

## **Fishery Management Report No. 11-33**

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# **South Alaska Peninsula Salmon Annual Management Report, 2010**

by

**Aaron D. Poetter,**

**Matthew D. Keyse,**

**and**

**Alex C. Bernard**

May 2011

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code		all standard mathematical signs, symbols and abbreviations	
deciliter	dL		AAC		
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H <sub>A</sub>
hectare	ha			base of natural logarithm	<i>e</i>
kilogram	kg	all commonly accepted		catch per unit effort	CPUE
kilometer	km	professional titles	e.g., Dr., Ph.D., R.N., etc.	coefficient of variation	CV
liter	L			common test statistics	(F, t, $\chi^2$ , etc.)
meter	m	at	@	confidence interval	CI
milliliter	mL	compass directions:		correlation coefficient (multiple)	R
millimeter	mm	east	E	correlation coefficient (simple)	r
<b>Weights and measures (English)</b>		north	N	covariance	cov
cubic feet per second	ft <sup>3</sup> /s	south	S	degree (angular )	°
foot	ft	west	W	degrees of freedom	df
gallon	gal	copyright	©	expected value	<i>E</i>
inch	in	corporate suffixes:		greater than	>
mile	mi	Company	Co.	greater than or equal to	≥
nautical mile	nmi	Corporation	Corp.	harvest per unit effort	HPUE
ounce	oz	Incorporated	Inc.	less than	<
pound	lb	Limited	Ltd.	less than or equal to	≤
quart	qt	District of Columbia	D.C.	logarithm (natural)	ln
yard	yd	et alii (and others)	et al.	logarithm (base 10)	log
<b>Time and temperature</b>		et cetera (and so forth)	etc.	logarithm (specify base)	log <sub>2</sub> , etc.
day	d	exempli gratia (for example)	e.g.	minute (angular)	'
degrees Celsius	°C	Federal Information Code	FIC	not significant	NS
degrees Fahrenheit	°F	id est (that is)	i.e.	null hypothesis	H <sub>0</sub>
degrees kelvin	K	latitude or longitude	lat. or long.	percent	%
hour	h	monetary symbols (U.S.)	\$, ¢	probability	P
minute	min	months (tables and figures): first three		probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
second	s	letters	Jan.,...,Dec	probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
<b>Physics and chemistry</b>		registered trademark	®	second (angular)	"
all atomic symbols		trademark	™	standard deviation	SD
alternating current	AC	United States (adjective)	U.S.	standard error	SE
ampere	A	United States of America (noun)	USA	variance	
calorie	cal	U.S.C.	United States Code	population sample	Var var
direct current	DC	U.S. state	use two-letter abbreviations (e.g., AK, WA)		
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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Aaron D. Poetter,

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Alex C. Bernard

Alaska Department of Fish and Game, Division of Commercial Fisheries, Kodiak

Alaska Department of Fish and Game  
Division of Sport Fish, Research and Technical Services  
333 Raspberry Road, Anchorage, Alaska, 99518-1565

May 2011

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*Aaron D. Poetter,  
Matthew D. Keyse,  
and  
Alex C. Bernard*

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

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## ABSTRACT

This report summarizes the 2010 season and historical information regarding commercial salmon fisheries of the South Alaska Peninsula Management Area (Area M).

The total commercial salmon harvest in the South Peninsula was 7,863 Chinook *Oncorhynchus tshawytscha*, 1,284,882 sockeye *O. nerka*, 164,824 coho *O. kisutch*, 837,985 pink *O. gorbuscha*, and 792,369 chum *O. keta* salmon. Harvests of Chinook salmon were above recent 10-year averages (2000–2009). Sockeye, coho, pink, and chum salmon harvests were below the 10-year average. The number of permit holders participating in the fishery was 247.

The June commercial salmon harvest included 818,865 sockeye and 271,700 chum salmon. Harvest in the South Unimak fishery was 487,880 sockeye and 100,427 chum salmon, while the Shumagin Islands accounted for 330,985 sockeye and 171,273 chum salmon.

There was a salmon fishery in the Southeastern District Mainland (SEDM) during the allocation period, June 1 through July 25. The total commercial harvest in the SEDM in 2010 was 882 Chinook, 167,756 sockeye, 2,915 coho, 14,605 pink, and 74,186 chum salmon. The total harvest for the Northwest Stepovak Section, from July 1 through July 25, was 9 Chinook, 61,172 sockeye, 122 coho, 773 pink, and 6,442 chum salmon.

The South Alaska Peninsula (minus the SEDM fishery July 1–25) post-June salmon harvest from July 1 through 31 was 3,493 Chinook, 270,833 sockeye, 146,131 coho, 381,838 pink, and 402,385 chum salmon. Commercial salmon harvest for August and September was 355 Chinook, 16,658 sockeye, 15,567 coho, 104,910 pink, and 41,860 chum salmon.

In 2010, the sockeye salmon sustainable escapement goals (SEG) for Orzinski Lake and Mortensen Lagoon were met. Thin Point Lagoon was the only system that did not meet its sockeye salmon SEG. Total escapement of pink salmon (742,912 fish) in the South Alaska Peninsula was well below its SEG of 1,864,600 fish. The SEGs for chum salmon in the Southwestern and Unimak districts were met, whereas chum salmon SEGs in the Southeastern and South Central districts were not met. Limited coho salmon surveys were conducted due to their late season run timing.

**Key words:** South Alaska Peninsula, commercial salmon fishery, South Unimak, Shumagin Islands, salmon harvest, salmon escapement, Alaska Board of Fisheries, salmon, *Oncorhynchus*, management plan, Chinook salmon *O. tshawytscha*, sockeye salmon *O. nerka*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, chum salmon *O. keta*, AMR.

## INTRODUCTION

The Alaska Peninsula Salmon Management Area is that portion of Area M that includes waters of the North Peninsula from Cape Menshikof west to Cape Sarichef, and waters of the South Peninsula from Kupreanof Point west to Scotch Cap on Unimak Island (Appendix A1). This report describes those commercial salmon fisheries located in South Peninsula waters, which are further divided into four districts: (1) the Southeastern District, consisting of waters between Kupreanof Point and McGinty Point; (2) the South Central District, consisting of waters between McGinty Point and Arch Point Light; (3) the Southwestern District, consisting of waters between Arch Point Light, False Pass, and Cape Pankof Light; and (4) the Unimak District, consisting of waters between Cape Pankof Light and Scotch Cap, including Sanak Island (Appendices A2–A6). The Southeastern District is further subdivided into two areas that have different management plans during part of the season: (1) the Shumagin Islands Section, consisting of the Shumagin Islands archipelago and (2) the Southeastern District Mainland (SEDM), consisting of Stepovak, Balboa, and Beaver bays (Appendix A3).

Legal gear types in South Peninsula waters include purse seine, drift gillnet, and set gillnet (Appendix A7). In 2010, only 63 of 133 purse seine permits had landings attributed to them in South Peninsula waters, as did 119 of 184 drift gillnet permits, and 65 of 123 set gillnet permits

(Appendix A8). Most of the purse seine and set gillnet permit holders fished South Peninsula waters throughout the season, whereas most of the drift gillnet permit holders fished South Unimak waters during June and North Peninsula waters from July into September.

## **SOUTH ALASKA PENINSULA AREA-WIDE INFORMATION**

Five species of Pacific salmon are commercially harvested in the Alaska Peninsula Salmon Management Area: Chinook salmon *Oncorhynchus tshawytscha*, sockeye salmon *O. nerka*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, and chum salmon *O. keta*. Commercial salmon fisheries in South Peninsula waters date back to at least 1888, when canneries were operated at Orzinski Bay and Thin Point Cove; however, catch records are only available since 1908 (Appendix A9). Fish ticket data from 1970 to the present are stored in ADF&G's database.

### **HISTORICAL SALMON PRODUCTION, 1908–2010**

Historically, South Peninsula salmon production for all species has fluctuated dramatically (Appendix A9). Since 1962, annual combined pink salmon catch and escapements (excluding June harvests, which are not considered local stocks) ranged from 149,421 fish in 1973 to 22,530,258 fish in 1995 (Appendix A10). Since 1962, annual combined chum salmon catch and escapements (excluding June harvests) ranged from 223,228 fish in 1975 to 2,175,845 fish in 1994 (Appendix A11).

From 1947 to 1977, South Peninsula annual total harvests (including June harvests) averaged 2,896,285 salmon and were composed of 2,567 Chinook salmon; 591,844 sockeye salmon; 26,747 coho salmon; 1,523,900 pink salmon; and 751,226 chum salmon (Appendix A9). Pink and sockeye salmon are currently the most abundant salmon species harvested in the South Peninsula (Appendix A9 and A12). From 1978 to 1999, South Peninsula annual harvests averaged 10,649,271 salmon, which was composed of 9,019 Chinook salmon; 2,252,692 sockeye salmon; 255,805 coho salmon; 6,807,750 pink salmon; and 1,324,006 chum salmon (Appendix A9). From 2000 to 2009, South Peninsula annual harvest averaged 9,108,394 salmon and was composed of 4,902 Chinook salmon; 1,746,636 sockeye salmon; 197,311 coho salmon; 6,227,791 pink salmon; and 931,754 chum salmon.

### **COMMERCIAL SALMON HARVESTS FOR THE 2010 SEASON**

The first South Peninsula commercial salmon landing in 2010 occurred on June 7 and the last landing occurred on September 23 (Appendix A13). The 2010 South Peninsula commercial harvest of 3,087,923 salmon was composed of 7,863 Chinook salmon; 1,284,882 sockeye salmon; 164,824 coho salmon; 837,985 pink salmon; and 792,369 chum salmon (Appendix A9 and A13). The Southeastern District had the largest commercial salmon harvest of all districts located in the South Alaska Peninsula, with a total harvest of 1,919,195 fish (62%). South Central, Southwestern, and Unimak districts had harvests of 102,292 (3%); 652,170 (21%), and 414,266 salmon (13%), respectively (Appendix A14). Seine permit holders accounted for 69.8% of the total harvest, while drift gillnet permit holders harvested 13.1%, and set gillnet permit holders harvested 17.0% of the total harvest (Appendix A15). Specific management actions for the South Peninsula Management Area, as directed by emergency order, are summarized in Appendix A16.

# **SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE FISHERIES**

## **HISTORICAL PERSPECTIVE**

The first documented commercial harvests from the South Unimak and Shumagin Islands June fisheries occurred in 1911 (Appendix B1). During the early to mid 1960s, the South Unimak and Shumagin Islands fisheries were open to commercial salmon fishing five days per week. From 1967 to 1970, fishing occurred seven days per week. Special regulatory meetings were held annually and resulted in different regulations every year from 1971 to 1974 (Appendix B2).

In 1975, the Alaska Board of Fisheries (BOF) implemented an allocation plan in which the South Unimak and Shumagin Islands June fisheries were granted an annual guideline harvest level (GHL) relative to the projected Bristol Bay inshore sockeye salmon harvest. Based on historical catch data, 6.8% of the forecasted inshore Bristol Bay harvest was allocated to the South Unimak June fishery and 1.5% was allocated to the Shumagin Islands June fishery. Portions of the GHL were assigned to discrete time periods so the harvest would be spread throughout June. Concerns over large harvests of chum salmon in the early 1980s and a weak fall Yukon River chum salmon run resulted in a chum salmon cap that, if reached, would result in closure of the fishery for the remainder of June. Between 1986 and 2000, the chum salmon cap was as high as 700,000 fish (1992–1997) and as low as 350,000 fish (1998–2000) as detailed in Appendix B2.

In January 2001, the BOF modified the South Unimak and Shumagin Islands June salmon fishery management plan. These modifications were in effect through the 2003 season and included the elimination of the sockeye salmon GHL and the chum salmon cap. From June 10 through June 24, fishing time for any gear group was limited to a maximum of 16 hours per day. In addition, there were constraints, by gear type, on the number of consecutive fishing days allowed within a seven day period (Appendix B2). After June 24, in either the South Unimak or Shumagin Islands fisheries, if the ratio of sockeye to chum salmon, for all gear combined, was 2:1 or less on any day, the next fishing period was six hours in duration for all gear groups in that fishery. If the ratio of sockeye to chum salmon was 2:1 or less for two consecutive fishing periods in either fishery, the season was closed for the remainder of June for all gear groups. If the sockeye to chum salmon ratio was greater than 2:1, a six-hour fishing period could be extended to a maximum of 16 hours.

In February 2004, the BOF modified the *South Unimak and Shumagin Islands June Fisheries Management Plan* (5 AAC 09.365) by establishing a fishing schedule that began at 6:00 AM on June 7 and ended at 10:00 PM on June 29. Fishing periods were 88 hours in duration interspersed by 32-hour closures, except for the final fishing period, of 64 hours. This schedule provided 416 hours of concurrent opportunity for all gear types (Appendix B3). In addition, the South Unimak fishery was expanded to include the entire Southwestern District and the West and East Pavlof Bay sections of the South Central District (Appendix B4).

## **2010 MANAGEMENT PLAN**

In February 2010, the BOF discussed proposed modifications to the *June Management Plan*. The BOF made no changes to the management plan, but increased the length of seine lead that can be used with set gillnet gear from 10 fathoms to 25 fathoms. This gear modification was in effect for the entire salmon fishing season.

During the meeting, a significant amount of time was spent on the topic of chum salmon harvest in June. A number of proposals and amendments were put before the BOF that included, but were not limited to, completely closing down the June fishery, reinstatement of the chum salmon cap, and establishing a ratio-based management system.

## **2010 JUNE SEASON SUMMARY**

The South Unimak and Shumagin Islands June fishing schedule began at 6:00 AM on June 7. Because of the extensive discussion on chum salmon harvest during the BOF meeting, the purse seine fleet voluntarily stood down during the initial fishing period.

A total of 225 permit holders harvested 818,865 sockeye salmon and 271,700 chum salmon during the 2010 June fisheries (Appendix B5 and B6).

During the 2010 South Unimak June fishery, 152 permit holders harvested 487,880 sockeye and 100,427 chum salmon (Appendices B7 and B8). Of these 152 permits, 22 were purse seine permit holders that harvested 171,300 sockeye and 25,144 chum salmon (Appendix B9); 117 were drift gillnet permit holders that harvested 285,070 sockeye salmon and 70,358 chum salmon (Appendix B10); and 13 were set gillnet permit holders that harvested 31,510 sockeye salmon and 4,925 chum salmon (Appendix B11).

During the 2010 Shumagin Islands June fishery, 77 permit holders harvested 330,985 sockeye salmon and 171,273 chum salmon (Appendices B12 and B13). Landings were attributed to 34 purse seine permit holders which accounted for 268,986 sockeye salmon and 159,153 chum salmon (Appendix B14); and 43 set gillnet permit holders harvested 61,999 sockeye salmon and 12,120 chum salmon (Appendix B15).

Purse seine permit holders harvested 35.1% of sockeye salmon and 25.0% of chum salmon in the South Unimak fishery; and 81.3% of the sockeye salmon and 92.9% of chum salmon in the Shumagin Islands fishery (Appendices B16–B20). Drift gillnet permit holders harvested 58.4% of the sockeye salmon and 70.1% of the chum salmon in the South Unimak fishery (Appendices B16–18). Set gillnet permit holders harvested 6.5% of sockeye salmon and 4.9% of chum salmon in the South Unimak fishery; and 18.7% of sockeye salmon and 7.1% of chum salmon in the Shumagin Islands June fishery (Appendix B16–B20).

The June harvest ratios of sockeye to chum salmon were 4.9:1 in the South Unimak fishery and 1.9:1 in the Shumagin Islands fishery (Appendix B21 and B22). The overall ratio for both fisheries combined, was 3.0:1. In the South Unimak fishery, the sockeye to chum salmon ratio was 6.8:1 for purse seine, 4.1:1 for drift gillnet, and 6.4:1 for set gillnet permit holders (Appendix B23). In the Shumagin Islands fishery, the sockeye to chum salmon ratio was 1.7:1 for purse seine and 5.1:1 for set gillnet permit holders.

## **SOUTHEASTERN DISTRICT MAINLAND FISHERIES**

The SEDM salmon fishery occurs in South Alaska Peninsula mainland waters from Kupreanof Point in the east, to McGinty Point in the west (Appendix C1). This area is subdivided into the East Stepovak, Stepovak Flats, Northwest Stepovak, Southwest Stepovak, Balboa Bay, and Beaver Bay sections (Appendix C2).

The SEDM has been managed under a variety of management criteria. The *Southeastern District Management Plan* (5 AAC 09.360) was formally adopted in 1980. Although it closely followed similar guidelines as previous seasons, it established that 80.0% of sockeye salmon harvested are

considered destined for the Chignik River. In 1985, the June 1 through July 25 sockeye salmon harvest allocation criteria were added to the management plan. The harvest allocation has fluctuated between 6.0% and 7.0% since it was introduced. Currently, SEDM is managed on a 7.6% allocation of sockeye salmon harvested in the Chignik Management Area (CMA) through July 25. A historical regulatory summary can be found in Appendix C3.

Since the inception of the allocation criteria in 1985, SEDM harvest of Chignik-bound sockeye salmon has ranged from 0.0% in 1997, 2007, and 2008 to 11.5% in 2005 (Appendix C4). The recent 10-year (2000–2009) SEDM sockeye salmon harvest averaged 65,912 fish or 5.4% of Chignik-bound sockeye salmon harvest (Appendices C4 and C5). Since 1985, on average 56.7% of the sockeye salmon harvested in the SEDM occurred during the June 1 through July 25 timeframe (Appendix C6).

The current plan provides that 80% of the sockeye salmon harvested in SEDM before July 1 are considered Chignik-bound fish. Beginning July 1, sockeye salmon harvested in Northwest Stepovak Section (NWSS) are considered 100% local fish and NWSS is managed on the sockeye salmon run to Orzinski Lake. After July 25, commercial fishery openings are based on the strength of local pink, chum, and coho salmon stocks.

## **HISTORICAL EFFORT**

In 1972 the State of Alaska adopted limited entry management. With limited entry, a fixed number of permits were created and only people with these new permits were allowed to fish. However, because many South Peninsula fishermen participated in both the set gillnet and purse seine fisheries prior to limited entry, they received a permit card for each gear type. Many of the dual permit holders sold or transferred their set gillnet permits and retained their purse seine permits. This selling or transferring of permits increased effort in the SEDM fishery (Appendix C7) because many set gillnet permits that were previously used part-time were then fished full-time. This increase was reflected in both the number of set gillnet permits fished and the number of landings. The number of set gillnet permits fished increased from a low of 7 permits in 1975 to a high of 64 permits in 1993, 1996, and 2000 (Appendix C8 and C9). The numbers of set gillnet landings from SEDM increased from a low of 14 in 1975 to a high of 1,657 in 1984 (Appendix C8). Between 2000 and 2009, the number of set gillnet permits fished in the SEDM averaged 40 with an average of 609 total landings (Appendix C8).

In contrast, the number of purse seine permits fished has fluctuated dramatically since 1985, and ranged from 6 in 1987 and 1992, to a high of 69 in 1990 and have averaged 12 from 2000 through 2009 (Appendix C10 and C11). Purse seine landings in SEDM have fluctuated between 0 and 131 since 1985 but have averaged 20 landings over the most recent 10 years (2000–2009; Appendix C10).

## **LOCAL STOCK FISHERIES**

### **Northwest Stepovak Section**

Prior to July 1, 80% of the sockeye salmon harvested in NWSS are attributed to Chignik-bound sockeye salmon allocation (5 AAC 09.360 (f)). Beginning July 1, all sockeye salmon caught within the NWSS are considered bound for Orzinski Lake. Orzinski Lake sockeye salmon escapements are assessed using a weir. The Orzinski Lake sockeye salmon escapement goal was developed with historical aerial survey and weir count data and implemented during the 1990

season. The sockeye salmon escapement goal for Orzinski Lake was 15,000–20,000 fish, which has not changed since 1990 (Witteveen et al. 2009; Appendix C12). From 2000 to 2009 sockeye salmon escapement averaged 37,342 fish and ranged from 10,643 in 2007 to 75,450 sockeye salmon in 2004 (Appendix C13 and C14).

### **Stepovak Flats Section**

Prior to July 26, Stepovak Flats may be open to commercial salmon fishing concurrently with the rest of the SEDM. Eighty percent of the sockeye salmon harvested in the Stepovak Flats Section are considered Chignik-bound and assigned to the 7.6% allocation criteria stated in the current SEDM salmon management plan. From July 26 to July 28, commercial salmon fishing is managed based on run strength of pink and chum salmon returning to Stepovak Flats streams. The entire section is closed from July 29 through September 30 to protect schooling chum salmon.

### **2010 MANAGEMENT PLAN**

Under the current SEDM management plan (5 AAC 09.360)

1. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery was 7.6% of the total number of sockeye salmon harvested in the CMA through July 25.
2. Prior to July 1, 80% of the sockeye salmon caught in the SEDM were considered to be Chignik-bound salmon.
3. Beginning July 1, sockeye salmon caught in NWSS (Appendix C2) were considered 100% local fish and not counted toward the Chignik allocation. Fishing time in NWSS, excluding Orzinski Bay, beginning July 1, could not be more than four 24-hour periods with no more than 48 hours continuous fishing during a seven-day period. Fishing time in Orzinski Bay, after June 30, was based on sockeye salmon escapement into Orzinski Lake.
4. If Orzinski Lake escapement met or exceeded 25,000 sockeye salmon, NWSS and Orzinski Bay could be opened concurrently as follows:
  - (A) set gillnet gear could be operated continuously until midnight July 25, and;
  - (B) purse seine and hand purse seine gear would be operated as specified in 5 AAC 09.360(e)(2)(B).
5. A limited portion of Orzinski Bay could open to purse seine gear prior to July 11 if the ADF&G determined the interim escapement objectives had been exceeded.
6. The Stepovak Flats Section was managed for chum salmon returning to Stepovak Flats streams for the entire season. However, 80% of the sockeye salmon caught in this section through July 25 were considered Chignik-bound fish.
7. The area encompassing Kupreanof Point was closed to commercial salmon fishing from July 6 through August 31. The ADF&G could extend the Kupreanof Point closed waters area through the end of the season by emergency order.
8. From July 26 through October 31, the fisheries were managed for local sockeye, pink, chum, and coho salmon stocks.
9. From July 26 through October 31, the fisheries were closed for at least one 36-hour period within a seven-day period.
10. Terminal harvest areas within the SEDM were managed from July 22 through July 31 as specified under the *South Peninsula Post-June Management Plan* 5 AAC 09.366(g).

## **2010 SEASON SUMMARY**

The 2010 forecast for the total run estimate of Chignik-bound sockeye salmon was 1,080,000 fish for the early run (Black Lake) and 1,110,000 fish for the late run (Chignik Lake) (Eggers et al. 2010).

Due to the good performance of the early run in the CMA, Area M set gillnet fishermen were allowed commercial fishing opportunity in SEDM on June 18. This was the first June fishing period within the SEDM since 2005. There were a total of three openings for the set gillnet fleet from June 18 through July 10. From July 11 through July 25 both set gillnet and purse seine gear are allowed within the SEDM. There were two openings for both set gillnet and purse seine gear, with the first occurring on July 17. A total of 882 Chinook, 167,756 sockeye, 2,915 coho, 14,605 pink salmon and 74,186 chum salmon were harvested in the SEDM (Appendix C16 and C18). The sockeye salmon harvest in the SEDM considered Chignik-bound was 85,267 fish and represented 7.6% of the total sockeye salmon harvest in the CMA (Appendix C4).

In 2010, Orzinski Lake weir was operated from June 12 through August 6 and passed 18,039 sockeye salmon (Appendix C13 and C14). Aerial surveys were conducted after the weir was removed but no additional sockeye salmon were observed in Orzinski Lake. Due to the adequate Orzinski Lake sockeye salmon escapement, commercial fishing was permitted in the Northwest Stepovak Section with the first opening on July 2. As a result, 45 set gillnet and 16 purse seine permit holders made deliveries between July 2 and July 25. A total of 62,964 sockeye salmon were harvested during this time frame (Appendix C16 and C17).

Between July 26 and August 31 SEDM was managed on the abundance of local pink, chum, and coho salmon. Due to weak escapement of both pink and chum salmon, there was not a harvest in the SEDM from July 26 through August 31 (Appendix C18). From September 1 through October 31, the SEDM may be opened based on the abundance of local coho salmon. Total harvest from September 1 through October 31 was 3 Chinook salmon, 4,286 sockeye salmon, 1,587 coho salmon, 0 pink salmon, and 149 chum salmon (Appendix C18).

## **SOUTH ALASKA PENINSULA POST-JUNE FISHERIES**

The South Alaska Peninsula post-June salmon fishery took place in Southeastern (excluding SEDM prior to July 26), South Central, Southwestern, and Unimak districts from July 1 through the end of the season (Appendix A2; 5 AAC 09.366).

### **HISTORICAL PERSPECTIVE**

Until 1974, the South Peninsula post-June salmon fishery was generally opened five days per week, with a season closure on August 10 to allow for adequate escapement into local streams and maintain product quality (McCullough 1995; Appendix D1). During 1974 and 1975, the fisheries were severely restricted to rebuild pink salmon runs. From 1976 to 1991, the salmon fisheries were managed by emergency order based on local stock run strength. From July 6 to approximately July 18 fishing periods were based on chum salmon run strength, while from approximately July 18 through August 20, fishing periods were based primarily on pink salmon run strength. Fishing continued into late August in years of strong pink salmon runs. Migratory salmon were also harvested during these openings and, in some years, were believed to have contributed substantially to total post-June harvest. Beginning September 1, fishing periods were based on local coho salmon run strength, and to a lesser degree on local pink and chum salmon run strength (Appendix D1).

In 1991, the BOF established the *Post-June Salmon Management Plan* for the South Alaska Peninsula (5 AAC 09.366; McCullough 1995; Appendix D1). Under this plan, commercial salmon fishing from July 6 to 19 was restricted to terminal fishing areas, and was based on local stock run strength as determined by harvests and escapements. Fishing areas considered non-terminal, which during previous seasons had been open to fishing, remained closed. The BOF decided that local pink and chum salmon could be caught in terminal areas early in the season, without sacrificing product quality, while still allowing migratory salmon to pass through South Peninsula waters (Appendix D1). The terminal areas included Zachary Bay, the northern portion of Pavlof Bay, and Cold Bay, Thin Point, Canoe Bay, and Morzhovoi Bay sections (Appendix D2 and D3). After July 19, South Peninsula fishermen could harvest pink salmon in their traditional cape fishing areas to maintain product quality. From July 20 until the close of the season, the entire South Peninsula could be opened to commercial salmon fishing by emergency order based on local run strength (except in the SEDM through July 25).

In early 1992, the Stepovak-Shumagin Setnet Association sued the BOF to stop the implementation of the *Post-June Salmon Management Plan* for the South Alaska Peninsula (Appendix D1). On July 10, 1992 an injunction was granted staying the enforcement of the new management plan. On July 13, management of post-June fisheries reverted back to pre-1992 regulations (Shaul et al. 1993; Appendix D1)).

In March 1993, the Alaska State Superior Court reconsidered the 1992 injunction and reinstated the *Post-June Salmon Management Plan*, which was fully implemented during the 1993 through 1997 commercial fishing seasons (Shaul and Campbell 1997; Appendix D1).

In 1998, the BOF made significant changes to the *Post-June Salmon Management Plan* (Appendix D1). The earliest general opening date of the post-June fishery in non-terminal areas was changed from July 20 to July 6. July was segmented into two time periods: July 6 to 21 and July 22–31, each with distinct fishing periods, specific closures in non-terminal areas and additional terminal areas in the latter period (Appendices D2 and D3). The BOF also established a 60,000 coho salmon harvest cap for non-terminal areas during the July 22–31 period (Appendix D1).

The BOF made only minor changes to the *Post-June Salmon Management Plan* for South Alaska Peninsula in 2001. The BOF clarified the definition of immature salmon during the ADF&G's July test fishery. The BOF also changed the southern boundary of the Suzy Creek terminal harvest area. It was modified to be consistent with the southern boundary of the NWSS at 57°37.33' N lat (Appendix C1). In February 2004, the BOF repealed the 60,000 coho salmon harvest cap from non-terminal areas for the July 22–31 period (Appendix D1). In 2010, the BOF made only minor changes to the *Post-June Salmon Management Plan* by extending the commercial salmon fishing season to October 31.

For the post-June section of this report, unconventional time periods are used to average harvest figures. These time periods better represent the historical nature of the South Peninsula post-June fisheries due to BOF actions that significantly changed the plan and harvests. The 1978–1992, 1993–1997, 2000–2009 periods are used for most historical average harvests, and are compared to the 2009 harvests. The 1978–1992 average harvests represent catches after Alaska salmon populations had recovered from low runs during the 1960s and early 1970s. The 1993–1997 averages are used because during those years only a few terminal harvest areas were open in post-June fisheries from July 1 to 19. The current management plan, with a few minor



modifications, went into effect in 1998. Tables for time periods or areas unaffected by BOF management plan changes (such as the fisheries during August and September) summarize data with 10- and 20-year averages.

## **IMMATURE SALMON CONCERNS**

The 1991 BOF decision to allow commercial salmon fishing in limited areas within South Peninsula waters was made partially due to concerns for immature Chinook, sockeye, and chum salmon inadvertently gilled during purse seine gear fishing operations (McCullough and Shaul 1992). The ADF&G first became aware of immature salmon catches in 1963 (McCullough and Shaul 1992). The presence of immature salmon in South Peninsula waters has warranted restrictions to commercial fishing in some years. These restrictions were applied to all gear types in affected areas from late June into July in 1963, 1968, 1969, 1974, 1979, and for purse seine fishing only during the 1989–1992, 1999, 2001, 2003, and 2008 seasons (Poetter 2009).

A high incidence of immature salmon has been prevalent in the Shumagin Islands Section, where concern for catching immature salmon is restricted to purse seine gear. Under current regulations, seine mesh size may not exceed 3½ inches except for the first 25 meshes above the lead line, which may not exceed 7 inches (5 AAC 09.332(a)). Set gillnet gear has larger mesh size (minimum of 5¼ inches; 5 AAC 09.331(b)(3)) which allows immature salmon to pass through the gear. Immature salmon usually migrate out of the area by July 23, although in 1992 closures were necessary until July 29.

In 1990, the ADF&G test fishing program was instituted in the Shumagin Islands to determine presence and abundance of immature salmon in South Peninsula waters prior to July commercial fishing periods. Test fishing sites were established in the near shore waters of Popof Island from Popof Head to Red Bluff because most purse seine fishing effort has occurred in those areas (Appendix D4).

In 2001, the BOF adopted a regulation that defined immature salmon and required the ADF&G to conduct an immature salmon test fishery in July (5 AAC 09.366(i)).

## **2010 MANAGEMENT PLAN**

The *Post-June Salmon Management Plan* (5 AAC 09.366) had three major components:

1. From July 6 to 21: six 24-hour fishing periods, each followed by a closure of at least 48 hours, could be permitted in non-terminal locations outside of the SEDM (Appendix D2). Additional fishing time could be allowed in terminal fishing areas based on local salmon run strength. During July 6–21, terminal areas included the northern portion of Pavlof Bay (north of the latitude of Black Point; Appendix A4), the southern portion of Zachary Bay (statistical area 282-35), and the Canoe Bay, Cold Bay, Morzhovoi Bay, and Thin Point sections.
2. From July 22 to 31, fishing time was limited in non-terminal areas, outside of the Southeastern District Mainland (prior to July 26), to three periods not to exceed 36 hours in duration and interspersed by closures of at least 48 hours. In addition to those terminal areas identified for the July 6 to 21 time frame, the Deer Island, Belkofski Bay, and Mino Creek-Little Coal Bay sections, the Stepovak Flats Section from July 26 to 28, and the area near Suzy Creek (281-65) after July 25 (Appendix D3). Fishing in non-terminal areas could not begin before noon on July 23.

3. From August 1 through August 31, fishing periods were based on abundance of local sockeye, coho, pink, and chum salmon stocks. From September 1 through October 31, fishing periods were based on abundance of coho salmon stocks, although the ADF&G could consider abundance of late pink and chum salmon stocks.

## **2010 SEASON SUMMARY**

The test fishery was conducted on three days: July 2, 3, and 5. Test fishery results for all dates showed the number of immature salmon were below the regulatory threshold (100 per set) (Appendix D5). Due to the number of immature salmon being below the regulatory threshold both purse seine and set gillnet gear types were able to participate in the 21 hour July 6 commercial salmon fishing period.

The July 6–21 commercial salmon harvest from South Peninsula non-terminal areas was composed of 2,421 Chinook salmon, 189,653 sockeye salmon, 78,699 coho salmon, 147,013 pink salmon, and 167,686 chum salmon (Appendix D6). Terminal area harvests during this time frame totaled 0 Chinook salmon, 3,439 sockeye salmon, 110 coho salmon, 5,881 pink salmon, and 14,684 chum salmon (Appendix D6).

The July 22–31 commercial salmon harvest from South Peninsula non-terminal areas was composed of 1,027 Chinook salmon, 75,395 sockeye salmon, 67,049 coho salmon, 196,760 pink salmon, and 159,304 chum salmon (Appendix D7). Terminal area harvests during this time frame totaled 45 Chinook salmon, 2,346 sockeye salmon, 273 coho salmon, 32,148 pink salmon, and 60,711 chum salmon (Appendix D7).

Due to the weak returns for both pink and chum salmon, most of August was closed to commercial salmon fishing. Two days, August 4 and 5, were open to commercial salmon fishing in the Shumagin Islands Section of the Southeastern District to assess the abundance of salmon in the area. After the harvest showed a weak run, commercial salmon fishing was closed for the remainder of August. The total commercial salmon harvest during August consisted of 350 Chinook salmon, 12,291 sockeye salmon, 13,456 coho salmon, 104,910 pink salmon, and 41,711 chum salmon (Appendix D8).

The South Peninsula fall fishery opened September 14. Commercial salmon fishing periods were primarily based on local coho salmon CPUE and, in some areas, on late pink and chum salmon run strength. In 2010, the salmon harvest for September in the South Peninsula consisted of 5 Chinook salmon, 4,367 sockeye salmon, 2,111 coho salmon, 0 pink salmon, and 149 chum salmon (Appendix D9) with the last delivery of the season occurring on September 23 (Appendix A13).

In 2010, 142 permit holders fished in the South Peninsula post-June fishery. The 2010 South Peninsula (minus the SEDM July 1–25 harvest) post-June commercial salmon harvest totaled 3,848 Chinook salmon, 287,491 sockeye salmon, 161,698 coho salmon, 486,748 pink salmon, and 444,245 chum salmon (Appendix D10). The South Peninsula (including the Southeastern District Mainland fishery) post-June total commercial salmon harvest totaled 4,712 Chinook salmon, 417,791 sockeye salmon, 164,610 coho salmon, 501,342 pink salmon, and 515,260 chum salmon (Appendix D11).

In 2010, purse seine, drift gillnet, and set gillnet gear commercially harvested Chinook, sockeye, coho, pink and chum salmon in the South Peninsula during the post-June fishery (including the Southeastern District Mainland fishery). Chinook salmon were caught incidentally by all three

gear groups during the 2010 post-June fishery with 4,571 (97.0%) caught by purse seine, 31 (0.7%) caught by drift gillnet, and 110 (2.3%) caught by set gillnet for a total of 4,712 fish (Appendix D12). A total of 417,791 sockeye salmon were harvested, of which 175,804 (42.1 %) were caught by purse seine, 13,877 (3.3%) were caught by drift gillnet, and 228,110 (54.6%) were caught by set gillnet (Appendix D13). Coho salmon were harvested by all gear groups with 143,675 (87.3%) caught by purse seine, 10,552 (6.4%) by drift gillnet, and 10,383 (6.3%) by set gillnet for a total of 164,610 fish (Appendix D14). A total of 501,342 pink salmon were harvested, of which 443,498 (88.5%) were caught by purse seine, 4,823 (1.0%) were caught by drift gillnet, and 53,021 (10.6%) were caught by set gillnet (Appendix D15). Chum salmon were harvested by all three gear groups: 418,693 (81.3%) by purse seine, 19,051 (3.7%) by drift gillnet, and 77,516 (15.0%) by set gillnet, for a total of 515,260 fish (Appendix D16).

## **SALMON ESCAPEMENTS**

The South Alaska Peninsula has approximately 224 salmon streams, with sockeye salmon found in 37, pink salmon in at least 204, chum salmon in 136, and coho salmon in 81 streams (McCullough 2001). In 2010, most salmon escapements were monitored by aerial observations using small fixed-wing aircraft. The Orzinski Lake system was monitored with a salmon weir operated by department employees (Appendix E1). Pink and chum salmon escapements were estimated using an indexed total escapement method, while sockeye salmon systems were estimated using peak escapements (Appendix E2).

Alaska salmon production was low during the 1960s and early 1970s. The Alaska salmon runs began to rebuild in the mid 1970s and most Alaska Peninsula salmon stocks recovered by 1977. The 1962–1976 and 1977–2009 time periods will be used in this report for comparison of 2010 escapements to better represent average historical escapements and production trends. From 1962–1976, South Peninsula total indexed salmon escapement averaged 1,280,100 fish composed of 27,813 sockeye salmon, 957,887 pink salmon, and 294,400 chum salmon (Appendix E3). From 1977–2009, South Peninsula total indexed salmon escapement averaged 3,990,487 salmon composed of 93,876 sockeye salmon, 3,319,133 pink salmon, and 577,479 chum salmon (Appendix E3). There are no known Chinook salmon spawning streams along South Peninsula waters and coho salmon escapement data are inconsistent.

It is beyond the scope of this report to publish detailed escapement goals for each species by location and the methodologies used in their development. Additional information on escapement goals and escapements by stream or district used in the following discussion can be found in McCullough 2001 and Witteveen et al. 2009.

### **2010 ESCAPEMENT BY SPECIES**

#### **Sockeye Salmon**

The total estimated South Alaska Peninsula sockeye salmon escapement of 38,039 fish (Appendices E3 through E5) was below the recent 10-year average (2000–2009) of 134,806 fish. The total escapement of sockeye salmon into Cold Bay was 6,800 fish (Appendix E4), of which 6,600 fish escaped into Mortensens Lagoon and was above its respective sustainable escapement goal (SEG) range of 3,200–6,400 fish (Witteveen et al. 2009), and the remaining 200 sockeye salmon escaped into Old Man’s Lagoon, which does not have a SEG range. Escapement into Thin Point Lagoon (12,400 fish) was below its SEG range of 14,000–28,000 fish. The Orzinski

Lake sockeye salmon escapement of 18,039 fish through August 5, after which the weir was pulled (Appendix E6), was within the SEG range of 15,000–20,000 (Witteveen et al. 2009).

### **Coho Salmon**

The total indexed coho salmon escapement could not be calculated due to limited survey data. Many streams were not surveyed, only surveyed once, or were not surveyed during times of peak abundance. A total of 260 coho salmon were counted in South Peninsula streams in 2010. The Thin Point Lake coho salmon lower bound SEG of 3,000 fish (Witteveen et al. 2009) was not observed.

### **Pink Salmon**

The total 2010 indexed South Peninsula pink salmon escapement of 742,912 fish (Appendices E3, E4, and E7) was below the even-year SEG range of 1,864,600–3,729,300 fish (Witteveen et al. 2009). This was the lowest pink salmon escapement in the South Peninsula since 1975 (Appendix E3). From 2000–2009, the South Peninsula total pink salmon indexed escapement averaged 4,145,702 fish (Appendix E3).

### **Chum Salmon**

In 2010, the total estimated South Alaska Peninsula chum salmon escapement of 291,912 fish (Appendices E3, E4, and E8) was below the recent 10-year average (2000–2009) of 665,089 fish. Escapement of chum salmon in the Southwestern (142,650 fish) and Unimak (1,050 fish) districts meet the lower bound of their established SEG ranges of 133,400 and 800 fish respectively (Witteveen et al. 2009; Appendix E4). Chum salmon escapement (62,612 fish) was below the established lower-bound of the SEG range (106,400–212,800) for the Southeastern District and South Central District (85,600 fish; range 89,800–179,600) (Witteveen et al. 2009; Appendix E4).

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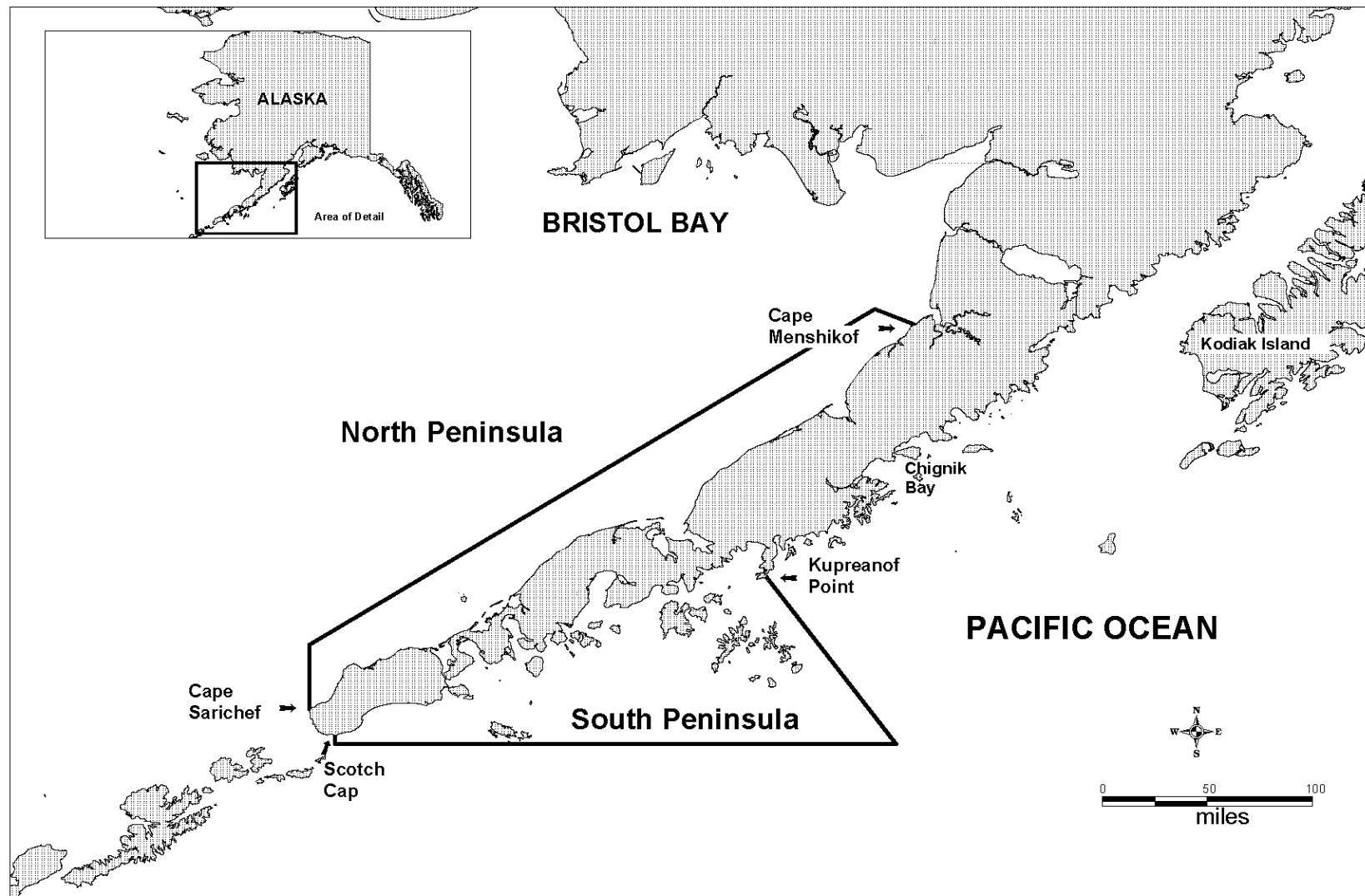
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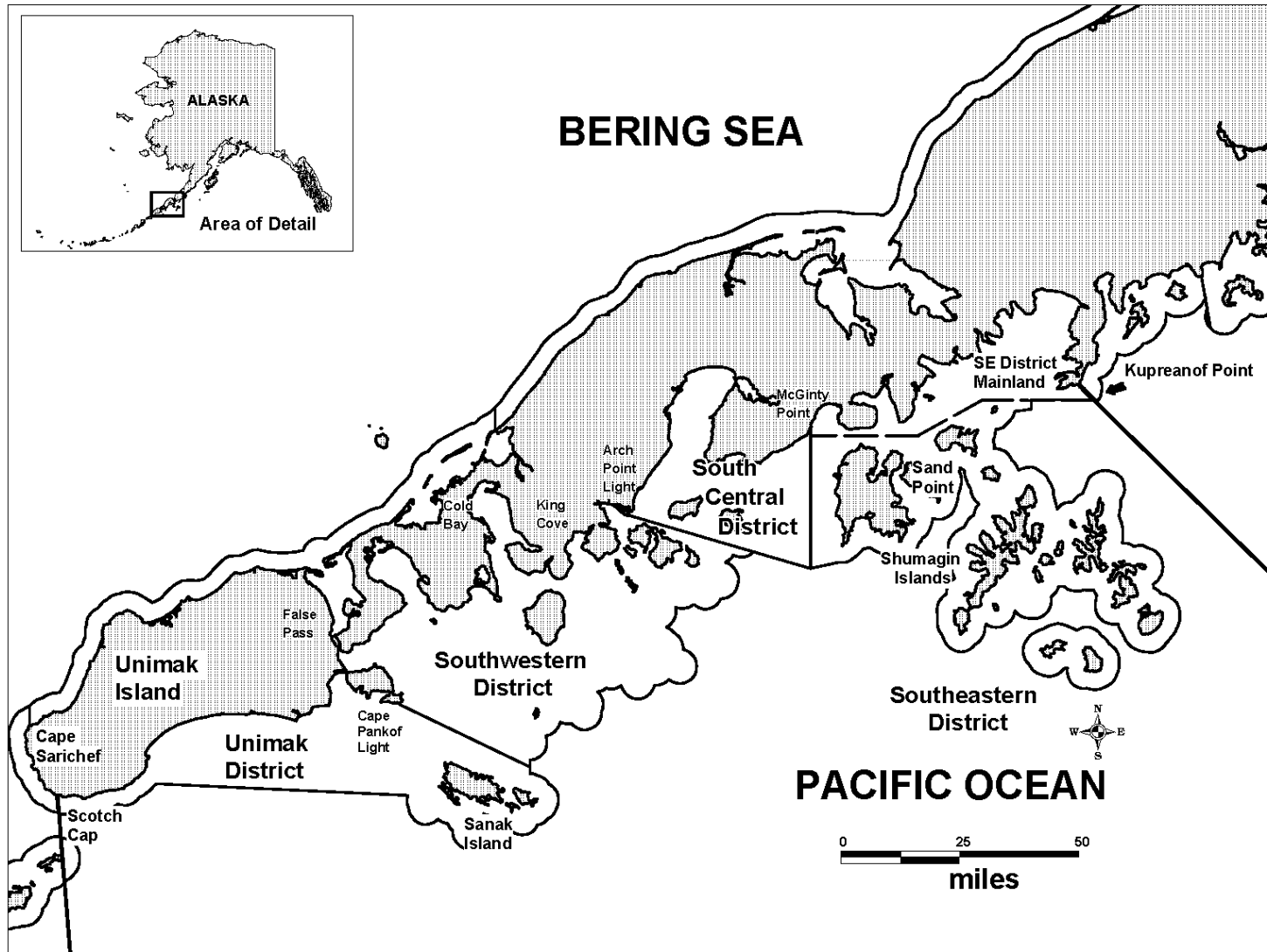
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## **APPENDIX A. AREAWIDE INFORMATION**

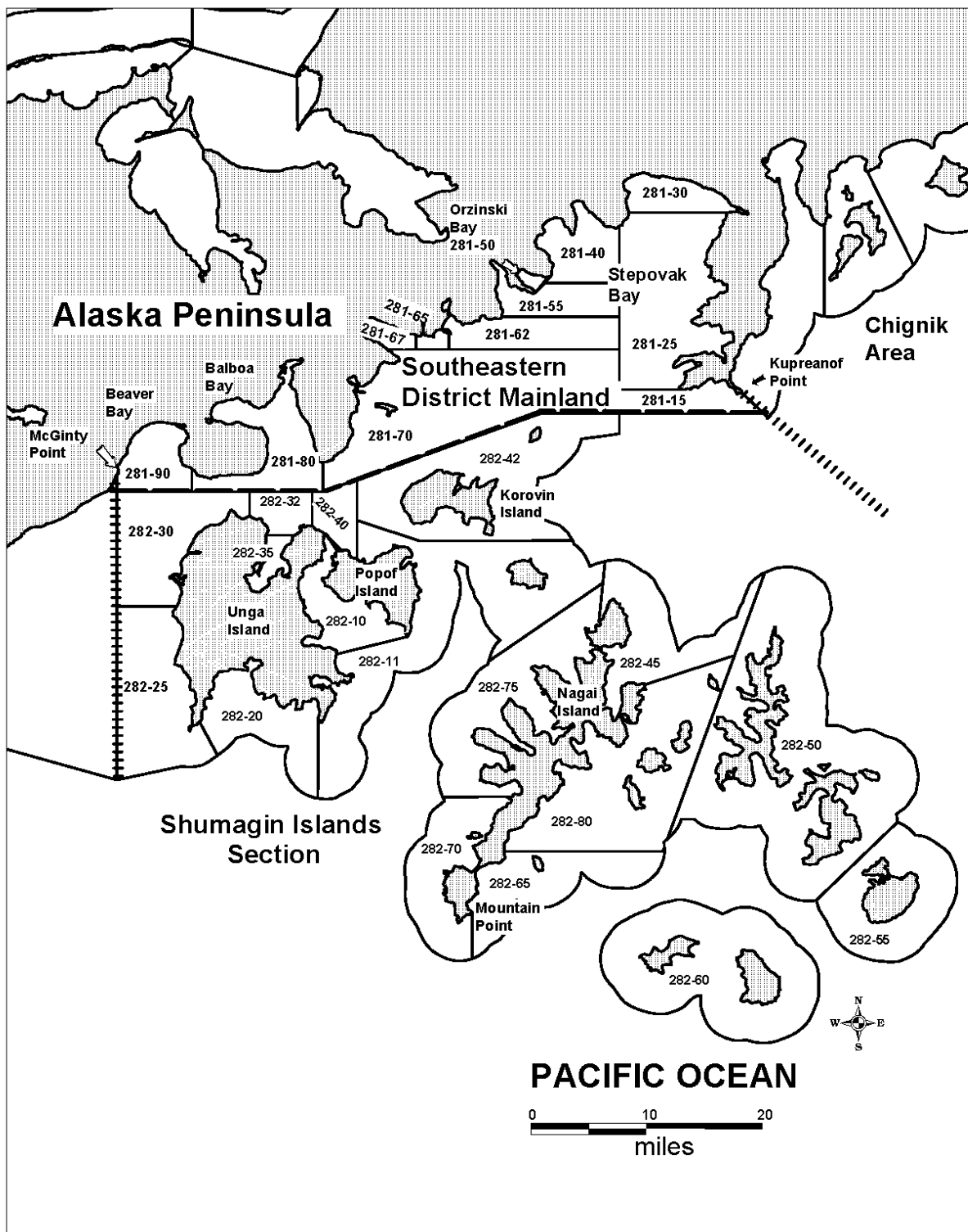


Appendix A1.—Map of Alaska Peninsula Management Area with the North and South Peninsula defined.

