Fishery Management Report No. 20-21

Annual Management Report for the 2019 Southeast Alaska/Yakutat Salmon Troll Fisheries

by

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and

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August 2020

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

Symbols and Abbreviations

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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

FISHERY MANAGEMENT REPORT NO.20-21

ANNUAL MANAGEMENT REPORT FOR THE 2019 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 during the 2019 accounting period, which occurred from October 1, 2018, through September 30, 2019. Approximately 1.43 million salmon were harvested in the 2019 Southeast Alaska troll fishery. Of this, 39,000 salmon (3%) were taken by hand troll gear and 1.39 million salmon (97%) by power troll gear. The harvest included 109,000 Chinook (*Oncorhynchus tshawytscha*), 6,000 sockeye (*O. nerka*), 973,000 coho (*O. kisutch*), 70,000 pink (*O. gorbuscha*), and 270,000 chum (*O. keta*) salmon landed by 664 power troll and 230 hand troll permit holders during the 2019 calendar year. The Chinook salmon harvest ranked as the second lowest on record over the last 60 years since statehood, whereas the coho salmon and chum salmon harvests ranked thirty-seventh and seventeenth over the same time period, respectively. The preliminary estimated Alaska hatchery contribution of Chinook salmon to the troll fishery, including hatchery terminal harvest, was 8,841 fish (8%). A total of 313,459 coho salmon produced by Alaska hatcheries were harvested by the troll fleet, which accounted for 33% of the total troll coho salmon harvest. Chinook salmon escapements for seven out of 11 Southeast Alaska rivers were within the desired escapement goal ranges, whereas coho salmon escapements were mostly 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

This report describes the 2019 Southeast Alaska/Yakutat (SEAK) salmon troll fisheries. An overview of the troll fishery, status of Chinook (*Oncorhynchus tshawytscha*) and coho (*O. kisutch*) stocks of SEAK, and descriptions of fishery management actions and outcomes are discussed, along with a summary of the 2019 harvest estimates compared to historical harvests. The status of hatchery production and contributions to the troll fishery are summarized, as well as wild Chinook and coho salmon escapements and exploitation rates. Troll effort and harvest statistics since statehood (1960 fishing season) are presented and include all-gear (troll, purse seine, drift gillnet, set gillnet, Annette Island, and recreational fisheries) harvests for Chinook and total commercial harvests for coho salmon.

TROLL FISHERY OVERVIEW

The Southeast Alaska/Yakutat (Region 1) commercial salmon troll fishery occurs in the waters of the State of Alaska 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 troll 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 BOF are listed in the State of Alaska Administrative Code, Title 5 (5 AAC), Chapter 29—Salmon Troll Fishery. The SEAK Chinook salmon fishery is managed to stay within the annual all-gear PSC allowable catch limit determined by the SEAK early winter District 113 troll fishery catch per unit effort (CPUE) metric estimated from data collected in statistical weeks (SW) 41–48. The annual harvest limit is allocated through regulations established by the BOF to provide 4.3% of the Chinook catch limit 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 then subtracted from the all-gear harvest, and the remainder of the allocation is divided between the troll and sport fisheries in an 80/20 split [5 AAC 29.060(b)]. Coho salmon are managed to ensure that escapement goals are met and to achieve BOF allocation guidelines. Coho salmon fisheries at Dixon Entrance

near the U.S./Canada border are managed in cooperation with Canada, according to the Pacific Salmon Treaty (PST).

The commercial troll fleet is composed of power and hand troll gear types. Power trollers are limited to four lines operated by hydraulic, electrical, or mechanical powered gurdies, except within the EEZ north of the latitude of the southernmost tip of Cape Spencer, where six lines may be used [5 AAC 29.120 (b)(1)(A) and (B)]. Vessels using hand troll gear are limited to two lines on two hand-operated gurdies or four fishing rods, except that following the closure of the initial summer Chinook salmon retention period and prior to the winter troll fishery, four hand troll gurdies or four fishing rods may be onboard and operated within the EEZ north of the latitude of the southernmost tip of Cape Spencer [5 AAC 29.120 (b)(2)(C)]. During the winter troll season only, two hand troll gurdies or hand-powered downriggers can be used in conjunction with two fishing rods [5 AAC 29.120 (j)]. Although the majority of the troll fleet sells their harvest to onshore processing plants or tenders, the fleet does include some catcher-processors, or "freezer boats," which harvest and freeze their harvest at sea.

Limited entry for the power troll fishery was instituted in 1974 and the first permits were issued in 1975. The number of renewals has gradually decreased over time while the number of permits fished has fluctuated, reaching a high of 852 in 1991 and a low of 641 in 2003. Overall, the number of power troll permits fished has declined since 1991. 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, increased from 2003 to 2009, and has since declined to a record low 230 permits fished in 2019. The percentage of active hand troll permits in the fleet has declined from 76% in 1978 to 26% in 2019.

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. The troll fleet has been managed to harvest an average of 61% of the commercial coho salmon harvest since 1989 (5 AAC 29.065), although the actual troll harvest has averaged 65% of the commercial harvest, with a range of 53% to 78%. Most other species are harvested incidentally, but in recent years, hatchery-produced chum salmon have been the target of significant troll effort. The troll fleet harvests incidental Pacific halibut under Federal Individual Fishing Quota regulations and groundfish (lingcod and rockfish) under state regulations.

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 significant are the Alsek, Taku, Stikine, Chilkat, and the Behm Canal Rivers (e.g., Unuk, Chickamin, Blossom, and Keta Rivers). The three major river systems (Alsek, Taku, and Stikine Rivers), as well as several midsized systems (Unuk, Chickamin, and Chilkat Rivers), are transboundary rivers (TBRs), 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 salmon stocks that originate in the Canadian portion of these rivers

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

Non-Alaska hatchery-produced Chinook salmon fall under the terms of the PST and are referred to as treaty Chinook salmon. 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.

CHINOOK SALMON FISHERY MANAGEMENT

Recent all-gear Chinook salmon harvests in SEAK (based on a moving 10-year average) have been the lowest since statehood. These lower harvests were largely driven by low abundance but also influenced by reduced allowable catches provided under terms of the PST. With the exception of the 2002–2016 time period, harvests show a declining trend since the late 1930s (Figure 2). 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 began for depressed non-Alaska Chinook salmon stocks that contribute to the SEAK fisheries. The decline in coastwide abundance was primarily the result of overfishing wild Chinook salmon stocks and the loss of freshwater spawning and rearing habitat in the Pacific Northwest.

In 1996, after three years without a Chinook salmon annex fishing agreement between the U.S. and Canada, the Letter of Agreement Regarding an Abundance-Based Approach to Managing Chinook Fisheries in Southeast Alaska (LOA) was signed between the U.S. members of the PST. This agreement, which was in effect from 1996 through 1998, established an annual PST harvest limit based on preseason and inseason abundance estimates. In 1999, a new Chinook salmon PST agreement between the U.S. and Canada was signed similar to the abundance-based management of the LOA, with harvest limits based on preseason and postseason abundance estimates. However, during times of lower abundance levels, SEAK agreed to reduced Chinook salmon harvests below levels previously implemented in either the PST or LOA. In 2008, a new PST was signed which remained in effect through 2018 but, unlike the previous agreement, lowered the SEAK allowable catch of Chinook salmon at all levels of projected abundance. In 2019, a new PST agreement was signed that will continue through 2028. Under terms of Chapter 3 of the new agreement 1) the all-gear allowable catch limit is now determined by the SEAK early winter District 113 troll fishery CPUE metric estimated from data collected in SW 41–48 (October–November), 2) overages to the preseason catch limit will be paid back the following year, and 3) an incidental mortality ceiling was set at 59,400 Chinook salmon.

Since 2014, Chinook salmon harvests have continuously declined, with the 2019 harvests the second lowest since statehood. The all-gear harvest of treaty[1] Chinook salmon exceeded the preseason harvest limit 20 times over the 35-year period from 1985 to 2019. The troll harvest of treaty Chinook salmon has exceeded the preseason PST harvest limit 19 times from 1987 to 2019 (Table 1).

The harvest of treaty Chinook salmon by commercial salmon trollers is limited to a specific number of fish, which varies annually according to the preseason winter troll CPUE estimate. The accounting of treaty Chinook harvested by trollers begins in fall with the start of the winter fishery, continues into the spring fishery, and ends with the summer fishery.

The winter fishery begins on October 11 and typically continues through April 30, or until the guideline harvest level (GHL) of 45,000 treaty Chinook salmon is met. However, as adopted under the Unuk River Chinook action plan during the January 2018 BOF meeting, notwithstanding any remaining portion of the 45,000 non-Alaska hatchery-produced Chinook salmon GHL, the commercial winter troll fishery now closes in all waters of Southeast Alaska/Yakutat on March 15. 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 coastal waters to the west of the "surf line" are closed during the winter fishery. Fish tickets provide inseason harvest and effort information throughout the fishery.

