

## **Fishery Management Report No. 18-02**

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# **Annual Management Report for the 2017 Southeast Alaska/Yakutat Salmon Troll Fisheries**

by

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January 2018

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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

***FISHERY MANAGEMENT REPORT NO. 18-02***

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ALASKA/YAKUTAT SALMON TROLL FISHERIES**

by

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## ABSTRACT

This report describes the Southeast Alaska/Yakutat salmon troll fishery, management methods, and actions taken by the Alaska Department of Fish and Game from October 1, 2016, through September 30, 2017. Approximately 2.7 million salmon were harvested in the 2017 Southeast Alaska troll fishery. Of this, 120,000 salmon (4%) were taken by hand troll gear and 2.6 million salmon (96%) by power troll gear. The harvest included 130,000 Chinook (*Oncorhynchus tshawytscha*), 5,400 sockeye (*O. nerka*), 2.1 million coho (*O. kisutch*), 54,000 pink (*O. gorbuscha*), and 403,000 chum (*O. keta*) salmon landed by 722 power troll and 250 hand troll permit holders during the calendar year. The Chinook salmon harvest ranked as the lowest on record over the last 58 years since statehood, while the coho salmon and chum salmon harvests ranked sixth and ninth over the same time period, respectively. The preliminary estimated Alaska hatchery contribution of Chinook salmon to the troll fishery, including hatchery terminal harvest, was 8,600 fish (7%). A total of 388,000 coho salmon produced by Alaska hatcheries were harvested by the troll fleet, which accounted for 18% of the total troll coho salmon harvest. Chinook salmon escapements for two out of 11 Southeast Alaska rivers were within the desired escapement goal ranges, whereas coho salmon escapements were generally within or above the desired escapement goal ranges.

Key words: Troll, Southeast Alaska, Yakutat, Chinook salmon, *Oncorhynchus tshawytscha*, coho salmon, *Oncorhynchus kisutch*, Pacific salmon, commercial fisheries, Alaska Department of Fish and Game, Annual Management Report, Pacific Salmon Treaty, Pacific Salmon Commission

## INTRODUCTION

The Southeast Alaska/Yakutat (SEAK) commercial salmon troll fishery occurs in State of Alaska and Federal Exclusive Economic Zone (EEZ) waters east of Cape Suckling and north of Dixon Entrance. The fishery is managed according to regulations promulgated by the Alaska Board of Fisheries (BOF), the North Pacific Fishery Management Council, the National Marine Fisheries Service, and the U.S./Canada Pacific Salmon Commission (PSC). Regulations adopted by the board are listed in the State of Alaska Administrative Code, Title 5 (5AAC), Chapter 29—Salmon Troll Fishery. The SEAK Chinook salmon fishery is managed to achieve the annual all-gear PSC allowable catch associated with the preseason abundance index generated by the Chinook Technical Committee Chinook model each spring. The catch is allocated among the troll, net, and sport fisheries through regulations established by the BOF. Coho salmon are managed to ensure that escapement goals are met and to achieve BOF allocation guidelines. Coho salmon fisheries near the U.S./Canada border, at Dixon Entrance, are managed in cooperation with Canada, according to the Pacific Salmon Treaty (PST).

Troll harvest and effort statistics since statehood (1960 fishing season) are presented, as well as all-gear harvest of Chinook and coho salmon. Status of wild coho (*Oncorhynchus kisutch*) and Chinook salmon (*O. tshawytscha*) stocks of SEAK and Yakutat, as well as hatchery production and contributions to the troll fishery, are included. Wild coho salmon escapements and exploitation rates are discussed, as well as wild Chinook salmon escapements. Troll harvest of Alaska hatchery-produced chum salmon (*O. keta*) and associated effort are described.

## CHINOOK SALMON AND COHO SALMON STOCK DESCRIPTION AND STATUS

### CHINOOK SALMON STOCKS

Native Chinook salmon stocks occur throughout SEAK and Yakutat, primarily in the large mainland rivers and their tributaries. In total, 34 rivers in the region are known to produce runs of Chinook salmon. The most important are the Alsek, Taku, Stikine, Chilkat, and the Behm Canal rivers (i.e., Unuk, Chickamin, Blossom, and Keta rivers). The three major river systems

(Alsek, Taku, and Stikine rivers), as well as several mid-sized systems (Unuk, Chickamin, and Chilkat rivers) are transboundary rivers, originating in Canada and flowing through Alaska to the Pacific Ocean. The PSC, under the terms of the PST, addresses shared ownership and coordinated management of the Alsek, Taku, and Stikine rivers. Non-Alaska hatchery-produced Chinook salmon fall under the terms of the PST and are referred to as treaty Chinook salmon.

SEAK Chinook salmon stocks are all “spring type,” entering spawning streams during spring and early summer months. Fry emerge the following spring and most remain in fresh water for at least one year before migrating seaward. Ocean residency ranges from two to four years for most Chinook salmon originating in SEAK. Trollers harvest several age classes of mature spawners and immature Chinook salmon during the fishing season.

Chinook salmon originating from Alaska, British Columbia, and the Pacific Northwest are harvested in the SEAK troll fishery. Stock composition information is based on coded wire tagging (CWT) studies, genetic stock analysis, age composition, and general productivity considerations. Management of Chinook salmon stocks is coordinated through the PSC.

## **COHO SALMON STOCKS**

Coho salmon are widely distributed and are believed to be present in over 2,500 streams in Southeast Alaska and Yakutat. Most coho salmon streams are small, with the number of spawners typically ranging up to 1,000 fish. Because of the large number of these systems, their collective contribution to overall production is substantial. Lake systems are also important and typically produce returns between 1,000 and 10,000 fish. Large populations occur in the Taku, Chilkat, Berners, Stikine, Unuk, and Chickamin rivers and in most Yakutat area systems. In addition to wild stocks, coho produced by 11 local hatcheries contribute to the region’s harvest. Spawning takes place during the fall and early winter months. Most coho salmon rear in fresh water for one or two years and spend no more than one winter in the ocean before returning to spawn as adults. Most coho salmon harvested by Southeast Alaska trollers are three-year-old and four-year-old fish of Alaska origin and are harvested in the year of spawning.

## **DESCRIPTION OF THE TROLL FISHERY**

The commercial troll fishery in Southeast Alaska and Yakutat (Region 1) occurs in State of Alaska waters and in the Federal Exclusive Economic Zone (EEZ) east of the longitude of Cape Suckling (5 AAC 29.010 and 5 AAC 29.020) (Figure 1). All other waters of Alaska are closed to commercial trolling.

The commercial troll fleet is comprised of hand and power troll gear types. Vessels using hand troll gear are limited to two lines on two hand-operated gurdies or four fishing rods, except that following the closure of the initial summer Chinook retention period and prior to the winter troll fishery, four hand troll gurdies or four fishing rods may be onboard and operated within the EEZ north of the latitude of the southernmost tip of Cape Spencer [5 AAC 29.120(b) (2) (C)]. Another exception permits two hand troll gurdies or hand-powered downriggers to be used in conjunction with two fishing rods during the winter troll season only. Vessels using power troll gear are generally larger than those using hand troll gear. Power trollers are limited to four lines on power-operated gurdies, except within the EEZ north of the latitude of the southernmost tip of Cape Spencer, where six lines may be used [5 AAC 29.120 (b)(1)(A) and (B)]. While the majority of the troll fleet sells their catch to processing plants onshore, the fleet does include some catcher-processors, or “freezer boats,” which harvest and freeze their catch at sea.

The commercial troll fishery harvests primarily Chinook and coho salmon. Historically, the troll fishery harvested about 85% to 90% of the Chinook salmon taken in Southeast Alaska. Since 1980, the percentage of the Chinook salmon harvest taken by the troll fishery has declined due to harvest ceilings imposed as part of the PST coastwide rebuilding program, as well as allocation guidelines established by the BOF. Since 1989, the troll fleet has been managed to harvest an average of 61% of the commercial coho salmon harvest over the long term (5 AAC 29.065), though the actual troll harvest has averaged 64% of the commercial harvest, with a range of 55% to 79%.

Most other species are harvested incidentally, although in recent years, hatchery-produced chum salmon have been the target of significant troll effort. The troll fleet harvests Pacific halibut incidentally under federal Individual Fishing Quota regulations and harvests groundfish incidentally (including lingcod and rockfish) under state regulations.

## **CHINOOK SALMON FISHERY**

Commercial trolling for Chinook salmon occurs during the winter, spring, and summer. The winter fishery begins on October 11 and continues through April 30, or until 45,000 treaty Chinook salmon are harvested, with a guideline harvest level of 43,000–47,000. By regulation, the open area during the winter fishery is restricted to those areas lying east of the “surf line” south of Cape Spencer, and the waters of Yakutat Bay [5 AAC 29.020 (b)]. All outer coastal areas, including the EEZ, are closed during the winter fishery. The spring fishery is intended to maximize the harvest of Alaska hatchery-produced Chinook salmon and is conducted in inside waters, along migration routes or close to hatcheries and release sites. The spring fishery begins after the winter fishery closes and may continue through June 30. The spring fishery can begin prior to May 1 if the winter fishery closes early (prior to April 30). The general summer troll fishery opens July 1 and harvests the majority of the annual Chinook salmon quota. During the summer fishery, most waters of SEAK are open to commercial trolling, including outer coastal waters.

Recent all-gear Chinook salmon harvests in SEAK (based on a moving 10-year average) have been the highest since statehood and were an exception to the declining trend in harvests since the late 1930s (Figure 2). However, since 2014, harvests have continuously declined, with the 2017 all-gear and troll harvests the lowest since statehood. The reductions in harvests prior to the 2000 season occurred primarily because of harvest ceilings imposed by the BOF and the PST. A guideline harvest level for all stocks and a 15-year rebuilding program for SEAK Chinook salmon stocks were established in 1981. In 1985, the PST was signed, and a coastwide rebuilding program for depressed non-Alaska Chinook salmon stocks that contribute to the SEAK fisheries began. The decline in coastwide abundance was primarily the result of overfishing of natural Chinook salmon stocks and the loss of freshwater spawning and rearing habitat in the Pacific Northwest.

In 1996, after three years without a Chinook salmon annex fishing agreement between the U.S. and Canada, the Letter of Agreement Regarding an Abundance-Based Approach to Managing Chinook Fisheries in Southeast Alaska (LOA) was signed among the U.S. members of the PST. This agreement, which was in effect from 1996 through 1998, established an annual PST quota based on preseason and inseason abundance estimates. In 1999, a new set of PST agreements was signed, including an agreement for Chinook salmon. The new Chinook salmon agreement was similar to the abundance-based management of the LOA, with quotas based on preseason

and postseason abundance estimates. However, under the PST, Alaska agreed to lower Chinook salmon harvests at lower abundance levels than had been implemented in either the PST or the LOA. In 2008, a new PST was signed, which will remain in effect through 2018.

The all-gear harvest of treaty<sup>1</sup> Chinook salmon exceeded the preseason quota 20 times over the 33-year period from 1985 to 2017. The troll harvest of treaty Chinook salmon has exceeded the preseason PST quota 18 times from 1987 to 2017 (Table 1).

## **CHINOOK SALMON MANAGEMENT METHODS**

The harvest of treaty Chinook salmon by commercial salmon trollers is limited to a specific number of fish, which varies annually according to an abundance estimate. The accounting of treaty Chinook harvested by trollers begins with the winter fishery and ends with the summer fishery.

The winter troll fishery is managed to not exceed the guideline harvest level (GHL) of 45,000 treaty Chinook salmon and typically closes April 30. Fish tickets provide inseason information on harvest and effort throughout the fishery. In years when the winter fishery closed prior to April 30 because the GHL was reached (2003–2006, 2011, 2012, 2015, and 2016), daily tallies from regional processors were an important tool in tracking harvest during the final weeks of the fishery. During these years, several spring fishery areas opened prior to May 1.

Spring fisheries are conducted along Chinook salmon migration routes or close to the following hatcheries and release sites: Little Port Walter Hatchery; Port Armstrong Hatchery; Macaulay Hatchery (Douglas Island Pink and Chum, Inc.); Whitman Lake Hatchery; Crystal Lake Hatchery; Neets Bay and Anita Bay release sites (Southern Southeast Regional Aquaculture Association); and Medvejie Hatchery and Hidden Falls Hatchery (Northern Southeast Aquaculture Association). Each spring troll fishing area is managed individually. During years in which the winter fishery is open through April 30, several spring troll areas typically open on May 1 and are open continuously, rather than on a weekly schedule. These are areas that, in past years, had high Alaska hatchery contributions or had both a low harvest and a treaty Chinook component that was well below the limit for that area. Those areas could be closed, however, if the treaty Chinook limit is reached.

Other spring troll areas open for a portion of the week at the start of the season. However, some of the more remote areas have been opened for longer periods initially, in order to attract trollers to these areas and hopefully obtain large enough sample sizes to provide more precise estimates of Alaska hatchery contributions. While most Terminal Harvest Areas (THA) open on May 1 and remain open for extended periods of time, some open in accordance with the fishing schedules provided in the THA management plans.

Most spring troll and terminal troll fisheries target Alaska hatchery-produced Chinook salmon, though treaty Chinook are also harvested. Although there is no ceiling on the number of Chinook salmon harvested in the spring fisheries, the take of treaty Chinook salmon is limited according to the percentage of the Alaska hatchery fish taken in the fishery. Treaty fish are counted towards the annual PST quota of Chinook salmon, while most of the Alaska hatchery fish are not.

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<sup>1</sup> Under the terms of the PST, the number of treaty fish is the total harvest minus the add-on. The add-on is the number of Alaska hatchery-produced Chinook salmon minus: 1) 5,000 fish for pre-treaty harvests of Alaska hatchery Chinook salmon and 2) a risk factor. The risk factor is the standard deviation of the estimate of the total number of Alaska hatchery Chinook salmon.

The guideline limits of treaty fish that may be harvested in each spring fishing area are as follows:

Alaska hatchery contribution to the harvest	Treaty fish limit
Less than 25%	1,000
At least 25% and less than 35%	2,000
At least 35% and less than 50%	3,000
At least 50% and less than 66%	5,000
66% or more	no limit

If the preseason Abundance Index (AI) is 1.15 or above (commercial troll allocation of 120,833 Chinook salmon) and the number of Chinook salmon remaining on the winter GHL to be harvested is between 10,000 and 15,000 fish, then an additional 250 non-Alaska hatchery-produced Chinook salmon will be added to the treaty caps under each tier. If the number of Chinook salmon remaining on the winter GHL is greater than 15,000 fish, then an additional 500 Chinook will be added to the treaty cap tiers [5 AAC 29.090 (d)(3)(A) and (B)].

Directed Chinook salmon fisheries have also been conducted during May and June in some recent years. An agreement was approved between the United States and Canada during the PSC meeting held in February 2005. This agreement allows directed commercial and sport fisheries on Chinook salmon returning to the Taku and Stikine Rivers, depending on the run forecasts. Management plans were adopted by the BOF in January 2006, which describe fishing areas and schedules for commercial and sport fisheries in Districts 8 and 11. In 2009, the U.S. and Canada agreed to a revised escapement goal range for large (>659 mm mid eye to tail fork [METF]) Taku River Chinook salmon of 19,000 to 36,000 fish, with a point goal of 25,500 large Chinook salmon. In addition to targeting Chinook salmon in the spring troll fisheries, trollers have targeted hatchery-produced chum salmon during the spring in Icy Strait, West Behm Canal, and Neets Bay. Please refer to the *Chum Troll Fishery* section of this document for more detail.

Fish tickets and biological sampling data provide information on harvest, effort, and stock composition for the spring fisheries. This information is processed on a daily basis and is essential for the inseason management of the spring fisheries. ADF&G personnel examine fish deliveries, and the heads of adipose-clipped fish are shipped to the Mark, Tag, and Age Lab in Juneau. Coded wire tag data, provided by the tag lab, is used in season to estimate the Alaska hatchery contribution to the harvest in each area. Fishing time for the following weeks is determined using this information in combination with historical harvest timing information in each area. Fishing time is extended or curtailed during the week by emergency order as more tag data and harvest information becomes available.

The summer troll Chinook salmon fishery targets the remainder of the troll treaty Chinook quota during one or more openings. The department conducts a Fisheries Performance Data program (FPD) to help estimate the catch per unit of effort (catch per boat day [CPBD]) in season during the summer fishery, and during winter in years where the GHL is estimated to be reached prior to April 30. Confidential interviews are conducted with trollers to obtain detailed CPBD data. Aerial vessel surveys are conducted to obtain an immediate estimate of fishing effort. Total harvest to date is estimated by multiplying aerial vessel counts with the CPBD obtained from the interviews. Daily summaries of both conventional and electronic fish tickets are important tools in tracking harvest during the final days of each summer Chinook opening, similar to the winter

fishery. The department encourages trollers to report information on catch rates, effort, weather, water temperatures, and other factors that influence the pace of the fishery by phone or email during Chinook openings.

## **COHO SALMON FISHERY**

The regulatory period for coho salmon retention in the troll fishery is June 1 through September 20, with a potential extension through September 30 in years when wild coho salmon abundance is projected to meet escapement needs after harvest and effort are considered [5 AAC 29.110(a)]. Troll harvests of coho salmon peak between mid-July and early September, while harvests in the inside gillnet fisheries peak between late August and early October. Escapements into streams generally peak in late September through early October, though escapement timing into some systems is earlier.

All-gear harvests of coho salmon averaged 2.0 million fish during the 1940s (Figure 3). A decline in average harvest occurred during the next three decades, with a low decade average of 1.0 million fish in the 1970s. The BOF adopted a coho salmon fishery management plan in 1980 in response to increasing effort and efficiency in the hand troll fleet, increased capitalization and efficiency in the power troll fleet, and increased troll harvest in outside waters (Figure 4). This plan provides for conservation and allocation of coho salmon stocks in Southeast Alaska. The initial plan set the precedent for a midseason troll closure to provide for adequate distribution of coho salmon escapement and for allocation to other gear groups.

The average all-gear commercial coho salmon harvest increased to 1.9 million fish in the 1980s, 3.2 million fish in the 1990s, and 2.3 million fish in the 2000s, with an annual record of 5.5 million fish harvested in 1994 (Figure 3).

## **COHO SALMON MANAGEMENT METHODS**

The coho salmon fisheries are managed to comply with the Southeastern Alaska/Yakutat Area coho salmon fishery management plan (5 AAC 29.110). Inseason run strength is used to achieve ADF&G conservation objectives and BOF allocation objectives in the management plan (Table 2). The current coho management plan calls for a troll closure for up to seven days in late July if the total projected commercial harvest of wild coho salmon is less than 1.1 million fish [5 AAC 29.110 (b)(1)]. A troll closure for up to ten days typically occurs in mid-August and is required to be a minimum of two days by regulation for a fair start prior to any second Chinook salmon retention period. The actual length of that closure is determined in early August, when an assessment determines whether the number of coho reaching inside areas is adequate to provide for spawning requirements, given usual or restricted inside fisheries on coho and other species [5 AAC 29.110 (b)(2)(A)]; or the proportional share of coho salmon harvest by the troll fishery is larger than that of inside gillnet and recreational fisheries compared to average 1971–1980 levels [5 AAC 29.110 (b)(2)(B)]. If the department has concerns for coho escapement or allocation, the closure would be longer than two days and could last as many as ten.

There are no harvest ceilings for Southeast Alaska coho salmon fisheries. However, under the 2008 PST, the area near the U.S./Canada border will close if the harvest rates by Alaska trollers fishing in the border area during early July fall below specified thresholds.

Long-term wild stock and hatchery stock CWT programs, dockside sampling programs, escapement monitoring, and the troll FPD collection program all began in the early 1980s and

continue through the present day. As years of data were gathered from each program, more information and understanding of stock movement, timing, and harvest were accumulated. As a result, a model was developed in 1989 to accurately estimate the end of season all-gear coho salmon commercial harvest by late July using the salmon troll FPD. In the mid-1990s, escapement goals were established for several stocks in Southeast Alaska based on spawner-recruit relationships from long-term databases of harvest rate, age composition, and escapement information. These long-term monitoring programs have provided the backbone for successful conservation of coho salmon in Southeast Alaska.

## **EFFORT IN THE TROLL FISHERY**

Limited entry for the power troll fishery was instituted in 1974, and the first permits were issued in 1975 when 1,078 permits were renewed and 762 were fished (Table 3). The number of renewals gradually decreased over time while the number of permits fished fluctuated between a peak of 847 in 1991 to a low of 637 in 2003. After a steady decline in power troll effort between 1993 and 2003, the number of permits fished increased from 2004–2006, and has remained relatively stable during the 2006–2017 time period.

After the power troll fleet came under limited entry, the hand troll fleet, which was not yet limited entry, increased dramatically. In the late 1970s, limited entry for the hand troll fleet was under consideration by the Commercial Fisheries Entry Commission (CFEC), and the number of hand troll permits fished doubled from 1,092 permits in 1975 to a high of 2,624 permits in 1978. Due to this increased effort, the CFEC initiated a selective limited entry regime for the hand troll fishery in 1980, and the first permits were issued in 1982. The number of hand troll permits fished declined steadily from 1979 through 2002, when hand troll participation reached a low point of 253 permits. From 2003 to 2008, the number of hand troll permits fished increased to 375 and has since declined to 250 permits fished in 2017. The percentage of active hand troll permits in the fleet has declined from 76% in 1978 to a new record low of 26% in 2017. The percentage had remained relatively stable at 28–34% between 1997 and 2015, but decreased in 2016 and again in 2017. The combined power troll and hand troll permits fished of 972 during 2017 was below both the recent 5-year and 10-year averages. However, effort in the majority of individual statistical weeks (SW) throughout the season was close to recent averages, with the exception of SW 34–36, which would have corresponded to the second summer Chinook salmon retention period but did not occur in 2017 (Figure 5).

Historically, the number of fishing days in the Chinook salmon general summer fishery dropped from a high of 169 days in 1978 and 1979 to a low of 4 days in 2017. Prior to 1980, there were no regional closures during the summer season, April 15–September 30. Summer fishery Chinook retention boat-days of effort have ranged from a high of 35,646 in 1986, to a low of 2,177 boat-days during the 2017 season.

## **SUMMARY OF THE 2017 SEASON**

In 2017, a total of 722 power troll permits and 250 hand troll permits were fished during the calendar year (Table 3; Figure 6). Power troll effort has been relatively stable when compared to hand troll effort. Power troll effort decreased in two of the three troll fisheries when compared to 2016. Hand troll effort also decreased in two of the three seasonal troll fisheries and was the lowest number of annual permits fished on record since statehood. Combined power troll and hand troll effort increased by 6 permits during the winter fishery, decreased by 155 permits

during the spring fishery, and decreased by 6 permits during the summer fishery when compared to effort in 2016 (Table 4; Figure 6). The decrease in overall hand troll effort compared to the 2016 year was around 8%, while overall power troll effort decreased by 3% (Table 3).

Fluctuations in effort relate strongly to salmon prices and abundance, and to a lesser degree, the availability of alternate commercial troll opportunities in the Pacific Northwest. The number of boat-days of effort in 2017 during Chinook retention periods was 2,177, which was a decrease of 79%, 69%, and 68% from the 2016, 5-year, and 10-year averages, respectively (Table 5; Figure 7). Effort data was derived from dockside interviews of trolling vessels in conjunction with harvest and effort data from troll fish tickets.

A total of 700 permits were fished during the July opening, which is a decrease of 41 permits when compared with July 2016. The fleet included a total of 63 catcher-processors (freezer boats) during 2017, a decrease of 3 permits when compared to 2016 participation.

The troll fleet harvested approximately 2.7 million salmon during the 2017 season, which is a 45% increase from the 2016 harvest and an increase of 15% when compared to the recent 10-year average (Table 6). The harvest of chum and pink salmon increased by 144% and 1% compared to 2016, respectively. The summer troll fishery included a single Chinook salmon retention period, from July 1 to 4. In addition to the traditional July retention period, an experimental mark-selective fishery (MSF) was conducted from July 5 to 21. The 2017 coho salmon harvest ranked as the sixth highest harvest since statehood as a result of above-average catch rates for an average number of permits fished during the first two months of the summer fishery (Figure 5). The coho harvest peaked during the week of July 16–22, when 15% of the annual harvest was taken (Table 7). The average weight of coho at 5.1 lbs was below 2016, the 5-year, and 10-year averages of 6.6, 6.0, and 6.1 lbs, respectively (Table 8). With below average troll effort and above average CPUE at the time of the September coho assessment, the troll season was extended through September 30 for parts of the region.

In 2017, hand troll vessels harvested 119,710 salmon and power troll vessels harvested 2.6 million salmon. The proportion of the commercial troll harvest taken by the hand troll fleet has decreased from a peak of 32% in 1978 to 4% in 2016 and 2017 (Tables 9 and 10).

The winter troll fishery was open from October 11, 2016, through April 30, 2017, with a total harvest of 43,839 Chinook salmon. The spring troll and terminal harvest area fisheries harvested 18,217 Chinook salmon from May 1 through June 30. During the summer troll fishery and MSF, trollers harvested 67,005 Chinook salmon (Table 11).

## **CHINOOK SALMON FISHERY**

During the 2017 season, the troll harvest of Chinook salmon was managed to 1) comply with the 2008 PST, 2) continue the Southeast Alaska natural Chinook conservation program, 3) provide maximum harvest of Alaska hatchery-produced Chinook, 4) minimize incidental mortality during Chinook non-retention periods by closing areas of high Chinook salmon abundance, and 5) comply with terms of the incidental take permit issued by the National Marine Fisheries Service.

The 2017 total all-gear (troll, purse seine, drift gillnet, set gillnet, Annette Island, and recreational fisheries) Chinook salmon harvest was 208,662 fish, of which 36,069 fish were of Alaska hatchery origin. The all-gear Alaska hatchery add-on of 29,650 fish was calculated by subtracting the pre-treaty base hatchery harvest and risk adjustment from the Alaska hatchery



contribution. Trollers harvested 129,525 Chinook salmon, of which 8,609 were of Alaska hatchery origin. Purse seiners harvested 10,916 Chinook salmon, of which 8,013 were of Alaska hatchery origin. The drift gillnet fleet harvested 13,854 Chinook salmon, of which 10,959 were of Alaska hatchery origin. Troll, purse seine, and drift gillnet harvests include terminal area and Annette Island harvests. The Yakutat set gillnet fleet harvested 367 Chinook salmon, all of which were treaty fish. The recreational sport fisheries are estimated to have harvested 54,000 Chinook salmon, of which 8,488 were of Alaska hatchery origin (Tables 11 and 12).

## **Winter Fishery**

The 2017 winter troll fishery began October 11, 2016, and closed by regulation on April 30, 2017. A total of 435 vessels participated in the fishery, with a harvest of 43,839 Chinook salmon (Tables 4, 11, and 13; Figure 8). The 2017 winter harvest total was 16% below 2016, 6% below the 5-year average, and 4% above the 10-year average. Unlike 2016 when the early winter fishery harvest (October 11–December 31) of 29,363 was more than double the 5-year and 10-year averages, the 2017 early winter harvest of 6,573 Chinook was 62% below the 5-year average, 48% below the 10-year average, and the fourth lowest early winter harvest since 1985. The Alaska hatchery contribution of 7% was slightly above 2016 but below the 5-year and 10-year averages of 9% and 10%, respectively.

## **Spring Fishery**

A total of 417 vessels participated in the 2017 non-terminal spring fisheries, with a harvest of 17,606 Chinook salmon. The largest Chinook salmon harvests were taken in the Sitka Sound, Chatham Strait, and Redoubt Bay spring troll areas (Table 14). The Chinook salmon harvest was 24,896 fish less than the 2016 non-terminal harvest (Table 15) and below the 5-year and 10-year averages by 56% and 54%, respectively. The total Alaska hatchery contribution, at 21%, was below the 5-year average (34%), the 10-year average (39%) and is the lowest on record since spring fisheries began in 1986. Preliminary estimates indicate Alaska hatchery returns were 36% below forecast, which was a contributing factor to the record low proportion of the harvest. The total spring and terminal effort of 475 permits in 2017 was 19%, 19%, and 17% below 2016 and the 5-year and 10-year averages, respectively. A total of 34 spring areas and seven terminal fisheries were open in spring 2017 (Figure 9). Other species harvested during the spring season, including Annette Island troll harvest, were 50 sockeye, 1,843 coho, 1,349 pink, and 1,054 chum salmon (Table 7).

### ***Management Actions to Conserve Wild Southeast Alaska Chinook Salmon***

In addition to the provisions of the management plans for winter, spring, and summer troll, these fisheries are also managed pursuant to the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222), whereas impacts of fishing on salmon escapement are assessed and considered in management decisions, and necessary conservation restrictions may be imposed in order to achieve escapement, rebuild, or in some other way conserve a specific salmon stock or group of stocks. Additionally, the PST requires that SEAK fisheries be managed to achieve escapement objectives for SEAK and Transboundary River stocks.

In 2017, preseason return and escapement forecasts for Chilkat, Taku, Stikine, and Unuk River Chinook salmon were near or below the lower bound of spawning escapement goals, with forecasts to the Taku and Stikine Rivers the lowest and nearly the lowest on record, respectively. With the majority of SEAK wild Chinook salmon stocks in a period of poor production,

restrictive management actions were necessary to help reduce encounters and conserve these stocks. Commercial troll management measures, based on coded wire tag and run timing data, were implemented during the 2017 winter, spring, and summer troll fisheries. Although the majority of the wild SEAK Chinook salmon harvest in the troll fishery occurs between mid-March and early July, most management actions focused on restrictions in June. In addition to the actions in June, restrictions in April, May, and August also occurred.

### **Taku and Chilkat Rivers**

Fishery restrictions to reduce harvest of Taku and Chilkat River Chinook salmon began during the end of the winter troll fishery, April 15, with the waters of Sections 11-B, 11-C, 11-D, 12-B, and 15-C closing to troll gear through April 30. These waters also remained closed during May and June, as there are no spring troll fisheries conducted in these areas. Additionally, the waters of Section 15-A, north of the latitude of Sherman Rock, were closed to troll gear from April 15 through December 31. Furthermore, spring troll fisheries in Cross Sound, Icy Strait, and Chatham Strait that target Chinook salmon had reduced opening lengths and delayed initial openings during weeks these stocks have historically been encountered, from May 1 through June 15. Spring troll fisheries that target chum salmon in the Icy Strait and Northern Chatham Strait areas were also delayed from the historical initial opening date of May 1 to June 15. Lastly, a directed troll fishery to target Taku River Chinook salmon was not opened in 2017.

### **Stikine River**

Management actions taken to help reduced encounters of Stikine River Chinook salmon began during spring troll fisheries. The Baht Harbor spring fishery, located on the north side of Zarembo Island, was not opened in 2017. Additionally, openings during periods Stikine River fish have been historically harvested (SW 18–22) in the Craig Point, Chichagof Pass, and Chatham Strait fisheries were reduced and limited to a predetermined number of days.

### **Unuk River**

Troll fishery conservation restrictions for Unuk River Chinook salmon began with the closure of Section 1-C, which was implemented during the end of the winter troll season, from April 1–30. These waters remained closed during May and June because they are not open to spring troll fisheries. Spring troll management actions included continued closures of several areas that had been open prior to 2014 (West Behm Canal, Point Alava, Clarence Strait, and a large portion of what had been the Ketchikan spring troll area). Since 2014, the Ketchikan spring troll area has been divided into three subareas to increase the level of detail in stock composition data. Additionally, from 2014 through 2017, what had been the Sumner Strait spring troll area during previous years was split into two subareas for the same reason. Preseason restriction plans for spring fisheries near Ketchikan included reduced fishing time and delayed initial openings in several areas throughout June (Ketchikan Area, West Rock, Kendrick Bay, and South Sumner Strait). However, as inriver assessments became available, it was apparent that further management actions were necessary, and all spring troll areas located in Districts 1 and 2 (with the exception of a much reduced Mountain Point area) closed from May 29 through June 30.

In addition to the time and area restrictions listed in the above sections for each stock, as inseason escapement estimates were updated and projections for SEAK stocks downgraded from what were already low preseason forecasts, a regionwide closure of non-terminal spring troll

fisheries was implemented from May 29 through June 15, 2017. See the Wild Stock Escapement section for detailed 2017 wild SEAK Chinook return estimates.

