Fishery Management Report No. 17-24

Annual Management Report for the 2016 Southeast Alaska/Yakutat Salmon Troll Fisheries

by

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and

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November 2017

Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

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ANNUAL MANAGEMENT REPORT FOR THE 2016 SOUTHEAST ALASKA/YAKUTAT SALMON TROLL FISHERIES

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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, 2015, through September 30, 2016. Approximately 1.9 million salmon were harvested in the 2016 Southeast Alaska troll fishery. Of this, 73,000 salmon (4%) were taken by hand troll gear and 1.8 million salmon (96%) by power troll gear. The harvest included 276,000 Chinook (*Oncorhynchus tshawytscha*), 6,700 sockeye (*O. nerka*), 1.4 million coho (*O. kisutch*), 53,000 pink (*O. gorbuscha*), and 165,000 chum (*O. keta*) salmon landed by 745 power troll and 273 hand troll permit holders during the calendar year. The Chinook salmon harvest ranked 21st highest over the last 57 years since statehood, while the coho salmon and chum salmon harvest both ranked 19th highest on record. The preliminary estimated Alaska hatchery contribution of Chinook salmon to the troll fishery, including hatchery terminal harvest, was 13,800 fish (5%). A total of 338,000 coho salmon produced by Alaska hatcheries were harvested by the troll fleet, which accounted for 24% of the total troll coho salmon harvest. Chinook salmon escapements for 2 out of 11 Southeast Alaska rivers were within the desired escapement goal ranges, while 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 (*Oncorhynchus kisutch*) 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 (*O. tshawytscha*) and coho salmon. Status of wild coho and Chinook salmon 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., the Unuk, Chickamin, Blossom, and Keta rivers). The 3 major river systems (the Alsek, Taku, and Stikine rivers), as well as several mid-sized systems (the 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 1 year before migrating seaward. Ocean residency ranges from 2 to 4 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 more than 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 salmon 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 1 or 2 years and spend no more than 1 winter in the ocean before returning to spawn as adults. Most coho salmon harvested by Southeast Alaska trollers are 3-year-old and 4-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 composed of hand and power troll gear types. Vessels using hand troll gear are limited to 2 lines on 2 hand-operated gurdies or 4 fishing rods, except that

following the closure of the initial summer Chinook salmon retention period and prior to the winter troll fishery, 4 hand troll gurdies or 4 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 2 hand troll gurdies or hand-powered downriggers to be used in conjunction with 2 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 4 lines on power-operated gurdies, except within the EEZ north of the latitude of the southernmost tip of Cape Spencer, where 6 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), although the actual troll harvest has averaged 64% of the commercial harvest, with a range of 53% to 74%.

Most other species are harvested incidentally, though 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 are an exception to the declining trend in harvests since the late 1930s (Figure 2). 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 3 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[1] Chinook salmon exceeded the preseason quota 20 times over the 32-year period from 1985 to 2016. The troll harvest of treaty Chinook salmon has exceeded the preseason PST quota 18 times from 1987 to 2016 (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 salmon 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 salmon component that was well below the limit for that area. Those areas could be closed, however, if the treaty Chinook salmon 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

[1] 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.

to these areas and hopefully obtain large enough sample sizes to provide more precise estimates of Alaska hatchery contributions. Although 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 salmon 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, whereas most of the Alaska hatchery fish are not.

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 fork length) 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. Alaska Department of Fish and Game (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 1 or more openings. Due to the time lag between when fish are harvested and when the harvest information is received through fish ticket receipts, ADF&G conducts a Fisheries Performance Data program (FPD) to 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 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 tallies from processors are an important tool in tracking harvest during the final days of each summer Chinook opening, similar to the winter fishery. ADF&G 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 3 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 7 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 10 days typically occurs in mid-August and is required to be a minimum of 2 days by regulation for a fair start prior to the 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 salmon reaching inside areas is adequate to provide for spawning requirements, given usual or restricted inside fisheries on coho salmon 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 ADF&G has concerns for coho escapement or allocation, the closure would be longer than 2 days and could last as many as 10.

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, harvest, 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 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 273 permits fished in 2016. The percentage of active hand troll permits in the fleet has declined from 76% in 1978 to a low of 28% in 2002, followed by an increasing trend through 2008. The percentage had remained relatively stable at 31–34% since then but declined to a record low during 2016 when 27% of the active troll permits fished were hand troll. The combined power troll and hand troll permits fished of 1,018 during 2016 was below both the recent 5-year and 10-year averages. Effort in the majority of individual statistical weeks throughout the season was also well below the recent averages (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 4.5 days in 1992. 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 3,174 boat-days during the 2015 season.

SUMMARY OF THE 2016 SEASON

In 2016, a total of 745 power troll permits were fished and 273 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 2 of the 3 troll fisheries when compared to 2015. Hand troll effort decreased in all 3 of the 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 22 permits during the winter fishery, decreased by 68 permits during the spring fishery, and decreased by 66 permits during the summer fishery when compared to effort in 2015 (Table 4; Figure 6). The decrease in overall hand troll effort compared to the 2015 year was around 23%, whereas overall power troll effort decreased by 1% (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 2016 during Chinook retention periods was 10,183, which was an increase of 220%, 71%, and 47% from the 2015, 5-year, and 10-year averages, respectively (Table 5; Figure 7). Effort data were derived from dockside interviews of trolling vessels in conjunction with harvest and effort data from troll fish tickets.

A total of 741 permits were fished during the July opening, which is a decrease of 27 permits when compared with July 2015. The fleet included a total of 65 catcher-processors (freezer boats) during 2016, an increase of 8 permits when compared to 2015 participation.

The troll fleet harvested approximately 1.9 million salmon during the 2016 season, which is a 14% reduction from the 2015 harvest and a decrease of 21% when compared to the recent 10-year average (Table 6). The harvest of chum salmon and pink salmon decreased by 61% and 79% compared to 2015, respectively. The summer troll fishery included 2 Chinook salmon retention periods, from July 1 to 5 and from August 13 to September 3. In addition to the traditional summer retentions periods, an experimental mark-selective fishery (MSF) was conducted from September 4 to 30. The 2016 coho salmon harvest ranked as the 19th highest harvest since statehood, which was related to low effort during much of the summer fishery (Figure 5). The coho salmon harvest peaked during the week of July 10–16, when 21% of the annual harvest was taken (Table 7). The average weight of coho salmon, at 6.6 lbs, was above 2015, the 5-year, and 10-year averages of 6.0, 5.8, and 6.1 lbs, respectively (Table 8). With well below average effort at the time of the September coho salmon assessment, the troll season was extended through September 30 for the entire region.

In 2016, hand troll vessels harvested 73,237 salmon and power troll vessels harvested 1.8 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 (Tables 9 and 10).

The winter troll fishery was open from October 11, 2015, through March 8, 2016, with a total harvest of 52,291 Chinook salmon. The spring troll and terminal harvest area fisheries harvested 42,783 Chinook salmon from April 15 through June 30. During the summer troll fishery and MSF, trollers harvested 181,329 Chinook salmon (Table 11).

CHINOOK SALMON FISHERY

During the 2016 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 2016 total all-gear (troll, purse seine, drift gillnet, set gillnet, Annette Island, and recreational fisheries) Chinook salmon harvest was 389,472 fish, of which 41,871 fish were of Alaska hatchery origin. The all-gear Alaska hatchery add-on of 35,104 fish was calculated by subtracting the pre-treaty base hatchery harvest and risk adjustment from the Alaska hatchery contribution. Trollers harvested 276,432 Chinook salmon, of which 13,778 were of Alaska hatchery origin. Purse seiners harvested 28,244 Chinook salmon, of which 20,285 were treaty fish and 8,303 were of Alaska hatchery origin. The drift gillnet fleet harvested 13,789 Chinook salmon, of which 4,691 were treaty fish and 9,489 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 230 Chinook salmon, all of which were treaty fish. The recreational sport fisheries are estimated to have harvested 70,777 Chinook salmon, of which 62,490 were treaty fish (Tables 11 and 12).

Winter Fishery

The 2016 winter troll fishery began October 11, 2015, and was closed by emergency order on March 8, 2016, due to the harvest limit being reached. The March 8 closure date was the earliest on record and more than 2 weeks prior to the previous earliest season closure date, March 25, 2015. A total of 429 vessels participated in the fishery, with a harvest of 52,291 Chinook salmon (Tables 4, 11, and 13; Figure 8). The harvest increased by 3% when compared to the 2015 season. Harvest, catch rates, and effort are typically highest during late April; therefore, it is not meaningful to compare the overall 2016 harvest, catch rates, and effort to those in previous years other than 2015. Catch rates during 2016 were very similar compared to 2015; however, effort and harvest differed during both the early and late winter portions of the fishery. The 29,363 Chinook salmon harvested and 360 permits fished in the early winter of 2016 are the highest on record since the additional winter “surf line” restrictions were implemented in 1994. The 2016 harvest was 12% above the 5-year average and 25% above the 10-year average harvest. The Alaska hatchery contribution of 5% was the same as 2015, below the 5-year and 10-year averages, and was the lowest since 1994. Similar to 2015, the harvest during the early winter fishery was more than double the 5-year and 10-year averages. The harvest for the first 4 weeks of the fishery, at just above 20,000 Chinook, is the highest harvest to begin the winter fishery in the 28 years following the winter of 1988.

Spring Fishery

A total of 575 vessels participated in the 2016 non-terminal spring fisheries, with a harvest of 42,502 Chinook salmon. The largest Chinook salmon harvests were taken in the Sitka Sound, Tebenkof Bay, and Chatham Strait spring troll areas (Table 14). The Chinook salmon harvest was 11,190 fish less than the 2015 non-terminal harvest (Table 15) but above the 5-year and 10-year averages by 8% and 12%, respectively. The Alaska hatchery contribution, at 23%, was below the 5-year average (36%), the 10-year average (37%), and is the lowest on record since spring fisheries began in 1986. A combination of lower-than-forecasted Alaska hatchery returns and a high abundance of non-Alaska hatchery-origin Chinook salmon contributed to this low Alaska hatchery percentage. Alaska hatchery contributions typically increase as the fisheries

progress. In 2016, the overall Alaska hatchery percentage of the harvest stabilized at an estimated 25% for several weeks before peaking at 34% during the last week of June. The total spring and terminal effort of 587 permits in 2016 was lower by 22 permits than in 2015, but nearly the same as the 5-year average of 586 permits. A total of 36 spring areas and 6 terminal fisheries were open in spring 2016 (Figure 9). Other species harvested during the spring season, including Annette Island troll harvest, were 187 sockeye (*O. nerka*), 3,736 coho, 496 pink (*O. gorbuscha*), and 7,452 chum (*O. keta*) salmon (Table 7).

Management Actions to Conserve Unuk River Chinook Salmon

The Unuk River supports the 3rd largest stock of Chinook salmon in SEAK and is 1 of 8 escapement indicator stocks in the region. The escapement to the Unuk River was well below the biological escapement goal range (BEG) of 1,800–3,800 large Chinook salmon in 2012 and 2013, while exploitation rates on this stock were above average during those years. The PST requires that SEAK fisheries be managed to achieve escapement objectives for SEAK and Transboundary River stocks.

Management measures were implemented during the 2014–2016 spring troll fisheries, based on coded wire tag and run-timing data. Over the past 5 years, Unuk River Chinook were harvested mainly during June and in some spring troll fishing areas more than others. Management actions included closing several areas that had been open during the previous spring (West Behm Canal, Point Alava, Clarence Strait, and a large portion of what had been the Ketchikan spring troll area). The remainder of the Ketchikan spring troll area was divided into 3 subareas to increase the level of detail in stock composition data. What had been the Sumner Strait spring troll area during previous years was split into 2 subareas for the same reason. Fishing time was reduced in several areas during June (Ketchikan Area, West Rock, Kendrick Bay, and South Sumner Strait).

The 2016 preliminary estimate of escapement of 1,502 large Chinook salmon is an improvement from 2012 and 2013 but falls 17% below the lower bound of the BEG range. Preliminary results of management measures implemented in 2016 suggest that the harvest rate was around 39%, still higher than the recent 10-year average of 33% but reduced from the estimated harvest rate in 2015 and the recent 5-year average of 48% and 44%, respectively.

Districts 8 and 11 Transboundary Rivers Directed Chinook Salmon Fisheries

District 8

The 2016 preseason forecast for large Chinook salmon returning to the Stikine River was approximately 33,900 fish, which allowed for directed Chinook salmon fisheries in District 108. Since terminal Chinook salmon run projections were not available early in the season, the management of District 108 commercial fisheries was based on the preseason forecast and then performance in marine and inriver fisheries. Directed commercial fishing for Stikine River Chinook salmon occurred during the first 3 weeks of May in District 108. The troll fishery was open 3 days a week for the first 3 weeks of May. Due to the poor performance of both inriver and marine catches, directed commercial fishing was closed after 3 weeks until the beginning of the sockeye salmon fishery. With the closure of the directed fishery, spring troll fisheries targeting Alaska hatchery-produced Chinook salmon were opened on a limited basis in District 8, according to the *Spring Troll Management Plan.* The postseason run reconstruction for large Chinook salmon returning to the Stikine River was 15,287 fish, with an escapement of 10,343 fish, which was below the BEG range of 14,000 to 28,000 fish.

District 11

The 2016 preseason terminal run forecast for large Taku River Chinook salmon was 29,200 fish, which was insufficient for an Allowable Catch for either the U.S. or Canada, so directed fisheries did not occur in May. The preliminary escapement estimate of 12,381 fish was below the BEG range of 19,000–36,000.

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 2016 summer troll fishery using an assumed AI of 2.06 (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 then divided between the troll and sport fisheries in an 80/20 split, which translated to 263,200 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 125,800 Chinook salmon. Based on catch rates observed in past years with abundance indices similar to 2.06, most recently during 2014 and 2015 when the daily fleet catches exceeded 20,000, catch rates were expected to be relatively high (20,000–25,000 Chinook salmon/fleet/day). Effort was anticipated to be up compared to recent years in response to the preliminary Chinook salmon prices that were nearly double those of 2015. A total of 476 vessels were observed during aerial vessel count surveys conducted on July 2, an increase of approximately 43 vessels from the number counted on the same date in 2015. Based on elevated CPUE data received on the morning of the fifth day of the Chinook salmon retention period, it was estimated that a closure after 5 days of fishing would be necessary to avoid harvesting fish in excess of the July target. Atypical of most troll closure announcements, a less than 24-hour notice was given to the fleet on July 5 indicating the closing of the first retention period at 11:59 p.m. that night. A total of 106,630 Chinook salmon were harvested during the 5-day opening by 741 permits, with a catch/fleet/day of 21,326. The total harvest included 1,197 fish (1%) of Alaska hatchery origin, which is the lowest Alaska hatchery contribution and percentage of total July harvest on record. A total of 105,730 treaty Chinook salmon were harvested during the first retention period, after subtracting the Alaska hatchery Chinook salmon add-on of 900 from the total harvest (Tables 11 and 16).

The second summer Chinook salmon retention period opened on August 13 and was also managed in season with no predetermined length to target the approximately 73,000 Chinook salmon remaining on the annual troll allocation, which included an estimated 2% Alaska hatchery contribution. Factors that normally reduce catch rates during the August openings are 1) the regulatory closure of the Areas of Frequent High King Salmon Abundance (Figure 10), 2) reduction in overall effort, 3) permit holders opting to target other salmon species, and 4) unfavorable weather conditions. Given the exceptionally high abundance observed during the first retention period, above-average catch rates were anticipated for the second retention period. Once underway, the pace of the fishery appeared to be slower than anticipated based on initial reports. Unfavorable weather conditions throughout the first weeks of the fishery reduced the number of fishable days during the 3-week opening. Despite improved weather toward the third week of the opening, catch rates continued to decline with reports of a small portion of the fleet

beginning to target coho salmon while Chinook salmon retention remained open. On September 2, ADF&G announced the closure of the second summer troll Chinook retention period at 11:59 p.m., September 3, after 22 days of fishing. A total of 659 permits fished during the August opening. The catch/fleet/day during the August 2016 opening was 3,375, much reduced from the August 2014 opening when the preseason AI was similar to 2016 at 2.20 (there was no August opening in 2015). Of the 74,240 Chinook salmon harvested during the fishery, 954 (1%) were of Alaska hatchery origin (Table 16).

In addition to the traditional summer retention periods, an experimental MSF was conducted from September 4 to 30. 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 salmon. This fishery was prosecuted in accordance with 5 AAC 29.060 to harvest the remaining all-gear annual Chinook salmon harvest ceiling established by the Pacific Salmon Commission. Chinook salmon 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 150 permits landed Chinook salmon during the 27 day MSF, with a total harvest of 459 and a treaty harvest of 452 Chinook salmon.

COHO SALMON FISHERY

Coho salmon retention began on June 1, by regulation. The total wild coho salmon abundance was projected at 4.32 million fish, which was 13% above the 1982–2015 average of 3.82 million fish and ranked 5th out of the most recent 35 years. The first run strength assessment in late July projected an all-gear commercial harvest of 2.13 million wild coho salmon, 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 statistical week 31 if the mean-average troll coho salmon CPUE for weeks 27–29 in troll Area 6 (Districts 1 and 2) is between 15 and 22 coho salmon/day. The mean-average CPUE for the 2016 fishery was 40 coho salmon/day, which was well above the trigger for a closure. Regional power troll catch rates were well above average in July, following the first Chinook salmon retention period. The second coho salmon run strength assessment in early August projected an all-gear commercial catch of 2.01 million wild coho salmon and a total return of 4.10 million wild coho salmon, based on average wild coho salmonpower troll CPUE for the summer troll season through week 32. The wild abundance projection was above average (3.82 million) and ranked 12th in 35 years, while the wild commercial catch projection ranked 18th in 35 years and was slightly below average (2.10 million).

For regionwide power troll, catch rates declined in late July and were below the 1996–2015 average during August, but increased to average to slightly above average in early September (Figure 11). The 2016 troll coho salmon harvest through statistical week (SW) 31 (week beginning July 24) was 723,294 fish, which is just slightly above the 20-year average of 722,849. Regional catch rates were nearly average or above average in 3 Big Six areas from SW 29–31 (Figures 11–13). The SW 29–31 power troll effort in 2016 was approximately 4% above 2015, but 4% below the 10-year average.

As part of the August assessment, 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 4 major drift gillnet fisheries, though gillnet fisheries are not necessarily very good indicators of the actual overall coho salmon abundance until later in the season once coho salmon 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 2016 CPBD in the Tree Point and Prince of Wales fisheries far exceeded the 1971–80 average, while the Taku/Snettisham and Lynn Canal fisheries were closer to average (Figure 14). Coded wire tag recoveries through SW 30 suggested an average marine survival of 12% and a forecasted total run size of 5,000 adults for Hugh Smith Lake. After factoring the 10-year average all-gear exploitation rate of 52%, the escapement of 2,400 spawners was projected for 2016, exceeding the BEG 500–1,600. The cumulative recovery rate of coded wire tags in the troll fishery suggested that survival of Ford Arm Creek coho salmon was about 11.6%, which was slightly below the long-term average (10.6%). At a recent average presmolt population of 85,800, the return was projected at about 9,950 adults. At a 10-year average all-gear exploitation rate of 66%, escapement was projected at 3,300–3,400 spawners, above the BEG of 1,300–2,900.

Early indicators of the coho salmon run in the Taku River through SW 32 were mixed. The cumulative fish wheel catch of 82 coho salmon in the upper 2 Taku River fish wheels is the 3rd lowest catch in 30 years and well below the average catch for the date of 243 fish. In contrast to the fish wheel harvest, the District 11 gillnet cumulative coho salmon CPUE through week 32 was 21.9, above the 20-year average of 16.9, and the cumulative mark–recapture abundance estimate was also tracking closely to the 1987–2015 average through week 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 and Ford Arm. However, given the recent trends 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. Based on the wild return and commercial harvest projections, the troll catch rates throughout the region since July 1, the cumulative drift gillnet harvest, 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 and provided support for extending the troll season through September 30. The extension was implemented based on projections by ADF&G that escapement goals would be met after considering harvest and effort. The wild commercial harvest and total all-gear commercial harvest projections for coho salmon were down from the estimates in early August, largely related to near record low troll effort targeting coho salmon during late August and early September, which corresponded to the second Chinook salmon retention period from August 13 through September 3. Coho salmon catch rates in the troll and drift gillnet fisheries had improved near the time of assessment, with the regional troll CPUE near the 20-year average during week 37, which was up from well below the 20-year average during weeks 34–36 (Figure 11).

