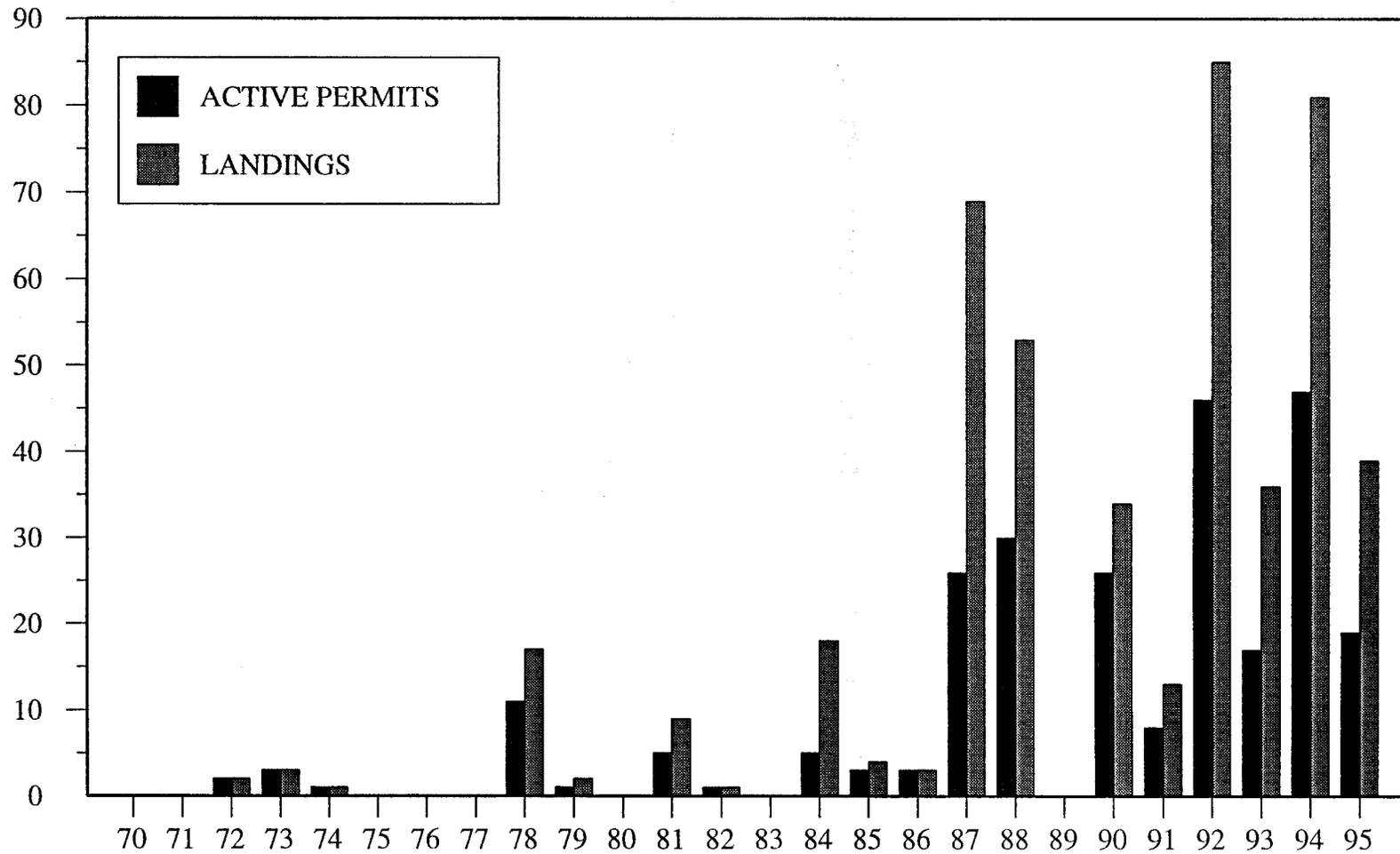




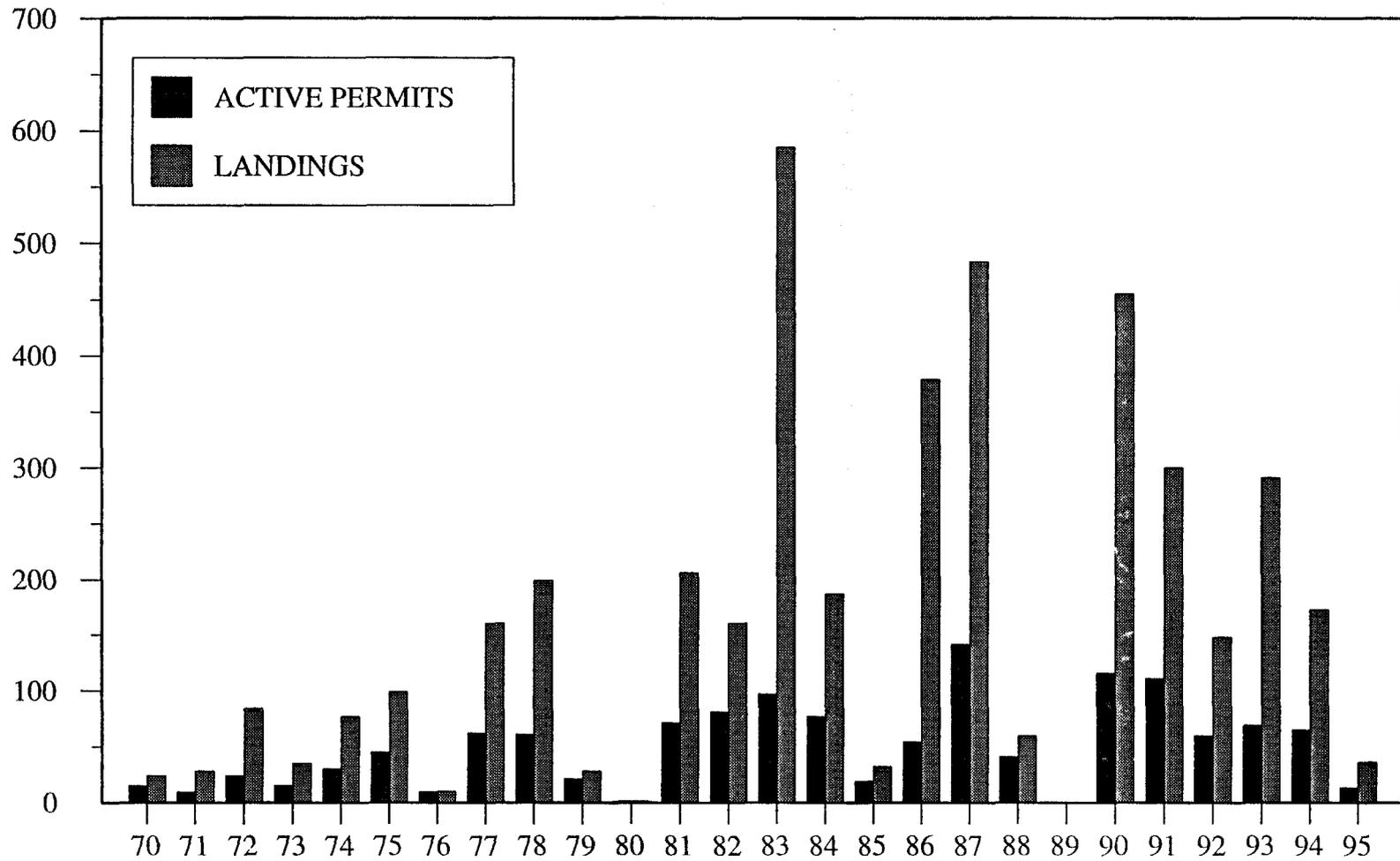
Appendix G.6. Eastside Kodiak District active permits and landings by year, July 6-25, 1970-1995.







Appendix G.9. Katmai and Alinchak Sections active permits and landings by year, July 6-25, 1970-1995.



Appendix G.10. Cape Igvak and Wide Bay Sections active permits and landings by year, July 6-25, 1970-1995.