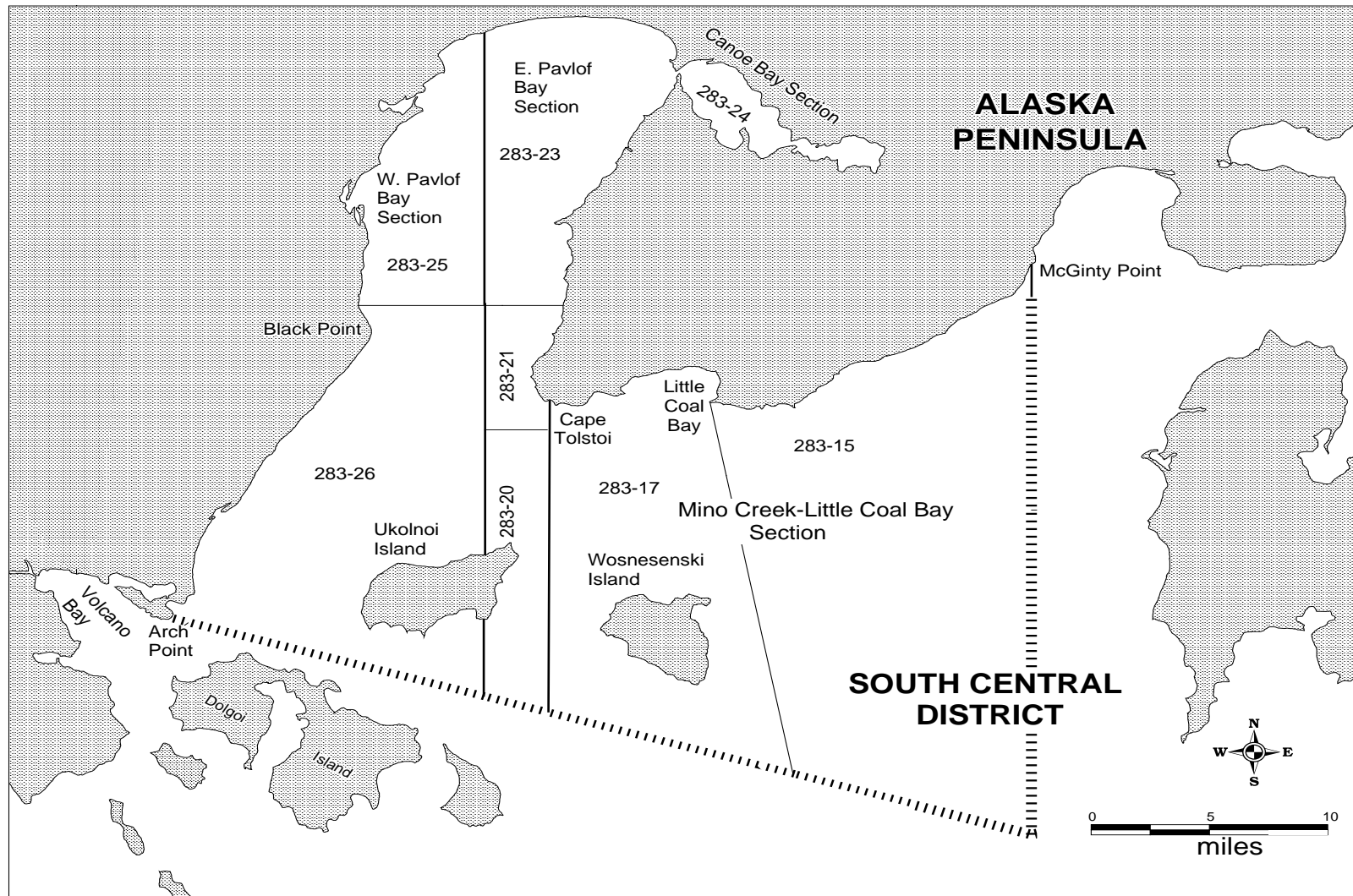




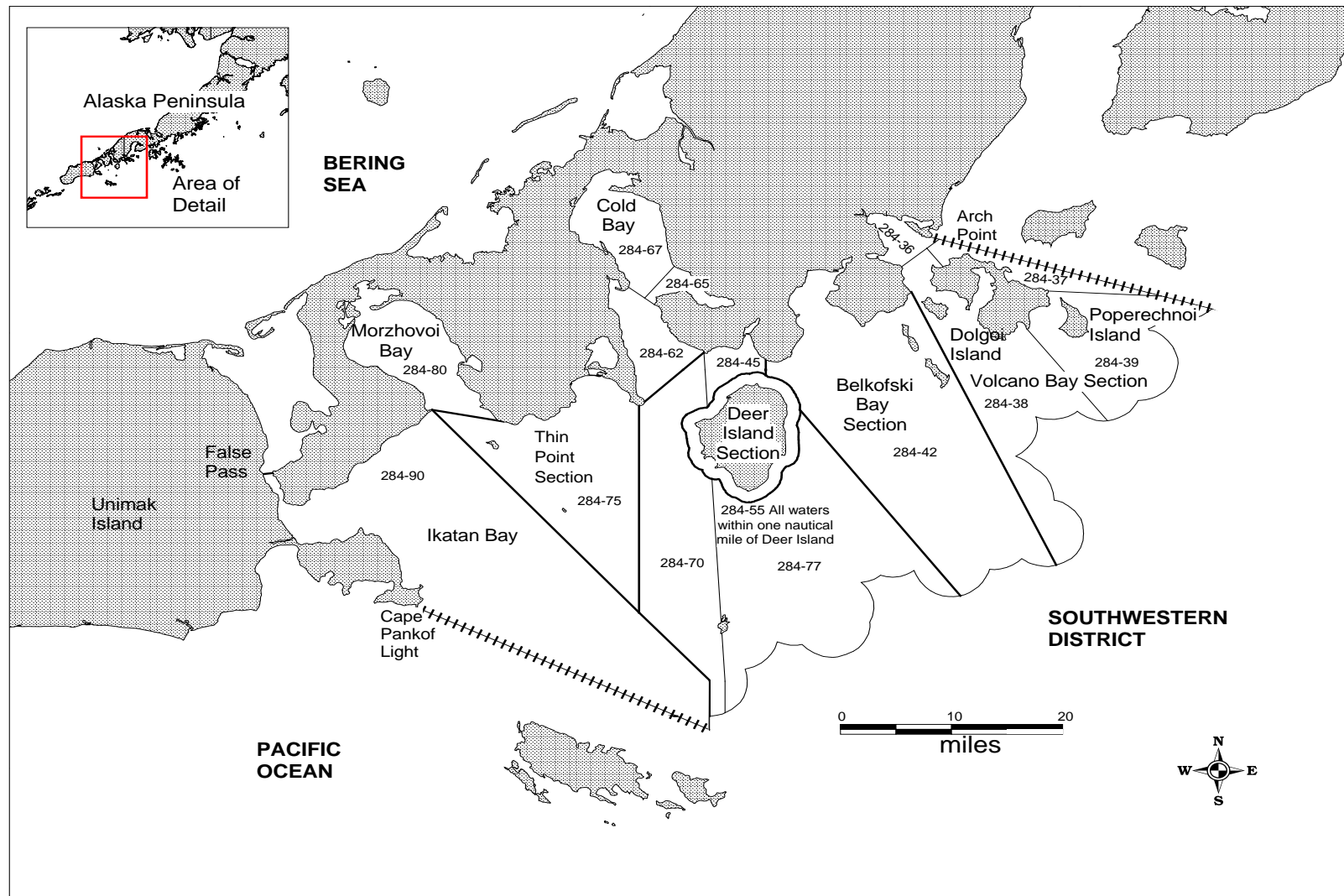
Appendix A2.—Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with South Peninsula salmon fishing districts defined.



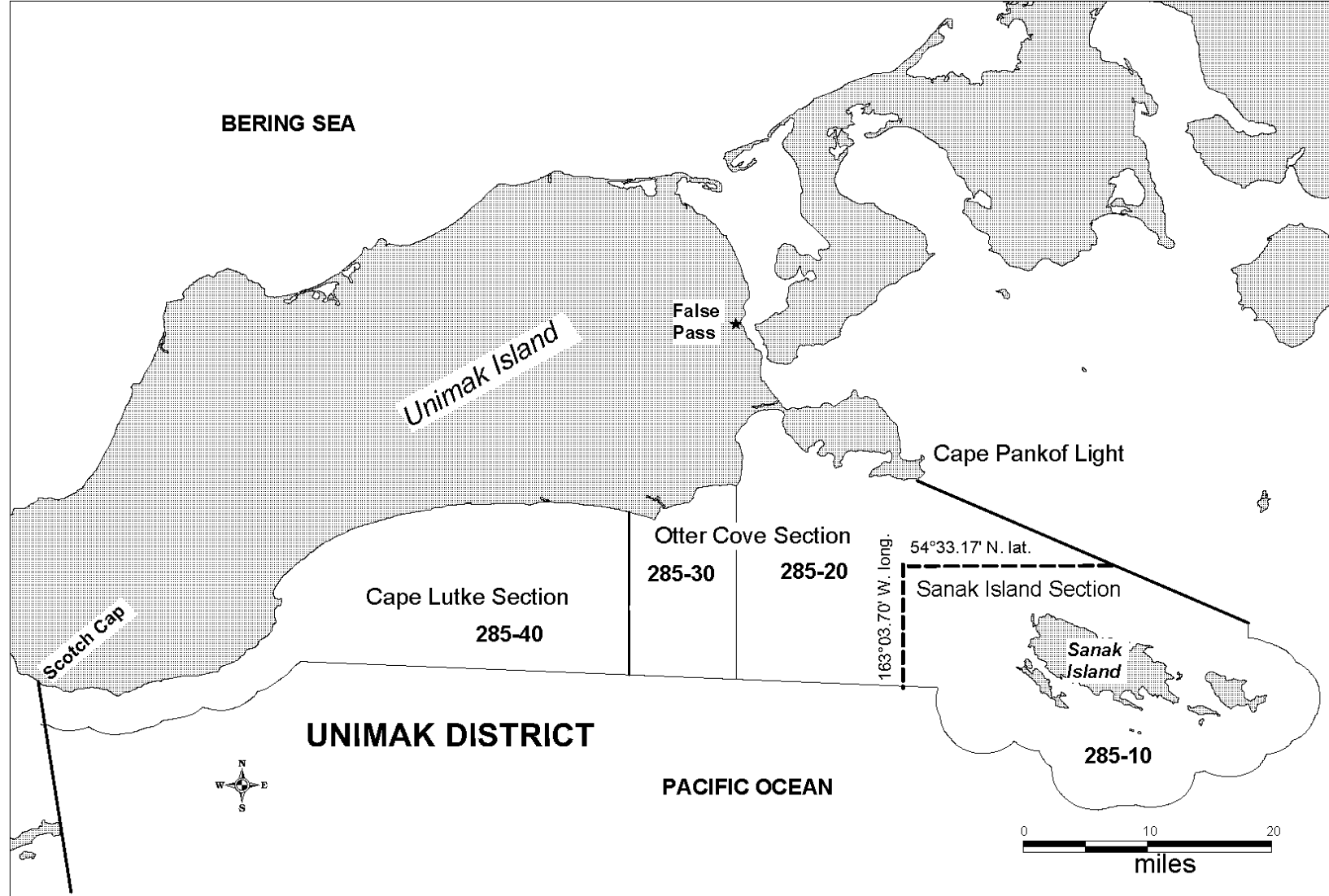
Appendix A3.—Map of Alaska Peninsula Area from Kupreanof Point to McGinty Point (Southeastern District) with statistical salmon fishing areas shown.



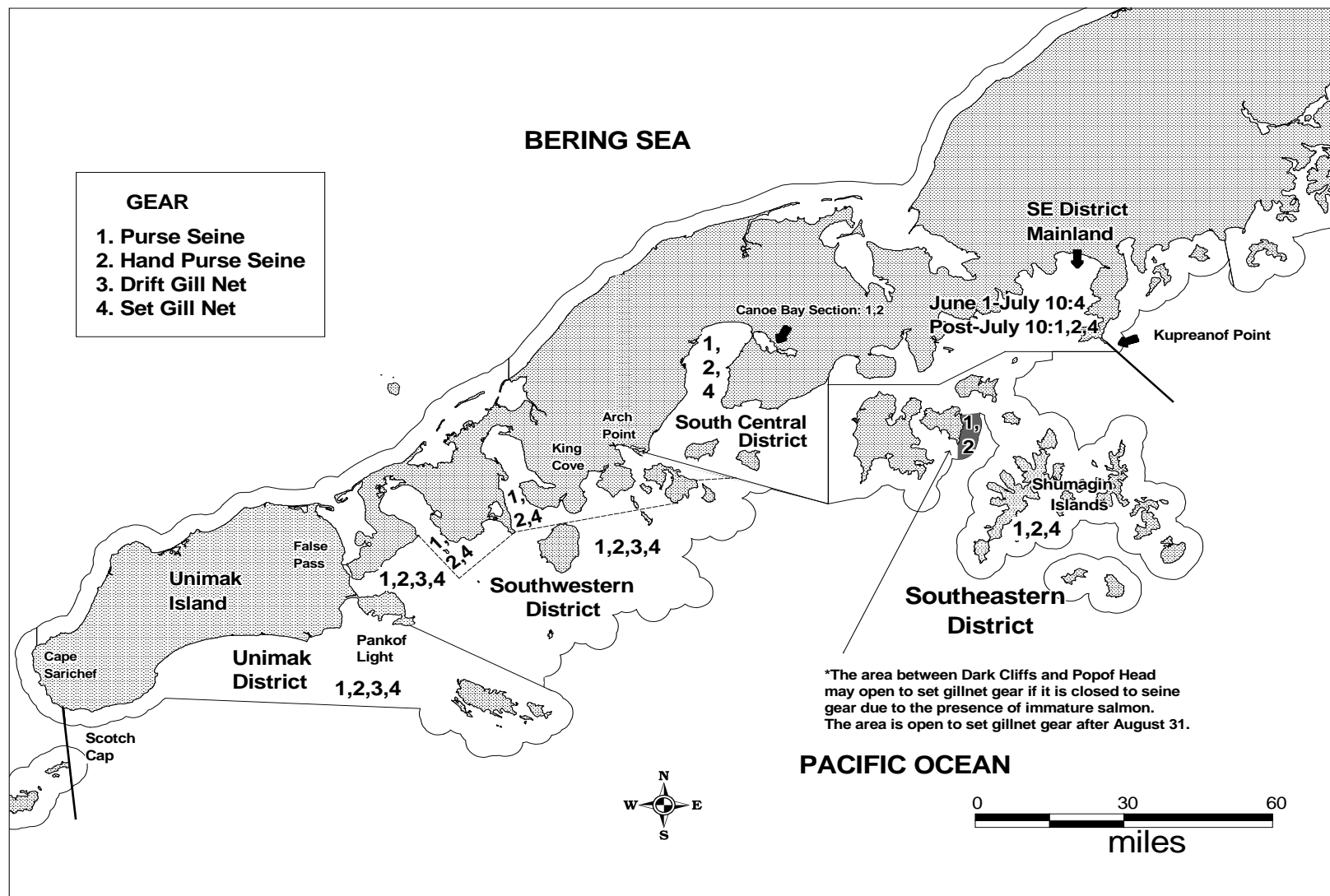
Appendix A4.—Map of Alaska Peninsula Area from McGinty Point to Arch Point (South Central District) with statistical salmon fishing areas shown.



Appendix A5.—Map of Alaska Peninsula Area from Arch Point to Cape Pankof Light (Southwestern District) with statistical salmon fishing areas shown.



Appendix A6.—Map of Alaska Peninsula Area from Cape Pankof Light to Scotch Cap (Unimak District) with statistical salmon fishing areas shown.



Appendix A7.—Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with legal gear types shown.

Appendix A8.—Number of actively fished limited entry (CFEC) permits in the South Alaska Peninsula, 1970–2010.

Year	Purse Seine	Drift Gillnet	Set Gillnet	Total
1970	108	157	30	295
1971	113	122	24	259
1972	90	151	25	266
1973	55	121	26	202
1974	46	46	42	134
1975	52	81	12	145
1976	89	108	24	221
1977	84	101	26	211
1978	101	120	30	251
1979	123	137	46	306
1980	114	129	45	288
1981	116	135	53	304
1982	115	138	52	305
1983	118	147	59	324
1984	121	147	66	334
1985	122	150	64	336
1986	119	156	60	335
1987	113	145	69	327
1988	112	148	70	330
1989	117	147	76	340
1990	118	154	81	353
1991	119	157	78	354
1992	119	142	79	340
1993	123	144	86	353
1994	118	145	79	342
1995	118	151	82	351
1996	102	147	82	331
1997	82	142	82	306
1998	79	145	86	310
1999	74	153	82	309
2000	76	149	84	309
2001	64	99	78	241
2002	42	86	70	198
2003	46	84	64	194
2004	42	95	65	202
2005	45	94	69	208
2006	43	85	74	202
2007	46	87	71	204
2008	56	111	64	231
2009	53	118	67	238
2010	63	119	65	247
2000-2009				
Average	51	101	71	223

Appendix A9.—South Alaska Peninsula salmon harvest (number of fish), all gear combined, by species and year, 1908–2010.

Year <sup>a,b</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1908			0	69,400	0	0	0	69,400
1909			0	108,400	7,200	0	0	115,600
1910			0	46,300	5,500	0	0	51,800
1911			0	240,800	12,400	25,200	83,000	361,400
1912			0	334,400	27,000	40,400	195,000	596,800
1913			1,800	299,700	0	0	7,000	308,500
1914			600	628,900	0	311,000	221,100	1,161,600
1915			4,800	367,900	16,200	120,100	333,100	842,100
1916			6,800	730,900	34,100	576,100	508,900	1,856,800
1917			6,400	1,486,100	4,600	72,100	415,500	1,984,700
1918			8,700	1,014,100	16,300	2,150,000	1,501,000	4,690,100
1919			9,600	619,100	56,100	80,200	921,400	1,686,400
1920			7,800	1,142,300	47,700	2,109,800	934,000	4,241,600
1921			700	830,700	1,500	47,300	84,600	964,800
1922			6,900	3,376,800	2,200	756,700	349,300	4,491,900
1923			4,100	1,827,200	75,300	143,600	538,900	2,589,100
1924			3,900	1,352,000	127,300	3,931,300	1,330,700	6,745,200
1925			10,700	820,500	127,100	382,100	1,116,800	2,457,200
1926			9,500	3,071,500	193,800	3,719,700	1,179,800	8,174,300
1927			9,600	714,700	125,300	1,455,500	1,299,700	3,604,800
1928			7,700	971,500	96,600	900,900	2,416,300	4,393,000
1929			10,500	935,800	84,500	1,793,500	2,429,000	5,253,300
1930			10,900	935,200	161,100	6,094,800	1,278,100	8,480,100
1931			11,000	1,863,200	128,700	997,900	1,216,000	4,216,800
1932			17,400	2,977,300	112,300	3,604,800	817,300	7,529,100
1933			12,600	1,996,700	190,000	3,109,200	1,173,900	6,482,400
1934			17,600	1,372,400	247,100	6,538,500	1,940,300	10,115,900
1935			13,900	978,400	117,200	5,386,200	2,003,100	8,498,800
1936			14,400	3,662,600	284,600	9,471,000	2,310,900	15,743,500
1937			9,300	1,558,000	73,900	9,302,000	1,506,700	12,449,900
1938			6,400	772,100	220,700	7,169,100	1,476,600	9,644,900
1939			16,500	1,881,700	98,900	6,005,300	1,440,600	9,443,000
1940			9,100	1,040,300	184,200	7,182,800	2,326,300	10,742,700
1941			13,000	1,072,000	183,000	5,347,000	1,542,000	8,157,000
1942			4,800	810,100	123,000	6,762,600	1,321,100	9,021,600
1943			21,700	2,397,700	90,600	4,360,200	924,500	7,794,700
1944			9,900	538,600	238,700	2,653,800	985,600	4,426,600
1945			21,400	813,400	116,100	3,639,600	948,900	5,539,400
1946			6,100	752,300	151,400	1,964,000	1,219,900	4,093,700
1947			3,400	1,137,100	55,800	2,319,600	1,219,200	4,735,100
1948			1,200	285,900	39,200	1,683,700	1,139,600	3,149,600
1949			3,800	637,500	19,500	1,544,000	560,900	2,765,700
1950			4,000	1,745,300	70,700	1,613,700	562,500	3,996,200

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Year <sup>a,b</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1951			1,500	264,200	55,700	2,844,800	683,100	3,849,300
1952			9,200	894,500	39,200	908,500	1,040,800	2,892,200
1953			7,200	1,039,200	47,900	2,743,900	1,464,600	5,302,800
1954			4,200	636,300	49,400	2,033,300	1,413,400	4,136,600
1955			5,400	550,100	44,800	2,529,200	688,200	3,817,700
1956			4,800	641,400	61,900	2,740,700	1,618,700	5,067,500
1957			5,800	341,900	49,900	913,100	1,281,400	2,592,100
1958			800	186,100	70,600	1,385,200	841,000	2,483,700
1959			900	217,500	8,500	915,600	711,700	1,854,200
1960			1,700	379,000	1,800	1,197,500	904,400	2,484,400
1961			900	456,800	10,400	1,727,800	748,600	2,944,500
1962			3,300	420,000	12,500	1,965,500	824,800	3,226,100
1963			1,900	204,400	16,500	2,367,700	461,300	3,051,800
1964			2,000	370,800	13,600	2,740,400	751,000	3,877,800
1965			2,100	915,700	34,200	2,884,100	556,400	4,392,500
1966			1,400	606,200	6,300	302,300	494,400	1,410,600
1967			1,600	294,100	2,900	77,800	245,200	621,600
1968			1,400	699,800	31,100	1,287,100	325,300	2,344,700
1969			1,900	912,800	10,900	1,219,400	389,200	2,534,200
1970	295	4,679	1,806	1,779,525	32,571	1,737,985	993,349	4,545,236
1971	259	4,444	2,174	716,087	16,907	1,445,031	1,365,957	3,546,156
1972	266	3,124	1,332	557,422	8,021	78,221	731,814	1,376,810
1973	202	1,795	415	330,091	6,599	58,051	292,943	688,099
1974	134	853	581	197,153	9,366	100,601	71,826	379,527
1975	145	600	117	243,548	67	60,642	130,750	435,124
1976	221	2,705	2,196	375,027	216	2,366,833	532,503	3,276,775
1977	211	2,168	559	311,722	2,108	1,448,648	243,167	2,006,204
1978	251	3,860	773	579,411	60,774	5,590,145	546,182	6,777,285
1979	306	4,476	2,141	1,149,927	356,867	6,564,914	482,930	8,556,779
1980	288	5,107	4,794	3,613,025	274,181	7,861,470	1,353,112	13,106,582
1981	304	5,617	11,182	2,241,513	162,223	5,033,028	1,768,475	9,216,421
1982	305	6,286	9,845	2,345,981	256,046	6,734,905	2,272,495	11,619,272
1983	324	5,241	26,571	2,556,557	127,657	2,827,622	1,704,072	7,242,479
1984	334	6,378	9,198	2,318,028	310,950	11,589,258	1,654,622	15,882,056
1985	336	5,322	6,642	2,144,416	172,514	4,431,016	1,348,726	8,103,314
1986	335	5,132	5,589	1,223,089	235,854	4,031,487	1,749,651	7,245,670
1987	327	5,256	9,174	1,449,753	225,120	1,208,556	1,376,887	4,269,490
1988	330	6,478	11,075	1,473,651	505,533	7,044,824	1,908,507	10,943,590
1989	340	5,597	7,009	2,659,101	441,397	7,289,130	993,492	11,390,129
1990	353	6,403	16,497	2,385,560	305,510	2,861,283	1,234,679	6,803,529
1991	354	6,439	7,510	2,304,531	313,223	10,596,596	1,573,773	14,795,633
1992	340	6,512	7,933	3,438,875	414,948	9,759,657	1,310,337	14,931,750
1993	353	6,204	14,083	3,682,604	215,256	9,925,123	1,046,407	14,883,473
1994	342	6,750	9,474	2,091,009	251,686	9,143,703	2,178,910	13,674,782
1995	351	8,193	17,078	2,996,353	260,686	16,302,593	1,715,067	21,291,777
1996	331	5,875	5,071	1,528,587	278,191	2,187,239	775,057	4,774,145
1997	306	5,803	7,163	2,258,189	112,432	2,303,926	606,254	5,287,964

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Year <sup>a,b</sup>	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1998	310	8,014	4,796	2,170,803	154,170	8,040,681	711,526	11,081,976
1999	309	7,021	4,815	2,948,267	192,485	8,443,343	816,966	12,405,876
2000	309	7,110	5,104	1,984,576	257,146	3,549,545	1,055,316	6,851,687
2001	241	3,277	2,302	607,756	210,899	4,012,057	921,986	5,755,000
2002	198	3,883	6,399	1,035,232	202,717	2,170,376	819,030	4,233,754
2003	194	3,909	2,712	1,054,208	131,097	4,258,274	637,305	6,083,596
2004	202	4,670	7,050	2,199,944	235,600	6,665,831	790,108	9,898,533
2005	208	4,948	4,487	2,337,097	143,617	9,416,197	739,460	12,640,858
2006	202	4,848	5,400	1,835,218	164,962	4,261,230	1,175,843	7,442,653
2007	204	5,250	5,312	2,438,672	150,955	7,299,330	679,787	10,574,056
2008	231	5,551	4,378	2,249,144	227,550	12,723,983	814,123	16,019,178
2009	238	5,808	5,875	1,724,516	248,563	7,921,089	1,684,583	11,584,626
2010	247	4,266	7,863	1,284,882	164,824	837,985	792,369	3,087,923
Averages								
1918–1929 <sup>c</sup>			7,475	1,389,683	79,475	1,455,883	1,175,125	4,107,642
1930–1946 <sup>c</sup>			12,706	1,495,412	160,088	5,269,929	1,437,165	8,375,300
1947–1977 <sup>c</sup>	217	2,546	2,567	591,844	26,747	1,523,900	751,226	2,896,285
1978–1999 <sup>c</sup>	324	5,998	9,019	2,252,692	255,805	6,807,750	1,324,006	10,649,271
2000–2009	223	4,925	4,902	1,746,636	197,311	6,227,791	931,754	9,108,394

Note: Permit and landing numbers are only available from 1970 through present.

<sup>a</sup> From 1928 through 1950 commercial salmon catches in the Aleutian Islands and the South Peninsula were combined. Aleutian Islands catches are generally much smaller than South Peninsula harvests. South Peninsula harvests were generally predominated by pink salmon. The 1978–99 Aleutian Islands average salmon harvest was 510,317 fish, while the 1978–99 average harvest for the South Peninsula was 10,671,164 salmon.

<sup>b</sup> Since 1989, salmon numbers include test fish harvests.

<sup>c</sup> These historical averages are intended to illustrate how salmon productivity has fluctuated in the South Peninsula.

Appendix A10.—South Alaska Peninsula pink salmon catch and escapement by year, 1962–2010.

		Post June Harvest			June Harvest		Total June Harvest
		Southeastern <sup>a</sup> and South Central Districts	Southwestern and Unimak Districts	South <sup>b</sup> Peninsula Totals	South Unimak	Shumagin Islands	
1962	Catch	922,100	977,300	1,899,400	42,000	24,000	66,000
	Escapement	826,100	772,700	1,598,800			
	Total	1,748,200	1,750,000	3,498,200			
1963	Catch	1,733,900	590,800	2,324,700	14,000	29,000	43,000
	Escapement	886,500	431,400	1,317,900			
	Total	2,620,400	1,022,200	3,642,600			
1964	Catch	1,514,600	1,190,700	2,705,300	18,000	17,000	35,000
	Escapement	902,400	534,000	1,436,400			
	Total	2,417,000	1,724,700	4,141,700			
1965	Catch	2,331,400	474,700	2,806,100	43,000	35,000	78,000
	Escapement	789,900	245,500	1,035,400			
	Total	3,121,300	720,200	3,841,500			
1966	Catch	220,300	68,500	288,800	15,000	2,000	17,000
	Escapement	627,400	92,000	719,400			
	Total	847,700	160,500	1,008,200			
1967	Catch	53,100	4,200	57,300	11,000	10,000	21,000
	Escapement	327,300	118,200	445,500			
	Total	380,400	122,400	502,800			
1968	Catch	863,300	277,800	1,141,100	34,000	112,000	146,000
	Escapement	528,100	295,200	823,300			
	Total	1,391,400	573,000	1,964,400			
1969	Catch	862,800	265,300	1,128,100	68,000	23,000	91,000
	Escapement	1,906,200	568,700	2,474,900			
	Total	2,769,000	834,000	3,603,000			
1970	Catch	1,378,510	252,030	1,630,540	83,325	19,728	103,053
	Escapement	1,007,900	291,000	1,298,900			
	Total	2,386,410	543,030	2,929,440			
1971	Catch	1,211,982	213,809	1,425,791	11,608	7,632	19,240
	Escapement	488,000	214,700	702,700			
	Total	1,699,982	428,509	2,128,491			
1972	Catch	53,339	6,958	60,297	11,906	6,018	17,924
	Escapement	81,800	29,600	111,400			
	Total	135,139	36,558	171,697			
1973	Catch	36,548	2,073	38,621	11,152	8,278	19,430
	Escapement	85,700	25,100	110,800			
	Total	122,248	27,173	149,421			

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		Post June Harvest			June Harvest		Total June Harvest
		Southeastern <sup>a</sup>	Southwestern	South <sup>b</sup>	South	Shumagin	
Year		South Central Districts	Unimak Districts	Peninsula Totals	Unimak	Islands	
1974	Catch	95,951	4,650	100,601	0	0	0
	Escapement	238,600	45,800	284,400			
	Total	334,551	50,450	385,001			
1975	Catch	30,052	25,343	55,395	3,205	2,042	5,247
	Escapement	357,800	194,300	552,100			
	Total	387,852	219,643	607,495			
1976	Catch	2,036,223	306,786	2,343,009	18,181	5,643	23,824
	Escapement	1,084,000	372,400	1,456,400			
	Total	3,120,223	679,186	3,799,409			
1977	Catch	1,163,505	279,745	1,443,250	3,397	2,001	5,398
	Escapement	2,168,500	509,300	2,677,800			
	Total	3,332,005	789,045	4,121,050			
1978	Catch	4,167,878	1,332,325	5,500,203	47,380	42,562	89,942
	Escapement	1,966,300	892,400	2,858,700			
	Total	6,134,178	2,224,725	8,358,903			
1979	Catch	4,839,548	1,570,553	6,410,101	49,000	105,813	154,813
	Escapement	2,125,100	504,400	2,629,500			
	Total	6,964,648	2,074,953	9,039,601			
1980	Catch	2,519,576	3,815,588	6,335,164	1,140,611	385,695	1,526,306
	Escapement	1,410,400	1,231,200	2,641,600			
	Total	3,929,976	5,046,788	8,976,764			
1981	Catch	4,196,419	385,359	4,581,778	325,002	126,248	451,250
	Escapement	1,875,000	431,800	2,306,800			
	Total	6,071,419	817,159	6,888,578			
1982	Catch	4,104,949	911,131	5,016,080	1,032,154	686,671	1,718,825
	Escapement	1,533,200	759,800	2,293,000			
	Total	5,638,149	1,670,931	7,309,080			
1983	Catch	2,245,432	526,315	2,771,747	40,441	15,434	489,629
	Escapement	639,200	212,000	851,200			
	Total	2,884,632	738,315	3,622,947			
1984	Catch	6,533,147	4,136,235	10,669,382	470,688	449,188	919,876
	Escapement	2,526,700	1,824,900	4,351,600			
	Total	9,059,847	5,961,135	15,020,982			

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		Post June Harvest			June Harvest		
		Southeastern <sup>a</sup>	Southwestern	South <sup>b</sup>			Total
Year		South Central Districts	Unimak Districts	Peninsula Totals	South Unimak	Shumagin Islands	June Harvest
1985	Catch	3,324,051	1,000,350	4,324,401	69,811	36,804	106,615
	Escapement	1,229,300	384,500	1,613,800			
	Total	4,553,351	1,384,850	5,938,201			
1986	Catch	3,066,631	672,867	3,739,498	150,674	141,315	3,890,172
	Escapement	1,185,500	531,200	1,716,700			
	Total	4,252,131	1,204,067	5,456,198			
1987	Catch	1,143,436	48,138	1,191,574	11,342	5,640	16,982
	Escapement	1,304,400	236,100	1,540,500			
	Total	2,447,836	284,238	2,732,074			
1988	Catch	4,700,486	2,164,114	6,864,600	86,678	93,546	180,224
	Escapement	1,636,500	1,203,100	2,839,600			
	Total	6,336,986	3,367,214	9,704,200			
1989	Catch	5,578,746	1,511,149	7,089,895	154,168	45,067	199,235
	Escapement	1,179,300	691,600	1,870,900			
	Total	6,758,046	2,202,749	8,960,795			
1990	Catch	1,734,227	611,816	2,346,043	444,249	70,798	515,047
	Escapement	1,018,200	580,200	1,598,400			
	Total	2,752,427	1,192,016	3,944,443			
1991	Catch	7,530,700	2,446,759	9,977,459	500,922	118,215	619,137
	Escapement	2,268,400	678,400	2,946,800			
	Total	9,799,100	3,125,159	12,924,259			
1992	Catch	4,851,245	4,266,322	9,117,567	501,127	140,963	642,090
	Escapement	1,781,000	1,053,400	2,834,400			
	Total	6,632,245	5,319,722	11,951,967			
1993	Catch	7,490,553	2,353,434	9,843,987	37,735	43,401	81,136
	Escapement	2,232,200	757,900	2,990,100			
	Total	9,722,753	3,111,334	12,834,087			
1994	Catch	3,143,952	3,507,237	6,651,189	1,731,741	760,773	2,492,514
	Escapement	1,700,525	1,371,200	3,071,725			
	Total	4,844,477	4,878,437	9,722,914			
1995	Catch	11,362,914	4,761,044	16,123,958	119,094	59,541	178,635
	Escapement	4,404,450	2,001,850	6,406,300			
	Total	15,767,364	6,762,894	22,530,258			
1996	Catch	1,512,680	296,875	1,809,555	146,799	230,885	377,684
	Escapement	2,668,950	978,600	3,647,550			
	Total	4,181,630	1,275,475	5,457,105			

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		Post June Harvest			June Harvest		Total June Harvest
		Southeastern <sup>a</sup> and South Central Districts	Southwestern and Unimak Districts	South <sup>b</sup> Peninsula Totals	South Unimak	Shumagin Islands	
Year							
1997	Catch	828,392	869,597	1,697,989	332,262	273,675	605,937
	Escapement	4,021,375	1,221,900	5,243,275			
	Total	4,849,767	2,091,497	6,941,264			
1998	Catch	5,565,639	2,000,702	7,566,341	125,906	348,434	474,340
	Escapement	2,856,255	1,811,810	4,668,065			
	Total	8,421,894	3,812,512	12,234,406			
1999	Catch	6,902,382	1,510,422	8,412,804	20,302	10,237	30,539
	Escapement	3,363,080	1,652,230	5,015,310			
	Total	10,265,462	3,162,652	13,428,114			
2000	Catch	2,344,546	844,970	3,189,516	210,521	149,508	360,029
	Escapement	1,688,785	1,104,200	2,792,985			
	Total	4,033,331	1,949,170	5,982,501			
2001	Catch	2,745,508	1,227,298	3,972,806	31,812	7,439	39,251
	Escapement	2,040,120	925,016	2,965,136			
	Total	4,785,628	2,152,314	6,937,942			
2002	Catch	1,466,905	627,220	2,094,125	33,789	42,462	76,251
	Escapement	2,108,450	1,654,350	3,762,800			
	Total	3,575,355	2,281,570	5,856,925			
2003	Catch	2,969,134	1,071,240	4,040,374	90,161	127,739	217,900
	Escapement	3,674,120	1,837,100	5,511,220			
	Total	6,643,254	2,908,340	9,551,594			
2004	Catch	5,106,489	1,199,426	6,305,915	78,808	281,108	359,916
	Escapement	5,969,710	2,341,700	8,311,410			
	Total	11,076,199	3,541,126	14,617,325			
2005	Catch	5,642,820	2,118,418	7,761,238	403,815	1,251,144	1,654,959
	Escapement	4,271,270	1,894,364	6,165,634			
	Total	9,914,090	4,012,782	13,926,872			
2006	Catch	2,332,613	596,298	2,928,911	186,096	1,146,223	1,332,319
	Escapement	1,648,365	1,213,885	2,862,250			
	Total	3,980,978	1,810,183	5,791,161			
2007	Catch	5,175,086	235,935	5,411,021	57,032	210,496	267,528
	Escapement	1,805,873	874,340	2,680,213			
	Total	6,980,959	1,110,275	8,091,234			
2008	Catch	6,988,887	3,749,895	10,738,782	800,265	1,171,003	1,971,268
	Escapement	2,332,920	1,005,450	3,338,370			
	Total	9,321,807	4,755,345	14,077,152			
2009	Catch	3,733,217	1,939,317	5,672,534	946,823	1,301,732	2,248,555
	Escapement	1,669,900	1,397,100	3,067,000			
	Total	5,403,117	3,336,417	8,739,534			
2010	Catch	460,250	45,289	505,539	190,649	141,786	332,435
	Escapement	396,962	345,950	742,912			
	Total	857,212	391,239	1,248,451			

<sup>a</sup> Catch includes any salmon (usually very few) caught in Southeastern District Mainland in June which are considered local.

<sup>b</sup> Catch numbers do not include test fish and subsistence harvests.

Appendix A11.—South Alaska Peninsula chum salmon catch and escapement by year, 1962–2010.

		Post June Harvest			June Harvest		
		Southeastern <sup>a</sup>	Southwestern	South <sup>b</sup>			Total
		and	and	Peninsula	South	Shumagin	June
		South Central	Unimak	Totals	Unimak	Islands	Harvest
Year		Districts	Districts				
1962	Catch	409,500	155,300	564,800	199,000	61,000	260,000
	Escapement	238,600	160,800	399,400			
	Total	648,100	316,100	964,200			
1963	Catch	278,000	80,300	358,300	67,000	36,000	103,000
	Escapement	263,000	183,700	446,700			
	Total	541,000	264,000	805,000			
1964	Catch	378,800	153,300	532,100	153,000	67,000	220,000
	Escapement	160,800	294,000	454,800			
	Total	539,600	447,300	986,900			
1965	Catch	221,700	150,700	372,400	139,000	45,000	184,000
	Escapement	203,300	24,200	227,500			
	Total	425,000	174,900	599,900			
1966	Catch	221,400	36,000	257,400	220,000	17,000	237,000
	Escapement	354,800	67,200	422,000			
	Total	576,200	103,200	679,400			
1967	Catch	118,700	4,500	123,200	71,000	51,000	122,000
	Escapement	132,800	50,100	182,900			
	Total	251,500	54,600	306,100			
1968	Catch	121,400	47,600	169,000	105,000	51,000	156,000
	Escapement	191,700	87,400	279,100			
	Total	313,100	135,000	448,100			
1969	Catch	95,100	43,300	138,400	238,000	13,000	251,000
	Escapement	96,900	37,700	134,600			
	Total	192,000	81,000	273,000			
1970	Catch	486,183	65,254	551,437	391,568	44,909	436,477
	Escapement	171,700	108,800	280,500			
	Total	657,883	174,054	831,937			
1971	Catch	647,092	209,668	856,760	405,311	103,886	509,197
	Escapement	199,100	144,100	343,200			
	Total	846,192	353,768	1,199,960			
1972	Catch	151,283	61,721	213,004	411,000	107,810	518,810
	Escapement	145,000	109,500	254,500			
	Total	296,283	171,221	467,504			
1973	Catch	79,872	12,441	92,313	177,720	22,910	200,630
	Escapement	130,900	81,600	212,500			
	Total	210,772	94,041	304,813			
1974	Catch	56,509	15,317	71,826	0	0	0
	Escapement	169,800	87,500	257,300			
	Total	226,309	102,817	329,126			

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		Post June Harvest			June Harvest		
		Southeastern <sup>a</sup>	Southwestern	South <sup>b</sup>			Total
Year		South Central Districts	Unimak Districts	Peninsula Totals	South Unimak	Shumagin Islands	June Harvest
1975	Catch	29,419	509	29,928	65,279	35,543	100,822
	Escapement	160,200	33,100	193,300			
	Total	189,619	33,609	223,228			
1976	Catch	107,319	14,914	122,233	336,161	74,109	410,270
	Escapement	225,300	101,900	327,200			
	Total	332,619	116,814	449,433			
1977	Catch	109,541	17,630	127,171	94,097	21,899	115,996
	Escapement	500,900	274,000	774,900			
	Total	610,441	291,630	902,071			
1978	Catch	341,077	83,213	424,290	103,413	18,479	121,892
	Escapement	386,200	214,300	600,500			
	Total	727,277	297,513	1,024,790			
1979	Catch	280,401	98,426	378,827	63,150	40,953	104,103
	Escapement	302,700	108,400	411,100			
	Total	583,101	206,826	789,927			
1980	Catch	675,106	169,141	844,247	458,499	50,366	508,865
	Escapement	241,600	120,800	362,400			
	Total	916,706	289,941	1,206,647			
1981	Catch	964,530	239,998	1,204,528	509,876	54,071	563,947
	Escapement	234,500	146,800	381,300			
	Total	1,199,030	386,798	1,585,828			
1982	Catch	921,790	255,661	1,177,451	933,728	161,316	1,095,044
	Escapement	203,000	183,900	386,900			
	Total	1,124,790	439,561	1,564,351			
1983	Catch	597,295	321,145	918,440	616,354	169,277	785,631
	Escapement	328,900	117,600	446,500			
	Total	926,195	438,745	1,364,940			
1984	Catch	832,872	484,630	1,317,502	227,913	109,207	337,120
	Escapement	446,000	253,700	699,700			
	Total	1,278,872	738,330	2,017,202			
1985	Catch	539,065	375,832	914,897	324,825	109,004	433,829
	Escapement	284,700	218,800	503,500			
	Total	823,765	594,632	1,418,397			
1986	Catch	981,185	416,697	1,397,882	252,721	99,048	351,769
	Escapement	239,600	305,000	544,600			
	Total	1,220,785	721,697	1,942,482			

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		Post June Harvest			June Harvest		Total June Harvest
		Southeastern <sup>a</sup> and South Central Districts	Southwestern and Unimak Districts	South <sup>b</sup> Peninsula Totals	South Unimak	Shumagin Islands	
1987	Catch	753,246	179,500	932,746	405,955	37,064	443,019
	Escapement	329,200	291,500	620,700			
	Total	1,082,446	471,000	1,553,446			
1988	Catch	829,518	552,278	1,381,796	464,765	61,946	526,711
	Escapement	269,100	227,300	496,400			
	Total	1,098,618	779,578	1,878,196			
1989	Catch	420,667	117,662	538,329	407,635	47,528	455,163
	Escapement	189,200	121,300	310,500			
	Total	609,867	238,962	848,829			
1990	Catch	560,511	155,429	715,940	455,044	63,501	518,545
	Escapement	210,900	143,800	354,700			
	Total	771,411	299,229	1,070,640			
1991	Catch	563,373	237,695	801,068	670,103	102,602	772,705
	Escapement	345,400	242,200	587,600			
	Total	908,773	479,895	1,388,668			
1992	Catch	592,522	291,692	884,214	323,891	102,312	426,203
	Escapement	194,100	141,400	335,500			
	Total	786,622	433,092	1,219,714			
1993	Catch	330,757	183,403	514,160	381,941	150,306	532,247
	Escapement	172,400	224,630	397,030			
	Total	503,157	408,033	911,190			
1994	Catch	691,164	905,581	1,596,745	374,409	207,756	582,165
	Escapement	211,700	367,400	579,100			
	Total	902,864	1,272,981	2,175,845			
1995	Catch	666,344	511,290	1,177,634	342,307	195,126	537,433
	Escapement	324,750	401,650	726,400			
	Total	991,094	912,940	1,904,034			
1996	Catch	287,111	128,126	415,237	129,889	229,931	359,820
	Escapement	307,400	302,900	610,300			
	Total	594,511	431,026	1,025,537			
1997	Catch	101,370	182,559	283,929	196,016	126,309	322,325
	Escapement	542,050	267,000	809,050			
	Total	643,420	449,559	1,092,979			
1998	Catch	292,862	173,045	465,907	195,454	50,165	245,619
	Escapement	390,325	351,910	742,235			
	Total	683,187	524,955	1,208,142			
1999	Catch	396,431	175,229	571,660	186,886	58,420	245,306
	Escapement	336,050	389,130	725,180			
	Total	732,481	564,359	1,296,840			

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		Post June Harvest			June Harvest		Total June Harvest
		Southeastern <sup>a</sup> and South Central Districts	Southwestern and Unimak Districts	South <sup>b</sup> Peninsula Totals	South Unimak	Shumagin Islands	
2000	Catch	438,505	377,454	815,959	168,888	70,469	239,357
	Escapement	264,050	258,025	522,075			
	Total	702,555	635,479	1,338,034			
2001	Catch	441,437	432,199	873,636	36,099	12,251	48,350
	Escapement	473,800	277,421	751,221			
	Total	915,237	709,620	1,624,857			
2002	Catch	209,267	230,946	440,213	201,211	177,606	378,817
	Escapement	333,550	269,200	602,750			
	Total	542,817	500,146	1,042,963			
2003	Catch	125,741	229,126	354,867	121,169	161,269	282,438
	Escapement	297,810	193,230	491,040			
	Total	423,551	422,356	845,907			
2004	Catch	245,625	62,174	307,799	130,626	351,683	482,309
	Escapement	552,000	180,400	732,400			
	Total	797,625	242,574	1,040,199			
2005	Catch	226,172	85,458	311,630	143,610	284,031	427,641
	Escapement	648,200	322,110	970,310			
	Total	874,372	407,568	1,281,940			
2006	Catch	565,678	310,338	876,016	96,016	203,811	299,827
	Escapement	524,900	239,850	764,750			
	Total	1,090,578	550,188	1,640,766			
2007	Catch	394,959	214,999	609,958	153,334	144,205	297,539
	Escapement	327,451	399,210	726,661			
	Total	722,410	614,209	1,336,619			
2008	Catch	281,940	109,532	391,472	284,449	126,483	410,932
	Escapement	417,900	174,050	591,950			
	Total	699,840	283,582	983,422			
2009	Catch	448,952	538,856	987,808	200,783	495,992	696,775
	Escapement	125,100	387,130	512,230			
	Total	574,052	925,986	1,500,038			
2010	Catch	402,572	114,661	517,233	100,427	171,273	271,700
	Escapement	147,912	143,700	291,612			
	Total	550,484	258,361	808,845			

<sup>a</sup> Catch includes any salmon (usually very few) caught in the Southeastern District Mainland in June which are considered local.