On September 16, ADF&G issued a news release announcing that the troll fishery would be extended for the entire region through September 30, with the exception of waters of frequent high Chinook salmon abundance. During the past 22 years (1994–2015), the coho salmon season has been extended 14 times (Table 17). There have been only 5 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 salmon abundance (wild troll catch divided by an index of the troll exploitation rate) was estimated at 4.82 million and was 22% above the 20-year average. The 2016 total troll coho salmon harvest of 1,386,634 fish was the 19th highest since 1960 (Table 6).

CHUM SALMON FISHERY

Spring Chum Salmon Fishery

Trollers target hatchery-produced chum salmon in the spring troll areas located in Icy Strait/Homeshore/Northern Chatham Strait. During the 2016 spring and early summer fisheries, a total of 6,591 chum salmon were harvested by 38 permit holders targeting chum salmon, with a peak of effort and harvest in week 26 (Table 18). The harvest was 69% lower than 2015 and was the lowest harvest since the directed chum salmon 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, and 2016. 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 salmon fishery was established in 1988 as an indicator of pink and chum salmon abundance in inside waters. The troll chum salmon 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 salmon, and the troll chum salmon harvest increased to over 500,000 fish. Since that time, trollers have targeted chum salmon, 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 2016 chum harvest of 164,933 for all troll fisheries combined was a 61% decrease compared to 2015 and was also below the 5-year and 10-year averages. 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 2016, trollers targeting chum salmon harvested a total of 19,599 in Sitka Sound/Deep Inlet from a total return of 1,629,151 fish to the Medvejie/Deep Inlet facility. This represents the 2nd lowest troll chum salmon harvest and the lowest effort for the area since 2010 with 32 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 Terminal Harvest Area (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 68 permits harvesting

92,208 chum salmon in 2016, 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 decreased in 2016 when compared to 2015, and the harvest of chum salmon in the West Behm Canal area has declined each year since 2011. A total of 41 permits harvested 26,404 chum salmon during the summer troll fishery, which represents 6% of the 438,492 chum salmon harvested there in 2011 and is a 42% decrease from 2015. Compared to the recent 5-year average, this is a decrease of 87% and 73% for harvest and effort, respectively. The total troll chum salmon harvest for Neets Bay and all of West Behm Canal combined was 119,010 chum salmon by 72 permits, which was a 56% decrease in harvest from the recent 5-year average and a 24% decrease from 2015 (Figure 17).

OTHER SPECIES

A total of 6,691 sockeye and 53,359 pink salmon were harvested during the general 2016 troll seasons (Table 6). Sockeye salmon harvest for 2016 was above the 10-year averages for 1960–1979 and 2000–2009 but below those from 1980 to 1999. Pink salmon harvest for 2016 was below average when compared to 10-year averages for 1960–2009. When compared to 2015, the pink salmon harvest decreased by 79%, while the sockeye salmon harvest decreased by 4%.

EXCLUSIVE ECONOMIC ZONE (EEZ) HARVESTS

In 2016, approximately 12% of the Chinook (33,721 fish) and 6% of the coho salmon (80,590 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, 212 sockeye, 176 pink, and 1,095 chum salmon were taken in the EEZ. The Chinook salmon harvest of 33,721 from the EEZ represents 19% of the harvest during the troll Chinook salmon retention period of the 2016 summer. This compares to the 5-year and 10-year averages of 18% and 19%, respectively. When all species are combined, 6% of the troll harvest was reported to be taken outside state waters. This is a 2% increase from the percentage of 2015 and the 10-year average and a 3% increase from the 5-year average. Changes in harvest compared to recent years were influenced by the high abundance of Chinook and moderate abundance of coho salmon.

ALASKA HATCHERY PRODUCTION

Private non-profit 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 salmon, or 27% of the total troll Chinook salmon harvest. The all-gear Alaska hatchery Chinook salmon harvest peaked in 1996, when 88,742 fish, or approximately 38% of the total harvest, were caught (Table 19; Figure 18). In 2016, the combined Alaska hatchery harvest contributed approximately 41,871 Chinook salmon to the commercial and sport fisheries, with 13,778 fish harvested in the troll fishery and 10,300 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 2016, the hatchery coho

salmon contribution was 24% of the harvest, the eighth highest seasonal contribution on record, and had a total contribution of 338,050 fish. This was approximately 18,000 fish below the 20-year average (Table 20; Figure 19). Hatchery coho salmon contributions peaked in late July with 56,176 hatchery coho salmon 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 coded wire tag studies and improved escapement estimation methods. ADF&G 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 BEG ranges to achieve maximum sustained yield. With improved escapement estimation methods, BEG for the 3 Transboundary River stocks and the 8 Southeast Alaska stocks have subsequently been revised. Current spawning escapements are determined using observer counts, mark–recapture estimates, and weirs.

In 2016, preliminary estimates indicate that 2 of the 11 Chinook salmon index systems monitored in Southeast Alaska met or exceeded the lower bound of spawning escapement goals. This was a reduction from 2015, when 9 of the 11 index systems were within BEG goals. The 2 river systems that were within BEG ranges in 2016 were the Keta River, a clearwater stream located on the south end of Misty Fjords National Monument near Ketchikan, and the King Salmon River, a small non-glacial system located near the head of Seymour Canal on Admiralty Island.

The 3 Transboundary River stocks that are monitored for Chinook salmon escapement are the Alsek, Taku, and Stikine rivers, all of which had escapements that were below their BEG ranges. The Alsek River, a large glacial system near Yakutat, had an escapement of 2,504 Chinook salmon, below the BEG range of 3,500–5,300 and the lowest since 2008. Chinook salmon escapement to the Stikine River, a glacial-origin system near Wrangell and the largest river in Southeast Alaska, had an estimated escapement of 12,000 Chinook salmon, below the BEG range of 14,000–28,000 and the lowest seen since 2009 when the run totaled 11,086. The Taku River, a large glacial system near Juneau, had an escapement of 12,000 Chinook salmon which fell below the lower bound of the BEG range of 19,000–36,000 and marked the lowest observed counts in more than 40 years.

Escapements to the 6 other Southeast Alaska indicator systems, Andrew Creek and the Situk, Chilkat, Unuk, Chickamin, 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 402 fish. This was a 32-year low and similar to the escapement levels prior to the Chinook salmon rebuilding program. The Situk River, a non-glacial system located near Yakutat, had an escapement of 329 Chinook salmon. This was an improvement from the 2015 run of 174 but was below both the 5-year and 10-year average escapements. The Chilkat River, a moderate-sized glacial system near Haines, had a Chinook salmon escapement of 1,373 Chinook salmon, which was below the 5-year and 10-year

averages and is 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 1,502 Chinook salmon, which was below 2015 and marks the fourth year out of the last 5 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 escapements of 964 and 522 Chinook salmon, respectively. Escapements to the Chickamin and Blossom rivers were both below BEG ranges, with the 2016 Chickamin River run being the lowest observed escapement in 40 years (Table 21).

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 2016, weirs were operated on 2 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.

Coded wire tag studies conducted since the early 1980s have provided annual harvest rate estimates for 4 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 coded wire tag processing programs. Weirs are operated on the 3 lake systems to enumerate coho salmon escapements and to estimate the fraction of the returning population marked with coded wire tags. The Berners River escapement is intensively surveyed on foot. Samples for estimating the fraction of the returning population marked with coded wire tags are collected with beach seines. Escapement estimates for the Berners River are conservative, since 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 2016, returns to northern inside areas were poor, primarily because of low marine survival, while escapements were mixed relative to biological goals (BEGs; Table 24). The estimated escapement to the Taku River above Canyon Island (87,704 spawners)

was within the recently established BEG of 50,000–90,000 spawners. In Lynn Canal, escapement of 6,733 spawners in the Berners River was within the goal (4,000–9,200 spawners), while the Chilkat River escapement estimate of 26,280 spawners was below the goal of 30,000–70,000 spawners (Table 24; Figure 21). Of the 3 index streams on the Juneau road system, escapement counts were within the BEG range for Auke Creek and Montana Creek and below the BEG range for Peterson Creek (Table 24).

Returns were generally stronger in outer coastal systems, and the escapement count of 2,943 spawners for 5 small streams on Baranof and Kruzof Islands was a new record; over double the 1982–2015 average of 1,331 spawners and far above the goal of 400–800 spawners (Table 25).

The overall index of 14,364 spawners for 15 streams in the Ketchikan (Southern Inside) area was the 5th highest on record and 40% above the 1987–2015 average of 10,226 spawners (Table 26; Figure 21). The total escapement to Hugh Smith Lake of 944 spawners was within the BEG range (500–1,600 spawners) for the second consecutive year, following a period of 7 consecutive years (2008–2014) when the BEG was consistently exceeded. The aggregate survey index count for the other 14 streams (13,420 spawners) was well above the long-term average and the BEG range of 4,250–8,500 spawners.

COHO SALMON EXPLOITATION RATES

The average 2016 total exploitation rate by all fisheries on the 4 primary indicator stocks (Berners River, Auke Creek, Ford Arm Lake, and Hugh Smith Lake) was 44% (including an interpolation for Ford Arm Lake), compared with the 1982–2015 average of 56% (Table 27; Figure 22). The estimate of 61% for the Hugh Smith Lake stock was the highest total exploitation rate since 2007 and was near the long-term average of 62%. The total exploitation rate on that stock was well below the 1990s average of 75% but also substantially above the more recent 10-year average (52%). 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. In 2016, however, the 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 troll and all-gear exploitation compared with recent years.

The 2016 average troll fishery exploitation rate of 27% for the 4 indicator stocks (including an interpolation for Ford Arm Lake) was well below the 1982−2015 average of 37% (Table 28; Figure 23). While the Alaska troll exploitation rate for the Hugh Smith Lake stock (29%) represented an increase from recent years (2006–2015 average of 25%), troll exploitation rates for northern inside stocks (Auke Creek and Berners River) reached record lows of 7–9% that were less than one-third of historical averages for those systems. An overall trend toward lower troll exploitation rates appears to have resulted partly from increased targeting of chum salmon by trollers as well as a decline in troll effort since the mid-1990s.

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, 1985–2016.

	All-gear							Troll			
Year	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	355,600	-1,896	266,008	276,432	263,197	2,811
					1985–2015 Cumulative Total		177,714			1985–2015 Cumulative Total	215,340

Note: 2016 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, 1989–2016.

	Commercial troll		Purse seine		Drift gillnet		Set gillnet		All–gear total	
Year	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%	267,232	13%	299,645	14%	144,032	7%	2,097,543	100%
1989–2015 Average:	1,715,917	64%	392,501	14%	401,139	15%	178,202	7%	2,687,760	100%
Board of Fisheries Allocations (Established 1989)		61%		19%		13%		7%		
1989–2015 Deviation from Allocations		5%		-25%		15%		-3%		
2016 Deviation from Allocations		8%		-33%		10%		-2%		

Note: Annette Island and terminal harvest are included.

Table 3.–Southeast Alaska commercial troll permits fished, 1975–2016.

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%

Note: Permits renewed available from CFEC. Permits fished based on calendar year. 1975–2015 permits fished data from CFEC, 2016 data from ADF&G.

Table 4.–Number of permits fished, by gear type and fishery, 1980–2016.

	Winter fishery			Spring[a] fishery			General summer fishery			
	Troll gear type		Total	Troll gear type		Total	Troll gear type		Total	Summer
Year	Hand	Power	winter	Hand	Power	spring	Hand	Power	summer	% HT
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%

[a] 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, 1985–2016.

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

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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[b]		
						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)		
						8/26–9/30	36	68	15,307
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)		
						9/9–9/30	22	50	8,495
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[c]	27	61	11,077

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.

[a] In 1988, the southern areas of Southeast Alaska were closed due to coho salmon conservation concerns.

[b] In 1997, the northern areas of Southeast Alaska were closed due to coho salmon conservation concerns.

[c] In 2016, a mark-selective fishery was conducted from September 4–30, when the directed Chinook salmon fishery was closed.

Table 6.–Annual commercial troll salmon harvest in numbers of fish by species, 1960–2016.

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**
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

Note: Harvest data for all species include terminal and Annette Island harvest. Data are by calendar year from 1960–1978, from January 1–September 30 for 1979, and by troll season (October 1–September 30) for 1980–2016.

Table 7.–Southeast Alaska commercial troll salmon harvest in numbers of fish by species by statistical week, for the 2016 troll season.

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
2015	42	11-Oct	7,907	–	–	–	–	7,907
	43	18-Oct	5,842	–	–	–	–	5,842
	44	25-Oct	4,551	–	–	–	–	4,551
	45	1-Nov	1,879	–	–	–	–	1,879
	46	8-Nov	1,037	–	–	–	–	1,037
	47	15-Nov	1,602	–	–	–	–	1,602
	48	22-Nov	844	–	–	–	–	844
	49	29-Nov	1,266	–	–	–	–	1,266
	50	6-Dec	848	–	–	–	–	848
	51	13-Dec	1,133	–	–	–	–	1,133
	52	20-Dec	1,042	–	–	–	–	1,042
	53	27-Dec	1,411	–	–	–	–	1,411
2016	1	1-Jan	23	–	–	–	–	23
	2	3-Jan	1,144	–	–	–	–	1,144
	3	10-Jan	1,739	–	–	–	–	1,739
	4	17-Jan	1,083	–	–	–	–	1,083
	5	24-Jan	582	–	–	–	–	582
	6	31-Jan	2,497	–	–	–	–	2,497
	7	7-Feb	2,701	–	–	–	–	2,701
	8	14-Feb	4,906	–	–	–	–	4,906
	9	21-Feb	1,573	–	–	–	–	1,573
	10	28-Feb	3,642	–	–	–	–	3,642
	11	6-Mar	3,039	–	–	–	–	3,039
	12	13-Mar	–	–	–	–	–	0
	13	20-Mar	–	–	–	–	–	0
	14	27-Mar	–	–	–	–	–	0
	15	3-Apr	–	–	–	–	–	0
	16	10-Apr	65	–	–	–	–	65
	17	17-Apr	1,308	–	–	–	–	1,308
	18	24-Apr	1,197	–	–	–	–	1,197
	19	1-May	2,243	–	–	–	1	2,244
	20	8-May	2,639	–	–	–	2	2,641
	21	15-May	3,009	–	–	–	4	3,013
	22	22-May	4,015	–	–	–	15	4,030
	23	29-May	4,224	–	26	–	40	4,290
	24	5-Jun	5,931	15	209	6	488	6,649
	25	12-Jun	7,814	34	635	43	2,313	10,839
	26	19-Jun	7,708	71	2,058	93	2,761	12,691
	27	26-Jun	13,392	194	10,741	549	2,491	27,367
	28	3-Jul	95,575	1,364	133,662	3,545	6,247	240,393
	29	10-Jul	–	1,340	291,006	8,439	12,455	313,240
	30	17-Jul	–	630	175,747	8,737	5,894	191,008

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Table 7.–Page 2 of 2.

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
	31	24-Jul	–	597	107,882	7,392	1,925	117,796
	32	31-Jul	–	786	141,462	9,355	3,522	155,125
	33	7-Aug	470	159	38,272	2,237	1,195	42,333
	34	14-Aug	34,310	613	106,153	2,408	2,243	145,727
	35	21-Aug	20,351	454	106,814	1,532	11,228	140,379
	36	28-Aug	19,109	317	135,643	701	9,082	164,852
	37	4-Sep	193	41	57,699	31	3,333	61,297
	38	11-Sep	165	18	40,392	1	3,433	44,009
	39	18-Sep	94	7	30,206	2	753	31,062
	40	25-Sep	7	1	6,636	–	11	6,655
		Winter fishery subtotal	52,291	0	0	0	0	52,291
		Spring fishery subtotal	42,490	187	3,736	496	7,452	54,361
		Summer fishery subtotal	181,329	6,454	1,381,507	44,575	61,984	1,675,849
		Hatchery terminal area subtotal	322	50	1,391	8,288	95,497	105,548
		Grand Total	276,432	6,691	1,386,634	53,359	164,933	1,888,049

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, 1999–2016.

	Average weekly dressed weight, by year																		Averages	
Week of	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2011–2015	2006–2015
1-Jul	4.7	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	5.3	5.5
8-Jul	4.7	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	5.3	5.5
15-Jul	4.8	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	5.4	5.6
22-Jul	5.0	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	5.3	5.6
29-Jul	5.2	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	5.5	5.8
5-Aug	5.4	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	5.6	5.9
12-Aug	5.4	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	5.8	6.1
19-Aug	5.8	–	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	6.0	6.4
26-Aug	6.0	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	6.2	6.6
2-Sep	6.1	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	6.4	6.9
9-Sep	6.5	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	6.5	7.1
16-Sep	6.6	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	6.6	7.2
23-Sep	6.5	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	6.8	7.4
30-Sep	6.8	–	7.5	7.6	7.8	8.6	–	–	–	–	6.9	–	–	7.8	7.2	7.6	6.5	8.6	7.3	7.2
Weighted Average	5.4	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	5.8	6.1
Troll Harvest (Millions)	2.3	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	1.7	1.5

Table 9.–Southeast Alaska annual commercial hand troll salmon harvest in numbers of fish by species, 1975–2016.

Year[a]	Chinook[b]	Sockeye[b]	Coho[b]	Pink[b]	Chum[b]	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	37584	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	30912	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**
1975–2015 Average	24,265	920	167,613	74,669	8,925	276,392
2006–2015 Average	15,109	219	97,970	10,323	7,921	131,542

[a] 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, Oct1–Sep 30. Harvest for 1979 Jan 1–Sep 30.

[b] 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, 1975–2016.

Year[a]	Chinook[b]	Sockeye[b]	Coho[b]	Pink[b]	Chum[b]	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
1975–2015 Average	218,449	8,021	1,299,420	355,497	194,404	2,072,346
2006–2015 Average	214,873	4,617	1,438,764	193,798	392,273	2,243,035

[a] 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, Oct1–Sep 30. Harvest for 1979 Jan 1–Sep 30.

[b] 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, 2016.

Gear/Fishery	Total harvest	Alaska hatchery harvest	Alaska hatchery add-on	Terminal exclusion harvest	Term. exclusion/ Alaska hatchery add-on	Treaty harvest
Winter Troll	52,291	2,642	1,986	0	1,986	50,305
Spring Troll[a]	42,783	8,974	6,781	33	6,814	35,968
Summer Troll						
First Period	106,630	1,197	900	0	900	105,730
Second Period	74,240	954	717	0	717	73,523
MSF[b]	459	10	7	0	7	452
Summer Total[c]	181,329	2,161	1,624	0	1,624	179,705
Total Traditional Troll	276,432	13,778	10,391	33	10,424	266,008
Annette Is. Troll	0	0	0	0	0	0
Total Troll Harvest	276,432	13,778	10,391	33	10,424	266,008
Purse Seine	28,244	8,303	7,959	0	7,959	20,285
Drift Gillnet	13,789	9,489	8,466	632	9,098	4,691
Setnet	230	0	0	0	0	230
Total Net[d]	42,263	17,793	16,426	632	17,057	25,206
Sport[d]	70,777	10,300	8,287	0	8,287	62,490
All-gear Total	389,472	41,871	35,104	664	35,768	353,704

[a] Spring troll harvest includes all HC 12 and wild terminal exclusion harvests for year.

[b] In 2016, a mark-selective fishery (MSF) was opened at the end of summer from September 4–30.

[c] Total summer harvest includes confiscated harvest for year.

[d] 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, 1965–2016.

Year	Troll[a]	Net[b]	Subtotal	Sport[c]	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

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Table 12.–Page 2 of 2.

Year	Troll[a]	Net[b]	Subtotal	Sport[c]	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

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.

[a] Troll harvests prior to 1980 are reported by calendar year. From 1980–present, harvests are by season, Oct 1–Sep 30.

[b] Purse seine harvests from 1986–present do not include Chinook less than 5 pounds reported on fish tickets.

[c] 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 2016 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), 1985–2016.

	Early Winter (October–December)				Late Winter (January–April)				Total Winter (October–April)						
Year	Chinook	Permits	Landings	Catch/ Landing	Chinook	Permits	Landings	Catch/ Landing	Chinook	Permits	Landings	Catch/ Landing	Annual Total	Winter % of Annual Total	Alaska Hatchery % of Catch
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%
2011–15 Avg	14,029	274	1,264	11	32,480	377	2,427	13	46,510	457	3,692	13	245,101	19%	9%
2006–15 Avg	11,114	262	1,161	9	30,646	393	2,505	12	41,759	456	3,667	11	229,903	18%	10%

Note: Data include Annette Island troll harvests.

