Regional Information Report No. 4K21-12

South Alaska Peninsula Salmon Annual Management Report, 2020, and the 2019 Subsistence Fisheries in the Alaska Peninsula, Aleutian Islands, and Atka-Amlia Islands Management Areas

by

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November 2021

Alaska Department of Fish and Game **Division of Commercial Fisheries**

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	e
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	E
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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This document should be cited as follows:
Fox, E. K. C., T. D. Lawson, and R. L. Renick. 2021. South Alaska Peninsula salmon annual management report, 2020, and the 2019 subsistence fisheries in the Alaska Peninsula, Aleutian Islands, and Atka-Amlia Islands Management Areas. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K21-12, Kodiak.

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ABSTRACT

This report summarizes the 2020 season and historical commercial salmon fisheries of the South Alaska Peninsula Management Area (Area M).

The 2020 commercial salmon harvest (including the ADF&G test fishery) in Area M was 21,501 Chinook salmon *Oncorhynchus tshawytscha*, 1,069,943 sockeye salmon *O. nerka*, 183,139 coho salmon *O. kisutch*, 5,051,480 pink salmon *O. gorbuscha*, and 915,147 chum salmon *O. keta*. Harvest of Chinook and chum salmon was above the recent 10-year average (2010–2019). Harvest of sockeye, coho, and pink salmon was below the recent 10-year average. A total of 245 permit holders participated in the fishery. The June commercial salmon harvest included 2,594 Chinook, 339,293 sockeye, 262 coho, 1,754,284 pink, and 490,128 chum salmon. The post-June commercial salmon harvest (excluding the Southeastern District Mainland) included 18,940 Chinook, 736,542 sockeye, 118,736 coho, 3,384,415 pink, and 425,681 chum salmon.

No commercial salmon fisheries occurred in the Southeastern District Mainland from June 1 to July 25. The South Alaska Peninsula post-June salmon harvest in the Southeastern District Mainland from July 26 to October 31 was 2 Chinook, 3,305 sockeye, 1,787 coho, 5,277 pink, and 395 chum salmon.

In 2020, the Orzinski Lake sockeye salmon escapement of 6,819 fish did not fulfill the sustainable escapement goal (SEG) of 15,000–20,000 fish. Total pink salmon escapement (3,209,750 fish) was within the South Alaska Peninsula SEG range of 1,750,000–4,000,000 fish. In the Southeastern District, chum salmon escapement was estimated at 151,450 fish, within the SEG of 106,400–212,800 fish. In the South Central District, chum salmon escapement was estimated at 162,000 fish, which was within the SEG of 89,800–179,600 fish. In the Southwestern District, chum salmon escapement was estimated at 100,150 fish, below the SEG of 133,400–266,800 fish.

This report also summarizes the 2019 subsistence harvest.

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

INTRODUCTION

The Alaska Peninsula salmon management area is the portion of Area M that includes waters of the North Alaska Peninsula from Cape Menshikof west to Cape Sarichef, and waters of the South Alaska Peninsula from Kupreanof Point west to Scotch Cap on Unimak Island (Appendix A1). This report describes commercial salmon fisheries located in South Alaska Peninsula waters, further divided into 4 districts: (1) Southeastern District, consisting of waters between Kupreanof Point and McGinty Point; (2) South Central District, consisting of waters between McGinty Point and Arch Point Light; (3) Southwestern District, consisting of waters between Arch Point Light, False Pass, and Cape Pankof Light; and (4) 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 2 areas with different management plans: (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). Data within this report supersedes data published in previous reports by the Alaska Department of Fish and Game (ADF&G).

Legal gear types in South Alaska Peninsula waters include purse seine, drift gillnet, and set gillnet (Appendices A7 and A8). In 2020, 64 of 121 purse seine permits, 120 of 162 drift gillnet permits, and 60 of 116 set gillnet permits reported landings in South Alaska Peninsula waters (Appendix A9). Most of the purse seine and set gillnet permit holders fished South Alaska Peninsula waters throughout the season, whereas most of the drift gillnet permit holders fished

South Unimak waters during the first half of June and North Alaska Peninsula waters from mid-June through July and into September.

SOUTH ALASKA PENINSULA AREAWIDE INFORMATION

There are 5 species of Pacific salmon commercially harvested in the South 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*. Although commercial salmon fisheries in South Alaska Peninsula waters date back to at least 1888, when canneries were operated at Orzinski Bay and Thin Point Cove, catch records are only available starting in 1908 (Appendix A10). Fish ticket information starting in 1970 is stored in the ADF&G database.

HISTORICAL SALMON PRODUCTION, 1908–2019

Historically, South Alaska Peninsula salmon production has fluctuated dramatically. Harvests are typically dominated by pink and chum salmon. Since 1962, annual pink salmon total run (catch and escapement and excluding June harvest, which are not considered local stocks for management purposes) ranged from 149,421 fish in 1973 to 25,766,959 fish in 2017 (Appendix A11). Since 1962, annual chum salmon total run (excluding June harvests) ranged from 223,228 fish in 1975 to 3,079,607 fish in 2017 (Appendix A12).

From 1950 to 1979, the South Alaska Peninsula annual harvest (including June harvest) averaged 3,148,950 salmon and was composed of 2,470 Chinook, 600,534 sockeye, 37,743 coho, 1,794,956 pink, and 713,247 chum salmon (Appendix A10). From 1980 to 1999, the South Alaska Peninsula annual harvest averaged 10,971,608 salmon and was composed of 9,941 Chinook, 2,399,663 sockeye, 262,655 coho, 6,888,053 pink, and 1,411,296 chum salmon (Appendix A10). From 2000 to 2009, the South Alaska Peninsula annual harvest averaged 9,127,044 salmon and was composed of 5,005 Chinook, 1,753,355 sockeye, 198,678 coho, 6,233,828 pink, and 936,177 chum salmon (Appendix A10). From 2010 to 2019, the South Alaska Peninsula annual harvest averaged 11,023,400 salmon and was composed of 15,640 Chinook, 2,077,286 sockeye, 259,699 coho, 7,761,688 pink, and 909,086 chum salmon (Appendix A10). Pink and sockeye salmon are currently the most abundant salmon species harvested in the South Alaska Peninsula (Appendix A10).

COMMERCIAL SALMON HARVESTS FOR THE 2020 SEASON

The first South Alaska Peninsula commercial salmon landing in 2020 occurred on June 6, and the last landing occurred on September 11 (Appendix A13). The commercial harvest (including harvest from the test fishery) of 7,241,210 salmon was composed of 21,501 Chinook, 1,069,943 sockeye, 183,139 coho, 5,051,480 pink, and 915,147 chum salmon (Appendix A13). The Southeastern District had the largest commercial salmon harvest in the South Alaska Peninsula, with a harvest of 3,625,329 fish (50.1%), followed by Unimak District with 1,987,332 fish (27.4%), Southwestern District with 1,204,779 fish (16.7%), and South Central District with 419,315 fish (5.8%; Appendices A14 and A15). By gear type, seine permit holders accounted for 91.9% of the harvest, drift gillnet permit holders accounted for 2.9% of the harvest and set gillnet permit holders accounted for 5.2% of the harvest (Appendix A15). Specific

management actions for the South Alaska Peninsula Management Area, as directed by emergency order, are summarized in Appendix A16.

EXVESSEL VALUE

Appendix A17 provides a brief summary of exvessel values of the 2020 South Alaska Peninsula commercial salmon fisheries. Exvessel values do not include retroactive payments to fishery participants based on fish quality or incentives and greatly underestimates the true dollar value of the fish or fishery.

The total exvessel value of the 2020 South Alaska Peninsula fisheries is estimated to be $7,938,471, well below the recent 10-year average of $19,792,099 (Appendix A17).

Sockeye, pink, and chum salmon accounted for most of the value of the fishery, totaling $3,544,973 for sockeye salmon, $2,949,157 for pink salmon, followed by chum salmon at $1,116,693 (Appendix A17). Coho salmon fisheries occurred in September of 2020; however, lack of participation in the fishery resulted in minimal harvests, and the total exvessel value of coho salmon harvested during 2020 was $312,215.

The exvessel value of purse seine permits in the South Alaska Peninsula fisheries was $6,469,712, followed by set gillnet permits ($977,706) and drift gillnet permits ($491,053; Appendix A17). In recent odd years, increased pink salmon harvest by purse seine permit holders has improved the exvessel value of purse seine gear relative to other gear types, and in even years, pink salmon harvest is less impactful. Drift gillnet gear is typically fished in the South Alaska Peninsula June fisheries, and if sockeye salmon harvest is poor, the drift gillnet fleet will transition to North Alaska Peninsula fisheries in the Northern District to target sockeye salmon, resulting in lower exvessel values for drift gillnet permits on the South Alaska Peninsula as in 2015 and 2019.

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. During the early to mid-1960s, the South Unimak and Shumagin Islands fisheries were open to commercial salmon fishing 5 days per week. From 1967 to 1970, fishing occurred 7 days per week. Special regulatory meetings were held annually and resulted in different regulations every year from 1971 to 1974.

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 (Appendix B1). 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, combined with a weak Yukon River fall 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; Appendix B1).

In January 2001, the BOF modified the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365).[1] These modifications were in effect through the 2003 season and included eliminating the sockeye salmon GHL and the chum salmon cap. From June 10 through June 24, fishing time for any gear group was limited to 16 hours per day. Gear type constraints were also imposed on the number of consecutive fishing days allowed within a 7-day period (Appendix B1). After June 24, in either the South Unimak or Shumagin Islands fisheries, if the sockeye-to-chum salmon ratio for all gear types was 2:1 or less on any day, the next fishing period was 6 hours in duration for all gear groups in that fishery. If the sockeye-to-chum salmon ratio was 2:1 or less for 2 consecutive fishing periods in either fishery, the season was closed for the remainder of June for all gear types. If the sockeye-to-chum salmon ratio was greater than 2:1, a 6-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 Salmon Management Plan* 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. 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 (Appendices B1 and B2).

In 2013, the BOF discussed proposed changes to the regulations involved with the June management plan. The BOF modified the June schedule for seine and drift gillnet gear by delaying the start date to June 10, which reduced fishing time by 64 hours. The June fishing schedule for set gillnet gear remained unchanged (Appendix B1).

During the February 2016 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the BOF made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) and the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366) by adopting regulations to limit the number of sockeye salmon harvested in the Western Alaska Salmon Stock Identification Program (WASSIP) described "Dolgoi Island Area" (statistical areas 283-15 through 283-26 and 284-36 through 284-42; Appendix B3). From June 1 through July 25, a harvest limit of 191,000 sockeye salmon, based on fish ticket information, was created. Once this harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) are closed to commercial salmon fishing through July 25 (Appendix B3). However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17 (Appendix B3). All other statistical areas are managed in accordance with each prescribed management plan.

2020 MANAGEMENT PLAN

During the February 2019 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the BOF made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) by amending subsection (d) that establishes the June fishing schedule. The first commercial fishing period began on June 6 at 6:00 AM and closed at 10:00 PM on June 8, a

[1] ADF&G. 2019. 2019–2021 Alaska Peninsula, Atka-Amlia Islands, Aleutian Islands, and Chignik Areas commercial salmon fishing regulations. Alaska Department of Fish and Game, Juneau. This regulation booklet includes the following two management plans discussed in this report: (1) *the South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365), and (2) the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366).

64-hour fishing period for set gillnet gear only. Beginning at 6:00 AM June 10, all gear types were allowed to fish for an 88-hour fishing period that ended at 10:00 PM on June 13. That fishing period was followed by a closure of 32 hours for all gear types. The commercial salmon fishery reopened for 3 more 88-hour fishing periods, followed by closures of 32 hours each. The final commercial fishing period in June ended at 10:00 PM on June 28.

Additionally, the BOF added a new subsection to *the South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365(g)) to close the waters of the Volcano Bay Section of the Southwestern District, the Belkofski Bay Section of the Southwestern District, excluding those waters inside of a line between Vodapoini Point (lat 55°01.88′N, long 162°24.80′W) and Bold Cape (lat 55°01.24′N, long 162°16.40′W), and the South Central District to purse seine gear.

The BOF amended 5 AAC 09.330 - *Gear*, subsection (g) to allow a registered salmon fishing vessel, when it has set gillnet gear on board, to tow another registered salmon fishing vessel with set gillnet gear on board if the permit holder for the vessel being towed is on board one of the vessels, or to allow a registered salmon fishing vessel to have aboard it no more than 2 legal limits of set gillnet fishing gear in the aggregate to transport gear during a closed fishing period, if the 2 permit holders are on board the vessel. Additional gear may be transported to another district under conditions specified by ADF&G.

The BOF also amended 5 AAC 09.331 - *Gillnet specifications and operations*, to remove minimum mesh size regulations for set gillnets.

The escapement goal ranges for chum salmon were changed, and a new criterion for escapement assessment was adopted. The single peak aerial survey method was chosen, utilizing specific index streams in a district, rather than all the streams in a district (Schaberg et al. 2019). This lowered the ranges of the chum salmon sustainable escapement goals (SEGs) for the Southwestern, South Central, and Southeastern Districts. The Southeastern District will now use 26 index streams with an SEG of 62,500–151,900; the South Central District will now use 10 index streams with an SEG of 68,900–99,200; and the Southwestern District will now use 19 index streams with an SEG of 86,900–159,500. Although the 55 streams will be monitored in order to provide an escapement index, the previously monitored streams will continue to be monitored to assess quality and spatial distribution of the runs.

2020 JUNE SEASON SUMMARY

The first commercial fishing period in 2020 began on June 6 at 10:00 AM for set gillnet gear only and closed at 10:00 PM on June 8. Beginning at 6:00 AM on June 10, all gear types began an 88-hour fishing period that ended at 10:00 PM on June 13. This fishing period was followed by a closure of 32 hours for all gear types. The commercial salmon fishery then reopened for 3 more 88-hour fishing periods for all gear types, separated by closures of 32 hours. The final commercial fishing period in June ended at 10:00 PM on June 28. A total of 225 permit holders harvested 2,594 Chinook, 339,293 sockeye, 262 coho, 1,754,284 pink, and 490,128 chum salmon during the 2020 June fisheries (Appendices B4–B6).

During the 2020 South Unimak June fishery, 164 permit holders harvested 734 Chinook, 220,697 sockeye, 228 coho, 1,576,195 pink, and 242,326 chum salmon (Appendix B7 and B8). Landings by 30 purse seine permit holders accounted for 594 Chinook, 118,814 sockeye, 223 coho, 1,565,843 pink, and 195,994 chum salmon (Appendix B9); 120 drift gillnet permit holders harvested 138 Chinook, 97,487 sockeye, 5 coho, 9,613 pink, and 45,890 chum salmon

(Appendix B10); 14 set gillnet permit holders harvested 2 Chinook, 4,396 sockeye, 0 coho, 739 pink, and 442 chum salmon (Appendix B11).

During the 2020 Shumagin Islands June fishery, 68 permit holders harvested 1,860 Chinook, 118,596 sockeye, 34 coho, 178,089 pink, and 247,802 chum salmon (Appendices B12 and B13). Landings from 34 purse seine permit holders accounted for 1,854 Chinook, 101,772 sockeye, 28 coho, 117,430 pink, and 224,951 chum salmon (Appendix B14); 34 set gillnet permit holders harvested 6 Chinook, 16,824 sockeye, 6 coho, 659 pink, and 2,851 chum salmon (Appendix B15).

Purse seine permit holders harvested 53.8% of sockeye and 80.9% of chum salmon in the South Unimak June fishery (Appendices B16 and B17), and 85.8% of sockeye and 98.8% of chum salmon in the Shumagin Islands June fishery (Appendices B18 and B19). Drift gillnet permit holders harvested 44.2% of sockeye and 18.9% of chum salmon in the South Unimak June fishery (Appendices B16 and B17). Set gillnet permit holders harvested 2.0% of sockeye and 0.2% of chum salmon in the South Unimak June fishery (Appendices B16 and B17) and 14.2% of sockeye and 1.2% of chum salmon in the Shumagin Islands June fishery (Appendices B18 and B19).

In 2020, the harvest limit of 191,000 sockeye salmon was not reached by July 25; however, on June 13 the Chignik River sockeye salmon escapement was the second lowest recorded escapement in the history of the Chignik River weir operation. Additionally, no signs of sockeye salmon buildup behind the Chignik weir or in Chignik Lagoon indicated that any significant increase in escapement was unlikely. In response to the record low Chignik River sockeye salmon escapement, on June 13 ADF&G closed the "Dolgoi Island area" for all remaining openings in June. ADF&G also reduced the last 2 fishing periods in the *South Unimak and Shumagin Island June Fishery* in the Shumagin Islands Section of the Southeastern District to 40 hours each (Appendix A16).

SOUTHEASTERN DISTRICT MAINLAND FISHERIES

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

The *Southeastern District Mainland Salmon Management Plan* (5 AAC 09.360) was formally adopted in 1980. Although it closely followed guidelines from previous seasons, it established that 80% of sockeye salmon harvested are considered destined for Chignik River. In 1985, June 1 through July 25 sockeye salmon harvest allocation criteria were added to the management plan. Harvest allocation has fluctuated between 6.0% and 7.6% of the total Chignik harvest since it was introduced (Appendix C3). Currently, SEDM is managed on a 7.6% allocation of sockeye salmon harvested in the Chignik Management Area (CMA) through July 25.

Since 1985, when allocation criteria were put in place, SEDM harvest has ranged from 0.9% (in 1989) to 11.5% (in 2005) of sockeye salmon harvested in the CMA (Appendix C4). In 1997, 2007, 2008, and 2014, and 2018 through 2020, there was no fishery during the allocation period due to a weak sockeye salmon return to Chignik River. During years when harvest has occurred in SEDM, the most recent 10-year (2010–2019) SEDM sockeye salmon harvest averaged 110,573 fish or 7.7% of sockeye salmon harvested in the CMA (Appendices C4 and C5).

The current management plan stipulates that 80% of sockeye salmon harvested in SEDM before July 1 are considered Chignik-bound. Beginning July 1, sockeye salmon harvested in Northwest

Stepovak Section (NWSS) are considered 100% local fish, and NWSS is managed on the Orzinski Lake sockeye salmon run. After July 25, all SEDM 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 Alaska Peninsula operators participated in both set gillnet and purse seine fisheries prior to limited entry, they received a permit card for each gear type. Many dual permit holders sold or transferred their set gillnet permits and retained their purse seine permits. Sold or transferred permits increased effort in the SEDM fishery (Appendices C6–C8) because many set gillnet permits that were previously used part-time were then fished full-time. This increase in participation was reflected in both the number of set gillnet permits fished and the number of landings. The number of set gillnet permits fished has ranged from a low of 7 permits in 1975 to a high of 64 permits in 1993, 1996, and 2000 (Appendix C7; Fox et al. 2018). The number of set gillnet landings from SEDM has ranged from a low of 14 in 1975 to a high of 1,657 in 1984 (Appendix C7; Fox et al. 2018), with similarly high numbers of landings (>1,000) between 2011 and 2013. The most recent 10-year average (2010–2019) reflects a decrease in number of permits fished and landings made by set gillnet permit holders. An average of 42 set gillnet permits fished in the SEDM with an average of 840 total landings (years where no fishery occurred are not included in this average; Appendix C7).

The number of purse seine permits fished has fluctuated since 1974, from 6 in 1975, 1987, and 1992, to 69 in 1990 (Appendix C8; Fox et al. 2018). In the most recent 10 years (2010–2019), an average of 17 purse seine permits have been fished annually (Appendix C8). Purse seine landings in SEDM have fluctuated between 9 and 145 since 1983 but have averaged 35 landings annually over the most recent 10 years (2010–2019; Appendix C8).

LOCAL STOCK FISHERIES

Northwest Stepovak Section

Prior to July 1, 80% of sockeye salmon harvested in NWSS are considered to be Chignik-bound sockeye salmon (5 AAC 09.360 (f)). After July 1, sockeye salmon caught within the NWSS are considered Orzinski Lake-bound. Orzinski Lake sockeye salmon escapements are assessed using a weir, with an escapement goal developed from historical aerial surveys and weir counts. The sockeye salmon SEG for Orzinski Lake is 15,000–20,000 fish (Schaberg et al. 2019).

Stepovak Flats Section

Prior to July 26, Stepovak Flats may open to commercial salmon fishing concurrently with the rest of the SEDM. Eighty percent of sockeye salmon harvested in the Stepovak Flats Section are considered Chignik-bound and assigned to the 7.6% allocation criteria stated in the *Southeast District Mainland 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. A more detailed regulatory history can be found in Appendix C3.

2020 MANAGEMENT PLAN

Under the current *Southeast District Mainland Salmon Management Plan* (5 AAC 09.360), the following items are in effect:

1. The percentage of Chignik-bound sockeye salmon allocated to the SEDM fishery is 7.6% of the total number of sockeye salmon harvested in the CMA through July 25.
2. Prior to July 26, 80% of sockeye salmon caught in the SEDM are considered Chignik-bound salmon.
3. Beginning July 1, sockeye salmon caught in the NWSS (Appendix C2) are considered 100% local fish and not counted toward the Chignik allocation. Fishing time in NWSS beginning on July 1, excluding Orzinski Bay, may not be open for more than an aggregate of 96 hours during a 7-day period. Fishing time in Orzinski Bay, after June 30, is 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 may be operated continuously until midnight July 25, and
    (B) purse seine and hand purse seine gear may be operated for no more than an aggregate of 96 hours during a 7-day period.
5. A limited portion of Orzinski Bay may open to purse seine gear prior to July 11 if ADF&G determined the interim escapement objectives had been exceeded.
6. The Stepovak Flats Section is 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 are considered Chignik-bound fish.
7. The area encompassing Kupreanof Point is closed to commercial salmon fishing from July 6 through August 31. ADF&G may extend the Kupreanof Point closed waters area through the end of the season by emergency order.
8. From July 26 through October 31, the fishery is managed for local pink, chum, and coho salmon stocks.
9. From July 26 through October 31, the fishery is closed for at least one 36-hour period within a 7-day period.

2020 SEASON SUMMARY

During years when it appears that the sockeye salmon harvest will exceed 600,000 fish in the CMA, and the first run begins to develop as anticipated, followed by a commercial salmon opening in the CMA, commercial salmon fishing may be allowed in the East Stepovak, Stepovak Flats, Southwest Stepovak, Balboa Bay, and Beaver Bay Sections of the SEDM. The 2020 forecast for the total run estimate of Chignik-bound sockeye salmon was 501,000 fish for the early run (Black Lake) and 795,000 fish for late run (Chignik Lake; Brenner et al. 2020). The overall forecasted harvest for the CMA was 586,000 fish, fewer than the 600,000 threshold to allow commercial fishing in the SEDM. The Chignik early run was weaker than forecasted, and no commercial salmon fishing periods were allowed in the SEDM between June 1 and July 25 in 2020. Sockeye salmon harvest in the SEDM considered to be Chignik-bound was 0 fish in 2020

(Appendices C4 and C9). A total of 0 salmon were harvested in the SEDM during the June 1 to July 25 timeframe (Appendices C6 and C10).

In 2020, the Orzinski Lake weir was operated from June 8 through August 6 and passed 6,819 sockeye salmon (Appendix E6). Due to low Orzinski Lake sockeye salmon escapement, no commercial fishing was permitted in the NWSS (Appendix C11). The total harvest in the NWSS from July 1 through July 25 was 0 salmon (Appendix C11).

Between July 26 and October 31, SEDM is managed on the abundance of local pink, chum, and coho salmon. Due to adequate returns of pink, chum, and coho salmon into SEDM streams, fishing opportunity was provided from August 23 to September 15 (Appendices A16 and C10). The total harvest in SEDM for the 2020 season, between July 26 and October 31 included 2 Chinook, 3,305 sockeye, 1,787 coho, 5,277 pink, and 395 chum salmon (Appendix C10).

SOUTH ALASKA PENINSULA POST-JUNE FISHERIES

The South Alaska Peninsula post-June salmon fishery takes place in Southeastern (excluding SEDM prior to July 26), South Central, Southwestern, and Unimak Districts from July 6 through the end of the season (Appendices D1 and D2).

The *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366) was formally adopted in 1991. Before 1991, the post-June fishery was divided into 3 date ranges and based on the run strengths of the following local salmon species: July 6 to approximately July 18 (chum salmon), July 18 to approximately August 20 (pink salmon), and from September 1 until the end of the season (coho salmon; Appendix D3).

In 1991, after the management plan was put into place by the BOF, commercial fishing was restricted to terminal areas from July 6 to July 19. These terminal areas included Zachary Bay, the northern portion of Pavlof Bay and Cold Bay, Thin Point, Canoe Bay, and Morzhovoi Bay Sections (Appendix D2). From July 20 until the close of the season, the entire South Alaska Peninsula could be opened to commercial salmon fishing by emergency order based on local run strength (except in the SEDM through July 25).

Since 1991, the BOF has made multiple adjustments to the management plan. The opening date allowing fishing in nonterminal areas was moved from July 20 to July 6. Also, time periods for post-June fisheries were changed to July 6–21 and July 22–31, each with distinct fishing periods, specific closures in nonterminal areas, and additional terminal areas in the latter period. In 2010, the BOF extended the fishing season through October 31 (Appendix D3).

During the February 2016 BOF meeting, the management plan was revised to limit the number of sockeye salmon harvested in the "Dolgoi Islands Area" to 191,000 as reported on fish tickets. When the harvest limit of sockeye salmon is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37, 284-38, and 284-39) will be closed to commercial salmon fishing through July 25 (Appendix B3). However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17 (Appendices B3 and D3). In addition to the changes made in the "Dolgoi Islands Area," the BOF also repealed the minimum mesh size of a drift gillnet during the post-June fisheries. There is now no minimum mesh size in Area M for drift gillnet gear (Appendix D3).

IMMATURE SALMON CONCERNS

The 1991 BOF decision to allow commercial salmon fishing in limited areas within South Alaska Peninsula waters was made in part because of concerns that immature Chinook, sockeye, and chum salmon were inadvertently gilled during purse seine gear fishing operations (McCullough and Shaul 1992). The presence of immature salmon in South Alaska Peninsula waters, which ADF&G first became aware of in 1962, 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, and 1979, and for purse seine fishing only during the 1989–1992, 1999, 2001, 2003, 2008, 2015, 2016, and 2017 seasons (Fox et al. 2018).

In the Shumagin Islands Section, a high incidence of immature salmon being caught in purse seine gear is cause for concern. 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)). 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 Alaska Peninsula waters prior to the July commercial fishing periods. In the Shumagin Islands Section, most purse seine fishing effort has occurred in the nearshore waters of Popof Island from Popof Head to Red Bluff, and thus, test fishing sites were established in those areas (Appendix D4).

In 2001, the BOF adopted a regulation that defined immature salmon and required ADF&G to conduct an immature salmon test fishery in July (5 AAC 09.366(i); Appendix D3).

2020 MANAGEMENT PLAN

The *Post-June Salmon Management Plan for the South Alaska Peninsula* (5 AAC 09.366) has 3 major components:

1. Beginning July 6, there is one 33-hour fishing period followed by a 63-hour closure. After the first fishing period, there are six 36-hour fishing periods interspersed by 60-hour closures in the Shumagin Islands Section of the Southeastern District and the South Central, Southwestern, and Unimak Districts (Appendices D1 and D2). Additional fishing time may be allowed in terminal fishing areas based on local salmon run strength.
2. From July 6 through July 21, terminal areas include 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 (Appendix D1). From July 22 through July 31, in addition to those terminal areas identified for the time frame of July 6 through July 21, the Deer Island, Belkofski Bay, and Mino Creek–Little Coal Bay Sections are added (Appendices D1 and D2).
3. From August 1 through August 31, fishing periods are based on abundance of local sockeye, coho, pink, and chum salmon stocks. From September 1 through October 31, fishing periods are based on abundance of coho salmon stocks, although ADF&G may consider abundance of late pink and chum salmon stocks.

2020 SEASON SUMMARY

The immature test fishery was conducted on 3 days: July 2, 3, and 5. Test fishery results on all 3 days in July showed numbers of immature salmon below the regulatory threshold (100 per set; Appendix D5). Because numbers of immature salmon were below the regulatory threshold, purse seine gear was permitted for fishing within the Shumagin Islands Section of the Southeastern District during the 33-hour fishing period beginning July 6 and during all subsequent fishing periods (Appendix D5).

In 2020, the July 6–21 commercial salmon harvest from South Alaska Peninsula nonterminal areas included 14,847 Chinook, 317,154 sockeye, 40,810 coho, 299,247 pink, and 288,595 chum salmon (Appendix D6). Terminal area harvests during this time frame totaled 0 Chinook, 6,927 sockeye, 57 coho, 838 pink, and 230 chum salmon (Appendix D6). The July 22–31 commercial salmon harvest from South Alaska Peninsula nonterminal areas (including SEDM after July 25) was 3,422 Chinook, 211,015 sockeye, 37,955 coho, 1,249,172 pink, and 91,459 chum salmon (Appendix D7). Terminal area harvests during this time frame totaled 32 Chinook, 26,922 sockeye, 859 coho, 85,439 pink, and 12,211 chum salmon (Appendix D7).

Beginning August 1, commercial salmon fishing opportunity is provided at the discretion of ADF&G based on escapement, run timing, and commercial harvest. Due to adequate returns of pink salmon across the South Alaska Peninsula, the commercial salmon fishery was open for 12 days beginning on August 11 (Appendix D8). Total harvest in August included 406 Chinook, 166,310 sockeye, 99,079 coho, 1,659,671 pink, and 30,680 chum salmon (Appendix D8).

There were several openings for coho salmon in September. Participation and harvest were low during these openers compared to the 10-year average. From September 1 through October 31, 61 Chinook, 1,055 sockeye, 4,041 coho, 1,599 pink, and 101 chum salmon were harvested (Appendix D9).

The 2020 South Alaska Peninsula post-June total commercial salmon harvest (excluding the SEDM July 1–25 harvest) was 18,768 Chinook, 729,383 sockeye, 182,801 coho, 3,295,966 pink, and 43,276 chum salmon (Appendix D10). In 2020, 153 permit holders fished in the South Alaska Peninsula post-June fishery (Appendix D11). Chinook salmon were harvested by all gear groups with 18,709 (99.7%) caught by purse seine, 8 (<1%) caught by drift gillnet, and 51 (<1%) caught by set gillnet, for a total of 18,768 fish (Appendix D12). Sockeye salmon were harvested by all gear groups, with 513,536 (70.4%) caught by purse seine, 18,658 (2.6%) caught by drift gillnet, and 197,189 (27.0%) were caught by set gillnet, for a total of 729,383 fish (Appendix D13). Coho salmon were harvested by all gear groups with 159,082 (87.0%) caught by purse seine, 7,501 (4.1%) caught by drift gillnet, and 16,218 (8.9%) caught by set gillnet, for a total of 182,801 fish (Appendix D14). Pink salmon were harvested by all gear groups with 3,144,681 (95.4%) caught by purse seine, 28,624 (<1%) caught by drift gillnet, and 122,661 (3.7%) caught by set gillnet, for a total of 3,295,966 fish (Appendix D15). Chum salmon were harvested by all gear groups with 406,985 (96.2%) caught by purse seine, 3,778 (<1%) caught by drift gillnet, and 12,513 (3.0%) caught by set gillnet, for a total of 423,276 fish (Appendix D16).

The 2020 Chinook salmon harvest was well above the recent 10-year average of 6,296 for the post-June commercial salmon fishery (Appendix D12). Sockeye, pink, coho and chum salmon harvests were all below the most recent 10-year averages (852,062 sockeye, 6,148,586 pink, 255,101 coho, and 497,695 chum salmon; Appendices D13–D16).

SALMON ESCAPEMENT

The South Alaska Peninsula has approximately 224 salmon streams, with sockeye salmon found in 37 streams, pink salmon in at least 204 streams, chum salmon in 136, and coho salmon in 81 streams (Schaberg et al. 2019). In 2020, most salmon escapements were monitored by aerial surveys using small fixed-wing aircraft. The Orzinski Lake system was monitored with a fixed picket salmon weir operated by ADF&G. Pink and chum salmon escapements were estimated with the indexed total escapement method, and sockeye salmon escapements were estimated using peak escapement observations (Appendix E1). Chum salmon escapements using the newly developed peak aerial survey escapement index were also monitored.

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. There are no known Chinook salmon spawning streams along South Alaska Peninsula waters, and coho salmon escapement data is 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 Schaberg et al. (2019).

2020 ESCAPEMENT BY SPECIES

Sockeye Salmon

The total 2020 indexed South Alaska Peninsula sockeye salmon escapement of 34,169 fish was below the recent 10-year average of 60,580 fish (Appendices E2–E4). The escapement into Mortensens Lagoon of 800 fish was well below the SEG range of 3,200–6,400 fish (Appendix E3). The escapement into Thin Point of 10,450 fish was below the SEG range of 14,000–28,000 fish (Appendix E3). The Orzinski Lake sockeye salmon escapement for 2020 was 6,819 fish through August 6, which was well below the SEG range of 15,000–20,000 (Appendices E5 and E6).

In 2019, the Unalaska Native Fishermen's Association, Ounalashka Corporation, and the City of Unalaska provided funding to contract Aleutian Aerial LLC to fly small unmanned aerial system (i.e., drone) surveys to capture sockeye salmon abundance in Summer Bay, Morris Cove, and Unalaska Village lakes on Unalaska Island (Appendix E9). Recorded video footage was reviewed postseason and sockeye salmon escapements were estimated using peak escapement observations (Appendix E1). Total indexed sockeye salmon escapement was 350 fish for the Unalaska Village Lake, 2,575 fish for Summer Bay, and 376 fish for Morris Cove (Appendix E10). In 2020, Unalaska Native Fishermen's Association, the Ounalaskhka Corporation, and the City of Unalaska provided funding for a second year of drone surveys. Escapement estimates for 2020 will be published in the 2021 management report.

Coho Salmon

The total indexed coho salmon escapement for 2020 was 0 fish (Appendix E3). Many streams were not surveyed, surveyed once, or not surveyed during times of peak abundance. The coho salmon escapement goal for Thin Point Lake was eliminated at the 2013 BOF meeting (Sagalkin and Erickson 2013).

Pink Salmon

The total 2020 indexed South Alaska Peninsula pink salmon escapement of 3,209,750 fish was above the recent 10-year average of 2,686,966 fish, and within the South Alaska Peninsula annual pink salmon SEG range of 1,750,000–4,000,000 fish (Appendices E2, E3, and E7). The areawide pink salmon SEG was modified during the 2016 BOF meeting from individual even/odd year SEGs to an aggregate annual SEG (Schaberg et al. 2015).

Chum Salmon

The total 2020 indexed South Alaska Peninsula chum salmon escapement of 415,750 fish was below the recent 10-year average of 613,523 fish (Appendices E2, E3, and E8). Escapement of 151,450 fish into the Southeastern District was within the SEG of 106,400–212,800 fish, escapement of 100,150 fish into the Southwestern District was below the SEG of 133,400–266,800 fish, and escapement of 162,000 fish into the South Central District was within the SEG range of 89,800–179,600 fish (Schaberg et al. 2019; Appendix E3).

New escapement goal ranges for chum salmon were developed during the February 2019 Alaska Peninsula, Aleutian Islands, and Chignik BOF meeting. New, lower chum salmon SEGs were established for each district, utilizing specific index streams in a district (rather than all streams in a district) and the single peak aerial survey method (rather than the 21-day stream life method described in Appendix E1) to estimate escapement (Schaberg et al. 2019). The SEGs for the index streams for each district were monitored, and all escapement estimates using this method were within or above the SEG range. Using the Southeastern District's 26 index streams, the escapement estimate was 107,600 fish (SEG 62,500–151,900 fish). Using the South Central District's 10 index streams, the escapement estimate was 93,500 fish (SEG 68,900–99,200 fish). Using the Southwestern District's 19 index streams, the escapement estimate was 84,550 fish (SEG 86,900–159,500 fish).

SUBSISTENCE FISHERIES

Subsistence uses of wild resources are defined as noncommercial, customary and traditional uses for a variety of purposes. These include direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; and for the customary trade, barter, or sharing for personal or family consumption (AS 16.05.940 (33)). Whenever it is necessary to restrict harvests, subsistence fisheries have a preference over other uses of the stock (AS 16.05.258(b)(4)(A)).

Reliance on local resources for subsistence is important to many communities on the Alaska Peninsula, Aleutian Islands, and Pribilof Islands. Subsistence salmon permits are issued to residents in some of these areas through the ADF&G offices in Sand Point, Cold Bay, Port Moller, and Dutch Harbor. Information from returned subsistence permits is used to extrapolate catches for all permits issued. Subsistence permits are not required in the Akutan, Umnak, Pribilof Islands, and Atka-Amlia areas. The Atka-Amlia Islands Area, as defined in the commercial fishing regulations, is considered a district of the Aleutian Islands Area in the subsistence fishing regulations.

Due to the delay of subsistence permit returns, subsistence harvest information from 2020 is not included in this report. This report summarizes subsistence harvest from 2019.

PERMITS ISSUED

In 2019, a total of 96 subsistence permits were issued in the Alaska Peninsula Area (Appendices F1 and F2). This was the lowest number of permits issued dating back to 1985 and well below the 2014–2018 average of 152 permits (Appendix F1). In the Aleutian Islands, 187 permits were issued for the Unalaska District (Appendices F1 and F2). This was slightly more than the 182 permits issued in 2018, and less than the 2014–2018 average of 211 permits issued (Appendix F1). There was 1 permit issued for the Adak District (Appendices F2 and F3). This is fewer than the 2014–2018 average of 2 permits issued (Appendix F3). In 2019, 75.0% of the subsistence permits issued in the Alaska Peninsula Area, 66.8% of the permits issued in the Unalaska District of the Aleutian Islands Area, and 100% of the permits issued in the Adak District of the Aleutian Islands Area were completed and returned to ADF&G (Appendix F2).