The spring fisheries begin on May 1 and continue through June 30. Prior to the 2018 BOF directive to delay all spring troll fisheries until May 1, spring fisheries could begin prior to May 1 if the winter fishery closed early (prior to April 30). The spring fishery is traditionally conducted in inside waters along migration routes and close to hatchery release sites with the intent to maximize the harvest of Alaska hatchery-produced Chinook salmon. Depending on run forecasts, directed commercial fisheries may also occur in Districts 8 and 11 targeting Chinook salmon returning to the Taku and Stikine Rivers.

Although there is no ceiling on the number of Chinook salmon harvested in spring fisheries, the take of treaty Chinook salmon is limited according to the percentage of Alaska hatchery fish taken in the fishery. Treaty fish are counted towards the annual PST harvest limit of Chinook salmon, whereas most Alaska hatchery fish are not. Each spring troll fishing area is managed individually and closes when the treaty Chinook limit is reached.

The guideline limits of treaty fish that may be harvested in each spring 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 and the number of unharvested Chinook salmon remaining on the winter GHL is between 10,000 and 15,000 fish, an additional 250 non-

[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 harvested.

Alaska hatchery-produced Chinook salmon will be added to the treaty caps under each tier. If the number of fish remaining on the winter GHL is greater than 15,000 fish, an additional 500 fish will be added to each treaty tier cap [5 AAC 29.090 (d)(3)(A) and (B)].

To reduce encounters of wild Southeast Alaska salmon stocks during spring troll fisheries, the BOF determined in January 2018 that fishing opportunities in May and June are to be limited to terminal harvest areas (THA), waters in close proximity to hatchery release sites, and waters in a few defined spring troll fishery areas located on the outer coast. Although some THAs open on June 1 and remain open for extended periods of time, others open in accordance with the fishing schedules provided in THA management plans. Fish tickets and biological sampling data provide information on harvest, effort, and stock composition for the spring fisheries. Coded wire tag data is used in season to estimate the Alaska hatchery contribution to the harvest in each area. This information is used in combination with historical harvest timing data to determine fishing time for the following week.

The general summer troll fishery opens July 1 and targets the remainder of the troll treaty Chinook salmon harvest limit during one or more openings. During the summer fishery, most waters of SEAK are open to commercial trolling, including outer coastal waters. The department collects inseason fisheries performance data (FPD) from fishermen to estimate catch per boat day (CPBD) as a measure of troll CPUE by area during the summer fishery. Confidential interviews are conducted with trollers to obtain detailed CPUE data. Aerial surveys of fishing vessels are conducted to obtain an immediate estimate of fishing effort. Total harvest to date is estimated by pairing vessel counts with the CPUE information obtained from interviews. Daily summaries of both conventional and electronic fish tickets are compiled to track harvest during the final days of each Chinook opening. The department also encourages trollers to report (by phone or email) information on harvest rates, effort, weather, water temperatures, and other factors that may influence the pace of the fishery.

COHO SALMON STOCKS

Coho salmon are widely distributed and are believed to be present in over 2,500 streams in SEAK. Most coho salmon streams are small, with the number of spawners typically ranging up to 1,000 fish. Because of the large number of these systems, their collective contribution to overall production is substantial. Lake systems are also important and typically produce returns between 1,000 and 10,000 fish. Large populations occur in the Taku, Chilkat, Berners, Stikine, Unuk, and Chickamin Rivers and in most Yakutat area systems. In addition to wild stocks, coho produced by 11 local hatcheries contribute to the region's harvest.

Coho salmon rear in fresh water for one or two years and spend no more than one winter in the ocean before returning to spawn as adults. Spawning takes place during the fall and early winter months. Coho salmon harvested by SEAK trollers are typically three-year-old and four-year-old fish of Alaska origin and are harvested in the year they are returning to spawn. Troll harvests peak between mid-July and early September, whereas 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 some systems are earlier.

COHO SALMON FISHERY MANAGEMENT

All-gear commercial harvests of coho salmon have fluctuated between a low decade average of 1.0 million fish in the 1970s to a high decade average of 3.2 million fish in the 1990s, with an

annual record of 5.5 million fish harvested in 1994 (Figure 3). The BOF approved a 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). As there are no harvest ceilings, the SEAK coho salmon fishery management plan (5 AAC 29.110) allows for midseason troll closures to provide for adequate escapement and allocation to other gear groups based on inseason assessments. The regulatory period for coho salmon retention in the troll fishery is June 1 through September 20, with a potential extension through September 30 when wild coho salmon abundance is projected to meet escapement needs after harvest and effort are considered.

Long-term wild stock and hatchery stock CWT programs, dockside sampling programs, escapement monitoring projects, and the troll FPD collection program 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 SEAK based on spawner-recruit relationships from long-term databases of harvest rate, age composition, and escapement information. Inseason run strength is used to achieve Alaska Department of Fish and Game (ADF&G) conservation and BOF allocation objectives in the management plan (Table 2).

Coho salmon run strength is assessed three times throughout the summer season. The first run strength assessment occurs in late July and has two objectives: determine whether a regionwide closure is needed in late July based on the projected all-gear commercial wild coho harvest, and whether a closure of U.S./Canada boundary waters is necessary based on troll harvest rates in Southern Inside waters (Districts 1 and 2). The PST requires that the SEAK troll fishery be closed for up to seven days on or about July 25 if the projected all-gear commercial harvest of wild coho salmon is less than 1.1 million fish [5 AAC 29.110 (b)(1)]. That projection is based on the relationship between the projected all-gear commercial wild coho harvest and regional troll harvest rates during early July. When this regulation was established, the commercial harvest of wild fish was considered the best proxy for the total abundance of wild coho salmon returning to the region, based on historical fishing patterns. The PST also requires that waters in the U.S./Canada boundary area are closed for 10 days beginning in SW 31 if the Area 6 (District 1 and 2) troll average CPUE for weeks 27–29 in troll Area 6 is between 15 and 22 coho/day.

As part of the second assessment in August, the department is required to assess the SEAK fisheries to determine if a troll closure is needed to meet allocation and conservation requirements established by the BOF. The second assessment includes updated projections of the total commercial harvest and regional abundance of wild coho salmon as well as recommendations for the length and timing for a troll closure. The strength of coho salmon returns to inside areas is evaluated in part by assessing the cumulative CPUE in the four major drift gillnet fisheries; however, drift gillnet fisheries at this early date are not necessarily indicative of actual coho abundance, as coho salmon are not targeted by gillnet gear until later in the season. Because the District 6 drift gillnet fishery shows substantial numbers of hatchery fish in the harvest through late July–early August, the strength of the District 6 wild component is of particular interest. A troll closure for up to ten days typically occurs in mid-August and is required to be a minimum of two days by regulation for a fair start prior to any second Chinook salmon retention period. The actual length of that closure is decided in early August, when an assessment determines whether the

number of coho reaching inside areas is adequate to provide for spawning requirements, given normal or restricted inside fisheries on coho salmon and other species [5 AAC 29.110 (b)(2)(A)]; or whether 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)].

The third coho salmon run strength assessment occurs in September and reassesses the wild commercial troll and drift gillnet harvests, and total all-gear commercial harvest projections. Harvest rates, as well as cumulative harvests from the four primary drift gillnet fisheries, are evaluated when determining whether the troll season will be extended through September 30; season extensions are considered for areas where coho salmon escapement projections indicate that fish in excess of escapement needs were available for harvest [5 AAC 29.110(a)].

SUMMARY OF THE 2019 SEASON

In 2019, a total of 664 power troll permits and 230 hand troll permits were fished during the calendar year (Table 3). Overall effort decreased in all three seasonal troll fisheries when compared to 2018, with the 2019 hand troll effort documented as the lowest number of annual permits fished on record since statehood (Table 4). The annual combined total of 894 permits fished during 2019 was below both the recent 5-year and 10-year averages, with weekly effort during the summer fishery also reflecting this trend (Figure 5). Combined power troll and hand troll effort decreased by 66 permits during the winter fishery, 15 permits during the spring fishery, and 26 permits during the summer fishery when compared to effort in 2018 (Table 4; Figure 6). The decrease in overall hand troll effort compared to 2018 was around 3%, whereas power troll effort decreased by 1% (Table 3). The 2019 effort in boat-days during Chinook salmon retention periods was 3,437, which was a decrease of 47%, 37%, and 44% from the 2018 effort, the 5-year average, and the 10-year average, respectively (Table 5; Figure 7). Effort data was derived from dockside interviews of trolling vessels in conjunction with harvest and effort data from troll fish tickets. 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 troll fleet harvested approximately 1.4 million salmon during the 2019 season, a decrease of 13% from the 2018 harvest and 42% when compared to the recent 10-year average (Table 6). Compared to 2018, the Chinook salmon harvest for 2019 was 2% higher. The 2019 coho salmon harvest was 3% higher than 2018, and peaked during the week of September 1–7, when 13% of the annual harvest was taken (Table 7). The average weight for coho salmon was below 2018, but above the 5-year and 10-year averages, reaching 6.4 pounds for the season (Table 8). The 2019 harvest of chum salmon decreased by 49% compared to the 2018 harvest, whereas the harvest was up by 21% and 31% for sockeye and pink salmon, respectively (Table 6). In 2019, hand troll vessels harvested 39,436 salmon and power troll vessels harvested 1,389,517 salmon. The proportion of the commercial troll harvest taken by the hand troll fleet has decreased from a peak of 32% in 1978 to a low of 3% in both 2018 and 2019 (Tables 9 and 10).