### ***Districts 8 and 11 Transboundary Rivers Directed Chinook Salmon Fisheries***

#### **District 8**

The 2017 preseason terminal run forecast for large Stikine River Chinook salmon was 18,300 fish, which did not provide any Allowable Catch (AC) for U.S. or Canadian directed commercial fisheries to begin in May. Inseason terminal run estimates produced in June were again too low to allow for directed fisheries. Spring troll fisheries targeting Alaska hatchery-produced Chinook salmon were opened on a limited basis in District 8, according to the *Management of the Spring Salmon Troll Fisheries*. The preliminary escapement estimate of less than 10,000 fish is below the escapement goal range of 14,000–28,000 and possibly the lowest on record.

#### **District 11**

The 2017 preseason terminal run forecast for large Taku River Chinook salmon was 26,100 fish, which did not provide any AC for U.S. or Canadian directed commercial fisheries to begin in May. Inseason terminal run estimates produced in June were again too low to allow for directed fisheries. The preliminary escapement estimate of 7,000 fish is below the escapement goal range of 19,000–36,000 and similar to the Stikine, may be the lowest on record.

#### **General Summer Fishery**

The SEAK Chinook salmon fishery is managed to achieve the annual all-gear PSC allowable harvest associated with the preseason AI generated by the CTC Chinook Model each spring. Alaska configured its 2017 summer troll fishery using an assumed AI of 1.27 (Table 1). The harvest is allocated through regulations established by the BOF among troll, net, and sport fisheries as follows: 4.3% to the purse seine fleet, 2.9% to the drift gillnet fleet, and 1,000 fish to the set gillnet fleet. The total net gear allocation is subtracted from the all-gear harvest, and the remainder is divided between the troll and sport fisheries in an 80/20 split, which translated to 154,880 fish to the troll fishery [5 AAC 29.060(b)].

The first summer troll Chinook salmon retention period began on July 1 and was managed in season with no predetermined length, targeting an estimated 63,000 Chinook. Based on catch rates observed in past years with abundance indices similar to 1.27, most recently during 2010 and 2012 when the daily fleet catches reached nearly 10,000, catch rates were expected to be moderate (7,000–10,000 Chinook/fleet/day). Effort was anticipated to be up compared to recent years in response to spring troll restrictions that limited opportunities and reduced the seasonal spring troll harvest. A total of 458 vessels were observed during aerial vessel count surveys conducted on July 3, a decrease of approximately 18 vessels from the number counted on July 2 in 2016. Based on elevated CPUE data received on the afternoon of the third day of the Chinook retention period, it was estimated that a closure after four days of fishing would be necessary to avoid harvesting fish in excess of the July target. The department announced on July 3 that the first retention period would close at 11:59 p.m. the following night. A total of 64,325 Chinook salmon were harvested during the 4-day opening by 700 permits, with a catch/fleet/day of 16,081 Chinook. The total harvest included 1,808 fish (3%) of Alaska hatchery origin, which is equal to the 5-year and 10-year averages. A total of 63,138 treaty Chinook were harvested during the first retention period, after subtracting the Alaska hatchery Chinook add-on of 1,187 from the total harvest (Tables 11 and 16). Following the closure of the first Chinook retention period, areas

described under 5AAC 29.025 *Waters of frequent high king salmon abundance* were closed for the duration of the summer season (Figure 10).

In addition to the traditional first summer retention period, an experimental mark-selective fishery (MSF) was conducted from July 5 to 21. The MSF was implemented in an effort to increase harvest rates on hatchery stocks including those of Alaska origin, as indicated by the absence of an adipose fin, while reducing impacts on natural origin Chinook. This fishery was prosecuted in accordance with AS 16.050.060(a) and 5 AAC 29.100(c)(1)(A) to take the remainder of 70 percent of the remaining troll Chinook harvest allocation, calculated as the annual troll harvest allocation minus the winter and spring troll harvests of treaty Chinook. Chinook greater than 28 inches with an adipose-clip were allowed for retention and sale. The fishery was opened until further notice and closed by emergency order with no predetermined length. A total of 365 permits landed Chinook during the 17-day MSF with a total harvest of 2,680 and a treaty harvest of 2,585 Chinook.

With SEAK wild Chinook stocks that are historically harvested in August and September fisheries exhibiting poor production and not meeting escapement goals or objectives in 2017, Chinook salmon retention in all SEAK commercial and sport fisheries closed for the season on August 10, and no second summer troll Chinook retention period was opened.

## **COHO SALMON FISHERY**

Coho salmon retention began on June 1, by regulation. The total wild coho abundance was projected at 5.65 million fish, which was 47% above the 1982–2016 average of 3.84 million fish and ranked third highest in 36 years. The first run strength assessment in late July projected an all-gear commercial harvest of 2.64 million wild coho, well above the 1.1 million fish conservation threshold for an early season closure (5 AAC 29.110. *Management of coho salmon troll fishery*). It was also determined that a boundary area closure was not required. The Pacific Salmon Treaty requires that waters in the boundary area be closed for 10 days beginning in SW 31 if the mean-average troll coho CPUE for weeks 27–29 in troll Area 6 (Districts 1 and 2) is between 15 and 22 coho/day. The mean-average CPUE for weeks 27–29 of the 2017 fishery was 93 coho/day, which was well above the trigger for a closure. Regional power troll catch rates were above average in July, following the first Chinook retention period. The second coho salmon run strength assessment in early August projected an all-gear commercial catch of 2.63 million wild coho and a total return of 5.47 million wild coho, based on average wild coho power troll CPUE for the summer troll season through week 31. The wild abundance projection was above average (3.84 million) and ranked third highest in 36 years, while the wild commercial catch projection ranked fifth highest in 36 years and was also above average (2.07 million). The 2017 troll coho salmon harvest through SW 31 (week beginning July 30) was 1,270,489 fish, which was above the 20-year average of 709,993. Regional catch rates were at or above average in all Big Six areas from SW 29–31 (Figures 11–13). The SW 29–31 power troll effort in 2017 was approximately 15% above the 2016 region wide power troll effort and 37% above the 20-year average.

As part of the second assessment in August, the strength of coho salmon returns to inside areas was evaluated by assessing the performance of the drift gillnet fisheries. One of the best measures of coho salmon run strength is cumulative catch-per-boat-day (CPBD) in the four major drift gillnet fisheries, though gillnet fisheries are not necessarily very good indicators of the actual overall coho abundance until later in the season once coho becomes the target species

(Figure 14). The coho salmon management plan utilizes a run assessment based largely on wild stock escapement projections and catch per unit of effort in the drift gillnet fisheries. Only the District 6 fishery shows substantial numbers of hatchery fish in the catch through late July/early August, so the strength of the District 6 wild component is of particular interest. The 2017 CPBD in the Tree Point and Prince of Wales fisheries exceeded the 1971–80 average, while the Taku/Snettisham and Lynn Canal fisheries were below the 1971–80 average until SW 38 (Figure 14).

Coded wire tag recoveries through SW 30 suggested an average marine survival of 10% and a forecasted total run size of 3,400 adults for Hugh Smith Lake. After factoring the 10-year average all-gear exploitation rate of 46–62%, the escapement of 1,300–1,850 spawners was projected for 2017, exceeding the biological escapement goal (BEG) of 500–1,600. Early indicators of the coho run in the Taku River through mid-SW 31 were mixed. The cumulative fish wheel catch of 191 coho salmon in the upper two Taku River fish wheels was an improvement over the 100 fish caught by the same date in 2016, but remained below the 10-year average of 242 fish and the 20-year average of 218 fish, ranking 20th highest in 31 years of fish wheel operation. In addition to the fish wheel harvest, the District 11 gillnet cumulative coho CPUE through SW 32 was 18, below the 10-year average of 22.5, and the cumulative mark–recapture abundance estimate was also tracking below to the 1987–2016 average through SW 32 (Figure 15). Indicators of run strength to northern inside streams, as represented by the Chilkat River fish wheel harvests (Figure 16), are less reliable at the time of the second coho salmon assessment compared with indicators for southern Southeast. Given the recent trend toward lower exploitation rates, achievement of escapement goals even in years of lower returns, and signs of improved freshwater production from northern mainland systems, it appeared likely that goals would be met. However, the preseason outlook was poor (similar to 2016) for marine survival in northern inside systems (Lynn Canal and Stephens Passage). ADF&G was optimistic this would be offset to some extent by strong smolt production correlated to the Berners River smolt recapture estimate in 2016 and favorable precipitation during late summer and fall the year prior to smolting. Therefore, returns to northern inside systems were closely monitored for the remainder of the fishing season. Based on wild return and commercial harvest projections, troll catch rates throughout the region since July 1, cumulative drift gillnet harvest through SW 31 slightly above the 1971–80 average, and the low troll effort, no closure was recommended.

Coho salmon run strength was assessed for a third time during the second week of September. The wild commercial harvest and total all-gear commercial harvest projections for coho salmon were down from the estimates in early August, largely due to much reduced troll effort during late August and early September (Figure 5). This reduction in effort typically corresponds to the historic timing of the second Chinook salmon retention period; however, this fishery did not open in 2017. Coho catch rates in the troll fisheries had improved near the time of assessment as the regional troll CPUE was slightly above the 20-year average during SW 36, up from below the 20-year average during the previous week (Figures 11–13), but concurrent harvests from two of the four primary drift gillnet fisheries were below recent and long-term averages (Figure 14). The assessment provided support for extending the troll season in certain areas where the department had projected coho salmon escapement goals would be met and fish in excess of escapement needs were available.

On September 15, the department issued a news release announcing that the troll fishery would be extended for select outside waters and terminal harvest areas through September 30,

excluding the waters of frequent high king salmon abundance and the majority of inside fishing areas, which closed September 20. During the past 23 years (1994–2016), the coho salmon season has been extended 15 times (Table 17). There have been only five years (2003, 2004, 2013, 2014, and 2016) in which the entire region was open through September 30. Prior to 1994, extensions after September 20 were not an option. The overall wild coho abundance (wild troll catch divided by an index of the troll exploitation rate) was estimated at 4.72 million and was 18% above the 20-year average. For regionwide power troll, catch rates remained at or above the 1997–2016 average for the entire season, with the exception of SW 35, 37, and 38 (Figure 11). The 2017 total troll coho salmon harvest of 2,148,015 fish was the sixth highest since 1960 (Table 6).

## **CHUM SALMON FISHERY**

Trollers target hatchery-produced chum salmon in the spring troll areas located in Icy Strait/Homeshore/Northern Chatham Strait. During the 2017 spring and early summer fisheries, a total of 970 chum salmon were harvested by 15 permit holders targeting chum, with a peak of effort and harvest in SW 25 (Table 18). The harvest was 85% lower than 2016 and was the lowest harvest since the directed chum fisheries began in 2010.

Prior to 2014, trollers also targeted hatchery-produced chum salmon in West Behm Canal and Neets Bay during the last week of June, though the West Behm Canal spring troll area was closed to help conserve Unuk River Chinook in 2014, 2015, 2016, and 2017. The majority of the harvest and effort in the Neets Bay area traditionally occurs during the summer troll fishery.

### **Summer Chum Salmon Fishery**

Historically, chum salmon were harvested incidentally in the general summer troll fishery and were not targeted until the Cross Sound pink and chum fishery was established in 1988 as an indicator of pink and chum salmon abundance in inside waters. The troll chum harvest increased substantially in 1992 when, for the first time, over 1.0 million chum salmon returned to the Hidden Falls hatchery, located on eastern Baranof Island and operated by the Northern Southeast Regional Aquaculture Association. In 1993, the Northern Southeast Regional Aquaculture Association's Medvejie/Deep Inlet facility near Sitka saw a return of over 1.0 million chum, and the troll chum salmon harvest increased to over 500,000 fish. Since that time, trollers have targeted chum, and with the exception of 1999 and 2008, the annual troll harvest of chum salmon has been consistently greater than 100,000 fish (Table 6). The 2017 chum harvest of 402,843 for all troll fisheries combined was a 45% increase compared to 2016 but was below the 5-year average and right at the 10-year average. Effort directed at targeting hatchery-produced chum salmon increased through 2013 but has declined since then (Figure 17). Factors in the decline may include price, abundance of other salmon species, marine environment, and fish behavior. Trollers may choose to target chum salmon during the summer Chinook salmon openings or during weeks when they would normally target coho salmon. Though the troll fishery is not managed for chum salmon, the redirection of effort away from Chinook and coho salmon, which are managed in season, has had some effect on the total harvest and catch rates of those species.

In 2017, trollers targeting chum salmon harvested a total of 155,031 in Sitka Sound/Deep Inlet from a total return of 1,640,777 fish to the Medvejie/Deep Inlet facility. This represents the third highest troll chum harvest and the third highest effort for the area since 2010 with 115 permits fishing (Table 18). The Southern Southeast Regional Aquaculture Association provides an opportunity for the troll fleet to target chum salmon in the Neets Bay THA only in years in which

a surplus above broodstock and a cost recovery need are identified. Effort and harvest have fluctuated in the area from year to year, with 83 permits harvesting 118,605 chum salmon in 2017, the second highest annual harvest since 2009. Similar to effort in the Neets Bay THA, the number of troll permits targeting chum in the West Behm Canal area increased in 2017 when compared to 2016, and the harvest of chum salmon in the West Behm Canal area increased significantly for the first time since 2011. A total of 78 permits harvested 117,449 chum salmon during the 2017 summer troll fishery, which represents 27% of the 438,763 chum harvested there in 2011 and is a 326% increase from 2016. Compared to the recent 5-year average, this is a decrease of 4% and 41% for harvest and effort, respectively. The total troll chum salmon harvest for Neets Bay and all of West Behm Canal combined was 235,786 chum salmon by 95 permits, which was a 16% increase in harvest from the recent 5-year average and a 98% increase from 2016 (Figure 17).

## **OTHER SPECIES**

A total of 5,426 sockeye and 53,769 pink salmon were harvested during the general 2017 troll seasons (Table 6). Sockeye salmon harvest for 2017 was above the 10-year averages for 1960–1979 but below those from 1980–2009. Pink salmon harvest for 2017 was below average when compared to 10-year averages for 1960–2009. When compared to 2016, the pink harvest remained nearly the same, while the sockeye harvest decreased by 19%.

## **EXCLUSIVE ECONOMIC ZONE (EEZ) HARVESTS**

In 2017, approximately 8% of the Chinook (10,328 fish) and 5% of the coho salmon (97,892 fish) harvested by the troll fishery were reported as taken outside of state waters in the EEZ (Districts 150, 152, 154, 156, 157, and 189). In addition, 164 sockeye, 519 pink, and 398 chum salmon were taken in the EEZ. The Chinook salmon harvest of 10,328 from the EEZ represents 15% of the harvest during the troll Chinook retention period of the 2017 summer. This compares to the 5-year and 10-year averages of 18% and 19%, respectively. When all species are combined, 4% of the troll harvest was reported to be taken outside state waters. This represents a 2% decrease from the percentage of 2016 but the same as the 5-year and 10-year averages. Changes in harvest compared to recent years were influenced by the lower abundance of Chinook and the higher abundance of coho.

## **ALASKA HATCHERY PRODUCTION**

Private nonprofit and federal hatcheries in Southeast Alaska produce both Chinook and coho salmon that are harvested by the troll, drift gillnet, and purse seine fleets. Hatchery-produced Chinook salmon began appearing in significant numbers in troll harvests in 1980, when an estimated 5,900 fish were harvested. Alaska hatchery contributions are generally greatest during the spring fisheries, followed by the winter and summer fisheries (Tables 13, 15, and 16). The peak harvest of Alaska hatchery fish in the troll fishery occurred in 1996, when trollers harvested 38,365 Alaska hatchery Chinook, or 27% of the total troll Chinook salmon harvest. The all-gear Alaska hatchery Chinook harvest peaked in 1996, when 88,742 fish, or approximately 38% of the total harvest, were caught (Table 19; Figure 18). In 2017, the combined Alaska hatchery harvest contributed approximately 36,068 Chinook salmon to the commercial and sport fisheries, with 8,608 fish harvested in the troll fishery and 8,488 fish in the sport fishery (Table 19).

Hatchery-produced coho salmon were first documented in the troll harvest in 1980. The hatchery contribution to the total coho salmon harvest has increased from less than 1% in 1980 to 31% in

2013, with Alaska hatcheries producing nearly 100% of these fish. In 2017, the hatchery coho salmon contribution was 18% of the harvest and had a total contribution of 388,473 fish. This was approximately 38,000 fish above the 20-year average (Table 20; Figure 19). Hatchery coho contributions peaked in late July with 65,516 hatchery coho harvested during SW 29.

## **WILD STOCK ESCAPEMENT**

### **CHINOOK SALMON ESCAPEMENT**

Since a 15-year Chinook salmon rebuilding program began in 1981, ADF&G has annually estimated Chinook salmon escapements on 11 indicator systems. These escapements were initially measured against interim goals established prior to 1985, which in general were set as the largest escapements seen prior to 1981. As a part of the rebuilding program, ADF&G conducted CWT studies and improved escapement estimation methods. The department also sampled age and sex data in the escapement in order to collect data that would, when included with escapement data, allow the use of spawner-recruit analytical methods to set biological escapement goals (BEG), which is the number of salmon in a particular stock that should be allowed to escape fisheries and spawn, and provide the greatest potential for maximum sustained yield. With improved escapement estimation methods, BEG for the three Transboundary River stocks and the eight Southeast Alaska stocks have subsequently been revised. Current spawning escapements are determined using observer counts, mark-recapture estimates, and weirs.

In 2017, preliminary estimates indicate that two of the 11 Chinook salmon index systems monitored in Southeast Alaska met or exceeded spawning escapement goals (Table 21). This was identical to 2015 and 2016 when two of the 11 index systems met or exceeded escapement goals. The two river systems that were within or above BEG ranges in 2017 were the Keta River, a clearwater stream located on the south end of Misty Fjords National Monument near Ketchikan, and the Situk River, a small non-glacial system located near Yakutat.

The three Transboundary River stocks that are monitored for Chinook salmon escapement are the Alsek, Taku, and Stikine rivers, all of which had preliminary escapements that were below their BEG ranges. The Alsek, a large glacial system near Yakutat, had an escapement of about 1,800 Chinook, below the BEG range of 3,500–5,300 and the lowest since 2008. Chinook escapement to the Stikine River, a glacial origin system near Wrangell and the largest river in Southeast Alaska, had an estimated escapement of less than 10,000 Chinook, below the BEG range of 14,000–28,000 and below the previous low escapement of 2016. The Taku River, a large glacial system near Juneau, had an escapement of 7,000 Chinook which fell below the lower bound of the BEG range of 19,000–36,000 and also marked the lowest observed survey counts in more than 40 years.

Escapements to the six other Southeast Alaska indicator systems, Andrew Creek and the Chilkat, Unuk, Chickamin, King Salmon, and Blossom rivers, all had Chinook salmon escapements that were below their BEG ranges. Andrew Creek, a small non-glacial U.S. tributary of the Lower Stikine River near Wrangell, had an estimated escapement of 349 fish. This was a 32-year low and similar to the escapement levels prior to the Chinook rebuilding program. The Chilkat River, a moderate-sized glacial system near Haines, had a Chinook escapement of 1,231 and marked the fifth year out of the last six that escapement to this system has fallen below the lower bound of the BEG and also marks the lowest recorded run since escapement estimates began on this system in 1991. The Unuk River, a glacial system in east Behm Canal, had an escapement of



1,203 Chinook, which was below 2016 and marked the fifth year out of the last six that escapement to this system has fallen below the lower bound of the BEG. The Chickamin and Blossom rivers, located within Misty Fjords National Monument in east Behm Canal near Ketchikan, had escapement survey counts of 152 and 88, respectively. Escapements to the Chickamin and Blossom Rivers were both below BEG ranges. Lastly, the King Salmon River, a small river system located on Admiralty Island, had an estimated escapement of 85 Chinook, which is below the BEG range and marks four of the last five years that the escapement goal has not been met.

## **COHO SALMON ESCAPEMENT**

Only a small percentage of the coho salmon escapements in Southeast Alaska are enumerated or surveyed because of the extremely scattered distribution of stocks and difficult conditions for observation of spawners during the fall months (Table 22). In 2017, weirs were operated on two systems, while foot or aerial surveys were conducted on another 27 streams. An adult tagging and recovery program has been in operation since 1987 to estimate the escapement of coho salmon to the Taku River.

Variations in environmental conditions and run timing can cause difficulties in obtaining ground and aerial survey escapement estimates that reflect actual spawner abundance. High water events appear to trigger spawning but also adversely affect stream visibility and make it difficult or impossible to accurately count fish. Once spawning occurs, stream life is typically very short and post-spawners are quickly removed by predators or flushed downstream by high water. Survey counts are usually higher when fall weather is dry and fish continue to accumulate in streams before spawning occurs. Low peak counts are often associated with fall seasons when sequential, protracted freshets occur in October that bring fish to the spawning areas and then flush out post-spawners while at the same time severely limiting survey opportunities. Improved precision can be obtained by conducting multiple surveys throughout the fall. This is feasible for some systems such as Juneau roadside streams, but it is more difficult and expensive for remote streams such as the major coho salmon producing systems in southern Southeast Alaska.

CWT studies conducted since the early 1980s have provided annual harvest rate estimates for four coho salmon stocks. These stocks include Auke Creek near Juneau, the Berners River in lower Lynn Canal, Ford Arm Lake on the outer coast north of Sitka (discontinued after 2015), and Hugh Smith Lake on the mainland southeast of Ketchikan (Figure 20). Fish are tagged in these systems and their contribution to the fisheries is estimated through ADF&G harvest sampling and CWT processing programs. Weirs are operated on the three lake systems to enumerate coho salmon escapements and to estimate the fraction of the returning population marked with CWTs. The Berners River escapement is intensively surveyed on foot. Samples for estimating the fraction of the returning population marked with CWTs are collected with beach seines. Escapement estimates for the Berners River are conservative, because a lower river weir is not employed, resulting in harvest rate estimates that are likely to be biased upward (Table 23).

Migrations into spawning streams generally peak in late September. Escapement goals for indicator streams have usually been met and have been exceeded in many cases in recent years (Tables 22–26; Figure 21). In 2017, returns to northern inside areas were within BEGs with the exception of Peterson Creek (Table 24). The estimated escapement to the Taku River above Canyon Island (57,871 spawners) was within the recently established BEG of 50,000–90,000 spawners. In Lynn Canal, escapement of 7,040 spawners in the Berners River was well within

the goal (4,000–9,200 spawners) while the Chilkat River escapement estimate of 34,742 spawners was near the lower end of the goal of 30,000–70,000 spawners (Table 24; Figure 21). Of the three index streams on the Juneau road system, escapement counts were within the BEG range for Auke Creek and Montana Creek and well below the BEG range for Peterson Creek.

Returns were generally average in outer coastal systems, and the escapement count of 1,280 spawners for five small streams on Baranof and Kruzof Islands was just under the 1982–2016 average of 1,331 spawners and far above the goal of 400–800 spawners (Table 25).

The overall index of 12,823 spawners for 15 streams in the Ketchikan (Southern Inside) area was the tenth highest on record and 24% above the 1987–2016 average of 10,364 spawners (Table 26; Figure 21). The total escapement to Hugh Smith Lake of 1,266 spawners was within the BEG range (500–1,600 spawners) for the third consecutive year, following a period of seven consecutive years (2008–2014) when the BEG was consistently exceeded. The aggregate survey index count for the other 14 streams (11,557 spawners) was above the long-term average and the BEG range of 4,250–8,500 spawners.

## **COHO SALMON EXPLOITATION RATES**

The average 2017 total exploitation rate by all fisheries on the three indicator stocks (Berners River, Auke Creek, and Hugh Smith Lake) was 44%, compared with the 1989–2016 average of 51% (Table 27; Figure 22). The estimate of 45% for the Hugh Smith Lake stock was the lowest total exploitation rate since 2002, was below the 1982–2016 average of 62%, was well below the 1990s average of 75%, and was near but also below the more recent 10-year average (53%). The low 2017 all-gear exploitation rate was influenced by a low purse seine exploitation rate of only 2% (compared with a long-term average of 9%) as a result of a poor pink salmon return that severely limited purse seine effort in southern districts. The decrease in the average exploitation on the Hugh Smith Lake stock after the 1990s was spread broadly across fishing areas, with the smallest change occurring in northern British Columbia fisheries and the Tree Point gillnet fishery and greater decreases in more northern fisheries. The decrease appeared to reflect in part a change in migration patterns, with fish approaching the coast more directly from offshore waters under recent ocean conditions. Similar to 2016, the 2017 distribution of the harvest indicates the stock returned to a more northward landfall (similar to the 1990s) and this factor may have been responsible for the increase in Alaska troll exploitation compared with recent years.

The 2017 troll fishery exploitation rate index of 34% was just below the 1982–2016 average of 35% (Table 28; Figure 23). While the Alaska troll exploitation rate for the Hugh Smith Lake stock (29%) represented an increase from recent years (2007–2016 average of 25%), troll exploitation rates for northern inside stocks (Auke Creek and Berners River) increased to 28–34% from record lows of 7–8% in 2016, as returning northern inside coho salmon entered migration corridors early and at small average size, and continued to feed there for a substantial period of time. The 2017 divergence from an overall trend toward lower troll exploitation rates also appears to have been influenced by a record low number of directed king salmon retention days.

## **TABLES AND FIGURES**

Table 1.—All-gear and troll treaty Chinook salmon harvest, hatchery add-on, total harvest, treaty quota, terminal exclusion harvest, and the number of fish over or under the quota, 1985–2017.

Year	All-gear							Troll			
	Treaty harvest	Hatchery add-on	Terminal exclusion	Total harvest	Preseason treaty quota	Postseason treaty quota	Over/Under preseason quota	Treaty harvest	Total harvest	Preseason treaty quota	Over/Under preseason quota
1985	268,293	6,246	0	274,539	263,000	263,000	5,293	211,933	215,811	—	—
1986	271,262	11,091	0	282,353	263,000	263,000	8,262	231,649	237,703	—	—
1987	265,323	17,095	0	282,418	263,000	263,000	2,323	231,051	242,562	218,000	13,051
1988	256,787	22,525	0	279,312	263,000	263,000	-6,213	217,088	231,364	218,000	-912
1989	269,522	21,510	0	291,032	263,000	263,000	6,522	224,182	235,716	218,000	6,182
1990	320,996	45,873	0	366,869	302,000	302,000	18,996	263,528	287,939	257,000	6,528
1991	297,986	61,476	0	359,462	273,000	273,000	24,986	231,803	264,106	228,000	3,803
1992	221,980	36,811	0	258,791	243,000	243,000	-21,020	162,617	183,759	167,790	-5,173
1993	271,193	32,910	0	304,103	263,000	263,000	8,193	212,350	226,866	201,690	10,660
1994	235,165	29,185	0	264,350	240,000	240,000	-4,835	177,146	186,331	180,400	-3,254
1995	176,939	58,800	0	235,739	175,000	202,500	1,939	115,072	138,117	—	—
1996	154,997	72,599	8,663	236,259	146,700	147,500	8,297	107,581	141,452	102,000	5,581
1997	286,696	46,463	9,843	343,002	277,200	289,500	9,496	221,944	246,409	214,761	7,183
1998	243,152	25,021	2,420	270,593	261,700	260,000	-18,548	183,489	192,066	192,176	-8,687
1999	198,842	47,725	4,453	251,020	192,800	184,200	6,042	132,741	146,219	140,728	-7,986
2000	186,493	74,316	2,481	263,290	189,900	178,500	-3,407	133,963	158,717	138,507	-4,545
2001	186,919	77,287	1,528	265,734	189,900	250,300	-2,981	128,692	153,280	138,507	-9,816
2002	357,133	68,164	1,237	426,534	356,500	371,900	633	298,132	325,308	266,056	32,075
2003	380,152	57,228	2,056	439,436	366,100	439,600	14,052	307,380	330,692	273,406	33,973
2004	417,019	75,955	6,295	499,268	383,500	418,300	33,519	321,876	354,658	286,728	35,148
2005	388,637	64,326	40,154	493,117	416,400	387,400	-27,763	304,891	338,451	311,916	-7,025
2006	360,066	48,393	27,047	435,505	346,800	354,500	13,266	263,980	282,315	256,664	7,316
2007	328,197	68,391	8,051	404,639	329,400	259,200	-1,203	240,472	268,146	243,747	-3,275
2008	172,841	66,116	5,273	244,230	170,000	152,900	2,841	126,397	151,936	125,408	989
2009	228,033	61,907	3,733	293,674	218,800	176,000	9,233	159,166	175,644	161,637	-2,471
2010	230,750	53,449	500	284,699	221,800	215,800	8,950	178,023	195,614	163,864	14,159
2011	290,669	65,580	739	356,988	294,800	283,300	-4,131	220,371	242,193	218,060	2,311
2012	242,549	51,367	1,106	295,022	266,800	205,100	-24,251	191,519	209,036	197,272	-5,753
2013	191,428	65,558	266	257,252	176,000	284,900	15,428	134,600	149,541	129,862	4,738
2014	435,166	56,600	736	492,502	439,400	378,600	-4,234	340,007	355,570	325,411	14,596
2015	335,029	68,094	216	403,339	237,000	337,500	98,029	251,088	269,862	175,145	75,943
2016	353,704	35,104	664	389,472	355,600	288,200	-1,896	266,008	276,432	263,197	2,811
2017	178,953	30,568	60	208,662	209,700		-30,747	123,662	129,525	154,880	-31,218
1985–2016 Cumulative Total							145,071	1985–2016 Cumulative Total			186,933

Note: 2017 quota is based on the preseason Abundance Index. The final quota is based on the first postseason calibration of the Abundance Index.

Table 2.—Harvest and percent of commercially harvested coho salmon by gear type in Southeast Alaska, 1989–2017.

Year	Commercial troll		Purse seine		Drift gillnet		Set gillnet		All-gear total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1989	1,415,517	65%	333,116	15%	255,689	12%	176,816	8%	2,181,138	100%
1990	1,832,604	67%	379,334	14%	377,803	14%	148,891	5%	2,738,632	100%
1991	1,719,082	59%	411,854	14%	601,179	21%	166,731	6%	2,898,846	100%
1992	1,929,945	56%	505,135	15%	699,448	20%	290,149	8%	3,424,677	100%
1993	2,395,887	67%	477,006	13%	445,880	13%	237,446	7%	3,556,219	100%
1994	3,467,599	63%	970,100	18%	744,558	13%	343,903	6%	5,526,160	100%
1995	1,750,262	56%	627,472	20%	456,820	15%	295,030	9%	3,129,584	100%
1996	1,906,769	64%	447,005	15%	404,627	14%	227,802	8%	2,986,203	100%
1997	1,170,534	64%	189,036	10%	156,725	9%	322,776	18%	1,839,071	100%
1998	1,636,711	59%	475,232	17%	441,458	16%	197,669	7%	2,751,070	100%
1999	2,272,653	69%	422,926	13%	394,260	12%	187,186	6%	3,277,025	100%
2000	1,125,219	67%	210,528	12%	181,796	11%	170,948	10%	1,688,491	100%
2001	1,845,627	63%	556,193	19%	338,083	11%	205,344	7%	2,945,247	100%
2002	1,315,062	53%	479,489	19%	491,683	20%	200,888	8%	2,487,122	100%
2003	1,223,458	56%	400,988	19%	467,337	22%	74,343	3%	2,166,126	100%
2004	1,916,675	67%	405,151	14%	339,466	12%	196,930	7%	2,858,222	100%
2005	2,038,296	74%	348,072	13%	297,878	11%	82,887	3%	2,767,133	100%
2006	1,362,983	74%	114,313	6%	277,853	15%	86,085	5%	1,841,234	100%
2007	1,378,062	72%	252,575	13%	204,081	11%	76,550	4%	1,911,268	100%
2008	1,293,030	63%	215,648	11%	377,469	19%	153,712	8%	2,039,859	100%
2009	1,591,547	67%	298,614	13%	351,367	15%	133,808	6%	2,375,336	100%
2010	1,343,032	59%	203,284	9%	579,328	25%	161,584	7%	2,287,228	100%
2011	1,314,210	63%	352,128	17%	285,983	14%	126,215	6%	2,078,536	100%
2012	1,201,724	64%	280,116	15%	303,041	16%	98,677	5%	1,883,558	100%
2013	2,393,790	67%	553,501	15%	482,433	13%	158,046	4%	3,587,770	100%
2014	2,248,371	66%	394,174	12%	599,606	18%	161,977	5%	3,404,128	100%
2015	1,241,100	64%	294,550	15%	274,909	14%	129,069	7%	1,939,628	100%
2016	1,386,634	66%	267,213	13%	299,645	14%	144,032	7%	2,097,503	100%
2017	2,148,015	78%	276,566	10%	189,564	7%	140,844	5%	2,754,989	100%
1989–2016 Average:	1,704,156	64%	388,027	14%	397,514	15%	176,982	7%	2,666,679	100%
Board of Fisheries Allocations (Est. 1989)		61%		19%		13%		7%		
1989–2016 Deviation from Allocations		5%		-25%		15%		-3%		
2017 Deviation from Allocations		28%		-47%		-47%		-27%		

Note: Annette Island and terminal harvest are included.