Table 14.–The number of Chinook salmon harvested and permits fished in the 2016 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	5/11	5/11	1	17	171
		21	5/18	5/18	1	*	*
		22	5/25	5/25	1	11	92
		23	6/1	6/1	1	*	*
		24	6/7	6/8	2	14	195
		25	6/15	6/17	3	10	140
		26	6/23	6/24	2	9	178
		27	6/27	6/27	1	4	24
	West Rock Total				*12*	*37*	*805*
101-29	Ketchikan Area	16	4/15	4/16	2	3	10
		17	4/17	4/23	6	10	57
		18	4/24	4/30	7	21	493
		19	5/1	5/3	3	8	57
		20	5/8	5/10	3	20	238
		21	5/15	5/15	1	12	54
		24	6/9	6/11	3	25	135
		25	6/12	6/18	2	8	63
		26	6/19	6/25	4	20	273
		27	6/26	6/27	2	13	106
	Ketchikan Area Total				*33*	*73*	*1,486*
101-45	Mountain Point	16	4/15	4/16	2	*	*
		17	4/17	4/23	6	6	50
		18	4/24	4/30	7	12	93
		19	5/1	5/7	7	12	53
		20	5/8	5/14	7	5	33
		21	5/15	5/21	7	13	113
		22	5/22	5/28	7	23	223
		23	5/29	6/4	7	18	240
		24	6/5	6/11	7	26	258
		25	6/12	6/18	7	33	587
		26	6/19	6/25	7	22	285
		27	6/26	6/30	5	14	109
	Mountain Point Total				*76*	*66*	*2,047*
102-09	Stone Rock Bay	20	5/11	5/11	1	*	*
		21	5/18	5/18	1	3	51
		22	5/25	5/25	1	8	57
		23	6/1	6/1	1	3	32
		24	6/7	6/8	2	9	165
		25	6/15	6/17	3	28	1,048
		26	6/20	6/22	3	32	1,501
	Stone Rock Bay Total				*12*	*41*	*2,870*
102-10	Kendrick Bay	19	5/1	5/3	3	4	46
		20	5/8	5/11	4	6	42
		21	5/15	5/18	4	7	391
		22	5/22	5/24	3	13	223
		23	5/30	5/31	2	14	141
		24	6/5	6/6	2	17	295
		25	6/12	6/14	3	22	960
		26	6/23	6/24	2	19	455
	Kendrick Bay Total				*23*	*40*	*2,553*

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Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
102-50	West Clarence Strait	16	4/15	4/16	2	*	*
		17	4/17	4/20	4	14	445
		19	5/1	5/3	3	11	118
		20	5/8	5/9	2	5	41
		21	5/15	5/16	2	3	9
		22	5/22	5/24	3	6	40
		23	5/29	6/1	4	12	35
		24	6/5	6/8	4	6	47
		25	6/12	6/15	4	7	108
		26	6/19	6/22	4	9	160
		27	6/26	6/29	4	*	*
	West Clarence Strait Total				*36*	*41*	*1,057*
103-50	Bucareli Bay	19	5/1	5/3	3	18	290
		20	5/8	5/9	2	32	358
		21	5/15	5/15	1	20	128
		22	5/22	5/22	1	24	149
		26	6/20	6/20	1	20	106
	Bucareli Bay Total				*8*	*48*	*1,031*
105-41	Sumner Strait	19	5/1	5/2	2	8	77
		20	5/8	5/10	3	12	232
		21	5/15	5/16	2	10	88
		22	5/22	5/23	2	11	208
		23	5/29	5/30	2	17	172
		24	6/5	6/6	2	12	163
		25	6/12	6/12	1	7	32
		26	6/19	6/19	1	6	73
		27	6/26	6/26	1	8	101
	Sumner Strait Total				*16*	*32*	*1,146*
106-30	Steamer Point	16	4/15	4/16	2	*	*
		17	4/17	4/23	6	*	*
		18	4/24	4/30	7	*	*
		19	5/1	5/5	5	*	*
		20	5/8	5/12	5	*	*
		21	5/15	5/18	4	*	*
		22	5/22	5/25	4	3	28
		23	5/29	6/1	4	9	73
		24	6/5	6/8	4	12	118
		25	6/12	6/16	5	15	178
		26	6/19	6/25	7	10	176
		27	6/26	6/30	5	6	57
	Steamer Point Total				*58*	*27*	*655*
106-41	SnowPass	17	4/22	4/23	2	*	*
		18	4/24	4/30	7	*	*
		19	5/1	5/7	7	*	*
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	4	45
		22	5/22	5/28	7	8	93
		23	5/29	6/4	7	8	94
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	12	169
		26	6/19	6/25	7	3	61
		27	6/26	6/30	5	*	*
	SnowPass Total				*70*	*24*	*499*

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Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
106-43	North Sumner Strait	16	4/15	4/16	2		
		17	4/17	4/23	7	*	*
		18	4/24	4/30	7	*	*
		19	5/1	5/7	7	*	*
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	3	11
		23	5/29	6/4	7	*	*
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	4	76
		26	6/19	6/25	7	8	172
		27	6/26	6/30	5	3	84
	North Sumner Strait Total				*77*	*19*	*397*
107-10	Ernest Sound	16	4/15	4/16	2	*	*
		17	4/17	4/23	7	8	29
		18	4/24	4/30	7	13	86
		19	5/1	5/7	7	9	65
		20	5/8	5/14	7	8	30
		21	5/15	5/21	7	8	91
		22	5/22	5/28	7	7	82
		23	5/29	6/4	7	4	38
		24	6/5	6/11	7	9	140
		25	6/12	6/18	7	*	*
		26	6/19	6/25	7	5	47
		27	6/26	6/30	5	*	*
	Ernest Sound Total				*77*	*31*	*630*
108-10	Chichagof Pass	22	5/23	5/25	3	12	69
		23	5/31	6/1	2	3	8
		24	6/6	6/7	2	9	57
		25	6/15	6/18	4	11	88
		26	6/23	6/25	3	*	*
		27	6/26	6/30	5	4	68
	Chichagof Pass Total				*19*	*21*	*308*
108-40	Craig Point	22	5/23	5/24	2	4	35
		23	5/31	6/1	2	6	57
		24	6/6	6/7	2	*	*
		25	6/15	6/18	4	*	*
		26	6/23	6/25	3	*	*
		27	6/26	6/30	5	3	33
	Craig Point Total				*18*	*15*	*149*
108-41	D8 Directed Stikine	19	5/2	5/4	3	32	240
		20	5/9	5/11	3	28	154
		21	5/16	5/18	3	28	165
	D8 Directed Stikine Total				*9*	*51*	*559*
109-10	Little Port Walter	21	5/17	5/18	2	*10*	*61*
		22	5/25	5/27	3	15	75
		23	5/30	6/1	3	14	88
		24	6/7	6/9	3	20	130
		25	6/14	6/17	4	11	82
		26	6/21	6/25	5	24	357
		27	6/26	6/30	5	15	599
	Little Port Walter Total				*25*	*52*	*1,392*

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Table 14.–Page 4 of 7.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
109-62	Tebenkof Bay	21	5/15	5/16	2	50	684
		22	5/22	5/24	3	41	897
		23	6/3	6/4	2	34	715
		24	6/11	6/11	1	41	519
		25	6/18	6/18	1	40	1,105
	Tebenkof Bay Total				*9*	*91*	*3,920*
110-31	Frederick Sound	16	4/15	4/16	2	*	*
		17	4/17	4/23	7	12	184
		18	4/24	4/30	7	6	69
		19	5/1	5/7	7	6	88
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	4	28
		22	5/22	5/28	7	5	32
		23	5/29	6/4	7	11	116
		24	6/5	6/11	7	12	63
		25	6/12	6/18	7	8	62
		26	6/19	6/25	7	10	41
		27	6/26	6/30	5	5	12
	Frederick Sound Total				*77*	*31*	*724*
112-12	Chatham Strait	16	4/15	4/16	2	*	*
		17	4/17	4/23	7	20	394
		18	4/24	4/30	7	14	253
		19	5/1	5/7	7	17	172
		20	5/8	5/14	7	23	342
		21	5/15	5/21	7	28	304
		22	5/22	5/28	7	22	175
		23	5/29	6/4	7	29	255
		24	6/5	6/11	7	33	398
		25	6/12	6/18	7	25	293
		26	6/19	6/25	7	27	360
		27	6/26	6/30	5	6	153
	Chatham Strait Total				*77*	*94*	*3,111*
112-65	Hawk Inlet	19	5/1	5/7	7	4	30
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	*	*
		23	5/29	6/4	7	6	32
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	*	*
		26	6/19	6/25	7	*	*
		27	6/26	6/30	5	*	*
	Hawk Inlet Total				*61*	*11*	*123*
113-01	Western Channel	20	5/8	5/8	1	12	65
		21	5/15	5/15	1	11	43
		22	5/22	5/22	1	13	110
		23	5/31	6/1	2	25	214
		24	6/6	6/7	2	45	600
		25	6/12	6/13	2	71	896
	Western Channel Total				*9*	*98*	*1,934*

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Table 14.–Page 5 of 7.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
113-30	Redoubt Bay	19	5/1	5/2	2	5	123
		20	5/8	5/8	1	19	212
		21	5/15	5/15	1	20	118
		22	5/22	5/22	1	12	115
		23	5/31	5/31	1	23	197
		24	6/6	6/6	1	18	179
		25	6/13	6/13	1	12	91
		26	6/19	6/19	1	30	381
	Redoubt Bay Total				*9*	*65*	*1,428*
113-31	Biorka	23	6/1	6/1	1	28	189
		24	6/7	6/7	1	43	576
		25	6/12	6/12	1	39	313
		26	6/20	6/20	1	23	211
		27	6/27	6/27	1	49	403
	Biorka Island Total				*5*	*93*	*1,692*
113-32	Goddard	20	5/8	5/8	1	5	84
		21	5/15	5/15	1	8	29
		22	5/22	5/22	1	7	136
		23	6/1	6/1	1	*	*
		24	6/6	6/7	2	7	76
		25	6/12	6/14	3	12	118
		26	6/19	6/21	3	30	485
		27	6/26	6/27	2	23	224
	Goddard Area Total				*14*	*59*	*1,158*
113-41	Sitka Sound	16	4/15	4/16	2	6	15
		17	4/17	4/23	6	18	75
		18	4/24	4/30	7	20	136
		19	5/1	5/7	7	49	567
		20	5/8	5/14	7	48	286
		21	5/15	5/21	7	42	305
		22	5/22	5/28	7	74	816
		23	5/29	6/4	7	91	1,057
		24	6/5	6/9	5	93	1,309
		25	6/13	6/16	4	105	862
		26	6/20	6/23	4	126	1,747
	Sitka Sound Total				*63*	*190*	*7,185*
113-62	Salisbury Sound	19	5/1	5/3	3	3	29
		20	5/8	5/10	3	*	*
		21	5/15	5/17	3	6	69
		22	5/22	5/24	3	10	79
		23	5/31	6/2	3	14	165
		24	6/8	6/11	4	29	224
		25	6/15	6/18	4	20	316
		26	6/22	6/25	4	30	350
		27	6/26	6/27	2	13	172
	Salisbury Sound Total				*29*	*71*	*1,447*

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Table 14.–Page 6 of 7.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
113-95	Lisianski Inlet	16	4/15	4/16	2	*	*
		17	4/17	4/23	6	5	51
		18	4/24	4/30	7	4	21
		19	5/1	5/4	4	*	*
		20	5/8	5/11	4	6	42
		21	5/15	5/18	4	6	56
		22	5/22	5/26	5	6	69
		23	5/29	6/2	5	7	64
		24	6/5	6/9	5	4	53
		25	6/12	6/16	5	3	38
		26	6/19	6/25	7	5	111
		27	6/26	6/30	5	6	77
	Lisianski Inlet Total				*59*	*20*	*597*
113-97	Stag Bay	19	5/1	5/7	7	*	*
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	*	*
		23	5/29	6/4	7	*	*
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	*	*
		26	6/19	6/25	7	*	*
		27	6/26	6/30	5	*	*
	Stag Bay Total				*61*	*4*	*46*
114-21	Cross Sound	19	5/1	5/7	7	*	*
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	*	*
		23	5/29	6/4	7	4	40
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	3	37
		26	6/19	6/25	7	*	*
		27	6/26	6/30	5	*	*
	Cross Sound Total				*61*	*11*	*125*
114-23	South Passage	19	5/1	5/7	7	3	30
		20	5/8	5/14	7	*	*
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	*	*
		23	5/29	6/4	7	*	*
		24	6/5	6/11	7	*	*
		25	6/12	6/18	7	*	*
		26	6/19	6/25	7	*	*
		27	6/26	6/30	5	*	*
	South Passage Total				*61*	*6*	*82*
114-25	Homeshore	19	5/1	5/7	7	6	23
		20	5/8	5/14	7	5	10
		21	5/15	5/21	7	*	*
		22	5/22	5/28	7	*	*
		23	5/29	6/4	7	3	7
		24	6/5	6/11	7	9	40
		25	6/12	6/18	7	8	17
		26	6/19	6/25	7	3	6
		27	6/26	6/30	5	*	*
	Homeshore Total				*61*	*26*	*128*

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Table 14.–Page 7 of 7.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
114-27	Point Sophia	16	4/15	4/16	2	*	*
		17	4/17	4/23	6	*	*
		18	4/24	4/30	7	5	24
		19	5/1	5/7	7	*	*
		20	5/8	5/14	7	4	12
		21	5/15	5/21	7	4	23
		22	5/22	5/28	7	4	19
		23	5/29	6/4	7	8	51
		24	6/5	6/11	7	10	53
		25	6/12	6/18	7	6	23
		26	6/19	6/25	7	3	7
		27	6/26	6/30	5	*	*
	Point Sophia Total				*76*	*23*	*247*
114-50	Port Althorp	19	5/1	5/3	3	8	128
		20	5/8	5/10	3	6	63
		21	5/15	5/17	3	3	10
		22	5/22	5/25	4	4	91
		23	5/29	6/1	4	6	46
		24	6/5	6/8	4	5	13
		25	6/12	6/16	5	9	68
		26	6/19	6/25	7	15	139
		27	6/26	6/30	5	4	40
	Port Althorp Total				*38*	*31*	*598*
183-10	Yakutat Bay	19	5/2	5/2	1	14	61
		20	5/9	5/9	1	14	94
		21	5/16	5/16	1	13	61
		22	5/23	5/23	1	9	32
		23	5/30	5/30	1	8	50
		24	6/6	6/6	1	9	55
		25	6/16	6/16	1	4	5
		26	6/23	6/23	1	*	*
		27	6/29	6/29	1	4	13
	Yakutat Bay Total				*9*	*27*	*373*
	Spring Fishery Total					575	42,502
	Terminal Area Total					25	182
	Spring Season Total					579	42,684

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, 1986–2016.

Year	Non-terminal area spring harvest	Alaska hatchery harvest	Alaska hatchery %	Number of non-terminal areas open	Terminal area harvest[a]	Number of terminal areas open[a]	Total harvest	Total Alaska hatchery %	Total permits fished[b]
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

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

[a] Terminal harvest and areas open include troll harvest and openings from both spring and summer terminal fisheries.

[b] 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, 1985–2016.

Year	Fishing period	Days	Chinook harvest[a]	Catch/Fleet day	Permits[b]	Abundance index[c]	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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Year	Fishing period	Days	Chinook harvest[a]	Catch/Fleet day	Permits[b]	Abundance index[c]	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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Table 16.–Page 3 of 3.

Year	Fishing period	Days	Chinook harvest[a]	Catch/Fleet day	Permits[b]	Abundance index[c]	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[d]	27	459	17	150		10	
		27	181,329	6,716		2.06	2,161	1%

[a] 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.

[b] The number of permits fished is for vessels that landed Chinook.

[c] The abundance index given for 1984–2015 is the first post-season index and for 2016 is the preseason index. The AIs are estimated by the Chinook Technical Committee of the Pacific Salmon Commission.

[d] In 2016, 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, 1980–2016.

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)[a]
2002	August 10–11	2	9/21–9/30	Entire region open except portion of Sitka Sound[a]
2003	No closure	0	9/21–9/30	Entire region open[a]
2004	August 10–11	2	9/21–9/30	Entire region open[a]
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[a]
2014	August 10–13	4	9/21–9/30	Entire region open[a]
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[a]

[a] During these years, areas of high Chinook salmon 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 2011–2016.

Icy Strait/Homeshore/Northern Chatham Strait

	2011		2012		2013		2014		2015		2016	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	–	–	–	–	14,103	43	–	–	–	–	[a]	[a]
24	5,613	27	554	24	35,710	118	99	5	4,376	22	239	5
25	23,571	100	8,088	95	140,859	154	2,290	30	5,556	35	1,841	14
26	79,951	140	9,386	83	99,977	141	15,405	36	6,507	28	2,252	17
27	27,496	87	7,340	37	18,810	57	2,196	19	4,152	15	1,708	11
28	451	6	1,665	18	1,111	15	[a]	[a]	[a]	[a]	464	7
29	[a]	[a]	[a]	[a]	[a]	[a]	–	–	–	–	83	3
Total	137,244	158	27,175	133	311,236	193	19,990	51	20,970	61	6,591	38

Neets Bay/West Behm Canal

	2011		2012		2013		2014		2015		2016	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
26	[a]	[a]	13,862	45	2,227	11	–	–	[a]	[a]	3,251	6
27	1,225	17	32,108	106	18,250	41	1,680	11	3,549	11	7,820	16
28	35,576	78	77,851	209	54,597	106	12,141	43	38,888	46	22,380	38
29	129,775	141	99,560	247	67,987	115	47,889	85	37,513	96	36,747	60
30	122,864	153	78,078	182	22,383	77	32,729	68	34,284	73	30,964	52
31	48,499	97	17,238	97	10,554	20	15,748	47	5,686	34	4,686	18
32	24,527	45	1,714	10	3,877	15	9,438	18	3,222	15	2,797	5
33	6,387	21	8,750	26	328	4	1,306	10	2,295	12	628	5
34	8,289	18	13,920	33	369	4	1,024	5	6,552	19	–	–
35	16,230	31	29,897	55	914	5	1,331	7	9,168	31	381	4
36	20,563	47	28,143	72	2,643	7	6,666	13	9,908	27	2,892	9
37	10,499	36	4,117	51	2,007	7	13,494	26	4,026	31	2,713	12
38	16,728	25	872	10	–	–	4,866	18	1,114	16	3,751	11
Total	441,371	175	406,335	265	186,701	137	148,330	98	156,212	114	119,010	72

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Table 18.–Page 2 of 2.

Sitka Sound/Deep Inlet

	2011		2012		2013		2014		2015		2016	
Week	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	[a]	[a]	–	–	33,582	46	–	–	–	–	[a]	[a]
31	3,798	24	377	3	80,843	94	522	4	874	8	[a]	[a]
32	14,962	81	15,529	39	122,081	101	9,485	34	42,235	55	1,004	7
33	4,315	34	6,742	31	153,748	106	198	8	106,052	123	385	7
34	90	3	1,136	8	42,120	78	180	3	51,361	109	[a]	[a]
35	31	3	–	–	1,198	8	871	5	13,074	42	12,703	22
36	–	–	–	–	[a]	[a]	[a]	[a]	2,157	23	4,572	16
Total	23,428	92	23,797	51	455,510	147	11,411	42	217,265	157	19,599	32

Region

	2011		2012		2013		2014		2015		2016	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	[a]	[a]	[a]	[a]	14,105	44	[a]	[a]	–	–	13	8
24	5,613	27	558	25	35,727	120	151	8	4,392	27	322	17
25	23,571	100	8,239	102	141,851	162	2,359	32	5,627	47	1,993	26
26	80,146	142	23,234	125	109,594	167	15,453	40	6,525	31	5,534	35
27	28,873	105	39,422	143	41,355	101	4,089	33	7,806	29	9,523	33
28	36,829	88	79,508	226	63,492	137	12,523	49	39,207	48	22,852	47
29	130,225	145	99,685	250	74,708	139	47,893	86	40,081	109	37,648	65
30	123,183	156	78,078	182	56,088	123	32,764	72	34,515	75	31,075	55
31	52,297	121	17,615	100	92,533	117	16,414	55	7,151	44	4,752	20
32	39,489	125	17,243	49	127,392	117	20,126	58	48,225	74	3,802	12
33	10,702	55	15,736	58	154,152	111	1,546	19	110,616	136	1,021	13
34	8,379	21	14,951	40	44,037	84	1,297	9	59,622	132	291	3
35	16,261	34	29,906	56	2,112	13	2,240	13	23,453	77	13,328	27
36	20,569	48	28,143	72	2,817	9	11,464	28	13,315	55	7,485	25
37	10,570	38	4,117	51	2,156	8	13,494	26	4,026	31	2,719	13
38	16,778	27	872	10	[a]	[a]	4,866	18	1,121	17	3,751	11
Total	603,533	299	457,352	352	962,181	366	186,710	183	405,682	284	146,109	156

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.
[a] Confidential data.