2019 HARVEST BY AREA

The species and number of salmon harvested for subsistence varied considerably among communities (Appendices F1 through F3). This may be due to annual differences in salmon availability and species preference within each community. The 2019 Alaska Peninsula Area subsistence salmon harvest was an estimated 6,143 salmon: 164 Chinook, 3,716 sockeye, 1,248 coho, 615 pink, and 400 chum salmon (Appendices F1 and F2). The Alaska Peninsula Area subsistence salmon reported harvest has been showing a general decline in recent years after historic peak harvests in 1997. The 2019 Alaska Peninsula Area subsistence salmon harvest was well below the 2014–2018 average of 13,984 fish. The subsistence salmon harvest in the Unalaska District during 2019 was an estimated 3,190 salmon: 1 Chinook, 2,395 sockeye, 507 coho, 216 pink, and 71 chum salmon (Appendices F1 and F2). The 2019 subsistence salmon harvest in Unalaska was fewer than the 2014–2018 average of 3,775 fish. The subsistence salmon harvest in the Adak District during 2019 was an estimated 25 coho salmon with no other species reported to be taken (Appendices F2 and F3). The 2019 subsistence salmon harvest in Adak was well below than the 2014–2018 average of 188 fish (Appendix F3).

Mortensens Lagoon Subsistence Fishery

Mortensens Lagoon is located approximately 9 road miles southeast of the town of Cold Bay and is an important source of sockeye and coho salmon for both residents of Cold Bay and King Cove. In 2019, 2 residents of Cold Bay, 2 residents of King Cove, and 3 nonlocal residents fished in Mortensens Lagoon (Appendices F4 and F5). During the 5 most recent years (2014–2018), an average of 6 nonlocal permit holders, 8 Cold Bay resident permit holders, and 5 King Cove resident permit holders fish in Mortensens Lagoon each year (Appendix F5). In 2019, an estimated 264 sockeye were harvested in Mortensens Lagoon, no other species were reported to be taken (Appendices F4 and F6).

Thin Point Lagoon Subsistence Fishery

Thin Point Lagoon, located approximately 12 air miles west of King Cove, is an important source of subsistence sockeye and coho salmon for residents of King Cove. In 2019, an estimated 230 sockeye and 78 coho salmon were harvested from Thin Point Cove by 2 King Cove permit holders (Appendices F6 and F7).

Lenard Harbor Subsistence Fishery

Lenard Harbor, near the King Cove road system, has been an important source of coho salmon for subsistence purposes. In 2019, an estimated 288 coho salmon were harvested from Lenard Harbor by 3 King Cove permit holders (Appendices F8 and F9).

Unalaska Subsistence Fishery

The primary Unalaska Island salmon subsistence fishing locations during 2019 are listed in Appendix F10. In 2019, as in many years, Reese Bay received more fishing effort than any other location on Unalaska Island (Appendices F6 and F10). The Reese Bay subsistence fishery, on Unalaska Island, targets sockeye salmon returning to McLees Lake (Hildreth and Finkle 2011) and appears to be fully utilized by subsistence harvesters during most years (Shaul and Dinnocenzo 2000). In 2019, Reese Bay subsistence sockeye salmon harvest was estimated to be 1,055 fish, which represented 75% of the total Unalaska District sockeye subsistence catch (Appendix F10). The 2019 subsistence sockeye harvest in Reese Bay was fewer than the 2018 estimated harvest of 1,338 fish and fewer than the previous 5-year average of 1,818 fish (Appendix F6).

Adak District Subsistence Fishery

Historically, the Adak District subsistence salmon harvest primarily consists of sockeye salmon taken at Quail Bay and Galas Point on Kagalaska Island and at Finger Bay and Airport Creek on Adak Island. After 1993, the personal use fishery effort decreased due to reductions in U.S. Navy personnel stationed at Adak. In 1997, the civilian population of Adak increased because of military base cleanup work, which resulted in an increase in the number of permits issued and salmon harvested. A total of 18 permits were issued in 1997, and an estimated 229 sockeye and 4 chum salmon were harvested (Appendix F3). In 2019, the estimated harvest of 25 coho salmon were the only fish reported in the Adak District subsistence fishery (Appendix F3). Between 2014 and 2018, an average of 2 Adak District subsistence permits were issued with an estimated average harvest of 188 sockeye. No other species were harvested between 2014 and 2018 (Appendix F3).

ACKNOWLEDGMENTS

The authors would like to thank Tracy Pedersen and Penelope Haas for their work at the Orzinski Weir; Kalynn Workman for her work at the Sand Point office; our pilots, Mark Patterson and Paul Horn, for aerial logistics and survey support; and the crew of the R/V *Resolution* for providing logistical support. The authors also thank Amanda Dorner, Ric Shepard, Neil Moomey, and Doug Dorner for their technical support. Special thanks go to Lucas Stumpf, Brad Fuerst, Matt Olson, Jeff Wadle, and Kevin Schaberg for editing this publication.

REFERENCES CITED

Brenner, R. E., A. R. Munro, and S. J. Larsen, editors. 2020. Run forecasts and harvest projections for 2019 Alaska salmon fisheries and review of the 2018 season. Alaska Department of Fish and Game, Special Publication No. 19-07, Anchorage.

Eggers, D. M., K. A. Rowell, and B. M. Barrett. 1991. Stock composition of sockeye and chum salmon catches in Southern Alaska Peninsula fisheries in June. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Research Bulletin 91-01, Juneau.

Fox, E. K. C., L. K. Stumpf, and C. J. Whiteside. 2018. South Alaska Peninsula salmon annual management report, 2018 and the 2017 subsistence fisheries in the Alaska Peninsula, Aleutian Islands, and Atka-Amlia Islands management areas. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K19-01, Kodiak.

Francisco, R. K., C. Anderson, C. Burkey Jr., M. Fogarty, D. B. Molyneaux, C. Utermole, and K. Vaught. 1995. Annual management report for the subsistence and commercial fisheries of the Kuskokwim Area 1994. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 3A95-15, Anchorage.

Hildreth, D. R., and H. Finkle. 2011. Estimation of the sockeye salmon escapement into McLees Lake, Unalaska Island, Alaska, 2010. U.S. Fish and Wildlife Service, Anchorage Fishery Resource Office, Alaska Fisheries Data Series Report No. 2011-13.

Jackson, J. V., and A. D. Poetter. 2006. The Southeastern District Mainland salmon fishery of Area M, Report to the Alaska Board of Fisheries, 2007. Alaska Department of Fish and Game, Fishery Management Report No. 06-76, Anchorage.

McCullough, J. N., and A. R. Shaul. 1992. The incidence of immature salmon in South Peninsula purse seine fisheries, 1963-91. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K92-17, Kodiak.

McCullough, J. N., and D. Pengilly. 1994. An analysis of South Unimak and Shumagin Islands June fisheries sockeye salmon guideline harvest level time periods. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report No. 4K94-45, Kodiak.

McCullough, J. N. 1995. South Alaska Peninsula post June and Aleutian Islands management area salmon fisheries and stock status, report to the Alaska Board of Fisheries, winter 1994–95. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report No. 4K95-07, Kodiak.

Poetter, A. D. 2007. South Unimak and Shumagin Islands June fisheries salmon management plan, 2007. Alaska Department of Fish and Game, Fishery Management Report No. 07-18, Anchorage.

Sagalkin, N. H., and J. W. Erickson. 2013 Review of salmon escapement goals in the Alaska Peninsula and Aleutian Islands Management Areas, 2012. Alaska Department of Fish and Game, Fishery Manuscript No. 13-01, Anchorage.

Schaberg, K. L., H. Finkle, M. B. Foster, A. St. Saviour, and M. L. Wattum. 2019. Review of salmon escapement goals in the Alaska Peninsula and Aleutian Islands Management Areas, 2018. Alaska Department of Fish and Game, Fishery Manuscript No. 19-01, Anchorage.

Schaberg, K. L., H. Finkle, M. B. Foster, D. L. Tracy, and M. L. Wattum. 2015. Review of salmon escapement goals in the Alaska Peninsula and Aleutian Islands Management Areas, 2015. Alaska Department of Fish and Game, Fishery Manuscript No. 15-03, Anchorage.

Shaul, A. R., L. J. Schwarz, and A. J. Quimby. 1990. 1989 Alaska Peninsula–Aleutian Islands areas salmon and herring annual management report. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K90-10, Kodiak.

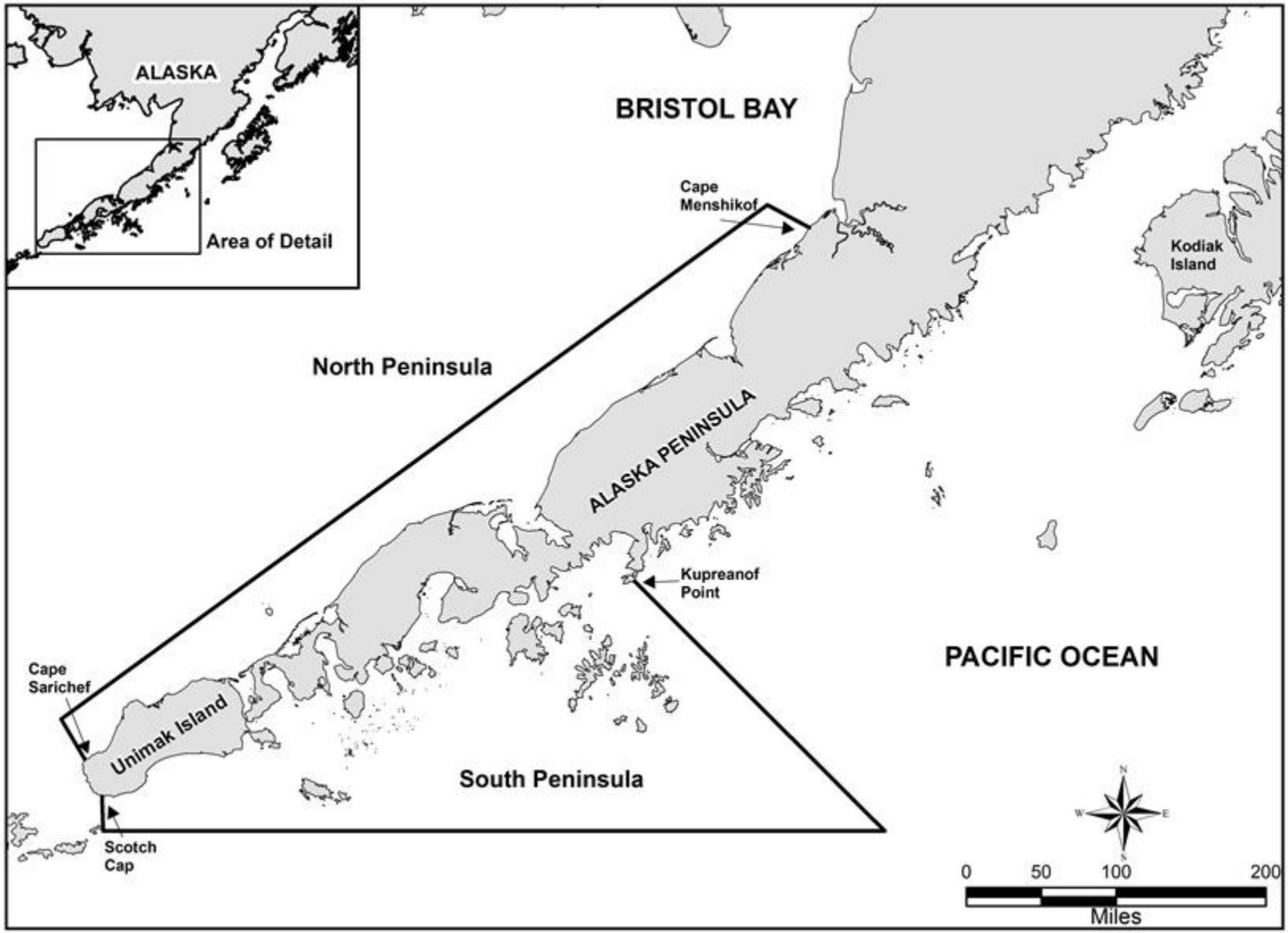
Shaul, A. R., and J. J. Dinnocenzo. 2000. Aleutian Islands and Atka-Amlia Islands management areas salmon management report, 1999. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K00-18, Kodiak.

Shaul, A. R., J. N. McCullough, A. J. Quimby, R. S. Berceli and M. E. Stopha. 1991. 1990 Alaska Peninsula–Aleutian Islands areas salmon and herring annual management report. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K91-12, Kodiak.

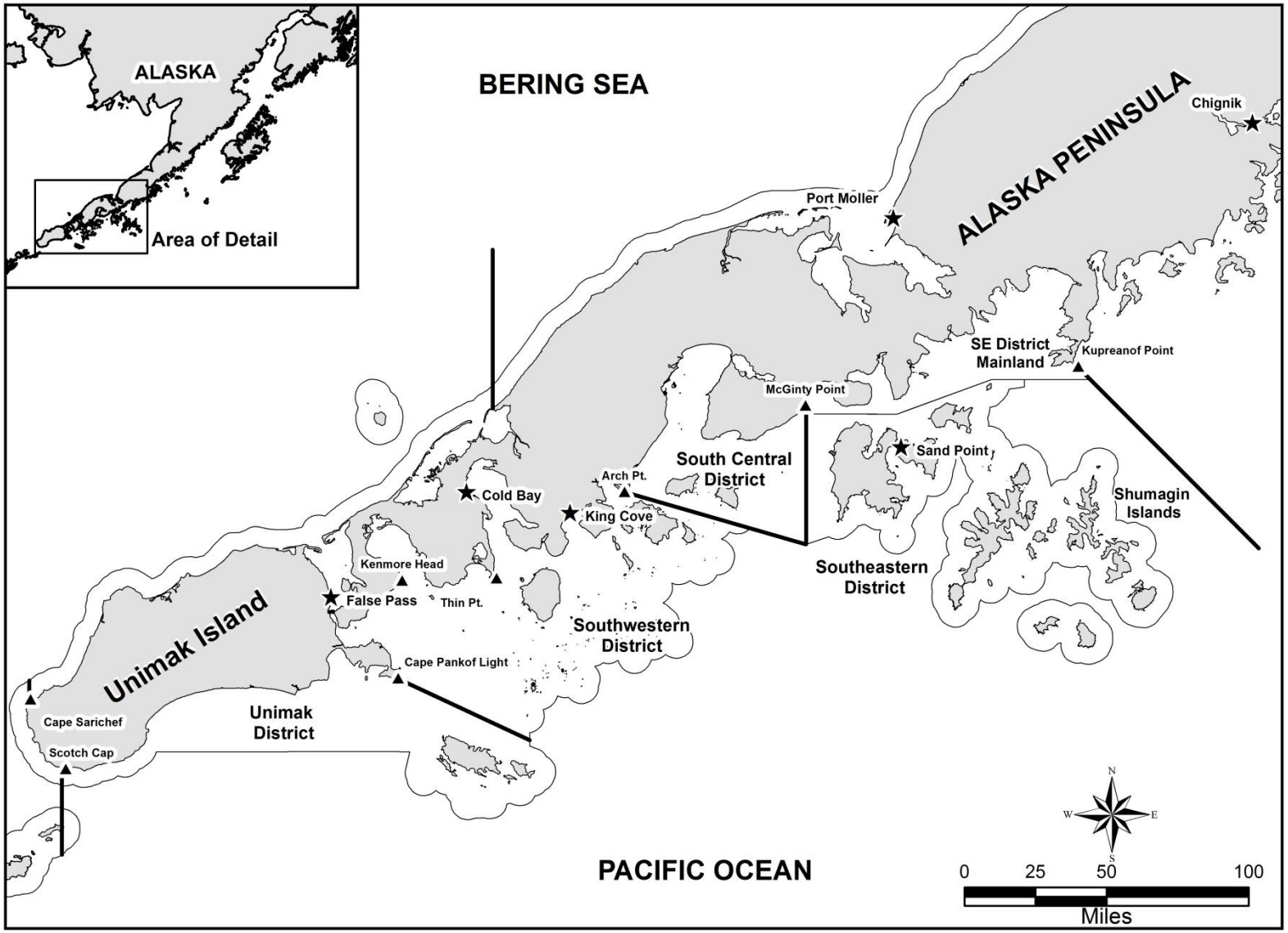
Shaul, A. R., J. N. McCullough, R. L. Murphy, P. B. Holmes, R. S. Berceli and R. D. Campbell. 1993. Alaska Peninsula and Aleutian Islands management areas annual salmon management report, 1992. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 4K93-30, Kodiak.

APPENDIX A. AREAWIDE INFORMATION

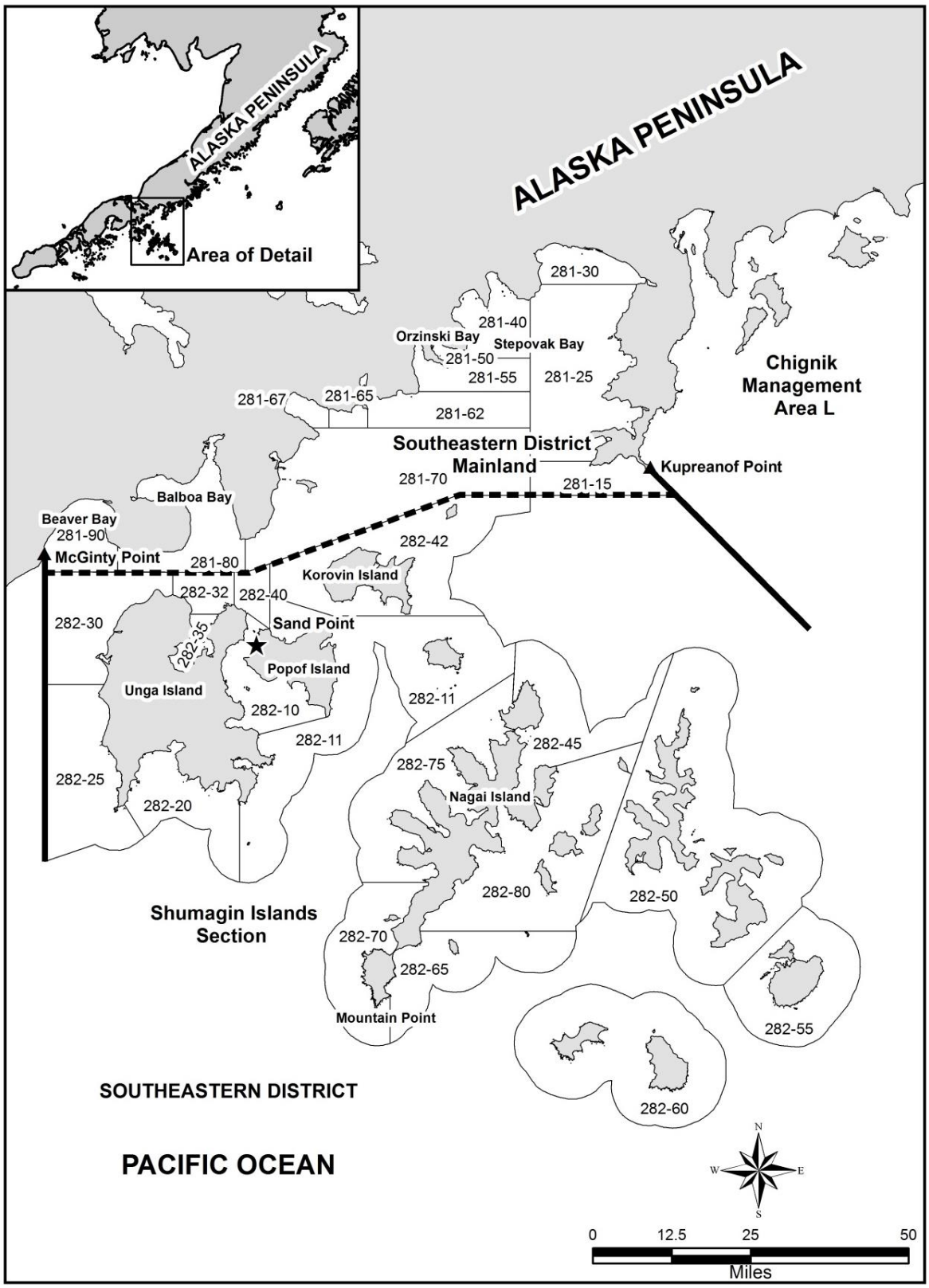
Appendix A1.–Map of Alaska Peninsula Management Area with the North and South Peninsula defined.



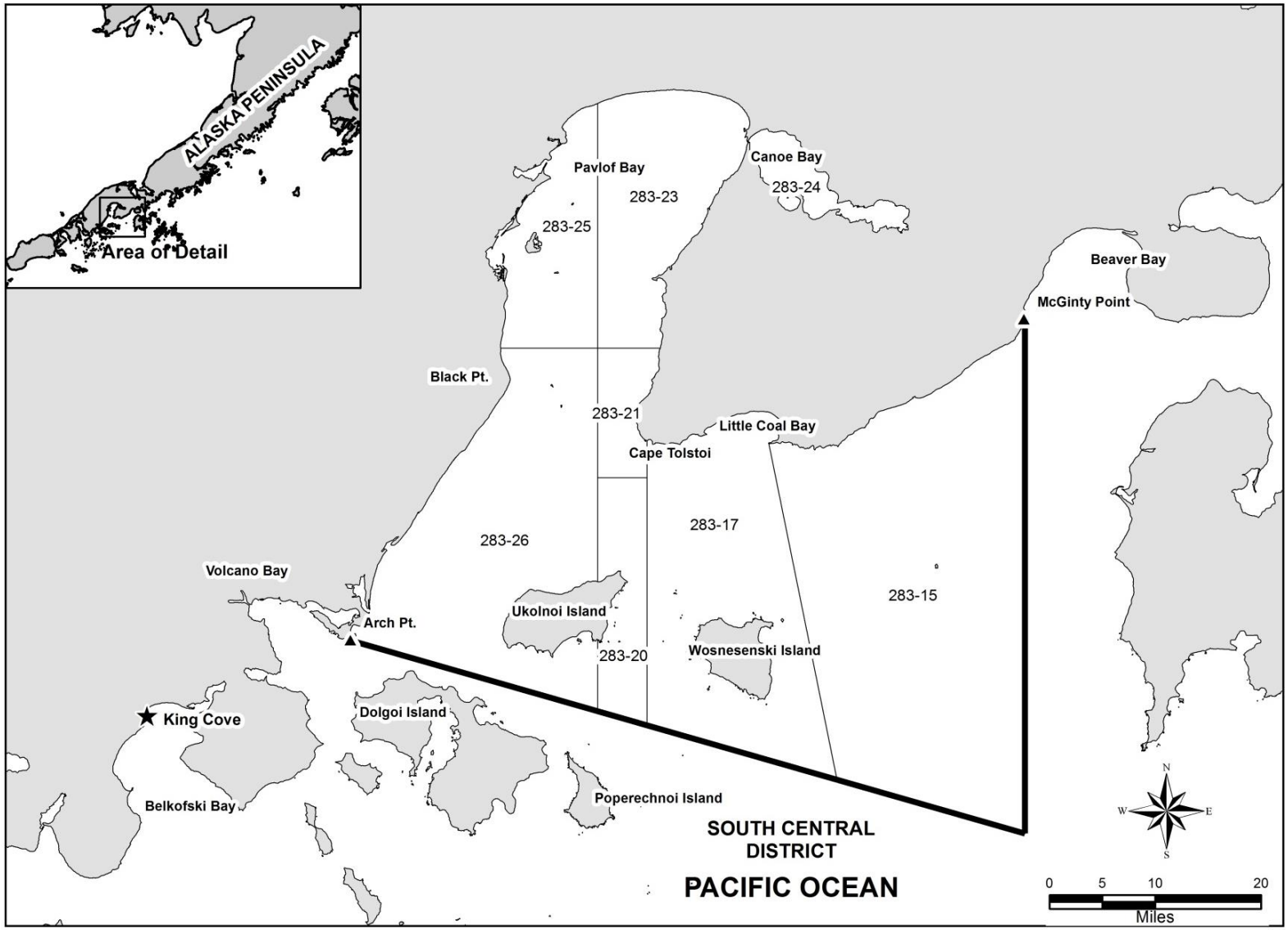
Appendix A2.–Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with South Peninsula salmon fishing districts defined.



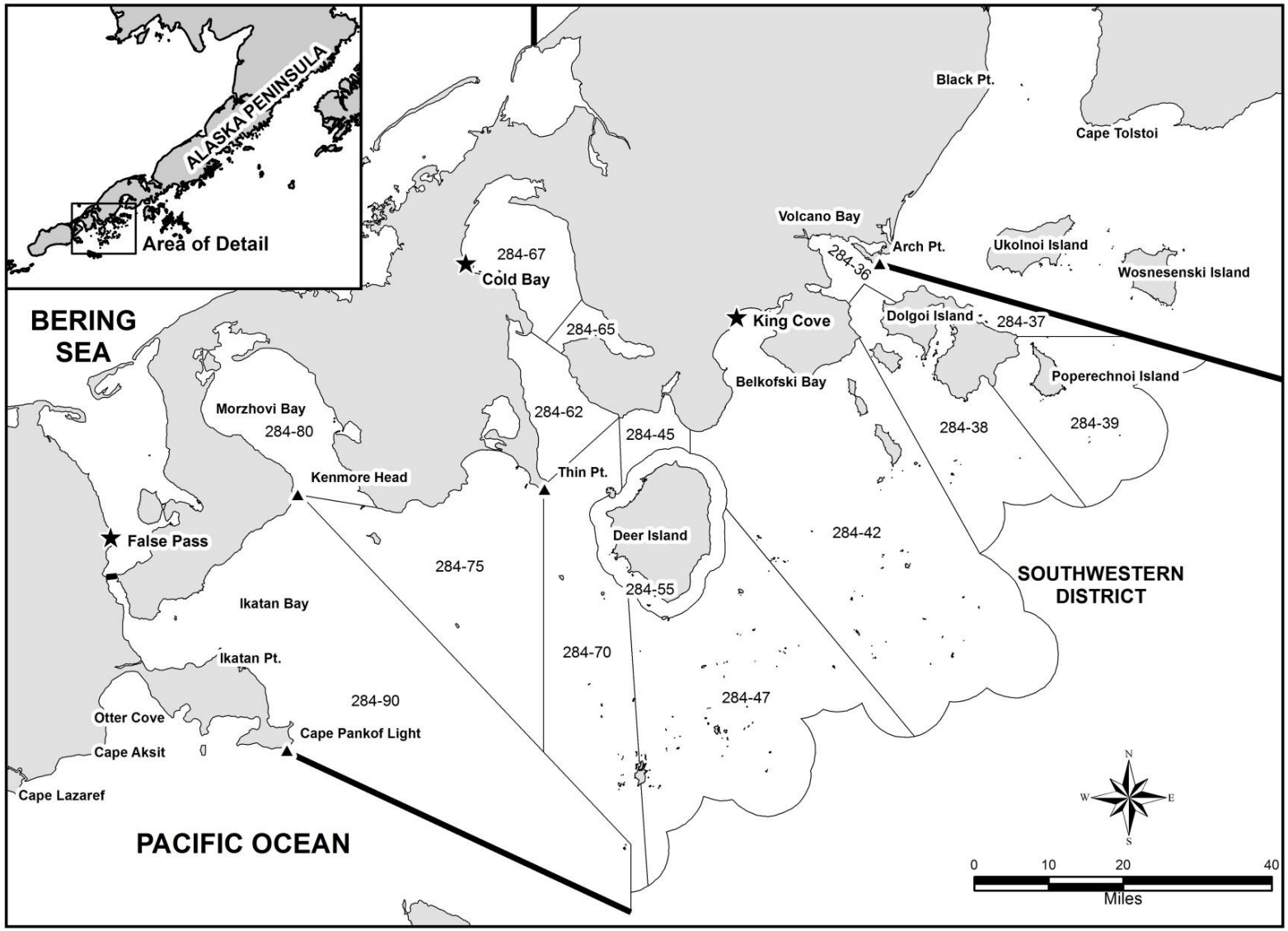
Appendix A3.–Map of Alaska Peninsula Area from Kupreanof Point to McGinty Point (Southeastern District) with statistical salmon fishing areas shown.



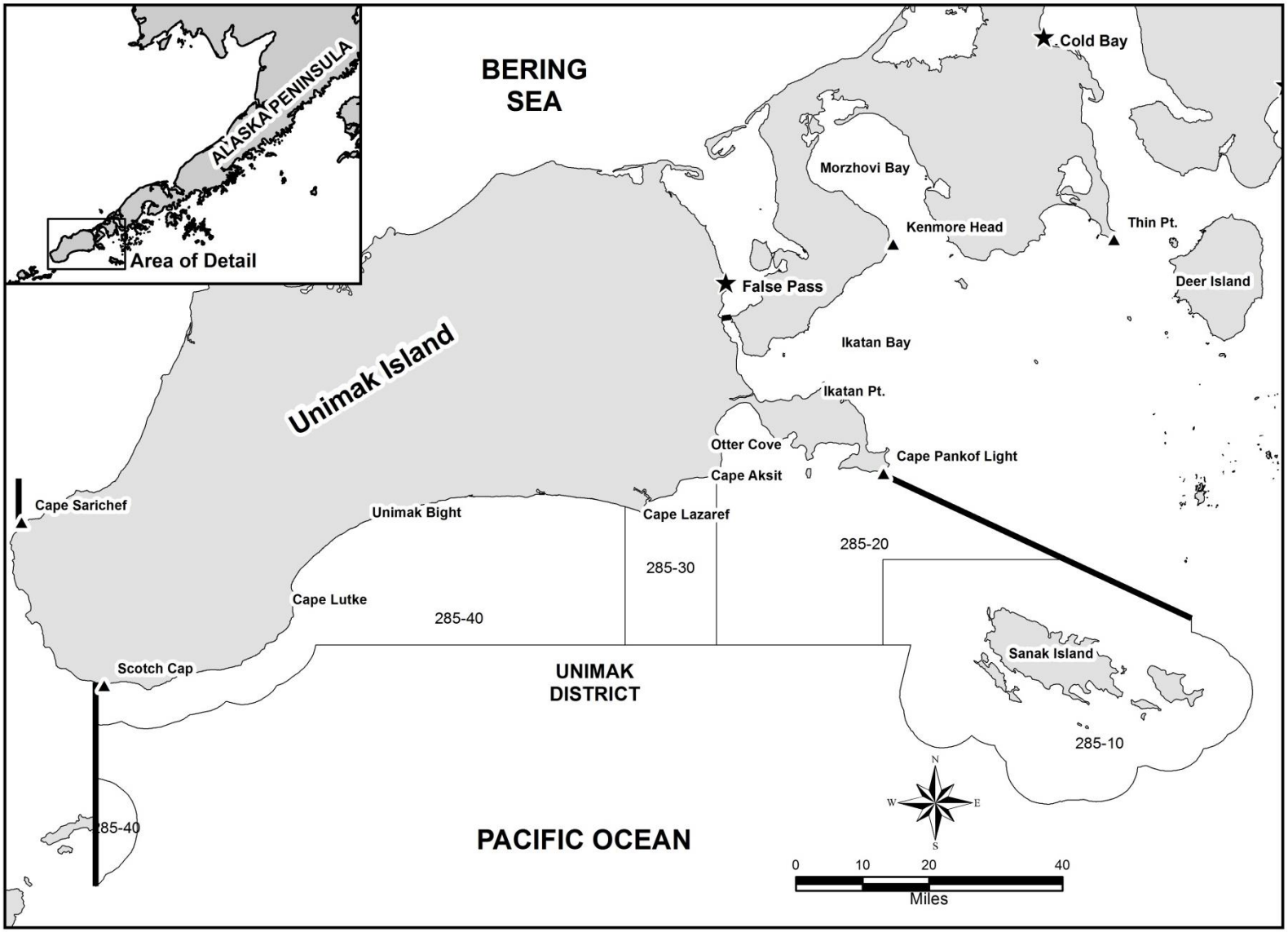
Appendix A4.–Map of Alaska Peninsula Area from McGinty Point to Arch Point Light (South Central District) with statistical salmon fishing areas shown.



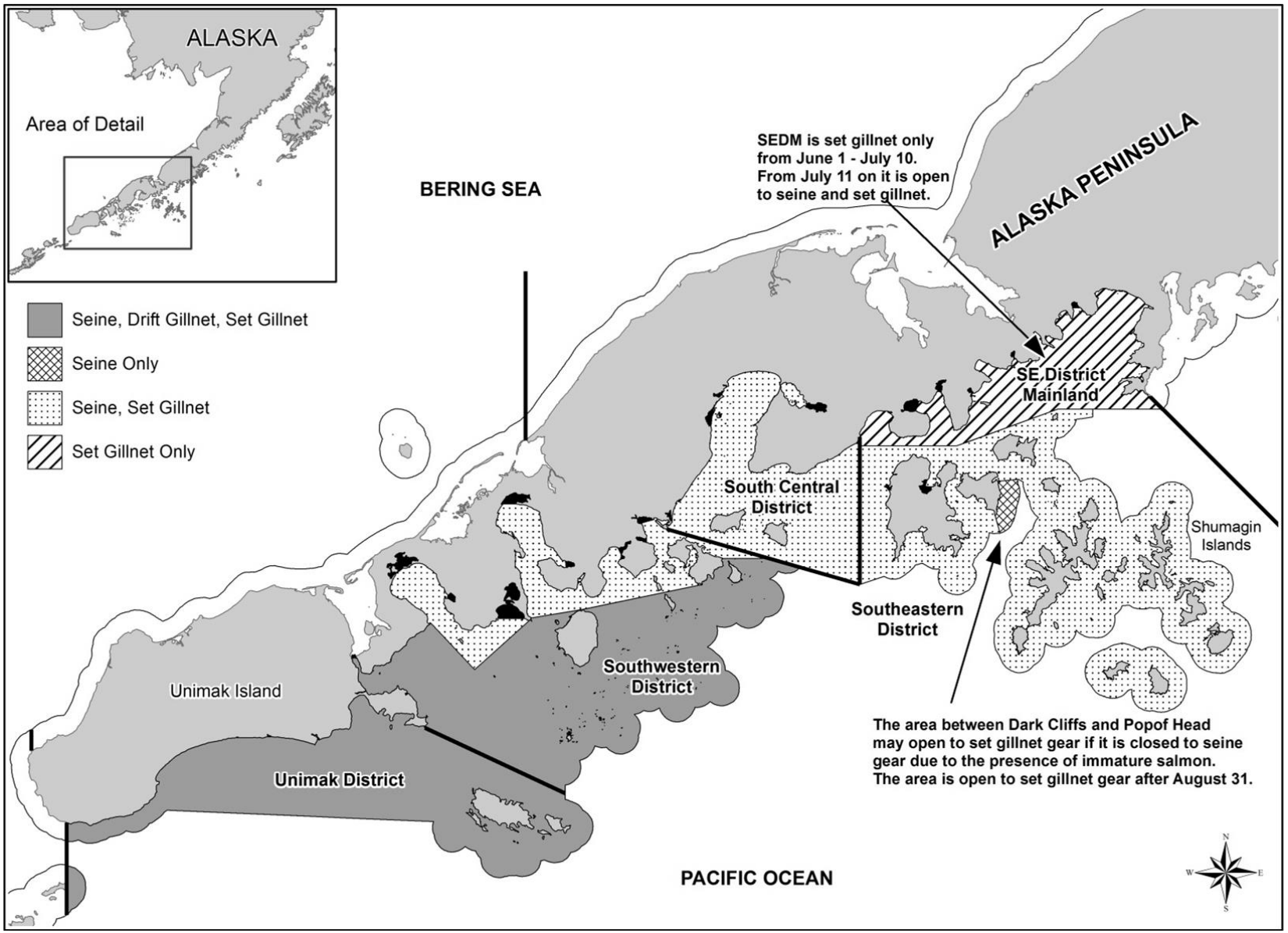
Appendix A5.–Map of Alaska Peninsula Area from Arch Point Light to Cape Pankof Light (Southwestern District) with statistical salmon fishing areas shown.



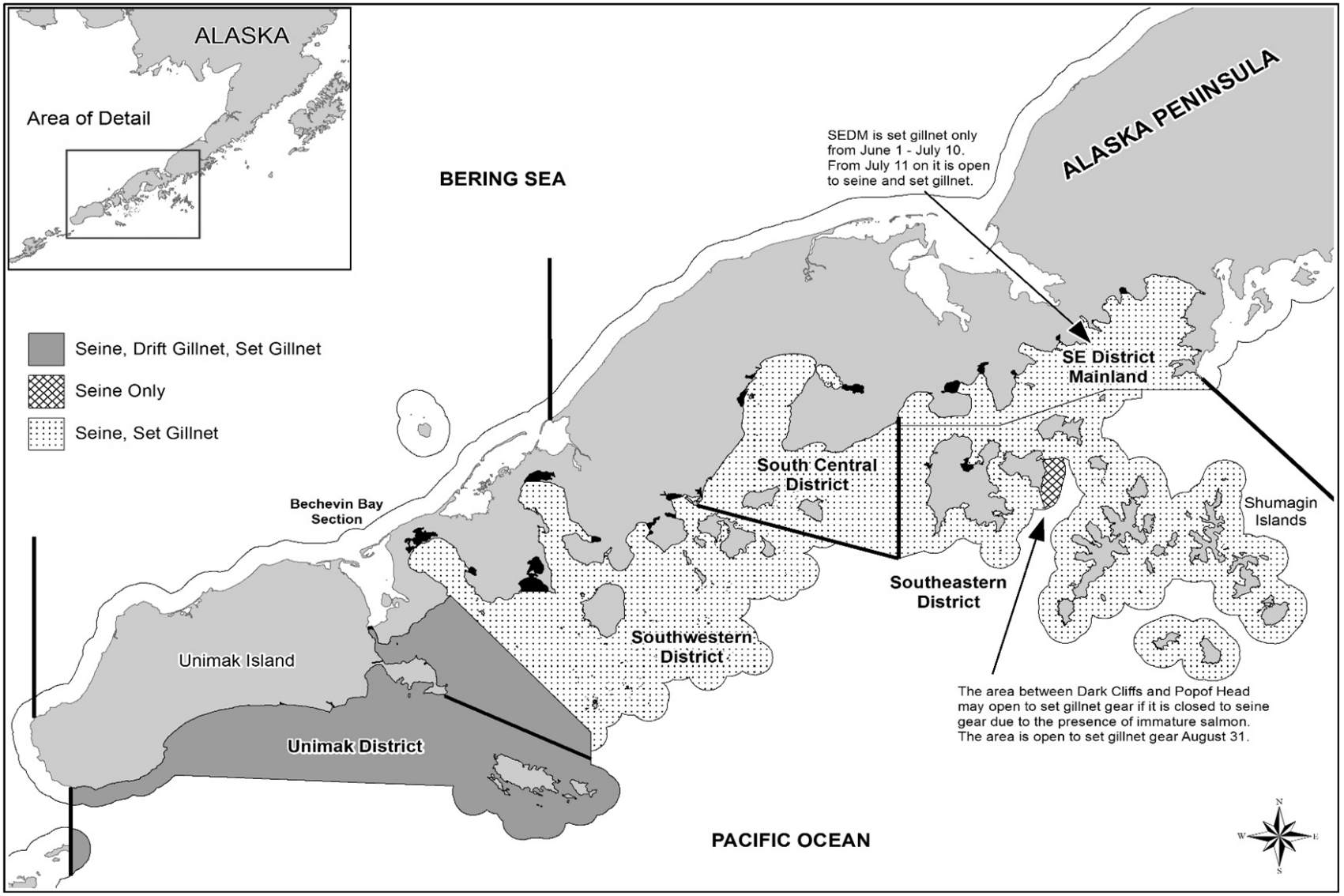
Appendix A6.–Map of Alaska Peninsula Area from Cape Pankof Light to Scotch Cap (Unimak District) with statistical salmon fishing areas shown.



