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CHIGNIK MANAGEMENT AREA
ANNUAL FINFISH MANAGEMENT REPORT, 1992

Regional Information Report No. 4K94-2

Alaska Department of Fish and Game
Commercial Fisheries Management and Development Division
211 Mission Road
Kodiak, Alaska 99615

February 1994

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By

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CHIGNIK SALMON FISHERIES

Introduction

The Chignik Management Area (CMA) includes all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point on the Alaska Peninsula (Figures 1 and 2). This area is bordered by the Alaska Peninsula Management Area to the west and the Kodiak Management Area to the east. The CMA includes approximately 117 salmon producing streams, the most important being the Chignik River system (Figure 3).

The CMA is divided into five districts which are, from east to west, the Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figure 4). Five species of Pacific Salmon are commercially harvested: chinook *Oncorhynchus tschawytscha*, sockeye *O. nerka*, pink *O. gorbuscha*, chum *O. keta*, and coho *O. kisutch* salmon. The Alaska Department of Fish and Game (ADF&G), Commercial Fisheries Management and Development Division, manages the CMA salmon fisheries to achieve desired escapements by species while allowing for an orderly harvest of surplus production.

Purse seines are the only legal commercial gear type allowed within the CMA. During 1992, 101 limited entry salmon permits were actively fished in the area (Table 1) with 84% of permit holders claiming Alaska residency (Table 2).

This report adds to a report series dating back to 1922. The most recent review of the historical database occurred in 1989 and 1992. The 1992 editorial review utilized historical electronic databases dated post 1970. Disparities between previously reported catch and escapement statistics and those presented here in can be attributed to the editorial objective of providing the most accurate information available.

Overview of the 1992 Salmon Season

The total 1992 commercial harvest in the CMA of 3.38 million salmon (Tables 3 and 6), processed by eight companies (Table 7), was the fourth largest harvest in the past 33 years and was approximately 18% more than the 1983-92 average of 2.76 million fish (Table 8; Figure 5). Chinook and coho salmon harvests were well above preseason forecasted numbers, while sockeye, pink, and chum catches were below projected levels (Appendix A.1-A.2).

The exvessel value of the 1992 commercial salmon harvest was 15.3 million dollars and about 3.0 million dollars more than the 1991 exvessel value (Table 9; Figures 6 and 7).

Total salmon escapement in the CMA was estimated at 3,211,712. All sockeye and chinook salmon escapement were counted through the Chignik weir. Pink and chum salmon escapement was estimated by aerial surveys (Table 10).

Both Department personnel and commercial fishers observed three grey whales near the upstream end of Chignik Island in Chignik Lagoon, from late June through July. Their behavior indicated

intense feeding activities during the peak outmigration of salmon fry and smolt. The whales also created both a navigational and commercial fishing hazard.

Chinook Salmon

Background

Chinook salmon production in the CMA is limited to the Chignik River system which is the largest chinook salmon system on the south side of the Alaska Peninsula (Figure 3). Chinook salmon return primarily during July and August with peak harvests occurring generally in July.Chinook salmon are caught incidentally in the sockeye salmon fishery.

Chinook salmon runs (catch and escapement) have ranged from a low of 2,308 fish in 1963 to a high of 14,638 fish in 1992 (Table 11; Figure 8). The recent 10 year average run has been 9,014 fish. Commercial catches have increased over time from an average of 1,430 fish (1963-1972) to 5,211 (1983-1992). A corresponding increase in escapement has also occurred within the past ten years.

1992 Management

The 1992 CMA chinook salmon harvest was 10,832 fish, the highest on record and 5,621 fish more than the 1983-1992 average of 5,211 (Table 11; Figure 8). The catch occurred from June 17 to September 24 with a peak on July 29 of 1,460 (Table 4).

The total exvessel value of the 1992 chinook salmon harvest was estimated at $193,326, averaging $1,858 per permit holder (Table 9; Figure 6).

The 1992 chinook salmon escapement, based on weir counts, was 3,806 fish (Table 12). However, the escapement was not adjusted for: chinook salmon smaller than 650 mm in length that may have been confused with sockeye salmon; fish removed by the sport fishery; fish that spawn below the counting weir; or escapement after the weir was removed on August 5.

Sockeye Salmon

Background

Economically, sockeye salmon are the most important commercial salmon species in the CMA. The commercial salmon fishery targets on two runs of sockeye salmon returning to the Chignik Lake and Black Lake systems. Sockeye salmon destined for the Chignik-Black Lakes system are also intercepted outside the CMA in two historic fisheries; one to the east in the Cape Igvak Section of the Kodiak Management Area; and one to the west in the Southeastern District Mainland Section of the Alaska Peninsula Management Area.

Although most CMA sockeye salmon production originates from the Chignik Lakes system, some spawning activity does occur in the Eastern District, primarily in the Aniakchak River tributaries

(Albert Johnson Creek and Surprise Lake). Tagging studies conducted over several years with in the Aniakchak Bay and Cape Kumlik areas, indicate that sockeye salmon harvested in these waters are almost exclusively of Chignik Lakes origin (Lechner 1969). Most sockeye salmon harvested in the Eastern District are intercepted enroute to spawning areas in the Chignik/Black Lakes system. Consequently, the Eastern District management strategy is based on the run strength of the Chignik-Black Lakes systems and opens during June concurrently with the Chignik Bay and Central Districts. This management strategy has been approved by the State of Alaska Board of Fisheries and put into regulation as the Eastern District Management Plan (Appendix B).

Sockeye salmon escapement goals are 400,000 for Black Lake stocks and 250,000 for Chignik Lake stocks (Appendix B). Commercial fishing time for sockeye salmon has been regulated based on achieving threshold escapements by specific dates for each run. Achieving these thresholds is complicated by between run timing overlap (the transition period), which generally occurs during the latter part of June through early July.

Two methods have been developed to estimate daily proportions of each run during the transition period. The first is based on tagging studies conducted from 1962-1966 (Dahlberg 1968). This study allowed biologists to develop an average time of entry (ATOE) curve to apportion the Chignik sockeye salmon runs into early and late components. The second method is based on differential growth between juvenile salmon rearing in Black Lake and Chignik Lake (Burgner and Marshall 1974, Conrad 1983). Sockeye salmon fry rearing in Black Lake (early run) emerge earlier and grow at a faster rate than fry rearing in Chignik Lake (late run) (Narver 1966). The disparity in growth rates between Black Lake and Chignik Lake rearing fry is reflected in their scale patterns, and when measured, provide the variables used to separate Black Lake from Chignik Lake sockeye salmon stocks. This latter method, scale pattern analysis (SPA), is currently used inseason and postseason to assign sockeye salmon to either stock. Postseason estimates are more accurate because they include both major age classes (age-2.3 and 1.3), while inseason estimates utilize only age-2.3 fish.

The preseason early run forecast is based on the historical relationship between the prior year total return of age-1.2 fish, the average length (mid-eye to fork of tail) of prior year age-1.2 male fish, and the parent year escapement. These variables are used within a multiple linear regression forecast model (Appendix A.2, C.1).

The Chignik Lake forecast has historically been variable in its accuracy and developing a model, such as the one used for the early Black Lake run, has been unsuccessful. Late run forecast estimates are based on average return per spawner estimate for each age class represented for years post 1969 (Appendix A.2, C.2).

Aerial surveys have been conducted almost every year since 1960 and are used to determine spawning distribution of the sockeye escapement.

1992 Management

The Chignik River weir, located three miles upstream from Chignik Lagoon, was operational on May 30. Installation was delayed until May 16 because of ice accumulation on Chignik Lake. High water levels on June 4 floated an unattended barge downstream, punching a 10 foot hole in the weir; the weir was repaired and again fish tight by 1:15 p.m. on June 5. Based on previous days low counts, it was assumed insignificant numbers of salmon escaped during this 31 hour period. To insure that the weir remained fish tight until its' removal on August 5, weekly maintenance dives in S.C.U.B.A. gear were made on the weir face throughout the season to repair damage or check erosion beneath the aluminum panels (Table 13).

Fishery Chronology

Annually, commercial fishing begins if the cumulative escapement exceeds 40,000 sockeye salmon prior to June 12, and is accompanied by a strong buildup in Chignik Lagoon (Appendix B). During 1992, the fishery started on June 17 (Appendix D-E). Cumulative escapement through 10:00 p.m. June 16 was 109,201 sockeye salmon, which was above the desired goal for that date of 75,000 to 100,000 (Table 13; Appendix D-E). The favorable rate of sockeye escapement and a harvestable buildup in Chignik Lagoon prompted opening the Eastern, Central and Chignik Bay Districts to commercial salmon fishing for from 5:00 p.m. June 17 through 5:00 p.m. June 18. This period was extended 24 hours based on an average catch of 1,400 sockeye salmon per vessel and a steady increase in catches from the Ocean Beach test fishery. The entire CMA closed to fishing on June 19 because escapement (119,232 cumulative) lagged behind the desired June 20 escapement goal of 175,000 - 200,000 (Table 14). Total sockeye salmon harvest for the previous 48 hour period was 172,925 (Table 4). Commercial fishers were placed on a 12 hour notice for the next opening announcement.

By June 24, a harvestable buildup of fish were in Chignik Lagoon and escapement had surpassed 300,000 fish (Table 13) which exceeded the June 25 minimum escapement goal of 275,000. An announcement was made to open commercial salmon fishing for 24 hours starting at 7:00 p.m. June 24 through June 25. On June 25, fishing time was extended until further notice based on escapement (351,477 cumulative), a substantial buildup of fish behind the weir, and a lagoon commercial catch of 37,771 sockeye salmon on June 24.

The Eastern District was closed to commercial salmon fishing on July 2 at 8:00 p.m. to evaluate run strength of Chignik Lake sockeye (second run) per the Eastern District Salmon Management Plan (Appendix B). The Chignik Bay and Central Districts remained open until further notice.

Annually, from June 26 through July 9 is the period of transition from early run (Black Lake) to late run (Chignik Lake) fish. It is a critical time for management biologists who must assess the catch composition to determine which stock dominates. Subsequently, fishing time may be increased (to harvest early run fish) or may be decreased to allow time for evaluating the late run strength (Appendix F). A major indicator of each run is provided by the age composition where the early run is typically dominated by ages-1.3 and -1.2 fish, and the late run by ages-2.3 and -2.2. Historically, it is unusual for the early run to have many age-2.2 fish or the late run to have a very large percentage of age-1.2 fish (Conrad, 1983) (Table 15-16).

During 1992, run transition occurred approximately one week later than normal, on July 16, as determined by inseason scale pattern analysis (SPA) and age composition data. The SPA age-2.3 model's mean classification accuracy was 81%. Scale samples collected from the commercial fishery had a large percentage of age-1.3 fish beyond the normal transition period (Table 16; Figure 9). Age-1.2 fish averaged 7% of the total age composition through June 30 with a peak of 10.6% on June 30. Age-2.2 fish on July 16 averaged 14.2% with a peak of 38.9% on August 3.

Age composition and SPA analyses support the conclusion that the 1992 season could be characterized as having a moderately strong first run which was about two weeks late, and a weak second run. After July 7, the percentage of age-2.3 fish and average weight of the commercial catches increased, indicating a greater proportion of second run fish. From this point on, the management priority shifted towards the second run. The total CMA sockeye salmon harvest through July 7 was 0.86 million sockeye salmon (Table 4-5).

The Chignik Bay District closed on July 11 allowing for expanding terminal areas, and insuring that escapement goals for the first and second runs were achieved. The Central District remained open until July 13, while the Eastern, Western, and Perryville Districts were open from July 11 until July 13 to evaluate run strength of sockeye, pink, and chum salmon. This opening also assured product quality of the pink and chum salmon harvested. The Western District's Mitrofania Section was closed to avoid the harvesting of immature salmon as has been experienced in past years.

The entire CMA remained closed from July 13-24 with three test fisheries conducted. Adequate sockeye escapement and lagoon buildup occurred only during the July 24 test fishery, warranting a July 25 opening on an apparent weak run. On July 24, the second run (Chignik Lake) sockeye escapement was 168,626 fish and close to the July 26 goal of 170,000 to 180,000 (Table 14).

The entire Eastern District and portions of the Central and Perryville Districts were opened to commercial salmon fishing from 10:00 a.m. July 25 until 6:00 p.m. July 27. Aerial surveys in Eastern and Perryville Districts indicated sufficient instream escapements and small buildups of pink and chum salmon within terminal areas. To insure that sockeye escapement goals were met, a sanctuary zone including the entire Chignik Bay and Western Districts, and the inner bays of the Central and Perryville Districts was employed.

The Chignik Bay, Central, and portions of the Western and Perryville Districts were opened to commercial salmon fishing at 3:00 p.m. July 28 until 3:00 p.m. July 31. The second run sockeye escapement of approximately 195,000 met the upper goal of 185,000 to 195,000 for July 29 (Table 14). Total sockeye catch at this time was 1.08 million fish.

The fishery from August 3-7 and from August 10-14 was opened in Chignik Bay, Central, and Eastern Districts entirely with restrictions in the Western and Perryville Districts to insure pink and chum escapement. As of August 11, the second run escapement was approximately 256,000 sockeye salmon.

Because pink and chum salmon escapement to the Outer Districts was minimal, on August 22, an 84 hour per week fishing schedule was announced for the Eastern, Central, Western, and

Perryville Districts. This provided for maintaining escapements and obtaining necessary catch information to evaluate coho run strength. Also, a 120 hour (5-day) per week fishing schedule was announced for the Chignik Bay District. This allowed for harvesting sockeye salmon excess to escapement requirements until the end of the commercial salmon fishing season on October 31.

The Cape Igvak fishery harvested an estimated 152,358 Chignik bound sockeye salmon through July 25 (Table 17). This represented 11.6% of the total Chignik salmon harvest through July 25, 3.4% less than allocated by regulation (ADF&G 5 AAC 18.360. Cape Igvak Salmon Management Plan). Harvest after July 25 in the Cape Igvak area totaled 3,960 Chignik bound sockeye salmon, for a total season harvest of 156,318 fish (Table 18).

The Southeastern District Mainland fishery estimated harvest through July 25 was 93,845 fish (Table 17). This represented 7.15% of the total Chignik salmon harvest through July 25, and 0.15% more than allocated by regulation (ADF&G 5 AAC. 09.360. Southeastern District Salmon Management Plan). Catches in the Southeastern District Mainland area after July 25 was 83,871 Chignik bound sockeye salmon for a total of 177,716 sockeye salmon (Table 18).

The exvessel value of the sockeye salmon harvested in the CMA was approximately 12.5 million dollars (Table 9; Figure 6). The average value per permit holder was $120,693 (Figure 7).

Postseason SPA models using linear (LDF) or quadratic (QDF) discriminant functions were created to assign sockeye salmon to Black Lake or Chignik Lake stocks. Scale samples for the Black Lake standard were collected from the Black Lake outlet (Table 15) and the Chignik Lake scale samples were from Chignik Lagoon commercial catches collected post July 25 (Table 16).

Models for age-1.3 (LDF) and for age-2.3 (QDF) sockeye salmon had classification accuracies of 80% and 81%. Estimates using these models were assigned as percent composition to Black Lake or Chignik Lake for each commercial sample (Table 19-20). Interpolation of percent composition between sample dates was calculated for catch and escapement values and adjusted to Chignik Lagoon dates (Table 21) resulting in escapement and catches for each stock by day (Table 22-23).

The Black Lake and Chignik Lake sockeye salmon postseason SPA catch and escapement estimates were considerably different than the inseason estimates. The Black Lake postseason SPA escapement estimate was 360,681 fish, 127,823 spawners less than the inseason estimate and 39,319 less than the 400,000 fish escapement goal (Table 14 and 24-25 and Figure 10). The Chignik Lake postseason SPA escapement estimate was 405,922 fish, 163,905 spawners more than the inseason estimate and 155,922 spawners more than the 250,000 fish late run escapement goal (Table 26-27).

The discrepancy between the inseason and postseason estimates occurred because the inseason estimate, based on the SPA Age-2.3 fish, could not account for the increased number of age-1.3 fish actually occurring during the 1992 run year (Table 16). Postseason analysis that included both age-1.3 and age-2.3 SPA models reassigned age-1.3 sockeye salmon from Black Lake to Chignik Lake. The postseason SPA model shifted the transition date from the inseason estimate of July 16 to July 5. Comparing runs from 1990 to 1992, shows that the 1992 run during the

first part of July was not only larger than expected considering the total size of the Black Lake run, but the percentage of 1.3 fish was considerably higher than the other years (Figure 11-12 and Tables 24-27).

Major age classes (in percent) as determined by SPA contributed to the escapement and catch of the Black Lake run as follows: age-1.3 (66.3% and 65.3%); age-1.2 (6.0% and 6.5%); age-2.3 (18.7% and 18.2%); and age-2.2 (6.6% and 7.0%) (Table 24-25). Major age classes (in percent) as determined by SPA contributed to the escapement and catch of the Chignik Lake run as follows: age-2.3 (44.5% and 36.8%); age-1.3 (32.2% and 37.9%); age-1.2 (4.2% and 4.7%); and age-2.2 (17.0% and 18.1%) (Table 26-27) (Appendix G).

In summary, the 1992 sockeye salmon run for Black Lake was 1.11 million fish and for Chignik Lake was 1.27 million fish. Total escapement to both lakes was .77 million sockeye salmon and harvest was 1.61 million sockeye salmon for a combined total of 2.38 million fish (Tables 28-29; Figures 13-14). This was within the forecasted range of a 1.85 to 3.60 million total fish return (Appendix A.1). Both the early and late run were not within the forecasted ranges.

Pink and Chum Salmon

Background

Pink and chum salmon production in the CMA is sporadic from year to year, as shown by the variable escapements and calculated returns per spawner for both species (Tables 31-46). This could be attributed to the physical morphology of the river and stream systems, which are characterized by loose substrates and steep gradients. These systems are impacted by fall, winter, and spring floods which cause streambed scouring, and can result in high egg and fry mortality.

The CMA pink and chum salmon fisheries are managed based on inseason aerial assessment of escapement (Table 47), and catch per unit effort (CPUE) data. Aerial surveys have been conducted almost annually since 1953 (Table 48). Currently, all salmon processed locally are for the fresh frozen market as there are no operational canning facilities. Consequently, to provide the quality required for fresh frozen processing, the fisheries are managed to intercept migrating fish prior to or just as they reach terminal waters.

1992 Management

The 1992 projected harvest of pink and chum salmon was 2.0 million pink salmon and 235,000 chum salmon (Appendix A.1). The large projected return of pink salmon was based on a near record even year (1990) escapement in the Central and Eastern Districts. An aggressive management strategy was anticipated early in the season prior to aerial assessment of bay and stream mouth buildups.

The Eastern District was first opened to commercial salmon fishing for 24 hours from 5:00 p.m. June 17-19, however, no pink or chum salmon were caught. A second fishing period in the

Eastern District was announced for 7:00 p.m. June 24 through 8:00 p.m. July 2. Openings in early July are used to provide an assessment of early pink and chum salmon run strengths. A total of 20 pink and 56 chum salmon were caught during this period. The Eastern District was opened 72 hours from July 10-13 and kept closed on July 15 as mandated by regulation. There was little effort expended in the Eastern District during this fishing period with catches totaling 1,214 pink and 542 chum salmon. During this period, the Central, Western, and Perryville Districts were open for commercial salmon fishing, where collectively, 31,569 pink and 42,301 chum salmon were caught.

The 1992 CMA pink salmon estimated total escapement was 1,826,800 fish, based on the area-under-the-curve method (Johnson and Barrett 1988; Table 36; Figure 15). The escapement in the Eastern District of 1.3 million fish was a record high for the past 30 years. However, escapements in the Chignik Bay and Central Districts of 55,800 and 223,800 fish were the fourth and fifth highest escapements within the past 30 years (Tables 31-32). The escapement for the Western District of 38,800 fish was the fourth lowest in the last 30 years, while the Perryville District escapement of 190,400 fish was average (Tables 34-35).

The total catch of 1.55 million was below the projected 2.00 million pink salmon harvest, but above the 1983-1992 average of 813,441 fish (Table 36; Appendix A.1). Although the projected harvest could easily have been exceeded, fishermen targeted sockeye salmon rather than pink salmon because of the price differential.

The CMA chum salmon catch and escapement was 222,100 and 573,700 fish (Table 42; Figure 16). This harvest was only slightly below the forecast of 235,000 fish harvest, but substantially above the 1983-1992 average harvest of 157,500 fish. Most chum salmon were harvested in the Central and Eastern Districts. Escapements to Central, Eastern, Western and Perryville Districts were 173,100, 306,900, 53,300, and 40,300 fish, respectively (Tables 38-41). There have been problems with harvests of immature chum and sockeye salmon in past years, and this prompted commercial salmon fishing closures in the Mitrofania Section of the Western District in early July. This may have been why the projected harvest goal for chum salmon was not attained.

The exvessel value of the pink and chum salmon harvest was $811,882 and $414,005, respectively (Table 9; Figure 6). The average value per permit holder was $7,807 for pink and $3,981 for chum salmon (Figure 7).

Coho Salmon

Background

Coho salmon are present throughout the CMA, however the largest return is to the Chignik Lakes system. This is largest coho run within the entire Westward Region.

Coho salmon first appear in the commercial fishery about mid-July and are still present when the fishery closes in October. Since 1976, coho catches have ranged from 17,429 fish in 1976 to 370,410 in 1988. Recently, coho catch distributions have appeared bimodal with a peak in July during the targeted pink and chum fisheries, and a second one in late August - early September

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(Table 4). The early coho catches, occurring primarily in the Western and Perryville Districts, have lower average weights than those caught later in Chignik Lagoon (Table 5-6).

1992 Management

A total of 310,943 coho salmon were harvested in the CMA in 1992, the second largest harvest on record. This catch was about 100,000 fish more than the harvest projection of 200,000 fish (Tables 3 and 8; Figure 17). Coho catches were reported through September in the Chignik Bay District, with a peak catch of 7,554 fish on September 7 (Table 5).

No estimates of escapement in the Chignik Lakes system were available because the weir was removed prior to the start of the coho salmon run, and aerial survey counts were limited. Aerial surveys of the Eastern District streams in early September revealed average coho salmon escapements. Overall, escapement monitoring of coho salmon in the Chignik Area is sporadic due to the late timing of the run and logistics involved in monitoring the many streams in the area.

The exvessel value of the CMA coho salmon harvest was approximately $1,323,107 (Table 9; Figure 6). The average value per permit holder was $12,722 (Figure 7).

Subsistence

The CMA population centers of Chignik, Chignik Lake, Chignik Lagoon, Perryville and Ivanof Bay rely heavily on local resources for subsistence. Salmon subsistence permits are issued to people in these areas through the Kodiak and Chignik ADF&G offices, Village Public Safety Officers, and Subsistence personnel on assignment from the Anchorage ADF&G office. In 1992, 19% of the Chignik Area subsistence permits issued were returned. Subsistence harvests were estimated by expanding results from returned permits relative to total number of permits issued. In 1992, the CMA harvest was estimated at 59 chinook, 10,799 sockeye, 469 pink, 221 chum, and 867 coho salmon (Table 49).

1993 Season Outlook

The total 1993 salmon harvest projection of 3.63 million fish is 0.87 million more than the 1983-92 average of 2.76 million (Table 8; Appendix H). Harvest projections for chinook (5,000) and coho (169,000) salmon are close to the 1983-92 averages, while the projected sockeye salmon harvest (1.94 million) is 300,000 more than the 10 year average. The pink salmon projection of 1.30 million is about 0.49 million more than the past 10 year average, while for chum salmon, the projection of 213,000 is about 55,000 fish above the past 10 year average.

Special Research Projects

Counting Study

A study was conducted at the Chignik River weir during 1992 to evaluate the accuracy of counting and expansion methods that estimate sockeye and chinook salmon escapements during the first counting hour (7:00 - 8:00 am). The study was done to evaluate a new methodology that was developed to minimize any expansion bias from the timed counting samples to the entire first hour. Results showed negative bias with an error of -0.3% for sockeye and 0.1% for chinook (Appendix I). The new method appears to perform adequately.

Sonar Feasibility Study

The need to add precision for accurate stock segregation and to verify assumptions which are made by biologists for final postseason analysis, resulted in the placement of a weir at the outlet of Black Lake to count sockeye salmon escapement in 1990 and 1991. The weir was unsuccessful both years due to high water conditions and the holes made by bears.

Considering the physical characteristics of Black River and the difficulty in maintaining a weir, sonar may be able to provide escapement estimates for stock segregation. Preliminary research conducted by an ADF&G sonar technician revealed two likely sites out of the ten surveyed. The primary site is just downstream from the outlet of Black Lake and a secondary one is just upstream from the Black River airstrip. A sonar site plan outlining costs and equipment was submitted for evaluation.

CHIGNIK HERRING FISHERIES

Background

The earliest recorded herring fishery in the Alaska Peninsula region was in 1906. During the early herring fishery, Chignik area catches were combined with catches from North and South Peninsula areas and labeled as Southwestern Alaska catches. Annual Southwestern Alaska herring catches did not exceed 500 tons. Herring were harvested with beach seines and marketed as a salted product. The herring fishery ceased in the late 1930's and did not commence again until 1980, with the sac roe fishery.

Since 1980, the Chignik area herring sac roe fishery has been a low effort, low yield fishery (Figure 18). Prior to 1984, harvests were concentrated in the Big River Section of the Eastern District (Figure 4). This area was closed to commercial herring fishing in 1985 and has remained closed to protect depressed stocks. This closure shifted effort into other areas of the CMA.

Herring spawning schools that are in small geographic areas, generally a bay or lagoon, are managed as discrete stocks. The projected annual harvest for each of these stocks is dependent on the previous year biomass estimates at an exploitation rate of 0-20% (Appendix J-K). Preseason harvest projections may differ from actual harvest levels if inseason information

suggests that the spawning biomass of a discrete stock differs significantly from anticipated levels.

1992 Management

There were three or less vessels participating in the commercial harvest of herring in 1992. Due to confidentiality regulations, individual catch figures can not be released to the public. The low participation in the fishery apparently occurred because of low abundance levels and a reluctance of processors to purchase local herring.

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Table 1. List of active permit holders in the Chignik Management Area, 1992.

	Name		Permit No.	Residency	ADF&G No.
1	ALECK	NICK	S01L56935 J	R	54974
2	ALEXANDER	JASON	S01L59000 W	R	21757
3	ANDERSON	AL	S01L57160 U	R	61634
4	ANDERSON	DAVID	S01L56415 U	R	61550
5	ANDERSON	DEAN	S01L60114 M	NR	60913
6	ANDERSON	EUGENE	S01L60601 G	R	31492
7	ANDERSON	GUNNAR	S01L56589 I	R	49655
8	ANDERSON	H.	S01L57501 K	R	53370
9	ANDERSON	GEORGE	S01L57133 E	R	33375
10	ANDERSON	JULIUS	S01L55433 H	R	41205
11	ANDERSON	MARVIN	S01L58425 P	R	29063
12	ANDERSON	NEIL	S01L58578 P	NR	1873
13	ANDERSON	RODNEY	S01L56936 B	R	118
14	ANDERSON	RONALD	S01L58818 F	R	57480
15	ASTOR	CRAIG	SO1L59794 I	R	41317
16	BATTISHILL	FRANK	S01L50045 K	R	117
17	BECK	MARK	S01L55925 M	NR	56222
18	BECKER	CARL	S01L57469 C	NR	51091
19	BRANDAL	ALEC	S01L55170 U	R	32586
20	BRANDAL	HENRY	S01L50032 K	R	11013
21	BROWN	MALCOLM	SO1L55938 M	R	41160
22	BUMPUS	DONALD	S01L61910 L	NR	59651
23	CAMPBELL	DANIEL	S01L55731 X	NR	40262
24	CARLSON	AXEL	S01L57612 J	R	35863
25	CARLSON	BERNARD	S01L50220 U	R	38182
26	CARLSON	CARL	S01L56192 Z	R	21898
27	CARLSON	DALE	S01L57473 V	R	43370
28	CARLSON	ERIC	S01L62210 Z	R	33957
29	CARLSON	ERNEST	S01L57125 P	R	43775
30	CARLSON	EUGENE	S01L55520 P	R	61606
31	CARLSON	RODERICK	S01L57704 F	R	44149
32	CARLSON	RUDY	S01L63976 A	R	22017
33	CARROLL	ALBERT	S01L60106 Z	NR	38728
34	CONSTANTINE	JOHNNY	S01L57808 I	R	15888
35	CRONK	GLEN	S01L58603 C	NR	38635
36	ENDRESEN	ANDY	S01L60183 F	R	17124
37	ERICKSON	CLARENCE	S01L56512 B	R	53266
38	GREGORIO	TONY	S01L58848 X	R	37548
39	GRUNERT	FRANK	S01L59851 X	R	61416
40	GRUNERT	MICHAEL	SO1L55935 K	R	59482
41	HINDERER	RAECHEL	SO1L57376 O	R	10567
42	HINDERER	WALLACE	S01L57085 S	R	41592
43	JOHNSON	PAUL	S01L56395 S	NR	35956
44	JONES	MORRIS	S01L56405 W	NR	39275
45	KALMAKOFF	ARTEMIE	S01L50090 M	R	23636
46	KALMAKOFF	GUSTIA	S01L50123 N	R	21554
47	KALMAKOFF	HARRY	S01L60115 F	R	6923
48	KALMAKOFF	JOSEPH	S01L60614 G	R	11017
49	KASHEVAROF	WILLIAM	S01L57487 N	R	54242
50	KOPUN	ALOYS	S01L57863 I	R	45995

-Continued-

Table 1. (page 2 of 2)

	Name		Permit No.	Residency	ADF&G No.
51	KOSBRUK	BORIS	S01L58206 U	R	43200
52	KOSBRUK	HARRY	S01L56726 L	R	38528
53	KOSBRUK	IGNATIUS	S01L50116 R	R	45060
54	KULIN	STEPHEN	S01L60113 U	R	41178
55	LIND	ELLIOT	S01L56872 O	R	35950
56	LIND	JOHNNY	S01L50223 W	R	38404
57	LIND	WILLIAM	S01L57384 C	R	111
58	LOUNSBURY	BRETT	S01L58322 F	R	31995
59	MCCALLUM	CHARLES	S01L55399 O	NR	29006
60	MCKILLY	GABRIEL	S01L59493 O	R	32863
61	MINAKER	HARRY	S01L56203 U	NR	33848
62	MOORE	JEFFREY	SO1L61370 V	R	61384
63	ODOMIN	NICK	S01L57696 L	R	195
64	OGLE	LEONARD	S01L55311 R	R	40484
65	OLSEN	KNUD	S01L56418 W	NR	55822
66	OLSON	GARRETT	SO1L58496 R	NR	21877
67	ORLOFF	GEORGE	S01L59308 M	R	57946
68	PEDERSEN	ALEC	S01L57695 S	R	51282
69	PEDERSEN	ALEC	S01L64188 M	R	58196
70	PEDERSEN	ALVIN	S01L55953 V	R	37662
71	PEDERSEN	ARTHUR	S01L55954 N	R	48823
72	PEDERSEN	AUGUST	SO1L50039 H	R	59642
73	PEDERSEN	AUGUST	SO1L58126 H	R	28396
74	PEDERSEN	HANS	S01L57171 K	R	40248
75	PEDERSEN	MARIUS	S01L64187 U	R	57465
76	PHILLIPS	ELIA	S01L50332 L	R	42335
77	PLETNIKOFF	ROBERT	SO1L58077 F	R	35986
78	SHANGIN	ANDY	S01L58145 K	R	39351
79	SHANGIN	CLEMENT	S01L56733 H	R	38622
80	SHANGIN	DENNIS	S01L58178 G	R	21899
81	SHANGIN	RUSSELL	S01L57003 B	R	56291
82	SIEMION	MATTHEW	S01L56992 S	NR	32361
83	SIEMION	THEODORE	S01L56322 H	NR	20453
84	SKONBERG	BERNARD	S01L55477 R	R	33858
85	SKONBERG	CALVIN	S01L56228 C	R	34184
86	SKONBERG	DARRELL	S01L55546 P	R	33614
87	SKONBERG	GUY	S01L55361 H	R	35698
88	SKONBERG	RALPH	S01L50205 L	R	28657
89	SKONBERG	ROY	S01L58470 R	R	42210
90	STEPANOFF	ANDREW	S01L60144 G	R	194
91	STEPANOFF	OLEANA	S01L58308 N	R	7143
92	STEPANOFF	SAM	S01L50338 P	R	33778
93	STEPANOFF	WALTER	S01L57091 W	R	11045
94	SUYDAM	LOWELL	S01L56680 K	R	39962
95	SUYDAM	GLENN	S01L59615 J	R	53205
96	TAKAK	AFONIE	S01L57035 F	R	50048
97	TEUBER	PAUL	S01L60121 I	NR	55545
98	VANWINGERDEN	MARK	S01L57296 B	R	58817
99	VEERHUSEN	DANIEL	S01L57662 X	R	59377
100	YAGIE	JERRY	S01L56797 N	R	36296
101	YAGIE	MARVIN	S01L57278 P	R	54909

Table 2. Commercial fishing effort in the Chignik Management Area by units of seine gear, and by residentiary status, 1966-1992.

	Units of Gear				
	Resident		Non-Resident		
Year	No.	%	No.	%	Total
1966	65	89.0	8	11.0	73
1967	73	88.0	10	12.0	83
1968	59	88.1	8	11.9	67
1969	57	83.8	11	16.2	68
1970	57	82.6	12	17.4	69
1971	64	83.1	13	16.9	77
1972	62	78.5	17	21.5	79
1973	63	81.8	14	18.2	77
1974	79	84.0	15	16.0	94
1975	72	83.7	14	16.3	86
1976	66	85.7	11	14.3	77
1977	74	84.1	14	15.9	88
1978	82	86.3	13	13.7	95
1979	87	86.1	14	13.9	101
1980	87	86.1	14	13.9	101
1981	87	84.5	16	15.5	103
1982	89	84.8	16	15.2	105
1983	84	84.0	16	16.0	100
1984	84	83.2	17	16.8	101
1985	85	84.2	16	15.8	101
1986	87	87.0	13	13.0	100
1987	89	87.3	13	12.7	102
1988	88	86.3	14	13.7	102
1989	86	84.3	16	15.7	102
1990	85	84.2	16	15.8	101
1991	85	83.0	18	17.0	103
1992	84	84.0	17	17.0	101

Table 3. Commercial salmon catch in the Chignik Management Area by district, statistical area, and species, 1992.

District	Stat. Area	Catch by Species in Number of Fish					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Chignik Bay	27110	3,181	792,889	80,946	178,105	12,711	1,067,832
	Total	3,181	792,889	80,946	178,105	12,711	1,067,832
Central	27220	46	3,212	6,827	33,322	4,173	47,580
	27230	757	167,940	8,937	106,987	15,588	300,209
	27240	88	1,573	6	445	680	2,792
	27250	500	101,444	1,746	18,024	15,007	136,721
	27262	619	58,691	2,096	46,972	10,121	118,499
	Total	2,010	332,860	19,612	205,750	45,569	605,801
Eastern	27260	147	11,428	1,741	19,743	6,213	39,272
	27270	0	67	3	4,540	967	5,577
	27272	2	9	390	3,243	1,419	5,063
	27280	16	326	137	18,179	18,421	37,079
	27290	7	115	1,710	134,416	31,328	167,576
	27292	7	224	201	2,279	2,648	5,359
	27296	2	158	78	719	213	1,170
	Total	181	12,327	4,260	183,119	61,209	261,096
Western	27374	3,197	13,344	90,701	455,354	38,306	600,902
	27380	44	224	926	6,535	334	8,063
	27390	854	14,666	44,138	138,694	23,844	222,196
	27394	205	1,770	4,795	28,317	2,982	38,069
	Total	4,300	30,004	140,560	628,900	65,466	869,230
Perryville	27540	871	101,130	61,371	313,900	32,637	509,909
	27550	289	8,209	4,181	44,273	4,539	61,491
	27560	0	30	13	26	3	72
	Total	1,160	109,369	65,565	358,199	37,179	571,472
Grand Total		10,832	1,277,449	310,943	1,554,073	222,134	3,375,431

Table 4. Commercial salmon catch in the Chignik Management Area by day, 1992.

Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
6/10[a]	1	1	0	0	3,200	20,640	0	0	0	0	0	0	3,200	20,640
6/12[a]	1	1	2	8	868	5,615	0	0	0	0	0	0	870	5,623
6/14[a]	1	1	0	0	3,599	23,740	0	0	0	0	0	0	3,599	23,740
6/16[a]	1	1	0	0	2,834	18,247	0	0	0	0	0	0	2,834	18,247
6/17	83	99	12	208	113,458	774,842	0	0	837	2,045	600	4,460	114,907	781,555
6/18	87	106	34	511	54,910	368,883	0	0	37	123	150	1,175	55,131	370,692
6/19	12	14	0	0	4,557	30,733	0	0	0	0	6	50	4,563	30,783
6/24	66	66	59	1,142	37,771	257,764	0	0	0	0	296	2,104	38,126	261,010
6/25	98	140	238	4,705	88,463	594,559	0	0	304	978	1,059	7,462	90,064	607,704
6/26	92	115	229	4,286	70,747	468,404	0	0	176	532	1,128	8,179	72,280	481,401
6/27	91	103	250	4,132	60,487	404,748	0	0	195	579	1,326	9,768	62,258	419,227
6/28	86	101	213	4,009	51,581	346,455	1	6	184	546	1,081	7,783	53,060	358,799
6/29	89	102	243	4,003	43,906	292,461	4	20	422	1,197	1,729	12,915	46,304	310,596
6/30	86	88	178	3,286	41,901	279,526	13	93	67	232	434	3,502	42,593	286,639
7/01	92	96	316	5,513	39,332	259,985	0	0	265	816	883	6,385	40,796	272,699
7/02	91	97	446	9,516	40,900	268,368	6	40	317	1,069	1,303	9,935	42,972	288,928
7/03	88	93	211	4,279	35,722	236,947	8	48	285	899	714	5,383	36,940	247,556
7/04	77	83	305	6,654	36,526	241,869	2	18	583	1,950	1,119	9,089	38,535	259,580
7/05	85	91	262	6,266	40,493	266,474	7	56	589	1,992	899	7,269	42,250	282,057
7/06	82	91	341	7,775	38,060	252,512	8	54	743	2,482	1,501	12,706	40,653	275,529
7/07	87	93	276	6,334	48,000	320,016	12	73	1,460	4,990	1,366	10,693	51,114	342,106
7/08	85	87	280	5,498	36,222	240,840	118	560	1,374	4,951	2,106	15,923	40,100	267,772
7/09	86	87	204	4,307	35,120	234,936	290	1,852	2,313	8,347	3,032	23,437	40,959	272,879
7/10	89	93	204	3,507	37,575	249,690	651	4,690	3,503	13,304	4,067	30,495	46,000	301,686
7/11	41	48	213	2,532	52,282	362,914	3,225	25,288	6,449	22,235	6,454	47,593	68,623	460,562
7/12	47	51	167	1,795	24,538	166,712	3,140	20,945	8,846	31,712	7,054	51,788	43,745	272,952
7/13	30	30	118	868	11,278	73,638	2,771	19,297	4,977	17,995	5,664	33,024	24,808	144,822
7/16[a]	1	1	0	0	738	4,885	0	0	0	0	0	0	738	4,885
7/18[a]	1	1	0	0	584	3,969	1	8	8	36	3	20	596	4,033
7/24[a]	1	1	0	0	600	3,230	0	0	106	500	13	120	719	3,850
7/25	64	66	79	1,008	10,480	65,362	1,592	10,894	36,310	126,798	16,195	128,427	64,656	332,489
7/26	58	61	86	1,429	10,110	65,000	2,094	13,711	39,183	144,075	8,021	60,051	59,494	284,266
7/27	42	44	40	602	5,073	31,720	871	6,194	29,726	115,784	8,121	65,136	43,831	219,436
7/28	83	88	405	2,317	19,193	116,981	17,279	117,544	64,618	231,189	6,300	45,283	107,795	513,314
7/29	91	102	1,460	8,317	19,832	119,844	21,283	150,801	105,776	377,096	12,305	89,853	160,656	745,911
7/30	82	88	542	4,129	17,582	102,863	14,021	101,723	78,551	295,702	8,983	61,139	119,679	565,556
7/31	90	93	751	5,582	9,098	53,727	9,524	73,429	56,681	207,334	6,010	44,839	82,064	384,911
8/03	87	89	365	3,649	15,018	83,941	14,819	97,921	149,727	534,989	16,948	120,320	196,877	840,820
8/04	88	91	678	5,924	9,506	53,189	17,687	121,076	166,500	618,869	12,786	90,558	207,157	889,616
8/05	80	83	636	3,827	7,553	40,532	11,329	80,572	108,998	420,536	15,363	109,699	143,879	655,166
8/06	61	63	452	3,909	5,275	29,365	9,474	60,496	84,335	309,677	8,396	56,680	107,932	460,127
8/10	84	85	72	834	9,008	50,720	10,527	74,034	143,487	560,238	15,414	101,549	178,508	787,375
8/11	91	96	55	704	7,207	41,061	11,285	80,782	124,882	481,097	11,408	79,770	154,837	683,414
8/12	68	77	66	688	5,548	31,561	7,712	55,792	74,373	283,885	3,675	23,898	91,374	395,824
8/13	69	70	177	1,581	3,814	21,566	7,716	55,822	57,458	213,949	4,900	32,104	74,065	325,022
8/14	4	4	1	24	243	1,395	285	2,091	3,101	12,467	348	2,856	3,978	18,833
8/17	75	75	24	409	6,681	39,558	15,071	117,562	64,246	249,692	8,820	61,794	94,842	469,015

-Continued-

Table 4. (page 2 of 2)

Date	Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
8/18	69	73	12	212	5,145	30,341	12,235	91,838	41,896	159,228	3,512	23,666	62,800	305,285
8/19	13	14	1	15	1,208	6,811	217	1,652	1,014	4,017	25	133	2,465	12,628
8/20	39	39	2	32	2,278	12,795	2,053	16,479	5,466	22,169	528	3,051	10,327	54,526
8/21	39	45	5	87	3,366	19,886	4,520	36,955	7,025	27,556	753	4,538	15,669	89,022
8/24	66	67	6	96	7,225	43,259	12,067	94,886	28,850	106,961	2,025	13,105	50,173	258,307
8/25	58	60	23	360	5,341	32,003	10,484	80,606	31,305	113,556	1,862	12,352	49,015	238,877
8/26	62	65	8	127	4,717	27,728	7,931	63,702	12,317	47,628	3,849	30,687	28,822	169,872
8/27	37	37	1	32	2,142	12,590	3,050	25,411	909	3,365	101	530	6,203	41,928
8/28	36	37	1	27	2,460	14,454	3,132	25,979	566	1,960	59	342	6,218	42,762
8/31	41	41	10	167	2,637	15,751	6,483	55,516	801	2,943	253	1,674	10,184	76,051
9/01	51	56	4	43	3,563	21,135	8,857	76,084	973	3,517	453	2,953	13,850	103,732
9/02	46	49	5	58	2,639	15,528	8,322	69,046	449	1,616	190	1,193	11,605	87,441
9/03	45	46	0	0	3,215	18,893	5,552	48,352	229	820	85	454	9,081	68,519
9/04	32	33	0	0	2,350	13,668	4,315	38,406	70	230	25	162	6,760	52,466
9/07	33	33	0	0	1,531	9,059	7,741	68,863	42	156	116	621	9,430	78,699
9/08	31	31	1	14	1,705	9,769	6,405	56,358	47	166	86	438	8,244	66,745
9/09	27	28	4	76	1,220	7,286	4,911	43,213	88	276	94	474	6,317	51,325
9/10	25	26	0	0	1,236	7,118	4,489	40,239	17	49	11	65	5,753	47,471
9/11	22	22	0	0	725	4,068	2,876	25,504	12	42	10	66	3,623	29,680
9/14	21	21	3	31	669	3,736	2,210	19,411	3	10	21	122	2,906	23,310
9/15	19	19	22	213	1,202	6,290	2,926	25,277	2	7	86	419	4,238	32,206
9/16	14	14	0	0	683	3,793	1,368	12,077	0	0	0	0	2,051	15,870
9/17	8	8	0	0	281	1,527	557	4,725	0	0	1	5	839	6,257
9/18	8	8	33	420	524	2,897	723	6,368	0	0	2	13	1,282	9,698
9/21	10	10	0	0	662	3,584	703	6,102	0	0	7	49	1,372	9,735
9/22	7	7	0	0	210	1,186	1,175	10,178	0	0	0	0	1,385	11,364
9/23	8	9	0	0	518	2,939	1,248	11,449	0	0	0	0	1,766	14,388
9/24	7	7	1	13	179	1,003	778	7,455	0	0	0	0	958	8,471
9/25	8	8	0	0	227	1,224	653	5,933	0	0	0	0	880	7,157
9/28-30	3	3	0	0	118	594	136	1,135	0	0	0	0	254	1,729
Total	101	4,172	10,832	138,090	1,277,449	8,372,902	310,943	2,362,691	1,554,073	5,799,159	222,134	1,592,326	3,375,431	18,265,168
Average Weight				12.7		6.6		7.6		3.7		7.2		

[a]Test Fishery within Chignik Lagoon.

Table 5. Commercial salmon catch and effort in the Chignik Management Area by statistical area and day, 1992

STAT.		Fishing Effort		Chinook		Sockeye		Coho		Pink		Chum		Total	
AREA	DATE	PERMIT	LNDGS	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27110	6/10[a]	1	1	0	0	3200	20640	0	0	0	0	0	0	3,200	20,640
	6/12[a]	1	1	2	8	868	5,615	0	0	0	0	0	0	870	5,623
	6/14[a]	1	1	0	0	3,599	23,740	0	0	0	0	0	0	3,599	23,740
	6/16[a]	1	1	0	0	2,834	18,247	0	0	0	0	0	0	2,834	18,247
	6/17	74	90	5	97	102,074	699,028	0	0	0	0	0	0	102,079	699,125
	6/18	72	90	25	335	44,661	300,613	0	0	0	0	0	0	44,686	300,948
	6/19	11	13	0	0	4,245	28,703	0	0	0	0	0	0	4,245	28,703
	6/24	54	54	38	831	33,888	231,259	0	0	0	0	4	24	33,930	232,114
	6/25	80	119	194	4,014	73,893	498,244	0	0	153	522	220	1,327	74,460	504,107
	6/26	69	90	128	2,751	47,374	314,401	0	0	1	3	152	1,131	47,655	318,286
	6/27	68	77	103	2,220	32,303	214,019	0	0	5	12	52	337	32,463	216,588
	6/28	62	73	139	3,275	40,724	273,090	0	0	0	0	5	37	40,868	276,402
	6/29	58	64	99	2,077	25,970	174,262	0	0	1	3	138	862	26,208	177,204
	6/30	62	63	90	2,169	31,192	207,200	0	0	0	0	13	85	31,295	209,454
	7/01	65	67	159	3,552	30,543	201,501	0	0	20	81	17	159	30,739	205,293
	7/02	64	69	288	7,150	26,920	176,564	0	0	17	66	17	156	27,242	183,936
	7/03	61	63	160	3,358	24,151	158,195	3	17	87	290	109	764	24,510	162,624
	7/04	54	59	239	5,406	18,041	118,038	0	0	28	114	1	5	18,309	123,563
	7/05	59	62	211	5,313	23,643	154,642	5	41	135	426	58	426	24,052	160,848
	7/06	53	62	234	6,000	18,842	124,205	0	0	47	141	75	655	19,198	131,001
	7/07	53	56	221	5,348	28,899	192,777	1	8	144	562	26	194	29,291	198,889
	7/08	52	54	150	3,673	18,217	119,603	0	0	94	358	25	158	18,486	123,792
	7/09	54	54	147	3,245	14,985	98,071	134	916	381	1,368	165	1,319	15,812	104,919
	7/10	51	53	50	1,065	12,400	81,531	1	8	123	450	18	121	12,592	83,175
	7/16[a]	1	1	0	0	738	4,885	0	0	0	0	0	0	738	4,885
	7/18[a]	1	1	0	0	584	3,969	1	8	8	36	3	20	596	4,033
	7/24[a]	1	1	0	0	600	3,230	0	0	106	500	13	120	719	3,850
	7/28	46	51	13	372	14,598	88,078	272	1,352	14,879	62,837	939	6,128	30,701	158,767
	7/29	42	50	26	543	13,310	78,350	505	3,211	7,768	34,401	1,317	8,053	22,926	124,558
	7/30	40	41	10	175	11,477	65,478	476	3,295	6,826	29,529	670	3,978	19,459	102,455
	7/31	41	42	31	307	5,543	31,714	1,856	11,829	7,204	29,341	328	2,351	14,962	75,542
	8/03	49	50	87	1,133	10,313	56,059	1,689	9,286	25,376	91,371	1,060	5,879	38,525	163,728
	8/04	41	42	174	1,514	5,505	29,401	2,141	14,367	23,095	96,378	2,018	12,429	32,933	154,089
	8/05	36	36	5	118	5,252	27,663	211	1,550	10,910	45,933	714	4,255	17,092	79,519
	8/06	21	21	84	723	3,451	18,466	440	2,903	14,559	61,946	995	6,727	19,529	90,765
	8/10	35	35	6	122	5,278	29,521	698	4,878	17,172	72,264	466	2,553	23,620	109,338
	8/11	32	34	5	96	3,259	18,464	372	2,703	11,689	49,859	221	1,407	15,546	72,529
	8/12	27	31	3	61	3,250	18,209	392	2,646	8,832	36,656	526	3,352	13,003	60,924
	8/13	19	20	1	29	1,924	11,147	652	4,907	6,296	25,720	360	2,196	9,233	43,999
	8/14	3	3	0	0	106	691	239	1,746	2,026	8,310	288	2,499	2,659	13,246
	8/17	26	26	6	72	2,668	15,042	355	2,619	3,972	15,736	192	1,079	7,193	34,548
	8/18	28	29	2	37	1,503	8,314	959	7,541	3,435	13,557	190	994	6,089	30,443
	8/19	13	14	1	15	1,208	6,811	217	1,652	1,014	4,017	25	133	2,465	12,628
	8/20	31	31	1	17	2,027	11,451	1,260	9,839	3,512	14,614	285	1,545	7,085	37,466

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Table 5. (page 2 of 11)

STAT. AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27110	8/21	26	31	4	62	2,384	13,885	807	6,415	1,901	7,693	130	749	5,226	28,804
	8/24	28	29	0	0	3,037	18,230	2,041	16,563	2,649	10,583	233	1,343	7,960	46,719
	8/25	19	19	1	12	2,074	12,680	1,009	7,894	627	2,451	62	353	3,773	23,390
	8/26	32	33	2	45	3,419	20,083	3,183	25,274	1,573	5,944	215	1,281	8,392	52,627
	8/27	31	31	1	32	1,987	11,684	2,209	18,316	501	1,862	58	302	4,756	32,196
	8/28	35	36	1	27	2,357	13,835	2,981	25,068	395	1,447	34	180	5,768	40,557
	8/31	28	28	1	9	1,684	9,906	3,574	30,452	91	302	12	84	5,362	40,753
	9/01	35	40	0	0	2,467	14,566	5,966	51,121	102	418	17	97	8,552	66,202
	9/02	34	37	0	0	2,127	12,436	5,365	46,263	82	296	3	21	7,577	59,016
	9/03	40	41	0	0	3,096	18,237	4,911	42,903	116	420	51	266	8,174	61,826
	9/04	32	33	0	0	2,350	13,668	4,315	38,406	70	230	25	162	6,760	52,466
	9/07	32	32	0	0	1,461	8,666	7,554	67,224	32	111	96	501	9,143	76,502
	9/08	29	29	0	0	1,414	8,295	5,387	47,644	10	37	24	136	6,835	56,112
	9/09	24	24	0	0	814	5,188	3,560	31,467	11	35	16	93	4,401	36,783
	9/10	25	26	0	0	1,236	7,118	4,489	40,239	17	49	11	65	5,753	47,471
	9/11	22	22	0	0	725	4,068	2,876	25,504	12	42	10	66	3,623	29,680
	9/14	20	20	1	12	535	2,997	1,983	17,423	0	0	4	22	2,523	20,454
	9/15	16	16	0	0	627	3,493	1,369	12,008	1	3	2	10	1,999	15,514
	9/16	14	14	0	0	683	3,793	1,368	12,077	0	0	0	0	2,051	15,870
	9/17	8	8	0	0	281	1,527	557	4,725	0	0	1	5	839	6,257
	9/18	8	8	33	420	524	2,897	723	6,368	0	0	2	13	1,282	9,698
	9/21	6	6	0	0	314	1,769	499	4,386	0	0	0	0	813	6,155
	9/22	4	4	0	0	204	1,156	272	2,375	0	0	0	0	476	3,531
	9/23	5	6	0	0	510	2,899	520	4,547	0	0	0	0	1,030	7,446
	9/24	4	4	0	0	179	1,003	128	1,132	0	0	0	0	307	2,135
	9/25	5	5	0	0	222	1,199	285	2,501	0	0	0	0	507	3,700
	9/28[b]			0	0	40	197	20	168	0	0	0	0	60	365
	9/29			0	0	31	160	8	55	0	0	0	0	39	215
	9/30			0	0	47	237	108	912	0	0	0	0	155	1,149
27110 Total		91	2,480	3,181	67,840	792,889	5,177,003	80,946	676,752	178,105	729,324	12,711	79,207	1,067,832	6,730,126
Average Weight					21.3		6.5		8.4		4.1		6.2		
27220	6/26			0	0	498	3,182	0	0	0	0	0	0	498	3,182
	6/29			18	226	1,632	8,658	0	0	161	451	489	3,917	2,300	13,252
	7/29	3	3	14	48	65	318	520	3,431	1,803	6,670	289	1,755	2,691	12,222
	8/05	4	4	0	0	129	670	309	2,002	4,256	17,147	590	3,290	5,284	23,109
	8/10	4	5	4	66	125	577	908	6,594	8,692	35,290	652	3,684	10,381	46,211
	8/11	7	7	10	61	185	879	1,016	7,494	9,500	37,116	939	5,271	11,650	50,821
	8/13	6	6	0	0	65	266	410	2,810	2,390	9,543	332	1,850	3,197	14,469
	8/17	3	3	0	0	78	425	314	2,487	1,563	5,615	181	991	2,136	9,518
	8/18	6	7	0	0	39	192	675	5,356	1,672	6,592	145	822	2,531	12,962

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Table 5. (page 3 of 11)

STAT. AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27220	8/20			0	0	23	110	165	1,225	600	2,287	79	438	867	4,060
	8/21	5	5	0	0	35	184	318	2,594	1,047	3,974	139	745	1,539	7,497
	8/24	4	4	0	0	85	425	721	6,094	822	3,132	150	855	1,778	10,506
	8/25	4	4	0	0	74	403	600	5,027	503	1,953	96	550	1,273	7,933
	8/26	3	3	0	0	25	129	205	1,702	240	925	47	260	517	3,016
	8/31			0	0	14	65	103	858	34	130	20	105	171	1,158
	9/09			0	0	140	711	563	5,095	39	128	25	125	767	6,059
27220	Total	18	56	46	401	3,212	17,194	6,827	52,769	33,322	130,953	4,173	24,658	47,580	225,975
	Average Weight				8.7		5.4		7.7		3.9		5.9		
27230	6/17	6	6	5	94	6,738	44,957	0	0	57	173	70	540	6,870	45,764
	6/18	11	12	9	176	8,798	59,406	0	0	37	123	150	1,175	8,994	60,880
	6/19			0	0	312	2,030	0	0	0	0	6	50	318	2,080
	6/24	8	8	19	289	3,419	23,483	0	0	0	0	204	1,456	3,642	25,228
	6/25	12	13	35	536	10,067	66,762	0	0	39	112	362	2,499	10,503	69,909
	6/26	13	13	75	1,137	14,553	94,596	0	0	55	156	496	3,728	15,179	99,617
	6/27	15	16	110	1,415	19,010	124,687	0	0	86	244	1,055	7,507	20,261	133,853
	6/28	19	21	31	348	8,306	56,378	1	6	22	77	683	5,058	9,043	61,867
	6/29	17	18	50	649	7,845	52,476	0	0	164	451	482	3,530	8,541	57,106
	6/30	14	14	53	717	5,657	37,960	0	0	18	61	213	1,514	5,941	40,252
	7/01	14	15	42	492	3,740	24,555	0	0	5	18	150	1,093	3,937	26,158
	7/02	14	14	67	1,064	6,416	42,603	0	0	60	248	342	2,439	6,885	46,354
	7/03	18	20	24	419	6,486	43,459	0	0	40	169	152	1,323	6,702	45,370
	7/04	12	13	20	372	8,539	57,358	2	18	114	436	327	2,655	9,002	60,839
	7/05	16	19	35	582	7,822	52,260	0	0	112	423	203	1,552	8,172	54,817
	7/06	17	17	39	650	8,494	57,932	0	0	165	675	447	3,345	9,145	62,602
	7/07	15	15	7	124	3,324	22,720	0	0	71	300	140	1,067	3,542	24,211
	7/08	15	15	20	359	4,764	32,288	12	70	240	864	599	4,582	5,635	38,163
	7/09	19	19	32	557	8,189	55,734	38	250	549	2,227	885	6,893	9,693	65,661
	7/10	12	12	18	281	4,758	33,407	7	67	216	835	338	2,648	5,337	37,238
	7/11	15	16	5	67	2,585	18,084	8	65	267	1,126	286	2,201	3,151	21,543
	7/12	20	23	12	189	2,781	19,221	92	614	674	2,710	937	7,353	4,496	30,087
	7/13	3	3	0	0	146	1,043	8	60	81	318	46	388	281	1,809
	7/28	7	7	1	19	1,179	7,771	115	805	3,647	12,333	251	1,727	5,193	22,655
	7/29	4	4	1	33	820	5,250	89	636	2,877	10,904	226	1,519	4,013	18,342
	7/30	3	3	1	27	504	3,062	52	359	2,404	7,544	142	920	3,103	11,912
	7/31	5	6	1	28	702	4,561	75	517	4,278	15,129	228	1,579	5,284	21,814
	8/03	9	9	1	11	1,629	8,920	585	3,981	15,583	58,715	858	5,238	18,656	76,865
	8/04	6	7	1	29	684	3,739	203	1,424	7,650	30,846	559	3,328	9,097	39,366
	8/05	4	4	1	22	400	2,284	146	1,087	5,317	21,962	676	4,062	6,540	29,417
	8/06	3	3	0	0	114	657	50	413	2,082	8,591	170	833	2,416	10,494
	8/10	4	4	2	63	1,043	6,176	481	3,640	13,683	53,476	796	4,701	16,005	68,056

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Table 5. (page 4 of 11)

STAT. AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27230	8/11	8	9	2	47	1,119	6,461	600	4,359	14,306	56,102	711	4,246	16,738	71,215
	8/12	10	11	2	24	659	3,737	467	3,371	10,001	38,552	571	3,431	11,700	49,115
	8/13	11	11	1	20	717	3,756	530	3,894	8,907	34,257	550	3,321	10,705	45,248
	8/14			1	24	137	704	46	345	1,075	4,157	60	357	1,319	5,587
	8/17	10	10	6	155	869	5,360	803	6,450	6,259	24,105	428	2,696	8,365	38,766
	8/18	5	5	0	0	524	2,899	451	3,676	2,450	9,359	218	1,199	3,643	17,133
	8/20			0	0	23	110	51	404	82	305	2	14	158	833
	8/21			0	0	37	239	52	440	117	443	15	68	221	1,190
	8/24	3	3	0	0	919	5,236	553	4,385	1,090	4,107	113	607	2,675	14,335
	8/25	5	5	9	144	794	4,619	601	5,258	981	3,781	88	476	2,473	14,278
	8/26	6	7	3	41	611	3,440	526	4,600	572	2,212	85	518	1,797	10,811
	8/27			0	0	119	711	76	741	119	463	18	99	332	2,014
	8/31	5	5	9	158	405	2,434	481	4,072	172	715	75	406	1,142	7,785
	9/01	7	7	3	37	447	2,729	356	3,036	158	581	51	269	1,015	6,652
	9/02			0	0	164	970	155	1,321	46	140	16	115	381	2,546
	9/07			0	0	70	393	187	1,639	10	45	20	120	287	2,197
	9/08			0	0	86	474	208	1,764	17	52	25	116	336	2,406
	9/09			2	17	176	953	447	3,745	29	86	31	162	685	4,963
	9/14			2	19	134	739	227	1,988	3	10	17	100	383	2,856
	9/15			0	0	106	525	156	1,231	0	0	15	60	277	1,816
27230															
	Total	52	457	757	11,435	167,940	1,112,308	8,937	70,731	106,987	410,718	15,588	106,883	300,209	1,712,075
	Average Weight				15.1		6.6		7.9		3.8		6.9		
27240	6/28			36	264	378	1,748	0	0	152	442	295	1,952	861	4,406
	7/01			28	302	175	984	0	0	155	414	217	1,553	575	3,253
	7/02			24	224	524	2,560	6	40	99	304	156	1,090	809	4,218
	7/08			0	0	496	3,248	0	0	39	116	12	83	547	3,447
27240															
	Total			88	790	1,573	8,540	6	40	445	1,276	680	4,678	2,792	15,324
	Average Weight				9.0		5.4		6.7		2.9		6.9		
27250	6/17	3	3	2	17	4,646	30,857	0	0	780	1,872	530	3,920	5,958	36,666
	6/24	4	4	2	22	464	3,022	0	0	0	0	88	624	554	3,668
	6/25	8	8	9	155	4,503	29,553	0	0	112	344	477	3,636	5,101	33,688
	6/26	10	11	26	398	8,322	56,225	0	0	120	373	480	3,320	8,948	60,316
	6/27	8	9	28	402	8,874	64,057	0	0	104	323	219	1,924	9,225	66,706
	6/28	4	4	2	62	1,891	13,169	0	0	10	27	90	673	1,993	13,931
	6/29	12	15	70	960	7,577	51,649	4	20	75	231	550	4,157	8,276	57,017
	6/30	9	10	19	186	4,970	33,874	13	93	45	152	208	1,903	5,255	36,208
	7/01	10	10	43	569	2,735	19,031	0	0	34	106	441	3,130	3,253	22,836