Table 19.–Total Chinook salmon harvest and Alaska hatchery harvest by gear, 1985–2016.

	Seine		Drift gillnet		Set gillnet		Troll		Sport		All-gear	
Year	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

Note: Data include terminal area and Annette Island harvests.

Table 20.–Annual troll coho salmon harvest and estimated wild and hatchery contributions, 1960–2016.

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%
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%

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Table 20.–Page 2 of 2.

Year	Total harvest	Wild contribution	Alaska hatchery	Other hatchery	Total hatchery	Percent hatchery
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%
1986–1995 Avg	1,817,981	1,531,762	276,316	9,903	286,219	15%
1996–2015 Avg	1,586,380	1,230,771	352,297	3,312	355,609	22%

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

Table 21.–Estimates of total escapements of Chinook salmon to escapement indicator systems and to Southeast Alaska and transboundary rivers, 1975–2016.

	Southeast Alaska stocks								Transboundary river stocks		
Year	Situk River	Chilkat River	King Salmon River	Andrew Creek	Unuk River	Chickamin River[a]	Blossom River	Keta River	Alsek River	Taku River	Stikine River
1975	–	–	64	507	–	1,758	565	611		12,920	7,571
1976	1,421	–	99	404	–	746	263	253	5,282	24,582	5,723
1977	1,732	–	204	465	4,706	1,724	433	692	12,706	29,496	11,445
1978	808	–	87	388	5,344	1,463	553	1,180	12,034	17,124	6,835
1979	1,284	–	134	327	2,783	1,135	209	1,282	17,354	21,617	12,610
1980	905	–	106	282	4,909	2,114	344	578	10,862	39,239	30,573
1981	702	–	154	536	3,532	1,824	615	990	8,502	49,559	36,057
1982	434	–	394	672	6,528	2,712	1,335	2,270	9,475	23,847	40,488
1983	592	–	245	366	5,436	2,845	2,279	2,474	10,344	9,795	6,424
1984	1,726	–	265	389	8,876	5,235	1,966	1,836	7,238	20,778	13,995
1985	1,521	–	175	622	5,721	4,541	2,744	1,878	6,127	35,916	16,037
1986	2,067	–	255	1,379	10,273	8,289	4,946	2,077	11,069	38,110	14,889
1987	1,379	–	196	1,537	9,533	4,631	5,221	2,312	11,141	28,935	24,632
1988	868	–	208	1,100	8,437	3,734	1,486	1,731	8,717	44,524	37,554
1989	637	–	240	1,034	5,552	4,437	1,331	3,477	10,119	40,329	24,282
1990	628	–	179	1,295	2,856	2,679	995	1,824	8,609	52,143	22,619
1991	889	5,897	134	780	3,165	2,313	925	819	11,625	51,645	23,206
1992	1,595	5,284	99	1,517	4,223	1,644	581	653	5,773	55,889	34,129
1993	952	4,472	266	2,067	5,160	1,848	1,173	1,090	13,855	66,125	58,962
1994	1,271	6,795	213	1,115	3,435	1,843	623	921	15,863	48,368	33,094
1995	4,330	3,790	147	669	3,730	2,309	840	527	24,772	33,805	16,784
1996	1,800	4,920	292	653	5,639	1,587	851	894	15,922	79,019	28,949
1997	1,878	8,100	362	571	2,970	1,292	511	740	12,494	114,938	26,996
1998	924	3,675	134	950	4,132	1,857	364	446	6,833	31,039	25,968
1999	1,461	2,271	304	1,180	3,914	2,380	820	968	14,597	16,786	19,947
2000	1,785	2,035	138	1,346	5,872	3,805	894	914	7,905	34,997	27,531
2001	656	4,517	149	2,055	10,541	5,177	789	1,032	6,705	46,554	63,523
2002	1,000	4,051	155	1,708	6,988	5,007	867	1,237	5,569	55,044	50,875
2003	2,117	5,657	119	1,160	5,546	4,579	786	969	5,904	36,435	46,824
2004	698	3,422	135	2,991	3,963	4,268	734	1,132	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[a]	Blossom River	Keta River	Alsek River	Taku River	Stikine River
2005	595	3,366	143	1,979	4,742	4,257	926	1,496	4,478	38,725	40,501
2006	295	3,039	150	2,124	5,645	6,318	1,270	2,248	2,323	42,296	24,405
2007	677	1,442	181	1,736	5,668	4,242	522	936	2,827	14,854	14,560
2008	413	2,905	120	981	3,104	5,277	995	1,093	1,885	27,383	18,352
2009	902	4,429	109	628	3,157	2,902	476	659	6,239	22,801	11,086
2010	166	1,797	158	1,205	3,835	5,491	697	1,430	9,526	28,769	15,116
2011	240	2,674	192	936	3,195	4,052	569	671	6,850	27,523	14,480
2012	322	1,723	155	587	956	2,109	793	725	3,027	19,538	22,327
2013	912	1,719	94	920	1,135	2,223	987	1,484	4,992	18,002	16,735
2014	475	1,529	68	1261	1,691	3,097	840	1,321	3,357	23,532	24,360
2015	174	2,452	50	796	2,623	2,760	642	915	5,697	28,827	21,343
2016	329	1,373	149	402	1,502	964	522	1,342	2,504	12,000	12,000
2011–15 Avg	425	2,019	112	900	1,920	2,848	766	1,023	4,785	23,484	19,849
2006–15 Avg	458	2,371	128	1,117	3,101	3,847	779	1,148	4,672	25,353	18,276
Goals:											
Lower	450	1,750	120	650	1,800	2,140	580	525	3,500	19,000	14,000
Upper	1,050	3,500	240	1,500	3,800	4,275	1,160	1,200	5,300	36,000	28,000

[a] Escapement is enumerated using index counts on the Chickamin River and are not expanded to an estimate of total escapement.

Table 22.–Escapement goal performance for indicator coho salmon streams in Southeast Alaska (SEAK) and Yakutat, 1993–2016.

Year	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
SOUTHEAST ALASKA AREA																								
Auke Cr.	E	E	I	E	E	E	E	E	E	E	E	I	I	E	I	E	I	I	E	E	E	E	E	I
Berners R.	E	E	I	I	E	I	E	E	E	E	E	E	I	I	U	I	I	I	I	I	I	E	E	I
Ford Arm L.	E	E	I	I	E	E	E	I	I	E	E	E	E	E	I	E	I	I	I	I	I	E	E	NA
Hugh Smith L.	I	E	E	I	I	I	E	I	E	E	E	I	E	I	E	E	E	E	E	E	E	E	I	I
Chilkat River	E	E	E	I	I	I	E	E	E	E	E	E	I	E	U	I	I	E	I	I	I	E	I	U
Montana Cr.	E	E	I	I	I	I	I	I	I	E	I	U	U	I	U	I	I	I	I	U	U	I	E	I
Petersen Cr.	I	E	E	E	I	I	E	I	I	I	I	E	I	E	I	E	I	E	I	I	I	E	I	U
Sitka Index	E	E	E	E	E	E	I	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Ketchikan Index	I	E	E	E	I	I	I	E	E	E	E	E	E	I	I	E	I	I	I	E	E	E	E	E
YAKUTAT AREA																								
Lost R.	I	E	I	I	I	NA	NA	NA	NA	E	E	I	U	I	I	NA	E	E	U	I	I	I	NA	U
Situk R.	E	E	I	I	I	NA	NA	NA	NA	E	I	E	U	I	I	NA	I	E	I	U	E	I	I	I
Tsiu/Tsivat R.	I	E	I	I	I	NA	NA	I	NA	E	NA	NA	I	I	I	I	I	I	I	I	E	I	I	E
All-Gear Commercial Harvest (Millions)	3.6	5.6	3.1	3.0	1.8	2.8	3.3	1.7	2.9	2.5	2.2	2.9	2.8	1.8	1.9	2.0	2.4	2.3	2.1	1.9	3.6	3.4	1.9	2.1

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

Table 23.–Escapement estimates for 4 Southeast Alaska coho salmon indicator stocks, 1980–2016.

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
1980–2015 Average	699	9,043	3,235	1,557
2016	204	6,733	N/A	979
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, 1981–2016.

Year	Auke Creek (weir)	Montana Creek	Peterson Creek	Total roadside index	Berners River	Chilkat River	Taku River[a]
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
1981–2015 Average	699	860	264	1,823	9,043	72,813	91,388
2016	204	746	52	1,002	6,733	26,280	87,704
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

[a] 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, 1982–2016.

Year	Starrigavan Creek	Sinitsin Creek	St. John's Creek	Nakwasina River	Eagle River	Total index[a]	Ford Arm Lake (Weir)
1982	317	46	*116*	*580*	*486*	1,545	2,655
1983	45	31	20	217	*144*	457	1,931
1984	385	160	154	715	*649*	2,063	*4,765*
1985	193	144	109	408	*392*	1,246	2,324
1986	57	*72*	*53*	275	245	702	1,552
1987	36	21	*22*	47	167	293	1,694
1988	45	56	71	104	*127*	403	3,119
1989	101	76	89	129	*181*	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	*644*	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	*245*	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
1982–2015Average	160	136	102	500	433	1,331	3,280

Note: Interpolated values are shown in italic print.

[a] 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, 1987–2016.

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)	Hump-back Creek	Tomb-stone River	Total index
1987	92	*75*	154	*65*	*355*	*70*	*279*	*113*	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	*255*	*50*	35	*81*	*129*	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	*78*	420	60	*372*	*73*	*292*	175	140	1,143	571	759	732	32	847	5,770
1998	94	130	460	120	304	50	411	190	*265*	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	*165*	891	450	173	1,561	*1,662*	1,956	1,580	506	*1,587*	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	*185*	875	39	690	57	1,140	380	*444*	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	*107*	190	176	280	30	405	130	*257*	2,300	645	335	891	260	1,600	7,771
2007	134	75	*270*	35	245	15	290	210	*163*	990	970	351	1,244	3	*609*	5,604
2008	115	55	570	25	1,250	23	420	100	*620*	7,100	*2,426*	925	1,741	2,600	360	18,331
2009	*149*	330	330	340	750	110	1,050	100	1,100	*1,518*	315	1,675	2,281	700	225	10,973
2010	85	102	370	*63*	880	90	570	190	*173*	350	550	350	2,878	200	*645*	7,495
2011	*88*	*80*	350	*70*	175	*75*	110	85	*192*	1,235	*749*	350	2,137	850	*716*	7,260
2012	25	60	400	*162*	170	40	*693*	110	330	2,400	3,300	2,650	1,908	360	1,250	13,858
2013	*193*	*176*	*698*	*153*	*834*	*164*	*655*	*265*	215	2,140	1,560	2,370	3,048	530	1,340	14,342
2014	425	80	660	*226*	1,500	*242*	850	400	220	2,000	1,300	*2,651*	4,110	*1,075*	5,000	20,738
2015	20	200	550	*136*	1,200	*146*	550	200	450	2,310	1,470	1,555	956	210	1,035	10,988
2016	160	25	810	450	370	90	540	*315*	750	3,070	2,470	2,120	944	280	1,970	14,364
1987–2015 Average	148	135	536	118	640	126	503	203	324	1,514	1,267	1,381	1,559	560	1,211	10,226

Note: Interpolated values are shown in italic print.

[a] 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, 1982–2016.

Year	Auke Lake	Berners River	Ford Arm Lake	Hugh Smith Lake	Weighted average
1982	40	77	43	65	56
1983	44	71	69	62	61
1984	41	—	—	65	59
1985	44	75	52	63	58
1986	53	93	62	59	67
1987	43	77	48	50	54
1988	37	82	48	65	58
1989	55	62	65	82	66
1990	53	67	58	82	65
1991	31	67	54	68	55
1992	46	67	59	71	60
1993	46	68	67	80	65
1994	53	78	72	81	71
1995	44	83	64	73	66
1996	55	74	57	76	66
1997	20	34	52	73	45
1998	39	71	56	78	61
1999	41	70	63	70	61
2000	30	50	71	55	52
2001	38	40	74	49	51
2002	27	44	53	39	41
2003	35	65	49	59	52
2004	44	56	71	66	59
2005	38	59	58	53	52
2006	34	65	52	54	51
2007	34	55	70	62	56
2008	39	52	53	54	49
2009	39	55	69	48	53
2010	46	66	64	47	56
2011	35	50	82	46	53
2012	22	36	63	54	44
2013	42	70	78	56	62
2014	20	42	72	47	45
2015	25	57	52	51	46
2016	25	32	—	61	44
1982–2015 Average	39	63	61	62	56

Table 28.–Overall coho salmon percentage exploitation rates by indicator stock for the Alaska troll fishery, 1982–2016.

Year	Auke Lake	Berners River	Ford Arm Lake	Hugh Smith Lake	Weighted average
1982	20	42	41	45	37
1983	31	50	54	35	43
1984	34	—	—	31	40
1985	35	45	52	36	42
1986	43	55	61	37	49
1987	37	53	45	29	41
1988	25	40	47	28	35
1989	48	54	62	51	54
1990	43	44	57	38	45
1991	17	18	53	36	31
1992	32	33	56	38	40
1993	38	39	62	53	48
1994	35	37	60	46	44
1995	32	31	53	30	36
1996	39	44	53	40	44
1997	12	16	48	49	31
1998	31	44	49	41	41
1999	34	40	58	42	43
2000	24	25	57	36	35
2001	31	28	67	22	37
2002	18	17	38	16	22
2003	23	24	31	24	26
2004	27	33	64	41	41
2005	33	37	51	32	38
2006	22	26	39	36	31
2007	25	34	65	38	41
2008	30	27	41	19	29
2009	30	30	65	24	37
2010	25	30	48	22	31
2011	17	31	24	20	23
2012	20	24	46	20	28
2013	32	36	48	25	35
2014	14	16	43	24	24
2015	20	20	45	24	27
2016	7	9	—	29	27
1982–2015 Average	29	34	51	33	37

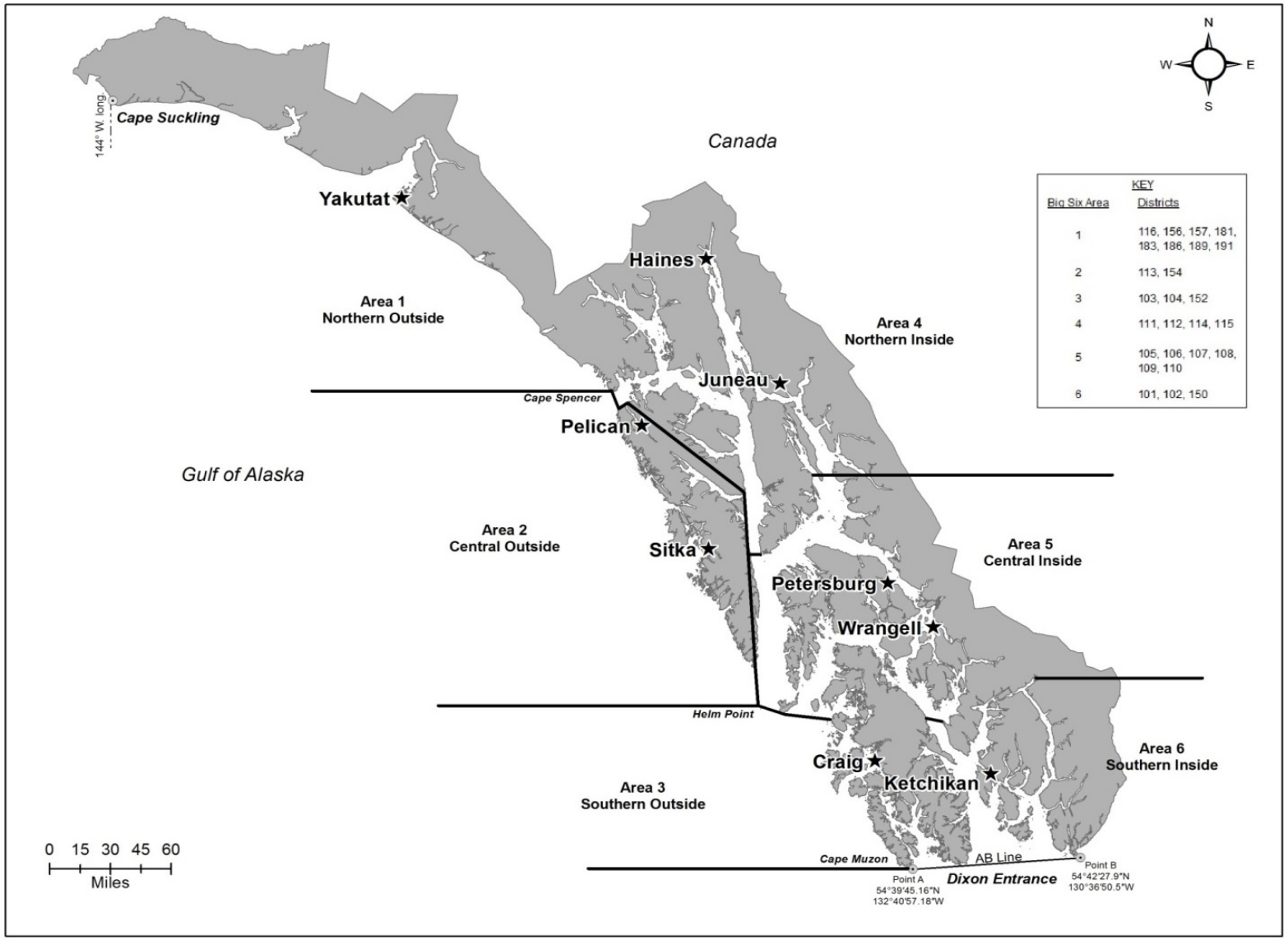

Figure 1.–Map of Southeast Alaska commercial troll fishing and Big Six management areas, Cape Suckling to Dixon Entrance.

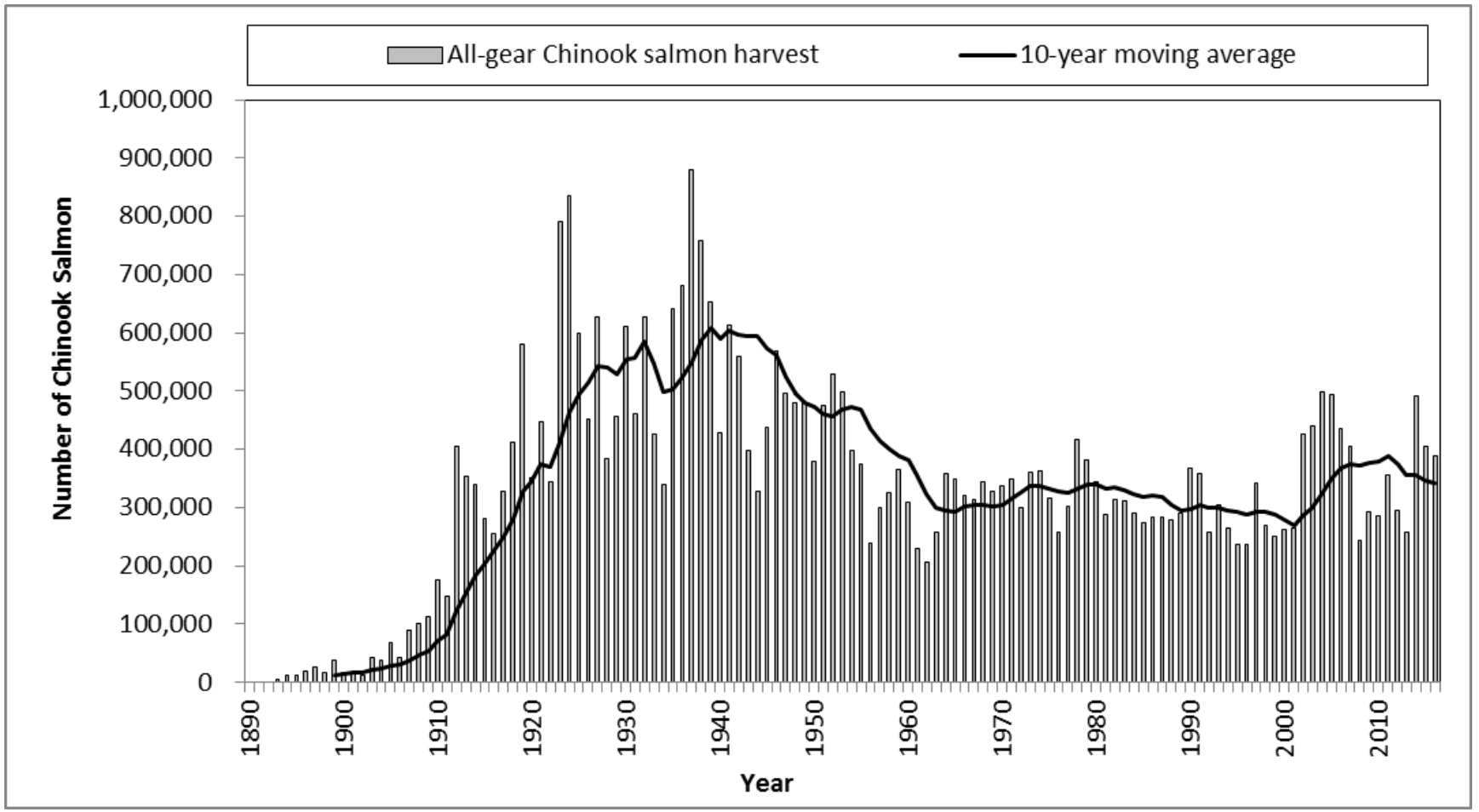

Figure 2.–All-gear harvests of Chinook salmon in common property fisheries, 1891–2016.