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



Appendix A8.–Map of Alaska Peninsula Management Area from Kupreanof Point to Scotch Cap with legal gear types shown, July 1–October 31.



Appendix A9.–Number of actively fished limited entry (Commercial Fisheries Entry Commission) permits in the South Alaska Peninsula, 1980–2020.

Year	Purse seine	Drift gillnet	Set gillnet	Total
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	122	144	86	352
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	75	203
2007	46	87	71	204
2008	55	111	64	230
2009	53	118	67	238
2010	62	119	64	245
2011	58	121	69	248
2012	55	123	70	248
2013	60	122	66	248
2014	49	127	65	241
2015	57	119	68	244
2016	49	119	68	236
2017	55	117	69	241
2018	54	132	63	249
2019	71	121	66	258
2020	64	120	60	244
Average 2010–2019	57	122	67	246

Appendix A10.–South Alaska Peninsula salmon harvest (number of fish), all gear combined, by species and year, 1908–2020 (excluding test fishery harvest).

Year[a,b]	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[a,b]	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	5,325	6,642	2,144,416	172,514	4,431,016	1,348,726	8,103,314
1986	335	5,137	5,589	1,223,565	235,854	4,031,487	1,749,811	7,246,306
1987	327	5,256	9,174	1,449,747	225,117	1,208,556	1,376,040	4,268,634
1988	330	6,476	11,075	1,473,611	505,531	7,044,824	1,908,507	10,943,548
1989	341	5,597	7,065	2,661,217	443,843	7,292,658	994,231	11,399,014
1990	352	6,410	16,522	2,386,917	307,218	2,865,864	1,237,945	6,814,466
1991	354	6,440	7,975	2,319,957	317,129	10,616,756	1,588,791	14,850,608
1992	341	6,512	8,026	3,445,914	418,232	9,770,386	1,316,709	14,959,267
1993	352	6,204	14,413	3,689,074	220,148	9,928,107	1,048,257	14,899,999
1994	343	6,750	10,002	2,107,233	255,905	9,179,853	2,192,079	13,745,072
1995	352	8,193	17,453	3,016,211	264,346	16,311,942	1,728,321	21,338,273
1996	331	5,875	5,520	1,543,134	293,374	2,207,503	794,642	4,844,173

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Year[a,b]	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1997	307	5,803	7,780	2,281,566	116,136	2,321,371	627,996	5,354,849
1998	311	8,014	4,919	2,183,776	154,194	8,047,998	721,068	11,111,955
1999	310	7,021	5,074	2,991,819	192,503	8,456,449	840,030	12,485,875
2000	311	7,110	5,445	2,006,487	257,245	3,562,866	1,066,653	6,898,696
2001	242	3,277	2,620	614,080	214,252	4,021,381	933,014	5,785,347
2002	199	3,883	6,428	1,036,722	202,728	2,170,809	820,257	4,236,944
2003	195	3,909	2,874	1,055,218	132,374	4,262,920	639,772	6,093,158
2004	204	4,670	7,123	2,206,683	236,144	6,681,447	794,660	9,926,057
2005	209	4,948	4,554	2,338,294	145,754	9,423,314	741,600	12,653,516
2006	204	4,921	5,433	1,851,240	170,060	4,264,078	1,185,661	7,476,472
2007	205	5,301	5,324	2,450,061	151,736	7,306,366	681,087	10,594,574
2008	231	5,551	4,378	2,249,144	227,550	12,723,983	814,123	16,019,178
2009	239	5,823	5,875	1,725,616	248,941	7,921,119	1,684,944	11,586,495
2010	247	4,266	7,863	1,284,882	164,824	837,985	792,369	3,087,923
2011	250	5,614	7,214	1,919,235	153,482	5,004,314	979,187	8,063,432
2012	249	5,330	7,697	2,017,684	91,934	491,281	623,967	3,232,563
2013	249	6,845	6,705	2,242,305	294,867	7,800,873	952,160	11,296,910
2014	242	4,402	7,353	1,429,333	297,776	722,186	505,197	2,961,845
2015	245	6,097	53,236	3,208,991	271,570	16,711,506	680,167	20,925,470
2016	236	4,496	15,275	2,491,351	190,896	2,894,412	429,703	6,021,637
2017	241	5,931	11,278	3,222,952	350,447	21,864,700	1,960,576	27,409,953
2018	249	3,173	17,027	1,330,913	259,633	762,817	998,585	3,368,975
2019	258	5,093	22,755	1,625,218	521,559	20,526,804	1,168,952	23,865,288
2020	245	3,135	21,501	1,069,943	183,139	5,051,480	915,147	7,241,210
Averages								
1920–1949[c]			9,860	1,417,517	123,910	3,679,217	1,301,020	6,531,523
1950–1979[c]	229	2,870	2,470	600,534	37,743	1,794,956	713,247	3,148,950
1980–1999	329	6,182	9,941	2,399,663	262,655	6,888,053	1,411,296	10,971,608
2000–2009	224	4,939	5,005	1,753,355	198,678	6,233,828	936,177	9,127,044
2010–2019	247	5,125	15,640	2,077,286	259,699	7,761,688	909,086	11,023,400

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

[a] From 1928 to 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 dominated by pink salmon. The 1978–1999 Aleutian Islands average salmon harvest was 510,317 fish, whereas the 1978–1999 average harvest for the South Peninsula was 10,671,164 salmon.

[b] Since 1989, salmon numbers include test fish harvests.

[c] These historical averages are intended to illustrate how salmon productivity has fluctuated in the South Peninsula.

Appendix A11.–South Alaska Peninsula pink salmon catch and escapement by year, 1962–2020.

		Post-June harvest			June harvest		
Year		Southeastern and South Central Districts[a]	Southwestern and Unimak Districts	South Peninsula Totals[b]	South Unimak	Shumagin Islands	Total June harvest
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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Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
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	55,875
	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	–	–	–
1985	Catch	3324051	1000350	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	–	–	–

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Appendix A11.–Page 3 of 5.

Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
1986	Catch	3,066,631	672,867	3,739,498	150,674	141,315	291,989
	Escapement	1,185,500	531,200	1,716,700	–	–	–
	Total	4252131	1204067	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	2447836	284238	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	6,989,038	104,385	7,093,423	154,168	45,067	199,235
	Escapement	1,179,300	691,600	1,870,900	–	–	–
	Total	8,168,338	795,985	8,964,323	–	–	–
1990	Catch	2,291,028	59,539	2,350,567	444,106	70,855	514,961
	Escapement	1,018,200	580,200	1,598,400	–	–	–
	Total	3,309,228	639,739	3,948,967	–	–	–
1991	Catch	7,549,853	2,446,759	9,996,612	500,922	119,186	620,108
	Escapement	2,268,400	678,400	2,946,800	–	–	–
	Total	9,818,253	3,125,159	12,943,412	–	–	–
1992	Catch	4,860,628	4,266,322	9,126,950	501,127	142,221	643,348
	Escapement	1,781,000	1,053,400	2,834,400	–	–	–
	Total	6,641,628	5,319,722	11,961,350	–	–	–
1993	Catch	7,493,472	2,353,434	9,846,906	37,735	43,441	81,176
	Escapement	2,232,200	757,900	2,990,100	–	–	–
	Total	9,725,672	3,111,334	12,837,006	–	–	–
1994	Catch	3,149,763	3,507,237	6,657,000	1,731,741	788,393	2,520,134
	Escapement	1,700,525	1,371,200	3,071,725	–	–	–
	Total	4,850,288	4,878,437	9,728,725	–	–	–
1995	Catch	11,371,145	4,761,044	16,132,189	119,371	60,157	179,528
	Escapement	4,404,450	2,001,850	6,406,300	–	–	–
	Total	15775595	6762894	22,538,489	–	–	–
1996	Catch	1,519,483	296,875	1,816,358	151,802	239,138	390,940
	Escapement	2,668,950	978,600	3,647,550	–	–	–
	Total	4,188,433	1,275,475	5,463,908	–	–	–
1997	Catch	828,392	869,597	1697989	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	–	–	–

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Appendix A11.–Page 4 of 5.

Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
1998	Catch	5,566,826	2,000,702	7,567,528	131,130	349,340	480,470
	Escapement	2,856,255	1,811,810	4,668,065	–	–	–
	Total	8,423,081	3,812,512	12,235,593	–	–	–
1999	Catch	6,914,669	1,510,422	8,425,091	20,363	10,942	31,305
	Escapement	3,363,080	1,652,230	5,015,310	–	–	–
	Total	10,277,749	3,162,652	13,440,401	–	–	–
2000	Catch	2,347,491	844,970	3,192,461	218,457	151,947	370,404
	Escapement	1,688,785	1,104,200	2,792,985	–	–	–
	Total	4,036,276	1,949,170	5,985,446	–	–	–
2001	Catch	2,754,832	1,227,298	3,982,130	31,812	7,540	39,352
	Escapement	2,040,120	925,016	2,965,136	–	–	–
	Total	4,794,952	2,152,314	6,947,266	–	–	–
2002	Catch	1,466,031	627,220	2,093,251	33,789	42,462	76,251
	Escapement	2,108,450	1,654,350	3,762,800	–	–	–
	Total	3,574,481	2,281,570	5,856,051	–	–	–
2003	Catch	2,968,706	1,071,240	4,039,946	90,161	127,739	217,900
	Escapement	3,674,120	1,837,100	5,511,220	–	–	–
	Total	6,642,826	2,908,340	9,551,166	–	–	–
2004	Catch	5,106,414	1,199,426	6,305,840	78,808	281,108	359,916
	Escapement	5,969,710	2,341,700	8,311,410	–	–	–
	Total	11,076,124	3,541,126	14,617,250	–	–	–
2005	Catch	5,636,397	2,118,418	7,754,815	403,815	1,252,722	1,656,537
	Escapement	4,271,270	1,894,364	6,165,634	–	–	–
	Total	9,907,667	4,012,782	13,920,449	–	–	–
2006	Catch	2,333,207	596,298	2,929,505	186,096	1,146,223	1,332,319
	Escapement	1,648,365	1,213,885	2,862,250	–	–	–
	Total	3,981,572	1,810,183	5,791,755	–	–	–
2007	Catch	4,962,730	2,069,072	7,031,802	57,032	210,496	267,528
	Escapement	1,805,873	874,340	2,680,213	–	–	–
	Total	6,768,603	2,943,412	9,712,015	–	–	–
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	3,712,146	1,939,317	5,651,463	946,823	1,301,732	2,248,555
	Escapement	1,669,900	1,397,100	3,067,000	–	–	–
	Total	5,382,046	3,336,417	8,718,463	–	–	–

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Appendix A11.–Page 5 of 5.

Year		Post June harvest: Southeastern and South Central Districts[a]	Post June harvest: Southwestern and Unimak Districts	Post June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
2010	Catch	456,053	45,289	501,342	190,649	142,584	333,233
	Escapement	396,962	345,950	742,912	–	–	–
	Total	853,015	391,239	1,244,254	–	–	–
2011	Catch	4,035,389	233,540	4,268,929	475,289	247,846	723,135
	Escapement	1,709,900	785,050	2,494,950	–	–	–
	Total	5,745,289	1,018,590	6,763,879	–	–	–
2012	Catch	191,172	37,359	228,531	169,898	92,226	262,124
	Escapement	94,340	384,570	478,910	–	–	–
	Total	285,512	421,929	707,441	–	–	–
2013	Catch	7,039,922	449,278	7,489,200	130,987	173,035	304,022
	Escapement	1,803,000	517,790	2,320,790	–	–	–
	Total	8,842,922	967,068	9,809,990	–	–	–
2014	Catch	343,828	197,121	540,949	127,390	52,870	180,260
	Escapement	616,130	724,250	1,340,380	–	–	–
	Total	959,958	921,371	1,881,329	–	–	–
2015	Catch	12,518,604	3,591,894	16,110,498	67,604	505,500	573,104
	Escapement	5,945,150	1,875,650	7,820,800	–	–	–
	Total	18,463,754	5,467,544	23,931,298	–	–	–
2016	Catch	304,694	55,793	360,487	1,836,319	673,729	2,510,048
	Escapement	153,040	885,120	1,038,160	–	–	–
	Total	457,734	940,913	1,398,647	–	–	–
2017	Catch	13,982,505	6,120,817	20,103,322	396,022	1,318,285	1,714,307
	Escapement	3,333,092	2,330,545	5,663,637	–	–	–
	Total	17,315,597	8,451,362	25,766,959	–	–	–
2018	Catch	344,522	72,068	416,590	132,778	212,477	345,255
	Escapement	226,522	505,900	732,422	–	–	–
	Total	571,044	577,968	1,149,012	–	–	–
2019	Catch	8,285,583	3,190,429	11,476,012	5,154,792	3,866,565	9,021,357
	Escapement	2,734,000	1,502,700	4,236,700	–	–	–
	Total	11,019,583	4,693,129	15,712,712	–	–	–
2020	Catch	2,598,190	697,776	3,295,966	1,576,195	178,089	1,754,284
	Escapement	1,855,000	1,354,750	3,209,750	–	–	–
	Total	4,453,190	2,052,526	6,505,716	–	–	–

Note: Harvest of pink salmon during June is not considered local stock, and pink salmon escapement does not begin until July.

[a] Catch includes any salmon (usually very few) caught in Southeastern District Mainland in July, which are considered local.

[b] Catch numbers do not include test fish and subsistence harvests.

Appendix A12.–South Alaska Peninsula chum salmon catch and escapement by year, 1962–2020.

Year		Post-June harvest			June harvest		
		Southeastern and South Central Districts[a]	Southwestern and Unimak Districts	South Peninsula Totals[b]	South Unimak	Shumagin Islands	Total June harvest
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	–	–	–

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Appendix A12.–Page 2 of 5.

Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
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	–	–	–
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	–	–	–

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Appendix A12.–Page 3 of 5.

Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
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	–	–	–
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	466,728	72,188	538,916	407,679	47,528	455,207
	Escapement	189,200	121,300	310,500	–	–	–
	Total	655,928	193,488	849,416	–	–	–
1990	Catch	664,339	54,851	719,190	445,864	63,517	509,381
	Escapement	210,900	143,800	354,700	–	–	–
	Total	875,239	198,651	1,073,890	–	–	–
1991	Catch	571,802	237,695	809,497	670,409	105,711	776,120
	Escapement	345,400	242,200	587,600	–	–	–
	Total	917,202	479,895	1,397,097	–	–	–
1992	Catch	592,893	291,612	884,505	323,891	104,245	428,136
	Escapement	194,100	141,400	335,500	–	–	–
	Total	786,993	433,012	1,220,005	–	–	–
1993	Catch	331,003	183,403	514,406	381,941	151,329	533,270
	Escapement	172,400	224,630	397,030	–	–	–
	Total	503,403	408,033	911,436	–	–	–
1994	Catch	690,666	905,581	1,596,247	374,409	218,268	592,677
	Escapement	211,700	367,400	579,100	–	–	–
	Total	902,366	1,272,981	2,175,347	–	–	–
1995	Catch	664,266	511,290	1,175,556	345,556	202,539	548,095
	Escapement	324,750	401,650	726,400	–	–	–
	Total	989,016	912,940	1,901,956	–	–	–
1996	Catch	285,399	128,126	413,525	135,102	241,540	376,642
	Escapement	307,400	302,900	610,300	–	–	–
	Total	592,799	431,026	1,023,825	–	–	–
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	–	–	–

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Appendix A12.–Page 4 of 5.

Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	June harvest: Total June harvest
1998	Catch	293,345	173,045	466,390	201,739	52,939	254,678
	Escapement	390,325	351,910	742,235	–	–	–
	Total	683,670	524,955	1,208,625	–	–	–
1999	Catch	397,380	175,229	572,609	190,142	73,548	263,690
	Escapement	336,050	389,130	725,180	–	–	–
	Total	733,430	564,359	1,297,789	–	–	–
2000	Catch	438,642	377,454	816,096	174,435	74,140	248,575
	Escapement	264,050	258,025	522,075	–	–	–
	Total	702,692	635,479	1,338,171	–	–	–
2001	Catch	452,394	432,199	884,593	36,099	12,928	49,027
	Escapement	473,800	277,421	751,221	–	–	–
	Total	926,194	709,620	1,635,814	–	–	–
2002	Catch	206,587	230,946	437,533	201,211	177,606	378,817
	Escapement	333,550	269,200	602,750	–	–	–
	Total	540,137	500,146	1,040,283	–	–	–
2003	Catch	124,578	229,126	353,704	121,169	161,269	282,438
	Escapement	297,810	193,230	491,040	–	–	–
	Total	422,388	422,356	844,744	–	–	–
2004	Catch	244,638	62,174	306,812	130,627	351,683	482,310
	Escapement	552,000	180,400	732,400	–	–	–
	Total	796,638	242,574	1,039,212	–	–	–
2005	Catch	224,093	85,458	309,551	143,799	284,865	428,664
	Escapement	648,200	322,110	970,310	–	–	–
	Total	872,293	407,568	1,279,861	–	–	–
2006	Catch	567,641	310,338	877,979	96,016	204,510	300,526
	Escapement	524,900	239,850	764,750	–	–	–
	Total	1,092,541	550,188	1,642,729	–	–	–
2007	Catch	250,104	132,144	382,248	153,334	144,205	297,539
	Escapement	327,451	399,210	726,661	–	–	–
	Total	577,555	531,354	1,108,909	–	–	–
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	445,088	538,856	983,944	200,783	495,992	696,775
	Escapement	125,100	387,130	512,230	–	–	–
	Total	570,188	925,986	1,496,174	–	–	–

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Year		Post-June harvest: Southeastern and South Central Districts[a]	Post-June harvest: Southwestern and Unimak Districts	Post-June harvest: South Peninsula Totals[b]	June harvest: South Unimak	June harvest: Shumagin Islands	Total June harvest
2010	Catch	400,599	114,661	515,260	100,427	173,183	273,610
	Escapement	147,912	143,700	291,612	–	–	–
	Total	548,511	258,361	806,872	–	–	–
2011	Catch	399,514	142,271	541,785	231,081	192,254	423,335
	Escapement	314,300	183,425	497,725	–	–	–
	Total	713,814	325,696	1,039,510	–	–	–
2012	Catch	143,025	83,227	226,252	211,738	185,459	397,197
	Escapement	117,262	87,980	205,242	–	–	–
	Total	260,287	171,207	431,494	–	–	–
2013	Catch	370,043	179,492	549,535	188,952	210,465	399,417
	Escapement	339,400	163,200	502,600	–	–	–
	Total	709,443	342,692	1,052,135	–	–	–
2014	Catch	65,095	46,693	111,788	220,436	169,703	390,139
	Escapement	177,370	136,175	313,545	–	–	–
	Total	242,465	182,868	425,333	–	–	–
2015	Catch	298,824	198,064	496,888	42,306	136,409	178,715
	Escapement	549,270	357,150	906,420	–	–	–
	Total	848,094	555,214	1,403,308	–	–	–
2016	Catch	118,933	34,111	153,044	148,850	123,945	272,795
	Escapement	398,816	227,960	626,776	–	–	–
	Total	517,749	262,071	779,820	–	–	–
2017	Catch	902,394	403,587	1,305,981	179,485	461,730	641,215
	Escapement	1,402,513	371,113	1,773,626	–	–	–
	Total	2,304,907	774,700	3,079,607	–	–	–
2018	Catch	224,758	234,189	458,947	234,339	303,635	537,974
	Escapement	310,043	34,800	344,843	–	–	–
	Total	534,801	268,989	803,790	–	–	–
2019	Catch	336,262	281,208	617,470	216,809	332,263	549,072
	Escapement	469,125	203,350	672,475	–	–	–
	Total	805,387	484,558	1,289,945	–	–	–
2020	Catch	176,149	247,127	423,276	242,326	247,802	490,128
	Escapement	313,450	102,300	415,750	–	–	–
	Total	489,599	349,427	839,026	–	–	–

Note: Harvest of chum salmon during June is not considered local stock, and chum salmon escapement does not begin until July.

[a] Catch includes any salmon (usually very few) caught in the Southeastern District Mainland in July, which are considered local.

[b] Catch numbers do not include test fish or subsistence harvests.

Appendix A13.–South Alaska Peninsula commercial salmon harvest, all gear combined, by species and day, 2020.

			Number of salmon[a]					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun	14	17	0	694	0	12	24	730
7-Jun	7	11	0	595	0	36	28	659
8-Jun	6	9	0	416	0	14	47	477
9-Jun[b]	—	—	—	—	—	—	—	—
10-Jun	121	130	324	7,536	76	109,652	28,449	146,037
11-Jun	81	88	70	6,896	33	70,546	13,625	91,170
12-Jun	106	119	320	19,643	108	85,222	29,050	134,343
13-Jun	81	83	94	13,960	7	159,386	22,281	195,728
14-Jun[b]	—	—	—	—	—	—	—	—
15-Jun	155	162	187	27,030	2	163,727	52,383	243,329
16-Jun	57	62	47	10,052	0	110,605	10,717	131,421
17-Jun	84	87	274	32,888	0	107,553	61,052	201,767
18-Jun	123	126	230	26,431	0	166,964	36,244	229,869
19-Jun[b]	—	—	—	—	—	—	—	—
20-Jun	156	158	368	29,471	2	103,727	49,644	183,212
21-Jun	88	96	117	18,421	0	117,497	28,552	164,587
22-Jun	116	136	111	41,399	0	180,801	39,426	261,737
23-Jun	91	91	76	29,940	1	125,405	40,336	195,758
24-Jun[b]	—	—	—	—	—	—	—	—
25-Jun	77	85	290	36,447	16	115,472	33,353	185,578
26-Jun	64	70	75	24,425	12	79,374	22,876	126,762
27-Jun	5	6	11	4,156	0	23,888	9,464	37,519
28-Jun	19	19	0	8,893	5	34,403	12,577	55,878
29-Jun[b]	—	—	—	—	—	—	—	—
30-Jun[b]	—	—	—	—	—	—	—	—
1-Jul[b]	—	—	—	—	—	—	—	—
2-Jul[c]	1	1	82	552	13	496	653	1,796
3-Jul[c]	1	1	22	420	38	510	752	1,742
4-Jul[b]	—	—	—	—	—	—	—	—
5-Jul[b]	1	1	35	295	25	224	338	917
6-Jul	57	67	569	17,431	3,885	17,003	18,059	56,947
7-Jul	28	33	30	8,595	847	5,652	5,836	20,960
8-Jul[b]	—	—	—	—	—	—	—	—
9-Jul[b]	—	—	—	—	—	—	—	—
10-Jul	68	80	1,303	47,781	4,306	48,097	31,335	132,822
11-Jul	37	47	54	18,348	1,661	6,922	34,755	61,740
12-Jul[b]	—	—	—	—	—	—	—	—
13-Jul[b]	—	—	—	—	—	—	—	—
14-Jul	81	101	5,117	66,106	12,997	72,927	107,358	264,505
15-Jul	46	63	31	27,960	1,522	8,115	24,329	61,957
16-Jul[b]	—	—	—	—	—	—	—	—
17-Jul[b]	—	—	—	—	—	—	—	—
18-Jul	85	102	7,677	107,628	14,287	135,187	49,205	313,984
19-Jul	47	65	66	30,232	1,362	6,182	17,948	55,790
20-Jul[b]	—	—	—	—	—	—	—	—

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Date	Permits	Landings	Number of salmon[a]					
			Chinook	Sockeye	Coho	Pink	Chum	Total
21-Jul[b]	—	—	—	—	—	—	—	—
22-Jul	81	96	1,257	55,644	8,072	202,089	40,735	307,797
23-Jul	48	58	120	16,747	829	20,993	1,660	40,349
24-Jul[b]	—	—	—	—	—	—	—	—
25-Jul[b]	—	—	—	—	—	—	—	—
26-Jul	83	110	1,034	51,073	10,890	382,017	26,602	471,616
27-Jul	47	62	0	18,310	1,143	72,418	11,692	103,563
28-Jul[b]	—	—	—	—	—	—	—	—
29-Jul[b]	—	—	—	—	—	—	—	—
30-Jul	98	120	1,011	78,648	15,229	584,686	20,809	700,383
31-Jul	62	75	32	17,515	2,651	72,408	2,172	94,778
1-Aug[b]	—	—	—	—	—	—	—	—
2-Aug[b]	—	—	—	—	—	—	—	—
3-Aug[b]	—	—	—	—	—	—	—	—
4-Aug[b]	—	—	—	—	—	—	—	—
5-Aug[b]	—	—	—	—	—	—	—	—
6-Aug[b]	—	—	—	—	—	—	—	—
7-Aug[b]	—	—	—	—	—	—	—	—
8-Aug[b]	—	—	—	—	—	—	—	—
9-Aug[b]	—	—	—	—	—	—	—	—
10-Aug[b]	—	—	—	—	—	—	—	—
11-Aug	76	83	160	60,425	21,879	501,503	8,068	592,035
12-Aug	50	66	9	18,267	5,769	208,664	2,715	235,424
13-Aug[b]	—	—	—	—	—	—	—	—
14-Aug[b]	—	—	—	—	—	—	—	—
15-Aug[b]	—	—	—	—	—	—	—	—
16-Aug[b]	—	—	—	—	—	—	—	—
17-Aug	71	80	50	27,140	16,264	283,135	7,109	333,698
18-Aug	23	29	6	7,915	3,624	93,122	1,888	106,555
19-Aug[b]	—	—	—	—	—	—	—	—
20-Aug[b]	—	—	—	—	—	—	—	—
21-Aug	54	59	8	11,156	10,307	178,900	1,481	201,852
22-Aug	31	35	29	8,279	7,137	84,405	3,979	103,829
23-Aug	25	34	18	11,804	8,277	73,752	1,617	95,468
24-Aug	27	31	27	3,776	5,938	92,884	569	103,194
25-Aug	24	27	49	9,620	9,813	50,147	2,293	71,922
26-Aug	25	26	25	3,661	4,049	79,857	324	87,916
27-Aug	8	12	25	3,693	5,722	12,985	612	23,037
28-Aug	4	4	0	574	300	317	25	1,216
29-Aug[b]	—	—	—	—	—	—	—	—
30-Aug[b]	—	—	—	—	—	—	—	—
31-Aug[b]	—	—	—	—	—	—	—	—
1-Sep	4	4	61	712	2,557	1,573	73	4,976
2-Sep[b]	—	—	—	—	—	—	—	—
3-Sep[b]	—	—	—	—	—	—	—	—
4-Sep[b]	—	—	—	—	—	—	—	—

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Date	Permits	Landings	Number of salmon[a]					
			Chinook	Sockeye	Coho	Pink	Chum	Total
5-Sep[b]	—	—	—	—	—	—	—	—
6-Sep[b]	—	—	—	—	—	—	—	—
7-Sep[b]	—	—	—	—	—	—	—	—
8-Sep[d]	—	—	—	—	—	—	—	—
9-Sep	4	4	0	17	397	8	6	428
10-Sep[b]	—	—	—	—	—	—	—	—
11-Sep[d]	—	—	—	—	—	—	—	—
Total	245	3,135	21,501	1,069,943	183,139	5,051,480	915,147	7,241,210

[a] Harvest information includes commercial and test fishery harvest but excludes personal use harvest.

[b] Fishery closed.

[c] Includes harvest from ADF&G's test fishery.

[d] Confidential information.

Appendix A14.–South Alaska Peninsula commercial salmon harvest by species, statistical area, section, and district, 2020.

Statistical area	Section	Number of salmon[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
SOUTHEASTERN DISTRICT							
281-15	Kupreanof Point	0	0	0	0	0	0
281-25	Island/ Fox Bay	0	1,985	789	929	137	3,840
East Stepovak Section total		—	—	—	—	—	—
281-30	Stepovak Flats Section[b]	—	—	—	—	—	—
281-40	Grub Gulch/Clark Bay[b]	—	—	—	—	—	—
281-50	Orzinski Bay[b]	—	—	—	—	—	—
281-55	American Bay[b]	—	—	—	—	—	—
281-62	Chichagof Bay[b]	—	—	—	—	—	—
281-65	Suzy Creek/West Cove[b]	—	—	—	—	—	—
281-67	Dorenoi Bay[b]	—	—	—	—	—	—
Northwest Stepovak Section total[b]		—	—	—	—	—	—
281-70	Southwest Stepovak Section	2	838	664	2,208	159	3,871
281-80	Balboa Bay Section	0	482	334	2,140	99	3,055
281-90	Beaver Bay Section	0	0	0	0	0	0
282-10	Popof Strait/Squaw Harbor	14	10,498	2,394	61,355	6,751	81,012
282-11	Unga Cape/East Popof	16,776	159,177	27,519	538,929	309,445	1,051,846
282-20	Acheredin Bay	51	48,126	8,712	118,661	5,471	181,021
282-25	West Unga Island	865	140,973	34,681	392,756	14,474	583,749
282-30	Bay Point	0	14,852	711	5,660	418	21,641
282-32	Outer Zachary Bay[b]	—	—	—	—	—	—
282-35	Zachary Bay	0	0	0	0	0	0
282-40	East Head/West Head	169	3,775	171	6,771	389	11,275
282-42	Korovin Island	469	61,449	3,216	103,405	24,693	193,232
282-45	Northeast Nagai Island	11	1,272	83	4,530	308	6,204
282-50	Koniuju Islands	11	1,712	483	23,271	453	25,930
282-55	Simeonof Island	0	0	0	0	0	0
282-60	Chernabura Island[b]	—	—	—	—	—	—
282-65	Southeast Nagai Island	172	48,544	5,775	158,831	12,245	225,567
282-70	Southwest Nagai Island	522	122,175	41,979	962,126	27,907	1,154,709
282-75	Cape Horn/Porpoise Rocks	103	26,236	1,200	42,697	3,111	73,347
282-80	East Nagai Straits	2	1,206	198	153	200	1,759
Shumagin Islands Section total[c]		19,165	640,118	127,122	2,422,286	405,872	3,614,563
Southeastern District total[c]		19,167	643,423	128,909	2,427,563	406,267	3,625,329
Percent of total South Peninsula salmon harvest							50.1%

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Statistical area	Section	Number of salmon[a] Chinook	Sockeye	Coho	Pink	Chum	Total
SOUTH CENTRAL DISTRICT							
283-15	Mino Creek	0	1,028	1	21	6	1,056
283-17	Little Coal Bay	3	8,008	1,443	76,151	806	86,411
Mino Cr. - Little Coal B. Section		3	9,036	1,444	76,172	812	87,467
283-20	Ukolnoi Island	58	8,651	8,040	36,812	1,143	54,704
283-21	Northside Cape Tolstoi	0	6,020	192	14,485	135	20,832
283-23	Eastside Pavlof Bay	2	11,307	887	89,296	1,681	103,173
East Pavlof Bay Section total		60	25,978	9,119	140,593	2,959	178,709
283-24	Canoe Bay Section	0	0	0	0	0	0
283-25	Northwest Pavlof Bay	0	4,150	657	130,131	492	135,430
283-26	Long Beach/Ukolnoi	25	1,701	711	1,831	13,441	17,709
West Pavlof Bay Section total		25	5,851	1,368	131,962	13,933	153,139
South Central District total[c]		88	40,865	11,931	348,727	17,704	419,315
Percent of total South Peninsula salmon harvest							5.8%
SOUTHWESTERN DISTRICT							
284-36	Volcano Bay	0	0	0	0	0	0
284-37	Northside Dolgoi Island	0	6,548	1,046	29,019	493	37,106
284-38	South Dolgoi/Moss Cape	0	2,458	529	14,690	273	17,950
284-39	Poperechnoi						
Volcano Bay Section total		0	9,006	1,575	43,709	766	55,056
284-42	Belkofski Bay	25	33,548	1,247	45,383	2,519	82,722
284-45	King Cove	24	17,192	1,751	238,100	11,686	268,753
284-47	General Section	1	1,223	707	42,175	315	44,421
Belkofski Bay Section total		50	51,963	3,705	325,658	14,520	395,896
284-55	Deer Island Section	48	25,461	3,221	251,603	8,573	288,906
284-62	Outer Cold Bay	0	0	0	0	0	0
284-65	Lenard Harbor	0	0	0	0	0	0
284-67	Upper Cold Bay[b]	—	—	—	—	—	—
Cold Bay Section total[b]		—	—	—	—	—	—

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Statistical area	Section	Number of salmon[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
284-70	General Section	0	0	0	0	0	0
284-75	Thin Point Section	0	722	0	828	138	1,688
284-80	Morzhovoi Bay Section	32	6,025	126	70,927	2,865	79,975
284-90	Ikatan Bay Section	250	81,122	7,278	263,818	28,398	380,866
Southwestern District total		380	174,387	15,948	960,212	55,294	1,206,221
Percent of total South Peninsula salmon harvest							16.7%
UNIMAK DISTRICT							
285-10	Sanak Island Section	756	19,513	3,982	23,310	131,023	178,584
285-20	Otter Cove	21	30,940	3,306	55,890	10,653	100,810
285-30	Cape Lazaref	102	51,027	496	162,296	62,799	276,720
Otter Cove Section total		123	81,967	3,802	218,186	73,452	377,530
285-40	Cape Lutke Section	848	108,521	18,491	1,072,252	229,664	1,429,776
Unimak District total		1,727	210,001	26,275	1,313,748	434,139	1,985,890
Percent of total South Peninsula salmon harvest							27.4%
South Peninsula total[c]		21,362	1,068,676	183,063	5,050,250	913,404	7,236,755

[a] Harvest information includes commercial harvest and excludes test fishery and personal use harvest.
[b] Confidential information.
[c] Totals contain summed confidential harvest.

Appendix A15.–South Alaska Peninsula commercial salmon harvest by species, district, and gear, 2020.

	Number of salmon						Percent
	Chinook	Sockeye	Coho	Pink	Chum	Total	of harvest
Southeastern District							
Seine	19,115	474,227	115,153	2,326,138	393,536	3,328,169	91.8
Set gillnet	52	169,196	13,756	101,425	12,731	297,160	8.2
Total	19,167	643,423	128,909	2,427,563	406,267	3,625,329	100.0
South Central District							
Seine	86	27,022	11,354	345,553	16,526	400,541	95.5
Set gillnet	2	13,843	577	3,174	1,178	18,774	4.5
Total	88	40,865	11,931	348,727	17,704	419,315	100.0
Southwestern District							
Seine	341	87,417	9,861	920,050	39,512	1,057,181	87.7
Drift gillnet	34	51,600	4,196	20,702	13,885	90,417	7.5
Set gillnet	5	34,668	1,751	18,860	1,897	57,181	4.7
Total	380	173,685	15,808	959,612	55,294	1,204,779	100.0
Unimak District							
Seine	1,615	145,456	22,965	1,296,213	398,356	1,864,605	93.8
Drift gillnet	112	64,545	3,310	17,535	35,783	121,285	6.1
Set gillnet	0	702	140	600	0	1,442	0.1
Total	1,727	210,703	26,415	1,314,348	434,139	1,987,332	100.0
South Peninsula total							
Seine	21,157	734,122	159,333	4,887,954	847,930	6,650,496	91.9
Drift gillnet	146	116,145	7,506	38,237	49,668	211,702	2.9
Set gillnet	59	218,409	16,224	124,059	15,806	374,557	5.2
Total	21,362	1,068,676	183,063	5,050,250	913,404	7,236,755	100.0

Appendix A16.–South Peninsula emergency order summary, 2020.

E.O.#	Issued	Effective	Action Taken
SP-01	1:00 PM 6/1/20	6:00 AM 6/6/20	Allows four 88-hour and one 64-hour commercial salmon fishing periods for set gillnet gear and four 88-hour commercial salmon fishing periods for drift gillnet and seine gear in the South Unimak and Shumagin Islands June fisheries.
SP-02	4:30 PM 6/12/20	10:01 PM 6/13/20	Closes the waters of the Volcano Bay Section of the Southwestern District south and east of a line from Arch Point at lat 55°12.30′N, long 161°54.30′W to a point on Belkofski Peninsula at lat 55°09.50′N, long 161°57.80′W (Statistical Areas 284-37 through 284-39), and the portion of the West Pavlof Bay Section of the South Central District south of Black Point (lat 55°24.48′N; Statistical Area 283-26).
SP-03	2:30 PM 6/17/20	6:00 AM 6/20/20	Allows a 40-hour commercial salmon fishing period for set gillnet and seine gear in the Shumagin Islands Section of the Southeastern District.
SP-04	2:30 PM 6/22/20	6:00 AM 6/25/20	Allows a 40-hour commercial salmon fishing period for set gillnet gear and seine gear in the Shumagin Islands Section of the Southeastern District.
SP-05	2:30 PM 7/5/20	6:00 AM 7/6/20	Allows a 33-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Monday, July 6, until 3:00 p.m. Tuesday, July 7, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 33-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.
SP-06	9:30 AM 7/8/20	6:00 AM 7/10/20	Allows a 36-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Friday, July 10, until 6:00 p.m. Saturday, July 11, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.

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E.O.#	Issued	Effective	Action Taken
SP-07	11:30 AM 7/12/20	6:00 AM 7/14/20	Allows a 36-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Tuesday, July 14, until 6:00 p.m. Wednesday, July 15, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.
SP-08	11:30 AM 7/16/20	6:00 AM 7/18/20	Allows a 36-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Saturday, July 18, until 6:00 p.m. Sunday, July 19, in the Unimak District, Southwestern District, the Bechevin Bay Section of the Northwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.
SP-09	11:15 AM 7/20/20	6:00 AM 7/22/20	Allows a 36-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Wednesday, July 22, until 6:00 p.m. Thursday, July 23, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.