CHINOOK SALMON FISHERY

The 2019 preseason early winter District 113 power troll CPUE metric was estimated at 3.38, resulting in an all-gear allowable catch limit of 140,323 treaty Chinook salmon, as translated from

the 2019–2028 PST Chapter 3 Table 2 SEAK catch ceiling tiers[2]. This corresponded to a troll treaty harvest allocation of 103,376 Chinook salmon.

The 2019 total all-gear Chinook salmon harvest was 175,096 fish, of which 40,721 fish were of Alaska hatchery origin (Table 11). The all-gear Alaska hatchery add-on of 34,578 fish was calculated by subtracting the pre-treaty base hatchery harvest and risk adjustment from the Alaska hatchery contribution. Trollers harvested 109,364 Chinook salmon, of which 8,841 were of Alaska hatchery origin, and 12,506 of the 21,367 fish taken in the purse seine fishery were hatchery produced. The drift gillnet fleet harvested 14,419 Chinook salmon, of which 12,773 fish were of Alaska hatchery origin. The Yakutat set gillnet fleet harvested 246 Chinook salmon, all of which were treaty fish. The recreational sport fisheries are estimated to have harvested 29,700 Chinook salmon, of which 6,600 fish were of Alaska hatchery origin (Tables 11 and 12). The 2019 total all-gear treaty harvest was 140,307 Chinook salmon.

During the 2019 season, the troll harvest of Chinook salmon was managed to 1) comply with the Chapter 3 obligations of the 2019 PST, 2) continue all-gear conservation measures for wild SEAK Chinook, 3) provide maximum harvest of Alaska hatchery-produced Chinook, 4) minimize incidental mortality during Chinook nonretention 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.

Winter Fishery

The winter troll fishery was open from October 11, 2018 through March 15, 2019, with a total harvest of 12,366 Chinook salmon by a total of 263 permits (Tables 4, 11, and 13; Figure 8). The 2019 early winter harvest of 5,907 Chinook salmon was 64% below the 5-year average, 54% below the 10-year average, and the third lowest early winter harvest since 1985. Because of the early closure, as prescribed in the Unuk River Chinook action plan, the 2019 late and total winter harvests were substantially lower than winter harvests prior to 2018, when the fishery could continue through April 15 (prior to 2003) or April 30 (2003 to 2017) by regulation. The Alaska hatchery contribution of 13% in 2019 was above the 2018 contribution (6%), the 5-year average (6%), and the 10-year (9%) average.

Spring Fishery

Since 1986 when hatchery access fisheries were established, the number of spring fisheries increased considerably, with more than 30 spring fishery areas open to trolling in recent years. As determined during the 2018 BOF meeting and under emergency order authority, the 2019 spring fisheries were limited to eight terminal harvest areas and ten spring troll areas located on the outer coast, near hatchery release sites, or both to conserve wild SEAK Chinook salmon. A total of 16 (including the Chinook salmon nonretention-directed chum salmon areas) spring fishery areas were opened in 2019, and subsequently, effort and harvest were substantially reduced compared to previous years' statistics (Figure 9).

The spring troll and terminal harvest area fisheries harvested 11,432 Chinook salmon from May 1 through June 30 (Table 14). A total of 265 permits participated in the 2019 nonterminal spring fisheries, with a harvest of 10,369 Chinook salmon. The largest harvests occurred in the Sitka

[2] The Pacific Salmon Treaty (PST) can be found at https://www.psc.org/download/45/miscellaneous/2337/pacific-salmon-treaty.pdf. The annual SEAK all-gear catch limit is calculated under the terms of the 2019 through 2028 PST. A description of CPUE calculations and the corresponding CPUE based catch limit tiers are provided in Chapter 3, Table 2 and Appendix B to Annex IV, Chapter 3: paragraphs 1–7, respectively.

Sound, Salisbury Sound, and Mountain Point spring troll areas. The 2019 nonterminal area Chinook salmon harvest was 3,407 fish more than the 2018 nonterminal harvest but below the 5-year and 10-year averages by 68% (Table 15). The Alaska hatchery contribution of 40% was above the 5-year average (30%) and the 10-year average (35%). The total spring and terminal effort in 2019 (296 permits) was 3%, 41%, and 45% below the 2018 effort, the 5-year average, and the 10-year average, respectively. Other species harvested during the spring season, including Annette Island troll harvest, were 107 sockeye, 333 coho, 222 pink, and 10,613 chum salmon (Table 7).

General Summer Fishery

During the summer troll fishery, trollers harvested 83,721 Chinook salmon in three retention periods (Table 16). The first summer troll Chinook salmon retention period began on July 1 and was managed inseason with no predetermined length, targeting an estimated 58,000 Chinook salmon. Based on harvest rates observed in past years with similar preseason projected abundance, harvest rates were expected to be moderate (about 9,000 Chinook salmon/fleet day). Similar to 2018, effort was anticipated to be slightly lower compared to recent years in response to winter and spring troll restrictions that limited opportunities. Considering these factors, the department estimated the harvest target would be taken in six to seven days.

With poor visibility due to fog and low cloud ceilings, most aerial vessel surveys were incomplete or canceled. In the absence of a complete vessel count, managers assumed an effort similar to that seen in 2018 and after applying CPUE data generated during the first few days of Chinook retention, projected that daily fleet harvests were higher than anticipated. A closure was announced on less than 24-hour notice, with the first retention period ending at 11:59 p.m. on July 5. A total of 58,347 Chinook salmon were harvested during the 5-day opening by 592 permits, with a harvest/fleet day of 11,712 Chinook salmon. The fleet included a total of 52 catcher-processors (freezer boats) during 2019, a decrease of five permits when compared to 2018. The total harvest included 1,050 fish (2%) of Alaska hatchery origin, which was a decrease from the 5-year and 10-year averages of 3% Alaska hatchery. After subtracting the Alaska hatchery Chinook add-on of 693 fish from the total harvest, the treaty Chinook salmon harvest for the first retention period was 57,654 fish (Tables 11 and 16). Following the closure of the first Chinook salmon retention period, areas described under 5 AAC 29.025 *Waters of frequent high king salmon abundance* were closed for the duration of the summer season (Figure 10).

The second Chinook salmon retention period began on August 13 and was also managed inseason with no predetermined length. A total of 382 vessels were observed during aerial vessel surveys conducted on August 13. Based on CPUE data and reports received from the fleet on the first day of fishing it was estimated that daily fleet harvests were higher than anticipated. A closure was announced in the early afternoon of August 14 and the second retention period closed at 11:59 p.m. that evening, August 14. A total of 24,669 Chinook salmon were harvested during the 2-day opening by 530 permits, with a catch/fleet day of 12,335. The total harvest included 478 fish (2%) of Alaska hatchery origin. After subtracting the Alaska hatchery Chinook salmon add-on of 315 from the total harvest, the treaty Chinook salmon harvest for the second retention period was 24,384 fish (Tables 11 and 16). A total of 530 permits were fished during the second opening, a decrease of 62 permits when compared to the first retention period.