Table 3.–Southeast Alaska commercial troll permits fished, 1975–2017.

Year	Hand troll permits fished	Power troll permits fished	Total fished	HT/Total fished
1975	1,092	762	1,854	59%
1976	1,238	745	1,983	62%
1977	1,836	750	2,586	71%
1978	2,624	816	3,440	76%
1979	2,207	819	3,026	73%
1980	1,667	842	2,509	66%
1981	1,153	793	1,946	59%
1982	1,067	810	1,877	57%
1983	946	810	1,756	54%
1984	860	795	1,655	52%
1985	903	830	1,733	52%
1986	804	827	1,631	49%
1987	763	828	1,591	48%
1988	777	828	1,605	48%
1989	694	830	1,524	46%
1990	699	839	1,538	45%
1991	700	847	1,547	45%
1992	645	837	1,482	44%
1993	600	836	1,436	42%
1994	547	804	1,351	40%
1995	460	818	1,278	36%
1996	412	737	1,149	36%
1997	387	740	1,127	34%
1998	304	732	1,036	29%
1999	338	721	1,059	32%
2000	315	712	1,027	31%
2001	307	701	1,008	30%
2002	253	666	919	28%
2003	265	637	902	29%
2004	324	688	1,012	32%
2005	353	715	1,068	33%
2006	371	737	1,108	33%
2007	375	740	1,115	34%
2008	375	745	1,120	33%
2009	364	745	1,109	33%
2010	339	729	1,068	32%
2011	372	760	1,132	33%
2012	353	743	1,096	32%
2013	362	722	1,084	33%
2014	347	756	1,106	31%
2015	354	751	1,105	32%
2016	273	745	1,018	27%
2017	250	722	972	26%

*Note:* Permits renewed available from CFEC. Permits fished based on calendar year. 1975–2016 permits fished data from CFEC, 2017 data from ADFG.

Table 4.–Number of permits fished, by gear type and fishery, 1980–2017.

Year	Winter fishery			Spring <sup>a</sup> fishery			General summer fishery			
	Troll gear type		Total winter	Troll gear type		Total spring	Troll gear type		Total summer	Summer % HT
	Hand	Power		Hand	Power		Hand	Power		
1980	262	204	466	—	—	—	1,661	843	2,504	66%
1981	183	165	348	—	—	—	1,135	791	1,926	59%
1982	183	211	394	—	—	—	1,060	813	1,873	57%
1983	254	331	585	—	—	—	923	805	1,728	53%
1984	221	366	587	—	—	—	833	787	1,620	51%
1985	196	303	499	—	—	—	887	829	1,716	52%
1986	174	318	492	23	47	70	777	822	1,599	49%
1987	195	319	514	36	69	105	732	825	1,557	47%
1988	295	433	728	149	260	399	726	821	1,547	47%
1989	262	475	737	54	142	195	664	834	1,498	44%
1990	167	356	523	107	170	277	662	834	1,496	44%
1991	182	383	565	220	352	245	670	849	1,519	44%
1992	186	431	617	182	281	463	599	835	1,434	42%
1993	127	366	493	181	338	519	553	831	1,384	40%
1994	77	306	383	75	221	296	531	798	1,329	40%
1995	71	227	298	110	276	386	422	809	1,231	34%
1996	50	180	230	126	336	462	380	725	1,105	34%
1997	49	207	256	145	335	480	338	734	1,072	32%
1998	53	253	306	86	277	363	284	740	1,024	28%
1999	53	233	286	91	255	346	307	718	1,025	30%
2000	67	244	311	112	323	435	255	714	969	26%
2001	80	242	322	125	345	470	252	711	963	26%
2002	72	228	300	105	330	435	251	671	922	27%
2003	96	264	360	90	311	401	187	605	792	24%
2004	129	310	439	114	336	450	238	675	913	26%
2005	142	302	444	125	387	512	283	702	985	29%
2006	152	317	469	151	378	529	270	718	988	27%
2007	153	350	503	172	369	541	284	726	1,010	28%
2008	134	333	467	182	438	620	291	726	1,017	29%
2009	111	269	380	158	428	586	306	735	1,041	29%
2010	131	328	459	157	427	584	268	716	984	27%
2011	134	330	464	174	466	640	300	728	1,028	29%
2012	132	375	507	161	462	623	284	728	1,012	28%
2013	127	315	442	169	469	638	296	699	995	30%
2014	133	331	464	160	455	615	271	734	1,005	27%
2015	111	296	407	166	491	657	263	727	990	27%
2016	98	331	429	133	456	589	198	726	924	21%
2017	96	339	435	94	340	434	214	704	918	23%

<sup>a</sup> Spring includes experimental and terminal fisheries; does not include permits fished in the hatchery access fisheries in 1989–1992; includes terminal area permits for both spring and summer fisheries

Table 5.—Number of days and dates the summer troll salmon fishery was open to Chinook retention (CR), closed to Chinook retention (Chinook non-retention or CNR), closed to all salmon species (all) and effort during CR and CNR periods, 1985–2017.

Year	Days open	Days closed	Open dates	CR days	CR effort (boat days)	Closed dates	Days closed	CNR days	CNR effort (boat days)
1985	10	18	6/3–6/12	10	31,197	6/13–6/30	18 (all)	48.4	30,567
	23.6	68.4	7/1–7/22	22		7/23–8/14	23		
			8/25–8/26	1.6		8/15–8/24	10 (all)		
						8/26–9/20	25.4		
						9/21–9/30	10 (all)		
1986	41	62	6/20–7/15	26	35,646	7/16–8/10	26	42	29,901
						8/11–8/20	10 (all)		
						8/27–8/31	5		
			8/21–8/26	6		9/10–9/20	11		
			9/1–9/9	9		9/21–9/30	10 (all)		
1987	17	2	6/1–6/17	17	21,819	6/18–6/19	2 (all)	60	34,604
	23	80	6/20–7/12	23		7/13–8/2	21		
						8/3–8/12	10 (all)		
						8/13–9/20	39		
						9/21–9/30	10 (all)		
1988	23	2	6/6–6/28	23	11,357	6/29–6/30	2 (all)	47	22,820
	12	80	7/1–7/12	12		7/13–7/25	13		
						7/26–8/4	10 (all)		
						8/5–8/14	10		
						8/15–8/24	10 (all)		
						8/25–8/31	7		
						9/1–9/3	3 (all)		
						9/4–9/20	17 <sup>a</sup>		
						9/21–9/30	10 (all)		
1989	25	0	6/6–6/30	25	10,507	none	0	59	33,278
	13	79	7/1–7/13	13		7/14–8/13	31		
						8/14–8/23	10 (all)		
						8/24–9/20	28		
						9/21–9/30	10 (all)		
1990	26	0	6/5–6/30	26	17,988	none	0	48	27,742
	24	68	7/1–7/22	22		7/23–8/12	21		
						8/13–8/22	10 (all)		
			8/23–8/24	2		8/25–9/20	27		
						9/21–9/30	10 (all)		
1991	24	5	6/2–6/25	24	6,898	6/26–6/30	5 (all)	64.5	30,720
	7.5	84.5	7/1–7/8	7.5		7/8–8/15	38.5		
						8/16–8/25	10 (all)		
						8/26–9/20	26		
						9/21–9/30	10 (all)		

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Table 5.–Page 2 of 4.

Year	Days open	Days closed	Open dates	CR days	CR effort (boat days)	Closed dates	Days closed	CNR days	CNR effort (boat days)
1992	36	0	5/26–6/30	36		none	0		
	4.5	87.5	7/1–7/4	3.5		7/4–8/12	39.5		
						8/13–8/22	10 (all)		
			23-Aug	1	3,878	8/24–9/20	28		
						9/21–9/30	10 (all)	67.5	34,367
1993	38	0	5/24–6/30	38		none	0		
	20	72	7/1–7/6	6		7/7–7/11	5 (all)		
						7/12–8/12	32		
						8/13–8/20	8 (all)		
			8/21–8/25	5		8/26–9/11	17		
			9/12–9/20	9	12,094	9/21–9/30	10 (all)	49	27,009
1994	38	1	5/23–6/29	38		6/30	1 (all)		
	12	80	7/1–7/7	7		7/8–8/26	50		
						8/27–8/28	2 (all)		
			8/29–9/2	5	7,489	9/3–9/30	28	78	34,216
1995	38	2	5/22–6/28	38		6/29–6/30	2 (all)		
	17	75	7/1–7/10	10		7/11–7/29	19		
			7/30–8/5	7	9,013	8/6–8/12	7		
						8/13–8/22	10 (all)		
						8/23–9/30	39	65	19,963
1996	54	2	5/6–6/28	54		6/29–6/30	2 (all)		
	12	80	7/1–7/10	10		7/11–8/13	34		
						8/14–8/18	5 (all)		
			8/19–8/20	2	5,446	8/21–9/20	31		
						9/21–9/30	10 (all)	65	20,489
1997	52	5	5/5–6/25	52		6/26–6/30	5 (all)		
	21	71	7/1–7/7	7		7/8–8/7	31		
						8/8–8/17	10 (all)		
			8/18–8/24	7		8/25–8/29	5		
			8/30–9/5	7	9,161	9/6–9/20	15 <sup>b</sup>		
						9/21–9/30	10 (all)	51	14,054
1998	57	1	5/4–6/29	57		6/30	1 (all)		
	53	39	7/1–7/11	11		7/12–8/11	31		
			8/20–9/30	42	12,068	8/12–8/19	8 (all)	31	11,091
1999	59	0	5/3–6/30	59		none	0		
	11	81	7/1–7/6	6		7/7–8/12	37		
						8/13–8/17	5 (all)		
			8/18–8/22	5	4,328	8/23–9/30	39	76	22,037

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Table 5.–Page 3 of 4.

Year	Days open	Days closed	Open dates	CR days	CR effort (boat days)	Closed dates	Days closed	CNR days	CNR effort (boat days)
2000	74	1	4/17–6/29	74		6/30	1 (all)		
	24	68	7/1–7/5	5		7/6–8/10	36		
			8/11–8/12	2		8/13–8/22	10 (all)		
			8/23–8/30	8		8/31–9/11	12		
			9/12–9/20	9	6,237	9/21–9/30	10 (all)	48	13,399
2001	76	0	4/16–6/30	76		none	0		
	25	67	7/1–7/6	6		7/7–8/12	37		
						8/13–8/17	5(all)		
			8/18–9/5	19	7,458	9/6–9/20	15		
						9/21–9/24	4(all)		
						9/25–9/30	6	58	13,438
2002	77	0	4/15–6/30	77		none	0		
	40	52	7/1–7/18	18		7/19–8/9	22		
						8/10–8/11	2(all)		
			8/12–9/2	22	11,104	9/3–9/30	28	50	8,072
2003	72	0	4/20–6/30	72		none	0		
	39	53	7/1–8/8	39	10,811	8/9–9/30	53	53	8,422
2004	70	0	4/22–6/30	70		none	0		
	19	73	7/1–7/15	15		7/16–8/9	25		
						8/10–8/11	2(all)		
			8/12–8/15	4	7,353	8/16–9/30	46	71	14,665
2005	77	0	4/15–6/30	77		none	0		
	29.5	62.5	7/1–7/17	17		7/18–8/9	23		
						8/10–8/13	4(all)		
			8/14–8/20	6.5		8/20–9/14	25.5		
			9/15–9/20	6	10,083	9/21–9/30	10(all)	48.5	12,688
2006	69	0	4/23–6/30	69		none	0		
	22	70	7/1–7/12	12		7/13–8/8	27		
						8/9–8/12	4(all)		
			8/13–8/22	10	9,821	8/23–8/27	5(all)		
						8/28–9/30	34	61	13,486
2007	61	0	5/1–6/30	61		none	0		
	26	66	7/1–7/20	20		7/21–8/10	21		
						8/11–8/15	5(all)		
			8/16–8/21	6	10,628	8/22–9/20	30		
						9/21–9/30	10(all)	51	12,819
2008	61	0	5/1–6/30	61		none	0		
	11	81	7/1–7/5	5		7/6–8/10	36		
						8/11–8/15	5(all)		
						8/22–9/20	30		
			8/16–8/21	6	5,745	9/21–9/30	10(all)	66	15,855

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Table 5.–Page 4 of 4.

Year	Days open	Days closed	Open dates	CR days	CR effort (boat days)	Closed dates	Days closed	CNR days	CNR effort (boat days)
2009	61	0	5/1–6/30	61		none	0		
	19	73	7/1–7/10	10		7/11–8/11	32		
			8/17–25	9	7,589	8/12–8/16	5(all)	68	15,307
						8/26–9/30	36		
2010	61	0	5/1–6/30	61		none	0		
	13	79	7/1–7/8	8		7/9–8/10	33		
			8/15–8/19	5	5,549	8/11–8/14	4(all)		
						8/20–9/20	32		
						9/21–9/30	10(all)	65	16,641
2011	66	0	4/25–6/30	66		none	0		
	15	77	7/1–7/12	12		7/13–8/10	29		
			8/15–8/17	3	5,479	8/11–8/14	4(all)		
						8/18–9/20	34		
						9/21–9/30	10(all)	63	12,611
2012	61	0	5/1–6/30	61		none	0		
	38	54	7/1–7/9	9		7/10–8/6	28		
			8/11–9/8	29	13,024	8/7–8/10	4(all)	50	8,495
						9/9–9/30	22		
2013	61	0	5/1–6/30	61		none	0		
	6	86	7/1–7/6	6	2,671	7/7–9/30	86	86	19,785
2014	61	0	5/1–6/30	61		none	0		
	12	80	7/1–7/7	7		7/8–8/9	33		
			8/14–8/18	5	5,405	8/10–8/13	4(all)		
						8/19–9/30	43	76	16,973
2015	76	0	4/16–6/30	76		none	0		
	8	84	7/1–7/8	8	3,174	7/9–9/30	84	84	12,758
2016	77	0	4/15–6/30	77		none	0		
	27	65	7/1–7/5	5		7/6–8/8	34		
			8/13–9/3	22	10,183	8/9–8/12	4(all)		
						9/4–9/30 <sup>c</sup>	27	61	11,077
2017	44	17	5/1–6/30	44		5/29–6/14	17 (all)		
	21	71	7/1–7/4	4		none	0		
					2,177	7/5–9/30 <sup>d</sup>	88	88	19,751

*Note:* Spring fishery date ranges indicate only the first and last date that fisheries were open prior to July 1, when the general summer troll season began. “Days open” indicates the actual number of days open prior to July 1. “Days closed” indicates days not open between the start of the spring fisheries through June 30.

<sup>a</sup> In 1988, the southern areas of Southeast Alaska were closed due to coho salmon conservation concerns.

<sup>b</sup> In 1997, the northern areas of Southeast Alaska were closed due to coho salmon conservation concerns.

<sup>c</sup> In 2016, a mark-selective fishery was conducted from September 4–30, when the directed Chinook fishery was closed.

<sup>d</sup> In 2017, a mark-selective fishery was conducted from July 5–21, when the directed Chinook fishery was closed.

Table 6.—Annual commercial troll salmon harvest in numbers of fish by species, 1960–2017.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1960	282,404	939	396,211	25,563	2,453	707,570
1961	204,289	1,264	399,932	19,303	2,679	627,467
1962	173,597	1,181	643,740	75,083	2,676	896,277
1963	243,679	2,014	693,050	106,939	6,230	1,051,912
1964	329,461	1,004	730,766	124,566	2,576	1,188,373
1965	258,902	1,872	695,887	81,127	6,359	1,044,147
1966	282,083	679	528,621	63,623	5,203	880,209
1967	274,678	157	443,677	57,372	7,051	782,935
1968	304,455	574	779,500	126,271	2,791	1,213,591
1969	290,168	444	388,443	83,727	1,708	764,490
1970	304,602	477	267,647	70,072	3,235	646,033
1971	311,439	929	391,279	104,557	7,602	815,806
1972	242,282	1,060	791,941	166,771	11,634	1,213,688
1973	307,806	1,222	540,125	134,586	10,460	994,199
1974	322,101	2,603	845,109	263,083	13,818	1,446,714
1975	287,342	584	214,219	76,844	2,784	582,276
1976	231,239	1,241	525,270	194,370	4,251	955,304
1977	271,735	5,713	506,432	281,009	11,621	1,077,142
1978	375,433	2,804	1,100,902	617,633	26,193	2,122,965
1979	337,672	7,018	918,835	629,117	24,661	1,913,968
1980	303,643	2,921	697,181	267,213	12,168	1,281,888
1981	248,782	7,476	861,146	579,436	8,680	1,705,254
1982	241,938	2,459	1,315,871	503,306	5,639	2,069,700
1983	269,821	7,973	1,276,380	498,530	20,308	2,072,756
1984	235,622	9,658	1,133,366	573,004	28,060	1,978,455
1985	215,811	7,724	1,600,230	963,719	52,793	2,839,930
1986	237,703	6,884	2,128,003	181,900	51,398	2,604,994
1987	242,562	9,722	1,041,055	486,385	12,848	1,793,327
1988	231,364	9,341	500,227	519,390	88,264	1,348,572
1989	235,716	20,171	1,415,517	1,771,409	68,986	3,511,643
1990	287,939	9,176	1,832,604	771,674	62,817	2,963,990
1991	264,106	9,805	1,719,082	427,348	28,438	2,447,994
1992	183,759	22,854	1,929,945	673,851	85,030	2,894,420
1993	226,866	25,337	2,395,887	902,872	525,160	4,075,603
1994	186,331	21,777	3,467,599	942,783	330,375	4,942,822
1995	138,117	27,323	1,750,262	714,312	277,455	2,907,329
1996	141,452	11,024	1,906,769	812,899	406,260	3,278,309
1997	246,409	39,431	1,170,534	545,309	312,042	2,313,649
1998	192,066	6,474	1,636,711	261,104	117,642	2,213,767
1999	146,219	5,730	2,272,653	540,859	74,704	3,039,905

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Table 6.–Page 2 of 2.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
2000	158,717	4,467	1,125,219	187,364	478,144	1,953,546
2001	153,280	8,992	1,845,627	258,943	467,837	2,733,039
2002	325,308	1,247	1,315,062	86,399	117,672	1,840,686
2003	330,692	4,596	1,223,458	159,643	286,410	2,001,850
2004	354,658	5,010	1,916,675	57,323	171,326	2,493,066
2005	338,451	13,277	2,038,296	109,640	174,599	2,662,529
2006	282,315	8,084	1,362,983	60,323	153,545	1,867,250
2007	268,146	6,440	1,378,062	104,440	191,685	1,948,773
2008	151,936	1,253	1,293,030	28,183	60,829	1,535,231
2009	175,644	2,929	1,591,547	75,843	342,998	2,188,961
2010	195,614	1,923	1,343,151	87,640	394,695	2,023,023
2011	242,193	5,190	1,313,594	496,171	702,914	2,760,062
2012	209,036	3,231	1,201,614	168,584	476,531	2,058,996
2013	149,528	5,020	2,393,900	684,691	1,054,273	4,287,412
2014	355,570	7,319	2,248,271	75,920	200,062	2,887,142
2015	269,862	6,977	1,241,200	259,411	424,550	2,202,000
2016	276,432	6,691	1,386,634	53,359	164,933	1,888,049
2017	129,525	5,426	2,148,015	53,769	402,843	2,739,578
1960–69 Avg	264,372	1,013	569,983	76,357	3,973	915,697
1970–79 Avg	299,165	2,365	610,176	253,804	11,626	1,176,810
1980–89 Avg	246,296	8,433	1,196,898	634,429	34,914	2,120,652
1990–99 Avg	201,326	17,893	2,008,205	659,301	221,992	3,107,779
2000–09 Avg	253,915	5,630	1,508,996	112,810	244,505	2,122,493
2007–16 Avg	229,396	4,697	1,539,100	203,424	401,347	2,377,965

*Note:* Harvest data for all species includes terminal and Annette Island harvest. Data is by calendar year from 1960–1978, from January 1–September 30 for 1979, and by troll season (October 1–September 30) for 1980–2017.

Table 7.—Southeast Alaska commercial troll salmon harvest in numbers of fish by species by statistical week, for the 2017 troll season.

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
2016	42	9-Oct	1,380	—	—	—	—	1,380
	43	16-Oct	876	—	—	—	—	876
	44	23-Oct	1,040	—	—	—	—	1,040
	45	30-Oct	483	—	—	—	—	483
	46	6-Nov	166	—	—	—	—	166
	47	13-Nov	550	—	—	—	—	550
	48	20-Nov	430	—	—	—	—	430
	49	27-Nov	166	—	—	—	—	166
	50	4-Dec	310	—	—	—	—	310
	51	11-Dec	695	—	—	—	—	695
	52	18-Dec	263	—	—	—	—	263
	53	25-Dec	214	—	—	—	—	214
2017	1	1-Jan	546	—	—	—	—	546
	2	8-Jan	586	—	—	—	—	586
	3	15-Jan	291	—	—	—	—	291
	4	22-Jan	296	—	—	—	—	296
	5	29-Jan	789	—	—	—	—	789
	6	5-Feb	944	—	—	—	—	944
	7	12-Feb	214	—	—	—	—	214
	8	19-Feb	1,480	—	—	—	—	1,480
	9	26-Feb	640	—	—	—	—	640
	10	5-Mar	799	—	—	—	—	799
	11	12-Mar	979	—	—	—	—	979
	12	19-Mar	2881	—	—	—	3	2,884
	13	26-Mar	2139	—	—	—	—	2,139
	14	2-Apr	2181	—	—	—	—	2,181
	15	9-Apr	5995	—	—	—	8	6,003
	16	16-Apr	5,983	—	—	—	2	5,985
	17	23-Apr	5,402	—	—	—	3	5,405
	18	30-Apr	5,342	—	—	—	4	5,346
	19	7-May	981	—	—	—	—	981
	20	14-May	1,917	—	—	—	—	1,917
	21	21-May	1,777	—	—	—	—	1,777
	22	28-May	411	—	—	—	—	411
	23	4-Jun	52	—	—	—	—	52
	24	11-Jun	5,267	1	87	14	31	5,400
	25	18-Jun	5,509	23	588	412	516	7,048
	26	25-Jun	3,311	42	7,352	1,016	2,956	14,677
	27	2-Jul	62,864	615	212,009	3,998	46,704	326,190
	28	9-Jul	1,171	590	278,873	7,296	34,431	322,361
	29	16-Jul	1,342	801	319,152	5,819	9,135	336,249
	30	23-Jul	—	708	225,989	5,655	2,483	234,835

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Table 7.–Page 2 of 2.

Year	Week	Week Of	Chinook	Sockeye	Coho	Pink	Chum	Total
2017	31	30-Jul	–	754	226,448	8,875	42,186	278,263
	32	6-Aug	–	347	192,167	9,936	93,937	296,387
	33	13-Aug	–	279	154,543	5,381	29,129	189,332
	34	20-Aug	–	344	133,650	2,337	8,062	144,393
	35	27-Aug	–	200	92,436	1,166	3,233	97,035
	36	3-Sep	–	322	133,427	483	3,336	137,568
	37	10-Sep	–	335	131,791	273	3,666	136,065
	38	17-Sep	–	32	29,372	33	31	29,468
	39	24-Sep	–	3	3,966		1	3,970
Winter fishery subtotal			43,864	0	0	0	20	43,884
Spring fishery subtotal			17,788	50	1,843	1,349	1,054	22,084
Summer fishery subtotal			67,010	5,346	2,140,007	51,345	278,783	2,542,491
Hatchery terminal area subtotal			888	30	6,165	1,075	122,986	131,144
Grand Total			129,525	5,426	2,148,015	53,769	402,843	2,739,578

*Note:* Weekly totals do not include hatchery terminal area and Annette Island troll harvests. Annette Island and confiscated harvests included in spring totals.

Table 8.—Average troll coho salmon dressed weight by week and weighted annual average, 2000–2017.

Week of	Average weekly dressed weight, by year																		Averages	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2012–2016	2007–2016
1-Jul	5.7	5.7	5.9	5.6	5.7	5.2	5.6	5.0	6.3	5.3	5.9	5.3	4.9	4.8	5.8	5.7	5.8	4.4	5.4	5.5
8-Jul	5.8	5.6	6.2	5.6	6.1	5.2	5.7	5.1	6.5	5.3	6.0	5.3	4.9	4.8	5.7	5.8	5.8	4.7	5.4	5.5
15-Jul	6.0	5.6	6.5	5.7	6.2	5.2	5.6	5.3	6.5	5.2	6.2	5.4	5.0	4.9	5.8	5.7	5.8	4.5	5.4	5.6
22-Jul	6.1	5.7	6.4	5.8	6.1	5.3	5.7	5.3	6.8	5.2	6.4	5.1	5.1	5.1	5.7	5.6	6.0	4.7	5.5	5.6
29-Jul	6.3	6.0	6.5	6.0	6.0	5.2	5.9	5.4	6.8	5.6	6.6	5.2	5.2	5.3	5.9	5.7	6.2	4.9	5.7	5.8
5-Aug	6.5	6.1	6.4	6.2	6.2	5.3	6.1	5.5	7.0	5.7	6.6	5.3	5.4	5.5	5.9	5.8	6.4	5.0	5.8	5.9
12-Aug	6.7	6.2	6.8	6.3	6.4	5.5	6.6	5.9	7.0	5.7	6.8	5.3	6.2	5.5	6.3	5.9	6.5	5.1	6.1	6.1
19-Aug	–	6.6	7.0	6.6	6.8	6.0	6.8	5.9	7.6	6.3	7.1	5.5	6.2	5.9	6.5	6.0	7.1	5.3	6.3	6.4
26-Aug	7.5	6.6	7.1	6.9	7.0	6.1	7.4	6.2	8.0	6.3	7.2	5.4	6.5	6.2	6.7	6.2	7.4	5.4	6.6	6.6
2-Sep	8.0	6.8	7.6	7.2	7.4	6.3	7.6	6.7	8.7	6.4	7.5	5.4	6.6	6.5	7.0	6.4	7.8	5.7	6.9	6.9
9-Sep	8.2	7.2	7.8	7.4	7.7	6.7	7.9	7.2	9.0	6.6	7.8	5.5	6.8	6.4	7.2	6.5	8.0	6.0	7.0	7.1
16-Sep	8.4	7.7	7.9	7.5	7.7	6.9	8.0	7.4	9.1	6.6	8.1	5.6	6.8	6.7	7.5	6.5	8.1	6.3	7.1	7.2
23-Sep	8.6	7.3	7.9	7.6	7.9	6.9	7.9	9.3	–	6.7	8.4	5.9	7.6	6.7	7.4	6.3	8.4	6.4	7.3	7.4
30-Sep	–	7.5	7.6	7.8	8.6	–	–	–	–	6.9	–	–	7.8	7.2	7.6	6.5	8.6	6.3	7.3	7.3
Weighted Average Troll Harvest (Millions)	6.5	6.1	6.9	6.6	6.6	5.7	6.4	5.8	7.4	5.9	6.9	5.4	5.8	5.5	6.4	6.0	6.6	5.1	6.0	6.1
	1.1	1.8	1.3	1.2	1.9	2.0	1.4	1.4	1.3	1.6	1.3	1.3	1.2	2.4	2.2	1.2	1.4	2.1	1.7	1.5



Table 9.—Southeast Alaska annual commercial hand troll salmon harvest in numbers of fish by species, 1975–2017.

Year <sup>a</sup>	Chinook <sup>b</sup>	Sockeye <sup>b</sup>	Coho <sup>b</sup>	Pink <sup>b</sup>	Chum <sup>b</sup>	Total
1975	28,000	95	40,920	28,815	541	98,371
1976	26,324	507	88,859	44,406	2,061	162,157
1977	33,136	1,751	155,731	116,763	4,146	311,527
1978	54,377	1,155	378,927	243,469	9,573	687,501
1979	57,722	2,448	244,805	281,684	7,926	594,585
1980	52,415	1,257	179,912	111,666	4,652	349,902
1981	34,583	2,171	181,466	173,517	2,582	394,319
1982	37,584	518	260,610	132,097	1,127	431,936
1983	38,625	1,530	235,692	136,646	2,777	415,270
1984	35,357	1,982	178,414	151,278	4,894	371,925
1985	33,985	1,696	260,737	251,652	9,748	557,818
1986	30,912	809	339,393	40,098	6,697	417,909
1987	30,173	2,126	183,220	134,354	3,015	352,888
1988	33,889	1,894	92,341	147,609	14,534	290,267
1989	30,306	2,441	220,262	301,413	6,576	560,998
1990	40,158	1,245	273,546	154,800	6,489	476,238
1991	41,309	1,073	239,019	72,365	3,840	357,606
1992	26,154	1,905	249,506	95,481	6,027	379,073
1993	26,726	1,669	315,590	101,754	34,449	480,188
1994	14,897	1,878	436,323	56,958	32,062	542,118
1995	13,968	1,822	145,189	63,877	21,284	246,140
1996	12,569	694	197,939	31,747	53,485	296,434
1997	15,280	1,208	104,602	35,104	20,042	176,236
1998	9,305	271	119,576	11,782	2,051	142,985
1999	6,466	286	180,119	12,214	583	199,668
2000	8,697	126	67,499	5,386	6,427	88,135
2001	9,819	301	111,472	6,267	12,480	140,339
2002	11,481	34	77,961	2,753	579	92,808
2003	13,840	135	80,893	3,627	4,800	103,295
2004	18,871	148	108,629	2,403	861	130,912
2005	16,856	340	143,278	6,203	418	167,095
2006	16,366	242	74,414	3,429	437	94,888
2007	18,258	220	91,499	4,196	1,389	115,562
2008	15,416	155	83,430	1,593	863	101,457
2009	13,638	171	104,212	5,074	5,427	128,522
2010	13,030	63	88,975	5,681	9,861	117,610
2011	18,166	205	98,968	26,025	13,500	156,864
2012	13,176	226	82,068	11,037	8,193	114,700
2013	11,746	343	174,103	23,510	28,719	238,421
2014	18,412	215	120,291	5,285	2,997	147,200
2015	12,883	353	61,738	17,397	7,823	100,194
2016	10,229	291	53,702	6,775	2,240	73,237
2017	7,302	178	102,507	4,279	5,444	119,710
1975–2016 Average	23,931	905	164,901	73,052	8,766	271,555
2007–2016 Average	14,495	224	95,899	10,657	8,101	129,377

<sup>a</sup> Prior to 1975, hand and power troll harvests were not reported separately. Troll harvests prior to 1980 are reported by calendar year. From 1980–present, harvests are by season, Oct. 1–Sept. 30. Harvest for 1979 Jan. 1–Sept. 30.

<sup>b</sup> Harvest for all species includes Annette Island Reserve and terminal fisheries.

Table 10.—Southeast Alaska annual commercial power troll salmon harvest in numbers of fish by species, 1975–2017.