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E.O.#	Issued	Effective	Action Taken
SP-10	11:15 AM 7/24/20	6:00 AM 7/27/20	Allows a 36-hour commercial salmon fishing period for set gillnet gear and seine gear from 6:00 a.m. Sunday, July 26, until 6:00 p.m. Monday, July 27, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.
SP-11	9:15 AM 7/28/20	6:00 AM 7/30/20	Allows a 36-hour commercial salmon fishing period from 9:00 a.m. Thursday, July 30, until 9:00 p.m. Friday, July 31, in the Unimak District, the Southwestern District, the South Central District, and the Shumagin Islands Section of the Southeastern District. Allows a concurrent 36-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Closes the waters of the Volcano Bay Section of the Southwestern District (Statistical Areas 284-37 through 284-39) and the portion of the West Pavlof Bay Section of the South Central District (Statistical Area 283-26) to set gillnet gear and seine gear.
SP-12	9:30 AM 8/9/20	8:00 AM 8/11/20	Allows a 37-hour commercial salmon fishing period for set gillnet gear and seine gear from 8:00 a.m. Tuesday, August 11, until 9:00 p.m. Wednesday, August 12, in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary Bay (Statistical Area 282-35). Allows a concurrent 37-hour salmon fishing period for drift gillnet gear in the Unimak District and Ikatan Bay Section of the Southwestern District.
SP-13	9:00 AM 8/15/20	8:00 AM 8/17/20	Allows a 37-hour commercial salmon fishing period for set gillnet gear and seine gear from 8:00 a.m. Monday, August 17, until 9:00 p.m. Tuesday, August 18, in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary (Statistical Area 282-35). Allows a concurrent 37-hour salmon fishing period for drift gillnet gear in the Unimak District and Ikatan Bay Section of the Southwestern District.

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E.O.#	Issued	Effective	Action Taken
SP-14	5:00 PM 8/19/20	8:00 AM 8/21/20	Allows a 61-hour commercial salmon fishing period for set gillnet gear and seine gear from 8:00 a.m. Friday, August 21, until 9:00 p.m. Sunday, August 23, in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary Bay (Statistical Area 282-35). Allows a concurrent 37-hour commercial salmon fishing period for drift gillnet gear in the Unimak District and Ikatan Bay Section of the Southwestern District.
SP-15	5:00 PM 8/22/20	9:00 PM 8/23/20	Extends the commercial salmon fishing period for set gillnet gear and seine gear for 48 hours in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary Bay (Statistical Area 282-35). Extends the current commercial fishing period for 48 hours for drift gillnet gear in the Unimak District and Ikatan Bay Section of the Southwestern District. Allows a 37-hour commercial salmon fishing period for set gillnet and seine gear from 8:00 a.m. Monday, August 24, until 9:00 p.m. Tuesday, August 25, in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak Sections of the Southeastern District.
SP-16	5:00 PM 8/24/20	9:00 PM 8/25/20	Extends the commercial salmon fishing period for set gillnet and seine gear for 48 hours in the Unimak and Southwestern Districts, excluding the inside water of the Volcano Bay (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary Bay (Statistical Area 282-35). Extends the current commercial fishing period for 48 hours for drift gillnet gear in the Unimak District and the Ikatan Bay Sections of the Southwestern District. Extends the current commercial fishing period for 48 hours for set gillnet and seine gear in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak Sections of the Southeastern District.

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E.O.#	Issued	Effective	Action Taken
SP-17	12:00 PM 8/26/20	9:00 PM 8/27/20	Extends the current commercial salmon fishing period for 47 hours for set gillnet and seine gear in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 284-36); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section of the Southeastern District, excluding the waters of Zachary Bay (Statistical Area 282-35). Extends the current commercial salmon fishing period for 47 hours for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District. Extends the current commercial salmon fishing period for 47 hours for set gillnet and seine gear in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak Sections of the Southeastern District.
SP-18	12:00 PM 8/29/20	9:00 AM 9/1/20	Allows a commercial salmon fishing period from 9:00 a.m. Tuesday, September 1, until 8:00 p.m. Wednesday September 2, in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 282-35); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section, excluding the waters of the Zachary Bay Section (Statistical Area 282-35). Allows a concurrent salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.
SP-19	5:00 PM 9/3/20	9:00 AM 9/7/20	Allows a commercial salmon fishing period from 9:00 a.m. Monday, September 7, until 8:00 p.m. Saturday, September 12, in the Unimak District; the Southwestern District, excluding the inside waters of the Volcano Bay Section (Statistical Area 282-35); the South Central District, excluding the waters of the Canoe Bay Section (Statistical Area 283-24); and the Shumagin Islands Section, excluding the waters of the Zachary Bay Section (Statistical Area 282-35); and the Beaver Bay, Balboa Bay, Southwest Stepovak and East Stepovak Sections of the Southeastern District. Allows a concurrent salmon fishing period for drift gillnet gear in the Unimak District and the Ikatan Bay Section of the Southwestern District.
SP-20	12:00 PM 9/11/20	8:00 PM 9/12/20	Extends the current commercial fishing period for set gill net and seine gear for 72 hours in the Unimak District, Southwestern District, South Central District, and Shumagin Islands Section of the Southeastern District. Extends the concurrent fishing period for drift gillnet gear for 72 hours in the Unimak District and Ikatan Bay Section of the Southwestern District. Allows a 35-hour commercial salmon fishing period for set gillnet and seine gear from 9:00 a.m. Monday, September 14, until 8:00 p.m. Tuesday, September 15, in the Beaver Bay, Balboa Bay, Southwest Stepovak, and East Stepovak Sections of the Southeastern District.

Appendix A17.–South Alaska Peninsula commercial salmon exvessel value by species and gear, 2010–2020 based on fish ticket information.

		Exvessel value					
Year	Gear name	Chinook	Sockeye	Coho	Pink	Chum	Total
2010	Purse seine	$85,275	$2,939,508	$436,584	$627,779	$1,612,902	$5,702,047
	Drift gillnet	$18,698	$1,351,994	$30,036	$5,918	$191,901	$1,598,547
	Set gillnet	$5,128	$2,327,075	$32,783	$60,188	$269,017	$2,694,190
	Total	$109,100	$6,618,577	$499,403	$693,884	$2,073,819	$9,994,784
2011	Purse seine	$63,545	$4,822,894	$366,325	$5,551,505	$2,199,032	$13,003,303
	Drift gillnet	$20,815	$2,978,032	$69,909	$57,641	$323,556	$3,449,952
	Set gillnet	$7,949	$2,705,468	$83,306	$292,378	$438,762	$3,527,863
	Total	$92,309	$10,506,393	$519,540	$5,901,524	$2,961,351	$19,981,117
2012	Purse seine	$55,614	$4,400,706	$131,002	$433,465	$1,137,785	$6,158,572
	Drift gillnet	$57,667	$3,903,056	$108,687	$18,856	$653,839	$4,742,105
	Set gillnet	$6,360	$2,036,366	$9,741	$34,167	$105,976	$2,192,611
	Total	$119,641	$10,340,128	$249,431	$486,487	$1,897,600	$13,093,288
2013	Purse seine	$30,055	$6,862,066	$493,635	$8,003,434	$1,682,513	$17,071,703
	Drift gillnet	$19,318	$6,233,705	$331,644	$82,699	$368,996	$7,036,362
	Set gillnet	$10,330	$3,582,837	$79,899	$275,514	$151,731	$4,100,311
	Total	$59,704	$16,678,607	$905,179	$8,361,647	$2,203,239	$28,208,376
2014	Purse seine	$45,884	$4,559,088	$471,004	$453,341	$834,285	$6,363,602
	Drift gillnet	$8,405	$2,276,681	$153,138	$38,288	$254,868	$2,731,379
	Set gillnet	$4,797	$3,671,465	$109,764	$50,920	$129,590	$3,966,536
	Total	$59,086	$10,507,234	$733,906	$542,549	$1,218,742	$13,061,517
2015	Purse seine	$225,973	$5,967,055	$410,181	$8,339,326	$712,028	$15,654,563
	Drift gillnet	$5,127	$678,852	$40,283	$34,353	$54,484	$813,100
	Set gillnet	$5,229	$4,224,131	$67,507	$184,632	$127,873	$4,609,371
	Total	$236,329	$10,870,037	$517,971	$8,558,312	$894,385	$21,077,034
2016	Purse seine	$34,797	$4,680,780	$225,807	$1,105,155	$453,095	$6,499,634
	Drift gillnet	$8,597	$1,316,316	$9,858	$47,099	$55,179	$1,437,050
	Set gillnet	$6,007	$3,981,346	$18,436	$36,360	$70,085	$4,112,233
	Total	$49,401	$9,978,442	$254,101	$1,188,614	$578,359	$12,048,917
2017	Purse seine	$48,775	$9,700,518	$613,961	$19,890,323	$3,237,123	$33,490,700
	Drift gillnet	$6,025	$2,891,329	$38,514	$170,629	$165,491	$3,271,988
	Set gillnet	$4,726	$4,225,904	$66,732	$373,930	$550,483	$5,221,775
	Total	$59,526	$16,817,752	$719,207	$20,434,882	$3,953,096	$41,984,462
2018	Purse seine	$52,695	$4,595,556	$556,848	$592,123	$2,551,789	$8,349,012
	Drift gillnet	$6,989	$1,487,876	$9,228	$22,546	$144,788	$1,671,428
	Set gillnet	$4,697	$1,439,109	$29,186	$75,339	$204,013	$1,752,344
	Total	$64,381	$7,522,542	$595,262	$690,008	$2,900,591	$11,772,784
2019	Purse seine	$44,597	$6,805,588	$875,918	$12,344,032	$2,147,545	$22,217,679
	Drift gillnet	$5,515	$674,048	$38,606	$143,921	$97,211	$959,302
	Set gillnet	$2,709	$3,079,918	$73,547	$187,946	$177,607	$3,521,727
	Total	$52,822	$10,559,554	$988,071	$12,675,898	$2,422,363	$26,698,709
2020	Purse seine	$13,327	$2,325,887	$268,417	$2,832,046	$1,030,035	$6,469,712
	Drift gillnet	$1,721	$384,315	$13,683	$26,301	$65,033	$491,053
	Set gillnet	$385	$834,772	$30,114	$90,811	$21,624	$977,706
	Total	$15,433	$3,544,973	$312,215	$2,949,157	$1,116,693	$7,938,471
2010–2019 Avg	Purse seine	$68,721	$5,533,376	$458,127	$5,734,048	$1,656,810	$13,451,081
	Drift gillnet	$15,716	$2,379,189	$82,990	$62,195	$231,031	$2,771,121
	Set gillnet	$5,793	$3,127,362	$57,090	$157,137	$222,514	$3,569,896
	Total	$90,230	$11,039,927	$598,207	$5,953,381	$2,110,355	$19,792,099

APPENDIX B. SOUTH UNIMAK AND SHUMAGIN ISLANDS JUNE FISHERIES

Appendix B1.–South Unimak and Shumagin Islands June commercial salmon fisheries history, 1962–2019.

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

Beginning in 1975, the Alaska Board of Fisheries (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, and 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 4 time period GHLs to distribute the catches throughout the month of June (Shaul and Dinnocenzo 2000).

Although chum salmon have always been caught during the June fisheries, the unusually large chum salmon catches in 1982 and 1983 caused concern to commercial fishery participants in the Arctic-Yukon-Kuskokwim (AYK) Region. 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 and Dinnocenzo 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 salmon allocation being harvested before the chum salmon ceiling was reached. Sockeye salmon abundance was 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. The Shumagin Islands sockeye salmon catch was 396,958 fish with an allocation of 264,000 fish; the South Unimak catch was 1,347,547 sockeye salmon with an allocation of 1,199,000 fish (Poetter 2007). A total of only 72 hours of fishing time was allowed in the Shumagin Islands during 4 days. At South Unimak, 84 hours of fishing time was allowed with openings occurring during 5 separate days. The 1989 chum salmon catch was 47,528 fish in the Shumagin Islands and 407,635 fish at South Unimak for a total of 455,163 fish. The ratio of sockeye to chum salmon was low during the early part of the fishery and became high towards the end (Shaul et al. 1990).

After the 1989 season, the BOF made the following changes 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 fish to 600,000 fish.

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(3) The "window regulations" were eliminated because 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.

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

If catches in either fishery fell below the guidelines during 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 underharvest during the first 2 periods. A 1987 salmon tagging study showed that sockeye salmon stock composition between the first 2 periods was very similar; however, the June 26–30 stock composition at South Unimak–Shumagin Islands could be dominated 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).

(7) The area making up 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 would have been 497,000 fish for the Shumagin Islands and 2,255,000 fish for South Unimak (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 and Dinnocenzo 2000). This change generated controversy in the AYK Region because the chum salmon cap was likely to be 900,000 fish from 1992 to 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

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BOF also stipulated that unless the chum salmon cap was in danger of being exceeded, set gillnet fishing periods would not be fewer than 16 hours even if it was necessary to restrict seine and drift gillnet gear periods to fewer than 16 hours due to chum salmon conservation. This was due to set gillnet gear selectivity favoring sockeye salmon. Regardless of gear selectivity, the BOF directed ADF&G to manage the fishery so that the cap would not be exceeded.

In 1992, the sockeye salmon allocations were 1,959,000 fish for South Unimak and 432,000 fish for Shumagin Islands (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, whereas the Shumagin Islands sockeye salmon harvest was 411,834 fish. The chum salmon harvest from both fisheries combined was 426,203 fish.

In 1993, the sockeye salmon allocations were 2,375,000 fish for South Unimak and 524,000 fish for Shumagin Islands (Poetter 2007). Test fishing in the Shumagin Islands during June 7–11 indicated sockeye to chum salmon ratios greater than 2:1. Consequently, fishing began on June 13, the earliest date allowed by the *South Unimak and Shumagin Islands June Management Plan*.

In 1993, AYK chum salmon stocks were at low levels, resulting in very little commercial fishing targeting chum salmon (Francisco et al. 1995). Subsistence fishing for AYK chum salmon was not allowed in some locations. Consequently, during 1993 and 1994, the BOF conducted 2 out-of-cycle meetings devoted to the South Unimak–Shumagin Islands June fishery. The first meeting was nonregulatory but resulted in the second meeting in which regulatory changes were made.

During its spring 1994 meeting, the BOF allowed 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 higher than those 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 salmon ratios were slightly better than 2:1 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.

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. Fishery participants 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 fishery participants 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 2 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 2:1 or less on any day, the next daily fishing period for seine and drift gillnet gear shall be 6 hours in 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 2:1 or less for any 3 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. 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 fewer than the GHL (Poetter 2007) and about 163,000 chum salmon fewer 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 sockeye salmon GHLs were 2,564,000 fish for South Unimak and 566,000 fish for Shumagin Islands (Poetter 2007). Based on test fishing results, the South Unimak fishery did not begin until June 15, and the Shumagin Islands fishery 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 to June 30, only 572,495 sockeye salmon (23.3% of the allocation) were harvested. 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.

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 June 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.

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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 summer chum salmon harvests 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 fish. 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 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 the 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 the Shumagin Islands fishery.

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 and Dinnocenzo 2000). The 1999 sockeye salmon daily harvest rates were higher than in the past 3 years in both the 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. A total of 269,191 sockeye (19.1% over the allocation) and 58,420 chum salmon were harvested in the 1999 Shumagin Islands fishery.

Based on the Bristol Bay forecast, the 2000 June sockeye salmon GHLs were 1,650,000 fish for South Unimak and 363,000 fish for Shumagin Islands (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 June 12 because of a price dispute between fishery participants and processors, and test fishing continued (Shaul and Dinnocenzo 2000). The South Unimak test fishery sockeye-to-chum salmon ratio was less than the 2:1 needed to justify a fishery on June 11. After the announced Shumagin Islands opening for June 11, all 3 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. After June 13, sockeye-to-chum salmon ratios were high and both fisheries were repeatedly extended. The South Unimak fishery remained open through June 30. The Shumagin Islands fishery closed on June 18 when it was estimated that the sockeye salmon GHL would be reached. The 2000 South Unimak harvest was 892,016 sockeye salmon (54.1% of the GHL) and 168,888 chum salmon. 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 GHL of 350,000 to 400,000 (Shaul and Dinnocenzo 2000).

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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 (2005–2014) than it was during the 1980s due to the following factors:

1. The gear depth restrictions implemented in 1990.
2. Cape Lutke was 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 was substantially smaller than the 1982–1996 fleet (Appendix A9).
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.
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.

There have been substantial shifts in the percentage of catches taken by various gear types over the years. 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.

At its 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. Sockeye salmon guideline harvest levels were eliminated.
2. Chum salmon guideline harvest levels were eliminated.
3. Fishing time by any gear group was limited to no more than 16 hours per day.
4. Total fishing time by seine and drift gillnet gear was limited to no more than 48 hours in a floating 7-day period with no more than two 16-hour periods on consecutive days in any 7-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 to 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.
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 2:1 on any day, the next fishing period shall be of 6 hours duration for all gear in that fishery. If the sockeye to chum salmon ratio is 2:1 or greater, a 6-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 2:1 for 2 consecutive fishing periods.

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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 to the fishery participants of 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 is allowed for all gear types.
4. Areas open to fishing were expanded to include the entire Unimak and Southwestern Districts, East and West Pavlof Bay, and Bechevin Bay and Shumagin Islands Sections.
5. All sockeye to chum salmon harvest ratio requirements were eliminated.

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

1. The description of the Sanak Island Section was changed.
2. The use of drift gillnets was expanded to the following portion of the Southwestern District: south and east of a line from Cape Pankof Light (lat 54°39.60′N, long 163°03.70′W) to Thin Point (lat 54°57.32′N, long 162°33.50′W); south of a line from Thin Point (lat 54°57.32′N, long 162°33.50′W) to the northernmost tip of Stag Point (lat 54°59.10′N, long 162°18.10′W) on Deer Island to the southernmost tip of Dolgoi Cape (lat 55°03.15′N, long 161°44.35′W) on Dolgoi Island and south of the latitude of the northeastern tip of Dolgoi Island (lat 55°07.50′N, long 161°38.30′W).
3. The use of salmon net pens was allowed.
4. Two Commercial Fisheries Entry Commission (CFEC) set gillnet permit holders are allowed 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.

In February 2013, the BOF made changes to the June fishing schedule. The fishing schedule for set gillnet gear did not change (beginning 6:00 AM June 7; four 88-hour fishing periods interspersed with 32-hour closures, and a final 64-hour fishing period that closes at 10:00 PM on June 29). The June schedule for seine and drift gillnet gear was reduced by 64 hours with the initial opening delayed until June 10 (beginning 6:00 AM June 10; four 88-hour fishing periods interspersed with 32-hour closures).

In February 2016, the BOF made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5AAC 09.365) and the *Post-June Salmon Management Plan for the South Alaska Peninsula* (5AAC 09.366) by adopting regulation to limit the number of sockeye salmon harvested in the Western Alaska Salmon Stock Identification Program (WASSIP) described "Dolgoi Island area" (statistical areas 283-15 through 283-26 and 284-36 through 284-42). From June 1 through July 25, there is a harvest limit of 191,000 sockeye salmon that can be harvested in these areas, based on fish ticket information. Once the harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25. However, the portion of West Pavlof Bay Section south of Black Point may reopen to commercial salmon fishing on July 17.

During the February 2019 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the BOF made changes to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365) by amending

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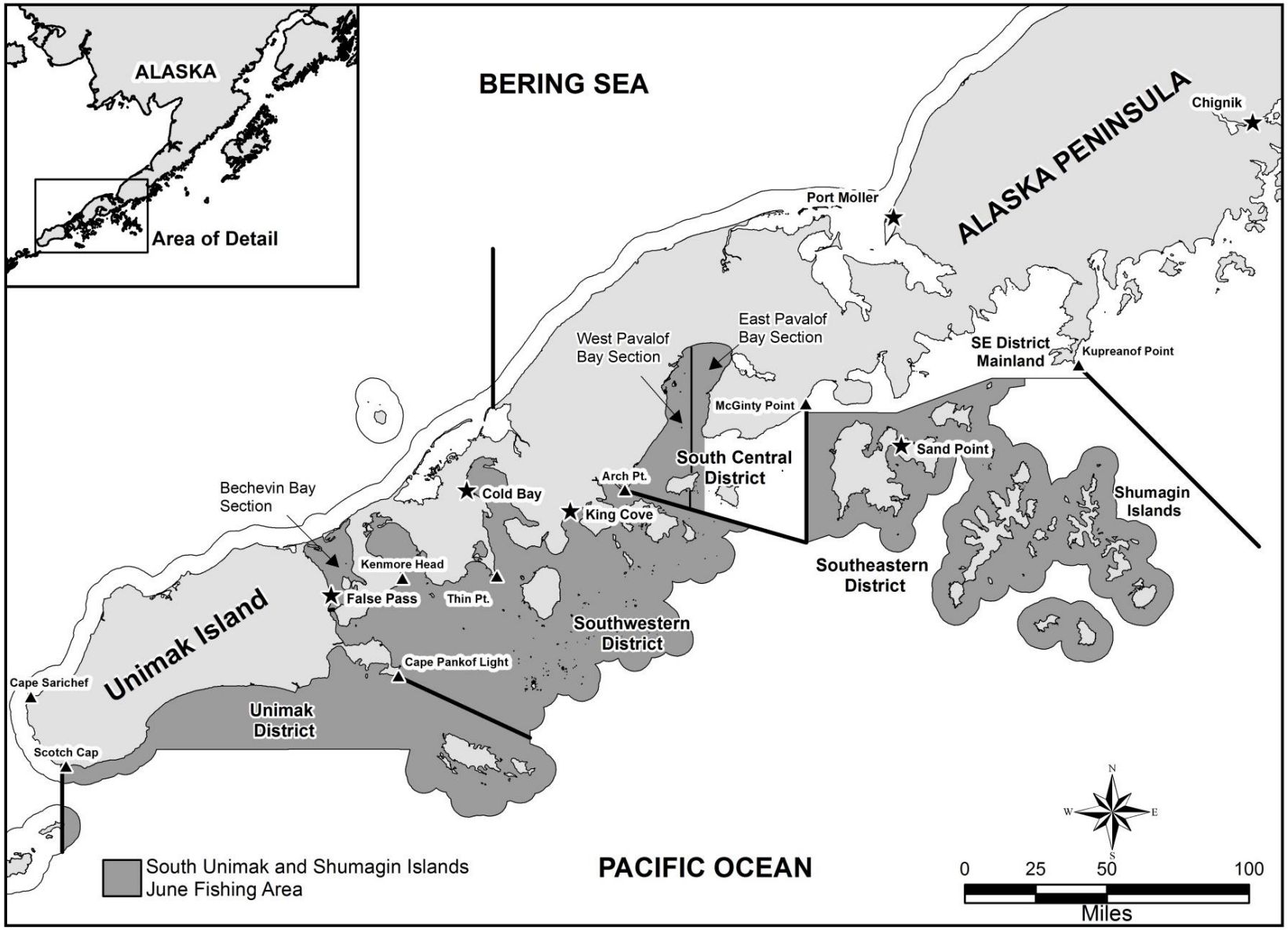
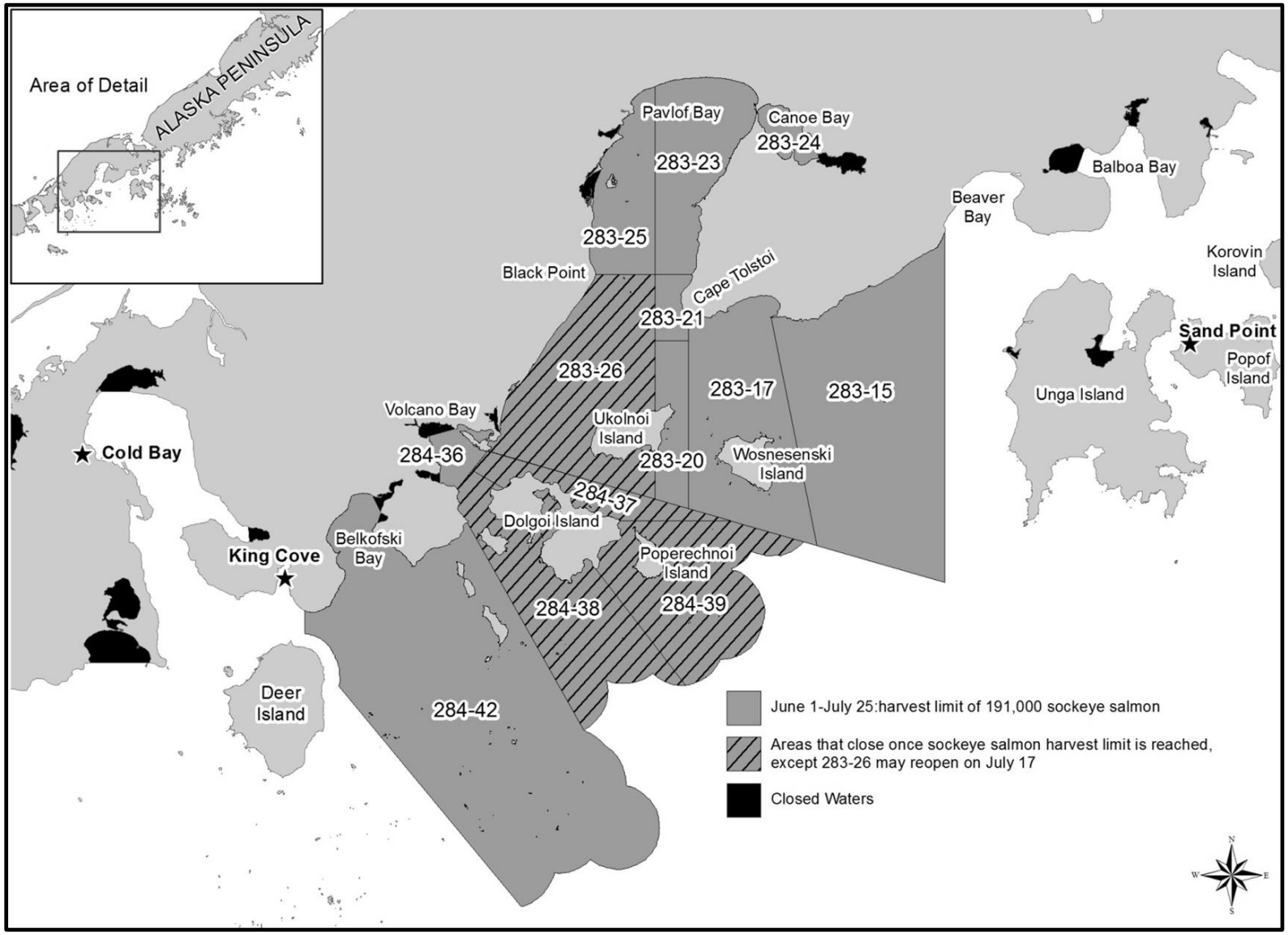
subsection (d) that establishes the June fishing schedule. The first commercial fishing period began at 10:00 AM on June 6 and closed at 10:00 PM on June 8, a 64-hour fishing period for set gillnet gear only. Beginning at 6:00 AM June 10, all gear types were allowed to fish for an 88-hour fishing period that ended at 10:00 PM on June 13. That fishing period was followed by a closure of 32 hours for all gear types. The commercial salmon fishery reopened for 3 more 88-hour fishing periods, followed by closures of 32 hours. The final commercial fishing period in June ended at 10:00 PM on June 28.

Additionally, the BOF added a new subsection to the *South Unimak and Shumagin Islands June Salmon Management Plan* (5 AAC 09.365(g)) to close the waters of the Volcano Bay Section of the Southwestern District; the Belkofski Bay Section of the Southwestern District, excluding those waters inside of a line between Vodapoini Point (lat 55°01.88′N, long 162°24.80′W) and Bold Cape (lat 55°01.24′N, long 162°16.40′W); and the South Central District to purse seine gear.

Appendix B2.–Map of South Unimak and Shumagin Islands June fisheries with areas open to fishing defined.



Appendix B3.–Map depicting the statistical areas (283-15 through 283-26 and 284-36 through 284-42) that contribute to the sockeye salmon harvest cap of 191,000 fish for the *Post-June Salmon Management Plan for the South Alaska Peninsula*.



Appendix B4.–South Unimak and Shumagin Islands June commercial salmon harvest by species and year, 1979–2020.

			Number of salmon[a]					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	1,348,460	621	359,916	482,310	2,195,730
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	224	2,162	3,118	818,865	27	332,435	271,700	1,426,145
2011	211	2,279	3,464	1,359,441	124	723,135	423,335	2,509,499
2012	227	3,111	6,397	1,542,043	12	261,786	395,060	2,205,298
2013	219	2,567	2,237	1,562,849	299	304,022	399,058	2,268,465
2014	228	2,588	2,290	659,213	2,478	180,260	390,139	1,234,380
2015	227	2,636	44,389	1,115,504	20,193	573,104	178,715	1,931,905
2016	223	2,493	6,113	1,292,860	1,716	2,510,048	270,614	4,081,351
2017	226	2,326	4,955	1,956,065	43	1,714,307	640,891	4,316,261
2018	236	1,890	4,158	822,173	51	345,255	537,466	1,709,103
2019	236	1,996	10,049	630,888	3,681	9,021,357	549,072	10,215,047
2020	225	1,555	2,594	339,293	262	1,754,284	490,128	2,586,561
2000–2019 Average	209	2,245	5,877	1,098,125	1,814	1,224,684	381,011	2,711,510
2010–2019 Average	226	2,405	8,717	1,175,990	2,862	1,596,571	405,605	3,189,745

[a] Does not include test fish harvests or personal use.

Appendix B5.–South Unimak and Shumagin Islands June commercial sockeye and chum salmon harvest, all gear combined, by year, 1979–2020.

	Sockeye salmon[a]			Chum salmon[a]		
Year	S. Unimak	Shumagin Is.	Total	S. Unimak	Shumagin Is.	Total
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
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
2011	937,168	422,273	1,359,441	231,081	192,254	423,335
2012	900,830	641,213	1,542,043	211,738	183,322	395,060
2013	1,049,336	513,513	1,562,849	188,952	210,106	399,058
2014	419,731	239,482	659,213	220,436	169,703	390,139
2015	618,485	497,019	1,115,504	42,306	136,409	178,715
2016	876,963	415,897	1,292,860	148,850	121,764	270,614
2017	1,071,635	884,430	1,956,065	179,485	461,406	640,891
2018	415,367	406,806	822,173	234,339	303,127	537,466
2019	384,469	246,419	630,888	216,809	332,263	549,072
2020	220,697	118,596	339,293	242,326	247,802	490,128
2000–2019 Average	605,970	439,845	1,045,815	157,657	205,211	362,868
2010–2019 Average	716,186	459,804	1,175,990	177,442	228,163	405,605

[a] Does not include test fish harvests or personal use.

Appendix B6.–Number and type of commercial salmon permits fished in the South Unimak and Shumagin Islands June fisheries, and number and type of commercial salmon permits issued in Area M, by year, 1979–2020.

	Permits[a]					
	Purse seine		Drift gillnet		Set gillnet	
Year	Fished	Issued	Fished	Issued	Fished	Issued
1979	40	123	132	161	26	115
1980	68	125	129	163	29	115
1981	83	127	135	164	25	117
1982	90	127	138	164	23	117
1983	101	127	146	166	34	116
1984	101	126	147	165	32	115
1985	107	127	150	165	48	115
1986	99	125	156	165	43	116
1987	86	125	144	165	60	116
1988	90	124	148	163	63	116
1989	99	126	145	164	61	116
1990	109	126	153	164	58	116
1991	112	126	157	164	65	116
1992	112	125	141	164	68	116
1993	116	125	140	164	72	116
1994	114	124	145	164	65	116
1995	112	124	151	164	69	116
1996	99	124	147	164	67	116
1997	81	122	142	164	69	116
1998	64	122	145	164	74	115
1999	61	121	152	164	64	115
2000	70	121	149	161	59	115
2001	25	121	85	160	18	115
2002	36	122	86	160	59	115
2003	40	120	84	160	53	115
2004	38	122	95	161	57	115
2005	40	121	94	162	56	115
2006	36	121	85	162	67	116
2007	37	121	87	162	61	116
2008	38	121	109	162	49	116
2009	42	121	116	162	58	116
2010	52	121	117	162	55	116
2011	46	121	116	162	49	116
2012	45	121	121	162	61	116
2013	45	121	120	162	54	116
2014	46	121	124	162	58	116
2015	47	121	117	162	63	116
2016	44	121	119	162	60	116
2017	46	121	114	162	66	116
2018	50	121	128	162	58	116
2019	59	121	116	162	61	116
2020	58	121	120	162	47	116
2000–2019 Average	44	121	109	162	56	116
2010–2019 Average	48	121	119	162	59	116

[a] Issued permit information is from the Commercial Fisheries Entry Commission.

Appendix B7.–South Unimak June commercial salmon harvest, all gear combined, by species and year, 1979–2020.

			Number of salmon[a]					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	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	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
2011	155	1,602	2,257	937,168	17	475,289	231,081	1,645,812
2012	156	2,259	4,554	900,830	10	169,898	211,738	1,287,030
2013	153	1,811	1,063	1,049,336	143	130,987	188,952	1,370,481
2014	168	1,538	1,021	419,731	2,056	127,390	220,436	770,634
2015	163	1,299	6,643	618,485	740	67,604	42,306	735,778
2016	166	1,559	1,860	876,963	1,528	1,836,319	148,850	2,865,520
2017	158	1,299	948	1,071,635	6	396,022	179,485	1,648,096
2018	161	1,078	1,399	415,367	3	132,778	234,339	783,886
2019	171	988	2,554	384,469	1,559	5,154,792	216,809	5,760,183
2020	164	1,141	734	220,697	228	1,576,195	242,326	2,040,180
2000–2019 Average	149	1,396	1,670	636,269	367	576,043	165,540	1,379,888
2010–2019 Average	160	1,483	2,377	716,186	606	868,173	177,442	1,764,785

[a] Does not include test fish harvests or personal use.

Appendix B8.–South Unimak June commercial salmon harvest, all gear combined, by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun	0	0	0	0	0	0	0	0
7-Jun	0	0	0	0	0	0	0	0
8-Jun	0	0	0	0	0	0	0	0
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	81	86	38	3,394	68	96,712	7,322	107,534
11-Jun	62	64	28	4,051	28	66,867	8,332	79,306
12-Jun	77	84	64	9,174	108	72,019	7,685	89,050
13-Jun	58	58	38	7,535	7	153,352	13,475	174,407
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	117	120	55	13,161	2	139,700	12,652	165,570
16-Jun	46	50	43	7,958	0	106,785	4,410	119,196
17-Jun	56	56	39	7,326	0	63,434	2,826	73,625
18-Jun	98	98	65	13,636	0	143,272	7,340	164,313
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	116	116	30	14,820	2	76,025	14,408	105,285
21-Jun	69	75	47	14,754	0	111,876	23,333	150,010
22-Jun	116	136	111	41,399	0	180,801	39,426	261,737
23-Jun	91	91	76	29,940	1	125,405	40,336	195,758
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	41	43	48	22,195	0	105,169	19,285	146,697
26-Jun	39	39	41	18,305	7	76,487	19,455	114,295
27-Jun	5	6	11	4,156	0	23,888	9,464	37,519
28-Jun	19	19	0	8,893	5	34,403	12,577	55,878
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	164	1,141	734	220,697	228	1,576,195	242,326	2,040,180

[a] Closed to commercial salmon fishing.

Appendix B9.–South Unimak June commercial purse seine salmon harvest by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun[a]	–	–	–	–	–	–	–	–
7-Jun[a]	–	–	–	–	–	–	–	–
8-Jun[a]	–	–	–	–	–	–	–	–
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	15	18	32	1,322	68	96,093	5,069	102,584
11-Jun	9	9	10	1,507	28	66,193	4,759	72,497
12-Jun	11	12	50	2,499	108	71,144	4,095	77,896
13-Jun	16	16	31	3,976	7	152,350	8,936	165,300
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	19	19	46	7,929	0	138,528	10,401	156,904
16-Jun	13	13	31	4,024	0	106,177	2,997	113,229
17-Jun	8	8	24	1,802	0	62,752	1,254	65,832
18-Jun	23	23	42	4,177	0	142,103	2,933	149,255
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	17	17	24	3,706	0	75,106	6,868	85,704
21-Jun	19	22	33	8,026	0	110,997	20,307	139,363
22-Jun	22	22	99	21,107	0	180,104	32,897	234,207
23-Jun	23	23	74	13,909	0	124,741	35,433	174,157
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	23	25	46	17,920	0	104,950	18,947	141,863
26-Jun	18	18	41	14,748	7	76,322	19,069	110,187
27-Jun	5	6	11	4,156	0	23,888	9,464	37,519
28-Jun	12	12	0	8,006	5	34,395	12,565	54,971
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	30	263	594	118,814	223	1,565,843	195,994	1,881,468

[a] Closed to commercial salmon fishing.

Appendix B10.–South Unimak June commercial drift gillnet salmon harvest by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun[a]	–	–	–	–	–	–	–	–
7-Jun[a]	–	–	–	–	–	–	–	–
8-Jun[a]	–	–	–	–	–	–	–	–
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	66	68	6	2,072	0	619	2,253	4,950
11-Jun	48	50	16	2,457	0	660	3,536	6,669
12-Jun	60	64	14	6,173	0	824	3,501	10,512
13-Jun	42	42	7	3,559	0	1,002	4,539	9,107
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	94	97	9	4,976	2	1,138	2,237	8,362
16-Jun	31	35	12	3,805	0	506	1,412	5,735
17-Jun	47	47	15	5,496	0	682	1,572	7,765
18-Jun	71	71	23	9,030	0	1,040	4,370	14,463
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	97	97	6	10,939	2	906	7,444	19,297
21-Jun	48	51	14	6,570	0	803	2,986	10,373
22-Jun	88	108	12	19,718	0	551	6,474	26,755
23-Jun	61	61	2	14,984	1	515	4,841	20,343
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	15	15	2	3,663	0	199	332	4,196
26-Jun	16	16	0	3,330	0	165	383	3,878
27-Jun	0	0	0	0	0	0	0	0
28-Jun	5	5	0	715	0	3	10	728
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	120	827	138	97,487	5	9,613	45,890	153,133

[a] Closed to commercial salmon fishing.