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Table 5. (page 5 of 11)

STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27250	7/02	10	11	54	862	6,287	41,534	0	0	126	406	779	6,158	7,246	48,960
	7/03	7	7	13	308	3,046	21,259	5	31	90	236	407	2,974	3,561	24,808
	7/04	6	6	17	275	3,576	23,824	0	0	344	1,105	748	6,103	4,685	31,307
	7/05	5	5	6	126	4,323	28,664	2	15	170	614	546	4,559	5,047	33,978
	7/06	7	7	44	702	6,729	44,820	8	54	328	1,189	881	7,900	7,990	54,665
	7/07	10	10	16	394	7,574	50,712	2	13	389	1,405	728	6,121	8,709	58,645
	7/08	8	8	16	238	6,603	43,289	94	416	552	1,715	1,257	9,166	8,522	54,824
	7/09	7	7	9	167	5,410	36,792	54	366	609	2,417	1,384	11,022	7,466	50,764
	7/10	11	12	40	879	8,081	52,576	105	679	1,531	5,557	1,924	16,721	11,681	76,412
	7/11	7	7	37	587	2,174	14,214	65	367	498	1,853	964	7,939	3,738	24,960
	7/12	8	8	16	120	1,894	12,626	130	853	610	2,422	871	7,046	3,521	23,067
	7/13	6	6	20	161	786	5,377	53	326	326	1,088	561	4,357	1,746	11,309
	7/29			3	12	360	3,038	200	1,457	1,686	5,060	185	1,301	2,434	10,868
	7/30			4	22	387	2,710	9	58	1,669	5,008	170	1,196	2,239	8,994
	8/10			3	16	132	830	572	3,767	4,099	17,190	321	2,514	5,127	24,317
	8/11			1	16	51	320	395	2,720	3,362	13,822	178	1,455	3,987	18,333
	8/17			0	0	49	283	35	327	355	1,511	20	110	459	2,231
27250															
	Total	26	175	500	7,656	101,444	684,305	1,746	11,562	18,024	66,026	15,007	119,929	136,721	889,478
	Average Weight				15.3		6.8		6.6		3.7		8.0		
27262	6/18			0	0	348	2,315	0	0	0	0	0	0	348	2,315
	6/28			5	60	69	533	0	0	0	0	8	63	82	656
	6/29			2	18	188	1,229	0	0	5	12	14	109	209	1,368
	7/01	3	3	44	598	2,139	13,914	0	0	51	197	58	450	2,292	15,159
	7/02			13	216	753	5,107	0	0	15	45	9	92	790	5,460
	7/03	3	3	14	194	2,039	14,034	0	0	68	204	46	322	2,167	14,754
	7/04	5	5	29	601	6,370	42,649	0	0	97	295	43	326	6,539	43,871
	7/05	5	5	10	245	4,705	30,908	0	0	172	529	92	732	4,979	32,414
	7/06	5	5	24	423	3,995	25,555	0	0	203	477	98	806	4,320	27,261
	7/07	9	11	32	468	7,992	52,290	9	52	856	2,723	472	3,311	9,361	58,844
	7/08	8	8	94	1,228	5,950	41,077	12	74	444	1,878	213	1,934	6,713	46,191
	7/09	7	7	16	338	6,536	44,339	64	320	774	2,335	598	4,203	7,988	51,535
	7/10	3	3	27	278	1,685	12,007	44	289	226	1,094	127	1,003	2,109	14,671
	7/11	4	4	17	238	1,115	6,963	15	88	278	1,066	103	706	1,528	9,061
	7/12	7	7	76	778	3,882	26,234	220	1,374	3,027	12,185	809	6,432	8,014	47,003
	7/13	4	4	26	181	886	6,099	40	244	1,447	5,259	137	1,092	2,536	12,875
	7/25	12	12	21	324	3,888	24,277	376	2,656	11,309	36,390	1,914	14,542	17,508	78,189
	7/26	9	10	11	237	2,031	12,661	163	1,303	5,044	20,102	307	2,148	7,556	36,451
	7/27	8	9	0	0	987	6,334	122	850	4,244	17,289	3,436	31,578	8,789	56,051
	7/28			23	375	293	1,726	25	194	1,153	4,840	42	305	1,536	7,440
	7/29			18	279	523	3,283	48	327	2,782	11,510	131	886	3,502	16,285
	7/30			29	393	749	4,989	38	318	2,985	13,546	80	598	3,881	19,844

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Table 5. (page 6 of 11)

STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27262	7/31	3	3	9	89	411	2,431	41	253	2,118	7,737	158	1,118	2,737	11,628
	8/03			11	123	270	1,455	28	188	1,325	5,309	91	604	1,725	7,679
	8/04			1	10	45	212	0	0	388	1,454	10	78	444	1,754
	8/05			6	66	80	520	26	186	640	2,802	45	336	797	3,910
	8/10			9	109	169	864	83	615	1,292	5,122	135	871	1,688	7,581
	8/11			3	68	302	1,690	160	1,138	2,758	11,283	299	2,043	3,522	16,222
	8/12			16	166	36	243	20	144	375	1,333	38	215	485	2,101
	8/13			25	303	214	1,337	463	3,117	2,596	10,774	545	4,068	3,843	19,599
	8/17			8	101	41	245	99	801	300	1,162	63	417	511	2,726
27262	Total	30	123	619	8,507	58,691	387,520	2,096	14,531	46,972	178,952	10,121	81,388	118,499	670,898
	Average Weight				13.7		6.6		6.9		3.8		8.0		
27260	6/18			0	0	1,103	6,549	0	0	0	0	0	0	1,103	6,549
	6/27			9	95	300	1,985	0	0	0	0	0	0	309	2,080
	6/28			0	0	213	1,537	0	0	0	0	0	0	213	1,537
	6/29	3	3	4	73	694	4,187	0	0	16	49	56	340	770	4,649
	6/30			16	214	82	492	0	0	4	19	0	0	102	725
	7/07			0	0	211	1,517	0	0	0	0	0	0	211	1,517
	7/08			0	0	192	1,335	0	0	5	20	0	0	197	1,355
	7/10	7	7	49	605	3,208	20,753	16	116	501	1,924	385	2,752	4,159	26,150
	7/11	3	3	8	54	1,012	7,222	19	121	625	2,656	85	778	1,749	10,831
	7/12			0	0	115	620	10	58	63	265	16	107	204	1,050
	7/25	7	7	14	252	1,549	10,550	228	1,476	3,017	9,787	2,957	23,294	7,765	45,359
	7/26	13	13	20	453	1,546	10,132	219	1,492	6,738	24,222	1,301	9,033	9,824	45,332
	7/27	7	7	7	191	705	4,688	37	254	1,712	6,095	179	1,265	2,640	12,493
	7/29			0	0	87	396	12	72	151	624	0	0	250	1,092
	8/06	3	3	16	162	276	1,504	142	1,035	2,348	9,499	447	2,984	3,229	15,184
	8/11			2	30	48	332	44	306	3,044	12,174	600	5,096	3,738	17,938
	8/13			0	0	0	0	3	18	594	2,360	29	227	626	2,605
	8/18			2	40	75	526	310	2,205	845	3,411	149	1,042	1,381	7,224
	8/26			0	0	4	23	320	2,520	74	270	4	23	402	2,836
	9/2			0	0	8	54	381	2,692	6	25	5	43	400	2,814
27260	Total	24	59	147	2,169	11,428	74,402	1,741	12,365	19,743	73,400	6,213	46,984	39,272	209,320
	Average Weight				14.8		6.5		7.1		3.7		7.6		
27270	7/25			0	0	67	422	3	10	4,540	17,484	967	7,122	5,577	25,038
27270	Total			0	0	67	422	3	10	4,540	17,484	967	7,122	5,577	25,038
	Average Weight				0.0		6.3		3.3		3.9		7.4		

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STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27272	7/25			0	0	0	0	0	0	50	210	799	7,129	849	7,339
	8/11			0	0	1	6	9	75	1,571	7,070	597	4,999	2,178	12,150
	8/12			2	25	0	0	0	0	1,616	6,464	18	150	1,636	6,639
	9/2			0	0	8	54	381	2,692	6	25	5	43	400	2,814
27272	Total	3	4	2	25	9	60	390	2,767	3,243	13,769	1,419	12,321	5,063	28,942
	Average Weight				12.5		6.7		7.1		4.3		9		
27280	7/25	10	10	13	171	38	261	0	0	2,797	11,123	5,070	44,038	7,918	55,593
	7/26			0	0	18	110	0	0	347	1,411	772	7,805	1,137	9,326
	7/27			0	0	159	1,036	0	0	1,112	4,560	131	1,287	1,402	6,883
	8/03			1	27	6	40	2	14	3,229	11,790	7,633	55,728	10,871	67,599
	8/04			2	36	4	27	0	0	3,210	11,718	878	6,411	4,094	18,192
	8/05			0	0	6	35	0	0	1,510	5,842	887	7,498	2,403	13,375
	8/06			0	0	0	0	4	28	600	2,322	177	1,391	781	3,741
	8/17	3	3	0	0	2	13	47	347	2,578	9,472	2,201	16,116	4,828	25,948
	8/18			0	0	3	16	14	110	2,757	10,188	663	4,850	3,437	15,164
	8/31			0	0	90	560	70	500	39	150	9	51	208	1,261
27280	Total	14	25	16	234	326	2,098	137	999	18,179	68,576	18,421	145,175	37,079	217,082
	Average Weight				14.6		6.4		7.3		3.8		7.9		
27290	7/26			0	0	0	0	0	0	1,754	7,950	1,060	9,370	2,814	17,320
	7/27			0	0	4	30	0	0	10,813	43,253	2,601	18,209	13,418	61,492
	8/03			2	29	1	6	0	0	9,709	35,438	1,008	7,365	10,720	42,838
	8/04	4	4	1	25	8	44	3	17	13,596	54,408	897	7,643	14,505	62,137
	8/05	5	5	4	90	20	110	2	14	11,645	44,793	4,818	40,957	16,489	85,964
	8/10			0	0	16	114	0	0	14,037	56,149	8,099	56,697	22,152	112,960
	8/11			0	0	0	0	0	0	3,496	13,983	3,537	27,381	7,033	41,364
	8/12			0	0	0	0	0	0	5,735	22,939	161	1,367	5,896	24,306
	8/13			0	0	0	0	5	41	3,370	12,304	996	7,278	4,371	19,623
	8/17			0	0	3	20	38	275	9,728	35,413	3,076	22,613	12,845	58,321
	8/18			0	0	3	18	67	475	2,913	10,608	548	4,035	3,531	15,136
	8/24	3	3	0	0	0	0	81	582	15,582	56,727	534	3,933	16,197	61,242
	8/25	3	3	0	0	0	0	129	924	23,511	85,587	816	6,015	24,456	92,526
	8/26	6	6	0	0	60	360	1,385	10,953	8,527	33,645	3,177	26,920	13,149	71,878
27290	Total	10	35	7	144	115	702	1,710	13,281	134,416	513,197	31,328	239,783	167,576	767,107
	Average Weight				20.6		6.1		7.8		3.8		7.7		

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STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27292	7/25	3	3	7	76	224	1,559	201	1,402	2,204	7,086	2,127	16,568	4,763	26,691
	8/06			0	0	0	0	0	0	75	277	521	3,808	596	4,085
27292	Total	4	4	7	76	224	1,559	201	1,402	2,279	7,363	2,648	20,376	5,359	30,776
	Average Weight				10.9		7.0		7.0		3.2		7.7		
27296	7/25	3	3	2	10	158	991	78	575	719	2,971	213	1,648	1,170	6,195
27296	Total	3	3	2	10	158	991	78	575	719	2,971	213	1,648	1,170	6,195
	Average Weight				5.0		6.3		7.4		4.1		7.7		
27374	7/28	9	9	250	983	809	5,449	5,195	39,981	15,950	53,194	2,123	17,124	24,327	116,731
	7/29	14	15	1,087	4,683	2,155	13,942	8,045	64,731	42,553	162,255	5,006	41,235	58,846	286,846
	7/30	11	12	219	1,634	1,293	8,045	3,966	30,409	24,300	91,897	2,615	17,939	32,393	149,924
	7/31	19	20	477	3,490	1,412	9,021	5,828	49,505	35,503	125,443	4,118	32,230	47,338	219,689
	8/03	9	9	90	1,065	883	5,618	5,106	36,935	41,313	150,580	2,435	17,686	49,827	211,884
	8/04	14	15	273	2,564	1,591	9,320	11,222	78,608	82,656	298,491	5,389	39,493	101,131	428,476
	8/05	15	15	475	2,438	838	4,284	5,955	42,195	43,866	165,702	4,569	28,407	55,703	243,026
	8/06	23	23	246	2,094	1,095	6,588	6,079	38,626	52,598	184,562	4,963	32,563	64,981	264,433
	8/10	16	16	25	182	543	3,023	3,660	25,129	35,473	128,959	2,262	13,854	41,963	171,147
	8/11	15	16	20	203	401	2,283	3,207	23,892	23,132	89,393	1,545	10,862	28,305	126,633
	8/12	15	15	14	159	536	3,395	3,558	26,085	22,801	83,778	876	6,561	27,785	119,978
	8/13	13	13	10	81	232	1,269	2,944	21,103	11,943	43,418	753	4,550	15,882	70,421
	8/17	8	8	0	0	460	2,725	5,619	44,160	9,793	38,280	524	3,404	16,396	88,569
	8/18	8	9	1	13	513	3,046	5,886	43,291	8,566	32,058	475	3,051	15,441	81,459
	8/21	3	3	1	25	151	867	2,714	21,583	1,760	7,120	122	700	4,748	30,295
	8/24	7	7	3	50	76	419	3,276	23,377	1,048	3,868	158	910	4,561	28,624
	8/25	7	7	1	12	170	1,009	3,655	23,652	1,218	3,259	116	732	5,160	28,664
	8/26	5	5	0	0	22	97	930	7,723	300	1,128	84	449	1,336	9,397
	8/27	4	4	0	0	36	195	765	6,354	289	1,040	25	129	1,115	7,718
	8/31	4	4	0	0	33	182	1,340	11,296	119	396	39	224	1,531	12,098
	9/01	3	3	0	0	47	234	873	7,178	82	310	56	299	1,058	8,021
	9/02	4	4	5	58	26	147	620	4,973	57	211	35	208	743	5,597
	9/03			0	0	22	109	258	2,211	34	109	18	94	332	2,523
27374	Total	41	234	3,197	19,734	13,344	81,267	90,701	672,997	455,354	1,665,451	38,306	272,704	600,902	2,712,153
	Average Weight				6.2		6.1		7.4		3.7		7.1		

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STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27380	8/13			44	186	180	946	794	6,040	6,506	23,150	331	2,443	7,855	32,765
	9/03			0	0	44	223	132	1,147	29	102	3	19	208	1,491
27380	Total	4	4	44	186	224	1,169	926	7,187	6,535	23,252	334	2,462	8,063	34,256
	Average Weight				4.2		5.2		7.8		3.6		7.4		
27390	7/10	3	3	18	369	1,336	9,016	448	3,310	471	1,732	1,110	6,138	3,383	20,565
	7/11	3	3	5	88	2,529	15,977	2,130	17,654	1,897	6,233	2,735	18,302	9,296	58,254
	7/12	5	5	42	404	2,112	13,578	2,537	17,001	3,427	10,650	3,854	26,462	11,972	68,095
	7/13	10	10	32	210	2,224	13,274	2,306	15,768	2,339	8,349	4,228	21,265	11,129	58,866
	7/25			0	0	27	178	13	92	297	1,266	80	710	417	2,246
	7/28	3	3	18	120	264	1,679	1,670	11,041	2,116	8,336	769	4,705	4,837	25,881
	7/29	7	7	124	1,201	298	1,772	2,271	15,847	4,823	18,768	1,191	8,149	8,707	45,737
	7/30	7	8	145	894	600	3,333	3,038	21,942	8,779	34,917	1,643	10,427	14,205	71,513
	7/31	5	5	6	50	63	452	151	1,033	566	2,264	96	654	882	4,453
	8/03	5	5	109	485	377	2,219	1,936	13,971	11,166	41,191	1,011	6,934	14,599	64,800
	8/04	6	6	184	1,356	142	807	1,095	7,495	7,099	25,184	776	4,967	9,296	39,809
	8/05	8	8	103	671	330	1,840	1,934	14,747	17,122	64,165	1,359	8,656	20,848	90,079
	8/06			4	16	15	98	260	2,085	1,429	5,003	74	668	1,782	7,870
	8/10	8	8	6	20	230	1,310	1,058	7,627	19,599	74,238	862	5,091	21,755	88,286
	8/11	9	9	0	0	752	4,256	2,314	16,527	20,743	79,393	1,159	6,462	24,968	106,638
	8/12	14	14	26	231	806	4,409	2,493	18,147	19,038	72,755	1,071	6,182	23,434	101,724
	8/13	8	8	0	0	138	793	715	5,306	6,013	23,060	443	2,535	7,309	31,694
	8/17	6	6	0	0	398	2,417	3,296	27,412	5,409	22,214	337	1,981	9,440	54,024
	8/18			0	0	109	603	940	7,338	2,390	10,225	149	1,123	3,588	19,289
	8/20			0	0	5	30	17	145	66	245	8	50	96	470
	8/21			0	0	76	430	139	1,229	512	1,993	77	453	804	4,105
	8/24	7	7	2	36	166	914	2,343	18,040	1,337	4,964	154	889	4,002	24,843
	8/25	7	9	1	24	190	963	2,907	23,915	1,357	4,949	238	1,396	4,693	31,247
	8/26	5	5	3	41	85	449	984	8,405	421	1,547	117	544	1,610	10,986
	9/01			0	0	103	550	782	6,695	96	355	82	413	1,063	8,013
	9/02	3	3	0	0	142	777	801	6,740	133	484	80	423	1,156	8,424
	9/03			0	0	18	88	155	1,411	19	74	6	19	198	1,592
	9/08			1	14	205	1,000	810	6,950	20	77	37	186	1,073	8,227
	9/09			2	59	90	434	341	2,906	9	27	22	94	464	3,520
	9/15			22	213	469	2,272	1,401	12,038	1	4	69	349	1,962	14,876
	9/21	4	4	0	0	348	1,815	204	1,716	0	0	7	49	559	3,580
	9/22	3	3	0	0	6	30	903	7,803	0	0	0	0	909	7,833
	9/23	3	3	0	0	8	40	728	6,902	0	0	0	0	736	6,942
	9/24	3	3	1	13	0	0	650	6,323	0	0	0	0	651	6,336
	9/25	3	3	0	0	5	25	368	3,432	0	0	0	0	373	3,457
27390	Total	48	162	854	6,515	14,666	87,828	44,138	338,993	138,694	524,662	23,844	146,276	222,196	1,104,274
	Average Weight				7.6		6.0		7.7		3.8		6.1		

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Table 5. (page 10 of 11)

STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27394	7/10			0	0	196	1,380	14	126	51	194	36	294	297	1,994
	7/11	3	3	14	145	112	775	117	890	67	295	141	962	451	3,067
	7/12			15	194	187	1,099	137	928	185	707	132	959	656	3,887
	7/29			0	0	229	1,284	41	280	150	603	39	217	459	2,384
	7/30			8	45	31	130	72	482	323	1,228	38	257	472	2,142
	7/31	3	3	128	942	243	1,419	584	3,259	1,968	7,848	248	1,549	3,171	15,017
	8/03			7	80	42	211	241	1,651	1,708	6,587	185	1,044	2,183	9,573
	8/04			0	0	10	62	63	280	192	840	16	120	281	1,302
	8/05			14	148	55	332	101	705	1,441	5,995	180	1,154	1,791	8,334
	8/06			1	18	64	445	166	1,247	1,442	5,673	207	1,314	1,880	8,697
	8/10	5	5	8	125	121	590	658	5,016	6,448	25,894	421	2,404	7,656	34,029
	8/11			3	53	93	330	426	3,198	4,852	19,489	358	2,055	5,732	25,125
	8/12			1	10	1	6	35	271	376	1,425	27	155	440	1,867
	8/13			0	0	0	0	0	0	106	375	0	0	106	375
	8/17	8	8	3	41	265	1,817	1,516	10,583	7,751	31,671	801	5,613	10,336	49,725
	8/18	5	5	3	52	96	531	460	3,789	1,063	4,103	119	777	1,741	9,252
	8/20			0	0	9	45	65	565	110	470	13	90	197	1,170
	8/21			0	0	0	0	13	80	18	65	4	25	35	170
	8/24			0	0	16	90	86	715	66	240	17	92	185	1,137
27394															
	Total	26	40	205	1,853	1,770	10,546	4,795	34,065	28,317	113,702	2,982	19,081	38,069	179,247
	Average Weight				9.0		6.0		7.1		4.0		6.4		
27540	7/10			2	30	5,911	39,020	16	95	384	1,518	129	818	6,442	41,481
	7/11	7	11	66	497	42,327	296,777	848	5,980	2,600	8,149	2,052	16,132	47,893	327,535
	7/12	5	6	6	110	13,567	93,334	14	117	860	2,773	435	3,429	14,882	99,763
	7/13	7	7	40	316	7,236	47,845	364	2,899	784	2,981	692	5,922	9,116	59,963
	7/25	16	16	2	35	1,988	11,534	544	3,440	5,865	19,595	1,494	9,103	9,893	43,707
	7/26	15	16	11	164	3,084	19,715	911	5,785	11,494	36,668	2,578	17,103	18,078	79,435
	7/27	13	13	23	193	2,210	12,981	440	3,117	7,736	29,478	1,037	7,730	11,446	53,499
	7/28	15	15	100	448	1,966	11,872	9,807	62,951	25,327	83,663	2,124	14,952	39,324	173,886
	7/29	17	17	187	1,518	1,985	12,211	9,552	60,809	41,183	126,301	3,921	26,738	56,828	227,577
	7/30	19	20	126	939	2,541	15,116	6,370	44,860	31,265	112,033	3,625	25,824	43,927	198,772
	7/31	14	14	99	676	724	4,129	989	7,033	5,044	19,572	834	5,358	7,690	36,768
	8/03	8	8	57	696	1,473	9,261	5,071	30,827	37,970	125,315	2,567	19,087	47,138	185,186
	8/04	13	13	42	390	1,495	9,447	2,863	18,250	27,679	95,808	2,148	15,419	34,227	139,314
	8/05	7	7	28	274	443	2,794	2,645	18,086	12,291	46,195	1,525	11,084	16,932	78,433
	8/06	5	6	49	527	214	1,303	1,657	9,544	5,825	18,256	688	5,044	8,433	34,674
	8/10	5	5	5	66	1,221	6,986	1,776	12,148	16,834	68,194	1,036	7,182	20,872	94,576
	8/11	8	8	9	130	934	5,677	2,405	16,025	23,058	78,859	1,130	7,623	27,536	108,314
	8/12			2	12	260	1,562	747	5,128	5,599	19,983	387	2,485	6,995	29,170
	8/13	3	3	0	0	311	1,857	748	4,970	7,728	25,354	471	2,916	9,258	35,097
	8/17	6	6	1	40	1,728	10,496	2,769	20,685	15,318	59,769	932	6,334	20,748	97,324
	8/18	10	10	4	70	2,229	13,831	2,410	17,514	15,386	57,523	809	5,514	20,838	94,452

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Table 5. (page 11 of 11)

STAT AREA	DATE	Fishing Effort PERMIT	LNDGS	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds	Total Number	Total Pounds
27540	8/20	3	3	1	15	191	1,049	495	4,301	1,096	4,248	141	914	1,924	10,527
	8/21			0	0	683	4,281	477	4,614	1,670	6,268	266	1,798	3,096	16,961
	8/24	12	12	1	10	2,903	17,816	2,939	24,898	6,237	23,264	655	4,409	12,735	70,397
	8/25	12	12	9	126	1,933	11,747	1,506	13,288	3,006	11,204	441	2,800	6,895	39,165
	8/26			0	0	361	2,258	347	2,136	459	1,434	97	570	1,264	6,398
	8/28			0	0	103	619	151	911	171	513	25	162	450	2,205
	8/31			0	0	411	2,604	915	8,338	346	1,250	98	804	1,770	12,996
	9/01	4	4	1	6	499	3,056	880	8,054	535	1,853	247	1,875	2,162	14,844
	9/02			0	0	164	1,090	619	4,365	119	435	46	340	948	6,230
	9/03			0	0	35	236	96	680	31	115	7	56	169	1,087
27540															
	Total	48	245	871	7,288	101,130	672,504	61,371	421,848	313,900	1,088,571	32,637	229,525	509,909	2,419,736
	Average Weight				13.9		6.7		6.9		3.5				
27550	7/11			61	856	428	2,902	23	123	217	857	88	573	817	5,311
	7/25	11	11	20	140	2,541	15,590	149	1,243	5,512	20,886	574	4,273	8,796	42,132
	7/26	19	19	44	575	3,431	22,382	801	5,131	13,806	53,722	2,003	14,592	20,085	96,402
	7/27	13	13	10	218	1,008	6,651	272	1,973	4,109	15,109	737	5,067	6,136	29,018
	7/28			0	0	84	406	195	1,220	1,546	5,986	52	342	1,877	7,954
	8/03			0	0	24	152	161	1,068	2,348	8,693	100	755	2,633	10,668
	8/04			0	0	22	130	97	635	935	3,742	95	670	1,149	5,177
	8/06			52	369	46	304	676	4,615	3,377	13,548	154	1,348	4,305	20,184
	8/10			4	65	130	729	633	4,620	6,158	23,462	364	1,998	7,289	30,874
	8/11			0	0	62	363	337	2,345	3,371	12,554	134	870	3,904	16,132
	8/13			96	962	33	195	452	3,616	1,009	3,634	90	720	1,680	9,127
	8/17			0	0	120	715	180	1,416	1,220	4,744	65	440	1,585	7,315
	8/18			0	0	51	365	63	543	419	1,604	47	259	580	2,771
	8/24			0	0	23	129	27	232	19	76	11	67	80	504
	8/25			2	42	106	582	77	648	102	372	5	30	292	1,674
	8/26			0	0	100	709	38	307	125	445	20	105	283	1,566
27550															
	Total	30	59	289	3,227	8,209	52,304	4,181	29,735	44,273	169,434	4,539	32,109	61,491	286,809
	Average Weight				11.2		6.4		7.1		3.8		7.1		
27560	8/26			0	0	30	180	13	82	26	78	3	17	72	357
27560	Total			0	0	30	180	13	82	26	78	3	17	72	357
	Average Weight				0.0		6.0		6.3		3.0		5.7		

[a]Catches from the test fishery in Chignik Lagoon.
[b]Effort data was omitted due to confidentiality concerns (<3 vessels).

Table 6. Average weights of salmon caught in the Chignik Management Area, 1983-92.

Year	Chinook Number	Chinook Pounds	Average Weight	Sockeye Number	Sockeye Pounds	Average Weight	Coho Number	Coho Pounds	Average Weight	Pink Number	Pink Pounds	Average Weight	Chum Number	Chum Pounds	Average Weight
Chignik Bay District															
1983	3,560	80,193	22.5	1,597,059	10,536,850	6.6	29,519	250,786	8.5	27,284	97,222	3.6	16,747	130,154	7.8
1984	3,696	93,096	25.2	1,942,822	13,579,107	7.0	72,722	658,240	9.1	165,178	670,923	4.1	8,173	61,159	7.5
1985	1,810	43,396	24.0	812,605	4,820,590	5.9	156,579	1,431,798	9.1	14,429	55,900	3.9	4,906	31,307	6.4
1986	2,592	60,723	23.4	1,389,172	9,488,499	6.8	60,197	481,706	8.0	191,264	767,714	4.0	18,167	134,735	7.4
1987	1,931	42,848	22.2	1,559,757	11,508,187	7.4	77,333	654,640	8.5	13,887	51,855	3.7	5,163	38,429	7.4
1988	4,331	96,241	22.2	529,540	3,873,621	7.3	94,292	819,677	8.7	119,794	460,519	3.8	7,013	55,911	8.0
1989	3,532	76,491	21.7	1,156,782	7,950,548	6.9	68,231	559,127	8.2	27,691	94,218	3.4	1,587	11,546	7.3
1990	3,719	80,915	21.8	1,400,069	9,374,800	6.7	61,260	497,901	8.1	94,528	319,928	3.4	11,460	77,739	6.8
1991	1,996	47,206	23.7	1,487,421	10,196,187	6.9	56,574	481,741	8.5	76,163	231,960	3.0	17,545	115,553	6.6
1992	3,181	67,840	21.3	792,889	5,177,003	6.5	80,946	676,752	8.4	178,105	729,324	4.1	12,711	79,207	6.2
10-Year Average			22.7			6.8			8.6			3.8			7.1
Other Districts															
1983	1,928	15,966	8.3	227,116	1,389,979	6.1	32,408	237,417	7.3	293,894	1,103,666	3.8	142,665	1,075,112	7.5
1984	622	6,471	10.4	717,797	4,957,180	6.9	37,406	291,725	7.8	279,626	980,326	3.5	55,130	424,808	7.7
1985	78	1,508	19.3	109,546	629,469	5.7	34,609	278,049	8.0	145,699	587,831	4.0	17,900	113,974	6.4
1986	445	6,049	13.6	256,662	1,766,361	6.9	56,436	385,489	6.8	455,861	1,606,597	3.5	158,473	1,169,683	7.4
1987	720	6,634	9.2	339,081	2,493,527	7.4	73,081	535,163	7.3	232,888	847,705	3.6	122,098	905,512	7.4
1988	2,965	32,639	11.0	266,301	1,840,831	6.9	276,128	2,069,750	7.5	2,877,365	10,262,986	3.6	260,762	2,140,466	8.2
1989	10	207	20.7	2,505	18,732	7.5	2	13	6.5	21	51	2.4	37	342	9.2
1990	6,182	53,350	8.6	693,581	4,434,969	6.4	68,871	435,844	6.3	455,480	1,355,716	3.0	258,544	1,679,280	6.5
1991	1,161	19,497	16.8	408,244	2,748,265	6.7	109,051	701,216	6.4	1,093,085	3,125,671	2.9	243,551	1,560,646	6.4
1992	7,651	70,250	9.2	484,560	3,195,899	6.6	229,997	1,685,939	7.3	1,375,968	5,069,835	3.7	209,423	1,513,119	7.2
10-Year Average			9.8			6.7			7.2			3.5			7.2

Table 7. List of processors in the Chignik Management Area, 1992.

F0021 Int'l Seafoods of Alaska P.O. Box 2997 Kodiak, Ak. 99615	F0394 Keener Packing Company, Inc. P.O. Box 890 Kenai, Ak. 99611
F9984 North Coast SFD Processors P.O. Box 70668 Seattle, Wa. 98107	F0622 Aleutian Dragon Fisheries P.O. Box 70668 Seattle, Wa. 98107
F0320 Western Alaska Fisheries, Inc. 1111 3rd Ave., Suite 1210 Seattle, Wa. 98101	F0940 Trident Seafoods Corp. P.O. Box 229 Sand Point, Ak. 99661
F0365 Chignik Pride Fisheries 4241 21st Ave. W., Suite 300 Seattle, Wa. 98199	F1039 Inlet Fisheries, Inc. P.O. Box 530 Kenai, Ak. 99611

Table 8. Historical salmon catches in the Chignik Management Area, 1960-1992.[a]

Year	Catch by Species (number of fish) Chinook	Sockeye	Coho	Pink	Chum	Total
1960	643	715,969	8,933	557,327	486,699	1,769,571
1961	409	322,890	3,088	443,510	178,760	948,657
1962	435	364,753	1,292	1,519,305	364,335	2,250,120
1963	1,744	408,606	9,933	1,662,363	112,697	2,195,343
1964	1,099	556,890	2,735	1,682,365	333,336	2,576,425
1965	1,592	599,553	9,602	1,118,158	120,589	1,849,494
1966	636	219,794	16,050	683,215	238,883	1,158,578
1967	882	462,000	13,150	108,981	75,543	660,556
1968	674	977,382	2,200	1,290,660	223,861	2,494,777
1969	3,448	394,135	18,103	1,779,736	67,721	2,263,143
1970	1,226	1,325,734	15,348	1,157,172	437,252	2,936,732
1971	2,010	1,016,136	14,557	612,290	353,952	1,998,945
1972	464	378,218	19,615	72,161	78,298	548,756
1973	525	870,354	22,322	25,472	8,717	927,390
1974	255	662,905	12,245	69,515	34,312	779,232
1975	549	399,593	53,283	66,165	25,161	544,751
1976	2,290	1,163,728	35,167	395,287	81,403	1,677,875
1977	710	1,972,207	17,430	604,806	110,452	2,705,605
1978	1,603	1,576,283	20,212	985,114	120,889	2,704,101
1979	1,253	1,049,497	99,129	1,905,198	188,907	3,243,984
1980	2,344	859,966	119,573	1,093,184	252,521	2,327,588
1981	2,694	1,839,469	78,805	1,162,613	580,332	3,663,913
1982	5,236	1,521,686	300,273	873,384	390,096	3,090,675
1983	5,488	1,824,175	61,927	321,178	159,412	2,372,180
1984	4,318	2,660,619	110,128	444,804	63,303	3,283,172
1985	1,888	922,151	191,188	160,128	22,806	1,298,161
1986	3,037	1,645,834	116,633	647,125	176,640	2,589,269
1987	2,651	1,898,838	150,414	246,775	127,261	2,425,939
1988	7,296	795,841	370,420	2,997,159	267,775	4,437,832
1989	3,542	1,159,287	68,233	27,712	1,624	1,260,398
1990	9,901	2,093,650	130,131	550,008	270,004	3,053,694
1991	3,157	1,895,665	165,625	1,169,248	261,096	3,494,791
1992	10,832	1,277,449	310,943	1,554,073	222,134	3,375,431
Averages						
(1963-92)	2,778	1,147,588	85,179	848,868	180,233	2,264,624
(1973-92)	3,478	1,404,460	121,704	764,947	168,242	2,462,799
(1983-92)	5,211	1,617,351	167,564	811,821	157,206	2,759,087

[a] Catch does not include Cape Igvak or Southeastern District Mainland Area. Catches (1970-1992) were updated using historical electronic fish ticket databases.
[b] Fishing was severely curtailed in outside districts due to the Exxon oil spill.

Table 9. Economic value and average income per permit holder in dollars of commercially caught salmon in the Chignik Management Area, 1970-1992.

	Value (in dollars)										
	Chinook		Sockeye		Coho		Pink		Chum		
Year	Total	Average	Total	Average	Total	Average	Total	Average	Total	Average	Total
1970	6,129	89	2,190,272	31,743	18,397	267	635,673	9,213	376,025	5,450	3,226,496
1971	6,472	84	2,034,279	26,419	23,240	302	366,693	4,762	326,760	4,244	2,757,444
1972	2,028	28	825,498	11,308	35,699	489	48,401	663	87,759	1,202	99,385
1973	5,255	72	3,030,057	41,508	73,663	1,009	20,610	282	10,180	139	3,139,765
1974	2,941	32	3,618,781	39,767	31,933	351	64,069	704	51,125	562	3,768,849
1975	6,561	76	1,384,271	16,240	213,539	2,581	104,115	12,211	61,704	717	1,770,190
1976	13,800	179	4,751,000	61,701	138,000	1,792	568,300	7,381	183,600	2,384	5,654,700
1977	18,828	212	14,553,720	163,525	104,819	1,178	920,881	10,347	368,066	4,136	15,966,314
1978	56,700	597	15,653,500	164,774	116,400	1,225	1,131,500	11,911	404,500	4,258	17,362,600
1979	32,050	317	11,345,503	112,332	710,192	7,031	2,622,269	25,963	126,866	1,256	14,836,880
1980	67,657	670	5,532,290	54,775	520,655	5,155	1,477,060	14,624	1,061,963	10,514	8,659,625
1981	75,231	730	17,262,119	167,593	439,900	4,271	1,881,334	18,265	2,431,421	23,606	22,090,005
1982	75,276	717	13,038,510	124,176	1,782,027	16,972	578,184	5,506	1,356,597	12,920	16,830,594
1983	96,159	962	10,728,088	107,281	219,650	2,197	240,171	2,402	421,713	4,217	11,705,781
1984	114,502	1,134	20,402,076	202,000	759,972	7,525	330,916	3,276	146,024	1,446	21,753,490
1985	67,088	664	7,997,834	79,186	1,471,418	14,568	140,076	1,387	59,475	589	8,735,891
1986	84,800	848	16,882,290	168,823	667,740	6,677	356,147	3,562	456,546	4,565	18,447,523
1987	72,739	706	24,783,033	240,612	1,035,129	10,050	269,868	2,620	339,819	3,299	26,500,588
1988	286,740	2,811	14,350,354	140,690	4,153,424	40,720	6,771,266	66,385	2,189,293	21,464	27,751,077
1989	78,999	790	13,047,378	130,474	436,892	4,369	32,994	3,299	4,745	47	13,601,008
1990	185,256	1,834	22,509,923	222,871	700,309	6,934	502,693	4,977	878,510	8,698	24,776,691
1991	50,027	486	11,002,784	106,823	650,626	6,317	402,916	3,912	502,860	4,882	12,609,213
1992	193,326	1,858	12,552,025	120,693	1,323,107	12,722	811,882	7,807	414,005	3,981	15,294,345

Table 10. Salmon escapements in the Chignik Management Area by district and statistical area, 1992.

District	Stat-Area	Chinook	Sockeye	Coho[a]	Pink[b]	Chum[c]	Total
Chignik Bay	271-10	3,806	766,754	27,750	55,750	100	854,160
	Total	3,806	766,754	27,750	55,750	100	854,160
Central	272-20	0	0	0	89,243	0	89,243
	272-30	0	0	0	7,200	7,528	14,728
	272-50	0	0	2,300	127,340	165,580	295,220
	Total	0	0	2,300	223,783	173,108	399,191
Eastern	272-60	0	0	0	265,119	81,601	346,720
	272-70	0	1,500	3,300	85,214	99,971	189,985
	272-72	0	0	0	15,915	28,080	43,995
	272-80	0	0	5,000	53,189	51,571	109,760
	272-90	0	0	800	485,185	33,238	519,223
	272-92	0	0	0	48,833	6,700	55,533
	272-96	0	0	0	364,646	5,700	370,346
	Total	0	1,500	9,100	1,318,101	306,861	1,635,562
Western	273-70	0	0	0	0	300	300
	273-72	0	0	0	31,855	45,614	77,469
	273-80	0	0	0	1,100	0	1,100
	273-82	0	0	0	1,312	180	1,492
	273-84	0	0	0	4,535	7,235	11,770
	Total	0	0	0	38,802	53,329	92,131
Perryville	275-40	0	0	0	150,363	29,556	179,919
	275-50	0	0	0	39,511	10,538	50,049
	275-60	0	0	0	500	200	700
	Total	0	0	0	190,374	40,294	230,668
Total (All Districts)		3,806	768,254	39,150	1,826,810	573,692	3,211,712

[a] Coho salmon escapement estimates for Chignik Lagoon were from methods from Reggarone (1989). Coho salmon were not aerial surveyed due to budget constraints.

[b] Escapement estimates for pink and chum salmon were based on methods of Johnson and Barrett (1988).

[c] The late run of chum salmon in the Ivanof River was not aerial surveyed due to budget constraints.

Table 11. Chinook salmon runs in the Chignik River, 1960-1992.

Year	Escapement[a]	Catch[b]	Total Run
1960	-	643	643
1961	-	409	409
1962	-	435	435
1963	564	1,744	2,308
1964	914	1,099	2,013
1965	942	1,592	2,534
1966	822	636	1,458
1967	1,500	882	2,382
1968	1,000	674	1,674
1969	600	3,448	4,048
1970	2,500	1,226	3,726
1971	2,000	2,010	4,010
1972	1,500	464	1,964
1973	822	525	1,347
1974	672	255	927
1975	877	549	1,426
1976	700	2,290	2,990
1977	798	710	1,508
1978	1,197	1,603	2,800
1979	1,050	1,253	2,303
1980	876	2,344	3,220
1981	1,603	2,694	4,297
1982	2,412	5,236	7,648
1983	1,943	5,488	7,431
1984	5,806	4,318	10,124
1985	3,144	1,888	5,032
1986	3,612	3,037	6,649
1987	2,624	2,651	5,275
1988	4,868	7,296	12,164
1989	3,316	3,542	6,858
1990	4,364	9,901	14,265
1991	4,545	3,157	7,702
1992	3,806	10,832	14,638
Avg (1963-92)	2,046	2,778	4,824
Avg (1973-92)	2,452	3,478	5,930
Avg (1983-92)	3,803	5,211	9,014

[a] Estimates are conservative because there is no adjustment for escapement after weir removal and speciation of chinook from sockeye is difficult when they pass the weir.

[b] Catches (1970-1992) were updated using historical electronic fish ticket databases.

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1973	822	525	1,347
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1985	3,144	1,888	5,032
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[a] Estimates are conservative because there is no adjustment for escapement after weir removal and speciation of chinook from sockeye is difficult when they pass the weir.

[b] Catches (1970-1992) were updated using historical electronic fish ticket databases.

Table 12. Daily chinook salmon escapement estimates through the Chignik weir by day, 1992.

Date	Escapement[a] Daily	Cumulative	Date	Escapement[a] Daily	Cumulative
15-Jun	0	0	11-Jul	278	1,663
16-Jun	0	0	12-Jul	156	1,819
17-Jun	0	0	13-Jul	171	1,990
18-Jun	0	0	14-Jul	178	2,168
19-Jun	0	0	15-Jul	346	2,514
20-Jun	0	0	16-Jul	91	2,605
21-Jun	0	0	17-Jul	139	2,744
22-Jun	6	6	18-Jul	132	2,876
23-Jun	12	18	19-Jul	146	3,022
24-Jun	72	90	20-Jul	80	3,102
25-Jun	126	216	21-Jul	100	3,202
26-Jun	10	226	22-Jul	45	3,247
27-Jun	42	268	23-Jul	46	3,293
28-Jun	40	308	24-Jul	82	3,375
29-Jun	12	320	25-Jul	50	3,425
30-Jun	136	456	26-Jul	106	3,531
01-Jul	68	524	27-Jul	25	3,556
02-Jul	127	651	28-Jul	43	3,599
03-Jul	40	691	29-Jul	70	3,669
04-Jul	152	843	30-Jul	51	3,720
05-Jul	72	915	31-Jul	30	3,750
06-Jul	48	963	01-Aug	14	3,764
07-Jul	34	997	02-Aug	0	3,764
08-Jul	210	1,207	03-Aug	30	3,794
09-Jul	70	1,277	04-Aug	12	3,806
10-Jul	108	1,385	05-Aug	Weir Out	

[a] Escapement estimates are considered conservative due to the difficulty in distinquishing small chinook from sockeye as they pass through the weir. No adjustment made for escapement after removal of the weir on August 4.

Table 13. Daily sockeye salmon escapement counts at the Chignik weir site, 1992.

Date	Number		Date	Number	
	Daily	Cumulative		Daily	Cumulative
31-May	0	0	04-Jul	2,829	396,024
01-Jun	42	42	05-Jul	4,005	400,029
02-Jun	89	131	06-Jul	2,690	402,719
03-Jun	32	163	07-Jul	1,522	404,241
04-Jun[a]	157	320	08-Jul	4,474	408,715
05-Jun	254	574	09-Jul	2,253	410,968
06-Jun	209	783	10-Jul	1,910	412,878
07-Jun	553	1,336	11-Jul	2,685	415,563
08-Jun	740	2,076	12-Jul	11,149	426,712
09-Jun	2,486	4,562	13-Jul	13,810	440,522
10-Jun	3,247	7,809	14-Jul	13,055	453,577
11-Jun	7,236	15,045	15-Jul	16,969	470,546
12-Jun	13,876	28,921	16-Jul	16,556	487,102
13-Jun	9,469	38,390	17-Jul	23,355	510,457
14-Jun	5,812	44,202	18-Jul	18,335	528,792
15-Jun	35,839	80,041	19-Jul	23,553	552,345
16-Jun	29,160	109,201	20-Jul	13,118	565,463
17-Jun	4,956	114,157	21-Jul	19,983	585,446
18-Jun	3,972	118,129	22-Jul	16,389	601,835
19-Jun	1,103	119,232	23-Jul	16,642	618,477
20-Jun	6,566	125,798	24-Jul	16,306	634,783
21-Jun	38,261	164,059	25-Jul	20,210	654,993
22-Jun	54,252	218,311	26-Jul	13,447	668,440
23-Jun	55,492	273,803	27-Jul	13,295	681,735
24-Jun	77,674	351,477	28-Jul	16,550	698,285
25-Jun	22,257	373,734	29-Jul	9,662	707,947
26-Jun	988	374,722	30-Jul	3,747	711,694
27-Jun	786	375,508	31-Jul	1,299	712,993
28-Jun	1,299	376,807	01-Aug	2,050	715,043
29-Jun	3,414	380,221	02-Aug	4,012	719,055
30-Jun	3,914	384,135	03-Aug	6,285	725,340
01-Jul	1,980	386,115	04-Aug	5,181	730,521
02-Jul	2,355	388,470	05-Aug[b]	Wear Out	
03-Jul	4,725	393,195	30-Sep	36,082	766,603

[a] Daily escapement was estimated because a loose barge broke a large hole in the weir.

[b] Time series analysis of catch and escapement was used to estimate sockeye escapements after weir removal on 5 August through 30 September.

Table 14. Sockeye salmon escapements through the Chignik River weir for Chignik Lake and Black Lake using daily percentages derived from the inseason time of entry curve, 1992.

Date	Total		Chignik Lake			Black Lake
	Daily	Cumulative	Percent	Daily	Cumulative	Cumulative
31-May	0	0	0.0	0	0	0
01-Jun	42	42	0.0	0	0	42
02-Jun	89	131	0.0	0	0	131
03-Jun	32	163	0.0	0	0	163
04-Jun	157	320	0.0	0	0	320
05-Jun	254	574	0.0	0	0	574
06-Jun	209	783	0.0	0	0	783
07-Jun	553	1,336	0.0	0	0	1,336
08-Jun	740	2,076	0.1	1	1	2,075
09-Jun	2,486	4,562	0.2	5	6	4,556
10-Jun	3,247	7,809	0.3	10	16	7,793
11-Jun	7,236	15,045	0.4	29	45	15,000
12-Jun	13,876	28,921	0.5	69	114	28,807
13-Jun	9,469	38,390	0.6	57	171	38,219
14-Jun	5,812	44,202	1.1	64	235	43,967
15-Jun	35,839	80,041	1.8	645	880	79,161
16-Jun	29,160	109,201	2.5	729	1,609	107,592
17-Jun	4,956	114,157	3.3	164	1,773	112,384
18-Jun	3,972	118,129	3.9	155	1,928	116,201
19-Jun	1,103	119,232	5.4	60	1,988	117,244
20-Jun	6,566	125,798	7.4	486	2,474	123,324
21-Jun	38,261	164,059	8.5	3,252	5,726	158,333
22-Jun	54,252	218,311	9.0	4,883	10,609	207,702
23-Jun	55,492	273,803	11.2	6,215	16,824	256,979
24-Jun	77,674	351,477	12.7	9,865	26,689	324,788
25-Jun	22,257	373,734	14.4	3,205	29,894	343,840
26-Jun	988	374,722	15.1	149	30,043	344,679
27-Jun	786	375,508	15.8	124	30,167	345,341
28-Jun	1,299	376,807	16.5	214	30,381	346,426
29-Jun	3,414	380,221	17.4	594	30,975	349,246
30-Jun	3,914	384,135	19.3	755	31,730	352,405
01-Jul	1,980	386,115	23.6	467	32,197	353,918
02-Jul	2,355	388,470	26.2	617	32,814	355,656
03-Jul	4,725	393,195	28.4	1,342	34,156	359,039
04-Jul	2,829	396,024	30.5	863	35,019	361,005
05-Jul	4,005	400,029	32.5	1,302	36,321	363,708
06-Jul	2,690	402,719	34.6	931	37,252	365,467
07-Jul	1,522	404,241	36.4	554	37,806	366,435
08-Jul	4,474	408,715	36.8	1,646	39,452	369,263
09-Jul	2,253	410,968	40.5	912	40,364	370,604
10-Jul	1,910	412,878	42.1	804	41,168	371,710
11-Jul	2,685	415,563	43.7	1,173	42,341	373,222
12-Jul	11,149	426,712	45.4	5,062	47,403	379,309
13-Jul	13,810	440,522	47.1	6,505	53,908	386,614
14-Jul	13,055	453,577	48.9	6,384	60,292	393,285
15-Jul	16,969	470,546	51.4	8,722	69,014	401,532
16-Jul	16,556	487,102	52.9	8,758	77,772	409,330
17-Jul	23,355	510,457	55.1	12,869	90,641	419,816
18-Jul	18,335	528,792	57.2	10,488	101,129	427,663
19-Jul	23,553	552,345	58.1	13,684	114,813	437,532
20-Jul	13,118	565,463	61.0	8,002	122,815	442,648
21-Jul	19,983	585,446	63.1	12,609	135,424	450,022
22-Jul	16,389	601,835	65.7	10,768	146,192	455,643
23-Jul	16,642	618,477	67.0	11,150	157,342	461,135
24-Jul	16,306	634,783	69.2	11,284	168,626	466,157
25-Jul	20,210	654,993	72.4	14,632	183,258	471,735

-Continued-

Table 14. (page 2 of 2)

Date	Total		Chiqnik Lake			Black Lake
	Daily	Cumulative	Percent	Daily	Cumulative	Cumulative
26-Jul	13,447	668,440	73.9	9,937	193,195	475,245
27-Jul	13,295	681,735	74.2	9,865	203,060	478,675
28-Jul	16,550	698,285	76.1	12,595	215,655	482,630
29-Jul	9,662	707,947	78.0	7,536	223,191	484,756
30-Jul	3,747	711,694	79.6	2,983	226,174	485,520
31-Jul	1,299	712,993	81.2	1,055	227,229	485,764
01-Aug	2,050	715,043	82.9	1,699	228,928	486,115
02-Aug	4,012	719,055	83.9	3,366	232,294	486,761
03-Aug	6,285	725,340	84.3	5,298	237,592	487,748
04-Aug	5,181	730,521	85.4	4,425	242,017	488,504
05-Aug	Weir Out					

Table 15. Age composition of sockeye scales collected from Black Lake, 1992.

Dates	Sample Size	Age (Percent)							
		0.3	1.2	1.3	1.4	2.1	2.2	2.3	3.2
6/19	233	0.4	8.6	76.8	0.0	0.4	2.1	11.2	0.4
6/20	310	0.3	9.4	73.2	0.3	0.0	5.5	11.3	0.0
6/21	334	0.3	12.3	74.3	0.0	0.0	4.8	8.4	0.0
6/22	209	1.0	14.8	66.5	0.5	0.0	4.8	12.4	0.0
6/23	282	1.1	10.3	73.4	0.0	0.4	3.2	11.7	0.0
6/24	264	0.4	9.5	76.5	1.1	0.0	3.4	9.1	0.0
6/25	209	0.0	10.0	74.6	0.0	0.0	5.3	10.0	0.0
Total	1,841	0.5	10.6	73.8	0.3	0.1	4.2	10.5	0.1

Table 16. Sockeye salmon age composition of scales collected from the Chignik Lagoon commercial fishery, 1992.

Date	Sample Size	Age (Percent)													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Other
6/10	510	0.0	0.0	0.0	4.9	0.0	76.5	3.7	0.0	0.6	14.1	0.0	0.0	0.2	0.0
6/12	524	0.0	0.0	0.0	8.4	0.0	70.6	5.7	0.0	0.2	14.5	0.4	0.0	0.2	0.0
6/16	561	0.0	0.0	0.0	5.3	0.4	62.9	4.6	0.0	0.4	23.2	1.2	0.2	1.8	0.0
6/24	552	0.0	0.0	0.0	6.0	0.2	67.4	5.6	0.0	0.5	18.1	0.7	0.0	1.4	0.0
6/27	496	0.0	0.8	0.0	6.3	0.0	61.1	8.1	0.0	0.0	19.8	3.0	0.0	0.6	0.4
6/30	536	0.0	2.8	0.0	10.6	0.0	70.3	5.4	0.0	0.0	10.1	0.4	0.0	0.4	0.0
7/02	345	0.0	0.0	0.3	8.1	0.3	66.1	7.2	0.0	0.3	16.2	0.9	0.3	0.3	0.0
7/05	533	0.0	0.2	0.4	6.4	0.0	65.1	6.9	0.0	0.2	19.1	1.1	0.4	0.0	0.2
7/07	540	0.0	0.2	0.0	5.4	0.2	55.6	9.3	0.0	0.2	28.9	0.4	0.0	0.0	0.0
7/09	529	0.0	0.0	0.2	4.5	0.0	50.9	13.0	0.0	0.2	30.1	0.8	0.2	0.2	0.0
7/16	513	0.0	1.2	0.0	5.1	0.2	42.7	14.2	0.2	0.0	36.3	0.0	0.2	0.0	0.0
7/18	503	0.2	1.0	0.0	5.8	0.2	35.2	14.7	0.0	0.2	42.5	0.0	0.2	0.0	0.0
7/25	376	0.0	0.8	0.0	1.3	0.0	12.2	20.2	0.0	0.0	65.4	0.0	0.0	0.0	0.0
7/28	516	0.2	0.6	0.2	2.9	0.6	16.7	27.1	0.0	0.0	51.6	0.2	0.0	0.0	0.0
8/03	455	0.0	1.5	0.0	1.3	1.1	8.1	38.9	0.0	0.0	47.7	0.9	0.2	0.2	0.0
8/13	358	0.0	0.0	0.3	2.0	0.0	14.8	28.5	0.0	0.3	52.2	0.6	1.4	0.0	0.0
8/24	267	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	0.0	61.4	0.0	1.9	0.0	0.0
Total		0.0	0.6	0.1	5.2	0.2	48.5	13.4	0.0	0.2	30.6	0.6	0.2	0.3	0.0

Table 17. Harvest of Chignik origin sockeye salmon in the Chignik, Cape Igvak, and Southeast District Mainland Areas, 1964-1992[a].

	Harvest of Chignik Sockeye						
	Chignik		Cape Igvak		Mainland		
Year	Catch	Percent	Catch	Percent	Catch	Percent	Total
1964[b]	556,890	90.57	14,980	2.44	43,021	7.00	614,891
1965	599,553	89.94	11,021	1.65	56,020	8.40	666,594
1966	219,794	87.99	18,003	7.21	12,011	4.81	249,808
1967	462,000	91.48	23,014	4.56	20,021	3.96	505,035
1968	977,382	82.53	135,951	11.48	70,959	5.99	1,184,292
1969	394,135	78.96	97,982	19.63	7,013	1.41	499,130
1970[c]	1,325,734	72.51	434,394	23.76	68,181	3.73	1,828,309
1971	1,016,136	80.33	197,614	15.62	51,272	4.05	1,265,022
1972	378,218	87.99	33,865	7.88	17,752	4.13	429,815
1973[d]	769,258	89.01	57,348	6.64	37,613	4.35	864,219
1974	530,278	73.97	122,071	17.03	64,564	9.01	716,913
1975	115,984	81.78	23,635	16.67	2,205	1.55	141,824
1976	792,024	83.08	117,926	12.37	43,356	4.55	953,306
1977	1,547,285	90.61	128,852	7.55	31,498	1.84	1,707,635
1978[e]	1,454,389	85.38	227,014	13.33	21,952	1.29	1,703,355
1979[f]	794,504	80.30	13,950	1.61	55,352	6.41	863,806
1980	670,001	91.33	32	0.00	63,570	8.67	733,603
1981	1,606,300	79.88	282,727	14.06	121,870	6.06	2,010,897
1982	1,250,768	84.46	167,401	11.30	62,767	4.24	1,480,936
1983	1,450,832	72.68	318,048	15.93	227,392	11.39	1,996,272
1984	2,474,405	73.93	449,372	13.43	423,068	12.64	3,346,845
1985[g]	696,169	79.91	123,627	14.19	51,421	5.90	871,217
1986	1,456,729	82.64	188,017	10.67	118,006	6.69	1,762,752
1987	1,659,915	77.98	321,746	15.12	146,886	6.90	2,128,547
1988	678,912	95.70	11,218	1.58	19,320	2.72	709,450
1989	502,477	99.12	0	0.00	4,485	0.88	506,962
1990	1,211,097	83.67	107,706	7.44	128,599	8.88	1,447,402
1991[h]	1,966,986	80.48	324,329	13.27	152,714	6.25	2,444,029
1992[i]	1,066,732	81.25	152,358	11.60	93,845	7.15	1,312,935

a The Cape Igvak and Southeast District Mainland figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak Section and Southeast District Mainland Area (excluding sockeye caught in Northwest Stepovak Section from 1964-1991 and in Orzinski bay in 1992) are destined for Chignik (ADF&G 1992).

b The data from 1964-1972 are based on total yearly catches. Prior to 1973, Cape Igvak and Southeast District Mainland fisheries were by regulation, weekly fishing periods, usually 5 days per week. Fishing period adjustments were made when poor escapements occurred at Chignik.

c Catch figures (1970-1992) were edited using historical electronic fish ticket databases.

d During 1973 through 1977 all three fisheries were managed on a daily basis.

-Continued-

[e] From 1978-1991, the Cape Igvak Fishery Management Plan allocated 15 percent of the total sockeye catch destined for Chignik. During 1978, seining prior to July 11 was not allowed in the Southeast District Mainland. The set gillnet fishery was allowed to fish 3 days per week through July 10 after which the fishery was managed on the basis of local stocks.

[f] Prior to July 11, 1979-1984 fishing was allowed 5 days per week in the Southeast District Mainland Area with a catch ceiling of 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was negated.

[g] Beginning in 1985, Southeast District Mainland Area (excluding the Northwest Stepovak Section from 1964-1991 and Orzinski Bay statistical area) was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, the Southeast District Mainland is managed on a local stock basis. The allocation changed to 6.0 percent beginning in 1988. Seining is still not allowed prior to July 11.

[h] Includes overescapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' boycott (June 23-July 4).

[i] Review of Orzinski Lake historical and current escapement records led the Alaska Board of Fisheries to rewrite the Southeast District Mainland Management Plan. Beginning in 1992, the Southeast District Mainland fishery (excluding Orzinski Bay) was placed on an allocation of 7.0 percent of the total estimated Chignik sockeye catch through July 25.

Table 18. Sockeye harvests in the Chignik Management Area and apportional harvests from the Cape Igvak and Southeast District Mainland Areas, 1964-1992.[a]

	Area Harvest (Through July 25)				Area Harvest (Entire Season)			
Year	Chignik	Cape Igvak	Southeast Mainland	Total	Chignik	Cape Igvak	Southeast Mainland	Total
1964	-	-	-	-	556,890	14,980	43,021	614,891
1965	-	-	-	-	599,553	11,021	56,020	666,594
1966	-	-	-	-	219,794	18,003	12,011	249,808
1967	-	-	-	-	462,000	23,014	20,021	505,035
1968	-	-	-	-	977,382	135,951	70,959	1,184,292
1969	-	-	-	-	394,135	97,982	7,013	499,130
1970	-	-	-	-	1,325,734	434,394	68,181	1,828,309
1971	-	-	-	-	1,016,136	197,614	51,272	1,265,022
1972	-	-	-	-	378,218	33,865	17,752	429,835
1973	769,258	57,348	37,613	864,219	870,354	57,348	38,266	965,968
1974	530,278	122,071	64,564	716,913	662,905	122,071	65,514	850,490
1975	115,984	23,635	2,205	141,824	399,593	23,635	2,205	425,433
1976	792,024	117,926	43,356	953,306	1,163,728	117,978	44,781	1,326,487
1977	1,547,285	128,852	31,498	1,707,635	1,972,207	128,852	35,401	2,136,460
1978	1,454,389	227,014	21,952	1,703,355	1,576,283	227,052	23,990	1,825,325
1979	794,504	13,950	55,352	863,806	1,049,497	20,436	82,153	1,152,086
1980	670,001	32	63,570	733,603	859,966	631	88,046	948,643
1981	1,606,300	282,727	121,870	2,010,897	1,839,469	284,211	166,034	2,289,714
1982	1,250,768	167,401	62,767	1,480,936	1,521,686	168,295	86,849	1,776,830
1983	1,450,832	318,048	227,392	1,996,272	1,824,175	323,004	297,429	2,444,608
1984	2,474,405	449,372	423,068	3,346,845	2,660,619	450,066	487,938	3,598,623
1985	696,169	123,627	51,421	871,217	922,151	125,134	93,206	1,140,491
1986	1,456,729	188,017	118,006	1,762,752	1,645,834	188,129	147,056	1,981,019
1987	1,659,915	321,746	146,886	2,128,547	1,898,838	344,357	188,983	2,432,178
1988	678,912	11,218	19,320	709,450	795,841	28,783	79,101	903,725
1989	502,477	-	4,485	506,962	1,159,287	-	138,594	1,297,881
1990	1,211,097	107,706	128,599	1,447,402	2,093,650	133,821	216,944	2,444,415
1991[b]	1,966,986	324,329	152,714	2,444,029	2,173,970	341,869	228,934	2,744,773
1992	1,066,732	152,358	93,845	1,312,935	1,277,449	156,318	177,713	1,611,480

[a] Catches (1970-1992) were edited using historical electronic fish ticket databases.

[b] Includes overescapement of 278,305 sockeye counted past the weir during the Chignik Area Seiners' boycott (June 23 - July 4).

Table 19. Estimated stock composition of age-1.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1992.