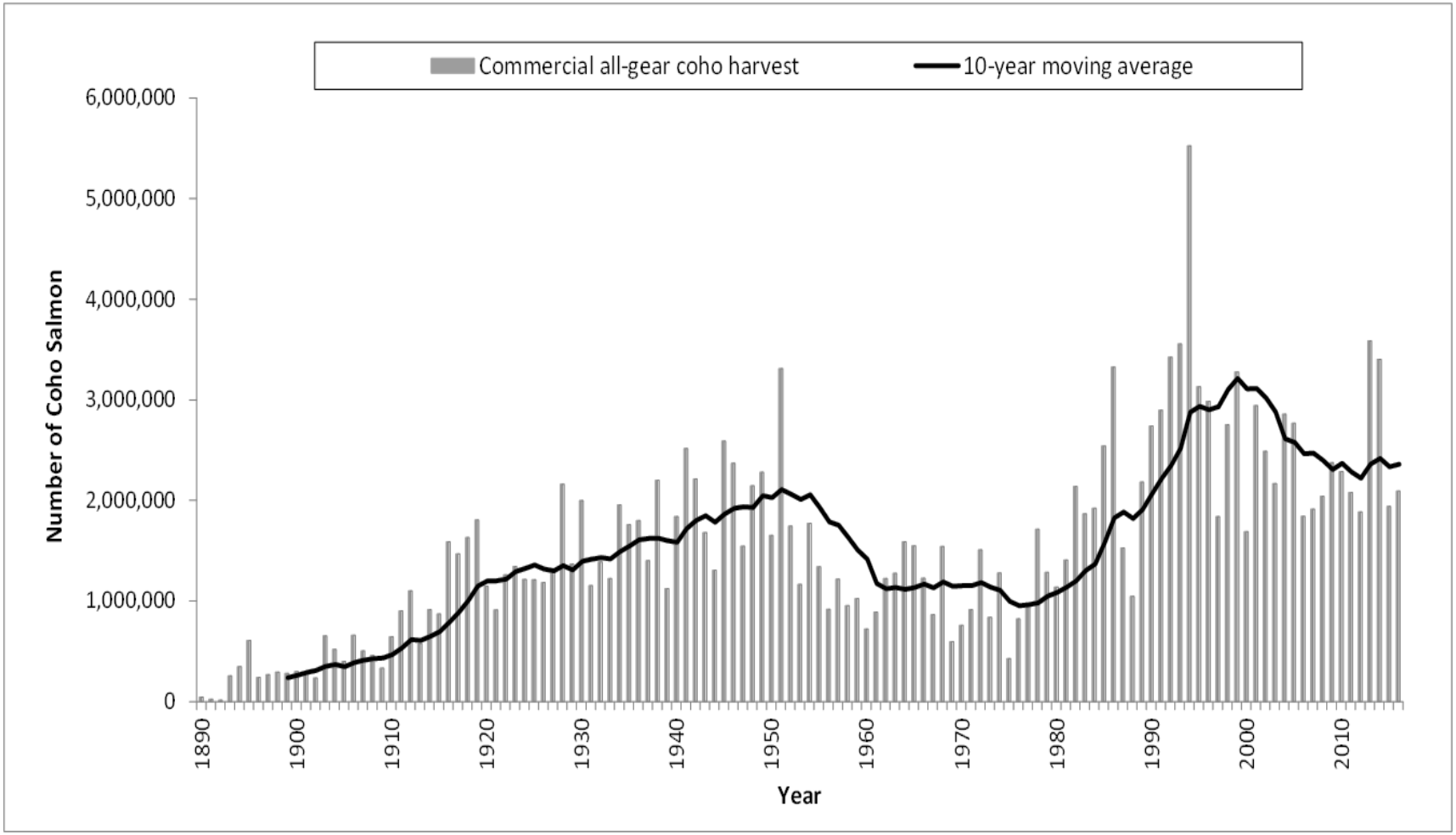

Figure 3.–Commercial all-gear harvests of coho salmon in common property fisheries, 1890–2016.

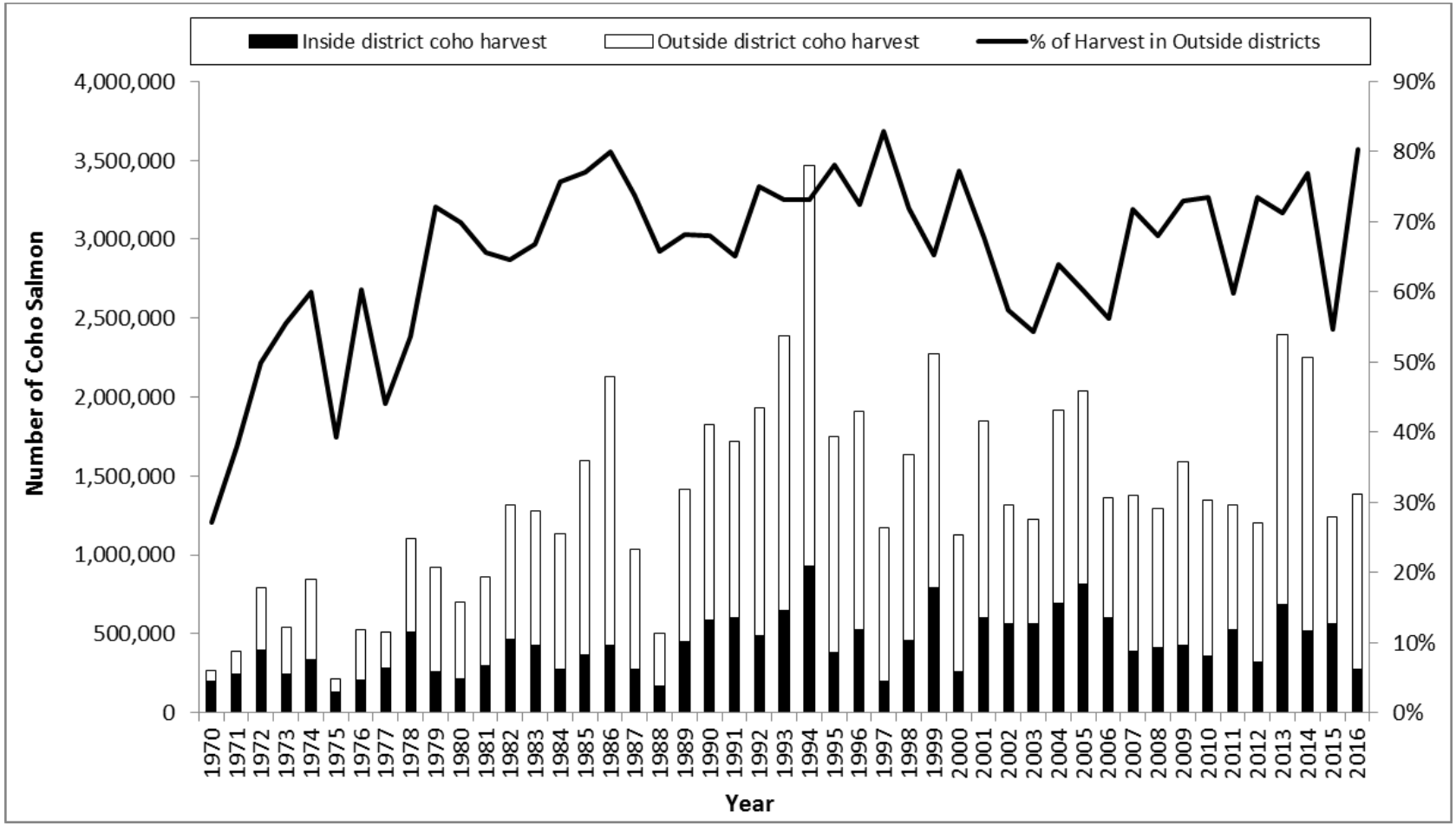

Figure 4.–Southeast Alaska troll coho salmon harvest in the outside (Gulf of Alaska) districts, the inside districts, and the percentage of the harvest taken in the outside districts, 1970–2016.

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.

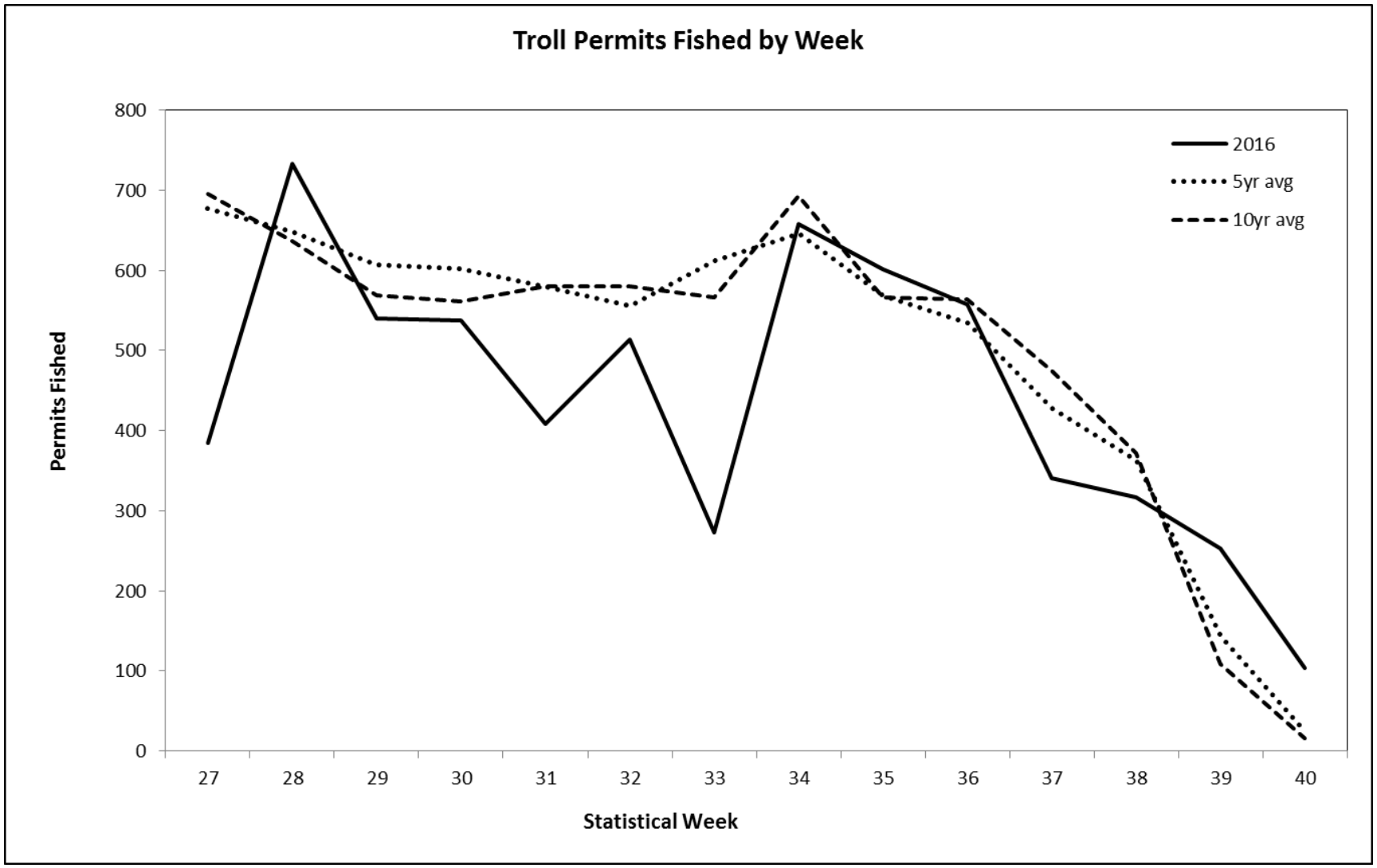

Figure 5.–Number of troll permits fished by week, 2016 vs. 5-year and 10-year averages.

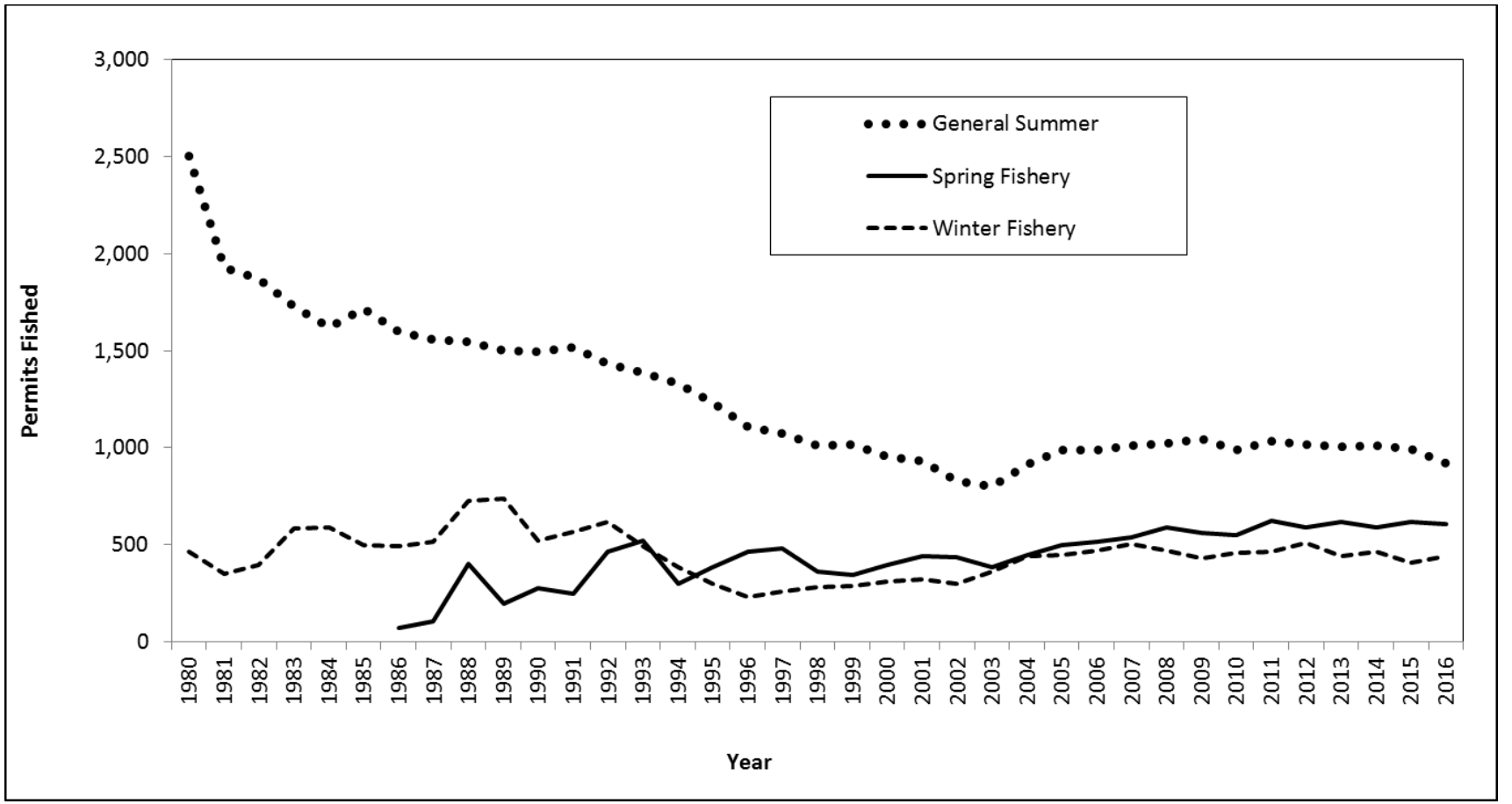

Figure 6.–Number of troll permits fished in the general summer, winter, and spring fisheries, 1980–2016.

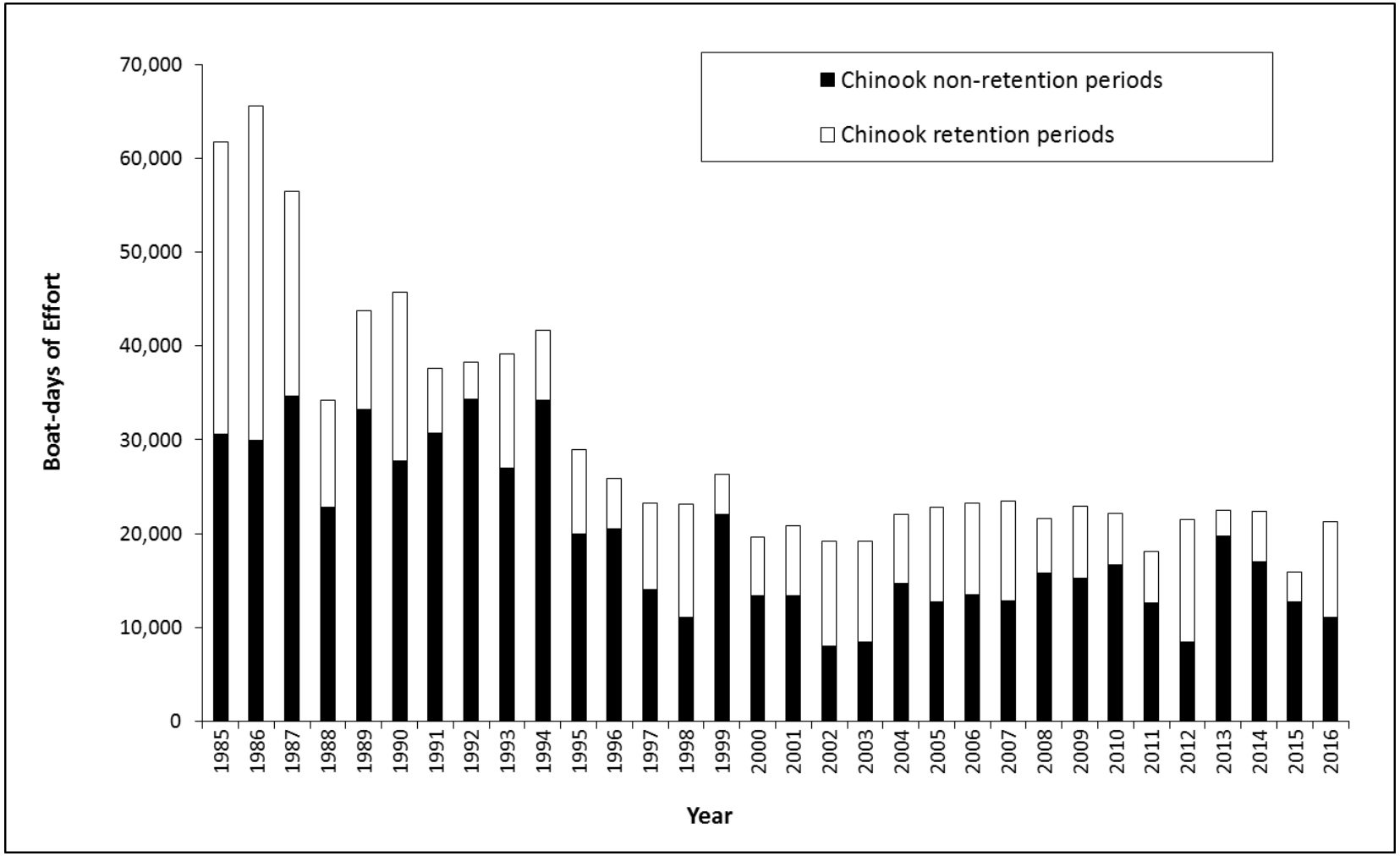

Figure 7.–General summer troll fishery boat-days of effort during Chinook salmon retention and Chinook salmon non-retention fishing periods, 1985–2016.