Appendix B11.–South Unimak June commercial set gillnet salmon harvest by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun	0	0	0	0	0	0	0	0
7-Jun	0	0	0	0	0	0	0	0
8-Jun	0	0	0	0	0	0	0	0
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	0	0	0	0	0	0	0	0
11-Jun	5	5	2	87	0	14	37	140
12-Jun	6	8	0	502	0	51	89	642
13-Jun	0	0	0	0	0	0	0	0
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	4	4	0	256	0	34	14	304
16-Jun[b]	–	–	–	–	–	–	–	–
17-Jun[b]	–	–	–	–	–	–	–	–
18-Jun	4	4	0	429	0	129	37	595
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun[b]	–	–	–	–	–	–	–	–
21-Jun[b]	–	–	–	–	–	–	–	–
22-Jun	6	6	0	574	0	146	55	775
23-Jun	7	7	0	1,047	0	149	62	1,258
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	3	3	0	612	0	20	6	638
26-Jun	5	5	0	227	0	0	3	230
27-Jun	0	0	0	0	0	0	0	0
28-Jun[b]	–	–	–	–	–	–	–	–
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	14	51	2	4,396	0	739	442	5,579

[a] Closed to commercial salmon fishing.

[b] Confidential information.

Appendix B12.–Shumagin Islands June commercial salmon harvest by species and year, 1979–2020.

			Number of salmon[a]					
Year	Permit	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	76	768	1,644	330,985	26	141,786	171,273	645,714
2011	65	677	1,207	422,273	107	247,846	192,254	863,687
2012	76	852	1,843	641,213	2	91,888	183,322	918,268
2013	78	756	1,174	513,513	156	173,035	210,106	897,984
2014	79	1,050	1,269	239,482	422	52,870	169,703	463,746
2015	88	1,339	37,746	497,019	19,453	505,500	136,409	1,196,127
2016	74	935	4,253	415,897	188	673,729	121,764	1,215,831
2017	84	1,028	4,007	884,430	37	1,318,285	461,406	2,668,165
2018	87	812	2,759	406,806	48	212,477	303,127	925,217
2019	81	1,008	7,495	246,419	2,122	3,866,565	332,263	4,454,864
2020	68	414	1,860	118,596	34	178,089	247,802	546,381
2000–2019 Average	72	849	4,207	461,837	1,446	648,642	215,471	1,331,603
2010–2019 Average	79	923	6,340	459,804	2,256	728,398	228,163	1,424,960

[a] Does not include test fish harvests or personal use.

Appendix B13.–Shumagin Islands June commercial salmon harvest, all gear combined, by species and day, 2020.

Date	Permits	Landings	Number of salmon					
			Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun	14	17	0	694	0	12	24	730
7-Jun	7	11	0	595	0	36	28	659
8-Jun	6	9	0	416	0	14	47	477
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	40	44	286	4,142	8	12,940	21,127	38,503
11-Jun	19	24	42	2,845	5	3,679	5,293	11,864
12-Jun	29	35	256	10,469	0	13,203	21,365	45,293
13-Jun	23	25	56	6,425	0	6,034	8,806	21,321
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	38	42	132	13,869	0	24,027	39,731	77,759
16-Jun	11	12	4	2,094	0	3,820	6,307	12,225
17-Jun	28	31	235	25,562	0	44,119	58,226	128,142
18-Jun	25	28	165	12,795	0	23,692	28,904	65,556
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	40	42	338	14,651	0	27,702	35,236	77,927
21-Jun	19	21	70	3,667	0	5,621	5,219	14,577
22-Jun[a]	–	–	–	–	–	–	–	–
23-Jun[a]	–	–	–	–	–	–	–	–
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	36	42	242	14,252	16	10,303	14,068	38,881
26-Jun	25	31	34	6,120	5	2,887	3,421	12,467
27-Jun[a]	–	–	–	–	–	–	–	–
28-Jun[a]	–	–	–	–	–	–	–	–
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	68	414	1,860	118,596	34	178,089	247,802	546,381

[a] Commercial fishery closed.

Appendix B14.–Shumagin Islands June commercial purse seine salmon harvest by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun[a]	–	–	–	–	–	–	–	–
7-Jun[a]	–	–	–	–	–	–	–	–
8-Jun[a]	–	–	–	–	–	–	–	–
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	24	25	286	3,644	8	12,934	21,090	37,962
11-Jun	8	8	42	1,499	5	3,675	5,188	10,409
12-Jun	18	18	254	9,482	0	13,186	21,288	44,210
13-Jun	12	12	56	5,300	0	6,031	8,734	20,121
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	23	23	131	12,706	0	23,921	39,394	76,152
16-Jun	3	3	4	1,703	0	3,820	6,193	11,720
17-Jun	20	20	233	24,920	0	44,112	58,064	127,329
18-Jun	13	13	164	11,767	0	23,674	28,700	64,305
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	21	22	338	13,685	0	27,640	35,029	76,692
21-Jun	6	6	70	2,714	0	5,601	5,078	13,463
22-Jun[a]	–	–	–	–	–	–	–	–
23-Jun[a]	–	–	–	–	–	–	–	–
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	17	17	242	10,998	11	10,114	13,265	34,630
26-Jun	7	7	34	3,354	4	2,722	2,928	9,042
27-Jun[a]	–	–	–	–	–	–	–	–
28-Jun[a]	–	–	–	–	–	–	–	–
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	34	174	1,854	101,772	28	177,430	244,951	526,035

[a] Closed to commercial salmon fishing.

Appendix B15.–Shumagin Islands June commercial set gillnet salmon harvest by species and day, 2020.

			Number of salmon					
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun	14	17	0	694	0	12	24	730
7-Jun	7	11	0	595	0	36	28	659
8-Jun	6	9	0	416	0	14	47	477
9-Jun[a]	–	–	–	–	–	–	–	–
10-Jun	16	19	0	498	0	6	37	541
11-Jun	11	16	0	1346	0	4	105	1,455
12-Jun	11	17	2	987	0	17	77	1,083
13-Jun	11	13	0	1125	0	3	72	1,200
14-Jun[a]	–	–	–	–	–	–	–	–
15-Jun	15	19	1	1163	0	106	337	1,607
16-Jun	8	9	0	391	0	0	114	505
17-Jun	8	11	2	642	0	7	162	813
18-Jun	12	15	1	1028	0	18	204	1,251
19-Jun[a]	–	–	–	–	–	–	–	–
20-Jun	19	20	0	966	0	62	207	1,235
21-Jun	13	15	0	953	0	20	141	1,114
22-Jun[a]	–	–	–	–	–	–	–	–
23-Jun[a]	–	–	–	–	–	–	–	–
24-Jun[a]	–	–	–	–	–	–	–	–
25-Jun	19	25	0	3254	5	189	803	4,251
26-Jun	18	24	0	2766	1	165	493	3,425
27-Jun[a]	–	–	–	–	–	–	–	–
28-Jun[a]	–	–	–	–	–	–	–	–
29-Jun[a]	–	–	–	–	–	–	–	–
30-Jun[a]	–	–	–	–	–	–	–	–
Total	34	240	6	16,824	6	659	2,851	20,346

[a] Closed to commercial salmon fishing.

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Appendix B16.–South Unimak June sockeye salmon percent by gear type and year, 1979–2020.

	Purse seine[a]		Drift gillnet[a]		Set gillnet[a]	
Year	Number	Percent	Number	Percent	Number	Percent
1979	474,381	70.6%	196,482	29.2%	1,349	0.2%
1980	2,086,038	76.4%	631,975	23.1%	13,135	0.5%
1981	745,747	50.7%	693,166	47.1%	31,480	2.1%
1982	902,804	54.1%	745,616	44.7%	19,733	1.2%
1983	935,003	60.5%	599,152	38.8%	10,920	0.7%
1984	716,685	63.3%	403,582	35.7%	11,098	1.0%
1985	891,775	61.3%	553,558	38.0%	9,636	0.7%
1986	147,380	46.7%	162,950	51.7%	5,040	1.6%
1987	238,193	36.5%	401,215	61.5%	12,989	2.0%
1988	141,410	29.8%	317,818	67.0%	15,229	3.2%
1989	800,949	59.4%	512,522	38.0%	34,076	2.5%
1990[b]	619,391	56.9%	452,484	41.6%	17,069	1.6%
1991	650,461	53.5%	539,490	44.4%	25,707	2.1%
1992	1,192,202	58.3%	765,752	37.4%	88,068	4.3%
1993	1,397,481	59.1%	902,788	38.1%	66,304	2.8%
1994	573,247	57.3%	371,103	37.1%	56,900	5.7%
1995	611,453	42.1%	792,940	54.6%	47,097	3.2%
1996	127,366	22.2%	421,882	73.7%	23,247	4.1%
1997	174,536	14.8%	896,638	76.0%	108,005	9.2%
1998	70,263	7.2%	856,265	87.9%	48,100	4.9%
1999	232,779	21.0%	836,876	75.7%	36,553	3.3%
2000	114,831	12.9%	722,855	81.0%	54,330	6.1%
2001	17,159	14.1%	95,547	78.6%	8,841	7.3%
2002	72,569	20.4%	254,657	71.5%	28,931	8.1%
2003	58,813	17.5%	245,657	73.1%	31,433	9.4%
2004	90,465	17.0%	369,011	69.4%	72,479	13.6%
2005	89,607	20.5%	227,206	51.9%	120,630	27.6%
2006	114,760	23.4%	228,924	46.6%	147,369	30.0%
2007	108,659	14.7%	560,544	76.0%	68,439	9.3%
2008	256,971	24.1%	762,898	71.7%	44,701	4.2%
2009	174,467	29.3%	350,382	58.9%	70,372	11.8%
2010	171,300	35.1%	285,070	58.4%	31,510	6.5%
2011	358,476	38.3%	542,148	57.8%	36,544	3.9%
2012	175,964	19.5%	683,836	75.9%	41,030	4.6%
2013	206,923	19.7%	796,574	75.9%	45,839	4.4%
2014	86,550	20.6%	251,114	59.8%	82,067	19.6%
2015	305,014	49.3%	130,580	21.1%	182,891	29.6%
2016	353,779	40.3%	350,585	40.0%	172,599	19.7%
2017	403,106	37.6%	518,380	48.4%	150,149	14.0%
2018	143,722	34.6%	256,670	61.8%	14,975	3.6%
2019	258,035	67.1%	91,484	23.8%	34,950	9.1%
2020	118,814	53.8%	97,487	44.2%	4,396	2.0%
2000–2019 Average	178,059	27.8%	386,206	60.1%	72,004	12.1%
2010–2019 Average	246,287	36.2%	390,644	52.3%	79,255	11.5%

[a] Does not include test fish harvests or personal use fish.

[b] Gear depth limitations in effect beginning in 1990.

Appendix B17.–South Unimak June fishery chum salmon percent by gear type and year, 1979–2020.

	Purse seine[a]		Drift gillnet[a]		Set gillnet[a]	
Year	Number	Percent	Number	Percent	Number	Percent
1979	19,007	30.1%	44,051	69.8%	92	0.1%
1980	363,360	79.2%	94,900	20.7%	239	0.1%
1981	323,817	63.5%	184,586	36.2%	1,473	0.3%
1982	430,661	46.1%	501,282	53.7%	1,785	0.2%
1983	405,903	65.9%	209,600	34.0%	851	0.1%
1984	137,110	60.2%	90,498	39.7%	305	0.1%
1985	125,813	38.7%	198,361	61.1%	651	0.2%
1986	110,666	43.8%	141,299	55.9%	756	0.3%
1987	155,447	38.3%	247,934	61.1%	2,574	0.6%
1988	155,895	33.5%	305,967	65.8%	2,903	0.6%
1989	212,310	52.1%	192,650	47.3%	2,675	0.7%
1990[b]	263,532	57.9%	190,002	41.8%	1,510	0.3%
1991	410,034	61.2%	256,132	38.2%	3,937	0.6%
1992	204,717	63.2%	115,401	35.6%	3,773	1.2%
1993	252,798	66.2%	120,820	31.6%	8,323	2.2%
1994	239,286	63.9%	129,530	34.6%	5,593	1.5%
1995	161,199	47.1%	172,715	50.5%	8,393	2.5%
1996	41,516	32.0%	86,103	66.3%	2,270	1.7%
1997	58,999	30.1%	127,646	65.1%	9,371	4.8%
1998	26,777	13.7%	162,566	83.2%	6,111	3.1%
1999	52,314	28.0%	128,723	68.9%	5,849	3.1%
2000	46,728	27.7%	114,812	68.0%	7,348	4.4%
2001	5,701	15.8%	28,651	79.4%	1,747	4.8%
2002	46,036	22.9%	145,079	72.1%	10,096	5.0%
2003	23,435	19.3%	92,730	76.5%	5,004	4.1%
2004	18,142	13.9%	109,227	83.6%	3,257	2.5%
2005	26,253	18.3%	112,144	78.0%	5,402	3.8%
2006	7,479	7.8%	83,752	87.2%	4,785	5.0%
2007	34,534	22.5%	115,461	75.3%	3,339	2.2%
2008	96,576	34.0%	181,758	63.9%	6,115	2.1%
2009	85,945	42.8%	105,764	52.7%	9,074	4.5%
2010	25,144	25.0%	70,358	70.1%	4,925	4.9%
2011	142,028	61.5%	74,990	32.5%	14,063	6.1%
2012	75,087	35.5%	134,350	63.5%	2,301	1.1%
2013	83,100	44.0%	103,912	55.0%	1,940	1.0%
2014	113,157	51.3%	99,003	44.9%	8,276	3.8%
2015	6,038	14.3%	35,285	83.4%	983	2.3%
2016	105,807	71.1%	42,401	28.5%	642	0.4%
2017	118,150	65.8%	59,991	33.4%	1,344	0.7%
2018	175,464	74.9%	57,408	24.5%	1,467	0.6%
2019	196,537	90.6%	19,394	8.9%	878	0.4%
2020	195,994	80.9%	45,890	18.9%	442	0.2%
2000–2019 Average	71,567	37.9%	89,324	59.1%	4,649	3.0%
2010–2019 Average	104,051	53.4%	69,709	44.5%	3,682	2.1%

[a] Does not include test fish or personal use harvests.

[b] Gear depth limitations in effect beginning in 1990.

Appendix B18.–Shumagin Islands June fishery percent by gear type and year, 1979–2020.

	Purse seine[a]		Set gillnet[a]		
Year	Number	Percent	Number	Percent	Total
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[b]	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	269,253	81.3%	61,732	18.7%	330,985
2011	358,698	84.9%	63,575	15.1%	422,273
2012	562,841	87.8%	78,372	12.2%	641,213
2013	443,655	86.4%	69,858	13.6%	513,513
2014	133,462	55.7%	106,020	44.3%	239,482
2015	282,466	56.8%	214,553	43.2%	497,019
2016	240,789	57.9%	175,108	42.1%	415,897
2017	743,776	84.1%	140,654	15.9%	884,430
2018	349,321	85.9%	57,485	14.1%	406,806
2019	173,372	70.4%	73,047	29.6%	246,419
2020	101,772	85.8%	16,824	14.2%	118,596
2000–2019 Average	353,474	75.4%	108,362	24.6%	461,837
2010–2019 Average	355,763	75.1%	104,040	24.9%	459,804

[a] Does not include test fish harvests.

[b] Gear depth limitations in effect beginning in 1990.

Appendix B19.–Shumagin Islands June chum salmon percent by gear type and year, 1979–2020.

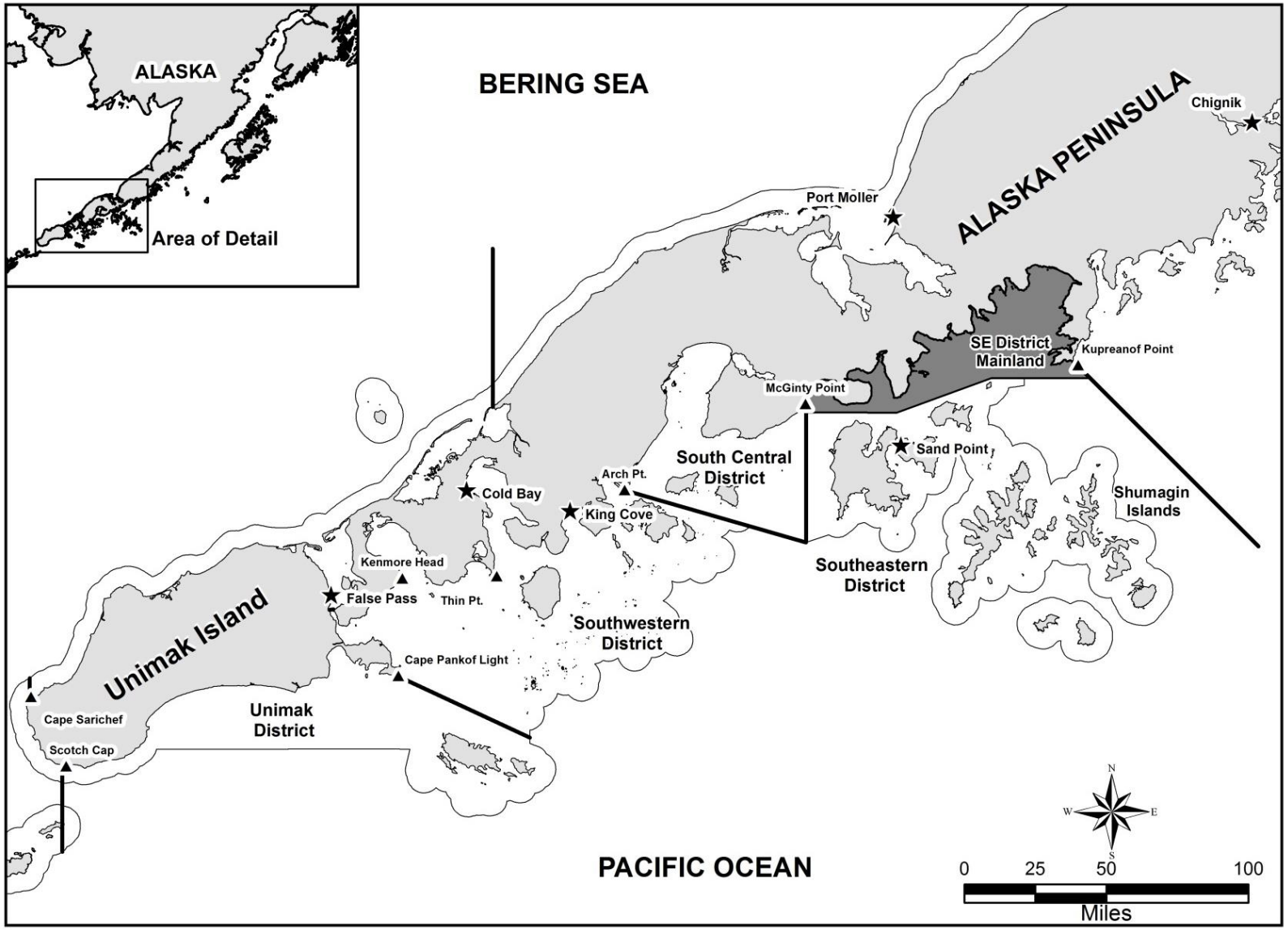
	Purse seine[a]		Set gillnet[a]		
Year	Number	Percent	Number	Percent	Total
1979	39,196	95.7%	1,757	4.3%	40,953
1980	48,990	97.3%	1,376	2.7%	50,366
1981	53,351	98.7%	720	1.3%	54,071
1982	159,518	98.9%	1,798	1.1%	161,316
1983	168,618	99.6%	659	0.4%	169,277
1984	108,495	99.3%	712	0.7%	109,207
1985	104,619	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[b]	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	159,206	93.0%	12,067	7.0%	171,273
2011	181,291	94.3%	10,963	5.7%	192,254
2012	172,600	94.2%	10,722	5.8%	183,322
2013	199,660	95.0%	10,446	5.0%	210,106
2014	147,710	87.0%	21,993	13.0%	169,703
2015	126,339	92.6%	10,070	7.4%	136,409
2016	109,321	89.8%	12,443	10.2%	121,764
2017	441,323	95.6%	20,083	4.4%	461,406
2018	285,940	94.3%	17,187	5.7%	303,127
2019	322,465	97.1%	9,798	2.9%	332,263
2020	244,951	98.8%	2,851	1.2%	247,802
2000–2019 Average	201,301	93.1%	14,171	6.9%	215,471
2010–2019 Average	214,586	93.3%	13,577	6.7%	228,163

[a] Does not include test fish harvests.

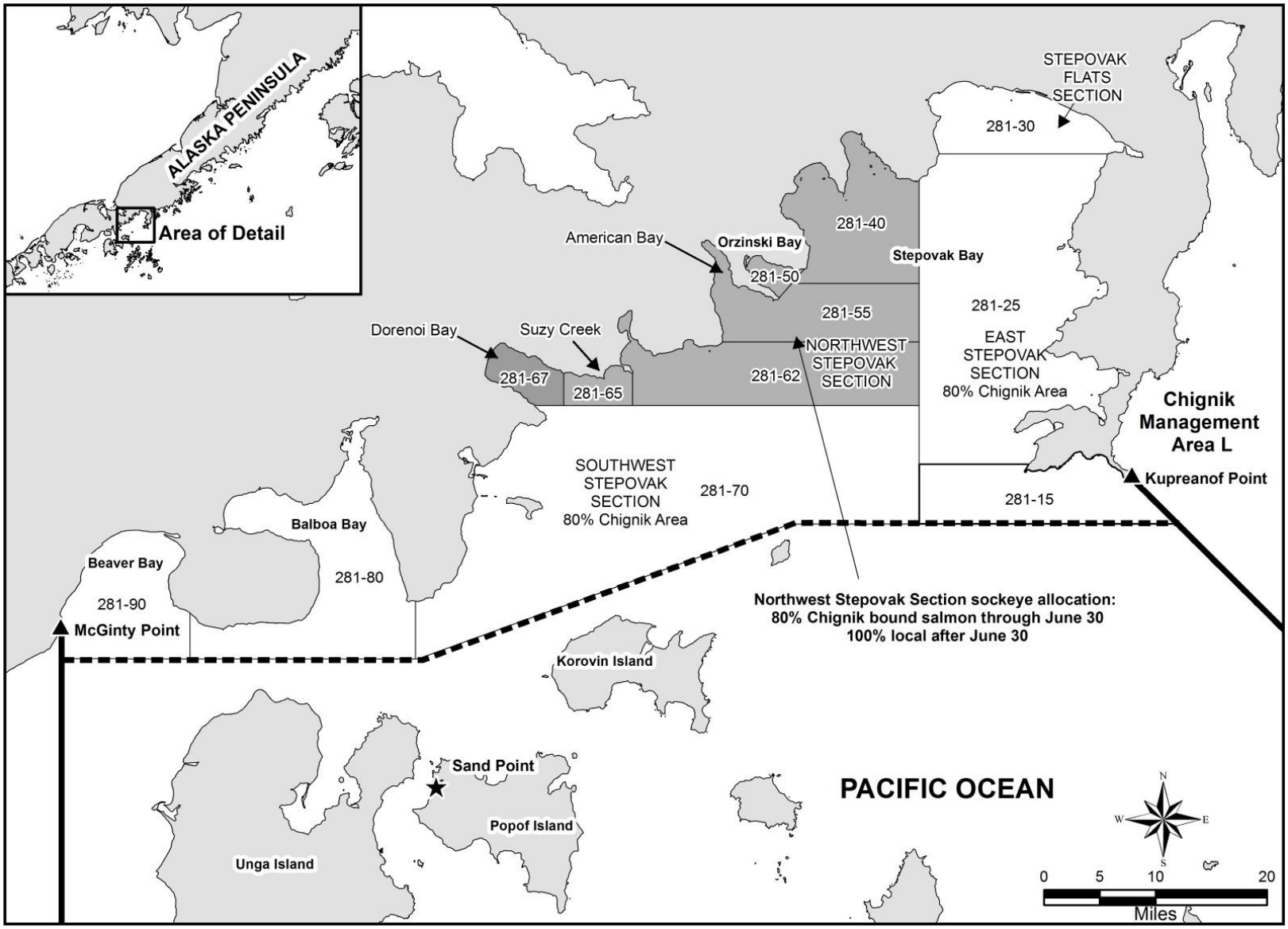
[b] Gear depth limitations in effect beginning in 1990.

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 fishery from Kupreanof Point to McGinty Point with salmon fishing sections defined.



1974–1978

Prior to 1974, the Southeastern District Mainland (SEDM) fishery was regulated by set weekly fishing periods that were generally 5 days per week. From 1974 through 1977, the fishery was open on a day-per-day basis with Chignik Lagoon. In 1978, the Alaska Board of Fisheries (BOF) restricted fishing time to 3 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, after which the fishery was managed on a basis of local stock abundance (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 were considered Chignik-bound (1.3% of the total Chignik-bound sockeye salmon harvest). From 1973 to 1978, an average of 20 set gillnetters and 17 purse seiners participated in this fishery.

1979–1984

Beginning with the 1979 season, the BOF increased fishing time from 3 days to 5 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 Chignik Management Area (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, of which 76,476 were considered to be Chignik-bound (6.4% of the total Chignik-bound sockeye salmon harvest). These harvests were achieved in spite of numerous fishery closures imposed by 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 C7).

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

In 1984, set gillnet effort increased to 54 permits, of which 5 were operated by fishery participants who were also purse seine permit holders (Appendix C7). Because of an exceptionally strong early Chignik run and the large number of fish available in the SEDM, only 6 fishing days were required to harvest an estimated 60,000 Chignik-bound sockeye salmon. The SEDM fishery was closed for only 3 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% of the total Chignik-bound sockeye salmon harvest.

1985–1991

For the 1985 season, the BOF modified the *Southeast District Mainland 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 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 from June 1 through July 25. In the fall of 1987, 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 fewer than

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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 CMA. After July 8, fishing in the SEDM might occur provided at least 300,000 sockeye salmon had been harvested in the CMA, 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 to 1991, the harvest of Chignik-bound sockeye salmon in the SEDM averaged 88,776 fish (5.5% of the total Chignik-bound sockeye salmon harvest) and ranged from 4,485 fish in 1989 to 152,714 fish in 1991.

1992–1995

The BOF revised the *Southeast District Mainland Management Plan* prior to the 1992 season. The revised plan was in effect from 1992 through 1995 and included 2 significant changes:

1. The Northwest Stepovak Section (NWSS) 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.
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 salmon in the SEDM averaged 113,258 fish (7.0% of the total Chignik-bound sockeye salmon harvest).

1996–1997

In January 1996, the BOF made the following changes to the *Southeast District Mainland Management Plan*:

1. The area to be managed for local Orzinski Lake sockeye salmon increased to include Orzinski Bay and the entire NWSS. Prior to July 1, the entire NWSS 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, the NWSS 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 *Southeast District Mainland Management Plan*:

1. Prior to July 1, the SEDM (Appendix C2) is managed on an allocation based on the strength of the CMA 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

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are considered local fish and are not counted toward the allocation. The NWSS, outside Orzinski Bay, may open to commercial salmon fishing from July 1 to 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 to July 25, cannot exceed 4 days during a 7-day period. The maximum number of consecutive fishing days allowed is 2 (Figure 8 in Jackson and Poetter 2006).

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 (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.
4. The BOF directed 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 ADF&G determines the interim escapement objectives have been exceeded (Appendix E7).

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 to July 25, excluding 100% of the sockeye salmon caught within the NWSS from July 1 to July 25.

2007–Present

In January 2007, the BOF made the following changes to the *Southeast District Mainland 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 October 31, the fishery is managed for local pink, chum, and coho salmon stocks.
4. From July 26 through October 31, the fishery will be closed for at least one 36-hour period within a 7-day period.

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 (SEDM) areas from 1978–2019.

	Chignik area[a]		Cape Igvak[a,b]		SEDM[c]		Total
Year	Harvest	Percent	Harvest	Percent	Harvest	Percent	Harvest
1979[d]	794,504	91.8	13,950	1.6	56,878	6.6	865,332
1980	670,001	91.3	32	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[e]	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[f]	675,487	95.8	10,520	1.5	19,320	2.7	705,327
1989	496,044	99.1	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[g]	1,962,583	80.4	324,329	13.3	152,714	6.3	2,439,626
1992[h]	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[i]	1,632,435	80.6	250,230	12.4	142,350	7	2,025,015
1995	1,024,785	79.9	169,530	13.2	88,302	6.9	1,282,617
1996[j]	1,710,249	79.7	308,327	14.4	127,201	5.9	2,145,777
1997	443,892	100.0	–[k]	–	–[k]	–	443,892
1998[l,m]	786,466	91.2	8,813	1	66,893	7.8	862,172
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[n]	1,134,991	79.4	215,214	15.1	79,037	5.5	1,429,242
2002	849,980	81.0	136,448	13	63,026	6	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	1,098,718	70.8	274,328	17.7	177,906	11.5	1,550,952
2006	741,887	87.7	41,834	4.9	62,010	7.3	845,731
2007[o]	601,213	92	52,527	8	–[k]	–	653,740
2008	445,199	100	–[k]	–	–[k]	–	445,199
2009	871,890	83.3	126,968	12.1	48,322	5.5	1,047,180
2010	1,125,135	80.6	185,193	13.3	85,267	7.6	1,395,595
2011	2,277,681	77.8	494,538	16.9	156,637	6.9	2,928,856
2012	1,640,517	78.4	324,895	15.5	126,083	7.7	2,091,495
2013	2,246,339	81.1	354,179	12.8	169,029	7.5	2,769,547
2014	330,302	100	–[k]	–	–[k]	–	330,302
2015	1,014,550	90.7	5,936	0.5	98,473	9.7	1,118,959
2016	1,167,326	74.8	298,470	19.1	94,790	8.1	1,560,586
2017	679,435	80.8	118,101	14	43,730	6.4	841,266
2018	128	100	–[k]	–	–[k]	–	128
2019	185,567	100	–[k]	–	–[k]	–	185,567
2020[p]	0	0	–[k]	–	–[k]	–	0
2010–2019 average	1,066,698	86.4	254,473	13.2	110,573	7.7	1,322,230

-continued-

[a] Through 2001, the Cape Igvak figures represent 80% of the total sockeye salmon catch, based on the premise that 80% of the sockeye salmon caught in Cape Igvak from June 1 to July 25 are destined for Chignik. In 2002, for the Cape Igvak fishery, the BOF increased the percentage of the sockeye salmon harvest considered to be Chignik-bound from 80% to 90%.

[b] Beginning in 1978, the Alaska Board of Fisheries (BOF) allocated 15% of the total sockeye salmon catch destined for Chignik to the Cape Igvak fishery.

[c] The Southeastern District Mainland (SEDM) figures represent 80% of the total sockeye salmon catch, based on the premise that from June 1 to July 25, 80% of the sockeye salmon caught in the SEDM (excluding sockeye salmon caught in Northwest Stepovak Section from 1964 to 1991 and during July from 1996 to present, and in Orzinski Bay only from 1992 to 1995) are bound for the Chignik Management Area (CMA).

[d] From 1979 to 1984, fishing in the SEDM was allowed for 5 days per week prior to July 11, with a maximum harvest of an estimated 60,000 sockeye salmon destined for Chignik. If the CMA sockeye salmon catch was 1,000,000 or more before July 11, the 60,000 maximum harvest was to be dropped.

[e] Beginning in 1985, the SEDM was placed on an allocation of 6.2% of the total estimated Chignik sockeye catch through July 25. After July 25, the SEDM was managed on a local stock basis.

[f] The SEDM allocation changed to 6.0% beginning in 1988. Seining is still not allowed prior to July 11.

[g] The CMA harvest includes overescapement of 278,305 sockeye salmon counted past the weir during the Chignik Area seiners' price dispute (June 23–July 4, 1991).

[h] Review of Orzinski Lake historical and current escapement records led the BOF to redefine the *Southeast District Mainland 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.

[i] The CMA harvest includes overescapement of 208,921 sockeye salmon counted past the weir during the Chignik Area seiners' price dispute (June 2–25, 1994).

[j] In 1996, the area 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 Section 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.

[k] No commercial fishing opportunity provided. Zero harvest not included in 10-year averages.

[l] 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 was allocated as 80% Chignik-bound fish. Assures minimum harvest of 600,000 sockeye salmon in Chignik through July 25.

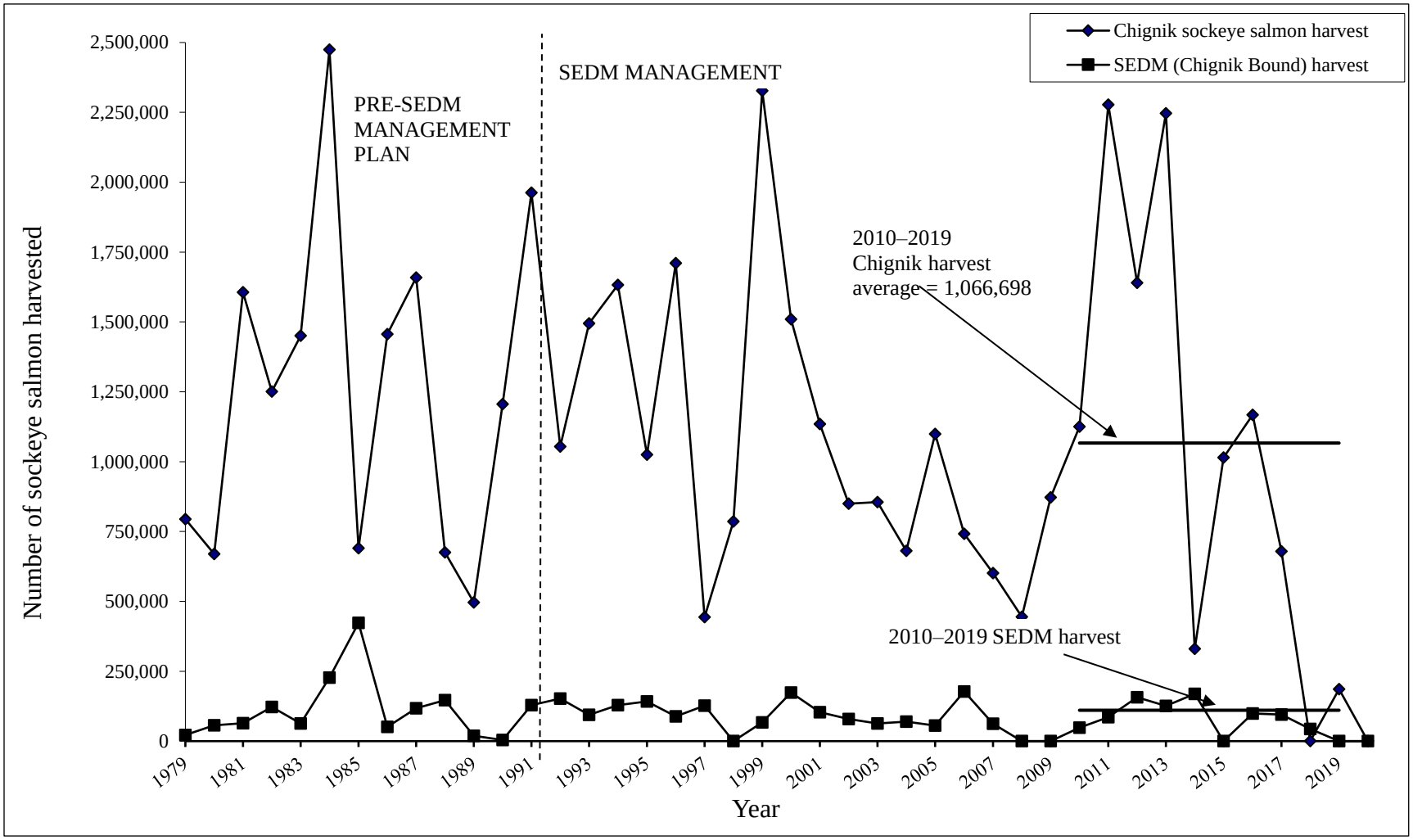
[m] The CMA harvest includes 7,714 sockeye salmon caught by the Chignik Seiners Association, and an overescapement of 52,131 sockeye salmon counted past the weir during the Chignik Seiners Association boycott (June 16–29, 1998).

[n] The 2001 CMA harvest includes a foregone harvest of 398,887 sockeye salmon that escaped past the weir as a result of the fishery participant's strike June 16–19 in the CMA. The SEDM harvest includes a forgone harvest of 27,896 sockeye salmon that escaped past the Orzinski weir as a result of the fishery participant's strike from June 14 to July 2 in the SEDM.

[o] In 2007, the BOF changed the SEDM allocation from 6.0% of the total Chignik-bound harvest to 7.6% of the total CMA harvest. The percent sockeye salmon harvested in SEDM was considered independent of the Igvak fishery and based solely on 7.6% of the CMA harvest.

[p] In 2020, the BOF changed the allocation dates for the Cape Igvak Section of Area K. The allocation period is now June 1 through July 5.

Appendix C5.–Harvest comparison of Chignik-bound sockeye salmon June 1–July 25, 1979–2020.



Appendix C6.–Southeastern District Mainland salmon harvest by species, all gear combined, June 1–July 25, 1979–2020.

			Number of salmon					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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[a]	–	–	–	–	–	–	–	–
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
2011	66	1,516	395	222,515	2,300	47,178	51,496	323,884
2012	65	1,105	99	219,132	1,287	42,503	31,835	294,856
2013	70	1,592	697	241,031	17,681	326,858	41,359	627,626
2014[a]	–	–	–	–	–	–	–	–
2015	52	344	231	233,618	7,813	78,212	12,244	332,118
2016	55	867	532	376,155	6,550	21,391	14,311	418,939
2017	39	406	39	93,918	154	5,477	5,073	104,661
2018[a]	–	–	–	–	–	–	–	–
2019[a]	–	–	–	–	–	–	–	–
2020[a]	–	–	–	–	–	–	–	–
2010–2019 Average[b]	58	967	411	222,018	5,529	76,603	32,929	337,490
2015–2019 Average[b]	49	539	267	234,564	4,839	35,027	10,543	285,239

[a] No fishery.

[b] Average does not include years when no fishery occurred.

Appendix C7.–Southeastern District Mainland salmon harvest by species, set gillnet gear, June 1–July 25, 1979–2020.

			Number of salmon					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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[a]	–	–	–	–	–	–	–	–
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
2011	52	1,498	266	214,853	849	8,008	34,283	258,259
2012	48	1,070	69	190,596	450	9,192	13,050	213,357
2013	46	1,531	344	219,365	9,677	53,505	15,468	298,359
2014[a]	–	–	–	–	–	–	–	–
2015	31	306	37	130,527	1,613	3,531	4,570	140,278
2016	44	846	177	356,668	2,075	11,306	10,615	380,841
2017	39	406	39	93,918	154	5,477	5,073	104,661
2018[a]	–	–	–	–	–	–	–	–
2019[a]	–	–	–	–	–	–	–	–
2020[a]	–	–	–	–	–	–	–	–
2010–2019 Average[b]	42	840	119	170,221	1,999	16,669	14,194	204,087
2015–2019 Average[b]	38	519	84	193,704	1,281	6,771	6,753	209,154

[a] No fishery.