<sup>b</sup> Catch numbers do not include test fish or subsistence harvests.

Appendix A12.—South Alaska Peninsula salmon catch and escapement by species and year, 1962–2010.

Year		Chinook <sup>a</sup>	Sockeye <sup>a</sup>	Coho <sup>a,b</sup>	Pink <sup>a</sup>	Chum <sup>a</sup>
1962	Catch	3,300	420,000	12,500	1,965,400	824,800
	Escapement	0	18,800	-	1,598,800	399,400
	Total	3,300	438,800	-	3,564,200	1,224,200
1963	Catch	1,900	204,400	16,500	2,367,700	461,300
	Escapement	0	23,000	-	1,317,900	446,700
	Total	1,900	227,400	-	3,685,600	908,000
1964	Catch	2,000	370,800	13,600	2,740,300	751,000
	Escapement	0	15,700	-	1,436,400	454,800
	Total	2,000	386,500	-	4,176,700	1,205,800
1965	Catch	2,100	915,700	34,200	2,884,100	556,400
	Escapement	0	12,100	-	1,035,400	228,000
	Total	2,100	927,800	-	3,919,500	784,400
1966	Catch	1,400	606,200	6,300	305,800	494,400
	Escapement	0	17,000	-	719,400	422,000
	Total	1,400	623,200	-	1,025,200	916,400
1967	Catch	1,600	294,100	2,900	78,300	245,200
	Escapement	0	16,200	-	445,500	182,900
	Total	1,600	310,300	-	523,800	428,100
1968	Catch	1,400	699,800	31,100	1,287,100	325,300
	Escapement	0	12,800	-	823,300	279,100
	Total	1,400	712,600	-	2,110,400	604,400
1969	Catch	1,900	912,800	10,900	1,219,100	389,200
	Escapement	0	29,500	-	2,474,900	134,600
	Total	1,900	942,300	-	3,694,000	523,800
1970	Catch	1,806	1,799,525	32,571	1,737,985	993,349
	Escapement	0	16,500	-	1,298,900	280,500
	Total	1,806	1,816,025	-	3,036,885	1,273,849
1971	Catch	2,174	716,087	16,907	1,445,031	1,365,957
	Escapement	0	19,400	-	702,700	343,200
	Total	2,174	735,487	-	2,147,731	1,709,157
1972	Catch	1,332	557,422	8,021	78,221	731,814
	Escapement	0	11,900	-	111,400	254,500
	Total	1,332	569,322	-	189,621	986,314
1973	Catch	415	330,091	6,599	58,051	292,943
	Escapement	0	7,300	-	110,800	212,500
	Total	415	337,391	-	168,851	505,443
1974	Catch	581	197,153	9,366	100,601	71,826
	Escapement	0	95,600	-	284,400	257,300
	Total	581	292,753	-	385,001	329,126
1975	Catch	117	243,548	67	60,642	130,750
	Escapement	0	51,700	-	552,100	193,300
	Total	117	295,248	-	612,742	324,050
1976	Catch	2,196	375,027	216	2,366,833	532,503
	Escapement	0	69,700	-	1,456,400	327,200
	Total	2,196	444,727	-	3,823,233	859,703

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Year		Chinook <sup>a</sup>	Sockeye <sup>a</sup>	Coho <sup>a,b</sup>	Pink <sup>a</sup>	Chum <sup>a</sup>
1977	Catch	559	311,722	2,108	1,448,648	243,167
	Escapement	0	64,900	-	2,677,800	774,900
	Total	559	376,622	-	4,126,448	1,018,067
1978	Catch	773	579,411	60,774	5,590,145	546,182
	Escapement	0	64,800	-	2,858,700	600,500
	Total	773	644,211	-	8,348,845	1,146,682
1979	Catch	2,141	1,149,927	356,867	6,564,914	482,930
	Escapement	0	53,300	-	2,629,500	411,100
	Total	2,141	1,203,227	-	9,194,414	894,030
1980	Catch	4,794	3,613,025	274,181	7,861,470	1,353,112
	Escapement	0	45,900	-	2,641,600	362,400
	Total	4,794	3,658,925	-	10,502,070	1,713,512
1981	Catch	11,182	2,241,513	162,223	5,033,028	1,768,475
	Escapement	0	45,700	-	2,307,500	381,300
	Total	11,182	2,287,213	-	7,340,528	2,149,775
1982	Catch	9,845	2,345,981	256,046	6,734,905	2,272,495
	Escapement	0	39,200	-	2,293,000	386,900
	Total	9,845	2,385,181	-	9,027,905	2,659,395
1983	Catch	26,571	2,556,557	127,657	2,827,622	1,704,072
	Escapement	0	59,200	-	851,200	446,500
	Total	26,571	2,615,757	-	3,678,822	2,150,572
1984	Catch	9,198	2,318,028	310,950	11,589,258	1,654,622
	Escapement	0	54,800	-	3,811,600	699,700
	Total	9,198	2,372,828	-	15,400,858	2,354,322
1985	Catch	6,642	2,144,416	172,514	4,431,016	1,348,726
	Escapement	0	49,900	-	1,614,100	503,400
	Total	6,642	2,194,316	-	6,045,116	1,852,126
1986	Catch	5,589	1,223,089	235,854	4,031,487	1,749,651
	Escapement	0	48,000	-	1,716,700	544,500
	Total	5,589	1,271,089	-	5,748,187	2,294,226
1987	Catch	9,174	1,449,753	225,120	1,208,556	1,376,887
	Escapement	0	44,600	-	1,540,500	620,700
	Total	9,174	1,494,353	-	2,749,056	1,997,587
1988	Catch	11,075	1,473,651	505,533	7,044,824	1,908,507
	Escapement	0	74,100	-	2,839,600	496,400
	Total	11,075	1,547,751	-	9,884,424	2,404,907
1989	Catch	7,065	2,660,800	443,843	7,292,658	994,231
	Escapement	0	78,100	-	1,870,900	310,500
	Total	7,065	2,738,900	-	9,163,558	1,304,731
1990	Catch	16,522	2,386,844	307,218	2,865,856	1,237,826
	Escapement	0	95,300	-	1,598,400	354,700
	Total	16,522	2,482,144	-	4,464,256	1,592,526
1991	Catch	7,975	2,319,942	317,129	10,616,756	1,588,795
	Escapement	0	124,900	-	2,946,800	587,600
	Total	7,975	2,444,842	-	13,563,556	2,176,395

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Year		Chinook <sup>a</sup>	Sockeye <sup>a</sup>	Coho <sup>a,b</sup>	Pink <sup>a</sup>	Chum <sup>a</sup>
1992	Catch	8,026	3,445,914	418,232	9,770,386	1,316,709
	Escapement	0	97,600	-	2,834,400	335,500
	Total	8,026	3,543,514	-	12,604,786	1,652,209
1993	Catch	14,413	3,689,074	220,148	9,928,107	1,048,257
	Escapement	0	100,341	-	2,990,140	397,030
	Total	14,413	3,789,415	-	12,918,247	1,445,287
1994	Catch	10,002	2,107,233	255,905	9,179,853	2,192,079
	Escapement	0	120,255	-	3,071,725	579,100
	Total	10,002	2,227,488	-	12,251,578	2,771,179
1995	Catch	17,078	2,996,353	260,686	16,302,593	1,715,067
	Escapement	0	129,110	-	6,406,300	726,400
	Total	17,078	3,125,463	-	22,708,893	2,441,467
1996	Catch	5,526	1,543,691	293,374	2,205,094	793,679
	Escapement	0	72,950	-	3,647,550	610,300
	Total	5,526	1,616,641	-	5,852,644	1,403,979
1997	Catch	7,780	2,281,566	116,136	2,321,371	627,996
	Escapement	0	104,440	-	5,143,275	809,050
	Total	7,780	2,386,006	-	7,464,646	1,437,046
1998	Catch	4,919	2,183,195	154,194	8,047,998	721,068
	Escapement	0	85,440	-	4,668,065	742,235
	Total	4,919	2,268,635	-	12,716,063	1,463,303
1999	Catch	5,074	2,991,819	192,503	8,456,449	840,030
	Escapement	0	96,800	-	5,015,310	725,180
	Total	5,074	3,088,619	-	13,471,759	1,565,210
2000	Catch	5,445	2,006,487	257,245	3,562,866	1,066,653
	Escapement	0	69,530	-	2,792,985	522,075
	Total	5,445	2,076,017	-	6,355,851	1,588,728
2001	Catch	2,620	614,080	214,252	4,021,382	933,014
	Escapement	0	161,630	-	2,965,136	751,221
	Total	2,620	775,710	-	6,986,518	1,684,235
2002	Catch	6,428	1,036,722	202,728	2,170,809	820,257
	Escapement	0	192,749	-	3,762,800	602,750
	Total	6,428	1,229,471	-	5,933,609	1,423,007
2003	Catch	2,874	1,055,218	132,374	4,262,920	639,772
	Escapement	0	198,192	-	5,511,220	491,040
	Total	2,874	1,253,410	-	9,774,140	1,130,812

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Year		Chinook <sup>a</sup>	Sockeye <sup>a</sup>	Coho <sup>a,b</sup>	Pink <sup>a</sup>	Chum <sup>a</sup>
2004	Catch	7,123	2,206,296	236,144	6,681,447	794,659
	Escapement	0	220,861	-	8,311,410	732,400
	Total	7,123	2,427,157	-	14,992,857	1,527,059
2005	Catch	4,554	2,338,294	145,754	9,423,314	741,600
	Escapement	0	123,964	-	6,165,634	970,310
	Total	4,554	2,462,258	-	15,588,948	1,711,910
2006	Catch	5,400	1,835,218	164,962	4,261,230	1,175,843
	Escapement	0	88,148	-	2,862,250	764,750
	Total	5,400	1,923,366	-	7,123,480	1,940,593
2007	Catch	5,312	2,438,672	150,955	7,299,330	679,787
	Escapement	0	69,013	-	2,680,213	726,661
	Total	5,312	2,507,685	-	9,979,543	1,406,448
2008	Catch	4,378	2,249,144	227,550	12,723,983	814,123
	Escapement	0	95,859	-	3,338,370	591,950
	Total	4,378	2,345,003	-	16,062,353	1,406,073
2009	Catch	5,875	1,724,516	248,563	7,921,089	1,684,583
	Escapement	0	128,117	-	3,067,000	512,230
	Total	5,875	1,852,633	-	10,988,089	2,196,813
2010	Catch	7,863	1,284,882	164,824	837,985	792,369
	Escapement	0	38,039	-	742,912	246,112
	Total	7,863	1,322,921	-	1,580,897	1,038,481

<sup>a</sup> Catch numbers include commercial and test fish harvests, but exclude subsistence harvests.

<sup>b</sup> Coho salmon escapement is not normally calculated due to the severe weather conditions in the fall, timing of coho in the area, and budgetary limitations.

Appendix A13.—South Alaska Peninsula commercial salmon harvest, all gear combined, by species and day, 2010.

Date	Permits	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	77	80	70	4,670	0	3	5,229	9,972
8-Jun	88	98	135	11,818	0	45	10,081	22,079
9-Jun	90	112	226	18,095	0	55	8,219	26,595
10-Jun	93	122	147	22,404	0	121	11,694	34,366
12-Jun	119	135	282	23,150	0	5,688	11,249	40,369
13-Jun	99	102	197	26,416	0	4,282	13,606	44,501
14-Jun	105	107	182	24,657	0	4,350	10,089	39,278
15-Jun	141	159	535	87,209	0	27,293	25,075	140,112
17-Jun	145	160	192	90,636	0	17,932	18,899	127,659
18-Jun	176	209	135	98,234	0	43,333	26,828	168,530
19-Jun	158	182	68	39,856	0	12,293	8,561	60,778
20-Jun	148	173	158	42,623	4	20,180	16,048	79,013
21-Jun <sup>b</sup>	1	2	0	230	0	0	11	241
22-Jun	100	117	79	53,256	0	25,007	10,659	89,001
23-Jun	97	124	110	64,120	1	20,833	10,683	95,747
24-Jun	85	119	185	105,835	3	55,804	27,071	188,898
25-Jun	95	113	213	55,839	2	31,149	32,938	120,141
27-Jun	64	82	92	36,528	4	23,370	13,349	73,343
28-Jun	59	80	47	18,229	1	11,705	5,238	35,220
29-Jun	75	98	85	35,098	15	29,003	9,609	73,810
2-Jul	26	40	6	9,370	46	2,185	964	12,571
3-Jul	29	53	3	7,494	51	1,181	921	9,650
4-Jul	22	36	1	6,073	0	5	302	6,381
5-Jul	7	21	4	3,687	82	828	496	5,097
6-Jul	83	112	371	51,871	3,972	21,370	26,702	104,286
7-Jul	29	64	3	10,522	43	33	1,194	11,795
8-Jul	26	28	3	11,047	303	948	1,352	13,653
9-Jul	47	54	130	24,051	2,098	7,447	8,606	42,332
10-Jul	29	59	9	19,700	27	257	3,618	23,611
11-Jul	23	45	0	8,681	8	529	1,241	10,459
12-Jul	83	113	440	49,041	22,025	28,274	41,635	141,415
13-Jul	6	9	0	1,217	5	28	272	1,522
14-Jul	16	31	1	4,769	14	190	853	5,827
15-Jul	87	129	412	28,606	10,739	20,811	36,832	97,400

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Date	Permits	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
16-Jul	12	13	1	1,105	1	41	199	1,347
17-Jul	23	32	0	4,341	119	392	1,853	6,705
18-Jul	93	122	701	29,933	18,595	33,656	48,496	131,381
20-Jul	23	27	0	4,772	204	618	12,512	18,106
21-Jul	88	128	1,045	38,874	22,562	45,456	47,470	155,407
22-Jul	30	41	165	8,047	582	4,342	14,075	27,211
23-Jul	55	79	57	9,888	2,941	5,515	26,334	44,735
24-Jul	102	140	606	25,737	29,070	50,235	59,967	165,615
27-Jul	58	83	31	9,748	2,843	9,841	12,948	35,411
28-Jul	89	92	145	14,903	13,848	56,362	46,497	131,755
30-Jul	38	42	2	4,061	1,285	4,402	5,514	15,264
31-Jul	101	133	234	21,783	17,764	105,683	74,520	219,984
4-Aug	25	36	155	3,320	2,337	16,541	8,543	30,896
5-Aug	58	80	195	8,971	11,119	88,369	33,168	141,822
14-Sep	7	11	0	998	414	0	32	1,444
15-Sep	8	12	2	689	390	0	43	1,124
16-Sep	7	9	0	848	385	0	21	1,254
21-Sep	6	6	3	634	174	0	16	827
22-Sep	8	8	0	854	670	0	37	1,561
23-Sep	4	4	0	344	78	0	0	422
Total	247	4,266	7,863	1,284,882	164,824	837,985	792,369	3,087,923

<sup>a</sup> Catch numbers include commercial and test fish harvests, but exclude personal use harvests.

<sup>b</sup> ADF&G test fishery.



Appendix A14.—South Alaska Peninsula commercial salmon harvest by species, statistical area, section, and district, 2010.

Statistical Area	Section	Number of Salmon					
		Chinook	Sockeye	Coho	Pink	Chum	Total
SOUTHEASTERN DISTRICT							
281-15	Kupreanof Point	549	2,759	880	3,957	5,301	13,446
281-25	Island/ Fox Bay	289	62,066	1,277	4,166	12,884	80,682
East Stepovak Section Total		838	64,825	2,157	8,123	18,185	94,128
281-30	Stepovak Flats Section	17	227	40	635	32,571	33,490
281-40	Grub Gulch/Clark Bay	1	16,676	7	109	1,229	18,022
281-50	Orzinski Bay	1	11,732	1	72	508	12,314
281-55	American Bay	1	8,590	6	73	803	9,473
281-62	Chichagof Bay	7	18,546	80	403	2,994	22,030
281-65	Suzy Creek/West Cove	0	10,422	13	81	1,197	11,713
281-67	Dorenoi Bay	0	4,611	18	35	380	5,044
Northwest Stepovak Section Total		10	70,577	125	773	7,111	78,596
281-70	Southwest Stepovak Section	12	27,578	1,364	4,055	6,808	39,817
281-80	Balboa Bay Section	10	13,157	821	1,036	10,275	25,299
281-90	Beaver Bay Section	0	30	0	0	15	45
282-10	Popof Strait/Squaw Harbor	71	16,246	1,258	10,854	8,969	37,398
282-11	Unga Cape/East Popof	3,891	295,483	83,075	352,909	304,502	1,039,860
282-20	Acheredin Bay	47	29,413	1,443	19,730	16,622	67,255
282-25	West Unga Island	88	46,603	4,271	73,107	30,160	154,229
282-30	Bay Point	1	4,439	0	126	222	4,788
282-32	Outer Zachary Bay	0	0	0	0	0	0
282-35	Zachary Bay	0	4,254	82	5,021	8,151	17,508
282-40	East Head/West Head	77	3,182	2,570	4,496	3,781	14,106
282-42	Korovin Island	487	74,021	13,786	40,524	44,585	173,403
282-45	Northeast Nagai Island	1	1,845	371	2,191	1,252	5,660
282-50	Koniuju Islands	0	57	0	0	0	57
282-65	Southeast Nagai Island	47	19,918	699	16,667	9,475	46,806
282-70	Southwest Nagai Island	89	11,023	2,082	19,009	9,910	42,113
282-75	Cape Horn/Porpoise Rocks	8	6,497	183	1,558	2,495	10,741
282-80	East Nagai Straits	38	16,301	23	4,933	12,601	33,896
Shumagin Islands Section Total		4,845	529,282	109,843	551,125	452,725	1,647,820
SOUTHEASTERN DISTRICT TOTAL		5,732	705,676	114,350	565,747	527,690	1,919,195
Percent of total South Peninsula salmon harvest							62%

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Statistical		Number of Salmon					
Area	Section	Chinook	Sockeye	Coho	Pink	Chum	Total
SOUTH CENTRAL DISTRICT							
283-15	Mino Creek	0	0	0	0	0	0
283-17	Little Coal Bay	39	3,341	31	10,685	3,291	17,387
Mino Cr. - Little Coal B. Section		39	3,341	31	10,685	3,291	17,387
283-20	Ukolnoi Island	0	0	0	0	0	0
283-21	Northside Cape Tolstoi	0	2,589	67	7,864	1,801	12,321
283-23	Eastside Pavlof Bay	1	2,614	70	6,087	19,197	27,969
East Pavlof Bay Section Total		1	5,203	137	13,951	20,998	40,290
283-24	Canoe Bay Section	0	1	0	11,124	21,231	32,356
283-25	Northwest Pavlof Bay	0	0	0	0	0	0
283-26	Long Beach/Ukolnoi	0	7,387	169	543	4,160	12,259
West Pavlof Bay Section Total		0	7,387	169	543	4,160	12,259
SOUTH CENTRAL DISTRICT TOTAL		40	15,932	337	36,303	49,680	102,292
Percent of total South Peninsula salmon harvest							3%
SOUTHWESTERN DISTRICT							
284-36	Volcano Bay	3	752	24	2,773	6,330	9,882
284-37	Northside Dolgoi Island	24	43,408	1,172	6,943	14,397	65,944
284-38	South Dolgoi/Moss Cape	0	9,178	143	1,488	2,177	12,986
284-39	Poperechnoi	2	2,970	2	3,240	1,029	7,243
Volcano Bay Section Total		29	56,308	1,341	14,444	23,933	96,055
284-42	Belkofski Bay	2	1,995	31	1,064	780	3,872
284-45	King Cove	0	5,295	195	2,977	4,268	12,735
284-47	General Section	0	6	0	15	57	78
Belkofski Bay Section Total		2	7,296	226	4,056	5,105	16,685
284-55	Deer Island Section	1	1,557	0	404	241	2,203
284-62	Outer Cold Bay	5	182	172	841	12,940	14,140
284-65	Lenard Harbor	0	0	0	0	0	0
284-67	Upper Cold Bay	0	702	0	4,228	11,125	16,055
Cold Bay Section Total		5	884	172	5,069	24,065	30,195

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Statistical Area	Section	Number of Salmon					Total
		Chinook	Sockeye	Coho	Pink	Chum	
<b>284-70</b>	<b>General Section</b>	<b>0</b>	<b>404</b>	<b>0</b>	<b>0</b>	<b>134</b>	<b>538</b>
<b>284-75</b>	<b>Thin Point Section</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>284-80</b>	<b>Morzhovoi Bay Section</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>284-90</b>	<b>Ikatan Bay Section</b>	<b>707</b>	<b>284,104</b>	<b>11,594</b>	<b>149,163</b>	<b>60,926</b>	<b>506,494</b>
<b>SOUTHWESTERN DISTRICT TOTAL</b>		<b>744</b>	<b>350,553</b>	<b>13,333</b>	<b>173,136</b>	<b>114,404</b>	<b>652,170</b>
Percent of total South Peninsula salmon harvest							21%
<b><i>UNIMAK DISTRICT</i></b>							
<b>285-10</b>	<b>Sanak Island Section</b>	<b>52</b>	<b>13,573</b>	<b>0</b>	<b>0</b>	<b>4,367</b>	<b>17,992</b>
285-20	Otter Cove	236	44,562	223	7,729	17,887	70,637
285-30	Cape Lazaref	177	33,011	26	11,084	18,928	63,226
<b>Otter Cove Section Total</b>		<b>413</b>	<b>77,573</b>	<b>249</b>	<b>18,813</b>	<b>36,815</b>	<b>133,863</b>
<b>285-40</b>	<b>Cape Lutke Section</b>	<b>882</b>	<b>121,575</b>	<b>36,555</b>	<b>43,986</b>	<b>59,413</b>	<b>262,411</b>
<b>UNIMAK DISTRICT TOTAL</b>		<b>1,347</b>	<b>212,721</b>	<b>36,804</b>	<b>62,799</b>	<b>100,595</b>	<b>414,266</b>
Percent of total South Peninsula salmon harvest							13%
<b>SOUTH PENINSULA TOTAL</b>		<b>7,863</b>	<b>1,284,882</b>	<b>164,824</b>	<b>837,985</b>	<b>792,369</b>	<b>3,087,923</b>

Appendix A15.—South Alaska Peninsula commercial salmon harvest by species, district, and gear, 2010.

	Number of Salmon						Percent of Harvest
	Chinook	Sockeye	Coho	Pink	Chum	Total	
<i><b>SOUTHEASTERN DISTRICT</b></i>							
Seine	5,438	406,244	104,803	516,817	450,100	1,483,402	77.3
Set gillnet	294	299,432	9,547	48,930	77,590	435,793	22.7
<b>Total</b>	<b>5,732</b>	<b>705,676</b>	<b>114,350</b>	<b>565,747</b>	<b>527,690</b>	<b>1,919,195</b>	<b>100.0</b>
<i><b>SOUTH CENTRAL DISTRICT</b></i>							
Seine	40	6,240	168	35,642	45,101	87,191	85.2
Set gillnet	0	9,692	169	661	4,579	15,101	14.8
<b>Total</b>	<b>40</b>	<b>15,932</b>	<b>337</b>	<b>36,303</b>	<b>49,680</b>	<b>102,292</b>	<b>100.0</b>
<i><b>SOUTHWESTERN DISTRICT</b></i>							
Seine	275	117,107	2,291	163,967	52,206	335,846	51.5
Drift gillnet	408	181,085	10,365	5,289	46,279	243,426	37.3
Set gillnet	61	52,361	677	3,880	15,919	72,898	11.2
<b>Total</b>	<b>744</b>	<b>350,553</b>	<b>13,333</b>	<b>173,136</b>	<b>114,404</b>	<b>652,170</b>	<b>100.0</b>
<i><b>UNIMAK DISTRICT</b></i>							
Seine	821	93,184	36,617	62,118	57,244	249,984	60.3
Drift gillnet	524	117,862	187	681	43,130	162,384	39.2
Set gillnet	2	1,675	0	0	221	1,898	0.5
<b>Total</b>	<b>1,347</b>	<b>212,721</b>	<b>36,804</b>	<b>62,799</b>	<b>100,595</b>	<b>414,266</b>	<b>100.0</b>
<i><b>SOUTH PENINSULA TOTAL</b></i>							
Seine	6,574	622,775	143,879	778,544	604,651	2,156,423	69.8
Drift gillnet	932	298,947	10,552	5,970	89,409	405,810	13.1
Set gillnet	357	363,160	10,393	53,471	98,309	525,690	17.0
<b>Total</b>	<b>7,863</b>	<b>1,284,882</b>	<b>164,824</b>	<b>837,985</b>	<b>792,369</b>	<b>3,087,923</b>	<b>100.0</b>

Appendix A16.–South Peninsula emergency order summary, 2010.

E.O.#	Issued	Effective	Action Taken
SP-01	9:30 PM 6/1/10	6:00 AM 6/7/10	<u>Allows</u> four 88-hour and one 64-hour fishing periods for the South Unimak and Shumagin Islands June fisheries.
SP-02	12:30 PM 6/07/10	12:00 PM 6/08/10	<u>Establishes</u> the waters of Reese Bay within 500 yards of the outlet stream terminus to McLees Lake closed to subsistence salmon fishing.
SP-03	6:30 PM 6/16/10	12:00 PM 6/18/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 12:00 PM Friday, June 18 until 12:00 PM Saturday, June 19 in the Southeastern District Mainland Section of the Southeastern District.
CB-01	10:00 AM 6/20/10	6:00 AM 6/22/10	<u>Allows</u> a 60-hour commercial salmon fishing period from 6:00 AM Tuesday, June 22 until 6:00 PM Thursday, June 24 in the Uria Bay Section of the Northwestern District. <u>Establishes</u> closed waters within 500 yards of the Christianson Lagoon exit channel terminus at the ocean shoreline.
SP-04	11:00 PM 6/21/10	2:00 PM 6/23/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 2:00 PM Wednesday, June 23 until 2:00 PM Friday, June 25 in the Southeastern District Mainland Section of the Southeastern District.
CB-02	10:30 AM 6/27/10	6:00 AM 6/28/10	<u>Allows</u> a 60-hour commercial salmon fishing period from 6:00 AM Monday, June 28 until 6:00 PM Wednesday, June 30 in the Uria Bay Section of the Northwestern District. <u>Establishes</u> closed waters within 500 yards of the Christianson Lagoon exit channel terminus at the ocean shoreline.
SP-05	11:00 AM 6/30/10	12:00 PM 7/1/10	<u>Allows</u> subsistence salmon fishing in the waters of Reese Bay to the outlet stream terminus to McLees Lake from 12:00 PM Thursday, July 1 until further notice.
SP-06	1:00 PM 6/30/10	12:00 PM 7/2/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Friday, July 2 until 12:00 PM Sunday, July 4 in the Northwest Stepovak Section of the Southeastern District.
SP-07	9:00 AM 7/4/10	12:00 PM 7/4/10	<u>Extends</u> the current commercial salmon fishing period for 48 hours from 12:00 PM Sunday, July 4 until 12:00 PM Tuesday, July 6 in Orzinski Bay. <u>Reduces</u> waters closed to commercial salmon fishing in Orzinski Bay to the stream mouth. <u>Allows</u> seine gear in Orzinski Bay, those waters of 160°04.25' W long.
CB-03	4:55 PM 7/4/10	12:01 AM 7/6/10	<u>Allows</u> a 21-hour commercial salmon fishing period from 12:01 AM Tuesday, July 6 until 9:00 PM Tuesday, July 6 in the Unimak and Southwestern districts.

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E.O.#	Issued	Effective	Action Taken
SP-08	11:30 AM 7/5/10	12:00 PM 7/6/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Tuesday, July 6 until 12:00 PM Thursday, July 8 in the Northwest Stepovak Section of the Southeastern District. <u>Extends</u> the current commercial salmon fishing period for 48 hours from 12:00 PM Tuesday, July 6 until 12:00 PM Thursday, July 8 in Orzinski Bay. <u>Reduces</u> waters closed to commercial salmon fishing in Orzinski Bay to the stream mouth. <u>Allows</u> seine gear in Orzinski Bay, those waters of 160°04.25' W long.
SP-09	1:30 PM 7/5/10	12:01 AM 7/6/10	<u>Allows</u> a 21-hour commercial salmon fishing period from 12:01 AM Tuesday, July 6 until 9:00 PM Tuesday, July 6 in the South Central District and the Shumagin Islands Section of the Southeastern District.
CB-04	4:55 PM 7/7/10	9:00 PM 7/8/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Thursday, July 8 until 9:00 PM Friday, July 9 in the Unimak and Southwestern districts.
SP-10	7:00 PM 7/7/10	9:00 PM 7/8/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Thursday, July 8 until 9:00 PM Tuesday July 9 in the South Central District and the Shumagin Islands Section of the Southeastern District.
SP-11	7:00 PM 7/7/10	12:00 PM 7/8/10	<u>Extends</u> the current commercial salmon fishing period for set gillnet gear only for 48 hours from 12:00 PM Tuesday, July 8 until 12:00 PM Thursday, July 10 in Orzinski Bay. <u>Reduces</u> waters closed to commercial salmon fishing in Orzinski Bay to the stream mouth.
SP-12	7:00 PM 7/7/10	12:01 AM 7/8/10	<u>Allows</u> a commercial salmon fishing period for approximately 48 hours from 12:01 AM Friday, July 9 until 11:59 PM Saturday, July 10 in the Beaver Bay, Balboa Bay, Southwest Stepovak, East Stepovak, and Stepovak Flats sections of the Southeastern district.
SP-13	4:30 PM 7/9/10	12:00 PM 7/10/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Saturday, July 10 until 12:00 PM Monday, July 12 in the Northwest Stepovak Section, including Orzinski Bay, of the Southeastern District.
CB-05	5:00 PM 7/10/10	9:00 PM 7/11/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Sunday, July 11 until 9:00 PM Monday, July 12 in the Unimak and Southwestern districts.
CB-06	5:00 PM 7/10/10	6:00 AM 7/12/10	<u>Allows</u> a 60-hour commercial salmon fishing period from 6:00 AM Monday, July 12 until 6:00 PM Wednesday, July 14 in the Uria Bay Section of the Northwestern District. <u>Reduces</u> waters within 500 yards of the Christianson Lagoon exit channel terminus at the ocean shoreline.

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E.O.#	Issued	Effective	Action Taken
SP-14	8:30 AM 7/11/10	9:00 AM 7/11/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Sunday, July 11 until 9:00 PM Monday, July 12 in the South Central District and the Shumagin Islands Section of the Southeastern District.
SP-15	8:30 AM 7/11/10	12:00 PM 7/12/10	<u>Extends</u> the current commercial salmon fishing period for 48-hours from 12:00 Monday, July 12 until 12:00 PM Wednesday, July 14 in the Orzinski Bay. <u>Reduces</u> waters closed to commercial salmon fishing in Orzinski Bay to the stream mouth.
CB-07	4:10 PM 7/13/10	9:00 PM 7/14/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Wednesday, July 14 until 9:00 PM Thursday, July 15 in the Unimak District and Southwestern District.
SP-16	5:00 AM 7/13/10	9:00 PM 7/14/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Wednesday, July 14 until 9:00 PM Thursday, July 15 in the South Central District and Shumagin Islands Section of the Southeastern District.
SP-17	5:00 PM 7/13/10	12:00 PM 7/14/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Wednesday, July 15 until 12:00 PM Friday, July 16 in the Northwest Stepovak Section of the Southeastern District. <u>Extends</u> the closed waters of Orzinski Bay to 1,000 yard closed water markers.
SP-18	9:00 AM 7/16/10	12:00 PM 7/17/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 12:00 PM Saturday, July 17 until 12:00 PM Sunday, July 18 in the Beaver Bay, Balboa Bay, Southwest Stepovak, East Stepovak, and Stepovak Flats sections of the Southeastern District.
SP-19	9:00 AM 7/16/10	9:00 PM 7/17/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Saturday, July 17 until 9:00 PM Sunday, July 18 in the South Central District and the Shumagin Islands Section of the Southeastern District.
CB-08	9:00 AM 7/17/10	9:00 PM 7/17/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Saturday, July 17 until 9:00 PM Sunday, July 18 in the Unimak and Southwestern districts.
SP-20	8:30 AM 7/19/10	12:00 PM 7/20/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Tuesday, July 20 until 12:00 PM Thursday, July 22 in the Beaver Bay, Balboa Bay, Southwest Stepovak, East Stepovak, and Stepovak Flats sections of the Southeastern District.
SP-21	8:30 AM 7/19/10	9:00 PM 7/20/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Tuesday, July 20 until 9:00 PM Wednesday, July 21 in the South Central District and the Shumagin Islands Section of the Southeastern District.

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E.O.#	Issued	Effective	Action Taken
CB-09	9:15 AM 7/19/10	9:00 PM 7/21/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Tuesday, July 20 until 9:00 PM Wednesday, July 21 in the Unimak and Southwestern districts.
CB-10	9:15 AM 7/19/10	9:00 PM 7/20/10	<u>Allows</u> a 24-hour commercial salmon fishing period from 9:00 PM Tuesday, July 20 until 9:00 PM Wednesday, July 21 in the Bechevin Bay Section of the Northwestern District.
SP-22	8:00 AM 7/22/10	12:00 PM 7/22/10	<u>Extends</u> the current commercial salmon fishing period for 24 hours from 12:00 PM Thursday, July 22 until 12:00 PM Friday, July 23 in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak sections of the Southeastern District.
SP-23	8:00 AM 7/22/10	12:00 PM 7/23/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:00 PM Friday, July 23 until 11:59 PM Saturday, July 24 in the South Central District and the Shumagin Islands section of the Southeastern District.
CB-11	10:30 AM 7/22/10	12:00 PM 7/23/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:00 PM Friday, July 23 until 11:59 PM Saturday, July 24 in the Unimak and Southwestern districts.
SP-24	9:00 AM 7/23/10	12:00 PM 7/23/10	<u>Extends</u> the current commercial salmon fishing period for 24 hours from 12:00 PM Friday, July 23 until 12:00 PM Saturday, July 24 in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak sections of the Southeastern District.
SP-25	8:30 AM 7/26/10	12:01 AM 7/27/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:01 AM Tuesday, July 27 until 12:00 PM Wednesday, July 28 in the South Central District and the Shumagin Islands Section of the Southeastern District.
CB-12	9:30 AM 7/26/10	12:01 AM 7/27/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:01 AM Tuesday, July 27 until 12:00 PM Wednesday, July 28 in the Unimak and Southwestern districts.
CB-13	9:30 AM 7/26/10	12:01 AM 7/27/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:01 AM Tuesday, July 27 until 12:00 PM Wednesday, July 28 in the Bechevin Bay Section of the Northwestern District.
SP-26	8:00 AM 7/29/10	12:00 PM 7/30/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:00 PM Friday, July 30 until 11:59 PM Saturday, July 31 in the South Central District and the Shumagin Islands Section of the Southeastern District.

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E.O.#	Issued	Effective	Action Taken
CB-14	8:45 AM 7/29/10	12:00 PM 7/30/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:00 PM Friday, July 30 until 11:59 PM Saturday, July 31 in the Unimak and Southwestern districts.
CB-15	8:45 AM 7/29/10	12:00 PM 7/30/10	<u>Allows</u> a commercial salmon fishing period for approximately 36 hours from 12:00 PM Friday, July 30 until 11:59 PM Saturday, July 31 in the Bechevin Bay Section of the Northwestern District.
SP-27	4:00 PM 8/2/10	8:00 AM 8/4/10	<u>Allows</u> a 37-hour commercial salmon fishing period from 8:00 AM Wednesday, August 4 until 9:00 PM Thursday, August 5 in the Shumagin Islands Section of the Southeastern District.
SP-28	4:00 PM 8/2/10	12:00 PM 8/4/10	<u>Allows</u> a 48-hour commercial salmon fishing period from 12:00 PM Wednesday, August 4 until 12:00 PM Friday, August 6 in the Aleutian Islands Area.
CB-16	1:00 PM 8/7/10	1:00 PM 8/7/10	<u>Closes</u> commercial salmon fishing in the Izembek-Moffet Bay, Dublin Bay, and Swanson Lagoon sections of the Northwestern District until further notice.
SP-29	11:00 AM 8/12/10	12:00 PM 8/13/10	<u>Allows</u> a 32-hour commercial salmon fishing period from 12:00 PM Friday, August 13 until 8:00 PM Saturday, August 14 in the Aleutian Islands Area.
CB-17	1:30 PM 9/12/10	9:00 AM 9/14/10	<u>Allows</u> a 59-hour commercial salmon fishing period from 9:00 AM Tuesday, September 14 until 8:00 PM Thursday, September 16 in the Beaver Bay, Balboa Bay, Southwest Stepovak, Northwest Stepovak, and East Stepovak sections of the Southeastern District. <u>Closes</u> commercial salmon fishing within the waters of the Northwest Stepovak Section of the Southeastern District (near Suzy Creek), the waters east of 160°19.00' W long (in Dorenoi Bay), west of the cape separating Chichagof Bay and West Cove (160°14.57' W long) and nor of 55°37.33' N lat.
CB-18	1:30 PM 9/12/10	9:00 AM 9/14/10	<u>Allows</u> a 59-hour commercial salmon fishing period from 9:00 AM Tuesday, September 14 until 8:00 PM Thursday, September 16 in the Shumagin Islands Section of the Southeastern District.

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E.O.#	Issued	Effective	Action Taken
CB-19	8:30 AM 9/20/10	9:00 AM 9/21/10	<p><u>Allows</u> a 59-hour commercial salmon fishing period from 9:00 AM Tuesday, September 21 until 8:00 PM Thursday, September 23 in the Beaver Bay, Balboa Bay, Southwest Stepovak, Northwest Stepovak, and East Stepovak sections of the Southeastern District.</p> <p><u>Closes</u> commercial salmon fishing within the waters of the Northwest Stepovak Section of the Southeastern District (near Suzy Creek), the waters east of 160° 19.00' W. long. (in Dorenoi Bay), west of the cape separating Chichagof Bay and West Cove (160°14.57' W long) and nor of 55 37.33' N lat.</p>
CB-20	8:30 AM 9/20/10	9:00 AM 9/21/10	<p><u>Allows</u> a 59-hour commercial salmon fishing period from 9:00 AM Tuesday, September 21 until 8:00 PM Thursday, September 23 in the Shumagin Islands Section of the Southeastern District</p>

**APPENDIX B. SOUTH UNIMAK AND SHUMAGIN  
ISLANDS JUNE FISHERIES**

Appendix B1.—South Unimak and Shumagin Islands June commercial sockeye and chum salmon harvest by year, 1911–2010.

Year	Sockeye <sup>a</sup>			Chum <sup>a,b</sup>		
	South Unimak	Shumagin Islands	Total	South Unimak	Shumagin Islands	Total
1911	58,000	3,000	61,000			
1912	144,000	31,000	175,000			
1913	415,000	0	415,000			
1914	610,000	0	610,000			
1915	251,000	0	251,000			
1916	539,000	0	539,000			
1917	1,322,000	34,000	1,356,000			
1918	733,000	44,000	777,000			
1919	545,000	32,000	577,000			
1920	954,000	60,000	1,014,000			
1921	831,000	0	831,000			
1922	2,775,000	550,000	3,325,000			
1923	1,340,000	343,000	1,683,000			
1924	971,000	237,000	1,208,000			
1925	357,000	374,000	731,000			
1926	1,898,000	491,000	2,389,000			
1927	455,000	185,000	640,000			
1928-1933 <sup>c</sup>						
1934	516,000	1,019,000	1,535,000			
1935	210,000	549,000	759,000			
1936	1,531,000	1,490,000	3,021,000			
1937	803,000	498,000	1,301,000			
1938	164,000	454,000	618,000			
1939	474,000	707,000	1,181,000			
1940	479,000	713,000	1,192,000			
1941	206,000	294,000	496,000			
1942	152,000	412,000	546,000			
1943	428,000	1,356,000	1,784,000			
1944	188,000	264,000	452,000			
1945	218,000	375,000	593,000			
1946	342,000	257,000	599,000			
1947	782,000	229,000	1,011,000			
1948	276,000	126,000	402,000			
1949	84,000	167,000	251,000			
1950	292,000	134,000	426,000			
1951	82,000	35,000	117,000			
1952	191,000	121,000	312,000			
1953	191,000	105,000	296,000			
1954	325,000	49,000	374,000			
1955	315,000	52,000	367,000			
1956	290,000	47,000	337,000			
1957	50,000	44,000	94,000			
1958	104,000	28,000	132,000			
1959	58,000	78,000	136,000			

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Year	Sockeye <sup>a</sup>			Chum <sup>a</sup>		
	South	Shumagin	Total	South	Shumagin	Total
	Unimak	Islands		Unimak	Islands	
1960	137,000	19,000	156,000	84,000	11,000	95,000
1961	199,000	55,000	254,000	157,000	36,000	193,000
1962	272,000	54,000	326,000	209,000	61,000	270,000
1963	116,000	33,000	149,000	36,000	36,000	72,000
1964	159,000	85,000	244,000	161,000	67,000	228,000
1965	568,000	207,000	775,000	121,000	45,000	166,000
1966	528,000	54,000	582,000	215,000	17,000	232,000
1967	186,000	69,000	255,000	73,000	51,000	124,000
1968	342,000	233,000	575,000	115,000	51,000	166,000
1969	781,000	76,000	857,000	254,000	13,000	267,000
1970	1,510,373	139,735	1,650,108	391,568	44,909	436,477
1971	422,760	39,341	462,101	405,311	103,886	509,197
1972	426,799	74,398	501,197	411,000	107,810	518,810
1973	222,124	22,964	245,088	177,720	22,910	200,630
1974 <sup>d</sup>						
1975	190,774	49,325	240,099	65,279	35,543	100,822
1976	231,568	72,016	303,584	336,161	74,109	410,270
1977	194,807	45,912	240,719	94,097	21,899	115,996
1978	418,935	67,876	486,811	103,413	18,479	121,892
1979	672,212	179,139	851,351	63,150	40,953	104,103
1980	2,731,148	475,127	3,206,275	458,499	50,366	508,865
1981	1,470,393	350,572	1,820,965	509,876	54,071	563,947
1982	1,668,153	450,548	2,118,701	933,728	161,316	1,095,044
1983	1,545,075	416,494	1,961,569	616,354	169,277	785,631
1984	1,131,365	256,838	1,388,203	227,913	109,207	337,120
1985	1,454,969	336,431	1,791,400	324,825	109,004	433,829
1986	315,370	156,027	471,397	252,721	99,048	351,769
1987	652,397	140,567	792,964	405,955	37,064	443,019
1988	474,457	282,230	756,687	464,765	61,946	526,711
1989	1,347,547	396,958	1,744,505	407,635	47,528	455,163
1990	1,088,944	255,585	1,344,529	455,044	63,501	518,545
1991	1,215,658	333,272	1,548,930	670,103	102,602	772,705
1992	2,046,022	411,834	2,457,856	323,891	102,312	426,203
1993	2,366,573	607,171	2,973,744	381,941	150,306	532,247
1994	1,001,250	460,013	1,461,263	374,409	207,756	582,165
1995	1,451,490	653,831	2,105,321	342,307	195,126	537,433
1996	572,495	456,475	1,028,970	129,889	229,931	359,820
1997	1,179,179	449,002	1,628,181	196,016	126,309	322,325
1998	974,628	314,097	1,288,725	195,454	50,165	245,619
1999	1,106,208	269,191	1,375,399	186,886	58,420	245,306
2000	892,016	359,212	1,251,228	168,888	70,469	239,357
2001	121,547	29,085	150,632	36,099	12,251	48,350
2002	356,157	234,949	591,106	201,211	177,606	378,817

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Year	Sockeye <sup>a</sup>			Chum <sup>a</sup>		
	South Unimak	Shumagin Islands	Total	South Unimak	Shumagin Islands	Total
2003	335,903	117,244	453,147	121,169	161,269	282,438
2004	531,955	816,118	1,348,073	130,626	351,683	482,309
2005	437,443	566,952	1,004,395	143,799	284,031	427,830
2006	491,053	441,238	932,291	96,016	203,811	299,827
2007	737,642	852,198	1,589,840	153,334	144,205	297,539
2008	1,064,570	649,005	1,713,575	284,449	126,483	410,932
2009	595,221	572,697	1,167,918	200,783	495,992	696,775
2010	487,880	330,985	818,865	100,427	171,273	271,700
1990–2009 Average	928,298	442,458	1,370,756	239,616	165,711	405,327
2000–2009 Average	556,351	463,870	1,020,221	153,637	202,780	356,417

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Chum salmon harvest data from 1911–1959 are unavailable.