Appendix H.1. Board of Fisheries approved fishery management plans for the Kodiak Management Area, 1995.

MANAGEMENT PLAN	YEAR INITIATED	MGMT. UNITS AFFECTED	DATES IN EFFECT
Cape Igvak Salmon Management Plan	1978	Cape Igvak Section Wide Bay Section	6/5 - 7/25
Alitak Bay District Salmon Management Plan	1987	Alitak Bay District	6/9 - 10/1
Westside Kodiak Management Plan	1990	N.W. Kodiak District S.W. Kodiak District S.W. Afognak Section	6/9 - 10/1
Crescent Lake Coho Salmon Management Plan	1990	Portion of the Central Section in Vicinity of Port Lions	8/1 - 9/15
North Shelikof Strait Sockeye Salmon Management Plan	1990	S.W. Afognak Section N.W. Afognak Section Shuyak Section Big River Section Hallo Bay Section Inner and Outer Kukak Sect. Dakavak Section	7/6 - 7/25
Eastside Afognak Management Plan ^a	1993	Kitoi Bay Section Izhut Bay Section Duck Bay Section	6/9 - 10/1
Spiridon Bay Sockeye Salmon Management Plan	1993	Special Harvest Area in Spiridon Bay Section	6/9 - 10/1

^a This management plan has basically been in use since 1981, but was titled the Kitoi Bay Hatchery management plan. In 1993, it was adopted into regulation by the Alaska Board of Fisheries.

Appendix H.2. Primary management species and fishery chronology of the Westside Kodiak Management Plan for the Kodiak Management Area, 1995.

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		6/1	6/9	6/16	6/23	7/6	7/16	8/1	8/16	8/25	9/6	10/31	
AFOG. DIST.	S.W.AFOGNAK	CLOSED				E.R.KARLUK SOCKEYE	LOCAL AND MIXED PINK			L.R.KARLUK SOCKEYE/ LOCAL & MIXED PINK	L.R.KARLUK SOCKEYE	LOCAL COHO	
	NORTH CAPE: CENTRAL	CLOSED	CLOSED	CLOSED	E.R.KARLUK SOCKEYE	LOCAL AND MIXED PINK			L.R.KARLUK SOCKEYE/ LOCAL & MIXED PINK	L.R.KARLUK SOCKEYE	LOCAL COHO		
											LOCAL COHO		
	NORTHWEST KODIAK DISTRICT	ANTON LARSEN	CLOSED	CLOSED	CLOSED	LOCAL SOCKEYE AND E.R. CHUM	LOCAL SOCKEYE, E.R. CHUM & PINK	LOCAL PINK & L.R. CHUM			LOCAL PINK/ L.R. CHUM/ COHO	LOCAL COHO	
		SHERATIN											
		KIZHUYAK											
		TERROR											
		IN. UGANIK											
		SPIRIDON											
ZACHAR													
UYAK													
SOUTHWEST KODIAK DISTRICT	OUT.KARLUK	CLOSED	E.R. KARLUK SOCKEYE				ODD-YEAR CYCLE: L.R. KARLUK SOCKEYE			L.R. KARLUK SOCKEYE	KARLUK COHO		
							EVEN-YEAR CYCLE: L.R. KARLUK SOCKEYE/PINK						
	IN.KARLUK	CLOSED	E.R. KARLUK SOCKEYE				ODD-YEAR CYCLE: L.R. KARLUK SOCKEYE			L.R. KARLUK SOCKEYE	KARLUK COHO		
							EVEN-YEAR CYCLE: L.R. KARLUK SOCKEYE/PINK						
	STURGEON	CLOSED			E.R.KARLUK & AYAKULIK SOCKEYE & STURGEON CHUM		ODD-YEAR CYCLE: L.R. KARLUK SOCKEYE			L.R. KARLUK SOCKEYE	LOCAL COHO		
							EVEN-YEAR CYCLE: L.R. KARLUK SOCKEYE/PINK						
	HALIBUT	CLOSED			E.R.KARLUK AND AYAKULIK SOCKEYE		ODD-YEAR CYCLE: L.R. KARLUK SOCKEYE L.R. AYAKULIK SOCKEYE			L.R. KARLUK SOCKEYE	LOCAL COHO		
							EVEN-YEAR CYCLE: L.R. L.R. KARLUK SOCKEYE AYAKULIK RED&PINK & AYAKULIK PINK						
	OUT.AYAKULIK	CLOSED	E.R. AYAKULIK SOCKEYE				ODD-YEAR CYCLE: L.R. AYAKULIK SOCKEYE			AYAKULIK COHO			
							EVEN-YEAR CYCLE: L.R. AYAKULIK SOCKEYE/PINK						
IN.AYAKULIK	CLOSED	E.R. AYAKULIK SOCKEYE				ODD-YEAR CYCLE: L.R. AYAKULIK SOCKEYE			AYAKULIK COHO				
						EVEN-YEAR CYCLE: L.R. AYAKULIK SOCKEYE/PINK							