Sample Date	Sample Size	Stock	Adjusted Estimate	Estimated Variance	Smoothed Estimate	Smoothed Estimated Variance
16-Jun	102	Black Lake	0.863	0.00684	0.789	0.00741
		Chignik Lake	0.137	0.00684	0.211	0.00741
27-Jun	100	Black Lake	0.640	0.00854	0.723	0.00790
		Chignik Lake	0.360	0.00854	0.277	0.00790
30-Jun	102	Black Lake	0.750	0.00766	0.672	0.00827
		Chignik Lake	0.250	0.00766	0.328	0.00827
02-Jul	101	Black Lake	0.548	0.00923	0.580	0.00899
		Chignik Lake	0.452	0.00923	0.420	0.00899
05-Jul	100	Black Lake	0.475	0.00982	0.489	0.00973
		Chignik Lake	0.525	0.00982	0.511	0.00973
07-Jul	98	Black Lake	0.458	0.01006	0.431	0.01022
		Chignik Lake	0.542	0.01006	0.569	0.01022
09-Jul	99	Black Lake	0.333	0.01093	0.355	0.01094
		Chignik Lake	0.667	0.01093	0.645	0.01094
16-Jul	92	Black Lake	0.296	0.01184	0.315	0.01136
		Chignik Lake	0.704	0.01184	0.685	0.01136
18-Jul	101	Black Lake	0.335	0.01081	0.322	0.01115
		Chignik Lake	0.665	0.01081	0.678	0.01115

Table 20. Estimated stock composition of age-2.3 Chignik sockeye salmon from commercial catch samples, based on scale pattern analysis, 1992.

Sample Date	Sample Size	Stock	Adjusted Estimate	Estimated Variance	Smoothed Estimate	Smoothed Estimated Variance
16-Jun	52	Black Lake	0.610	0.01538	0.650	0.01605
		Chignik Lake	0.390	0.01538	0.350	0.01605
27-Jun	47	Black Lake	0.730	0.01740	0.637	0.01677
		Chignik Lake	0.270	0.01740	0.363	0.01677
30-Jun	43	Black Lake	0.479	0.01692	0.565	0.01732
		Chignik Lake	0.521	0.01692	0.435	0.01732
02-Jul	42	Black Lake	0.572	0.01805	0.549	0.01649
		Chignik Lake	0.428	0.01805	0.451	0.01649
05-Jul	63	Black Lake	0.572	0.01292	0.552	0.01343
		Chignik Lake	0.428	0.01292	0.448	0.01343
07-Jul	82	Black Lake	0.492	0.00982	0.460	0.00993
		Chignik Lake	0.508	0.00982	0.540	0.00993
09-Jul	94	Black Lake	0.284	0.00716	0.278	0.00726
		Chignik Lake	0.716	0.00716	0.722	0.00726
16-Jul	97	Black Lake	0.052	0.00489	0.140	0.00568
		Chignik Lake	0.948	0.00489	0.860	0.00568
18-Jul	101	Black Lake	0.170	0.00577	0.131	0.00548
		Chignik Lake	0.830	0.00577	0.869	0.00548

Table 21. Daily sockeye salmon catch, escapement, and run adjusted to Chignik Lagoon date, 1992.

Date	Escapement	Chignik Lagoon	Hook Bay/ Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Stepovak	Total
5/31	42	0	0	0	0	0	0	0	0	42
6/01	89	0	0	0	0	0	0	0	0	89
6/02	32	0	0	0	0	0	0	0	0	32
6/03	157	0	0	0	0	0	0	0	0	157
6/04	254	0	0	0	0	0	0	0	0	254
6/05	209	0	0	0	0	0	0	0	0	209
6/06	553	0	0	0	0	0	0	0	0	553
6/07	740	0	0	0	0	0	0	0	0	740
6/08	2,486	0	0	0	0	0	0	0	0	2,486
6/09	3,247	0	0	0	0	0	0	0	0	3,247
6/10	7,236	3,200	0	0	0	0	0	0	0	10,436
6/11	13,876	0	0	0	0	0	0	0	0	13,876
6/12	9,469	868	0	0	0	0	0	0	0	10,337
6/13	5,812	0	0	0	0	0	0	0	0	5,812
6/14	35,839	3,599	0	0	0	0	0	0	0	39,438
6/15	29,160	0	0	0	0	0	0	0	0	29,160
6/16	4,956	2,834	0	0	0	0	0	0	0	7,790
6/17	3,972	102,074	0	0	0	0	0	0	0	106,046
6/18	1,103	44,661	11,384	0	0	0	0	0	0	57,148
6/19	6,566	4,245	9,146	0	0	0	0	0	0	19,957
6/20	38,261	0	312	1,103	0	0	0	0	0	39,676
6/21	54,252	0	0	0	0	0	0	0	0	54,252
6/22	55,492	0	0	0	0	0	0	0	0	55,492
6/23	77,674	0	0	0	0	0	0	0	0	77,674
6/24	22,257	33,888	0	0	0	18,170	0	0	18,046	92,361
6/25	988	73,893	3,883	0	0	15,472	0	0	7,634	101,870
6/26	786	47,374	14,570	0	0	542	0	0	0	63,272
6/27	1,299	32,303	23,373	0	0	0	0	0	0	56,975
6/28	3,414	40,724	27,884	0	0	0	0	0	0	72,022
6/29	3,914	25,970	10,644	300	0	0	0	0	0	40,828
6/30	1,980	31,192	17,242	213	0	562	0	0	0	51,189
7/01	2,355	30,543	10,627	694	0	18,386	0	0	8,860	71,465
7/02	4,725	26,920	8,789	82	0	20,118	0	0	30,524	91,158
7/03	2,829	24,151	13,980	0	0	9,958	0	0	0	50,918
7/04	4,005	18,041	11,571	0	0	8,301	0	0	22,699	64,617
7/05	2,690	23,643	18,485	0	0	2,794	0	0	0	47,612
7/06	1,522	18,842	16,850	0	0	0	0	0	0	37,214
7/07	4,474	28,899	19,218	0	0	0	0	0	0	52,591
7/08	2,253	18,217	18,890	0	0	0	0	0	0	39,360
7/09	1,910	14,985	17,813	211	0	0	0	0	0	34,919
7/10	2,685	12,400	20,135	192	0	0	0	0	0	35,412

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Date	Escapement	Chignik Lagoon	Hook Bay/ Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Stepovak	Total
7/11	11,149	0	14,524	0	0	0	0	0	0	25,673
7/12	13,810	0	5,874	3,208	0	1,924	1,532	0	0	26,348
7/13	13,055	0	8,557	1,012	0	0	2,641	5,911	0	31,176
7/14	16,969	0	1,818	115	0	0	2,299	42,755	0	63,956
7/15	16,556	0	0	0	0	4,558	2,224	13,567	0	36,905
7/16	23,355	738	0	0	0	2,842	0	7,236	0	34,171
7/17	18,335	0	0	0	0	7,661	0	0	0	25,996
7/18	23,553	584	0	0	0	6,136	0	0	259	30,532
7/19	13,118	0	0	0	0	9,122	0	0	0	22,240
7/20	19,983	0	0	0	0	4,749	0	0	0	24,732
7/21	16,389	0	0	0	0	7,729	0	0	0	24,118
7/22	16,642	0	0	0	0	8,238	0	0	0	24,880
7/23	16,306	0	0	0	0	490	0	0	354	17,150
7/24	20,210	600	0	0	0	0	0	0	1,423	22,233
7/25	13,447	0	0	0	0	0	0	0	0	13,447
7/26	13,295	0	3,888	0	0	0	0	0	0	17,183
7/27	16,550	0	2,031	1,549	0	155	27	0	0	20,312
7/28	9,662	14,598	987	1,546	487	4,450	0	4,529	434	36,693
7/29	3,747	13,310	1,472	705	18	0	0	6,515	1,378	27,145
7/30	1,299	11,477	1,768	0	163	0	1,073	3,218	2,234	21,232
7/31	2,050	5,543	1,640	87	0	0	2,682	2,050	0	14,052
8/01	4,012	0	1,113	0	0	1,389	1,924	1,985	13,638	24,061
8/02	6,285	0	0	0	0	1,133	1,718	2,541	13,297	24,974
8/03	5,181	10,313	0	0	0	212	0	724	7,466	23,896
8/04	1,288	5,505	1,899	0	0	130	0	0	7,218	16,040
8/05	1,229	5,252	729	0	0	0	1,302	0	6,099	14,611
8/06	804	3,451	609	0	7	0	1,743	1,497	7,505	15,616
8/07	1,389	0	114	0	12	0	1,223	1,517	6,430	10,685
8/08	1,974	0	0	276	26	330	1,174	443	0	4,223
8/09	2,560	0	0	0	0	0	0	260	0	2,820
8/10	3,145	5,278	0	0	0	0	0	0	798	9,221
8/11	762	3,259	1,469	0	0	0	0	0	823	6,313
8/12	760	3,250	1,657	0	0	0	894	0	1,402	7,963
8/13	450	1,924	695	48	16	0	1,246	1,351	2,985	8,715
8/14	25	106	996	0	1	441	1,343	996	0	3,908
8/15	546	0	137	0	0	290	550	260	0	1,783
8/16	1,068	0	0	0	0	35	0	344	3,243	4,690
8/17	1,590	2,668	0	0	0	0	0	0	1,809	6,067
8/18	352	1,503	1,037	0	0	0	0	0	3,927	6,819
8/19	283	1,208	563	0	0	0	1,123	0	0	3,177

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Date	Escapement	Chignik Lagoon	Hook Bay/ Kujulik	Aniakchak	Eastern District	Cape Igvak	Western District	Perryville District	Stepovak	Total
8/20	474	2,027	0	75	5	0	718	1,848	0	5,147
8/21	558	2,384	46	0	6	0	0	2,280	0	5,274
8/22	975	0	72	0	0	0	14	0	0	1,061
8/23	1,392	0	0	0	0	0	227	191	0	1,810
8/24	1,810	3,037	0	0	0	0	0	683	0	5,530
8/25	485	2,074	1,004	0	0	0	0	0	0	3,563
8/26	800	3,419	868	0	0	0	258	0	0	5,345
8/27	465	1,987	636	0	0	0	360	2,926	0	6,374
8/28	551	2,357	119	4	60	0	107	2,039	0	5,237
8/29	702	0	0	0	90	0	36	491	0	1,319
8/30	853	0	0	0	0	0	0	0	0	853
8/31	1,003	1,684	0	0	0	0	0	103	0	2,790
9/01	577	2,467	419	0	0	0	0	0	0	3,463
9/02	498	2,127	447	0	0	0	33	0	0	3,105
9/03	724	3,096	164	0	8	0	150	411	0	4,553
9/04	550	2,350	0	8	0	0	168	499	0	3,575
9/05	657	0	0	0	0	0	84	164	0	905
9/06	764	0	0	0	0	0	0	35	764	1,563
9/07	871	1,461	0	0	0	0	0	0	955	3,287
9/08	331	1,414	70	0	0	0	0	0	206	2,021
9/09	190	814	86	0	0	0	0	0	522	1,612
9/10	289	1,236	316	0	0	0	205	0	0	2,046
9/11	170	725	0	0	0	0	90	0	0	985
9/12	219	0	0	0	0	0	0	0	414	633
9/13	269	0	0	0	0	0	0	0	337	606
9/14	319	535	0	0	0	0	0	0	318	1,172
9/15	147	627	134	0	0	0	0	0	332	1,240
9/16	160	683	106	0	0	0	0	0	455	1,404
9/17	66	281	0	0	0	0	469	0	0	816
9/18	123	524	0	0	0	0	0	0	0	647
9/19	144	0	0	0	0	0	0	0	50	194
9/20	166	0	0	0	0	0	0	0	756	922
9/21	187	314	0	0	0	0	0	0	297	798
9/22	48	204	0	0	0	0	0	0	259	511
9/23	119	510	0	0	0	0	348	0	467	1,444
9/24	42	179	0	0	0	0	6	0	0	227
9/25	52	222	0	0	0	0	8	0	0	282
9/26	43	0	0	0	0	0	0	0	315	358
9/27	33	0	0	0	0	0	5	0	180	218
9/28	24	40	0	0	0	0	0	0	241	305
9/29	7	31	0	0	0	0	0	0	234	272
9/30-10/6	0	47	0	0	0	0	0	0	126	173
Total	766,603	792,889	332,860	11,428	899	156,317	30,004	109,369	177,713	2,378,082

Table 22. Estimated daily and cumulative Black Lake stock sockeye salmon catch and escapement, 1992.[a]

Date	Escapement	Catch	Run		
			Total	Cumulative	Percent
31-May	42	0	42	42	0.0
01-Jun	83	0	83	125	0.0
02-Jun	30	0	30	155	0.0
03-Jun	144	0	144	299	0.0
04-Jun	230	0	230	529	0.0
05-Jun	189	0	189	718	0.1
06-Jun	495	0	495	1,213	0.1
07-Jun	657	0	657	1,870	0.2
08-Jun	2,186	0	2,186	4,056	0.4
09-Jun	2,832	0	2,832	6,888	0.6
10-Jun	6,260	2,768	9,028	15,916	1.4
11-Jun	11,904	0	11,904	27,820	2.5
12-Jun	8,057	740	8,797	36,617	3.3
13-Jun	4,895	0	4,895	41,512	3.7
14-Jun	29,898	3,003	32,901	74,413	6.7
15-Jun	24,088	0	24,088	98,501	8.9
16-Jun	4,054	2,317	6,371	104,872	9.5
17-Jun	3,212	82,505	85,717	190,589	17.2
18-Jun	881	44,765	45,646	236,235	21.3
19-Jun	5,180	10,569	15,749	251,984	22.7
20-Jun	29,838	1,104	30,942	282,926	25.5
21-Jun	41,807	0	41,807	324,733	29.3
22-Jun	42,252	0	42,252	366,985	33.1
23-Jun	58,437	0	58,437	425,422	38.4
24-Jun	16,545	52,113	68,658	494,080	44.6
25-Jun	724	73,840	74,564	568,644	51.3
26-Jun	566	45,010	45,576	614,220	55.4
27-Jun	920	39,444	40,364	654,584	59.1
28-Jun	2,343	47,075	49,418	704,002	63.5
29-Jun	2,591	24,430	27,021	731,023	65.9
30-Jun	1,258	31,277	32,535	763,558	68.9
01-Jul	1,429	41,951	43,380	806,938	72.8
02-Jul	2,733	50,001	52,734	859,672	77.6
03-Jul	1,568	26,661	28,229	887,901	80.1
04-Jul	2,126	32,173	34,299	922,200	83.2
05-Jul	1,367	22,805	24,172	946,372	85.4
06-Jul	715	16,791	17,506	963,878	87.0
07-Jul	1,933	20,790	22,723	986,601	89.0
08-Jul	859	14,133	14,992	1,001,593	90.4
09-Jul	625	10,830	11,455	1,013,048	91.4
10-Jul	854	10,389	11,243	1,024,291	92.4
11-Jul	3,420	4,454	7,874	1,032,165	93.1
12-Jul	4,084	3,707	7,791	1,039,956	93.8
13-Jul	3,714	5,155	8,869	1,048,825	94.6
14-Jul	4,636	12,833	17,469	1,066,294	96.2
15-Jul	4,329	5,324	9,653	1,075,947	97.1
16-Jul	5,836	2,700	8,536	1,084,483	97.8
17-Jul	3,542	1,482	5,024	1,089,507	98.3
18-Jul	3,233	958	4,191	1,093,698	98.7
19-Jul	1,683	1,170	2,853	1,096,551	98.9

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Table 22. (page 2 of 2)

Date	Escapement	Catch	Run		
			Total	Cumulative	Percent
20-Jul	2,398	570	2,968	1,099,519	99.2
21-Jul	1,834	865	2,699	1,102,218	99.4
22-Jul	1,740	862	2,602	1,104,820	99.7
23-Jul	1,589	83	1,672	1,106,492	99.8
24-Jul	1,836	182	2,018	1,108,510	100.0
Totals	360,681	747,829	1,108,580		

[a] Catch and escapement is adjusted to Chignik Lagoon date.

Table 23. Estimated daily and cumulative Chignik Lake stock sockeye salmon catch and escapement, 1992.

Date	Escapement	Catch	Run		
			Total	Cumulative	Percent
31-May	0	0	0	0	0.0
01-Jun	6	0	6	6	0.0
02-Jun	2	0	2	8	0.0
03-Jun	13	0	13	21	0.0
04-Jun	24	0	24	45	0.0
05-Jun	20	0	20	65	0.0
06-Jun	58	0	58	123	0.0
07-Jun	83	0	83	206	0.0
08-Jun	300	0	300	506	0.0
09-Jun	415	0	415	921	0.1
10-Jun	976	432	1,408	2,329	0.2
11-Jun	1,972	0	1,972	4,301	0.3
12-Jun	1,412	128	1,540	5,841	0.5
13-Jun	917	0	917	6,758	0.5
14-Jun	5,941	596	6,537	13,295	1.0
15-Jun	5,072	0	5,072	18,367	1.4
16-Jun	902	517	1,419	19,786	1.6
17-Jun	760	19,569	20,329	40,115	3.2
18-Jun	222	11,280	11,502	51,617	4.1
19-Jun	1,386	2,822	4,208	55,825	4.4
20-Jun	8,423	311	8,734	64,559	5.1
21-Jun	12,445	0	12,445	77,004	6.1
22-Jun	13,240	0	13,240	90,244	7.1
23-Jun	19,237	0	19,237	109,481	8.6
24-Jun	5,712	17,991	23,703	133,184	10.5
25-Jun	264	27,042	27,306	160,490	12.6
26-Jun	220	17,476	17,696	178,186	14.0
27-Jun	379	16,232	16,611	194,797	15.3
28-Jun	1,071	21,533	22,604	217,401	17.1
29-Jun	1,323	12,484	13,807	231,208	18.2
30-Jun	722	17,932	18,654	249,862	19.7
01-Jul	926	27,159	28,085	277,947	21.9
02-Jul	1,992	36,432	38,424	316,371	24.9
03-Jul	1,261	21,428	22,689	339,060	26.7
04-Jul	1,879	28,439	30,318	369,378	29.1
05-Jul	1,323	22,117	23,440	392,818	30.9
06-Jul	807	18,901	19,708	412,526	32.5
07-Jul	2,541	27,327	29,868	442,394	34.8
08-Jul	1,394	22,974	24,368	466,762	36.8
09-Jul	1,285	22,179	23,464	490,226	38.6
10-Jul	1,831	22,338	24,169	514,395	40.5
11-Jul	7,729	10,070	17,799	532,194	41.9
12-Jul	9,726	8,831	18,557	550,751	43.4
13-Jul	9,341	12,966	22,307	573,058	45.1
14-Jul	12,333	34,154	46,487	619,545	48.8
15-Jul	12,227	15,025	27,252	646,797	50.9
16-Jul	17,519	8,116	25,635	672,432	53.0
17-Jul	14,793	6,179	20,972	693,404	54.6
18-Jul	20,320	6,021	26,341	719,745	56.7
19-Jul	11,435	7,952	19,387	739,132	58.2

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Date	Escapement	Catch	Run		
			Total	Cumulative	Percent
20-Jul	17,585	4,179	21,764	760,896	59.9
21-Jul	14,555	6,864	21,419	782,315	61.6
22-Jul	14,902	7,376	22,278	804,593	63.4
23-Jul	14,717	761	15,478	820,071	64.6
24-Jul	18,374	1,841	20,215	840,286	66.2
25-Jul	13,447	0	13,447	853,733	67.2
26-Jul	13,295	3,888	17,183	870,916	68.6
27-Jul	16,550	3,762	20,312	891,228	70.2
28-Jul	9,662	27,031	36,693	927,921	73.1
29-Jul	3,747	23,398	27,145	955,066	75.2
30-Jul	1,299	19,933	21,232	976,298	76.9
31-Jul	2,050	12,002	14,052	990,350	78.0
01-Aug	4,012	20,049	24,061	1,014,411	79.9
02-Aug	6,285	18,689	24,974	1,039,385	81.9
03-Aug	5,181	18,715	23,896	1,063,281	83.8
04-Aug	1,288	14,752	16,040	1,079,321	85.0
05-Aug	1,229	13,382	14,611	1,093,932	86.2
06-Aug	804	14,812	15,616	1,109,548	87.4
07-Aug	1,389	9,296	10,685	1,120,233	88.2
08-Aug	1,974	2,249	4,223	1,124,456	88.6
09-Aug	2,560	260	2,820	1,127,276	88.8
10-Aug	3,145	6,076	9,221	1,136,497	89.5
11-Aug	762	5,551	6,313	1,142,810	90.0
12-Aug	760	7,203	7,963	1,150,773	90.6
13-Aug	450	8,265	8,715	1,159,488	91.3
14-Aug	25	3,883	3,908	1,163,396	91.6
15-Aug	546	1,237	1,783	1,165,179	91.8
16-Aug	1,068	3,622	4,690	1,169,869	92.1
17-Aug	1,590	4,477	6,067	1,175,936	92.6
18-Aug	352	6,467	6,819	1,182,755	93.2
19-Aug	283	2,894	3,177	1,185,932	93.4
20-Aug	474	4,673	5,147	1,191,079	93.8
21-Aug	558	4,716	5,274	1,196,353	94.2
22-Aug	975	86	1,061	1,197,414	94.3
23-Aug	1,392	418	1,810	1,199,224	94.5
24-Aug	1,810	3,720	5,530	1,204,754	94.9
25-Aug	485	3,078	3,563	1,208,317	95.2
26-Aug	800	4,545	5,345	1,213,662	95.6
27-Aug	465	5,909	6,374	1,220,036	96.1
28-Aug	551	4,686	5,237	1,225,273	96.5
29-Aug	702	617	1,319	1,226,592	96.6
30-Aug	853	0	853	1,227,445	96.7
31-Aug	1,003	1,787	2,790	1,230,235	96.9
01-Sep	577	2,886	3,463	1,233,698	97.2
02-Sep	498	2,607	3,105	1,236,803	97.4
03-Sep	724	3,829	4,553	1,241,356	97.8
04-Sep	550	3,025	3,575	1,244,931	98.1
05-Sep	657	248	905	1,245,836	98.1
06-Sep	764	799	1,563	1,247,399	98.3
07-Sep	871	2,416	3,287	1,250,686	98.5
08-Sep	331	1,690	2,021	1,252,707	98.7
09-Sep	190	1,422	1,612	1,254,319	98.8

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Table 23. (page 3 of 3)

Date	Escapement	Catch	Run		
			Total	Cumulative	Percent
10-Sep	289	1,757	2,046	1,256,365	99.0
11-Sep	170	815	985	1,257,350	99.0
12-Sep	219	414	633	1,257,983	99.1
13-Sep	269	337	606	1,258,589	99.1
14-Sep	319	853	1,172	1,259,761	99.2
15-Sep	147	1,093	1,240	1,261,001	99.3
16-Sep	160	1,244	1,404	1,262,405	99.4
17-Sep	66	750	816	1,263,221	99.5
18-Sep	123	524	647	1,263,868	99.6
19-Sep	144	50	194	1,264,062	99.6
20-Sep	166	756	922	1,264,984	99.6
21-Sep	187	611	798	1,265,782	99.7
22-Sep	48	463	511	1,266,293	99.7
23-Sep	119	1,325	1,444	1,267,737	99.9
24-Sep	42	185	227	1,267,964	99.9
25-Sep	52	230	282	1,268,246	99.9
26-Sep	43	315	358	1,268,604	99.9
27-Sep	33	185	218	1,268,822	99.9
28-Sep	24	281	305	1,269,127	100.0
29-Sep	7	265	272	1,269,399	100.0
30-Sep	0	173	173	1,269,572	100.0
Totals	405,922	863,650	1,269,572		

[a] The catch and escapement is adjusted to Chignik Lagoon Date.

Table 24. Estimated weekly sockeye salmon escapement by age class for Black Lake, 1992.

Statistical Week		Age Class													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
05/31-06/06	Number	0	0	0	100	0	872	68	2	164	5	0	2	0	1,213
	Percent	0.0	0.0	0.0	8.2	0.0	71.9	5.6	0.2	13.5	0.4	0.0	0.2	0.0	
06/07-06/13	Number	0	0	0	2,990	5	26,308	2,039	74	5,126	156	2	91	0	36,791
	Percent	0.0	0.0	0.0	8.1	0.0	71.5	5.5	0.2	13.9	0.4	0.0	0.2	0.0	
06/14-06/20	Number	0	0	0	5,810	264	64,995	4,783	358	18,614	893	117	1,317	0	97,151
	Percent	0.0	0.0	0.0	6.0	0.3	66.9	4.9	0.4	19.2	0.9	0.1	1.4	0.0	
06/21-06/27	Number	0	12	0	9,129	375	111,173	8,440	740	27,724	1,286	66	2,301	5	161,251
	Percent	0.0	0.0	0.0	5.7	0.2	68.9	5.2	0.5	17.2	0.8	0.0	1.4	0.0	
06/28-07/04	Number	0	144	23	1,147	15	9,514	927	19	2,021	155	23	47	13	14,048
	Percent	0.0	1.0	0.2	8.2	0.1	67.7	6.6	0.1	14.4	1.1	0.2	0.3	0.1	
07/05-07/11	Number	0	22	16	499	8	5,518	1,063	18	2,532	64	18	9	6	9,773
	Percent	0.0	0.2	0.2	5.1	0.1	56.5	10.9	0.2	25.9	0.7	0.2	0.1	0.1	
07/12-07/18	Number	10	269	12	1,478	46	16,041	4,068	22	7,278	45	58	12	35	29,374
	Percent	0.0	0.9	0.0	5.0	0.2	54.6	13.8	0.1	24.8	0.2	0.2	0.0	0.1	
07/19-07/25	Number	13	115	0	454	13	4,399	2,234	13	3,826	0	13	0	0	11,080
	Percent	0.1	1.0	0.0	4.1	0.1	39.7	20.2	0.1	34.5	0.0	0.1	0.0	0.0	
Total	Number	23	564	51	21,653	727	239,278	23,675	1,248	67,414	2,608	298	3,783	59	360,681
	Percent	0.0	0.2	0.0	6.0	0.2	66.3	6.6	0.3	18.7	0.7	0.1	1.0	0.0	

Table 25. Black Lake weekly sockeye catch, by age class, estimated by scale pattern analysis, 1992.

Statistical Week		Age Class 0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
06/07-06/13	Number	0	0	0	289	0	2,517	195	7	479	14	0	7	0	3,508
	Percent	0.0	0.0	0.0	8.2	0.0	71.8	5.6	0.2	13.7	0.4	0.0	0.2	0.0	
06/14-06/20	Number	0	0	0	7,739	511	94,267	6,793	591	30,143	1,562	230	2,427	0	144,263
	Percent	0.0	0.0	0.0	5.4	0.4	65.3	4.7	0.4	20.9	1.1	0.2	1.7	0.0	
06/21-06/27	Number	0	721	0	12,377	224	142,554	13,554	559	34,468	3,486	0	2,103	361	210,407
	Percent	0.0	0.3	0.0	5.9	0.1	67.8	6.4	0.3	16.4	1.7	0.0	1.0	0.2	
06/28-07/04	Number	0	2,655	416	20,941	295	172,178	16,643	354	35,925	2,683	416	849	213	253,568
	Percent	0.0	1.0	0.2	8.3	0.1	67.9	6.6	0.1	14.2	1.1	0.2	0.3	0.1	
07/05-07/11	Number	0	169	186	5,464	78	57,593	9,779	195	25,678	731	192	58	69	100,192
	Percent	0.0	0.2	0.2	5.5	0.1	57.5	9.8	0.2	25.6	0.7	0.2	0.1	0.1	
07/12-07/18	Number	4	270	17	1,565	46	17,614	4,372	21	8,061	67	62	17	43	32,159
	Percent	0.0	0.8	0.1	4.9	0.1	54.8	13.6	0.1	25.1	0.2	0.2	0.1	0.1	
07/19-07/25	Number	5	39	0	171	5	1,615	708	5	1,179	0	5	0	0	3,732
	Percent	0.1	1.0	0.0	4.6	0.1	43.3	19.0	0.1	31.6	0.0	0.1	0.0	0.0	
Total	Number	9	3,854	619	48,546	1,159	488,338	52,044	1,732	135,933	8,543	905	5,461	686	747,829
	Percent	0.0	0.5	0.1	6.5	0.2	65.3	7.0	0.2	18.2	1.1	0.1	0.7	0.1	

Table 26. Estimated weekly sockeye salmon escapement by age class for Chignik Lake, 1992.

Statistical Week		Age Class													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
05/31-06/06	Number	0	0	0	12	0	73	8	0	30	0	0	0	0	123
	Percent	0.0	0.0	0.0	9.8	0.0	59.3	6.5	0.0	24.4	0.0	0.0	0.0	0.0	
06/07-06/13	Number	0	0	0	566	1	3,845	388	14	1,215	28	1	17	0	6,075
	Percent	0.0	0.0	0.0	9.3	0.0	63.3	6.4	0.2	20.0	0.5	0.0	0.3	0.0	
06/14-06/20	Number	0	0	0	1,480	70	13,364	1,232	94	5,860	231	28	347	0	22,706
	Percent	0.0	0.0	0.0	6.5	0.3	58.9	5.4	0.4	25.8	1.0	0.1	1.5	0.0	
06/21-06-27	Number	0	5	0	3,334	135	30,272	3,089	269	13,060	472	22	836	3	51,497
	Percent	0.0	0.0	0.0	6.5	0.3	58.8	6.0	0.5	25.4	0.9	0.0	1.6	0.0	
06/28-07/04	Number	0	84	19	781	13	5,907	642	16	1,554	102	19	29	8	9,174
	Percent	0.0	0.9	0.2	8.5	0.1	64.4	7.0	0.2	16.9	1.1	0.2	0.3	0.1	
07/05-07/11	Number	0	40	25	847	12	8,528	2,003	29	5,265	106	29	18	8	16,910
	Percent	0.0	0.2	0.1	5.0	0.1	50.4	11.8	0.2	31.1	0.6	0.2	0.1	0.0	
07/12-07/18	Number	55	925	30	5,033	164	36,763	13,686	85	39,064	121	194	30	109	96,259
	Percent	0.1	1.0	0.0	5.2	0.2	38.2	14.2	0.1	40.6	0.1	0.2	0.0	0.1	
07/19-07/25	Number	86	912	0	3,286	86	21,165	18,491	86	60,817	0	86	0	0	105,015
	Percent	0.1	0.9	0.0	3.1	0.1	20.2	17.6	0.1	57.9	0.0	0.1	0.0	0.0	
07/26-08/01	Number	63	375	63	1,163	241	7,397	13,284	0	27,905	106	9	9	0	50,615
	Percent	0.1	0.7	0.1	2.3	0.5	14.6	26.2	0.0	55.1	0.2	0.0	0.0	0.0	
08/02-08/08	Number	2	231	9	268	171	1,705	6,713	7	8,806	150	59	29	0	18,150
	Percent	0.0	1.3	0.0	1.5	0.9	9.4	37.0	0.0	48.5	0.8	0.3	0.2	0.0	
08/09-08/15	Number	0	32	18	148	24	1,060	2,584	18	4,214	56	90	4	0	8,248
	Percent	0.0	0.4	0.2	1.8	0.3	12.9	31.3	0.2	51.1	0.7	1.1	0.0	0.0	
08/16-08/22	Number	0	0	8	72	0	444	1,651	8	3,013	16	88	0	0	5,300
	Percent	0.0	0.0	0.2	1.4	0.0	8.4	31.2	0.2	56.8	0.3	1.7	0.0	0.0	
08/23-08/29	Number	0	0	0	45	0	153	2,086	0	3,804	1	116	0	0	6,205
	Percent	0.0	0.0	0.0	0.7	0.0	2.5	33.6	0.0	61.3	0.0	1.9	0.0	0.0	
08/30-09/05	Number	0	0	0	34	0	107	1,637	0	2,993	0	91	0	0	4,862
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.6	0.0	1.9	0.0	0.0	

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Table 26. (page 2 of 2)

Statistical Week		Age Class													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
09/06-09/12	Number	0	0	0	19	0	62	955	0	1,744	0	54	0	0	2,834
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	
09/13-09/19	Number	0	0	0	8	0	27	415	0	755	0	23	0	0	1,228
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.8	0.0	61.5	0.0	1.9	0.0	0.0	
09/20-09/26	Number	0	0	0	3	0	15	221	0	405	0	13	0	0	657
	Percent	0.0	0.0	0.0	0.5	0.0	2.3	33.6	0.0	61.6	0.0	2.0	0.0	0.0	
09/27-10/03	Number	0	0	0	0	0	2	21	0	40	0	1	0	0	64
	Percent	0.0	0.0	0.0	0.0	0.0	3.1	32.8	0.0	62.5	0.0	1.6	0.0	0.0	
Total	Number	206	2,604	172	17,099	917	130,889	69,106	626	180,544	1,389	923	1,319	128	405,922
	Percent	0.1	0.6	0.0	4.2	0.2	32.2	17.0	0.2	44.5	0.3	0.2	0.3	0.0	

Table 27. Estimated weekly sockeye salmon catch by age class for Chignik Lake, 1992.

Statistical Week		Age Class													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
06/07-06/13	Number	0	0	0	53	0	356	36	1	111	2	0	1	0	560
	Percent	0.0	0.0	0.0	9.5	0.0	63.6	6.4	0.2	19.8	0.4	0.0	0.2	0.0	
06/14-06/20	Number	0	0	0	2,050	134	20,185	1,801	155	9,653	413	61	643	0	35,095
	Percent	0.0	0.0	0.0	5.8	0.4	57.5	5.1	0.4	27.5	1.2	0.2	1.8	0.0	
06/21-06/27	Number	0	326	0	5,365	93	44,106	5,913	232	20,094	1,551	0	897	164	78,741
	Percent	0.0	0.4	0.0	6.8	0.1	56.0	7.5	0.3	25.5	2.0	0.0	1.1	0.2	
06/28-07/04	Number	0	1,597	329	14,274	225	106,752	11,514	278	27,669	1,764	329	544	132	165,407
	Percent	0.0	1.0	0.2	8.6	0.1	64.5	7.0	0.2	16.7	1.1	0.2	0.3	0.1	
07/05-07/11	Number	0	231	245	7,616	108	79,567	15,364	279	41,027	1,017	256	122	74	145,906
	Percent	0.0	0.2	0.2	5.2	0.1	54.5	10.5	0.2	28.1	0.7	0.2	0.1	0.1	
07/12-07/18	Number	18	814	46	4,620	139	36,743	12,837	64	35,477	182	185	46	121	91,292
	Percent	0.0	0.9	0.1	5.1	0.2	40.2	14.1	0.1	38.9	0.2	0.2	0.1	0.1	
07/19-07/25	Number	35	263	0	1,139	35	6,903	4,816	35	15,712	0	35	0	0	28,973
	Percent	0.1	0.9	0.0	3.9	0.1	23.8	16.6	0.1	54.2	0.0	0.1	0.0	0.0	
07/26-08/01	Number	153	937	153	2,652	787	15,635	33,091	0	56,113	422	60	60	0	110,063
	Percent	0.1	0.9	0.1	2.4	0.7	14.2	30.1	0.0	51.0	0.4	0.1	0.1	0.0	
08/02-08/08	Number	6	1,150	45	1,339	847	8,612	33,981	39	44,624	764	338	150	0	91,895
	Percent	0.0	1.3	0.0	1.5	0.9	9.4	37.0	0.0	48.6	0.8	0.4	0.2	0.0	
08/09-08/15	Number	0	57	84	615	41	4,482	9,676	84	16,815	203	411	7	0	32,475
	Percent	0.0	0.2	0.3	1.9	0.1	13.8	29.8	0.3	51.8	0.6	1.3	0.0	0.0	
08/16-08/22	Number	0	0	41	362	0	2,272	8,384	41	15,310	80	445	0	0	26,935
	Percent	0.0	0.0	0.2	1.3	0.0	8.4	31.1	0.2	56.8	0.3	1.7	0.0	0.0	
08/23-08/29	Number	0	0	0	161	0	511	7,740	0	14,125	0	436	0	0	22,973
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	
08/30-09/05	Number	0	0	0	101	0	315	4,847	0	8,845	0	274	0	0	14,382
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	
09/06-09/12	Number	0	0	0	66	0	205	3,139	0	5,727	0	176	0	0	9,313
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	

-Continued-

Table 27. (page 2 of 2)

Statistical Week		Age Class													
		0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total
09/13-09/19	Number	0	0	0	34	0	106	1,635	0	2,984	0	92	0	0	4,851
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	
09/20-09/26	Number	0	0	0	26	0	85	1,310	0	2,390	0	74	0	0	3,885
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.7	0.0	61.5	0.0	1.9	0.0	0.0	
09/27-10/03	Number	0	0	0	6	0	20	304	0	557	0	17	0	0	904
	Percent	0.0	0.0	0.0	0.7	0.0	2.2	33.6	0.0	61.6	0.0	1.9	0.0	0.0	
Total	Number	212	5,381	944	40,535	2,412	327,272	156,752	1,210	317,959	6,406	3,203	2,474	491	863,650
	Percent	0.0	0.6	0.1	4.7	0.3	37.9	18.1	0.1	36.8	0.7	0.4	0.3	0.1	

Table 28. Estimated total catch, escapement, and run by stock and age class for the Chignik sockeye salmon stock, 1992.

	Age Class													
	0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other[a]	Total
Black Lake														
Escapement	23	562	51	21,607	726	238,820	23,622	1,246	67,285	2,604	297	3,779	59	360,681
Catch	9	3,854	619	48,546	1,159	488,338	52,044	1,732	135,933	8,543	905	5,461	686	747,829
Run	32	4,416	670	70,153	1,885	727,158	75,666	2,978	203,218	11,147	1,202	9,240	745	1,108,510
Percent	0.0	0.4	0.1	6.3	0.2	65.6	6.8	0.3	18.3	1.0	0.1	0.8	0.1	100.0
Chignik Lake														
Escapememt	206	2,604	172	17,099	917	130,889	69,106	626	180,544	1,389	923	1,319	128	405,922
Catch	212	5,375	943	40,479	2,409	326,855	156,388	1,208	317,233	6,398	3,189	2,470	491	863,650
Run	418	7,979	1,115	57,578	3,326	457,744	225,494	1,834	497,777	7,787	4,112	3,789	619	1,269,572
Percent	0.0	0.6	0.1	4.5	0.3	36.1	17.8	0.1	39.2	0.6	0.3	0.3	0.0	100.0
Total Run														
Escapement	229	3,166	223	38,706	1,643	369,709	92,728	1,872	247,829	3,993	1,220	5,098	187	766,603
Catch	221	9,229	1,562	89,025	3,568	815,193	208,432	2,940	453,166	14,941	4,094	7,931	1,177	1,611,479
Run	450	12,395	1,785	127,731	5,211	1,184,902	301,160	4,812	700,995	18,934	5,314	13,029	1,364	2,378,082
Percent	0.0	0.5	0.1	5.4	0.2	49.8	12.7	0.2	29.5	0.8	0.2	0.5	0.1	100.0

[a]Other age classes were 3.4 and 2.4.

Table 29. Estimated total catch and escapement of sockeye salmon from Black and Chignik Lake stocks, and combined total run, 1954-1992.[a]

	Black Lake			Chignik Lake			Combined		
Year	Catch	Escapement	Run	Catch	Escapement	Run	Catch	Escapement	Run
1954	72,334	184,953	257,287	19,232	277,912	297,144	91,566	462,865	554,431
1955	179,539	256,757	436,296	168,987	201,409	370,396	348,526	458,166	806,692
1956	246,442	289,096	535,538	421,251	483,024	904,275	667,693	772,120	1,439,813
1957	77,423	192,479	269,902	224,757	328,779	553,536	302,180	521,258	823,438
1958	141,180	120,862	262,042	179,949	212,594	392,543	321,129	333,456	654,585
1959	165,000	112,226	277,226	251,547	308,645	560,192	416,547	420,871	837,418
1960	274,048	251,567	525,615	418,356	357,230	775,586	692,404	608,797	1,301,201
1961	53,852	140,714	194,566	278,609	254,970	533,579	332,461	395,684	728,145
1962	71,562	167,602	239,164	292,528	324,860	617,388	364,090	492,462	856,552
1963	80,258	332,536	412,794	323,080	200,314	523,394	403,338	532,850	936,188
1964	142,380	137,073	279,453	472,510	166,625	639,135	614,890	303,698	918,588
1965	497,018	307,192	804,210	169,576	163,151	332,727	666,594	470,343	1,136,937
1966	87,169	383,545	470,714	162,638	183,525	346,163	249,807	567,070	816,877
1967	154,134	328,000	482,134	350,901	189,000	539,901	505,035	517,000	1,022,035
1968	542,598	342,343	884,941	641,693	244,836	886,529	1,184,291	587,179	1,771,470
1969	263,170	366,589	629,759	235,960	132,055	368,015	499,130	498,644	997,774
1970	1,566,065	536,257	2,102,322	262,244	119,952	375,290	1,828,309	656,209	2,484,518
1971	555,832	671,668	1,227,500	709,190	232,501	996,801	1,265,022	904,169	2,169,191
1972	43,220	326,320	369,540	386,615	231,270	626,731	429,835	557,590	987,425
1973	569,854	533,047	1,102,901	396,114	247,144	643,006	965,968	780,191	1,746,159
1974	174,883	351,701	526,584	675,607	364,612	989,180	850,490	716,313	1,566,803
1975	4,019	308,914	312,933	421,414	314,084	735,498	425,433	622,998	1,048,431
1976	548,107	551,254	1,099,361	778,380	341,828	1,120,208	1,326,487	893,082	2,219,569
1977	439,693	482,247	921,940	1,696,767	463,561	2,160,328	2,136,460	945,808	3,082,268
1978	1,070,487	458,660	1,529,147	754,838	263,009	1,017,912	1,825,325	721,669	2,546,994
1979	207,122	385,694	592,816	944,964	317,889	1,262,853	1,152,086	703,583	1,855,669
1980	170,629	311,332	481,961	778,014	279,729	1,057,743	948,643	591,061	1,539,704
1981	779,755	438,540	1,218,295	1,509,959	301,092	1,810,666	2,289,714	739,632	3,029,346
1982	1,325,041	616,117	1,941,158	451,789	305,193	755,971	1,776,830	921,310	2,698,140
1983	977,548	426,177	1,403,725	1,467,060	441,561	1,908,621	2,444,608	867,738	3,312,346
1984	3,245,482	597,712	3,843,194	353,141	268,496	621,484	3,598,623	866,208	4,464,831
1985	650,340	377,516	1,027,856	490,151	369,262	859,413	1,140,491	746,778	1,887,269
1986	1,371,935	566,088	1,938,023	609,084	207,231	816,312	1,981,019	773,319	2,754,338
1987	1,949,867	589,291	2,539,158	482,311	214,452	695,828	2,432,178	803,743	3,235,921
1988	272,553	420,577	693,131	631,172	255,180	885,250	903,725	675,757	1,579,482
1989	234,839	384,004	618,843	1,063,042	557,171	1,620,186	1,297,881	941,175	2,239,056
1990	587,818	434,543	1,022,361	1,856,597	335,867	2,191,049	2,444,415	770,410	3,214,825
1991	1,714,835	657,511	2,372,346	751,291	382,587	1,133,878	2,466,126	1,040,098	3,506,224
1992	747,829	360,681	1,108,510	863,651	405,922	1,269,572	1,611,480	766,603	2,378,083
Averages									
84-92	1,197,278	487,547	1,684,825	788,938	332,908	1,121,441	1,986,215	820,455	2,806,670
74-92	852,132	462,580	1,314,712	848,767	331,794	1,177,748	1,700,899	794,374	2,495,273
64-92	699,149	432,771	1,131,920	689,658	283,303	972,988	1,388,808	716,074	2,104,882

[a] Catch figures do not include subsistence harvests.

Table 29. Estimated total catch and escapement of sockeye salmon from Black and Chignik Lake stocks, and combined total run, 1954-1992.[a]

	Black Lake			Chignik Lake			Combined		
Year	Catch	Escapement	Run	Catch	Escapement	Run	Catch	Escapement	Run
1954	72,334	184,953	257,287	19,232	277,912	297,144	91,566	462,865	554,431
1955	179,539	256,757	436,296	168,987	201,409	370,396	348,526	458,166	806,692
1956	246,442	289,096	535,538	421,251	483,024	904,275	667,693	772,120	1,439,813
1957	77,423	192,479	269,902	224,757	328,779	553,536	302,180	521,258	823,438
1958	141,180	120,862	262,042	179,949	212,594	392,543	321,129	333,456	654,585
1959	165,000	112,226	277,226	251,547	308,645	560,192	416,547	420,871	837,418
1960	274,048	251,567	525,615	418,356	357,230	775,586	692,404	608,797	1,301,201
1961	53,852	140,714	194,566	278,609	254,970	533,579	332,461	395,684	728,145
1962	71,562	167,602	239,164	292,528	324,860	617,388	364,090	492,462	856,552
1963	80,258	332,536	412,794	323,080	200,314	523,394	403,338	532,850	936,188
1964	142,380	137,073	279,453	472,510	166,625	639,135	614,890	303,698	918,588
1965	497,018	307,192	804,210	169,576	163,151	332,727	666,594	470,343	1,136,937
1966	87,169	383,545	470,714	162,638	183,525	346,163	249,807	567,070	816,877
1967	154,134	328,000	482,134	350,901	189,000	539,901	505,035	517,000	1,022,035
1968	542,598	342,343	884,941	641,693	244,836	886,529	1,184,291	587,179	1,771,470
1969	263,170	366,589	629,759	235,960	132,055	368,015	499,130	498,644	997,774
1970	1,566,065	536,257	2,102,322	262,244	119,952	375,290	1,828,309	656,209	2,484,518
1971	555,832	671,668	1,227,500	709,190	232,501	996,801	1,265,022	904,169	2,169,191
1972	43,220	326,320	369,540	386,615	231,270	626,731	429,835	557,590	987,425
1973	569,854	533,047	1,102,901	396,114	247,144	643,006	965,968	780,191	1,746,159
1974	174,883	351,701	526,584	675,607	364,612	989,180	850,490	716,313	1,566,803
1975	4,019	308,914	312,933	421,414	314,084	735,498	425,433	622,998	1,048,431
1976	548,107	551,254	1,099,361	778,380	341,828	1,120,208	1,326,487	893,082	2,219,569
1977	439,693	482,247	921,940	1,696,767	463,561	2,160,328	2,136,460	945,808	3,082,268
1978	1,070,487	458,660	1,529,147	754,838	263,009	1,017,912	1,825,325	721,669	2,546,994
1979	207,122	385,694	592,816	944,964	317,889	1,262,853	1,152,086	703,583	1,855,669
1980	170,629	311,332	481,961	778,014	279,729	1,057,743	948,643	591,061	1,539,704
1981	779,755	438,540	1,218,295	1,509,959	301,092	1,810,666	2,289,714	739,632	3,029,346
1982	1,325,041	616,117	1,941,158	451,789	305,193	755,971	1,776,830	921,310	2,698,140
1983	977,548	426,177	1,403,725	1,467,060	441,561	1,908,621	2,444,608	867,738	3,312,346
1984	3,245,482	597,712	3,843,194	353,141	268,496	621,484	3,598,623	866,208	4,464,831
1985	650,340	377,516	1,027,856	490,151	369,262	859,413	1,140,491	746,778	1,887,269
1986	1,371,935	566,088	1,938,023	609,084	207,231	816,312	1,981,019	773,319	2,754,338
1987	1,949,867	589,291	2,539,158	482,311	214,452	695,828	2,432,178	803,743	3,235,921
1988	272,553	420,577	693,131	631,172	255,180	885,250	903,725	675,757	1,579,482
1989	234,839	384,004	618,843	1,063,042	557,171	1,620,186	1,297,881	941,175	2,239,056
1990	587,818	434,543	1,022,361	1,856,597	335,867	2,191,049	2,444,415	770,410	3,214,825
1991	1,714,835	657,511	2,372,346	751,291	382,587	1,133,878	2,466,126	1,040,098	3,506,224
1992	747,829	360,681	1,108,510	863,651	405,922	1,269,572	1,611,480	766,603	2,378,083
Averages									
84-92	1,197,278	487,547	1,684,825	788,938	332,908	1,121,441	1,986,215	820,455	2,806,670
74-92	852,132	462,580	1,314,712	848,767	331,794	1,177,748	1,700,899	794,374	2,495,273
64-92	699,149	432,771	1,131,920	689,658	283,303	972,988	1,388,808	716,074	2,104,882

[a] Catch figures do not include subsistence harvests.

Table 30. Peak aerial survey escapement estimates of sockeye salmon in Black Lake and Black River tributaries, 1960-1992.[a]

	Black Lake							Black River			
Year	Fan	Milk	Boulevard	Alec River	Conglomerate	Broad	Total	Bearskin	West Fork	Chiaktuak	Total
1960	38,500	8,000	40,000	30,000	3,000	30,000	149,500	11,600	23,000	19,000	53,600
1961	27,000	5,000	28,700	25,000	800	17,000	103,500	2,500	17,100	20,700	40,300
1962	18,000	7,000	13,000	60,000	200	15,000	113,200	3,000	13,000	24,000	40,000
1963	39,000	-	36,000	85,000	1,000	61,000	222,000	900	5,000	9,000	14,900
1964	19,500	3,050	23,850	17,900	9,300	9,500	83,100	500	4,500	7,000	12,000
1967	20,000	1,000	9,000	156,000	10,000	10,000	206,000	10,000	25,000	31,000	66,000
1968	32,000	2,400	20,000	60,000	2,000	4,100	120,500	1,200	10,500	10,000	21,700
1969	103,000	2,100	33,000	50,000	4,000	5,000	197,100	50	800	1,500	2,350
1970	146,000	9,000	55,500	198,000	5,000	-	413,500	450	4,000	4,000	8,450
1971	105,000	14,000	85,000	158,000	0	-	362,000	3,500	5,500	47,000	56,000
1972	18,000	3,500	19,000	74,000	400	-	114,900	1,400	4,300	23,000	28,700
1973	115,000	4,000	76,000	74,000	5,000	-	274,000	13	4,100	1,500	5,613
1974	90,000	5,000	50,000	93,000	5,000	-	243,000	450	8,000	7,000	15,450
1975	40,000	4,500	25,000	87,000	0	-	156,500	65	2,500	2,500	5,065
1976	78,000	8,900	100,000	119,000	2,000	-	307,900	2,650	23,700	7,700	34,050
1977	88,000	20,000	127,000	133,000	1,000	-	369,000	200	13,600	6,900	20,700
1978	114,000	3,300	74,000	83,300	500	-	275,100	410	9,600	8,500	18,510
1979	37,000	11,800	32,000	105,100	400	26,100	212,400	918	7,610	29,000	37,528
1980	127,000	16,000	75,000	70,500	1,500	68,000	358,000	3,600	33,000	40,400	77,000
1981	93,000	4,700	59,000	76,500	20,000	27,000	280,200	950	1,500	18,700	21,150
1982	50,000	5,500	60,000	43,000	20,000	32,000	210,500	1,066	10,791	5,000	16,857
1983	-	-	-	-	-	-	-	-	-	6,000	6,000
1984	50,000	22,200	70,000	30,500	31,000	36,000	239,700	-	-	8,200	8,200
1985	28,000	5,500	36,000	65,000	5,500	17,000	157,000	350	450	1,200	2,000
1986	60,000	15,300	47,000	76,000	39,000	27,000	264,300	-	-	8,300	8,300
1987	52,000	12,200	133,000	88,400	45,900	32,500	364,000	-	-	1,000	1,000
1988	54,000	71,000	83,700	106,500	2,300	26,500	344,000	-	-	4,600	4,600
1989	19,300	21,000	64,000	133,000	1,000	7,500	245,800	-	-	2,100	2,100
1990	32,600	7,400	35,900	49,800	2,200	18,000	145,900	300	0	50	350
1991	14,600	19,500	48,000	-	2,000	13,000	97,100	-	-	-	-
1992[b]	600	-	-	392,000	-	-	-	-	-	-	-

[a] Dashes represent no surveys taken or survey results not adequate to make stream estimate.
[b] Survey considered incomplete for all streams except the Alec River.

Table 31. Pink salmon catch, escapement, and run numbers in the Chignik Bay District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement[c]	Run	Year	Catch	Escapement	Run
1962	36.7	30.0	66.7	1978	137.1	10.7	147.8
1963	63.7	20.7	84.4	1979	312.4	1.2	313.6
1964	123.6	20.0	143.6	1980	180.9	3.0	183.9
1965	31.5	11.0	42.5	1981	121.4	1.4	122.8
1966	18.3	71.3	89.6	1982	83.0	2.4	85.4
1967	27.4	5.7	33.1	1983	27.3	1.0	28.3
1968	230.2	81.4	311.6	1984	165.2	123.2	288.4
1969	29.5	11.7	41.2	1985	14.4	0.0	14.4
1970	46.3	43.6	89.9	1986	191.3	0.0	191.3
1971	65.3	5.5	70.8	1987	13.9	0.0	13.9
1972	31.6	5.8	37.4	1988	119.8	22.4	142.2
1973	22.7	2.2	24.9	1989	27.7	13.5	41.2
1974	33.5	4.0	37.5	1990	94.5	6.0	100.5
1975	27.4	1.2	28.6	1991	76.2	12.2	88.4
1976	108.8	12.3	121.1	1992	178.2	55.8	234.0
1977	60.9	3.0	63.9				

Table 32. Pink salmon catch, escapement, and run numbers in the Central District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	84.3	83.9	168.2	1978	61.2	101.2	162.4
1963	121.3	92.6	213.9	1979	284.4	297.0	581.4
1964	71.9	131.1	203.0	1980	108.7	99.4	208.1
1965	69.5	65.8	135.3	1981	210.0	76.5	286.5
1966	17.4	62.6	80.0	1982	80.6	26.1	106.7
1967	26.0	18.5	44.5	1983	7.9	11.0	18.9
1968	45.4	66.1	111.5	1984	47.3	94.0	141.3
1969	1.4	69.6	71.0	1985	16.1	7.4	23.5
1970	27.9	60.7	88.6	1986	44.1	121.9	166.0
1971	20.5	74.8	95.3	1987	7.8	65.7	73.5
1972	0.8	3.1	3.9	1988	318.4	216.4	534.8
1973	0.3	50.2	50.5	1989	0.0	215.0	215.0
1974	22.1	9.8	31.9	1990	233.7	131.9	365.6
1975	31.3	26.4	57.7	1991	174.0	201.1	375.1
1976	16.6	66.0	82.6	1992	205.7	223.8	429.5
1977	120.0	199.9	319.9				

a Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

b Catches (1970-1992) were updated using historical electronic fish ticket databases.

c Chignik Bay District escapements are not completely monitored.

Table 33. Pink salmon catch, escapement, and run numbers in the Eastern District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	1,109.9	401.7	1,511.6	1978	86.8	309.3	396.1
1963	26.9	126.2	153.1	1979	292.4	194.3	486.7
1964	1,251.5	605.7	1,857.2	1980	472.5	425.5	898.0
1965	25.7	64.8	90.5	1981	173.3	154.7	328.0
1966	386.2	302.2	688.4	1982	89.1	301.5	390.6
1967	22.6	56.1	78.7	1983	7.8	46.3	54.1
1968	523.4	390.3	913.7	1984	57.7	486.5	544.2
1969	1.7	46.0	47.7	1985	6.6	212.1	218.7
1970	268.9	201.7	470.6	1986	49.6	580.7	630.3
1971	29.0	23.0	52.0	1987	2.1	215.6	217.7
1972	12.9	15.9	28.8	1988	1,006.4	1,005.4	2,011.8
1973	2.5	12.8	15.3	1989	0.0	881.0	881.0
1974	0.6	76.2	76.8	1990	40.6	811.4	852.0
1975	0.0	23.5	23.5	1991	28.0	125.0	153.0
1976	28.8	228.8	257.6	1992	183.1	1,318.1	1,501.2
1977	0.2	76.0	76.2				

Table 34. Pink salmon catch, escapement, and run numbers in the Western District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	81.0	242.0	323.0	1978	419.3	333.4	752.7
1963	516.9	305.0	821.9	1979	744.6	185.0	929.6
1964	112.9	165.0	277.9	1980	216.5	139.5	356.0
1965	345.6	152.0	497.6	1981	433.6	249.3	682.9
1966	173.2	179.3	352.5	1982	602.4	45.9	648.3
1967	27.1	104.4	131.5	1983	164.3	36.0	200.3
1968	295.6	151.3	446.9	1984	173.8	188.0	361.8
1969	485.0	422.0	907.0	1985	80.6	67.5	148.1
1970	442.7	202.0	644.7	1986	200.8	43.8	244.6
1971	285.4	268.8	554.2	1987	187.7	38.3	226.0
1972	14.9	8.6	23.5	1988	1,141.4	232.4	1,373.8
1973	0.0	62.4	62.4	1989	0.0	57.9	57.9
1974	13.4	77.4	90.8	1990	135.8	44.3	180.1
1975	7.4	141.7	149.1	1991	419.3	96.8	516.1
1976	135.8	114.2	250.0	1992	628.9	38.8	667.7
1977	379.0	355.5	734.5				

a Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

b Catches (1970-1992) were updated using historical electronic fish ticket databases.

Table 35. Pink salmon catch, escapement, and run numbers in the Perryville District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	207.4	155.5	362.9	1978	280.8	157.5	438.3
1963	933.6	162.0	1,095.6	1979	271.4	181.3	452.7
1964	122.6	72.0	194.6	1980	114.6	74.8	189.4
1965	644.8	82.0	726.8	1981	224.3	116.0	340.3
1966	88.2	90.0	178.2	1982	18.3	13.4	31.7
1967	5.2	155.3	160.5	1983	113.9	64.5	178.4
1968	196.1	128.7	324.8	1984	0.8	109.8	110.6
1969	1,262.2	218.6	1,480.8	1985	42.5	235.2	277.7
1970	371.4	72.6	444.0	1986	161.3	180.5	341.8
1971	212.1	45.0	257.1	1987	35.3	65.7	101.0
1972	12.0	7.8	19.8	1988	411.2	181.3	592.5
1973	0.0	31.5	31.5	1989	0.0	267.4	267.4
1974	0.0	60.2	60.2	1990	45.4	88.4	133.8
1975	0.0	45.3	45.3	1991	471.9	343.5	815.4
1976	105.2	89.3	194.5	1992	358.2	190.4	548.6
1977	44.6	115.4	160.0				

Table 36. Total pink salmon catch, escapement, and run numbers in the Chignik Management Area, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	1,519.3	913.1	2,432.4	1978	985.2	912.1	1,897.3
1963	1,662.4	706.5	2,368.9	1979	1,905.2	858.8	2,764.0
1964	1,682.5	993.8	2,676.3	1980	1,093.2	742.2	1,835.4
1965	1,117.1	375.6	1,492.7	1981	1,162.6	597.9	1,760.5
1966	683.3	705.4	1,388.7	1982	873.4	389.3	1,262.7
1967	108.3	340.0	448.3	1983	321.2	158.8	480.0
1968	1,290.7	817.8	2,108.5	1984	444.8	1,001.5	1,446.3
1969	1,779.8	767.9	2,547.7	1985	160.2	522.2	682.4
1970	1,157.2	580.6	1,737.8	1986	647.1	926.9	1574.0
1971	612.3	417.1	1,029.4	1987	246.8	385.3	632.1
1972	72.2	41.2	113.4	1988	2,997.2	1,657.9	4,655.1
1973	25.5	159.1	184.6	1989	27.7	1,434.8	1,462.5
1974	69.6	227.6	297.2	1990	550.0	1,082.0	1,632.0
1975	66.1	238.1	304.2	1991	1,169.4	778.6	1,948.0
1976	395.2	510.6	905.8	1992	1,554.1	1,826.9	3,381.0
1977	604.7	749.8	1,354.5				

[a] Post 1984 escapement estimates computed by area-under-the- curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

[b] Catches (1970-1992) were updated using historical electronic fish ticket databases.

Table 37. Chum salmon catch, escapement, and run numbers in the Chignik Bay District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement[c]	Run	Year	Catch	Escapement	Run
1962	5.2	6.7	11.9	1978	15.0	2.1	17.1
1963	5.3	0.8	6.1	1979	32.2	1.6	33.8
1964	8.5	2.5	11.0	1980	19.9	0.3	20.2
1965	1.2	3.0	4.2	1981	38.1	0.5	38.6
1966	6.6	4.5	11.1	1982	16.0	1.4	17.4
1967	5.9	4.0	9.9	1983	16.7	0.1	16.8
1968	5.4	1.0	6.4	1984	8.2	0.3	8.5
1969	2.9	1.5	4.4	1985	4.9	0.0	4.9
1970	1.7	21.0	22.7	1986	18.2	0.0	18.2
1971	19.4	7.1	26.5	1987	5.2	0.1	5.3
1972	18.2	3.3	21.5	1988	7.0	15.3	22.3
1973	7.3	0.7	8.0	1989	1.6	4.2	5.8
1974	17.3	2.1	19.4	1990	11.5	1.5	13.0
1975	21.2	2.1	23.3	1991	17.5	0.0	17.5
1976	19.2	2.4	21.6	1992	12.7	0.1	12.8
1977	8.6	2.0	10.6				

Table 38. Chum salmon catch, escapement, and run numbers in the Central District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	132.0	40.4	172.4	1978	10.3	13.8	24.1
1963	23.1	34.0	57.1	1979	11.4	44.8	56.2
1964	50.3	24.2	74.5	1980	38.9	34.2	73.1
1965	37.8	19.2	57.0	1981	160.7	26.1	186.8
1966	20.9	10.0	30.9	1982	33.7	49.4	83.1
1967	9.9	17.2	27.1	1983	9.8	17.0	26.8
1968	4.2	14.5	18.7	1984	8.2	35.4	43.6
1969	3.2	6.5	9.7	1985	5.2	9.6	14.8
1970	28.6	23.4	52.0	1986	29.5	31.0	60.5
1971	13.7	29.1	42.9	1987	9.4	17.5	26.9
1972	1.6	14.2	15.8	1988	39.3	55.8	95.1
1973	0.2	12.2	14.4	1989	0.0	34.7	34.7
1974	13.5	18.1	31.6	1990	113.7	28.0	141.7
1975	3.2	18.8	22.0	1991	51.4	18.0	69.4
1976	3.4	17.8	21.2	1992	45.5	173.1	218.6
1977	8.9	9.3	18.2				

[a] Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

[b] Catches (1970-1992) were updated using historical electronic fish ticket databases.