In 2012, the BOF adopted new language under 5AAC 29.100 *Management of the summer salmon troll fishery* that addressed potential unharvested annual troll Chinook salmon allocation. This

regulation specifies that if the department determines that the number of Chinook salmon remaining on the annual troll Chinook salmon harvest allocation is not sufficient to allow a competitive fishery, the commissioner may, by emergency order, reopen the troll fishery to the taking of Chinook salmon during a limited harvest fishery, subject to the conditions that 1) a limited harvest fishery may be opened for up to 10 days but may not open before September, 2) the remaining amount of the Chinook salmon annual harvest allocation will be distributed subject to an established harvest limit, 3) Chinook salmon retained during a limited harvest fishery must be kept separate from other salmon on board the vessel, 4) both commercially sold Chinook salmon and Chinook salmon retained for personal use during a limited harvest fishery count toward the harvest limit, 5) a copy of fish tickets documenting commercially sold Chinook salmon or Chinook salmon retained for personal use during a limited harvest fishery must be kept on board the vessel while operating gear in a limited harvest fishery and during transits to or from a port of landing, and 6) fish tickets must be made available to a local representative of the department upon request. In late August of 2019, following the second summer Chinook salmon retention period, the department determined that a portion of the annual troll allocation remained unharvested. However, given harvest rates and fleet size from the second retention period, it was determined that an insufficient number of Chinook salmon remained to prosecute a competitive fishery. Accordingly, on August 28, the department announced that a third, limited harvest, noncompetitive Chinook salmon retention period would open for 10 days (September 1–10). A maximum of two Chinook salmon per permit were allocated during the 10-day period. A total of 371 permits harvested 675 of the estimated 984 Chinook salmon remaining on the annual troll allocation.

Districts 8 and 11 Transboundary Rivers Directed Chinook Salmon Fisheries

District 8

The 2019 preseason terminal run forecast of 8,250 large Stikine River Chinook salmon did not provide an Allowable Catch for U.S. or Canadian directed commercial fisheries. The preliminary escapement estimate of 13,817 fish was just slightly below the escapement goal range of 14,000–28,000 but was an increase from runs of 7,335 and 8,603 in 2017 and 2018, respectively.

District 11

The 2019 preseason terminal run forecast of 9,050 large Taku River Chinook salmon did not provide an Allowable Catch for U.S. or Canadian directed commercial fisheries. The preliminary escapement estimate of 11,558 fish was below the escapement goal range of 19,000–36,000 and was likely one of the lowest on record; however, the 2019 run estimate is an increase from the escapements during the 2016–2018 period.

Management Actions to Conserve Wild Southeast Alaska Chinook Salmon

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

In 2019, preseason escapement forecasts to three of the four wild coded-wire-tagged SEAK Chinook salmon indicator stocks (Taku, Chilkat, and Stikine Rivers) were below the lower bound

of spawning escapement goals. With the majority of SEAK wild Chinook salmon stocks in a period of continued low production, restrictive management actions were necessary to help reduce encounters and conserve these stocks. Action plans adopted during the 2018 BOF meeting, emergency order restrictions, and additional commercial troll management measures were implemented during the 2019 winter, spring, and summer troll fisheries. The majority of the wild SEAK Chinook salmon harvest in the troll fishery occurs between mid-March and early July, and as a result, most management actions focused on restrictions during that time period.

Unuk River

Under the provisions of the Unuk River Chinook salmon action plan, troll fishery conservation restrictions began with the early seasonal closure of the winter fishery. Notwithstanding any remaining portion of the 45,000 non-Alaska hatchery-produced Chinook salmon GHL, the winter troll fishery closed March 15, six weeks prior to the April 30 regulatory closure date. The Unuk River action plan also restricted opportunities during May and June spring troll Chinook salmon fisheries to THAs, waters in close proximity to hatchery facilities or release sites, and to areas identified as having low proportional harvests of wild stock SEAK Chinook salmon. Initial openings for 2019 spring troll fisheries located in the Ketchikan vicinity were also delayed until June 1. Spring troll chum fisheries, as provided for in the *Districts 9, 12, and 14 Enhanced Chum Salmon Troll Fisheries Management Plan*, were delayed until June 15 and retention of Chinook salmon was prohibited.

Taku, Chilkat, and King Salmon Rivers

The broadscale provisions of the Unuk River Chinook salmon action plan superseded most conservation restrictions adopted under the Chilkat and King Salmon Rivers plan. Should the Unuk River Chinook salmon stock be delisted as a stock of management concern, however, the conservation measures adopted under the Chilkat and King Salmon Rivers plan would take precedence. Although the winter fishery closes on March 15 under the Unuk River action plan, conservation restrictions in the Chilkat and King Salmon Rivers action plan state that waters of Sections 11-B, 11-C, 11-D are closed to troll gear from April 1–30, and Sections 12-B and 15-C are closed April 15–30. The waters of Section 15-A, north of the latitude of Sherman Rock, are closed to troll gear from April 15 through December 31. These waters remain closed during May and June, as there are no spring troll fisheries conducted in these areas. Furthermore, spring troll Chinook salmon fisheries in Cross Sound, Icy Strait, and Chatham Strait would have delayed initial openings and a reduction in fishing days through June 15 to coincide with weeks these stocks have historically been encountered. Conservation measures mentioned above under the Unuk River plan also conserve Taku, Chilkat, and King Salmon Rivers Chinook salmon. Lastly, directed troll fisheries to target Taku River Chinook salmon, under 5 AAC 29.097, were not opened in 2019.

Stikine River

Management actions taken to reduce encounters of Stikine River Chinook salmon began during the winter troll fishery. Like other SEAK and TBR stocks, Stikine River Chinook salmon are harvested late in the winter fishery and benefited from the early closure on March 15. Although encounters of Stikine River Chinook salmon during the March 16 through April 30 time period are not as frequent as other SEAK or TBR stocks, some harvest has occurred. Supplementary conservation measures, as described in the Unuk River section, further restricted May and June fishery opportunities, closing corridor fisheries in inside waters where Stikine River Chinook salmon have historically been encountered. These areas included, but were not limited to, spring

fisheries in Districts 5–9. Also, during May and June, directed troll fisheries to target Stikine River Chinook salmon, under 5 AAC 29.095, were not opened in 2019. Management action to conserve Stikine River Chinook salmon was also implemented during the first summer troll fishery with waters of District 8 remaining closed to Chinook salmon retention during the July 1–5 fishing period.

COHO SALMON FISHERY

The final wild coho salmon abundance for 2019 was estimated at 4.12 million, which was 18% above the initial July assessment of 3.37 million and 3% above the 20-year average. For the majority of the six regional troll management areas, and for the entire SEAK region, weekly harvest rates remained below the recent 20-year average (Figures 11–13). The 2019 total troll coho salmon harvest of 973,328 fish was the second lowest since 1988 (Table 6), a result of below-average harvest rates and number of permits fished (Figure 5). The coho salmon harvest peaked during SW 36, when 13% of the annual harvest was taken (Table 7). The average weight of coho salmon at 6.4 pounds was below the 2018 average weight (7.0 pounds), but above the 5-year, and 10-year averages of 6.2, and 6.0 pounds, respectively (Table 8).

The first coho salmon run strength assessment of 2019 projected an all-gear commercial harvest of 1.7 million wild fish, which was above the 1.1 million fish conservation threshold for an early season closure. Using the same CPUE values, the total wild coho salmon abundance was projected at 3.37 million fish, which was 12% below the 1982–2018 average of 3.84 million fish and ranked 12th lowest out of the most recent 38 years. Based on these data and projections, a regionwide July closure was not warranted. However, the 2019 troll coho salmon mean average harvest rates in Troll Area 6 (Figure 1) during SW 27–29 was 16 fish per day, which is within the CPUE range of 0–22 fish per day that triggers conservation measures in the SEAK and Northern British Columbia troll fisheries (Figure 13). Accordingly, the boundary area troll fishery closed to the taking of all salmon at 11:59 p.m., July 27. The fishery was closed for 10 days (July 28–August 6), and reopened to the taking of all salmon (excluding Chinook salmon) at 12:01 a.m., August 7. Concurrent to Alaska's boundary area troll closure, Canada agreed to close its Northern troll fishery in Areas 1, 3, 4, and 5, and adjacent offshore areas for the same time period, July 28–August 6.

The second coho salmon run strength assessment occurred in early August and projected an all-gear commercial harvest of 1.48 million wild coho and a total return of 2.93 million wild coho salmon for 2019, based on average wild coho salmon power troll CPUE for the summer troll season through SW 31. The wild abundance projection was below average (3.84 million) and ranked ninth lowest in 38 years, whereas the wild commercial harvest projection ranked seventh lowest in 38 years and was also below average (2.07 million). The 2019 troll coho salmon harvest through SW 30 (week beginning July 21) was approximately 264,000, which was above the 1971–1980 base period average of 186,428 but below the 20-year average of 537,531. Regional harvest rates were below the 20-year average in all Big Six areas (Figure 1) from SW 29–31. Troll effort during these weeks was the lowest on record (Figures 5, 11–13). For inside drift gillnet fisheries, the 2019 cumulative CPBD through SW 31 for the Tree Point, Taku/Snettisham, and Lynn Canal fisheries were below both the 1971–1980 and 2009–2018 comparison periods, whereas the 2019 CPBD through SW 31 for the District 6 fishery exceeded the 1971–1980 average but was below the recent 10-year average from 2009–2018 (Figure 14). At the time of the assessment, the District 6 drift gillnet fishery 2019 cumulative wild CPBD of 51 coho salmon was 52% below the 2009–2018

average but was just slightly above the 1971–1980 base period average of 50 through SW 30. Based on wild return and commercial harvest projections, regional troll harvest rates beginning July 1, cumulative harvest for all drift gillnet fisheries through SW 30, and the low troll effort, an 8-day closure was recommended.