<sup>c</sup> Harvest data from 1928–1933 are unavailable.

<sup>d</sup> The South Unimak and Shumagin Islands fisheries were closed in 1974 due to an anticipated weak Bristol Bay run.

Prior to 1973, fishing time was liberal and was not based on the strength of the forecasted Bristol Bay sockeye salmon run (Shaul 2000). During the late 1960s and early 1970s, controversy arose between Alaska Peninsula-Aleutians Islands and Bristol Bay fishermen concerning the South Unimak and Shumagin Islands June fisheries.

Beginning in 1975, the BOF established guideline harvest levels (GHLs) based on average historic catches. The GHL for the Shumagin Islands was 1.5% of the latest inshore Bristol Bay projected sockeye salmon harvest, while the South Unimak fishery was allocated 6.8% of the Bristol Bay inshore projected sockeye salmon harvest. The total GHLs for each fishery were further broken down into four time period GHLs, to distribute the catches throughout the month of June (Shaul 2000).

Although chum salmon have always been caught during the June fisheries, the unusually large chum salmon catches in 1982 and 1983 caused concern by fishermen in the Arctic-Yukon-Kuskokwim (AYK) Region (Appendices B4–B6). Beginning with the 1984 season, the BOF placed a limit on fishing time, not to exceed 96 hours per week and not more than 72 consecutive hours in order to allow "escapement windows". The purpose of the "windows" was to limit the chum salmon harvest. Due to the high sockeye salmon catch rate (and low chum to sockeye catch ratios) during 1984 and 1985, these restrictions were not implemented because the GHLs were easily met (Shaul 2000).

In 1986, the BOF placed a 400,000 chum salmon catch ceiling on both fisheries combined, eliminated fishing during the first 10 days of June, and eliminated fishing during the last GHL time period, June 26–30 (along with the sockeye salmon allocation for that period). These restrictions applied to the 1986 season only. Additional restrictions during 1986 were the primary reasons for less than half of the combined South Unimak-Shumagin Islands sockeye salmon allocation being harvested in that year (Poetter 2007).

The regulations for the 1987 season were the same as those used in 1985. However, during 1988 and 1989 the BOF placed an annual 500,000 chum salmon catch ceiling on both fisheries combined.

In 1988, the abundance of chum salmon was about equal to sockeye salmon at South Unimak. This resulted in less than 40% of the South Unimak sockeye allocation being harvested before the chum salmon ceiling was reached. Sockeye salmon abundance seemed higher in the Shumagin Islands and that fishery was able to harvest its allocation (Poetter 2007).

In 1989, sockeye salmon abundance was very high and sockeye salmon allocations were exceeded with relatively little fishing time (Appendix B7). The Shumagin Islands sockeye salmon catch was 396,958 with an allocation of 264,000, while 1,347,547 sockeye salmon were harvested at South Unimak with an allocation of 1,199,000 fish (Poetter 2007; Appendix B1). A total of only 72 hours fishing time was allowed in the Shumagin Islands during four days (Appendix B7). At South Unimak, 84 hours of fishing time was allowed with openings occurring during five separate days. The 1989 chum salmon catch was 47,528 in the Shumagin Islands and 407,635 at South Unimak for a total of 455,163 fish (Appendix B1).

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The ratio of sockeye to chum salmon was low during the early part of the fishery and became unusually high towards the end (Shaul et al. 1990).

After the 1989 season, the BOF made the following changes in regards to the South Unimak and Shumagin Islands June fisheries:

- (1) The starting date of the fishery was delayed until June 13 because the sockeye salmon to chum salmon ratio is normally lower during early June.
- (2) The chum salmon ceiling for both fisheries combined was raised from 500,000 to 600,000.
- (3) The "window regulations" were eliminated as there did not seem to be a need for both a chum salmon ceiling and windows.
- (4) The sockeye salmon allocation periods and allocations were changed. The percent of the total allocation by period were the same for each fishery.

<u>Period</u>	<u>Allocation</u>
June 13–18	35%
June 19–25	45%
<u>June 26–30</u>	<u>20%</u>
<u>Total</u>	<u>100%</u>

If catches in either fishery fell below the guidelines in the June 13–18 period, those unharvested sockeye salmon, up to a maximum of 5% of the total allocation for that fishery, could be harvested during the June 19–25 period. The June 26–30 period could not be used to make up for under-harvest during the first two periods. A 1987 salmon tagging study showed that sockeye salmon stock composition between the first two periods was very similar; however, the June 26–30 stock composition at South Unimak-Shumagin Islands could be predominated by fewer and later stocks (Eggers et al. 1991).

- (5) Unlimited seine leads were eliminated at South Unimak and leads of no more than 150 fathoms were determined to be the only legal lengths for the entire Alaska Peninsula.
- (6) For the first time, maximum depth restrictions were placed on seine and gillnet gear. For the entire Alaska Peninsula Area seine gear could not exceed 375 meshes in depth. Seine mesh size could not exceed 3-1/2 inches except the first 25 meshes above the lead line could not be more than 7 inches (5 AAC 09.332)(a). No gillnet gear used along the South Peninsula could exceed 90 meshes in depth (5 AAC 09.331)(b)(1)(C).

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- (7) The area comprising the South Unimak fishery was expanded to include the following portions of Southwestern District located outside the Ikatan Bay Section:
  - (a) all waters north and west of a line from Cape Pankof Light to Thin Point.
  - (b) all waters enclosed by a line from Thin Point to Stag Point on Deer Island to Dolgoi Cape and from Bluff Point on Dolgoi Island to Arch Point.

In 1990, sockeye salmon were not available in large numbers in the Shumagin Islands or at South Unimak despite the fact that Bristol Bay experienced one of its largest runs on record (Shaul et al. 1991). If the Bristol Bay run had been forecasted correctly the sockeye salmon GHL for the Shumagin Islands and South Unimak would have been 497,000 and 2,255,000 respectively (Shaul et al. 1991). Windy weather plagued fishing operations but fish abundance also seemed low, especially in view of the huge run that arrived in Bristol Bay.

Harvesting the total sockeye salmon allocations in the South Unimak and Shumagin Islands June fisheries with a chum salmon cap in place was often difficult and sometimes impossible, especially when sockeye salmon allocations were large. At the fall 1991 BOF meeting, the chum salmon cap was changed to 40% of the combined South Unimak and Shumagin Islands sockeye salmon allocation, not to exceed 900,000 fish (Shaul 2000). This change generated much controversy from fishermen in the AYK Region because the chum salmon cap was likely to be 900,000 fish in 1992–1994, based on initial long range Bristol Bay sockeye salmon projections. The BOF addressed the chum salmon cap issue again at their spring 1992 meeting and changed the cap to 700,000 chum salmon, regardless of the sockeye salmon allocation. The BOF also stipulated that unless the chum salmon cap was in danger of being exceeded, set gillnet fishing periods would not be less than 16 hours even if it was necessary to restrict seine and drift gillnet gear periods to less than 16 hours due to chum salmon conservation (Appendix B22). This was due to set gillnet gear selectivity favoring sockeye salmon. Regardless of gear selectivity, the BOF directed the ADF&G to manage the fishery so that the cap would not be exceeded.

In 1992, the respective sockeye salmon allocations were 1,959,000 and 432,000 fish for the South Unimak and Shumagin Islands fisheries (Poetter 2007). The fishery was delayed until June 15 because of the high number of chum salmon caught in the Shumagin Islands test fishery. From June 15 until the end of the fishery on June 26, sockeye to chum salmon ratios were very high (Poetter 2007). A total of 2,046,022 sockeye salmon were harvested at South Unimak while the Shumagin Islands harvest was 411,834 fish (Appendix B1). The chum salmon harvest from both fisheries combined was 426,203 fish.

In 1993, South Unimak and Shumagin Islands sockeye salmon allocations were 2,375,000 and 524,000 fish, respectively (Poetter 2007). Test fishing in the Shumagin Islands during June 7–11 indicated sockeye to chum salmon ratios greater than 2.0. Consequently, fishing began on June 13, the earliest date allowed by the *South Unimak and Shumagin Islands June Management Plan*.

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In 1993, AYK chum salmon stocks were at low levels resulting in very little commercial fishing targeting chum salmon (Francisco et al. 1994). Subsistence fishing for AYK chum salmon was not allowed in some locations. Consequently, during 1993 and 1994, the BOF conducted two out of cycle meetings devoted to the South Unimak-Shumagin Islands June fishery. The first meeting was non-regulatory but resulted in the second meeting in which regulatory changes were made.

During its spring 1994 meeting, the BOF allowed the ADF&G to open the South Unimak-Shumagin Islands fisheries prior to June 13 if sockeye to chum salmon ratios were greater than 2:1, and eliminated the time period allocations. Elimination of time period allocations would have resulted in a substantially lower harvest of chum salmon in 1993 (McCullough and Pengilly 1994).

The 1994 sockeye salmon allocations were a record high, totaling 2,938,000 fish at South Unimak and 648,000 fish in the Shumagin Islands (Poetter 2007). Test fishing in the Shumagin Islands indicated that sockeye to chum salmon ratios were low and no fishing was allowed in the Shumagin Islands until June 18. Test fishing indicated that sockeye to chum salmon ratios at South Unimak on June 15 and 16 were greater than 2:1 in the Shumagin Islands and fishing started on June 17.

The 1994 fishery was characterized by low catch rates of sockeye and chum salmon but record June pink salmon catches (Appendix B4). Sockeye to chum ratios were slightly better than two to one during most of the fishery and were lower at the end of June (Poetter 2007). Total sockeye salmon harvest was very disappointing to industry in the Alaska Peninsula Area. At South Unimak, 1,001,250 sockeye salmon (34% of allocation) were harvested. In the Shumagin Islands 460,013 sockeye salmon (71% of allocation) were harvested. The combined chum salmon catch was 582,165 fish (Appendix B1).

The 1994 Bristol Bay sockeye salmon run was below forecast but still a very strong run and produced an inshore harvest of over 35 million fish. However, sockeye salmon were not available in large numbers in the South Unimak and Shumagin Islands fisheries. Fishermen reported a drastic change in currents and colder inshore water temperatures, which they believe may have affected the migratory pattern of sockeye salmon.

Large numbers of chum salmon were reported to be in the South Unimak fishery throughout June but fishermen avoided areas with high chum salmon concentrations. These tactics apparently not only decreased the chum salmon catch but reduced the fleets' ability to harvest sockeye salmon because the two species were reported to be traveling together in large numbers at some locations.

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Following the 1994 season, the BOF implemented the following changes to the management plan.

1. June fishery cannot begin prior to June 11.
2. After June 24, in either the South Unimak or Shumagin Islands fisheries, if the sockeye salmon guideline harvest level and the maximum allowable harvest of chum salmon have not been attained, and if the ratio of sockeye to chum salmon is two to one or less on any day, the next daily fishing period for seine and drift gillnet gear shall be of six hour duration in that fishery. After June 24, the South Unimak or Shumagin Islands fishery shall close for all gear types if the ratio of sockeye to chum salmon is two to one or less for any three aggregate days.
3. The BOF stated its intent that keeping the chum salmon harvest below the cap supersedes any attempt to reach the sockeye salmon GHLS.
4. The BOF eliminated minimum mesh size requirements for gillnets during the June fisheries.

In 1995, the sockeye salmon GHL was 2,987,000 fish allocated to South Unimak and 659,000 fish to Shumagin Islands for a total of 3,646,000 fish (Poetter 2007). Test fishing in the Shumagin Islands and at South Unimak indicated that sockeye to chum salmon ratios were slightly higher than in 1994. Consequently both fisheries opened on June 13. However, the sockeye salmon harvest rates were again low. Virtually continuous fishing was allowed in both fisheries, through June 30 at South Unimak, and through June 29 in the Shumagin Islands where the sockeye salmon allocation was achieved. The 1995 South Unimak harvest was 1,451,490 sockeye salmon and 342,307 chum salmon; the fishery was about 1,536,000 fish under the sockeye salmon GHL (Appendix B1). Shumagin Islands catch totaled 653,831 sockeye and 195,126 chum salmon and was only 5,000 fish under the sockeye salmon GHL. The combined harvest of both fisheries was 2,105,321 sockeye and 537,433 chum salmon, which was 1,541,000 sockeye salmon less than the GHL (Poetter 2007) and about 163,000 chum salmon less than the 700,000 cap. The combined sockeye salmon GHL was not achieved because sockeye salmon were not available in large numbers at South Unimak. The actual Bristol Bay sockeye salmon harvest was slightly larger than the forecast.

The 1996 South Unimak sockeye salmon GHL was 2,564,000 fish while that of the Shumagin Islands was 566,000 fish (Poetter 2007). Based on test fishing results, the South Unimak fishery did not begin until June 15 and the Shumagin Islands did not open until June 18. The purpose of test fishing was to determine the sockeye to chum salmon ratio as an indication of when the sockeye salmon harvest could be maximized without reaching the chum salmon cap. Salmon harvest rates were extremely low in both South Unimak and Shumagin Islands fisheries and almost continuous fishing was allowed. At South Unimak, despite continuous fishing from June 18 through June 30, only 572,495 sockeye salmon (23.3% of the allocation) were harvested (Appendix B1). In the Shumagin Islands 456,475 sockeye salmon were caught, bringing the combined South Unimak-Shumagin Islands sockeye salmon harvest to 1,028,970 (33% of the allocation). A total of 359,820 chum salmon were harvested (129,889 at South Unimak and 229,931 in the Shumagin Islands), about 340,000 fish below the 700,000 cap (Appendix B1).

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In 1997, the South Unimak fishery opened on June 13. Because of a price dispute, fishing effort ranged from 58 to 97 drift gillnet permit holders from June 13 through 17 (Poetter 2007). The dispute was settled on June 18, and continuous fishing was allowed through June 30. The sockeye salmon harvest was 1,179,179 fish, 36% below the 1,840,000 GHL (Poetter 2007). The 1997 Shumagin Islands fishery opened on June 19 and fishing was allowed daily until June 26 when the sockeye salmon GHL of 406,000 was exceeded (Poetter 2007). Shumagin Islands harvest was 449,002 sockeye salmon. A total of 322,325 chum salmon were harvested (196,016 at South Unimak and 126,309 in the Shumagin Islands), 377,675 fish below the 700,000 cap (Appendix B1).

After the 1997 season, the BOF lowered the chum salmon cap from 700,000 fish to a “floating cap” that could range from 350,000 to 650,000 depending on the projected strength of harvests of summer chum salmon in AYK Area in relation to the 1970–1997 average. If the projected AYK chum salmon harvest was less than 33% of the average catches, the South Peninsula cap would be 350,000 to 450,000 fish. If the projected AYK summer run chum salmon harvest was between 33% and 67% of the 1970–1997 average, the South Peninsula cap would be between 450,001 and 550,000 chum salmon. If the AYK summer chum salmon harvest exceeded 67% of the 1970–1997 average, the South Peninsula chum salmon cap would be 550,001 to 650,000 fish. If the ADF&G identified a summer chum salmon stock of concern, the upper end of the cap would be reduced by 50,000 fish. The earliest opening date was changed from June 11 to June 10. In the Unimak District, the shoreward end of a set gillnet had to be within one half mile of shore. All salmon caught had to be retained and reported. The use of aircraft to locate salmon was prohibited for the entire Alaska Peninsula Area for the entire season.

In 1998, the South Unimak and Shumagin Islands fisheries both opened to commercial salmon fishing on June 13. However, the entire seine fleet and approximately 80% of the set gillnet fleet did not fish because of a dispute over salmon prices. The drift gillnet fleet at South Unimak started fishing on June 13. As the fishery progressed more set gillnet permit holders participated and on June 17 the purse seine fleet and the balance of the set gillnet fleet went fishing. The 1998 sockeye salmon harvest rates were low in both South Unimak and Shumagin Islands fisheries. Despite continuous fishing from June 13 through June 30, only 974,628 sockeye (63.7% of the allocation) and 195,454 chum salmon were harvested at South Unimak. A total of 314,097 sockeye salmon (93.5% of the allocation) and 50,165 chum salmon were harvested in Shumagin Islands (Appendix B1).

In 1999, the South Unimak fishery was opened for 16 hours on June 11, reopened on June 13 and was repeatedly extended until June 21 when the sockeye salmon GHL was reached. The Shumagin Islands fishery opened on June 13 and was repeatedly extended until June 18 when the GHL was reached (Shaul 2000). The 1999 sockeye salmon daily harvest rates were higher than in the past three years in both South Unimak and Shumagin Islands fisheries. After nearly continuous fishing from June 11 through June 21, 1,106,208 sockeye (8.0% over the allocation) and 186,886 chum salmon were harvested at South Unimak (Appendix B1). A total of 269,191 sockeye (19.1% over the allocation) and 58,420 chum salmon were harvested in the 1999 Shumagin Islands fishery.

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Based on the Bristol Bay forecast, the respective 2000 June GHGs were 1,650,000 and 363,000 sockeye salmon for South Unimak and Shumagin Islands fisheries (Poetter 2007). Test fishing results in the Shumagin Islands indicated that a fishing period could be allowed on June 11. However, no commercial fishing occurred during June 11 and 12 because of a price dispute between fishermen and processors and test fishing continued (Shaul 2000). The South Unimak test fish sockeye to chum salmon ratio was less than the two to one needed to justify a fishery on June 11. After the announced Shumagin Islands opening for June 11, all three of the South Unimak test fish boats quit test fishing and departed for the Shumagin Islands commercial fishery. A price settlement was reached on June 13 and commercial fishing began. During June 13, sockeye to chum salmon ratios were high and both fisheries were repeatedly extended. The South Unimak fishery remained open through June 30. Shumagin Islands closed on June 18 when it was estimated that the sockeye salmon GHG would be reached. The 2000 South Unimak harvest was 892,016 sockeye salmon (54.1% of the GHG) and 168,888 chum salmon (Appendix B1). The Shumagin Islands harvest was 359,212 sockeye salmon (99.0% of the allocation) and 70,469 chum salmon. The combined South Unimak-Shumagin Islands chum salmon harvest in 2000 was 239,357 fish, well below the chum salmon GHG of 350,000 to 400,000 (Shaul 2000).

The fishing power of the fleet participating in the South Unimak and Shumagin Islands June fishery, appeared to be substantially lower for all species during recent years (2001–2009) than it was during the 1980s due to the following factors:

1. The gear depth restrictions implemented in 1990.
2. Because Cape Lutke is no longer as productive an area for the purse seine and drift gillnet fleets and the prices paid for salmon were low. The purse seine fleet is substantially smaller than the 1982–1996 fleet (Appendix B23).
3. Because of low salmon prices, the drift gillnet fleet decreased from 157 permit holders in 1991 to about 85 permit holders participating in 2006 (Appendix B23).
4. Salmon may have changed their migration routes and/or timing because of oceanographic or climatic factors, and may not be as abundant in areas where the June fisheries occur.

From 1990 through 2003, drift gillnet permit holders generally had higher sockeye to chum salmon ratios than seine permit holders in South Unimak. Prior to 1990, the seine fleet had higher ratios than the drift gillnet fleet (Appendix B22).

There have been substantial shifts in the percentage of catches taken by various gear types over the years (Appendix B17). The amount of set gillnet gear and percentages of the harvests taken by set gillnets have increased since the 1970s in both fisheries. Drift gillnet gear dominated the South Unimak catches during the 1970s. Purse seiners dominated the South Unimak harvests during most years between 1979 and 1994. Since 1995, drift gillnetters have again dominated the South Unimak fishery.

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At the 2001 BOF meeting, major changes were made to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365). These changes included the following:

1. Elimination of the sockeye salmon guideline harvest levels;
2. Elimination of the chum salmon guideline harvest levels;
3. Limiting fishing time to no more than 16 hours per day by any gear group;
4. Limiting total fishing time by seine and drift gillnet gear to no more than 48 hours in a floating seven-day period with no more than two 16-hour periods on consecutive days in any seven-day period;
5. From June 10 through June 24 in the South Unimak and/or Shumagin Islands fisheries, set gillnet gear may fish on consecutive days for 16-hour periods as long as the set gillnet sockeye to chum salmon ratios in that fishery are equal to or greater than the recent 10-year average for that fishery. If the set gillnet sockeye to chum salmon ratio falls below the recent 10-year average in either fishery, that fishery will be closed for one period. From June 10 through June 24, daily fishing periods for set gillnet gear will be from 6:00 AM until 10:00 PM;
6. Purse seine and drift gillnet fishing periods through June 24 will occur at the same time in the South Unimak and Shumagin Islands fisheries; and
7. After June 24, in either the South Unimak or Shumagin Islands fishery, if the ratio of sockeye to chum salmon by all gear combined is less than 2.0 on any day, the next fishing period shall be of six hours duration for all gear in that fishery. If the sockeye to chum salmon ratio is 2.0 or greater, a six hour fishing period can be extended to a maximum of 16 hours. The South Unimak or Shumagin Islands fishery shall close for all gear groups if the ratio of sockeye to chum salmon is less than 2.0 for two consecutive fishing periods.

During its 2004 BOF meeting, the BOF agreed that actions restricting the June fishery taken during the 2001 BOF cycle were unnecessary and caused undue hardship on the fishermen of the Area M. Changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) were adopted. These changes included the following:

1. Fishery to begin at 6:00 AM on June 7;
2. Fishing periods are 88-hours in length separated by 32-hour closures. The fishery closes at 10:00 PM. on June 29. The last fishing period is 64-hours in duration;
3. Concurrent fishing time for all gear types;
4. Area open to fishing expanded to include the entire Unimak and Southwestern districts, East and West Pavlof Bay, Bechevin Bay and Shumagin Islands sections; and;
5. Eliminated all sockeye to chum salmon harvest ratio requirements.

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In February 2007, the BOF made modifications to the *June Fishery Management Plan* including:

1. Changing the description of the Sanak Island Section;
  2. Expanding the use of drift gillnets to the following portion of the Southwestern District; south and east of a line from Cape Pankof Light (54°39.60' N lat, 163°03.70' W long) to Thin Point (54°57.32' N lat, 162°33.50' W long); south of a line from Thin Point (54°57.32' N lat, 162°33.50' W long) to the northernmost tip of Stag Point (54°59.10' N lat, 162°18.10' W long) on Deer Island to the southernmost tip of Dolgoi Cape (55°03.15' N lat, 161°44.35' W long) on Dolgoi Island and south of the latitude of the northeastern tip of Dolgoi Island (55°07.50' N lat, 161°38.30' W long) (Appendix B3);
  3. Allowing the use of salmon net pens; and
  4. Allowing two Commercial Fisheries Entry Commission (CFEC) set gillnet permit holders aboard a registered set gillnet fishing vessel, to tow a second registered CFEC set gillnet vessel that has a second aggregate of set gillnet gear onboard.
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Appendix B3.–South Unimak and Shumagin Islands June fisheries, number of fishing days and hours open to commercial fishing by year and gear, 1975–2010.

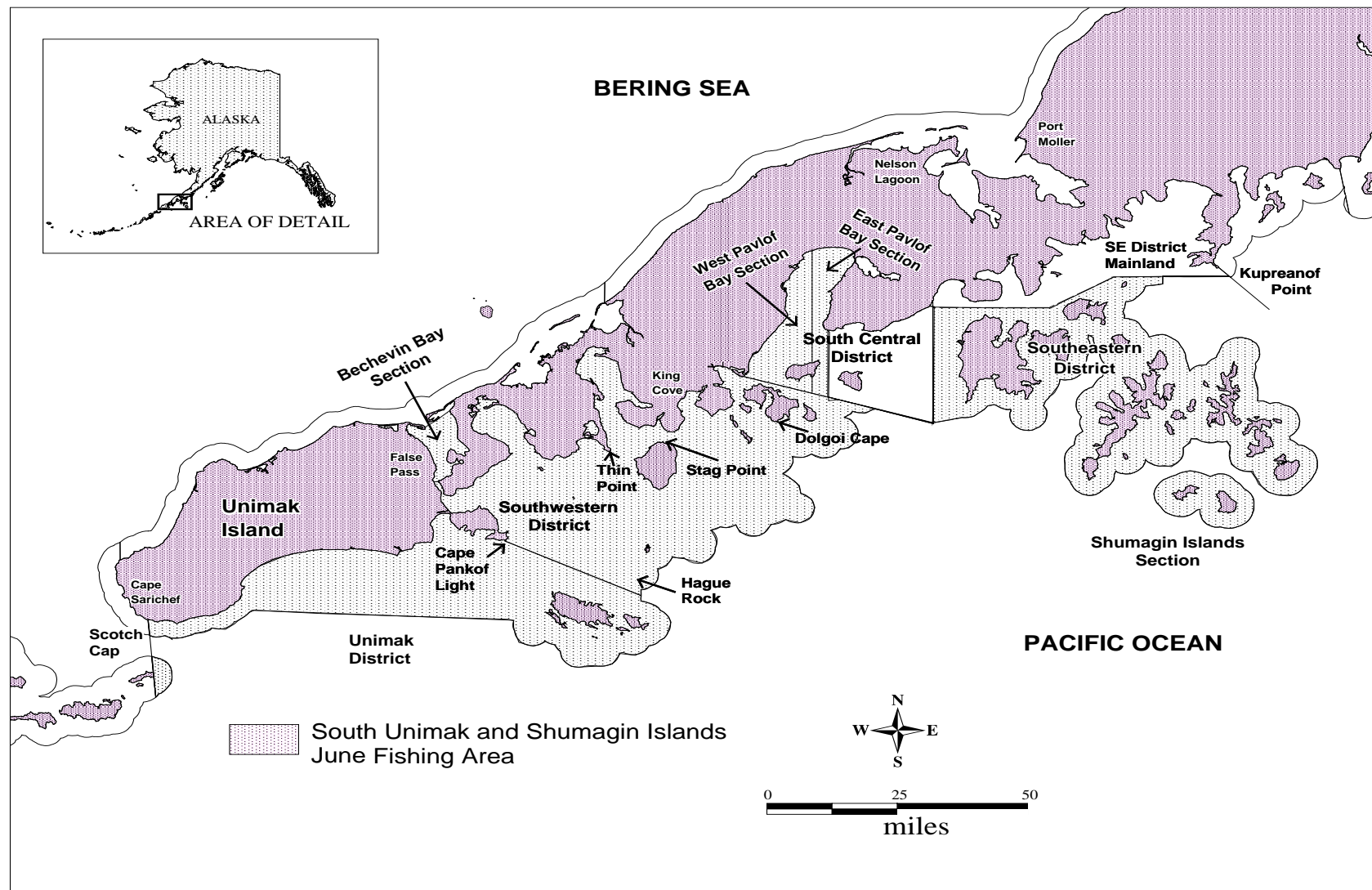
Year	South Unimak				Shumagin Islands			
	Set Gillnet		Drift and Seine		Set Gillnet		Seine	
	Days	Hours	Days	Hours	Days	Hours	Days	Hours
1975	10	240	10	240	9	207	9	207
1976 <sup>a</sup>	19	456	19	456	13	312	13	312
1977	17	408	17	408	11	264	11	264
1978	23	552	23	552	23	552	23	552
1979 <sup>b</sup>	33	786	33	786	27	642	27	642
1980	30	720	30	720	30	720	30	720
1981	24	576	24	576	22	528	22	528
1982	30	720	30	720	24	576	24	576
1983	11	264	11	264	10	228	10	228
1984	5	110	5	110	6	134	6	134
1985	9	144	9	144	9	140	9	140
1986	8	148	8	148	8	160	8	160
1987	12	224	12	224	6	92	6	92
1988	8	112	8	112	9	153	9	153
1989	5	84	5	84	4	72	4	72
1990	13	281	13	281	9	200	9	200
1991	8	161	8	161	5	88	5	88
1992	8	139	8	139	5	42.5	5	42.5
1993	10	176	10	176	7	131	7	131
1994	14	281	14	262	13	262	13	249
1995	18	378	18	370	17	347	17	341
1996	16	378	16	372	13	306	13	276
1997	18	418	18	418	14	281	14	235
1998	18	424	18	424	18	418	16	344
1999	11	234	10	217	6	127	6	127
2000	18	426	18	426	8	176	8	176
2001 <sup>c</sup>	17	272	14	224	17	272	14	224
2002	11	176	9	144	10	150	9	134
2003	12	192	9	144	10	150	9	134
2004	19	416	19	416	19	416	19	416
2005	19	416	19	416	19	416	19	416
2006	19	416	19	416	19	416	19	416
2007	19	416	19	416	19	416	19	416
2008	19	416	19	416	19	416	19	416
2009	19	416	19	416	19	416	19	416
2010	19	416	19	416	19	416	19	416
1990–2009 Average								
	15	322	15	313	13	272	13	260
2000–2009 Average								
	17	356	16	343	16	324	15	316

<sup>a</sup> In 1976, the South Unimak fishery was extended through July 1 to compensate for fishing time lost at the end of June due to adverse weather conditions.

<sup>b</sup> In 1979, the South Unimak fishery was extended through July 3 to compensate for fishing time lost at the end of June due to adverse weather conditions.

<sup>c</sup> Due to lengthy price negotiations and changes in the management plan in 2001, there was no fishing effort during many of the open fishing periods. This makes comparisons of fishing time with other years, in this format, invalid. In the South Unimak fishery, purse seine gear was fished during 4 periods (64 hours), drift and set gillnet gear was fished during 5 periods (80 hours). In the Shumagin Islands fishery, purse seine gear was fished during 3 periods (48 hours) and set gillnet gear was fished during 1 period (16 hours).





Appendix B4.—Map of South Unimak and Shumagin Islands June fisheries with areas open to fishing defined.

Appendix B5.—Number and type of commercial salmon permits fished in the South Unimak and Shumagin Islands June fisheries, by year, 1970–2010.

Year	Permits			Total
	Purse Seine	Drift Gillnet	Set Gillnet	
1970	38	156	16	210
1971	37	122	8	167
1972	32	150	6	188
1973	16	121	6	143
1974 <sup>a</sup>				
1975	20	81	8	109
1976	25	108	14	147
1977	17	101	12	130
1978	23	120	16	159
1979	40	132	26	198
1980	68	129	29	226
1981	83	135	25	243
1982	90	138	23	251
1983	101	146	34	281
1984	101	147	32	280
1985	107	150	48	305
1986	99	156	43	298
1987	86	144	60	290
1988	90	148	63	301
1989	99	145	61	305
1990	109	153	58	320
1991	112	157	65	334
1992	112	141	68	321
1993	116	140	72	328
1994	114	145	65	324
1995	112	151	69	332
1996	99	147	67	313
1997	81	142	69	292
1998	64	145	74	283
1999	61	152	64	277
2000	70	149	59	278
2001	25	85	18	128
2002	36	86	59	181
2003	40	84	53	177
2004	38	95	57	190
2005	40	94	56	190
2006	36	85	67	188
2007	37	87	61	185
2008	38	109	49	196
2009	42	116	58	216
2010	52	117	56	225
1990–2009 Average	69	123	60	253
2000–2009 Average	40	99	54	193

<sup>a</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

Appendix B6.—South Unimak and Shumagin Islands June fisheries commercial salmon harvest by species and year, 1970–2010.

Year	Permits	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	202	2,923	1,016	1,650,108	48	103,053	436,477	2,190,702
1971	166	1,986	828	462,101	1	19,240	509,197	991,367
1972	184	2,098	642	501,197	20	17,924	518,810	1,038,593
1973	141	1,042	247	245,088	28	19,430	200,630	465,423
1974 <sup>b</sup>	0	0	0	0	0	0	0	0
1975	108	510	117	240,099	1	5,247	100,822	346,286
1976	145	1,385	2,132	303,584	3	23,824	410,270	739,813
1977	130	817	521	240,719	0	5,398	115,996	362,634
1978	159	1,569	534	486,811	3	89,942	121,892	699,182
1979	196	1,695	1,050	851,351	290	154,813	104,103	1,111,607
1980	225	2,044	3,193	3,206,275	853	1,526,306	508,865	5,245,492
1981	243	2,400	5,672	1,820,965	320	451,250	563,947	2,842,154
1982	251	2,612	7,131	2,118,701	1,241	1,718,825	1,095,044	4,940,942
1983	281	1,721	13,456	1,961,569	4	55,875	785,631	2,816,535
1984	280	1,117	3,854	1,388,203	14	919,876	337,120	2,649,067
1985	305	2,120	5,777	1,791,400	2,468	106,615	433,829	2,340,089
1986	298	1,486	1,895	471,397	2	291,989	351,769	1,117,052
1987	290	2,019	5,163	792,964	380	16,982	443,019	1,258,508
1988	301	1,777	4,064	756,687	255	180,224	526,711	1,467,941
1989	305	1,350	2,758	1,744,505	0	199,235	455,163	2,401,661
1990	320	2,718	10,332	1,344,529	1	515,047	518,545	2,388,454
1991	334	2,025	4,473	1,548,930	12	619,137	772,705	2,945,257
1992	321	1,925	3,760	2,457,856	4	642,090	426,203	3,529,913
1993	327	2,262	9,466	2,973,744	1,233	81,136	532,247	3,597,826
1994	324	2,751	7,590	1,461,263	1,579	2,492,514	582,165	4,545,111
1995	332	3,635	14,747	2,105,321	6,042	178,635	537,433	2,842,178
1996	313	2,676	2,845	1,028,970	13,219	377,684	359,820	1,782,538
1997	292	3,174	5,811	1,628,181	560	605,937	322,325	2,562,814
1998	283	3,657	2,696	1,288,725	476	474,340	245,619	2,011,856
1999	277	2,114	3,051	1,375,399	2	30,539	245,306	1,654,297
2000	278	3,001	2,849	1,251,228	304	360,029	239,357	1,853,767
2001	128	270	345	150,632	2	39,251	48,350	238,580
2002	181	1,301	2,443	591,106	4	76,251	378,817	1,048,621
2003	177	1,170	1,323	453,147	153	217,900	282,438	954,961
2004	190	2,260	4,423	1,348,073	621	359,916	482,309	2,195,342
2005	190	2,344	3,055	1,004,395	1,919	1,654,959	427,830	3,092,158
2006	188	2,412	4,497	932,291	2,629	1,332,319	299,827	2,571,563
2007	185	2,650	4,636	1,589,840	1,633	267,528	297,539	2,161,176
2008	196	2,591	2,957	1,713,575	178	1,971,268	410,932	4,098,910
2009	216	2,852	3,836	1,167,918	203	2,248,555	696,775	4,117,287
2010	225	2,162	3,118	818,865	27	332,435	271,700	1,426,145
1990–2009 Average								
	253	2,389	4,757	1,370,756	1,539	727,252	405,327	2,509,630
2000–2009 Average								
	193	2,085	3,036	1,020,221	765	852,798	356,417	2,233,237

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> South Unimak and Shumagin Islands fisheries were closed in 1974 due to an anticipated weak Bristol Bay run.

Appendix B7.—South Unimak June commercial salmon harvest by species and year, 1970–2010.

Year	Permits	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	176	2,624	868	1,510,373	46	83,325	391,568	1,986,180
1971	147	1,685	549	422,760	0	11,608	405,311	840,228
1972	165	1,771	400	426,799	4	11,906	411,000	850,109
1973	132	922	145	222,124	11	11,152	177,720	411,152
1974 <sup>b</sup>								
1975	98	445	101	190,774	1	3,205	65,279	259,360
1976	131	1,184	1,827	231,568	3	18,181	336,161	587,740
1977	118	740	393	194,807	0	3,397	94,097	292,694
1978	140	1,337	267	418,935	3	47,380	103,413	569,998
1979	156	1,303	575	672,212	38	49,000	63,150	784,975
1980	188	1,666	2,927	2,731,148	853	1,140,611	458,499	4,334,038
1981	225	2,096	4,455	1,470,393	83	325,002	509,876	2,309,809
1982	225	2,313	5,577	1,668,153	1,241	1,032,154	933,728	3,640,853
1983	253	1,410	8,179	1,545,075	1	40,441	616,354	2,210,050
1984	226	814	2,024	1,131,365	0	470,688	227,913	1,831,990
1985	255	1,596	4,101	1,454,969	2	69,811	324,825	1,853,708
1986	236	1,093	1,363	315,370	1	150,674	252,721	720,129
1987	229	1,738	4,017	652,397	380	11,342	405,955	1,074,091
1988	211	1,144	2,125	474,457	11	86,678	464,765	1,028,036
1989	266	1,035	2,263	1,347,547	0	154,168	407,635	1,911,613
1990	266	2,133	8,464	1,088,944	1	444,249	455,044	1,996,702
1991	267	1,628	3,066	1,215,658	5	500,922	670,103	2,389,754
1992	273	1,597	2,373	2,046,022	3	501,127	323,891	2,873,416
1993	245	1,681	4,587	2,366,573	506	37,735	381,941	2,791,342
1994	265	1,927	4,468	1,001,250	1,271	1,731,741	374,409	3,113,139
1995	241	2,575	7,850	1,451,490	5,102	119,094	342,307	1,925,843
1996	230	1,797	1,228	572,495	11,730	146,799	129,889	862,141
1997	225	2,299	3,041	1,179,179	501	332,262	196,016	1,710,999
1998	196	2,432	1,259	974,628	312	125,906	195,454	1,297,559
1999	224	1,741	2,258	1,106,208	1	20,302	186,886	1,315,655
2000	242	2,587	2,064	892,016	303	210,521	168,888	1,273,792
2001	105	243	134	121,547	2	31,812	36,099	189,594
2002	119	783	433	356,157	3	33,789	201,211	591,593
2003	116	720	373	335,903	14	90,161	121,169	547,620
2004 <sup>c</sup>	126	1,325	670	531,955	159	78,808	130,626	742,218
2005	123	1,190	790	437,443	56	403,815	143,799	985,903
2006	121	1,239	1,472	491,053	432	186,096	96,016	775,069
2007 <sup>cd</sup>	126	1,513	976	737,642	151	57,032	153,334	949,135
2008	139	1,871	1,317	1,064,570	152	800,265	284,449	2,150,753
2009	150	1,627	1,394	595,221	6	946,823	200,783	1,744,227
2010	152	1,394	1,474	487,880	1	190,649	100,427	780,431
1990–2009 Average								
	190	1,645	2,411	928,298	1,036	339,963	239,616	1,511,323
2000–2009 Average								
	137	1,310	962	556,351	128	283,912	153,637	994,990

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> South Unimak and Shumagin Islands fisheries were closed in 1974 due to an anticipated weak Bristol Bay run.

<sup>c</sup> In 2004 and 2007 fishing area was increased in the South Unimak fishery.

<sup>d</sup> Starting in 2007 drift gillnet area was increased to include the outside waters of the Southwestern District.

Appendix B8.—South Unimak June commercial salmon harvest, all gear combined, by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	62	64	65	3,831	0	3	4,891	8,790
8-Jun	69	74	126	10,326	0	45	8,930	19,427
9-Jun	70	75	207	14,301	0	54	6,668	21,230
10-Jun	73	92	138	19,776	0	118	10,457	30,489
11-Jun <sup>a</sup>								
12-Jun	90	94	142	17,498	0	4,333	8,749	30,722
13-Jun	59	59	24	10,848	0	50	3,641	14,563
14-Jun	83	83	137	20,522	0	3,726	8,161	32,546
15-Jun	93	105	135	40,466	0	13,735	4,878	59,214
16-Jun <sup>a</sup>								
17-Jun	111	116	107	55,238	0	8,203	7,134	70,682
18-Jun	122	131	48	44,002	0	20,409	6,221	70,680
19-Jun	105	106	14	24,412	0	5,703	2,798	32,927
20-Jun	95	105	20	19,386	0	5,967	1,701	27,074
21-Jun <sup>a</sup>								
22-Jun	73	81	38	35,248	0	16,991	3,166	55,443
23-Jun	45	49	65	37,795	0	12,787	3,168	53,815
24-Jun	33	41	107	71,634	0	43,575	7,233	122,549
25-Jun	31	32	26	15,810	0	10,185	1,593	27,614
26-Jun <sup>a</sup>								
27-Jun	29	32	55	22,919	0	18,610	5,778	47,362
28-Jun	21	23	9	7,359	0	5,304	1,462	14,134
29-Jun	31	32	11	16,509	1	20,851	3,798	41,170
30-Jun <sup>a</sup>								
Total	152	1,394	1,474	487,880	1	190,649	100,427	780,431

<sup>a</sup> Closed to commercial fishing.

Appendix B9.–South Unimak June commercial purse seine salmon harvest by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun <sup>a</sup>								
8-Jun <sup>a</sup>								
9-Jun <sup>a</sup>								
10-Jun <sup>a</sup>								
11-Jun <sup>b</sup>								
12-Jun	4	4	57	1,268	0	4,206	1,300	6,831
13-Jun <sup>c</sup>								
14-Jun	4	4	65	2,249	0	3,683	1,837	7,834
15-Jun	5	5	55	7,894	0	13,677	519	22,145
16-Jun <sup>b</sup>								
17-Jun	11	13	65	13,787	0	8,150	1,645	23,647
18-Jun	9	9	8	7,969	0	20,367	1,759	30,103
19-Jun	6	6	7	1,887	0	5,557	253	7,704
20-Jun	9	9	7	1,524	0	5,793	231	7,555
21-Jun <sup>b</sup>								
22-Jun	11	12	19	11,360	0	16,881	745	29,005
23-Jun	13	14	42	22,489	0	12,758	1,451	36,740
24-Jun	16	16	97	58,818	0	43,564	6,170	108,649
25-Jun	14	14	23	8,867	0	10,160	941	19,991
26-Jun <sup>b</sup>								
27-Jun	15	15	50	18,096	0	18,468	4,399	41,013
28-Jun	4	4	9	2,287	0	5,180	604	8,080
29-Jun	15	15	6	12,688	1	20,833	3,286	36,814
30-Jun <sup>b</sup>								
Total	22	142	510	171,300	1	189,327	25,144	386,282

<sup>a</sup> No deliveries due to a voluntary stand down.

<sup>b</sup> Closed to commercial fishing.

<sup>c</sup> Confidential information.

Appendix B10.–South Unimak June commercial drift gillnet salmon harvest by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	56	58	57	3,178	0	3	4,397	7,635
8-Jun	61	65	113	8,766	0	45	7,881	16,805
9-Jun	64	69	196	12,777	0	54	6,127	19,154
10-Jun	67	86	137	18,358	0	118	10,190	28,803
11-Jun <sup>a</sup>								
12-Jun	81	84	77	14,993	0	127	7,254	22,451
13-Jun	53	53	24	10,375	0	0	3,567	13,966
14-Jun	77	77	72	17,529	0	43	6,199	23,843
15-Jun	85	97	79	32,108	0	58	4,335	36,580
16-Jun <sup>a</sup>								
17-Jun	97	100	41	40,793	0	53	5,436	46,323
18-Jun	106	114	32	34,267	0	42	4,285	38,626
19-Jun	93	94	7	21,428	0	146	2,474	24,055
20-Jun	81	91	13	17,336	0	174	1,445	18,968
21-Jun <sup>a</sup>								
22-Jun	55	62	15	21,805	0	108	2,184	24,112
23-Jun	22	24	20	11,212	0	21	1,355	12,608
24-Jun	7	12	6	7,981	0	10	653	8,650
25-Jun	7	7	3	3,911	0	25	540	4,479
26-Jun <sup>a</sup>								
27-Jun	6	7	4	2,856	0	109	1,038	4,007
28-Jun	7	7	0	2,654	0	8	562	3,224
29-Jun	7	8	5	2,743	0	3	436	3,187
30-Jun <sup>a</sup>								
Total	117	1,115	901	285,070	0	1,147	70,358	357,476

<sup>a</sup> Closed to commercial fishing.

Appendix B11.–South Unimak June commercial set gillnet salmon harvest by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	6	6	8	653	0	0	494	1,155
8-Jun	8	9	13	1,560	0	0	1,049	2,622
9-Jun	6	6	11	1,524	0	0	541	2,076
10-Jun	6	6	1	1,418	0	0	267	1,686
11-Jun <sup>a</sup>								
12-Jun	5	6	8	1,237	0	0	195	1,440
13-Jun	4	4	0	356	0	0	70	426
14-Jun <sup>b</sup>								
15-Jun	3	3	1	464	0	0	24	489
16-Jun <sup>a</sup>								
17-Jun	3	3	1	658	0	0	53	712
18-Jun	7	8	8	1,766	0	0	177	1,951
19-Jun	6	6	0	1,097	0	0	71	1,168
20-Jun	5	5	0	526	0	0	25	551
21-Jun <sup>a</sup>								
22-Jun	7	7	4	2,083	0	2	237	2,326
23-Jun	10	11	3	4,094	0	8	362	4,467
24-Jun	10	13	4	4,835	0	1	410	5,250
25-Jun	10	11	0	3,032	0	0	112	3,144
26-Jun <sup>a</sup>								
27-Jun	8	10	1	1,967	0	33	341	2,342
28-Jun	10	12	0	2,418	0	116	296	2,830
29-Jun	9	9	0	1,078	0	15	76	1,169
30-Jun <sup>a</sup>								
Total	13	137	63	31,510	0	175	4,925	36,673

<sup>a</sup> Closed to commercial fishing.

<sup>b</sup> Confidential information.



Appendix B12.—Shumagin Islands June commercial salmon harvest by species and year, 1970–2010.