[b] Average does not include years when no fishery occurred.

Appendix C8.–Southeastern District Mainland salmon harvest by species, purse seine gear, June 1–July 25, 1979–2020.

Year	Permits	Landings	Number of salmon					
			Chinook	Sockeye	Coho	Pink	Chum	Total
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[a]	–	–	–	–	–	–	–	–
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[b]	–	–	–	–	–	–	–	–
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[a]	–	–	–	–	–	–	–	–
2008[b]	–	–	–	–	–	–	–	–
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
2011	14	18	96	7,662	1,451	39,170	17,213	65,592
2012	17	35	30	28,536	837	33,311	18,785	81,499
2013	24	61	353	21,666	8,004	273,353	25,891	329,267
2014[a]	–	–	–	–	–	–	–	–
2015	21	38	194	103,091	6,200	71,681	7,674	188,840
2016	11	21	355	19,487	4,475	10,085	3,696	38,098
2017[a]	–	–	–	–	–	–	–	–
2018[a]	–	–	–	–	–	–	–	–
2019[a]	–	–	–	–	–	–	–	–
2020[a]	–	–	–	–	–	–	–	–
2010–2019 Average[c]	17	35	268	29,252	3,316	67,367	17,780	127,552
2015–2019 Average[c]	16	30	275	61,289	5,338	40,883	5,685	113,469

[a] No commercial fishing opportunity provided.

[b] Numbers may not be released due to state confidentiality requirements.

[c] Average does not include years when no fishery occurred.

Appendix C9.–Southeastern District Mainland commercial fishing effort and assignment of sockeye salmon harvests (number of fish) June 1–July 25, 1985–2020.

	Effort							SEDM minus Northwest Stepovak				
	Set gillnet		Seine		Northwest Stepovak			Northwest Stepovak		SEDM		Total
Year	Permits	Landings	Permits	Landings	Total	"Local"	"Nonlocal"	"Local"	"Nonlocal"	"Local"	"Nonlocal"	catch
1985[a]	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[b]	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[c]	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[d]	–	–	–	–	–	–	–	–	–	–	–	–
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

-continued-

Appendix C9.–Page 2 of 2.

Year	Effort: Set gillnet Permits	Effort: Set gillnet Landings	Effort: Seine Permits	Effort: Seine Landings	Northwest Stepovak Total	Northwest Stepovak "Local"	Northwest Stepovak "Nonlocal"	SEDM minus Northwest Stepovak "Local"	SEDM minus Northwest Stepovak "Nonlocal"	SEDM "Local"	SEDM "Nonlocal"	Total
2010	45	906	16	32	70,202	62,964	7,238	19,525	78,100	82,489	85,338	167,827
2011	52	1,498	14	18	52,695	31,914	20,781	33,964	135,856	65,878	156,637	222,515
2012	48	1,065	17	35	78,251	64,448	13,803	28,070	112,280	92,518	126,083	218,601
2013	46	1,531	24	61	62,573	36,311	26,262	35,692	142,767	72,003	169,029	241,032
2014[d]	–	–	–	–	–	–	–	–	–	–	–	–
2015	31	306	21	38	110,527	110,527	0	24,618	98,473	135,145	98,473	233,618
2016	44	846	11	21	284,557	263,045	21,512	18,320	73,278	281,365	94,790	376,155
2017	39	406	0	0	51,290	41,663	9,627	8,526	34,102	50,188	43,730	93,918
2018[d]	–	–	–	–	–	–	–	–	–	–	–	–
2019[d]	–	–	–	–	–	–	–	–	–	–	–	–
2020[d]	–	–	–	–	–	–	–	–	–	–	–	–
1985–1991 Average	47	440	28	9	54,248	54,248	0	22,260	88,776	76,507	88,776	165,283
1992–1995 Average	59	702	21	8	84,824	65,189	19,635	23,406	93,623	88,594	113,258	201,852
2015–2019 Average[e]	42	626	6	11	167,924	138,412	15,570	17,155	53,690	155,566	78,998	234,564
2010–2019 Average[e]	46	1,042	14	28	99,928	87,267	16,537	24,102	96,064	111,369	110,583	221,952

[a] 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.

[b] 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.

[c] 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.

[d] No fishery.

[e] Average does not include years when no fishery occurred.

Appendix C10.–Southeastern District Mainland commercial salmon harvest, all gear combined, by species and day, 2020.

Date	Permits	Landings	Number of salmon					
			Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jun–22-Aug[a]	–	–	–	–	–	–	–	–
23-Aug[b]	–	–	–	–	–	–	–	–
24-Aug	8	10	0	780	429	848	78	2,135
25-Aug	11	13	0	1,038	492	2,155	168	3,853
26-Aug	6	7	0	597	236	379	43	1,255
27-Aug	3	5	0	257	138	1,025	80	1,500
28-Aug	4	4	0	574	300	317	25	1,216
29-Aug–31-Aug[a]	–	–	–	–	–	–	–	–
1-Sep	0	0	0	0	0	0	0	0
2-Sep	0	0	0	0	0	0	0	0
3-Sep–6-Sep[a]	–	–	–	–	–	–	–	–
8-Sep	0	0	0	0	0	0	0	0
9-Sep[b]	–	–	–	–	–	–	–	–
10-Sep	0	0	0	0	0	0	0	0
11-Sep	0	0	0	0	0	0	0	0
12-Sep	0	0	0	0	0	0	0	0
13-Sep[a]	–	–	–	–	–	–	–	–
14-Sep	0	0	0	0	0	0	0	0
15-Sep	0	0	0	0	0	0	0	0
Subtotal June 1–July 25	0	0	0	0	0	0	0	0
Subtotal July 26–August 31	32	39	0	3,246	1,595	4,724	394	9,959
Subtotal September 1–October 31[b]	–	–	–	–	–	–	–	–
Season total[c]	34	41	2	3,305	1,787	5,277	395	10,766

[a] Fishery closed.

[b] Confidential information.

[c] Totals include information not provided by individual day due to confidentiality requirements.

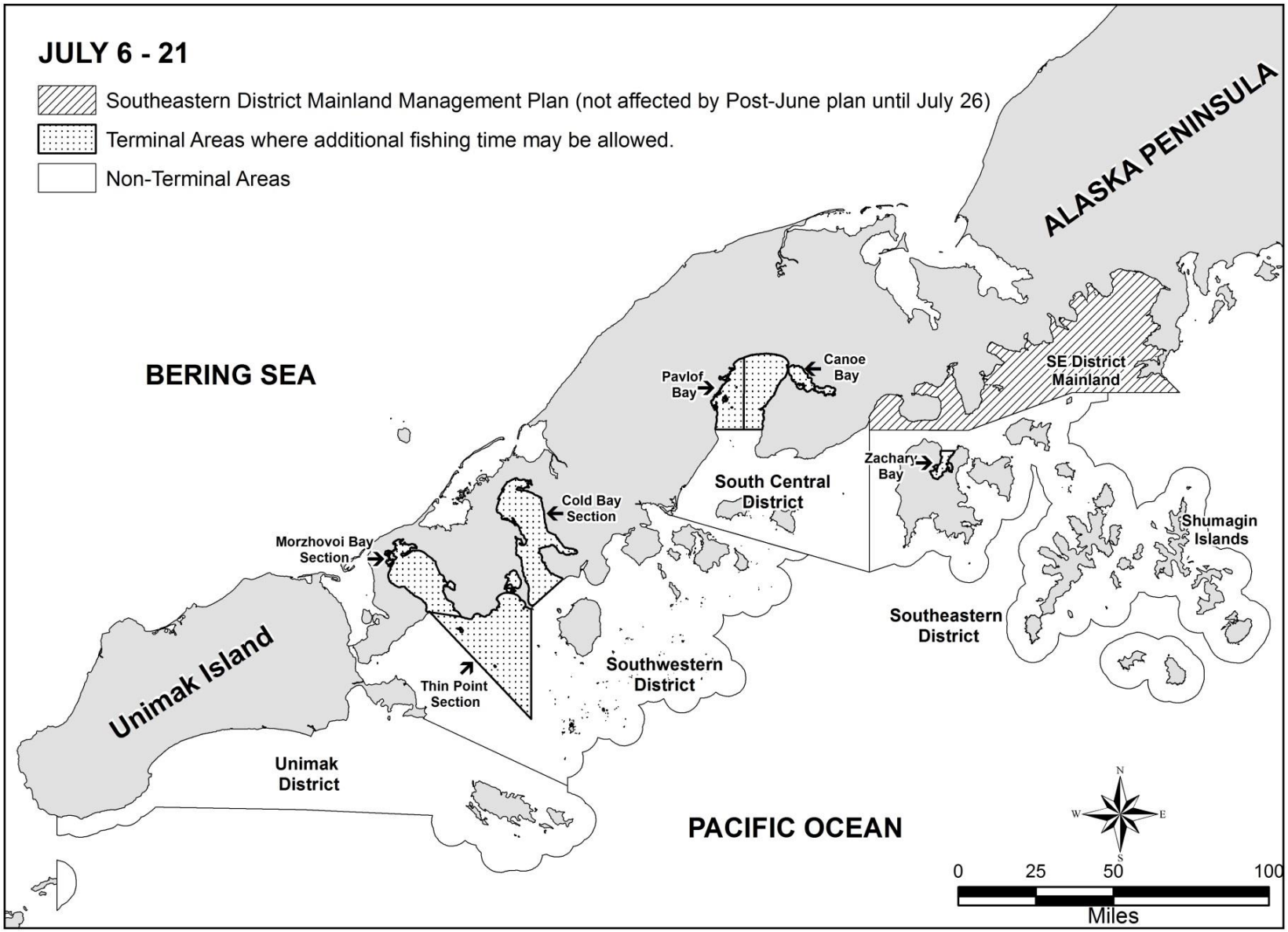
Appendix C11.–Northwest Stepovak Section commercial salmon harvest, all gear combined, by species and day, July 1–25, 2020.

			Number of salmon				
Date	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum
1-Jul[a]	–	–	–	–	–	–	–
2-Jul[a]	–	–	–	–	–	–	–
3-Jul[a]	–	–	–	–	–	–	–
4-Jul[a]	–	–	–	–	–	–	–
5-Jul[a]	–	–	–	–	–	–	–
6-Jul[a]	–	–	–	–	–	–	–
7-Jul[a]	–	–	–	–	–	–	–
8-Jul[a]	–	–	–	–	–	–	–
9-Jul[a]	–	–	–	–	–	–	–
10-Jul[a]	–	–	–	–	–	–	–
11-Jul[a]	–	–	–	–	–	–	–
12-Jul[a]	–	–	–	–	–	–	–
13-Jul[a]	–	–	–	–	–	–	–
14-Jul[a]	–	–	–	–	–	–	–
15-Jul[a]	–	–	–	–	–	–	–
16-Jul[a]	–	–	–	–	–	–	–
17-Jul[a]	–	–	–	–	–	–	–
18-Jul[a]	–	–	–	–	–	–	–
19-Jul[a]	–	–	–	–	–	–	–
20-Jul[a]	–	–	–	–	–	–	–
21-Jul[a]	–	–	–	–	–	–	–
22-Jul[a]	–	–	–	–	–	–	–
23-Jul[a]	–	–	–	–	–	–	–
24-Jul[a]	–	–	–	–	–	–	–
25-Jul[a]	–	–	–	–	–	–	–
Total	0	0	0	0	0	0	0

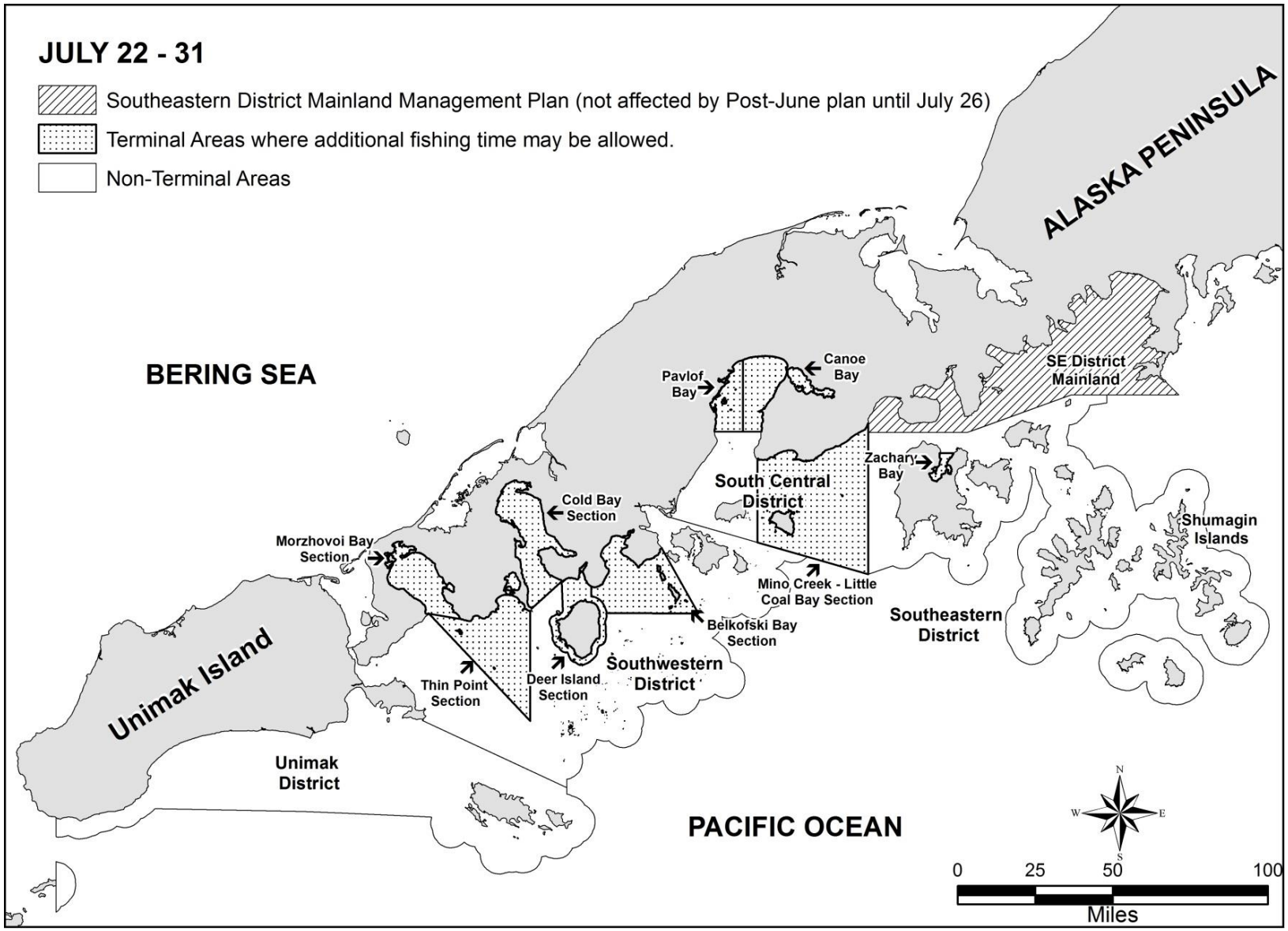
[a] Fishery closed.

APPENDIX D. SOUTH ALASKA PENINSULA POST-JUNE FISHERIES

Appendix D1.–Map of the South Peninsula post-June fishery with terminal areas defined during July 6–21.



Appendix D2.–Map of the South Peninsula post-June fishery with terminal areas defined during July 22–31.



Before 1974, post-June South Alaska Peninsula fisheries were generally open 5 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. Before 1992, South Alaska Peninsula waters east of the Cape Lutke Section (Appendix A6) were opened to commercial salmon fishing on about July 6, except in the SEDM fishery. Prior to July 26, SEDM was 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; the northern portion of Pavlof Bay; and Canoe Bay, Cold Bay, Thin Point, and Morzhovoi Bay Sections and closing the remainder of the South Alaska Peninsula formerly opened in July. The BOF decision was partially based on allowing the harvest of local pink and chum salmon stocks to be caught in terminal areas early in the season without sacrificing product quality and simultaneously allowing nonlocal salmon to pass through South Alaska Peninsula waters. After July 19, the BOF concluded that South Alaska Peninsula fishery participants 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 to July 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. 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 the 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.

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

1. For the period of July 6–21, the BOF increased nonterminal 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.
2. For the period of July 22–31, the BOF restricted continuous fishing in late July in nonterminal areas. Fishing periods in nonterminal 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 nonterminal areas during July 22–31. Additional fishing time could be permitted in designated terminal harvest areas if escapements warranted.

-continued-

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 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 the following changes to the *Post-June Salmon Management Plan for the South Alaska Peninsula*. The 60,000 coho salmon cap, enacted in 1998 for nonterminal areas during July 22–31, 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.

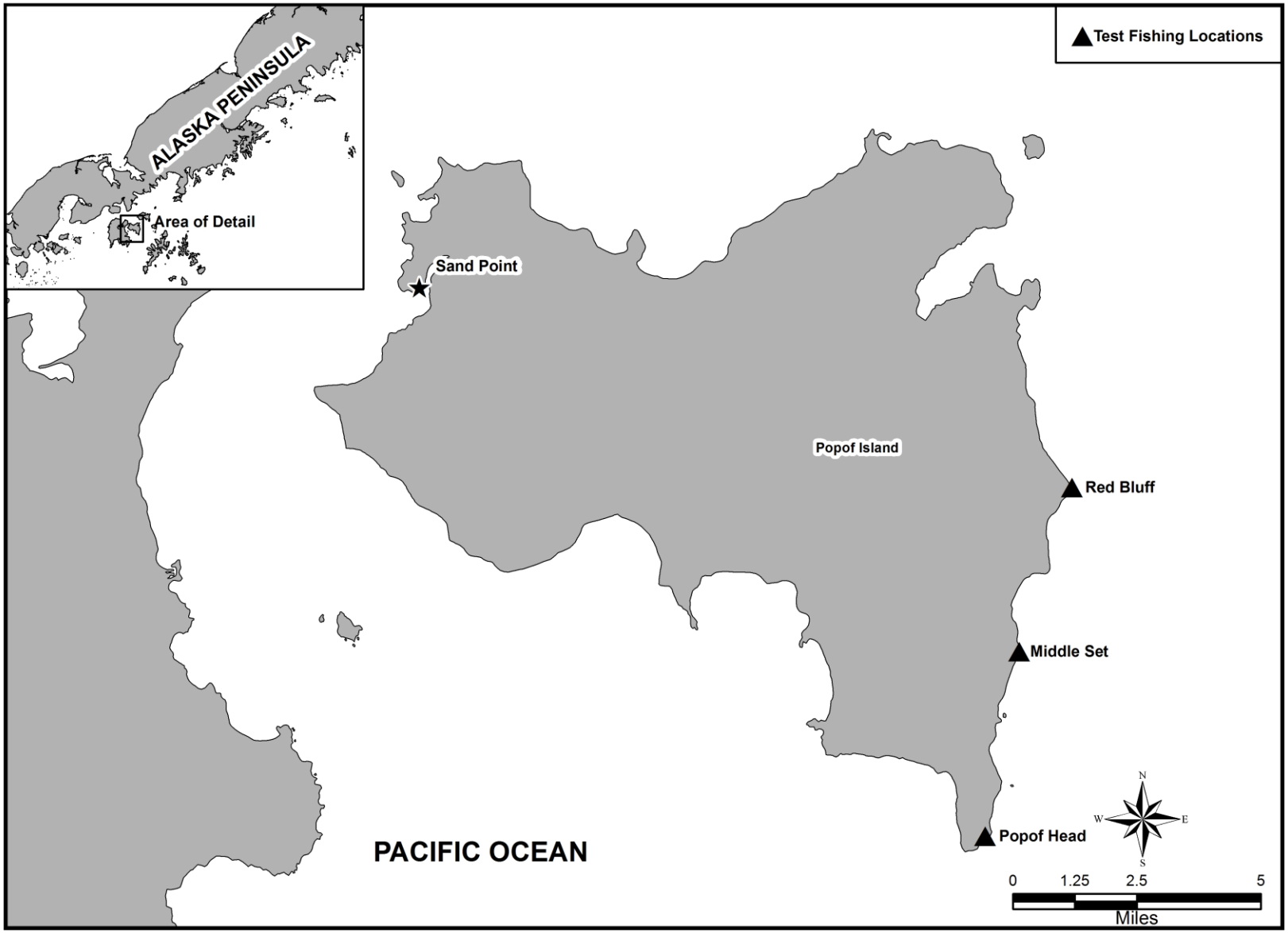
In 2007, the BOF did not make any changes to the *Post-June Salmon Management Plan for the South Alaska Peninsula*.

During the 2010 Board of Fisheries meeting, the BOF adopted the following 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 4½ inches in the Shumagin Islands after July 31, and in the SEDM after July 25.

During the 2013 meeting, the BOF made the following changes to the schedule of the *Post-June Salmon Management Plan for the South Alaska Peninsula*. The first fishing period would begin at 6:00 AM on July 6 for 33 hours, followed by a 63-hour closure. After the initial fishing period, there would be six 36-hour fishing periods that would begin at 6:00 AM and be interspersed by 60-hour closures. All other components of the *Post-June Salmon Management Plan for the South Alaska Peninsula* would remain unchanged.

During the February 2016 meeting, the BOF made further changes to the *Post-June Salmon Management Plan for the South Alaska Peninsula* by adopting regulations to limit the number of sockeye salmon harvested in the "Dolgoi Island Area" (statistical areas 283-15 through 283-26 and 284-36 through 284-42) described in the Western Alaska Salmon Stock Identification Program (WASSIP). From June 1 to July 25, a harvest limit of 191,000 sockeye salmon, based on fish ticket information, was created. Once this harvest limit is reached, the portion of the West Pavlof Bay Section south of Black Point (statistical area 283-26) and waters of the Volcano Bay Section (statistical areas 284-37 through 284-39) will be closed to commercial salmon fishing through July 25. However, the portion of West Pavlof Bay Section south of Black Point (statistical area 283-26) may reopen to commercial salmon fishing on July 17. All other statistical areas are managed in accordance with each prescribed management plan. In addition to the changes made in the "Dolgoi Islands Area", the BOF also repealed the minimum mesh size of a drift gillnet during the post-June fisheries. There is now no minimum mesh size in Area M for drift gillnet gear.

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



Appendix D5.–Summary of the Shumagin Islands July salmon test fishery, 2020.

		Number of immature salmon[b]							
Date	Number of sets[a]	Chinook	Avg/Set	Sockeye	Avg/Set	Chum	Avg/Set	Total	Avg/Set
2-Jul	6	11	1.8	51	8.5	62	10.3	124	20.7
3-Jul	6	19	3.2	47	7.8	39	6.5	105	17.5
5-Jul	6	19	3.2	33	5.5	21	3.5	74	12.3
Total	18	49	2.7	131	7.3	122	6.8	254	14.1

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

[b] Less than 1 of coho salmon was observed in any set.

Appendix D6.–South Alaska Peninsula post-June commercial salmon harvest, all gear combined, by species and by day, July 6–21, 2020 (not including test fishery).

	Number of salmon[a]					
Date	Chinook	Sockeye	Coho	Pink	Chum	Total
6-Jul	569	17,431	3,885	17,003	18,059	56,947
7-Jul	30	8,595	847	5,652	5,836	20,960
8-Jul[b]	–	–	–	–	–	–
9-Jul[b]	–	–	–	–	–	–
10-Jul	1,303	47,781	4,306	48,097	31,335	132,822
11-Jul	54	17,109	1,643	6,901	34,725	60,432
12-Jul[b]	–	–	–	–	–	–
13-Jul[b]	–	–	–	–	–	–
14-Jul	5,117	62,771	12,985	72,354	107,304	260,531
15-Jul	31	27,192	1,508	8,053	24,263	61,047
16-Jul[b]	–	–	–	–	–	–
17-Jul[b]	–	–	–	–	–	–
18-Jul	7,677	106,743	14,278	135,064	49,147	312,909
19-Jul	66	29,532	1,358	6,123	17,926	55,005
20-Jul[b]	–	–	–	–	–	–
21-Jul[b]	–	–	–	–	–	–
Nonterminal total	14,847	317,154	40,810	299,247	288,595	960,653
6-Jul	0	0	0	0	0	0
7-Jul	0	0	0	0	0	0
8-Jul[b]	–	–	–	–	–	–
9-Jul[b]	–	–	–	–	–	–
10-Jul	0	0	0	0	0	0
11-Jul[c]	–	–	–	–	–	–
12-Jul[b]	–	–	–	–	–	–
13-Jul[b]	–	–	–	–	–	–
14-Jul[c]	–	–	–	–	–	–
15-Jul[c]	–	–	–	–	–	–
16-Jul[b]	–	–	–	–	–	–
17-Jul[b]	–	–	–	–	–	–
18-Jul[c]	–	–	–	–	–	–
19-Jul[c]	–	–	–	–	–	–
20-Jul[b]	–	–	–	–	–	–
21-Jul[b]	–	–	–	–	–	–
Terminal total[d]	0	6,927	57	838	230	8,052
Total harvest Jul 6–21[d]	14,847	324,081	40,867	300,085	288,825	968,705

[a] Does not include test fishery harvests.

[b] Fishery closed.

[c] Confidential information.

[d] Includes confidential harvest.

Appendix D7.–South Alaska Peninsula post-June commercial salmon harvest, all gear combined, by species and by day, July 22–31, 2020.

	Number of salmon[a]					
Date	Chinook	Sockeye	Coho	Pink	Chum	Total
Nonterminal areas (including SEDM after July 25), All gear combined, by day						
22-Jul	1,257	53,858	8,066	199,862	40,555	303,598
23-Jul	98	12,590	806	17,221	1,379	32,094
24-Jul[b]	–	–	–	–	–	–
25-Ju[b]	–	–	–	–	–	–
26-Jul	1,031	44,421	10,793	368,270	25,917	450,432
27-Jul	0	13,764	954	56,645	1,354	72,717
28-Jul[b]	–	–	–	–	–	–
29-Jul[b]	–	–	–	–	–	–
30-Jul	1,008	71,422	14,827	548,541	20,356	656,154
31-Jul	28	14,960	2,509	58,633	1,898	78,028
Nonterminal total	3,422	211,015	37,955	1,249,172	91,459	1,593,023
22-Jul	0	1786	6	2227	180	4,199
23-Jul	22	4,157	23	3,772	281	8,255
24-Jul[b]	–	–	–	–	–	–
25-Jul[b]	–	–	–	–	–	–
26-Jul	3	6,652	97	13,747	685	21,184
27-Jul	0	4546	189	15773	10338	30,846
28-Jul[b]	–	–	–	–	–	–
29-Jul[b]	–	–	–	–	–	–
30-Jul	3	7,226	402	36,145	453	44,229
31-Jul	4	2,555	142	13,775	274	16,750
Terminal total	32	26,922	859	85,439	12,211	125,463
Total harvest Jul 22–Jul 31	3,454	237,937	38,814	1,334,611	103,670	1,718,486

[a] Does not include test fishery harvests.

[b] Fishery closed.

Appendix D8.–South Alaska Peninsula post-June commercial salmon harvest (including SEDM), all gear combined, by species and by day, August 1–31, 2020.

	Number of salmon[a]					
Date	Chinook	Sockeye	Coho	Pink	Chum	Total
1-Aug[b]	–	–	–	–	–	–
2-Aug[b]	–	–	–	–	–	–
3-Aug[b]	–	–	–	–	–	–
4-Aug[b]	–	–	–	–	–	–
5-Aug[b]	–	–	–	–	–	–
6-Aug[b]	–	–	–	–	–	–
7-Aug[b]	–	–	–	–	–	–
8-Aug[b]	–	–	–	–	–	–
9-Aug[b]	–	–	–	–	–	–
10-Aug[b]	–	–	–	–	–	–
11-Aug	160	60,425	21,879	501,503	8,068	592,035
12-Aug	9	18,267	5,769	208,664	2,715	235,424
13-Aug[b]	–	–	–	–	–	–
14-Aug[b]	–	–	–	–	–	–
15-Aug[b]	–	–	–	–	–	–
16-Aug[b]	–	–	–	–	–	–
17-Aug	50	27,140	16,264	283,135	7,109	333,698
18-Aug	6	7,915	3,624	93,122	1,888	106,555
19-Aug[b]	–	–	–	–	–	–
20-Aug[b]	–	–	–	–	–	–
21-Aug	8	11,156	10,307	178,900	1,481	201,852
22-Aug	29	8,279	7,137	84,405	3,979	103,829
23-Aug	18	11,804	8,277	73,752	1,617	95,468
24-Aug	27	3,776	5,938	92,884	569	103,194
25-Aug	49	9,620	9,813	50,147	2,293	71,922
26-Aug	25	3,661	4,049	79,857	324	87,916
27-Aug	25	3,693	5,722	12,985	612	23,037
28-Aug	0	574	300	317	25	1,216
29-Aug[b]	–	–	–	–	–	–
30-Aug[b]	–	–	–	–	–	–
31-Aug[b]	–	–	–	–	–	–
Total	406	166,310	99,079	1,659,671	30,680	1,956,146

[a] Does not include test fish harvests.

[b] Fishery closed.

Appendix D9.–South Alaska Peninsula fall fishery (September 1–October 31) commercial salmon harvest, by species and year, 1979–2020.

			Number of salmon[a,b]					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	164	4	9,301	14,876	38,195	84,834	147,210
2010	13	50	5	4,367	2,111	0	149	6,632
2011	16	60	3	5,511	6,192	1,374	25,141	38,221
2012	-	-	-	-	-	-	-	-
2013	22	78	8	10,114	5,043	821	1,668	17,654
2014	31	245	5	32,000	26,070	19	425	58,519
2015	16	107	0	13,554	3,036	944,181	29,238	990,009
2016	24	69	2	13,272	6,712	153	7,656	27,795
2017	26	78	13	8,458	24,939	722,816	21,579	777,805
2018	23	53	1	2,415	3,133	1,994	25,106	32,649
2019	31	61	5	3,812	25,357	258,378	1,459	289,011
2020	10	12	61	1,055	4,041	1,599	101	6,857
Average 2010–2019[c]	22	89	5	10,389	11,399	214,415	12,491	248,699

[a] Does not include test fishery harvests.

[b] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited fishing periods in October.

[c] Average does not include years where no commercial fishing opportunity was provided (2012).

Appendix D10.–South Alaska Peninsula post-June (July 1–October 31) commercial salmon harvest, (excluding Southeastern District Mainland harvest, July 1–25) all gear combined, by species and year, 1979–2020.

			Number of salmon[a,b]					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	234	3,919	4,096	767,735	418,065	9,111,099	867,944	11,168,939
1993	221	3,089	3,768	499,624	214,667	9,768,653	505,720	10,992,432
1994	214	3,309	1,741	409,303	253,285	6,648,561	1,593,751	8,906,641
1995	207	3,823	2,128	734,744	255,908	16,079,640	1,158,417	18,230,837
1996	178	1,962	2,075	216,234	276,193	1,744,707	381,522	2,620,731
1997	165	1,355	1,204	310,481	109,950	1,681,374	277,559	2,380,568
1998	210	3,971	1,793	763,810	150,693	7,442,498	456,456	8,815,250
1999	185	4,211	1,612	1,368,315	191,603	8,382,239	567,950	10,511,719
2000	180	2,897	2,088	532,467	249,973	3,135,286	790,817	4,710,631
2001	175	2,436	2,098	356,841	212,936	3,939,910	834,453	5,346,238
2002	112	1,556	3,411	290,606	197,323	1,950,760	421,461	2,863,561
2003	102	1,673	1,079	377,805	128,620	3,910,916	342,595	4,761,015
2004	103	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	2,392	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	134	2,653	1,380	493,966	224,976	10,704,645	385,333	11,810,300
2009	124	2,228	1,891	404,346	246,350	5,591,664	968,314	7,212,565
2010	139	1,165	3,848	287,491	161,698	486,748	444,245	1,384,030
2011	167	1,823	3,348	334,883	151,009	4,221,915	502,924	5,214,079
2012	181	1,113	1,197	253,841	90,619	186,045	195,880	727,582
2013	198	2,685	3,767	436,059	275,885	7,162,950	510,111	8,388,772
2014	156	1,811	4,990	767,167	294,341	540,949	111,788	1,719,235
2015	155	3,115	6,457	1,858,238	237,646	16,032,286	484,644	18,619,271
2016	118	1,127	6,804	808,806	176,838	339,864	139,519	1,471,831
2017	139	3,192	4,672	1,166,129	348,154	20,099,320	1,302,507	22,920,782
2018	135	1,280	12,867	507,454	259,341	416,590	458,947	1,655,199
2019	171	3,094	12,506	993,588	517,067	11,476,012	617,470	13,616,643
2020	153	1,588	18,768	729,383	182,801	3,295,966	423,276	4,650,194
Average 2010–2019	156	2,041	6,046	741,366	251,260	6,096,268	476,804	7,571,742

[a] Does not include test fishery harvests.

[b] Harvest from 1987–1990, 1992, 1993, 1995, and 2002–2003 include catch from limited fishing periods in October.

Appendix D11.–South Alaska Peninsula post-June (July 1–October 31) commercial salmon harvest, (including Southeastern District Mainland harvest) all gear combined, by species and year, 1979–2020.

			Number of salmon[a,b]					
Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
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	234	4,329	4,133	872,847	418,189	9,126,950	884,505	11,306,624
1993	222	3,686	4,545	641,103	218,871	9,846,906	514,405	11,225,830
1994	214	3,745	1,825	542,322	254,298	6,657,000	1,596,247	9,051,692
1995	208	4,227	2,197	827,772	258,131	16,132,189	1,175,556	18,395,845
1996	180	2,821	2,285	392,551	280,033	1,816,358	413,525	2,904,752
1997	168	2,550	1,350	615,228	111,334	1,697,989	283,929	2,709,830
1998	210	4,336	2,100	880,941	153,652	7,567,528	466,385	9,070,606
1999	186	4,357	1,651	1,415,509	192,498	8,425,091	572,609	10,607,358
2000	180	3,805	2,183	656,086	256,940	3,192,461	816,096	4,923,766
2001	178	3,006	2,275	461,136	214,250	3,982,130	884,593	5,544,384
2002	116	2,321	3,724	407,582	202,712	2,093,251	437,533	3,144,802
2003	106	2,492	1,289	553,301	130,852	4,039,946	353,704	5,079,092
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	2,968	2,011	556,111	248,349	5,651,463	983,944	7,441,878
2010	142	1,886	4,712	417,791	164,610	501,342	515,260	1,603,715
2011	175	2,589	3,595	452,133	153,291	4,268,929	541,785	5,419,733
2012	193	1,847	1,247	409,338	91,906	228,531	226,252	957,274
2013	206	3,670	4,372	572,909	293,524	7,489,200	549,535	8,909,540
2014	156	1,811	4,990	767,167	294,341	540,949	111,788	1,719,235
2015	158	3,458	6,688	2,091,856	245,459	16,110,498	496,888	18,951,389
2016	123	1,813	7,305	1,102,997	183,388	360,487	153,044	1,807,221
2017	141	3,311	4,677	1,205,385	348,308	20,103,322	1,305,981	22,967,673
2018	135	1,280	12,867	507,454	259,341	416,590	458,947	1,655,199
2019	171	3,094	12,506	993,588	517,067	11,476,012	617,470	13,616,643
2020	153	1,577	18,768	729,383	182,801	3,295,966	423,276	4,650,194
Average 2010–2019	160	2,476	6,296	852,062	255,124	6,149,586	497,695	7,760,762

[a] Does not include test fishery harvests.

[b] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

Appendix D12.–South Alaska Peninsula post-June (July 1–October 31) commercial Chinook salmon harvest (including Southeastern District Mainland harvest) by gear and year, 1979–2020.

	Purse seine		Drift gillnet		Set gillnet		
Year[a]	Number[b]	Percent	Number[b]	Percent	Number[b]	Percent	Total
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	1,839	86.6	28	1.3	257	12.1	2,124
1997	1,161	86.0	18	1.3	171	12.7	1,350
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
2011	3,158	87.8	123	3.4	314	8.7	3,595
2012	1,002	80.4	206	16.5	39	3.1	1,247
2013	3,665	83.8	343	7.8	364	8.3	4,372
2014	4,924	98.7	34	0.7	32	0.6	4,990
2015	6,541	97.8	26	0.4	121	1.8	6,688
2016	7,024	96.2	4	0.1	277	3.8	7,305
2017	4,620	98.8	0	0.0	57	1.2	4,677
2018	12,626	98.1	3	0.0	238	1.8	12,867
2019	12,479	99.8	1	0.0	26	0.2	12,506
2020	18,709	99.7	8	0.0	51	0.3	18,768
Average 2010–2019	6,061	93.8	77	3.0	158	3.2	6,296

[a] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

[b] Does not include test fishery harvest.

Appendix D13.–South Alaska Peninsula post-June (July 1–October 31) commercial sockeye salmon harvest (including Southeastern District Mainland harvest) by gear and year, 1979–2020.

	Purse seine		Drift gillnet		Set gillnet		
Year[a]	Number[b]	Percent	Number[b]	Percent	Number[b]	Percent	Total
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	382,491	43.9	870,627
1993	288,648	45.1	23,421	3.7	327,273	51.2	639,342
1994	147,337	27.2	18,134	3.4	375,637	69.4	541,108
1995	368,688	44.8	21,505	2.6	433,594	52.6	823,787
1996	80,819	20.7	5,776	1.5	304,043	77.8	390,638
1997	123,940	20.1	24,278	3.9	467,010	75.9	615,228
1998	381,734	43.4	35,569	4.0	462,960	52.6	880,263
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	273,358	67.1	407,582
2003	162,365	29.3	16,093	2.9	374,843	67.7	553,301
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	44.7	7,800	1.4	299,672	53.9	556,111
2010	175,804	42.1	13,877	3.3	228,110	54.6	417,791
2011	210,003	46.4	23,941	5.3	218,189	48.3	452,133
2012	168,419	41.1	56,039	13.7	184,880	45.2	409,338
2013	297,320	51.9	51,316	9.0	224,273	39.1	572,909
2014	415,107	54.1	60,662	7.9	291,398	38.0	767,167
2015	1,234,053	59.0	56,789	2.7	801,014	38.3	2,091,856
2016	562,059	51.0	7,067	0.6	533,871	48.4	1,102,997
2017	725,108	60.2	44,017	3.7	436,260	36.2	1,205,385
2018	338,982	66.8	17,223	3.4	151,249	29.8	507,454
2019	657,582	66.2	12,991	1.3	323,015	32.5	993,588
2020	513,536	70.4	18,658	2.6	197,189	27.0	729,383
Average 2010–2019	478,444	53.9	34,392	5.1	339,226	41.0	852,062

[a] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

[b] Does not include test fishery harvest.