[c] Chignik Bay District escapements not completely monitored.

Table 39. Chum salmon catch, escapement, and run numbers in the Eastern District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	74.7	79.6	154.3	1978	17.5	55.8	73.3
1963	20.5	55.2	75.7	1979	36.1	79.5	115.6
1964	242.7	165.4	408.1	1980	56.8	107.0	163.8
1965	32.4	58.0	90.4	1981	108.7	126.0	234.7
1966	130.1	58.0	188.1	1982	64.5	145.4	209.9
1967	24.4	89.8	114.2	1983	8.3	50.2	58.5
1968	110.1	63.0	173.1	1984	21.1	214.7	235.8
1969	3.7	66.5	70.2	1985	0.9	4.9	5.8
1970	241.1	126.0	367.1	1986	17.9	8.5	26.4
1971	102.3	219.2	321.5	1987	8.9	38.3	47.2
1972	27.7	107.4	135.1	1988	77.5	221.9	99.4
1973	1.2	59.1	60.3	1989	0.0	74.3	74.3
1974	0.3	76.3	76.5	1990	27.5	139.7	167.2
1975	0.0	41.3	41.3	1991	4.9	70.4	75.3
1976	10.0	122.3	132.3	1992	61.2	306.9	368.1
1977	1.5	54.5	56.0				

Table 40. Chum salmon catch, escapement, and run numbers in the Western District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	134.4	83.1	217.5	1978	46.0	27.3	73.3
1963	44.7	10.0	54.7	1979	82.3	42.5	124.8
1964	21.2	37.0	58.2	1980	91.9	56.5	148.4
1965	36.4	25.0	61.4	1981	221.6	70.3	291.9
1966	73.8	12.0	85.8	1982	253.3	35.4	288.7
1967	33.6	24.0	57.6	1983	102.0	20.1	122.1
1968	90.1	9.6	99.7	1984	25.4	73.8	99.2
1969	36.8	27.6	64.4	1985	10.7	34.6	45.3
1970	139.6	49.7	189.3	1986	74.1	5.3	79.4
1971	177.5	184.1	361.6	1987	86.9	19.7	106.6
1972	18.5	59.0	77.5	1988	102.7	27.4	130.1
1973	0.0	35.6	35.6	1989	0.0	7.4	7.4
1974	3.2	39.4	42.6	1990	91.6	28.8	120.4
1975	0.8	43.4	44.2	1991	98.6	38.1	136.7
1976	33.1	55.0	88.1	1992	65.5	53.3	118.8
1977	88.0	70.4	158.4				

a Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett).

b Catches (1970-1992) were updated using historical electronic fish ticket databases.

Table 41. Chum salmon catch, escapement, and run numbers in the Perryville District, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	17.9	10.5	28.4	1978	32.1	5.3	37.4
1963	19.1	7.0	26.1	1979	26.9	12.8	39.7
1964	10.6	26.0	36.6	1980	45.0	29.1	74.1
1965	12.8	7.0	19.8	1981	51.3	19.3	70.6
1966	7.9	20.4	28.3	1982	22.6	23.6	46.2
1967	1.7	5.7	7.4	1983	22.6	8.2	30.8
1968	14.0	1.8	15.8	1984	0.5	46.0	46.5
1969	21.1	1.0	22.1	1985	1.1	12.9	14.0
1970	26.3	13.0	39.3	1986	37.0	7.7	44.7
1971	40.9	30.0	70.9	1987	16.9	9.8	26.7
1972	12.3	11.5	23.8	1988	41.2	41.4	82.6
1973	0.0	9.3	9.3	1989	0.0	15.9	15.9
1974	0.0	12.5	12.5	1990	25.7	55.8	81.5
1975	0.0	20.5	20.5	1991	88.6	343.2	431.8
1976	15.7	8.9	24.6	1992	37.2	40.3[c]	77.5
1977	3.4	15.4	18.8				

Table 42. Total chum salmon catch, escapement, and run numbers in the Chignik Management Area, in thousands of fish, 1962-1992.[a,b]

Year	Catch	Escapement	Run	Year	Catch	Escapement	Run
1962	364.2	220.3	584.5	1978	120.9	104.3	225.2
1963	112.7	107.0	219.7	1979	188.9	181.2	370.1
1964	333.3	255.1	588.4	1980	252.5	227.1	479.6
1965	120.6	112.2	232.8	1981	580.4	242.2	822.6
1966	239.3	104.9	344.2	1982	390.1	255.2	645.3
1967	75.5	140.7	216.2	1983	159.4	95.6	255.0
1968	223.8	89.9	313.7	1984	63.4	370.2	433.6
1969	67.7	103.1	170.8	1985	22.8	62.0	84.8
1970	437.3	233.1	670.4	1986	176.7	52.5	229.2
1971	353.8	469.5	823.3	1987	127.3	85.4	212.7
1972	78.3	195.4	273.7	1988	267.7	361.8	629.5
1973	8.7	116.9	125.6	1989	1.6	136.5	138.1
1974	34.3	148.4	182.7	1990	270.0	253.8	523.8
1975	25.2	126.1	151.3	1991	261.0	469.7	730.7
1976	81.4	206.4	287.8	1992	222.1	573.7	795.8
1977	110.4	151.6	262.0				

a Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

b Catches (1970-1992) were updated using historical electronic fish ticket databases.

c The late run at Perryville was not monitored.

Table 43. Pink salmon return per spawner in the Central and Eastern Districts, 1962-1992.[a,b]

Even Year Cycle				Odd Year Cycle			
Brood Year	Pink Escapement	Return 2-yrs Later	Return/ Spawner	Brood Year	Pink Escapement	Return 2-yrs Later	Return/ Spawner
1962	485,600	2,060,200	4.2	1963	218,800	225,800	1.0
1964	736,800	768,400	1.0	1965	130,600	123,200	0.9
1966	364,800	1,025,200	2.8	1967	74,600	118,700	1.6
1968	456,400	559,800	1.2	1969	115,600	147,300	1.3
1970	262,400	32,700	0.1	1971	97,800	65,800	0.7
1972	19,000	108,700	5.7	1973	63,000	81,200	1.3
1974	86,000	340,200	4.0	1975	49,900	396,100	7.9
1976	294,800	558,500	1.9	1977	275,900	1,068,100	3.8
1978	410,500	1,106,100	2.7	1979	491,300	614,500	1.3
1980	524,900	497,300	0.9	1981	231,200	73,000	0.3
1982	327,600	685,500	2.1	1983	57,300	242,200	4.2
1984	580,500	796,300	1.4	1985	219,500	291,200	1.3
1986	702,600	2,546,600	3.6	1987	281,300	1,096,000	3.9
1988	1,221,800	1,217,600	1.0	1989	1,096,000	528,100	0.5
1990	943,300	1,930,700	2.0	1991	326,100		
1992	1,541,900						

Table 44. Pink salmon return per spawner in the Western and Perryville Districts, 1962-1992.[a,b]

Even Year Cycle				Odd Year Cycle			
Brood Year	Pink Escapement	Return 2-yrs Later	Return/ Spawner	Brood Year	Pink Escapement	Return 2-yrs Later	Return/ Spawner
1962	397,500	472,500	1.2	1963	467,000	1,225,400	2.6
1964	237,000	530,700	2.2	1965	234,600	292,000	1.2
1966	269,300	771,700	2.9	1967	259,700	2,387,800	9.2
1968	280,000	1,088,700	3.9	1969	640,600	811,300	1.3
1970	274,600	43,300	0.2	1971	313,800	93,900	0.3
1972	16,400	151,000	9.2	1973	93,900	194,400	2.1
1974	137,600	444,500	3.2	1975	187,000	894,500	4.8
1976	203,500	1,191,000	5.9	1977	470,900	1,382,300	2.9
1978	490,900	545,400	1.1	1979	366,300	1.023,200	2.8
1980	214,300	680,000	3.2	1981	365,300	378,700	1.0
1982	59,300	472,400	8.0	1983	100,500	425,800	4.2
1984	297,800	586,400	2.0	1985	302,700	327,000	1.1
1986	224,300	1,966,300	8.8	1987	104,000	325,300	3.1
1988	413,700	313,900	0.8	1989	325,300	1,331,500	4.1
1990	132,700	1,216,300	9.2	1991	440,300		
1992	229,200						

[a] Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

[b] Catches (1970-1992) were updated using historical electronic fish ticket databases.

Table 45. Chum salmon return per spawner in the Central and Eastern Districts, 1962-1992.[a,b]

Brood Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner	Brood Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner
1962	120,000	219,000	1.8	1978	69,600	293,000	4.2
1963	89,200	141,300	1.6	1979	124,300	85,300	0.7
1964	189,600	191,800	1.0	1980	141,200	279,400	2.0
1965	77,200	79,900	1.0	1981	152,100	20,600	0.1
1966	68,000	149,400	2.2	1982	194,800	86,900	0.4
1967	107,000	364,400	3.4	1983	67,200	74,100	1.1
1968	77,500	150,900	2.0	1984	250,100	194,500	0.8
1969	73,000	72,700	1.0	1985	14,500	109,000	7.5
1970	149,400	108,700	0.7	1986	39,500	308,900	7.8
1971	248,300	63,300	0.3	1987	55,800	144,700	2.6
1972	121,600	153,500	1.3	1988	277,700	586,700	2.1
1973	71,300	74,200	1.0	1989	109,000	225,720	2.1
1974	94,400	97,400	1.0	1990	167,700		
1975	60,100	171,800	2.9	1991	88,400		
1976	140,100	236,900	1.7	1992	480,000		
1977	63,800	421,500	6.6	1993	51,143		

Table 46. Chum salmon return per spawner in the Western and Perryville Districts, 1962-1992.[a]

Brood Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner	Brood Year	Chum Escapement	Return 4-yrs Later	Return/ Spawner
1962	93,600	114,100	1.2	1978	32,600	334,900	10.3
1963	17,000	65,000	3.8	1979	55,300	152,900	2.8
1964	63,000	115,500	1.8	1980	85,600	145,700	1.7
1965	32,000	86,500	2.7	1981	89,600	59,300	0.7
1966	32,400	228,600	7.1	1982	59,000	124,100	2.1
1967	29,700	432,500	14.6	1983	28,300	133,300	4.7
1968	11,400	101,300	8.9	1984	119,800	212,700	1.8
1969	28,600	44,900	1.6	1985	47,500	23,300	0.5
1970	62,700	55,100	0.9	1986	13,000	201,900	15.5
1971	214,100	64,700	0.3	1987	29,500	568,500	19.3
1972	70,500	112,700	1.6	1988	68,800	196,300	2.9
1973	44,900	177,200	3.9	1989	23,300	99,608	4.3
1974	51,900	110,700	2.1	1990	84,600		
1975	63,900	164,500	2.6	1991	381,300		
1976	63,900	222,500	3.5	1992	93,600		
1977	85,800	362,500	4.2	1993	49,827		

[a] Post 1984 escapement estimates computed by area-under-the-curve methodology using a 15.0 day average stream life (Johnson and Barrett 1988).

[b] Catches (1970-1993) were updated using historical electronic fish ticket databases.

Table 47. Pink, chum, and coho salmon aerial stream survey counts in the Chignik Management Area, 1992.[a]

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Lake Bay												
271-101B	7-28	A. Quimby	P	P	P	0	0	0	0	-	-	Too foggy
271-101B	8-29	A. Quimby	G	G	G	0	0	2000	0	-	-	35,000 in lake
Mitrafania Creek												
271-103	7-27	A. Quimby	G	G	G	0	0	100	0	-	-	-
271-103	8- 4	A. Quimby	G	G	G	0	0	1000	100	-	-	-
271-103	8-26	Jeff Bulla	G	G	G	0	0	120	0	-	-	-
271-103	8-29	A. Quimby	F	F	F	0	0	100	0	-	-	-
Alfred Creek												
271-104	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-104	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-104	7-31	A. Quimby	G	G	G	0	0	100	0	-	-	-
271-104	8-20	A. Quimby	G	G	G	0	0	3200	0	-	-	-
Chignik Bay												
271-105	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-105	7-31	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-105	8-20	A. Quimby	G	G	G	0	0	700	0	-	-	-
Through Creek												
271-106	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-106	7-31	A. Quimby	G	G	G	0	0	2000	0	-	-	-
271-106	8-20	A. Quimby	G	G	G	0	0	6400	0	-	-	-
Chignik Bay												
271-201	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-201	7-31	A. Quimby	G	G	G	0	0	1400	0	-	-	-
271-201	8-20	A. Quimby	G	G	G	0	0	1000	0	-	-	-
Chignik Bay												
271-202A	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-202A	7-31	A. Quimby	G	G	G	0	0	12000	0	-	-	-
271-202A	8-20	A. Quimby	G	G	G	0	0	5100	0	-	-	-

-Continued-

Table 47. (page 2 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Neketa Creek												
271-202B	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
271-202B	7-31	A. Quimby	G	G	G	0	0	700	0	-	-	-
271-202B	8-20	A. Quimby	G	G	G	0	0	2400	0	-	-	-
272-100	7-28	A. Quimby	G	G	G	0	0	0	0	-	-	-
Thompson Valley												
272-204	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-204	7-31	A. Quimby	G	G	G	0	0	34300	0	-	-	-
272-204	8-20	A. Quimby	G	G	G	0	0	24000	0	-	-	-
McKinsey Valley												
272-205	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-205	7-31	A. Quimby	G	G	G	0	0	3500	0	-	-	-
272-205	8-20	A. Quimby	G	G	G	0	0	100	0	-	-	-
Hook Creek												
272-302	7-22	A. Quimby	G	G	G	0	0	0	100	-	-	-
272-302	7-31	A. Quimby	G	G	G	0	0	0	4600	-	-	-
272-302	8-13	A. Quimby	G	G	G	0	0	7200	4800	600P 400Ch	-	-
272-302	8-23	A. Quimby	p	p	p	0	0	960	640	-	-	Silty
272-302	8-29	A. Quimby	p	p	p	0	0	420	280	-	-	Silty
Kumliun Creek												
272-501	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-501	7-31	A. Quimby	G	G	G	0	0	9700	0	-	600P	-
272-501	8-13	A. Quimby	G	G	G	0	0	9800	0	500P	-	-
272-501	8-23	A. Quimby	G	G	G	0	0	1800	0	-	-	-
Cape Kumliun												
272-502	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-502	7-31	A. Quimby	G	G	G	0	0	400	0	-	-	-

-Continued-

Table 47. (page 3 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Cape Kumliun												
272-502A	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
Kujulik Bay												
272-503	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
Kujulik Bay												
272-504	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers @ mouth
Kujulik Bay												
272-505	7-22	A. Quimby	G	G	G	0	0	0	0	5000Ch	-	Jumpers @ mouth
272-505	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers @ mouth
272-505	7-31	A. Quimby	G	G	G	0	0	0	20800	-	-	-
Kujulik Bay												
272-506	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-506	7-31	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-506	8-10	A. Quimby	G	G	G	0	0	0	0	500P	-	Stream dry
272-506	8-13	A. Quimby	G	G	G	0	0	1000	0	-	-	-
Kujulik Bay												
272-507	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers @ mouth
272-507	7-30	A. Quimby	G	G	G	0	0	0	3600	-	-	Jumpers @ mouth
272-507	8-13	A. Quimby	G	G	G	0	0	2900	0	-	-	-
Kujulik Bay												
272-508	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-508	7-30	A. Quimby	G	G	G	0	0	0	4300	1000Ch	-	-
272-508	8-13	A. Quimby	G	G	G	0	0	3600	1500	8400P 3600Ch	-	-
Rudy Creek												
272-509	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-509	7-30	A. Quimby	G	G	G	0	0	0	35100	-	-	-
272-509	8-13	A. Quimby	G	G	G	0	0	11300	17000	7600P 11400Ch	-	-
272-509	8-29	A. Quimby	F	F	F	0	0	4280	6420	-	-	-

-Continued-

Table 47. (page 4 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Kujulik Bay												
272-510	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-510	7-30	A. Quimby	G	G	G	0	0	0	4300	-	-	-
272-510	8-13	A. Quimby	G	G	G	0	0	11300	0	100P	-	-
Kujulik Bay												
272-511A	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-511A	7-30	A. Quimby	G	G	G	0	0	0	5000	-	-	-
272-511A	8-13	A. Quimby	G	G	G	0	0	9500	0	700P	-	-
Kujulik Bay												
272-511B	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-511B	7-30	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-511B	8-13	A. Quimby	G	G	G	0	0	0	0	700P	-	-
Kujulik Bay												
272-512	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-512	7-30	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-512	8-13	A. Quimby	G	G	G	0	0	1300	0	500P	-	-
North Fork River												
272-514	7-22	A. Quimby	G	G	G	0	0	0	8100	-	-	Jumpers @ mouth
272-514	7-30	A. Quimby	G	G	G	0	0	0	54000	-	-	-
272-514	8-13	A. Quimby	G	G	G	0	0	38300	16400	-	-	-
272-514	8-23	A. Quimby	G	G	G	0	0	0	5400	-	-	-
272-514	8-29	A. Quimby	P	P	P	0	0	2800	1200	-	-	Silty
272-514	9- 2	A. Quimby	G	G	G	0	2300	4200	1800	-	-	-
Cape Kumlik												
272-516	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers on beach
272-516	7-30	A. Quimby	G	G	G	0	0	0	11800	-	-	-
272-516	8-13	A. Quimby	G	G	G	0	0	14600	0	-	-	-
272-516	8-29	A. Quimby	G	G	G	0	0	9810	1090	-	-	-
Wolverine Creek												
272-602	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-

-Continued-

Table 47. (page 5 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	-----Fish in Stream------ Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Wolverine Creek												
272-602	7-30	A. Quimby	G	G	G	0	0	0	400	-	-	High tide
272-602	8-13	A. Quimby	G	G	G	0	0	1900	1200	7200P 1200Ch	-	-
272-602	8-13	A. Quimby	G	G	G	0	0	1900	1200	7200P 4800Ch	-	-
272-602	8-29	A. Quimby	P	P	P	0	0	720	480	-	-	-
Village Creek												
272-603	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	300 in lagoon
272-603	7-30	A. Quimby	G	G	G	0	0	0	0	-	-	High tide
272-603	8-13	A. Quimby	G	G	G	0	0	0	0	500P	-	-
Black Creek												
272-604	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-604	7-30	A. Quimby	G	G	G	0	0	0	8800	-	-	High tide
272-604	8-13	A. Quimby	G	G	G	0	0	3600	0	-	-	-
272-604	8-29	A. Quimby	P	P	P	0	0	700	0	-	-	-
272-604	9- 2	A. Quimby	P	P	P	0	0	0	0	200Ch	-	-
Aniakchak River												
272-605	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers @ mouth
272-605	7-30	A. Quimby	G	G	G	0	0	0	50100	-	-	-
272-605	8-13	A. Quimby	G	G	G	0	0	96600	17100	-	-	-
272-605	8-23	A. Quimby				0	0	0	0	-	-	-
Cape Ayutka												
272-606	7-22	A. Quimby	G	G	G	0	0	0	0	-	500P	-
272-606	7-30	A. Quimby	G	G	G	0	0	72400	0	-	-	-
272-606	8-13	A. Quimby	G	G	G	0	0	86400	15300	-	-	-
272-606	9- 2	A. Quimby	G	G	G	0	0	13770	2430	-	-	40000 carc
West Creek												
272-701	7-22	A. Quimby	G	G	G	0	0	0	0	100Ch	-	-
272-701	7-30	A. Quimby	G	G	G	0	0	0	4300	-	-	-
272-701	8-13	A. Quimby	G	G	G	0	0	20900	0	-	-	-
272-701	9- 2	A. Quimby	G	G	G	0	0	0	0	-	-	-

-Continued-

Table 47. (page 6 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Main Creek												
272-702	7-22	A. Quimby	G	G	G	0	0	0	0	2300Ch	-	-
272-702	7-30	A. Quimby	G	G	G	0	0	0	29600	-	-	-
272-702	8-10	A. Quimby	G	G	G	0	0	18600	0	-	-	-
272-702	8-13	A. Quimby	G	G	G	1500	0	25600	31300	-	-	-
272-702	8-17	A. Quimby	P	P	P	0	0	3485	615	-	-	-
272-702	8-29	A. Quimby	G	G	G	0	0	200	0	-	-	-
272-702	9- 2	A. Quimby	E	E	E	0	3300	2700	3300	-	-	8 Sportspersons
Northeast Creek												
272-703	7-22	A. Quimby	G	G	G	0	0	0	0	800Ch	-	-
272-703	7-30	A. Quimby	G	G	G	0	0	0	25300	-	-	-
272-703	8-13	A. Quimby	G	G	G	0	0	17300	17300	-	-	-
272-703	9- 2	A. Quimby	G	G	G	0	0	10550	10550	-	-	-
Cape Kunmik												
272-704	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-704	8-13	A. Quimby	G	G	G	0	0	1200	0	5000P	-	-
272-704	8-23	A. Quimby	P	P	P	0	0	0	0	-	-	-
272-704	9- 2	A. Quimby	G	G	G	0	0	400	0	-	-	-
Yantarni Bay												
272-720	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-720	7-31	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-720	8-10	A. Quimby	P	P	P	0	0	500	1900	-	-	Main Str Silty
272-720	8-13	A. Quimby	G	G	G	0	0	300	0	-	-	-
272-720	8-17	A. Quimby	P	P	P	0	0	300	0	-	-	-
272-720	9- 2	A. Quimby	P	P	P	0	0	500	0	-	-	-
Yantarni Creek												
272-721	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-721	7-31	A. Quimby	G	G	G	0	0	0	11700	-	-	-
272-721	8-13	A. Quimby	G	G	G	0	0	10800	16000	-	-	-
272-721	9- 2	A. Quimby	P	P	P	0	0	3200	0	-	-	-
Ocean Beach												
272-801	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Sport camp

-Continued-

Table 47. (page 7 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Ocean Beach												
272-801	7-31	A. Quimby	G	G	G	0	0	9300	0	-	-	-
272-801	8-13	A. Quimby	P	P	P	0	0	3700	3600	-	-	Silty
272-801	9- 2	A. Quimby	P	P	P	0	200	4020	2680	-	-	-
Ocean Beach												
272-802	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-802	7-28	A. Quimby	E	E	E	0	0	0	1100	-	-	Jumpers on beach
272-802	7-31	A. Quimby	G	G	G	0	0	0	2200	-	-	-
272-802	8-13	A. Quimby	G	G	G	0	0	4800	4900	-	-	-
272-802	8-17	A. Quimby	G	G	G	0	0	9520	1680	-	-	-
272-802	8-29	A. Quimby	G	G	G	0	0	13345	2355	-	-	-
272-802	9- 2	A. Quimby	E	E	E	0	4800	4000	6000	-	-	Sport camp
Nakalilok Bay												
272-803	7-31	A. Quimby	G	G	G	0	0	0	200	-	-	-
272-803	8-13	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-803	9- 2	A. Quimby	E	E	E	0	0	400	600	-	-	-
Nakalilok River												
272-804	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Jumpers on beach
272-804	7-31	A. Quimby	G	G	G	0	0	0	1300	-	-	-
272-804	8-13	A. Quimby	G	G	G	0	0	3100	4800	-	4000Ch	-
272-804	9- 2	A. Quimby	E	E	E	0	0	7440	11160	-	-	7 Sportspersons
Nakalilok Bay												
272-805	7-22	A. Quimby	G	G	G	0	0	0	0	-	100Ch	-
272-805	7-31	A. Quimby	G	G	G	0	0	0	1500	-	8000Ch	-
272-805	8-13	A. Quimby	G	G	G	0	0	300	0	9000P	-	Upper half dry
272-805	9- 2	A. Quimby	E	E	E	0	0	3000	0	-	-	-
Cape Kuyuyukak												
272-900	7-22	A. Quimby	G	G	G	0	0	0	0	600P	-	-
272-900	7-31	A. Quimby	G	G	G	0	0	0	0	900P	-	-
272-900	8-13	A. Quimby	G	G	G	0	0	1800	0	-	22000P	-
272-900	8-23	A. Quimby	G	G	G	0	0	10400	0	-	-	-
272-900	9- 2	A. Quimby	E	E	E	0	0	2700	0	-	-	6000 carc

-Continued-

Table 47. (page 8 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Cape Kuyuyukak												
272-901	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-901	7-31	A. Quimby	G	G	G	0	0	900	0	-	1300P	-
Cape Kuyuyukak												
272-901	8-13	A. Quimby	G	G	G	0	0	3600	0	26000P	-	-
272-901	8-23	A. Quimby	G	G	G	0	0	7000	0	1100P	-	-
272-901	9- 2	A. Quimby	E	E	E	0	0	5300	0	-	-	-
Chiginagak Bay												
272-902	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-902	7-31	A. Quimby	G	G	G	0	0	1500	0	-	10000P	-
272-902	8-13	A. Quimby	G	G	G	0	0	8300	0	4000P	5000P	-
272-902	8-23	A. Quimby	G	G	G	0	0	16500	0	-	-	-
272-902	9- 2	A. Quimby	E	E	E	0	0	10925	575	1000P	-	1000 carc
Chiginagak River												
272-903	7-31	A. Quimby	P	P	P	0	0	0	0	-	-	Silty
272-903	8-13	A. Quimby	G	G	G	0	0	0	0	-	-	Dry
272-903	8-23	A. Quimby	G	G	G	0	0	0	2200	-	-	-
272-903	9- 2	A. Quimby	E	E	E	0	0	0	0	-	-	-
Chiginagak River												
272-903A	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Sport camp
272-903A	7-31	A. Quimby	P	P	P	0	0	0	0	-	-	Silty
272-903A	8-13	A. Quimby	P	P	P	0	0	0	4300	-	7300Ch	Silty fish in clr trib
272-903A	9- 2	A. Quimby	E	E	E	0	500	0	1400	-	-	-
Chiginagak Bay												
272-903B	7-31	A. Quimby	G	G	G	0	0	0	300	-	-	-
272-903B	8-13	A. Quimby				0	0	0	0	-	-	Dry
272-903B	8-23	A. Quimby	G	G	G	0	0	0	4100	-	-	-
272-903B	9- 2	A. Quimby	E	E	E	0	0	0	18700	-	-	3000 carc

-Continued-

Table 47. (page 9 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Chiginagak Bay												
272-904	7-22	A. Quimby	G	G	G	0	0	0	0	600Ch	-	Sport camp
272-904	7-31	A. Quimby	G	G	G	0	0	0	0	700Ch	-	-
272-904	8-13	A. Quimby	G	G	G	0	0	100	0	500P	-	-
272-904	8-23	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-904	9- 2	A. Quimby	E	E	E	0	0	0	0	-	-	-
Chiginagak Bay												
272-905	7-22	A. Quimby	G	G	G	0	0	0	300	-	400Ch	-
272-905	7-31	A. Quimby	G	G	G	0	0	0	5100	3200Ch	-	Sport camp
272-905	8-13	A. Quimby	G	G	G	0	0	15400	0	-	35000P	Sport camp
272-905	8-23	A. Quimby	G	G	G	0	0	38100	0	-	-	Sport camp
272-905	9- 2	A. Quimby	E	E	E	0	300	95140	0	-	-	Sportcamp
Chiginagak Bay												
272-906	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-906	7-31	A. Quimby	G	G	G	0	0	0	2200	-	18000Ch	-
272-906	8-13	A. Quimby	G	G	G	0	0	8400	0	11000P	26000P	-
272-906	8-23	A. Quimby	G	G	G	0	0	202400	0	-	-	-
272-906	9- 2	A. Quimby	E	E	E	0	0	184000	0	16000P	-	-
Chiginagak Bay												
272-907	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-907	7-31	A. Quimby	G	G	G	0	0	0	0	-	-	Jumper on beach
272-907	8-13	A. Quimby	G	G	G	0	0	0	0	12000P	-	-
272-907	8-23	A. Quimby	G	G	G	0	0	800	0	-	-	-
272-907	9- 2	A. Quimby	E	E	E	0	0	1500	0	-	-	-
Port Wrangell Bay												
272-921	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	Too foggy
272-921	7-31	A. Quimby	G	G	G	0	0	0	6700	-	-	-
272-921	8-13	A. Quimby	P	P	P	0	0	10000	0	-	-	Silty-fish in clr edges str
272-921	9- 2	A. Quimby	P	P	P	0	0	5000	0	-	-	-

-Continued-

Table 47. (page 10 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream Reds	Coho	Pink	Chum	Build Up Fish Mouth	Bay	Observer Remarks
Port Wrangell Bay												
272-922	7-22	A. Quimby	G	G	G	0	0	0	0	100P	-	-
272-922	7-31	A. Quimby	G	G	G	0	0	600	0	600P	-	-
272-922	8-13	A. Quimby	G	G	G	0	0	0	0	20000P	-	-
272-922	8-23	A. Quimby	G	G	G	0	0	20000	0	5000P	-	-
272-922	9- 2	A. Quimby	G	G	G	0	0	500	0	200P	-	-
Cape Providence												
272-923	7-22	A. Quimby	G	G	G	0	0	0	0	800P	-	-
272-923	7-31	A. Quimby	G	G	G	0	0	0	0	-	900P	-
272-923	8-13	A. Quimby	G	G	G	0	0	0	0	35000P	-	-
272-923	8-23	A. Quimby	G	G	G	0	0	12000	0	1400P	-	-
272-923	9- 2	A. Quimby	E	E	E	0	0	400	0	3000P	-	200 carc
Agripina River												
272-961A	7-22	A. Quimby	G	G	G	0	0	1500	0	900P	-	-
272-961A	7-30	A. Quimby	P	P	P	0	0	0	0	-	-	Too foggy
272-961A	7-31	A. Quimby	G	G	G	0	0	0	5700	-	-	-
272-961A	8-13	A. Quimby	G	G	G	0	0	20100	0	-	-	3 sport boats
272-961A	8-23	A. Quimby	G	G	G	0	0	18500	0	-	-	1/2 strm survey only due to wind
272-961A	9- 2	A. Quimby	E	E	E	0	0	135000	0	-	-	-
Agripina Bay												
272-961B	7-22	A. Quimby	G	G	G	0	0	0	0	-	180P	-
272-961B	7-30	A. Quimby	P	P	P	0	0	0	0	-	-	Too foggy
272-961B	7-31	A. Quimby	G	G	G	0	0	0	0	600P	-	1000 in lake
272-961B	8-13	A. Quimby	G	G	G	0	0	16000	0	5000P	-	-
272-961B	8-23	A. Quimby	G	G	G	0	0	4600	0	-	-	5500 in lake
272-961B	9- 2	A. Quimby	G	G	G	0	0	300	0	300P	-	3800 in lake
Glacier Creek												
272-962	7-22	A. Quimby	G	G	G	0	0	0	0	-	-	-
272-962	7-30	A. Quimby	P	P	P	0	0	0	0	-	-	Silty
272-962	8-13	A. Quimby	G	G	G	0	0	1300	0	5000P	-	Silty - Fish in trb
272-962	9- 2	A. Quimby	G	G	G	0	0	5600	0	-	-	-

-Continued-

Table 47. (page 11 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Agripina Bay												
272-962A	8-23	A. Quimby	G	G	G	0	0	0	0	-	-	-
Kilokak Creek												
272-963	7-22	A. Quimby	G	G	G	0	0	0	0	50P	-	Low water-mouth
272-963	7-30	A. Quimby	G	G	G	0	0	3600	0	-	600P	-
272-963	8-13	A. Quimby	G	G	G	0	0	20800	0	18000P	12000P	-
272-963	8-23	A. Quimby	G	G	G	0	0	34400	0	20000P	-	-
272-963	9- 2	A. Quimby	E	E	E	0	0	110000	0	15000P	-	-
Red Bluff Creek												
273-702	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-702	7-28	A. Quimby	G	G	G	0	0	0	300	-	-	-
273-702	8- 4	A. Quimby	G	G	G	0	0	0	0	-	-	Too windy
273-702	8- 4	A. Quimby	G	G	G	0	0	0	0	-	-	Too windy
Mitrofania Bay												
273-720	7-28	A. Quimby	P	P	P	0	0	0	0	-	-	Too silty
273-720	8- 4	A. Quimby	G	G	G	0	0	0	0	-	-	Silty
Ivan River												
273-722	7-13	A. Quimby	G	G	G	0	0	0	0	300Ch	-	-
273-722	7-28	A. Quimby	G	G	G	0	0	0	600	-	-	-
273-722	8- 4	A. Quimby	G	G	G	0	0	0	39800	-	-	-
272-722	8-10	A. Quimby	G	G	G	0	0	31400	0	-	-	-
272-722	8-17	A. Quimby	P	P	P	0	0	23840	5960	-	-	-
272-722	8-29	A. Quimby	F	F	F	0	0	1920	480	-	-	Silty
Fishrack Bay												
273-723	7-13	A. Quimby	G	G	G	0	0	0	0	-	600P	-
273-723	7-28	A. Quimby	G	G	G	0	0	100	0	-	-	-
273-723	8- 4	A. Quimby	G	G	G	0	0	100	0	-	-	-
272-723	8-10	A. Quimby	G	G	G	0	0	0	0	-	2200P	-
272-723	8-29	A. Quimby	P	P	P	0	0	455	245	-	-	-

-Continued-

Table 47. (page 12 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Foot Bay												
273-802	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-802	7-28	A. Quimby	G	G	G	0	0	1100	0	-	-	Jumpers on beach
273-802	8- 4	A. Quimby	G	G	G	0	0	0	0	-	-	Turbulance, bear in strm
Windy Bay												
273-821	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	Too windy
273-821	8- 4	A. Quimby	G	G	G	0	0	0	0	-	-	Str dry, jumper on flats
Windy Bay												
273-822	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	Too windy
273-822	7-27	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-822	8- 4	A. Quimby	G	G	G	0	0	600	0	-	-	-
273-822	8-17	A. Quimby	G	G	G	0	0	100	0	-	-	-
Spoon Creek												
273-823	7-13	A. Quimby	G	G	G	0	0	0	0	500P	-	-
273-823	7-27	A. Quimby	G	G	G	0	0	0	0	-	-	Too foggy
273-823	8- 4	A. Quimby	G	G	G	0	0	100	0	-	-	-
273-823	8-17	A. Quimby	G	G	G	0	0	720	180	-	-	-
273-823	8-26	Jeff Bull	G	G	G	0	0	125	0	-	-	-
273-823	8-29	A. Quimby	F	F	F	0	0	320	80	-	-	-
Portage Bay												
273-842	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-842	7-27	A. Quimby	G	G	G	0	0	0	0	-	200Ch	-
273-842	8- 4	A. Quimby	G	G	G	0	0	0	1500	6600Ch	-	-
273-842	8-17	A. Quimby	G	G	G	0	0	2080	3120	-	-	-
273-842	8-26	Jeff Bulla	G	G	G	0	0	0	1400	100Ch	-	-
273-842	8-29	A. Quimby	F	F	F	0	0	1600	2300	-	-	-
Seal Bay												
273-843	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-843	7-27	A. Quimby	G	G	G	0	0	0	0	-	-	-
273-843	8- 4	A. Quimby	G	G	G	0	0	0	500	-	-	Jumpers along mtn
273-843	8-17	A. Quimby	G	G	G	0	0	1450	1450	-	-	-

-Continued-

Table 47. (page 1

Stream	Date MM-DD
Seal Bay	
273-844	7-13
273-844	7-27
273-844	8- 4
273-844	8-17
Dog Bay	
273-845	7-13
273-845	7-27
273-845	8-17
Castle Bay	
273-941	7-28
Hag Creek	
275-400	7-28
275-400	8-10
275-400	8-31
Kupreanof Penins	
275-401	7-13
275-401	7-28
275-401	8-10
275-401	8-17
275-401	8-31
Smokey Hollow Cr	
275-402	7-28
275-402	8-10
275-402	8-17
275-402	8-31
Ivanof Bay	
275-403	7-28
275-403	8-10
275-403	8-17

Table 47. (page 15 of 15)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Ob
Humpback Creek												
275-504	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	
275-504	7-28	A. Quimby	G	G	G	0	0	0	0	-	200P	
275-504	8-10	A. Quimby	G	G	G	0	0	0	0	1000P	-	
275-504	8-17	A. Quimby	G	G	G	0	0	200	0	-	-	
Humpback Bay												
275-505	7-13	A. Quimby	G	G	G	0	0	0	0	-	50P	
275-505	7-28	A. Quimby	G	G	G	0	0	200	0	-	1200P	
275-505	8-10	A. Quimby	G	G	G	0	0	2500	0	3400P	-	
275-505	8-13	A. Quimby	G	G	G	0	0	0	8200	-	-	5
275-505	8-17	A. Quimby	G	G	G	0	0	2800	0	-	10000P	
Alexander Point												
275-506	7-28	A. Quimby	G	G	G	0	0	0	0	-	-	Ju
Kametolook River												
275-600	7-13	A. Quimby	G	G	G	0	0	0	0	-	-	R
275-600	7-28	A. Quimby	G	G	G	0	0	0	0	-	-	Ju
275-600	8-10	A. Quimby	P	P	P	0	0	0	0	-	-	S m
Kametolook River												
275-601	7-28	A. Quimby	G	G	G	0	0	0	0	-	-	Ju
275-601	8-10	A. Quimby	G	G	G	0	0	0	200	-	-	S
275-601	8-17	A. Quimby	P	P	P	0	0	500	0	-	-	P c

[a]The last aerial survey (September 2) was primarily for coho. No other surveys were flown due to the lack of fur

Table 48. Pink and chum salmon estimated escapement for select Chignik Management Area streams, in thousands of fish, 1953-1992.[a]

	Thompson Valley 272-204		Hook Bay 272-302		Cape Kumlik 272-501		Bear Cr. 272-505	
Year	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	25.3	0.0	13.0	6.3			0.0	0.7
1954	28.2	4.5	14.3	5.3			0.2	0.2
1955	115.0	3.0	78.0	0.0			1.0	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	7.0	0.0	18.9	4.1	7.0	0.0	0.0	12.4
1963	23.3	0.0	33.0	7.5	23.0	0.0	0.0	9.5
1964	4.1	0.0	42.0	1.2	8.7	0.0	0.0	8.8
1965	9.4	0.0	23.3	2.1	13.7	0.0	0.0	8.5
1966	4.1	0.0	10.0	0.5	3.8	0.0	0.0	4.3
1967	2.0	0.4	7.3	2.5	5.2	0.0	0.0	8.0
1968			5.0	0.0			0.0	2.7
1969	19.0	0.0	30.0	0.0			0.0	4.5
1970	12.0	0.0	11.0	1.0	5.0	0.0	0.0	10.0
1971	7.5	0.0	13.0	8.0	51.0	0.0	0.0	10.0
1972	0.2	0.0	0.4	1.1	0.2	0.0	0.0	2.5
1973	2.3	0.2	4.9	4.7	40.0	0.0	0.0	4.0
1974	1.6	0.1	3.8	0.8	0.6	0.0	0.0	2.3
1975	10.2	0.0	1.3	6.0	17.8	0.0	0.0	1.5
1976	5.5	0.2	8.0	2.5	2.6	0.0	0.0	1.4
1977	29.4	0.0	22.6	2.0	124.0	0.0	0.5	2.6
1978	14.0	0.0	14.5	2.8	6.1	0.0	0.1	1.5
1979	35.5	1.0	42.7	11.0	153.0	0.0	0.0	5.0
1980	0.7	0.0	24.5	4.2	2.6	0.0	0.2	0.0
1981	6.5	0.5	13.9	9.0	36.2	0.0	0.1	0.0
1982	1.2	0.0	7.3	10.0	0.9	0.0	0.0	2.5
1983	2.3	0.0	0.2	0.3	0.0	0.0	2.0	7.9
1984	14.0	0.0	16.2	0.1	3.7	0.0	0.3	2.3
1985	0.0	0.0	2.0	0.0			0.0	7.2
1986	0.3	0.0	66.9	0.0	38.2	0.0	0.0	7.5
1987			9.5	0.3	46.9	0.3	0.0	12.0
1988	9.6	3.3	26.4	0.7	18.0	0.0	0.0	0.7
1989	16.6	3.7	45.5	10.2	63.0	0.0	0.0	3.6
1990	4.8	0.0	16.7	0.2	3.2	0.0	0.3	T
1991	0.0	0.0	0.0	0.0	109.7	0.0	0.0	.9
1992	61.2	0.0	7.2	7.5	15.4	0.0	0.0	20.8

-Continued-

Table 48. (page 2 of 8)

Year	Rudys Cr. 272-509		North Fork 272-514		Aniakchak R. 272-605		Cape Agutka 272-606	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	0.7	0.2	1.3	3.5	0.0	35.0	0.2	0.7
1954			55.0	4.6	100.0	37.2	3.9	1.5
1955	15.0	4.0	13.5	1.0	16.0	0.0	1.2	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	4.5	5.2	34.0	0.8	126.0	25.0	17.6	0.5
1963	0.0	12.0	9.7	1.8	6.0	14.6	0.4	0.0
1964	0.5	5.0	68.0	3.0	175.0	82.5	11.0	1.1
1965	0.0	1.1	8.7	2.0	10.8	4.0	5.1	0.1
1966	2.0	3.0	2.0		90.8	9.0	7.7	0.2
1967	1.0	3.0	20.0	1.1	2.0	10.5	1.1	0.1
1968	2.0	7.0	26.0	0.0	85.0	10.0	22.3	0.0
1969	0.2	1.0	5.2	4.0	0.1	0.5	4.6	2.0
1970	0.0	3.0	24.0	8.0	40.0	30.5	10.0	2.0
1971	0.0	1.3	0.0	4.5	0.0	11.5	2.0	3.0
1972	0.2	1.7	1.7	6.9	1.8	7.1	2.5	1.5
1973	0.0	1.2	2.8	1.5	2.7	4.0	1.5	1.8
1974	0.8	4.2	2.5	4.2	29.8	25.7	1.6	0.0
1975	0.0	1.8	0.4	3.7	2.4	5.5	1.9	0.2
1976	6.2	3.7	17.5	7.9	165.0	34.0	5.9	0.8
1977	6.3	0.9	6.6	2.3	3.0	14.8	1.0	0.1
1978	4.0	2.2	46.0	6.9	215.5	23.2	8.0	0.2
1979	12.0	7.7	12.7	5.6	0.0	0.2	13.0	1.5
1980	9.3	0.0	38.5	29.5	40.0	43.0	20.0	5.5
1981	0.7	0.1	15.8	16.5	2.7	32.0	5.8	0.0
1982	0.2	8.7	19.0	3.5	130.0	47.0	21.0	0.0
1983	0.0	1.3	4.1	1.3	1.0	3.1	0.1	0.0
1984	4.5	5.0	32.4	17.4	56.4	47.0	17.2	1.2
1985	0.0	0.0	4.7	1.3	0.0	0.0	0.0	0.0
1986	38.0	10.9	34.3	5.0	1.5	0.5	65.0	0.4
1987	0.0	0.0	8.8	4.0	2.5	0.3	4.2	0.3
1988	34.9	16.6	48.5	17.0	95.1	17.4	84.4	0.0
1989	7.3	0.4	23.0	1.2	5.0	2.5	1.8	0.0
1990	8.0	1.3	40.9	.7	19.7	11.6	46.5	0.0
1991	0.0	7.4	2.1	2.9	0.0	7.6	4.1	0.0
1992	15.0	48.2	42.3	59.7	96.6	53.8	161.9	16.8

-Continued-

Table 48. (page 3 of 8)

Year	Main Cr. 272-702		Northeast Cr. 272-703		Yantarni Cr. 272-721		Ocean Beach 272-801	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	0.2	17.0	3.5	2.0				
1954	6.9	21.5	1.1	0.8				
1955	25.2	0.8			7.5	7.0	8.0	3.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	33.0	3.6	1.6	2.5	52.5	0.1	45.0	2.0
1963	16.0	5.8	5.0	0.9	16.0	0.3	3.4	0.0
1964	40.5		2.3	3.0	42.0	21.0	34.6	10.1
1965	5.0	4.8	2.3	6.0	4.0	7.6	0.4	1.0
1966	3.0	0.0	1.3	0.2	18.5	5.0	11.0	3.3
1967	16.5	2.0	2.0	0.2				
1968	28.0	8.0	7.7	1.0	25.0	6.5	26.5	0.0
1969	3.0	15.0	7.0	4.5	1.5	11.0	6.0	3.5
1970	13.0	7.0	7.0	6.0	1.5	11.5	7.5	5.0
1971	1.0	20.0	2.0	5.5	0.0	18.0	0.0	3.5
1972	2.0	8.0	1.7	0.5	2.1	21.0	0.5	4.6
1973	1.0	7.0	1.1	3.1	0.3	6.5	0.6	1.7
1974	6.6	6.3	3.0	2.0	3.7	3.8	2.3	2.2
1975	4.7	8.0	0.4	0.7	0.3	1.6	0.8	0.2
1976	5.5	8.5	3.8	2.0	5.8	12.5	4.2	3.0
1977	4.5	3.5	10.0	0.8	1.9	3.5	1.1	0.4
1978	5.6	7.6	4.4	4.6	7.9	3.3	7.1	0.5
1979	13.5	14.0	7.0	7.5	14.0	9.5	1.5	0.0
1980	53.5	17.0	4.8	3.0	60.0	11.0	27.6	0.0
1981	6.3	16.3	5.9	2.5	13.5	18.2	10.5	5.5
1982	36.0	12.3	6.2	3.7	8.5	25.5	0.0	14.5
1983	9.2	6.7	3.2	4.7	3.6	13.4	3.1	1.5
1984	15.7	14.5	7.0	4.3	26.5	18.7	19.0	13.2
1985	13.7	4.0	9.0	0.0	67.8	0.7	9.9	0.0
1986	85.0	0.0	13.6	0.0	3.1	0.3	1.8	0.2
1987	14.3	1.5	7.5	0.4	18.0	3.0	13.0	2.7
1988	43.6	5.5	41.4	10.6	33.7	30.3	32.8	12.8
1989	53.0	3.2	17.0	4.0	10.9	3.4	10.9	4.8
1990	54.3	5.7	80.3	13.3	23.6	9.3	45.0	1.3
1991	0.0	8.4	1.9	8.8	5.3	1.7	0.0	2.8
1992	30.3	45.2	31.9	50.5	14.9	26.2	15.6	7.1

-Continued-

Table 48. (page 4 of 8)

Year	Nakalilok R. 272-804		Chiginagak 272-902		Chiginagak R. 272-903		Chiginagak 272-904	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953								
1954								
1955	3.0	0.5			0.0	15.9		
1956								
1957								
1958								
1959								
1960								
1961								
1962	22.0	0.1	16.0	0.0	0.3	34.3	20.1	0.0
1963	10.4	0.1	1.2	0.0	0.0	15.0	43.0	0.0
1964	89.0	3.0	20.0	0.0	6.0	24.4	41.4	0.0
1965	0.5	9.0	0.4	0.0	0.0	13.8	12.4	0.1
1966	12.5	0.0	5.8	0.0	0.0	33.2	16.0	0.0
1967	3.5	18.5	0.5	0.1	0.0	27.0	12.4	0.0
1968	7.4	2.0	21.0	0.0	2.0	29.5	20.0	0.0
1969	8.0	3.5	1.3	0.0		20.0	6.0	0.0
1970	10.0	6.5	11.0	0.0	0.0	31.0	4.0	0.0
1971	1.0	44.0	2.8	0.0	0.0	86.0	1.1	0.0
1972	0.0	6.0	0.1	0.3	1.0	33.0	0.1	0.1
1973	0.5	5.2	0.3	0.0	0.2	28.3	0.5	0.0
1974	2.2	4.8	0.2	0.2	8.5	28.5	0.9	0.0
1975	3.0	4.8	0.5	0.5	2.9	20.3	0.8	0.0
1976	2.4	14.2	0.7	0.0	0.7	35.0	2.2	0.0
1977	3.8	4.9	2.7	0.0	1.8	19.4	3.8	0.0
1978	8.1	4.2	4.4	0.4	1.3	9.1	3.5	0.0
1979	12.0	2.9	11.0	15.0	0.4	24.3	7.2	0.0
1980	25.6	14.0	17.9	0.0	16.3	5.7	14.5	0.0
1981	6.5	8.0	5.0	0.0	6.0	23.4	6.9	0.0
1982	4.0	12.3	2.2	0.0	2.0	18.5	1.7	0.4
1983	4.8	4.2	0.7	0.0	1.8	9.6	1.9	0.0
1984	15.0	36.5	16.6	0.0	6.9	53.8	19.5	3.0
1985	27.0	0.0	0.0	0.0	1.0	0.0	5.0	0.0
1986	12.7	1.0	42.3	0.0	21.1	3.3	8.9	0.0
1987	1.4	3.8	3.2	0.4	67.5	15.7	11.0	3.3
1988	16.8	8.0	33.7	0.0	12.6	13.2	40.0	30.0
1989	10.6	4.1	22.0	0.0	70.4	4.2	32.0	11.5
1990	47.0	6.3	19.2	0.0	63.0	9.8	18.7	5.0
1991	0.0	4.1	18.6	0.0	0.3	0.0	0.5	5.5
1992	16.7	27.3	27.6	0.6	0.0	4.5	0.1	0.0

-Continued-

Table 48. (page 5 of 8)

Year	Chiginagak 272-905		Agripina R. 272-961		Glacier Cr. 272-962		Kilokak 272-963	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953								
1954								
1955					0.0	0.0		
1956								
1957								
1958								
1959								
1960								
1961								
1962	17.1	0.0	12.0	3.0	0.5	3.0	16.2	0.0
1963	1.0	0.0	19.2	0.1	0.0	10.0	0.8	0.0
1964	100.0	0.3	8.5	0.0	0.5	6.0	14.2	0.0
1965	1.2	0.0	20.1	0.0	0.0	1.3	0.1	0.0
1966	90.5	0.0					24.5	0.0
1967	5.8	1.8	7.3	0.5	0.0	5.6	0.3	0.0
1968	53.0	0.0	12.0	0.0	0.0	0.2	65.6	0.0
1969	2.4	0.0	2.5	0.0	0.0	2.0	0.2	0.0
1970	24.0	0.0	15.5	0.0	0.0	5.0	55.0	0.0
1971	4.3	2.0	6.6	0.0	0.0	6.0	0.0	0.0
1972	2.4	0.0	1.6	0.0	0.0	4.6	2.1	0.0
1973	1.0	0.0	4.2	0.5	0.0	3.0	0.1	0.0
1974	1.9	0.0	1.2	0.2	0.0	0.9	0.3	0.0
1975	2.1	0.2	2.7	0.0	0.2	0.5	0.6	0.0
1976	20.1	0.4	4.9	0.0	0.0	1.8	4.9	0.0
1977	22.0	1.3	4.3	0.0	0.0	1.0	0.5	0.0
1978	41.0	0.4	7.4	0.1	0.6	1.1	5.9	0.0
1979	61.1	0.0	23.5	0.0	0.0	1.6	1.1	0.0
1980	38.5	0.0	14.3	0.0	5.2	0.7	61.0	0.0
1981	48.0	0.1	13.4	0.0	0.0	0.6	0.3	0.0
1982	34.1	0.0	33.0	0.0	0.0	1.1	20.0	0.0
1983	3.6	5.0	5.0	0.0	1.3	0.2	0.3	0.0
1984	117.2	0.2	39.8	0.0	1.0	3.2	75.8	0.0
1985	17.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0
1986	85.0	0.1	0.0	0.0	0.0	0.0	175.0	0.0
1987	20.0	0.3	1.0	0.0	6.2	0.0	0.0	0.0
1988	52.9	14.4	78.0	20.6	0.3	0.0	137.8	0.0
1989	89.0	4.0	53.0	0.0	0.3	0.1	10.5	0.0
1990	84.8	2.4	33.3	0.0	1.1	0.2	83.4	0.0
1991	5.2	5.0	9.6	5.0	.2	1.2	9.7	0.0
1992	137.8	5.1	180.5	5.7	10.4	0.0	157.8	0.0

-Continued-

Table 48. (page 6 of 8)

Year	Coal Cape 273-702		Ivan River 273-722		Foot Bay 273-802		Spoon Cr. 273-823	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953							1.0	1.5
1954								
1955							15.0	0.0
1956								
1957								
1958								
1959								
1960								
1961								
1962	129.0	12.0	85.0	36.0	13.3	1.0	10.6	2.0
1963	127.5	0.0	124.0	4.5	11.0	1.0	3.5	0.0
1964	60.0	10.0	65.5		12.0	0.9	13.2	0.0
1965	48.0	5.9	89.1	0.0	5.3	0.0	1.4	0.0
1966	9.7	2.0	94.5	1.0	18.4	0.2	15.5	0.0
1967	9.0	1.0	35.0	7.0	4.7	0.0	2.4	0.0
1968	39.0		85.0	0.0	14.2	0.0	7.8	0.0
1969	77.0	0.0	302.0	0.0	14.2	0.1	6.5	0.0
1970	69.0	0.0	103.0	17.0	14.5	3.0	10.5	0.0
1971	8.0	0.0	205.0	90.0	30.0	5.2	7.0	0.0
1972	2.5	4.5	4.4	13.0	0.6	0.6	0.2	0.0
1973	1.6	1.0	43.8	17.2	7.5	0.3	0.8	0.2
1974	62.8	5.1	3.9	22.3	2.1	0.3	1.7	0.0
1975	21.0	4.5	96.0	24.5	9.8	0.0	4.5	0.0
1976	70.3	13.4	17.3	22.1	7.0	1.1	9.3	1.9
1977	78.5	0.0	236.0	36.0	18.3	0.8	5.7	0.1
1978	218.5	0.1	73.7	0.8	16.6	2.0	7.5	0.1
1979	50.2	2.0	90.0	32.0	9.6	0.4	7.1	1.0
1980	53.0	12.5	51.0	22.1	3.5	1.0	4.5	0.9
1981	84.9	3.0	117.0	28.0	10.0	4.6	6.7	0.8
1982	30.5	3.3	21.0	16.3	1.4	2.8	0.1	0.4
1983	17.8	0.5	12.2	7.2	1.2	1.1	0.8	0.0
1984	60.2	6.5	103.0	40.0	6.0	1.8	0.3	0.1
1985	3.5	0.5	49.6	23.3	5.9	1.7	0.3	0.0
1986	22.0	0.0	10.1	0.0	4.9	0.0	0.5	0.0
1987	13.4	0.4	14.8	2.4	6.6	1.0	0.0	0.0
1988	135.6	10.6	57.0	5.6	13.0	0.9	3.1	0.3
1989	2.9	1.5	32.0	0.8	10.8	0.6	1.7	0.1
1990	7.5	0.8	23.1	14.3	8.2	0.2	0.8	2.0
1991	53.6	0.0	42.2	3.1	0.0	4.9	0.0	1.7
1992	0.0	0.3	31.4	45.1	1.1	0.0	0.8	0.2

-Continued-

Table 48. (page 7 of 8)

Year	Portage 273-842		Seal Bay 273-843		Kupreanof 275-401		Smokey Hollow 275-402	
	Pink	Chum	Pink	Chum	Pink	Chum	Pink	Chum
1953	5.3	0.5	2.0	2.0				
1954								
1955	0.0	20.0	0.0	0.6				
1956								
1957								
1958								
1959								
1960								
1961								
1962	0.0	23.8	0.0	1.8	12.2	0.0	3.6	3.9
1963	27.0	4.4	6.0	0.0	3.5	0.0	1.5	2.0
1964	0.0	20.4	1.3	0.0	13.0	1.1	0.8	17.0
1965	1.7	8.3	3.3	0.0	3.0	0.0	0.0	0.5
1966	24.4	8.9	4.0	0.0			0.0	7.4
1967	28.5	15.0	6.0	0.5	6.7	0.0	0.0	0.3
1968	3.3	5.0	2.5	0.0	14.0	0.0	0.0	0.9
1969	0.1	27.5	7.5	0.0	6.8	0.2	0.0	0.2
1970	9.0	27.6	5.2	0.0	11.0	0.0	0.0	2.5
1971	10.2	60.1	5.0	10.1	3.5	0.0	0.0	1.5
1972	0.1	21.4	0.0	11.1	1.0	0.5	0.0	2.0
1973	2.9	18.1	2.0	0.1	0.2	0.5	0.2	0.6
1974	0.0	8.7	1.2	1.0	1.2	0.5	0.4	0.8
1975	0.4	9.2	5.3	2.3	1.0	0.1	0.1	0.1
1976	0.9	8.5	0.6	4.6	4.0	0.0	0.6	0.8
1977	5.0	20.5	3.1	5.2	5.1	0.0	2.3	1.6
1978	4.1	19.0	1.5	1.4	16.1	0.0	0.5	0.5
1979	17.7	4.5	0.2	0.6	28.0	0.0	0.6	0.4
1980	10.2	18.5	1.0	0.5	11.6	0.0	0.5	0.3
1981	6.5	33.3	9.0	0.0	22.5	0.1	1.5	0.0
1982	0.0	6.3	0.0	3.5	5.5	0.0	0.0	0.0
1983	0.3	7.3	0.8	0.0	3.5	0.0	0.2	2.6
1984	1.0	14.6	4.6	5.5	5.2	0.0	0.3	1.4
1985	0.0	9.1	7.3	0.0			0.2	0.0
1986	0.7	5.0	0.0	0.1			0.5	0.1
1987	0.0	10.2	0.5	3.9			1.4	0.1
1988	4.0	6.1	0.0	0.8	5.1	0.0	0.9	1.0
1989	1.2	1.6	1.7	0.8	4.2	0.1	9.4	0.1
1990	0.9	8.9	0.0	2.2	13.5	0.0	1.3	1.5
1991	0.0	22.0	0.0	3.4	7.1	0.0	0.0	10.0
1992	2.5	5.3	1.5	2.0	28.8	0.0	1.2	0.8

-Continued-

Table 48. (page 8 of 8)

Year	Wasco's Creek 275-404		Ivanof River 275-406		Humpback Cr. 275-502	
	Pink	Chum	Pink	Chum	Pink	Chum
1953						
1954						
1955						
1956						
1957						
1958						
1959						
1960						
1961						
1962	23.0	0.0	48.5	2.5	64.5	3.0
1963	1.0	0.0	128.0	4.0	26.4	0.4
1964	0.0	6.5	15.0	0.8	40.7	0.2
1965	2.0	0.0	61.4	5.5	13.8	0.0
1966	10.5	0.0	39.5	9.0	30.0	0.0
1967	2.0	0.0	98.5	3.0	36.7	0.0
1968	0.3	0.0	60.0	0.5	52.3	0.0
1969	4.0	0.0	122.4	0.5	75.0	0.0
1970	2.5	0.0	51.0	10.0	31.0	0.0
1971	3.0	4.0	25.0	21.0	13.4	1.5
1972	0.3	0.0	6.3	7.8	0.5	1.0
1973	0.0	0.0	24.7	8.2	6.1	0.6
1974	6.3	1.9	41.9	8.1	10.2	0.7
1975	0.9	0.0	33.4	15.0	9.2	3.5
1976	6.2	0.2	55.0	6.8	20.3	0.7
1977	1.6	0.5	51.8	9.0	48.2	1.2
1978	9.7	0.0	71.5	4.2	51.0	0.2
1979	2.0	0.1	89.0	7.1	59.0	5.0
1980	0.0	3.0	40.5	22.7	18.7	3.1
1981	0.0	0.2	39.9	17.0	46.5	2.0
1982	0.1	2.3	2.7	9.4	4.8	11.0
1983	2.0	0.0	34.3	5.6	17.8	0.0
1984	14.6	1.4	61.0	42.5	18.3	0.7
1985	0.3	0.0	181.6	10.6	36.8	0.3
1986	10.0	0.0	150.0	7.6	12.0	0.0
1987	11.9	0.1	24.7	6.9	15.5	0.8
1988	14.0	1.1	126.0	30.6	30.8	0.4
1989	3.8	0.3	161.0	4.0	51.0	0.5
1990	0.5	4.4	47.3	33.7	7.4	0.5
1991	0.0	0.1	118.3	332.9	128.8	0.0
1992	9.0	0.0	109.3	285.8	36.1	2.3

[a] Escapements from 1953-1984 are based on index estimates described by Shaul and Schwarz (1989) and from 1985-1992 estimates are based on area-under-the-curve methodology described by Johnson and Barrett (1988).

Table 49. Subsistence harvest of salmon in the Chignik Management Area, 1976-1991.[a]

	Subsistence Harvest					
Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1976	100	6,000	1,500	500	150	8,250
1977	50	9,700	2,400	1,800	600	14,550
1978	50	6,000	500	2,100	600	9,250
1979	14	7,750	34	262	0	8,060
1980	9	7,831	27	400	141	8,408
1981	100	5,840	0	0	0	5,940
1982	2	2,320	8	1	0	2,331
1983	0	3,438	1,880	1,680	1,136	8,134
1984	26	8,222	553	403	247	9,451
1985	1	7,615	60	32	0	7,708
1986	6	10,356	261	121	95	10,839
1987	10	7,021	278	204	261	7,774
1988	3	8,848	1,817	79	158	10,905
1989	20	12,325	1,200	150	148	13,843
1990	112	9,733	566	1,332	295	12,038
1991	29	12,649	14	373	115	13,180
1992	12	11,276	911	502	236	11,783
Average	32	8,054	706	585	246	9,623

[a] Subsistence harvests are estimated by expanding results of returned permits to total number of permits issued.