COMMERCIAL TEST FISHERIES

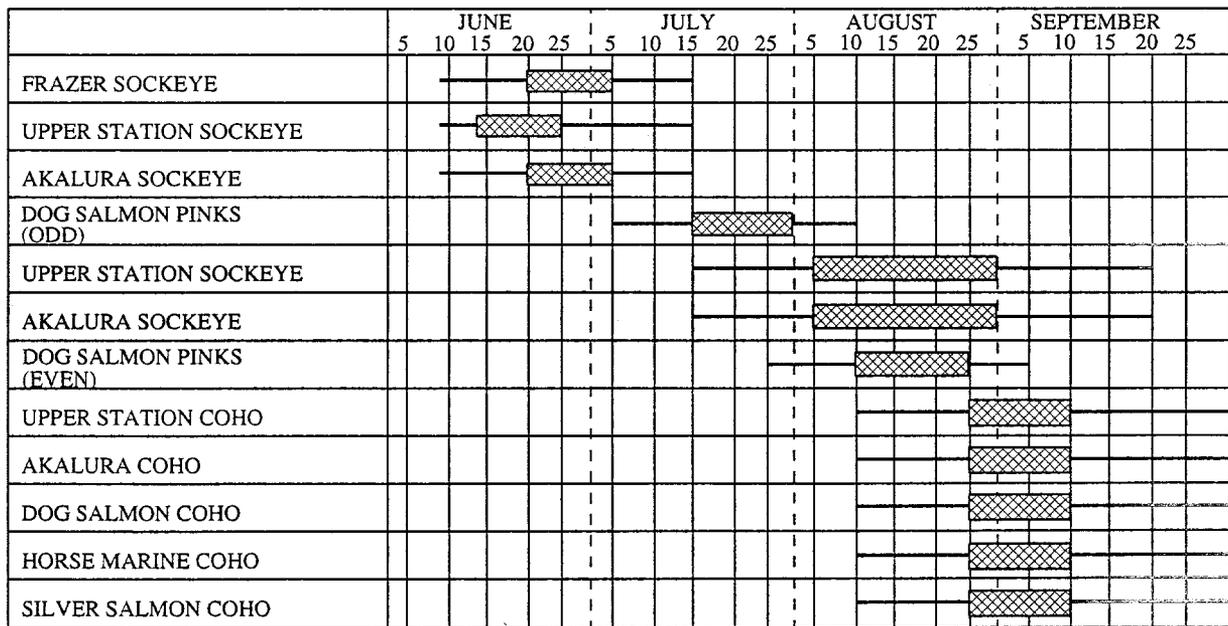
E.R. = EARLY RUN STOCKS

L.R. = LATE RUN STOCKS

Appendix H.3. Primary management species and fishery chronology of the Alitak Bay District Salmon Management Plan for the Kodiak Management Area, 1995.