Coho salmon run strength was assessed for a third time during the third week of September. By SW 38 (week beginning September 15), returns to most systems in Southeast were projected to be near or within their escapement goal ranges. The Hugh Smith Lake adult coho salmon weir count of 571 fish through SW 37 met the lower bound of the biological escapement goal (BEG) of 500–1,600 fish. Escapement to the Situk River had already exceeded the BEG range, whereas escapement to Tawah Creek was estimated to be within the goal range; inseason escapement data was not available during the time of assessment for the Tsiu River. During SW 37, the Taku River run was projected at 102,000, exceeding the upper bound of the escapement goal range of 90,000 and Canyon Island fish wheel data through SW 37 indicated 66,000 fish had passed, which is above the 1987–2018 average of 62,000 (Figure 15). Based on above average CPUE in the District 15 drift gillnet fishery and inriver cumulative fishwheel counts through SW 37 that were nearly three times the 10-year average, the Chilkat River coho salmon run looked well on track to meet the escapement goal (Figure 16). The Berners River also displayed indications of a solid run due to a history of this system tracking fairly close to the total run in the Chilkat River and with District 15 drift gillnet wild Berners River CWT recoveries nearly twice the 20-year average through SW week 37.

The wild commercial harvest and total all-gear commercial harvest projections for coho salmon were down from estimates in early August, largely due to a reduced troll effort during mid- to late August. This reduction in effort typically corresponds to the historic timing of the second Chinook salmon retention period, which occurred from August 13–14, and may have been an effect of trollers targeting other species. Coho salmon harvest rates in the troll fishery had improved during the time of the third assessment as troll CPUE increased in several areas in SW 36 and 37, reaching the 20-year average for the region in SW week 37 (Figures 11–13). Harvest rates in three of the four primary drift gillnet fisheries were above long-term averages during this same period (Figure 14). The assessment provided support for extending the troll season in areas where the department had projected coho salmon escapement goals would be met and fish in excess of escapement needs were available.

With record low troll effort and inside waters drift gillnet fishery CPUE values above the long-term historic average, the troll season was extended by 10 days. On September 16, the department issued a news release announcing the regional troll fishery extension through September 30, excluding the waters of frequent high Chinook salmon abundance. The coho salmon season has been extended 18 times in the 26 years since season extensions were first permitted in 1994 (Table 17). However, there have been only six years (2003, 2004, 2013, 2014, 2016, and 2019) in which the entire region was open through September 30.

CHUM SALMON FISHERY

Historically, chum salmon were harvested incidentally in the 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 harvest increased substantially in 1992 when, for the first time, over 1.0 million chum salmon returned to the Northern Southeast Regional Aquaculture Association (NSRAA) Hidden Falls Hatchery located

on eastern Baranof Island. In 1993, the NSRAA'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). Trollers choosing to target chum salmon during the summer Chinook salmon openings, or during weeks when they would normally target coho salmon, redirect effort away from those species. This redirection of effort has had some effect on the total harvest and harvest rates for Chinook and coho salmon.

Trollers target hatchery-produced chum salmon in spring troll areas located in Icy Strait/Homeshore/Northern Chatham Strait, as well as the new Keku Strait area, which initially opened in 2018. Under the Chinook action plans and supplementary actions for conservation of SEAK and TBR Chinook salmon stocks, enhanced chum salmon fisheries did not open until June 15. During the 2019 spring and early summer fisheries, a total of 12,031 chum salmon were harvested by 38 permit holders targeting chum salmon in the Icy Strait/Cross Sound area, with a peak harvest in SW 26 (Table 18). The harvest was more than twice that seen in 2018, but was one of the lower harvest years since the directed chum fisheries began in 2010. Effort and harvest in the Keku Strait area remains confidential.

Prior to 2014, trollers targeted hatchery-produced chum salmon in West Behm Canal and Neets Bay during the last week of June, although the West Behm Canal spring troll area has been closed since 2014 to conserve Unuk River Chinook salmon. The majority of the harvest and effort in the Neets Bay area occurs during the summer troll fishery. The Southern Southeast Regional Aquaculture Association (SSRAA), assists in identifying when an opportunity for the troll fleet to target chum salmon in the Neets Bay THA exists. These opportunities may occur in years in which surplus fish above broodstock and cost recovery needs are available. Effort and harvest have fluctuated in the THA from year to year but have continued to decline since 2017 with only 36 permits harvesting 1,723 chum salmon in 2019, the second lowest annual effort and harvest in the THA since 2008. However, a contributing factor to this decrease in harvest and effort was the mid-July troll closure of the THA. The return of summer chum salmon to the Neets Bay THA was well below expectations by the middle of July. Cost recovery operations were postponed in Neets Bay in order to ensure broodstock needs were met, and commercial fisheries within the THA were closed on July 18. Although trollers were allowed to continue to fish in the adjacent waters of West Behm Canal, the number of troll permits targeting chum in areas outside the THA also decreased in 2019 (45 permits) when compared to 2018 (113 permits). The harvest of chum salmon for the combined West Behm Canal/Neets Bay THA areas decreased dramatically, making 2019 the lowest annual harvest since 2008. The total troll directed chum salmon harvest for Neets Bay THA and all of West Behm Canal combined was 5,929 chum salmon by 45 permits, a 95% decrease in harvest from 2018 and a 96% decrease from the recent 5-year average (Figure 17).

In 2019, trollers targeting chum salmon harvested a total of 32,331 chum in Sitka Sound/Deep Inlet from a total return of 1,402,972 fish to the Medvejie/Deep Inlet facility. This is a decrease in harvest of 73% and 75% from 2018 and the 2010–2018 averages, respectively. The number of permits fished in these areas declined by 28% in 2019 when compared to 2018, but was similar to the 2010–2018 average of 98 (Table 18).

For the second straight year, Crawfish Inlet provided a new enhanced chum salmon opportunity for trollers during the summer season. Throughout the summer of 2019, 125 permit holders harvested a total of 188,507 chum salmon in the Crawfish Inlet/West Crawfish areas, with peak

harvest occurring the week of August 11. This represents a decrease of 7% and 26% in effort and harvest when compared to 2018, respectively (Table 18).

The 2019 chum harvest of 243,142 for all troll fisheries combined was a 54% decrease compared to 2018 and was 27% below the recent 5-year average. Effort directed at targeting hatchery-produced chum salmon peaked in 2013 but has declined since then. The number of permits fished in all directed troll chum fisheries decreased in 2019 when compared to 2018 (Figure 17). Fluctuations in effort may relate to price, abundance of other salmon species, marine environment, conservation measures, and fish behavior.

OTHER SPECIES

A total of 6,260 sockeye and 70,424 pink salmon were harvested during the 2019 troll season (Table 6). Sockeye salmon harvest for 2019 was above the 20-year averages for 1960–1979 and 2000–2019, but below those from 1980–1999. Pink salmon harvest for 2019 was below average when compared to all 20-year averages from 1960–2019. When compared to 2018, the sockeye and pink salmon harvests increased by 21% and 31%, respectively.

EXCLUSIVE ECONOMIC ZONE HARVESTS

In 2019, approximately 34% of the Chinook (37,159 fish) and 25% of the coho salmon (246,648 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, 2,252 sockeye, 10,305 pink, and 8,900 chum salmon were taken in the EEZ. The Chinook salmon harvest of 37,159 from the EEZ represents 44% of the harvest during the 2019 summer troll Chinook salmon retention periods. This is slightly below 2018 when 46% of summer Chinook salmon were harvested in the EEZ; however, it's considerably greater than the 5-year and 10-year averages of 24% and 21%, respectively. When all species are combined, 21% of the annual troll harvest was taken outside state waters. This represents a 30% increase in proportion harvested in EEZ waters when compared to 2018 and is an even larger increase from the 5-year (6%) and 10-year (5%) averages. Recent changes in harvest patterns were influenced by a greater distribution of Chinook and coho salmon in offshore waters.