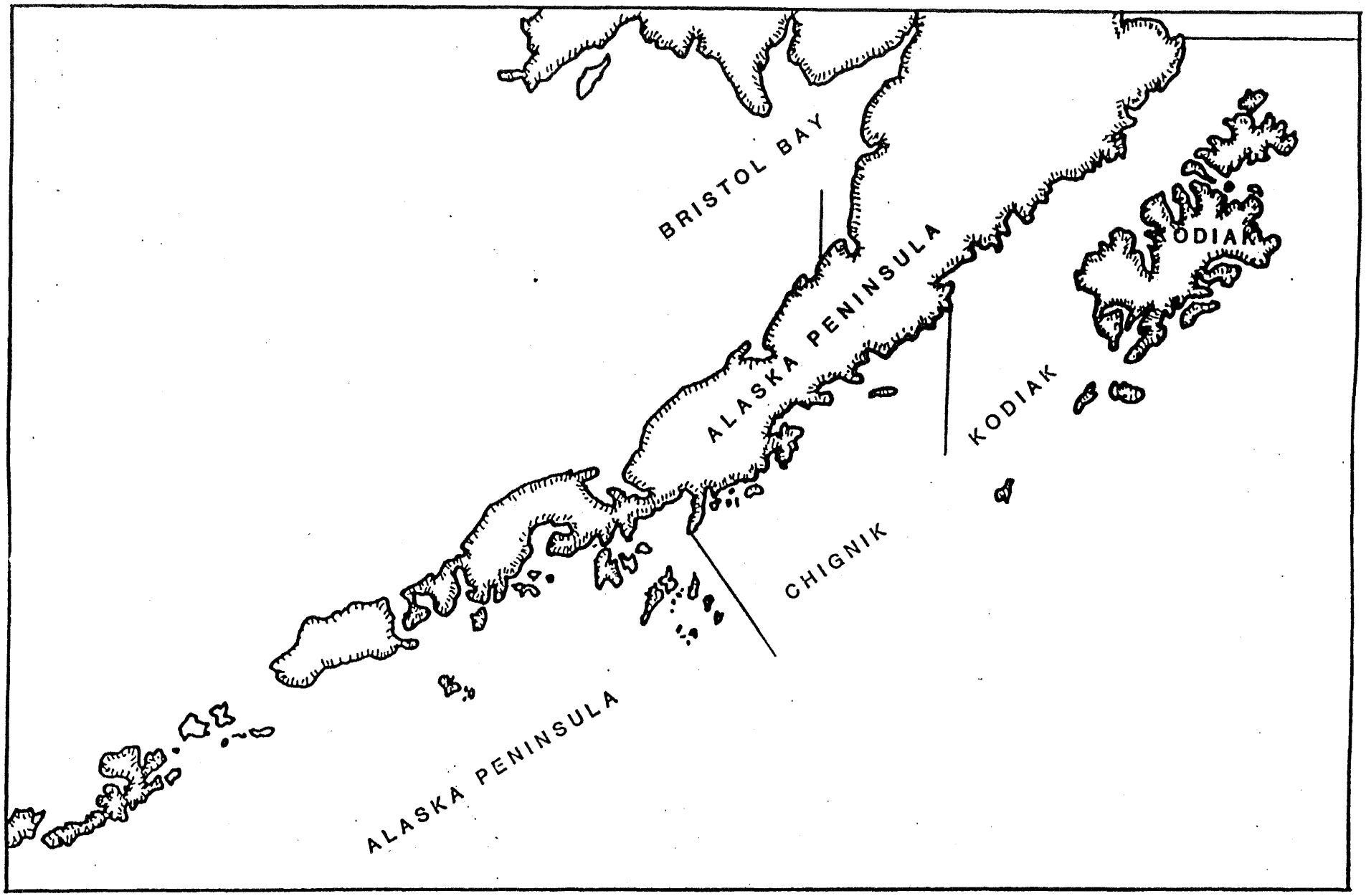

Figure 1. Map of the Alaska Peninsula illustrating the relative location of the Chignik Management Area, 1992.

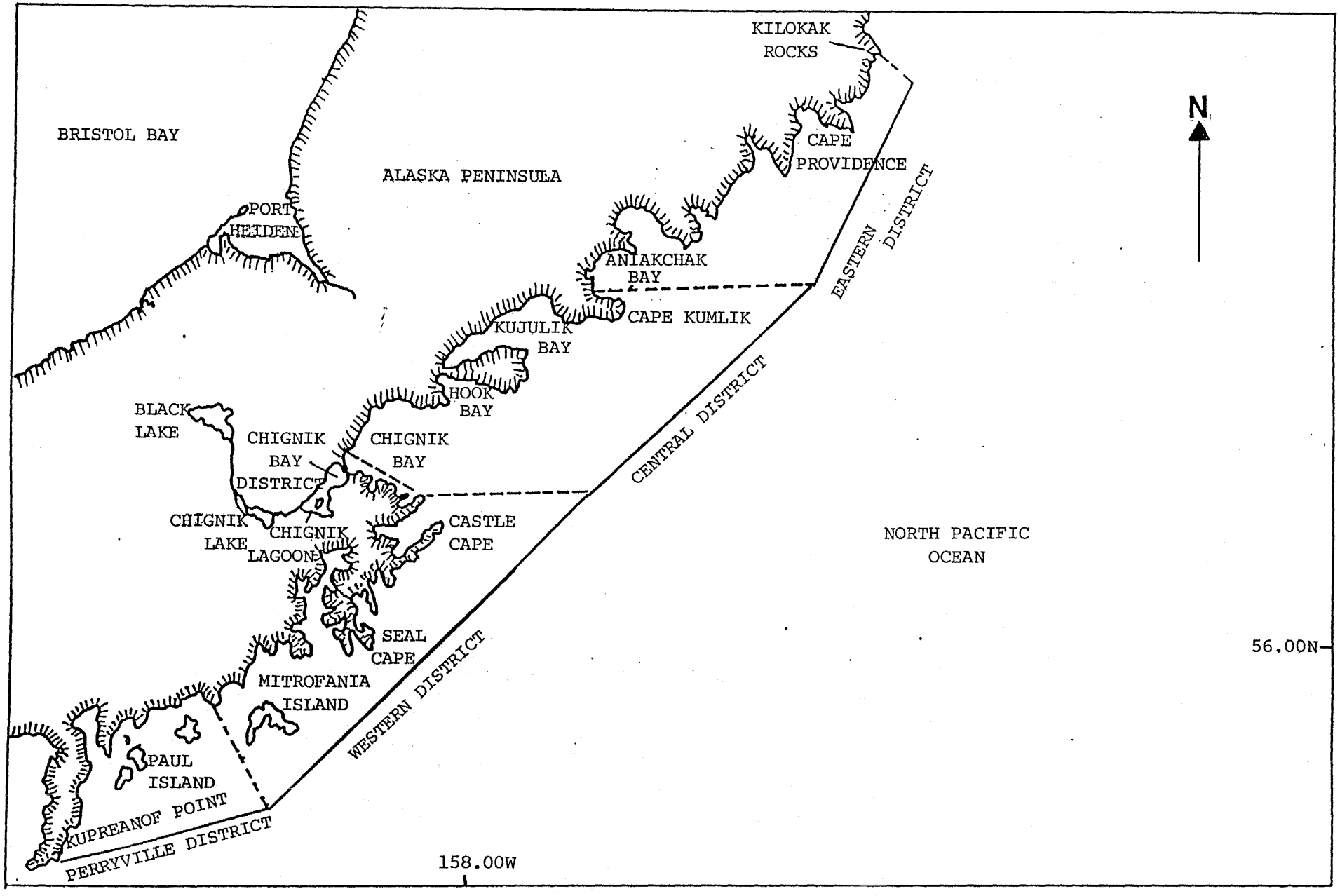

Figure 2. Map of the Chignik Management Area illustrating district boundaries, 1992.

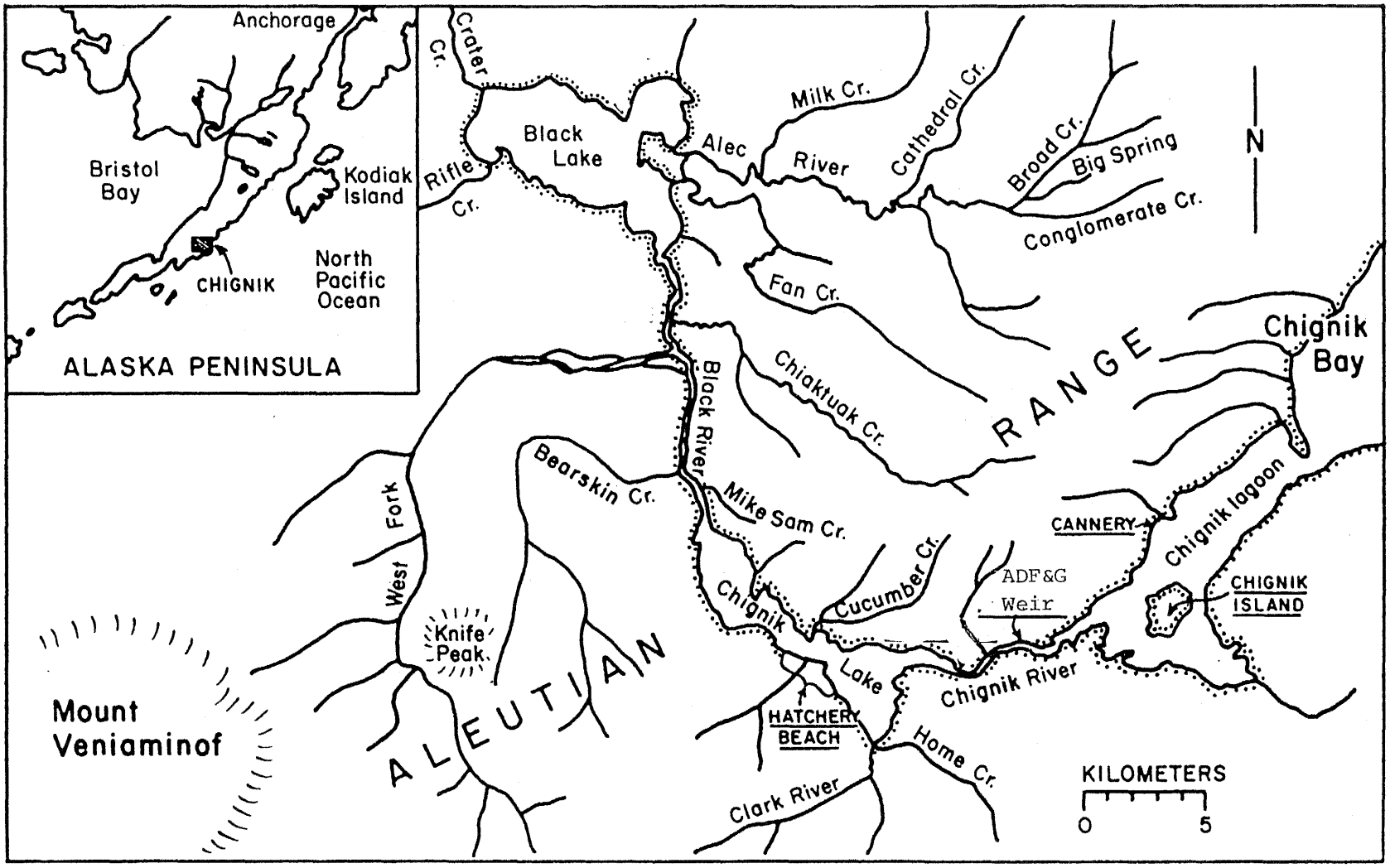

Figure 3. Map of the Chignik River watershed with inset of western Alaska, 1992.

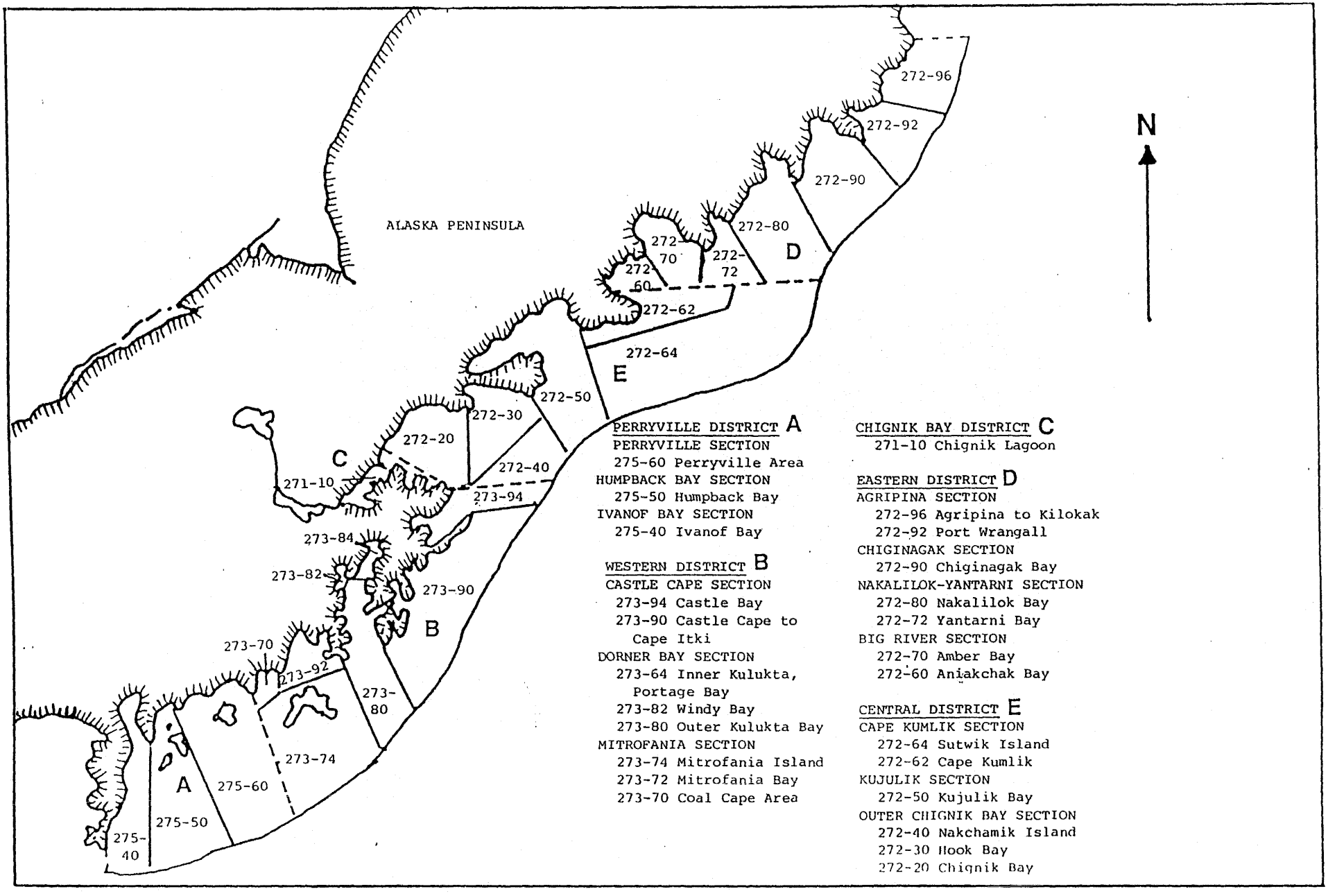

Figure 4 . Map of the Chignik Management Area illustrating statistical areas, 1992.

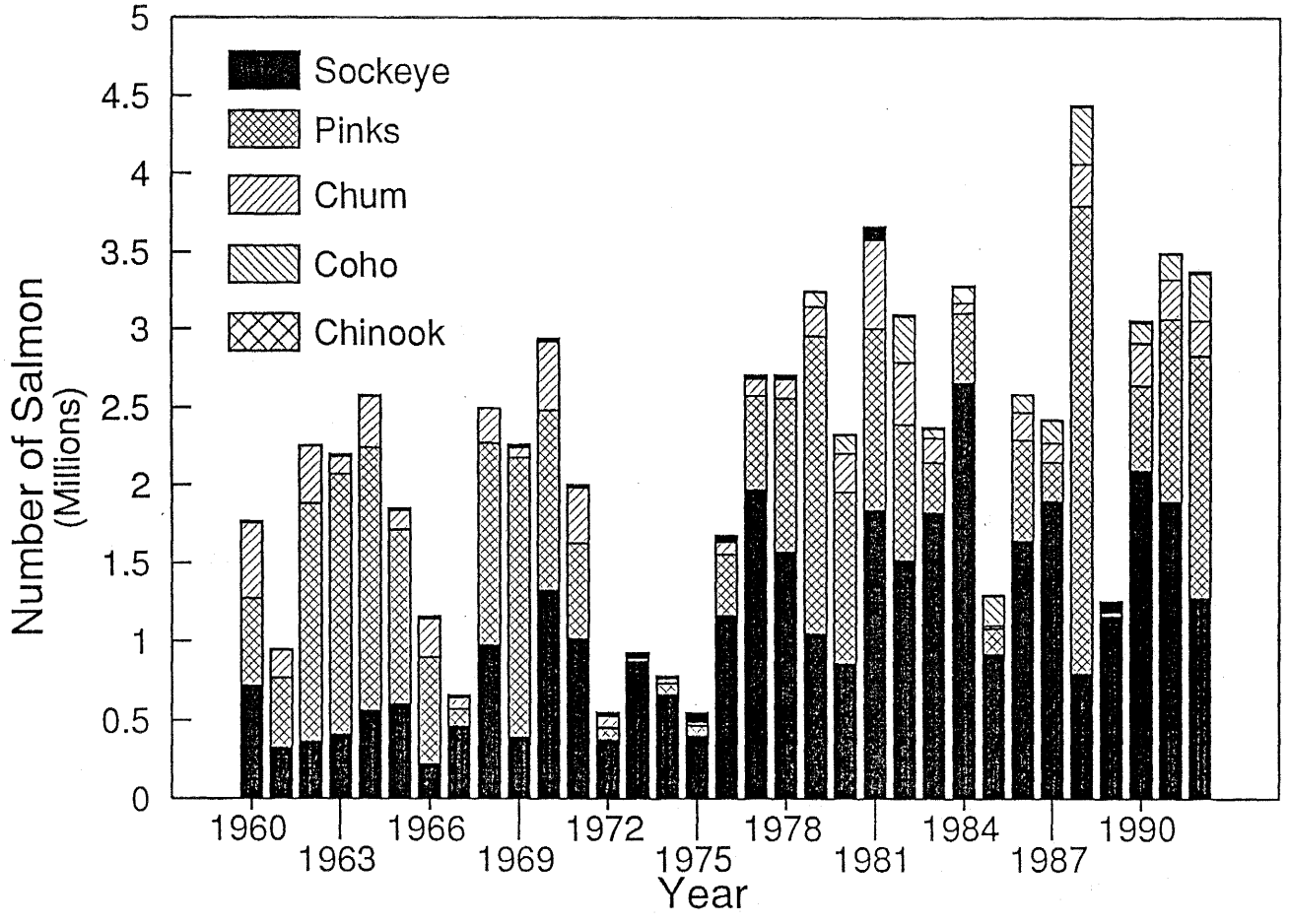

Figure 5. Chignik Management Area total salmon harvests by species, 1960 - 1992.

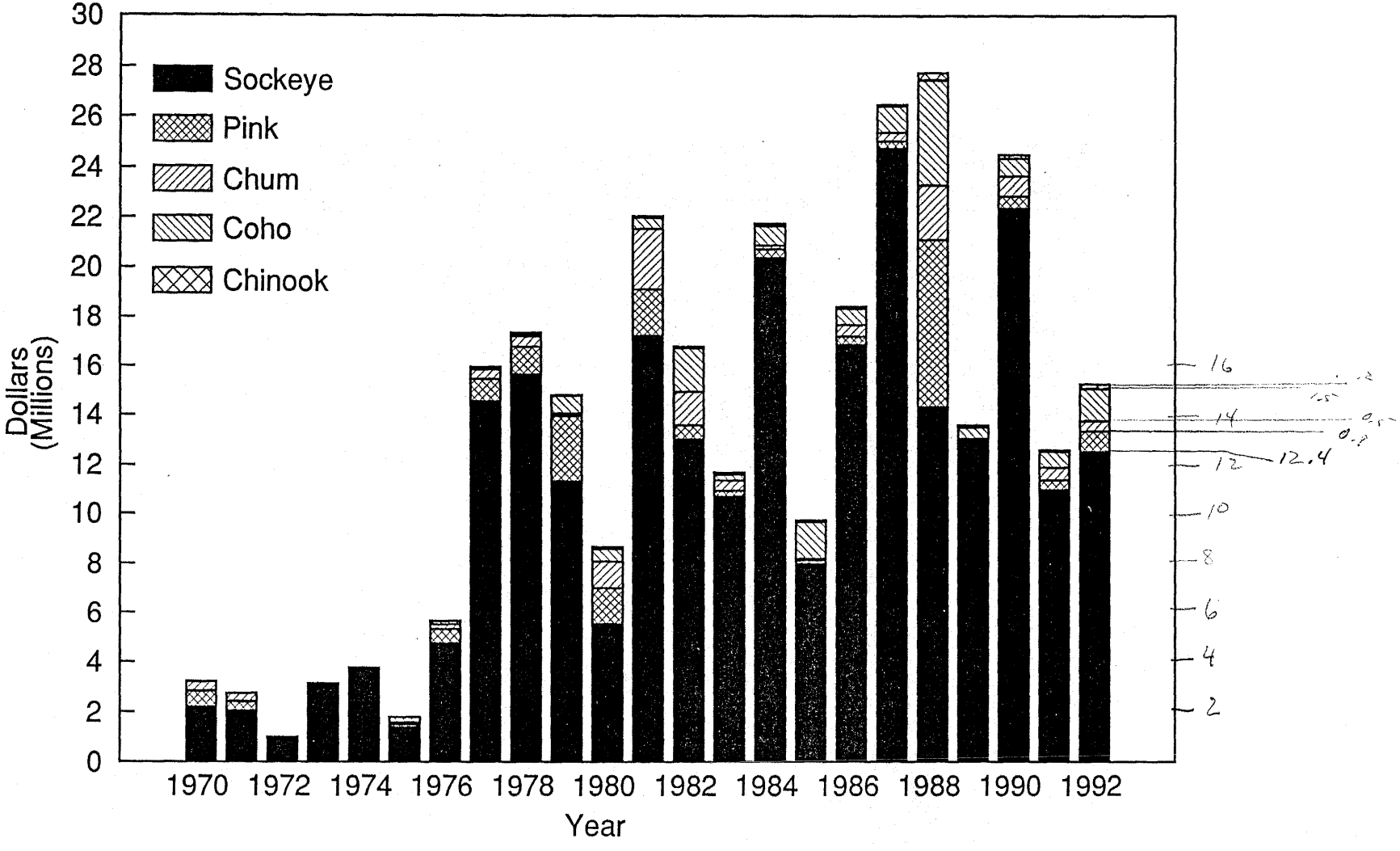

Figure 6. Exvessel value of Chignik Management Area salmon harvests, 1970-92.

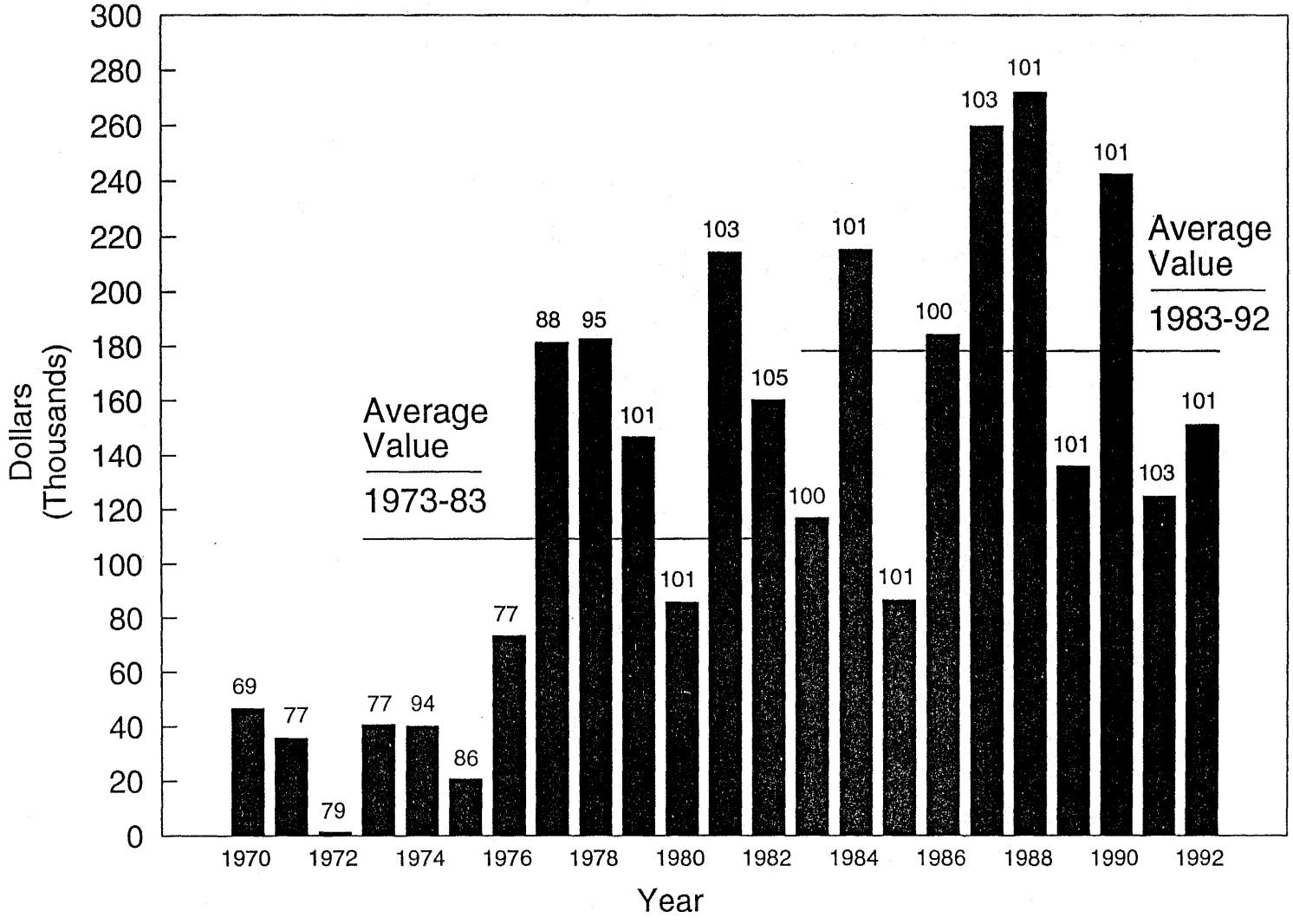

Figure 7. Average economic value of Chignik salmon per permit holder, 1970-92. Number above bar represents the number of permits fished that year.

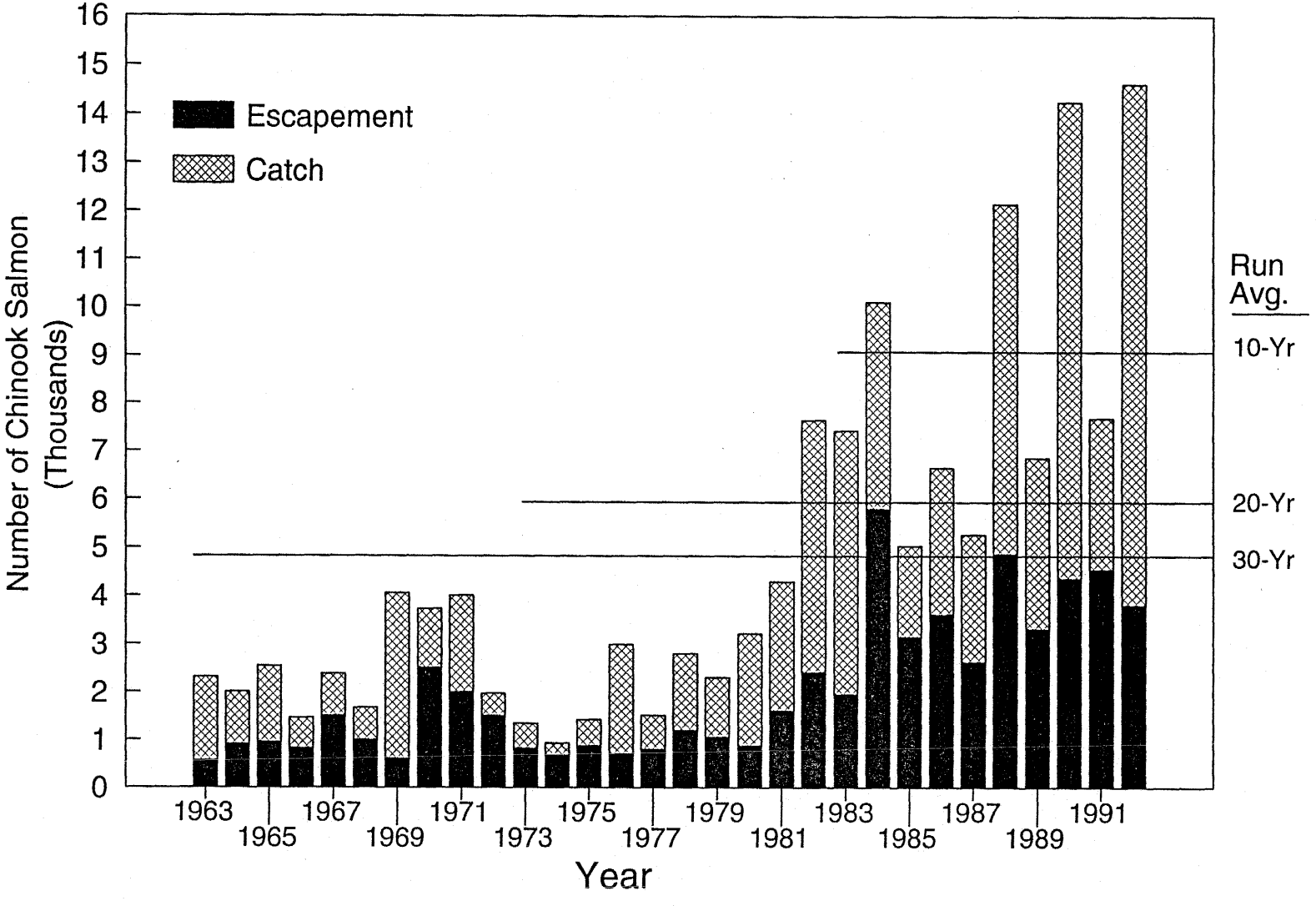

Figure 8. Chignik Management Area chinook salmon catch and escapement, 1963-92.

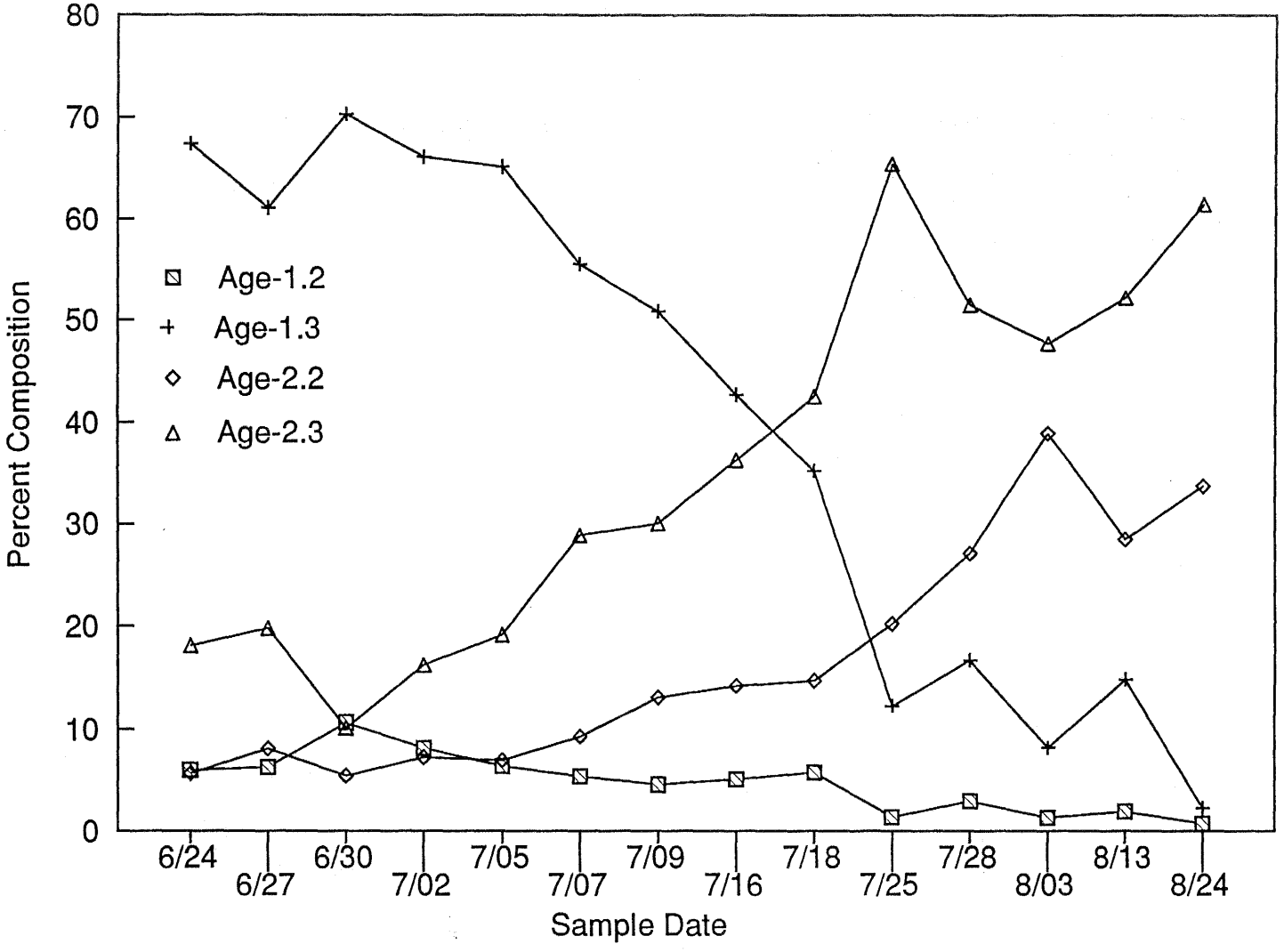

Figure 9. Age composition of sockeye salmon sampled in the Chignik Lagoon fishery, 1992.

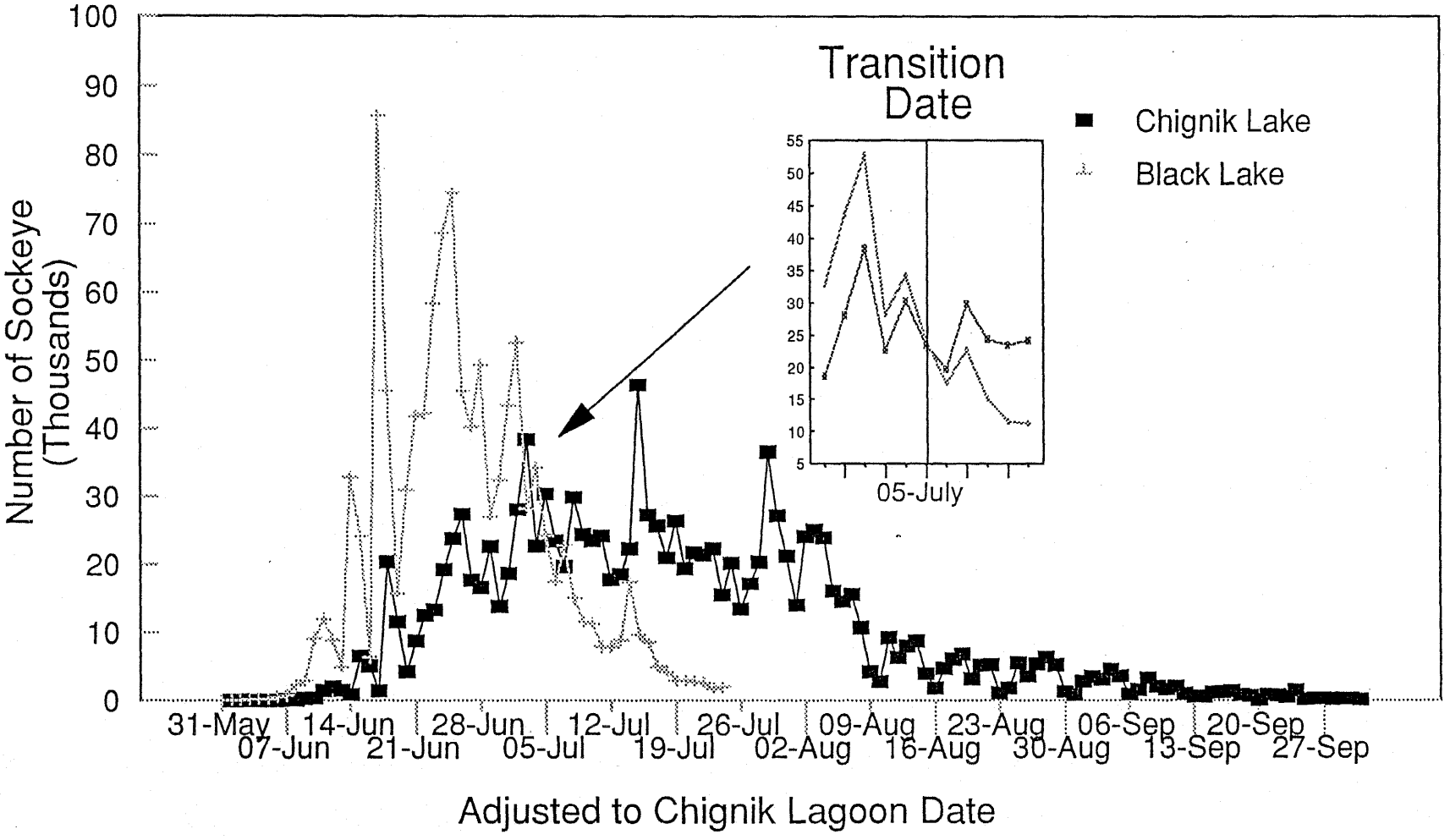

Figure 10. Daily sockeye salmon run by stock to the Chignik Lake system as estimated by scale pattern analysis, 1992.

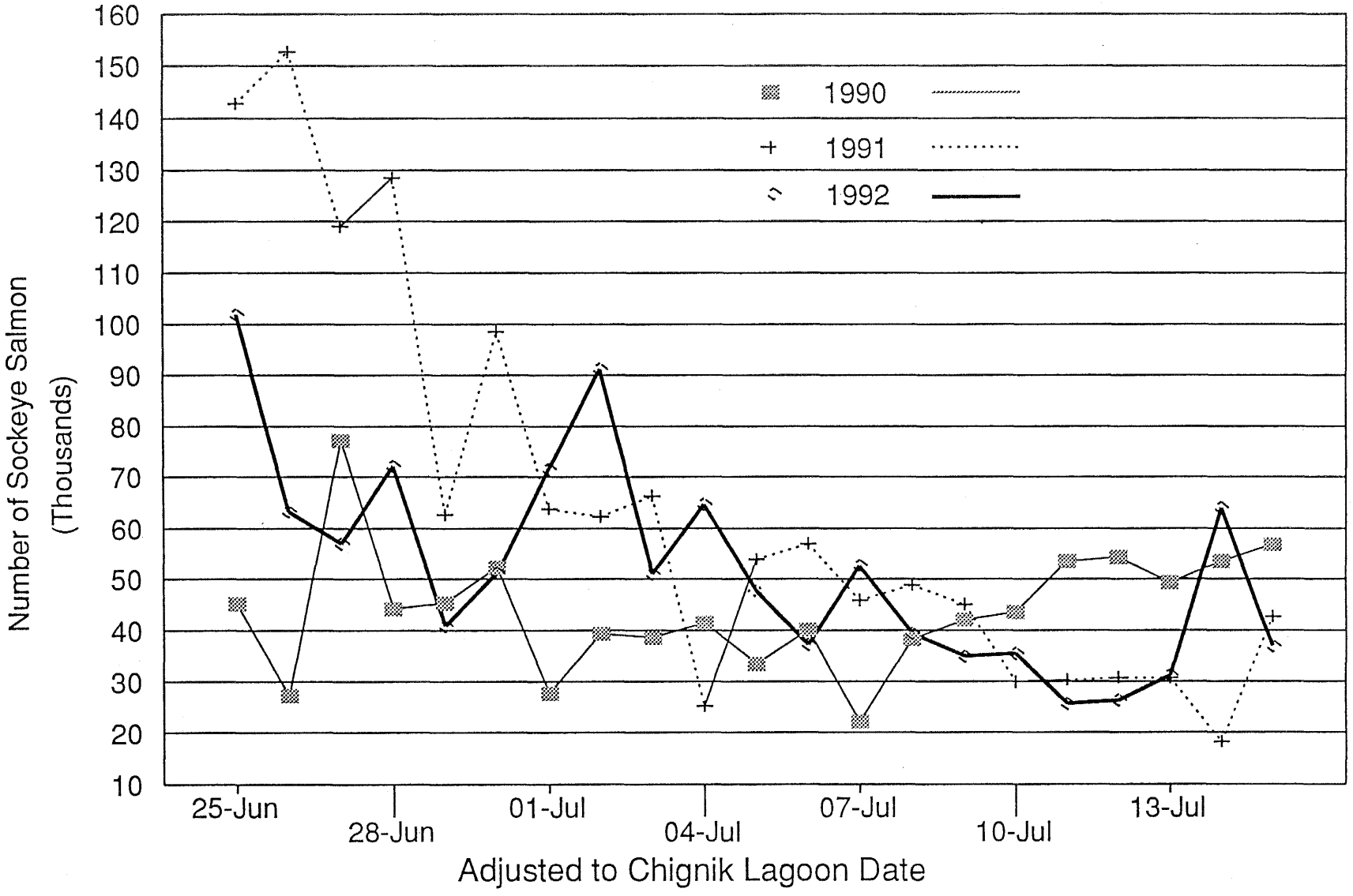

Figure 11. Comparison of three sockeye runs to the Chignik Lakes system, 1990 to 1992.

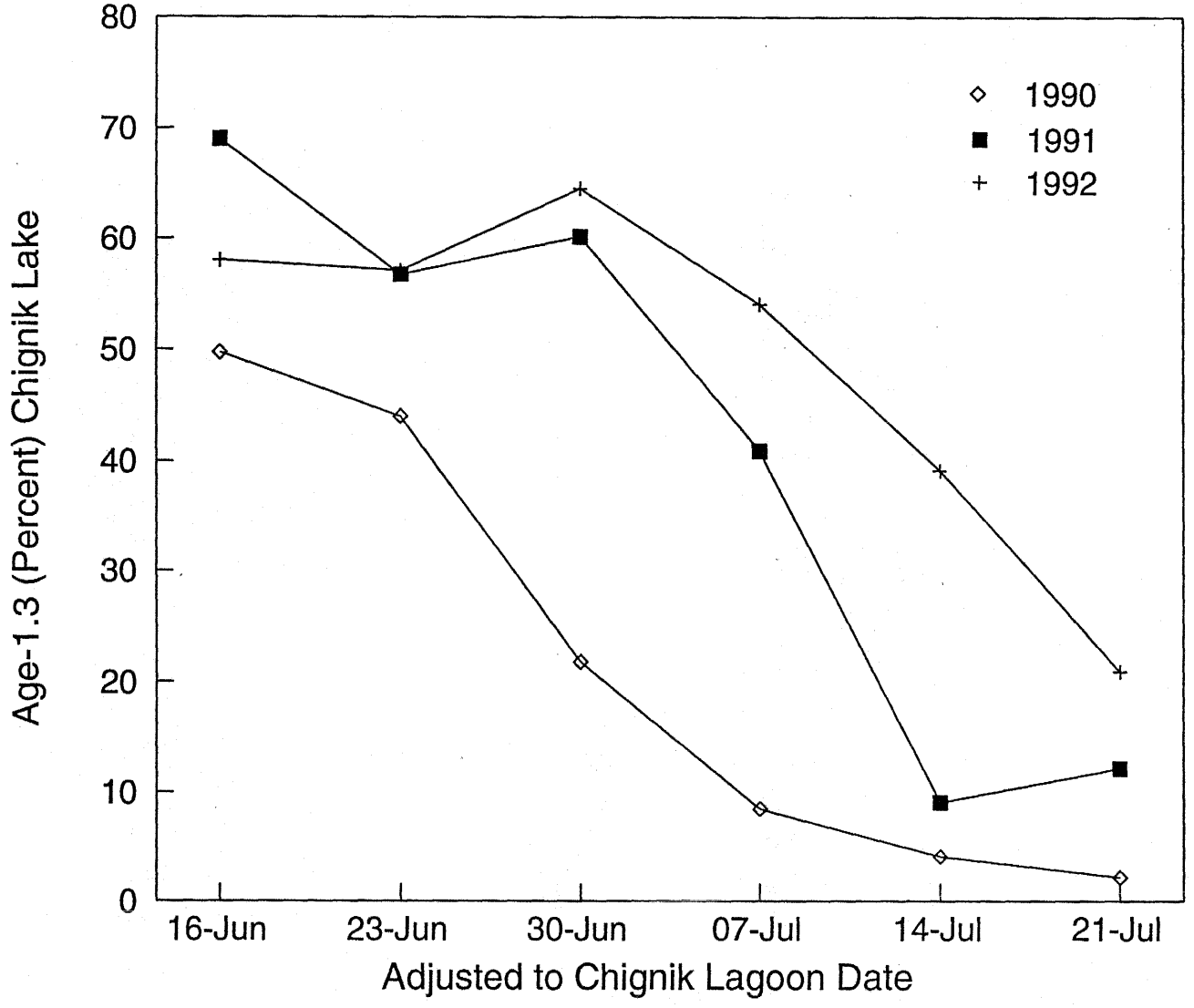

Figure 12. Percentage of age-1.3 sockeye salmon by date entering Chignik Lake, 1990-1992.

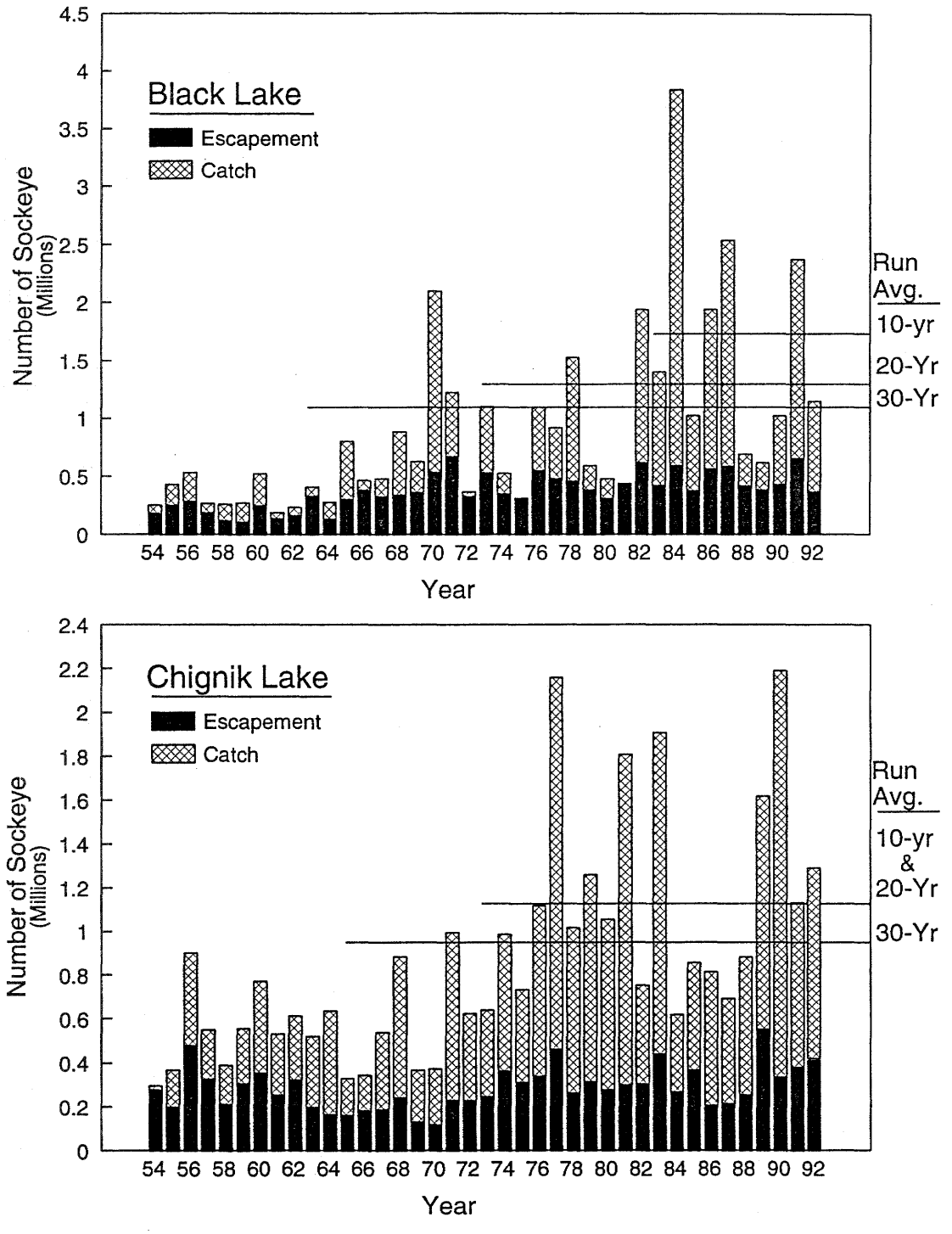

Figure 13. Black and Chignik Lake sockeye salmon catch and escapment, 1954-92.

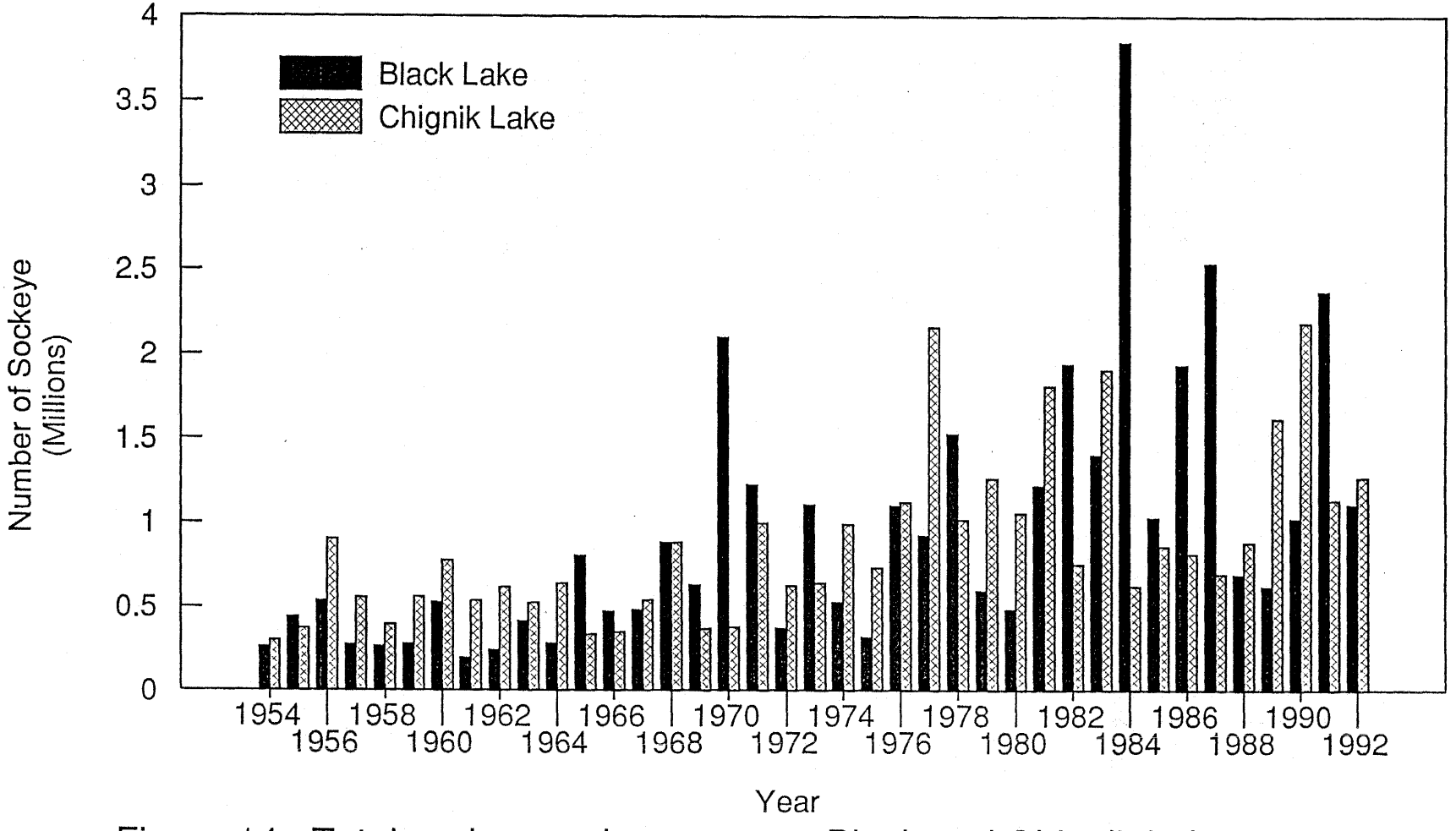

Figure 14. Total sockeye salmon runs to Black and Chignik Lakes, 1954-1992.

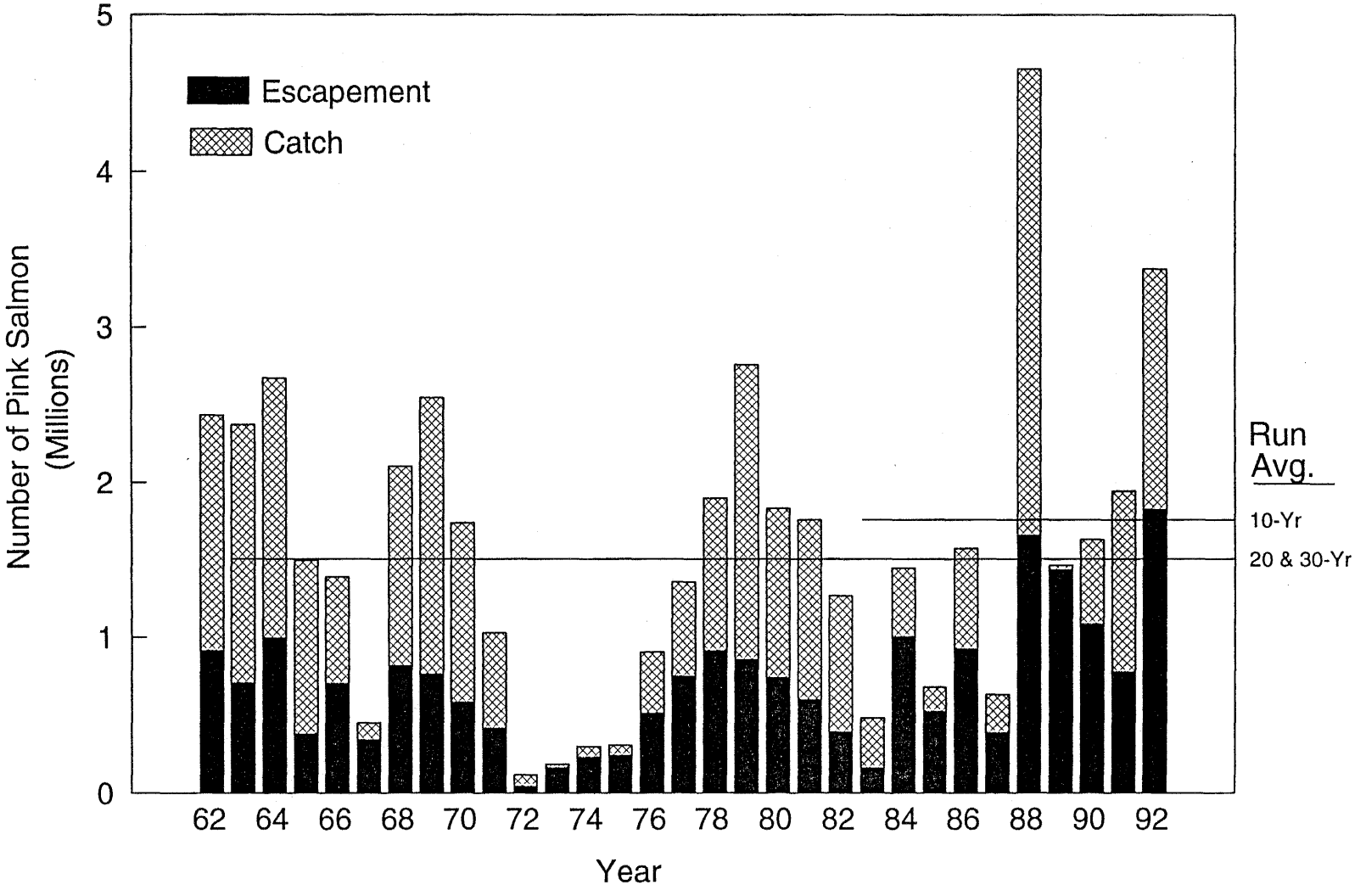

Figure 15. Chignik Management Area pink salmon catch and escapement 1962-92.

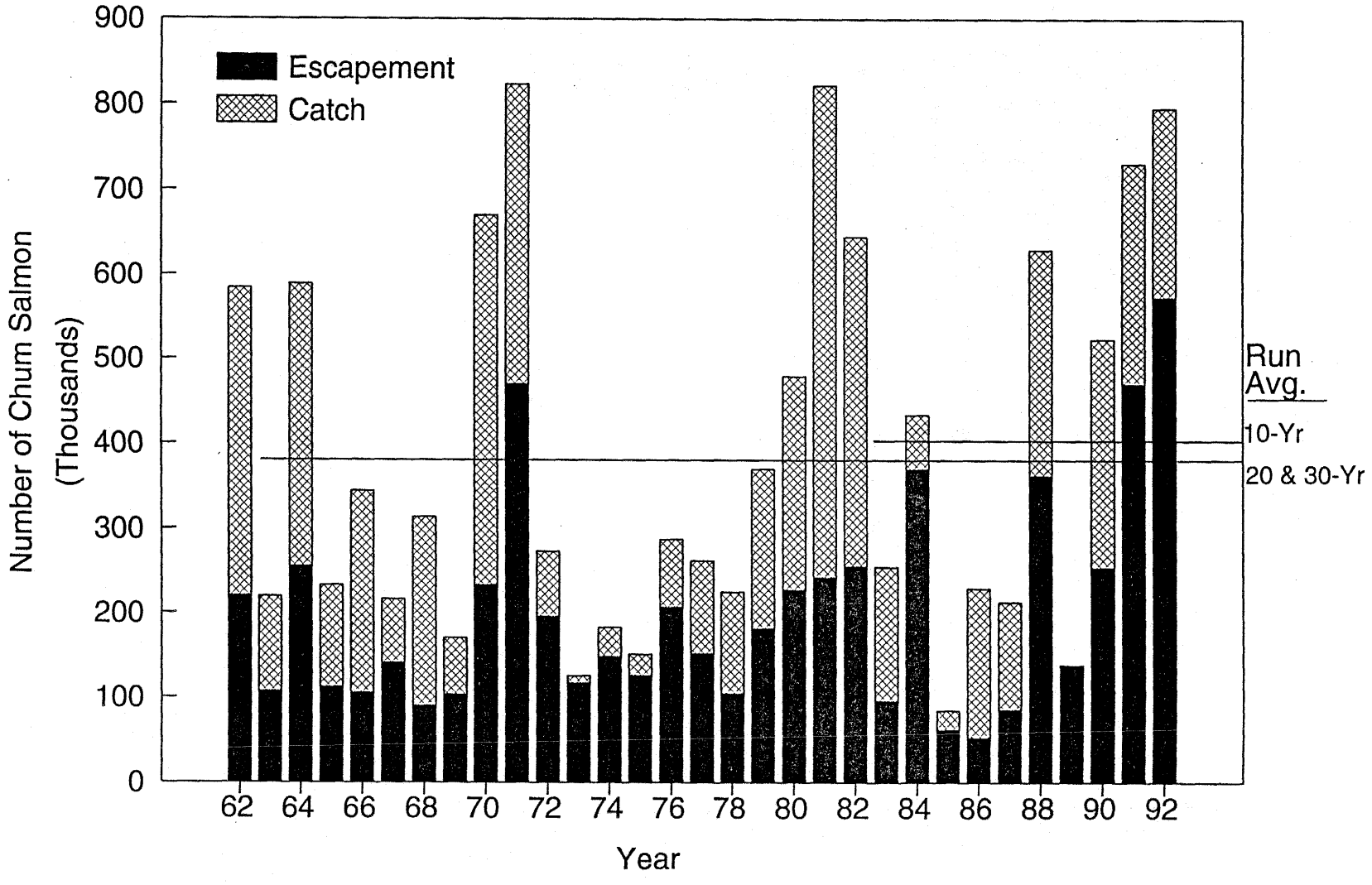

Figure 16. Chignik Management Area chum salmon catch and escapement, 1962-92.