Year	Permit	Landings	Number of Salmon <sup>a</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	40	299	148	139,735	2	19,728	44,909	204,522
1971	31	301	279	39,341	1	7,632	103,886	151,139
1972	32	327	242	74,398	16	6,018	107,810	188,484
1973	21	120	102	22,964	17	8,278	22,910	54,271
1974 <sup>b</sup>								
1975	20	65	16	49,325	0	2,042	35,543	86,926
1976	30	201	305	72,016	0	5,643	74,109	152,073
1977	25	77	128	45,912	0	2,001	21,899	69,940
1978	30	232	267	67,876	0	42,562	18,479	129,184
1979	48	411	475	182,816	362	107,862	43,133	334,648
1980	54	378	266	475,127	0	385,695	50,366	911,454
1981	43	304	1,217	350,572	237	126,248	54,071	532,345
1982	48	299	1,554	450,548	0	686,671	161,316	1,300,089
1983	69	311	5,277	416,494	3	15,434	169,277	606,485
1984	99	303	1,830	256,838	14	449,188	109,207	817,077
1985	110	524	1,676	336,431	2,466	36,804	109,004	486,381
1986	72	393	532	156,027	1	141,315	99,048	396,923
1987	97	281	1,146	140,567	0	5,640	37,064	184,417
1988	97	633	1,939	282,230	244	93,546	61,946	439,905
1989	104	315	495	396,958	0	45,067	47,528	490,048
1990	95	585	1,868	255,585	0	70,798	63,501	391,752
1991	101	397	1,407	333,272	7	118,215	102,602	555,503
1992	103	328	1,387	411,834	1	140,963	102,312	656,497
1993	106	581	4,879	607,171	727	43,401	150,306	806,484
1994	106	824	3,122	460,013	308	760,773	207,756	1,431,972
1995	102	1,060	6,897	653,831	940	59,541	195,126	916,335
1996	111	879	1,617	456,475	1,489	230,885	229,931	920,397
1997	99	875	2,770	449,002	59	273,675	126,309	851,815
1998	91	1,225	1,437	314,097	164	348,434	50,165	714,297
1999	86	373	793	269,191	1	10,237	58,420	338,642
2000	86	414	785	359,212	1	149,508	70,469	579,975
2001	23	27	211	29,085	0	7,439	12,251	48,986
2002	64	518	2,010	234,949	1	42,462	177,606	457,028
2003	65	450	950	117,244	139	127,739	161,269	407,341
2004	67	935	3,753	816,118	462	281,108	351,683	1,453,124
2005	69	1,154	2,265	566,952	1,863	1,251,144	284,031	2,106,255
2006	69	1,173	3,025	441,238	2,197	1,146,223	203,811	1,796,494
2007	73	1,137	3,660	852,198	1,482	210,496	144,205	1,212,041
2008	64	720	1,640	649,005	26	1,171,003	126,483	1,948,157
2009	69	1,225	2,442	572,697	197	1,301,732	495,992	2,373,060
2010	77	768	1,644	330,985	26	141,786	171,273	645,714
1990–2009 Average								
	82	744	2,346	442,458	503	387,289	165,711	998,308
2000–2009 Average								
	65	775	2,074	463,870	637	568,885	202,780	1,238,246

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> South Unimak and Shumagin Islands fisheries were closed in 1974 due to an anticipated weak Bristol Bay run.

Appendix B13.—Shumagin Islands Section commercial salmon harvest, all gear combined, by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	15	16	5	839	0	0	338	1,182
8-Jun	19	24	9	1,492	0	0	1,151	2,652
9-Jun	20	37	19	3,794	0	1	1,551	5,365
10-Jun	20	30	9	2,628	0	3	1,237	3,877
11-Jun <sup>a</sup>								
12-Jun	29	41	140	5,652	0	1,355	2,500	9,647
13-Jun	40	43	173	15,568	0	4,232	9,965	29,938
14-Jun	22	24	45	4,135	0	624	1,928	6,732
15-Jun	48	54	400	46,743	0	13,558	20,197	80,898
16-Jun <sup>a</sup>								
17-Jun	34	44	85	35,398	0	9,729	11,765	56,977
18-Jun	30	35	86	46,806	0	22,920	19,802	89,614
19-Jun	32	43	53	10,394	0	6,588	5,484	22,519
20-Jun	53	68	138	23,237	4	14,213	14,347	51,939
21-Jun <sup>a</sup>								
22-Jun	26	35	39	16,900	0	8,016	7,347	32,302
23-Jun	26	34	44	19,417	0	8,044	6,675	34,180
24-Jun	23	26	64	22,868	3	12,228	19,011	54,174
25-Jun	35	43	186	33,290	0	20,962	30,925	85,363
26-Jun <sup>a</sup>								
27-Jun	34	48	37	12,365	4	4,760	7,463	24,629
28-Jun	38	57	38	10,870	1	6,401	3,776	21,086
29-Jun	44	66	74	18,589	14	8,152	5,811	32,640
30-Jun <sup>a</sup>								
Total	77	768	1,644	330,985	26	141,786	171,273	645,714

<sup>a</sup> Closed to commercial fishing.

Appendix B14.—Shumagin Islands Section commercial purse seine salmon harvest by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun <sup>a</sup>								
8-Jun <sup>a</sup>								
9-Jun <sup>a</sup>								
10-Jun <sup>a</sup>								
11-Jun <sup>b</sup>								
12-Jun	8	8	113	2,852	0	1,244	1,882	6,091
13-Jun	22	22	159	13,691	0	4,226	9,405	27,481
14-Jun	4	4	42	1,819	0	620	1,312	3,793
15-Jun	30	30	380	42,560	0	13,555	19,413	75,908
16-Jun <sup>b</sup>								
17-Jun	16	16	84	32,264	0	9,714	10,962	53,024
18-Jun	24	24	86	44,395	0	22,920	19,651	87,052
19-Jun	13	13	53	7,126	0	6,587	5,099	18,865
20-Jun	30	30	137	19,710	4	14,206	13,868	47,925
21-Jun <sup>b</sup>								
22-Jun	12	12	39	11,908	0	7,932	6,851	26,730
23-Jun	16	16	43	14,969	0	8,039	6,271	29,322
24-Jun	14	14	64	20,622	3	12,228	18,812	51,729
25-Jun	26	27	152	30,927	0	20,962	30,684	82,725
26-Jun <sup>b</sup>								
27-Jun	11	11	31	8,008	4	4,734	6,724	19,501
28-Jun	9	9	26	5,405	0	6,371	3,090	14,892
29-Jun	20	20	71	12,730	13	8,099	5,129	26,042
30-Jun <sup>b</sup>								
Total	34	256	1,480	268,986	24	141,437	159,153	571,080

<sup>a</sup> No deliveries due to voluntary stand down.

<sup>b</sup> Closed to commercial fishing.

Appendix B15.—Shumagin Islands Section commercial set gillnet salmon harvest by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
7-Jun	15	16	5	839	0	0	338	1,182
8-Jun	19	24	9	1,492	0	0	1,151	2,652
9-Jun	20	37	19	3,794	0	1	1,551	5,365
10-Jun	20	30	9	2,628	0	3	1,237	3,877
11-Jun <sup>a</sup>								
12-Jun	21	33	27	2,800	0	111	618	3,556
13-Jun	18	21	14	1,877	0	6	560	2,457
14-Jun	18	20	3	2,316	0	4	616	2,939
15-Jun	18	24	20	4,183	0	3	784	4,990
16-Jun <sup>a</sup>								
17-Jun	18	28	1	3,134	0	15	803	3,953
18-Jun	6	11	0	2,411	0	0	151	2,562
19-Jun	19	30	0	3,268	0	1	385	3,654
20-Jun	23	38	1	3,527	0	7	479	4,014
21-Jun <sup>a</sup>								
22-Jun	14	23	0	4,992	0	84	496	5,572
23-Jun	10	18	1	4,448	0	5	404	4,858
24-Jun	9	12	0	2,246	0	0	199	2,445
25-Jun	9	16	34	2,363	0	0	241	2,638
26-Jun <sup>a</sup>								
27-Jun	23	37	6	4,357	0	26	739	5,128
28-Jun	29	48	12	5,465	1	30	686	6,194
29-Jun	24	46	3	5,859	1	53	682	6,598
30-Jun <sup>a</sup>								
Total	43	512	164	61,999	2	349	12,120	74,634

<sup>a</sup> Closed to commercial fishing

Appendix B16.—South Unimak and Shumagin Islands June fisheries commercial sockeye and chum salmon harvests in percent by gear type and year, 1970–2010.

Year	South Unimak						Shumagin Islands			
	Sockeye			Chum			Sockeye		Chum	
	Purse	Drift	Set	Purse	Drift	Set	Purse	Set	Purse	Set
	Seine	Gillnet	Gillnet	Seine	Gillnet	Gillnet	Seine	Gillnet	Seine	Gillnet
1970	47.5	52.0	0.5	31.0	68.8	0.2	91.9	8.1	94.0	6.0
1971	25.3	74.7	0.0	19.5	80.5	0.0	89.4	10.6	96.8	3.2
1972	12.5	87.5	0.0	9.3	90.7	0.0	96.9	3.1	98.5	1.5
1973	9.6	90.2	0.2	6.6	93.3	0.1	87.3	12.7	94.3	5.7
1974 <sup>a</sup>										
1975	22.9	77.0	0.1	28.9	71.1	0.0	97.4	2.6	97.4	2.6
1976	17.4	82.2	0.4	14.2	85.8	0.1	95.5	4.5	97.1	2.9
1977	15.2	84.3	0.5	10.5	89.3	0.2	94.9	5.1	99.0	1.0
1978	18.4	81.0	0.6	9.9	90.0	0.1	97.0	3.0	96.3	3.7
1979	70.6	29.2	0.2	30.1	69.8	0.1	92.4	7.6	95.7	4.3
1980	76.4	23.1	0.5	79.2	20.7	0.1	96.4	3.6	97.3	2.7
1981	50.7	47.1	2.1	63.5	36.2	0.3	94.8	5.2	98.7	1.3
1982	54.1	44.7	1.2	46.1	53.7	0.2	97.3	2.7	98.9	1.1
1983	60.5	38.8	0.7	65.9	34.0	0.1	97.4	2.6	99.6	0.4
1984	63.3	35.7	1.0	60.2	39.7	0.1	94.7	5.3	99.3	0.7
1985	61.3	38.0	0.7	38.7	61.1	0.2	94.8	5.2	96.0	4.0
1986	46.7	51.7	1.6	43.8	55.9	0.3	85.0	15.0	95.0	5.0
1987	36.5	61.5	2.0	38.3	61.1	0.6	76.0	24.0	93.4	6.6
1988	29.8	67.0	3.2	33.5	65.8	0.6	72.1	27.9	82.6	17.4
1989	59.4	38.0	2.5	52.1	47.3	0.7	90.9	9.1	93.6	6.4
1990 <sup>b</sup>	56.9	41.6	1.6	57.9	41.8	0.3	85.3	14.7	93.1	6.9
1991	53.5	44.4	2.1	61.2	38.2	0.6	80.6	19.4	93.3	6.7
1992	58.3	37.4	4.3	63.2	35.6	1.2	90.9	9.1	96.3	3.7
1993	59.1	38.1	2.8	66.2	31.6	2.2	87.5	12.5	97.9	2.1
1994	57.3	37.1	5.7	63.9	34.6	1.5	75.4	24.6	96.5	3.5
1995	42.1	54.6	3.2	47.1	50.5	2.5	81.5	18.5	93.7	6.3
1996	22.2	73.7	4.1	32.0	66.3	1.7	75.0	25.0	95.9	4.1
1997	14.8	76.0	9.2	30.1	65.1	4.8	75.5	24.5	93.8	6.2
1998	7.2	87.9	4.9	13.7	83.2	3.1	49.4	50.6	78.7	21.3
1999	21.0	75.7	3.3	28.0	68.9	3.1	74.3	25.7	93.2	6.8
2000	12.9	81.0	6.1	27.7	68.0	4.4	77.4	22.6	94.5	5.5
2001	14.1	78.6	7.3	15.8	79.4	4.8	84.9	15.1	93.1	6.9
2002	20.4	71.5	8.1	22.9	72.1	5.0	76.7	23.3	94.8	5.2
2003	17.5	73.1	9.4	19.3	76.5	4.1	70.5	29.5	95.8	4.2
2004	17.0	69.4	13.6	13.9	83.6	2.5	74.6	25.4	95.8	4.2
2005	20.5	51.9	27.6	18.3	78.0	3.8	61.2	38.8	92.0	8.0
2006	23.4	46.6	30.0	7.8	87.2	5.0	68.6	31.4	89.9	10.1
2007	14.7	76.0	9.3	22.5	75.3	2.2	83.0	17.0	92.5	7.5
2008	24.1	71.7	4.2	34.0	63.9	2.1	85.8	14.2	89.3	10.7
2009	29.3	58.9	11.8	42.8	52.7	4.5	73.9	26.1	91.1	8.9
2010	35.1	58.4	6.5	25.0	70.1	4.9	81.3	18.7	92.9	7.1
1971–1980 Average										
	29.8	69.9	0.3	23.1	76.8	0.1	94.1	5.9	96.9	3.1
1981–1990 Average										
	51.9	46.4	1.7	50.0	49.7	0.3	88.8	11.2	95.0	5.0
2000–2009 Average										
	19.4	67.9	12.7	22.5	73.7	3.8	75.7	24.3	92.9	7.1

<sup>a</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

Appendix B17.—South Unimak June fishery commercial sockeye salmon harvests in number of fish and percent by gear type and year, 1970–2010.

Year	Purse Seine <sup>a</sup>		Drift Gillnet <sup>a</sup>		Set Gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	Number	Percent	
1970	717,189	47.5	784,956	52.0	8,228	0.5	1,510,373
1971	107,075	25.3	315,685	74.7	0	0.0	422,760
1972	53,173	12.5	373,618	87.5	8	0.0	426,799
1973	21,364	9.6	200,258	90.2	502	0.2	222,124
1974 <sup>b</sup>							
1975	43,703	22.9	146,918	77.0	153	0.1	190,774
1976	40,334	17.4	190,256	82.2	978	0.4	231,568
1977	29,698	15.2	164,165	84.3	944	0.5	194,807
1978	77,221	18.4	339,295	81.0	2,419	0.6	418,935
1979	474,381	70.6	196,482	29.2	1,349	0.2	672,212
1980	2,086,038	76.4	631,975	23.1	13,135	0.5	2,731,148
1981	745,747	50.7	693,166	47.1	31,480	2.1	1,470,393
1982	902,804	54.1	745,616	44.7	19,733	1.2	1,668,153
1983	935,003	60.5	599,152	38.8	10,920	0.7	1,545,075
1984	716,685	63.3	403,582	35.7	11,098	1.0	1,131,365
1985	891,775	61.3	553,558	38.0	9,636	0.7	1,454,969
1986	147,380	46.7	162,950	51.7	5,040	1.6	315,370
1987	238,193	36.5	401,215	61.5	12,989	2.0	652,397
1988	141,410	29.8	317,818	67.0	15,229	3.2	474,457
1989	800,949	59.4	512,522	38.0	34,076	2.5	1,347,547
1990 <sup>c</sup>	619,391	56.9	452,484	41.6	17,069	1.6	1,088,944
1991	650,461	53.5	539,490	44.4	25,707	2.1	1,215,658
1992	1,192,202	58.3	765,752	37.4	88,068	4.3	2,046,022
1993	1,397,481	59.1	902,788	38.1	66,304	2.8	2,366,573
1994	573,247	57.3	371,103	37.1	56,900	5.7	1,001,250
1995	611,453	42.1	792,940	54.6	47,097	3.2	1,451,490
1996	127,366	22.2	421,882	73.7	23,247	4.1	572,495
1997	174,536	14.8	896,638	76.0	108,005	9.2	1,179,179
1998	70,263	7.2	856,265	87.9	48,100	4.9	974,628
1999	232,779	21.0	836,876	75.7	36,553	3.3	1,106,208
2000	114,831	12.9	722,855	81.0	54,330	6.1	892,016
2001	17,159	14.1	95,547	78.6	8,841	7.3	121,547
2002	72,569	20.4	254,657	71.5	28,931	8.1	356,157
2003	58,813	17.5	245,657	73.1	31,433	9.4	335,903
2004	90,465	17.0	369,011	69.4	72,479	13.6	531,955
2005	89,607	20.5	227,206	51.9	120,630	27.6	437,443
2006	114,760	23.4	228,924	46.6	147,369	30.0	491,053
2007	108,659	14.7	560,544	76.0	68,439	9.3	737,642
2008	256,971	24.1	762,898	71.7	44,701	4.2	1,064,570
2009	174,467	29.3	350,382	58.9	70,372	11.8	595,221
2010	171,300	35.1	285,070	58.4	31,510	6.5	487,880
1990–2009 Average							
	337,374	29.3	532,695	62.3	58,229	8.4	928,298
2000–2009 Average							
	109,830	19.4	381,768	67.9	64,753	12.7	556,351

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>c</sup> Gear depth limitations in effect beginning in 1990.

Appendix B18.—South Unimak June fishery commercial chum salmon harvests in number of fish and percent by gear type and year, 1970–2010.

Year	Purse Seine <sup>a</sup>		Drift Gillnet <sup>a</sup>		Set Gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	Number	Percent	
1970	121,214	31.0	269,476	68.8	878	0.2	391,568
1971	79,044	19.5	326,267	80.5	0	0.0	405,311
1972	38,365	9.3	372,635	90.7	0	0.0	411,000
1973	11,746	6.6	165,753	93.3	221	0.1	177,720
1974 <sup>b</sup>							
1975	18,833	28.9	46,446	71.1	0	0.0	65,279
1976	47,623	14.2	288,300	85.8	238	0.1	336,161
1977	9,852	10.5	84,052	89.3	193	0.2	94,097
1978	10,210	9.9	93,115	90.0	88	0.1	103,413
1979	19,007	30.1	44,051	69.8	92	0.1	63,150
1980	363,360	79.2	94,900	20.7	239	0.1	458,499
1981	323,817	63.5	184,586	36.2	1,473	0.3	509,876
1982	430,661	46.1	501,282	53.7	1,785	0.2	933,728
1983	405,903	65.9	209,600	34.0	851	0.1	616,354
1984	137,110	60.2	90,498	39.7	305	0.1	227,913
1985	125,813	38.7	198,361	61.1	651	0.2	324,825
1986	110,666	43.8	141,299	55.9	756	0.3	252,721
1987	155,447	38.3	247,934	61.1	2,574	0.6	405,955
1988	155,895	33.5	305,967	65.8	2,903	0.6	464,765
1989	212,310	52.1	192,650	47.3	2,675	0.7	407,635
1990 <sup>c</sup>	263,532	57.9	190,002	41.8	1,510	0.3	455,044
1991	410,034	61.2	256,132	38.2	3,937	0.6	670,103
1992	204,717	63.2	115,401	35.6	3,773	1.2	323,891
1993	252,798	66.2	120,820	31.6	8,323	2.2	381,941
1994	239,286	63.9	129,530	34.6	5,593	1.5	374,409
1995	161,199	47.1	172,715	50.5	8,393	2.5	342,307
1996	41,516	32.0	86,103	66.3	2,270	1.7	129,889
1997	58,999	30.1	127,646	65.1	9,371	4.8	196,016
1998	26,777	13.7	162,566	83.2	6,111	3.1	195,454
1999	52,314	28.0	128,723	68.9	5,849	3.1	186,886
2000	46,728	27.7	114,812	68.0	7,348	4.4	168,888
2001	5,701	15.8	28,651	79.4	1,747	4.8	36,099
2002	46,036	22.9	145,079	72.1	10,096	5.0	201,211
2003	23,435	19.3	92,730	76.5	5,004	4.1	121,169
2004	18,142	13.9	109,227	83.6	3,257	2.5	130,626
2005	26,253	18.3	112,144	78.0	5,402	3.8	143,799
2006	7,479	7.8	83,752	87.2	4,785	5.0	96,016
2007	34,534	22.5	115,461	75.3	3,339	2.2	153,334
2008	96,576	34.0	181,758	63.9	6,115	2.1	284,449
2009	85,945	42.8	105,764	52.7	9,074	4.5	200,783
2010	25,144	25.0	70,358	70.1	4,925	4.9	100,427
1990–2009 Average							
	105,100	34.4	128,951	62.6	5,565	3.0	239,616
2000–2009 Average							
	39,083	22.5	108,938	73.7	5,617	3.8	153,637

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>c</sup> Gear depth limitations in effect beginning in 1990.

Appendix B19.—Shumagin Islands June fishery commercial sockeye salmon harvests in number of fish and percent by gear type and year, 1970–2010.

Year	Purse Seine <sup>a</sup>		Set Gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	
1970	128,408	91.9	11,327	8.1	139,735
1971	35,176	89.4	4,165	10.6	39,341
1972	72,069	96.9	2,329	3.1	74,398
1973	20,047	87.3	2,917	12.7	22,964
1974 <sup>b</sup>					
1975	48,065	97.4	1,260	2.6	49,325
1976	68,755	95.5	3,261	4.5	72,016
1977	43,579	94.9	2,333	5.1	45,912
1978	65,826	97.0	2,050	3.0	67,876
1979	165,605	92.4	13,534	7.6	179,139
1980	458,069	96.4	17,058	3.6	475,127
1981	332,300	94.8	18,272	5.2	350,572
1982	438,420	97.3	12,128	2.7	450,548
1983	405,757	97.4	10,737	2.6	416,494
1984	243,136	94.7	13,702	5.3	256,838
1985	318,878	94.8	17,553	5.2	336,431
1986	132,580	85.0	23,447	15.0	156,027
1987	106,799	76.0	33,768	24.0	140,567
1988	203,391	72.1	78,839	27.9	282,230
1989	360,860	90.9	36,098	9.1	396,958
1990 <sup>c</sup>	217,968	85.3	37,617	14.7	255,585
1991	268,539	80.6	64,733	19.4	333,272
1992	374,258	90.9	37,576	9.1	411,834
1993	531,258	87.5	75,913	12.5	607,171
1994	346,923	75.4	113,090	24.6	460,013
1995	532,952	81.5	120,879	18.5	653,831
1996	342,317	75.0	114,158	25.0	456,475
1997	338,803	75.5	110,199	24.5	449,002
1998	155,216	49.4	158,881	50.6	314,097
1999	200,108	74.3	69,083	25.7	269,191
2000	277,974	77.4	81,238	22.6	359,212
2001	24,705	84.9	4,380	15.1	29,085
2002	180,135	76.7	54,814	23.3	234,949
2003	82,608	70.5	34,636	29.5	117,244
2004	608,775	74.6	207,343	25.4	816,118
2005	347,114	61.2	219,838	38.8	566,952
2006	302,729	68.6	138,509	31.4	441,238
2007	707,696	83.0	144,502	17.0	852,198
2008	556,696	85.8	92,309	14.2	649,005
2009	423,423	73.9	149,274	26.1	572,697
2010	268,986	81.3	61,999	18.7	330,985
1990–2009 Average					
	341,010	76.6	101,449	23.4	442,458
2000–2009 Average					
	351,186	75.7	112,684	24.3	463,870

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>c</sup> Gear depth limitations in effect beginning in 1990.



Appendix B20.—Shumagin Islands June fishery commercial chum salmon harvests in number of fish and percent by gear type and year, 1970–2010.

Year	Purse Seine <sup>a</sup>		Set Gillnet <sup>a</sup>		Total
	Number	Percent	Number	Percent	
1970	42,226	94.0	2,683	6.0	44,909
1971	100,544	96.8	3,342	3.2	103,886
1972	106,239	98.5	1,571	1.5	107,810
1973	21,605	94.3	1,305	5.7	22,910
1974 <sup>b</sup>					
1975	34,614	97.4	929	2.6	35,543
1976	71,946	97.1	2,163	2.9	74,109
1977	21,678	99.0	221	1.0	21,899
1978	17,793	96.3	686	3.7	18,479
1979	39,196	95.7	1,757	4.3	40,953
1980	48,990	97.3	1,376	2.7	50,366
1981	53,351	98.7	720	1.3	54,071
1982	159,518	98.9	1,798	1.1	161,316
1983	168,618	99.6	659	0.4	169,277
1984	108,495	99.3	712	0.7	109,207
1985	104,619	96.0	4,385	4.0	109,004
1986	94,080	95.0	4,968	5.0	99,048
1987	34,617	93.4	2,447	6.6	37,064
1988	51,154	82.6	10,792	17.4	61,946
1989	44,498	93.6	3,030	6.4	47,528
1990 <sup>c</sup>	59,111	93.1	4,390	6.9	63,501
1991	95,756	93.3	6,846	6.7	102,602
1992	98,509	96.3	3,803	3.7	102,312
1993	147,160	97.9	3,146	2.1	150,306
1994	200,577	96.5	7,179	3.5	207,756
1995	182,894	93.7	12,232	6.3	195,126
1996	220,449	95.9	9,482	4.1	229,931
1997	118,418	93.8	7,891	6.2	126,309
1998	39,464	78.7	10,701	21.3	50,165
1999	54,439	93.2	3,981	6.8	58,420
2000	66,580	94.5	3,889	5.5	70,469
2001	11,402	93.1	849	6.9	12,251
2002	168,405	94.8	9,201	5.2	177,606
2003	154,445	95.8	6,824	4.2	161,269
2004	336,753	95.8	14,930	4.2	351,683
2005	261,261	92.0	22,770	8.0	284,031
2006	183,192	89.9	20,619	10.1	203,811
2007	133,379	92.5	10,826	7.5	144,205
2008	112,924	89.3	13,559	10.7	126,483
2009	451,820	91.1	44,172	8.9	495,992
2010	159,153	92.9	12,120	7.1	171,273
1990–2009 Average					
	154,847	93.0	10,865	7.0	165,711
2000–2009 Average					
	188,016	92.9	14,764	7.1	202,780

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>c</sup> Gear depth limitations in effect beginning in 1990.

Appendix B21.—South Unimak and Shumagin Islands June commercial fisheries harvest and sockeye to chum salmon ratios, by location and year, 1960–2010.

Year	South Unimak <sup>a</sup>			Shumagin Islands <sup>a</sup>			Total <sup>a</sup>		
	Sockeye	Chum	Ratio	Sockeye	Chum	Ratio	Sockeye	Chum	Ratio
1960	137,000	84,000	1.6	19,000	11,000	1.7	156,000	95,000	1.6
1961	199,000	157,000	1.3	55,000	36,000	1.5	254,000	193,000	1.3
1962	272,000	209,000	1.3	54,000	61,000	0.9	326,000	270,000	1.2
1963	116,000	36,000	3.2	33,000	36,000	0.9	149,000	72,000	2.1
1964	159,000	161,000	1.0	85,000	67,000	1.3	244,000	228,000	1.1
1965	568,000	121,000	4.7	207,000	45,000	4.6	775,000	166,000	4.7
1966	528,000	215,000	2.5	54,000	17,000	3.2	582,000	232,000	2.5
1967	186,000	73,000	2.5	69,000	51,000	1.4	255,000	124,000	2.1
1968	342,000	115,000	3.0	233,000	51,000	4.6	575,000	166,000	3.5
1969	781,000	254,000	3.1	76,000	13,000	5.8	857,000	267,000	3.2
1970	1,510,373	391,568	3.9	139,735	44,909	3.1	1,650,108	436,477	3.8
1971	422,760	405,311	1.0	39,341	103,886	0.4	462,101	509,197	0.9
1972	426,799	411,000	1.0	74,398	107,810	0.7	501,197	518,810	1.0
1973	222,124	177,720	1.2	22,964	22,910	1.0	245,088	200,630	1.2
1974 <sup>b</sup>									
1975	190,774	65,279	2.9	49,325	35,543	1.4	240,099	100,822	2.4
1976	231,568	336,161	0.7	72,016	74,109	1.0	303,584	410,270	0.7
1977	194,807	94,097	2.1	45,912	21,899	2.1	240,719	115,996	2.1
1978	418,935	103,413	4.1	67,876	18,479	3.7	486,811	121,892	4.0
1979	672,212	63,150	10.6	179,139	40,953	4.4	851,351	104,103	8.2
1980	2,731,148	458,499	6.0	475,127	50,366	9.4	3,206,275	508,865	6.3
1981	1,470,393	509,876	2.9	350,572	54,071	6.5	1,820,965	563,947	3.2
1982	1,668,153	933,728	1.8	450,548	161,316	2.8	2,118,701	1,095,044	1.9
1983	1,545,075	616,354	2.5	416,494	169,277	2.5	1,961,569	785,631	2.5
1984	1,131,365	227,913	5.0	256,838	109,207	2.4	1,388,203	337,120	4.1
1985	1,454,969	324,825	4.5	336,431	109,004	3.1	1,791,400	433,829	4.1
1986	315,370	252,721	1.2	156,027	99,048	1.6	471,397	351,769	1.3
1987	652,397	405,955	1.6	140,567	37,064	3.8	792,964	443,019	1.8
1988	474,457	464,765	1.0	282,230	61,946	4.6	756,687	526,711	1.4
1989	1,347,547	407,635	3.3	396,958	47,528	8.4	1,744,505	455,163	3.8
1990 <sup>c</sup>	1,088,944	455,044	2.4	255,585	63,501	4.0	1,344,529	518,545	2.6
1991	1,215,658	670,103	1.8	333,272	102,602	3.2	1,548,930	772,705	2.0
1992	2,046,022	323,891	6.3	411,834	102,312	4.0	2,457,856	426,203	5.8
1993	2,366,573	381,941	6.2	607,171	150,306	4.0	2,973,744	532,247	5.6
1994	1,001,250	374,409	2.7	460,013	207,756	2.2	1,461,263	582,165	2.5
1995	1,451,490	342,307	4.2	653,831	195,126	3.4	2,105,321	537,433	3.9
1996	572,495	129,889	4.4	456,475	229,931	2.0	1,028,970	359,820	2.9

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Appendix B21.–Page 2 of 2.

Year	South Unimak <sup>a</sup>			Shumagin Islands <sup>a</sup>			Total <sup>a</sup>		
	Sockeye	Chum	Ratio	Sockeye	Chum	Ratio	Sockeye	Chum	Ratio
1997	1,179,179	196,016	6.0	449,002	126,309	3.6	1,628,181	322,325	5.1
1998	974,628	195,454	5.0	314,097	50,165	6.3	1,288,725	245,619	5.2
1999	1,106,208	186,886	5.9	269,191	58,420	4.6	1,375,399	245,306	5.6
2000	892,016	168,888	5.3	359,212	70,469	5.1	1,251,228	239,357	5.2
2001	121,547	36,099	3.4	29,085	12,251	2.4	150,632	48,350	3.1
2002	356,157	201,211	1.8	234,949	177,606	1.3	591,106	378,817	1.6
2003	335,903	121,169	2.8	117,244	161,269	0.7	453,147	282,438	1.6
2004	531,955	130,626	4.1	816,118	351,683	2.3	1,348,073	482,309	2.8
2005	437,443	143,799	3.0	566,952	284,031	2.0	1,004,395	427,830	2.3
2006	491,053	96,016	5.1	441,238	203,811	2.2	932,291	299,827	3.1
2007	737,642	153,334	4.8	852,198	144,205	5.9	1,589,840	297,539	5.3
2008	1,064,570	284,449	3.7	649,005	126,483	5.1	1,713,575	410,932	4.2
2009	595,221	200,783	3.0	572,697	495,992	1.2	1,167,918	696,775	1.7
2010	487,880	100,427	4.9	330,985	171,273	1.9	818,865	271,700	3.0
1990–2009 Average									
	928,298	239,616	4.1	442,458	165,711	3.3	1,370,756	405,327	3.6
2000–2009 Average									
	556,351	153,637	3.7	463,870	202,780	2.8	1,020,221	356,417	3.1

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>c</sup> Gear depth limitations in effect beginning in 1990.

Appendix B22.—South Unimak and Shumagin Islands commercial sockeye and chum salmon harvests by day, 2010.

Date	South Unimak			Shumagin Islands			Combined		
	Sockeye	Chum	S/C Ratio	Sockeye	Chum	S/C Ratio	Sockeye	Chum	S/C Ratio
7-Jun	3,831	4,891	0.8	839	338	2.5	4,670	5,229	0.9
8-Jun	10,326	8,930	1.2	1,492	1,151	1.3	11,818	10,081	1.2
9-Jun	14,301	6,668	2.1	3,794	1,551	2.4	18,095	8,219	2.2
10-Jun	19,776	10,457	1.9	2,628	1,237	2.1	22,404	11,694	1.9
11-Jun <sup>a</sup>									
12-Jun	17,498	8,749	2.0	5,652	2,500	2.3	23,150	11,249	2.1
13-Jun	10,848	3,641	3.0	15,568	9,965	1.6	26,416	13,606	1.9
14-Jun	20,522	8,161	2.5	4,135	1,928	2.1	24,657	10,089	2.4
15-Jun	40,466	4,878	8.3	46,743	20,197	2.3	87,209	25,075	3.5
16-Jun <sup>a</sup>									
17-Jun	55,238	7,134	7.7	35,398	11,765	3.0	90,636	18,899	4.8
18-Jun	44,002	6,221	7.1	46,806	19,802	2.4	90,808	26,023	3.5
19-Jun	24,412	2,798	8.7	10,394	5,484	1.9	34,806	8,282	4.2
20-Jun	19,386	1,701	11.4	23,237	14,347	1.6	42,623	16,048	2.7
21-Jun <sup>a</sup>									
22-Jun	35,248	3,166	11.1	16,900	7,347	2.3	52,148	10,513	5.0
23-Jun	37,795	3,168	11.9	19,417	6,675	2.9	57,212	9,843	5.8
24-Jun	71,634	7,233	9.9	22,868	19,011	1.2	94,502	26,244	3.6
25-Jun	15,810	1,593	9.9	33,290	30,925	1.1	49,100	32,518	1.5
26-Jun <sup>a</sup>									
27-Jun	22,919	5,778	4.0	12,365	7,463	1.7	35,284	13,241	2.7
28-Jun	7,359	1,462	5.0	10,870	3,776	2.9	18,229	5,238	3.5
29-Jun	16,509	3,798	4.3	18,589	5,811	3.2	35,098	9,609	3.7
30-Jun <sup>a</sup>									
Total	487,880	100,427	4.9	330,985	171,273	1.9	818,865	271,700	3.0

<sup>a</sup> Closed to commercial fishing.

Appendix B23.—South Unimak and Shumagin Islands June commercial fisheries sockeye to chum salmon ratios by location, gear type, and year, 1970–2010.

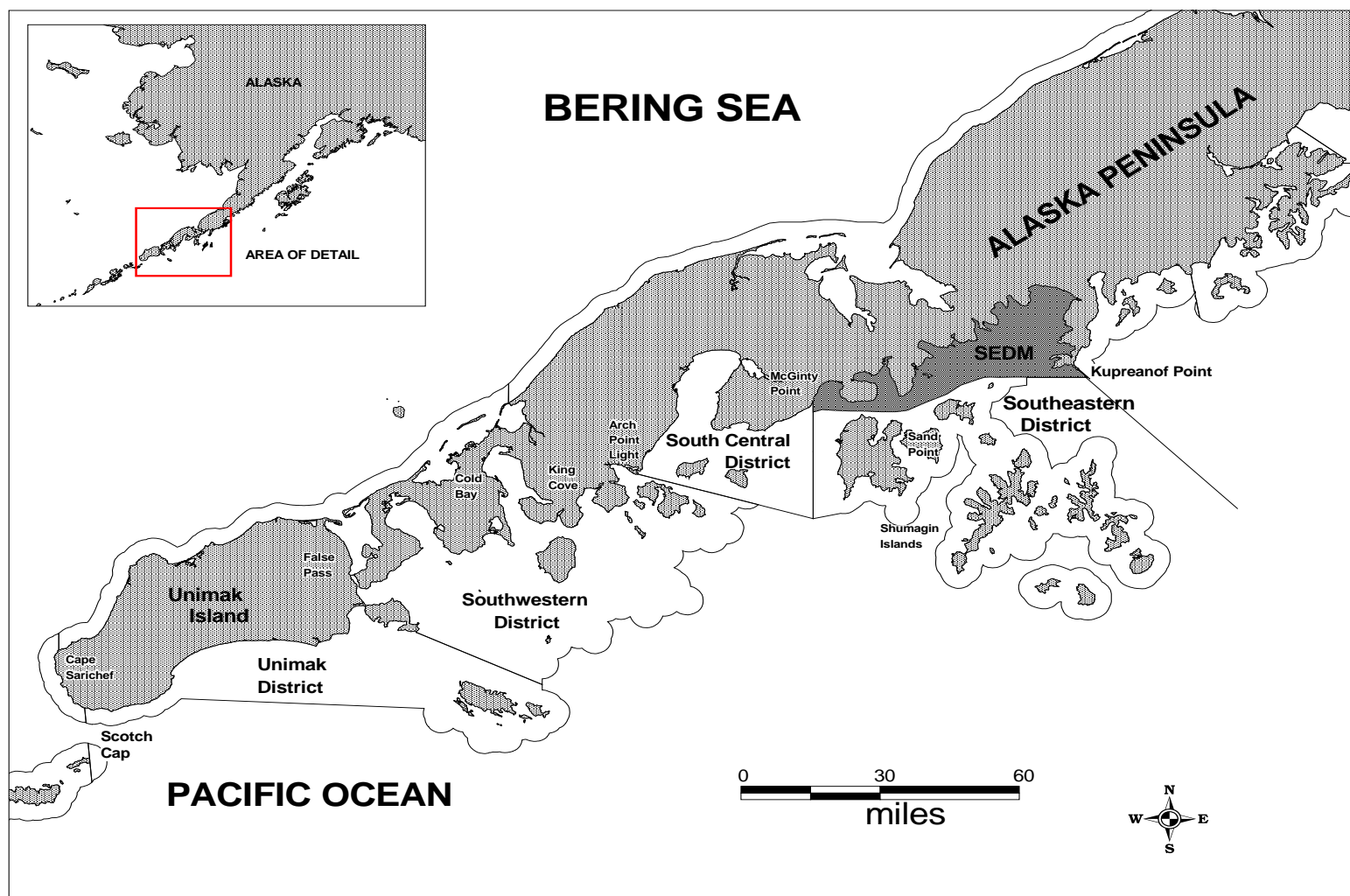
Year	South Unimak				Shumagin Islands		
	Purse Seine	Drift Gillnet	Set Gillnet	Total	Purse Seine	Set Gillnet	Total
1970	5.9	2.9	9.4	3.9	3.0	4.2	3.1
1971	1.4	1.0	--	1.0	0.3	1.2	0.4
1972	1.4	1.0	--	1.0	0.7	1.5	0.7
1973	1.8	1.2	2.3	1.2	0.9	2.2	1.0
1974 <sup>a</sup>							
1975	2.3	3.2	--	2.9	1.4	1.4	1.4
1976	0.8	0.7	4.1	0.7	1.0	1.5	1.0
1977	3.0	2.0	4.9	2.1	2.0	10.6	2.1
1978	7.6	3.6	27.5	4.1	3.7	3.0	3.7
1979	25.0	4.5	14.7	10.6	4.2	7.7	4.4
1980	5.7	6.7	55.0	6.0	9.4	12.4	9.4
1981	2.3	3.8	21.4	2.9	6.2	25.4	6.5
1982	2.1	1.5	11.1	1.8	2.7	6.7	2.8
1983	2.3	2.9	12.8	2.5	2.4	16.3	2.5
1984	5.2	4.5	36.4	5.0	2.2	19.2	2.4
1985	7.1	2.8	14.8	4.5	3.0	4.0	3.1
1986	1.3	1.2	6.7	1.2	1.4	4.7	1.6
1987	1.5	1.6	5.0	1.6	3.1	13.8	3.8
1988	0.9	1.0	5.2	1.0	4.0	7.3	4.6
1989	3.8	2.7	12.7	3.3	8.1	11.9	8.4
1990 <sup>b</sup>	2.4	2.4	11.3	2.4	3.7	8.6	4.0
1991	1.6	2.1	6.5	1.8	2.8	9.5	3.2
1992	5.8	6.6	23.3	6.3	3.8	9.9	4.0
1993	5.5	7.5	8.0	6.2	3.6	24.1	4.0
1994	2.4	2.9	10.2	2.7	1.7	15.8	2.2
1995	3.8	4.6	5.6	4.2	2.9	9.9	3.4
1996	3.1	4.9	10.2	4.4	1.6	12.0	2.0
1997	3.0	7.0	11.5	6.0	2.9	14.0	3.6
1998	2.6	5.3	7.9	5.0	3.9	14.8	6.3
1999	4.4	6.5	6.2	5.9	3.7	17.4	4.6
2000	2.5	6.3	7.4	5.3	4.2	20.9	5.1
2001	3.0	3.3	5.1	3.4	2.2	5.2	2.4
2002	1.6	1.8	2.9	1.8	1.1	6.0	1.3
2003	2.5	2.6	6.3	2.8	0.5	5.1	0.7
2004	5.0	3.4	22.3	4.1	1.8	13.9	2.3
2005	3.4	2.0	22.3	3.0	1.3	9.7	2.0
2006	15.3	2.7	30.8	5.1	1.7	6.7	2.2
2007	3.1	4.9	20.5	4.8	5.3	13.3	5.9
2008	2.7	4.2	7.3	3.7	4.9	6.8	5.1
2009	2.0	3.3	7.8	3.0	0.9	3.4	1.2
2010	6.8	4.1	6.4	4.9	1.7	5.1	1.9
1990–2009 Average							
	3.8	4.2	11.7	4.1	2.7	11.3	3.3
2000–2009 Average							
	4.1	3.5	13.3	3.7	2.4	9.1	2.8

<sup>a</sup> No fishery due to anticipated poor sockeye salmon runs to Bristol Bay.

<sup>b</sup> Gear depth limitations in effect beginning in 1990.

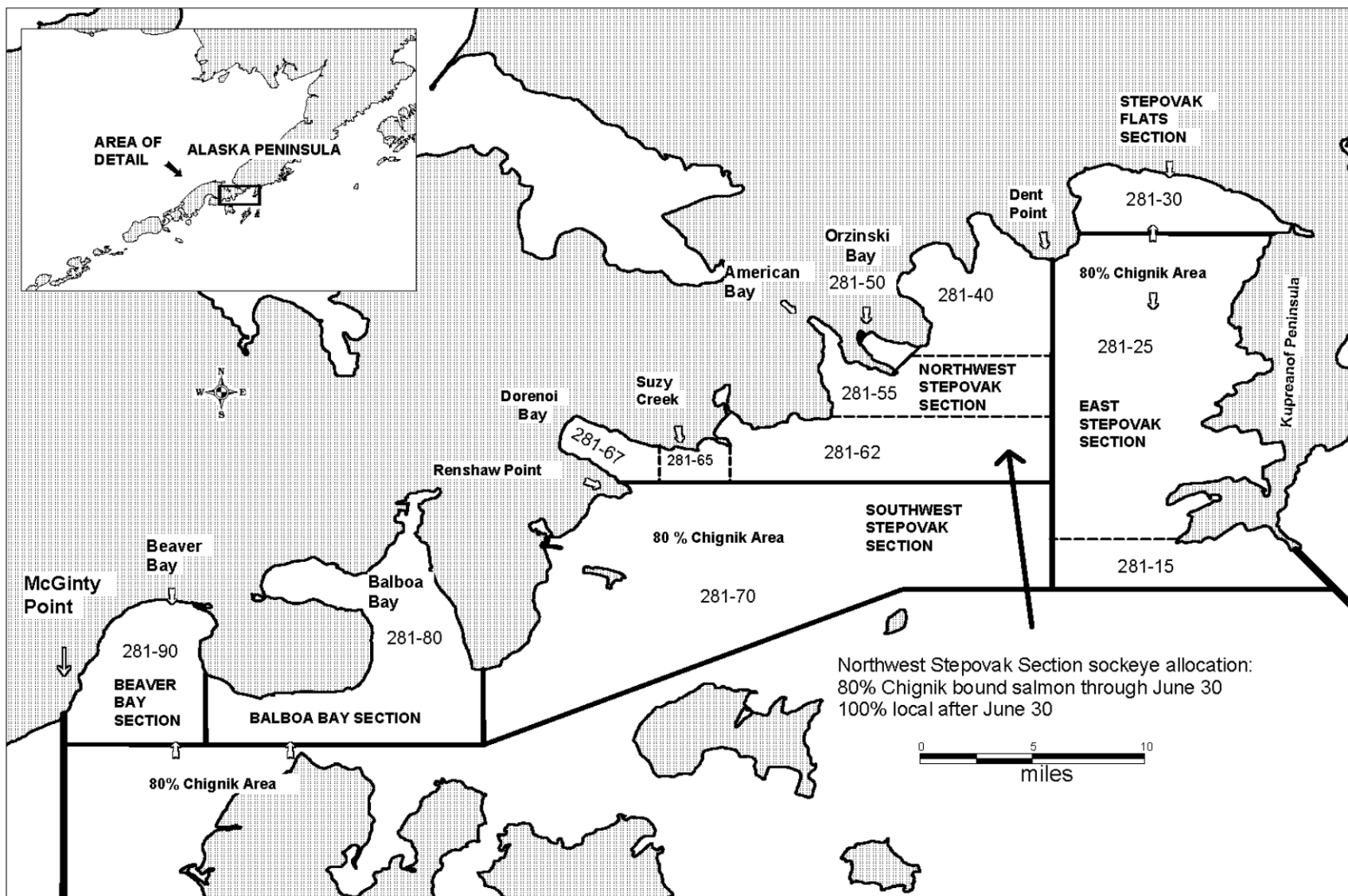


## **APPENDIX C. SOUTHEASTERN DISTRICT MAINLAND FISHERIES**



Appendix C1.—Map of South Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with Southeastern District Mainland highlighted.





Appendix C2.—Map of Southeastern District Mainland (SEDM) fishery from Kupreanof Point to McGinty Point with salmon fishing sections defined.

### **1974–1978**

Prior to 1974, the SEDM fishery was regulated by set weekly fishing periods, which were generally five days per week. From 1974 through 1977, the fishery was open on a day per day basis with Chignik Lagoon. In 1978, the BOF restricted fishing time to three days per week for set gillnet gear only through July 10. Since 1978, set gillnets have been the only legal gear through July 10 in the SEDM (Jackson and Poetter 2006). During 1978, harvest rates were low despite strong Chignik runs, resulting in a SEDM catch of only 31,197 sockeye salmon, of which 22,064 sockeye were considered Chignik-bound, 1.3% of the total Chignik harvest (Appendices C5 and C8). From 1973 to 1978, an average of 20 set gillnet and 17 purse seine fishermen participated in this fishery (Figures 4 and 5).

### **1979–1984**

Beginning with the 1979 season, the BOF increased fishing time from three days to five days per week but specified that not more than 60,000 Chignik-bound sockeye salmon could be harvested through July 10 in the SEDM. The BOF stipulated that the SEDM fishery would be closed if it became apparent that the Chignik escapement requirements were not ensured. The BOF also stated that if CMA catch exceeded 1,000,000 sockeye salmon before July 10, the SEDM fishery could continue beyond the 60,000 sockeye salmon ceiling. This management plan remained in effect until 1985.

From 1979 to 1982, the annual SEDM harvest averaged 118,429 sockeye salmon; 76,476 sockeye salmon were considered to be Chignik-bound (6.4% of the total Chignik-bound sockeye harvest; Table 3; Figure 6). These harvests were achieved in spite of numerous fishery closures imposed by the ADF&G because of poor Chignik sockeye salmon escapements. Set gillnet fishing activity increased from 23 permits in 1978 to 37 permits in 1982 (Appendix C9).

In 1983, an estimated 227,392 Chignik-bound sockeye salmon were harvested in the SEDM fishery (Table 3). Most of the sockeye salmon (76%) were harvested after July 10 (Shaul et al. 1983).

In 1984, set gillnet effort increased to 54 permits, of which five were operated by fishermen who were also purse seine permit holders (Appendix C9). Because of an exceptionally strong early Chignik run, and the large number of fish available in the SEDM, only six fishing days were required to harvest an estimated 60,000 Chignik-bound sockeye salmon. The SEDM fishery was closed for only three days and was reopened on June 14 when the Chignik sockeye salmon harvest reached 1,000,000 fish. In 1984, the late Chignik sockeye salmon run was weaker than predicted, and the second run escapement goal was reached only after considerable curtailment of the SEDM, Chignik, and Cape Igvak (Kodiak Management Area) fisheries during mid-July. Total 1984 SEDM harvest of Chignik-bound sockeye salmon was 423,068 sockeye, or 12.6 percent of the total Chignik-bound sockeye salmon harvest (Appendix C5).