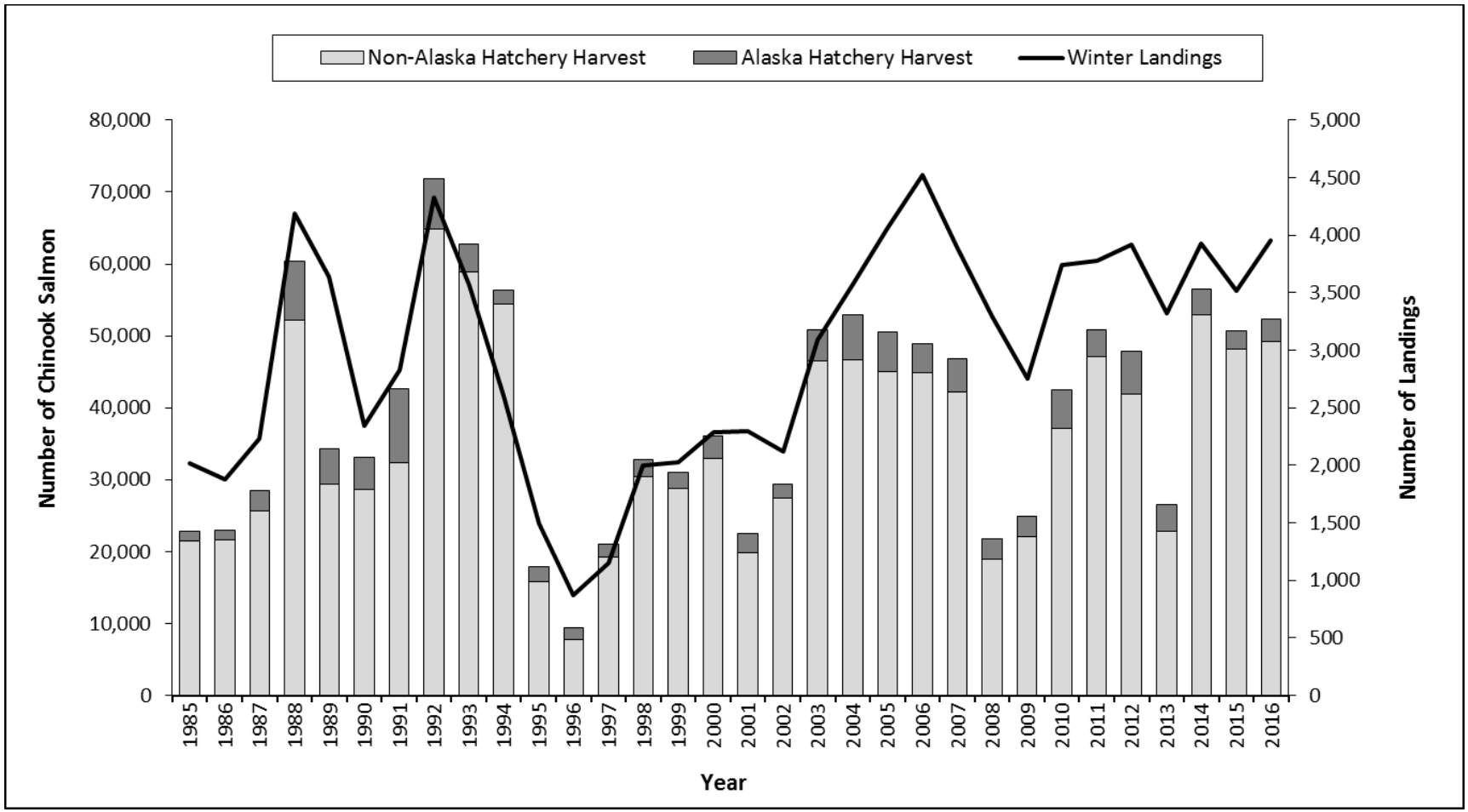

Figure 8.–Southeast Alaska winter troll fishery non-Alaska and Alaska hatchery Chinook salmon harvests and landings, 1985–2016.

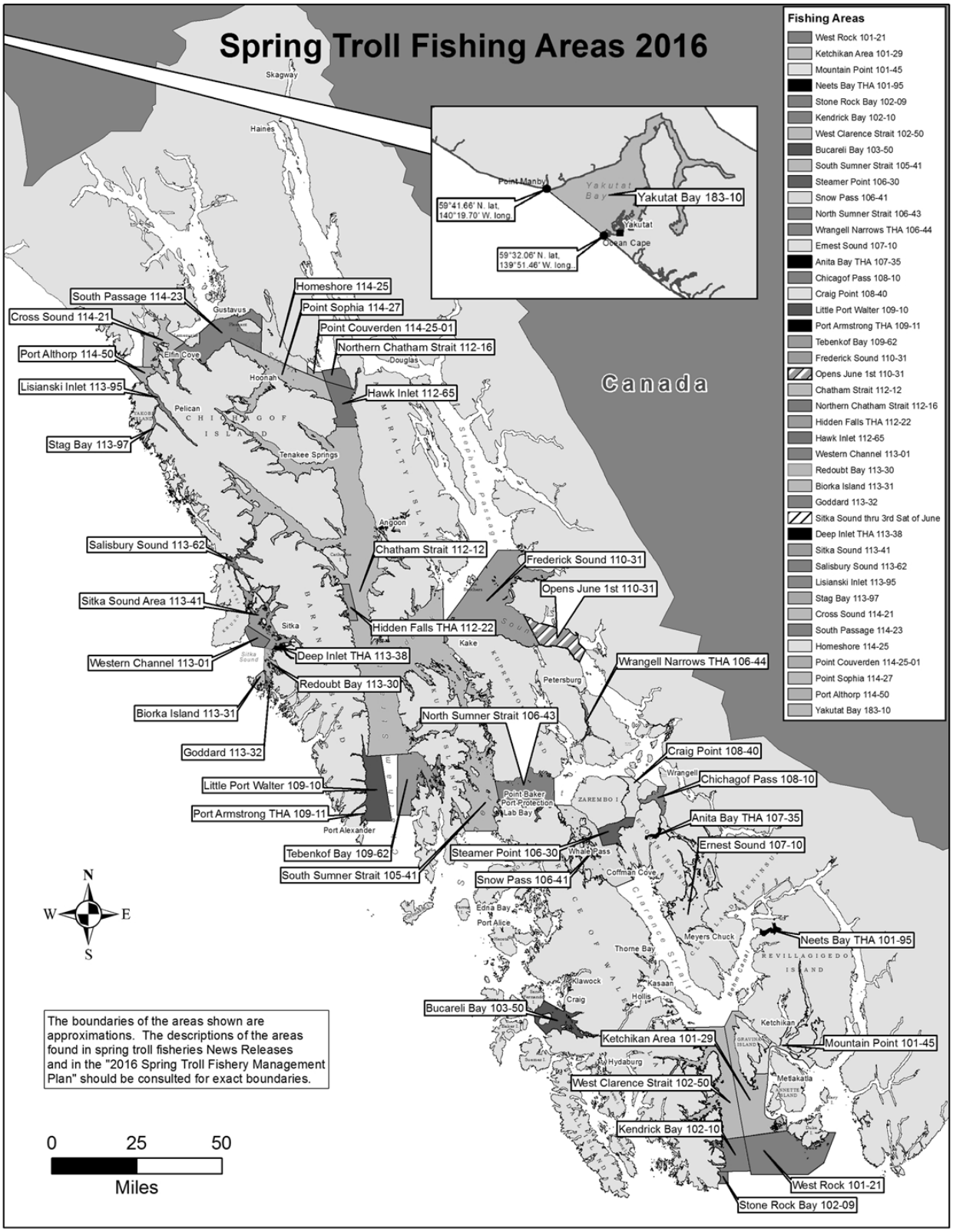

Figure 9.–Map of spring troll fishing areas, 2016.

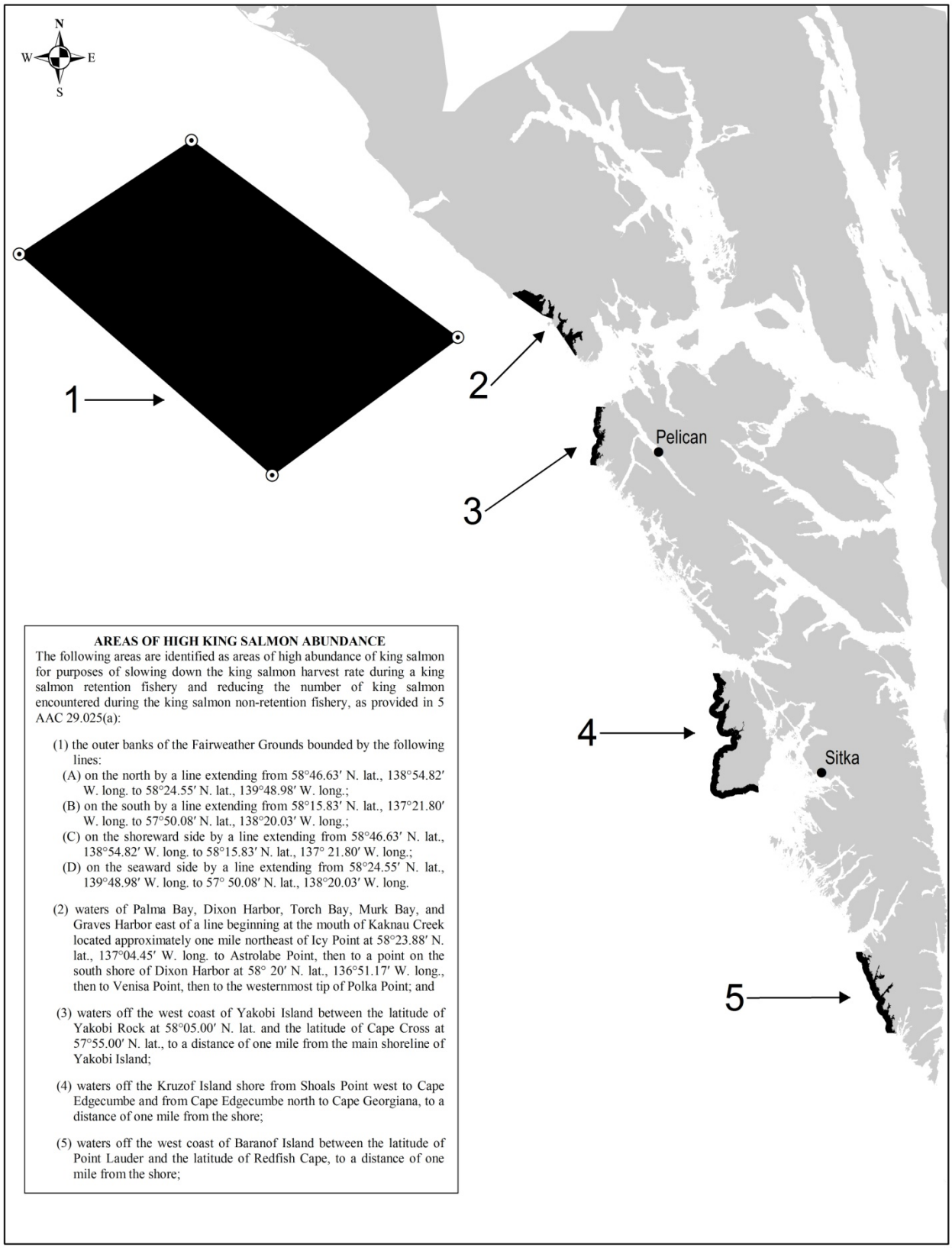

Figure 10.–Map of Areas of High Chinook Salmon Abundance (shaded areas), which close during part of the summer fishery.

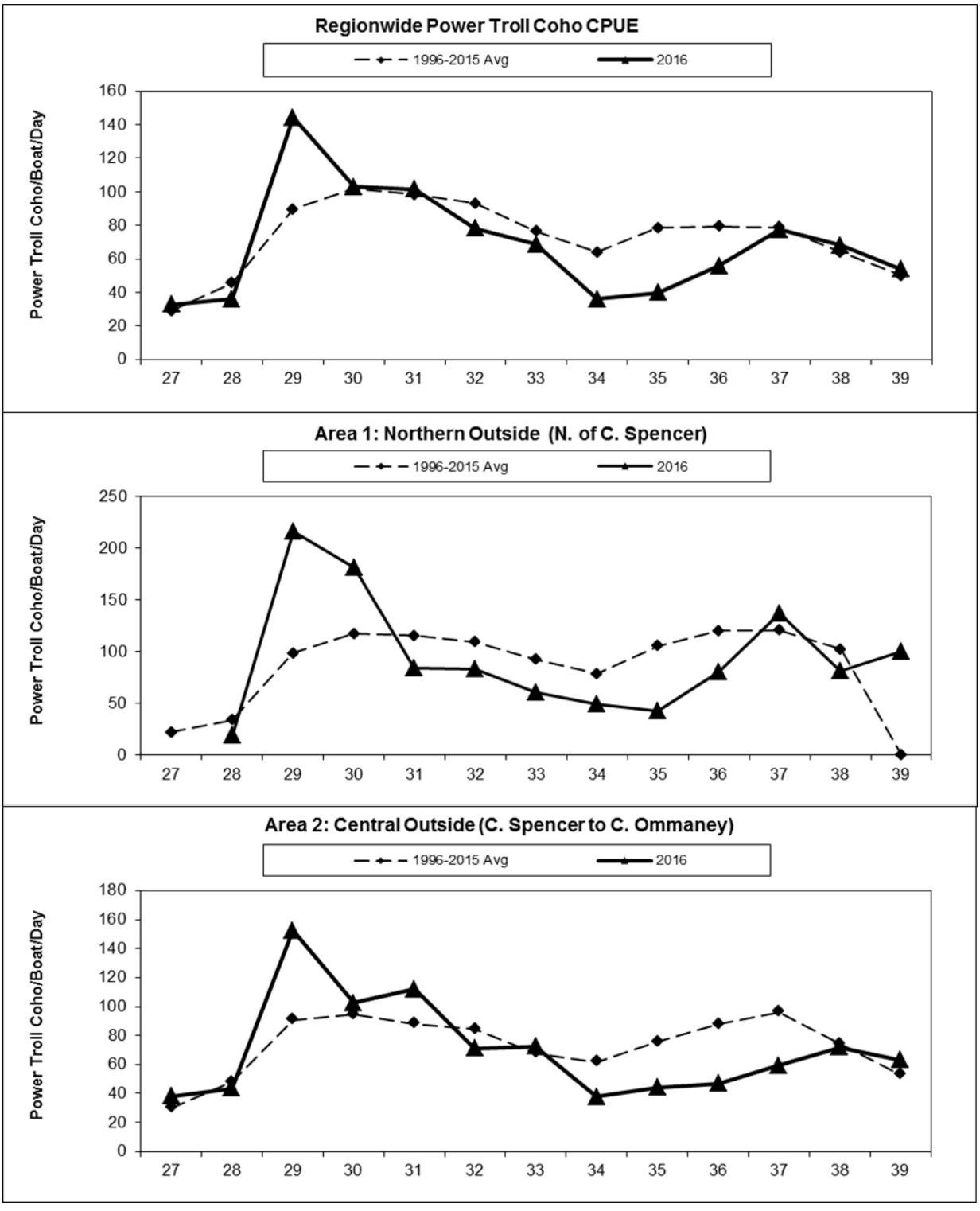

Figure 11.–Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2016 results with the 1996–2015 average, for Southeast Alaska, regionwide, Northern Outside, and Central Outside (Areas 1 and 2).

Note: Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho salmon. Weeks with fewer than 3 permits interviewed are confidential and have been omitted.

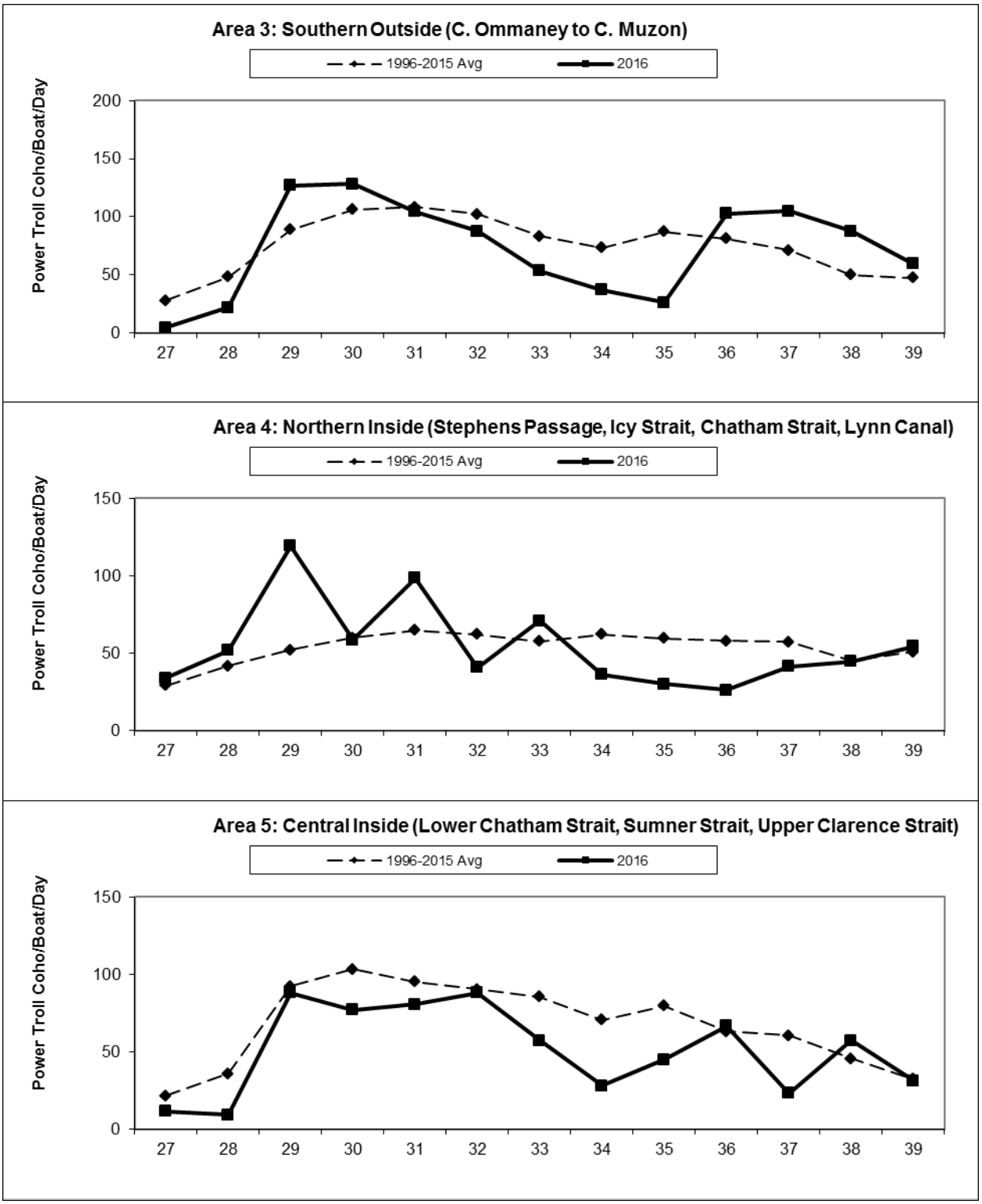

Figure 12.–Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2016 results with the 1996–2015 average, for Southeast Alaska, Southern Outside, Northern Inside, and Central Inside (Areas 3, 4, and 5).