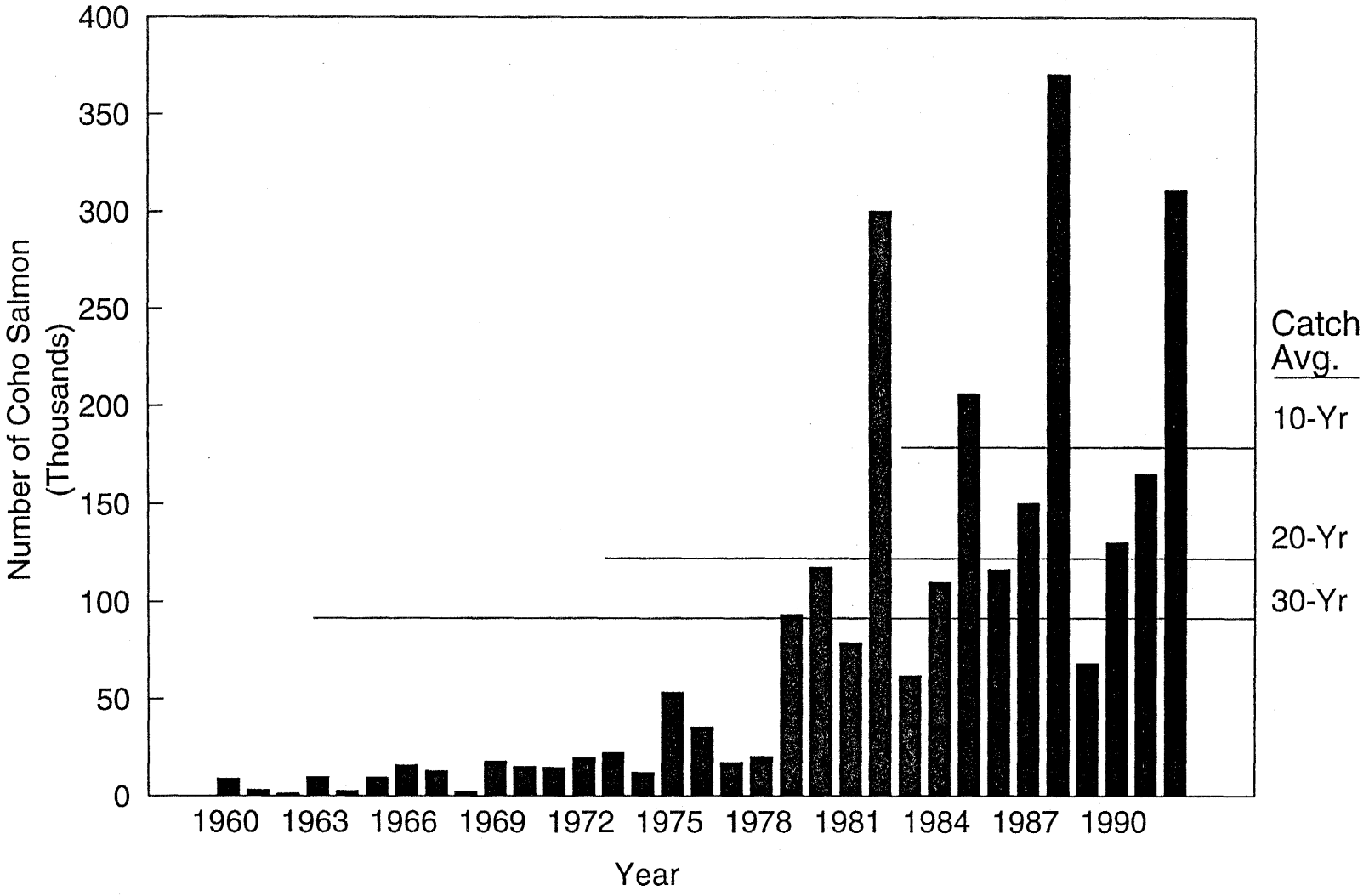

Figure 17. Chignik Management Area Coho salmon catch, 1960-92.

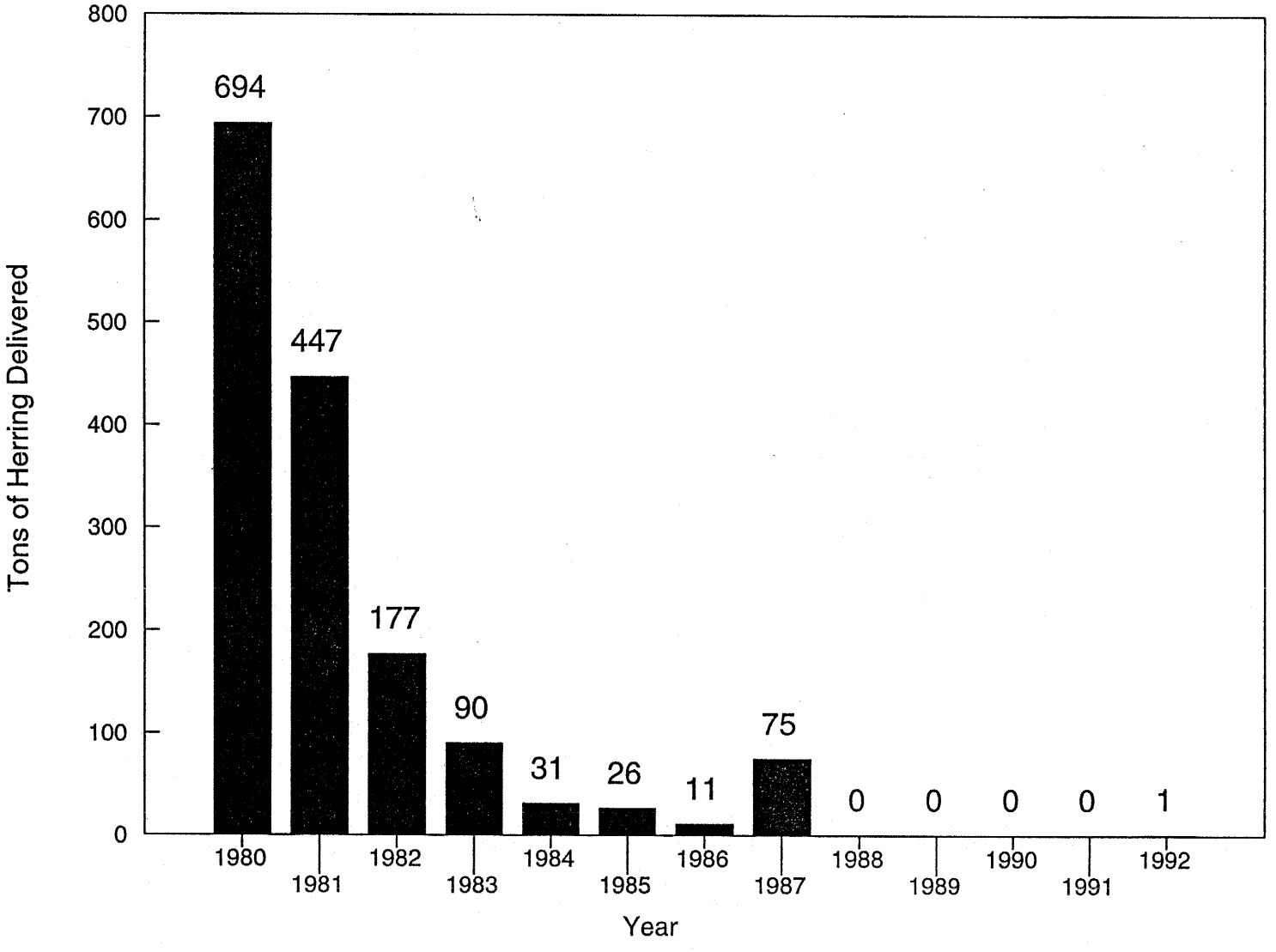

Figure 18. Chignik Management Area herring harvests, 1980-92.

APPENDIX

Appendix A.1. Chignik Mangagement Area forecast for sockeye salmon, 1992.

Forecast Area: Chignik Management Area
Species: Sockeye

PRELIMINARY FORECAST OF THE 1992 RUN

	Point Estimate	80% Prediction Forecast Range
Early Run (Black Lake)		
Total Run:	1,800,000	1,150,000-2,500,000
Escapement:	400,000	
Catch:	1,400,000	
Late Run (Chignik Lake)		
Total run	900,000	700,000-1,100,000
Escapement:	250,000	
Catch:	650,000	
Total Chignik Run		
Total Run	2,700,000	1,850,000-3,600,000
Escapement:	650,000	
Catch:	2,050,000	

FORECAST METHODS:

The estimated run to Black Lake is a summation of a regression for major year classes and a 10-year average for minor year classes while the Chignik Lake run is based on recruit per spawner relationship. The Black Lake forecast is based on the historical relationship between the prior year number age 1.2 fish, the average length of prior year age 1.2 male fish, and the parent year escapement. These variables are used in a framework for the multiple linear regression model to predict the 1992 run forecast for 1.3 and 2.3 age classes. All other age classes are predicted from a ten year average. The Chignik Lake forecast has historically been quite variable in its accurracy and developing a model such as the one used for the first run has been unsuccessful. The forecast for 1992 was derived using an average return per spawner for each age class represented in the return.

DISCUSSION OF THE 1992 FORECAST:

Early Run

The estimated return of Black Lake sockeye salmon in 1992 is 1.80 million fish. This is approximately .22 million fish more than the 1981-90 average run of 1.62 million fish. The 1987 parent year escapement was 589,291 fish, 189,291 fish above the 400,000 fish escapement goal. The estimated return of 144,174 age 1.2 fish in 1991 was 30,066 less the 10 year average of 174,240.

-Continued-

Late Run

The estimated return of second run sockeye salmon in 1992 is .90 million fish, .33 million less than the 1981-90 average of 1.22 million fish. The second run forecast has historically been quite variable when compared to actual returns. The 1986 parent year escapement of 207,231 fish was 42,769 below the 250,000 desired escapement goal. The average return per spawner for each contributing age class was used to forecast the return and it is anticipated that the actual return will fall within the prediction bounds.

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Assistant Area Biologist
Chignik Area ADF&G

Chignik Management Area
1992 Harvest Projections
(in thousands)

Chinook[1]	Sockeye[2]	Coho[3]	Pink[4]	Chum[5]	Total
5	2,050	200	2,000	235	4,490

1 Chinook harvest is dependent upon the amount of fishing time allowed for sockeye salmon in July; the harvest projection approximates a 10-year average.

2 Estimate includes projected harvest in the Cape Igvak and Southeast Mainland District intercept fisheries.

3 Coho salmon harvest is related to the strength of the Chignik Lake sockeye run. Lagoon harvest is determined by parent escapement and return per spawner while outside catches are based on a 10-year harvest average.

4 The pink salmon forecast is driven by the escapements to the Central and Eastern Districts (69 percent). Unstable stream conditions in these districts have resulted in poor returns from excellent parent year escapements.

5 The chum forecast is based on a 10-year average of escapements and returns.

Appendix A.2. Comparison of Black Lake (early run) and Chignik Lake (late run) forecasts versus actual runs in millions of sockeye salmon, 1987-1992.

	Early Run			Late Run			Combined Total Run		
Year	Forecast	Actual	Percent Difference	Forecast	Actual	Percent Difference	Forecast	Actual	Percent Difference
1987	1.8	2.5	-38.9	1.3	0.7	46.2	3.1	3.2	-3.2
1988	1.4	0.7	50.0	0.8	0.9	12.5	2.2	1.6	27.3
1989	1.2	0.6	50.0	1.0	1.6	-60.0	2.2	2.2	0.0
1990	0.8	1.0	25.0	1.0	2.2	-120.0	1.8	3.2	-77.8
1991	2.8	2.4	14.3	1.1	1.1	-18.2	3.9	3.5	7.7
1992	1.8	1.1	38.9	0.9	1.3	11.1	2.7	2.4	11.1
Average Difference			15.2			-27.9			-1.3

Appendix B. Management plan for the Chignik Management Area commercial salmon fishery, 1992.

1992

MANAGEMENT PLAN

FOR THE

CHIGNIK MANAGEMENT AREA

COMMERCIAL SALMON FISHERY

By: ALAN QUIMBY AND DAVID OWEN

Regional Information Report[1] No.4K92-10

Alaska Department of Fish and Game
Division of Commercial Fisheries, Westward Region
211 Mission Road
Kodiak, Alaska 99615

February 1992

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

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INTRODUCTION

The Chignik Commercial Salmon Management Area encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point (Figure 1). The area includes the Chignik River system and approximately 100 other salmon producing streams and tributaries.

The management area is divided into five districts: Eastern, Central, Chignik Bay, Western, and Perryville Districts (Figure 2). The Alaska Department of Fish and Game (ADF&G) manages all districts to achieve escapement goals for all salmon species while allowing for the orderly harvest of fish surplus to spawning requirements.

For 1992, waters closed to salmon fishing are described in the 1991-92 commercial finfish regulation booklet. Three closed water changes were made by the Board of Fisheries in 1987 and a boundary change made in 1989. These changes increased the closed water areas in Ivanof Bay, Portage Bay, Kujulik Bay, and moved the district boundary line between the Western and Central Districts (Figure 3).

Purse and hand seines are the only legal gear types for the Chignik Area commercial salmon fishery. In the Eastern, Central, Western and Perryville Districts, no seine less than 100 fathoms or more than 225 fathoms in length may be used. In the Chignik Bay District seines may not be less than 100 fathoms or more than 125 fathoms in length.

This document provides for management of the Chignik salmon fisheries. In-season fishing time will be established by emergency order as relative run strength of salmon stocks are assessed.

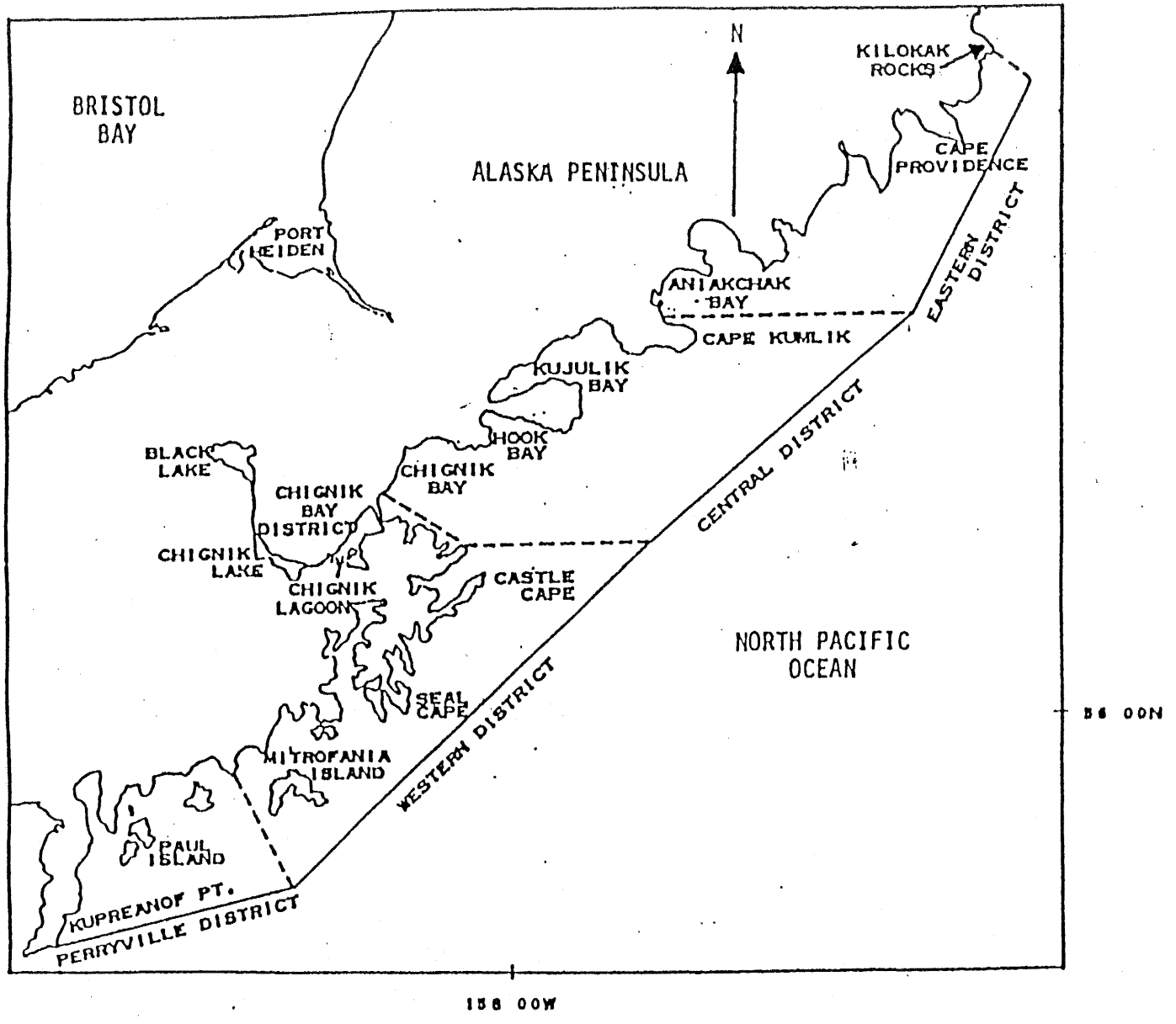

Figure 1. Map of the Chignik Management Area illustrating district boundaries, 1992.

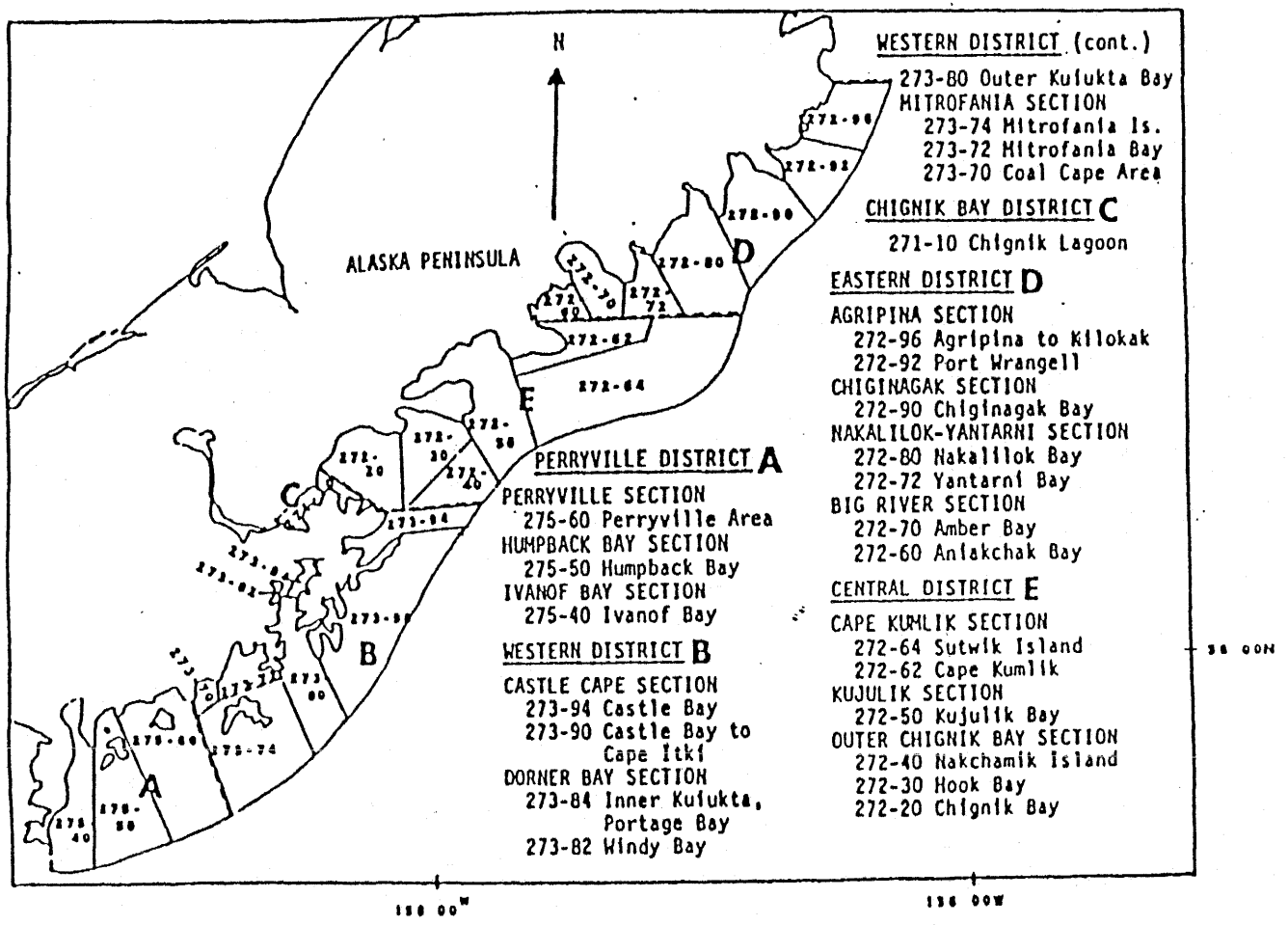

Figure 2. Map of the Chignik Management Area illustrating statistical areas, 1992

SOCKEYE SALMON

The total sockeye salmon run returning in 1992 is forecast to be approximately 2.70 million fish[1]. The early run, projected to be 1.80 million fish, has an escapement goal of 400,000 fish with a forecasted harvest of 1.40 million sockeye. Approximately 1.08 million of those fish will be harvested in the Chignik Area. The late run return is expected to be smaller than the early run and forecasted at 0.90 million fish. The escapement goal for the late run is 250,000 which should allow a commercial harvest of approximately 0.65 million fish. Approximately 0.51 million of those fish will also be harvested in the Chignik Area. The total projected harvest for both runs is 2.05 million sockeye of which approximately 1.59 million are expected to be caught in the Chignik Area.

The first commercial fishing period can occur by regulation on June 1. However, based on the last 10 years of data, the first fishing usually occurs after June 11.

Requirements for the first opening includes passing a minimum of 40,000 sockeye salmon through the weir by June 12 and ADF&G's test fisheries indicate a strong buildup of fish in Chignik Lagoon. Additional openings will be determined from several factors including: escapement counts, commercial catches, and test fishing results (Table 1).

During June, commercial fishing will be allowed only in the Chignik Bay, Central, and Eastern Districts. Commercial salmon fishing will open and close simultaneously in the Eastern, Chignik Bay, and Central Districts as outlined by the Board of Fisheries Eastern District Management Plan. During June and early

[1]All harvest projections are based on mid-point projections

Table 1. Chignik River System sockeye salmon escapement goals for Black Lake (early) and Chignik Lake (late runs), by time period.

The numbers of fish presented in the escapement tables below were derived from averages over several years of escapements of various timing and magnitude. It should be noted that daily escapement levels will fluctuate considerably throughout the run. THE TABLES LISTED SERVE ONLY AS A GUIDE FOR ACHIEVING THE TOTAL ESCAPEMENT FOR EACH RUN. In-season variations from the figures listed may be due to variations in actual run timing and/or strength of the run.

EARLY RUN - 400,000 ESCAPEMENT

June 12	40,000
June 14	50 - 65,000
June 16	75 - 100,000
June 18	125 - 150,000
June 20	175 - 200,000
June 22	225 - 250,000
June 25	275 - 325,000
June 30	350 - 400,000

LATE RUN - 250,000 ESCAPEMENT

	EARLY ESCAPEMENT IS ACHIEVED	EARLY ESCAPEMENT IS NOT ACHIEVED
July 6	-	40,000
July 8	-	45 - 50,000
July 10	40,000	55 - 65,000
July 12	50 - 60,000	70 - 75,000
July 14	65 - 75,000	75 - 80,000
July 16	80 - 90,000	80 - 90,000
July 19	100 - 115,000	100 - 115,000
July 21	125 - 135,000	125 - 135,000
July 23	145 - 160,000	150 - 160,000
July 26	170 - 180,000	170 - 180,000
July 29	185 - 195,000	190 - 195,000
July 31	195 - 200,000	195 - 200,000

July the Eastern District may close until the run strength in Chignik Lake (Late Run) can be determined. After July 15, the Eastern District will be managed on the basis of local pink and chum salmon run strength, in addition to sockeye. If it is determined that stocks being harvested within the Eastern District are not primarily Chignik stocks, the fishery in this district will be closed by emergency order as directed by the Board of Fisheries in the Eastern District Management Plan.

The fisheries in the Cape Igvak Section of the Kodiak Management Area and the Southeastern District of the Alaska Peninsula Management Area intercept Chignik bound sockeye salmon. The Cape Igvak and the Southeastern District Management Plans, as adopted by the Alaska Board of Fisheries, will be used to manage each fishery (Attachments 1 and 2).

PINK AND CHUM SALMON

The 1992 projected pink salmon harvest is 2.00 million fish for the Chignik Area. The projected harvest is based on the average return per spawner data base for even years from 1966 to 1988, and the parent year level escapements in 1990.

The first openings in the Western and Perryville Districts, (includes all waters south and west of Jack point, excluding the waters of Chignik Lagoon, to Coal Cape), are tentatively scheduled to open on July 6 and will coincide with openings in the Kodiak Management Area. The Alaska Peninsula Management Area will not open on July 6 due to recent Board of Fisheries actions.

Pink and chum management in the Eastern District will be based on the following management plan:

5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN.

(a) The Department shall open and close the Eastern District for commercial salmon fishing concurrently with the Chignik Bay and

Central Districts. The Department may close the Eastern District for the period between the first (Black Lake) and second (Chignik Lake) sockeye salmon runs.

(b) The Department shall close the Eastern District on July 15 to evaluate run strength of the pink and chum salmon runs.

(c) The Department shall close the Eastern District if it is determined that the salmon being harvested in that district are from stocks not originating from spawning areas located in the Chignik Area.

The projected chum salmon harvest for Chignik waters is 235 thousand fish. Aerial surveys will be conducted to monitor chum salmon escapements. Area specific openings are possible and a 24 hour notice will be given prior to a commercial fishing opening. Openings and closures will be broadcast over 4125 SSB and CH 6 VHF.

Processors within the Chignik Area primarily freeze fish for the higher quality fresh frozen market. Subsequently, greater demands are placed on management to harvest fish in optimum condition. Management strategies will be adjusted to harvest fish as they migrate to their natal streams, such as increased early fishing effort when a harvestable surplus is available.

Because of the economic importance placed on Chignik sockeye salmon, run timing and strength of the Chignik River runs [Black Lake-(Early Run) and Chignik Lake-(Late Run)] will directly affect commercial fishing time in the Eastern, Western, and Perryville Districts.

If the early sockeye salmon run strength (Black Lake) is weaker than forecasted, and the 400,000 fish escapement goal through the Chignik River weir is not achieved, then the early July openings

in all waters where sockeye salmon could be intercepted may be curtailed. Commercial fishing openings during the transition period between the two sockeye salmon runs (June 26 to July 9) will also be closely monitored to allow evaluation of the Chignik Lake run strength to assure the 250,000 fish escapement goal.

COHO SALMON

Providing escapement goals can be met for the late sockeye run to Chignik Lake, fisheries for late run sockeye and coho salmon will begin in mid-August and continue through September. The coho salmon harvest in 1992 is projected to be 200,000 fish with the majority being caught in Chignik Lagoon. The average coho harvest from 1982-91 was 159,000 fish.

Chignik Bay District Management coho stocks are expected to be in similar abundances as in recent years. Management in smaller systems, particularly in the Eastern District, will continue to be conservative to prevent overharvest during the initial openings.

TENDER AND PROCESSOR REPORTING REQUIREMENTS

a. 5AAC 15.355. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

b. All processors and tender operators will be required to report daily catch information to ADF&G. This can be accomplished either by radio (SSB) or telephone. The

Chignik ADF&G office will stand by on 4125 SSB and VHF CH6 frequencies, between 0800 and 1000 hours and 2000 and 2200 hours. The call sign for Chignik is KGB 76 "Chignik Weir" and the telephone number is 845-2243. If unable to contact ADF&G Chignik, your catch information should be given to ADF&G Sand Point or Kodiak via telephone or 4125 SSB. The call signs for Kodiak and Sand Point are WHM 29 and WIM 77, respectively. Failure to report is a violation of commercial fishing regulations (5 AAC 27.590 (2)); vigorous enforcement of this regulation should be expected.

c. Individual code sheets will be given to each tender/processor for the purpose of reporting catch and statistical area of catch.

Attachment 1.

MANAGEMENT GUIDE FOR THE
1992
CAPE IGVAK FISHERY

The midpoint harvest figures for the 1992 Chignik sockeye runs are forecast to be 1.40 million for the first run and 0.65 million fish for the second run, or a projected total harvest of 2.05 million Chignik bound sockeye.

The department will manage the Cape Igvak fishery according to the plan adopted by the Board of Fisheries. Since the harvestable surplus is expected to be more than 600,000, the fishery at Cape Igvak can open when the fishery opens at Chignik. Approximately 48 hours notice will be given prior to the first Cape Igvak opening. At least a 24 hour notice will be given prior to the opening of any other fishing period, unless it is an extension of a fishing period in progress. Fishing periods will normally be at least 24 hours long and will begin at 12:01 A.M. If the first run fails, the Cape Igvak fishery will be curtailed in order to allow a minimum harvest in the Chignik Area of at least 300,000 sockeye through July if that many are surplus beyond escapement needs.

During the period from approximately June 26 to July 9, the strength of the second run of Chignik River system sockeye salmon cannot be evaluated at Chignik Lagoon. In order to prevent overharvest of the second run, commercial salmon fishing in the Cape Igvak Section will, at the department's discretion , be disallowed or severely restricted during this period.

Fishing time at Cape Igvak after July 8 will be dependent on the strength of the second run and on the Chignik Area catch during the first run.

When the second run appears strong enough for a fishery at Chignik, Cape Igvak could be opened only if at least 300,000 were harvested from the first run in the Chignik Area. The Department will then manage the fishery so that the number of sockeye salmon harvested in the Chignik Area for both runs combined will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total catch of Chignik bound sockeye, if that many fish are available surplus to the escapement needs.

Attachment 2

SOUTHEASTERN DISTRICT MAINLAND (ALASKA PENINSULA AREA)

SALMON MANAGEMENT PLAN, 1992

By

James N. McCullough

and

Mark E. Stopha

Regional Information Report[1] No. 4K92-4

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska

January 1992

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Southeastern District Mainland

The Southeastern District Mainland (Balboa-Stepovak) fishery (Figure 1-2) will be managed according to the Southeastern District Management Plan (Appendix A) as adopted by the Alaska Board of Fisheries during the November 1991 meeting.

The East Stepovak, Northwest Stepovak (except Orzinski Bay), Southwest Stepovak, Balboa Bay, and Beaver Bay Sections will be managed on the basis of the interception of Chignik River sockeye salmon. Orzinski Bay in the Northwest Stepovak Section and the Stepovak Flats Section will be managed on a local stock basis, Orzinski Bay on the basis of the Orzinski Lake sockeye salmon stock and the Stepovak Flats Section on the basis of the Stepovak River chum salmon stock.

When possible, fishing periods in Orzinski Bay and Stepovak Flats will coincide with fishing periods in the remainder of the Southeastern District Mainland fishery to avoid concentrating fishing gear. Through July 25 (the time period covered by the Southeastern District Management Plan), no attempt will be made to coincide fishing periods in the Southeastern District Mainland area with any other nearby fisheries. All fishing periods will be announced by emergency orders. At least 36 hours notice will be given prior to the first commercial fishing period in the fishery. At least 24 hours notice will be given prior to the opening of any other fishing period, unless it is an extension of a fishing period in progress.

In the Southeastern District Mainland area, set gill net gear is the only legal gear type allowed through midnight July 10, while after July 10, set gill net, purse seine, and hand purse seine gear types are allowed.

The forecasted midpoint harvest for the Chignik sockeye salmon runs for 1992 are 1,400,000 salmon for the early run and 650,000 salmon for the second run (Appendix B). If the runs come in as expected and the goals of the management plan are achieved, about 143,500 estimated Chignik destined sockeye salmon will be harvested in the Southeastern District Mainland area prior to July 26. This compares to the recent five-year average of 90,401 and 10-year average of 133,466 (Table 1).

The total Chignik sockeye salmon catch is 100% of those sockeye salmon caught within the Chignik Management Area, plus 80% of those sockeye salmon caught in the Cape Igvak Section of the Kodiak Management Area, plus 80% of those sockeye salmon caught in the Southeastern District Mainland fishery excluding 100% of those sockeye salmon caught in Orzinski Bay.

Because the harvestable surplus is expected to exceed 600,000 sockeye salmon, the Southeastern District Mainland fishery may open after the first commercial fishing period in the Chignik Area. Based on the 1,400,000 sockeye salmon early run harvest forecast, it is possible that the first opening for the Southeastern District Mainland fishery could be in early to mid June.

If the first run fails to develop as expected, the Southeastern District Mainland fishery will be curtailed in order to allow a minimum harvest in the Chignik Area

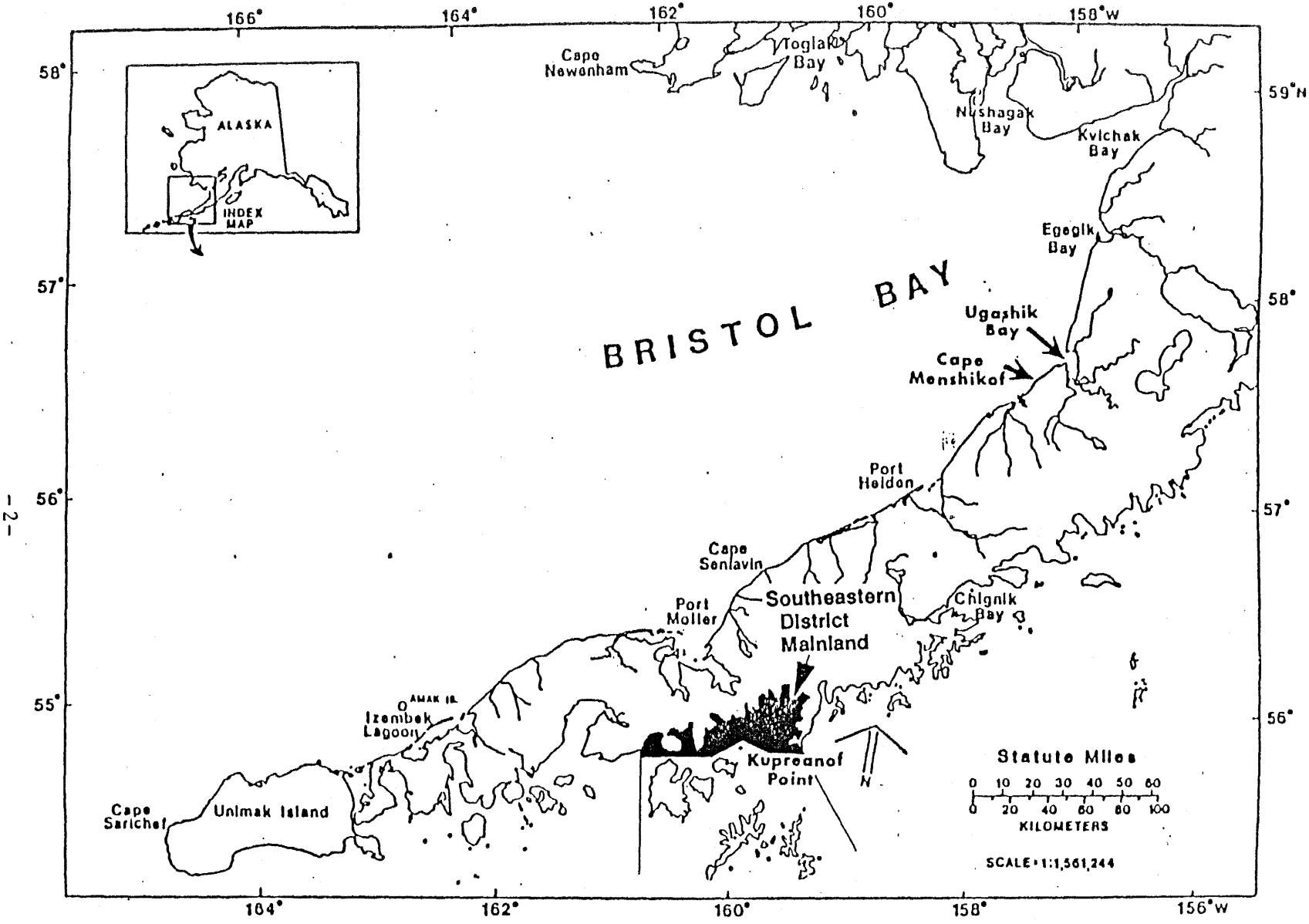

Figure 1. Map of the Alaska Peninsula Management Area with the Southeastern District Mainland area defined.

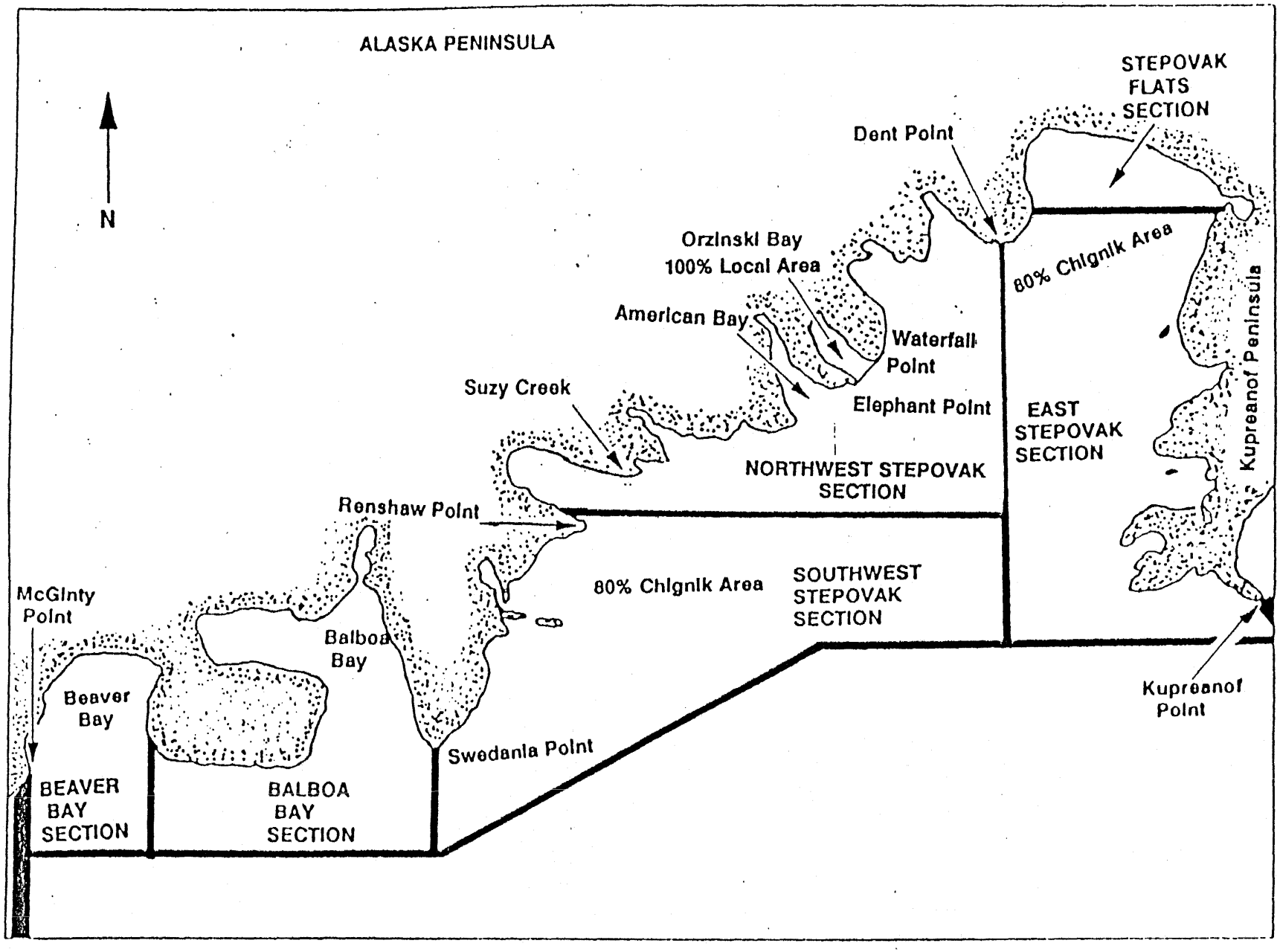

Figure 2. Map of the Southeastern District Mainland fishery from Kupreanof Point to McGinty Point with the salmon sections defined.

Table 1. Southeastern District Mainland fishery catch of Chignik destined sockeye salmon through July 25, 1980-91.[1]

Year	Number of Salmon			
	Total Catch	Northwest Stepovak	Total Catch Minus Northwest Stepovak	Chignik Bound Catch[1]
1982	86,793	8,334	78,459	62,767
1983	300,158	15,918	284,240	227,392
1984	595,043	66,209	528,834	423,067
1985	80,957	16,681	64,276	51,421
1986	206,532	59,025	147,507	118,006
1987	244,895	61,287	183,608	146,886
1988	81,160	57,010	24,150	19,320
1989	89,224	83,618	5,606	4,484
1990	164,028	3,279	160,749	128,599
1991	289,727	98,834	190,893	152,714
Average:				
5 Year	173,807	60,806	113,001	90,401
10 Year	213,852	47,020	166,832	133,466

[1] The estimate of sockeye salmon destined for the Chignik River has been determined to be 80% of the sockeye salmon harvested along the mainland from the eastern most tip of McGinty Point to Suzy Creek and from the Stepovak Flats and the East Stepovak Sections (Shaul et al. 1991).

of at least 300,000 sockeye through July 8, if that many salmon are surplus to escapement requirements.

During the period from about June 26 through July 9, the strength of the second run of Chignik River sockeye salmon cannot be evaluated at Chignik. To prevent over-harvest of the second run, commercial salmon fishing in the Southeastern District will, at the Department's discretion, be disallowed or severely restricted during this time period.

After July 8, fishing time in the Southeastern District Mainland fishery will be dependent upon the strength of the second run as evaluated at Chignik and on the catch of Chignik bound sockeye during the first run at Cape Igvak, Chignik, and the Southeastern District Mainland fisheries. When the second run escapement goals are being met and the second run appears strong enough for a fishery at Chignik, the Southeastern District Mainland may open to commercial salmon fishing if at least 300,000 combined first and second run sockeye salmon were harvested in the Chignik Area. The Department will manage the fishery so that the number of sockeye salmon harvested in the Chignik Area from both runs combined will be at least 600,000 salmon and the harvest in the Southeastern District Mainland will approach as near as possible 7.0% of the total Chignik bound sockeye salmon catch (Appendix C), if that many sockeye salmon are surplus to escapement requirements.

The fishery shall be managed according to the plan as stated in the 1992-1994 Bristol Bay and Westward Alaska commercial salmon fishing regulation book (Appendix A). No attempt will be made to allow equal fishing time with Chignik, as had been done from 1974 through 1977, but rather the end goal will be to meet the 7.0% allocation level after the conditions of the management plan have been satisfied. To meet the goal of 7.0% by July 25, the percentage may fluctuate above or below 7.0% prior to July 25. Because of the restrictions placed upon the Southeastern District Mainland fishery to protect the Chignik runs, it may not be possible to achieve a 7.0% allocation level, even though escapement goals are met and the minimum catch level of 600,000 salmon at Chignik is exceeded.

The Southeastern District Mainland fishery is regulated by a management plan that is independent of other fisheries occurring in the Alaska Peninsula Management Area. Because the fishery is primarily effected by sockeye salmon catches in the Kodiak and Chignik Management Areas, while being independent of other Alaska Peninsula Management Area fisheries except for fishing effort, the Southeastern District Mainland area will have independent fishing periods from those in the Shumagin Islands Section and other areas of the South Peninsula. The Alaska Department of Fish and Game will attempt to have fishing periods in Orzinski Bay and Stepovak Flats concurrent with other fishing periods in the Southeastern District Mainland area.

There has been confusion for several years concerning the definition of Dent Point. A map of the Dent Point area is found on Figure 3. The Board of Fish approved definition of Dent Point is 55° 47'15" N. lat., 159° 52'00" W. long. This definition of Dent Point will be used as: (1) the boundary between the Northwest Stepovak and Stepovak Flats Sections; (2) as one of the closed waters points for Stepovak Bay when the head of Stepovak Bay is closed from July 29 through September 30; and (3) whenever an ADF&G reference is made regarding Dent Point.

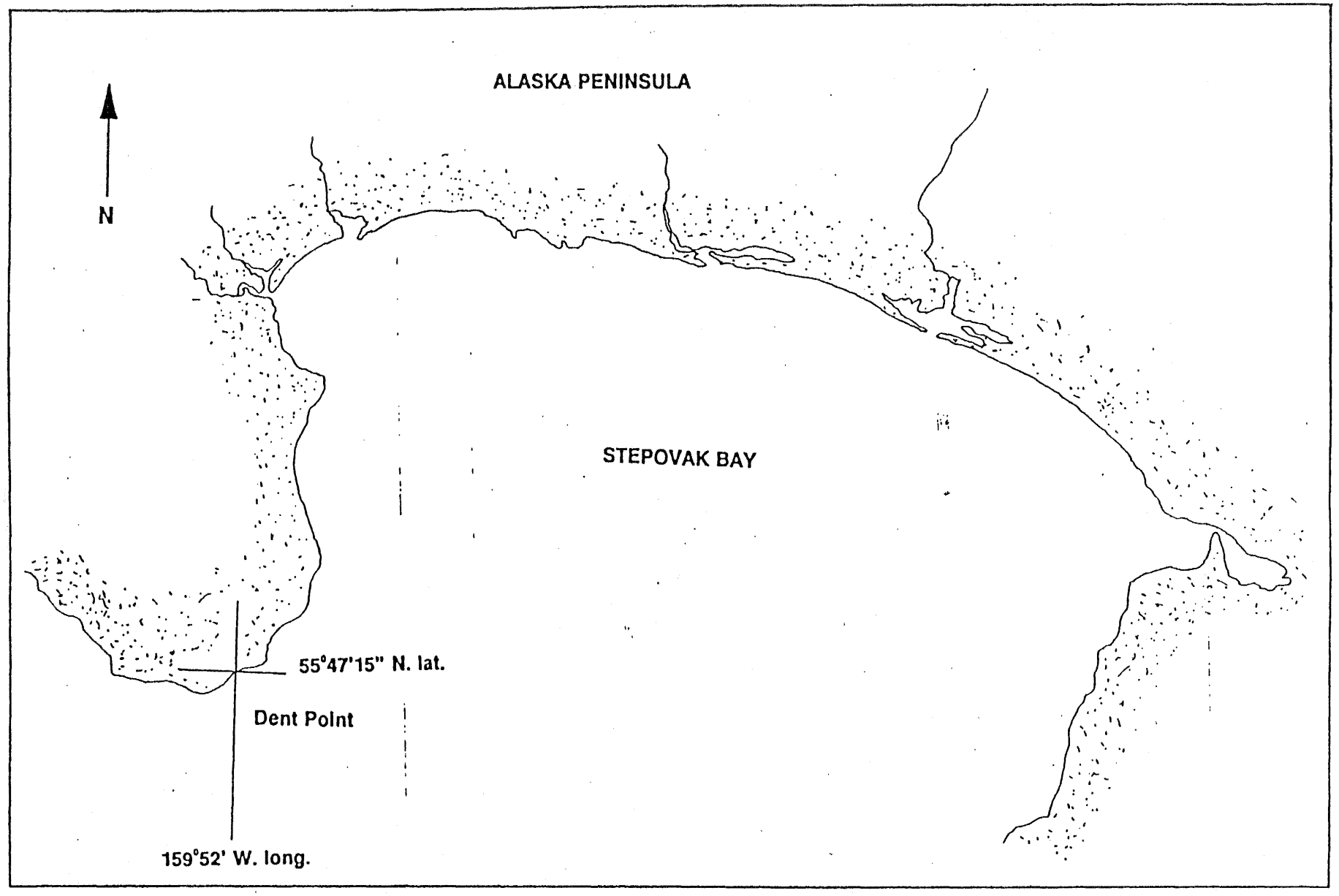

Figure 3. Map of Stepovak Bay with Dent Point defined.

Local Stocks

Orzinski Bay in the Northwest Stepovak Section and the Stepovak Flats Section will be managed on a local stock basis. Orzinski Bay will be managed on the basis of the Orzinski Lake sockeye salmon stock from June 1 through about July 25, and after about July 25 on local sockeye and pink salmon runs. The Stepovak Flats Section will be managed on the basis of the Stepovak River chum salmon stock. The entire Southeastern District Mainland area will be managed on the basis of local stocks (sockeye, pink, chum, and coho salmon) after July 25.

Northwest Stepovak Section

The sockeye escapement goal for Orzinski (Orzenoi) Lake is 10,000 to 20,000 salmon as estimated from the production potential of the lake (A.R. Shaul, Alaska Department of Fish and Game, Kodiak, personnel communication). In 1990, the total estimated sockeye escapement was 15,000 salmon and in 1991 the estimated sockeye escapement was 40,000 salmon. ADF&G intends to operate a weir on the Orzinski system in 1992, similar to the 1991 weir.

A weir was used to count escapements into the lake from 1935 to 1941, and in 1990-91. The earliest recorded sockeye escapement occurred on June 11, 1940 (11 salmon), while the usual pattern of first entry into the lake is about June 17. July 17 is the average date of 50% cumulative sockeye escapement, while on the average 99% of the escapement occurs by August 7. Based on aerial surveys and weir counts, sockeye salmon escapement requirements for Orzinski Lake by time periods has been developed (Table 2).

Through July 25, 1992, Orzinski Bay will have fishing periods basis on the Orzinski Lake sockeye salmon weir counts. Sockeye salmon caught within Orzinski Bay (north of a line from Elephant Point at 55°41'55" N.lat., 160°03'12" W.long. to Waterfall Point at 55°43'13" N.lat., 160°01'05" W.long.) will be allocated 100% to the Orzinski Lake run. Sockeye salmon caught in the remainder of the Southeastern District Mainland fishery will be allocated 80% to the Chignik system runs. After July 25, fishing time will be based on local sockeye, pink, chum, and coho salmon stocks. If the sockeye salmon escapement goals into Orzinski Lake are not met, Orzinski Bay will be closed north of a line from Elephant Point (55°41'55" N.lat., 160°03'12" W.long.) to Waterfall Point (55°43'13" N.lat., 160°01'05" W.long.), until management of the bay shifts to pink salmon.

Stepovak Flats Section

The Stepovak Flats Section will be managed on the basis of the chum salmon run into Stepovak River (local stock basis). Through July 11, this section will open to commercial salmon fishing on a day per day basis with the remainder of the Southeastern District Mainland fishery. Sockeye harvested in this section will be assigned as 80% Chignik bound and are included as part of the 7.0% allocation criteria set forth in the Southeastern District Mainland management plan. After July 10, the Stepovak Flats Section will be managed on the basis of the chum salmon run into Stepovak River. Fishermen are reminded that this section is

Table 2. Sockeye salmon escapement requirements for Orzinski Lake.

Time Period	Cumulative Escapement Goal
June 15	0
July 1	2,000
July 9	5,000
July 16	10,000
July 23	15,000
August 7	20,000
Season Total	20,000

usually closed to commercial salmon fishing from July 29 through September 30 (5 AAC 09.350(23)).

LITERATURE CITED

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Appendix C.1. Total sockeye return to Black Lake by brood year and age, 1915 - 1992.

Year	Parent Year Escapment	Age 0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total	Return Per Spawner
1915												1,202	1,202		2,404	
1916									9,315	68,559	37	15	0		77,926	
1917							318,491	20,666	576	18,747	0	0	0	0	358,480	
1918				0	12,960	0	43,803	6,984	0	49,097	0	0	138	0	112,982	
1919		0	0	0	15,073	0	92,073	28,499	16	74,062	30	0	324	0	210,077	
1920		0	0	0	63,251	0	422,288	28,279	0	111,422	6,511	0	273	0	632,024	
1921		0	0	0	122,550	0	258,628	113,493	5,873	255,927	0	0	0	0	756,471	
1922	86,421	0	0	0	40,685	0	659,040	56,121	0	202,612	2,465	1,222	1,669	0	963,814	11.2
1923	4,642	0	0	0	18,213	0	172,343	53,445	2,677	132,776	410	436	59	0	380,359	81.9
1924	121,983	0	0	0	85,083	0	1,206,555	8,855	426	19,931	939	384	384	0	1,322,557	10.8
1925	386,364	0	0	0	1,529	0	54,164	9,924	384	50,707	937	17	0	0	117,662	0.3
1926	289,009	0	0	0	7,544	420	104,094	45,572	11,714	352,025	7,117	0	1,708	0	530,194	1.8
1927	857,881	0	0	0	99,929	66	2,375,878	85,253	721	107,239	165	3,699	4,234	0	2,677,184	3.1
1928	507,353	0	0	0	23,860	0	304,338	49,284	9,848	428,369	2,755	409	2,118	0	820,981	1.6
1929	995,832	0	0	0	9,910	0	918,487	58,777	5,626	60,214	865	144	144	0	1,054,167	1.1
1930	92,955	0	0	0	23,769	0	286,339	13,886	6,663	43,297	3,527	4	0	0	377,485	4.1
1931	96,201	0	0	0	33,685	943	923,763	46,710	28	122,389	0	655	58	0	1,128,231	11.7
1932	2,151,734	0	0	0	50,602	0	191,354	36,823	10,350	43,060	291	8,584	234	0	341,298	0.2
1933	223,913	0	0	0	62,079	0	247,818	7,609	138,675	164,540	0	625	54	0	621,400	2.8
1934	866,890	0	0	0	16,228	4	1,583,632	6,057	9,886	40,971	276	1,299	113	0	1,658,466	1.9
1935	194,636	0	10	0	68,710	0	235,971	7,188	20,562	85,058	572	1,508	130	0	419,709	2.2
1936	548,039	0	0	0	15,422	3	490,061	14,873	23,865	98,553	661	2,346	201	0	645,985	1.2
1937	205,613	0	9	0	32,001	7	567,984	17,179	37,146	153,156	1,026	960	82	0	809,550	3.9
1938	175,972	0	19	0	37,059	7	882,938	26,618	15,193	62,552	418	706	60	0	1,025,570	5.8
1939	1,142,852	0	22	0	57,563	12	360,712	10,840	11,171	45,926	307	2,470	209	0	489,232	0.4
1940	176,307	0	35	0	23,499	5	264,904	7,938	39,130	160,651	1,070	7,513	634	0	505,379	2.9
1941	374,420	0	14	0	17,246	3	926,890	27,697	119,048	488,137	3,247	1,196	101	0	1,583,579	4.2
1942	442,981	0	11	0	60,302	12	2,817,023	83,954	18,948	77,598	515	684	58	0	3,059,105	6.9
1943	701,859	0	36	0	183,156	37	447,919	13,315	10,839	44,522	297	499	38	0	700,658	1.0
1944	291,844	0	111	0	29,106	6	256,848	7,683	7,947	31,664	203	482	43	0	334,093	1.1
1945	217,882	0	18	0	16,715	3	183,734	5,143	7,619	31,784	216	275	27	0	245,534	1.1
1946	774,130	0	10	0	11,775	2	182,835	5,644	4,307	18,686	133	707	64	0	224,163	0.3
1947	2,386,733	0	7	0	11,988	2	106,718	3,550	11,150	46,809	320	525	43	0	181,112	0.1
1948	384,637	0	7	0	7,129	1	268,953	8,407	8,346	33,877	223	352	0	0	327,295	0.9
1949	213,269	0	4	0	17,688	4	195,878	5,713	0	89,095	0	0	152	0	308,534	1.4
1950	206,270	0	11	0	12,671	3	287,407	12,644	1,862	76,722	648	373	286	0	392,627	1.9
1951	125,126	0	8	0	46,798	0	448,360	3,404	2,319	124,345	0	455	0	0	625,689	5.0
1952	34,155	0	0	0	4,390	0	137,957	3,423	208	81,691	0	639	2,512	0	230,820	6.8
1953	168,375	0	0	0	1,024	32	154,589	17,848	1,625	180,887	252	0	1,350	0	357,607	2.1
1954	184,953	0	143	0	6,468	0	50,272	10,720	515	72,973	9	312	1,009	0	142,421	0.8
1955	256,757	0	783	0	30,302	0	430,793	3,476	339	88,693	109	0	0	0	554,495	2.2
1956	289,096	0	17	0	16,499	0	81,569	14,910	9	90,001	0	196	4,967	0	208,168	0.7
1957	192,479	0	0	0	6,559	161	117,979	10,507	52	210,686	3,641	21	906	0	350,512	1.8

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Appendix C.1. (page 2 of 2)

Year	Parent Year Escapment	Age 0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	2.4	3.3	Other	Total	Return Per Spawner
1958	120,862	0	905	0	19,146	0	79,955	81,992	0	60,132	77	61	103	0	242,370	2.0
1959	112,226	0	1,522	0	31,039	142	148,403	13,872	402	144,581	874	58	54	0	340,947	3.0
1960	251,567	0	124	0	55,546	221	610,592	32,598	6,221	65,418	49	606	3,383	0	774,756	3.1
1961	140,714	0	276	0	14,301	1	387,053	3,483	536	164,278	486	1,020	209	0	571,645	4.1
1962	167,602	0	698	0	8,379	0	257,371	25,726	3,194	395,626	1,524	954	0	0	693,473	4.1
1963	332,536	0	0	0	29,538	173	448,298	17,628	905	199,104	0	2,506	551	0	698,703	2.1
1964	137,073	0	37	0	13,311	3,735	190,972	133,203	3,809	409,973	414	0	271	0	755,726	5.5
1965	307,192	0	394	0	102,570	421	1,535,858	80,851	3,332	201,220	271	497	22,731	0	1,948,144	6.3
1966	383,545	0	1,631	0	65,254	378	990,567	15,248	2,193	225,660	28	0	2,504	0	1,303,463	3.4
1967	328,000	0	2,728	0	16,157	163	99,357	6,078	13,406	96,629	1,537	0	0	0	236,054	0.7
1968	342,343	0	271	0	12,997	0	971,408	4,519	2,163	161,664	1,960	0	1,663	0	1,156,644	3.4
1969	366,589	0	0	0	12,747	153	279,429	63,258	1,313	84,120	486	0	2,251	0	443,757	1.2
1970	536,257	0	0	0	17,281	261	195,050	8,163	4,614	192,247	621	0	3,698	0	421,934	0.8
1971	671,668	0	569	0	22,138	0	800,515	67,483	3,873	454,039	385	264	6,763	0	1,356,029	2.0
1972	326,320	0	0	0	31,630	0	423,794	16,474	3,195	587,997	4,596	831	2,564	0	1,071,082	3.3
1973	533,047	0	0	0	19,627	0	753,970	121,231	0	324,538	1,425	511	1,812	0	1,223,113	2.3
1974	351,701	0	51	0	50,797	334	123,590	117,544	116	305,094	551	452	2,727	0	601,256	1.7
1975	308,914	0	0	0	19,977	1,826	71,732	55,434	1,010	447,233	1,057	396	34	2,437	601,137	1.9
1976	551,254	0	520	0	44,085	88	669,395	24,810	816	135,036	0	0	334	11,778	886,860	1.6
1977	482,247	0	102	0	59,211	389	1,687,898	12,701	6,990	337,281	0	3,492	1,655	44,852	2,154,571	4.5
1978	458,660	0	235	0	55,123	3,060	448,274	61,734	6,664	354,902	0	0	210	15,138	945,339	2.1
1979	385,694	0	1,241	0	533,050	671	3,195,846	57,155	4,133	68,046	223	422	805	1,350	3,862,941	10.0
1980	311,332	0	255	120,421	99,989	1,187	641,668	151,574	1,503	741,614	2,098	943	1,113	4,847	1,767,213	5.7
1981	438,540	0	532	0	155,923	1,112	938,072	75,567	4,289	664,383	510	1,112	259	2,819	1,844,578	4.2
1982	616,117	0	121	0	172,993	2,021	1,627,753	134,483	2,133	391,690	0	394	0	194	2,331,780	3.8
1983	426,177	0	0	19,136	79,674	3,905	209,772	37,475	285	211,457	2	3,596	0	466	565,767	1.3
1984	597,712	478	2,279	1,225	46,148	2,194	324,901	42,078	2,605	210,908	1,216	703	2,461	0	637,196	1.1
1985	377,516	156	501	510	36,677	638	376,202	73,568	20,665	249,837	1,091	1,202	9,240	3,500	773,787	2.0
1986	566,088	384	1,517	6,384	342,057	0	1,893,213	55,260	2,978	203,218	11,147			45	2,516,203	
1987	589,291	2,325	0	961	145,616	1,027	727,158	75,666						745	953,498	
1988	420,577	0	1,467	670	70,153	1,885									74,175	
1989	384,004	32	4,416													
1990	434,543															
1991	657,511															
1992	360,681															

Appendix C.2. Total sockeye return to Chignik Lake by brood year and age, 1915 - 1992.