ALASKA HATCHERY PRODUCTION

Private nonprofit and federal hatcheries in Southeast Alaska produce both Chinook and coho salmon that are harvested by the troll, drift gillnet, and purse seine fleets. Hatchery-produced Chinook salmon began appearing in significant numbers in troll harvests in 1980 when an estimated 5,900 fish were harvested. Alaska hatchery contributions are generally greatest during the spring fisheries, followed by the winter and summer fisheries (Tables 13, 15, and 16). The peak harvest of Alaska hatchery fish in the troll fishery occurred in 1996, when trollers harvested 38,365 Alaska hatchery Chinook, or 27% of the total troll Chinook salmon harvest. The all-gear Alaska hatchery Chinook proportion of harvest peaked in 1996, when 88,742 fish, or approximately 38% of the total harvest, was Alaska hatchery (Table 19; Figure 18). In 2019, the combined Alaska hatchery harvest contributed approximately 40,721 Chinook salmon to all gear fisheries, with 8,841 fish harvested in the troll fishery and 6,600 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 33% in 2018, with Alaska hatcheries producing nearly 100% of these fish. In 2019, the hatchery coho

salmon contribution was 33% of the harvest and had a total contribution of 313,952 fish. This was approximately 42,600 fish, or 12%, below the 20-year average (Table 20; Figure 19). Hatchery coho salmon contributions peaked in early September during SWs 36 and 37 when 99,392, or 32% of the seasonal total of hatchery coho salmon, were harvested.

WILD STOCK ESCAPEMENT

CHINOOK SALMON ESCAPEMENT

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

During the 2018 BOF meeting, action plans for Chilkat, King Salmon, and Unuk River stocks of Chinook salmon were adopted, providing ADF&G managers with direction to conserve these stocks along with other wild SEAK and TBR stocks through emergency order authority. Management actions were implemented for all gear groups in 2019 to lower calendar year exploitation rates and pass as many SEAK and TBR Chinook salmon to escapement as possible. In 2019, preliminary estimates indicate that seven of the 11 index systems monitored in Southeast Alaska met or exceeded spawning escapement goals (Table 21). This was a marked improvement over 2018 escapements, when four of the 11 indexed systems met or exceeded goals.

The three Transboundary River stocks that are monitored for Chinook salmon escapement are the Alsek, Taku, and Stikine Rivers, two of which had escapements that were below their BEG ranges. The Alsek River had an estimated escapement of 6,356 fish which exceeded the BEG range of 3,500–5,300. Escapement to the Stikine River, a glacial origin system near Wrangell and the largest river in Southeast Alaska, was estimated at 13,817 fish, slightly below the BEG range of 14,000–28,000 fish. The 2019 return accounted for an 88% and 61% increase when compared to the low escapements of 2017 and 2018, respectively. The Taku River, a large glacial system near Juneau, had an escapement of 11,558 fish which fell below the lower bound of the BEG range of 19,000–36,000 fish but, like the Stikine River, showed improved escapement when compared to 2016–2018.

Chinook salmon escapements to three of the SEAK indicator systems in East Behm Canal declined in 2019; however, three of the four monitored systems were within BEG ranges. The Keta River, with an estimated escapement of 1,041 fish, exceeded the lower bound of the BEG range of 550–1,300. The escapement to the Blossom River of 557 fish was also within the BEG range of 500–1,400. The Unuk River, a glacial system in northeast Behm Canal and a stock listed as a management concern in 2018, had an escapement of 3,115 fish. The 2019 run was within the BEG range of 1,800–3,800, and it marks the first time since 2011 that the escapement goal was reached

in consecutive years. Escapement to the Chickamin River declined from 2018, with the estimated return of 1,610 fish falling below the BEG range of 2,100–4,300.

Three of the four remaining SEAK indicator systems (Andrew Creek and Situk and Chilkat Rivers) had Chinook salmon escapements that were within their BEG ranges in 2019; escapement to the King Salmon River fell below goal. Andrew Creek, a small nonglacial U.S. tributary of the lower Stikine River near Wrangell, had an estimated escapement of 698 fish. This was within the BEG range of 650–1,500 fish and a large improvement over the runs of 2016–2018. The Situk River, a moderate-sized nonglacial system near Yakutat had an estimated escapement of 623 fish, above the lower bound of the BEG range of 500–1,000 fish. The Chilkat River, another moderate-sized glacial system near Haines, had an escapement of 2,028 fish, making 2019 the first year out of the last four that escapement to this system has fallen within the BEG range (1,750–3,500 fish). Lastly, the King Salmon River, a small river system located on Admiralty Island, had an estimated escapement of 27 fish which is below the BEG range (120–240 fish). The 2019 Chinook run surpassed 2018 as the lowest escapement on record and marks six of the last seven years that the escapement goal has not been met.

COHO SALMON ESCAPEMENT

Only a small percentage of the coho salmon escapements in Southeast Alaska are enumerated or surveyed because of the extremely scattered distribution of stocks and difficult conditions for observation of spawners during the fall months (Table 22). In 2019, weirs were operated on two systems, and 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, survival time is typically very short and postspawners 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 postspawners 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.

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 2019, coho salmon returns to northern inside areas were generally within or above BEGs (Table 24). The estimated escapement to the Taku River above Canyon Island (82,759 fish) was within the recently established BEG of 50,000–90,000 fish. In Lynn Canal, escapement of 9,405 fish in Berners River was slightly above the recently revised goal (3,600–8,100 fish), whereas the Chilkat River escapement estimate of 34,779 fish was within the upper portion of the goal of 30,000–70,000 spawners (Table 24; Figure 21). Of the three index streams on the Juneau road system, the escapement count was within the BEG range for Auke Creek and below the BEG range for Montana Creek; a 2019 survey was not completed at Peterson Creek (Table 24).

Coho salmon returns were generally average in outer coastal systems, and the escapement count of 1,480 fish for five small streams on Baranof and Kruzof Islands was similar to the 30-year (1989–2018) average of 1,480 and well above the BEG of 400–800 (Table 25).

The overall index of 7,916 coho salmon for 14 streams in the Ketchikan (Southern Inside) area was within the goal of 4,250–8,500 spawners yet below the 30-year (1989–2018) average of 9,403 spawners (Table 26; Figure 21). The total escapement to Hugh Smith Lake of 1,235 fish was within the BEG range (500–1,600 fish) for the fifth consecutive year, following a period of seven consecutive years (2008–2014) when the BEG was consistently exceeded.

COHO SALMON EXPLOITATION RATES

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

The average 2019 total exploitation rate by all fisheries on the three indicator stocks (Berners River, Auke Creek, and Hugh Smith Lake) was 34%, compared with the 1989–2018 average of 51% (Table 27; Figure 22). The estimate of 52% exploitation for the Hugh Smith Lake stock was similar to the recent 10-year (2009–2018) average exploitation rate (51%), below the 1989–2018 average of 61%, and well below the 1990s average of 75%. The 2019 all-gear exploitation rate was influenced by a lower troll fleet Exploitation Rate Total Index of 20%, well below the recent 10-year average of 27%. Similarly, the average drift gillnet exploitation rate was below the recent 10-year average for both the Berners River (15%; 10-year mean = 20%) and Hugh Smith Lake (8%; 10-year mean = 12%). Fishing effort (boat-days) was near the 10-year average in the primary drift gillnet fisheries exploiting these stocks, and returning fish were just slightly larger than the recent 5-year and 10-year averages.

The 2019 troll fishery Exploitation Rate Index of 20% was well below the 1982−2018 average of 34% (Table 28; Figure 23) and similar to previous lows of 21–22% in 2002, 2011, and 2018. The Alaska troll exploitation rate for the Hugh Smith Lake stock (24%) was similar to the long-term average (33%). In contrast, troll exploitation rates for northern inside stocks (6–7% for Auke Creek and Berners River) were substantially below the 1989–2018 average (28%). The declining troll exploitation rate correlates with the reduction in fishery participation over the recent 5-year period. The annual number of troll permits fished declined by 20% from 2015–2019 (Table 3; Figure 6). In addition to reduced overall effort, the number of permits that have diversified to target enhanced chum salmon over the most recent 10-years (2010–2019) has also reduced the number of boat-days trollers have targeted coho salmon. The average troll fishery exploitation rate of 26% from 2010 to 2019 is a 30% decrease from an average of 37% during the 1982–2009 time period, when opportunities to target enhanced chum salmon were fewer than during the most recent 10 years.

TABLES AND FIGURES

Table 1.–All-gear and troll treaty Chinook salmon harvest, hatchery add-on, total harvest, treaty harvest limit, terminal exclusion harvest, and the number of fish over or under the harvest limit, 1985–2019.

	All-gear							Troll			
Year	Treaty harvest	Hatchery add–on	Terminal exclusion	Total harvest	Preseason treaty harvest limit	Postseason treaty harvest limit	Over/under preseason harvest limit	Treaty harvest	Total harvest	Preseason treaty harvest limit	Over/under preseason harvest limit
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	388,640	64,408	40,154	493,202	416,400	387,400	-27,760	304,891	338,451	311,916	-7,025
2006	360,094	48,404	27,047	435,545	346,800	354,500	13,294	263,980	282,315	256,664	7,315
2007	328,268	68,364	8,051	404,683	329,400	259,200	-1,132	240,474	268,146	243,747	-3,273
2008	172,905	66,149	5,273	244,328	170,000	152,900	2,905	126,352	151,936	125,408	944

-continued-

Table 1.–Page 2 of 2.