Year <sup>a</sup>	Chinook <sup>b</sup>	Sockeye <sup>b</sup>	Coho <sup>b</sup>	Pink <sup>b</sup>	Chum <sup>b</sup>	Total
1975	259,646	489	173,299	48,029	2,243	483,869
1976	203,777	734	436,411	149,964	2,190	793,646
1977	237,578	3,962	350,701	164,246	7,475	765,494
1978	321,050	1,649	721,975	374,164	16,620	1,435,458
1979	277,274	4,570	674,030	347,433	16,735	1,319,574
1980	251,137	1,664	517,269	155,547	7,516	933,635
1981	214,923	5,305	679,680	405,919	6,098	1,311,679
1982	205,286	1,941	1,055,261	371,209	4,512	1,638,818
1983	231,144	6,443	1,040,688	361,884	17,531	1,657,398
1984	202,768	7,676	954,952	421,726	23,166	1,607,731
1985	182,576	6,026	1,339,493	712,067	43,045	2,283,392
1986	208,048	6,075	1,788,610	141,802	44,701	2,189,591
1987	213,342	7,596	857,835	352,031	9,831	1,440,632
1988	197,197	7,446	407,886	371,781	73,728	1,058,921
1989	211,417	17,730	1,195,255	1,469,996	62,410	2,952,174
1990	248,976	7,931	1,559,058	616,874	56,328	2,488,081
1991	221,442	8,732	1,480,063	354,983	24,598	2,091,281
1992	154,465	20,949	1,680,439	578,370	79,003	2,515,572
1993	202,807	23,668	2,080,297	801,118	490,711	3,598,021
1994	171,434	19,899	3,031,276	885,825	298,313	4,400,941
1995	124,705	25,501	1,605,073	650,435	256,171	2,661,840
1996	129,857	10,330	1,708,830	781,152	352,775	2,982,486
1997	231,562	38,223	1,065,932	510,205	292,000	2,137,929
1998	183,052	6,203	1,517,135	249,322	115,591	2,071,073
1999	140,157	5,444	2,092,534	528,645	74,121	2,840,376
2000	150,101	4,341	1,057,720	181,978	471,717	1,865,794
2001	143,462	8,691	1,734,155	252,676	455,357	2,594,217
2002	313,913	1,213	1,237,101	83,646	117,093	1,753,034
2003	317,213	4,461	1,142,565	156,016	281,610	1,805,391
2004	335,789	4,862	1,808,046	54,920	170,465	2,362,166
2005	321,595	12,937	1,895,018	103,437	174,181	2,495,626
2006	265,949	7,842	1,288,569	56,894	153,108	1,759,469
2007	249,890	6,220	1,286,563	100,244	190,296	1,833,213
2008	136,653	1,098	1,209,600	26,590	59,966	1,433,907
2009	162,006	2,758	1,487,335	70,769	337,571	2,060,439
2010	182,465	1,860	1,254,161	81,959	384,834	1,905,279
2011	223,957	4,985	1,214,626	470,146	689,269	2,602,983
2012	195,898	3,005	1,119,546	157,547	468,338	1,944,334
2013	137,795	4,677	2,219,797	661,181	1,025,554	4,049,004
2014	337,158	7,104	2,127,980	70,635	197,065	2,739,942
2015	256,954	6,624	1,179,462	242,014	416,727	2,101,781
2016	266,203	6,400	1,332,932	46,584	162,693	1,814,812
2017	122,282	5,248	2,045,508	49,490	397,399	2,619,927
1975–2016 Average	219,586	7,982	1,300,218	348,142	193,649	2,066,214
2007–2016 Average	214,898	4,473	1,443,200	192,767	393,231	2,248,569

<sup>a</sup> Prior to 1975, hand and power troll harvests were not reported separately. Troll harvests prior to 1980 are reported by calendar year. From 1980–present, harvests are by season, Oct. 1–Sept. 30. Harvest for 1979 Jan. 1–Sept. 30.

<sup>b</sup> Harvest for all species includes Annette Island Reserve and terminal fisheries.

Table 11.—Southeast Alaska Chinook Salmon harvests by gear and troll harvest by fishery, 2017.

Gear/Fishery	Total harvest	Alaska hatchery harvest	Alaska hatchery add-on	Terminal exclusion harvest	Term. exclusion/ Alaska hatchery add-on	Treaty harvest
Winter Troll	43,839	2,908	1,910	0	1,910	41,929
Spring Troll <sup>a</sup>	18,217	3,749	2,672	0	2,672	15,545
Summer Troll						
First Period	64,325	1,808	1,187	0	1,187	63,138
MSF <sup>b</sup>	2,680	144	95	0	95	2,585
Summer Total <sup>c</sup>	67,005	1,952	1,282	0	1,282	65,723
Total Traditional Troll	129,061	8,609	5,864	0	5,864	123,197
Annette Is. Troll	436	0	0	0	0	436
Total Troll Harvest	129,525	8,609	5,864	0	5,864	123,660
Purse Seine	10,916	8,013	7,964	0	7,964	2,952
Drift Gillnet	13,854	10,959	9,492	60	9,552	4,302
Setnet	367	0	0	0	0	367
Total Net <sup>d</sup>	25,137	18,972	17,456	60	17,516	7,621
Sport <sup>d</sup>	54,000	8,488	6,330	0	6,330	47,670
All-gear Total	208,662	36,069	29,650	60	29,710	178,952

<sup>a</sup> Spring troll harvest includes all HC 12 and wild terminal exclusion harvests for year.

<sup>b</sup> In 2017, a mark-selective fishery (MSF) was opened after the first retention period, July 5-21.

<sup>c</sup> Total summer harvest includes confiscated harvest for year.

<sup>d</sup> All net gear and sport totals include the general, Annette Island, and wild terminal exclusion harvests.

Table 12.—Annual Southeast Alaska commercial and recreational Chinook salmon harvests and Alaska hatchery contribution, in thousands of fish, 1965–2017.

Year	Troll <sup>a</sup>	Net <sup>b</sup>	Subtotal	Sport <sup>c</sup>	Total	Alaska hatchery contribution	Total less Alaska hatchery contribution
1965	309	28	337	13	350	-	-
1966	282	26	308	13	321	-	-
1967	275	26	301	13	314	-	-
1968	304	27	331	14	345	-	-
1969	290	24	314	14	328	-	-
1970	305	18	323	14	337	-	-
1971	311	23	334	15	349	-	-
1972	242	44	286	15	301	-	-
1973	308	36	344	16	360	-	-
1974	322	24	346	17	363	-	-
1975	287	13	300	17	317	-	-
1976	231	10	241	17	258	-	-
1977	272	13	285	17	302	-	-
1978	375	25	400	17	417	-	-
1979	338	28	366	17	383	-	-
1980	304	20	324	20	344	6	338
1981	249	19	268	21	289	2	287
1982	242	47	289	26	315	1	314
1983	270	20	289	22	312	3	309
1984	236	32	268	22	290	6	284
1985	216	34	250	25	275	13	262
1986	238	22	260	23	282	17	265
1987	243	16	258	24	282	24	259
1988	231	22	253	26	279	29	250
1989	236	24	260	31	291	29	262
1990	288	28	316	51	367	54	314
1991	264	35	299	60	359	70	289
1992	184	32	216	43	259	44	215
1993	227	28	255	49	304	40	264
1994	186	36	222	42	264	36	228
1995	138	48	186	50	236	69	167
1996	141	37	179	58	237	89	148
1997	246	25	271	72	340	63	280
1998	192	24	216	55	271	34	237
1999	146	33	179	72	251	59	192
2000	159	41	200	63	252	85	179
2001	153	40	193	72	266	87	179
2002	325	32	357	70	427	78	349
2003	331	39	370	69	439	68	372
2004	355	64	419	81	499	91	408
2005	338	68	407	87	493	74	420
2006	282	67	350	86	436	57	379

-continued-

Table 12.–Page 2 of 2.

Year	Troll <sup>a</sup>	Net <sup>b</sup>	Subtotal	Sport <sup>c</sup>	Total	Alaska hatchery contribution	Total less Alaska hatchery contribution
2007	268	54	322	83	405	77	328
2008	152	43	195	49	244	75	169
2009	176	48	224	70	294	71	222
2010	196	31	226	59	285	62	223
2011	242	48	290	67	357	74	283
2012	209	39	249	46	295	61	234
2013	150	51	201	56	257	73	184
2014	356	50	406	80	485	59	427
2015	270	54	324	80	403	75	328
2016	276	42	319	71	389	42	348
2017	130	25	155	54	209	30	179

*Note:* Years 1985–2001 were updated in 2001, based on Add-on tables for BOF reports. All subsequent years also based on Add-on tables.

<sup>a</sup> Troll harvests prior to 1980 are reported by calendar year. From 1980–present, harvests are by season, Oct. 1–Sept. 30.

<sup>b</sup> Purse seine harvests from 1986–present do not include Chinook less than five pounds reported on fish tickets.

<sup>c</sup> Estimates of sport catches for 1965–1976 based on 1977–1980 average catch per capita data. Sport catches for 1977–1999 based on statewide postal harvest surveys. Sport harvest for 2017 based on preliminary creel survey data, pending completion of statewide postal harvest surveys.

Table 13.—Southeast Alaska winter troll fishery Chinook salmon harvest, permits fished, vessel landings, catch per landing, and Alaska hatchery percent of harvest by troll accounting year (October 1–September 30), 1985–2017.

Year	Early Winter (October–December)				Late Winter (January–April)				Total Winter (October–April)				Annual Total	Winter % of Annual Total	Alaska Hatchery % of Catch
	Chinook	Permits	Landings	Catch/ Landing	Chinook	Permits	Landings	Catch/ Landing	Chinook	Permits	Landings	Catch/ Landing			
1985	14,235	371	869	16	8,590	316	1,148	7	22,825	499	2,017	11	215,811	11%	6%
1986	16,779	353	1,049	16	6,147	257	832	7	22,926	492	1,881	12	237,703	10%	6%
1987	18,453	365	1,235	15	10,075	290	996	10	28,528	514	2,231	13	242,562	12%	10%
1988	44,765	605	2,404	19	15,684	411	1,785	9	60,449	728	4,189	14	231,364	26%	14%
1989	24,425	630	2,239	11	9,872	337	1,403	7	34,297	737	3,642	9	235,716	15%	14%
1990	17,617	314	868	20	15,513	319	1,477	11	33,130	523	2,345	14	287,939	12%	13%
1991	19,920	310	787	25	22,719	405	2,037	11	42,639	565	2,824	15	264,106	16%	24%
1992	28,277	403	1,653	17	43,554	440	2,679	16	71,831	617	4,332	17	183,759	39%	10%
1993	20,275	310	1,194	17	42,447	418	2,366	18	62,722	493	3,560	18	226,866	28%	6%
1994	35,193	264	1,106	32	21,175	303	1,499	14	56,368	383	2,605	22	186,331	30%	4%
1995	10,382	186	627	17	7,486	223	871	9	17,868	298	1,498	12	138,117	13%	12%
1996	6,008	144	427	14	3,393	159	447	8	9,401	230	874	11	141,452	7%	18%
1997	13,252	162	626	21	7,705	185	514	15	20,957	256	1,151	18	246,409	9%	8%
1998	9,810	152	534	18	23,008	247	1,372	17	32,818	306	2,001	16	192,066	17%	7%
1999	13,989	150	579	24	16,988	253	1,435	12	30,977	286	2,026	15	146,219	21%	7%
2000	17,494	172	783	22	18,561	262	1,508	12	36,055	311	2,291	16	158,717	23%	9%
2001	11,198	198	907	12	11,388	259	1,382	8	22,586	322	2,298	10	153,280	15%	12%
2002	17,152	168	754	23	12,237	248	1,351	9	29,389	300	2,116	14	325,308	9%	7%
2003	18,672	193	725	26	32,182	313	2,365	14	50,854	360	3,090	16	330,692	15%	9%
2004	12,686	267	982	13	40,200	378	2,595	15	52,886	439	3,577	15	354,658	15%	12%
2005	12,991	275	1,103	12	37,479	375	2,955	13	50,470	444	4,058	12	338,446	15%	11%
2006	13,952	293	1,418	10	34,970	416	3,102	11	48,922	469	4,520	11	282,315	17%	8%
2007	7,642	297	1,092	7	39,230	420	2,808	14	46,872	503	3,900	12	268,149	17%	10%
2008	5,169	247	950	5	16,655	409	2,347	7	21,824	467	3,297	7	151,926	14%	13%
2009	5,511	197	770	7	19,378	379	1,983	10	24,889	380	2,753	9	175,644	14%	11%
2010	8,715	221	1,061	8	33,821	416	2,677	13	42,536	459	3,738	11	195,492	22%	13%
2011	12,867	257	1,339	10	37,959	393	2,437	16	50,826	464	3,776	13	242,123	21%	7%
2012	10,683	315	1,246	9	37,217	408	2,670	14	47,900	507	3,916	12	209,366	23%	13%
2013	8,188	248	1,070	8	18,424	376	2,255	8	26,612	442	3,325	8	148,584	18%	15%
2014	14,271	271	1,320	11	42,267	388	2,603	16	56,534	464	3,923	14	355,570	16%	6%
2015	24,138	278	1,346	18	26,535	320	2,172	12	50,673	407	3,518	14	269,862	19%	5%
2016	29,363	360	1,910	15	22,928	309	2,050	11	52,291	429	3,960	13	276,432	19%	5%
2017	6,573	244	994	7	37,316	380	2,643	14	43,889	435	3,637	12	129,525	34%	7%
2012–16 Avg	17,329	294	1,378	12	29,474	360	2,350	12	46,803	450	3,728	12	251,963	19%	9%
2007–16 Avg	12,655	269	1,210	10	29,441	382	2,400	12	42,096	452	3,611	11	229,315	18%	10%

Note: Data include Annette Island troll harvests.

Table 14.—The number of Chinook salmon harvested and permits fished in the 2017 spring troll fisheries by statistical week, including spring fishery areas as well as terminal harvest areas.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
101-21	West Rock	20	5/15	5/15	1	*	*
		21	5/22	5/22	1	*	*
					2	*	*
	<i>West Rock Total</i>						
101-29	Ketchikan Area	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	7	60
		20	5/15	5/17	3	12	138
		21	5/22	5/24	3	13	102
					12	20	311
	<i>Ketchikan Area Total</i>						
101-45	Mountain Point	18	5/2	5/5	4	5	16
		19	5/9	5/12	4	5	29
		20	5/16	5/19	4	13	92
		21	5/23	5/26	4	7	59
		24	6/15	6/16	2	18	148
		25	6/19	6/21	3	21	244
		26	6/25	6/28	4	14	91
					25	33	679
	<i>Mountain Point Total</i>						
102-09	Stone Rock Bay	19	5/8	5/8	1	*	*
		20	5/15	5/15	1	3	34
		21	5/22	5/22	1	*	*
	<i>Stone Rock Bay Total</i>				3	3	37
102-10	Kendrick Bay	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	4	65
		20	5/15	5/17	3	6	114
		21	5/22	5/24	3	5	81
	<i>Kendrick Bay Total</i>				12	9	268
102-50	West Clarence Strait	18	5/3	5/5	3	*	*
		19	5/10	5/12	3	*	*
		20	5/17	5/19	3	4	66
		21	5/24	5/26	3	9	73
	<i>West Clarence Strait Total</i>				12	9	149
103-50	Bucareli Bay	18	5/1	5/2	2	*	*
		19	5/8	5/9	2	10	71
		20	5/15	5/16	2	13	131
		21	5/22	5/23	2	12	79
		24	6/15	6/16	2	21	168
		25	6/19	6/20	2	16	127
		26	6/26	6/27	2	25	188
	<i>Bucareli Bay Total</i>				14	38	766
105-41	Sumner Strait	18	5/1	5/2	2	3	16
		19	5/8	5/9	2	6	49
		20	5/15	5/16	2	13	136
		21	5/22	5/23	2	12	179
		24	6/15	6/16	2	11	224
		25	6/19	6/20	2	14	212
		26	6/26	6/26	1	13	142
	<i>Sumner Strait Total</i>				13	28	958

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Table 14.–Page 2 of 5.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
106-30	Steamer Point	18	5/1	5/4	4	*	*
		19	5/8	5/11	4	*	*
		20	5/15	5/18	4	*	*
		21	5/22	5/25	4	*	*
		24	6/15	6/16	2	8	134
		25	6/19	6/21	3	11	99
		26	6/26	6/29	4	10	84
Steamer Point Total					25	15	318
106-41	Snow Pass	18	5/1	5/7	7	3	10
		19	5/8	5/14	7	5	14
		20	5/15	5/21	7	6	27
		21	5/22	5/27	6	*	*
		22	5/28	5/28	1	*	*
		24	6/15	6/16	2	6	74
		25	6/19	6/22	4	4	55
26	6/26	6/29	4	3	9		
Snow Pass Total					38	18	198
106-43	North Sumner Strait	18	5/1	5/5	5	*	*
		19	5/8	5/12	5	4	14
		20	5/15	5/19	5	3	7
		21	5/22	5/26	5	*	*
		24	6/15	6/16	2	*	*
		25	6/19	6/21	3	8	76
		26	6/26	6/28	3	*	*
North Sumner Strait Total					28	14	159
107-10	Ernest Sound	18	5/1	5/7	7	*	*
		19	5/8	5/14	7	*	*
		20	5/15	5/21	7	*	*
		21	5/22	5/27	6	9	73
		22	5/28	5/28	1	8	77
		24	6/15	6/17	3	4	26
		25	6/18	6/24	7	9	151
26	6/25	6/30	6	*	*		
Ernest Sound Total					44	22	343
108-10	Chichagof Pass	18	5/1	5/2	2	*	*
		19	5/8	5/9	2	7	24
		20	5/15	5/16	2	5	21
		21	5/22	5/23	2	13	42
Chichagof Pass Total					8	17	94
108-40	Craig Point	18	5/1	5/2	2	*	*
		19	5/8	5/9	2	*	*
		20	5/15	5/16	2	*	*
		21	5/22	5/23	2	*	*
Craig Point Total					18	15	149
109-10	Little Port Walter	20	5/18	5/19	2	6	44
		21	5/25	5/26	2	6	94
		24	6/15	6/16	2	19	307
		25	6/19	6/21	3	10	192
		26	6/26	6/28	3	9	127
Little Port Walter Total					12	30	764

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Table 14.–Page 3 of 5.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
110-31	Frederick Sound	18	5/1	5/7	7	*	*
		19	5/8	5/14	7	*	*
		20	5/15	5/21	7	*	*
		21	5/22	5/27	6	*	*
		22	5/28	5/28	1	*	*
		24	6/15	6/17	2	7	14
		25	6/18	6/24	7	4	27
		26	6/25	6/30	6	*	*
Frederick Sound Total					43	12	84
112-12	Chatham Strait	18	5/1	5/4	4	3	18
		19	5/8	5/11	4	14	153
		20	5/15	5/18	4	14	252
		21	5/22	5/25	4	16	200
		25	6/18	6/21	4	32	558
		26	6/25	6/27	3	11	299
Chatham Strait Total					23	49	1,480
112-65	Hawk Inlet	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	*	*
		20	5/15	5/17	3	*	*
		21	5/22	5/24	3	*	*
		24	6/15	6/16	2	*	*
		25	6/19	6/21	3	*	*
		26	6/26	6/28	3	*	*
Hawk Inlet Total					20	*	*
113-01	Western Channel	20	5/15	5/15	1	13	60
		21	5/22	5/22	1	6	19
		24	6/15	6/15	1	26	591
		25	6/19	6/19	1	17	252
Western Channel Total					4	51	922
113-30	Redoubt Bay	18	5/1	5/2	2	*	*
		19	5/8	5/9	2	11	244
		20	5/15	5/16	2	25	295
		21	5/22	5/23	2	21	170
		24	6/15	6/15	1	13	315
		25	6/19	6/19	1	14	128
Redoubt Bay Total					10	47	1,157
113-31	Biorka	25	6/19	6/19	1	32	479
		26	6/28	6/28	1	40	140
Biorka Island Total					2	60	619
113-32	Goddard	19	5/8	5/8	1	3	27
		20	5/15	5/15	1	3	14
		21	5/22	5/22	1	6	35
		24	6/15	6/16	2	18	594
		25	6/19	6/20	2	19	158
		26	6/28	6/28	1	10	70
Goddard Area Total					8	35	898

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Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
113-41	Sitka Sound	18	5/1	5/7	7	11	33
		19	5/8	5/14	7	19	124
		20	5/15	5/21	7	37	258
		21	5/22	5/27	6	32	233
		22	5/28	5/28	1	22	187
		24	6/15	6/17	3	66	2,037
		25	6/18	6/24	7	117	2,226
	<i>Sitka Sound Total</i>				38	140	5,098
113-62	Salisbury Sound	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	*	*
		20	5/15	5/17	3	4	32
		21	5/22	5/24	3	4	38
		24	6/15	6/16	2	4	79
		25	6/19	6/21	3	6	110
		26	6/25	6/27	3	29	272
	<i>Salisbury Sound Total</i>				20	37	531
113-95	Lisianski Inlet	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	*	*
		20	5/15	5/17	3	*	*
		21	5/22	5/24	3	3	22
		24	6/15	6/16	2	3	33
		25	6/19	6/21	3	12	152
		26	6/26	6/28	3	14	105
	<i>Lisianski Inlet Total</i>				20	17	313
113-97	Stag Bay	18	5/1	5/7	7	*	*
		19	5/8	5/14	7	*	*
		20	5/15	5/21	7	*	*
		21	5/22	5/27	6	3	20
		22	5/28	5/28	1	3	53
		24	6/15	6/17	3	*	*
		25	6/18	6/24	7	3	56
	<i>Stag Bay Total</i>				44	8	144
114-21	Cross Sound	24	6/15	6/17	3	*	*
		25	6/18	6/24	7	*	*
		26	6/25	6/30	6	*	*
	<i>Cross Sound Total</i>				16	*	*
114-23	South Passage	24	6/15	6/17	3	*	*
		25	6/18	6/24	7	*	*
		26	6/25	6/30	6	*	*
	<i>South Passage Total</i>				16	*	*
114-25	Homeshore	24	6/15	6/17	3	4	4
		25	6/18	6/24	7	9	16
		26	6/25	6/30	6	*	*
	<i>Homeshore Total</i>				16	14	23

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Table 14.–Page 5 of 5.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
114-27	Point Sophia	18	5/1	5/3	3	*	*
		19	5/8	5/10	3	*	*
		20	5/15	5/17	3	*	*
		21	5/22	5/24	3	*	*
		24	6/15	6/16	2	3	16
		25	6/19	6/21	3	5	10
		26	6/26	6/28	3	*	*
Point Sophia Total					20	8	35
114-50	Port Althorp	18	5/2	5/3	2	*	*
		19	5/9	5/10	2	*	*
		20	5/16	5/17	2	5	37
		21	5/23	5/24	2	7	66
		24	6/15	6/16	2	9	62
		25	6/20	6/21	2	6	62
		26	6/26	6/27	2	7	70
Port Althorp Total					14	17	328
183-10	Yakutat Bay	18	5/1	5/1	1	5	29
		19	5/8	5/8	1	8	22
		20	5/15	5/15	1	10	77
		21	5/22	5/22	1	12	121
		24	6/15	6/15	1	26	316
		25	6/22	6/22	1	20	99
		26	6/29	6/29	1	6	16
Yakutat Bay Total					7	34	680
Spring Fishery Total						417	17,386
Terminal Area Total						63	710
Spring Season Total						426	18,096

*Note:* Totals do not include Annette Island harvests or summer terminal harvest and effort. Weekly and total permits fished include effort for both Chinook and chum salmon.

\* Denotes confidential data. Totals given may or may not include individual week's confidential data.

Table 15.—Spring troll Chinook salmon fishery harvest, effort, and Alaska hatchery contributions, 1986–2017.

Year	Non-terminal area spring harvest	Alaska hatchery harvest	Alaska hatchery %	Number of non-terminal areas open	Terminal area harvest <sup>a</sup>	Number of terminal areas open <sup>a</sup>	Total harvest	Total Alaska hatchery %	Total permits fished <sup>b</sup>
1986	776	240	31%	3	0	0	776	31%	70
1987	4,488	1,548	34%	7	0	0	4,488	34%	105
1988	8,505	2,931	34%	9	100	2	8,605	35%	382
1989	2,366	922	39%	11	913	4	3,279	56%	161
1990	7,052	4,255	60%	9	16	2	7,068	60%	258
1991	13,984	6,129	44%	10	5,863	1	19,847	60%	559
1992	11,229	5,604	50%	11	4,118	2	15,347	63%	454
1993	15,826	6,525	41%	13	2,853	3	18,679	50%	442
1994	11,269	4,939	44%	12	100	4	11,369	44%	283
1995	21,750	13,990	64%	15	1,333	4	23,083	66%	377
1996	30,963	15,672	51%	16	16,416	5	47,379	68%	461
1997	32,791	13,556	41%	17	9,931	6	42,722	55%	476
1998	19,195	5,012	26%	21	1,313	4	20,508	31%	361
1999	18,351	8,766	48%	23	2,367	5	20,718	54%	339
2000	20,990	11,217	53%	25	7,966	4	28,956	66%	392
2001	28,250	13,726	49%	26	7,081	5	35,331	59%	435
2002	37,610	17,398	46%	31	6,040	4	43,650	54%	433
2003	35,452	11,949	34%	26	3,840	4	39,292	40%	382
2004	55,186	19,863	36%	31	1,610	5	56,796	38%	445
2005	58,421	18,195	31%	30	2,280	4	60,701	34%	498
2006	36,918	9,430	26%	24	1,018	5	37,936	28%	511
2007	48,476	18,263	38%	25	1,310	4	49,786	39%	539
2008	36,638	17,769	48%	22	4,494	5	41,132	54%	591
2009	32,581	12,374	38%	27	278	5	32,859	39%	557
2010	28,617	11,161	39%	27	1,162	5	29,779	41%	546
2011	38,936	14,948	38%	28	2,144	5	41,080	42%	592
2012	24,771	10,756	43%	33	794	5	25,565	45%	553
2013	37,308	15,169	41%	32	979	6	38,287	42%	590
2014	42,548	10,472	25%	34	1,260	7	43,808	27%	585
2015	53,692	16,808	31%	35	779	7	54,471	32%	609
2016	42,502	9,902	23%	36	307	7	42,809	24%	587
2017	17,606	3,138	18%	34	611	7	18,217	21%	475

Note: Does not include Annette Island harvest or Hatchery Access fishery harvest, which occurred in 1989–1992.

<sup>a</sup> Terminal harvest and areas open include troll harvest and openings from both spring and summer terminal fisheries.

<sup>b</sup> Total permits fished includes spring troll effort and terminal effort during spring and summer for vessels that landed Chinook.

Table 16.—Southeast Alaska troll Chinook salmon catch-per-fleet-day during the general summer fishery, 1985–2017.

Year	Fishing period	Days	Chinook harvest <sup>a</sup>	Catch/Fleet day	Permits <sup>b</sup>	Abundance index <sup>c</sup>	AK hatchery harvest	AK hatchery percent
1985	June 3–12	10	65,377	6,538	1,119		3,644	6%
	July 1–22	22	114,372	5,199	1,334		2,733	2%
	August 25–26	2	13,229	8,268	859		407	3%
		34	192,978	5,743		1.68	6,784	4%
1986	June 20–July 15	26	154,623	5,947	1,321		5,789	4%
	August 21–26	6	31,878	5,313	1,124		1,346	4%
	September 1–9	9	27,496	3,055	936		1,203	4%
		41	213,997	5,219		1.37	8,338	4%
1987	June 20–July 12	23	209,513	9,109	1,331	1.60	11,712	6%
1988	July 1–12	12	162,047	13,504	1,343	1.93	8,141	5%
1989	July 1–13	13	167,492	12,884	1,234	1.79	5,831	3%
1990	July 1–22	22	200,090	9,095	1,311		13,037	7%
	August 23–24	2	11,858	5,929	834		1,250	11%
		24	211,948	8,831		1.78	14,287	7%
1991	July 1–8	8	154,020	20,536	1,304	1.66	6,605	4%
1992	July 1–4	4	65,627	18,751	1,105		2,268	3%
	August 23	1	6,941	6,941	717		189	3%
		5	72,568	16,126		1.63	2,457	3%
1993	July 1–6	6	101,164	16,861	1,148		3,189	3%
	August 21–25	5	24,865	4,973	732		446	2%
	September 12–20	9	19,131	2,126	547		1,300	7%
		20	145,160	7,258		1.92	4,935	3%
1994	July 1–7	7	98,338	14,048	1,011		4,252	4%
	August 29–September 2	5	20,224	4,045	708		1,100	5%
		12	118,562	9,880		1.67	5,352	5%
1995	July 1–10	10	75,889	7,589	1,001		8,139	11%
	July 30–August 5	7	21,277	3,040	805		1,581	7%
		17	97,166	5,716		0.91	9,720	10%
1996	July 1–10	10	76,392	7,639	825		4,639	6%
	August 19–20	2	8,275	4,138	418		203	2%
		12	84,667	7,056		0.90	4,842	6%
1997	July 1–7	7	122,490	17,499	847		3,532	3%
	August 18–24	7	37,525	5,361	719		657	1%
	August 30–September 5	7	22,702	3,243	504		118	1%
		21	182,717	8,701		1.37	4,307	2%
1998	July 1–11	11	102,765	9,342	808		2,699	3%
	August 20–September 30	42	35,975	857	667		1,090	3%
		53	138,740	2,618		1.27	3,789	3%

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Table 16.–Page 2 of 3.

Year	Fishing period	Days	Chinook harvest <sup>a</sup>	Catch/Fleet day	Permits <sup>b</sup>	Abundance index <sup>c</sup>	AK hatchery harvest	AK hatchery percent
1999	July 1–6	6	78,126	13,021	696		3,007	4%
	August 18–22	5	16,397	3,279	554		698	4%
		11	94,523	8,593		1.12	3,705	4%
2000	July 1–5	5	50,768	10,154	714		2,608	5%
	August 11–12	2	12,423	6,212	475		853	7%
	August 23–30	8	24,862	3,108	537		2,594	10%
	September 12–20	9	5,712	635	207		792	14%
		24	93,765	3,907		1.10	6,847	7%
2001	July 1–6	6	64,854	10,809	712		3,700	6%
	August 18–September 5	19	30,509	1,606	610		1,327	4%
		25	95,363	3,815		1.29	5,027	5%
2002	July 1–18	18	187,003	10,389	677		4,866	3%
	August 12–September 2	22	65,326	2,969	517		1,563	2%
		40	252,329	6,308		1.82	6,429	3%
2003	July 1–August 8	39	240,573	6,169	664	2.17	7,677	3%
2004	July 1–15	15	193,992	12,933	710		8,670	4%
	August 12–15	4	50,933	12,733	598		1,258	2%
		19	244,925	12,891		2.06	9,928	4%
2005	July 1–17	17	151,128	8,890	782		7,078	5%
	August 14–20	6.5	70,422	10,834	657		2,735	4%
	September 15–20	6	5,303	884	289		507	10%
		29.5	226,853	7,690		1.90	10,320	5%
2006	July 1–12	12	129,810	10,818	791		3,331	3%
	August 13–22	10	65,590	6,559	723		2,865	4%
		22	195,400	8,882		1.73	6,196	3%
2007	July 1–20	20	140,549	7,027	831		5,392	4%
	August 16–21	6	30,778	5,130	691		888	3%
		26	171,327	6,590		1.34	6,280	4%
2008	July 1–5	5	59,913	11,983	763		3,451	6%
	August 16–21	6	28,983	4,831	715		416	1%
		11	88,896	8,081		1.01	3,867	4%
2009	July 1–10	10	84,575	8,458	854		3,375	4%
	August 17–25	9	33,012	3,668	678		1,848	6%
		19	117,587	6,189		1.20	5,223	4%
2010	July 1–8	8	74,575	9,322	782		2,914	4%
	August 15–19	5	48,455	9,691	681		1,443	3%
		13	123,030	9,464		1.31	4,357	4%
2011	July 1–12	12	120,916	10,076	795		3,333	3%
	August 15–17	3	29,736	9,912	605		923	3%
		15	150,652	10,043		1.62	4,256	3%

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Year	Fishing period	Days	Chinook harvest <sup>a</sup>	Catch/Fleet day	Permits <sup>b</sup>	Abundance index <sup>c</sup>	AK hatchery harvest	AK hatchery percent
2012	July 1–9	9	61,624	6,847	790		1,950	3%
	August 11–September 8	29	73,970	2,551	783		3,672	5%
		38	135,594	3,568		1.24	5,622	4%
2013	July 1–6	6	84,653	14,109	714	1.63	3,573	4%
2014	July 1–7	7	199,431	28,490	811		3,460	2%
	August 14–18	5	55,653	11,131	654		2,227	4%
		12	255,084	21,257		2.20	5,687	2%
2015	July 1–8	8	164,640	20,580	768	1.95	4,310	3%
2016	July 1–5	5	106,630	21,326	741		1,197	1%
	August 13–September 3	22	74,240	3,375	659		954	1%
	September 4–30 MSF <sup>d</sup>	27	459	17	150		10	
		27	181,329	6,716		2.06	2,161	1%
2017	July 1–4	4	64,325	16,081	700		1,815	3%
	July 5–21 MSF <sup>d</sup>	17	2,680	158	365		135	5%
		4	67,005	16,751		1.27	1,950	3%

<sup>a</sup> The general summer fishery does not include experimental, terminal, or hatchery access fisheries, which target Alaska hatchery stocks. Also, these catch numbers do not include Annette Island or confiscated harvest.