ALITAK BAY DISTRICT MANAGEMENT PLAN									
CAPE ALITAK SECTION (SEINE)	CLOSED	X X X X X X X X	FRAZER SOCKEYE (AGGRESSIVE MANAGEMENT STRATEGY)	FRAZER SOCKEYE (CONSERVATIVE MANAGEMENT STRATEGY)	ODD YEAR CYCLE FRAZER PINK SALMON	ODD YEAR CYCLE UP.STATION SOCKEYE	ALL ALITAK DISTRICT COHO SYSTEMS		
			EVEN YEAR CYCLE UP.STATION SOCKEYE (LATE RUN)	EVEN YEAR CYCLE UP.STATION SOCKEYE & FRAZER PINK SALMON					
MOSER/OLGA BAY SECTION (GILLNET) (TRADITIONAL)	CLOSED	X X X X X X X X	FRAZER SOCKEYE (AGGRESSIVE MANAGEMENT STRATEGY)	FRAZER SOCKEYE (CONSERVATIVE MANAGEMENT STRATEGY)	ODD YEAR CYCLE FRAZER PINK SALMON	ODD YEAR CYCLE UP.STATION SOCKEYE	ALL OLGA BAY COHO SYSTEMS		
			EVEN YEAR CYCLE UP.STATION SOCKEYE (LATE RUN)	EVEN YEAR CYCLE UP.STATION SOCKEYE & FRAZER PINK SALMON					
OUTER UPPER & INNER UPPER STATION (GILLNET) (NON-TRADITIONAL)	CLOSED	CLOSED	UPPER STATION SOCKEYE (EARLY RUN)		UPPER STATION SOCKEYE (LATE RUN)	UP. STATION SOCK & COHO	UPPER STATION COHO		
OUTER AKALURA & IN. AKALURA SECTIONS (GILLNET) (NON-TRADITIONAL)	CLOSED	CLOSED	AKALURA SOCKEYE (EARLY RUN)		AKALURA SOCKEYE (LATE RUN)	AKALURA SOCK & COHO	AKALURA COHO		
DOG SALMON FLATS SECTION (GILLNET) (NON-TRADITIONAL)	CLOSED	CLOSED	FRAZER SOCKEYE (MOP UP FISHERY)		FRAZER PINK SALMON	FRAZER AND HORSE MARINE COHO			
HUMPY/DEADMAN SECTION (SEINE)	CLOSED	X X X X X X X X	FRAZER SOCKEYE (AGGRESSIVE MANAGEMENT STRATEGY)	FRAZER SOCKEYE (CONSERVATIVE MANAGEMENT STRATEGY)	ALITAK BAY PINK, CHUM, AND COHO				
	6/1	6/9-10	6/24	7/9	7/15	8/9	8/20	8/26	9/25

ALITAK BAY DISTRICT - PRIMARY MANAGEMENT SPECIES BY STREAM BY TIME

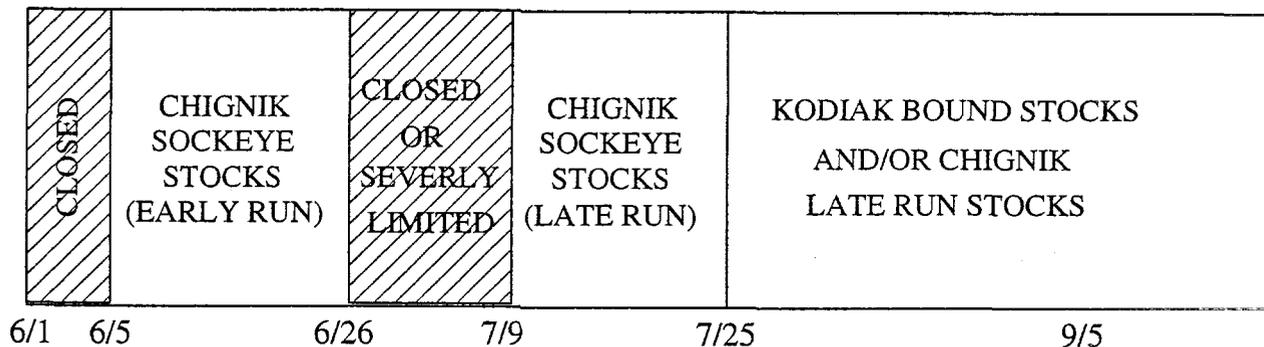


Appendix H.4. Biological and allocative criteria, and the management chronology, of the Cape Igvak Management Plan for the Kodiak Management Area, 1995.