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### **1985–1991**

For the 1985 season, the BOF modified the *SEDM Management Plan* based on the *Cape Igvak Salmon Management Plan* from the Kodiak Management Area, instead of using a set fishing schedule. The BOF plan directed the ADF&G to manage the fishery so that the number of sockeye salmon taken in the SEDM fishery (exclusive of the Northwest Stepovak Section) approached as near as possible to 6.2% of the total Chignik-bound sockeye salmon harvest, June 1 through July 25. In the fall of 1987, the ADF&G re-evaluated the data used to calculate the allocation and determined that 6.0% was appropriate. The BOF changed the allocation, based on the re-evaluated data, beginning with the 1988 season.

However, before the SEDM fishery could open certain criteria had to be met. In years when a harvestable surplus for the early and late runs of Chignik River system sockeye salmon was expected to be less than 600,000 fish, no commercial salmon fishery targeting Chignik-bound sockeye salmon would be allowed in the SEDM fishery until a harvest of 300,000 sockeye salmon was achieved in the Chignik Area. After July 8, fishing in the SEDM might occur provided at least 300,000 sockeye salmon had been harvested in the Chignik Area, escapement objectives were being met, and the Chignik Area harvest was anticipated to total at least 600,000 sockeye salmon. In addition, the number of sockeye salmon taken in the SEDM fishery needed to be as near as possible to 6.0% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25.

From 1985 through 1991, the harvest of Chignik-bound sockeye salmon in the SEDM, averaged 88,776 salmon, 5.5% of the total Chignik-bound sockeye salmon harvest, and ranged from 4,485 fish in 1989 to 152,714 fish in 1991 (Appendix C5).

### **1992–1995**

The BOF revised the *SEDM Management Plan* prior to the 1992 season. The revised plan was in effect from 1992 through 1995, and included two significant changes:

1. The Northwest Stepovak Section to be managed on a local stock basis was reduced to include only waters of Orzinski Bay; the Stepovak Flats Section would continue to be managed on the basis of Stepovak River chum salmon stock (Appendix C2).
2. The allowable harvest of Chignik-bound sockeye salmon in the SEDM fishery (exclusive of Orzinski Bay) was increased from 6.0% to 7.0% of the total Chignik-bound sockeye salmon catch.

From 1992 to 1995, the harvest of Chignik-bound sockeye in the SEDM, averaged 113,258 salmon and 7.0% of the total Chignik-bound sockeye salmon harvest (Appendix C5).

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### **1996–1997**

In January 1996, the BOF made the following changes to the *SEDM Management Plan*:

1. The area to be managed for local Orzinski Lake sockeye salmon increased to include Orzinski Bay and the entire Northwest Stepovak Section (Appendix C2). Prior to July 1, the entire Northwest Stepovak Section was managed on an allocation based on the strength of the Chignik sockeye salmon runs as described in 5 AAC 09.360(a)(1) and (b)–(h). Beginning July 1, Northwest Stepovak Section would be managed entirely on local stocks. Stepovak Flats would continue to be managed on the basis of the Stepovak River chum salmon stocks.
2. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery was decreased from 7.0% to 6.0% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25. This BOF action was taken in an attempt to maintain traditional harvest levels of Chignik-bound sockeye salmon in the SEDM fishery and to compensate for the increased area managed for local Orzinski Lake sockeye salmon.
3. The BOF established a closed waters area encompassing Kupreanof Point, as described in 5 AAC 09.350(37), from July 6 through at least August 31 (Jackson and Poetter 2006).

### **1998–2006**

In January 1998, the BOF made the following changes to the *SEDM Management Plan*:

1. Prior to July 1, the SEDM (Appendix C2) is managed on an allocation based on the strength of the Chignik Area sockeye salmon runs as described in 5 AAC 09.360 and 80% of the sockeye salmon caught are considered Chignik-bound. However, beginning July 1, all sockeye salmon caught in NWSS are considered local fish and are not counted toward the allocation. The NWSS, outside Orzinski Bay, may open to commercial salmon fishing during July 1–July 25 if Orzinski Lake sockeye salmon interim escapement objectives are being met, and the CMA sockeye salmon harvest is expected to be more than 600,000 fish through July 25. The BOF mandated fishing schedule for NWSS, excluding Orzinski Bay from July 1–July 25, cannot exceed four days during a seven-day period. The maximum number of consecutive fishing days allowed is two (Figure 8 in Jackson and Poetter 2007).
2. Beginning July 1, the NWSS is managed entirely on local stocks. All sockeye salmon harvested in the NWSS after July 1 are considered to be from Orzinski Lake stocks. The Stepovak Flats Section is managed for chum salmon returning to local streams throughout the entire season. However, 80% of the sockeye salmon caught in the Stepovak Flats Section through July 25 are considered Chignik-bound fish (Figure 7 in Jackson and Poetter 2006).
3. The BOF allocated 6% of the total Chignik-bound sockeye salmon harvest from June 1 through July 25 to the SEDM fishery.

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4. The BOF directed the ADF&G to consider an extension of the Kupreanof Point closed waters area, as described in 5 AAC 09.350(37), by emergency order (Figure 7 in Jackson and Poetter 2006). The Kupreanof Point closed waters extension remains in effect through October 31 if waters specified in 5 AAC 15.350(20) are closed to conserve coho salmon in the CMA.
5. Orzinski Bay may open to purse seine gear prior to July 11 if the ADF&G determines the interim escapement objectives have been exceeded (Appendix C13).

The total Chignik-bound sockeye salmon harvest from June 1 through July 25 is calculated by adding 100% of CMA sockeye salmon harvest, 90% of Cape Igvak Section (KMA) and 80% of SEDM sockeye salmon harvests from June 1–July 25, excluding 100% of the sockeye salmon caught within the NWSS from July 1–25.

### **2007–Present**

In January 2007, the BOF made the following changes to the *SEDM Management Plan* 5 AAC 09.360:

1. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery was changed from 6% to 7.6% of the total number of sockeye salmon harvested in the CMA from June 1 through July 25, and Cape Igvak is no longer contributing to the allocation.
  2. If the Orzinski Lake escapement met or exceeded 25,000 sockeye salmon, the NWSS and Orzinski Bay may be opened concurrently as follows:
    - (A) set gillnet gear may be operated continuously until midnight July 25, and
    - (B) purse seine and hand purse seine gear will be operated as specified in 5 AAC 09.360(e)(1).
  3. From July 26 through September 30, the fishery is managed for local sockeye, pink, chum, and coho salmon stocks.
  4. From July 26 through September 30, the fishery will be closed for at least one 36-hour period within a seven-day period.
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Appendix C4.—Harvest of sockeye salmon, in number of fish and percent, considered to be Chignik-bound by regulation in the Chignik, Cape Igvak, and Southeastern District Mainland Areas from 1964–2010.

Year	Chignik Area <sup>a</sup>		Cape Igvak <sup>a</sup>		Southeastern District Mainland Area <sup>a</sup>		Total
	Harvest	Percent	Harvest	Percent	Harvest	Percent	
1964 <sup>b</sup>	556,890	90.6	14,980	2.4	43,021	7.0	614,891
1965 <sup>b</sup>	599,553	89.9	11,021	1.7	56,020	8.4	666,594
1966 <sup>b</sup>	219,794	88.0	18,003	7.2	12,011	4.8	249,808
1967 <sup>b</sup>	462,000	91.5	23,014	4.6	20,021	4.0	505,035
1968 <sup>b</sup>	977,382	82.5	135,951	11.5	70,959	6.0	1,184,292
1969 <sup>b</sup>	394,135	79.0	97,982	19.6	7,013	1.4	499,130
1970 <sup>bc</sup>	1,314,052	72.5	434,394	23.8	68,181	3.7	1,816,627
1971 <sup>b</sup>	750,206	80.3	197,614	15.6	51,272	4.1	999,092
1972 <sup>b</sup>	256,204	88.0	33,865	7.9	17,752	4.1	307,821
1973	769,258	89.0	57,348	6.6	37,983	4.4	864,589
1974 <sup>d</sup>	530,278	73.6	122,071	16.9	68,029	9.4	720,378
1975 <sup>d</sup>	115,984	81.8	23,635	16.7	2,205	1.6	141,824
1976 <sup>d</sup>	792,024	83.0	117,926	12.4	44,730	4.7	954,680
1977 <sup>d</sup>	1,547,285	90.4	128,852	7.5	35,502	2.1	1,711,639
1978 <sup>e,f</sup>	1,454,389	85.5	225,014	13.2	22,064	1.3	1,701,467
1979 <sup>g</sup>	794,504	91.8	13,950	1.6	56,878	6.6	865,332
1980	670,001	91.3	32	0.0	63,724	8.7	733,757
1981	1,606,300	79.9	282,727	14.1	122,533	6.1	2,011,560
1982	1,250,768	84.5	166,756	11.3	62,767	4.2	1,480,291
1983	1,450,832	72.7	318,048	15.9	227,392	11.4	1,996,272
1984	2,474,405	73.9	449,372	13.4	423,068	12.6	3,346,845
1985 <sup>h</sup>	690,698	79.8	123,627	14.3	51,421	5.9	865,746
1986	1,456,729	82.6	188,017	10.7	118,006	6.7	1,762,752
1987	1,659,236	78.0	321,506	15.1	146,886	6.9	2,127,628
1988	675,487	95.8	10,520	1.5	19,320	2.7	705,327
1989	496,044	99.1	0	0.0	4,485	0.9	500,529
1990	1,205,575	83.6	107,706	7.5	128,599	8.9	1,441,880
1991 <sup>i</sup>	1,962,583	80.4	324,329	13.3	152,714	6.3	2,439,626
1992 <sup>j</sup>	1,054,309	81.2	150,343	11.6	93,845	7.2	1,298,497
1993	1,495,098	77.7	300,055	15.6	128,536	6.7	1,923,689
1994 <sup>k</sup>	1,632,435	80.6	250,230	12.4	142,350	7.0	2,025,015
1995	1,024,785	79.9	169,530	13.2	88,302	6.9	1,282,617
1996 <sup>l</sup>	1,710,249	79.7	308,327	14.4	127,201	5.9	2,145,777
1997	443,892	100.0	0	0.0	0	0.0	443,892

-continued-

Year	Chignik Area <sup>a</sup>		Cape Igvak <sup>a</sup>		Southeastern District Mainland Area <sup>a</sup>		Total
	Harvest	Percent	Harvest	Percent	Harvest	Percent	
1998 <sup>mn</sup>	786,446	91.2	8,813	1.0	66,893	7.8	862,152
1999	2,326,811	78.7	456,039	15.4	173,621	5.9	2,956,471
2000	1,509,652	80.1	271,344	14.4	103,419	5.5	1,884,415
2001 <sup>o</sup>	1,134,991	79.4	215,214	15.1	79,037	5.5	1,429,242
2002 <sup>p</sup>	849,980	81.0	136,448	13.0	63,026	6.0	1,049,454
2003	855,179	81.7	121,887	11.6	70,044	6.7	1,047,110
2004	681,120	75.9	160,665	17.9	55,355	6.2	897,141
2005	1,097,405	70.8	274,328	17.7	177,906	11.5	1,549,639
2006	741,887	87.7	41,834	4.9	62,010	7.3	845,731
2007 <sup>q</sup>	601,213	92.0	52,527	8.0	0	0.0	653,740
2008	445,199	100.0	0	0.0	0	0.0	445,199
2009	871,890	100.0	126,968	12.1	48,322	5.5	1,047,180
2010	1,125,135	100.0	185,193	13.3	85,267	7.6	1,395,595
Averages							
1979-1984	1,374,468	82.3	205,148	9.4	159,394	8.3	1,739,010
1985-1991	1,163,765	85.6	153,672	8.9	88,776	5.5	1,406,213
1992-1996	1,383,375	79.8	235,697	13.4	116,047	6.8	1,735,119
2000-2009	878,852	84.9	140,121	11.5	65,912	5.4	1,084,885

<sup>a</sup> Before 2002, Cape Igvak and Southeastern District Mainland (SEDM) figures represent 80% of the total sockeye salmon catches for those areas based on the premise that 80% of the sockeye salmon caught in the Cape Igvak Section and the SEDM (excluding sockeye salmon caught in Northwest Stepovak Section from 1964–1991 and 1996–2005 and in Orzinski Bay only from 1992–1995) are bound for the Chignik Management Area (CMA).

<sup>b</sup> Data from 1964 to 1972 are based on total yearly catches. Prior to 1974, Cape Igvak and Southeastern District Mainland fisheries were set by regulation to weekly fishing periods, usually five days per week. Time modifications were implemented when poor escapements occurred at Chignik.

<sup>c</sup> Catches since 1970 were updated using historical electronic fish ticket databases.

<sup>d</sup> During 1974–1977 all three fisheries were managed on a day by day basis.

<sup>e</sup> Beginning in 1978, the Alaska Board of Fisheries (BOF) allocated 15 percent of the total sockeye salmon catch destined for Chignik to the Cape Igvak fishery.

<sup>f</sup> Beginning in 1978, seining prior to July 11 was disallowed in SEDM. Set gillnet fishermen were allowed to fish three days per week through July 10, after which the fishery was managed on the basis of local stocks.

<sup>g</sup> During 1979–1984 and prior to July 11, fishing was allowed five days per week in the Southeastern District Mainland Area with a maximum harvest of an estimated 60,000 sockeye destined for Chignik. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 maximum harvest was to be dropped.

<sup>h</sup> Beginning in 1985, SEDM was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, the SEDM was 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.

<sup>i</sup> CMA harvest includes over escapement of 278,305 sockeye counted past the weir during the Chignik Area seiners' price dispute (June 23–July 4, 1991).

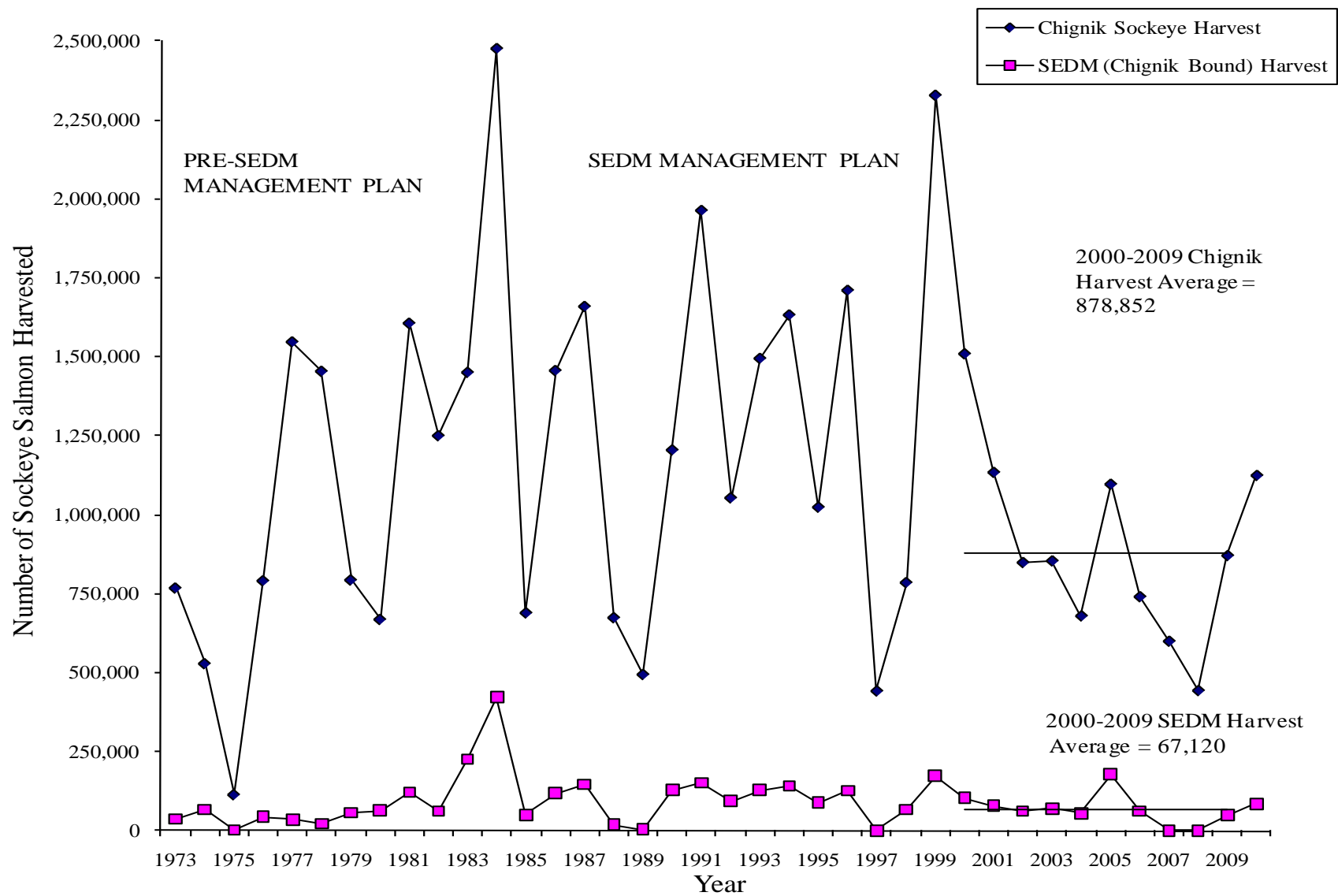
<sup>j</sup> Review of Orzinski Lake historical and current escapement records led the BOF to redefine the SEDM Management Plan. Beginning in 1992, the SEDM fishery (excluding Orzinski Bay) was placed on an allocation of 7.0% of the total estimated Chignik sockeye salmon catch through July 25.

<sup>k</sup> CMA harvest includes over escapement of 208,921 sockeye counted past the weir during the Chignik Area seiners' price dispute (June 22–June 25, 1994).

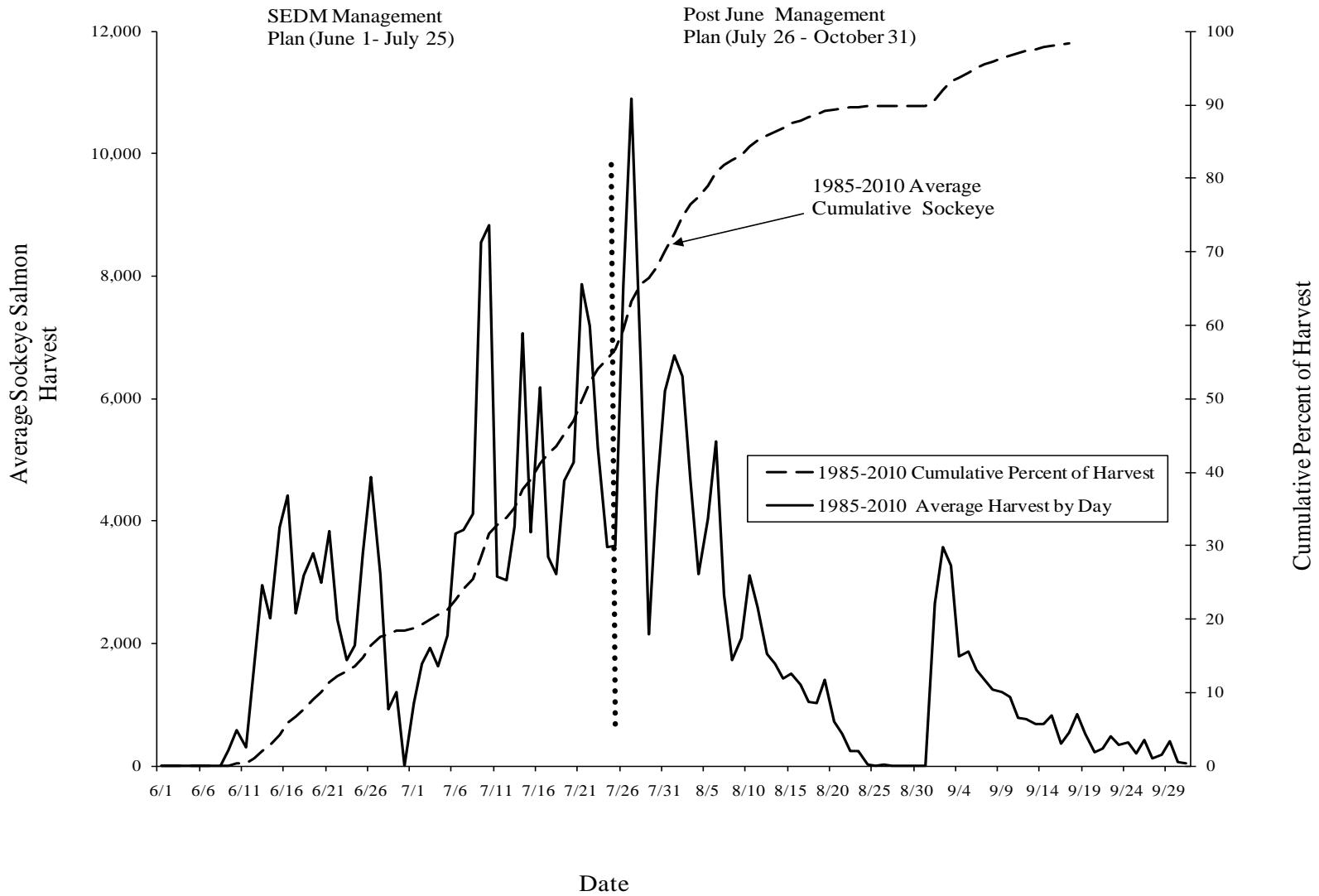
-continued-

- <sup>1</sup> In 1996, the area to be managed for local Orzinski Lake sockeye salmon was increased from only Orzinski Bay to the entire Northwest Stepovak Section. Prior to July 1, the entire Northwest Stepovak Section will be managed on an allocation based on the strength of Chignik sockeye salmon runs. Beginning July 1, Northwest Stepovak will be managed entirely on local stocks. The BOF also decreased the percentage of sockeye salmon allocated to the SEDM fishery from 7% to 6% to attempt to maintain traditional harvest levels of Chignik-bound sockeye salmon harvest in the SEDM fishery.
- <sup>m</sup> In 1998, the area managed entirely for local Orzinski Lake sockeye salmon was reduced from the entire Northwest Stepovak Section to only Orzinski Bay. All sockeye salmon caught in the Northwest Stepovak Section beginning July 1 would still be considered 100% local fish and not counted toward the 6% allocation. The remainder of SEDM sockeye salmon harvest allocated as 80% Chignik-bound fish. Assures minimum harvest of 600,000 sockeye salmon in Chignik through July 25.
- <sup>n</sup> CMA harvest includes 7,714 sockeye salmon caught by the Chignik Seiners Association (CSA), and an over escapement of 52,131 sockeye salmon counted past the weir during the CSA boycott (June 16–29, 1998).
- <sup>o</sup> CMA harvest includes a foregone harvest of 398,887 sockeye salmon which escaped past the weir as a result of the fishermen's strike (in the CMA). SEDM harvest includes a foregone harvest of 27,896 sockeye salmon which escaped past the Orzinski weir as a result of the fishermen's strike (in SEDM).
- <sup>p</sup> Beginning in 2002, the percent of sockeye salmon harvested in Cape Igvak Section considered to be Chignik-bound was increased from 80% to 90%.
- <sup>q</sup> Beginning in 2007, the percent sockeye salmon harvested in SEDM was considered independent of the Igvak fishery and based solely on 7.6% of Chignik Area harvest.





Appendix C5.—Harvest comparison of Chignik-bound sockeye salmon June 1 through July 25, 1973–2010.



Appendix C6.—SEDM average sockeye salmon harvest and cumulative percent of harvest by date, 1985–2010.

Appendix C7.—Southeastern District Mainland salmon harvest by species, all gear combined, June 1–July 25, 1970–2010.

Year	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	27	288	32	84,603	183	21,836	16,244	122,898
1971	33	294	94	63,366	92	18,741	18,206	100,499
1972	23	180	34	21,105	85	5,762	9,735	36,721
1973	18	171	17	47,579	231	4,503	5,236	57,566
1974	42	363	50	92,562	216	29,769	7,783	130,380
1975	13	25	0	3,156	63	3,020	770	7,009
1976	41	221	58	59,844	37	20,059	6,759	86,757
1977	52	266	33	48,589	940	43,301	11,454	104,317
1978	42	213	39	31,197	354	33,140	16,104	80,834
1979	42	344	119	90,658	5,857	45,582	7,561	149,777
1980	36	420	79	96,665	1,608	40,779	59,441	198,572
1981	69	718	1,320	202,540	3,058	17,347	172,340	396,605
1982	67	893	401	86,793	1,920	209,898	134,473	433,485
1983	78	852	1,387	302,387	3,222	11,295	101,873	420,164
1984	87	1,736	1,054	595,044	4,414	199,990	141,452	941,954
1985	72	418	177	80,957	909	74,592	87,116	243,751
1986	60	645	219	206,532	770	40,771	51,003	299,295
1987	59	537	130	244,895	197	2,363	21,332	268,917
1988	57	345	214	81,160	2,318	97,534	74,743	255,969
1989	67	248	145	89,224	1,226	210,017	6,570	307,182
1990	115	408	694	166,322	16,809	48,999	43,479	276,303
1991	98	818	614	289,727	1,386	24,788	12,113	328,628
1992	65	664	170	215,444	135	15,939	20,629	252,317
1993	117	845	1,093	210,927	4,207	78,278	9,266	303,771
1994	56	678	242	221,657	1,041	11,158	5,651	239,749
1995	84	718	321	159,381	2,286	52,772	21,809	236,569
1996	89	1,210	325	284,076	3,846	71,856	36,478	396,581
1997	69	1,194	146	304,629	1,380	16,613	6,368	329,136
1998	65	365	307	117,131	2,959	125,030	9,929	255,356
1999	90	679	184	217,026	898	42,905	8,390	269,403
2000	90	1,194	174	202,435	6,968	57,176	27,261	294,014
2001	67	571	177	106,607	1,314	42,220	50,211	200,529
2002	65	1,026	545	153,469	5,390	143,365	18,752	321,521
2003	59	1,055	309	222,651	2,234	129,458	12,272	366,924
2004	44	773	389	210,545	4,536	57,617	5,827	278,914
2005	64	510	97	245,153	6,030	312,207	9,633	573,120
2006	37	117	29	77,513	2,805	77,685	13,259	171,291
2007 <sup>a</sup>								
2008	28	299	29	31,669	505	34,137	6,139	72,479
2009	61	742	120	151,765	1,999	59,799	15,630	229,313
2010	61	938	882	167,756	2,915	14,605	74,186	260,344
Averages								
2000-2009	52	629	187	140,181	3,178	91,366	15,898	250,811
2005-2009	38	334	55	101,220	2,268	96,766	8,932	209,241

<sup>a</sup> No fishery.

Appendix C8.–Southeastern District Mainland salmon harvest by species, set gillnet gear, June 1–July 25, 1970–2010.

Year	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	18	258	22	80,692	156	6,112	12,447	99,429
1971	15	255	74	60,767	56	1,000	8,442	70,339
1972	15	160	28	19,491	81	2,001	5,456	27,057
1973	16	162	10	46,603	94	1,850	3,938	52,495
1974	32	278	32	70,433	144	8,147	3,675	82,431
1975	7	14	0	1,807	29	960	592	3,388
1976	19	167	51	54,120	0	5,147	2,154	61,472
1977	22	158	20	33,943	0	5,791	5,041	44,795
1978	23	189	28	29,070	33	1,785	5,733	36,649
1979	29	318	100	79,432	3,036	11,245	5,881	99,694
1980	24	384	75	89,769	597	5,972	28,894	125,307
1981	32	604	1,203	182,527	333	4,339	22,121	210,523
1982	37	753	273	79,442	947	19,204	32,729	132,595
1983	36	707	365	215,280	1,030	1,840	14,718	233,233
1984	54	1,657	708	567,043	1,481	45,542	32,007	646,781
1985	49	367	157	78,347	184	8,075	9,579	96,342
1986	42	616	177	196,545	449	9,540	20,350	227,061
1987	53	528	111	244,413	102	1,555	12,944	259,125
1988	41	300	84	77,204	731	16,595	11,532	106,146
1989	42	194	87	46,977	105	11,100	1,449	59,718
1990	46	277	191	85,368	829	1,465	9,064	96,917
1991	59	747	439	275,768	857	6,128	7,733	290,925
1992	59	650	166	214,638	115	11,129	5,797	231,845
1993	64	763	557	186,656	664	14,757	3,416	206,050
1994	56	678	242	221,657	1,041	11,158	5,651	239,749
1995	58	688	268	139,515	182	13,097	8,184	161,246
1996	64	1,164	252	276,212	2,869	52,785	31,859	363,977
1997	57	1,171	102	293,750	889	12,288	5,874	312,903
1998	45	340	97	74,069	1,439	33,880	3,413	112,898
1999	63	649	164	205,706	351	8,495	6,772	221,488
2000	64	1,163	160	199,605	5,612	42,700	24,572	272,649
2001	51	551	113	102,213	1,146	27,790	43,962	175,224
2002	53	1,001	476	145,656	1,127	82,515	14,660	244,434
2003	48	1,035	268	211,069	1,574	76,530	10,570	300,011
2004	42	763	389	206,316	4,397	55,202	5,827	272,131
2005	43	474	58	152,978	1,003	30,855	4,440	189,334
2006	24	102	4	39,849	339	7,910	4,701	52,803
2007 <sup>a</sup>								
2008	27	299	29	30,861	505	28,566	6,072	66,033
2009	44	701	64	133,526	1,134	22,826	11,151	168,701
2010	45	906	46	161,675	1,534	7,607	27,466	198,328
Averages								
2000–2009	40	609	156	122,207	1,684	37,489	12,596	174,132
2005–2009	28	315	31	71,443	596	18,031	5,273	95,374

<sup>a</sup> No fishery.



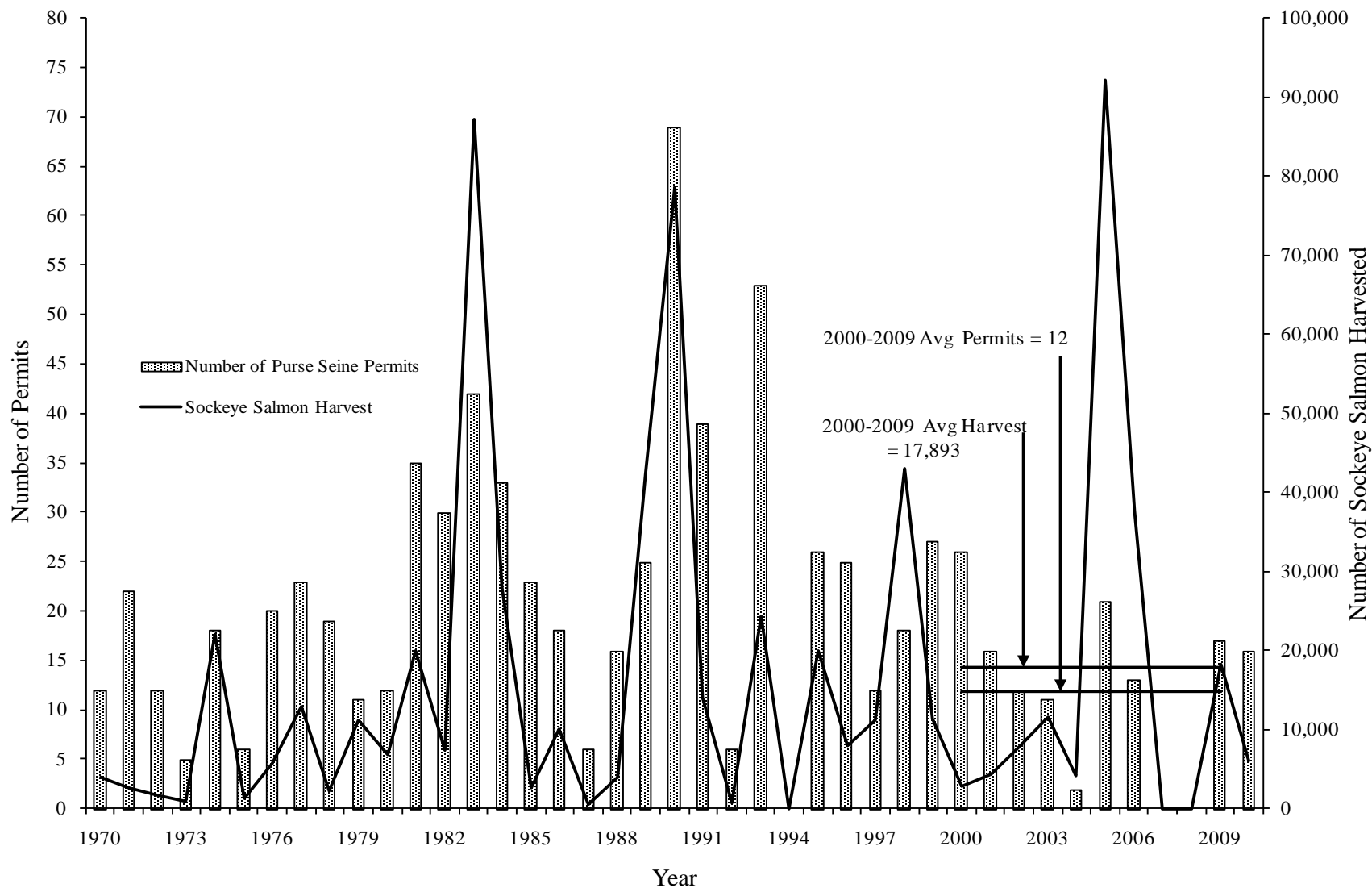
Appendix C9.—Set gillnet effort and sockeye salmon harvests in the Southeastern District Mainland fishery, June 1 through July 25, 1970–2010.

Appendix C10.—Southeastern District Mainland salmon harvest by species, purse seine gear, June 1–July 25, 1970–2010.

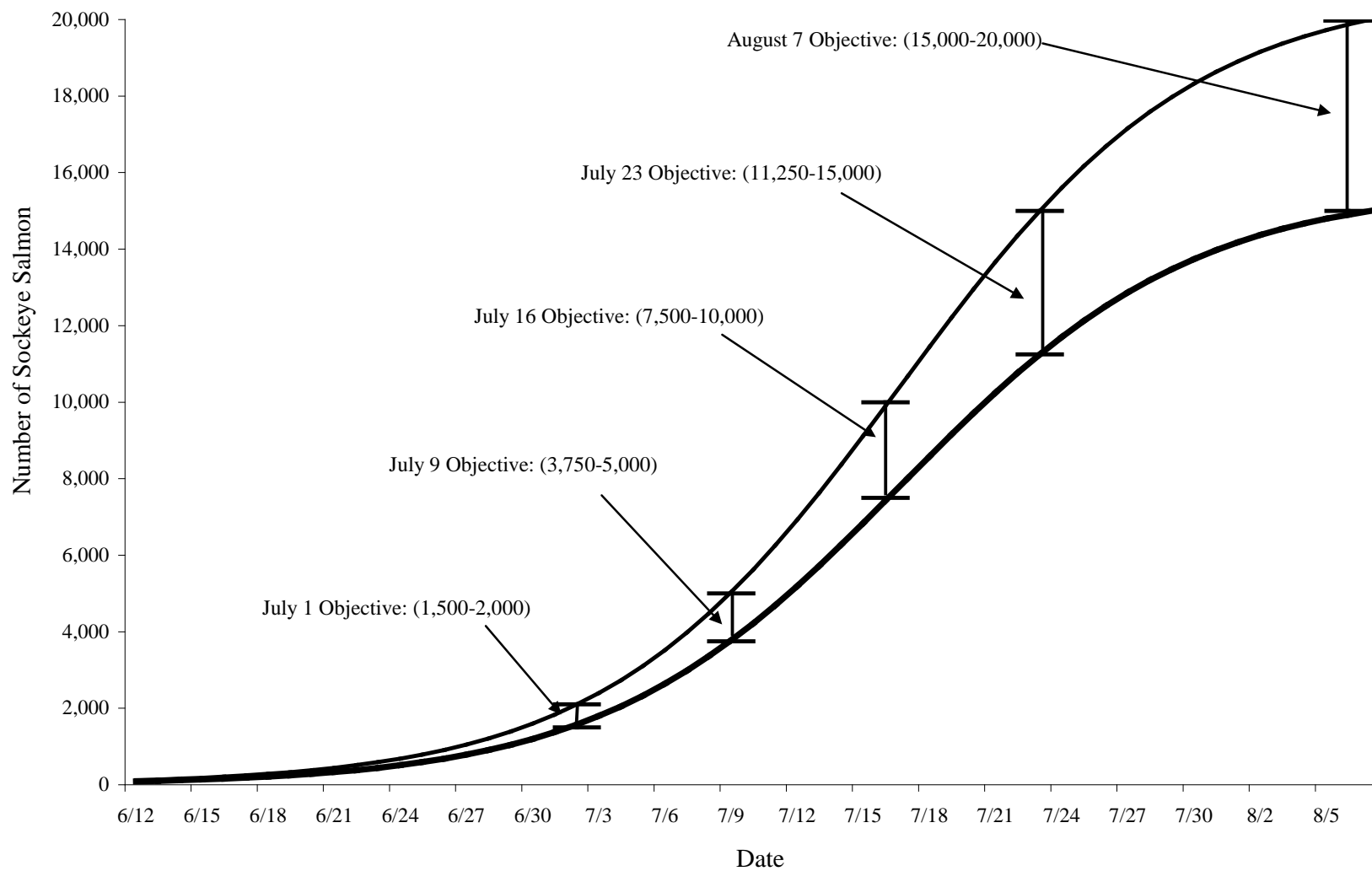
Year	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	13	29	10	3,911	27	13,679	3,730	21,357
1971	24	39	20	2,599	36	17,741	9,764	30,160
1972	12	21	6	1,614	4	3,761	4,279	9,664
1973	5	9	7	976	137	2,653	1,298	5,071
1974	18	85	18	22,129	72	21,622	4,108	47,949
1975	6	11	0	1,349	34	2,060	178	3,621
1976	22	54	7	5,724	37	14,912	4,605	25,285
1977	30	108	13	14,646	940	37,510	6,413	59,522
1978	19	24	11	2,267	321	31,355	10,371	44,325
1979	12	23	19	11,159	2,821	34,331	1,676	50,006
1980	12	36	4	6,896	1,011	34,807	30,547	73,265
1981	35	112	117	19,883	2,725	12,984	149,523	185,232
1982	30	140	128	7,351	973	190,694	101,744	300,890
1983	42	145	1,022	87,107	2,192	9,455	87,155	186,931
1984	33	79	346	28,001	2,933	154,448	109,445	295,173
1985	23	51	20	2,610	725	66,517	77,537	147,409
1986	18	29	42	9,987	321	31,231	30,653	72,234
1987	6	9	19	482	95	808	8,388	9,792
1988	16	45	130	3,956	1,587	80,939	63,211	149,823
1989	25	54	58	42,247	1,121	198,917	5,121	247,464
1990	69	131	503	80,954	15,980	47,534	34,415	179,386
1991	39	71	175	13,959	529	18,660	4,380	37,703
1992	6	14	4	806	20	4,810	14,832	20,472
1993	53	82	536	24,271	3,543	63,521	5,850	97,721
1994 <sup>a</sup>								
1995	26	30	53	19,866	2,104	39,677	13,625	75,325
1996	25	46	73	7,864	977	19,071	4,619	32,604
1997	12	23	44	11,115	491	4,325	494	16,469
1998	20	25	210	43,062	1,520	91,150	6,516	142,458
1999	27	30	20	11,320	547	34,410	1,618	47,915
2000	26	31	14	2,830	1,356	14,476	2,689	21,365
2001	16	20	64	4,394	168	14,430	6,249	25,305
2002	12	25	69	7,813	4,263	60,850	4,092	77,087
2003	11	20	41	11,582	660	52,928	1,702	66,913
2004 <sup>b</sup>								
2005	21	36	39	92,175	5,027	281,352	5,193	383,786
2006	13	15	25	37,664	2,466	69,775	8,558	118,488
2007 <sup>a</sup>								
2008 <sup>b</sup>	1	3	0	808	0	5,571	67	6,446
2009	17	41	13	18,239	865	36,973	4,479	60,569
2010	16	32	836	6,081	1,381	6,998	46,720	62,016
Averages								
2000-2009	12	20	27	17,973	1,494	53,877	3,303	76,674
2005-2009	10	19	15	29,777	1,672	78,734	3,659	113,858

<sup>a</sup> No fishery.

<sup>b</sup> Numbers may not be released due to state confidentiality requirements.



Appendix C11.—Purse seine effort and sockeye salmon harvest in Southeastern District Mainland, by year, 1970–2010.



Appendix C12.—Orzinski Lake interim sockeye salmon escapement objectives by date.



Appendix C13.—Orzinski Lake sockeye salmon daily escapement by year, 1995–2010.

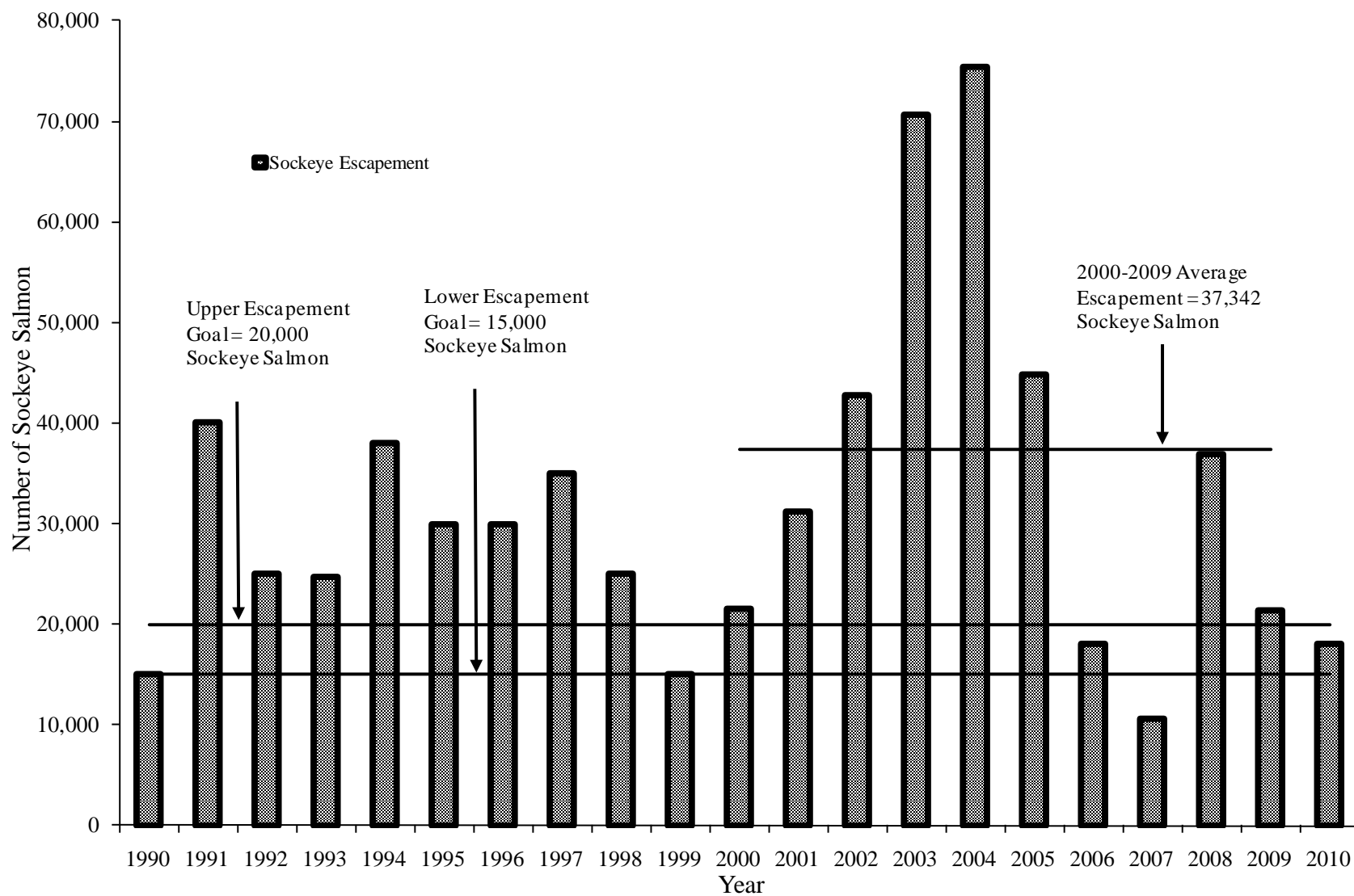
Date	Year															Average	Average
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2000-2009	2005-2009
8-Jun	0	0	0	0	0	1	0	0	0	0	0	0				0	0
9-Jun	0	0	0	0	0	0	0	0	0	0	0	0				0	0
10-Jun	0	0	0	0	0	0	0	0	0	0	0	0				0	0
11-Jun	0	0	0	0	0	0	0	3	0	0	0	0				0	0
12-Jun	3	0	0	0	0	0	4	2	13	0	0	0		0		2	0
13-Jun	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
14-Jun	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
15-Jun	8	0	0	0	1	18	0	0	18	0	0	0	0	0	0	4	0
16-Jun	0	12	0	2	4	18	0	2	14	0	0	0	0	0	0	4	0
17-Jun	0	17	0	0	44	22	0	0	1	5	0	1	14	52	19	14	14
18-Jun	0	0	11	3	44	53	2	27	86	15	0	5	23	49	0	30	18
19-Jun	0	8	0	2	22	22	1	0	373	0	0	0	0	43	14	46	9
20-Jun	2	0	14	5	40	66	225	359	22	0	0	3	5	20	0	74	6
21-Jun	3	20	8	10	30	5	286	41	172	1	3	7	0	57	7	60	14
22-Jun	0	17	0	10	3	892	49	4	34	0	34	20	20	8	284	106	16
23-Jun	20	128	14	5	2	202	95	9	96	0	4	19	33	1,376	52	184	286
24-Jun	0	8	43	9	229	0	1,283	10	145	2	1	3	4	42	7	172	10
25-Jun	131	0	0	36	445	0	1,797	79	1,202	14	0	33	0	13	0	358	12
26-Jun	593	8	105	34	5	0	790	300	2,649	1	0	104	0	456	0	431	112
27-Jun	581	16	820	86	69	1,190	0	7	392	0	0	31	4	11	1,063	170	9
28-Jun	218	877	235	21	1,150	225	2,765	10	4,001	0	8	0	37	1,048	93	924	219
29-Jun	178	70	22	43	801	0	84	0	919	5	4	81	784	4,330	214	701	1,041
30-Jun	628	86	177	1	10	4,175	1,823	2	8,014	43	0	31	573	769	79	1,544	283
1-Jul	2,985	33	586	276	6,488	691	2,711	13,451	6,942	1	1	28	4,933	1,171	1,159	3,642	1,227
2-Jul	1,020	59	2,381	4	963	722	329	8,131	1,071	70	85	9	749	52	218	1,218	193
3-Jul	3,249	1,738	264	65	191	1,612	1,469	5,778	1,189	46	3	0	277	654	1,397	1,122	196
4-Jul	3,165	3,050	58	194	161	46	618	3,002	2,112	987	2	0	68	299	78	730	271
5-Jul	282	10	79	252	402	0	2,136	535	1,167	674	30	4	0	511	55	546	244
6-Jul	425	5,208	62	34	475	409	1,265	1,203	808	7	18	3	0	609	38	480	127
7-Jul	205	2,504	191	112	592	461	82	4,176	1,860	2	36	0	1,593	261	235	906	378
8-Jul	256	246	0	23	660	1,384	419	2,057	3,033	260	619	166	1,231	61	47	989	467
9-Jul	617	378	1,135	1,289	384	2,463	703	1,172	2,745	4	1,054	153	8,832	613	970	1,812	2,131
10-Jul	637	305	1,092	89	95	221	1,339	1,867	1,281	1	21	33	1,956	256	423	707	453
11-Jul	1,167	57	7	1,110	118	252	0	932	796	60	9	38	890	143	436	324	228
12-Jul	194	99	2,402	846	20	434	3,614	3,058	993	1,946	0	88	1,479	1,096	197	1,273	922

-continued-

## Appendix C13.–Page 2 of 2.

Date	Year															Average	Average
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2000-2009	2005-2009
13-Jul	215	135	435	1,289	154	105	1,379	448	1,102	1	7	125	720	1,650	436	569	501
14-Jul	333	36	1,246	840	105	892	633	993	652	0	23	36	1,180	138	338	465	275
15-Jul	131	1,208	457	556	698	1,749	1,110	889	1,438	79	42	66	648	398	116	712	247
16-Jul	343	964	676	334	492	816	791	1,067	1,531	1,534	1,617	50	296	60	15	825	711
17-Jul	860	348	97	367	6	595	553	813	2,148	273	0	3	398	543	595	533	243
18-Jul	720	1,449	5	814	698	1,264	927	1,897	1,473	350	20	92	212	254	485	719	186
19-Jul	689	1,251	946	29	210	332	1,069	1,289	1,367	1,575	58	0	636	167	271	670	487
20-Jul	1,837	1,052	482	175	34	105	396	519	875	3,046	497	15	441	49	119	598	810
21-Jul	511	1,741	237	123	3	114	1,733	2,662	616	1,429	25	100	1,205	631	93	852	678
22-Jul	95	1,275	759	166	301	316	84	344	677	2,016	421	167	956	1,013	1,123	630	915
23-Jul	77	332	902	247	642	291	271	925	1,169	8,974	10	25	464	116	798	1,289	1,918
24-Jul	312	9	1,167	571	148	76	826	295	2,832	9,200	42	581	1,328	78	324	1,541	2,246
25-Jul	305	44	719	446	87	510	835	853	2,037	780	0	82	1,222	110	39	652	439
26-Jul	24	140	544	443	59	526	472	475	1,674	1,456	10	406	357	94	96	553	465
27-Jul	211		500	656	1,001	1,716	254	493	786	1,716	10	768	340	334	729	742	634
28-Jul	513		670	102	46	932	330	239	947	453	0	200	230	553	11	393	287
29-Jul			1,232	484	45	224	312	727	1,332	731	18	85	688	137	363	430	332
30-Jul			392	376	83	313	1,370	583	692	347	21	77	264	114	2,255	386	165
31-Jul			22		299	522	45	302	899	1,317	204	127	126	71	759	391	369
1-Aug					684	113		176			185	1,671	435	138	25	486	607
2-Aug					122						1,582	107	30	621	281	492	585
3-Aug					87						0	43	188	188	1,400	101	105
4-Aug											23	171	305		108	166	166
5-Aug											0	915	19		175	311	311
6-Aug												845	63			454	454
7-Aug												5	199			102	102
8-Aug												1,169	76			623	623
9-Aug												337	55			196	196
10-Aug												836	50			443	443
11-Aug												469	71			270	270
12-Aug												99	132			116	116
13-Aug												111				111	111
Total weir escapement	23,744	24,938	21,194	12,579	19,452	27,095	37,279	62,207	66,396	39,421	6,747	10,643	36,839	21,457	18,039	32,754	23,021
Post weir estimate	6,256	10,062	3,806	2,421	2,048	4,105	5,570	8,483	9,054	5,376	11,253						
Total estimated escapement	30,000	35,000	25,000	15,000	21,500	31,200	42,849	70,690	75,450	44,797	18,000	10,643	36,839	21,457	18,039	37,342	26,347

Appendix C14.—Orzinski Lake sockeye salmon escapement 1995–2010.