Appendix D14.–South Alaska Peninsula post-June (July 1–October 31) commercial coho salmon harvest (including Southeastern District Mainland harvest) by gear and year, 1979–2020.

	Purse seine		Drift gillnet		Set gillnet		
Year[a]	Number[b]	Percent	Number[b]	Percent	Number[b]	Percent	Total
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	62,184	15.0	414,905
1993	148,565	69.4	26,364	12.3	39,050	18.2	213,979
1994	161,903	64.7	24,980	10.0	63,196	25.3	250,079
1995	185,974	73.1	26,020	10.2	42,477	16.7	254,471
1996	197,800	74.0	22,561	8.4	47,017	17.6	267,378
1997	47,254	42.4	19,855	17.8	44,225	39.7	111,334
1998	83,205	54.2	30,219	19.7	40,204	26.2	153,628
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	57.3	11,253	8.6	44,652	34.1	130,852
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	85.9	10,549	4.2	24,519	9.9	248,349
2010	143,675	87.3	10,552	6.4	10,383	6.3	164,610
2011	110,317	72.0	20,241	13.2	22,733	14.8	153,291
2012	52,121	56.7	36,106	39.3	3,679	4.0	91,906
2013	158,785	54.1	108,273	36.9	26,466	9.0	293,524
2014	195,597	66.5	59,795	20.3	38,949	13.2	294,341
2015	196,071	80.0	17,492	7.1	31,673	12.9	245,236
2016	171,562	93.6	3,100	1.7	8,726	4.8	183,388
2017	300,221	86.2	17,754	5.1	30,333	8.7	348,308
2018	244,062	94.1	4,311	1.7	10,968	4.2	259,341
2019	461,838	89.3	19,123	3.7	36,106	7.0	517,067
2020	159,082	87.0	7,501	4.1	16,218	8.9	182,801
Average 2010–2019	203,425	78.0	29,675	13.5	22,002	8.5	255,101

[a] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

[b] Does not include test fishery harvest.

Appendix D15.–South Alaska Peninsula post-June (July 1–October 31) commercial pink salmon harvest (including Southeastern District Mainland harvest) by gear and year, 1979–2020.

	Purse seine		Drift gillnet		Set gillnet		
Year[a]	Number[b]	Percent	Number[b]	Percent	Number[b]	Percent	Total
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	1,523,636	84.1	17,593	1.0	269,395	14.9	1,810,624
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	253,034	4.5	5,651,463
2010	443,498	88.5	4,823	1.0	53,021	10.6	501,342
2011	4,013,553	94.0	33,045	0.8	222,331	5.2	4,268,929
2012	187,337	82.0	13,546	5.9	27,648	12.1	228,531
2013	7,192,644	96.0	81,475	1.1	215,081	2.9	7,489,200
2014	439,352	81.2	38,880	7.2	62,717	11.6	540,949
2015	15,553,122	96.5	231,350	1.4	326,026	2.0	16,110,498
2016	314,855	87.3	2,464	0.7	43,168	12.0	360,487
2017	19,548,931	97.2	146,310	0.7	408,081	2.0	20,103,322
2018	348,251	83.6	11,836	2.8	56,503	13.6	416,590
2019	11,208,383	97.7	93,458	0.8	174,171	1.5	11,476,012
2020	3,144,681	95.4	28,624	0.9	122,661	3.7	3,295,966
Average 2010–2019	5,924,993	90.4	65,719	2.2	158,875	7.3	6,149,586

[a] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

[b] Does not include test fishery harvest.

Appendix D16.–South Alaska Peninsula post-June (July 1–October 31) commercial chum salmon harvest (including Southeastern District Mainland harvest) by gear and year, 1979–2020.

	Purse seine		Drift gillnet		Set gillnet		
Year[a]	Number[b]	Percent	Number[b]	Percent	Number[b]	Percent	Total
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	47,503	9.2	513,578
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	315,357	76.6	14,306	3.5	81,918	19.9	411,581
1997	239,619	84.4	13,278	4.7	31,032	10.9	283,929
1998	333,693	71.6	35,723	7.7	96,486	20.7	465,902
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	113,245	11.5	983,944
2010	418,693	81.3	19,051	3.7	77,516	15.0	515,260
2011	416,883	76.9	44,251	8.2	80,651	14.9	541,785
2012	162,178	71.7	37,558	16.6	26,516	11.7	226,252
2013	405,997	73.9	84,073	15.3	59,465	10.8	549,535
2014	78,642	70.3	15,790	14.1	17,356	15.5	111,788
2015	394,706	79.4	29,117	5.9	73,065	14.7	496,888
2016	118,596	77.5	950	0.6	33,498	21.9	153,044
2017	1,052,065	80.6	27,864	2.1	226,052	17.3	1,305,981
2018	404,465	88.1	7,081	1.5	47,401	10.3	458,947
2019	527,101	85.4	23,871	3.9	66,498	10.8	617,470
2020	406,985	96.2	3,778	0.9	12,513	3.0	423,276
Average 2010–2019	397,933	78.5	28,961	7.2	70,802	14.3	497,695

[a] Harvest from 1987–1990, 1992, 1993, 1995–1998, and 2002–2003 include catch from limited openings in October.

[b] Does not include test fishery harvest.

APPENDIX E. SALMON ESCAPEMENT DATA

Appendix E1.–Method for calculating indexed total escapement.

Aerial surveys have inherently high variability and are influenced by many factors including inclement weather, lighting, timing of peak surveys, and inconsistency between surveyors. Surveys are conducted 3–5 times per stream in any given season. Multiple surveys over the course of the salmon return allows ADF&G staff to identify peak abundance and relative run timing.

Pink and Chum salmon

These species of salmon have a relatively short stream life when compared to other Pacific salmon species. To account for new fish entering the system and postspawn fish flushing out of the system between surveys, a 21-day stream life is used to calculate the indexed total escapement. If there are any stream counts 21 or more 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 or more 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	**1,000**	**5,000**	0	0	0
17-Jul	15,000	25,000	5,000	0	0	0
1-Aug	10,000	**150,000**	10,000	0	0	0
15-Aug	3,000	100,000	25,000	500	1,000	0
1-Sep	**12,000**	**50,000**	55,000	**2,000**	**5,000**	**500**
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 3 weeks after adult pinks and chums 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 probably a much smaller factor than variation between observers.

Chinook, Sockeye, and Coho salmon

These species of salmon generally have a much longer stream life than pink and chum salmon. Therefore, the indexed total escapement is the peak escapement count of live fish and carcasses. The peak escapement count is the highest single survey estimate on a single system for an individual species. However, it is recognized that there are problems with this method in large and complex systems. The issues that arise while surveying these systems are the duration, expense, fuel capacity, and variable environmental conditions within the system that restrict the ability to conduct a thorough and consistent set of surveys.

Appendix E2.–South Peninsula total indexed salmon escapements by species and year, 1981–2020.

	Number of Salmon				
Year	Sockeye	Coho[a]	Pink	Chum	Total
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[b]	1,598,400	354,700	2,048,400
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
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
2011	59,794	–	2,494,950	497,725	3,052,469
2012	56,300	–	478,910	205,242	740,452
2013	37,386	–	2,320,790	502,600	2,860,776
2014	37,670	–	1,340,380	313,615	1,691,665
2015	96,110	–	7,820,800	906,420	8,823,330
2016	120,170	–	1,038,160	626,776	1,785,106
2017	113,042	–	5,663,637	1,773,626	7,550,305
2018	15,617	–	732,422	344,843	1,092,882
2019	31,667	–	4,236,700	672,475	4,940,842
2020	34,169	–	3,209,750	415,750	3,659,489
Average 2010–2019	60,580	–	2,686,966	613,523	3,361,069

[a] Coho salmon surveys are conducted for presence/absence information only during pink and chum surveys. Surveys are not flown during peak coho salmon abundance.

[b] In 1990, excellent survey conditions and additional funding allowed coho salmon surveys during mid- and late September. These coho salmon numbers are not included in the total escapement.

Appendix E3.–South Peninsula total indexed salmon escapements by species, district, section, and stream, 2020.

Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
SOUTHEASTERN DISTRICT					
East Stepovak Section					
281-35.07	Near Bluff	0	–	0	0
281-35.06	Boulder Bay	0	–	1,200	0
281-35.05	Fox Bay	0	–	2,300	100
281-35.04	Fox Bay	0	–	5,000	0
281-35.02	Fox Bay	0	–	6,600	50
281-35.01	Fox Bay	_ [b]	_ [b]	_ [b]	_ [b]
281-34.08	Island Bay	0	–	200	0
281-34.07	Island Bay	0	–	0	0
281-34.05 & .06	Island Bay	0	–	5,000	200
281-34.04	Island Bay	0	–	1,900	0
281-34.03	Stonehouse Creek	0	–	1,200	200
281-34.02	Osterback's Creek	0	–	4,000	200
	Total East Stepovak Section	0	0	27,400	750
Stepovak Flats Section					
281-34.01	Granville's	0	–	9,200	2,500
281-33.06	Granville Portage	0	–	0	0
281-33.05	Stepovak River	0	–	100	900
281-33.04	Big River	0	–	300	2,100
281-33.03	Louis' Corner	0	–	1,500	2,900
281-33.01 & .02	Ramsey Bay	0	–	0	800
	Total Stepovak Flats Section	0	0	11,100	9,200
Northwest Stepovak Section					
281-32.07	Grub Gulch	0	–	41,700	12,400
281-32.06	Clark Bay	0	–	500	0
281-32.05	Clark Bay	0	–	1,300	400
281-31.04	Little Norway	300	–	3,600	1,200
281-31.03	Orzinski	6,819	–	6,900	0
281-20.04	Windbound Bay	0	–	1,700	1,000
281-20.02 & .03	Chichagof Lagoon	200	–	13,600	2,100
281-20.01	Chichagof	0	–	6,900	1,200
281-10.04	West Cove	0	–	1,300	100
281-10.03	Suzy Creek	0	–	142,000	9,000
281-10.02	Dorenoi, Minor	0	–	3,000	1,400
281-10.01	Dorenoi, Major	0	–	52,100	10,100
	Total Northwest Stepovak Section	7,319	0	274,600	38,900

-continued-

Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
Southwest Stepovak Section					
281-90.03 & .04	San Diego	0	–	5,000	3,500
281-90.02	Rough Beach	0	–	87,600	8,000
281-90.01	Swedania Point	0	–	87,400	1,000
	Total Southwest Stepovak Section	0	0	180,000	12,500
Balboa Bay Section					
281-80.17	Lefty Creek	_[b]	_[b]	_[b]	_[b]
281-80.16	Near Ballast Island	_[b]	_[b]	_[b]	_[b]
281-80.15	Coleman Creek	0	–	9,500	16,500
281-80.14	Johnson Creek	0	–	900	4,600
281-80.12	Foster's Camp	0	–	200	1,500
281-80.11	Monolith Point Creek	0	–	2,100	0
281-80.09	Foster Creek	0	–	39,500	14,700
281-80.08	Lefthand River	2,000	–	14,000	10,800
281-80.06	Cape Aliaksin, East	0	–	23,400	800
281-80.05	Cape Aliaksin, Center	0	–	3,700	1,200
281-80.04	Cape Aliaksin, West	0	–	9,000	1,000
	Total Balboa Bay Section	2,000	0	102,300	51,100
Beaver Bay Section					
281-70.03	McGinty Point Creek	0	–	21,600	1,500
281-70.06	Kagayan Flats	0	–	300	0
281-70.05	Beaver River	1,500	–	49,800	9,000
281-70.04	Not Smilies	0	–	2,100	0
	Total Beaver Bay Section	1,500	0	73,800	10,500

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Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
Shumagin Islands Section					
282-11.06	Korvin Lake	0	–	0	0
282-11.05	West Korovin	0	–	200	0
282-11.03	Foxhole	0	–	4,000	0
282-11.01	Salmon Ranch	0	–	0	0
282-10.18	Humbolt Creek	_ [b]	_ [b]	_ [b]	_ [b]
282-10.19	Simeon's Bight	0	–	3,000	0
282-10.20	Red Cove Lake	300	–	0	0
282-12.10	Zachary Bay	0	–	700	3,500
282-12.09	Zachary Bay	0	–	100	0
282-12.08	Zachary Bay	0	–	2,000	0
282-12.07 & .06	Zachary Bay	0	–	500	0
282-12.05 & .04	Zachary Bay	0	–	7,000	7,000
282-12.03	Zachary Bay	0	–	1,000	0
282-12.02	Zachary Bay	0	–	1,300	0
282-12.01	Zachary Bay	0	–	5,000	1,000
282-13.01	Unga Spit	0	–	0	0
282-13.02	Dry Lagoon	0	–	35,100	9,300
282-13.03	Bay Point	0	–	110,200	3,000
282-13.04	Pinnacle Point	0	–	3,700	0
282-13.05	2nd Stream S. of Pinn Point	0	–	0	0
282-13.06	3rd Stream S. of Pinn Point	0	–	0	0
282-10.02	Little Apollo	0	–	1,600	0
282-10.03	Big Apollo	0	–	43,300	0
282-10.04	Acheredin	2,100	–	500	0
282-10.12	Unga Cape	0	–	0	0
282-10.10	Delarof Harbor	0	–	1,800	0
282-10.11	Apollo Gold Mine Creek	0	–	20,500	0
282-10.13	John Nelson	0	–	0	0
282-10.14	Squaw Harbor, Minor	0	–	4,300	0
282-10.15	Squaw Harbor, Major	0	–	46,300	4,700
282-10.16	Farm	0	–	27,400	0
282-10.17	NE Unga Island	0	–	0	0
282-20.01	Porpoise Rocks	0	–	0	0
282-20.02	Porpoise Harbor	_ [b]	_ [b]	_ [b]	_ [b]
282-20.03	Sanborn Lagoon-Lake	0	–	0	0
282-20.04	Sanborn Harbor	0	–	0	0
282-20.05	Falmouth Harbor	0	–	0	0
282-20.06	Falmouth Harbor	0	–	0	0
282-20.08	East Bight	0	–	0	0
282-20.09	West Bight	_ [b]	_ [b]	_ [b]	_ [b]
	Total Shumagin Islands Section	2,400	0	319,500	28,500
SOUTHEASTERN DISTRICT TOTAL		13,219	0	988,700	151,450

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Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
SOUTH CENTRAL DISTRICT					
Mino Creek-Little Coal Bay Section					
283-70.02	East of Mino Creek	0	–	76,600	2,100
283-70.01	Mino's Creek	1,500	–	237,600	12,700
283-62.06	Wosnesenski Lake	0	–	0	0
283-62.05	Coal Bay, Main	0	–	115,900	14,600
283-62.04	Coal Bay, #2	0	–	9,000	200
283-62.03	Coal Bay, #3	0	–	500	0
283-62.02	Coal Bay, #4	0	–	400	0
283-62.01	Cape Tolstoi Creek	0	–	500	0
	Total Mino Creek-Little Coal Bay Section	1,500	0	440,500	29,600
East Pavlof Bay Section					
283-63.16	Settlement Point Creek	0	–	328,300	6,700
283-63.15	Middle Creek	0	–	46,000	400
	Total East Pavlof Bay Section	0	0	374,300	7,100
Canoe Bay Section					
283-64.10	Ness Creek	0	–	400	200
283-64.09	Inner Canoe Bay, South side	0	–	5,400	2,000
283-64.08	Entrance Creek	0	–	6,900	500
283-64.07	Wolverine Gulch	1,700	–	1,100	400
283-64.06	Canoe Bay River	0	–	20,400	57,900
283-64.05	Bluff Point Creek	50	–	2,500	8,000
	Total Canoe Bay Section	1,750	0	36,700	69,000
West Pavlof Bay Section					
283-63.14	Dry Lagoon	0	–	0	500
283-63.13	Ruby's Lagoon	0	–	600	5,400
283-63.11	Chinaman Lagoon, North	0	–	0	0
283-63.10	Chinaman Lagoon, Main	0	–	0	1,400
283-63.09	Chinaman Lagoon 6309	0	–	0	0
283-63.05 & .06	Chinaman Lagoon, South	0	–	300	800
283-63.04	Stream S. of Chinaman Lagoon	0	–	400	1,200
283-61.06-61.08	Ukolnoi	0	–	0	0
283-61.05	Long John Lagoon, East	0	–	2,500	300
283-61.04	Long John Lagoon, Spring Fed Lakes	1,000	–	1,000	2,100
283-61.03	Long John Lagoon, 2 South	0	–	2,500	39,700
283-61.02	Long John Lagoon, Southwest	0	–	7,500	4,900
	Total West Pavlof Bay Section	1,000	0	14,800	56,300
SOUTH CENTRAL DISTRICT TOTAL		4,250	0	866,300	162,000

-continued-

Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
SOUTHWESTERN DISTRICT					
Volcano Bay Section					
284-52.10	Dushkin Lagoon	0	–	100	0
284-52.08	Volcano River	0	–	13,900	22,600
284-52.07	Volcano Bay Center Sloughs	0	–	2,700	2,600
284-52.06	Volcano Bay West Spring Holes	0	–	700	1,000
284-52.05	Streamguard Creek	0	–	2,400	0
284-52.04	Stub Creek	0	–	1,300	0
284-52.03	Little Bear Bay	0	–	0	0
284-52.01	Nikolaski	0	–	6,000	0
284-52.00	Little Nikolaski	0	–	0	0
284-51.03	Dolgoi Harbor, North	0	–	600	0
284-51.04	Dolgoi Harbor, Northeast	0	–	0	0
284-51.05	Dolgoi Harbor, East	0	–	800	0
284-51.06	Dolgoi Harbor, South	0	–	0	0
	Total Volcano Bay Section	0	0	28,500	26,200
Belkofski Bay Section					
284-41.01	Belkofski Village Creek	0	–	38,900	100
284-42.12	Rocky River	0	–	14,700	0
284-42.10	Kitchen Anchorage	0	–	1,800	400
284-42.09	Captain's Harbor	0	–	0	300
284-42.07	Belkofski River	50	–	11,000	21,900
284-42.06	Belkofski Beach	0	–	400	100
284-42.05	Belkofski Bay, West	0	–	7,000	1,300
284-42.04	Belkofski Bay 4204	_ [b]	_	_ [b]	_ [b]
284-42.03	Indian Head Creek	0	–	10,900	0
284-33.05	Rams Creek	0	–	91,200	500
284-33.04	King Cove Lagoon, North	0	–	0	0
284-33.03	King Cove Lagoon, West	0	–	0	0
	Total Belkofski Bay Section	50	0	175,900	24,600
Deer Island Section					
284-31.01	Deer Island, North	0	–	0	0
284-31.02	Fox Island Anchorage Center	0	–	261,500	0
284-31.03	Fox Island Anchorage	0	–	216,000	0
284-31.05	Paw Cape	0	–	110,500	0
284-31.06	Southern Creek	0	–	269,700	0
284-31.010	Eastern Creek	0	–	108,600	0
	Total Deer Island Section	0	0	966,300	0

-continued-

Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
Cold Bay Section					
284-34.11	Outer Lenard Harbor	0	–	600	0
284-34.13		_ [b]	_ [b]	_ [b]	_ [b]
284-34.12		0	–	0	0
284-34.10	Delta Creek	100	–	1,700	4,000
284-34.09	Barney's Creek	0	–	6,600	1,100
284-34.07	Kinzarof Lagoon, East	1,100	–	0	0
284-34.06	Kinzarof Lagoon, Center	0	–	0	0
284-34.05	Kinzarof Lagoon, West	0	–	0	0
284-34.03	Trout Creek	_ [b]	_ [b]	_ [b]	_ [b]
284-34.02	Russel Creek	100	–	11,800	13,800
284-34.01	Mortensen Lagoon	800[c]	–	0	0
284-32.01	Old Man Lagoon	0	–	0	0
	Total Cold Bay Section	2,100	0	20,700	18,900
Thin Point Section					
284-20.06	Thin Point Lagoon	5,700	–	1,100	0
284-20.07	Thin Point Lagoon SW	0	–	0	0
284-20.08	Thin Point West	500	–	300	0
284-20.10	Thin Point Lake	1,900	–	–	–
284-20.09	Thin Point Stream	2,300	–	0	0
284-20.04	Southwest Bight	0	–	2,700	400
284-20.03	McGinty's Creek	0	–	3,800	1,700
284-20.01	Sandy Cove	50	–	6,600	19,000
	Total Thin Point Section	10,450	0	14,500	21,100
Morzhovoi Bay Section					
284-11.01	Near Egg Island	0	–	2,250	200
284-12.13	Little John Lagoon	100	–	2,200	5,900
284-12.12	Little John Sandpit	0	–	0	0
284-12.10	Little John Rock	_ [b]	_ [b]	_ [b]	_ [b]
284-12.11	Cannery Creek	0	–	0	0
284-12.05	Middle Lagoon	400	–	0	0
284-12.01	Hansen's Creek	2,300	–	6,400	200
	Total Morzhovoi Bay Section	2,800	0	10,850	6,300

-continued-

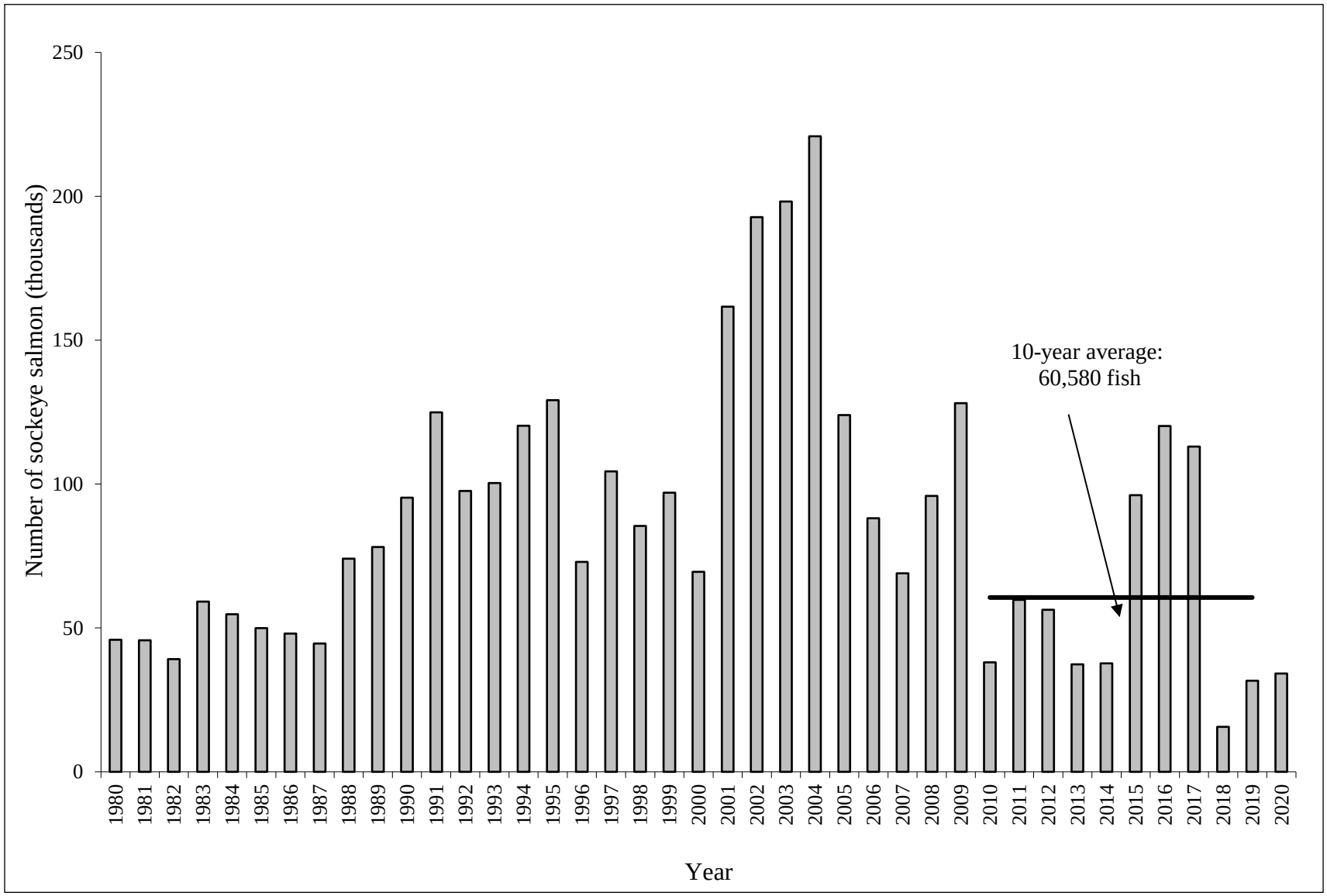
Stream number	Stream name	Number of salmon			
		Sockeye	Coho[a]	Pink	Chum
Ikatan Bay Section					
284-60.08	Deadman's Cove	100	–	30,400	200
284-60.07	Whalebone Bay	100	–	1,000	200
284-60.06	Sankin Bay	0	–	200	50
284-60.05	Whirl Point	0	–	10,700	500
284-60.04	Ikatan River	0	–	2,500	300
284-60.03	Swede's Lake	700	–	800	0
284-60.01	Ikatan Point	0	–	21,800	1,800
	Total Ikatan Bay Section	900	0	67,400	3,050
SOUTHWESTERN DISTRICT TOTAL		16,300	0	1,284,150	100,150
UNIMAK DISTRICT					
Cape Lutke Section					
285-30.11	Brown Peak Stream	0	–	6,900	0
285-30.07	Conocal Red Hill Stream	0	–	6,800	300
285-20.09		0	–	0	0
285-20.08	8 miles NE Cape Lutke	100	–	8,900	0
285-20.07	4 miles N Cape Lutke	200	–	600	0
	Total Cape Lutke Section	300	0	23,200	300
Otter Cove Section					
285-50.00 & .01	Dora Harbor	0	–	0	0
285-40.09	Otter Cove, East	0	–	22,500	400
285-40.08	Otter Cove, West	0	–	8,500	800
285-40.05	Lazaref River	0	–	1,000	100
	Total Otter Cove Section	0	0	32,000	1,300
Sanak Island Section					
285-10.02	Pauloff Harbor	0	–	0	0
285-10.03	Johnson Bay	0	–	0	0
285-10.04	Unimak Cove	0	–	0	0
285-10.10	Salmon Bay	0	–	7,400	400
285-10.09	Sandy Bay	0	–	0	0
285-10.05	Dodd's Bay, East	0	–	200	50
285-10.08	Washwoman Creek	100	–	2,600	0
285-10.07	West Sanak Island, Trinity	0	–	5,200	100
285-10.06	Near Sanak Village	0	–	0	0
	Total Sanak Island Section	100	0	15,400	550
UNIMAK DISTRICT TOTAL		400	0	70,600	2,150
SOUTH PENINSULA TOTAL		34,169	0	3,209,750	415,750

[a] Coho surveys are conducted for presence information only. Surveys are not flown for peak abundance estimates.

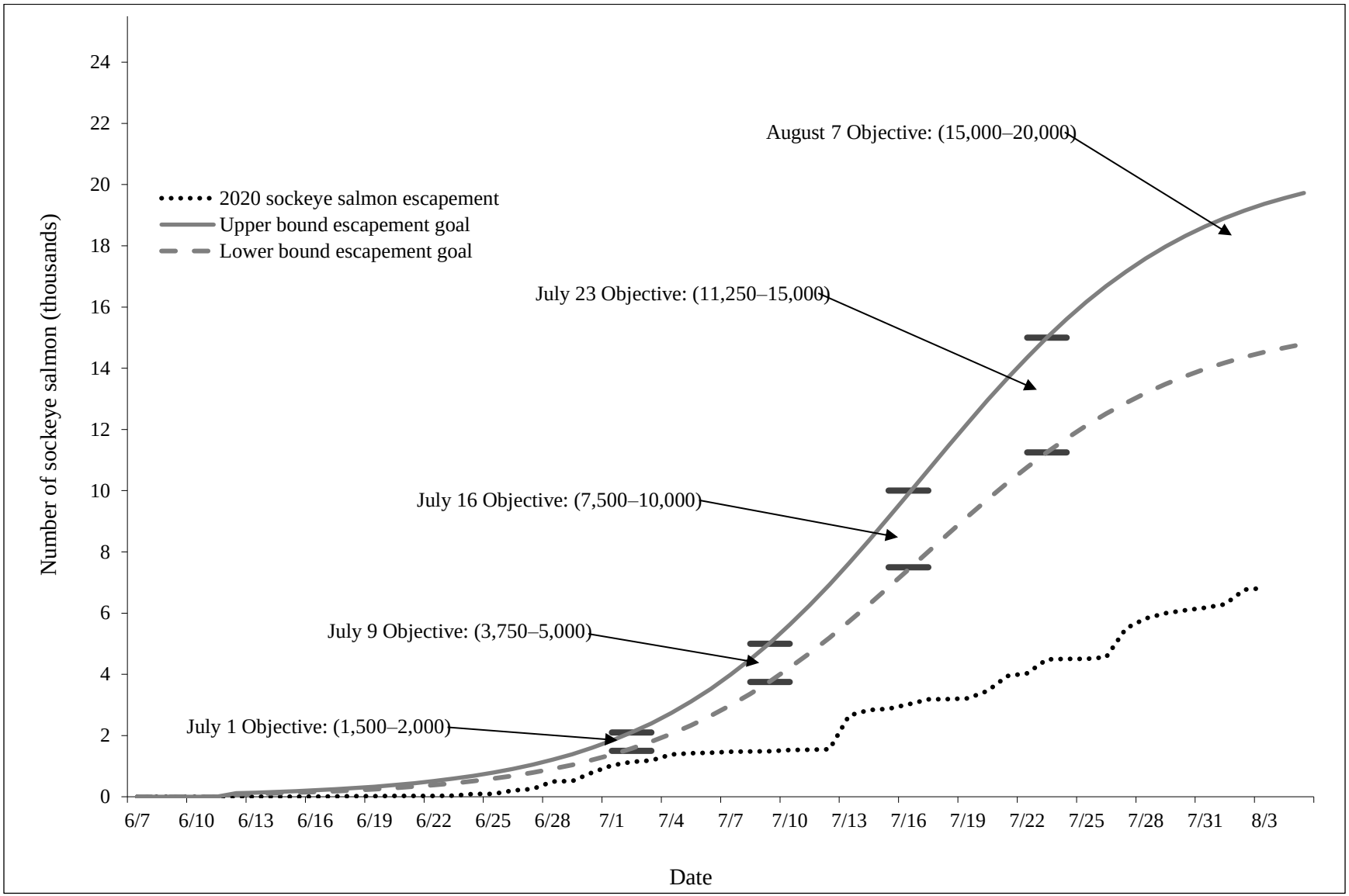
[b] Aerial survey not conducted on stream.

[c] Mortensen Lagoon estimate of sockeye salmon is an underestimate due to poor visibility.

Appendix E4.–South Alaska Peninsula total indexed sockeye salmon escapement by year, 1980–2020.



Appendix E5.–2020 sockeye salmon cumulative escapement counts through the Orzinski Lake weir, with upper and lower escapement goals defined.



Appendix E6.–Sockeye, pink, and chum salmon daily and cumulative escapement counts through the Orzinski Lake weir, 2020.

	Sockeye		Pink		Chum	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8-Jun[a]	Weir Installed					
9-Jun	0	0	0	0	0	0
10-Jun	0	0	0	0	0	0
11-Jun	0	0	0	0	0	0
12-Jun	0	0	0	0	0	0
13-Jun	0	0	0	0	0	0
14-Jun	3	3	0	0	0	0
15-Jun	0	3	0	0	0	0
16-Jun	0	3	0	0	0	0
17-Jun	4	7	0	0	0	0
18-Jun	0	7	0	0	0	0
19-Jun	7	14	0	0	0	0
20-Jun	2	16	0	0	0	0
21-Jun	0	16	0	0	0	0
22-Jun	12	28	0	0	0	0
23-Jun	3	31	0	0	0	0
24-Jun	0	31	0	0	0	0
25-Jun	3	34	0	0	0	0
26-Jun	61	95	0	0	0	0
27-Jun	0	95	0	0	0	0
28-Jun	108	203	0	0	0	0
29-Jun	51	254	0	0	0	0
30-Jun	243	497	0	0	0	0
1-Jul	20	517	0	0	0	0
2-Jul	272	789	0	0	0	0
3-Jul	236	1,025	0	0	0	0
4-Jul	112	1,137	0	0	0	0
5-Jul	53	1,190	0	0	0	0
6-Jul	191	1,381	0	0	0	0
7-Jul	44	1,425	0	0	0	0
8-Jul	16	1,441	0	0	0	0
9-Jul	34	1,475	0	0	0	0
10-Jul	2	1,477	0	0	0	0
11-Jul	14	1,491	0	0	0	0
12-Jul	34	1,525	0	0	0	0
13-Jul	14	1,539	0	0	0	0
14-Jul	10	1,549	0	0	0	0
15-Jul	1110	2,659	0	0	0	0
16-Jul	172	2,831	0	0	0	0
17-Jul	40	2,871	0	0	0	0
18-Jul	146	3,017	0	0	0	0
19-Jul	162	3,179	0	0	5	5
20-Jul	13	3,192	0	0	0	5
21-Jul	24	3,216	0	0	0	5

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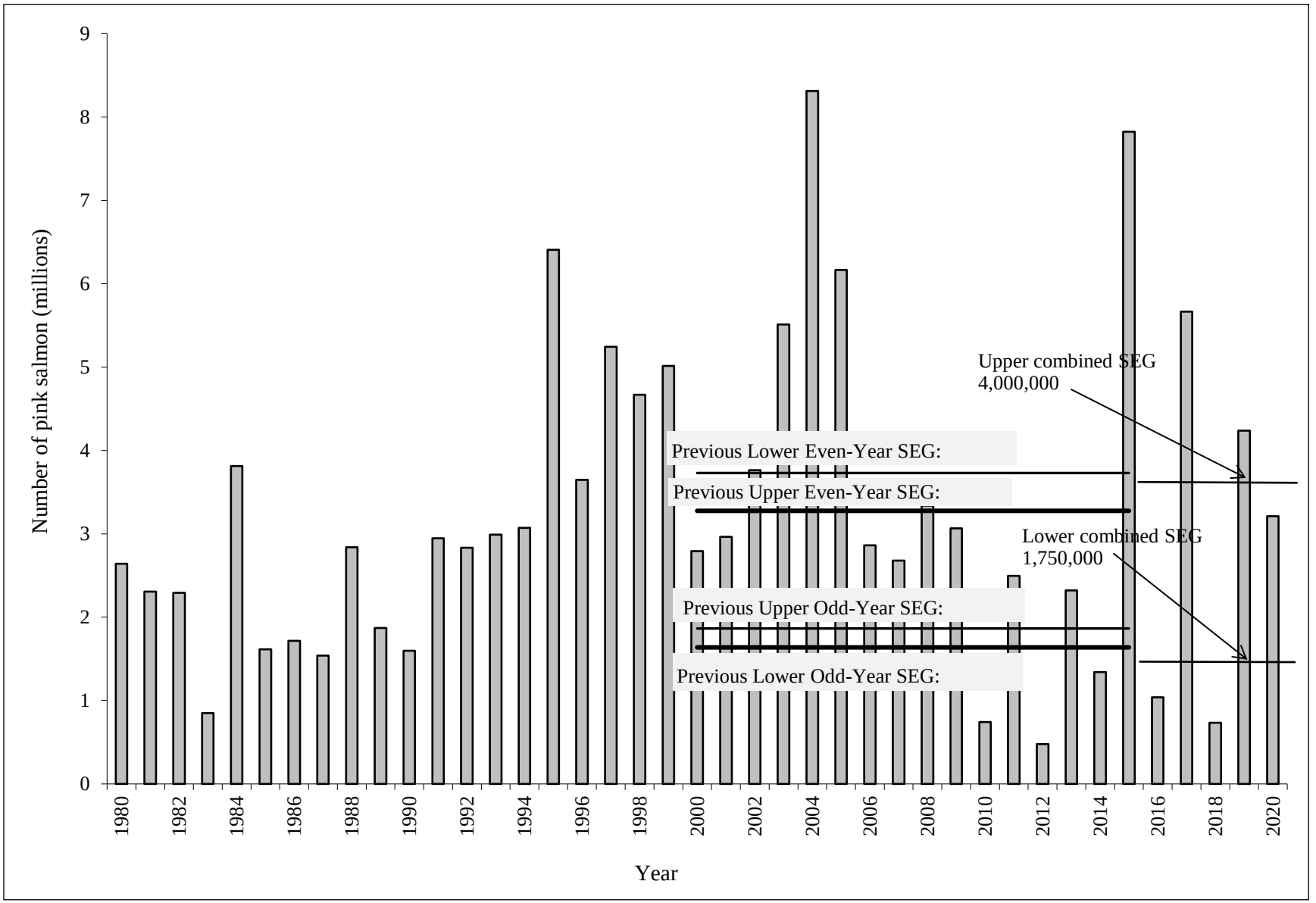
Appendix E6.–Page 2 of 2.