<sup>b</sup> The number of permits fished is for vessels that landed Chinook.

<sup>c</sup> The abundance index given for 1984–2016 is the first post season index and for 2017 is the preseason index. The AIs are estimated by the Chinook Technical Committee of the Pacific Salmon Commission.

<sup>d</sup> In 2016 and 2017, a mark-selective fishery (MSF) to target adipose-clipped surplus hatchery origin Chinook salmon was opened.

Table 17.—Coho salmon mid-season closure dates and extensions, 1980–2017.

Year	Closure dates	Days closed	Extension	Area extensions and restrictions
1980	July 15–24	10	None	
1981	August 10–19	10	None	
1982	July 29–August 7	10	None	
1983	August 5–14	10	None	
1984	August 15–24	10	None	
1985	August 15–24	10	None	
1986	August 11–20	10	None	
1987	August 3–12	10	None	
1988	August 15–24	10	None	
1989	August 14–23	10	None	
1990	August 13–22	10	None	
1991	August 16–24	10	None	
1992	August 13–22	10	None	
1993	August 13–20	8	None	
1994	August 27–28	2	9/21–9/30	Districts 1–16 open with area restrictions
1995	August 13–22	10	9/21–9/30	Districts 1–16 open with area restrictions
1996	August 14–18	5	None	
1997	August 8–17	10	None	
1998	August 12–19	8	9/21–9/30	Districts 1–13 open with area restrictions
1999	August 13–17	5	9/21–9/30	Districts 1–16 open with area restrictions
2000	August 13–22	10	None	
2001	August 13–17	5	9/25–9/30	Districts 1–16 and 183 open (all state waters) <sup>a</sup>
2002	August 10–11	2	9/21–9/30	Entire region open except portion of Sitka Sound <sup>a</sup>
2003	No closure	0	9/21–9/30	Entire region open <sup>a</sup>
2004	August 10–11	2	9/21–9/30	Entire region open <sup>a</sup>
2005	August 10–13	4	None	
2006	August 9–12	4		
	August 23–27	5	9/21–9/30	Dist.10–15, 181, 183 and 191 open with area restrictions
2007	August 11–15	5	None	
2008	August 11–15	5	None	
2009	August 12–16	5	9/21–9/30	Districts 1–11, 181, 183, 189, 191 open; Districts 12, 13, 154 open with area restrictions
2010	August 11–14	4	None	
2011	August 10–14	5	None	
2012	August 7–10	4	9/21–9/30	Districts 1–11, 13, 16, 181, 183, 189, 191 open; 12 and 14 open with area restrictions.
2013	No closure	0	9/21–9/30	Entire region open <sup>a</sup>
2014	August 10–13	4	9/21–9/30	Entire region open <sup>a</sup>
2015	No Closure	0	9/21–9/30	Districts 3–11, 13, 16, 181, 183, 189, 191 open; 1, 2, 12 and 14 open with area restrictions.
2016	August 9–12	4	9/21–9/30	Entire region open <sup>a</sup>
2017	No Closure	0	9/21–9/30	Districts 103, 104, 191, 183, 189, 191, 152 open; 113 and 154 open with area restrictions

<sup>a</sup> During these years, areas of high Chinook abundance remained closed and Yakutat area closures were in effect during coho salmon extension periods.



Table 18.—Weekly troll chum salmon harvest and effort in Icy Straits/Homeshore, Neets Bay/West Behm Canal, Sitka Sound, and the regionwide totals 2012–2017.

Icy Strait/Homeshore/Northern Chatham Strait												
Week	2012		2013		2014		2015		2016		2017	
	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	—	—	14,103	43	—	—	—	—	<sup>a</sup>	<sup>a</sup>	—	—
24	554	24	35,710	118	99	5	4,376	22	239	5	18	4
25	8,088	95	140,859	154	2,290	30	5,556	35	1,841	14	452	10
26	9,386	83	99,977	141	15,405	36	6,507	28	2,252	17	367	4
27	7,340	37	18,810	57	2,196	19	4,152	15	1,708	11	*	*
28	1,665	18	1,111	15	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>	464	7	—	—
29	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>	<sup>a</sup>	—	—	—	—	83	3	—	—
Total	27,175	133	311,236	193	19,990	51	20,970	61	6,591	38	970	15

Neets Bay/West Behm Canal												
Week	2012		2013		2014		2015		2016		2017	
	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
26	13,862	45	2,227	11	—	—	<sup>a</sup>	<sup>a</sup>	3,251	6	7,960	19
27	32,108	106	18,250	41	1,680	11	3,549	11	7,820	16	65,511	52
28	77,851	209	54,597	106	12,141	43	38,888	46	22,380	38	85,600	82
29	99,560	247	67,987	115	47,889	85	37,513	96	36,747	60	47,724	81
30	78,078	182	22,383	77	32,729	68	34,284	73	30,964	52	699	7
31	17,238	97	10,554	20	15,748	47	5,686	34	4,686	18	9,944	18
32	1,714	10	3,877	15	9,438	18	3,222	15	2,797	5	8,535	22
33	8,750	26	328	4	1,306	10	2,295	12	628	5	337	8
34	13,920	33	369	4	1,024	5	6,552	19	—	—	465	6
35	29,897	55	914	5	1,331	7	9,168	31	381	4	2614	21
36	28,143	72	2,643	7	6,666	13	9,908	27	2,892	9	2,950	19
37	4,117	51	2,007	7	13,494	26	4,026	31	2,713	12	3,447	13
38	872	10	—	—	4,866	18	1,114	16	3,751	11	<sup>a</sup>	<sup>a</sup>
Total	406,335	265	186,701	137	148,330	98	156,212	114	119,010	72	235,786	95

-continued-

Table 18.—Page 2 of 2.

Sitka Sound/Deep Inlet												
Week	2012		2013		2014		2015		2016		2017	
	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
25	—	—	831	3	—	—	—	—	—	—	—	—
26	—	—	7,305	14	—	—	—	—	—	—	—	—
27	—	—	2,495	12	—	—	—	—	—	—	—	—
28	—	—	5,599	13	—	—	—	—	a	a	—	—
29	—	—	5,531	18	—	—	1,443	8	a	a	—	—
30	—	—	33,582	46	—	—	—	—	a	a	778	5
31	377	3	80,843	94	522	4	874	8	a	a	30,497	55
32	15,529	39	122,081	101	9,485	34	42,235	55	1,004	7	83,547	100
33	6,742	31	153,748	106	198	8	106,052	123	385	7	28,402	78
34	1,136	8	42,120	78	180	3	51,361	109	a	a	7,326	44
35	—	—	1,198	8	871	5	13,074	42	12,703	22	4,334	25
36	—	—	a	a	a	a	2,157	23	4,572	16	147	3
Total	23,797	51	455,510	147	11,411	42	217,265	157	19,599	32	155,031	115

Region												
Week	2012		2013		2014		2015		2016		2017	
	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	a	a	14,105	44	a	a	—	—	13	8	—	—
24	558	25	35,727	120	151	8	4,392	27	322	17	19	5
25	8,239	102	141,851	162	2,359	32	5,627	47	1,993	26	457	12
26	23,234	125	109,594	167	15,453	40	6,525	31	5,534	35	8,323	23
27	39,422	143	41,355	101	4,089	33	7,806	29	9,523	33	65,516	56
28	79,508	226	63,492	137	12,523	49	39,207	48	22,852	47	85,676	84
29	99,685	250	74,708	139	47,893	86	40,081	109	37,648	65	47,899	84
30	78,078	182	56,088	123	32,764	72	34,515	75	31,075	55	1,748	15
31	17,615	100	92,533	117	16,414	55	7,151	44	4,752	20	41,504	74
32	17,243	49	127,392	117	20,126	58	48,225	74	3,802	12	93,468	121
33	15,736	58	154,152	111	1,546	19	110,616	136	1,021	13	28,812	86
34	14,951	40	44,037	84	1,297	9	59,622	132	291	3	7,844	50
35	29,906	56	2,112	13	2,240	13	23,453	77	13,328	27	7,081	46
36	28,143	72	2,817	9	11,464	28	13,315	55	7,485	25	3,097	22
37	4,117	51	2,156	8	13,494	26	4,026	31	2,719	13	3,456	14
38	872	10	a	a	4,866	18	1,121	17	3,751	11	a	a
Total	457,352	352	962,181	366	186,710	183	405,682	284	146,109	156	394,900	191

Note: Numbers for harvest and permits fished are based on vessels that targeted chum salmon.

Regionwide totals do not reflect the sum of these directed fisheries.

An en dash (–) denotes no effort or harvest.

<sup>a</sup> Confidential data.

Table 19.—Total Chinook salmon harvest and Alaska hatchery harvest by gear, 1985–2017.

Year	Seine		Drift gillnet		Set gillnet		Troll		Sport		All-gear	
	Total	AK hatchery	Total	AK hatchery	Total	AK hatchery	Total	AK hatchery	Total	AK hatchery	Total	AK hatchery
1985	21,593	150	10,679	976	1,232	0	215,811	8,071	24,858	3,365	274,539	12,562
1986	12,132	813	8,539	1,437	1,428	0	237,703	9,886	22,551	5,239	282,353	17,375
1987	4,503	162	8,957	1,846	2,072	4	242,562	16,195	24,324	5,336	282,418	23,544
1988	11,142	320	9,658	4,474	894	0	231,364	19,503	26,160	5,112	279,312	29,410
1989	13,171	2,298	9,948	4,106	798	0	235,716	16,366	31,071	5,859	291,032	28,629
1990	11,389	2,529	15,217	9,240	663	3	287,939	29,834	51,218	11,546	366,869	53,152
1991	13,793	2,618	19,254	11,849	1,747	40	264,106	37,498	60,492	18,022	359,462	70,027
1992	18,339	1,224	11,740	7,484	2,025	10	183,759	25,738	42,892	9,464	258,791	43,920
1993	8,364	1,751	18,280	11,378	1,311	0	226,866	18,226	49,246	8,321	304,103	39,676
1994	14,839	3,201	16,918	11,767	3,897	2	186,331	12,389	42,365	9,083	264,350	36,442
1995	25,117	17,319	13,464	7,504	9,374	0	138,117	27,174	49,667	16,524	235,739	68,521
1996	22,225	20,692	10,219	6,245	4,854	2,854	141,452	38,365	57,509	20,586	236,259	88,742
1997	10,338	6,223	11,467	6,759	3,264	1,262	246,409	28,795	71,524	20,275	343,002	63,314
1998	14,503	6,054	6,207	3,903	2,804	804	192,066	12,397	55,013	10,549	270,593	33,707
1999	17,900	11,933	9,712	5,255	5,108	3,108	146,219	16,935	72,081	22,169	251,020	59,400
2000	22,905	18,401	16,035	12,323	2,460	460	158,717	28,963	63,173	24,510	263,290	84,657
2001	20,439	14,991	17,091	11,968	2,633	631	153,280	28,480	72,291	30,862	265,734	86,932
2002	17,695	11,717	11,484	6,508	2,510	510	325,308	31,647	69,537	27,598	426,534	77,979
2003	24,134	6,911	11,398	8,080	3,842	1,566	330,692	27,614	69,370	23,547	439,436	67,718
2004	39,633	11,848	21,671	13,753	2,734	446	354,658	37,511	80,572	27,599	499,268	91,158
2005	19,867	7,233	47,539	5,387	685	0	338,451	35,678	86,575	25,178	493,117	73,476
2006	24,969	10,302	41,867	7,361	560	0	282,315	20,783	85,794	18,168	435,505	56,614
2007	27,267	11,091	25,152	12,747	1,225	0	268,146	30,409	82,849	22,822	404,639	77,069
2008	15,540	12,204	27,050	15,019	439	0	151,936	28,837	49,265	18,766	244,230	74,826
2009	29,012	16,241	19,015	9,856	437	0	175,644	20,411	69,565	24,988	293,674	71,496
2010	15,876	13,428	14,426	10,817	280	0	195,614	21,347	58,503	16,335	284,699	61,927
2011	26,404	17,752	21,293	15,817	523	0	242,193	25,247	66,575	14,325	356,988	73,141
2012	21,145	15,347	17,964	12,337	382	0	209,036	21,135	46,495	14,325	295,022	63,144
2013	23,104	17,039	27,316	22,613	900	0	149,541	17,914	56,392	15,387	257,252	72,953
2014	27,378	11,649	22,369	18,616	243	0	355,570	18,391	86,942	15,066	492,502	63,722
2015	30,274	18,582	22,982	17,925	462	0	269,862	22,107	79,759	16,822	403,339	75,436
2016	28,244	8,303	13,789	9,489	230	0	276,432	13,778	70,777	10,300	389,472	41,871
2017	10,916	8,013	13,854	10,959	367	0	129,525	8,608	54,000	8,488	208,662	36,068

Note: Data include terminal area and Annette Island harvests.

Table 20.—Annual troll coho salmon harvest and estimated wild and hatchery contributions, 1960–2017.

Year	Total harvest	Wild contribution	Alaska hatchery	Other hatchery	Total hatchery	Percent hatchery
1960	396,211	396,211	—	—	—	—
1961	399,932	399,932	—	—	—	—
1962	643,740	643,740	—	—	—	—
1963	693,050	693,050	—	—	—	—
1964	730,766	730,766	—	—	—	—
1965	695,887	695,887	—	—	—	—
1966	528,621	528,621	—	—	—	—
1967	443,677	443,677	—	—	—	—
1968	779,500	779,500	—	—	—	—
1969	388,443	388,443	—	—	—	—
1970	267,647	267,647	—	—	—	—
1971	391,279	391,279	—	—	—	—
1972	791,941	791,941	—	—	—	—
1973	540,125	540,125	—	—	—	—
1974	845,109	845,109	—	—	—	—
1975	214,219	214,170	—	—	—	—
1976	525,270	524,762	—	—	—	—
1977	506,432	506,845	—	—	—	—
1978	1,100,902	1,100,902	—	—	—	—
1979	918,835	918,845	—	—	—	—
1980	697,181	694,019	2,881	281	3,162	<1%
1981	861,146	845,007	15,920	218	16,139	2%
1982	1,315,871	1,279,950	35,486	435	35,921	3%
1983	1,276,380	1,223,558	51,882	940	52,822	4%
1984	1,133,366	1,061,739	69,480	2,147	71,627	6%
1985	1,600,230	1,493,476	106,575	179	106,754	7%
1986	2,128,003	1,849,726	269,396	8,881	278,277	13%
1987	1,041,055	949,680	87,882	3,493	91,375	9%
1988	500,147	472,404	25,795	1,948	27,743	6%
1989	1,415,512	1,293,847	116,906	4,759	121,665	9%
1990	1,832,604	1,542,036	278,996	11,573	290,568	16%
1991	1,719,060	1,334,370	368,824	15,866	384,690	22%
1992	1,929,899	1,509,056	403,208	17,636	420,843	22%
1993	2,395,711	1,999,697	382,645	13,369	396,014	17%
1994	3,467,597	2,950,482	503,675	13,441	517,115	15%
1995	1,750,221	1,416,322	325,838	8,061	333,899	19%
1996	1,906,753	1,457,108	440,086	9,558	449,645	24%
1997	1,170,460	927,411	240,545	2,504	243,049	21%
1998	1,636,707	1,307,089	322,026	7,593	329,618	20%
1999	2,271,769	1,757,702	500,582	13,485	514,067	23%
2000	1,124,854	873,853	244,139	6,862	251,001	22%

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Table 20.—Page 2 of 2.

Year	Total harvest	Wild contribution	Alaska hatchery	Other hatchery	Total hatchery	Percent hatchery
2001	1,843,997	1,472,486	367,856	3,655	371,511	20%
2002	1,310,060	973,936	335,229	895	336,124	26%
2003	1,220,782	934,291	283,723	2,767	286,491	23%
2004	1,915,066	1,602,704	307,638	4,723	312,362	16%
2005	2,036,104	1,701,804	329,687	4,613	334,300	16%
2006	1,360,267	1,143,672	215,729	866	216,595	16%
2007	1,376,753	1,071,758	304,144	851	304,995	22%
2008	1,273,716	1,002,963	269,789	964	270,753	21%
2009	1,590,259	1,342,777	246,040	1,442	247,482	16%
2010	1,342,092	1,057,087	284,112	892	285,005	21%
2011	1,302,926	959,039	343,330	557	343,887	26%
2012	1,200,150	906,923	292,239	987	293,227	24%
2013	2,376,100	1,643,066	731,971	1,063	733,034	31%
2014	2,227,696	1,607,184	618,812	1,700	620,512	28%
2015	1,241,090	872,564	368,270	256	368,526	30%
2016	1,386,634	1,048,766	335,770	2,098	337,868	24%
2017	2,148,015	1,759,542	387,578	895	388,473	18%
1987–1996 Avg	1,795,856	1,492,500	293,385	9,970	303,356	16%
1997–2016 Avg	1,560,374	1,210,354	347,082	2,939	350,020	22%

*Note:* Data include Annette Island troll harvests and exclude terminal area harvests.

Table 21.—Estimates of total escapements of Chinook salmon to escapement indicator systems and to Southeast Alaska and transboundary rivers, 1975–2017.

Year	Southeast Alaska stocks								Transboundary river stocks		
	Situk River	Chilkat River	King Salmon River	Andrew Creek	Unuk River	Chickamin River <sup>a</sup>	Blossom River	Keta River	Alsek River	Taku River	Stikine River
1975	–	–	64	507	–	370	146	203		12,920	7,571
1976	1,421	–	99	404	–	157	68	84	5,282	24,582	5,723
1977	1,732	–	204	465	4,706	363	112	230	12,706	29,496	11,445
1978	808	–	87	388	5,344	308	143	392	12,034	17,124	6,835
1979	1,284	–	134	327	2,783	239	54	426	17,354	21,617	12,610
1980	905	–	106	282	4,909	445	89	192	10,862	39,239	30,573
1981	702	–	154	536	3,532	384	159	329	8,502	49,559	36,057
1982	434	–	394	672	6,528	571	345	754	9,475	23,847	40,488
1983	592	–	245	366	5,436	599	589	822	10,344	9,795	6,424
1984	1,726	–	265	389	8,876	1,102	508	610	7,238	20,778	13,995
1985	1,521	–	175	622	5,721	956	709	624	6,127	35,916	16,037
1986	2,067	–	255	1,379	10,273	1,745	1,278	690	11,069	38,110	14,889
1987	1,379	–	196	1,537	9,533	975	1,349	768	11,141	28,935	24,632
1988	868	–	208	1,100	8,437	786	384	575	8,717	44,524	37,554
1989	637	–	240	1,034	5,552	934	344	1,155	10,119	40,329	24,282
1990	628	–	179	1,295	2,856	564	257	606	8,609	52,143	22,619
1991	889	5,897	134	780	3,165	487	239	272	11,625	51,645	23,206
1992	1,595	5,284	99	1,517	4,223	346	150	217	5,773	55,889	34,129
1993	952	4,472	266	2,067	5,160	389	303	362	13,855	66,125	58,962
1994	1,271	6,795	213	1,115	3,435	388	161	306	15,863	48,368	33,094
1995	4,330	3,790	147	669	3,730	356	217	175.01	24,772	33,805	16,784
1996	1,800	4,920	292	653	5,639	422	220	297	15,922	79,019	28,949
1997	1,878	8,100	362	571	2,970	272	132	246	12,494	114,938	26,996
1998	924	3,675	134	950	4,132	391	91	180	6,833	31,039	25,968
1999	1,461	2,271	304	1,180	3,914	492	212	276	14,597	16,786	19,947
2000	1,785	2,035	138	1,346	5,872	801	231	300	7,905	34,997	27,531
2001	656	4,517	149	2,055	10,541	1,010	204	343	6,705	46,554	63,523
2002	1,000	4,051	155	1,708	6,988	1,013	224	411	5,569	55,044	50,875
2003	2,117	5,657	119	1,160	5,546	964	203	322	5,904	36,435	46,824
2004	698	3,422	135	2,991	3,963	798	333	376	7,083	75,032	48,900

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Table 21. –Page 2 of 2.

Year	Southeast Alaska stocks								Transboundary river stocks		
	Situk River	Chilkat River	King Salmon River	Andrew Creek	Unuk River	Chickamin River <sup>a</sup>	Blossom River	Keta River	Alsek River	Taku River	Stikine River
2005	595	3,366	143	1,979	4,742	924	445	497	4,478	38,725	40,501
2006	295	3,039	150	2,124	5,645	1,330	339	747	2,323	42,296	24,405
2007	677	1,442	181	1,736	5,668	893	135	311	2,827	14,854	14,560
2008	413	2,905	120	981	3,104	1,111	257	363	1,885	27,383	18,352
2009	902	4,429	109	628	3,157	611	123	219	6,239	22,801	11,086
2010	166	1,797	158	1,205	3,835	1,156	363	475	9,526	28,769	15,116
2011	240	2,674	192	936	3,195	853	147	223	6,850	27,523	14,480
2012	322	1,723	155	587	956	444	205	241	3,027	19,538	22,327
2013	912	1,719	94	920	1,135	468	255	493	4,992	18,002	16,735
2014	475	1,529	68	1261	1,691	652	217	439	3,357	23,532	24,360
2015	174	2,452	50	796	2,623	581	166	304	5,697	28,827	21,343
2016	329	1,373	149	402	1,502	203	135	446	2,504	12,000	10,343
2017	1,187	1,231	85	349	1,203	152	88	300	1,800	7,000	10,000
2012–16 Avg	442	1,759	103	793	1,581	470	196	385	3,929	20,380	19,083
2007–16 Avg	461	2,204	128	945	2,687	697	200	351	4,697	22,323	16,901
Goals:											
Lower	450	1,750	120	650	1,800	450	150	175	3,500	19,000	14,000
Upper	1,050	3,500	240	1,500	3,800	900	300	400	5,300	36,000	28,000

Note: Preliminary estimates, pending final report publication (for past 5 years). Spawning escapement goals are for large ( ≥660 mm mid-eye to tail fork [METF], or fish age 1.3 and older) fish, except for the Alsek River which is germane to fish age 1.2 and older and can include fish <660 mm METF.

<sup>a</sup> Escapement goal ranges are germane to survey counts for the Blossom, Keta, and Chickamin. Total (expanded) spawning escapements are reported for all other systems.

Table 22.—Escapement goal performance for indicator coho salmon streams in Southeast Alaska (SEAK) and Yakutat, 1993–2017.

Year	Southeast Alaska									Yakutat			All-Gear Commercial Harvest (Millions)
	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake	Chilkat River	Montana Creek	Petersen Creek	Sitka Index	Ketchikan Index	Tawah Creek	Situk River	Tsiu/Tsivat River	
1993	E	E	E	I	E	E	I	E	I	I	E	I	3.56
1994	E	E	E	E	E	E	E	E	E	E	E	E	5.52
1995	I	I	I	E	E	I	E	E	E	I	I	I	3.13
1996	E	I	I	I	I	I	E	E	E	I	I	I	2.99
1997	E	E	E	I	I	I	I	E	I	I	I	I	1.84
1998	E	I	E	I	I	I	I	E	I	NA	NA	NA	2.75
1999	E	E	E	E	E	I	E	I	I	NA	NA	NA	3.28
2000	E	E	I	I	E	I	I	E	E	NA	NA	I	1.69
2001	E	E	I	E	E	I	I	E	E	NA	NA	NA	2.95
2002	E	E	E	E	E	E	I	E	E	E	E	E	2.49
2003	E	E	E	E	E	I	I	E	E	E	I	NA	2.17
2004	I	E	E	I	E	U	E	E	E	I	E	NA	2.86
2005	I	I	E	E	I	U	I	E	E	U	U	I	2.77
2006	E	I	E	I	E	I	E	E	I	I	I	I	1.84
2007	I	U	I	E	U	U	I	E	I	I	I	I	1.91
2008	E	I	E	E	I	I	E	E	E	NA	NA	I	2.04
2009	I	I	I	E	I	I	I	E	I	E	I	I	2.38
2010	I	I	I	E	E	I	E	E	I	E	E	I	2.29
2011	E	I	I	E	I	I	I	E	I	U	I	I	2.08
2012	E	I	I	E	I	U	I	E	E	I	U	I	1.88
2013	E	I	I	E	I	U	I	E	E	I	E	E	3.60
2014	E	E	E	E	E	I	E	E	E	I	I	I	3.40
2015	E	E	E	I	I	E	I	E	E	NA	I	I	1.90
2016	I	I	NA	I	U	I	U	E	E	U	I	E	2.10
<b>2017</b>	<b>I</b>	<b>I</b>	<b>NA</b>	<b>I</b>	<b>I</b>	<b>I</b>	<b>U</b>	<b>E</b>	<b>E</b>	<b>I</b>	<b>I</b>	<b>E</b>	<b>2.80</b>

Note: E = exceeded goal, U = under goal, I = within goal, NA = no escapement estimate available.

<sup>a</sup> The Sitka survey index is the sum of peak survey counts on five streams.

<sup>b</sup> The Ketchikan survey index is the sum of peak survey counts on 14 streams.



Table 23.—Escapement estimates for four Southeast Alaska coho salmon indicator stocks, 1980–2017.

Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake
1980	698	N/A	N/A	N/A
1981	646	N/A	N/A	N/A
1982	447	7,505	2,655	2,144
1983	694	9,840	1,931	1,487
1984	651	2,825	N/A	1,407
1985	942	6,169	2,324	903
1986	454	1,752	1,552	1,782
1987	668	3,260	1,694	1,117
1988	756	2,724	3,119	513
1989	502	7,509	2,176	433
1990	697	11,050	2,192	870
1991	808	11,530	2,761	1,836
1992	1,020	15,300	3,866	1,426
1993	859	15,670	4,202	832
1994	1,437	15,920	3,227	1,753
1995	460	4,945	2,446	1,781
1996	515	6,050	2,500	950
1997	609	10,050	4,718	732
1998	862	6,802	7,049	983
1999	845	9,920	3,800	1,246
2000	683	10,650	2,304	600
2001	842	19,290	2,209	1,580
2002	1,112	27,700	7,109	3,291
2003	585	10,110	6,789	1,510
2004	416	14,450	3,539	840
2005	450	5,220	4,257	1,732
2006	582	5,470	4,737	891
2007	352	3,915	2,567	1,244
2008	600	6,870	5,173	1,741
2009	360	4,230	2,181	2,281
2010	417	7,520	1,610	2,878
2011	517	6,050	1,908	2,137
2012	837	5,480	2,282	1,908
2013	736	6,280	1,573	3,048
2014	1,533	15,480	3,025	4,110
2015	577	9,940	3,281	944
2016	204	6,733	N/A	979
1980–2016 Average	686	8,977	3,235	1,540
2017	283	7,040	N/A	1,266
Escapement goal range:	200–500	4,000–9,200	1,300–2,900	500–1,600

Note: Years when no escapement assessment occurred are indicated by “N/A.”

Table 24.—Northern Inside area coho salmon escapements, 1981–2017.

Year	Auke Creek (weir)	Montana Creek	Peterson Creek	Total roadside index	Berners River	Chilkat River	Taku River <sup>a</sup>
1981	646	227	219	1,092	—	—	—
1982	447	545	320	1,312	7,505	—	—
1983	694	636	219	1,549	9,840	—	—
1984	651	581	189	1,421	2,825	—	—
1985	942	810	276	2,028	6,169	—	—
1986	454	60	363	877	1,752	—	—
1987	668	314	204	1,186	3,260	37,432	55,457
1988	756	164	542	1,462	2,724	29,495	39,450
1989	502	566	242	1,310	7,509	48,833	56,808
1990	697	1,711	324	2,732	11,050	79,807	72,196
1991	808	1,415	410	2,633	11,530	84,517	127,484
1992	1,020	2,512	403	3,935	15,300	77,588	84,853
1993	859	1,352	112	2,323	15,670	58,217	109,457
1994	1,437	1,829	318	3,584	15,920	194,425	96,343
1995	460	600	277	1,337	4,945	56,737	55,710
1996	511	798	263	1,572	6,050	37,331	44,635
1997	609	1,018	186	1,813	10,050	43,519	32,345
1998	862	1,160	102	2,124	6,802	50,758	61,382
1999	845	1,000	272	2,117	9,920	57,140	60,844
2000	683	961	202	1,846	10,650	88,620	64,700
2001	842	1,119	106	2,067	19,290	107,697	104,394
2002	1,112	2,448	195	3,755	27,700	204,787	219,360
2003	585	808	203	1,596	10,110	133,109	183,112
2004	416	364	284	1,064	14,450	67,053	129,327
2005	450	351	139	940	5,220	34,575	135,558
2006	582	1,110	439	2,131	5,470	79,050	122,384
2007	352	324	226	902	3,915	24,770	74,369
2008	600	405	660	1,665	6,870	56,369	95,360
2009	360	698	123	1,181	4,230	47,911	103,950
2010	417	630	467	1,514	7,520	84,909	126,830
2011	517	709	138	1,364	6,050	61,099	70,745
2012	837	394	190	1,421	5,480	36,961	70,742
2013	736	367	126	1,229	6,280	51,324	68,118
2014	1,533	911	284	2,728	15,480	130,200	124,171
2015	577	1,204	202	1,983	9,940	47,342	60,178
2016	204	746	52	1,002	6,733	26,280	87,704
1981–2016 Average	685	857	258	1,800	8,977	71,262	91,266
2017	283	634	20	937	7,040	34,742	57,871
Goals:							
Point	340	—	—		6,300	50,000	—
Lower	200	400	100		4,000	30,000	50,000
Upper	500	1,200	250		9,200	70,000	90,000

<sup>a</sup> The listed Taku River lower bound of the BEG is the inriver run threshold of 38,000 specified in the Pacific Salmon Treaty minus an allowance of 3,000 fish caught in inriver fisheries.

Table 25.—Sitka area coho salmon escapement index, 1982–2017.

Year	Starrigavan Creek	Sinitsin Creek	St. John's Creek	Nakwasina River	Eagle River	Total index <sup>a</sup>	Ford Arm Lake (Weir)
1982	317	46	<b><i>116</i></b>	<b><i>580</i></b>	<b><i>486</i></b>	1,545	2,655
1983	45	31	20	217	<b><i>144</i></b>	457	1,931
1984	385	160	154	715	<b><i>649</i></b>	2,063	<b><i>4,765</i></b>
1985	193	144	109	408	<b><i>392</i></b>	1,246	2,324
1986	57	<b><i>72</i></b>	<b><i>53</i></b>	275	245	702	1,552
1987	36	21	<b><i>22</i></b>	47	167	293	1,694
1988	45	56	71	104	<b><i>127</i></b>	403	3,119
1989	101	76	89	129	<b><i>181</i></b>	576	2,176
1990	39	80	38	195	214	566	2,192
1991	142	186	107	621	454	1,510	2,761
1992	241	265	110	654	629	1,899	3,866
1993	256	213	90	<b><i>644</i></b>	513	1,716	4,202
1994	304	313	227	404	717	1,965	3,227
1995	274	152	99	626	336	1,487	2,446
1996	59	150	201	553	488	1,451	2,500
1997	55	90	68	300	296	809	4,718
1998	123	109	57	653	300	1,242	7,049
1999	167	48	25	291	<b><i>245</i></b>	776	3,800
2000	144	62	30	459	108	803	2,304
2001	133	132	80	753	417	1,515	2,209
2002	227	169	100	713	659	1,868	7,109
2003	95	102	91	440	373	1,101	6,789
2004	143	112	79	399	391	1,124	3,539
2005	76	67	173	892	460	1,668	4,257
2006	386	152	121	996	992	2,647	4,737
2007	130	39	86	385	426	1,066	2,567
2008	96	73	43	839	66	1,117	5,173
2009	128	160	140	335	393	1,156	2,181
2010	70	171	85	307	640	1,273	1,610
2011	230	392	163	636	801	2,222	1,908
2012	59	133	144	296	525	1,157	2,282
2013	113	125	179	412	585	1,414	1,573
2014	274	255	156	600	876	2,161	3,025
2015	286	252	152	1,133	421	2,244	3,281
2016	328	199	398	1,098	920	2,943	N/A
2017	122	62	73	545	478	1,280	N/A
1982-2016 Average	160	136	102	500	433	1,331	3,280

Note: Interpolated values are shown in bold italic print.