	All-gear							Troll			
Year	Treaty harvest	Hatchery add–on	Terminal exclusion	Total harvest	Preseason treaty harvest limit	Postseason treaty harvest limit	Over/under preseason harvest limit	Treaty harvest	Total harvest	Preseason treaty harvest limit	Over/under preseason harvest limit
2009	227,954	61,960	3,733	293,647	218,800	176,000	9,154	159,126	175,644	161,637	-2,511
2010	230,611	53,640	501	284,752	221,800	215,800	8,811	177,982	195,620	163,864	14,118
2011	291,161	65,474	739	357,374	294,800	283,300	-3,639	220,787	242,569	218,060	2,728
2012	242,821	51,392	1,106	295,319	266,800	205,100	-23,979	191,553	209,074	197,272	-5,719
2013	191,388	65,598	266	257,252	176,000	284,900	15,388	134,580	149,541	129,862	4,718
2014	435,195	56,592	736	492,522	439,400	378,600	-4,205	340,015	355,570	325,411	14,604
2015	335,026	68,097	216	403,339	237,000	337,500	98,026	251,086	269,862	175,145	75,941
2016	350,704	35,673	664	387,042	355,600	288,200	-4,896	266,048	276,432	263,197	2,851
2017	175,414	31,638	0	207,052	209,700	215,800	-34,286	123,691	129,649	154,880	-31,189
2018	127,776	36,966	0	164,742	130,000	118,700	-2,224	101,469	107,565	95,700	5,769
2019	140,307	34,578	211	175,096	140,323	N/A	-16	103,067	109,364	103,376	-309
					1985–2019 cumulative total		136,988		1985–2019 cumulative total		192,774

Note: Harvest limit for 2018 is based on a 10% conservation reduction to the preseason Abundance Index. Harvest limit for 2019 is based on a 2% reduction to avoid the payback provision of the new 2019–2028 PST agreement. En dash indicates "no data".

Table 2.–Harvest and percent of commercially harvested coho salmon by gear type in Southeast Alaska, 1989–2019.

	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%	203,631	9%	579,830	25%	161,584	7%	2,288,077	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	1,387,590	66%	267,213	13%	299,645	14%	144,032	7%	2,098,480	100%
2017	2,151,782	78%	276,635	10%	187,898	7%	140,844	5%	2,757,159	100%
2018	942,449	64%	156,810	11%	272,951	19%	95,640	7%	1,467,850	100%
2019	973,328	63%	249,790	16%	210,525	14%	100,473	7%	1,534,116	100%
1989–2018 Average:	1,693,725	65%	376,618	14%	386,393	15%	173,076	7%	2,629,813	100%
Board of Fisheries Allocations (Est. 1989)		61%	–	19%	–	13%	–	7%	–	–
1989–2018 Deviation from Allocations		6%	–	-26%	–	14%	–	-4%	–	–
2019 Deviation from Allocations		4%	–	-14%	–	5%	–	-7%	–	–

Note: Annette Island and terminal harvest are included. En dash indicates “no data”.

Table 3.–Southeast Alaska commercial troll permits fished, 1975–2019.

Year	Hand troll permits fished	Power troll permits fished	Total fished	% Hand troll
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	701	840	1,541	45%
1991	704	852	1,556	45%
1992	648	843	1,491	43%
1993	603	842	1,445	42%
1994	550	808	1,358	41%
1995	462	819	1,281	36%
1996	413	739	1,152	36%
1997	389	745	1,134	34%
1998	306	735	1,041	29%
1999	340	722	1,062	32%
2000	317	714	1,031	31%
2001	307	703	1,010	30%
2002	254	666	920	28%
2003	267	641	908	29%
2004	325	692	1,017	32%
2005	353	718	1,071	33%
2006	371	741	1,112	33%
2007	377	744	1,121	34%
2008	377	747	1,124	34%
2009	367	748	1,115	33%
2010	341	730	1,071	32%
2011	374	760	1,134	33%
2012	355	744	1,099	32%
2013	366	723	1,089	34%
2014	348	758	1,106	31%
2015	361	754	1,115	32%
2016	275	745	1,020	27%
2017	259	722	981	26%
2018	238	674	912	26%
2019	230	664	894	26%

Note: Permits fished based on calendar year. Data from 1975–2016 permits fished taken from CFEC, 2017–2019 data from ADFG.

Table 4.–Number of permits fished, by gear type and fishery, 1980–2019.

	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	645	830	1,475	44%
1991	182	383	565	220	352	572	626	840	1,466	43%
1992	186	431	617	182	281	463	599	827	1,426	42%
1993	127	366	493	181	338	519	558	832	1,390	40%
1994	77	306	383	75	221	296	531	797	1,328	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	735	1,073	32%
1998	50	232	282	86	277	363	281	727	1,008	28%
1999	53	233	286	91	255	346	304	712	1,016	30%
2000	67	244	311	112	323	435	255	696	951	27%
2001	80	242	322	125	345	470	242	687	929	26%
2002	72	228	300	105	330	435	186	641	827	22%
2003	96	264	360	90	311	401	190	609	799	24%
2004	129	310	439	114	336	450	238	675	913	26%
2005	142	302	444	125	387	512	281	701	982	29%
2006	152	317	469	151	378	527	268	717	985	27%
2007	153	350	503	172	369	541	284	726	1,010	28%
2008	136	333	469	182	438	620	291	726	1,017	29%
2009	131	299	430	158	428	586	305	735	1,040	29%
2010	131	328	459	157	427	584	269	715	984	27%
2011	134	330	464	174	466	640	301	729	1,030	29%
2012	132	375	507	162	463	625	284	728	1,012	28%
2013	127	315	442	173	477	650	295	699	994	30%
2014	133	331	464	161	455	616	271	734	1,005	27%
2015	111	296	407	168	497	665	263	727	990	27%
2016	98	331	429	134	475	609	197	724	921	21%
2017	97	339	436	100	377	477	212	701	913	23%
2018	73	256	329	73	328	401	167	665	832	20%
2019	85	178	263	65	321	386	161	645	806	20%

Note: En dash indicates “no data”.

[a] Spring summary data includes experimental and terminal fisheries for both spring and summer seasons; does not include permits fished in the hatchery access fisheries in 1989–1992.

Table 5.–Number of days and dates the summer troll fishery was open to Chinook salmon retention (CR), closed to Chinook salmon retention (Chinook non-retention or CNR), closed to all salmon species (all) and effort during CR and CNR periods, 1985–2019.

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 5.

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

-continued-

Table 5.–Page 3 of 5.

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 5.

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	–	–
	–	–	8/17–8/25	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	11,072
2017	44	17	5/1–6/30	44	–	5/29–6/14	17 (all)	–	–
	21	71	7/1–7/4	4	–	none	0	–	–
	–	–	–	–	2,156	7/5–9/30[d]	88	88	19,696
2018	36	25	5/1–6/30	61	–	none	25	–	–
	19	73	7/1–7/14	14	–	7/15–8/9	26	–	–
	–	–	8/15–8/19	5	–	8/10–8/14	5 (all)	–	–
	–	–	–	–	6,524	8/20–9/30	42	68	11,484

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Table 5.–Page 5 of 5.

Year	Days open	Days closed	Open dates	CR days	CR effort (boat days)	Closed dates	Days closed	CNR days	CNR effort (boat days)
2019[e]	61	0	5/1–6/30	61	–	none	0	–	–
	17	75	7/1–7/5	5	–	7/6–8/4	30	–	–
	–	–	8/13–8/14	2	–	8/5–8/12	8 (all)	–	–
	–	–	9/1–9/10	10	3,437	8/15–8/31	17	–	–
	–	–	–	–	–	9/11–9/30	20	67	14,689

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. En dash indicates "no data".

[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 to 30, when the directed Chinook salmon fishery was closed.

[d] In 2017, a mark-selective fishery was conducted from July 5 to 21, when the directed Chinook salmon fishery was closed.

[e] In 2019, a new Limited Harvest Fishery was implemented from September 1 to 10, allocating 2 Chinook per permit during the 10-day fishery.

Table 6.–Annual commercial troll salmon harvest in numbers of fish by species, 1960–2019.