Year	Parent Escapment	Age 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	other	Total	Return Per Spawner
1915													4,514	4,514		9,028	
1916										11,874	690,450	9,120	2,007	0	0	713,451	
1917							339,637	149,163	0	296	274,036	0	0	0	0	763,132	
1918				0	44,358	0	201,318	195,611	0	0	999,888	0	2,948	2,966	0	1,447,089	
1919		0	0	0	100,404	2,425	243,024	286,119	0	2,492	423,094	8,270	0	5,828	0	1,071,656	
1920		0	0	0	148,914	0	435,826	137,704	0	2,509	300,319	20,713	0	1,567	0	1,047,552	
1921		0	0	0	101,251	0	216,728	278,711	0	4,085	193,620	2,245	955	3,396	0	800,991	
1922	352,807	0	0	0	43,667	0	382,956	73,351	0	0	991,979	14,972	2,886	4,175	0	1,513,986	4.3
1923	213,781	0	0	0	74,884	218	410,194	245,187	0	2,360	577,390	1,111	1,647	2,376	0	1,315,367	6.2
1924	910,521	0	0	0	126,685	1,819	1,003,422	8,350	0	1,115	102,217	5,830	425	55	0	1,249,918	1.4
1925	677,566	0	0	0	3,736	0	51,222	195,414	0	332	427,580	7,817	5,367	456	0	691,924	1.0
1926	695,314	0	0	0	25,764	919	279,018	304,619	273	3,461	879,220	3,821	55	2,246	0	1,499,396	2.2
1927	429,525	0	207	0	113,952	1,499	951,950	100,633	0	744	203,942	1,586	1,225	5,557	0	1,381,295	3.2
1928	1,020,520	0	0	0	40,063	0	353,506	77,224	0	12,047	300,603	3,129	1,042	1,618	0	789,232	0.8
1929	914,307	0	0	0	16,254	0	584,561	38,873	253	5,675	361,557	1,165	2,192	1,251	0	1,011,781	1.1
1930	359,405	0	0	0	26,688	0	426,128	41,867	0	6,177	344,419	16,565	2,065	0	0	863,909	2.4
1931	631,986	0	0	0	30,856	2,454	296,899	138,440	0	3,747	264,858	0	2,678	635	0	740,567	1.2
1932	1,113,859	0	0	0	24,809	0	475,759	46,764	0	8,530	185,288	2,049	13,674	1,502	0	758,375	0.7
1933	310,088	0	0	0	35,679	0	311,946	35,705	0	48,795	321,467	0	1,267	301	0	755,160	2.4
1934	447,642	0	0	0	19,716	90	708,212	33,934	0	4,066	88,027	969	4,299	1,026	0	860,339	1.9
1935	462,469	0	69	0	37,642	308	148,352	16,893	0	13,842	299,288	3,284	4,082	976	0	524,736	1.1
1936	376,838	0	0	0	9,342	43	504,624	57,326	0	13,186	284,707	3,117	9,326	2,233	0	883,904	2.3
1937	406,618	0	33	0	31,723	145	480,250	54,435	0	30,220	651,642	7,116	2,664	639	0	1,258,867	3.1
1938	305,827	0	111	0	30,143	137	1,099,657	124,382	0	8,660	186,504	2,032	1,128	270	0	1,453,024	4.8
1939	512,754	0	106	0	68,919	315	314,851	35,542	0	3,674	79,035	859	5,420	1,305	0	510,026	1.0
1940	152,957	0	244	0	19,705	90	133,474	15,039	0	17,705	380,481	4,130	10,049	2,422	0	583,339	3.8
1941	531,904	0	70	0	8,342	38	642,782	72,293	0	32,912	706,532	7,654	2,225	537	0	1,473,385	2.8
1942	516,621	0	30	0	40,124	183	1,194,007	134,060	0	7,305	156,659	1,695	4,662	1,112	0	1,539,837	3.0
1943	1,205,418	0	143	0	74,442	340	264,830	29,686	0	15,007	324,527	3,562	5,405	1,321	0	719,263	0.6
1944	351,212	0	266	0	16,492	75	547,139	62,179	0	18,110	385,087	4,101	2,886	711	0	1,037,046	3.0
1945	151,326	0	59	0	34,405	157	652,782	72,138	0	9,784	207,054	2,186	1,246	315	0	980,126	6.5
1946	739,884	0	121	0	40,246	183	351,541	38,531	0	4,401	91,579	937	1,531	371	0	529,441	0.7
1947	1,393,990	0	147	0	21,549	98	156,343	16,644	0	5,048	108,068	1,165	1,316	333	0	310,711	0.2
1948	313,319	0	80	0	9,390	42	182,792	20,430	0	4,658	96,858	989	826	0	0	316,065	1.0
1949	574,715	0	36	0	11,360	52	165,402	17,581	0	1,766	103,345	0	496	650	0	300,688	0.5
1950	861,070	0	41	0	9,924	45	199,966	31,411	0	2,206	245,826	407	2,903	1,820	0	494,549	0.6
1951	490,899	0	38	0	33,082	0	618,729	13,748	0	7,046	242,042	0	1,028	0	0	915,713	1.9
1952	260,540	0	0	0	22,213	0	258,747	30,836	0	986	229,563	0	3,932	8,403	0	554,680	2.1
1953	221,408	0	0	0	9,167	428	125,399	32,350	0	470	396,916	1,935	934	5,424	0	573,023	2.6
1954	277,912	0	547	0	2,848	0	39,658	75,361	0	771	418,442	804	1,661	5,069	0	545,161	2.0
1955	201,409	0	369	0	32,187	0	303,988	32,708	0	168	363,162	1,252	0	0	0	733,834	3.6
1956	483,024	0	1,330	0	12,515	0	106,327	36,113	0	435	221,169	0	1,349	4,781	0	384,019	0.8
1957	328,779	0	0	0	17,746	622	232,393	109,475	0	351	332,661	2,104	1,189	1,319	0	697,860	2.1

-Continued-

Appendix C.2. (page 2 of 2)

Year	Parent Escapment	Age 0.2	1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	other	Total	Return Per Spawner
1958	212,594	0	1,459	0	50,630	0	23,204	139,797	0	0	418,960	980	93	432	0	635,555	3.0
1959	308,645	0	3,286	0	18,094	907	109,165	81,640	227	117	197,975	738	689	187	0	413,023	1.3
1960	357,230	0	146	0	24,446	491	122,278	8,273	0	1,314	210,884	141	1,618	12,824	0	382,415	1.1
1961	254,970	0	718	0	1,899	799	109,935	18,702	0	220	401,733	2,698	5,335	2,420	0	544,458	2.1
1962	324,860	0	123	0	4,312	0	44,074	69,811	0	998	692,188	1,074	1,109	0	0	813,689	2.5
1963	200,314	0	0	0	5,536	1,300	103,116	68,605	0	29	243,939	0	1,501	867	0	424,894	2.1
1964	166,625	0	88	0	6,607	4,550	24,880	65,639	0	700	138,282	943	205	6,114	0	248,007	1.5
1965	163,151	0	1,636	0	25,157	5,547	159,113	57,942	0	382	650,181	1,028	659	96,111	0	1,006,110	6.2
1966	183,525	0	1,715	0	14,517	925	300,759	30,263	0	461	413,807	2,453	0	18,073	0	818,944	4.5
1967	189,000	0	501	0	6,187	768	78,308	31,097	0	701	482,538	2,780	1,342	0	0	613,732	3.2
1968	244,836	0	914	0	3,835	0	115,840	20,435	339	636	583,517	15,603	2,691	30,092	0	804,287	3.3
1969	132,055	0	0	0	1,239	1,062	85,064	270,966	283	818	487,805	7,288	0	16,722	0	889,104	6.7
1970	119,952	0	0	0	18,234	12,035	27,646	151,089	0	1,318	461,271	12,205	0	19,870	0	705,186	5.9
1971	232,501	0	1,500	0	15,448	12,620	185,532	410,628	0	236	1,898,372	4,096	2,842	13,887	0	2,545,236	10.9
1972	231,270	0	0	0	30,087	2,445	120,639	96,178	0	98	718,493	30,779	267	3,698	0	1,002,684	4.3
1973	247,144	0	0	0	5,778	10,740	56,736	173,028	0	0	919,784	3,852	1,248	4,756	0	1,175,921	4.8
1974	364,612	0	4,420	0	19,284	2,764	105,493	196,981	0	51	677,611	2,036	2,316	9,262	2,703	1,022,922	2.8
1975	314,084	0	0	0	24,550	7,125	123,634	185,390	0	914	859,629	3,573	6,449	2,334	7,609	1,221,206	3.9
1976	341,828	0	1,103	0	59,255	807	775,826	94,346	0	2,484	499,554	0	3,117	10	5,083	1,441,585	4.2
1977	463,561	0	252	0	52,795	3,975	155,472	59,987	0	1,958	1,207,619	0	2,034	789	7,477	1,492,357	3.2
1978	263,009	0	422	0	16,755	5,822	259,993	318,606	0	686	278,532	490	1,752	176	239	883,474	3.4
1979	317,889	0	2,029	0	102,991	5,057	281,909	28,124	0	1,235	278,237	388	1,469	784	3,223	705,446	2.2
1980	279,729	0	1,794	8,287	13,217	6,060	156,838	320,949	0	632	448,135	3,096	830	1,070	1,189	962,098	3.4
1981	301,092	0	1,116	0	88,980	5,093	232,004	74,324	0	664	370,421	151	649	74	35	773,511	2.6
1982	305,193	0	2,542	0	51,480	3,199	194,469	108,490	0	740	582,904	160	1,383	0	301	945,668	3.1
1983	441,561	0	0	2,715	12,125	3,824	148,143	109,807	0	208	1,105,502	807	11,621	76	0	1,394,829	3.2
1984	268,496	120	914	552	30,409	10,724	150,188	324,007	0	2,480	1,638,859	1,743	9,695	7,155	597	2,161,676	8.1
1985	369,262	98	689	207	18,638	16,398	174,283	161,966	0	6,682	501,843	1,161	4,112	3,789	173	372,279	1.0
1986	207,231	103	2,745	13,060	179,104	321	345,786	175,958	0	1,834	497,777	7,787			619	195,332	
1987	214,452	6,253	686	1,066	72,172	9,757	457,744	225,494	0							6,939	
1988	255,180	0	2,430	1,115	57,578	3,326											
1989	557,171	418	7,979														
1990	335,867																
1991	382,587																
1992	405,922																

Appendix D. Emergency orders for the Chignik Management Area, 1992.

EMERGENCY ORDER NO. 4-F-L-01-92

Issued at: Kodiak, AK
April 15, 1992

EFFECTIVE DATE: 12:00 Noon
Monday, April 15, 1992

Expiration Date: June 30, 1992
or until superseded by a
subsequent emergency order

EXPLANATION:

This emergency order establishes Chignik Management Area commercial herring fishing periods during the sac-roe season (April 15 through June 30) which will begin at 12:00 noon on every odd numbered day and end at 12:00 noon on the following even numbered day. The first period will begin at 12:00 noon April 15 and end at 12:00 noon April 16 and henceforth on all odd numbered days of the month separated by 24 hour closures until 12:00 noon June 30. During the food and bait season (August 15 through February 28) the fishery will be open 24 hours per day, 7 days per week. This emergency order also closes the Big River section to herring fishing until further notice.

REGULATION:

5 AAC 27.560 is amended to read:

5 AAC 27.560. FISHING SEASONS AND WEEKLY FISHING PERIODS.

(b) During the open season from 12:00 noon April 15 through June 30 herring may be taken during 24 hour fishing periods beginning at 12:00 noon on every odd numbered day and ending at 12:00 noon the following even numbered day. Herring may not be taken in any district or section during the following periods:

(1) From 12:00 noon April 16 through 12:00 noon April 17.
(2) From 12:00 noon April 18 through 12:00 noon April 19.
(3) From 12:00 noon April 20 through 12:00 noon April 21.
(4) From 12:00 noon April 22 through 12:00 noon April 23.
(5) From 12:00 noon April 24 through 12:00 noon April 25.
(6) From 12:00 noon April 26 through 12:00 noon April 27.
(7) From 12:00 noon April 28 through 12:00 noon April 29.
(8) From 12:00 noon April 30 through 12:00 noon May 1.
(9) From 12:00 noon May 2 through 12:00 noon May 3.
(10) From 12:00 noon May 4 through 12:00 noon May 5.
(11) From 12:00 noon May 6 through 12:00 noon May 7.
(12) From 12:00 noon May 8 through 12:00 noon May 9.

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(13) From 12:00 noon May 10 through 12:00 noon May 11.
(14) From 12:00 noon May 12 through 12:00 noon May 13.
(15) From 12:00 noon May 14 through 12:00 noon May 15.
(16) From 12:00 noon May 16 through 12:00 noon May 17.
(17) From 12:00 noon May 18 through 12:00 noon May 19.
(18) From 12:00 noon May 20 through 12:00 noon May 21.
(19) From 12:00 noon May 22 through 12:00 noon May 23.
(20) From 12:00 noon May 24 through 12:00 noon May 25.
(21) From 12:00 noon May 26 through 12:00 noon May 27.
(22) From 12:00 noon May 28 through 12:00 noon May 29.
(23) From 12:00 noon May 30 through 12:00 noon May 31.
(24) From 12:00 noon June 2 through 12:00 noon June 3.
(25) From 12:00 noon June 4 through 12:00 noon June 5.
(26) From 12:00 noon June 6 through 12:00 noon June 7.
(27) From 12:00 noon June 8 through 12:00 noon June 9.
(28) From 12:00 noon June 10 through 12:00 noon June 11.
(29) From 12:00 noon June 12 through 12:00 noon June 13.
(30) From 12:00 noon June 14 through 12:00 noon June 15.
(31) From 12:00 noon June 16 through 12:00 noon June 17.
(32) From 12:00 noon June 18 through 12:00 noon June 19.
(33) From 12:00 noon June 20 through 12:00 noon June 21.
(34) From 12:00 noon June 22 through 12:00 noon June 23.
(35) From 12:00 noon June 24 through 12:00 noon June 25.
(36) From 12:00 noon June 26 through 12:00 noon June 27.
(37) From 12:00 noon June 28 through 12:00 noon June 29.

5 AAC 27.580 is amended to read:

5 AAC 27.580. WATERS CLOSED TO HERRING FISHING.

(a) During the period June 12 through October 31, herring may <u>not</u> be taken in waters described in 5 AAC 15.350 and 5 AAC 39.290.

(b) The Big River section of the Eastern District is closed to commercial herring fishing until further notice.

The Big River section is described as follows: all waters of Amber and Aniakchak bays bounded by 157°11'33" W. long., and the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

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JUSTIFICATION:

Regulations adopted by the Alaska Board of Fisheries established that weekly fishing periods for herring in the Chignik Area would be announced by emergency order. During the roe season (April 15 through June 30) herring stocks are concentrated and are vulnerable to over exploitation. The 24 hour on and 24 hour off fishery will reduce the time that stocks are subject to exploitation and will allow the Department more time to collect catch information and assess the situation(s). During the food and bait season (August 15 through February 28) effort is anticipated to be low and stocks dispersed, therefore a 7 day per week fishery is justified.

The Big River section has not received any appreciable recruitment of herring into that fishery since 1980 when it was first harvested. The trend in this stock's age composition has regressed from a healthy 1980 biomass dominated by 4 and 5 year olds to a diminished biomass in 1986 dominated by 8 and 9 year old fish. Consequently, the Big River section (272-20 Amber Bay and 272-60 Aniakchak Bay) will remain closed in 1991 until a biomass of multi-age herring is present in sufficient quantity and of healthy age composition to warrant exploitation.

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EMERGENCY ORDER NO. 4-F-L-02-92

Issued at: Chignik, AK
June 16, 1992

EFFECTIVE DATE: 5:00 A.M.
Wednesday, June 17, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 5:00 P.M.
Thursday, June 18, or until
superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area, will open to commercial salmon fishing from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Thursday, June 18. Fishing will be allowed up to the regulatory markers at Mensis Point in Chignik Lagoon. Fishing in Chignik Lagoon will be started by a flare launched by ADF&G personnel at approximately 5:00 A.M.. Any sets started prior to the launching of the flare will be required to be stern hauled and a citation will be issued. Fishermen are encouraged to monitor VHF channel 6 for timed counts prior to the Chignik Lagoon opening.

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REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Thursday, June 18.

(b) In the Central and Eastern Districts, salmon may be taken from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Thursday, June 18.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Thursday, June 18.

5 AAC 15.350 is amended to read:

5AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat., 158 11'56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

(d) The Perryville District includes all waters between Coal Cape at 55 23'28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

JUSTIFICATION:

The cumulative salmon escapement through the Chignik River weir as of June 16 is 109,201 sockeye salmon. The escapement schedule calls for between 75-100,000 sockeye salmon by June 16. Since the escapement objectives have been achieved and an estimated 150-200,000 fish have been determined to be in the Lagoon from a test fishery, a commercial fishery is justified to harvest fish surplus to escapement requirements.

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EMERGENCY ORDER NO. 4-F-L-03-92

Issued at: Chignik, AK
June 17, 1992

EFFECTIVE DATE: 12:01 P.M.
Thursday, June 18, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 5:00 P.M.
Friday, June 19, or until
superseded by subsequent
emergency order.

EXPLANATION:

Commercial salmon fishing in the Chignik Bay, Central, and Eastern Districts of the Chignik Management Area will be extended 24 hours until 5:00 P.M. Friday, June 19, 1992. The commercial fishing regulatory markers for Chignik Lagoon will be moved from Mensis Point to the Hume's Point markers (this includes markers extending on through the backside of Chignik Island to Green Point) effective at 12:01 P.M. Thursday, June 18, 1992.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay district, salmon may be taken from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Friday, June 19.

(b) In the Central and Eastern Districts, salmon may be taken from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Friday, June 19.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 5:00 A.M. Wednesday, June 17 until 5:00 P.M. Friday, June 19.

5 AAC 15.350 is amended to read:

5 AAC 15.350 CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat.,

-Continued-

158 11' 56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

(d) The Perryville Districts includes all waters between Coal Cape at 55 23' 28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

(1) Chignik Lagoon

(A) Southwest of a line from the tip of Hume's Point to the north side of Chignik Island (56 17'25" N. lat., 158 35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56 16'38" N. lat., 158 34'54" W. long.).

JUSTIFICATION:

Today's average catch of 1400 sockeye salmon per vessel and a steady increase of sockeye salmon caught previously in test fisheries on Ocean Beach indicates a steady build-up of fish in Chignik Lagoon to merit a 24 hour extension. Markers were moved to insure adequate escapement for the scheduled 125 - 150,000 sockeye salmon by June 18.

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EMERGENCY ORDER NO. 4-F-L-04-92

Issued at: Chignik, AK
June 24, 1992

EFFECTIVE DATE: 7:00 P.M.
Wednesday, June 24, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 7:00 P.M.
Thursday, June 25, or until
superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, and Eastern Districts of the Chignik Management Area, will open to commercial salmon fishing from 7:00 P.M. Wednesday, June 24 until 7:00 P.M. Thursday, June 25. Fishing will be allowed up to the regulatory markers at Hume's Point extending on through Chignik Island to the Green Point markers. Fishing in Chignik Lagoon will be started by a flare launched by ADF&G personnel at approximately 7:00 P.M.. Any sets started prior

-Continued-

to the launching of the flare will be required to be stern hauled and a citation will be issued. Fishermen are encouraged to monitor VHF channel 6 for timed counts prior to the Chignik Lagoon opening.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until 7:00 P.M. Thursday, June 25.

(b) In the Central and Eastern Districts, salmon may be taken from 7:00 P.M. Wednesday, June 24 until 7:00 P.M. Thursday, June 25.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 7:00 P.M. Wednesday, June 24 until 7:00 P.M. Thursday, June 25.

5 AAC 15.350 is amended to read:

5AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat., 158 11'56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

(d) The Perryville District includes all waters between Coal Cape at 55 23'28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

JUSTIFICATION:

The cumulative salmon escapement through the Chignik River weir as of June 24 is 301,622 sockeye salmon. The escapement schedule calls for between 275-325,000 sockeye salmon by June 25. Since the escapement objectives have been achieved and an estimated 50,000 fish have been determined to be in the Lagoon from a test fishery, a commercial fishery is justified to harvest fish surplus to escapement requirements.

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EMERGENCY ORDER NO. 4-F-L-05-92

Issued at: Chignik, AK
June 25, 1992

EFFECTIVE DATE: 11:00 A.M.
Thursday, June 25, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: until further notice, or until superseded by subsequent emergency order.

EXPLANATION:

The commercial salmon fishing period for Chignik Bay, Central, and Eastern Districts of the Chignik Management Area, will be extended until further notice. Markers in Chignik Lagoon will be to the Mensis Point markers effective 11:00 A.M. June 25, 1992. The marker move will take effect without a flare opening.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

(b) In the Central and Eastern Districts, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 7:00 A.M. Wednesday, June 24 until further notice.

5 AAC 15.350 is amended to read:

5AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat., 158 11'56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

-Continued-

(d) The Perryville District includes all waters between Coal Cape at 55 23'28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

JUSTIFICATION:

The fishing extension and marker move is based on an escapement of 351,477 sockeye salmon through the weir as of June 24,1992, with a substantial build-up of fish behind the weir. A commercial catch of 50,000 sockeye salmon is estimated for yesterday's catch in Chignik Lagoon.

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EMERGENCY ORDER NO. 4-F-L-06-92

Issued at: Chignik, AK
June 26, 1992

EFFECTIVE DATE: 12:01 A.M.
Saturday, June 27, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: until further notice, or until superseded by subsequent emergency order.

EXPLANATION:

Markers in Chignik Lagoon will be moved from Mensis Point to Hume's Point extending on through Chignik Island to the Green Point markers at 12:01 A.M. Saturday, June 27,1992, until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

(b) In the Central and Eastern Districts, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

-Continued-

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay, Central, and Eastern Districts will be open to commercial salmon fishing from 7:00 A.M. Wednesday, June 24 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat., 158 11'56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

(d) The Perryville District includes all waters between Coal Cape at 55 23'28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

JUSTIFICATION:

Total escapement through the weir to date is approximately 374,300 sockeye salmon and the marker movement will insure adequate escapement towards the goal of 400,000 sockeye salmon.

EMERGENCY ORDER NO. 4-F-L-07-92

Issued at: Chignik, AK
July 2, 1992

EFFECTIVE DATE: 8:00 P.M.
Thursday, July 2, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: until further notice, or until superseded by subsequent emergency order.

EXPLANATION:

The Eastern District of the Chignik Management Area will close to commercial salmon fishing effective 8:00 P.M. Thursday, July 2, 1992, until further notice.

-Continued-

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

(b) In the Central District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay and Central Districts will be open to commercial salmon fishing from 7:00 A.M. Wednesday, June 24 until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (c) The Western District includes all waters south and west of Jack Point at 56 17'32" N. lat., 158 11'56" W. long. excluding the waters of Chignik Lagoon to Coal Cape at 55 53' 28" N. lat., 159 35'50" W. long..

(d) The Perryville District includes all waters between Coal Cape at 55 23'28" N. lat., 159 00'20" W. long., and Kupreanof Point at 55 33'55" N. lat., 159 35'50" W. long..

JUSTIFICATION:

Total escapement through the weir to date is approximately 374,300 sockeye salmon and the marker movement will insure adequate escapement towards the goal of 400,000 sockeye salmon.

-Continued-

EMERGENCY ORDER NO. 4-F-L-08-92

Issued at: Chignik, AK
July 9, 1992

EFFECTIVE DATE:12:00 Noon
Friday, July 10, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:00 Noon
Monday, July 13, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay District in the Chignik Management Area will close to commercial salmon fishing effective 12:01 A.M., Saturday, July 11, 1992, until further notice. The Central District will remain open and the Eastern, Western, and Perryville Districts will open at 12:00 noon Friday, July 10 and will remain open until 12:00 noon Monday, July 13, 1992. The Mitrofania Section of the Western District will remain closed until further notice.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until 12:01 A.M. Saturday, July 11, 1992.

(b) In the Central District, salmon may be taken from 7:00 P.M. Wednesday, June 24 until 12:00 noon, Monday, July 13, 1992. In the Eastern, Western, and Perryville Districts, salmon may be taken from 12:00 noon, Friday, July 13 until 12:00 noon, Monday, July 13, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 7:00 P.M., Wednesday, June 24, until 12:01 A.M., Saturday, July 11, 1992.

(b) The Central District will be open to commercial salmon fishing from 7:00 P.M. Wednesday, June 24, until 12:00 noon, Monday, July 13, 1992. The Eastern, Western, and Perryville

-Continued-

Districts will open to commercial salmon fishing from 12:00 noon, Friday, July 13, until 12:00 noon, Monday, July 13, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume's Point to the north side of Chignik Island (56 17'25" N. lat., 158 35'30" W. long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56 16'38" N.lat., 158 34'54" W. long.);

(c)(3) Mitrofania Section: all waters, including Mirtofania Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55 57' N.lat., 158 40' W.long., and Stirni Point at 55 54' 50" N.lat., 158 55' W.long..

JUSTIFICATION:

The Chignik Bay District is closing to commercial salmon fishing to expand terminal waters to insure adequate escapements for the Black Lake and Chignik Lake runs. Current first run escapement is at 370,000 sockeye salmon and the second run escapement is at 40,000 sockeye salmon. Outside areas are opening to commercial salmon fishing to help evaluate run strength of sockeye, pink, and chum salmon. This early opening also assures a quality harvest of both pink and chum salmon. The Mitrofania Section is closed to avoid the harvesting of immature salmon as has been experienced at this time in the past years.

-Continued-

EMERGENCY ORDER NO. 4-F-L-09-92

Issued at: Chignik, AK
August 8, 1992

EFFECTIVE DATE: 10:00 A.M.
Saturday, July 25, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 6:00 p.m.
Monday, July 27, 1992, or until
superseded by subsequent
emergency order.

EXPLANATION:

The entire Eastern District and all waters in the Central District northeast of a line at 56 36'32" N. lat., 157 40'25" W. long., starting at Brandal Point and extending southeast to the outer Central District boundary line, all waters north of a line at 55 40'00" N. lat., in the Perryville District, starting at Fox Cape extending eastward to the Western District boundary line will open to commercial salmon fishing from 10:00 a.m. Saturday, July 25, until 6:00 p.m. Monday, July 27, 1992.

The following waters will be closed: the entire Chignik Bay District and all waters in the Central District west of a line at 56 36'32" N. lat., 157 40'25" W. long., starting at Brandal Point and extending southeast to the outer Central District boundary line, the entire Western District, and all waters south of a line at 55 40'00" N. lat., in the Perryville District, starting at Fox Cape extending eastward to the Western District boundary line.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may not be taken from 10:00 A.M. Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992.

(b) In the Central District, salmon may be taken from 10:00 A.M. Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992, northeast of a line at 56 36'32" N. lat., 157 40'25" W. long., starting at Brandal Point and extending southeast to the outer Central District boundary line. In the Eastern District, salmon may be taken from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992. In the Western District, salmon may not be taken from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992. In the Perryville

-Continued-

District, starting at Fox Cape extending eastward to the Western District boundary line, salmon may be taken from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will close to commercial salmon fishing from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992.

The Central District will be open to commercial salmon fishing northeast of a line starting at Brandal Point extending southeast to the outer Central District boundary line from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992. The Eastern District will open to commercial salmon fishing from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992. The Western District will close to commercial salmon fishing from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992. The Perryville District will open to commercial salmon fishing north of a line starting at Fox Cape extending eastward to the Western District boundary line from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters: (b) The Chignik Bay District includes all waters of Chignik Bay and Lagoon west of a line from a point near Jack Bay at 56 18'17" N. lat., 158 14'54" W. long., to Neketa Creek at 56 24'10" N. lat., 158 27'37" W. long.

(c) The Western District includes all waters south and west of Jack point at 56 17'32" N. lat., 158 11'56" W. long., excluding the waters of Chignik Lagoon, to Coal Cape at 55 53'28" N. lat., 159 00'20" W. long.

(d) In the Perryville District, all waters south of a line starting at Fox Cape at 55 40'00" N. lat., extending eastward to the Western District boundary line.

(e) In the Central District, all waters west of a line starting at Brandal Point at 56 36'32" N. lat., 157 40'25" W. long. extending southeast to the outer Central District boundary line

JUSTIFICATION:

Escapement for the second run is at approximately 150,000 fish today, midpoint for the escapement goal scheduled for 7/23/92 at 145-160,000 fish. The closed areas will provide a

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sanctuary for maintaining sockeye escapement goals at the weir. Aerial surveys indicate sufficient numbers of pink and chum salmon in the Eastern and Perryville Districts to merit a fishing period.

EMERGENCY ORDER NO. 4-F-L-10-92

Issued at: Chignik, AK
July 27, 1992

EFFECTIVE DATE: 3:00 P.M.
Tuesday, July 28, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 3:00 P.M.
Friday, July 31, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, and portions of the Western and Perryville Districts of the Chignik Management Area will open to commerical salmon fishing at 3:00 P.M., Tuesday, July 28 until 3:00 P.M., Friday, July 31, 1992. Fishing will be allowed up to the regulatory markers at Mensis Point. Fishing in Chignik Lagoon will be started by a flare launched by ADF&G personnel at approximately 3:00 P.M..

For the Western and Perryville Districts, all waters southwest of a line from Alexander Point to Cape Itki will be open to commercial salmon fishing.

A reminder that the Eastern District will close at 6:00 P.M., Monday, July 27, 1992. Also, for the Western and Perryville Districts, all waters northwest of a line from Alexander Point to Cape Itki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofania Bay, and Humpback Bay. Fishermen are here-by placed on 12-hour notice for future announcements.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 3:00 P.M. Tuesday, July 28 until 3:00 P.M. Friday, July 31, 1992.

-Continued-

(b) In the Central, Western, and Perryville Districts, salmon may be taken from 3:00 P.M. Tuesday, July 28, until 3:00 P.M., Friday, July 31, 1992. In the Eastern District, salmon may be taken from 10:00 A.M., Saturday, July 25, until 6:00 P.M., Monday, July 27, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 3:00 P.M., Tuesday, July 28, until 3:00 P.M., Friday, July 31, 1992.

The Central, Western, and Perryville Districts will be open to commercial salmon fishing from 3:00 P.M. Tuesday, July 28, until 3:00 P.M., Friday, July 31, 1992. The Eastern District will open to commercial salmon fishing from 10:00 A.M. Saturday, July 25, until 6:00 P.M. Monday, July 27, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(2) The Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Itki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofania Bay, and Humpback Bay.

JUSTIFICATION:

Escapement for the second run, as of the last hour, is at approximately 195,000 sockeye salmon. This meets the upper end of the escapement goal of 185,000 to 195,000 fish for July 29. Weather has prevented aerial surveys from being conducted in the Outer Districts. When weather permits, escapements and catches will be evaluated concerning extensions and openings in all Districts.

-Continued-

EMERGENCY ORDER NO. 4-F-L-11-92

Issued at: Chignik, AK
August 2, 1992

EFFECTIVE DATE: 12:01 A.M.
Monday, August 3, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday, August 7, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, Eastern, and portions of the Western and Perryville Districts of the Chignik Management Area will open to commerical salmon fishing at 12:01 A.M. Monday, August 3 until 12:01 A.M. Friday, August 7, 1992. Fishing in the Lagoon will be allowed up to the regulatory markers at Mensis Point. For the Western and Perryville Districts, all waters southwest of a line from Alexander Point to Cape Itki will be open to commercial salmon fishing.

For the Western and Perryville Districts, all waters northwest of a line from Alexander Point to Cape Itki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofania Bay, and Humpback Bay. Fishermen are here-by placed on 12-hour notice for future announcements. Aerial surveys will be conducted weather permitting.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday, August 3 until 12:01 A.M. Friday, August 7, 1992.

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Monday, August 3, until 12:01 A.M. Friday, August 7, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Monday, August 3, until 12:01 A.M. Friday, August 7, 1992.

-Continued-

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Monday, August 3, until 12:01 A.M. Friday, August 7, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(2) The Western and Perryville Districts all waters northwest of a line from Alexander Point to Cape Itki will be closed to commercial salmon fishing. This area includes all waters in Dorner Bay, Ivan Bay, Mitrofania Bay, and Humpback Bay.

JUSTIFICATION:

Escapement for the second run is at approximately 228,000 sockeye salmon. This meets the July 31 escapement goal of 200,000. Weather has prevented aerial surveys from being conducted in the Western and Perryville Districts. When weather permits, escapements and catches will be evaluated concerning openings in those Districts. Aerial surveys conducted in the Eastern District have indicated adequate pink and chum salmon escapements to merit a commercial fishery.

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EMERGENCY ORDER NO. 4-F-L-12-92

Issued at: Chignik, AK
August 8, 1992

EFFECTIVE DATE: 12:01 A.M.
Monday, August 10, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday, August 14, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, Eastern, Western, and portions of the Perryville Districts of the Chignik Management Area will open to commerical salmon fishing at 12:01 A.M. Monday, August 10 until 12:01 A.M. Friday, August 14, 1992. Fishing in the Lagoon will be allowed up to the regulatory markers at Mensis Point. For the Perryville District, all waters southwest of a line from Alexander Point to Coal Point will be open to commercial salmon fishing.

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For the Perryville District, all waters northwest of a line from Alexander Point to Coal Point will be closed to commercial salmon fishing. This area includes all waters in Humpback Bay. Fishermen are here-by placed on 12-hour notice for future announcements concerning this closed area. Aerial surveys will be conducted weather permitting.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday, August 10 until 12:01 A.M. Friday, August 14, 1992.

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Monday, August 10, until 12:01 A.M. Friday, August 14, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Monday, August 10, until 12:01 A.M. Friday, August 14, 1992.

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Monday, August 10, until 12:01 A.M. Friday, August 14, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(2) In the Perryville District, all waters northwest of a line from Alexander Point to Coal Point will be closed to commercial salmon fishing. This area includes all waters in Humpback Bay.

JUSTIFICATION:

Weather has prevented aerial surveys from being conducted in the Perryville District. When weather permits, escapements and catches will be evaluated concerning an opening in this District. Aerial surveys conducted in the Western District have indicated adequate pink and chum salmon escapements to merit a commercial fishery.

-Continued-

EMERGENCY ORDER NO. 4-F-L-13-92

Issued at: Chignik, AK
August 16, 1992

EFFECTIVE DATE: 12:01 A.M.
Monday, August 17, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Friday, August 21, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

The Chignik Bay, Central, Eastern, Western, and Perryville Districts of the Chignik Management Area will open to commerical salmon fishing at 12:01 A.M. Monday, August 17 until 12:01 A.M. Friday, August 21, 1992. Fishing in the Lagoon will be allowed up to the regulatory markers at Mensis Point.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday, August 17 until 12:01 A.M. Friday, August 21, 1992.

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Monday, August 17, until 12:01 A.M. Friday, August 21, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Monday, August 17, until 12:01 A.M. Friday, August 21, 1992.

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Monday, August 17, until 12:01 A.M. Friday, August 21, 1992.

-Continued-

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) fishing will be allowed up to the Mensis Point markers;

Other closed waters are as described in (2) through (19) in the regulation book.

JUSTIFICATION:

Aerial surveys conducted in all the Districts have indicated adequate pink and chum salmon escapements to continue a commercial fishery.

EMERGENCY ORDER NO. 4-F-L-14-92

Issued at: Chignik, AK
August 20, 1992

EFFECTIVE DATE: 5:00 P.M.
Thursday, August 20, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: 12:01 A.M.
Saturday 22, 1992, or
until superseded by subsequent
emergency order.

EXPLANATION:

Commercial salmon fishing in the Chignik Bay, Central, Eastern, Western, and Perryville Districts of the Chignik Management Area will be extended to 12:01 A.M. Saturday, August 22, 1992. Fishing in the Lagoon will be allowed up to the regulatory markers at Mensis Point.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Monday, August 17 until 12:01 A.M. Saturday, August 22, 1992.

-Continued-

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Monday, August 17, until 12:01 A.M. Saturday, August 21, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Monday, August 17, until 12:01 A.M. Saturday, August 22, 1992.

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Monday, August 17, until 12:01 A.M. Saturday, August 22, 1992.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) fishing will be allowed up to the Mensis Point markers;

Other closed waters are as described in (2) through (19) in the regulation book.

JUSTIFICATION:

Due to severe storm conditions, this fishing period will be extended an additional 24 hours. Aerial surveys conducted in all the Districts have indicated adequate pink and chum salmon escapements to continue a commercial fishery.

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EMERGENCY ORDER NO. 4-F-L-15-92

Issued at: Chignik, AK
August 22, 1992

EFFECTIVE DATE: 12:01 A.M.
Monday, August 24, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until further notice, or superseded by subsequent emergency order.

EXPLANATION:

The Chignik Bay District of the Chignik Management Area will open to all commercial salmon

-Continued-

fishing on a 5-day per week fishing period effective at 12:01 A.M. Mondays until 12:01 A.M. Saturdays, until further notice. The Eastern, Central, Western, and Perryville Districts will open to all commercial salmon fishing on a 3 1/2-day per week fishing period effective 12:01 A.M. Mondays until 12:00 Noon Thursdays, until further notice. Fishing in the Lagoon will be allowed up to the regulatory markers at Mensis Point.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Mondays until 12:00 Noon Thursdays, and continue on a 3 1/2-day per week basis until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Mondays until 12:00 Noon Thursdays, and continue on a 3 1/2-day per week basis until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) regulatory markers will be the Mensis Point markers.

Other closed waters are as described (2) through (19) in the regulation book.

-Continued-

JUSTIFICATION:

As of August 11, the second run sockeye escapement was approximately 256,000 salmon. The pink and chum salmon escapements in the Outer Districts have minimal escapements at this time. A 3 1/2-day per week fishing period in these Districts will provide additional escapement and necessary catch information to evaluate coho salmon run strength. A 5-day per week fishing period in the Chignik Bay District will allow harvest of sockeye salmon surplus to escapement requirements.

EMERGENCY ORDER NO. 4-F-L-16-92

Issued at: Chignik, AK
August 22, 1992

EFFECTIVE DATE: 6:00 P.M.
Monday, August 24, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until further notice, or superseded by subsequent emergency order.

EXPLANATION:

The Chiginagak Section of the Eastern District of the Chignik Management Area will open to all commercial salmon fishing to stream mouths effective at 6:00 P.M. Monday, August 24 until 12:00 Noon Thursday, August 27, 1992.

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (b) In the Chiginagak Section of the Eastern District, salmon may be taken from 6:00 P.M. Monday, August 24 until 12:00 Noon Thursday, August 27, 1992.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (b) The Chiginagak Section of the Eastern District will be open to commercial salmon fishing from 6:00 P.M. Monday, August 24 until 12:00 Noon Thursday, August 27, 1992.

-Continued-

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

Closed waters are as described in (2), (3), and (5) through (19) in the regulation book.

JUSTIFICATION:

Aerial surveys conducted in the Eastern and Central Districts indicate more than adequate escapements in the Chiginagak Section streams only. Streams in other Sections are too silty to adequately assess escapements at this time.

EMERGENCY ORDER NO. 4-F-L-17-92

Issued at: Chignik, AK
August 30, 1992

EFFECTIVE DATE:12:01 A.M.
Monday, August 31, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until further notice, or superseded by subsequent emergency order.

EXPLANATION:

The commercial salmon fishing regulatory markers in the Ivanof Bay Section of the Perryville District of the Chignik Management Area will be reduced in Ivanof Bay as follows: from the old cannery dock across to the northeast cliff point at 55 52'28" N. lat., 159 28'18" W. long.. Regulatory markers for the northwest portion of Ivanof Bay are as follows: west of a line from 55 53'15" N. lat., 159 32' 00" W. long., on the northwest shore to the northeast tip of a sand island at 55 52'30" N. lat., 159 31'00" W. long., to the headland at 55 51'00" N. lat., 159 31'00" W. long..

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (b) In the Ivanof Bay Section of the Perryville District, salmon may be taken on a 3 1/2-day per week fishing period from 12:01 A.M. Mondays until 12:00 Noon Thursdays.

-Continued-

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (b) The Ivanof Bay Section of the Perryville District will be open to commercial salmon fishing on a weekly period from 12:01 A.M. Mondays until 12:00 Noon Thursdays.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(13) Ivanof Bay: all waters northeast of a line from the old cannery dock across to the northeast cliff point at 55 52'28" N. lat., 159 28'18" W. long.; and west of a line from 55 53'15" N. lat., 159 32'00" W. long., on the northwest shore to the northeast tip of a sand island at 55 52'30" N. lat., 159 31'00" W. long., to the headland at 55 51'00" N. lat., 159 31'00" W. long..

Other closed waters are as described in (2) through (12) and (14) through (19) in the regulation book.

JUSTIFICATION:

The Ivanof River system has attained minimal escapement of pink and chum salmon at this time to merit moving the markers into the inner bay.

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EMERGENCY ORDER NO. 4-F-L-18-92

Issued at: Kodiak, AK
September 11, 1992

EFFECTIVE DATE: 12:01 A.M.
Monday, September 14, 1992

Contact: Alan Quimby
Area Management Biologist

Expiration Date: Until further notice, or superseded by subsequent emergency order.

EXPLANATION:

The entire Chignik Management Area will open to all commercial salmon fishing on a 5-day per week fishing period effective at 12:01 A.M. Mondays until 12:01 A.M. Saturdays, until further notice.

-Continued-

REGULATION:

5 AAC 15.310 is amended to read:

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

(b) In the Central, Eastern, Western, and Perryville Districts, salmon may be taken from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

5 AAC 15.320 is amended to read:

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) The Chignik Bay District will open to commercial salmon fishing from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

(b) The Central, Eastern, Western, and Perryville Districts will be open to commercial salmon fishing from 12:01 A.M. Mondays until 12:01 A.M. Saturdays, and continue on a 5-day per week basis until further notice.

5 AAC 15.350 is amended to read:

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) regulatory markers will be the Mensis Point markers.

Other closed waters are as described in E.O. #4-F-L-17-92 and (2) through (12) and (14) through (19) in the regulation book.

JUSTIFICATION:

A 5-day per week fishing period in the Chignik Management Area will allow harvest of sockeye, king, pink, and chum salmon surplus to escapement requirements; and provide additional escapement and necessary catch information to evaluate coho salmon run strength.

Appendix E. Kodiak tides, 1992.

Date		---HIGH TIDE--- Time	Feet	---HIGH TIDE--- Time	Feet	---LOW TIDE--- Time	Feet	----LOW TIDE--- Time	Feet
May	1	1:24 AM	8.7	2:18 PM	7.1	8:00 AM	-0.5	7:47 PM	1.6
	2	1:57 AM	9.2	2:59 PM	7.2	8:38 AM	-1.1	8:23 PM	1.7
	3	2:32 AM	9.5	3:41 PM	7.2	9:17 AM	-1.5	9:00 PM	1.8
	4	3:08 AM	9.7	4:24 PM	7.1	9:58 AM	-1.7	9:39 PM	2.0
	5	3:47 AM	9.7	5:10 PM	6.9	10:41 AM	-1.7	10:22 PM	2.2
	6	4:31 AM	9.4	6:01 PM	6.7	11:28 AM	-1.4	11:12 PM	2.5
	7	5:19 AM	9.0	6:56 PM	6.6	:		12:19 PM	-0.9
	8	6:16 AM	8.3	7:58 PM	6.7	0:11 AM	2.7	1:14 PM	-0.4
	9	7:25 AM	7.6	9:01 PM	7.0	1:24 AM	2.8	2:14 PM	0.1
	10	8:47 AM	7.0	10:01 PM	7.5	2:47 AM	2.5	3:17 PM	0.5
	11	10:12 AM	6.7	10:55 PM	8.1	4:11 AM	1.8	4:18 PM	0.9
	12	11:29 AM	6.7	11:44 PM	8.7	5:22 AM	0.9	5:16 PM	1.2
	13	:		12:34 PM	6.8	6:21 AM	-0.1	6:08 PM	1.4
	14	0:29 AM	9.2	1:30 PM	7.0	7:12 AM	-0.8	6:56 PM	1.6
	15	1:12 AM	9.6	2:20 PM	7.1	7:58 AM	-1.4	7:40 PM	1.8
	16	1:53 AM	9.8	3:06 PM	7.2	8:41 AM	-1.7	8:22 PM	1.9
	17	2:32 AM	9.7	3:49 PM	7.1	9:22 AM	-1.7	9:02 PM	2.1
	18	3:10 AM	9.5	4:31 PM	7.0	10:01 AM	-1.6	9:42 PM	2.4
	19	3:48 AM	9.2	5:13 PM	6.7	10:41 AM	-1.2	10:22 PM	2.6
	20	4:26 AM	8.7	5:55 PM	6.5	11:20 AM	-0.8	11:04 PM	2.9
	21	5:06 AM	8.1	6:40 PM	6.4	12:00 PM	-0.2	11:51 PM	3.1
	22	5:48 AM	7.5	7:26 PM	6.3	:		12:41 PM	0.2
	23	6:37 AM	6.8	8:15 PM	6.4	0:46 AM	3.2	1:24 PM	0.8
	24	7:36 AM	6.2	9:05 PM	6.6	1:51 AM	3.2	2:11 PM	1.3
	25	8:49 AM	5.7	9:53 PM	6.9	2:04 AM	2.9	3:01 PM	1.7
	26	10:08 AM	5.5	10:37 PM	7.4	4:16 AM	2.4	3:53 PM	2.0
	27	11:20 AM	5.5	11:20 PM	7.9	5:16 AM	1.6	4:45 PM	2.2
	28	:		12:22 PM	5.8	6:08 AM	0.7	5:35 PM	2.3
	29	0:01 AM	8.5	1:14 PM	6.1	6:54 AM	-0.1	6:23 PM	2.4
	30	0:42 AM	9.0	2:02 PM	6.5	7:37 AM	-0.9	7:09 PM	2.3
	31	1:23 AM	9.5	2:47 PM	6.8	8:19 AM	-1.5	7:54 PM	2.2
June	1	2:06 AM	9.9	3:32 PM	7.0	9:02 AM	-2.0	8:40 PM	2.1
	2	2:49 AM	10.1	4:16 PM	7.2	9:46 AM	-2.2	9:27 PM	2.1
	3	3:35 AM	10.0	5:02 PM	7.3	10:30 AM	-2.2	10:17 PM	2.1
	4	4:23 AM	9.7	5:49 PM	7.4	11:15 AM	-1.9	11:11 PM	2.1
	5	5:14 AM	9.1	6:38 PM	7.5	:		12:02 PM	-1.4
	6	6:11 AM	8.3	7:30 PM	7.7	0:12 AM	2.1	12:50 PM	-0.7
	7	7:16 AM	7.3	8:25 PM	7.9	1:21 AM	2.0	1:41 PM	0.1
	8	8:32 AM	6.5	9:21 PM	8.2	2:37 AM	1.7	2:36 PM	0.9
	9	9:55 AM	5.9	10:16 PM	8.6	3:55 AM	1.2	3:34 PM	1.6
	10	11:17 AM	5.8	11:10 PM	8.9	5:07 AM	0.5	4:34 PM	2.1
	11	:		12:28 PM	5.9	6:09 AM	-0.1	5:33 PM	2.4
	12	0:01 AM	9.1	1:26 PM	6.2	7:02 AM	-0.7	6:28 PM	2.5
	13	0:48 AM	9.3	2:16 PM	6.4	7:48 AM	-1.1	7:18 PM	2.6
	14	1:32 AM	9.4	3:00 PM	6.6	8:30 AM	-1.4	8:03 PM	2.5
	15	2:13 AM	9.4	3:39 PM	6.8	9:09 AM	-1.5	8:45 PM	2.5
	16	2:52 AM	9.3	4:17 PM	6.9	9:46 AM	-1.4	9:25 PM	2.5
	17	3:30 AM	9.1	4:53 PM	6.9	10:21 AM	-1.2	10:05 PM	2.5
	18	4:07 AM	8.7	5:28 PM	6.9	10:55 AM	-0.9	10:46 PM	2.6
	19	4:43 AM	8.2	6:04 PM	6.9	11:28 AM	-0.5	11:29 PM	2.6
	20	5:22 AM	7.6	6:39 PM	7.0	:		12:01 PM	0.0
	21	6:03 AM	6.9	7:17 PM	7.0	0:17 AM	2.7	12:35 PM	0.5
	22	6:51 AM	6.2	7:57 PM	7.2	1:11 AM	2.6	1:11 PM	1.1
	23	7:52 AM	5.5	8:42 PM	7.4	2:12 AM	2.5	1:51 PM	1.7
	24	9:09 AM	5.1	9:31 PM	7.6	3:21 AM	2.1	2:39 PM	2.2
	25	10:35 AM	4.9	10:23 PM	8.0	4:30 AM	1.5	3:37 PM	2.6
	26	11:52 AM	5.2	11:16 PM	8.5	5:32 AM	0.7	4:40 PM	2.8
	27	:		12:55 PM	5.6	6:27 AM	-0.1	5:42 PM	2.8
	28	0:09 AM	9.1	1:46 PM	6.1	7:16 AM	-1.0	6:40 PM	2.6
	29	0:59 AM	9.7	2:32 PM	6.6	8:03 AM	-1.7	7:34 PM	2.3
	30	1:49 AM	10.1	3:16 PM	7.1	8:47 AM	-2.2	8:26 PM	1.9
July	1	2:37 AM	10.4	3:58 PM	7.6	9:30 AM	-2.5	9:18 PM	1.6
	2	3:26 AM	10.3	4:41 PM	8.0	10:13 AM	-2.4	10:10 PM	1.3
	3	4:16 AM	9.9	5:24 PM	8.3	10:55 AM	-2.0	11:05 PM	1.1
	4	5:07 AM	9.1	6:08 PM	8.5	11:38 AM	-1.3	:	
	5	6:02 AM	8.1	6:55 PM	8.6	0:02 AM	1.1	12:21 PM	-0.5
	6	7:02 AM	7.0	7:45 PM	8.6	1:06 AM	1.0	1:06 PM	0.4
	7	8:13 AM	6.1	8:40 PM	8.6	2:16 AM	1.0	1:55 PM	1.4

-Continued-

Date	---HIGH TIDE--- Time	Feet	---HIGH TIDE--- Time	Feet	---LOW TIDE--- Time	Feet	----LOW TIDE--- Time	Feet
July 8	9:38 AM	5.4	9:39 PM	8.5	3:32 AM	0.8	2:52 PM	2.2
9	11:06 AM	5.2	10:41 PM	8.6	4:48 AM	0.5	3:58 PM	2.8
10	12:23 PM	5.4	11:39 PM	8.7	5:56 AM	0.0	5:07 PM	3.0
11	:		1:22 PM	5.8	6:52 AM	-0.3	6:11 PM	3.0
12	0:31 AM	8.8	2:08 PM	6.2	7:38 AM	-0.7	7:04 PM	2.9
13	1:18 AM	9.0	2:46 PM	6.5	8:17 AM	-1.0	7:50 PM	2.6
14	2:00 AM	9.1	3:20 PM	6.8	8:53 AM	-1.1	8:32 PM	2.4
15	2:38 AM	9.1	3:52 PM	7.1	9:25 AM	-1.1	9:10 PM	2.2
16	3:14 AM	8.9	4:22 PM	7.3	9:55 AM	-1.0	9:47 PM	2.0
17	3:49 AM	8.6	4:52 PM	7.4	10:25 AM	-0.8	10:25 PM	1.9
18	4:23 AM	8.2	5:21 PM	7.5	10:53 AM	-0.4	11:03 PM	1.9
19	4:58 AM	7.6	5:50 PM	7.5	11:21 AM	0.0	11:45 PM	1.9
20	5:35 AM	6.9	6:21 PM	7.6	11:50 AM	0.6	:	
21	6:17 AM	6.2	6:56 PM	7.6	0:30 AM	1.9	12:20 PM	1.2
22	7:09 AM	5.5	7:38 PM	7.7	1:24 AM	1.8	12:55 PM	1.8
23	8:20 AM	4.9	8:30 PM	7.8	2:29 AM	1.7	1:40 PM	2.4
24	9:56 AM	4.6	9:34 PM	8.0	3:44 AM	1.4	2:41 PM	2.9
25	11:28 AM	4.9	10:42 PM	8.4	4:59 AM	0.7	3:58 PM	3.1
26	12:36 PM	5.4	11:46 PM	9.0	6:03 AM	-0.1	5:16 PM	3.0
27	:		1:26 PM	6.1	6:56 AM	-0.9	6:24 PM	2.5
28	0:44 AM	9.6	2:10 PM	6.9	7:43 AM	-1.6	7:23 PM	1.9
29	1:37 AM	10.1	2:51 PM	7.6	8:27 AM	-2.1	8:16 PM	1.2
30	2:28 AM	10.3	3:31 PM	8.3	9:09 AM	-2.3	9:08 PM	0.6
31	3:17 AM	10.2	4:10 PM	8.8	9:49 AM	-2.1	9:59 PM	0.1
Aug 1	4:06 AM	9.7	4:51 PM	9.1	10:29 AM	-1.6	10:50 PM	-0.1
2	4:56 AM	8.9	5:32 PM	9.2	11:09 AM	-0.8	11:44 PM	0.0
3	5:48 AM	7.9	6:16 PM	9.1	11:49 AM	0.0	:	
4	6:46 AM	6.8	7:04 PM	8.8	0:42 AM	0.2	12:31 PM	1.0
5	7:54 AM	5.8	7:59 PM	8.4	1:47 AM	0.5	1:18 PM	2.0
6	9:20 AM	5.1	9:04 PM	8.1	3:03 AM	0.7	2:16 PM	2.8
7	10:56 AM	5.0	10:15 PM	8.0	4:25 AM	0.7	3:31 PM	3.3
8	12:13 PM	5.3	11:22 PM	8.0	5:39 AM	0.4	4:54 PM	3.4
9	:		1:07 PM	5.8	6:36 AM	0.1	6:03 PM	3.1
10	0:18 AM	8.3	1:47 PM	6.3	7:20 AM	-0.2	6:55 PM	2.7
11	1:05 AM	8.5	2:19 PM	6.7	7:56 AM	-0.5	7:39 PM	2.3
12	1:46 AM	8.7	2:49 PM	7.1	8:27 AM	-0.6	8:17 PM	1.8
13	2:23 AM	8.8	3:16 PM	7.5	8:56 AM	-0.7	8:52 PM	1.5
14	2:57 AM	8.7	3:43 PM	7.7	9:23 AM	-0.6	9:27 PM	1.2
15	3:31 AM	8.4	4:09 PM	7.9	9:50 AM	-0.3	10:02 PM	1.0
16	4:04 AM	8.0	4:35 PM	8.0	10:16 AM	0.0	10:37 PM	0.9
17	4:37 AM	7.5	5:02 PM	8.1	10:42 AM	0.4	11:14 PM	0.9
18	5:13 AM	6.9	5:31 PM	8.1	11:09 AM	1.0	11:56 PM	1.0
19	5:53 AM	6.2	6:04 PM	8.0	11:38 AM	1.6		
20	6:42 AM	5.5	6:46 PM	7.9	0:45 AM	1.1	12:12 PM	2.2
21	7:52 AM	4.9	7:42 PM	7.8	1:47 AM	1.2	12:58 PM	2.7
22	9:32 AM	4.7	8:57 PM	7.8	3:05 AM	1.1	2 :07 PM	3.2
23	11:08 AM	5.0	10:19 PM	8.1	4:28 AM	0.7	3 :40 PM	3.3
24	12:12 PM	5.7	11:31 PM	8.7	5:37 AM	0.0	5 :08 PM	2.9
25	:		12:59 PM	6.6	6:31 AM	-0.6	6 :17 PM	2.1
26	0:33 AM	9.3	1:40 PM	7.5	7:18 AM	-1.2	7 :14 PM	1.1
27	1:27 AM	9.8	2:19 PM	8.4	8:01 AM	-1.5	8 :06 PM	0.1
28	2:18 AM	9.9	2:58 PM	9.1	8:41 AM	-1.6	8 :56 PM	-0.5
29	3:07 AM	9.8	3:36 PM	9.6	9:20 AM	-1.3	9 :44 PM	-1.0
30	3:55 AM	9.3	4:15 PM	9.8	9:59 AM	-0.7	10:32 PM	-1.1
31	4:44 AM	8.5	4:55 PM	9.7	10:37 AM	-0.1	11:22 PM	-0.8
Sept 1	5:34 AM	7.5	5:37 PM	9.3	11:17 AM	0.8	:	
2	6:29 AM	6.5	6:24 PM	8.7	0:15 AM	-0.3	11:58 AM	1.7
3	7:35 AM	5.7	7:18 PM	8.1	1:15 AM	0.2	12:45 PM	2.5
4	9:00 AM	5.1	8:27 PM	7.5	2:27 AM	0.7	1:47 PM	3.2
5	10:35 AM	5.1	9:48 PM	7.3	3:51 AM	1.0	3:14 PM	3.6
6	11:48 AM	5.5	11:02 PM	7.4	5:08 AM	0.9	4:53 PM	3.5
7	:		12:36 PM	6.0	6:05 AM	0.6	5:42 PM	3.0
8	0:01 AM	7.6	1:11 PM	6.5	6:47 AM	0.3	6:44 PM	2.4
9	0:48 AM	7.9	1:41 PM	7.1	7:22 AM	0.1	7:22 PM	1.7
10	1:28 AM	8.1	2:08 PM	7.6	7:52 AM	0.0	7:58 PM	1.1
11	2:05 AM	8.2	2:35 PM	8.0	8:20 AM	0.0	8:32 PM	0.6
12	2:40 AM	8.2	3:00 PM	8.3	8:47 AM	0.1	9:05 PM	0.2
13	3:13 AM	8.0	3:26 PM	8.5	9:13 AM	0.3	9:38 PM	0.0

-Continued-

Date	---HIGH TIDE--- Time	Feet	---HIGH TIDE--- Time	Feet	---LOW TIDE--- Time	Feet	----LOW TIDE--- Time	Feet
14	3:47 AM	7.7	3:52 PM	8.6	9:40 AM	0.7	10:12 PM	-0.1
15	4:21 AM	7.3	4:19 PM	8.6	10:07 AM	1.1	10:49 PM	0.0
16	4:58 AM	6.8	4:49 PM	8.5	10:35 AM	1.6	11:30 PM	0.1
17	5:40 AM	6.2	5:24 PM	8.3	11:07 AM	2.1	:	
18	6:32 AM	5.6	6:09 PM	8.1	0:18 AM	0.4	11:45 AM	2.6
19	7:44 AM	5.1	7:10 PM	7.7	1:19 AM	0.7	12:38 PM	3.1
20	9:18 AM	5.1	8:32 PM	7.6	2:34 AM	0.8	2:00 PM	3.4
21	10:41 AM	5.6	10:02 PM	7.7	3:55 AM	0.6	3:41 PM	3.2
22	11:40 AM	6.4	11:19 PM	8.1	5:04 AM	0.2	5:05 PM	2.4
23	:		12:25 PM	7.3	5:59 AM	-0.1	6:11 PM	1.3
24	0:23 AM	8.6	1:06 PM	8.3	6:47 AM	-0.4	7:06 PM	0.1
25	1:18 AM	9.0	1:45 PM	9.1	7:30 AM	-0.6	7:55 PM	-0.8
26	2:09 AM	9.1	2:24 PM	9.8	8:11 AM	-0.5	8:42 PM	-1.5
27	2:57 AM	9.0	3:02 PM	10.1	8:50 AM	-0.1	9:28 PM	-1.8
28	3:45 AM	8.6	3:41 PM	10.1	9:29 AM	0.3	10:14 PM	-1.8
29	4:32 AM	7.9	4:20 PM	9.8	10:08 AM	0.9	11:00 PM	-1.4
30	5:21 AM	7.2	5:02 PM	9.3	10:47 AM	1.6	11:49 PM	-0.7

CHIGNIK AREA

CHAPTER 15.—CHIGNIK AREA

ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 15.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in 5 AAC 01 and 5 AAC 02.

5 AAC 15.100. DESCRIPTION OF AREA. The Chignik Area includes all waters of Alaska on the south side of the Alaska Peninsula enclosed by 156°20'13" W.long., (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending 135° southeast from Kupreanof Point.

ARTICLE 2.—FISHING DISTRICTS

5 AAC 15.200. FISHING DISTRICTS. (a) The Eastern District includes all waters from the southernmost marker 500 yards from the mouth of Aniakchak Lagoon to the eastern boundary of the Chignik area

(1) Agripina Section: all waters between Kilokak Rocks at 57°11'22" N.lat., 156°20'13" W.long., and Cape Providence at 56°58'40" N.lat., 156°33'28" W.long.;

(2) Chiginagak Section: all waters between Cape Providence at 56°58'40" N.lat., 156°33'28" W.long., and Cape Kuyuyukak at 56°53'54" N.lat., 156°49'43" W.long.;

(3) Nakalilok-Yantarni Section: all waters between Cape Kuyuyukak at 56°53'54" N.lat., 156°49'43" W.long., and Cape Kunmik at 56°45'53" N.lat., 157°11'53" W.long.;

(4) Big River Section: all waters of Amber and Aniakchak Bays bounded by 157°11'53" W.long., and the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon;

(b) The Chignik Bay District includes all waters of Chignik Bay and Lagoon west of a line from a point near Jack Bay at 56°18'17" N. lat., 158°14'54" W. long., to Neketa Creek at 56°24'10" N.lat., 158°27'37" W.long.

(c) The Western District includes all waters south and west of Jack point at 56°17'32" N.lat., 158°11'56" W.long., excluding the waters of Chignik Lagoon, to Coal Cape at 55°53'28" N.lat., 159°00'20" W.long.

(1) Castle Cape Section: all waters between Jack Point at 56°17'32" N.lat., 158°11'56" W.long. and Cape Ikti at 55°58'45" N.lat., 158°30' W.long.;

(2) Dorner Bay Section: all waters between Cape Ikti at 55°58'45" N.lat., 158°30' W.long., and a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57' N.lat., 158°40' W.long.;

(3) Mitrofania Section: all waters, including Mitrofania Island between a point on the west side of Dorner (Kuiukta) Bay's entrance at 55°57′ N.lat., 158°40′ W.long., and Stirni Point at 55°54′50″ N.lat., 158°55′ W.long.;

(4) Anchor Bay Section: all waters between Stirni Point at 55°54′50″ N.lat., 158°55′ W.long., and Coal Cape at 55°53′28″ N.lat., 159°00′20″ W.long.

(d) The Perryville District includes all waters between Coal Cape at 55°53′28″ N.lat., 159°00′20″ W.long. and Kupreanof Point at 55°33′55″ N.lat., 159°35′50″ W.long.

(1) Perryville Section: all waters including Chiachi Islands, between Coal Cape at 55°53′28″ N.lat., 159°00′20″ W.long., and Coal Point at 55°51′31″ N.lat., 159°18′50″ W.long.;

(2) Humpback Bay Section: all waters including Paul and Jacob islands, between Coal Point at 55°51′34″ N.lat., 159°18′50″ W.long., and Alexander Point at 55°47′22″ N.lat., 159°24′34″ W.long.;

(3) Ivanof Bay Section: all waters between Alexander Point at 55°47′22″ N.lat., 159°24′34″ W.long., and Kupreanof Point at 55°33′55″ N.lat., 159°35′50″ W.long.

(e) The Central District includes all waters, excluding the waters of the Chignik Bay district between a point near Jack Bay at 56°18′17″ N.lat., 158°14′54″ W.long., and the southernmost marker 500 yards from the mouth of Aniakchak Lagoon.

(1) Cape Kumlik Section: all waters, including Sutwik Island, between the latitude of the southernmost marker 500 yards from the mouth of Aniakchak Lagoon and 157°40′25″ W.long., on the southwest side of Cape Kumlik;

(2) Kujulik Section: all waters between a point on the southwest side of Cape Kumlik at 56°36′32″ N.lat., 157°40′25″ W.long., and a point on Cape Kumliun at 56°28′34″ N.lat., 157°51′26″ W.long.;

(3) Outer Chignik Bay Section: all waters including Nakchamik Island between a point on Cape Kumliun at 56°28′34″ N.lat., 157°51′26″ W.long., and a point near Jack Bay at 56°18′17″ N.lat., 158°14′54″ W.long., excluding the Chignik Bay District.

ARTICLE 3.—SALMON FISHERY

5 AAC 15.310. FISHING SEASONS. (a) In the Chignik Bay District, salmon may be taken only from June 1 through October 31.

(b) The Perryville, Western, Central and Eastern Districts are opened by emergency order.