<sup>a</sup> Total index is the sum of counts and interpolated values, excluding Ford Arm Lake (weir).

Table 26.—Southern inside (Ketchikan) area coho salmon escapement index, 1987–2017.

Year	Herman Creek	Grant Creek	Eulachon River	Klahini River	Indian River	Barrier Creek	King Creek	Choca Creek	Carroll River	Blossum River	Keta River	Marten River	Hugh Smith L. (weir)	Humpback Creek	Tombstone River	Total index
1987	92	<b>75</b>	154	<b>65</b>	<b>355</b>	<b>70</b>	<b>279</b>	<b>113</b>	180	700	800	740	1,117	650	532	5,921
1988	72	150	205	20	300	50	175	150	193	790	850	600	513	52	1,400	5,520
1989	75	101	290	15	925	450	510	200	70	1,000	650	1,175	433	350	950	7,194
1990	150	30	235	150	<b>255</b>	<b>50</b>	35	<b>81</b>	<b>129</b>	800	550	575	870	135	275	4,320
1991	245	50	285	50	550	100	300	220	375	725	800	575	1,836	671	775	7,557
1992	115	270	860	90	675	100	250	150	360	650	627	1,285	1,426	550	1,035	8,443
1993	90	175	460	50	475	325	110	300	310	850	725	1,525	832	600	1,275	8,102
1994	265	220	755	200	560	175	325	225	475	775	1,100	2,205	1,753	560	850	10,443
1995	250	94	435	165	600	220	415	180	400	800	1,155	1,385	1,781	82	2,446	10,408
1996	94	92	383	40	570	230	457	220	240	829	1,506	1,924	950	440	1,806	9,781
1997	75	<b>78</b>	420	60	<b>372</b>	<b>73</b>	<b>292</b>	175	140	1,143	571	759	732	32	847	5,770
1998	94	130	460	120	304	50	411	190	<b>265</b>	1,004	1,169	1,961	983	256	666	8,063
1999	75	127	657	150	356	25	627	225	425	598	1,895	1,518	1,246	520	840	9,284
2000	135	94	600	110	380	72	620	180	275	1,354	1,619	1,421	600	102	1,672	9,234
2001	80	110	929	151	1,140	<b>165</b>	891	450	173	1,561	<b>1,662</b>	1,956	1,580	506	<b>1,587</b>	12,941
2002	88	138	1,105	20	940	70	700	220	270	1,359	1,368	2,302	3,291	2,004	1,639	15,514
2003	242	<b>185</b>	875	39	690	57	1,140	380	<b>444</b>	1,940	1,934	1,980	1,510	214	1,745	13,374
2004	150	230	801	170	935	250	640	180	455	1,005	1,200	1,835	840	1,230	823	10,744
2005	510	300	1,240	360	890	190	810	270	500	3,680	3,290	1,130	1,732	500	1,170	16,572
2006	165	<b>107</b>	190	176	280	30	405	130	<b>257</b>	2,300	645	335	891	260	1,600	7,771
2007	134	75	<b>270</b>	35	245	15	290	210	<b>163</b>	990	970	351	1,244	3	<b>609</b>	5,604
2008	115	55	570	25	1,250	23	420	100	<b>620</b>	7,100	<b>2,426</b>	925	1,741	2,600	360	18,331
2009	<b>149</b>	330	330	340	750	110	1,050	100	1,100	<b>1,518</b>	315	1,675	2,281	700	225	10,973
2010	85	102	370	<b>63</b>	880	90	570	190	<b>173</b>	350	550	350	2,878	200	<b>645</b>	7,495
2011	<b>88</b>	<b>80</b>	350	<b>70</b>	175	<b>75</b>	110	85	<b>192</b>	1,235	<b>749</b>	350	2,137	850	<b>716</b>	7,260
2012	25	60	400	<b>162</b>	170	40	<b>693</b>	110	330	2,400	3,300	2,650	1,908	360	1,250	13,858
2013	<b>193</b>	<b>176</b>	<b>698</b>	<b>153</b>	<b>834</b>	<b>164</b>	<b>655</b>	<b>265</b>	215	2,140	1,560	2,370	3,048	530	1,340	14,342
2014	425	80	660	<b>226</b>	1,500	<b>242</b>	850	400	220	2,000	1,300	<b>2,651</b>	4,110	<b>1,075</b>	5,000	20,738
2015	20	200	550	<b>136</b>	1,200	<b>146</b>	550	200	450	2,310	1,470	1,555	956	210	1,035	10,988
2016	160	25	810	<b>450</b>	370	<b>90</b>	540	315	750	3,070	2,470	2,120	944	280	1,970	14,364
2017	40	<b>167</b>	540	280	850	20	100	<b>240</b>	285	3,100	2,450	1,675	1,266	830	980	12,823
1987–2016																
Average	149	131	545	129	631	125	504	207	338	1,566	1,308	1,406	1,530	560	1,228	10,364

Note: Interpolated values are shown in bold italic print.

<sup>a</sup> Total index is the sum of counts and interpolated values.

Table 27.—Overall coho salmon percentage exploitation rates by indicator stock for all fisheries combined, 1982–2017.

Year	Auke Creek	Berners River	Hugh Smith Lake	Average	Ford Arm Lake
1982	40	—	65	—	43
1983	44	—	62	—	69
1984	41	—	65	—	—
1985	44	—	63	—	52
1986	53	—	59	—	62
1987	43	—	50	—	48
1988	37	—	65	—	48
1989	55	57	82	64	65
1990	53	63	82	66	58
1991	31	62	68	54	54
1992	46	62	71	59	59
1993	46	64	80	63	67
1994	53	74	81	70	72
1995	44	80	73	66	64
1996	55	70	76	67	57
1997	20	30	73	41	52
1998	39	66	78	61	56
1999	41	65	70	59	63
2000	30	45	55	43	71
2001	38	35	49	41	74
2002	27	39	39	35	53
2003	35	60	59	51	49
2004	44	51	66	54	71
2005	38	54	53	48	58
2006	34	60	54	49	52
2007	34	50	62	49	70
2008	39	47	54	46	53
2009	39	49	48	45	69
2010	46	61	47	51	64
2011	35	44	46	42	82
2012	22	31	54	36	63
2013	42	65	56	54	78
2014	20	37	47	35	72
2015	25	32	51	36	52
2016	25	28	61	38	—
2017	41	46	45	44	—
1982–2016 Average	39	53	62	51	61

Table 28.—Overall coho salmon percentage exploitation rates by indicator stock for the Alaska troll fishery, 1982–2017.

Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake	Weighted average
1982	20	—	41	45	34
1983	31	—	54	35	37
1984	34	—	—	31	37
1985	35	—	52	36	39
1986	43	—	61	37	44
1987	37	—	45	29	36
1988	25	—	47	28	31
1989	48	49	62	51	52
1990	43	41	57	38	43
1991	17	17	53	36	32
1992	32	31	56	38	39
1993	38	36	62	53	48
1994	35	35	60	46	44
1995	32	29	53	30	35
1996	39	42	53	40	43
1997	12	14	48	49	34
1998	31	42	49	41	41
1999	34	36	58	42	42
2000	24	20	57	36	35
2001	31	24	67	22	33
2002	18	15	38	16	21
2003	23	22	31	24	25
2004	27	29	64	41	40
2005	33	33	51	32	36
2006	22	24	39	36	32
2007	25	30	65	38	39
2008	30	24	41	19	27
2009	30	27	65	24	34
2010	25	27	48	22	29
2011	17	28	24	20	22
2012	20	21	46	20	25
2013	32	33	48	25	33
2014	14	14	46	24	24
2015	20	20	45	24	27
2016	7	8	—	31	24
2017	34	28	—	29	34
1982–2016 Average	28	28	51	33	35

*Note:* The weighted average gives a 20% weighting each to Auke Creek, Berners River and Ford Arm Creek and a 40% weighting to Hugh Smith Lake. Auke Creek was given a 40% weighting prior to 1989 and the index after 2015 was based on only three stocks (Auke Creek 25%, Berners River 25%, Hugh Smith Lake 50%) with an expansion for missing Ford Arm Creek estimates based on the historical linear relationship between weighted average troll exploitation rates computed with and without Ford Arm Creek.

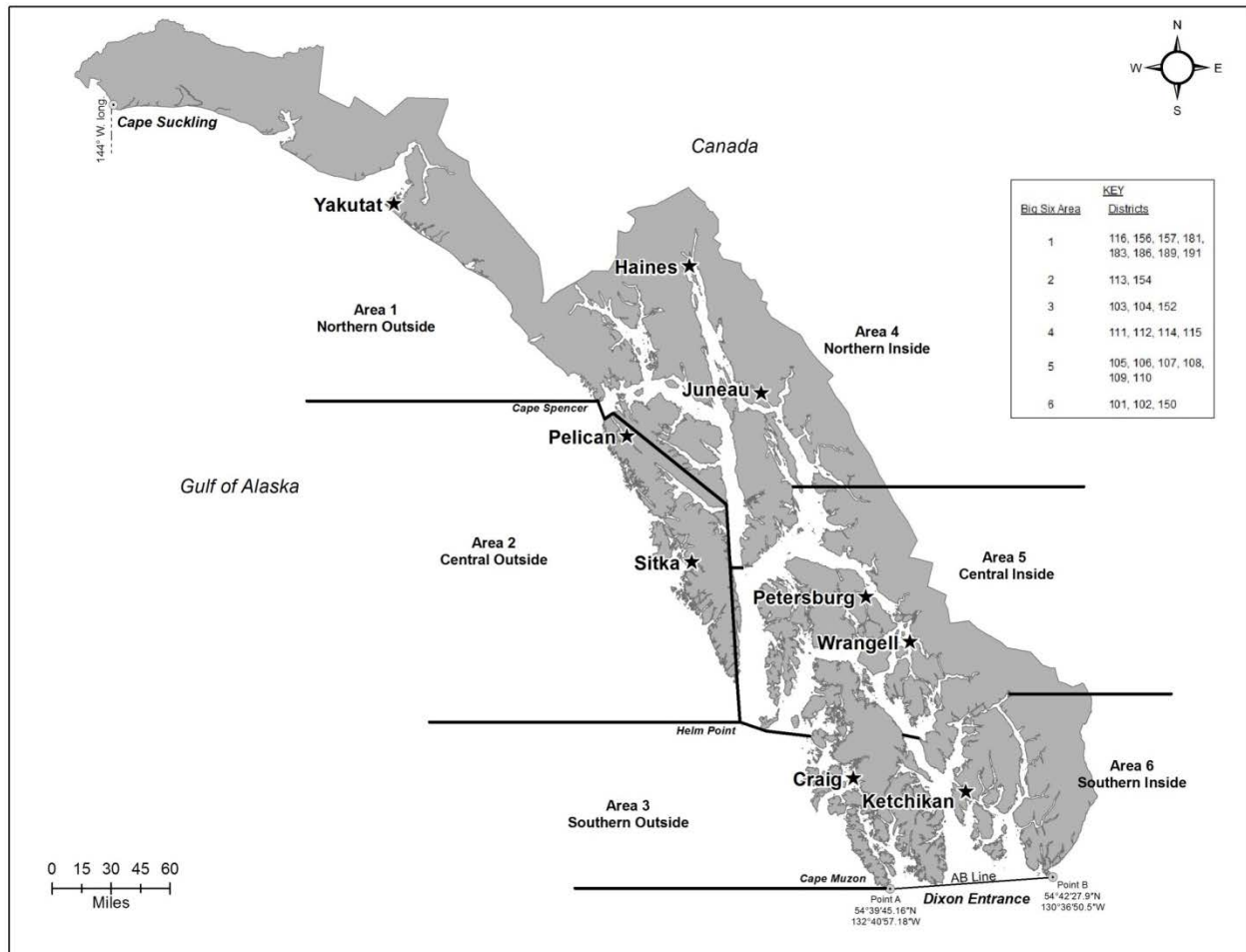


Figure 1.—Map of Southeast Alaska commercial troll fishing and Big Six management areas, Cape Suckling to Dixon Entrance.

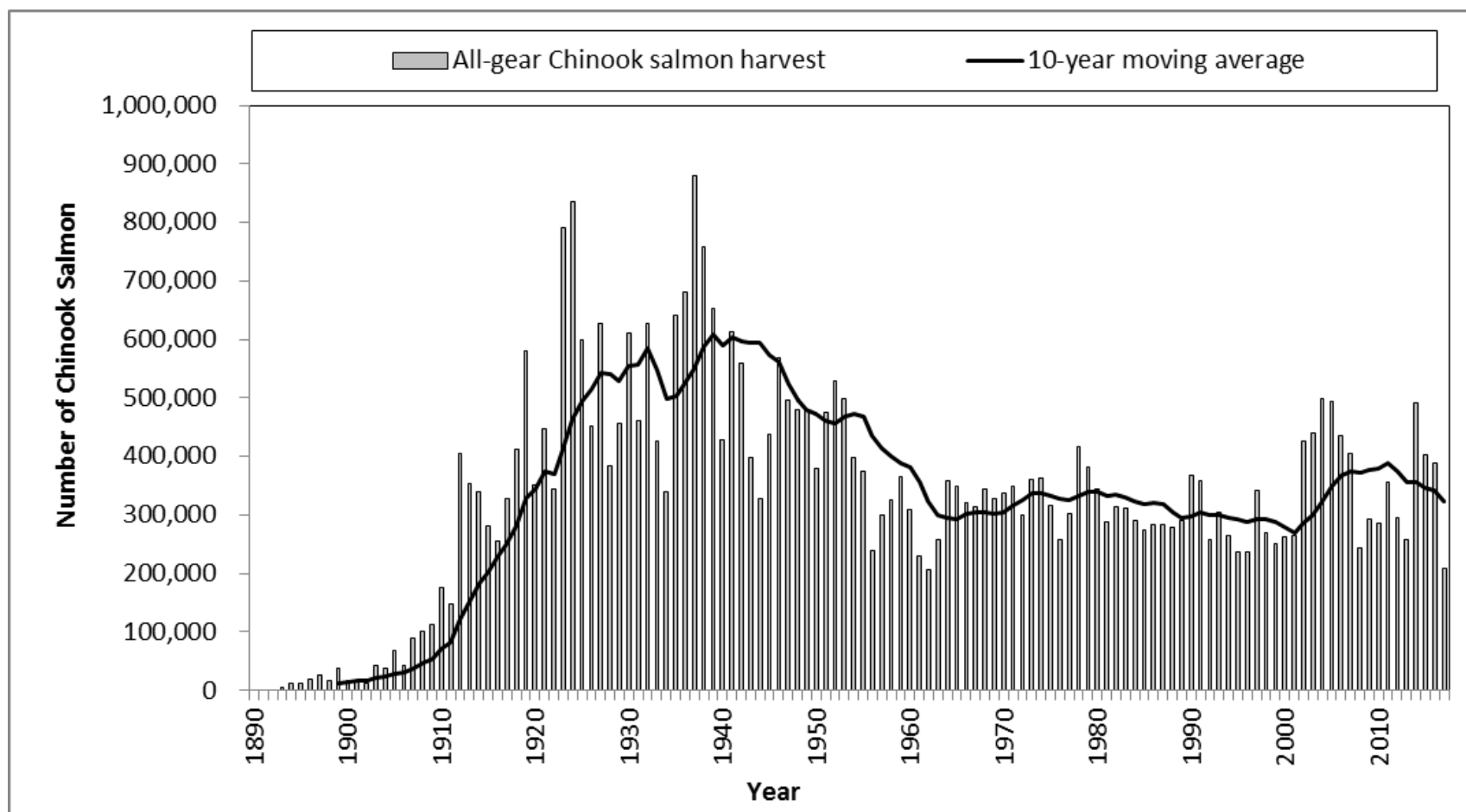


Figure 2.—All-gear harvests of Chinook salmon in common property fisheries, 1891–2017.



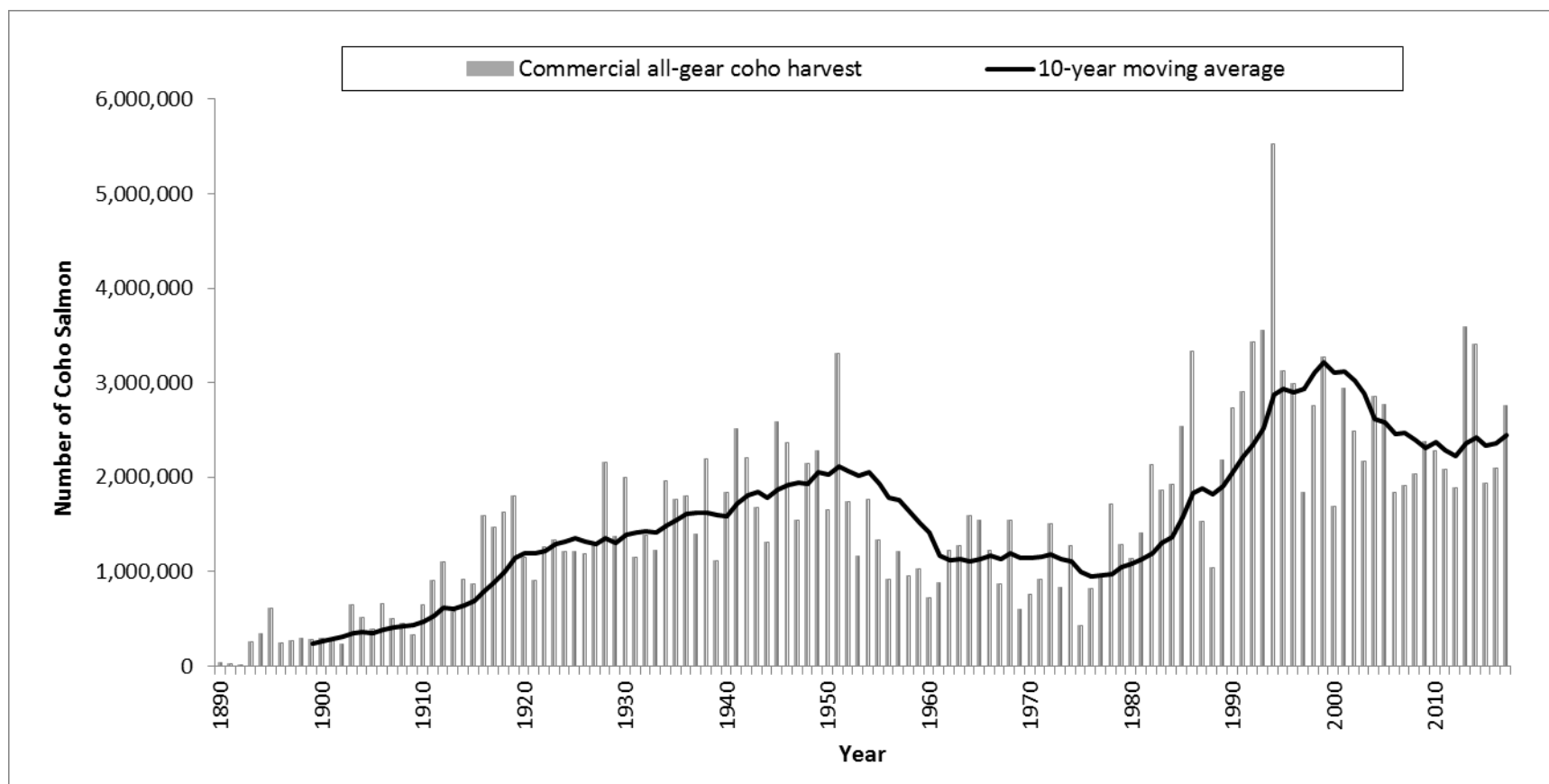


Figure 3.—Commercial all-gear harvests of coho salmon in common property fisheries, 1890–2017.

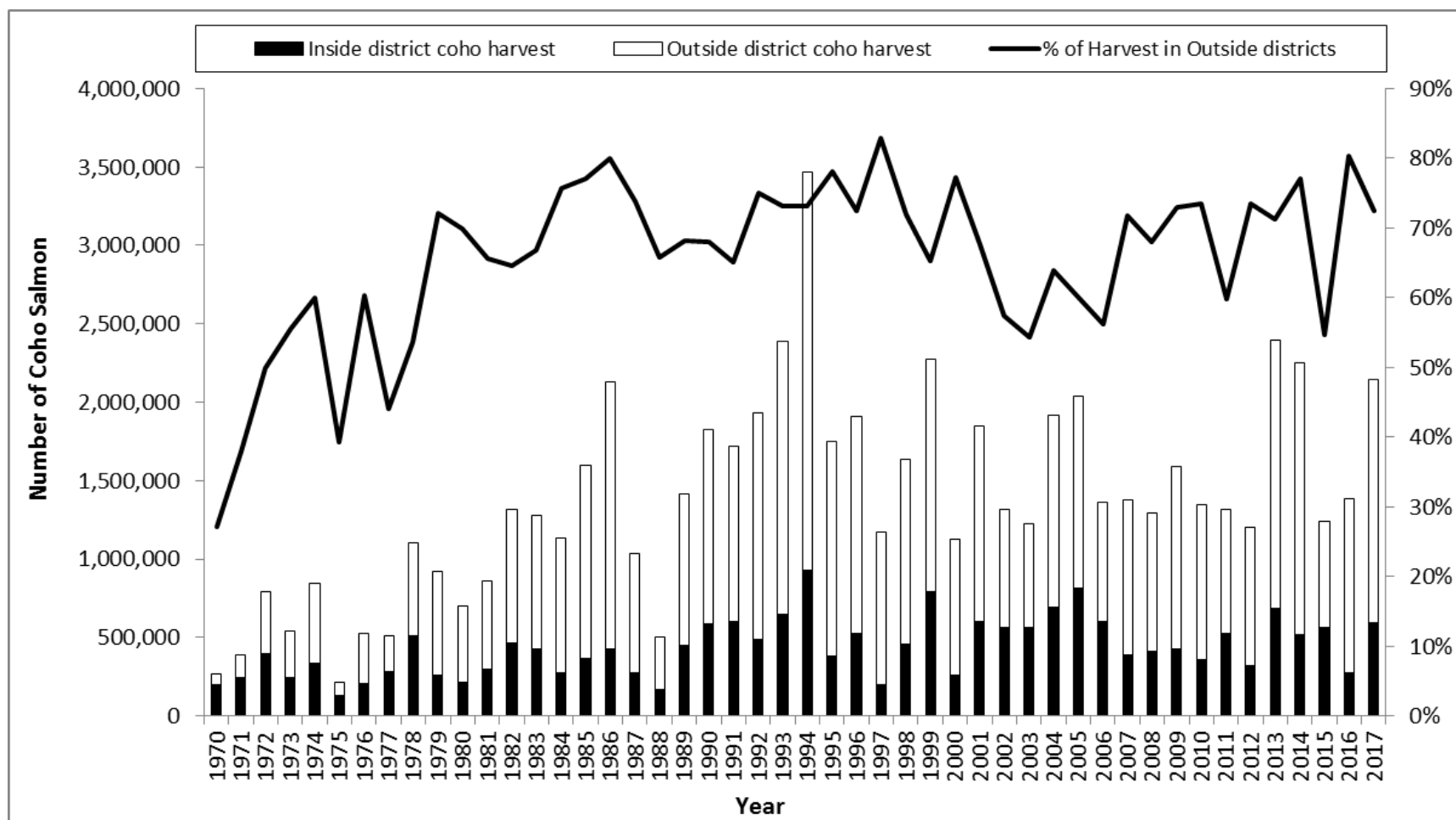


Figure 4.—Southeast Alaska troll coho salmon harvest in the outside (Gulf of Alaska) districts, the inside districts and the percentage of the harvest taken in the outside districts, 1970–2017.

*Note:* Outside districts are 103, 104, 113, 116, 152, 154, 156, 157, 181, 183, 189, 191; inside districts are 101, 102, 105, 106, 107, 108, 109, 110, 111, 112, 114, 115.

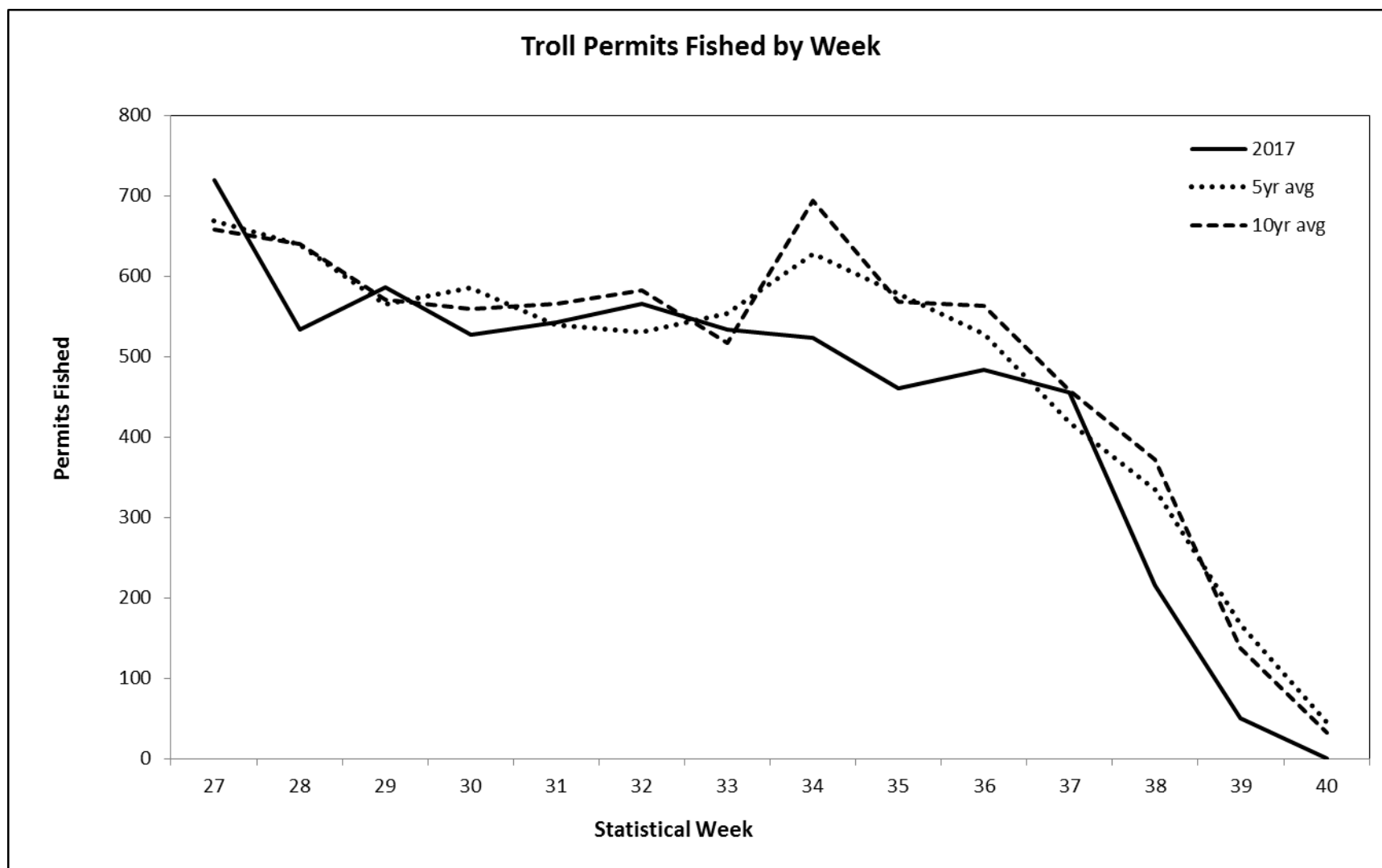


Figure 5.—Number of troll permits fished by week, 2017 vs. 5-year and 10-year averages.

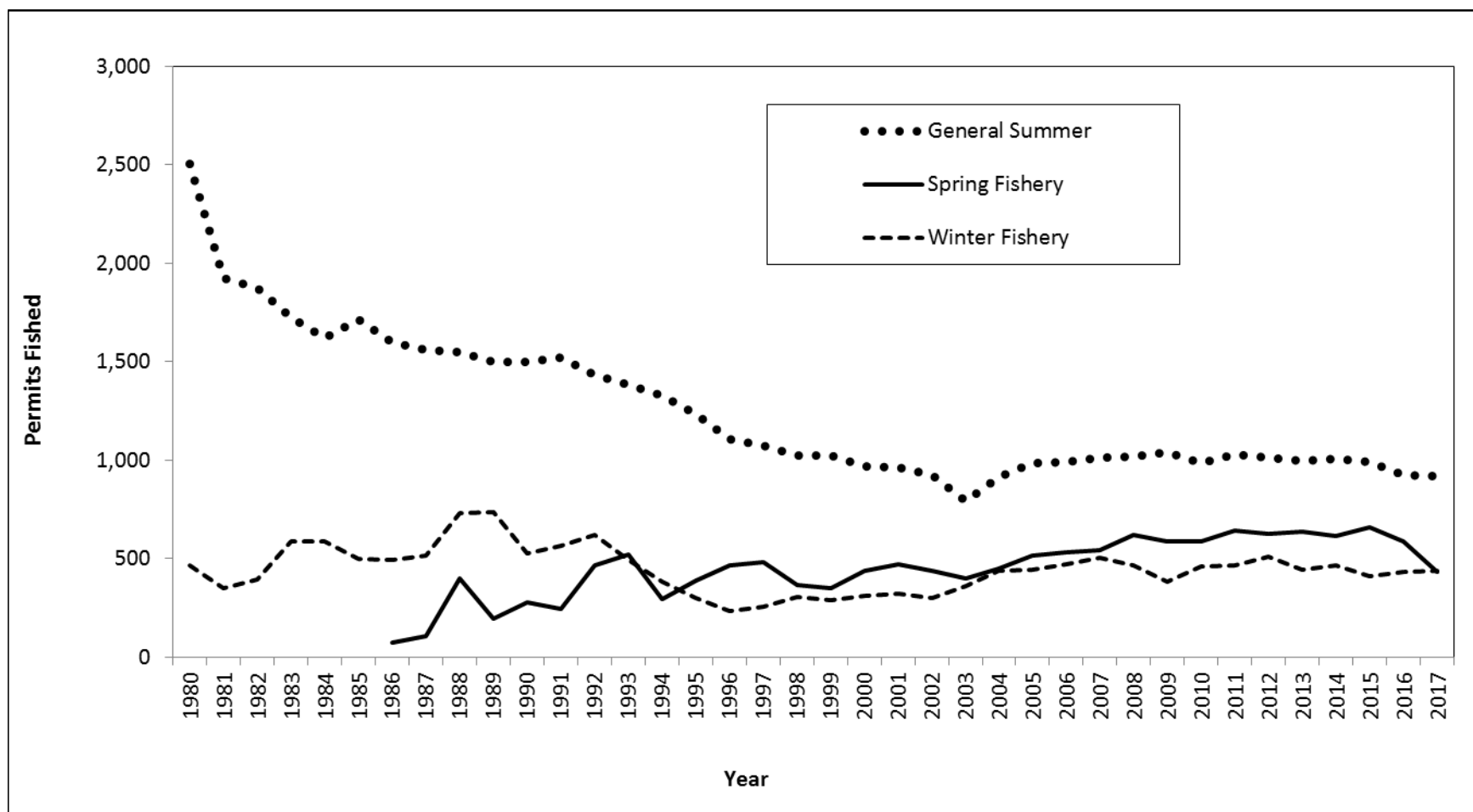


Figure 6.—Number of troll permits fished in the general summer, winter, and spring fisheries, 1980–2017.