BIOLOGICAL AND ALLOCATIVE CRITERIA FOR MANAGING THE CAPE IGVAK FISHERY ON CHIGNIK BOUND SOCKEYE

BIOLOGICAL REQUIREMENTS			ALLOCATIVE REQUIREMENTS		
REGULATION 5AAC 18.360	ESCAPEMENT NEEDS		REGULATION 5AAC 18.360	CHIGNIK MINIMUM HARVEST	IGVAK %
	CHIGNIK (EARLY RUN)	CHIGNIK (LATE RUN)			
(a) (b) (c)	THROUGH 6/30 350,000-400,000	-	(a)	EXPECTATIONS OF LESS THAN 600,000	CLOSED
-	-	-	(b)	EXPECTATIONS OF 600,000 ARE IN DOUBT	CLOSED
(a) (b) (c)	-	THROUGH 7/30 195,000-200,000	(c)	EXPECTATIONS OF 600,000 OCCUR	OPEN TO ACHEIVE 15%
-	-	-	(d)	CHIGNIK SALMON % INTERCEPTION CALCULATIONS	80% OF CATCH AT IGVAK ARE CHIGNIK SOCKEYE
-	-	-	(e)	ALLOCATION PERIOD 600,000	6/5 - 7/25 % NOT APPLICABLE
(f)	FROM JUNE 26 - JULY 9 CAPE IGVAK SECTION CLOSED OR SEVERLY LIMITED UNTIL CHIGNIK LAKE RUN EVALUATED		-	-	-
-	-	-	(g)	-	ONE DAY ADVANCE NOTICE
	400,000	250,000		600,000 MINIMUM	15 %

MANAGEMENT CHRONOLOGY FOR CHIGNIK BOUND SOCKEYE AND KODIAK SALMON



Appendix H.5. Primary management species and fishery chronology of the Eastside Afognak Management Plan for the Kodiak Management Area, 1995.

TARGETED SPECIES BY SYSTEM AND TIME FOR SPECIFIC MANAGEMENT UNITS ^{1/}												
SOUTHEAST AFOGNAK SECTION (Seine)	LITNIK SOCKEYE	X	X	X	LITNIK SOCKEYE	X	X	X	LITNIK SOCKEYE	LOCAL PINK	LOCAL COHO	
DUCK BAY SECTION (Seine)	EARLY HATCHERY CHUM AND/OR SOCKEYE					HATCHERY & LOCAL PINK					LOCAL COHO	
IZHUT BAY SECTION (Seine)	EARLY HATCHERY CHUMS AND/OR SOCKEYE					CLOSED UNTIL COST RECOVERY ASSURED		HATCHERY & LOCAL PINK			LOCAL COHO & HATCHERY SOCKEYE	
KITOI BAY SECTION ^{2/} (Seine)	Broodstock							a				
	PINK: Cost Recovery					b						
	Common Property						c					
CHUM &/OR EARLY SOCKEYE	Broodstock					d						
	Common Property	e										
COHO & SOCKEYE:	Broodstock									f		
	Common Property								g			
6/9 6/14 6/20 7/1 7/3 7/6 7/18 7/20 7/25 8/1 8/8 8/15 8/20 8/24 9/1												

X - fishing time dependant upon sockeye escapement into Litnik system.

- 1 Included in this management plan are the harvest strategies for current natural and hatchery production as well as future hatchery production.
- 2 The management plan required for the Kitoi Bay Section is rather complicated in order to achieve broodstock, cost recovery, and common harvest requirements. This is further complicated by the multispecies production currently occurring at Kitoi Bay hatchery. The diagram shown attempts to approximate dates for when specific management strategies should be implemented to insure achievement of hatchery goals and an orderly harvest of quality common property fish.
 - a Hatchery pink salmon broodstock captured.
 - b Hatchery pink salmon cost recovery fishery when necessary.
 - c Hatchery pink salmon common property fishery.
 - d Hatchery chum and/or early sockeye salmon broodstock captured.
 - e Hatchery chum and/or early sockeye salmon common property fishery.
 - f Hatchery coho and late sockeye salmon broodstock captured.
 - g Hatchery coho and late sockeye salmon common property fishery.