5 AAC 15.320. WEEKLY FISHING PERIODS. (a) Salmon fishing periods shall be established by emergency order.

5 AAC 15.330. GEAR. (a) Salmon may be taken only by purse seine or hand purse seine.

CHIGNIK AREA

5 AAC 15.332. SEINE SPECIFICATIONS AND OPERATION. (a) In the Eastern, Central, Western and Perryville Districts, no purse seine less than 100 fathoms or more than 225 fathoms in length may be used.

(b) In the Eastern, Central, Western and Perryville Districts, hand purse seines may not be less than 100 fathoms or more than 225 fathoms in length.

(c) In the Chignik Bay District, purse seines and hand purse seines may not be less than 100 fathoms or more than 125 fathoms in length.

(d) No seine may be less than three fathoms in depth.

(e) No lead may be more than 75 fathoms in length. The aggregate length of seine and lead may not be more than 225 fathoms in the Eastern, Central, Western and Perryville Districts.

(f) When a purse seine or hand purse seine is in the water for the purpose of taking fish, the seine shall be attached to the licensed vessel operating the gear.

5 AAC 15.350. CLOSED WATERS. Salmon may not be taken in the following waters:

(1) Chignik Lagoon

(A) southwest of a line from the tip of Hume Point to the north side of Chignik Island (56°17'25" N.lat., 158°35'30" W.long.);

(B) Mallard Duck Bay: southwest of a line from the tip of Green Point to Chignik Island (56°16'38" N.lat., 158°34'54" W.long.);

(2) Kilokak Rocks Bay: northwest of a line from the southern entrance of the bay at 57°09'50" N.lat., 156°20'40" W.long., then to the opposite shore 500 yards northeast of the mouth of Kilokak Rocks Creek at 57°10'07" N.lat., 156°20'40" W.long.;

(3) Agripina River: west of a line from 57°06'46" N.lat., 156°28' W.long., to 57°06'35" N.lat., 156°28'30" W.long.;

(4) Chiginagak Bay: north of a line from 57°00'33" N.lat., 156°45'38" W.long., to 57°01'48" N.lat., 156°41'51" W.long.;

(5) Nakalilok Lagoon: the lagoon and within 500 yards of the entrance:

(6) Yantarni Lagoon: the lagoon and within 500 yards of the entrance:

(7) Aniakchak River: northwest of a line from approximately 500 yards northeast of the mouth at 56°45'43" N.lat., 157°28'46" W.long., to a marker on the southern tip of the island directly off the mouth and then to approximately 1,000 yards southwest of the mouth at 56°45'20" N.lat., 157°31' W.long.;

(8) Aniakchak Lagoon: the lagoon and within 500 yards of the entrance;

CHIGNIK AREA

(9) Kujulik Bay: the southwest end of the bay southwest of a line from 56°35'51" N. lat., 157°59' W. long., to the opposite shore at 56°34'30" N. lat., 157°57'30" W. long.;

(10) Portage Bay: west of a line from 56°11'40" N.lat., 158°33' W.long., to 56°10'38" N. lat., 158°33' W. long.;

(11) Ivan Bay: north of a line from the marker on the northwest shore 1,000 yards from the stream mouth to the marker on the southeast shore 750 yards from the stream mouth;

(12) Humpback Bay: within 1,000 yards of the terminus of Humpback Bay stream (275-502) at 55°52'30" N.lat., 159°20' W.long.;

(13) Ivanof Bay: all waters northwest of a line from a point on the northeast shore at 55°52'28" N. lat., 159°28'18" W. long. to a point on the north end of the spit at 55°51' N. lat., 159°30'54" W. long. (all waters northwest of Road Island are closed);

(14) Alfred Creek (271-104): before August 1, the 500 yard closure at the terminus does not apply; the 500 yard closure does apply from August 1 to the end of the salmon fishing season;

(15) Dago Frank Creek (271-105): before August 1, the 500 yard closure at the terminus does not apply; the 500 yard closure does apply from August 1 to the end of the salmon fishing season;

(16) Hook Bay: northwest of a line from the tip of Hook Bay spit at 56°30'07" N.lat., 158°08'04" W.long., to a point on the north side of the bay at 56°31'07" N.lat., 158°07'32" W.long.

(17) Unnamed stream at 55°49'02" N.lat., 159°24'15" W.long.; the 500 yard closure at the terminus does not apply.

(18) Lake Bay: all waters southwest of a line drawn at the entrance to Lake Bay at 56°18'51" N. lat., 158°17'30" W. long. extending across the entrance to Lake Bay;

(19) Mud Bay: all waters southwest of a line from 56°19'28" N. lat., 158°25'12" W. long. extending across the entrance to Mud Bay.

5 AAC 15.355. SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

5 AAC 15.360. EASTERN DISTRICT SALMON MANAGEMENT PLAN. (a) The department shall open and close the Eastern District for commercial salmon fishing con-

currently with the Chignik Bay and Central Districts. The department may close the Eastern District for the period between the first (Black Lake) and second (Chignik Lake) sockeye salmon runs.

(b) The department shall close the Eastern District on July 15 to allow evaluation of the strength of the pink and chum salmon runs.

(c) The department shall close the Eastern district when it determines that the salmon being harvested in that district are from stocks that do not originate from spawning areas located in the Chignik Area.

Appendix G.1. Statistical weeks and corresponding calendar dates for 1992.

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

Appendix H.1. Chignik Management Area Forecast for sockeye, 1993.

FORECAST AREA: Chignik Management Area
Species: Sockeye salmon

PRELIMINARY FORECAST OF THE 1993 RUN

Early Run (Black Lake)	Point Estimate	80% Prediction Forecast Range
Total Run:	1,600,000	1,120,000 to 2,160,000
Escapement:	400,000	
Catch:	1,200,000	
Late Run (Chignik Lake)		
Total Run:	950,000	620,000 to 1,620,000
Escapement:	250,000	
Catch:	700,000	
Total Chignik Run		
Total Run:	2,590,000	1,740,000 to 3,780,000
Escapement:	650,000	
Catch:	1,940,000	

FORECAST METHODS:

The estimated run to Black Lake is the sum of a regression estimate for two major age classes (ages 1.3 and 2.3) and a 10-year average for minor age classes, while the Chignik Lake run is based on a recruit per spawner relationship. The Black Lake forecast is based on the historical relationship between the number and length of prior year age 1.2 fish, and the parent year escapement number. All other age classes are predicted from a 10-year average. The Chignik Lake forecast accuracy has historically been quite variable and developing a model such as the one used for the Black Lake run has been unsuccessful. The Chignik Lake run forecast for 1993 was derived using an average return per spawner (R/S = 4.41) for years post 1969.

DISCUSSION OF THE 1993 FORECAST:

Early Run

The 1993 Black Lake sockeye salmon run is expected to be 1.64 million fish. This is approximately 0.10 million fish less than the 1982-91 average run of 1.74 million fish and 200,000 fish less than the 1992 forecast. This below average run is expected because in 1992 age 1.2 fish numbered 33,005 less than the 10 year average of 175,456.

-Continued-

Late Run

The estimated 1993 Chignik Lake sockeye run is 0.95 million fish, 20,000 less than the 1982-91 average of 1.15 million fish. The Chignik Lake run forecast accuracy has historically been quite poor when compared to actual returns. The 1987 parent year, which is expected to produce 60% of the 1993 run, was 35,548 below the 250,000 desired escapement goal.

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Chignik Management Area
1993 Harvest Projections
(in thousands)

Chinook[1]	Sockeye[2]	Coho[3]	Pink[4]	Chum[5]	Total
5	1,940	169	1,300	213	3,627

1 Chinook harvest is dependent upon the amount of fishing time allowed for sockeye salmon in July; the harvest projection approximates a 10-year average.

2 Estimate includes projected harvest in the Cape Igvak and Southeast Mainland District intercept fisheries.

3 Coho salmon harvest is related to the strength of the Chignik Lake sockeye run. Lagoon and outside catches are based on a 10-year harvest average.

4 The pink salmon forecast is computed by multiplying the average recruit per spawner for the previous ten years by the parent year escapement. The catch projection is driven by escapements to the Central/Eastern and Western/Perryville Districts. The largest pink catches should come from the Western/Perryville Districts and could account for 60% of the projected total. Unstable stream conditions in these districts have resulted in poor returns from excellent parent year escapements.

5 The chum salmon forecast is computed by multiplying the average recruit per spawner for the previous ten years by the parent year escapement. Central/Eastern Districts should experience the largest proportion of the catch.

Appendix I.

An Analysis Of A Counting Method For Estimating first Hour Chinook and Sockeye Escapements Through The Chignik Weir, 1992.

By

David L. Owen

INTRODUCTION

A study was conducted at the Chignik River weir during the 1992 salmon season to evaluate the accuracy of a counting and expansion method that estimates the sockeye and chinook salmon escapement during the first opening hour (7:00 - 8:00 am). The study was done to evaluate new methodology that was developed to minimize any expansion bias from the time sampled to the entire first hour.

METHODS

The study compared a linear estimation method versus actual counts for the first hour counts. The method used this year, tallied actual counts for the first 20 minutes (7:00 - 7:20 am) and for 10 minutes at the half-hour (7:30 - 7:40 am) at two gates. The counts between 7:20 - 7:30 am and 7:40 - 8:00 am were estimated by linear interpolation. The total estimated escapement for the 7:00 am - 8:00 am period was a sum of the actual counts and linear interpolated values as calculated by a Lotus Spreadsheet developed by Bruce Barrett, Westward Regional Research Biologist (Appendix A.1).

To determine the amount of error in the linear estimate method, actual counts were taken from 7:00 - 8:00 am at five minute intervals and compared to linear estimates.

RESULTS

A total of 38 and 13 actual counts for sockeye and chinook salmon were recorded (Tables 1 and 2) and summarized at 5 minute intervals during the first hour of the study (Table 3). The decrease during the first hour was linear for both sockeye and chinook salmon, but the slope of the line for chinook salmon was steeper than that for sockeye salmon (Table 3 and Figure 1). For sockeye salmon, 22.7% of the total hour count passed through the weir in the first 10 minutes and 20.6% in the next 10 minutes for a total of 43.3% in the first 20 minutes. While for chinook salmon, 33.1% of the total hour count passed through the weir in the first 10 minutes and 25.9% in the next 10 minutes for a total of 59.0% in the first 20 minutes. On a seasonal basis, the first hour counts represented 15% of the total sockeye (Figure 2) and 23% of the total chinook salmon escapement (Figure 3) counted for the entire day.

Actual counts (38) that were compared to linear estimates by day for sockeye salmon, showed that the estimates had a slight negative bias (average -1.9%) (Table 4 and Figure 4). However, the estimates exhibited a positive bias at low counts and a negative bias at high counts (Figure 5).

A total of 13 full hour escapement counts that were compared to escapement estimates generated by day for chinook salmon, showed that the estimates were both positive and negative with the overall being slightly positive (0.6%) (Table 5 and Figure 6). Again, a positive bias was shown at low counts and a negative bias at high counts.

The overall difference for sockeye salmon between actual counts and estimates was expanded first to both gates during the sampling period and than to the entire season. The estimating method would underestimate by 2,026 (-0.3% error) (Tables 6 and 7).

The overall difference for chinook salmon between actual counts and estimates was first expanded to both gates then to the entire season. After the first hour, chinook salmon for both gates was totaled but not recorded by gate. Since chinook salmon were as likely to go through either gate (Table 8), sampled gate counts were doubled to estimate total counts for the two gates. The linear method would overestimate by 5 (0.1% error)(Tables 7 and 9).

CONCLUSION

The new method of counting 30 minutes in the first hour, interpolating between counted points, and averaging at each gate produced minimal error (Table 7). The new method appears to perform adequately, and its continued use is highly recommended.

Table 1. Sockeye salmon escapement counts (n=38) by sample date at gates 1 and gate 2, recorded at 5 minute intervals, during the 7:00 am - 8:00 am period, Chignik River weir, 1992

	Gate 1																				
Date	6/16	6/18	6/19	6/20	6/21	6/22	6/23	6/24	6/25	6/26	6/28	6/29	6/30	7/1	7/2	7/3	7/5	7/13	7/14	7/15	7/16
Time																					
7:05	212	12	10	6	110	205	253	445	464	10	4	8	5	13	3	7	3	96	115	106	160
7:10	226	6	1	5	130	208	322	457	372	9	0	3	2	10	1	3	1	88	110	64	151
7:15	181	1	2	1	125	180	253	425	323	0	1	0	1	1	0	14	0	92	89	53	124
7:20	176	3	7	2	125	258	244	412	316	1	0	1	1	6	1	10	0	77	19	50	104
7:25	130	0	0	0	110	245	344	397	304	3	0	2	6	2	0	3	0	69	18	17	141
7:30	115	0	0	2	161	239	330	260	356	0	1	3	4	0	1	6	0	71	10	30	72
7:35	120	0	2	0	160	173	265	330	255	1	1	1	3	4	3	0	0	55	28	20	62
7:40	120	0	0	2	110	156	216	319	253	0	0	1	0	0	1	1	1	45	16	27	121
7:45	95	0	0	0	68	166	339	345	202	1	0	0	0	1	0	0	0	19	16	18	115
7:50	140	1	0	0	60	172	312	328	204	0	0	0	1	0	0	7	0	31	24	23	51
7:55	134	0	0	0	136	164	337	323	180	1	0	1	1	0	0	9	0	2	14	13	67
8:00	92	0	1	3	64	167	239	352	163	1	1	1	0	1	1	0	0	2	23	5	86
Total	1,741	23	23	21	1,359	2,333	3,454	4,393	3,392	27	8	21	24	38	11	60	5	597	482	426	1,254

	Gate 1							Gate 2									
Date	7/17	7/18	7/19	7/20	7/21	7/22	7/24	7/25	7/26	7/27	7/28	7/29	7/30	7/31	8/1	8/2	8/3	Total
Time																		
7:05	65	227	150	10	85	36	238	176	173	144	103	117	132	21	1	12	19	3,906
7:10	113	149	142	60	134	99	335	116	117	127	57	139	162	15	2	7	24	3,967
7:15	52	165	99	24	84	105	228	223	97	232	78	172	124	9	8	10	16	3,592
7:20	139	159	81	11	49	101	407	182	92	144	67	165	53	34	10	11	31	3,549
7:25	194	128	113	14	74	69	224	184	107	101	60	39	123	25	9	9	9	3,273
7:30	130	157	71	9	69	68	240	89	66	119	68	148	125	19	8	16	8	3,071
7:35	75	149	85	9	24	56	137	98	25	82	27	67	57	11	4	7	12	2,408
7:40	92	129	79	5	17	53	130	136	49	67	25	12	83	4	7	12	6	2,295
7:45	130	98	38	1	34	38	107	132	39	43	25	26	43	11	15	3	8	2,176
7:50	50	243	61	2	42	43	125	71	26	34	5	3	8	7	8	11	9	2,102
7:55	76	120	160	4	24	38	123	154	63	61	16	16	10	3	10	18	6	2,284
8:00	146	146	75	2	36	31	97	157	38	39	1	3	25	9	14	8	6	2,035
Total	1,262	1,870	1,154	151	672	737	2,391	1,718	892	1,193	532	907	945	168	96	124	154	34,658

Table 2. Chinook salmon escapement counts (n=13) by sample date at gate 1 and gate 2, recorded at 5 minute intervals, during the 7:00 am - 8:00 am period, Chignik River weir, 1992.

	Gates 1 and 2													
Date	7/18	7/19	7/22	7/21	7/24	7/26	7/27	7/28	7/29	7/30	7/31	8/1	8/3	Total
Time														
7:05	3	0	1	4	7	2	1	2	2	3	3	1	2	31
7:10	4	2	1	3	3	3	5	1	4	1	1	1	0	29
7:15	3	1	2	1	3	6	5	1	1	0	3	0	1	27
7:20	3	0	1	0	4	1	5	1	3	0	1	1	0	20
7:25	3	0	0	1	6	3	1	0	2	0	0	0	1	17
7:30	4	0	0	1	6	0	0	0	2	0	1	1	0	15
7:35	0	0	0	0	3	1	1	1	0	0	0	0	0	6
7:40	0	1	0	1	3	3	0	0	0	0	0	0	0	8
7:45	2	0	0	0	2	2	1	1	1	1	0	0	0	10
7:50	1	0	0	1	2	2	1	0	0	0	0	0	0	7
7:55	1	0	0	0	4	2	1	0	0	0	0	0	0	8
8:00	0	0	0	0	1	1	0	0	0	0	0	0	1	3
Total	24	4	5	12	44	26	21	7	15	5	9	4	5	181

Table 3. Total sockeye and chinook salmon escapement counts at gates 1 and 2, recorded at 5 minute intervals, during the 7:00 am -8:00 am period where n=38 for sockeye and n=13 for chinook, Chignik River weir, 1992.

	Sockeye						Chinook	
	Gate 1		Gate 2		Total Counts 1 & 2			
Time Intervals	Actual Count	Percent Of Total Count	Actual Count	Percent Of Total Count	Actual Count	Percent Of Total Count	Actual Count	Percent Of Total Count
7:05	2,770	10.8	1,136	12.5	3,906	11.3	31	17.1
7:10	2,866	11.2	1,101	12.1	3,967	11.4	29	16.0
7:15	2,395	9.4	1,197	13.1	3,592	10.4	27	14.9
7:20	2,353	9.2	1,196	13.1	3,549	10.2	20	11.0
7:25	2,383	9.3	890	9.8	3,273	9.4	17	9.4
7:30	2,165	8.5	906	9.9	3,071	8.9	15	8.3
7:35	1,881	7.4	527	5.8	2,408	6.9	6	3.3
7:40	1,764	6.9	531	5.8	2,295	6.6	8	4.4
7:45	1,724	6.8	452	5.0	2,176	6.3	10	5.5
7:50	1,795	7.0	307	3.4	2,102	6.1	7	3.9
7:55	1,804	7.1	480	5.3	2,284	6.6	8	4.4
8:00	1,638	6.4	397	4.4	2,035	5.9	3	1.7
Total	25,538		9,120		34,658	100.0	181	100.0

Table 4. Comparison of results using a linear expansion method versus actual counts for estimating first hour sockeye salmon escapement at Chignik weir, 1992.

	Date	Actual	Linear Expansion Method	Difference from Actual (Percent)
Gate 1	6/16	1,741	1,759	1.0
	6/18	23	29	26.1
	6/19	23	29	26.1
	6/20	21	24	14.3
	6/21	1,359	1,043	-23.3
	6/22	2,333	2,223	-4.7
	6/23	3,454	3,044	-11.9
	6/24	4,393	4,330	-1.4
	6/25	3,392	3,330	-1.8
	6/26	27	30	11.1
	6/28	8	11	37.5
	6/29	21	28	33.3
	6/30	24	34	41.7
	7/1	38	46	21.1
	7/2	11	17	54.5
	7/3	60	53	-11.7
	7/5	5	7	40.0
	7/13	597	624	4.5
	7/14	482	555	15.1
	7/15	426	569	33.6
	7/16	1,254	1,265	0.9
	7/17	1,262	1,011	-19.9
	7/18	1,870	1,921	2.7
	7/19	1,154	1,197	3.7
	7/20	151	177	17.2
	7/21	672	568	-15.5
	7/22	737	895	21.4
Gate 2	7/24	2,391	2,393	0.1
	7/25	1,718	1,717	-0.1
	7/26	892	841	-5.7
	7/27	1,193	1,246	4.4
	7/28	532	533	0.2
	7/29	907	965	6.4
	7/30	945	984	4.1
	7/31	168	140	-16.7
	8/1	96	83	-13.5
	8/2	124	109	-12.1
	8/3	154	171	11.0
Both Gates		34,658	34,001	-1.9
Gate 1		26,165	24,819	-5.1
Gate 2		9,120	9,182	0.7

Table 5. Comparison of results using linear expansion method versus actual counts for estimating first hour chinook salmon escapement at the Chignik weir, 1992.

Date	Actual	Linear Expansion Method	Difference from Actual (Percent)
7/18	24	20	-16.7
7/19	4	10	150.0
7/22	5	4	-20.0
7/21	12	13	8.3
7/24	44	38	-13.6
7/26	26	27	3.8
7/27	21	22	4.8
7/28	7	9	28.6
7/29	15	12	-20.0
7/30	5	5	0.0
7/31	9	12	33.3
8/1	4	6	50.0
8/3	5	4	-20.0
	181	182	0.6

Table 6. Comparison of actual counts versus linear expansion estimates of sockeye salmon for the first hour counting samples, and expansion of the estimated error from the samples to the entire season.

Methodology	#Sockeye
linear Method	
Expansion From The Sampled Gate To The Unsampled For Each Sample Day (n=38)	
(Linear Method - Actual) (n=38 Samples)	-657
Estimated Counts For One Gate on day Sampled	248,629
Estimated Count For Both Gates On Day Sampled	593,403
Expansion Proportion: $\frac{-657}{x} = \frac{248,629}{593,403}$	
Estimated Total Error On Days Sampled x =	-1,568
Expansion From The Sampled Days To The Unsampled Days	
Estimated Total Sockeye Escapement	766,603
Estimated Counts For Both Gates On Days Sampled	593,403
Total Difference on Sampled Days	-1,568
Expansion Proportion: $\frac{-1,568}{x} = \frac{593,403}{766,603}$	
Estimated Total Error For Season x =	-2,026

Table 7. Comparison of the differences from actual and percent error[a] for linear escapement estimates for the entire season for chinook and sockeye salmon, 1992.

Chinook	% Error	Sockeye	% Error
5	0.1	-2,026	-0.3

Table 8. Actual counts for chinook salmon at the gate sampled and total escapement for both gates within the first hour.

Date	Sampled Gate Actual Count	Total Count Both Gates
7/18	24	78
7/19	4	8
7/22	5	21
7/21	12	30
7/24	44	76
7/26	26	52
7/27	21	25
7/28	7	13
7/29	15	34
7/30	5	27
7/31	9	18
8/1	4	8
8/3	5	6
Total	181	396
	Percent Sampled	
Each Gate:	181/396 =	46%

Table 9. Comparison of actual counts versus linear expansion estimates of chinook sockeye salmon for the first hour counting samples, and expansion of the error from the samples to the entire season.

Linear Method

Gate #1	
Linear estimate - Actual	1
Count Estimate For Both Gates On Days Sampled	874
Count Estimate For Both Gates Entire Season	3,806

$$\frac{1}{x} = \frac{874}{3,806}$$

Estimated Total Error For Season: $x = 5$

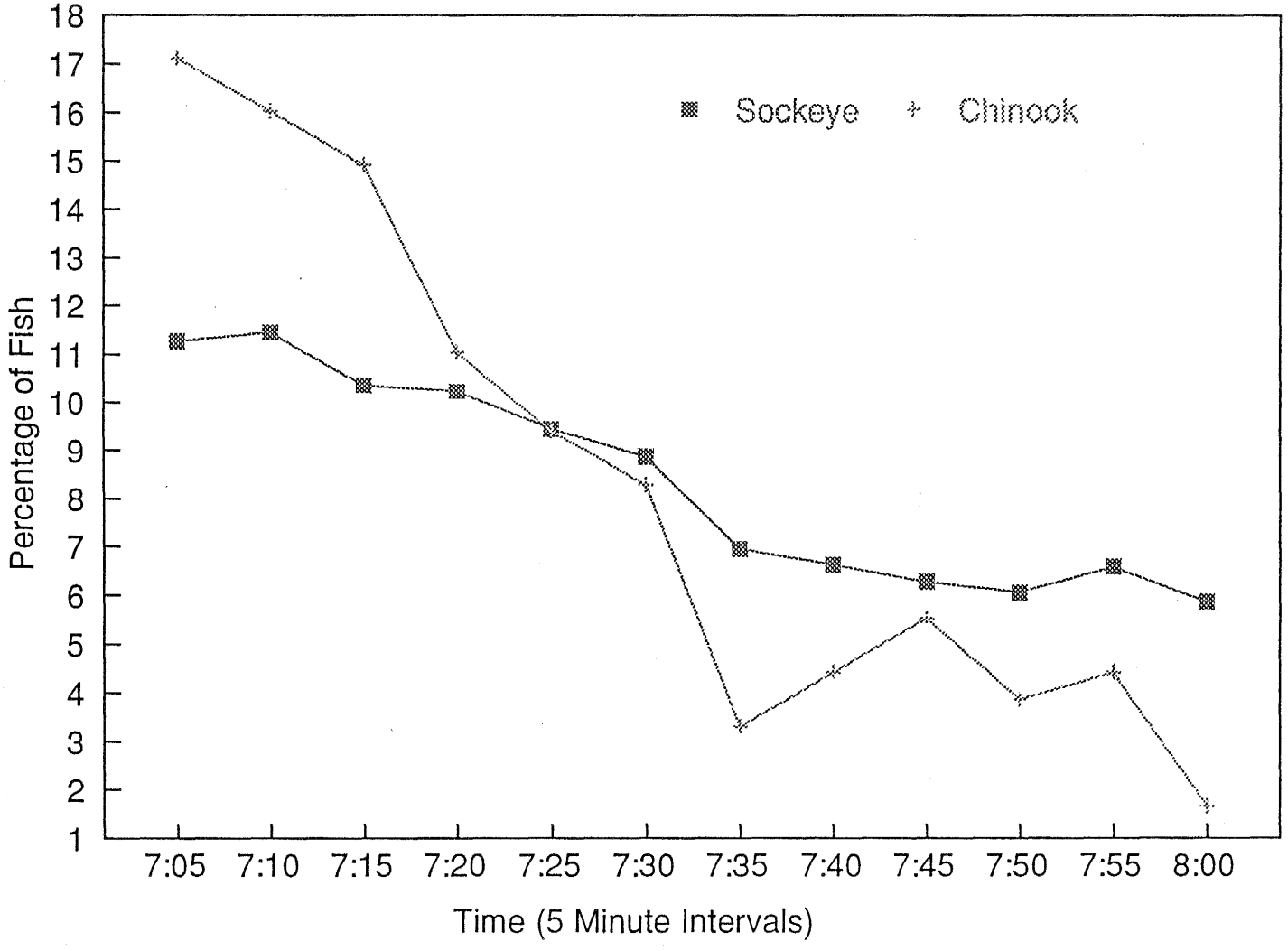

Figure 1. Percentage of actual escapement per time interval for chinook and sockeye counted at the Chignik weir, 1992.

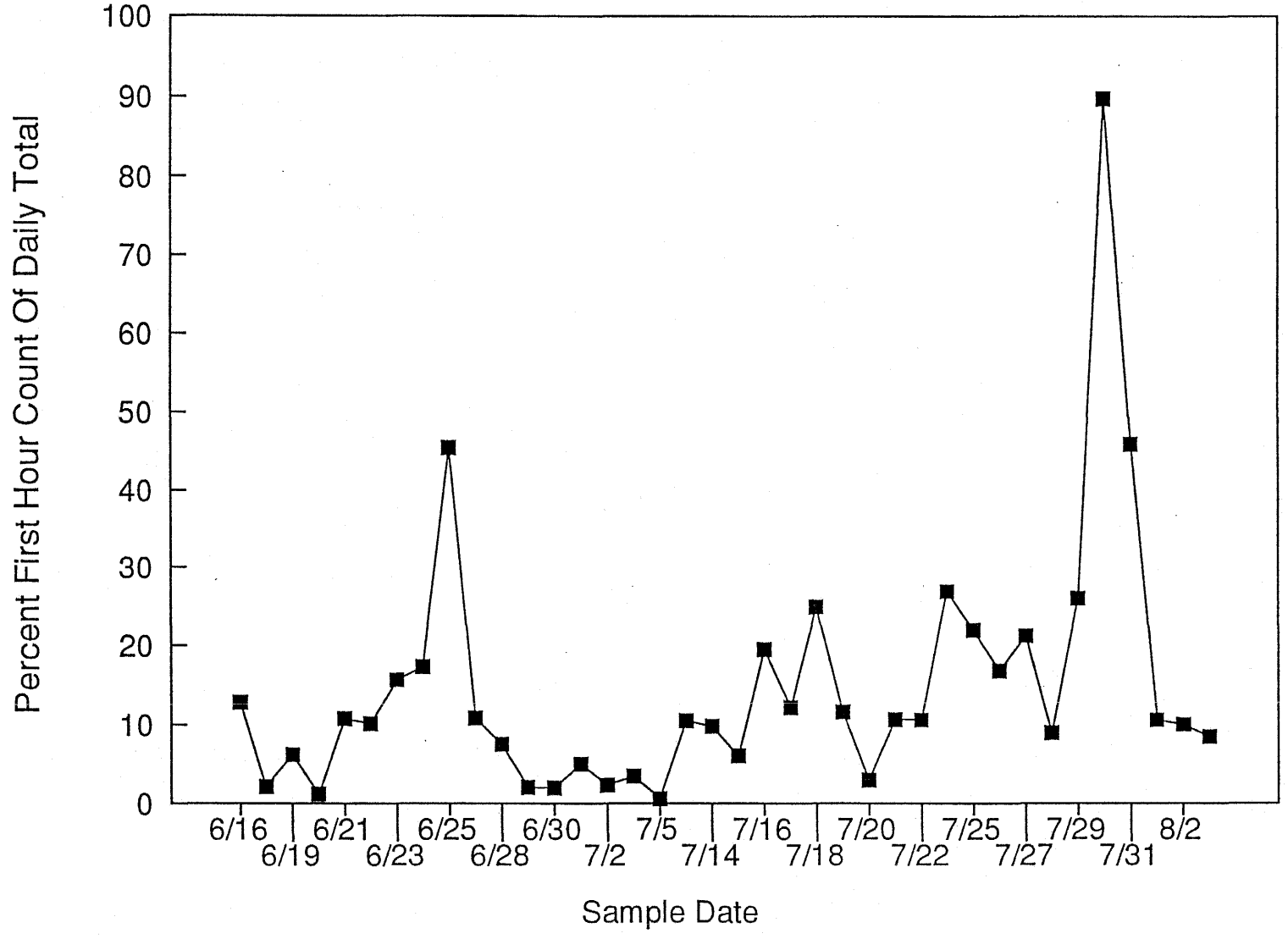

Figure 2. Percentage the first hour are of the total daily counts for sockeye escapement at the Chignik Weir, 1992.

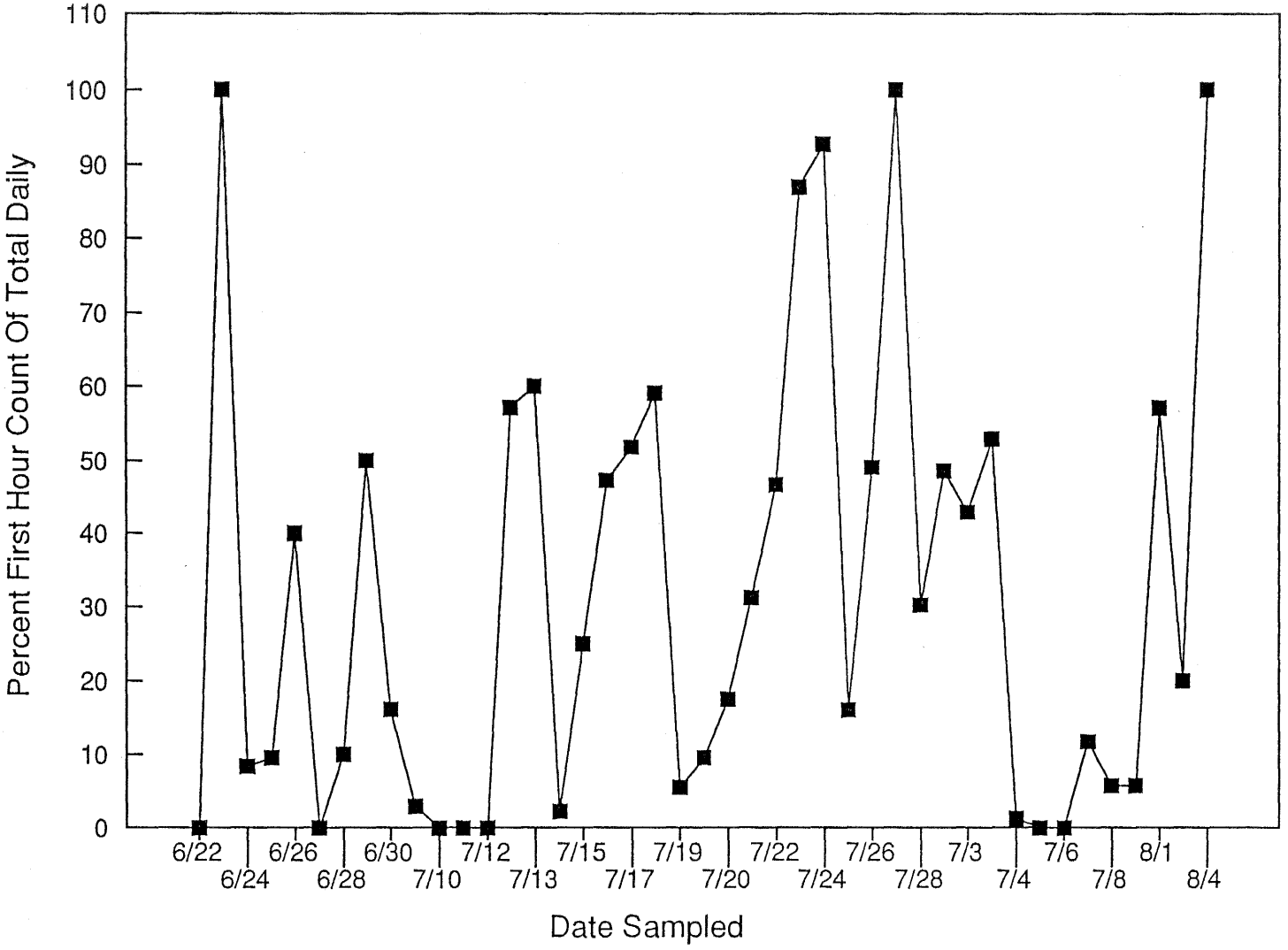

Figure 3. Percentage the first hour are of the total daily counts for king escapement at the Chignik Weir, 1992.

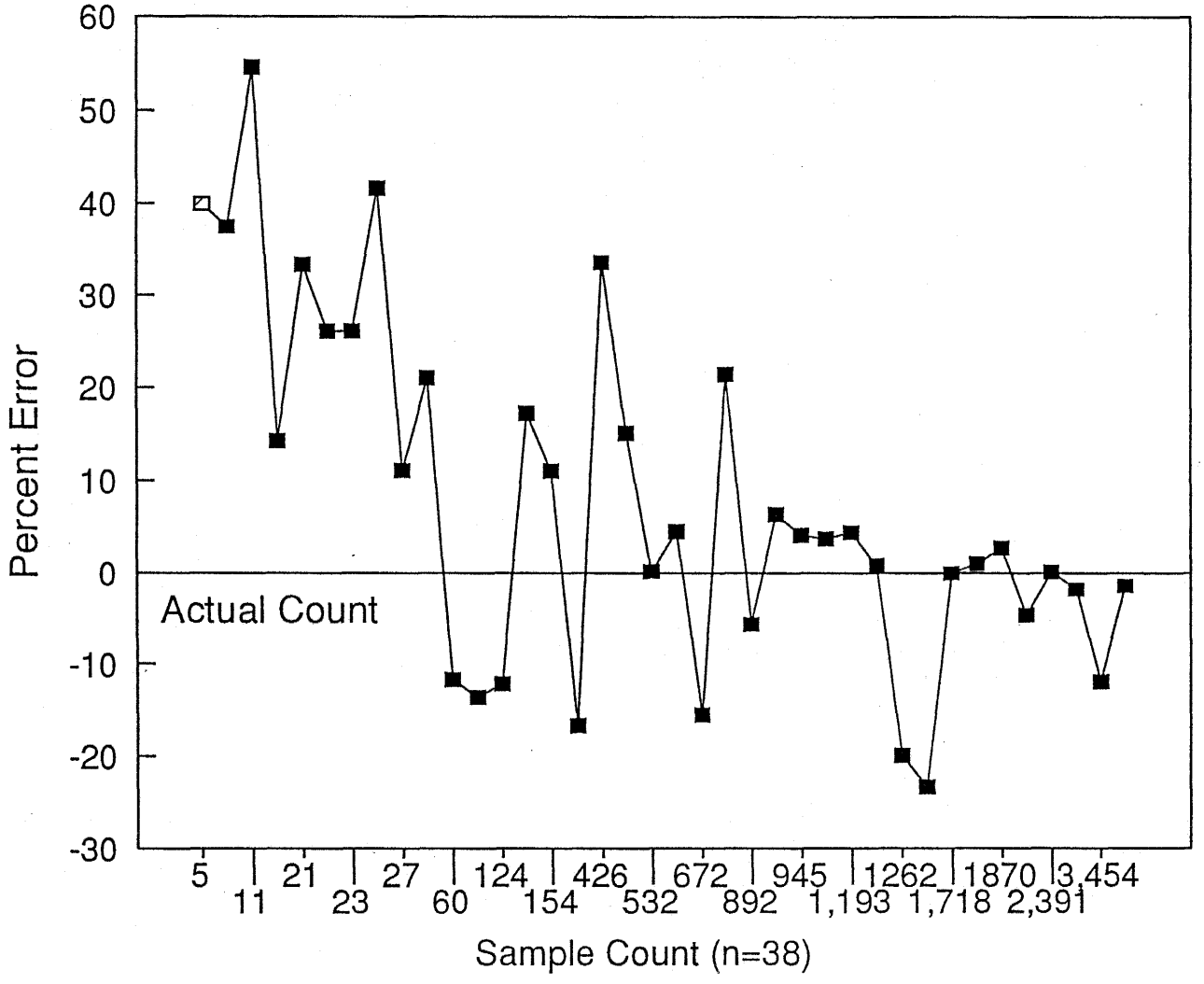

Figure 4. Comparison of the percent error associated with linear estimates of sockeye escapement with actual counts at the Chignik weir (7:00 - 8:00 am), 1992.

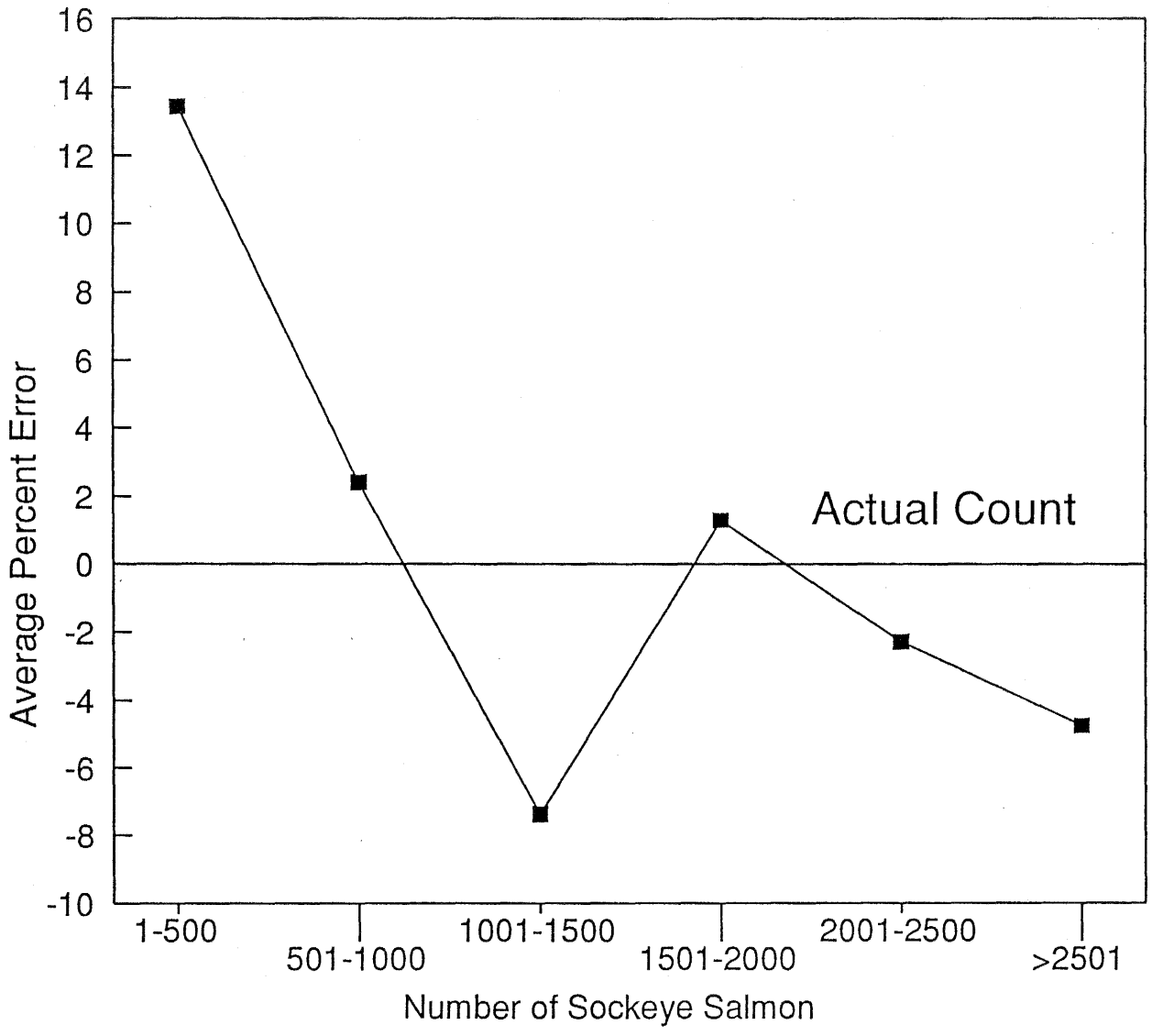

Figure 5. Comparison of the average percent error for linear estimates versus actual counts grouped by number of sockeye salmon at the Chignik weir, 1992.

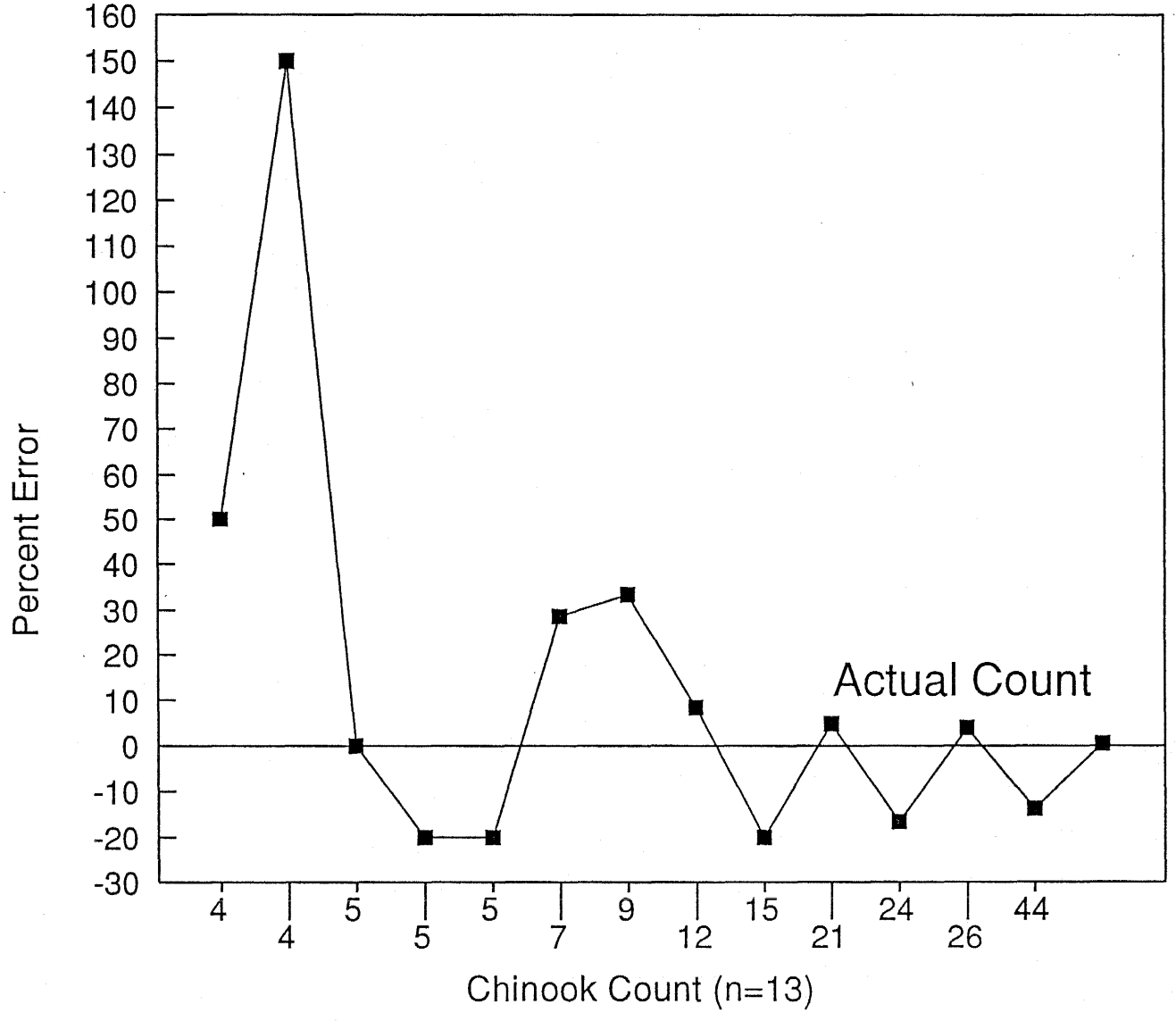

Figure 6. Comparison of the percent error associated with linear estimates of chinook escapement with actual counts at the Chignik weir (7:00 - 8:00 am), 1992.

Appendix 1. Timed sockeye salmon counts by gate and estimated total escapement by hour and gate, Chignik weir.

	GATE 1				GATE 2				TOTAL CHIGNIK WEIR	
Reference Time	HOUR	COUNT PERIOD	COUNT	EST. TOTAL HOUR	HOUR	COUNT PERIOD	COUNT	EST. TOTAL HOUR	EST. TOTAL HOUR	DAILY CUM.
7am	1	0-20			1	0-20				
		30-40		0		30-40		0	1 0	0
8am	2	0-10		0	2	10-20		0	2 0	0
9am	3	0-10		0	3	10-20		0	3 0	0
10am	4	0-10		0	4	10-20		0	4 0	0
11am	5	0-10		0	5	10-20		0	5 0	0
noon	6	0-10		0	6	10-20		0	6 0	0
1pm	7	0-10		0	7	10-20		0	7 0	0
2pm	8	0-10		0	8	10-20		0	8 0	0
3pm	9	0-10		0	9	10-20		0	9 0	0
4pm	10	0-10		0	10	10-20		0	10 0	0
5pm	11	0-10		0	11	10-20		0	11 0	0
6pm	12	0-10		0	12	10-20		0	12 0	0
7pm	13	0-10		0	13	10-20		0	13 0	0
8pm	14	0-10		0	14	10-20		0	14 0	0
9pm	15	0-10		0	15	10-20		0	15 0	0

Appendix J.

CHIGNIK MANAGEMENT AREA HERRING SAC-ROE FISHERY MANAGEMENT PLAN 1992

By: Alan Quimby and David Owen

REGIONAL INFORMATION REPORT[1] NO.4K92-8

Alaska Department of Fish and Game
Division of Commercial Fisheries, Westward Region
211 Mission Road
Kodiak, AK 99615

February 1992

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

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INTRODUCTION

Description of Area

The Chignik Management Area lies on the south side of the Alaska Peninsula between the Kodiak Management Area to the east and the Alaska Peninsula Management Area to the west. Kilokak Rocks is the eastern boundary and Kupreanof Point is the western boundary. The area is subdivided into the Eastern, Central, Chignik Bay, Western and Perryville Districts (Figure 1).

History of the Herring Fishery

At the inception of the Alaska Peninsula herring fishery, Chignik area catches were grouped with catches from north and south peninsula areas and labeled as Southwestern Alaska catches. The earliest recorded commercial herring fishery occurred in 1906. Annual Southwestern Alaska herring catches for the early 1900's did not exceed 500 tons. A small herring saltery was operated at Lake Bay in the Chignik Bay District during the early 1930's. Herring were harvested with beach seines and salted for future resale. No further breakdown of catch by area is available. The herring fisheries ceased in the late 1930's and did not commence again until 1980, when the sac-roe fishery was initiated,(Table 1).

The herring sac-roe fishery in the Chignik Area began in 1980. Although the current sac-roe fishery may not be fully developed,

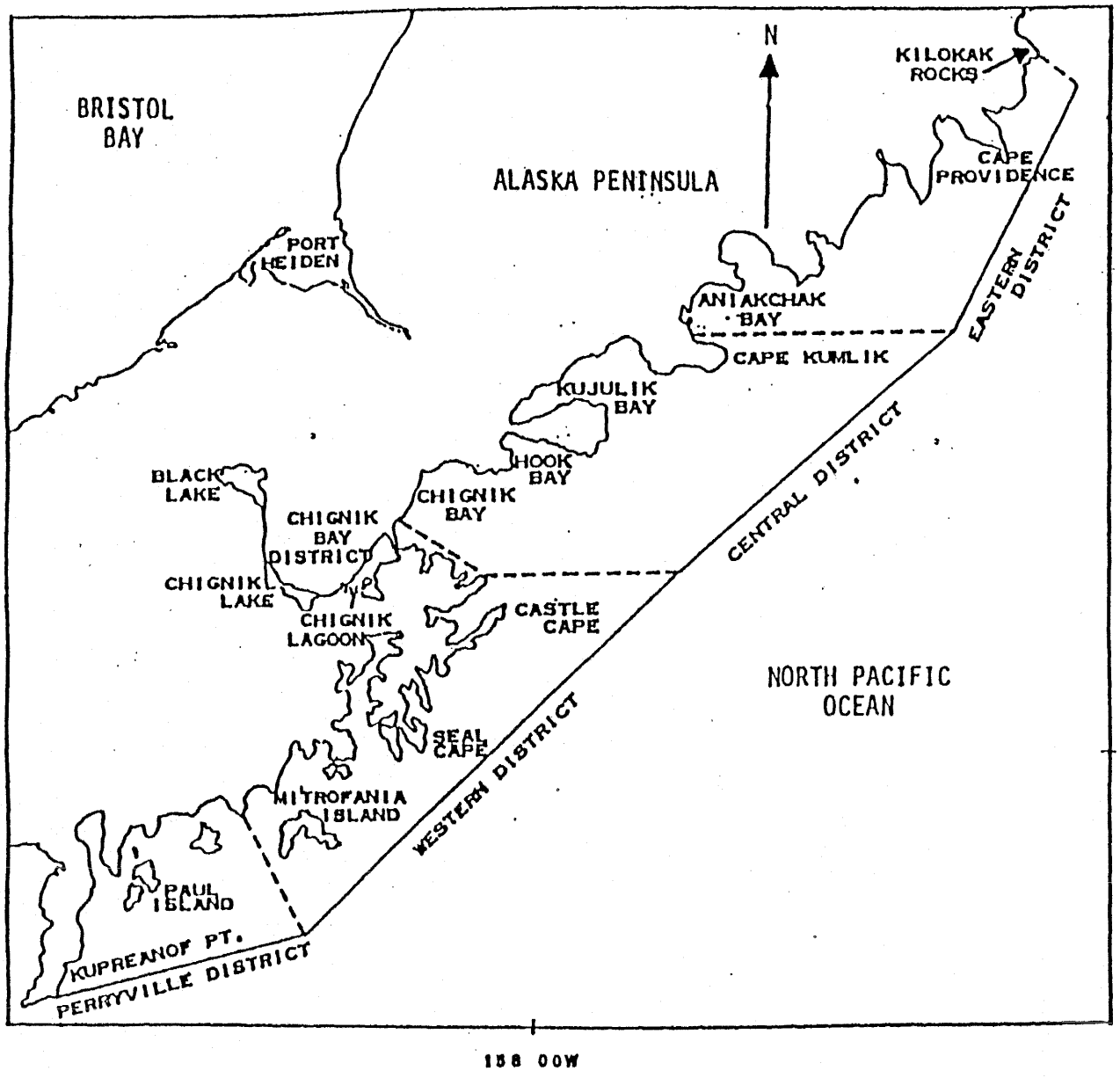

Figure 1. Map of the Chignik Management Area illustrating district boundaries, 1992.

exploration and effort levels suggest that it will continue to be a relatively low participation, low yield fishery. It still remains an open to entry fishery.

Management Strategy

Sac-Roe Fishery

Several known geographic areas support the majority of Chignik's spawning biomass and the herring in each of these areas are managed as discrete stocks.

The annual harvest for each identified stock is dependent upon previous year biomass estimates and an exploitation rate of 0-20% of the available spawning biomass. The annual level of exploitation is dependent on evaluation of individual stock status, recruitment, and age composition. By regulation, the herring sac-roe season extends from 15 April through 30 June. In-season management stipulates alternating 24 hour fishing periods, and 24 hour closures. Each fishing period will begin at 1200 hours (12:00 noon) on odd numbered days throughout the regulatory season and close at 1200 hours (12:00 noon) on even numbered days or when the harvest level for an individual stock is achieved. Pre-season harvest projections may differ from actual harvest levels if in-season information suggests the spawning biomass of discrete stocks differ significantly from anticipated levels.

The fishery is monitored through contact with fishermen and aerial observations of the herring biomass, as well as daily contact with local processors.

An important element in the management of the Chignik herring fishery comes from the information collected from fishermen and commercial spotters. This cooperation is definitely encouraged and all exchange of information will be confidential.

1992
CHIGNIK AREA
HERRING MANAGEMENT PLAN

I. Registration Requirements:

a. Tenders and Processors: Each tender operator and buyer must register in person and obtain their registration packet containing statistical charts, etc. in Kodiak or Chignik prior to fishing (see regulation 5 AAC 27.540).

b. Fishing Vessels: There is no area registration requirements for fishing vessels in 1992.

II. Regulations in Effect:

Refer to the 1992 Commercial Herring Regulation Booklet.
5 AAC 27.590. BUYER AND TENDER REPORTING REQUIREMENTS. In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the management area before commencing operations and before changing location of the operation. Each buyer shall:
(1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the management area before transporting or processing herring;

III. Guideline Harvest Level:

The Statewide policy of harvest on a 0-20% exploitation rate of the available spawning biomass will be followed (Table 2).

Harvest levels will be determined in season on a bay by bay (stock by stock) basis. The commercial herring harvest from the Chignik Area has been declining since 1980. The harvest range for the past eleven seasons has been 0 - 694 tons with an average of 139 tons.

Even though the commercial herring sac-roe herring fishery was opened in 1991 there were no reported harvests from this area. Although no formal forecasts for Chignik herring are formulated it is anticipated, based on past years interest and effort that the harvest in 1992 will be between 50 and 80 tons.

The actual 1992 harvest will depend upon the biological condition of the stock, the amount of effort actively exploring throughout the area, and by the availability of local processing. However, it is not expected that the 1992 harvest will reach the eleven year average harvest of 139 tons.

IV. **Fishing Season:**

a. Herring may be taken from 15 April through 30 June.

b. Herring may be taken only during periods established by emergency order.

V. **Fishing Periods:**

Initially, fishing periods will be 24 hours long beginning at 1200 hours (12:00 noon) on all odd numbered days and ending at 1200 hours (12:00 noon) on all even numbered days. The schedule will begin at 1200 hours (12:00 noon) 15 April. Any changes in this fishing schedule will be announced by emergency order.

VI. **Airplanes:**

There is no restriction on the use of airplanes in the sac-roe herring fishery.

VII. **Legal Herring Gear:**

a. 5 AAC 27.565. (a) Herring may be taken only by purse seines.

b. 5 AAC 27.575. **SEINE SPECIFICATIONS AND OPERATIONS.** No purse seine may be more than 1,000 meshes in depth or more than 100 fathoms in length.

VIII. **Tender and Processors Reporting Requirements:**

a. All processors and tender operators will be required to report daily catch information to ADF&G. This can be accomplished either by radio (SSB) or telephone. The Chignik ADF&G office will stand by on **4125** SSB and VHF CH6 frequencies, between 0800 hours - 1000 hours (8:00 -10:00 A.M.) and 2000 hours to 2200 hours (8:00 P.M. - 10:00 P.M.). The call sign for Chignik is **KGB 76 "Chignik Weir"**, telephone number 845-2243. If unable to contact ADF&G Chignik, your catch information should be given to ADF&G Kodiak or Sand Point via telephone or 4125 SSB. The call signs for Kodiak and Sand Point are WHM20 and WIM77 respectively. Failure to report is a violation of commercial fishing regulations (5 AAC 27.590 (2)); vigorous enforcement of this regulation should be expected as a result of past harvest reporting deficiencies.

b. Because of the relatively small guideline harvest levels for some bays and districts, the fishing season will be promptly closed by emergency order whenever it appears that accurate catch information cannot quickly be obtained from the processors and tenders by radio or telephone. Prompt reporting will increase the likelihood of reopening certain areas if the summarized catches indicate that the desired guideline harvest levels have not been reached in a certain bay or district and if there are sufficient numbers of herring present in the bay to warrant a reopening.

For Confidential Purposes:
Individual code sheets will be given to each tender/ processor for the purpose of reporting catch (tons) and statistical area where herring were caught.

IX. **1992 Management Strategy:**

The 1992 Chignik herring management plan will incorporate some of the data collected during the 1980-1991 seasons. Harvest levels are established only in those bays where historical biomass estimates and fishing effort dictate.

The Big River Section has not received any appreciable recruitment of herring into that fishery since 1980.

The trend in this stock's age composition has regressed from a healthy 1980 biomass dominated by 4 and 5 year old fish to a diminished biomass in 1986 dominated by 8 and 9 year old fish. No significant recruitment has occurred in recent years. Consequently the Big River Section [(272-70) Amber Bay and (272-60) Aniakchak Bay] will remain closed in 1992.

Lake Bay (271-10) in the Chignik Bay District and Castle Bay (273-94) in the Castle Cape Section of the Western District will be very closely monitored in 1992.

Table 1. Chignik Area sac-roe herring catches, 1980 - 1991.

Year	Boats	Tonnage	Ex-Vessel Value
1980	24	694	N/A
1981	33	447	$257,690
1982	8	190	$114,090
1983	10	90	$ 81,000
1984	12	66	$ 52,512
1985	4	26	$ 19,500
1986	[a]	11	$ 7,770
1987	4	75	$ 61,000
1988	[a]	-	-
1989	[a]	-	-
1990	0[b]	0	0
1991	0[b]	0	0

[a]Confidentiality regulation

[b]No participation in the fishery

Table 2. Guideline harvest levels (in tons) for the Chignik Management Area, 1992[a].

Stat. Area	Management Unit	Guideline Harvest Levels	Required Spawning Biomass @ 20%	@10%
272-20	Amber Bay[b]	0	0	0
272-60	Aniakchak Bay[b]	0	0	0
271-10	Anchorage Bay	100	500	1,000
273-94	Castle Bay	10	50	100
271-10	Chignik Lagoon	10	50	100
272-30	Hook Bay	10	50	100
275-50	Humpback Bay	20	100	200
275-40	Ivanof Bay	10	50	100
272-50	Kujulik Bay	10	50	100
271-10	Lake Bay	10	50	100
272-92	Port Wrangall	0	0	0
272-96	Agripina Bay	20	100	200
Total		200	1,000	2,000

[a]The specific statistical areas listed above are those that have a historical sac-roe harvest. The remainder of the Chignik Management Area is open for exploration and will be regulated within the statewide herring harvest policy of 0% to 20% of the available spawning biomass.

[b]The Big River Section (272-70 Amber Bay and 272-60 Aniakchak Bay) will remain closed in 1992.

Appendix K. 1992 Chignik Herring Regulations.

CHIGNIK AREA

ARTICLE 9. - STATISTICAL AREA L CHIGNIK AREA.

5 AAC 27.550. DESCRIPTION OF AREA. Statistical area L includes all waters on the south side of the Alaska Peninsula enclosed by 156°20'13" W. long. (the longitude of the southern entrance to Imuya Bay near Kilokak Rocks) and a line extending southeast (135°) from the southernmost tip of Kupreanof Point.

5 AAC 27.555. DESCRIPTION OF DISTRICTS. Districts are as described in 5 AAC 15.200.

5 AAC 27.560. FISHING SEASONS AND WEEKLY FISHING PERIODS. (a) Herring may be taken from April 15 through June 30(sac roe season) and from August 15 through February 28 (food and bait season).

(b) Herring may be taken only during periods established by emergency order.

5 AAC 27.565. GEAR. (a) Herring may be taken only by purse seines.

(b) A herring fishing vessel may operate or assist in operating only one legal limit of herring fishing gear in the aggregate.

(c) Unhung gear sufficient for mending purposes may be carried aboard fishing vessels.

(d) Herring fishing nets shall be measured, either wet or dry, by determining the maximum length of cork line when the net is fully extended with traction applied at one end only.

(e) The interim-use or entry permit holder is responsible for operation of the net.

(f) The use of leads with any net gear used for commercial herring fishing is prohibited during the herring sac roe season.

5 AAC 27.575. SEINE SPECIFICATIONS AND OPERATIONS. No purse seine may be more than 1,000 meshes in depth or more than 100 fathoms in length.

5 AAC 27.580. WATERS CLOSED TO HERRING FISHING. During the period June 12 through October 31, herring may not be taken in waters described in 5 AAC 15.350 and 5 AAC 39.290.

5 AAC 27.590. BUYER AND TENDER REPORTING REQUIREMENTS. In addition to the requirements of 5 AAC 39.130(f) each tender operator and each buyer or his agents shall report in person to and register with a local representative of the department upon arrival in the statistical area before commencing operations and before changing location of the operation. Each buyer shall:

(1) identify all vessels to be employed in transporting or processing herring and shall register such vessels with a local representative of the department located in the statistical area before transporting or processing herring;

(2) make daily reports of all herring purchased from fishermen, and other processing records as specified by a local representative of the department, and

(3) submit fish tickets before departure from the area and no later than 10 days after termination of buying operations in the area, or as otherwise specified by a local representative of the department.