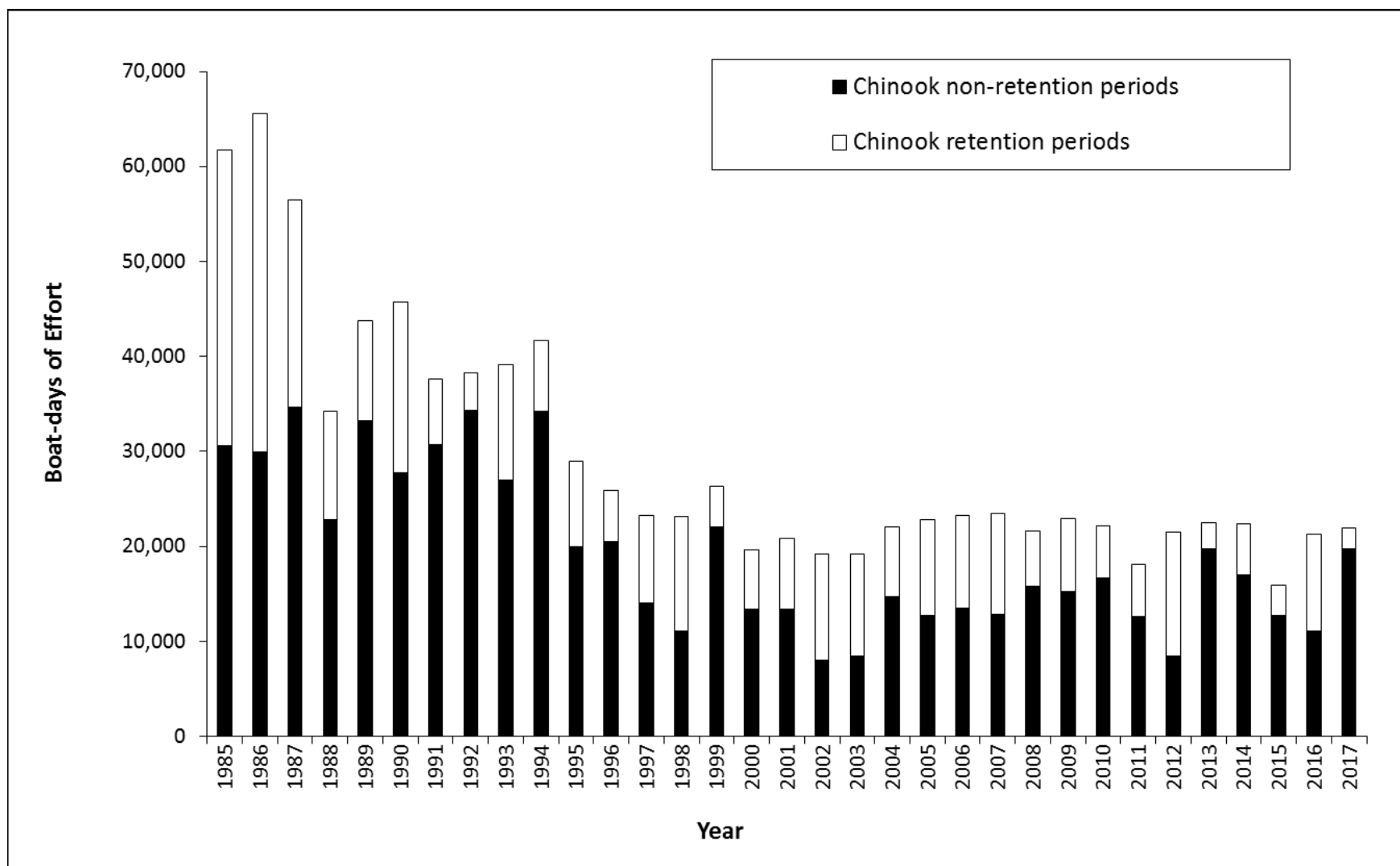


Figure 7.—General summer troll fishery boat-days of effort during Chinook salmon retention and Chinook non-retention fishing periods, 1985–2017.

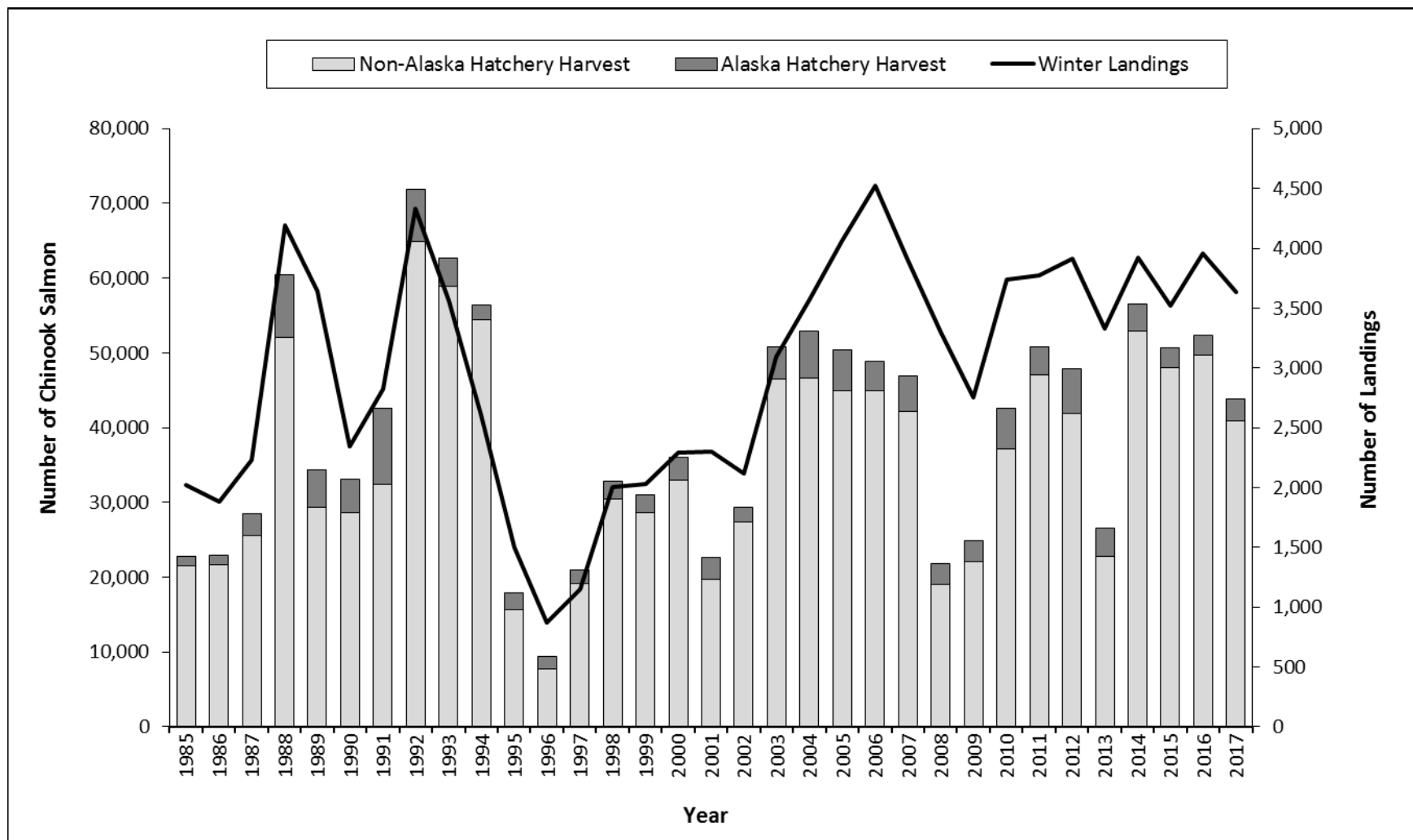


Figure 8.—Southeast Alaska winter troll fishery non-Alaska and Alaska hatchery Chinook salmon harvests and landings, 1985–2017.

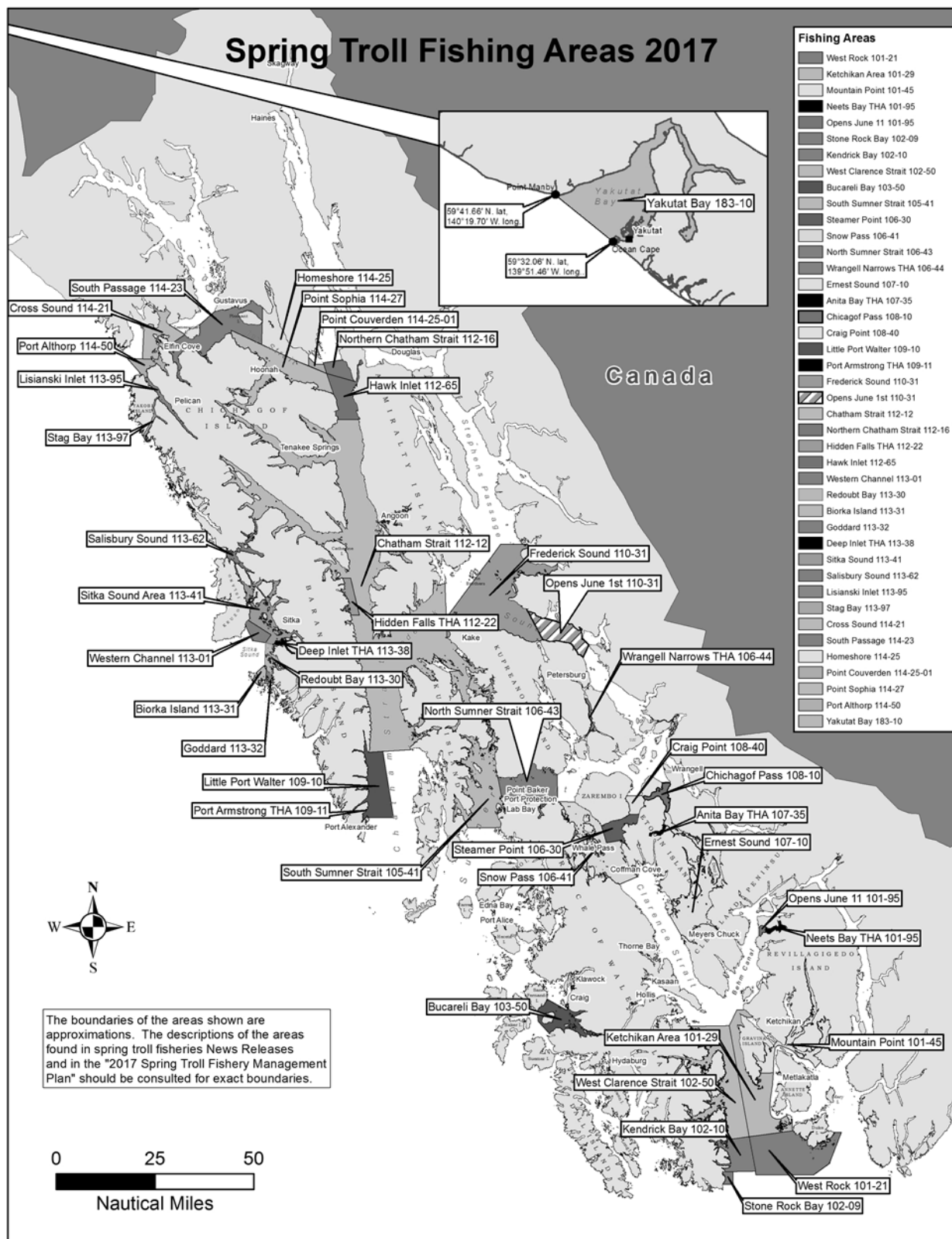


Figure 9.—Map of spring troll fishing areas, 2017.

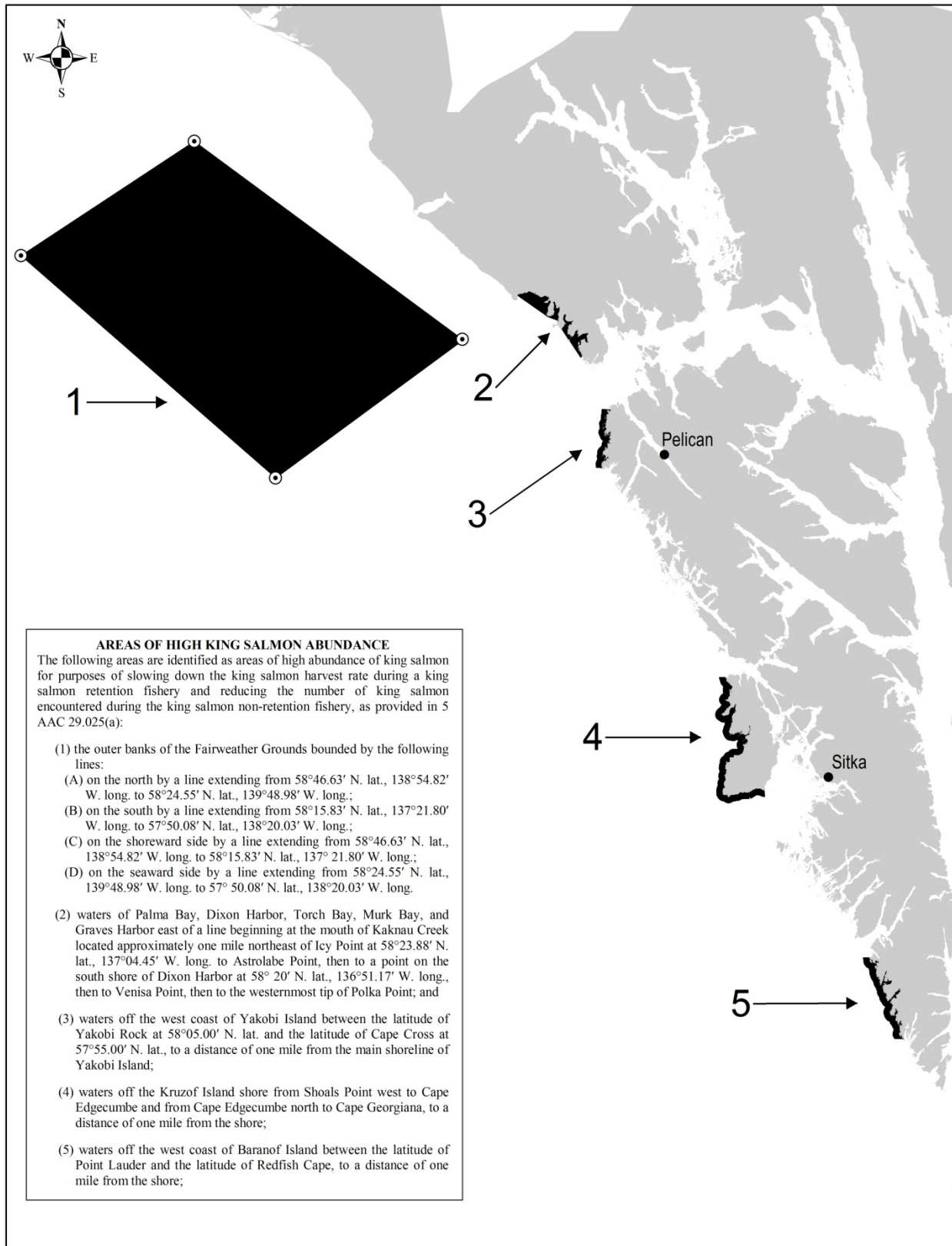


Figure 10.—Map of Areas of High King Salmon Abundance (shaded areas), which close during part of the summer fishery.



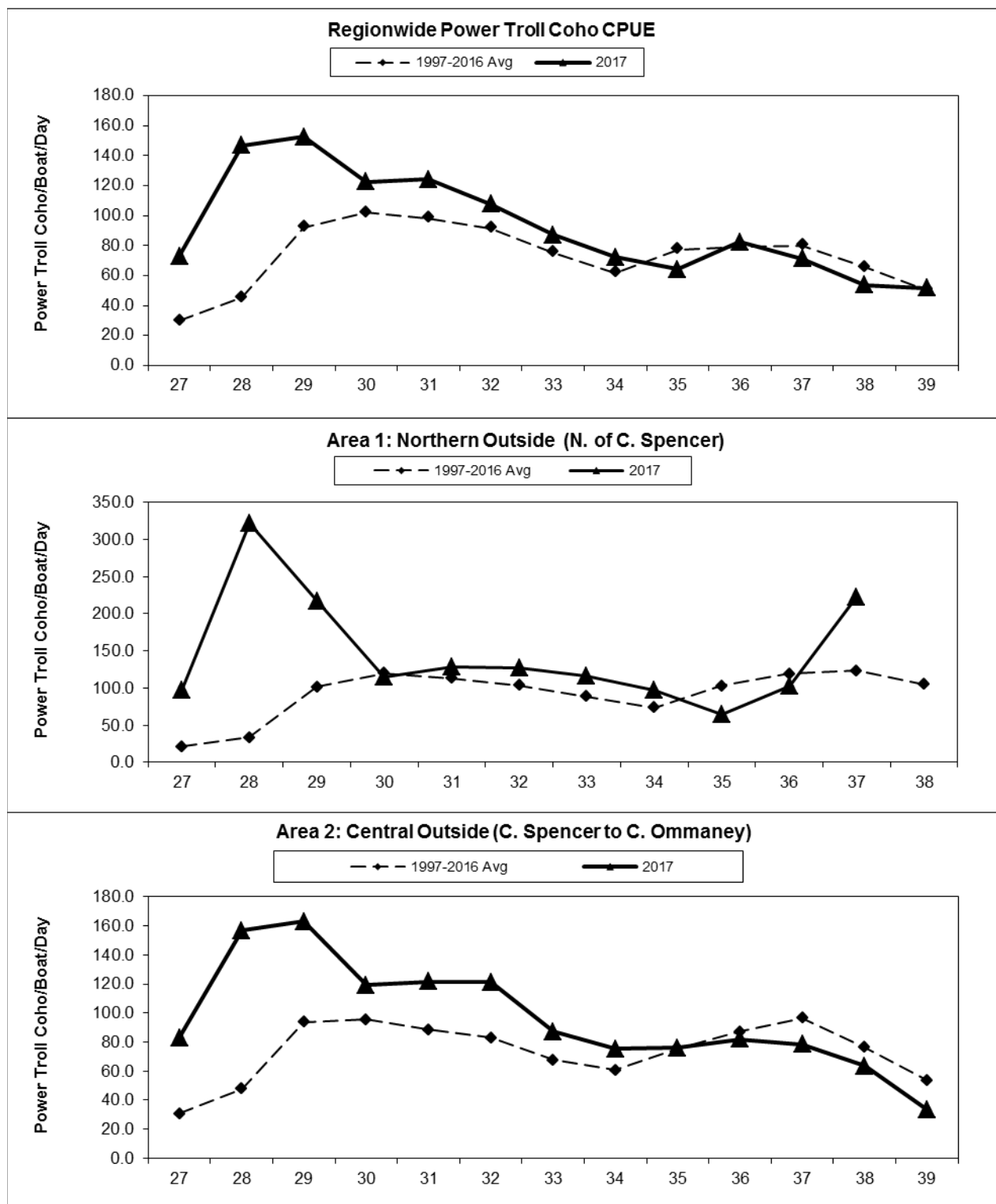


Figure 11.—Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2017 results with the 1997–2016 average, for Southeast Alaska, regionwide, Northern Outside, and Central Outside (Areas 1 and 2).

*Note:* Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho. Weeks with fewer than three permits interviewed are confidential and have been omitted.

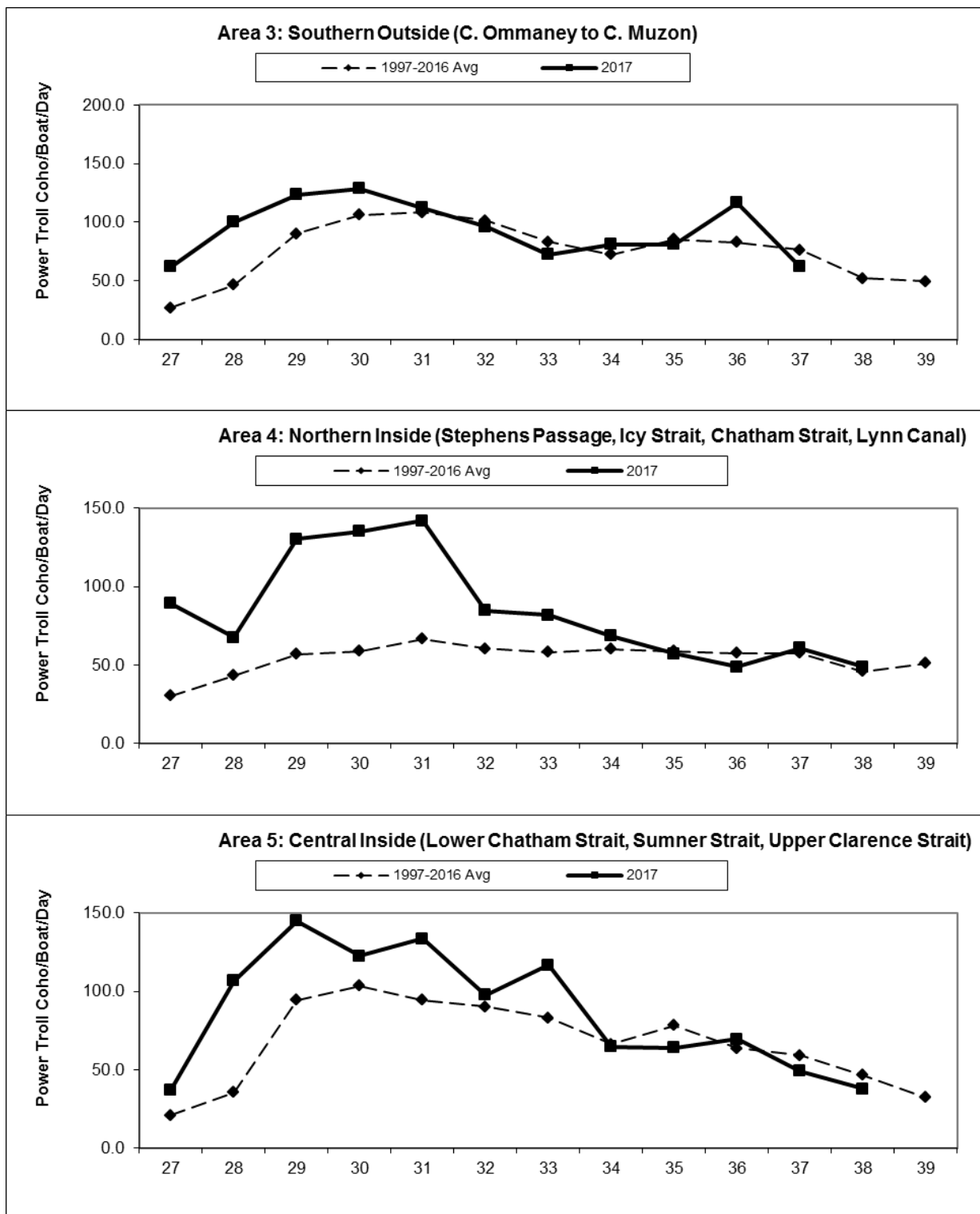


Figure 12.—Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2017 results with the 1997–2016 average, for Southeast Alaska, Southern Outside, Northern Inside, and Central Inside (Areas 3, 4, and 5).

*Note:* Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho. Weeks with fewer than three permits interviewed are confidential and have been omitted.

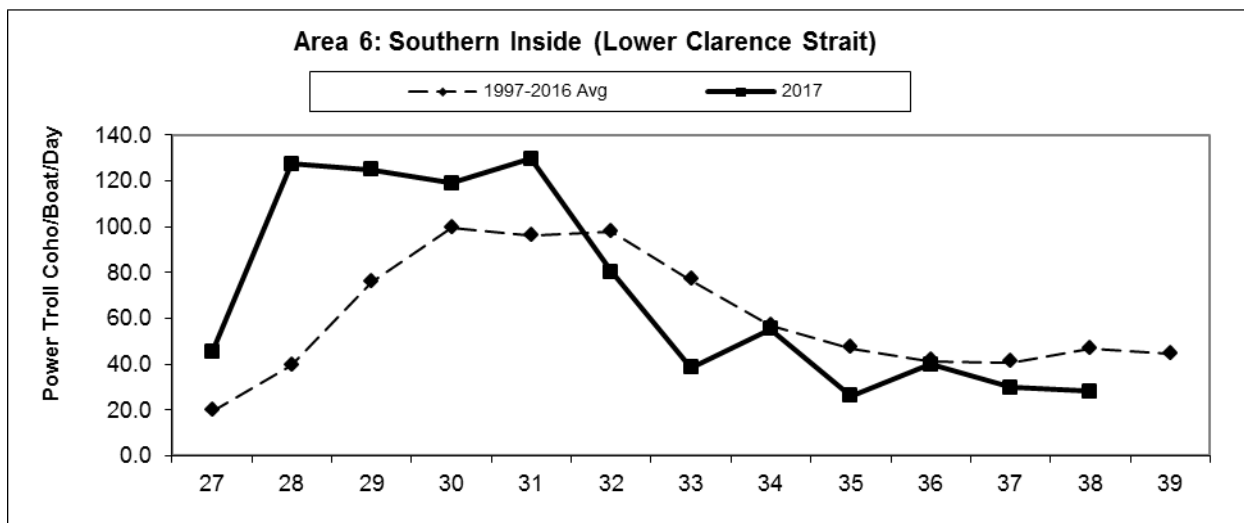


Figure 13.—Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2017 results with the 1997–2016 average, for Southeast Alaska, Southern Inside (Area 6).

*Note:* Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho. Weeks with fewer than three permits interviewed are confidential and have been omitted.

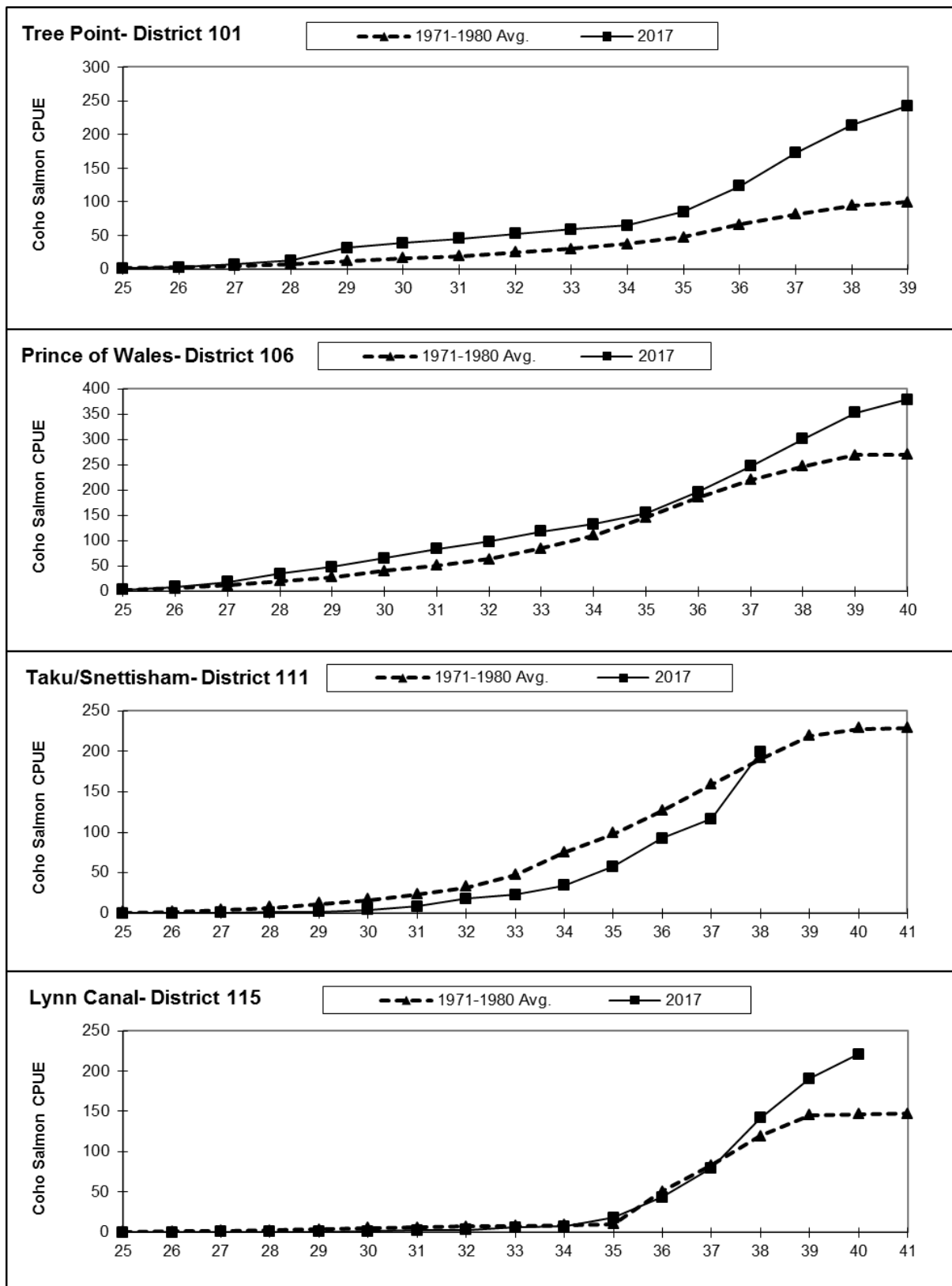


Figure 14.—Cumulative coho salmon catch-per-boat-day by statistical week, comparing 2017 to the 1971–1980 average, for the four indicator drift gillnet fisheries.

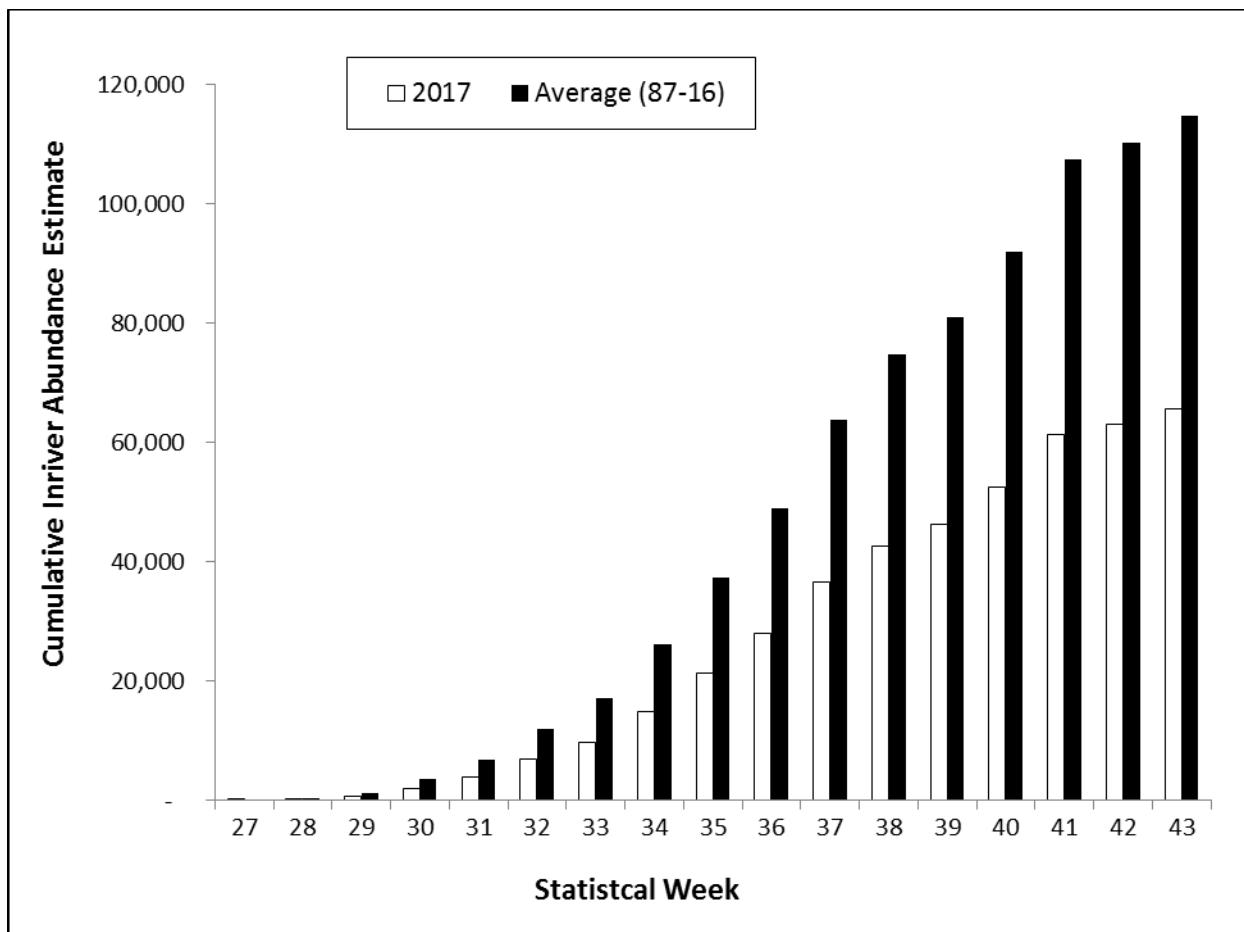


Figure 15.—Cumulative mark-recapture abundance estimate for Taku River coho salmon from Canyon Island fish wheels, for 2017 and the 1987–2016 average.