Note: Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho salmon. Weeks with fewer than 3 permits interviewed are confidential and have been omitted.

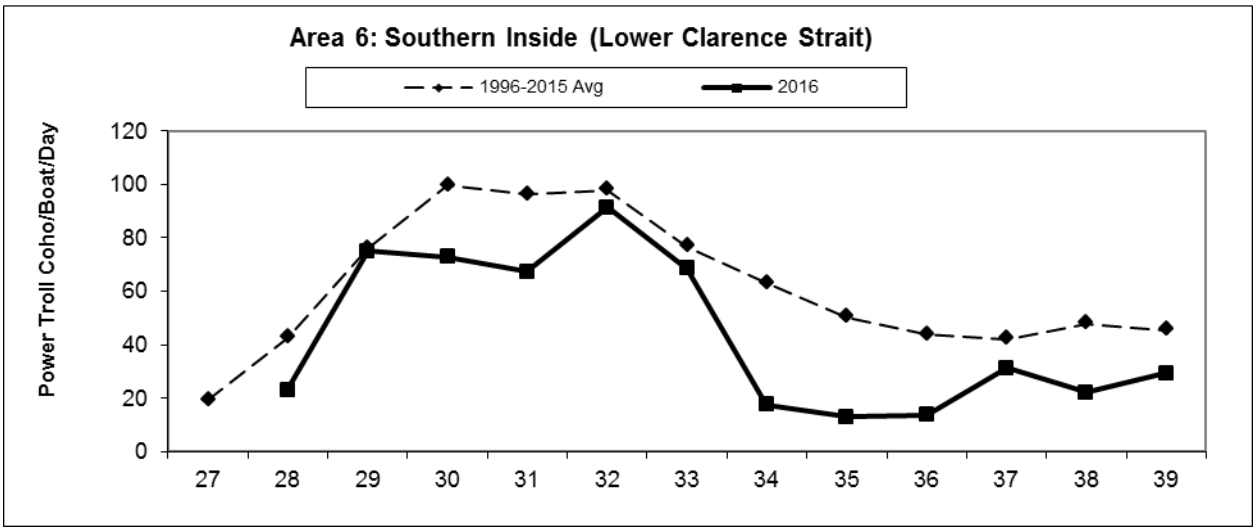

Figure 13.–Average power troll coho salmon harvest per boat day (CPUE) by statistical week, comparing 2016 results with the 1996–2015 average, for Southeast Alaska, Southern Inside (Area 6).

Note: Declines in CPUE for weeks 27–28 are influenced by vessels targeting Chinook instead of coho. Weeks with fewer than 3 permits interviewed are confidential and have been omitted.

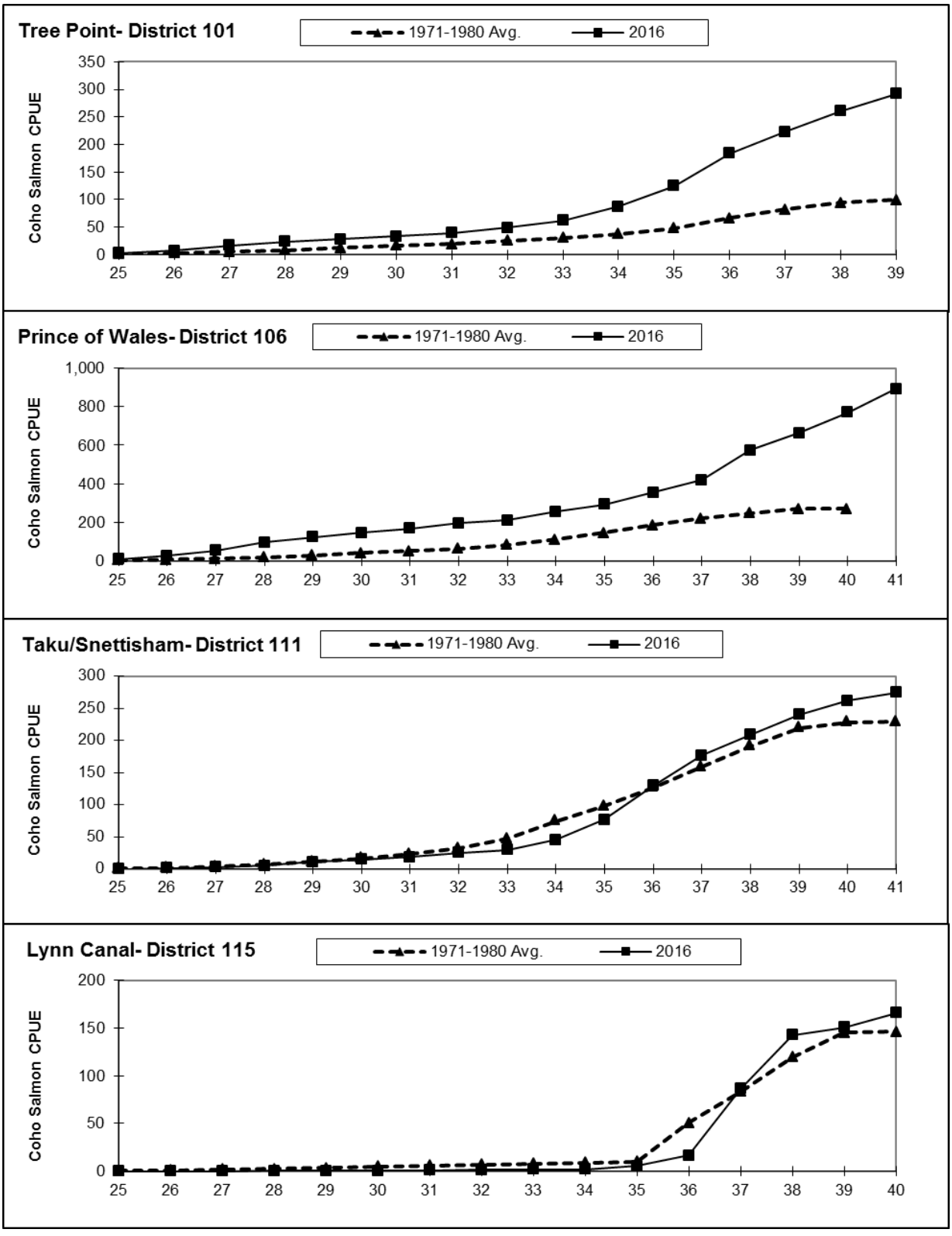

Figure 14.–Cumulative coho salmon catch-per-boat-day by statistical week, comparing 2016 to the 1971–1980 average, for the 4 indicator drift gillnet fisheries.

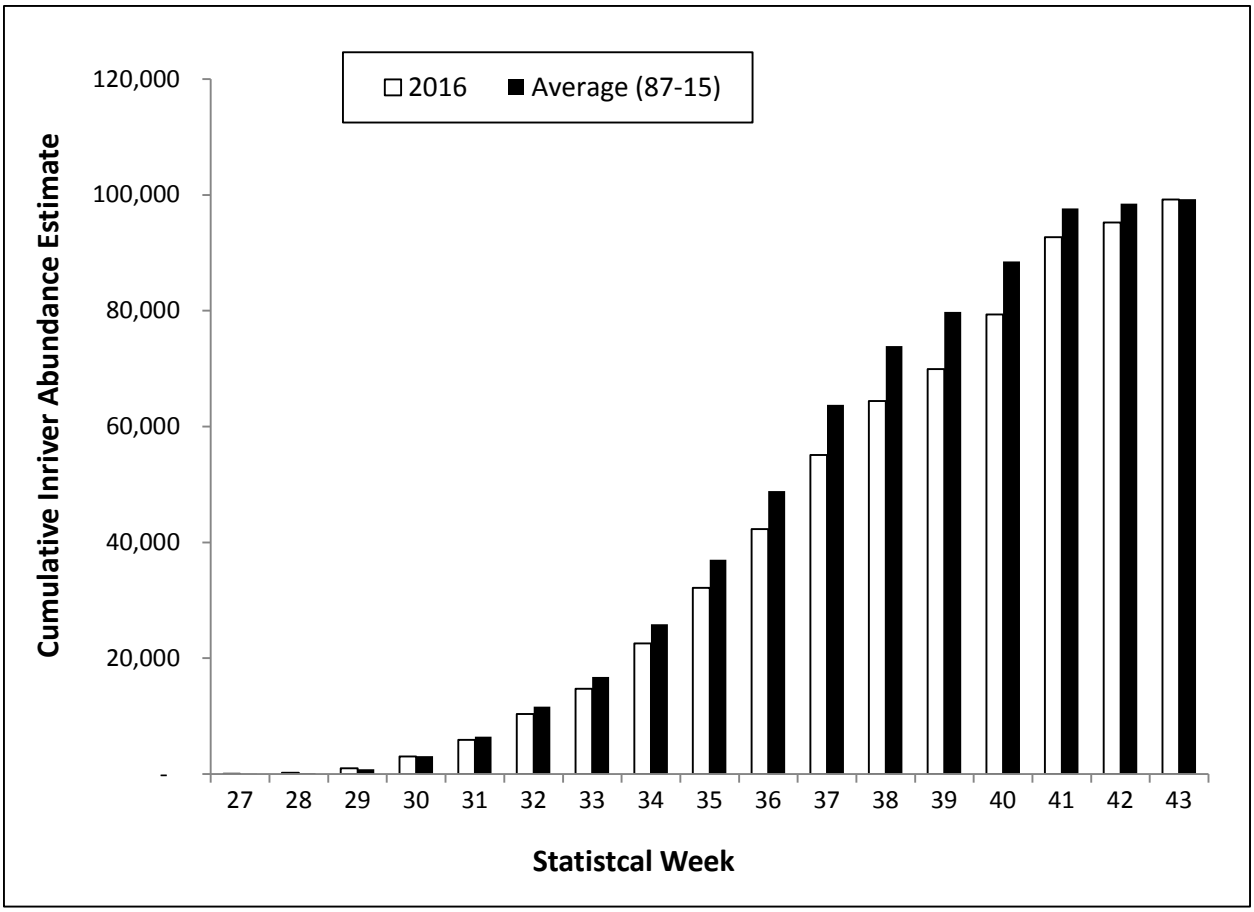

Figure 15.–Cumulative mark-recapture abundance estimate for Taku River coho salmon from Canyon Island fish wheels, for 2016 and the 1987–2015 average.

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

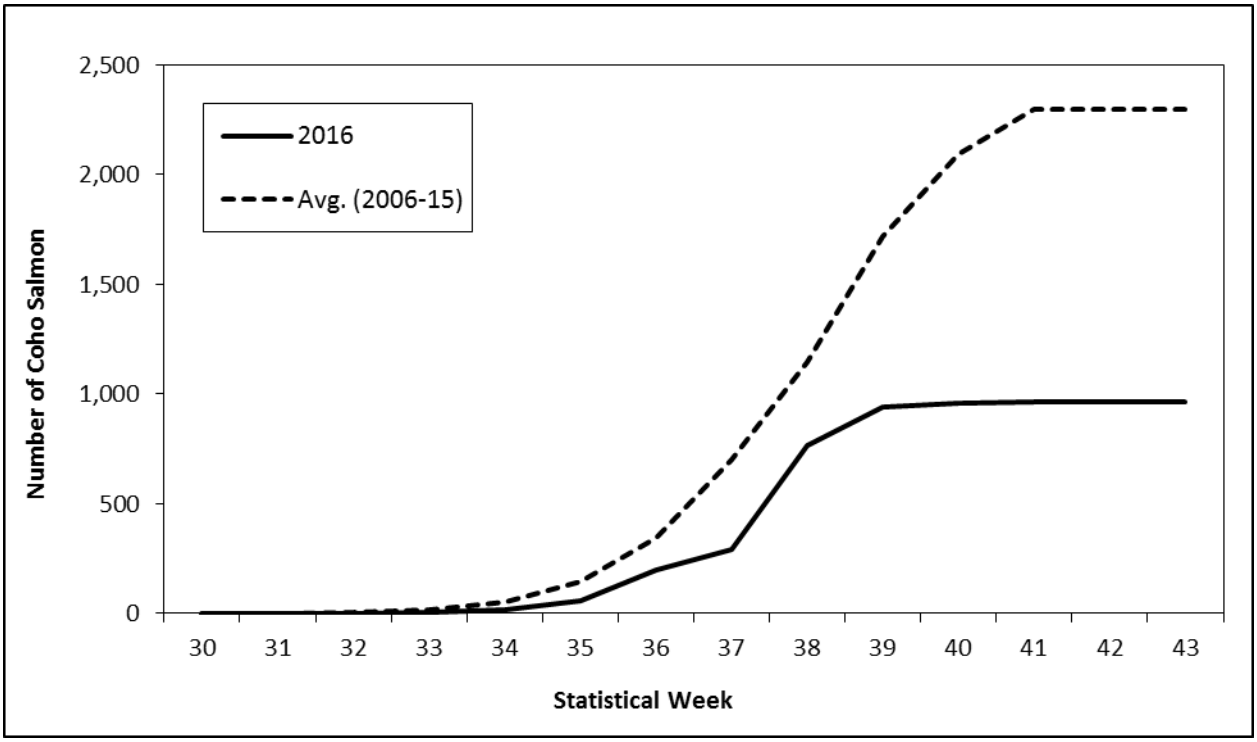

Figure 16.–Cumulative weekly catch of coho salmon in the Chilkat River fish wheels, for 2016 and the 2006–2015 average.

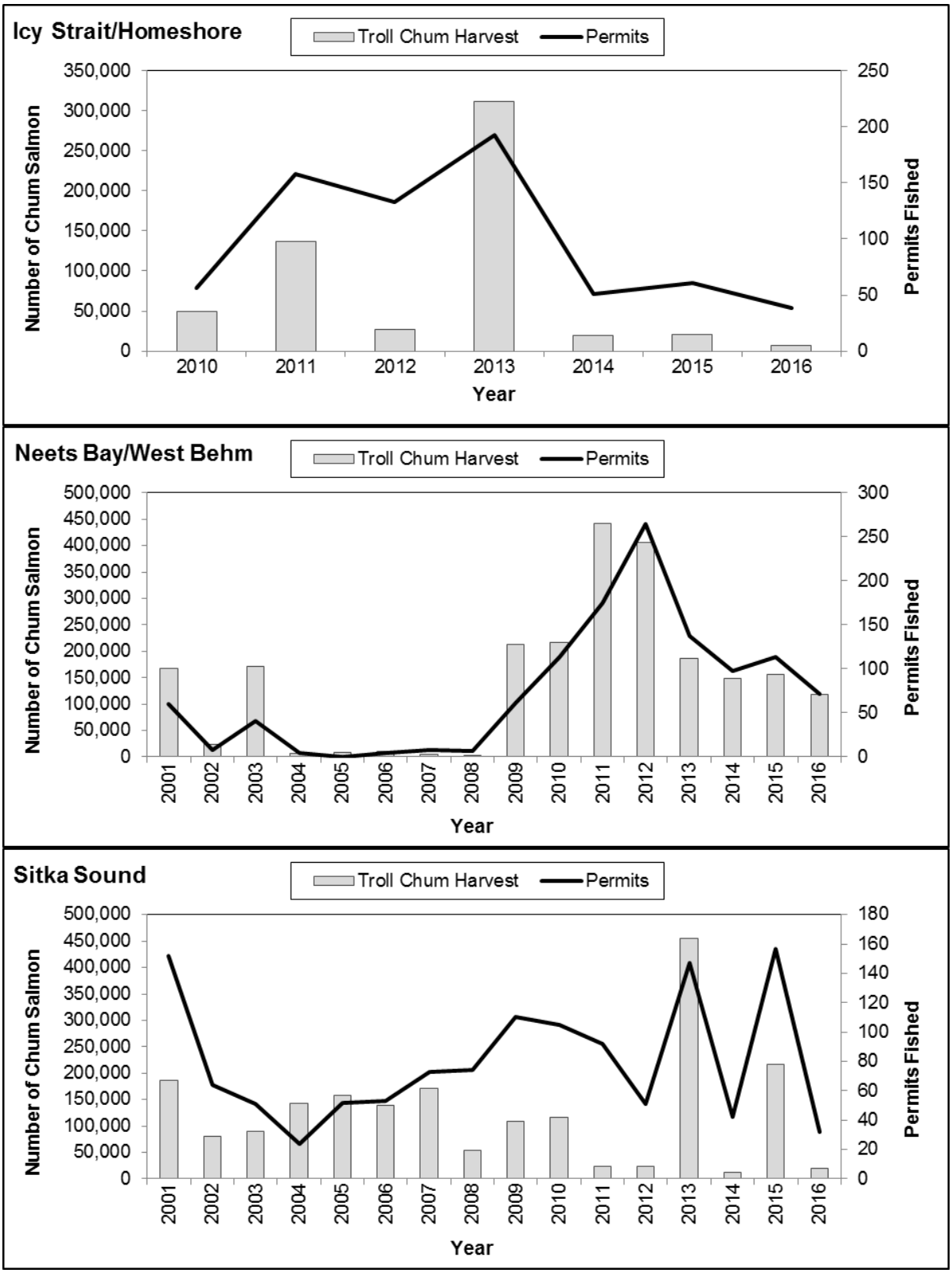

Figure 17.–Annual harvest and number of permits fished for chum salmon, Icy Strait/Homeshore, Neets Bay/West Behm Canal and Sitka Sound 2001–2016. Both harvest and effort based on all troll vessels that targeted chum salmon.

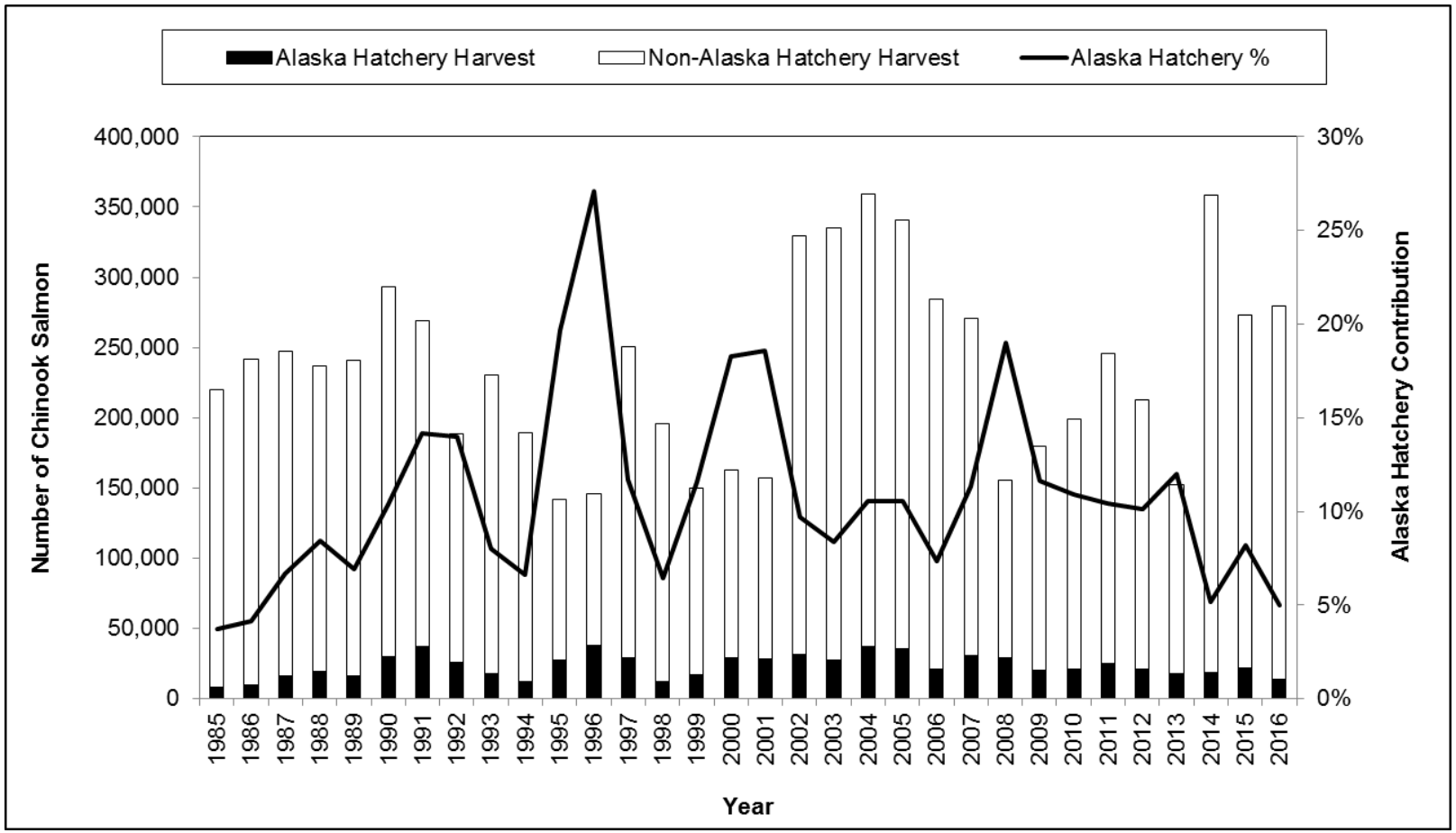

Figure 18.–Alaska hatchery Chinook salmon contributions to the Southeast Alaska troll fishery, 1985–2016.