Appendix H.6. Primary management species and general fishery chronology in management units affected by the North Shelikof Strait Sockeye Salmon Management Plan for the Kodiak Management Area, 1995.

MAINLAND DISTRICT	Big River Section	CLOSED	Early Run Sockeye Minor Systems	NORTH SHELIKOF MGMT UNITS (5AAC 18.363.(b)(3)(A) & (B))	MANAGEMENT BASED ON LOCAL PINK AND CHUM SALMON STOCKS EXCEPT: IF SOCKEYE HARVEST EXCEEDS 15,000 THEN THE "SEAWARD ZONES" ARE <u>CLOSED</u> , AND ONLY THE "SHOREWARD ZONES" MAY REMAIN OPEN. (5AAC 18.363.(b))	Pink And Chum Salmon		COHO
	Hallo Bay Section	CLOSED	CLOSED			Pink And Chum Salmon		
	Inner Kukak Section	CLOSED	CLOSED			Pink And Chum Salmon		
	Outer Kukak Section	CLOSED	Early Run Sockeye Minor Systems			Pink And Chum Salmon		
	Dakavak Section	CLOSED	CLOSED			Pink And Chum Salmon		
AFOGNAK DISTRICT	Shuyak Is. Section	CLOSED	Early Run Sockeye Minor Systems	SW. AFOGNAK (5AAC 18.363.(c)(3))	MANAGEMENT BASED ON PINK AND CHUM SALMON STOCKS EXCEPT: IF THE SOCKEYE HARVEST EXCEEDS 50,000 THEN THE "SEAWARD ZONE" <u>CLOSES</u> , AND ONLY THE "SHOREWARD ZONE" MAY REMAIN OPEN. (5AAC 18.363.(c))	Pink Salmon	Pink Salmon And Late Run Karluk Sockeye	COHO
	NW Afognak Section	CLOSED	Early Run Sockeye Minor Systems			Pink Salmon		
	Southwest Afognak Section	CLOSED	Early Run Karluk Sockeye			Pink Salmon		
		6/9	6/14	7/6	7/25	8/15	9/5	

Appendix H.7. July management chronology by major salmon harvest area in the Kodiak Management Area, 1995.

NORTH SHELIKOF SECTIONS	LOCAL SOCKEYE	LOCAL AND MIXED PINK AND CHUM.	
		NORTH SHELIKOF STRAIT SOCKEYE SALMON MGT. PLAN.	
S.W.AFOGNAK SECTION	E.R.KARLUK SOCKEYE	LOCAL AND MIXED PINK.	
		NORTH SHELIKOF STRAIT SOCKEYE SALMON MGT. PLAN.	
N.W.KODIAK DISTRICT	E.R.KARLUK SOCKEYE, LOCAL SOCKEYE,	PINK & CHUM	LOCAL SOCKEYE
S.W.KODIAK DISTRICT	AYAKULIK AND KARLUK SOCKEYE, AND STURGEON CHUM		AYAKULIK AND LATE RUN KARLUK SOCKEYE, AND EVEN YEAR AYAKULIK & KARLUK PINK
ALITAK BAY DISTRICT	FRAZER SOCKEYE		UPPER STATION SOCKEYE AND LOCAL PINK AND CHUM
EASTSIDE KODIAK DISTRICT	LOCAL SOCKEYE	LOCAL AND MIXED PINK AND CHUM.	
N.E. KODIAK DISTRICT	CLOSED	LOCAL AND MIXED PINK AND CHUM.	
REMAINDER OF AFOGNAK	LOCAL SOCKEYE	LOCAL AND MIXED PINK AND CHUM.	
KATMAI/ALINCHAK SECTIONS	CLOSED	LOCAL AND MIXED PINK AND CHUM.	
IGVAK/WIDE BAY SECTIONS	CHIGNIK BOUND SOCKEYE		LOCAL & MIXED PINK & CHUM

7/1

7/6

7/15

7/25

7/30

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