*Note:* Much of the weekly data are interpolated due to a paucity of available data from the Canadian inriver fishery for most weeks.

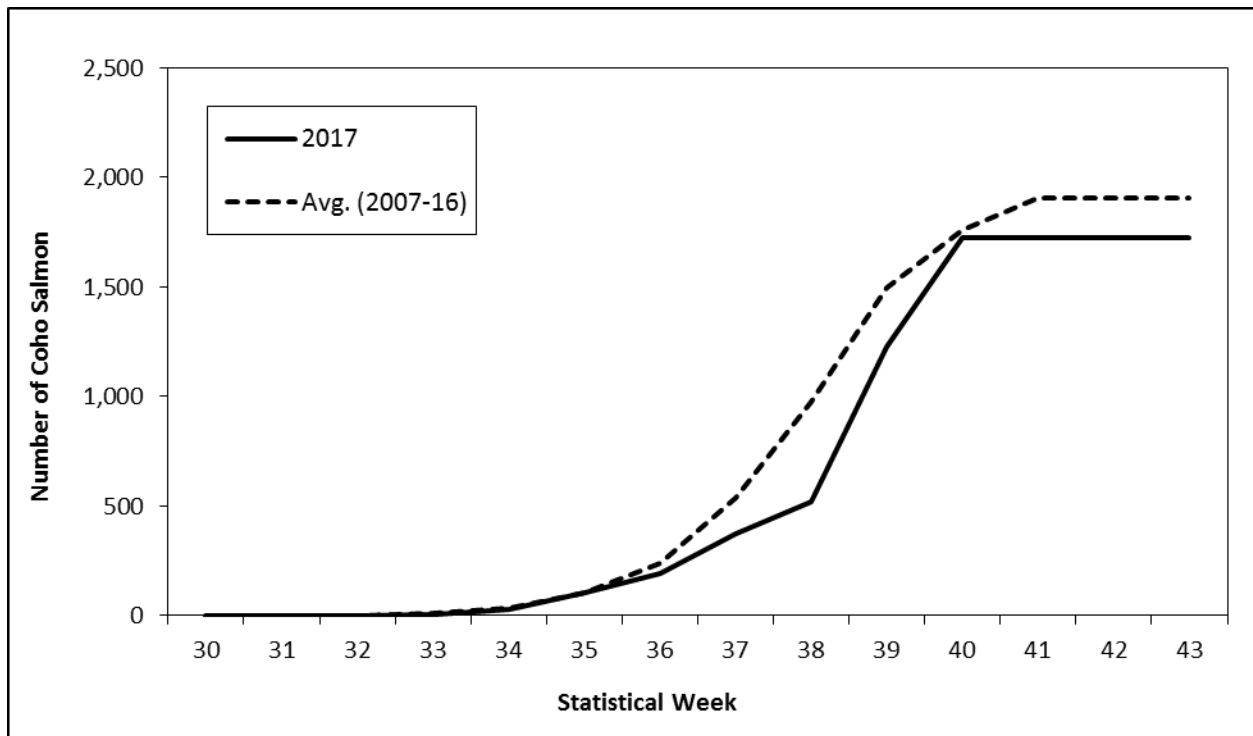


Figure 16.—Cumulative weekly catch of coho salmon in the Chilkat River fish wheels, for 2017 and the 2006–2016 average.

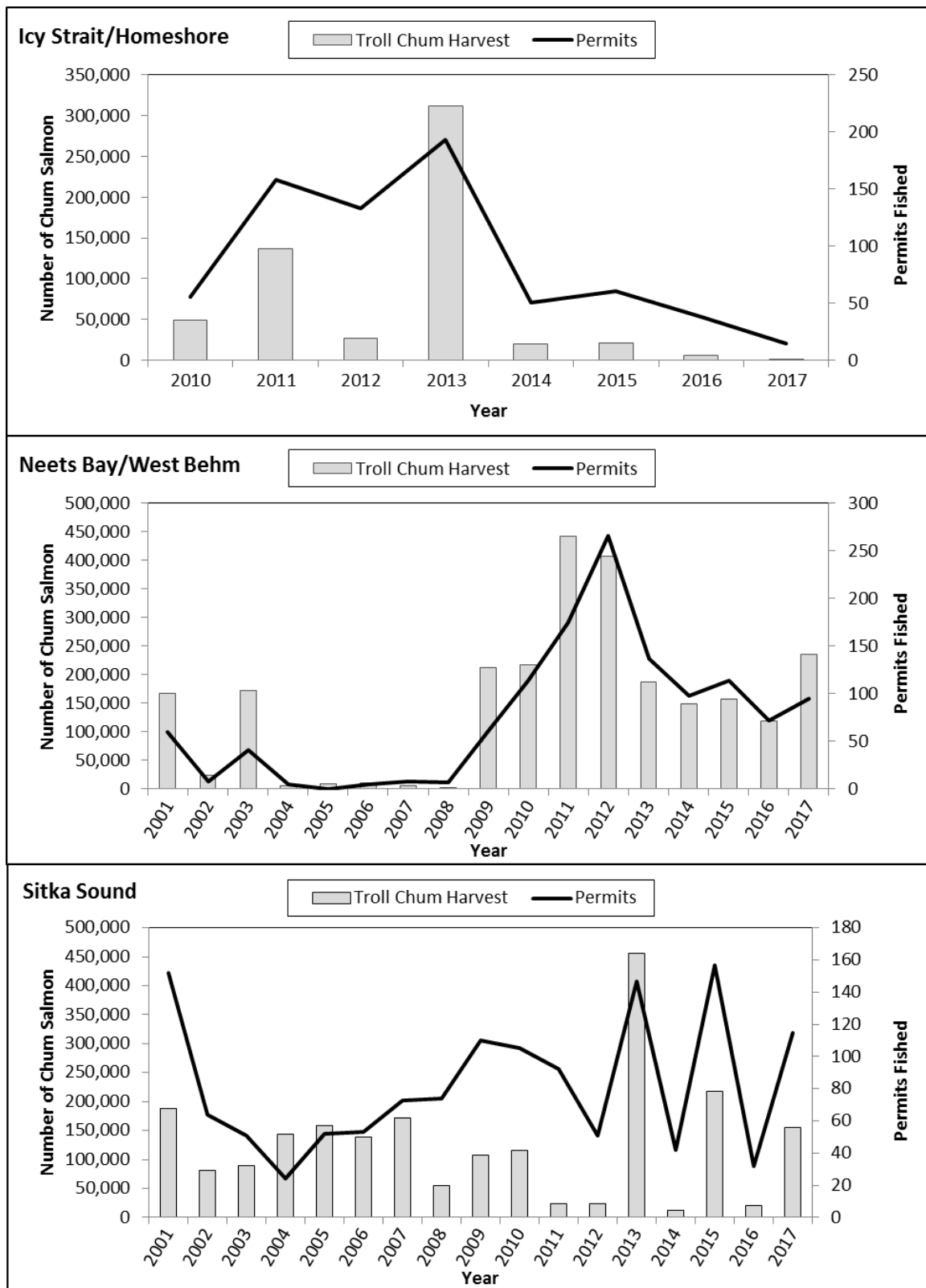


Figure 17.—Annual harvest and number of permits fished for chum salmon, Icy Strait/Homeshore, Neets Bay/West Behm Canal and Sitka Sound 2001–2017. Both harvest and effort based on all troll vessels that targeted chum.

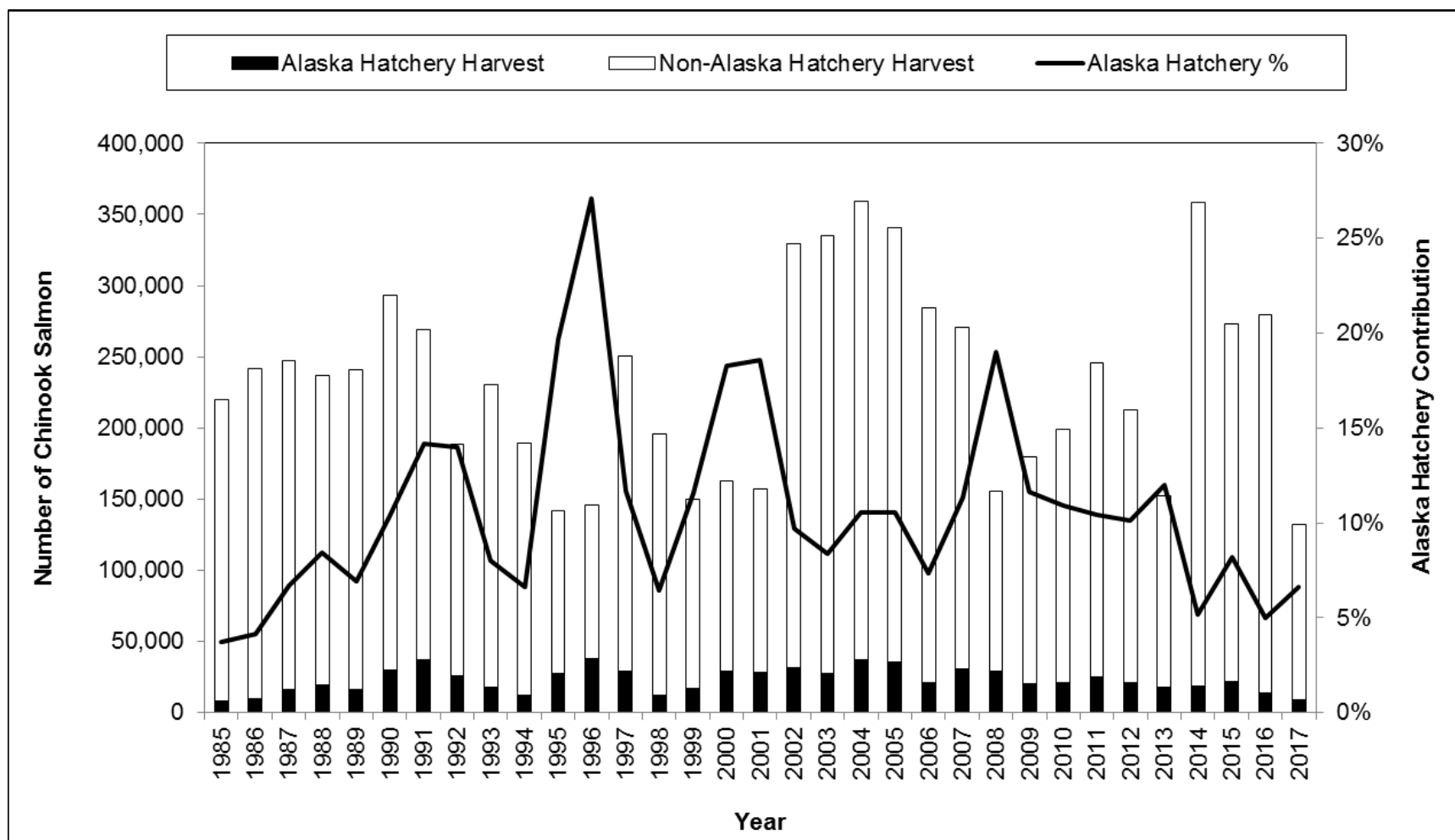


Figure 18.—Alaska hatchery Chinook salmon contributions to the Southeast Alaska troll fishery, 1985–2017.



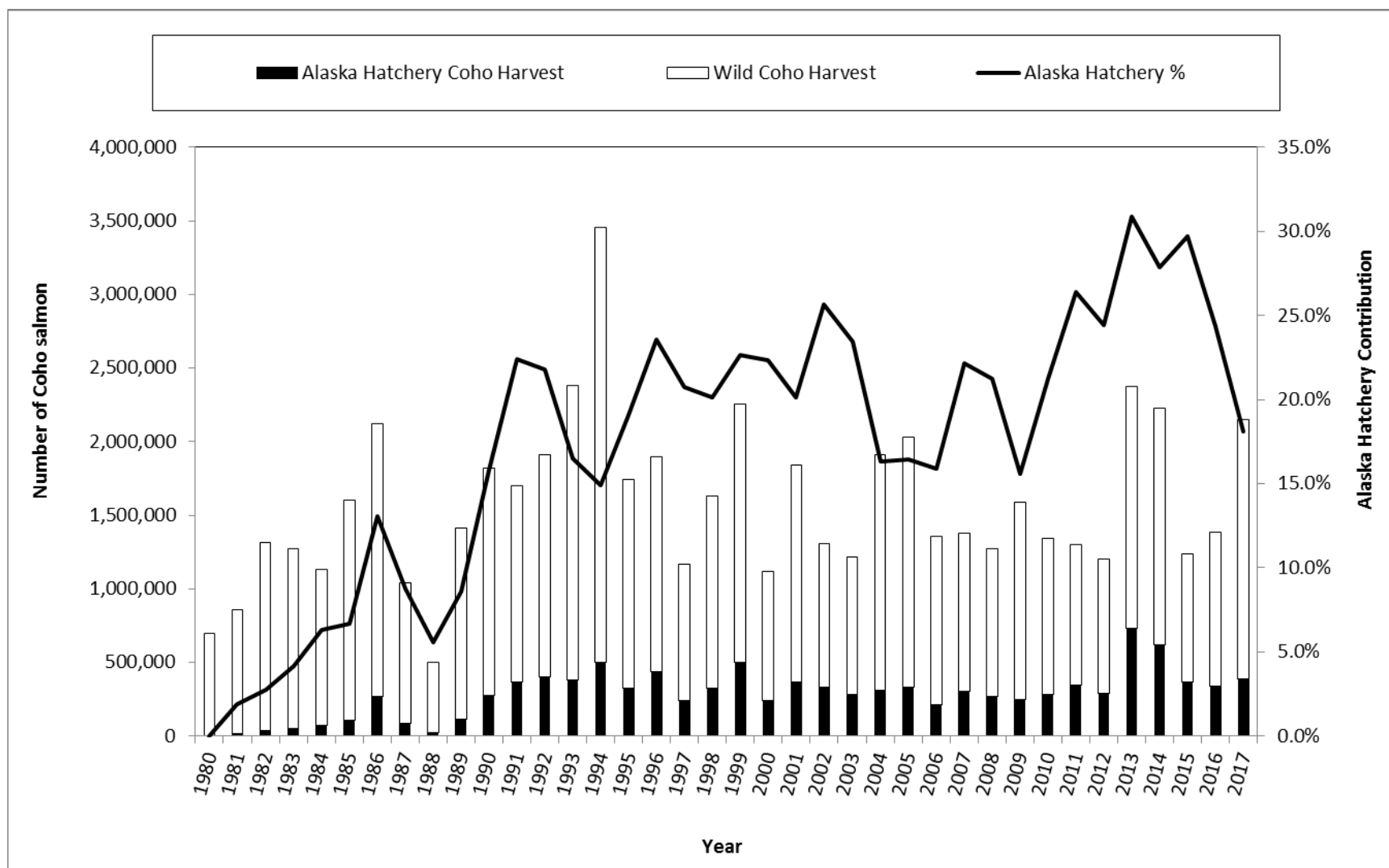


Figure 19.—Hatchery contributions of coho salmon from all sources to the Southeast Alaska troll fishery, 1980–2017.

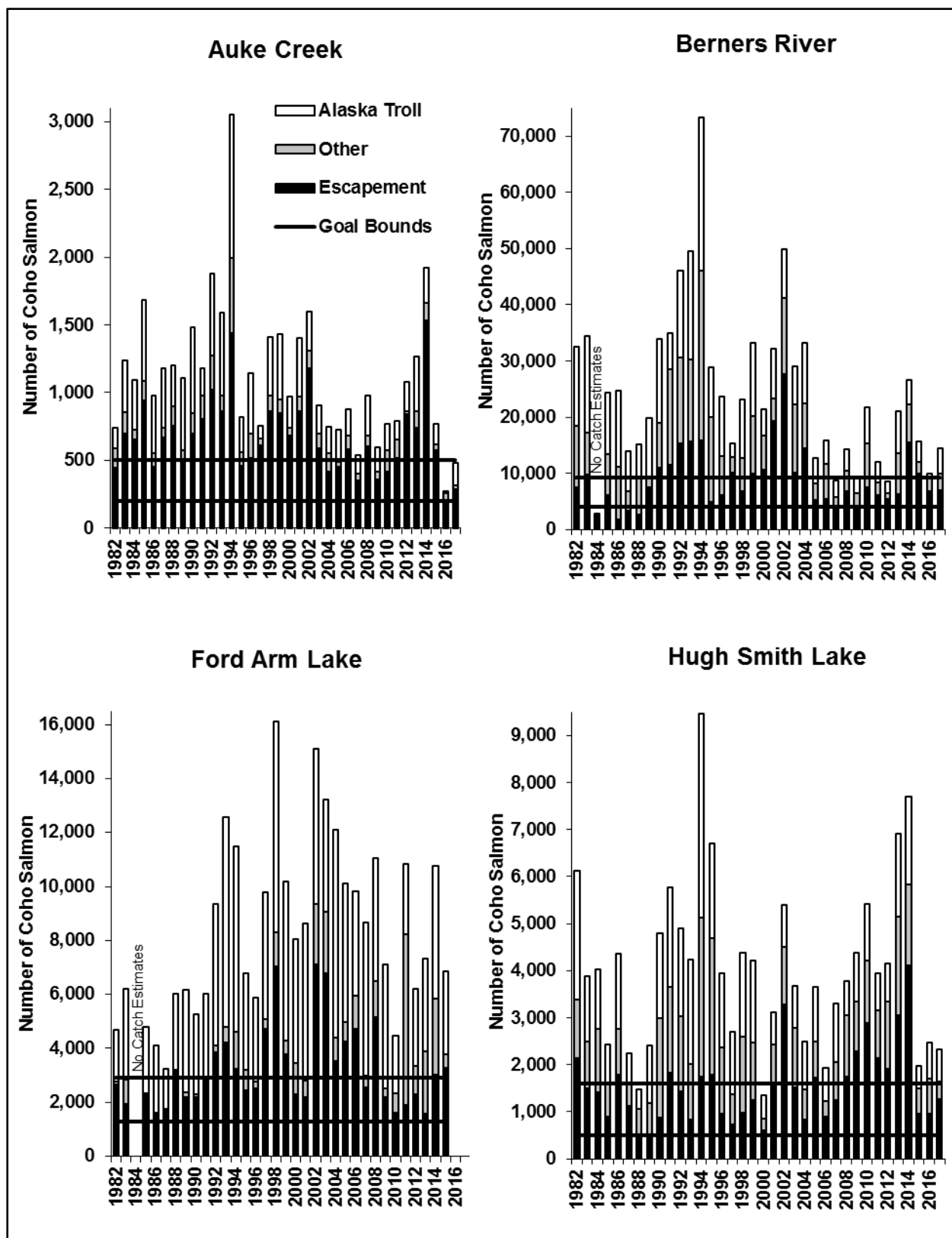


Figure 20.—Total run size, catch, escapement, and biological escapement goal range for four wild Southeast Alaska coho salmon indicator stocks, 1982–2017.

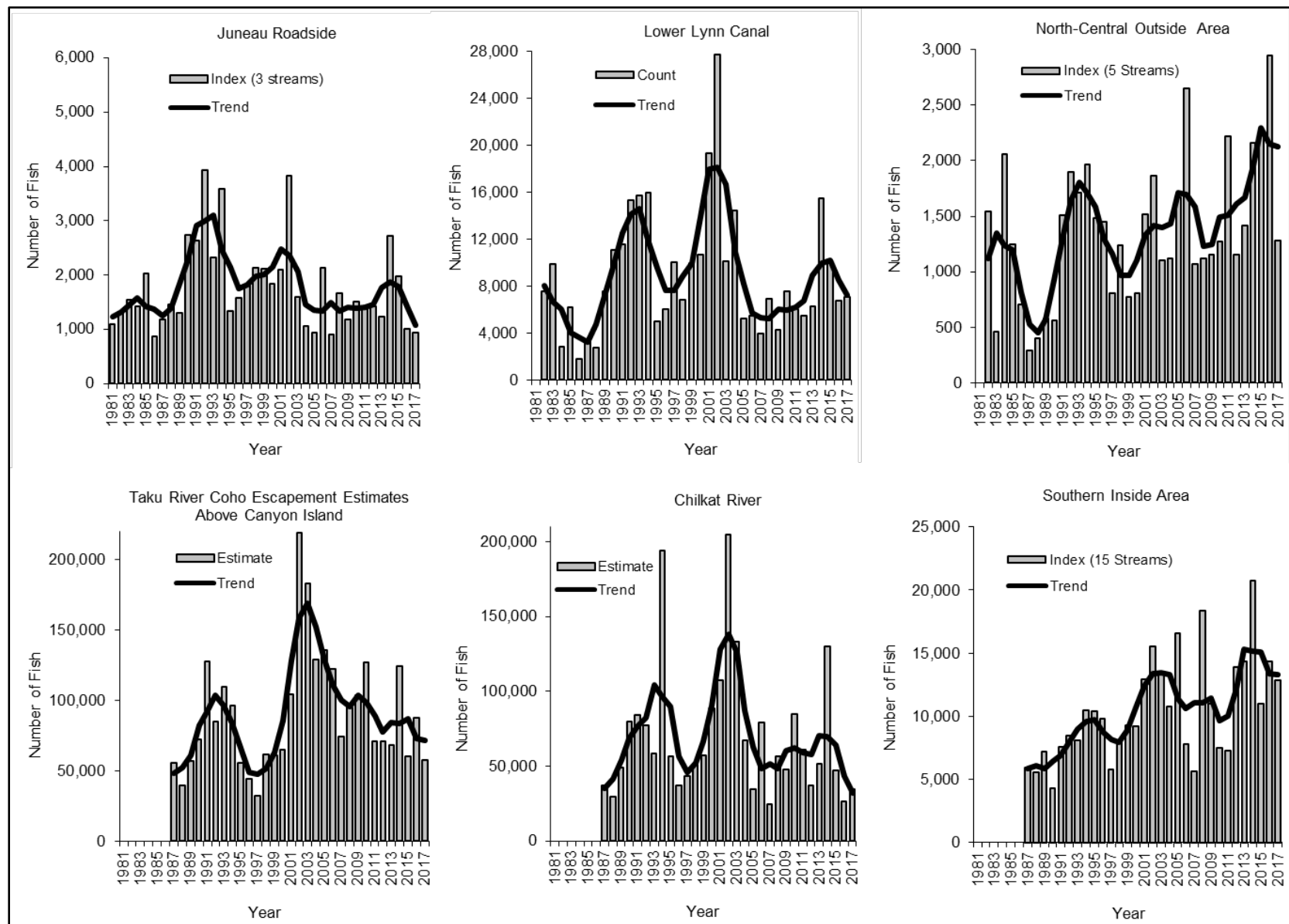


Figure 21.—Coho salmon escapement counts and estimates in index streams in five areas of Southeast Alaska, 1981–2017.

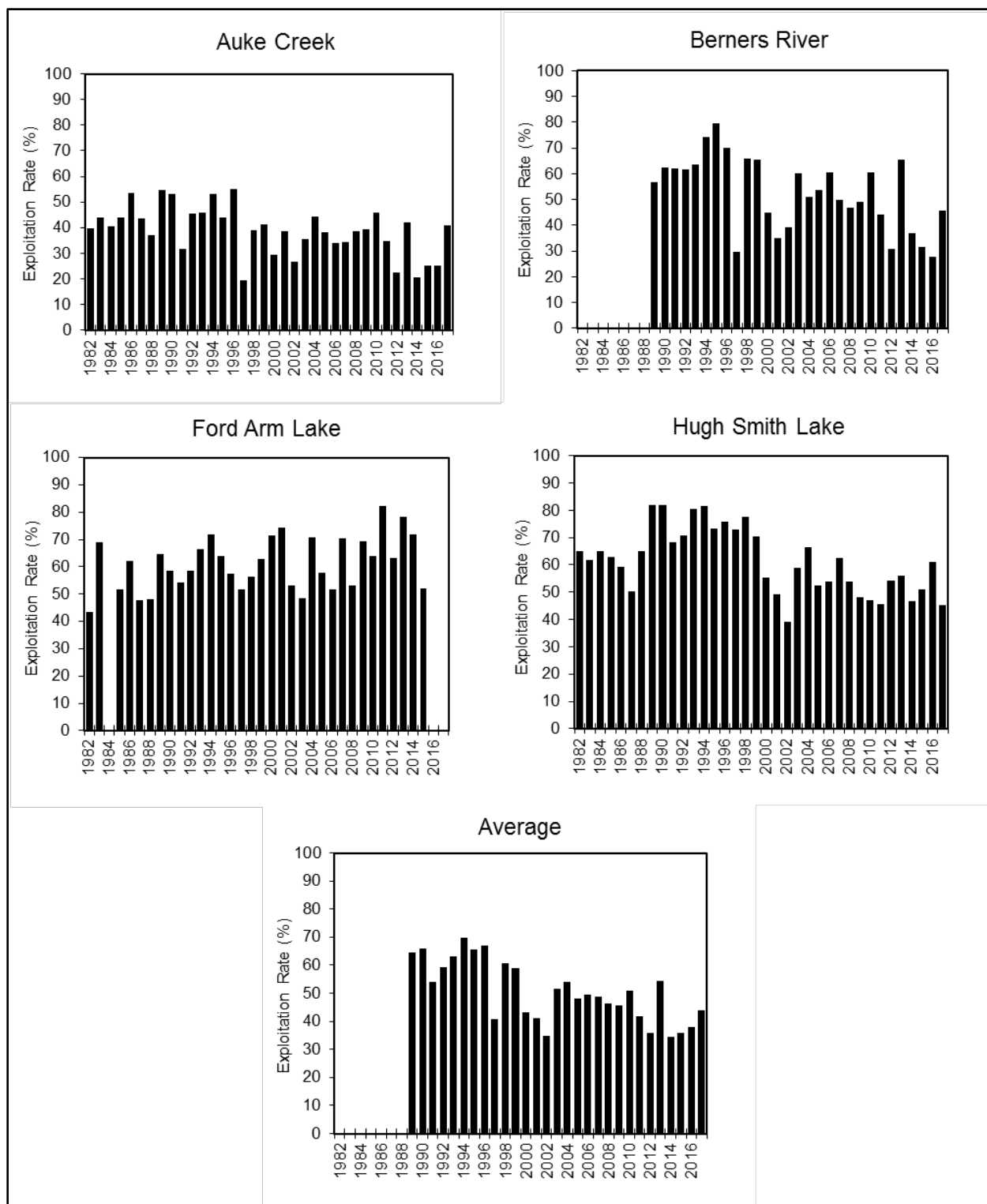


Figure 22.—Estimated total exploitation rates by all fisheries for four coded wire tagged Southeast Alaska coho salmon stocks, 1982–2017.

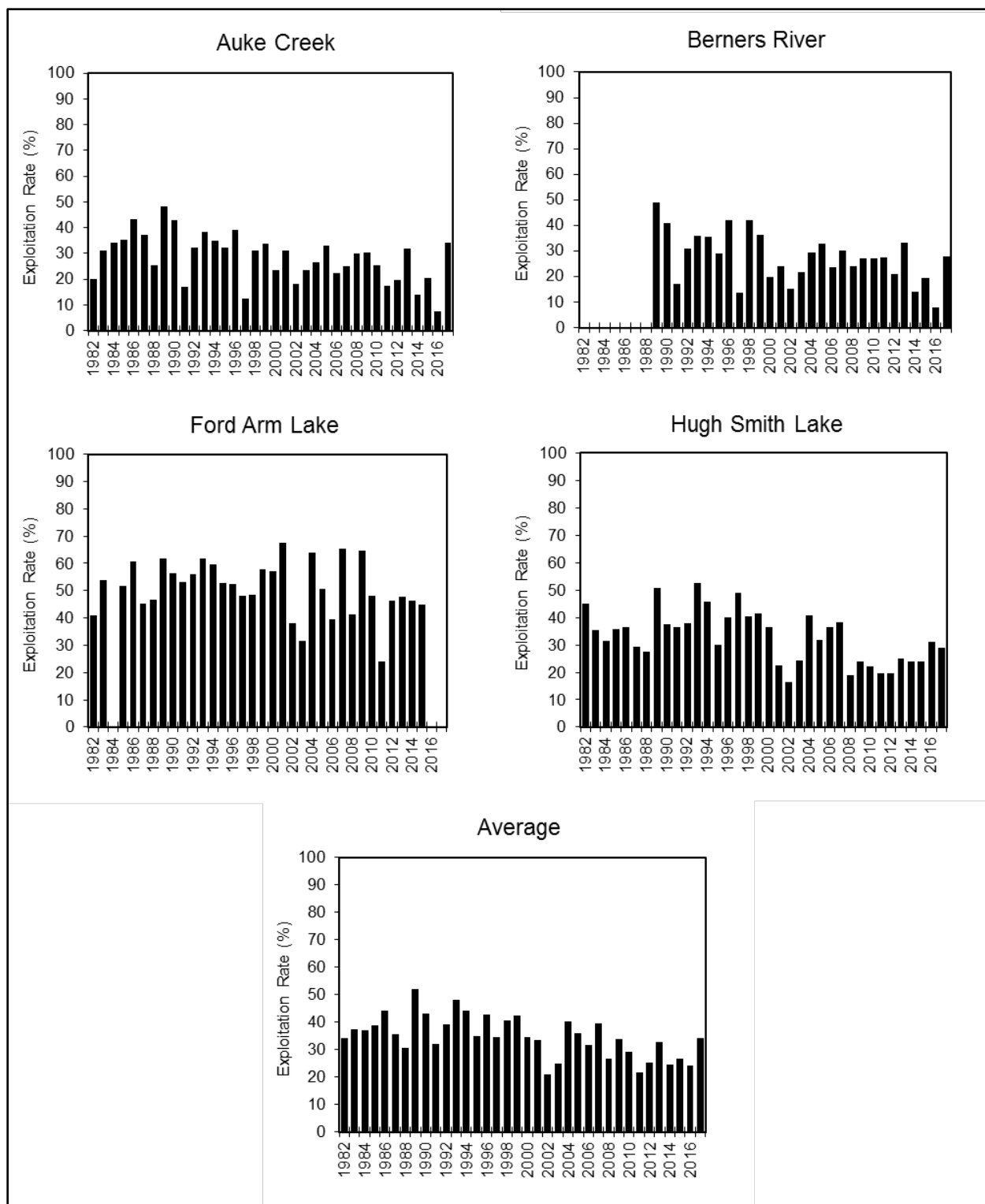


Figure 23.—Estimated exploitation rates by the Alaska troll fishery for four coded wire tagged Southeast Alaska coho salmon stocks, 1982–2017.