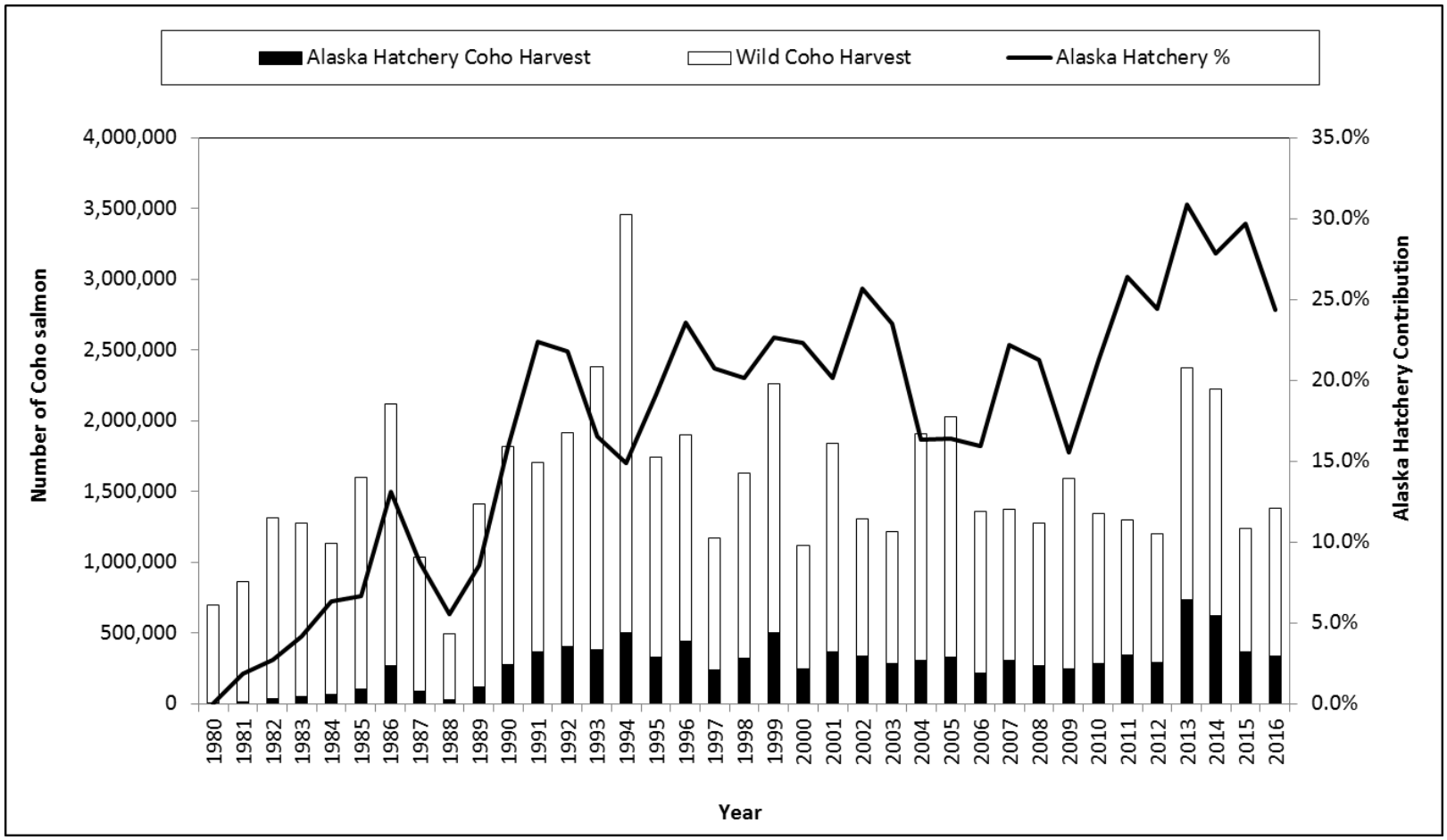

Figure 19.–Hatchery contributions of coho salmon from all sources to the Southeast Alaska troll fishery, 1980–2016.

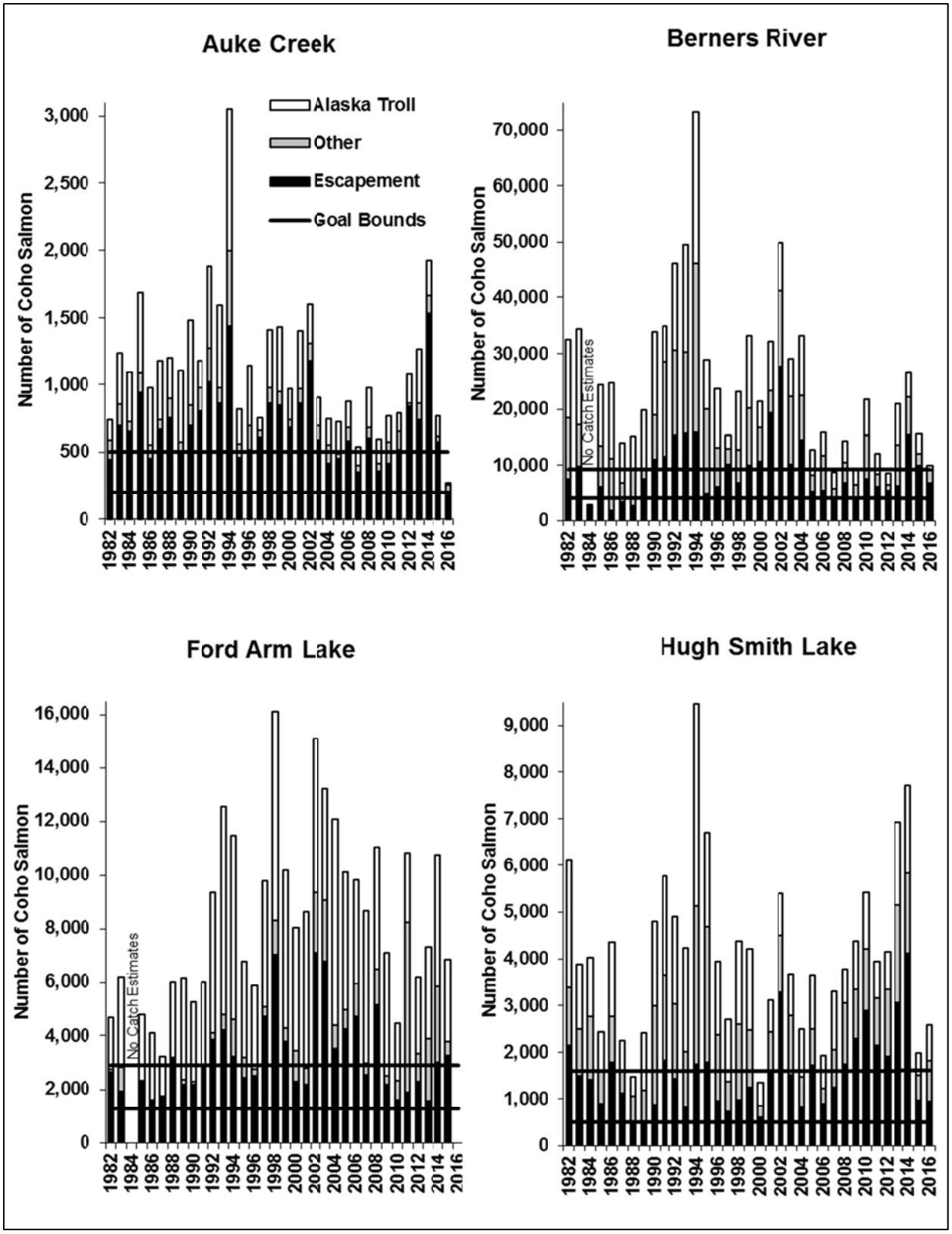

Figure 20.–Total run size, catch, escapement, and biological escapement goal range for 4 wild Southeast Alaska coho salmon indicator stocks, 1982–2016.

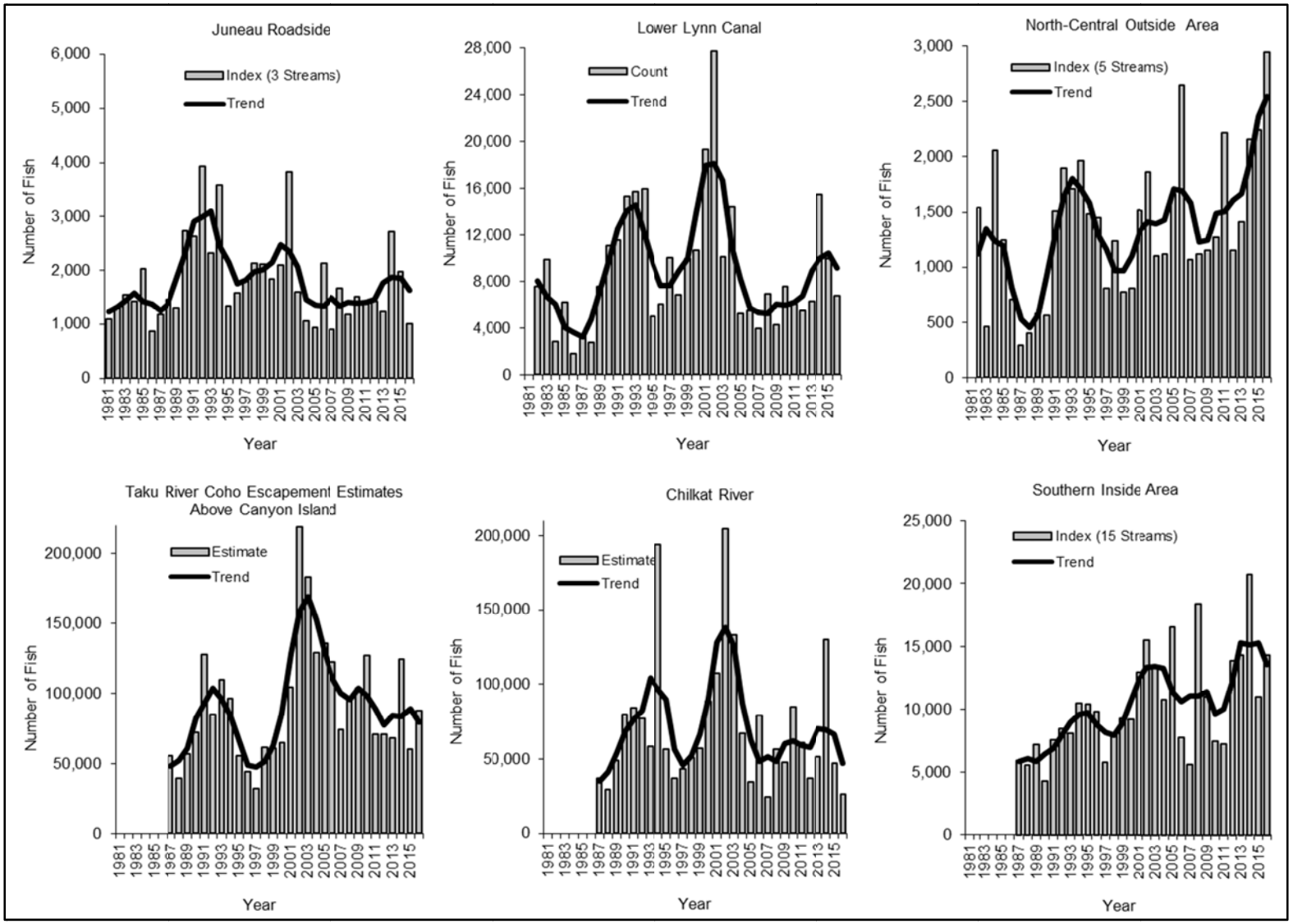

Figure 21.–Coho salmon escapement counts and estimates in index streams in 5 areas of Southeast Alaska, 1981–2016.

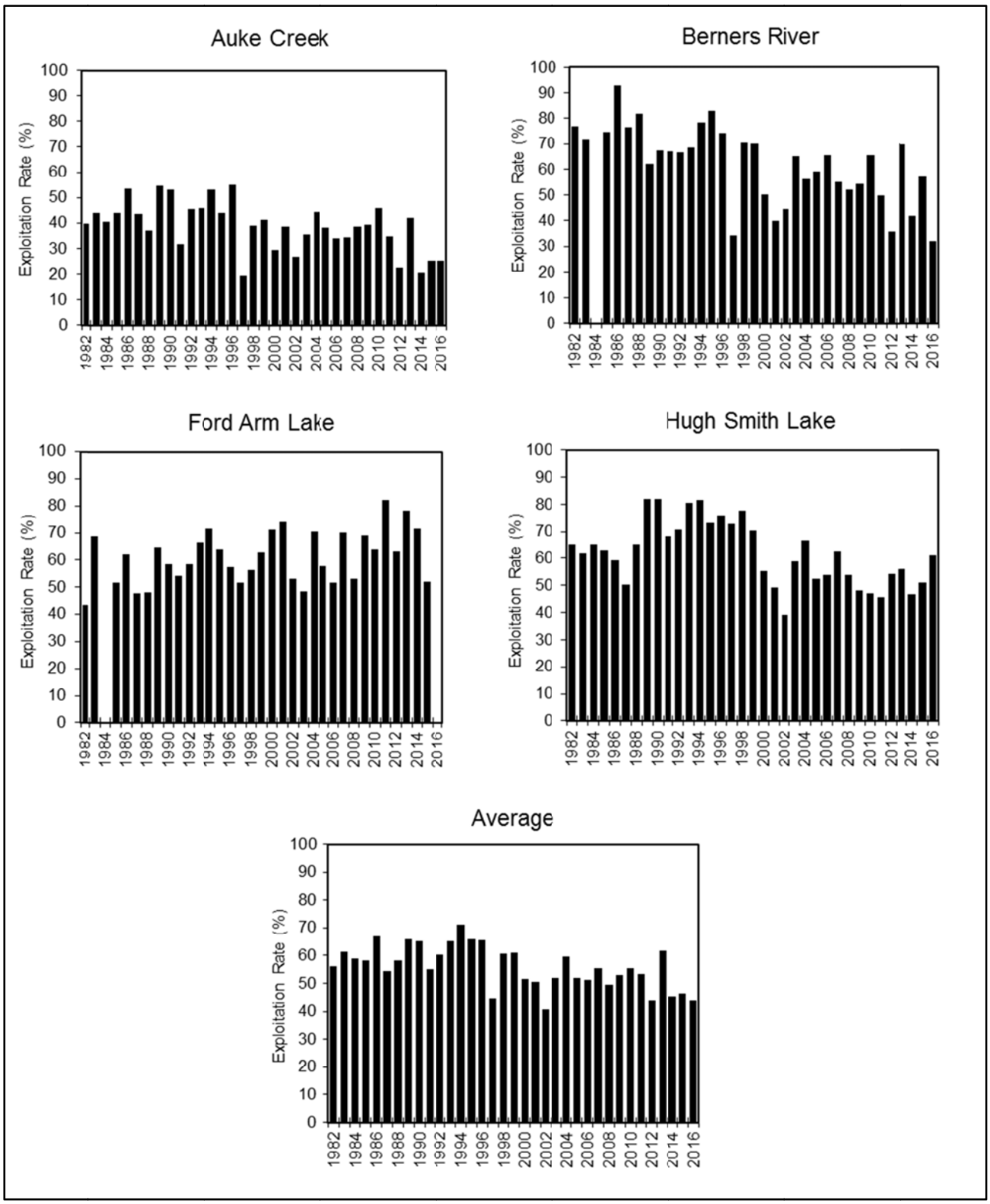

Figure 22.–Estimated total exploitation rates by all fisheries for 4 coded wire tagged Southeast Alaska coho salmon stocks, 1982–2016.

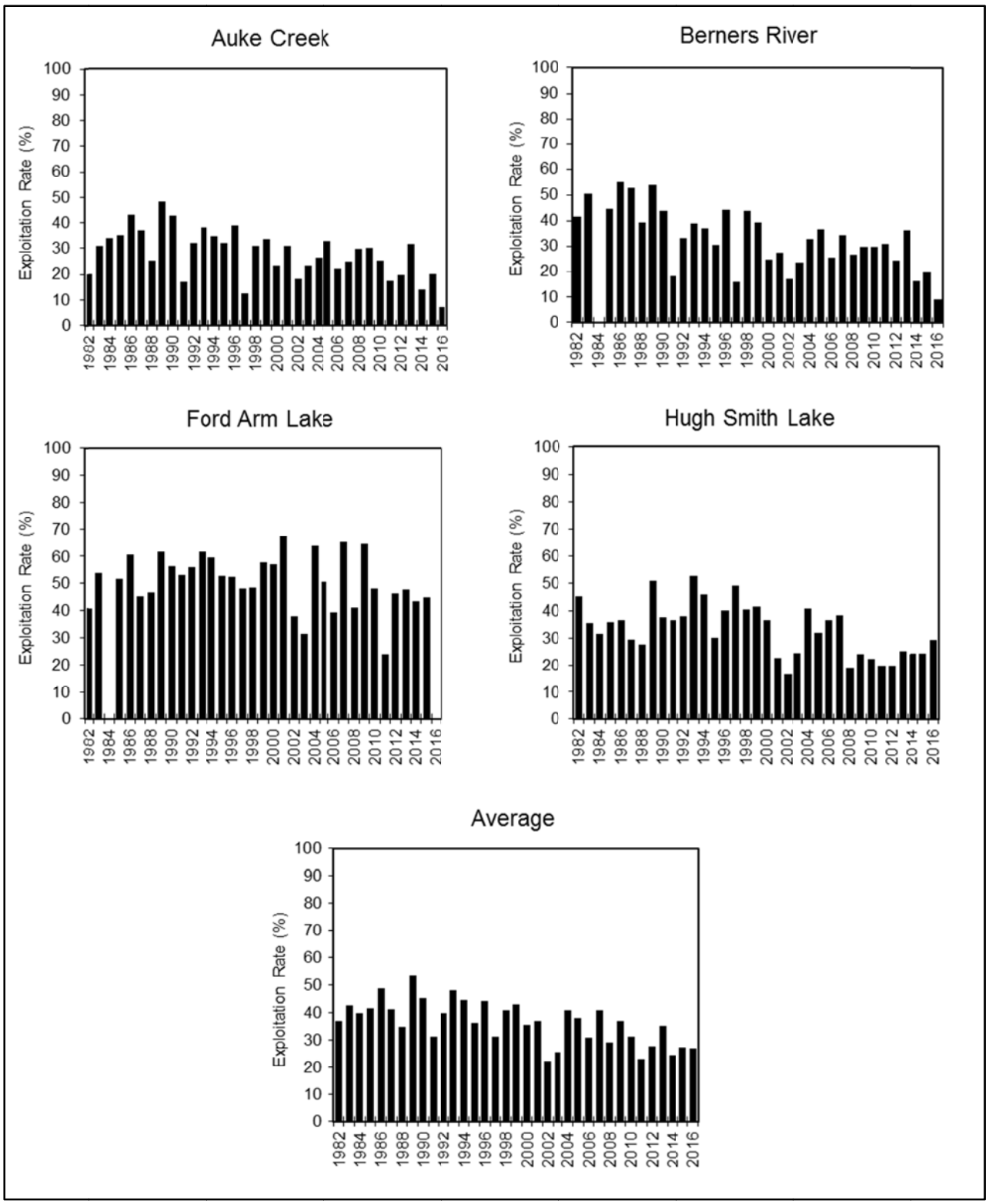

Figure 23.–Estimated exploitation rates by the Alaska troll fishery for 4 coded wire tagged Southeast Alaska coho salmon stocks, 1982–2016.