Appendix C15.—Northwest Stepovak Section commercial salmon harvest, all gear combined, by species and day, July 1 through July 25, 2010.

Date	Permits	Landings	Number of salmon				
			Chinook	Sockeye	Coho	Pink	Chum
1-Jul	0	0	0	0	0	0	0
2-Jul	25	39	0	5,476	0	8	264
3-Jul	28	52	0	5,717	0	6	332
4-Jul	22	36	1	6,073	0	5	302
5-Jul	5	18	0	1,856	0	0	22
6-Jul	17	30	0	4,288	1	8	319
7-Jul	29	64	3	10,522	43	33	1,194
8-Jul	19	21	1	4,609	14	26	434
9-Jul <sup>a</sup>							
10-Jul	9	10	1	1,634	0	64	164
11-Jul	21	43	0	7,718	2	94	913
12-Jul	13	23	0	3,674	3	83	395
13-Jul	5	8	0	531	0	11	62
14-Jul	15	30	1	4,704	14	190	853
15-Jul	17	30	1	3,239	44	204	964
16-Jul	12	13	1	1,105	1	41	199
17-Jul	0	0	0	0	0	0	0
18-Jul	0	0	0	0	0	0	0
19-Jul	0	0	0	0	0	0	0
20-Jul	0	0	0	0	0	0	0
21-Jul	0	0	0	0	0	0	0
22-Jul	0	0	0	0	0	0	0
23-Jul	0	0	0	0	0	0	0
24-Jul	0	0	0	0	0	0	0
25-Jul	0	0	0	0	0	0	0
Total	39	418	9	61,172	122	773	6,417

<sup>a</sup> Confidential information.

Appendix C16.—Southeastern District Mainland commercial fishing effort and assignment of sockeye salmon harvests (number of fish) June 1 through July 25, 1985–2010.

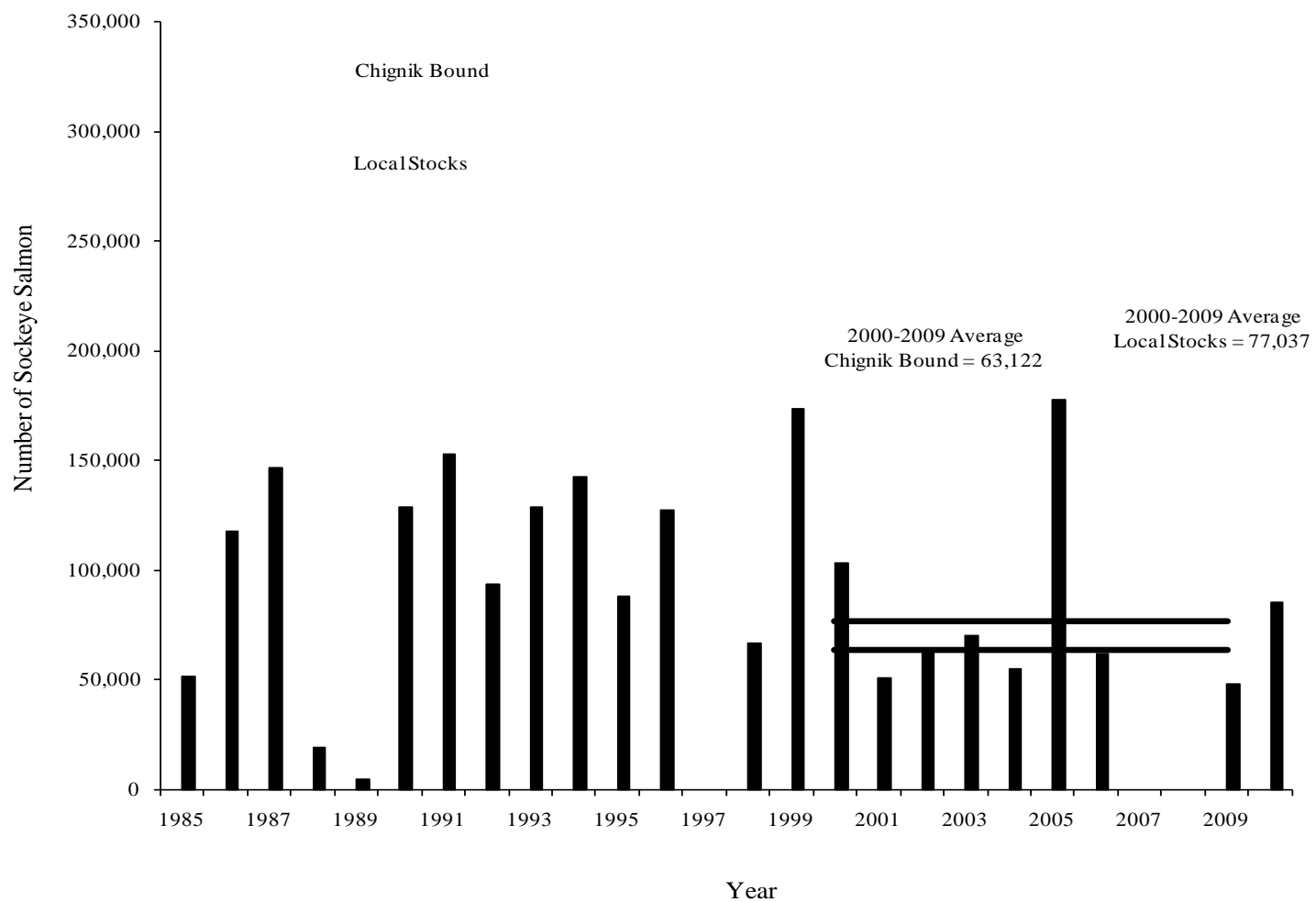
Year	Effort				Northwest Stepovak			SEDMD minus Northwest Stepovak		SEDMD		Total Catch
	Set gillnet		Seine		Total	"Local"	"Non-local"	"Local"	"Non-local"	"Local"	"Non-local"	
	Permits	Landings	Permits	Landings								
1985 <sup>a</sup>	49	367	23	51	16,681	16,681	0	12,855	51,421	29,536	51,421	80,957
1986	42	616	18	29	59,025	59,025	0	29,501	118,006	88,526	118,006	206,532
1987	53	528	6	9	61,287	61,287	0	36,722	146,886	98,009	146,886	244,895
1988	41	300	16	45	57,010	57,010	0	4,830	19,320	61,840	19,320	81,160
1989	42	248	25	54	83,618	83,618	0	1,121	4,485	84,739	4,485	89,224
1990	46	277	69	131	3,279	3,279	0	32,609	128,599	35,888	128,599	164,487
1991	59	747	39	71	98,834	98,834	0	38,179	152,714	137,013	152,714	289,727
1992 <sup>b</sup>	59	650	6	14	113,430	101,198	12,232	20,403	81,613	121,599	93,845	215,444
1993	64	763	53	82	73,747	54,955	18,792	27,436	109,744	82,391	128,536	210,927
1994	56	678	0	0	89,522	52,880	36,642	26,427	105,708	79,307	142,350	221,657
1995	58	718	26	30	62,598	51,723	10,875	19,357	77,426	71,079	88,301	159,380
1996 <sup>c</sup>	64	1,164	25	46	137,925	127,645	10,280	29,230	116,921	156,875	127,201	284,076
1997	57	1,173	12	23	304,865	304,865	0	0	0	304,865	0	304,865
1998	45	340	18	23	33,515	33,515	0	16,723	66,893	50,238	66,893	117,131
1999	63	649	27	30	32,884	6,577	26,307	36,828	147,313	43,405	173,620	217,025
2000	64	1,163	26	31	89,857	76,500	13,357	22,516	90,062	99,016	103,419	202,435
2001	51	551	16	20	42,681	42,681	0	12,785	51,141	55,466	51,141	106,607
2002	53	1,001	12	25	85,086	76,767	8,319	13,677	54,706	90,444	63,025	153,469
2003	48	1,035	11	20	142,410	136,391	6,019	16,006	64,025	152,397	70,044	222,441
2004	42	763	2	10	150,399	143,161	7,238	12,029	48,117	155,190	55,355	210,545
2005	43	474	21	30	58,243	29,865	28,378	37,382	149,528	67,247	177,906	245,153
2006	24	102	13	15	0	0	0	15,503	62,010	15,503	62,010	77,513
2007 <sup>d</sup>												
2008	27	299	1	3	31,669	31,669	0	0	0	31,669	0	31,669
2009	44	701	17	41	91,363	91,363	0	12,080	48,322	103,443	48,322	151,765
2010	45	906	16	32	70,131	62,964	7,167	19,525	78,100	82,489	85,267	167,756
Average:				11								
1985-1991	47	440	28	9	54,248	54,248	0	22,260	88,776	76,507	88,776	165,283
1992-1995	59	702	21	8	84,824	65,189	19,635	23,406	93,623	88,594	113,258	201,852
1996-1997	61	1,169	19	6	221,395	216,255	5,140	14,615	58,461	230,870	63,601	294,471
2000-2009	40	609	12	5	69,171	62,840	6,331	14,198	56,791	77,037	63,122	140,160

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- <sup>a</sup> From 1970 through 1991, the Chignik contribution was 80% of the sockeye salmon harvested in the Beaver Bay, Balboa Bay, Southwest Stepovak, Stepovak Flats, and East Stepovak Sections.
  - <sup>b</sup> From 1992 through 1995, the Chignik contribution was 80% of the sockeye salmon harvested in the Southeastern District Mainland (SEDM) fishery, except Orzinski Bay where 100% of the sockeye salmon were considered local production.
  - <sup>c</sup> Since 1996, the Chignik contribution is 80% of the sockeye salmon harvested in the SEDM fishery, except beginning July 1, in the Northwest Stepovak Section where 100% of the sockeye salmon are considered local production.
  - <sup>d</sup> No fishery.
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Appendix C17.—Harvest of sockeye salmon considered Chignik-bound, and local stocks in the Southeastern District Mainland fishery, June 1 through July 25, 1985–2010.

Appendix C18.—Southeastern District Mainland commercial salmon harvest, all gear combined, by species and day, 2010.

Date	Permits	Landings	Number of Salmon					Total
			Chinook	Sockeye	Coho	Pink	Chum	
18-Jun	26	45	1	7,426	0	4	805	8,236
19-Jun	25	33	1	5,050	0	2	279	5,332
23-Jun	29	41	1	6,908	1	2	840	7,752
24-Jun	30	52	14	11,333	0	1	827	12,175
25-Jun	30	38	1	6,739	2	2	420	7,164
2-Jul	25	39	0	5,476	0	8	264	5,748
3-Jul	28	52	0	5,717	0	6	332	6,055
4-Jul	22	36	1	6,073	0	5	302	6,381
5-Jul	5	18	0	1,856	0	0	22	1,878
6-Jul	17	30	0	4,288	1	8	319	4,616
7-Jul	29	64	3	10,522	43	33	1,194	11,795
8-Jul	19	21	1	4,609	14	26	434	5,084
9-Jul	18	22	5	6,812	1	28	1,401	8,247
10-Jul	29	59	9	19,700	27	257	3,618	23,611
11-Jul	21	43	0	7,718	2	94	938	8,752
12-Jul	13	23	0	3,674	3	83	395	4,155
13-Jul	5	8	0	531	0	11	62	604
14-Jul	15	30	1	4,704	14	190	853	5,762
15-Jul	17	30	1	3,239	44	204	964	4,452
16-Jul	12	13	1	1,105	1	41	199	1,347
17-Jul	23	32	0	4,341	119	392	1,853	6,705
18-Jul	32	37	36	5,614	830	1,817	18,162	26,459
20-Jul	22	25	0	4,646	204	608	12,504	17,962
21-Jul	28	51	638	13,249	598	3,347	7,359	25,191
22-Jul	30	41	165	8,047	582	4,342	14,075	27,211
23-Jul	17	34	3	4,822	221	1,359	4,294	10,699
24-Jul	17	21	0	3,557	208	1,735	1,471	6,971
14-Sep	6	10	0	978	399	0	32	1,409
15-Sep	7	11	0	629	365	0	43	1,037
16-Sep	7	9	0	848	385	0	21	1,254
21-Sep	6	6	3	634	174	0	16	827
22-Sep	7	7	0	853	186	0	37	1,076
23-Sep	4	4	0	344	78	0	0	422
Subtotal								
June 1 - July 25		938	882	167,756	2,915	14,605	74,186	260,344
Subtotal								
July 26 - August 31		0	0	0	0	0	0	0
Subtotal								
September 1- October 31		47	3	4,286	1,587	0	149	6,025
Season Total		985	885	172,042	4,502	14,605	74,335	266,369



## **APPENDIX D. SOUTH ALASKA PENINSULA POST-JUNE FISHERIES**

Before 1974, post-June South Alaska Peninsula fisheries were generally open five days per week, with a total season closure on August 10 to provide adequate local escapement and maintain product quality (McCullough 1995). During 1974 and 1975, the fishery was severely restricted to rebuild pink salmon runs. From about 1976 to 1991, the salmon fishery was managed by emergency order based on local stock run strength. Fishing periods from July 6 to about July 18 were based on chum salmon run strength, and from July 18 to about August 20 on pink salmon run strength. Fishing continued into late August during years of strong pink or chum salmon runs. Migratory salmon were also harvested during these openings, and may have contributed substantially to the total post-June harvest in some years. Before 1992, South Alaska Peninsula waters east of the Cape Lutke Section (Appendix A6) were opened to commercial salmon fishing about July 6, except in the SEDM fishery. Prior to July 26, SEDM is managed on a separate management plan (5 AAC 09.360 *Southeastern District Mainland Salmon Management Plan*). Beginning September 1, fishing periods were established by emergency order and based on local coho salmon run strength and, to a lesser degree, on chum salmon runs.

In November 1991, the BOF established the *Post-June Salmon Management Plan* for the South Alaska Peninsula (5 AAC 09.366). This plan allowed the harvest of local stocks through July 19 in terminal fishing areas only, which included Zachary Bay, northern portion of Pavlof Bay, and Canoe Bay, Cold Bay, Thin Point, and Morzhovoi Bay sections, closing the remainder of the South Alaska Peninsula formerly opened in July. The BOF decision was partially based on local pink and chum salmon could be caught in terminal areas early in the season without sacrificing product quality, while simultaneously allowing migratory salmon to pass through South Alaska Peninsula waters. After July 19, the BOF concluded that South Alaska Peninsula fishermen needed to harvest pink salmon in their traditional cape fishing areas to maintain product quality and to better accommodate the available processing capacity. Under this plan, commercial salmon fishing from July 6–19 was restricted to terminal fishing areas opened by emergency order, and was based on local stock run strength as determined by harvests and escapements. (Appendix D2). From July 20, through the remainder of the commercial salmon season, the entire South Alaska Peninsula could be opened to commercial salmon fishing by emergency order if warranted by local run stock strength (except in the SEDM fishery through July 25; 5 AAC 09.366)

The Stepovak-Shumagin Setnet Association sued the BOF in early 1992, to stop the implementation of the *Post-June Salmon Management Plan* for the South Alaska Peninsula (5 AAC 09.366). On July 10, 1992, Alaska State Superior Court Judge Hopwood (Third Judicial District, Kodiak) granted an injunction staying implementation of the new management plan. On July 13, traditional commercial salmon fishing periods resumed, and additional fishing time was provided as conditions warranted (Shaul et al. 1993).

In March 1993, the Alaska State Superior Court reconsidered the 1992 injunction. After reconsideration, the court agreed with the BOF and the *Post-June Salmon Management Plan* was reinstated. The *Post-June South Alaska Peninsula Management Plan* was in effect from 1993 to 1997.

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The BOF made the following changes affecting the *Post-June Management Plan* during the January 1998 meeting:

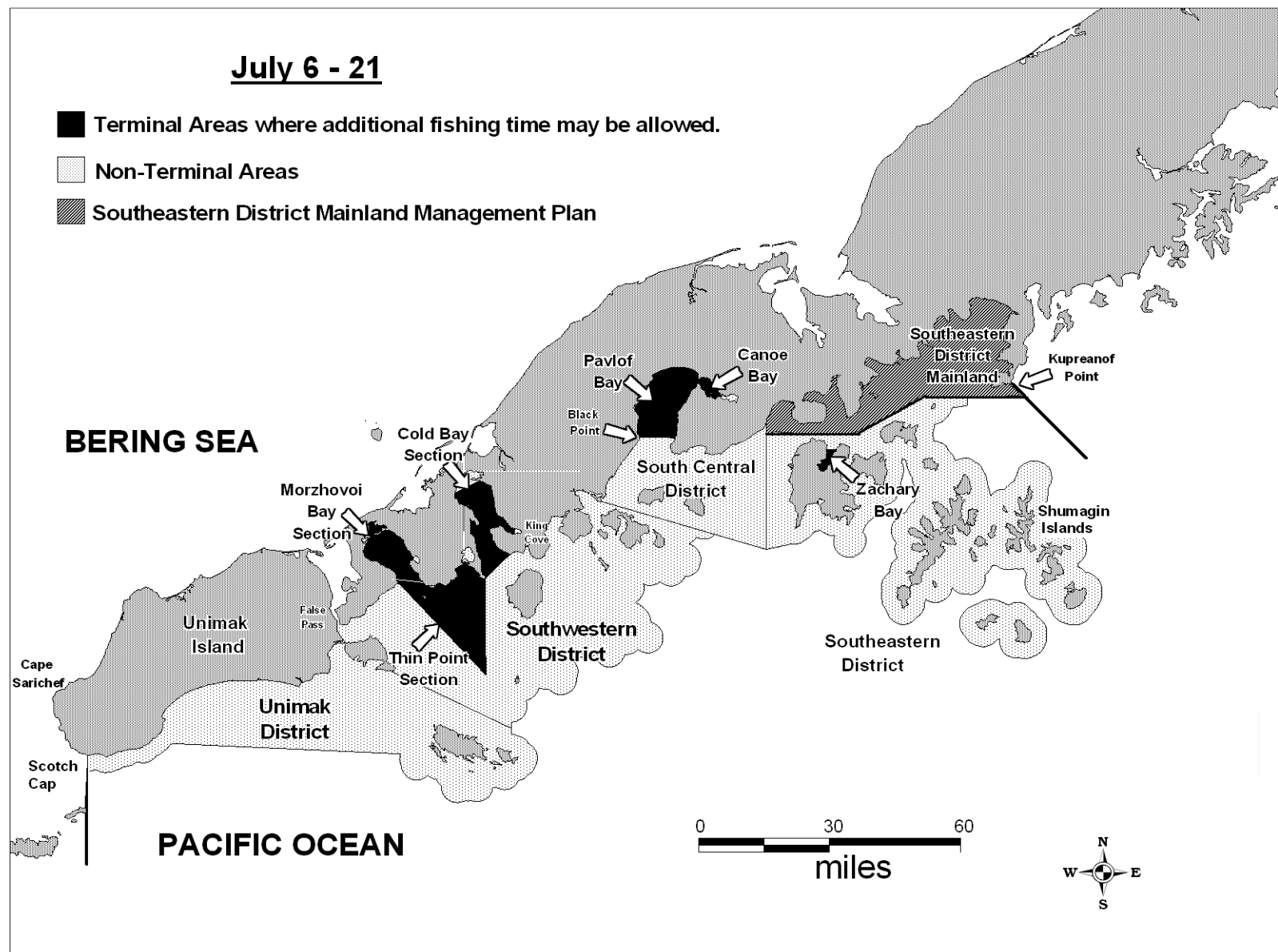
1. For the period July 6–21, the BOF increased non-terminal area fishing opportunities in early July. Fishing periods were limited to a maximum of 24 hours followed by a closure of at least 48 hours. Additional fishing time could be permitted in designated terminal harvest areas if escapements warranted (Appendix D2); and
2. For the period July 22–31, the BOF restricted continuous fishing in late July in non-terminal areas. Fishing periods in non-terminal areas were limited to 36 hours during July 22–31. Each open fishing period was followed by minimum closure of 48 hours. The BOF also established a 60,000 coho salmon cap in non-terminal areas during July 22–31. Additional fishing time could be permitted in designated terminal harvest areas if escapements warranted (Appendix D3).

During the 2001 meeting, the BOF made only minor changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. These changes included modifying terminal harvest area boundaries and clarifying the definition of immature salmon during the ADF&G's July test fishery. For purposes of the test fishery, immature salmon were defined as those Chinook, sockeye, coho, and chum salmon that were gilled in the seine web during the test fishery.

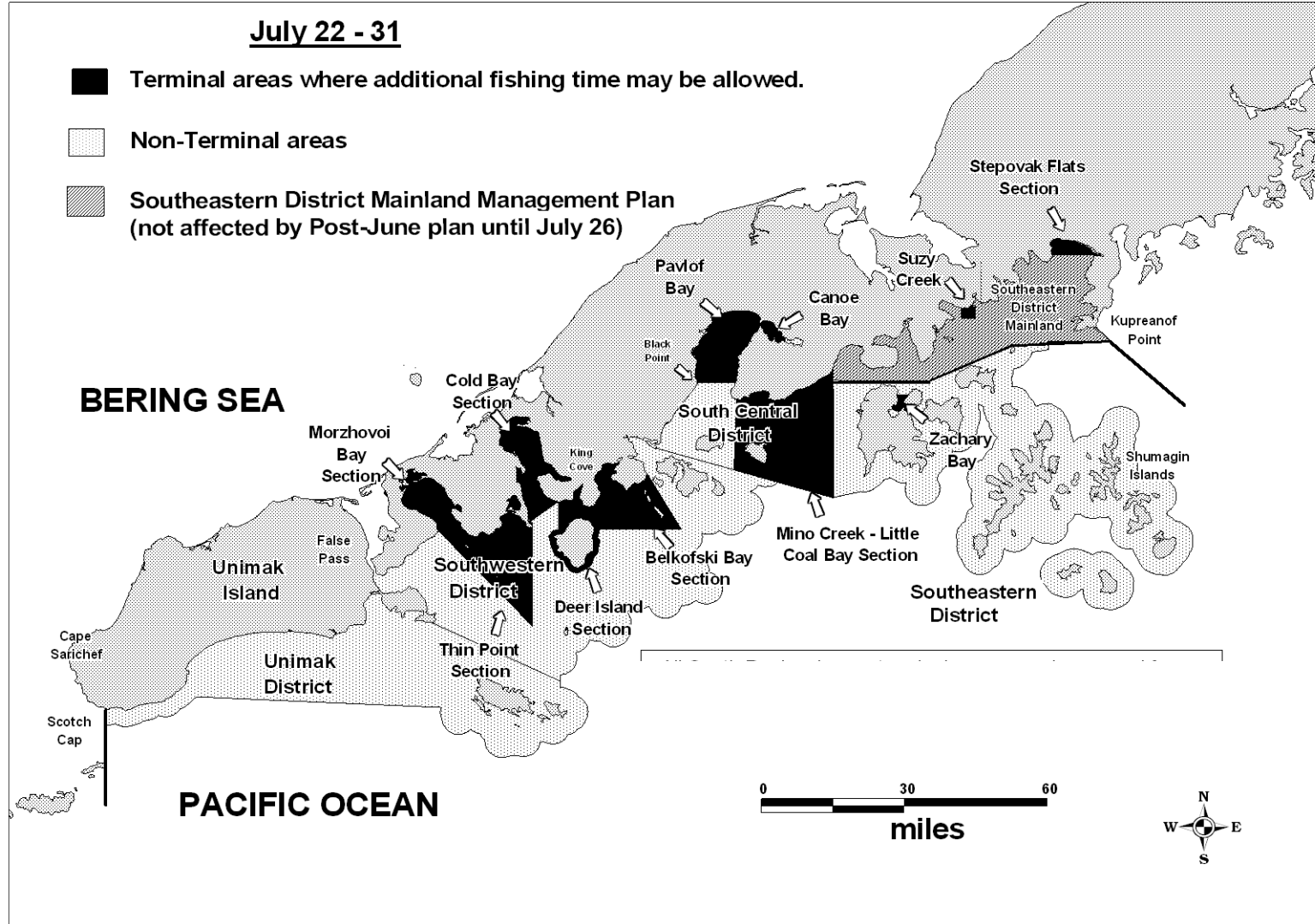
In 2004, the BOF adopted few changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. The 60,000 coho salmon cap, enacted in 1998 for non-terminal areas from July 22 through July 31, was rescinded. The BOF also determined that the global positioning system (GPS) would be used to determine latitude and longitude coordinates throughout all salmon fisheries in Area M. In 2007, the BOF did not make any changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula.

During the 2010 Board of Fisheries meeting, the BOF adopted a few changes to the *Post-June Salmon Management Plan* for the South Alaska Peninsula. The commercial salmon season was extended through October 31. The BOF increased the length of seine lead used by set gillnet gear from 10 fathoms to 25 fathoms. There was also a reduction in the minimum mesh size of set gillnet gear to four and one half inches in the Shumagin Islands after July 31, and in the Southeastern District Mainland after July 25.

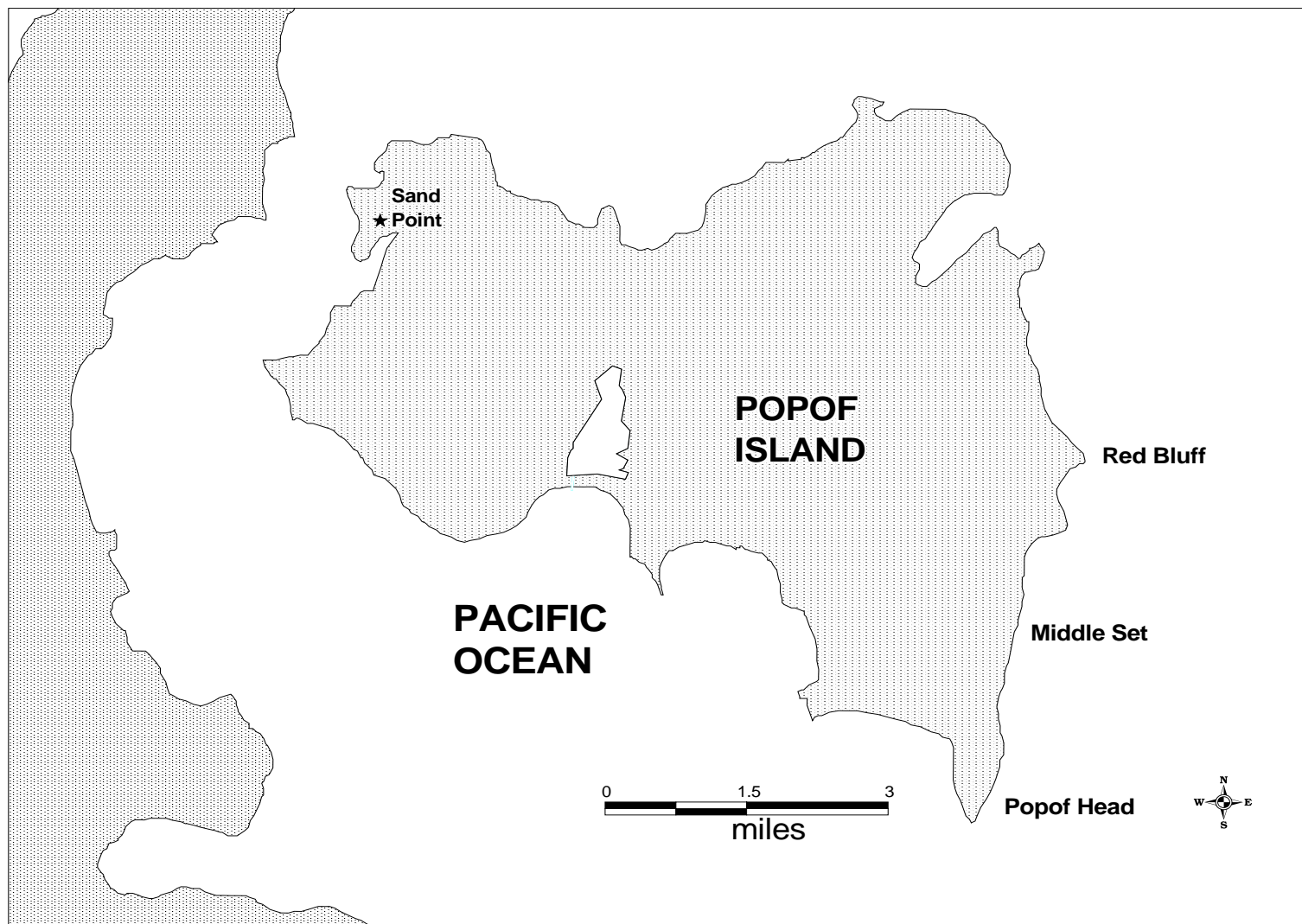
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Appendix D2.—Map of the South Peninsula post-June fishery with terminal areas defined during July 6–21.



Appendix D3.—Map of the South Peninsula post-June fishery with terminal areas defined during July 22–31.



Appendix D4.—Map of Popof Island with test fishing sites defined.

Appendix D5.–Summary of the Shumagin Islands July salmon test fishery, 2010.

Date	Number of Sets <sup>a</sup>	Number of Adult Salmon						Immature Salmon				
		Chinook	Sockeye	Coho	Pink	Chum	Total	Number				
2-Jul	6	6	3,894	46	2,177	700	6,823	1	244	0	1	246
	Avg/Set	1.0	649.0	7.7	362.8	116.7	1,137.2	0	40.7	0	0	41
3-Jul	6	3	1,777	51	1,175	589	3,595	1	137	0	0	138
	Avg/Set	0.5	296.2	8.5	195.8	98.2	599.2	0.2	22.8	0.0	0.0	23
5-Jul	6	4	747	82	828	319	1,980	0	35	0	6	41
	Avg/Set	0.7	124.5	13.7	138.0	53.2	330.0	0.0	5.8	0.0	1.0	7
Total	18	13	6,418	179	4,180	1,608	12,398	2	416	0	7	425

<sup>a</sup> Test fishing is standardized to purse seine gear, conducting 20-minute sets at Popof Head, Middle Set, and Red Bluff located on Popof Island.

Appendix D6.—South Peninsula post-June commercial salmon harvest, all gear combined, by species, July 6–21, 2010.

		Number of Salmon <sup>a</sup>					
Date		Chinook	Sockeye	Coho	Pink	Chum	Total
<i>Non-terminal areas, all gear combined, by day</i>							
6-Jul		371	46,954	3,971	21,362	26,318	98,976
7-Jul	<sup>b</sup>						
8-Jul		2	6,438	289	922	918	8,569
9-Jul		125	15,689	2,027	7,159	6,890	31,890
10-Jul	<sup>b</sup>						
11-Jul		0	963	6	435	303	1,707
12-Jul		440	44,947	22,022	28,191	41,223	136,823
13-Jul	<sup>b</sup>						
14-Jul		0	65	0	0	0	65
15-Jul		411	24,527	10,655	20,145	30,300	86,038
16-Jul	<sup>b</sup>						
17-Jul		0	0	0	0	0	0
18-Jul		665	24,319	17,765	31,764	29,559	104,072
19-Jul	<sup>b</sup>						
20-Jul		0	126	0	10	8	144
21-Jul		407	25,625	21,964	37,025	32,167	117,188
Non-Terminal Total		2,421	189,653	78,699	147,013	167,686	585,472
<i>Terminal areas, all gear combined, by day</i>							
6-Jul		0	629	0	0	65	694
7-Jul	<sup>b</sup>						
8-Jul		0	0	0	0	0	0
9-Jul		0	1,550	70	260	315	2,195
10-Jul	<sup>b</sup>						
11-Jul		0	0	0	0	0	0
12-Jul		0	420	0	0	17	437
13-Jul	<sup>b</sup>						
14-Jul		0	0	0	0	0	0
15-Jul		0	840	40	462	5,568	6,910
16-Jul	<sup>b</sup>						
17-Jul		0	0	0	0	0	0
18-Jul		0	0	0	75	775	850
19-Jul	<sup>b</sup>						
20-Jul		0	0	0	0	0	0
21-Jul		0	0	0	5,084	7,944	13,028
Terminal Total		0	3,439	110	5,881	14,684	24,114
Total Harvest Jul 6-21		2,421	193,092	78,809	152,894	182,370	609,586

<sup>a</sup> Does not include test fish harvests

<sup>b</sup> Fishery closed.



Appendix D7.—South Peninsula post-June commercial salmon harvest, all gear combined, by species, July 22–31, 2010.

	Number of Salmon <sup>a</sup>					
Date	Chinook	Sockeye	Coho	Pink	Chum	Total
<i>Non-terminal areas (including SEDM after July 25), all gear combined, by day</i>						
22-Jul <sup>b</sup>						
23-Jul	14	4,962	2,689	2,682	3,508	13,855
24-Jul	606	21,460	28,862	41,975	43,458	136,361
25-Jul <sup>b</sup>						
26-Jul <sup>b</sup>						
27-Jul	31	9,544	2,813	7,656	12,386	32,430
28-Jul	145	14,861	13,847	50,417	34,241	113,511
29-Jul <sup>b</sup>						
30-Jul	2	3,830	1,285	4,127	5,157	14,401
31-Jul	229	20,738	17,553	89,903	60,554	188,977
Non-Terminal Total	1,027	75,395	67,049	196,760	159,304	499,535
<i>Terminal areas (including SEDM terminal areas after July 25), all gear combined, by day</i>						
22-Jul <sup>b</sup>						
23-Jul	40	104	31	1,474	18,532	20,181
24-Jul	0	720	0	6,525	15,038	22,283
25-Jul <sup>b</sup>						
26-Jul <sup>b</sup>						
27-Jul	0	204	30	2,185	562	2,981
28-Jul	0	42	1	5,945	12,256	18,244
29-Jul <sup>b</sup>						
30-Jul	0	231	0	275	357	863
31-Jul	5	1,045	211	15,780	13,966	31,007
Terminal Total	45	2,346	273	32,184	60,711	95,559
Total Harvest Jul 22-31	1,072	77,741	67,322	228,944	220,015	595,094

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Fishery closed.

Appendix D8.—South Peninsula post-June commercial salmon harvest, by species, by day, August 1–31, 2010.

Date	Number of Salmon <sup>a</sup>					
	Chinook	Sockeye	Coho	Pink	Chum	Total
1-Aug <sup>b</sup>						
2-Aug <sup>b</sup>						
3-Aug <sup>b</sup>						
4-Aug	155	3,320	2,337	16,541	8,543	30,896
5-Aug	195	8,971	11,119	88,369	33,168	141,822
6-Aug <sup>b</sup>						
7-Aug <sup>b</sup>						
8-Aug <sup>b</sup>						
9-Aug <sup>b</sup>						
10-Aug <sup>b</sup>						
11-Aug <sup>b</sup>						
12-Aug <sup>b</sup>						
13-Aug <sup>b</sup>						
14-Aug <sup>b</sup>						
15-Aug <sup>b</sup>						
16-Aug <sup>b</sup>						
17-Aug <sup>b</sup>						
18-Aug <sup>b</sup>						
19-Aug <sup>b</sup>						
20-Aug <sup>b</sup>						
21-Aug <sup>b</sup>						
22-Aug <sup>b</sup>						
23-Aug <sup>b</sup>						
24-Aug <sup>b</sup>						
25-Aug <sup>b</sup>						
26-Aug <sup>b</sup>						
27-Aug <sup>b</sup>						
28-Aug <sup>b</sup>						
29-Aug <sup>b</sup>						
30-Aug <sup>b</sup>						
31-Aug <sup>b</sup>						
Total	350	12,291	13,456	104,910	41,711	172,718

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Fishery closed.

Appendix D9.—South Peninsula fall fishery (September 1–September 30) commercial salmon harvest, by species and year, 1970–2010.

Year	Permits	Landings	Number of Salmon <sup>a, b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970 <sup>c</sup>								
1971 <sup>c</sup>								
1972 <sup>c</sup>								
1973	0	0	0	0	0	0	0	0
1974	0	0	0	0	0	0	0	0
1975	0	0	0	0	0	0	0	0
1976	4	15	0	1,776	160	85	0	2,021
1977	9	23	0	2,465	635	0	528	3,628
1978	21	51	0	808	4,651	0	5,726	11,185
1979	25	60	0	2,375	17,468	54	5,307	25,204
1980	29	139	0	6,513	30,390	154	4,166	41,223
1981	31	115	0	10,004	21,016	0	220	31,240
1982	29	213	2	24,471	10,742	0	3,407	38,622
1983	48	334	35	25,493	14,945	1,254	2,958	44,685
1984	52	269	10	13,351	10,526	458	1,789	26,134
1985	55	182	5	4,002	14,725	290	6,960	25,982
1986	46	146	2	3,459	6,318	518	2,519	12,816
1987	65	323	12	23,332	22,040	1,499	52,079	98,962
1988	68	328	4	24,635	26,497	62,290	19,345	132,771
1989	60	363	12	34,932	15,724	281	10,058	61,007
1990	66	426	7	67,142	23,318	584	73,195	164,246
1991	52	273	2	20,056	20,337	0	16,183	56,578
1992	53	333	58	13,115	35,323	1,525	3,486	53,507
1993	50	248	31	16,386	16,965	515	2,918	36,815
1994	75	373	18	25,481	36,563	294	214,174	276,530
1995	55	473	3	110,657	26,083	1,710	9,860	148,313
1996	57	364	5	26,301	26,525	136	2,910	55,877
1997	51	513	30	76,965	36,447	3,568	6,199	123,209
1998	67	430	25	44,775	20,838	1,818	10,382	77,838
1999	58	503	12	118,064	17,622	12,353	3,668	151,719
2000	71	444	11	47,160	25,039	3,963	83,701	159,874
2001	34	382	16	97,717	17,317	1,824	2,894	119,768
2002	26	244	0	19,341	8,034	217	7,776	35,368
2003	23	257	8	57,641	27,891	0	559	86,099
2004	22	169	8	13,763	12,126	496	1,794	28,187
2005	13	58	0	5,581	9,580	0	306	15,467
2006	32	247	27	49,620	19,172	1,096	24,168	94,083
2007	28	136	2	22,523	5,657	11,130	17,984	57,296
2008	29	188	5	20,651	24,125	194,421	13,510	252,712
2009	36	153	4	8,336	14,498	38,165	84,473	145,476
2010	13	50	5	4,367	2,111	0	149	6,632
Average 1990-2009								
	45	311	14	43,064	21,173	13,691	29,007	106,948
Average 2000-2009								
	31	228	8	34,233	16,344	25,131	23,717	99,433

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>c</sup> Confidential information.

Appendix D10.—South Peninsula (minus the Southeastern District Mainland fishery July 1–25) post-June (July 1–September 30) commercial salmon harvest, by species and year, 1970–2010.

Year	Permits	Landings	Number of Salmon <sup>a,b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	127	1,467	758	44,795	32,340	1,610,724	535,625	2,224,242
1971	175	2,166	1,252	190,632	16,814	1,411,230	838,978	2,458,906
1972	140	848	656	35,120	7,916	55,802	204,113	303,607
1973	115	582	151	37,424	6,340	34,118	87,077	165,110
1974	95	509	532	108,923	9,152	71,459	64,455	254,521
1975	46	65	0	293	3	52,375	29,158	81,829
1976	125	1,102	6	11,674	176	2,324,547	116,355	2,452,758
1977	103	1,131	7	26,545	1,168	1,425,107	119,646	1,572,473
1978	123	2,081	203	61,379	60,417	5,467,134	408,544	5,997,677
1979	165	2,446	972	209,755	350,770	6,365,911	371,358	7,298,766
1980	152	2,646	1,522	310,278	271,738	6,295,345	785,026	7,663,909
1981	167	2,502	4,190	218,667	158,846	4,564,926	1,033,055	5,979,684
1982	182	2,781	2,313	140,487	252,885	4,806,182	1,042,978	6,244,845
1983	201	2,667	11,726	292,536	124,431	2,760,452	816,567	4,005,712
1984	217	3,525	4,290	334,781	306,522	10,469,392	1,176,050	12,291,035
1985	213	2,787	688	272,059	169,137	4,249,809	827,781	5,519,474
1986	202	3,001	3,475	545,160	235,082	3,698,727	1,346,879	5,829,323
1987	233	2,692	3,881	410,755	224,543	1,189,211	911,414	2,739,804
1988	243	4,356	6,797	635,804	502,960	6,767,066	1,307,053	9,219,680
1989	274	3,993	4,106	825,372	440,171	6,879,878	531,759	8,681,286
1990	261	3,257	5,480	875,237	288,728	2,299,161	672,937	4,141,543
1991	234	3,573	2,423	465,874	311,825	9,952,671	788,955	11,521,748
1992	233	3,907	4,003	765,575	414,809	9,101,628	863,505	11,149,520
1993	221	3,086	3,524	497,933	209,816	9,765,709	504,894	10,981,876
1994	213	3,302	1,642	408,089	249,066	6,640,031	1,591,094	8,889,922
1995	207	3,824	2,010	731,651	252,358	16,071,184	1,155,825	18,213,028
1996	179	1,966	1,914	215,721	263,654	1,738,973	379,578	2,599,840
1997	168	1,399	1,206	325,261	110,488	1,681,374	277,559	2,395,888
1998	209	3,975	1,793	764,947	150,735	7,441,311	455,978	8,814,764
1999	185	4,205	1,580	1,355,842	191,585	8,369,899	563,270	10,482,176
2000	179	2,894	2,081	530,913	249,874	3,132,340	788,698	4,703,906
2001	177	2,426	1,780	350,517	209,583	3,930,586	823,425	5,315,891
2002	116	1,553	3,411	290,657	197,323	1,950,760	421,461	2,863,612
2003	106	1,675	1,079	378,410	128,710	3,910,916	342,595	4,761,710
2004	108	1,629	2,238	641,326	230,443	6,248,298	301,972	7,424,277
2005	111	2,090	1,335	1,087,549	135,668	7,449,031	301,997	8,975,580
2006	116	2,389	886	840,225	164,186	2,851,820	864,720	4,721,837
2007	116	2,648	676	848,832	149,322	7,031,802	382,248	8,412,880
2008	125	1,642	1,019	356,456	177,550	8,068,114	319,209	8,922,348
2009	114	2,214	1,891	403,187	245,845	5,591,634	967,944	7,210,501
2010	142	1,165	3,848	287,491	161,698	486,748	444,245	1,384,030
Average 1978-1992								
	207	3,081	3,738	424,248	274,191	5,657,833	858,924	7,218,934
Average 1993-1997								
	198	2,715	2,059	435,731	217,076	7,179,454	781,790	8,616,111
Average 2000-2009								
	127	2,116	1,640	572,807	188,850	5,016,530	551,427	6,331,254

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995, and 2002–2003 include catch from limited openings in October.

Appendix D11.—South Peninsula (including the Southeastern District Mainland fishery) post-June (July 1–September 30) commercial salmon harvest, by species and year, 1970–2010.