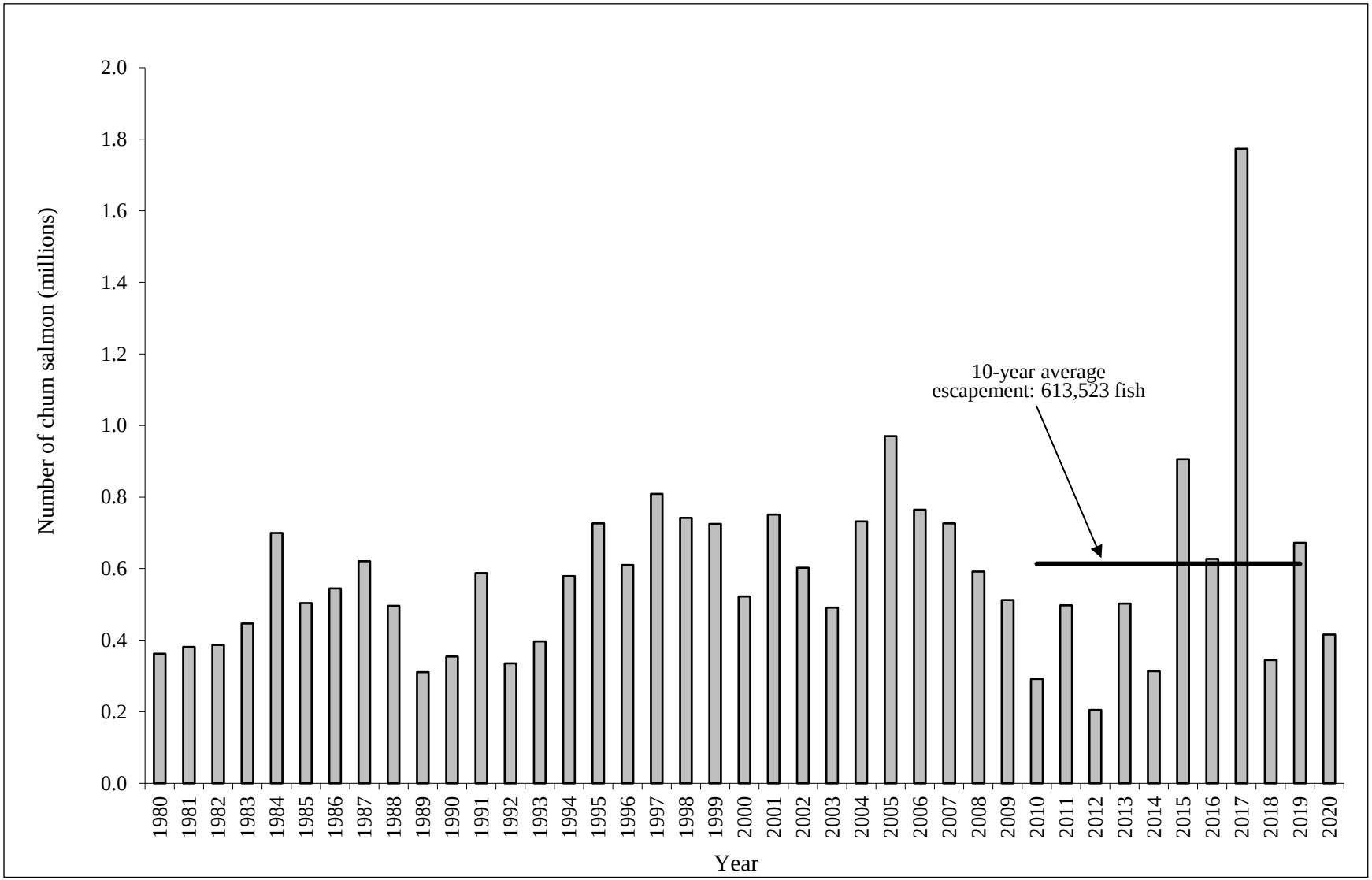
	Sockeye		Pink		Chum	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
22-Jul	241	3,457	0	0	0	5
23-Jul	489	3,946	1	1	0	5
24-Jul	87	4,033	0	1	1	6
25-Jul	455	4,488	1	2	0	6
26-Jul	18	4,506	0	2	0	6
27-Jul	1	4,507	0	2	0	6
28-Jul	51	4,558	0	2	0	6
29-Jul	944	5,502	1	3	1	7
30-Jul	324	5,826	6	9	0	7
31-Jul	171	5,997	11	20	0	7
1-Aug	93	6,090	2	22	0	7
2-Aug	82	6,172	0	22	0	7
3-Aug	115	6,287	0	22	0	7
4-Aug	481	6,768	7	29	6	13
5-Aug	51	6,819	3	32	0	13
6-Aug[a]	Weir pulled					
Total		6,819		32		13

[a] Weir fish tight on June 8 through August 6.

Appendix E7.–South Alaska Peninsula total indexed pink salmon escapement by year, 1980–2020.



Appendix E8.–South Alaska Peninsula total indexed chum salmon escapement by year, 1980–2020.



Appendix E9.–Aerial drone survey dates for 3 Unalaska road system lakes, 2019.

Date	Survey Completed		
16-Aug	Morris Cove	Summer Bay	Unalaska Village
30-Aug	Morris Cove	Summer Bay	Unalaska Village
10-Sep	Morris Cove	Summer Bay	Unalaska Village
16-Sep	Morris Cove	Summer Bay	Unalaska Village
Number of surveys	4	4	4

Appendix E10.–Unalaska total indexed salmon escapements by species, for the aerial drone surveys of 3 road system lakes, 2019.

		Number of salmon			
Stream number	Stream name	Sockeye	Coho[a]	Pink[a]	Chum[a]
302-40.08	Unalaska Village	350	0	25	0
302-40.09	Summer Bay	2,575	415	4,090	0
302-40.11	Morris Cove	376	0	0	0

[a] Survey counts for salmon other than sockeye salmon are conducted for presence information only. Surveys are not flown for peak abundance estimates.

APPENDIX F. SUBSISTENCE HARVEST DATA

Appendix F1.–Estimated subsistence salmon harvest by community and species, in number of fish, Alaska Peninsula Management Area and Unalaska Island, 1985–2019.

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Sand Point local residents							
1985	60	30	1,410	1,686	420	1,146	4,692
1986	75	45	2,505	1,208	1,560	1,005	6,323
1987	84	87	2,018	1,508	1,160	1,114	5,887
1988	74	146	2,694	853	1,326	1,175	6,194
1989	86	53	6,347	1,050	731	1,149	9,330
1990	80	160	5,648	620	429	1,051	7,908
1991	84	420	6,636	1,092	1,260	2,772	12,180
1992	76	318	4,733	518	1,228	1,036	7,833
1993	76	446	6,435	952	671	996	9,500
1994	92	454	5,838	1,890	1,369	3,100	12,651
1995	73	271	5,993	983	1,597	1,274	10,118
1996	80	200	5,269	1,813	1,843	1,724	10,849
1997	67	315	7,043	788	1,953	1,663	11,762
1998	59	224	4,383	1,040	920	868	7,435
1999	52	254	4,907	442	898	1,053	7,554
2000	61	184	4,488	704	734	979	7,089
2001	61	191	4,653	880	827	1,500	8,051
2002	29	76	1,679	319	416	994	3,484
2003	30	175	2,093	250	505	1,123	4,146
2004	22	94	1,832	148	352	314	2,740
2005	36	67	2,734	599	448	317	4,165
2006	29	61	1,846	170	558	326	2,961
2007	35	60	2,454	200	455	169	3,338
2008	46	55	1,969	780	951	368	4,123
2009	23	53	1,485	288	315	220	2,361
2010	42	103	2,588	336	818	816	4,661
2011	51	272	2,066	696	854	473	4,361
2012	51	121	3,355	591	785	1,086	5,938
2013	49	166	2,237	479	915	581	4,378
2014	51	24	2,887	465	1,416	538	5,330
2015	39	54	7,275	81	5,358	1,466	14,234
2016	41	50	2,772	659	366	410	4,257
2017	32	113	1,538	375	167	627	2,820
2018	45	95	1,690	489	487	968	3,729
2019	23	86	1,125	136	352	294	1,993
2014–2018 Average	42	67	3,232	414	1,559	802	6,074

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
King Cove local residents							
1985	39	0	784	3,292	105	20	4,201
1986	24	2	1,834	919	14	120	2,889
1987	39	3	2,320	1,662	206	334	4,525
1988	28	3	555	2,855	265	43	3,721
1989	39	3	1,982	1,973	294	690	4,942
1990	43	24	1,054	2,832	265	367	4,542
1991	60	0	1,477	3,611	225	386	5,699
1992	61	9	1,452	2,891	327	1,177	5,856
1993	59	33	2,021	3,868	259	625	6,806
1994	48	43	2,249	3,247	370	679	6,588
1995	66	46	3,300	3,080	534	1,177	8,137
1996	65	47	4,236	4,354	578	690	9,905
1997	58	29	3,048	3,226	283	691	7,277
1998	54	4	1,795	3,995	620	44	6,458
1999	50	18	3,465	2,471	265	720	6,939
2000	51	13	2,344	3,545	193	365	6,460
2001	52	25	3,982	2,650	130	273	7,060
2002	61	32	4,509	2,529	77	396	7,543
2003	68	22	5,220	3,179	149	649	9,219
2004	61	19	4,697	2,877	186	410	8,189
2005	62	44	5,388	2,511	133	161	8,237
2006	53	16	4,034	2,183	405	516	7,154
2007	52	1	3,088	2,203	162	264	5,718
2008	57	9	3,332	2,931	326	369	6,967
2009	41	57	1,694	1,943	216	174	4,084
2010	48	0	2,406	1,809	87	286	4,588
2011	55	3	3,813	1,513	188	341	5,858
2012	51	52	3,711	922	21	452	5,158
2013	46	7	2,265	1,470	121	271	4,134
2014	48	5	3,409	739	212	60	4,424
2015	35	0	2,908	1,053	134	73	4,168
2016	26	3	3,407	581	64	95	4,150
2017	22	4	1,467	670	27	188	2,356
2018	32	4	2,049	1,052	71	297	3,473
2019	19	3	1,000	750	30	68	1,851
2014–2018 Average	33	3	2,648	819	102	142	3,714

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Cold Bay local residents							
1985	10	0	293	84	34	3	414
1986	18	0	184	264	14	26	488
1987	10	0	293	84	34	3	414
1988	24	0	737	66	2	0	805
1989	18	0	231	55	4	22	312
1990	14	0	322	70	1	22	415
1991	23	0	517	30	6	4	557
1992	15	0	336	38	0	0	374
1993	23	0	473	89	3	15	580
1994	16	0	325	88	4	3	420
1995	17	0	307	84	0	10	401
1996	15	15	280	0	0	6	301
1997	12	12	657	0	4	3	676
1998	17	8	433	19	8	4	472
1999	14	0	237	1	0	13	251
2000	16	0	553	50	1	26	630
2001	14	0	512	30	0	0	542
2002	20	0	493	0	0	7	500
2003	19	0	594	0	2	18	614
2004	23	5	679	35	0	23	742
2005	31	2	532	212	2	6	754
2006	31	0	558	31	8	31	628
2007	29	0	661	167	0	3	831
2008	27	0	313	0	7	7	327
2009	20	1	579	31	0	29	640
2010	25	0	830	0	1	9	840
2011	17	0	562	0	2	1	565
2012	19	0	451	64	0	5	520
2013	27	0	592	18	1	11	622
2014	26	1	1,051	11	0	16	1,079
2015	20	0	777	0	0	0	777
2016	19	0	997	3	6	11	1,017
2017	13	0	514	92	5	8	619
2018	13	0	304	6	0	48	358
2019	7	1	175	0	0	0	176
2014–2018 Average	18	0	729	22	2	17	770

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
False Pass local residents							
1985	10	30	578	1,858	13	395	2,874
1986	12	13	158	215	188	299	873
1987	12	14	103	443	163	389	1,112
1988	10	11	401	834	29	192	1,467
1989	7	0	231	55	4	22	312
1990	9	1	170	193	19	79	462
1991	17	17	724	500	354	165	1,760
1992	12	12	1,082	502	242	248	2,086
1993	14	23	848	397	156	272	1,696
1994	14	36	906	318	347	354	1,961
1995	15	27	888	179	252	426	1,772
1996	15	23	605	1,028	128	248	2,032
1997	7	8	584	315	153	214	1,274
1998	7	14	586	58	208	245	1,111
1999	7	26	564	902	81	148	1,721
2000	6	0	186	960	20	104	1,270
2001	5	10	242	163	118	104	637
2002	13	31	662	269	20	78	1,060
2003	18	6	1,472	589	216	261	2,544
2004	8	6	446	424	65	32	973
2005	6	0	795	375	0	0	1,170
2006	5	3	188	163	143	120	617
2007	3	0	0	180	0	0	180
2008	2	12	16	10	28	0	66
2009	4	15	69	11	253	39	387
2010	3	6	137	45	50	30	268
2011	3	9	11	32	14	5	71
2012	3	6	79	27	12	11	135
2013	4	6	189	104	30	21	350
2014	4	0	120	260	0	0	380
2015	7	4	18	700	0	0	722
2016	1	2	45	180	0	0	227
2017	1	4	91	120	7	15	237
2018	3	3	61	171	90	20	345
2019	1	0	30	80	40	30	180
2014–2018 Average	3	3	67	286	19	7	382

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Nelson Lagoon and Port Moller local residents							
1985	9	5	207	252	2	0	466
1986	9	13	284	302	3	5	607
1987	10	22	245	254	5	14	540
1988	13	26	284	184	0	25	519
1989	9	21	250	227	0	11	509
1990	8	11	291	224	0	0	526
1991	8	20	370	139	1	4	534
1992	9	17	298	191	7	12	525
1993	11	16	561	230	9	26	842
1994	11	71	336	241	6	0	654
1995	10	63	450	429	0	0	942
1996	8	45	465	329	0	11	850
1997	8	16	287	147	5	36	491
1998	13	3	473	295	14	14	799
1999	10	4	389	58	4	0	455
2000	7	10	507	85	0	0	602
2001	6	22	392	46	0	6	466
2002	3	5	140	71	0	0	216
2003	3	3	118	90	0	0	211
2004	4	7	105	140	0	0	252
2005	7	2	257	58	0	0	317
2006	7	8	579	3	0	0	590
2007	6	0	508	0	0	0	508
2008	3	0	750	0	0	0	750
2009	5	0	588	118	3	0	709
2010	6	0	440	125	0	1	566
2011	13	3	447	85	0	1	536
2012	22	13	1,141	89	1	7	1,251
2013	11	43	466	49	4	6	568
2014	8	16	259	0	1	47	323
2015	11	38	795	69	5	41	948
2016	6	4	620	100	0	0	724
2017	4	3	481	80	0	3	567
2018	2	8	118	30	2	0	784
2019	4	32	333	75	0	0	440
2014–2018 Average	6	14	455	56	2	18	544

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Port Heiden local residents							
1985	6	9	176	0	0	0	185
1986	4	28	282	0	0	0	310
1987	10	66	193	229	0	36	524
1988	10	69	268	134	23	105	599
1989	4	7	222	28	1	4	262
1990	3	21	107	20	0	27	175
1991	6	39	375	25	3	120	562
1992	3	21	104	10	0	25	160
1993	3	80	71	0	0	0	151
1994	2	24	196	0	0	50	270
1995	3	50	119	160	0	0	329
1996	4	22	221	51	0	1	295
1997	4	2	24	40	0	0	66
1998	3	26	100	100	0	0	226
1999	3	25	245	60	0	0	330
2000	3	6	0	21	0	0	27
2001	3	64	132	50	0	10	256
2002	3	120	34	50	0	6	210
2003	3	101	7	40	0	6	154
2004	3	60	80	0	0	0	140
2005	3	0	375	0	0	0	375
2006	2	0	0	30	0	0	30
2007	0	0	0	0	0	0	0
2008	28	182	1,023	813	33	62	2,113
2009	29	206	1,157	69	0	0	1,432
2010	28	153	1,904	234	41	51	2,383
2011	12	10	2,448	0	0	0	2,458
2012	5	29	193	64	0	55	341
2013	4	9	117	0	0	29	155
2014	2	4	51	0	0	35	90
2015	0	0	0	0	0	0	0
2016	27	131	656	360	17	11	1,175
2017	24	504	2,500	320	124	32	3,480
2018	5	113	15	52	0	2	182
2019	3	18	0	0	0	0	18
2014–2018 Average	12	150	644	146	28	16	985

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Alaska Peninsula local community residents total							
1985	134	74	3,448	7,172	574	1,564	12,832
1986	142	101	5,247	2,908	1,779	1,455	11,490
1987	185	192	5,499	4,251	1,547	1,941	13,430
1988	159	255	4,939	4,926	1,645	1,540	13,305
1989	163	88	9,368	3,433	1,205	1,923	16,017
1990	166	217	7,592	3,959	714	1,546	14,028
1991	198	457	9,998	5,413	1,820	3,372	21,060
1992	176	377	8,005	4,150	1,804	2,498	16,834
1993	186	598	10,409	5,536	1,098	1,934	19,575
1994	183	628	9,850	5,784	2,096	4,186	22,544
1995	184	457	11,057	4,915	2,383	2,887	21,699
1996	187	352	11,076	7,575	2,549	2,680	24,232
1997	156	382	11,643	4,516	2,398	2,607	21,546
1998	153	279	7,770	5,507	1,770	1,175	16,501
1999	136	327	9,807	3,934	1,248	1,934	17,250
2000	144	213	8,078	5,365	948	1,474	16,078
2001	141	312	9,913	3,819	1,075	1,893	17,012
2002	129	264	7,517	3,238	513	1,481	13,013
2003	141	307	9,504	4,148	872	2,057	16,888
2004	121	191	7,839	3,624	603	779	13,036
2005	145	121	10,189	3,720	598	498	15,126
2006	127	88	7,205	2,580	1,114	993	11,980
2007	113	54	5,742	2,838	477	487	9,598
2008	163	258	7,403	4,534	1,345	806	14,346
2009	122	332	5,572	2,460	787	462	9,613
2010	152	262	8,305	2,549	997	1,193	13,306
2011	151	297	9,347	2,326	1,058	821	13,849
2012	151	221	8,930	1,757	806	1,584	13,298
2013	141	221	5,182	2,136	1,055	888	9,482
2014	139	50	7,777	1,475	1,629	696	11,627
2015	112	96	11,773	1,903	5,497	1,580	20,849
2016	120	190	8,497	1,883	453	527	11,550
2017	96	628	6,591	1,657	330	873	10,079
2018	100	224	4,237	1,799	650	1,335	8,871
2019	57	140	2,663	1,041	422	392	4,658
2014–2018 Average	113	238	7,775	1,743	1,712	1,002	12,470

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Alaska state residents residing outside the Alaska Peninsula							
1985	27	0	589	332	0	2	923
1986	5	0	149	88	0	0	237
1987	6	1	278	8	0	2	289
1988	24	2	562	720	21	152	1,457
1989	25	0	1,036	72	8	181	1,297
1990	35	29	996	70	22	43	1,160
1991	51	1	1,347	138	58	179	1,723
1992	53	8	2,734	117	36	76	2,971
1993	76	17	2,069	217	91	63	2,457
1994	73	46	2,034	302	110	220	2,712
1995	76	35	1,659	106	270	482	2,552
1996	47	10	1,100	168	20	48	1,346
1997	61	38	3,581	96	557	278	4,550
1998	80	128	5,150	313	516	151	6,258
1999	50	39	5,157	50	192	101	5,539
2000	34	19	1,846	69	36	84	2,054
2001	44	27	1,854	386	132	103	2,502
2002	27	62	2,036	70	42	112	2,322
2003	24	13	684	29	357	146	1,229
2004	25	14	1,064	56	29	41	1,204
2005	14	55	841	31	20	36	983
2006	26	42	1,148	28	80	104	1,402
2007	25	33	546	0	81	85	745
2008	36	3	622	76	208	51	960
2009	12	26	526	0	0	5	557
2010	31	26	1,225	29	4	9	1,293
2011	12	36	526	5	0	1	568
2012	21	9	472	86	106	25	698
2013	27	12	782	72	49	148	1,063
2014	34	0	843	38	28	12	921
2015	38	26	884	8	2	4	924
2016	38	20	1,701	211	127	93	2,152
2017	31	20	1,135	211	144	19	1,529
2018	54	47	1,345	191	349	109	2,041
2019	39	24	1,053	207	193	8	1,485
2014–2018 Average	39	23	1,182	132	130	47	1,513

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Total Alaska Peninsula area							
1985	161	74	4,037	7,504	574	1,566	13,755
1986	147	101	5,396	2,996	1,779	1,455	11,727
1987	191	193	5,777	4,259	1,547	1,943	13,719
1988	183	257	5,501	5,646	1,666	1,692	14,762
1989	188	88	10,404	3,505	1,213	2,104	17,314
1990	201	246	8,588	4,029	736	1,589	15,188
1991	249	458	11,345	5,551	1,878	3,551	22,783
1992	229	385	10,739	4,267	1,840	2,574	19,805
1993	262	615	12,478	5,753	1,189	1,997	22,032
1994	256	674	11,884	6,086	2,206	4,406	25,256
1995	260	492	12,716	5,021	2,653	3,369	24,251
1996	234	362	12,176	7,743	2,569	2,728	25,578
1997	217	420	15,224	4,612	2,955	2,885	26,096
1998	233	407	12,920	5,820	2,286	1,326	22,759
1999	186	366	14,964	3,984	1,440	2,035	22,789
2000	178	232	9,924	5,434	984	1,558	18,132
2001	185	339	11,767	4,205	1,207	1,996	19,514
2002	156	326	9,553	3,308	555	1,593	15,335
2003	165	320	10,188	4,177	1,229	2,203	18,117
2004	146	205	8,903	3,680	632	820	14,240
2005	159	176	11,030	3,751	618	534	16,109
2006	153	130	8,353	2,608	1,194	1,097	13,382
2007	138	87	6,288	2,838	558	572	10,343
2008	199	261	8,025	4,610	1,553	857	15,306
2009	134	358	6,098	2,460	787	467	10,170
2010	183	288	9,530	2,578	1,001	1,202	14,599
2011	163	333	9,873	2,331	1,058	822	14,417
2012	172	230	9,402	1,843	912	1,609	13,996
2013	168	233	5,964	2,208	1,104	1,036	10,545
2014	173	50	8,620	1,513	1,657	708	12,548
2015	150	122	12,657	1,911	5,499	1,584	21,773
2016	158	210	10,198	2,094	580	620	13,702
2017	127	648	7,726	1,868	474	892	11,608
2018	154	271	5,582	1,990	999	1,444	10,287
2019	96	164	3,716	1,248	615	400	6,143
2014–2018 Average	152	260	8,957	1,875	1,842	1,050	13,984

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Unalaska local community residents							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	74	1	962	390	2,626	83	4,062
1989	70	2	1,064	470	1,292	36	2,864
1990	94	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	137	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	159	23	4,446	480	784	23	5,756
1996	189	5	1,107	1,033	492	49	2,686
1997	218	8	4,192	864	440	110	5,614
1998	206	4	3,317	731	729	26	4,807
1999	208	0	2,707	1,327	1,018	13	5,065
2000	205	7	3,073	569	315	24	3,988
2001	201	4	3,850	563	763	100	5,280
2002	226	2	5,267	643	277	63	6,252
2003	220	27	4,814	558	408	41	5,848
2004	207	4	4,343	792	343	26	5,508
2005	207	6	4,210	356	587	15	5,174
2006	193	10	1,722	363	745	92	2,932
2007	171	16	2,391	207	750	36	3,400
2008	195	2	1,833	726	567	115	3,243
2009	205	4	3,398	703	369	194	4,668
2010	211	2	3,930	307	387	26	4,652
2011	218	8	5,191	275	382	73	5,929
2012	206	16	4,905	420	196	35	5,572
2013	206	3	3,737	187	230	69	4,226
2014	220	2	2,660	400	246	12	3,320
2015	178	3	2,926	420	350	27	3,726
2016	195	35	4,567	289	268	32	5,191
2017	156	0	2,040	263	344	42	2,689
2018	170	27	1,741	463	142	74	2,447
2019	143	1	2,149	416	207	60	2,833
2014–2018 Average	184	13	2,787	367	270	37	3,475

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Alaska State residents residing outside of Unalaska District							
1985	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0
1988	3	2	4	0	1	0	7
1989	4	0	48	0	0	0	48
1990	2	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	2	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	1	0	38	4	7	0	49
1996	0	0	0	0	0	0	0
1997	3	0	0	0	114	0	114
1998	0	0	0	0	0	0	0
1999	3	0	0	0	0	0	0
2000	7	0	4	1	10	0	15
2001	2	0	0	0	0	0	0
2002	5	0	0	0	0	0	0
2003	7	0	30	0	0	0	30
2004	2	0	30	0	0	0	30
2005	10	1	23	0	0	0	24
2006	6	0	0	0	0	0	0
2007	7	0	0	0	0	0	0
2008	9	0	0	0	0	0	0
2009	10	0	1	6	0	0	7
2010	6	0	29	0	1	0	30
2011	12	2	168	0	0	0	170
2012	5	0	6	11	0	0	17
2013	36	0	241	21	3	0	265
2014	29	0	300	0	73	0	373
2015	25	2	445	3	0	0	450
2016	41	0	380	0	0	0	380
2017	31	0	180	0	0	0	180
2018	12	0	96	20	0	0	116
2019	44	0	246	91	9	11	357
2014–2018 Average	28	0	280	5	15	0	300

-continued-

Year	Permits issued	Estimated harvest[a]					
		Chinook	Sockeye	Coho	Pink	Chum	Total
Total Unalaska							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	77	3	966	390	2,627	83	4,069
1989	74	2	1,112	470	1,292	36	2,912
1990	94	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	139	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	160	23	4,484	484	791	23	5,805
1996	189	5	1,107	1,033	492	49	2,686
1997	221	8	4,192	864	554	110	5,728
1998	206	4	3,317	731	729	26	4,807
1999	211	0	2,707	1,327	1,018	13	5,065
2000	212	7	3,077	570	325	24	4,003
2001	203	4	3,850	563	763	100	5,280
2002	231	2	5,267	643	277	63	6,252
2003	227	27	4,844	558	408	41	5,878
2004	209	4	4,373	792	343	26	5,538
2005	217	7	4,233	356	587	15	5,198
2006	199	10	1,722	363	745	92	2,932
2007	178	16	2,391	207	750	36	3,400
2008	204	2	1,833	726	567	115	3,243
2009	215	4	3,399	709	369	194	4,675
2010	217	2	3,959	307	388	26	4,682
2011	230	10	5,359	275	382	73	6,099
2012	211	16	4,911	431	196	35	5,589
2013	242	3	3,978	208	233	69	4,491
2014	249	2	2,960	400	319	12	3,693
2015	203	5	3,371	423	350	27	4,176
2016	236	35	4,947	289	268	32	5,571
2017	187	0	2,220	263	344	42	2,869
2018	182	27	1,837	483	142	74	2,564
2019	187	1	2,395	507	216	71	3,190
2014–2018 Average	211	14	3,067	372	285	37	3,775

[a] The total number of salmon harvested are extrapolated from returned permits.

Appendix F2.–Subsistence salmon harvest by community and species, in number of fish, 2019.

Community	Permits issued	Permits returned	Percent returned	Estimated harvest[a]					Total
				Chinook	Sockeye	Coho	Pink	Chum	
ALASKA PENINSULA									
Local residents									
Sand Point	23	20	87.0%	86	1,125	136	352	294	1,993
King Cove	19	17	89.5%	3	1,000	750	30	68	1,851
Cold Bay	7	6	85.7%	1	175	0	0	0	176
False Pass	1	1	100.0%	0	30	80	40	30	180
Nelson Lagoon & Port Moller	4	4	100.0%	32	333	75	0	0	440
Port Heiden	3	1	33.3%	18	0	0	0	0	18
Local residents total	57	49	86.0%	140	2,663	1,041	422	392	4,658
Other State area residents total	39	23	59.0%	24	1,053	207	193	8	1,485
ALASKA PENINSULA TOTAL	96	72	75.0%	164	3,716	1,248	615	400	6,143
UNALASKA									
Unalaska local residents total	143	96	67.1%	1	2,149	416	207	60	2,833
Other State area residents total	44	29	65.9%	0	246	91	9	11	357
UNALASKA TOTAL	187	125	66.8%	1	2,395	507	216	71	3,190
ADAK	1	1	100.0%	0	0	25	0	0	25

[a] Total number of salmon harvested are extrapolated from returned permits.

Appendix F3.–Adak-Kagalaska Islands estimated personal use salmon harvests, 1988–1997, and Adak District subsistence harvest, 1998–2019.

Year	Permits issued	Permits returned	Percent returned	Estimated total harvest[a]					
				Chinook	Sockeye	Coho	Pink	Chum	Total
Adak-Kagalaska Islands personal use									
1988	43	29	67.4	0	503	23	150	0	676
1989	64	47	73.3	0	382	0	117	0	499
1990	61	29	47.5	0	800	47	41	0	888
1991	37	31	86.5	0	281	6	34	0	321
1992	52	41	78.8	0	572	30	4	0	606
1993	36	26	72.2	0	638	12	26	0	676
1994[b]	0	0	0.0	–	–	–	–	–	–
1995	4	3	75.0	0	156	0	0	0	156
1996	6	6	100.0	0	91	0	0	0	91
1997[c]	18	12	66.7	0	229	0	0	4	233
1988–1993 Avg.	49	34	71.0	0	529	20	62	0	611
1995–1996 Avg.	5	5	87.5	0	124	0	0	0	124
Adak District subsistence									
1998	13	10	76.9	0	399	0	25	0	424
1999	5	5	100.0	0	164	4	0	0	168
2000	13	12	92.3	0	265	4	78	0	347
2001	17	14	82.4	0	474	19	17	0	510
2002	3	3	100.0	0	150	0	0	0	150
2003	6	5	83.3	0	363	0	0	0	363
2004	6	4	66.7	0	336	0	0	0	336
2005	2	2	100.0	0	188	0	0	0	188
2006	1	1	100.0	0	74	0	1	0	75
2007	9	6	66.7	0	488	3	38	0	529
2008	10	6	60.0	0	397	0	19	0	416
2009	1	1	100.0	0	25	0	0	0	25
2010	2	1	50.0	0	50	0	0	0	50
2011	0	0	0.0	–	–	–	–	–	–
2012	2	2	100.0	0	25	0	0	0	25
2013	4	3	75.0	0	30	12	80	0	122
2014	0	0	0.0	–	–	–	–	–	–
2015	5	1	20.0	0	55	0	0	0	55
2016	0	0	0.0	–	–	–	–	–	–
2017	2	1	50.0	0	50	0	0	0	50
2018	2	1	50.0	0	460	0	0	0	460
2019	1	1	100.0	0	0	25	0	0	25
2014–2018 Avg.	2	1	24.0	0	188	0	0	0	188

[a] Total number of salmon harvested are extrapolated from returned permits.

[b] U.S. Navy presence at Adak was reduced; there were no requests for personal use salmon permits.

[c] In 1997, a substantial number of civilians were hired by the Navy to work in a cleanup effort at Adak.

Appendix F4.–Mortensen's Lagoon subsistence and commercial sockeye and coho salmon harvests and escapements, in numbers of fish, 2019.

Fishery	Permits	Sockeye	Coho
Subsistence harvest[a]			
Cold Bay locals	2	99	0
King Cove locals	2	100	0
Other Alaska residents	3	65	0
Total subsistence harvest	7	264	0
Commercial harvest[b]	6	3,564	504
Subsistence & commercial harvest	13	3,828	504
Escapement[c]		800	0

[a] Number of subsistence salmon permit holders who reported fishing at Mortensen's Lagoon and their subsequent harvest. Harvest from unreturned permits was not estimated.

[b] Commercial harvest includes all of statistical area 284-62 (formerly 283-32). Some of the salmon caught in area 284-62 may have been destined for systems other than Mortensen's Lagoon.

[c] Estimated total escapement (aerial survey).

Appendix F5.–Number of Mortensen's Lagoon subsistence users by community, 1984–2019.

	Number of fishers			
Year	Local Cold Bay	Local King Cove	Nonlocal AK residents	Total
1984	15	6	6	27
1985	10	5	7	22
1986	11	1	0	12
1987	17	1	4	22
1988	21	0	0	21
1989	12	0	7	19
1990[a]	13	0	14	27
1991	19	2	21	42
1992	15	1	18	34
1993	15	0	39	54
1994	11	1	29	41
1995	11	13	39	63
1996	9	12	20	41
1997	11	10	15	36
1998	12	7	15	34
1999	6	4	6	16
2000	13	10	3	26
2001	12	9	5	26
2002	13	4	6	23
2003	15	16	4	35
2004	18	9	2	29
2005	9	9	2	20
2006	14	13	7	34
2007	17	9	3	29
2008	17	11	3	31
2009	13	3	6	22
2010	20	12	9	41
2011	13	26	9	48
2012	12	14	7	33
2013	8	13	1	22
2014	11	12	9	32
2015	8	7	6	21
2016	10	4	9	23
2017	5	2	3	10
2018	4	2	2	8
2019	2	2	3	7
2014–2018 average	8	5	6	19

[a] In the years between 1990 to 1998 an increased number of nonlocal subsistence users harvested salmon in the Mortensen's Lagoon area.

Appendix F6.–Estimated Mortensen's Lagoon, Thin Point Cove, and Reese Bay subsistence salmon harvest, in number of fish, 1984–2019.

	Mortensen's Lagoon[a]			Thin Point Cove[a]			Reese (Wislow) Bay[a]	
Year	Permits	Sockeye	Coho	Permits	Sockeye	Coho	Permits	Sockeye
1984	27	745	500	–	–	–	–	–
1985	22	590	831	–	–	–	23	669
1986	12	362	178	15	1,586	656	54	2,824
1987	22	604	254	15	1,226	966	20	806
1988	21	737	66	17	488	2,196	21	792
1989	19	420	28	17	1,479	1,239	12	436
1990	27	745	95	29	751	2,578	12	1,421
1991	42	1,144	83	27	913	3,154	35	1,180
1992	34	851	104	23	547	927	59	2,479
1993	54	1,596	148	37	1,511	3,184	37	1,425
1994	41	903	283	23	734	2,443	60	2,298
1995	63	1,940	175	17	1,307	1,348	82	3,985
1996	41	958	508	37	2,609	2,819	45	968
1997	36	1,440	200	14	746	1,271	121	3,945
1998	34	1,034	164	18	972	1,413	89	2,866
1999	16	443	269	21	2,135	1,123	72	2,091
2000	26	844	291	22	904	1,910	86	2,898
2001	26	918	87	33	2,960	1,754	63	3,389
2002	23	811	77	25	2,913	1,213	63	4,694
2003	35	1,817	434	36	3,002	1,527	106	4,388
2004	29	1,623	146	28	2,877	1,389	86	3,771
2005	20	952	81	31	2,572	964	91	3,363
2006	34	1,594	29	18	1,748	953	52	1,451
2007	29	1,115	166	17	2,040	650	58	1,605
2008	31	1,229	257	31	1,715	2,016	51	1,108
2009	22	650	88	18	1,108	1,376	62	2,040
2010	41	1,748	156	18	1,562	763	96	3,583
2011	48	1,926	165	22	2,067	580	122	4,681
2012	33	1,407	12	0	0	0	108	4,347
2013	22	899	53	16	1,230	925	129	2,720
2014	23	1,461	170	10	1,111	372	44	1,320
2015	21	797	15	4	500	52	55	1,942
2016	23	904	20	7	846	233	73	3,093
2017	10	401	25	3	280	25	45	1,398
2018	8	192	25	5	467	129	48	1,338
2019	7	264	0	2	230	78	45	1,055
2014–2018 Average	17	751	51	6	641	162	53	1,818

Note: Data includes both local and nonlocal Alaska State residents.

[a] Number of subsistence salmon permit holders who reported fishing at each location and their subsequent harvest. Harvest from unreturned permits was not estimated.

Appendix F7.–Thin Point Cove sockeye and coho salmon subsistence harvest, commercial harvest, and escapements, 2019.

Fishery	Permits	Sockeye	Coho
Subsistence[a]			
King Cove locals	2	230	78
False Pass locals	0	–	–
Cold Bay locals	0	–	–
Other Alaska residents	0	–	–
Total subsistence harvest	2	230	78
Commercial[b]	4	1,305	78
Subsistence & commercial harvest		467	129
Escapement[c]		1,000	0

[a] Number of subsistence salmon permit holders who reported fishing at Thin Point Cove and their subsequent harvest. Harvest from unreturned permits was not estimated.

[b] Commercial harvest information was from the fish ticket database and includes all of statistical area 284-75.

[c] Estimated total escapement (aerial survey).

Appendix F8.–Lenard Harbor subsistence and commercial coho salmon harvests, 2019.

Fishery	Permits	Coho
Subsistence[a]	3	288
Commercial[b]	4	55
Total harvest	7	343

[a] Number of subsistence permits used at Lenard Harbor and the number of subsistence salmon harvested are extrapolated from returned permits.

[b] Commercial harvest information was from the fish ticket database and includes all of statistical area 284-65, the Lenard Harbor Section.

Appendix F9.–Estimated Lenard Harbor coho salmon subsistence harvests and escapements, 1998–2019.

Year	Permits	Subsistence harvest	Escapement	Total observed run
1998	11	1,043	-	
1999	6	412	130	542
2000	1	23	600	623
2001	6	457	1,300	1,757
2002	8	581	800	1,381
2003	11	958	1,350	2,308
2004	6	762	587	1,349
2005	13	847	900	1,747
2006	6	664	2,700	3,364
2007	11	812	1,200	2,012
2008	1	45	400	445
2009	5	49	2,600	2,649
2010	4	86	0[a]	86
2011	7	265	0[a]	265
2012	4	128	0[a]	128
2013	4	182	0[a]	182
2014	0	0	0[a]	0
2015	3	223	0[a]	223
2016	3	130	0[a]	130
2017	3	325	0[a]	325
2018	2	100	0[a]	100
2019	3	288	0	288
2014–2018 average	2	156	0	156

[a] A lack of escapement information for coho salmon is due to the departure of management staff from the South Peninsula region prior to peak coho salmon runs and poor weather conditions preventing aerial surveys from being conducted during peak coho salmon runs.

Appendix F10.–Estimated Unalaska Island subsistence sockeye and coho salmon harvest by major location, in number of fish, 2019.

Location[a]	Species	Harvest[b]	Percent of total harvest
Reese Bay (Wislow)	Sockeye	1,055	75%
	Coho	0	0%
Broad Bay	Sockeye	0	0%
	Coho	164	54%
Wide Bay	Sockeye	0	0%
	Coho	0	0%
Nateeken Bay	Sockeye	0	0%
	Coho	7	2%
Captains Bay	Sockeye	27	2%
	Coho	30	10%
Unalaska Lake vicinity	Sockeye	130	9%
	Coho	37	12%
Other locations	Sockeye	188	13%
	Coho	65	21%
Totals	Sockeye	1,400	100%
	Coho	303	100%

[a] Some permits fished in more than one location.

[b] Reported harvest from returned subsistence permits. Harvest from unreturned permits was not estimated.