Year	Permits	Landings	Number of Salmon <sup>a,b</sup>					Total
			Chinook	Sockeye	Coho	Pink	Chum	
1970	127	1,612	777	63,569	32,519	1,630,404	550,698	2,277,967
1971	175	2,325	1,305	225,162	16,906	1,423,528	855,916	2,522,817
1972	140	940	673	45,174	7,999	60,270	212,505	326,621
1973	115	710	159	58,207	6,571	38,500	91,810	195,247
1974	95	744	557	171,700	9,362	100,179	71,430	353,228
1975	46	90	0	3,449	66	55,395	29,928	88,838
1976	125	1,181	14	20,707	213	2,342,600	121,282	2,484,816
1977	103	1,315	35	60,669	2,108	1,443,245	126,762	1,632,819
1978	123	2,187	222	74,839	60,771	5,500,177	423,532	6,059,541
1979	165	2,699	1,049	283,352	356,562	6,409,584	378,712	7,429,259
1980	152	2,948	1,569	371,638	273,328	6,335,159	843,988	7,825,682
1981	168	2,940	4,415	316,945	161,899	4,581,643	1,201,454	6,266,356
1982	183	3,361	2,566	177,160	254,798	5,016,065	1,171,508	6,622,097
1983	210	3,210	12,833	522,913	127,157	2,771,744	917,198	4,351,845
1984	217	4,251	4,913	525,275	310,910	10,668,889	1,312,347	12,822,334
1985	213	2,970	724	294,782	170,046	4,323,885	912,580	5,702,017
1986	202	3,444	3,586	687,525	235,852	3,739,423	1,394,332	6,060,718
1987	233	2,926	3,935	463,090	224,740	1,191,512	929,782	2,813,059
1988	243	4,701	7,011	716,964	505,278	6,864,600	1,381,796	9,475,649
1989	274	4,185	4,225	909,393	441,397	7,089,895	538,177	8,983,087
1990	261	3,663	6,164	1,039,265	305,509	2,346,043	715,940	4,412,921
1991	234	3,889	2,807	570,688	313,210	9,977,423	797,890	11,662,018
1992	233	4,317	4,040	870,687	414,933	9,117,479	880,066	11,287,205
1993	221	3,683	4,301	639,412	214,020	9,843,962	513,579	11,215,274
1994	213	3,738	1,726	541,108	250,079	6,648,470	1,593,590	9,034,973
1995	207	4,228	2,079	824,679	254,581	16,123,733	1,172,964	18,378,036
1996	180	2,825	2,111	391,858	264,966	1,809,350	410,762	2,879,047
1997	168	2,594	1,352	630,008	111,872	1,697,989	283,929	2,725,150
1998	209	4,340	2,100	882,078	153,694	7,566,341	465,907	9,070,120
1999	185	4,351	1,619	1,403,036	192,480	8,412,751	567,929	10,577,815
2000	179	3,802	2,176	654,532	256,841	3,189,515	813,977	4,917,041
2001	177	2,996	1,957	454,812	210,897	3,972,806	873,565	5,514,037
2002	116	2,322	3,724	407,633	202,712	2,093,251	437,533	3,144,853
2003	106	2,494	1,289	553,906	130,942	4,039,946	353,704	5,079,787
2004	108	2,229	2,507	804,977	234,971	6,305,840	306,812	7,655,107
2005	111	2,253	1,379	1,244,326	141,692	7,754,815	309,551	9,451,763
2006	116	2,506	915	917,738	166,991	2,929,505	877,979	4,893,128
2007	116	2,648	676	848,832	149,322	7,031,802	382,248	8,412,880
2008	135	2,955	1,409	525,635	225,481	10,738,782	391,472	11,882,779
2009	127	2,957	2,011	555,146	247,971	5,651,433	983,583	7,440,144
2010	142	1,886	4,712	417,791	164,610	501,342	515,260	1,603,715
Average 1978-1992								
	207	3,446	4,004	521,634	277,093	5,728,901	919,953	7,451,586
Average 1993-1997								
	198	3,414	2,314	605,413	219,104	7,224,701	794,965	8,846,496
Average 2000-2009								
	129	2,716	1,804	696,754	196,782	5,370,770	573,042	6,839,152

<sup>a</sup> Does not include test fish harvests.

<sup>b</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

Appendix D12.—South Peninsula (including Southeastern District Mainland fishery) post-June (July 1–September 30) commercial Chinook salmon harvest by gear and year, 1970–2010.

Year <sup>a</sup>	Purse Seine		Drift Gillnet		Set Gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1970	750	96.5	18	2.3	9	1.2	777
1971	1,219	93.4	47	3.6	39	3.0	1,305
1972	647	96.1	8	1.2	18	2.7	673
1973	155	97.5	1	0.6	3	1.9	159
1974	509	91.4	22	3.9	26	4.7	557
1975	0	0.0	0	0.0	0	0.0	0
1976	5	35.7	1	7.1	8	57.1	14
1977	18	51.4	0	0.0	17	48.6	35
1978	204	91.9	0	0.0	18	8.1	222
1979	981	93.5	2	0.2	66	6.3	1,049
1980	1,495	95.3	0	0.0	74	4.7	1,569
1981	4,280	96.9	0	0.0	135	3.1	4,415
1982	2,294	89.4	90	3.5	182	7.1	2,566
1983	12,552	97.8	78	0.6	203	1.6	12,833
1984	4,338	88.3	161	3.3	414	8.4	4,913
1985	625	86.3	24	3.3	75	10.4	724
1986	3,395	94.7	24	0.7	167	4.7	3,586
1987	3,700	94.0	64	1.6	171	4.3	3,935
1988	6,586	93.9	142	2.0	283	4.0	7,011
1989	3,584	84.8	295	7.0	346	8.2	4,225
1990	5,605	90.9	122	2.0	437	7.1	6,164
1991	2,085	74.3	62	2.2	660	23.5	2,807
1992	3,724	92.2	47	1.2	269	6.7	4,040
1993	3,666	85.2	111	2.6	524	12.2	4,301
1994	1,321	76.5	25	1.4	380	22.0	1,726
1995	1,556	74.8	34	1.6	489	23.5	2,079
1996	1,826	86.5	28	1.3	257	12.2	2,111
1997	1,161	85.9	18	1.3	173	12.8	1,352
1998	1,768	84.2	18	0.9	314	15.0	2,100
1999	1,367	84.4	15	0.9	237	14.6	1,619
2000	1,983	91.1	19	0.9	174	8.0	2,176
2001	1,732	88.5	19	1.0	206	10.5	1,957
2002	3,245	87.1	2	0.1	477	12.8	3,724
2003	961	74.6	7	0.5	321	24.9	1,289
2004	2,088	83.3	1	0.0	418	16.7	2,507
2005	1,296	94.0	2	0.1	81	5.9	1,379
2006	674	73.7	1	0.1	240	26.2	915
2007	570	84.3	1	0.1	105	15.5	676
2008	1,236	87.7	15	1.1	158	11.2	1,409
2009	1,819	90.5	11	0.5	181	9.0	2,011
2010	4,571	97.0	31	0.7	110	2.3	4,712
Average 1978-1992							
	3,697	92.3	74	1.8	233	5.8	4,004
Average 1993-1997							
	1,906	82.4	43	1.9	365	15.8	2,314
Average 2000-2009							
	1,560	86.5	8	0.4	236	13.1	1,804

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fish harvest.

Appendix D13.—South Peninsula (including Southeastern District Mainland fishery) post-June (July 1–September 30) commercial sockeye salmon harvest by gear and year, 1970–2010.

Year <sup>a</sup>	Purse Seine		Drift Gillnet		Set Gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1970	28,466	44.8	14,843	23.3	20,260	31.9	63,569
1971	82,826	36.8	105,274	46.8	37,062	16.5	225,162
1972	18,957	42.0	15,580	34.5	10,637	23.5	45,174
1973	15,796	27.1	16,246	27.9	26,165	45.0	58,207
1974	63,511	37.0	52,481	30.6	55,708	32.4	171,700
1975	1,642	47.6	0	0.0	1,807	52.4	3,449
1976	9,630	46.5	2,649	12.8	8,428	40.7	20,707
1977	32,051	52.8	0	0.0	28,618	47.2	60,669
1978	57,448	76.8	0	0.0	17,391	23.2	74,839
1979	193,629	68.3	1,097	0.4	88,626	31.3	283,352
1980	260,433	70.1	398	0.1	110,807	29.8	371,638
1981	171,658	54.2	1,388	0.4	143,899	45.4	316,945
1982	92,784	52.4	13,472	7.6	70,904	40.0	177,160
1983	258,763	49.5	19,005	3.6	245,145	46.9	522,913
1984	240,959	45.9	26,698	5.1	257,618	49.0	525,275
1985	178,953	60.7	18,441	6.3	97,388	33.0	294,782
1986	412,251	60.0	30,261	4.4	245,013	35.6	687,525
1987	238,678	51.5	39,360	8.5	185,052	40.0	463,090
1988	423,852	59.1	44,657	6.2	248,455	34.7	716,964
1989	470,465	51.7	86,343	9.5	352,585	38.8	909,393
1990	524,630	50.5	132,907	12.8	381,728	36.7	1,039,265
1991	232,338	40.7	21,721	3.8	316,629	55.5	570,688
1992	443,201	50.9	44,935	5.2	382,551	43.9	870,687
1993	288,648	45.1	23,421	3.7	327,343	51.2	639,412
1994	147,337	27.2	18,134	3.4	375,637	69.4	541,108
1995	368,688	44.7	21,505	2.6	434,486	52.7	824,679
1996	80,639	20.6	5,776	1.5	305,443	77.9	391,858
1997	123,940	19.7	24,278	3.9	481,790	76.5	630,008
1998	381,734	43.3	35,569	4.0	464,775	52.7	882,078
1999	680,344	48.5	35,100	2.5	687,592	49.0	1,403,036
2000	212,658	32.5	20,587	3.1	421,287	64.4	654,532
2001	96,249	21.2	28,932	6.4	329,631	72.5	454,812
2002	118,441	29.1	15,783	3.9	273,409	67.1	407,633
2003	162,365	29.3	16,093	2.9	375,448	67.8	553,906
2004	400,982	49.8	21,452	2.7	382,543	47.5	804,977
2005	657,543	52.8	8,492	0.7	578,291	46.5	1,244,326
2006	414,302	45.1	2,702	0.3	500,734	54.6	917,738
2007	477,594	56.3	6,626	0.8	364,612	43.0	848,832
2008	321,396	61.1	12,629	2.4	191,610	36.5	525,635
2009	248,639	44.8	7,800	1.4	298,707	53.8	555,146
2010	175,804	42.1	13,877	3.3	228,110	54.6	417,791
Average 1978-1992							
	280,003	53.7	32,046	6.1	209,586	40.2	521,634
Average 1993-1997							
	201,850	33.3	18,623	3.1	384,940	63.6	605,413
Average 2000-2009							
	311,017	44.6	14,110	2.0	371,627	53.3	696,754

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fish harvest.

Appendix D14.—South Peninsula (including Southeastern District Mainland fishery) post-June (July 1–September 30) commercial coho salmon harvest by gear and year, 1970–2010.

Year <sup>a</sup>	Purse Seine		Drift Gillnet		Set Gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1970	31,798	97.8	47	0.1	674	2.1	32,519
1971	16,346	96.7	356	2.1	204	1.2	16,906
1972	7,795	97.4	59	0.7	145	1.8	7,999
1973	6,286	95.7	43	0.7	242	3.7	6,571
1974	8,091	86.4	1,110	11.9	161	1.7	9,362
1975	37	56.1	0	0.0	29	43.9	66
1976	53	24.9	0	0.0	160	75.1	213
1977	1,034	49.1	0	0.0	1,074	50.9	2,108
1978	57,842	95.2	0	0.0	2,929	4.8	60,771
1979	346,021	97.0	33	0.0	10,508	2.9	356,562
1980	249,602	91.3	0	0.0	23,726	8.7	273,328
1981	155,653	96.1	10	0.0	6,236	3.9	161,899
1982	219,462	86.1	19,202	7.5	16,134	6.3	254,798
1983	109,822	86.4	3,658	2.9	13,677	10.8	127,157
1984	247,342	79.6	37,805	12.2	25,763	8.3	310,910
1985	128,931	75.8	18,033	10.6	23,082	13.6	170,046
1986	203,505	86.3	18,901	8.0	13,446	5.7	235,852
1987	169,763	75.5	30,445	13.5	24,532	10.9	224,740
1988	389,723	77.1	75,445	14.9	40,110	7.9	505,278
1989	305,558	69.2	88,376	20.0	47,463	10.8	441,397
1990	224,354	73.4	42,659	14.0	38,496	12.6	305,509
1991	199,104	63.6	51,215	16.4	62,891	20.1	313,210
1992	294,100	70.9	58,621	14.1	62,212	15.0	414,933
1993	148,565	69.4	26,364	12.3	39,091	18.3	214,020
1994	161,903	64.7	24,980	10.0	63,196	25.3	250,079
1995	185,974	73.1	26,020	10.2	42,587	16.7	254,581
1996	195,272	73.7	22,561	8.5	47,133	17.8	264,966
1997	47,254	42.2	19,855	17.7	44,763	40.0	111,872
1998	83,205	54.1	30,219	19.7	40,270	26.2	153,694
1999	143,560	74.6	11,734	6.1	37,186	19.3	192,480
2000	180,030	70.1	33,632	13.1	43,179	16.8	256,841
2001	149,064	70.7	30,125	14.3	31,708	15.0	210,897
2002	165,305	81.5	11,567	5.7	25,840	12.7	202,712
2003	74,947	57.2	11,253	8.6	44,742	34.2	130,942
2004	174,961	74.5	9,115	3.9	50,895	21.7	234,971
2005	105,844	74.7	3,829	2.7	32,019	22.6	141,692
2006	120,089	71.9	2,353	1.4	44,549	26.7	166,991
2007	120,881	81.0	4,126	2.8	24,315	16.3	149,322
2008	166,130	73.7	21,815	9.7	37,536	16.6	225,481
2009	213,281	86.0	10,549	4.3	24,141	9.7	247,971
2010	143,675	87.3	10,552	6.4	10,383	6.3	164,610
Average 1978-1992							
	220,052	79.4	29,627	10.7	27,414	9.9	277,093
Average 1993-1997							
	147,794	67.5	23,956	10.9	47,354	21.6	219,104
Average 2000-2009							
	147,053	74.7	13,836	7.0	35,892	18.2	196,782

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fish harvest.



Appendix D15.—South Peninsula (including Southeastern District Mainland fishery) post-June (July 1–September 30) commercial pink salmon harvest by gear and year, 1970–2010.

Year <sup>a</sup>	Purse Seine		Drift Gillnet		Set Gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1970	1,554,992	95.4	58,674	3.6	16,738	1.0	1,630,404
1971	1,416,920	99.4	1,983	0.1	6,849	0.5	1,425,752
1972	55,667	92.4	129	0.2	4,474	7.4	60,270
1973	34,463	89.5	545	1.4	3,492	9.1	38,500
1974	88,832	88.7	1,626	1.6	9,721	9.7	100,179
1975	54,435	98.3	0	0.0	960	1.7	55,395
1976	2,337,109	99.8	65	0.0	5,426	0.2	2,342,600
1977	1,427,176	98.9	0	0.0	16,069	1.1	1,443,245
1978	5,470,855	99.5	0	0.0	29,322	0.5	5,500,177
1979	6,310,680	98.5	12,365	0.2	86,539	1.4	6,409,584
1980	6,236,027	98.4	12	0.0	99,120	1.6	6,335,159
1981	4,461,903	97.4	7,176	0.2	112,564	2.5	4,581,643
1982	4,852,553	96.7	50,748	1.0	112,764	2.2	5,016,065
1983	2,688,187	97.0	5,586	0.2	77,971	2.8	2,771,744
1984	10,324,380	96.8	78,575	0.7	265,934	2.5	10,668,889
1985	4,096,285	94.7	21,803	0.5	205,797	4.8	4,323,885
1986	3,602,769	96.3	27,772	0.7	108,882	2.9	3,739,423
1987	1,135,252	95.3	3,025	0.3	53,235	4.5	1,191,512
1988	6,427,823	93.6	145,106	2.1	291,671	4.2	6,864,600
1989	6,641,815	93.7	85,946	1.2	362,134	5.1	7,089,895
1990	2,256,837	96.2	32,089	1.4	57,117	2.4	2,346,043
1991	9,614,533	96.4	26,740	0.3	336,150	3.4	9,977,423
1992	8,616,933	94.5	91,106	1.0	409,440	4.5	9,117,479
1993	9,494,663	96.5	12,037	0.1	337,262	3.4	9,843,962
1994	6,317,708	95.0	53,701	0.8	277,061	4.2	6,648,470
1995	15,404,768	95.5	41,868	0.3	677,097	4.2	16,123,733
1996	1,522,362	84.1	17,593	1.0	269,395	14.9	1,809,350
1997	1,627,495	95.8	14,435	0.9	56,059	3.3	1,697,989
1998	6,803,002	89.9	192,352	2.5	570,987	7.5	7,566,341
1999	8,016,735	95.3	12,045	0.1	383,971	4.6	8,412,751
2000	2,871,880	90.0	15,979	0.5	301,656	9.5	3,189,515
2001	3,629,078	91.3	20,999	0.5	322,729	8.1	3,972,806
2002	1,831,099	87.5	9,664	0.5	252,488	12.1	2,093,251
2003	3,679,093	91.1	13,377	0.3	347,476	8.6	4,039,946
2004	6,051,523	96.0	24,360	0.4	229,957	3.6	6,305,840
2005	7,386,836	95.3	6,258	0.1	361,721	4.7	7,754,815
2006	2,629,811	89.8	5,520	0.2	294,174	10.0	2,929,505
2007	6,485,719	92.2	5,134	0.1	540,949	7.7	7,031,802
2008	10,056,235	93.6	83,287	0.8	599,260	5.6	10,738,782
2009	5,350,718	94.7	47,711	0.8	253,004	4.5	5,651,433
2010	443,498	88.5	4,823	1.0	53,021	10.6	501,342
Average 1978-1992							
	5,515,789	96.3	39,203	0.7	173,909	3.0	5,728,901
Average 1993-1997							
	6,873,399	95.1	27,927	0.4	323,375	4.5	7,224,701
Average 2000-2009							
	4,997,199	93.0	23,229	0.4	350,341	6.5	5,370,770

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fish harvest.

Appendix D16.—South Peninsula (including Southeastern District Mainland fishery) post-June (July 1–September 30) commercial chum salmon harvest by gear and year, 1970–2010.

Year <sup>a</sup>	Purse Seine		Drift Gillnet		Set Gillnet		Total
	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	Number <sup>b</sup>	Percent	
1970	498,672	90.6	30,126	5.5	21,900	4.0	550,698
1971	715,457	83.6	124,539	14.5	16,023	1.9	856,019
1972	144,992	68.2	55,615	26.2	11,898	5.6	212,505
1973	73,249	79.8	10,464	11.4	8,097	8.8	91,810
1974	51,538	72.2	13,998	19.6	5,894	8.3	71,430
1975	29,336	98.0	0	0.0	592	2.0	29,928
1976	118,482	97.7	1,390	1.1	1,410	1.2	121,282
1977	114,058	90.0	0	0.0	12,704	10.0	126,762
1978	403,352	95.2	0	0.0	20,180	4.8	423,532
1979	346,006	91.4	2,834	0.7	29,872	7.9	378,712
1980	758,344	89.9	8	0.0	85,636	10.1	843,988
1981	1,105,265	92.0	4,125	0.3	92,064	7.7	1,201,454
1982	1,060,812	90.6	15,587	1.3	95,109	8.1	1,171,508
1983	829,281	90.4	19,913	2.2	68,004	7.4	917,198
1984	1,186,753	90.4	30,941	2.4	94,653	7.2	1,312,347
1985	828,645	90.8	18,521	2.0	65,414	7.2	912,580
1986	1,300,638	93.3	22,294	1.6	71,400	5.1	1,394,332
1987	811,464	87.3	43,115	4.6	75,203	8.1	929,782
1988	1,228,987	88.9	68,066	4.9	84,743	6.1	1,381,796
1989	417,978	77.7	44,605	8.3	75,594	14.0	538,177
1990	600,040	83.8	46,700	6.5	69,200	9.7	715,940
1991	635,031	79.6	25,465	3.2	137,394	17.2	797,890
1992	776,939	88.3	29,252	3.3	73,875	8.4	880,066
1993	448,204	87.3	17,871	3.5	47,504	9.2	513,579
1994	1,458,898	91.5	26,262	1.6	108,430	6.8	1,593,590
1995	1,039,506	88.6	22,517	1.9	110,941	9.5	1,172,964
1996	314,538	76.6	14,306	3.5	81,918	19.9	410,762
1997	239,619	84.4	13,278	4.7	31,032	10.9	283,929
1998	333,693	71.6	35,723	7.7	96,491	20.7	465,907
1999	427,414	75.3	21,247	3.7	119,268	21.0	567,929
2000	653,132	80.2	26,134	3.2	134,711	16.5	813,977
2001	696,166	79.7	25,762	2.9	151,637	17.4	873,565
2002	381,423	87.2	12,325	2.8	43,785	10.0	437,533
2003	287,757	81.4	11,867	3.4	54,080	15.3	353,704
2004	254,545	83.0	6,655	2.2	45,612	14.9	306,812
2005	260,703	84.2	1,818	0.6	47,030	15.2	309,551
2006	777,244	88.5	1,561	0.2	99,174	11.3	877,979
2007	327,484	85.7	2,059	0.5	52,705	13.8	382,248
2008	316,076	80.7	13,457	3.4	61,939	15.8	391,472
2009	851,190	86.5	19,509	2.0	112,884	11.5	983,583
2010	418,693	81.3	19,051	3.7	77,516	15.0	515,260
Average 1978-1992							
	819,302	89.1	24,762	2.7	75,889	8.2	919,953
Average 1993-1997							
	700,153	88.1	18,847	2.4	75,965	9.6	794,965
Average 2000-2009							
	480,572	83.9	12,115	2.1	80,356	14.0	573,042

<sup>a</sup> Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

<sup>b</sup> Does not include test fish harvest.

## **APPENDIX E. SALMON ESCAPEMENT DATA**

Appendix E1.—Summary of historical sockeye salmon escapement data from Orzinski Lake, Thin Point Lake, Middle Lagoon/Morzhovoi, and Mortensen's Lagoon weirs.

Year	Orzinski Weir <sup>a</sup>			Thin Point Weir			Middle Lagoon/Morzhovoi Weir <sup>b</sup>			Mortensen's Lagoon		
	Dates		Sockeye	Dates		Sockeye	Dates		Sockeye	Dates		Sockeye
	Installed	Removed		Installed	Removed		Installed	Removed		Installed	Removed	
1926							ND	ND	13,590			
1927							ND	ND	23,932			
1928							ND	ND	8,904			
1929	ND	ND	5,740				ND	ND	15,974			
1930	ND	ND	1,923				ND	ND	24,551			
1931	ND	ND	5,756				1-Jul	7-Sep	28,588			
1932	20-Jun	ND	25,706				26-Jun	8-Aug	40,306			
1933	not operated this year						not operated this year					
1934	23-Jun	ND	6,634				23-Jun	8-Sep	81,748			
1935	13-Jun	15-Sep	28,478				10-Jun	5-Oct	17,367			
1936	16-Jun	8-Aug	31,720									
1937	before 19-Jun	6-Aug	15,393									
1938	30-May	7-Aug	8,675									
1939	14-Jun	3-Aug	10,414									
1940	7-Jun	5-Aug	16,414									
1941	14-Jun	8-Aug	8,241									
1942-1989	not operated these years											
1990	27-Jun	7-Aug	15,000									
1991	14-Jun	20-Jul	40,000									
1992	12-Jun	31-Jul	25,000									
1993	9-Jun	3-Aug	24,717									
1994	10-Jun	29-Jul	38,000	13-Jul	28-Aug	19,450						
1995	16-Jun	25-Jul	30,000	14-Jul	22-Aug	10,241						
1996	7-Jun	28-Jul	30,000	17-Jul	17-Aug	3,101	9-Jul	17-Aug	10,123			
1997	12-Jun	26-Jul	35,000	7-Aug	24-Aug	1,488						
1998	14-Jun	1-Aug	25,000	15-Jul	23-Aug	1,927						
1999	12-Jun	31-Jul	15,000									
2000	10-Jun	4-Aug	21,500									
2001	5-Jun	31-Jul	31,200							1-Jul	26-Oct	4,268
2002	11-Jun	31-Jul	42,849							25-Jun	22-Oct	5,205
2003	8-Jun	1-Aug	70,690							4-Jul	13-Oct	16,804
2004	11-Jun	31-Jul	75,450							29-Jun	5-Oct	7,215
2005	13-Jun	1-Aug	44,797							1-Jul	8-Oct	21,703
2006	8-Jun	5-Aug	18,000							18-Jun	16-Sep	14,688
2007	12-Jun	14-Aug	10,643									
2008	13-Jun	12-Aug	36,839									
2009	11-Jun	3-Aug	21,457									
2010	12-Jun	6-Aug	18,039									

<sup>a</sup> Counts for Orzinski weir after 1989 include post weir estimates.

<sup>b</sup> Data from weirs prior to 1960 compiled from United States Fish and Wildlife Service annual reports series from 1930 to 1959 for the Alaska Peninsula/Aleutians.

## Appendix E2.–Method for calculating estimated total escapement.

Aerial surveys have inherently high variability and are influenced by many factors including survey conditions, timing of peak surveys and variability between surveyors. To account for the high variability of peak survey date, between three to five surveys are conducted per stream, per year. For pink and chum salmon, an approximate 21-day stream life is used to calculate total pink and chum salmon escapements. Due to the high variability, the methods of calculating estimated indexed total escapements without the use of a weir or tower are as follows:

**Chinook, Sockeye, Coho Salmon:** These species tend to have a much longer stream life than pink and chum salmon. Therefore, the total indexed escapement is the peak escapement count combined with carcass counts. However, it is recognized that there are problems in large systems such as Ilnik and Caribou-David's rivers. The basic problem on large systems is the length of time, expense, and fuel needed to conduct a thorough survey.

The Caribou and David's river complex (including Coastal and other nearby lakes) is so massive a system for the size of its runs that complete surveys are not done.

At Thin Point Lagoon and Lake, estimates of sockeye in the lagoon are added together based on estimated time in lagoon and observations of when sockeye start to move from the lagoon to the lake.

In Morzhovoi (Middle Lagoon), Bluebill, Outer Marker, and Mortensen's Lagoon systems the escapement is calculated by adding estimates of spawning sockeye made approximately two weeks apart

**Pink and Chum Salmon:** Due to the high variability of survey conditions, between three and five surveys are conducted per stream per year. From those surveys, the peak number of fish in the stream is added to the total count. If there are any stream counts 21 days prior to the peak count, the number of fish in the stream and the carcasses are added to the total count. Likewise, if there are any counts 21 days after the peak count, those live fish found at both the mouth and in the stream are added to the total count.

### EXAMPLE

Fictional Stream 281-##						
Survey Date	Pinks at Mouth	Pinks in Stream	Pink Carcasses	Chums at Mouth	Chums in Stream	Chum Carcasses
10-Jul	5,000	<b>1,000</b>	<b>5,000</b>	0	0	0
17-Jul	15,000	25,000	5,000	0	0	0
1-Aug	10,000	<b>150,000</b>	10,000	0	0	0
15-Aug	3,000	100,000	25,000	500	1,000	0
1-Sep	<b>12,000</b>	<b>50,000</b>	55,000	<b>2,000</b>	<b>5,000</b>	<b>500</b>
Sub total	12,000	201,000	5,000	2,000	5,000	500
Total	218,000 Pink			7,500 Chum		

The indexed total escapement is calculated by adding the figures in **bold**.

The estimate of 21 days stream life was used because significant numbers of carcasses begin to appear about three weeks after adult pink and chum salmon first appear in Alaska Peninsula streams. It is recognized that stream life can vary; however, this method is easily duplicated and is comparable from year to year. Variation in stream life is likely a much smaller factor than variation between observers.

With the exception of several small streams, there are no problems with streams being obscured by brush or trees in the Alaska Peninsula and Aleutian Islands Areas. With some exceptions, visibility of spawning grounds is outstanding during periods of normal water flow and clear weather.

Appendix E3.—South Peninsula total indexed salmon escapements by species and year, 1962–2010.

Year	Number of Salmon				Total
	Sockeye	Coho	Pink	Chum	
1962	18,800		1,598,800	399,400	2,017,000
1963	23,000		1,317,900	446,700	1,787,600
1964	15,700		1,436,400	454,800	1,906,900
1965	12,100		1,035,400	228,000	1,275,500
1966	17,000		719,400	422,000	1,158,400
1967	16,200		445,500	182,900	644,600
1968	12,800		823,300	279,100	1,115,200
1969	29,500		2,474,900	134,600	2,639,000
1970	16,500		1,298,900	280,500	1,595,900
1971	19,400		702,700	343,200	1,065,300
1972	11,900		111,400	254,500	377,800
1973	7,300		110,800	212,500	330,600
1974	95,600		284,400	257,300	637,300
1975	51,700		552,100	193,300	797,100
1976	69,700		1,456,400	327,200	1,853,300
1977	64,900		2,677,800	774,900	3,517,600
1978	64,800		2,858,700	600,500	3,524,000
1979	53,300		2,629,500	411,100	3,093,900
1980	45,900		2,641,600	362,400	3,049,900
1981	45,700		2,307,500	381,300	2,734,500
1982	39,200		2,293,000	386,900	2,719,100
1983	59,200		851,200	446,500	1,356,900
1984	54,800		3,811,600	699,700	4,566,100
1985	49,900		1,614,100	503,500	2,167,500
1986	48,000		1,716,700	544,600	2,309,300
1987	44,600		1,540,500	620,700	2,205,800
1988	74,100		2,839,600	496,400	3,410,100
1989	78,100		1,870,900	310,500	2,259,500
1990	95,300	87,500 <sup>a</sup>	1,598,400	354,700	2,048,400 <sup>b</sup>
1991	124,900		2,946,800	587,600	3,659,300
1992	97,600		2,834,400	335,500	3,267,500
1993	100,341		2,990,140	397,030	3,487,511
1994	120,255		3,071,725	579,100	3,771,080
1995	129,110		6,406,300	726,400	7,261,810
1996	72,950		3,647,550	610,300	4,330,800
1997	104,440		5,243,275	809,050	6,156,765
1998	85,440		4,668,065	742,235	5,495,740
1999	97,000		5,015,000	725,000	5,837,000

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Year	Number of Salmon				
	Sockeye	Coho	Pink	Chum	Total
2000	69,530		2,792,985	522,075	3,384,590
2001	161,630		2,965,136	751,221	3,877,987
2002	192,749		3,762,800	602,750	4,558,299
2003	198,192		5,511,220	476,540	6,185,952
2004	220,861		8,311,410	732,400	9,264,671
2005	123,964		6,165,634	970,310	7,259,908
2006	88,148		2,862,250	764,750	3,715,148
2007	69,013		2,680,213	726,661	3,475,887
2008	95,859		3,338,370	591,950	4,026,179
2009	128,117		3,067,000	512,230	3,707,347
2010	38,039		742,912	291,912	1,072,863
Average 1962–1976 <sup>c</sup>					
	27,813		957,887	294,400	1,280,100
Average 1977–2009 <sup>b,c</sup>					
	93,876		3,319,133	577,479	3,990,487
Average 2000–2009					
	134,806		4,145,702	665,089	4,945,597

<sup>a</sup> In 1990, excellent survey conditions and additional funding allowed coho surveys during mid and late September.

<sup>b</sup> The 1990 coho numbers are not included in the total escapement.

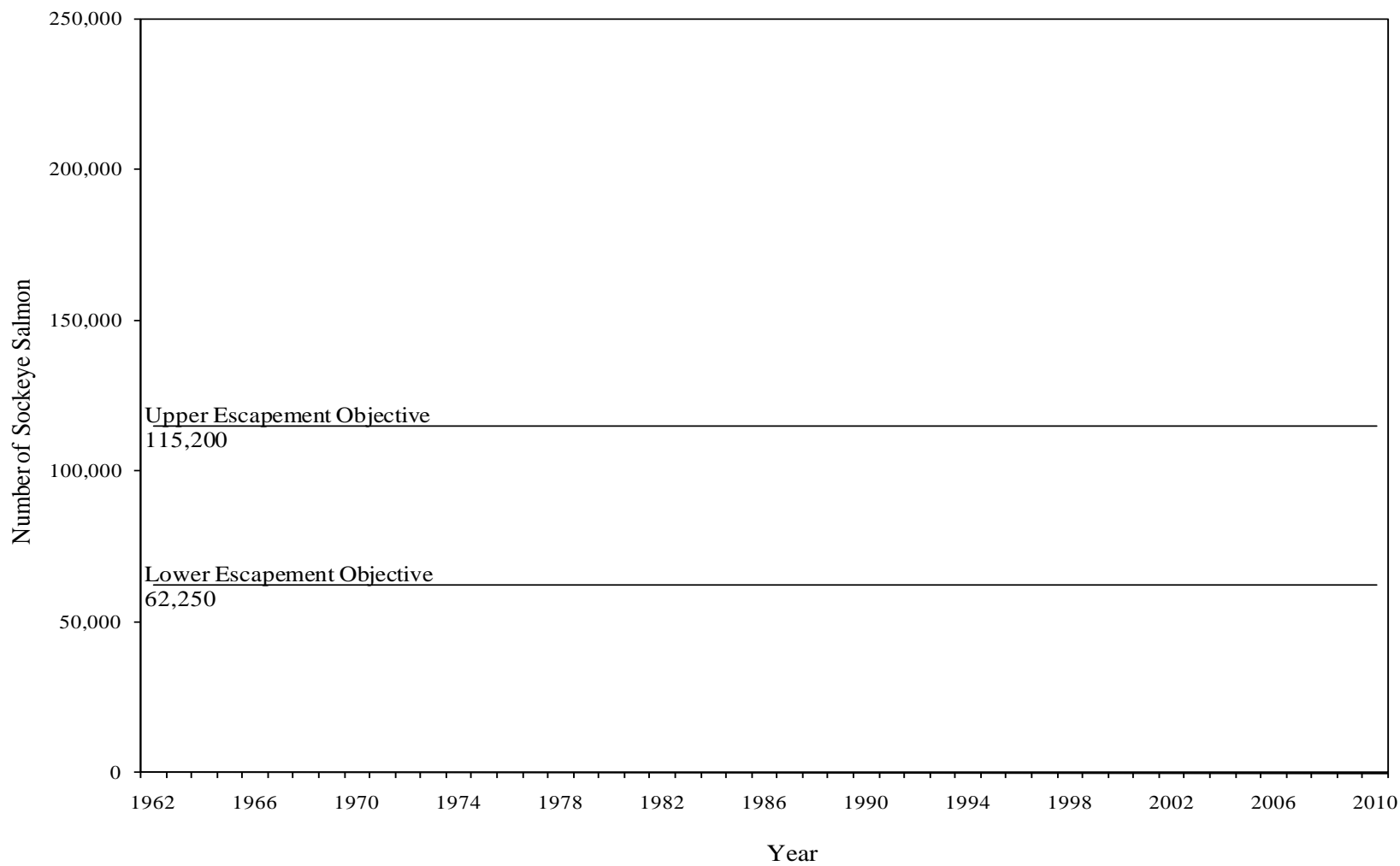
<sup>c</sup> Averages used in this table reflect the transition from years of low production (1962–1976) to the most recent production trends (post 1976).

Appendix E4.—South Peninsula total indexed salmon escapements by species, district, and section, 2010.

District & Section	Number of Salmon <sup>a</sup>			Total
	Sockeye	Pink	Chum	
<u>Southeastern District</u>				
East Stepovak	0	10,912	0	10,912
Stepovak Flats	0	4,300	8,610	12,910
Northwest Stepovak	18,039	55,000	28,602	101,641
Southwest Stepovak	0	9,600	6,700	16,300
Balboa Bay	0	10,050	3,200	13,250
Beaver Bay	0	2,000	14,000	16,000
Shumagin Islands	600	51,100	1,500	53,200
Southeastern District Total	18,639	142,962	62,612	224,213
<u>South Central District</u>				
Mino Creek-Little Coal Bay	0	132,900	2,000	134,900
Canoe Bay	0	86,000	74,900	160,900
East Pavlof Bay	0	34,800	0	34,800
West Pavlof Bay	200	300	8,400	8,900
South Central District Total	200	254,000	85,300	339,500
<u>Southwestern District</u>				
Volcano Bay	0	31,650	45,700	77,350
Belkofski Bay	0	33,300	55,800	89,100
Deer Island	0	216,000	0	216,000
Cold Bay	6,800	22,700	21,000	50,500
Thin Point	12,400	28,100	0	40,500
Morzhovoi Bay	0	1,600	19,000	20,600
Ikatan Bay	0	12,200	1,150	13,350
Southwestern District Total	19,200	345,550	142,650	507,400
<u>Unimak District</u>				
Otter Cove	0	400	620	1,020
Sanak Island	0	0	430	430
Unimak District Total	0	400	1,050	1,450
Total South Peninsula	38,039	742,912	291,612	1,072,563

<sup>a</sup> Complete escapement data are unavailable for coho salmon due to their late run timing.





Appendix E5.—South Peninsula total indexed sockeye salmon escapement by year, 1962–2010.

Appendix E6.—Sockeye salmon daily and cumulative escapement counts through the Orzinski Lake weir, 2010.

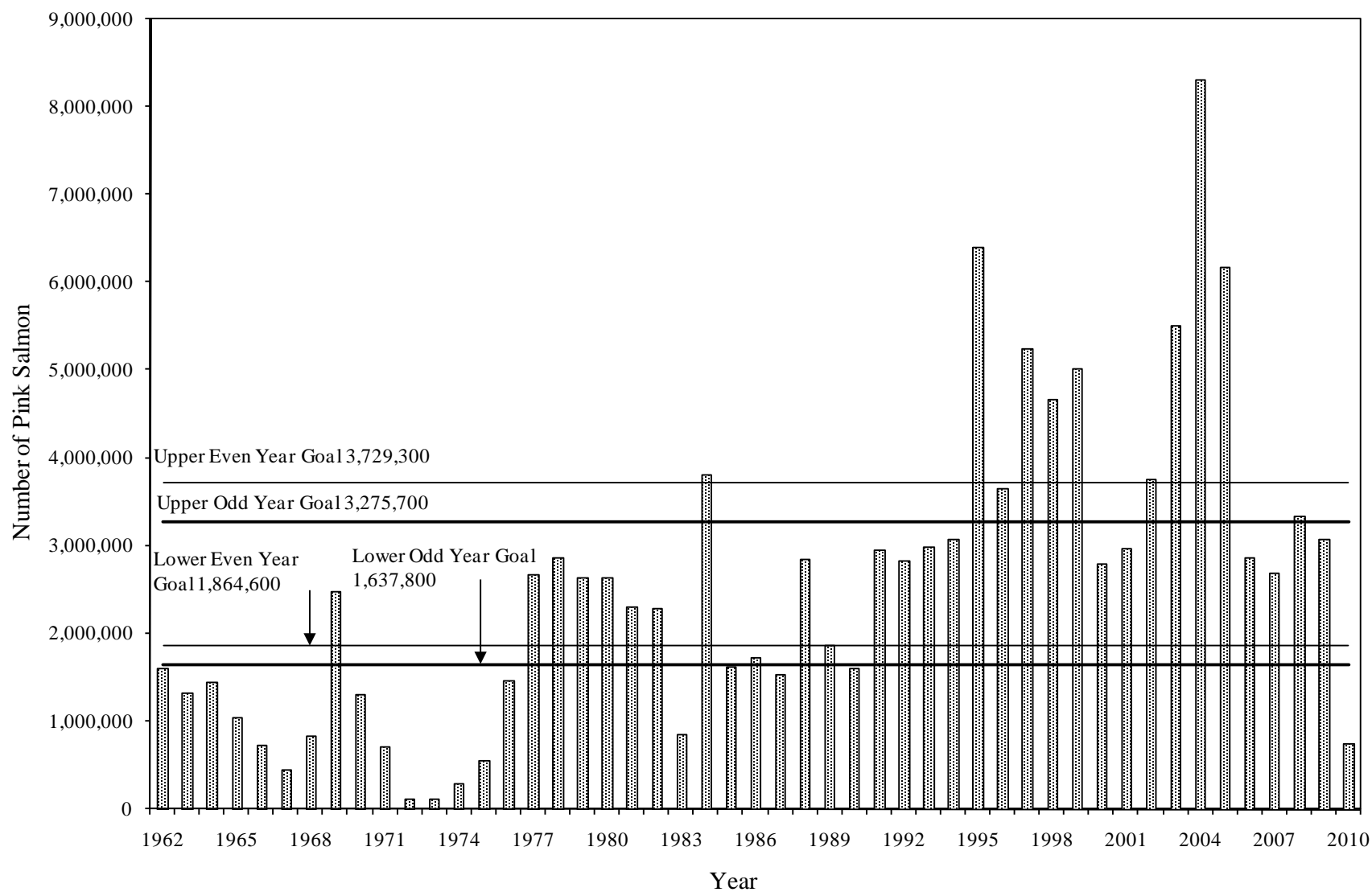
Date	Daily			Cumulative		
	Adults	Jacks	Total	Adults	Jacks	Total
12-Jun <sup>a</sup>	0	0	0	0	0	0
13-Jun	0	0	0	0	0	0
14-Jun	0	0	0	0	0	0
15-Jun	0	0	0	0	0	0
16-Jun	0	0	0	0	0	0
17-Jun	16	3	19	16	3	19
18-Jun	0	0	0	16	3	19
19-Jun	12	2	14	28	5	33
20-Jun	0	0	0	28	5	33
21-Jun	6	1	7	34	6	40
22-Jun	267	17	284	301	23	324
23-Jun	49	3	52	350	26	376
24-Jun	7	0	7	357	26	383
25-Jun	0	0	0	357	26	383
26-Jun	0	0	0	357	26	383
27-Jun	924	139	1,063	1,281	165	1,446
28-Jun	84	9	93	1,365	174	1,539
29-Jun	206	8	214	1,571	182	1,753
30-Jun	73	6	79	1,644	188	1,832
1-Jul	1,140	19	1,159	2,784	207	2,991
2-Jul	217	1	218	3,001	208	3,209
3-Jul	1,350	47	1,397	4,351	255	4,606
4-Jul	78	0	78	4,429	255	4,684
5-Jul	55	0	55	4,484	255	4,739
6-Jul	38	0	38	4,522	255	4,777
7-Jul	235	0	235	4,757	255	5,012
8-Jul	45	2	47	4,802	257	5,059
9-Jul	946	24	970	5,748	281	6,029
10-Jul	399	24	423	6,147	305	6,452
11-Jul	407	29	436	6,554	334	6,888
12-Jul	196	1	197	6,750	335	7,085
13-Jul	431	5	436	7,181	340	7,521
14-Jul	329	9	338	7,510	349	7,859
15-Jul	112	4	116	7,622	353	7,975
16-Jul	15	0	15	7,637	353	7,990

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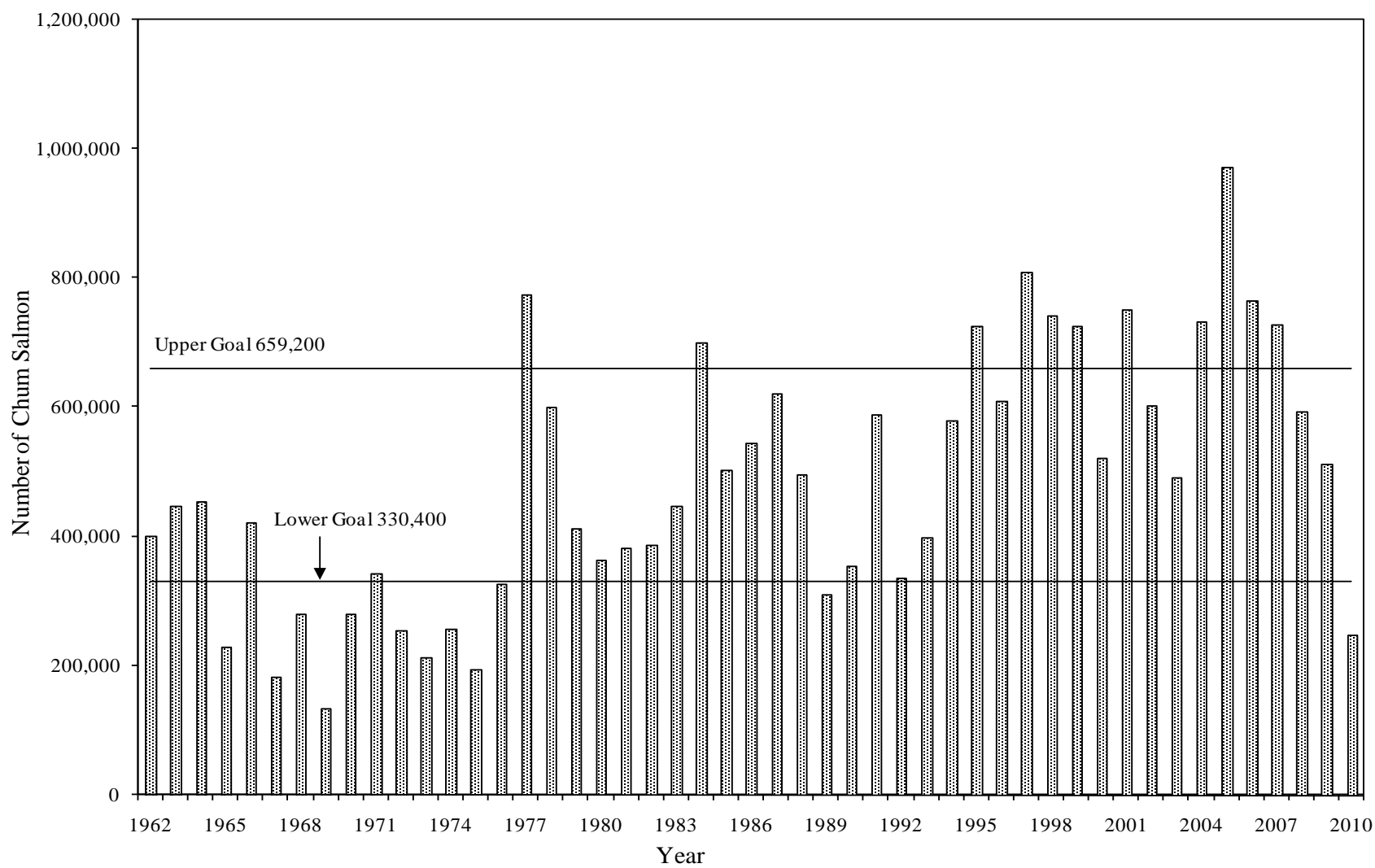
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Date	Daily			Cumulative		
	Adults	Jacks	Total	Adults	Jacks	Total
17-Jul	545	50	595	8,182	403	8,585
18-Jul	459	26	485	8,641	429	9,070
19-Jul	256	15	271	8,897	444	9,341
20-Jul	119	0	119	9,016	444	9,460
21-Jul	90	3	93	9,106	447	9,553
22-Jul	1,090	33	1,123	10,196	480	10,676
23-Jul	785	13	798	10,981	493	11,474
24-Jul	305	19	324	11,286	512	11,798
25-Jul	31	8	39	11,317	520	11,837
26-Jul	89	7	96	11,406	527	11,933
27-Jul	709	20	729	12,115	547	12,662
28-Jul	9	2	11	12,124	549	12,673
29-Jul	352	11	363	12,476	560	13,036
30-Jul	2,239	16	2,255	14,715	576	15,291
31-Jul	752	7	759	15,467	583	16,050
1-Aug	25	0	25	15,492	583	16,075
2-Aug	275	6	281	15,767	589	16,356
3-Aug	1,389	11	1,400	17,156	600	17,756
4-Aug	106	2	108	17,262	602	17,864
5-Aug	165	10	175	17,427	612	18,039
6-Aug	weir pulled					
Total	17,427	612	18,039			
Estimated Total Sockeye Escapement			18,039			

<sup>a</sup> Weir was fish tight on June 12.



Appendix E7.—South Peninsula total indexed pink salmon escapement by year, 1962–2010.



Appendix E8.—South Peninsula total indexed chum salmon escapement by year, 1962–2010.