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	581,773
1976	231,239	1,241	525,270	194,370	4,251	956,371
1977	271,735	5,713	506,432	281,009	11,621	1,076,510
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	1,917,303
1980	303,643	2,921	697,181	267,213	12,168	1,283,126
1981	248,782	7,476	861,146	579,436	8,680	1,705,520
1982	241,938	2,459	1,315,871	503,306	5,639	2,069,213
1983	269,821	7,973	1,276,380	498,530	20,308	2,073,012
1984	235,622	9,658	1,133,366	573,004	28,060	1,979,710
1985	215,811	7,724	1,600,230	963,719	52,793	2,840,277
1986	237,703	6,884	2,128,003	181,900	51,398	2,605,888
1987	242,562	9,722	1,041,055	486,385	12,848	1,792,572
1988	231,364	9,341	500,227	519,390	88,264	1,348,586
1989	235,716	20,171	1,415,517	1,771,409	68,986	3,511,799
1990	287,939	9,176	1,832,604	771,674	62,817	2,964,210
1991	264,106	9,805	1,719,082	427,348	28,438	2,448,779
1992	183,759	22,854	1,929,945	673,851	85,030	2,895,439
1993	226,866	25,337	2,395,887	902,872	525,160	4,076,122
1994	186,331	21,777	3,467,599	942,783	330,375	4,948,865
1995	138,117	27,323	1,750,262	714,312	277,455	2,907,469
1996	141,452	11,024	1,906,769	812,899	406,260	3,278,404
1997	246,409	39,431	1,170,534	545,309	312,042	2,313,725
1998	192,066	6,474	1,636,711	261,104	117,642	2,213,997
1999	146,219	5,730	2,272,653	540,859	74,704	3,040,165

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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	1,953,911
2001	153,280	8,992	1,845,627	258,943	467,837	2,734,679
2002	325,308	1,247	1,315,062	86,399	117,672	1,845,688
2003	330,692	4,596	1,223,458	159,643	286,410	2,004,799
2004	354,658	5,010	1,916,675	57,323	171,326	2,504,992
2005	338,451	13,277	2,038,296	109,640	174,599	2,674,263
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	195,620	1,923	1,343,032	87,640	394,695	2,022,910
2011	242,569	5,190	1,314,210	496,234	702,914	2,761,117
2012	209,074	3,231	1,201,724	168,584	476,601	2,059,214
2013	149,541	5,020	2,393,790	684,690	1,054,204	4,287,245
2014	355,570	7,319	2,248,371	75,920	200,065	2,887,245
2015	269,862	6,977	1,241,100	259,411	424,546	2,201,896
2016	276,432	6,699	1,387,590	53,359	164,945	1,889,025
2017	129,649	5,454	2,151,782	54,473	403,998	2,745,356
2018	107,565	5,182	942,622	53,585	530,736	1,639,690
2019	109,364	6,260	973,328	70,424	269,577	1,428,953
1960–1969 Average	264,372	1,013	569,983	76,357	3,973	915,697
1970–1979 Average	299,165	2,365	610,176	253,804	11,626	1,17,136
1980–1989 Average	246,296	8,433	1,196,898	634,429	34,914	2,120,970
1990–1999 Average	201,326	17,893	2,008,205	659,301	221,992	3,108,718
2000–2009 Average	253,915	5,630	1,508,996	112,810	244,505	2,125,855
2009–2018 Average	211,153	4,992	1,581,577	200,974	469,570	2,468,266

Note: Harvest data for all species includes terminal and Annette Island harvest. Data is by calendar year from 1960 to 1978, from January 1 to September 30 for 1979, and by troll season (October 1–September 30) for 1980 to 2019.

Table 7.–Southeast Alaska commercial troll salmon harvest in numbers of fish by species by statistical week, for the 2019 troll season.

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
2018	41	7-Oct	421	–	–	–	–	421
	42	14-Oct	1,420	–	–	–	–	1,420
	43	21-Oct	591	–	–	–	–	591
	44	28-Oct	873	–	–	–	–	873
	45	4-Nov	449	–	–	–	–	449
	46	11-Nov	525	–	–	–	–	525
	47	18-Nov	324	–	–	–	–	324
	48	25-Nov	402	–	–	–	–	402
	49	2-Dec	510	–	–	–	–	510
	50	9-Dec	44	–	–	–	–	44
	51	16-Dec	100	–	–	–	–	100
	52	23-Dec	148	–	–	–	–	148
	53	30-Dec	100	–	–	–	–	100
2019	1	1-Jan	182	–	–	–	–	182
	2	6-Jan	321	–	–	–	–	321
	3	13-Jan	828	–	–	–	–	828
	4	20-Jan	493	–	–	–	–	493
	5	27-Jan	615	–	–	–	–	615
	6	3-Feb	476	–	–	–	–	476
	7	10-Feb	569	–	–	–	–	569
	8	17-Feb	344	–	–	–	–	344
	9	24-Feb	807	–	–	–	–	807
	10	3-Mar	1,360	–	–	–	1	1,360
	11	10-Mar	464	–	–	–	–	464
	12	17-Mar	–	–	–	–	–	–
	13	24-Mar	–	–	–	–	–	–
	14	31-Mar	–	–	–	–	–	–
	15	7-Apr	–	–	–	–	–	–
	16	14-Apr	–	–	–	–	–	–
	17	21-Apr	–	–	–	–	–	–
	18	28-Apr	424	–	–	–	–	424
	19	5-May	326	–	–	–	–	326
	20	12-May	442	–	–	–	–	442
	21	19-May	650	–	–	–	–	650
	22	26-May	680	–	–	–	–	680
	23	2-Jun	1,504	1	1	–	7	1,513
	24	9-Jun	2,018	2	14	–	18	2,052
	25	16-Jun	2,656	82	132	72	5,242	8,184
	26	23-Jun	1,681	22	163	136	5,339	7,341
	27	30-Jun	58,559	452	38,864	1,386	4,559	103,820
	28	7-Jul	–	563	60,819	6,022	5,687	73,091
	29	14-Jul	–	1,003	98,254	14,179	7,815	121,251
	30	21-Jul	–	916	100,519	26,535	6,344	134,314

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Table 7.–Page 2 of 2.

Year	Week	Week of	Chinook	Sockeye	Coho	Pink	Chum	Total
2019	31	28-Jul	–	614	79,339	9,704	14,989	104,646
	32	4-Aug	–	264	29,378	3,828	18,580	52,050
	33	11-Aug	24,698	1,202	83,086	2,392	82,512	193,890
	34	18-Aug	–	315	70,286	2,147	36,653	109,401
	35	25-Aug	–	427	111,117	900	21,404	133,848
	36	1-Sep	500	255	130,875	235	27,536	159,401
	37	8-Sep	176	90	121,190	54	3,811	125,321
	38	15-Sep	–	22	33,912	42	129	34,105
	39	22-Sep	–	2	7,019	–	3	7,024
	40	29-Sep	–	–	903	–	2	905
	Winter fishery subtotal		12,366	–	–	–	–	12,366
	Spring fishery subtotal		11,123	107	333	222	10,613	22,398
	Summer fishery subtotal		83,932	6,125	965,560	67,421	230,018	1,353,056
	Hatchery terminal area subtotal		1,943	28	7,435	2,781	28,946	41,133
	Grand total		109,364	6,260	973,328	70,424	269,577	1,428,953

Note: Weekly totals do not include hatchery terminal area and Annette Island troll harvests. Annette Island and confiscated harvests are included in spring totals. En dash indicates “no data”.

Table 8.–Average troll coho salmon dressed weight by week and weighted annual average, 2002–2019.

	Average weekly dressed weight, by year																		Averages	
Week of	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2014–2018	2009–2018
1-Jul	5.9	5.6	5.7	5.2	5.6	5.0	6.3	5.3	5.9	5.3	4.9	4.8	5.8	5.7	5.8	4.4	6.1	5.4	5.6	5.4
8-Jul	6.2	5.6	6.1	5.2	5.7	5.1	6.5	5.3	6.0	5.3	4.9	4.8	5.7	5.8	5.8	4.7	6.2	5.2	5.6	5.5
15-Jul	6.5	5.7	6.2	5.2	5.6	5.3	6.5	5.2	6.2	5.4	5.0	4.9	5.8	5.7	5.8	4.5	6.3	5.3	5.6	5.5
22-Jul	6.4	5.8	6.1	5.3	5.7	5.3	6.8	5.2	6.4	5.1	5.1	5.1	5.7	5.6	6.0	4.7	6.5	5.5	5.7	5.5
29-Jul	6.5	6.0	6.0	5.2	5.9	5.4	6.8	5.6	6.6	5.2	5.2	5.3	5.9	5.7	6.2	4.9	6.6	5.5	5.9	5.7
5-Aug	6.4	6.2	6.2	5.3	6.1	5.5	7.0	5.7	6.6	5.3	5.4	5.5	5.9	5.8	6.4	5.0	6.8	5.7	6.0	5.8
12-Aug	6.8	6.3	6.4	5.5	6.6	5.9	7.0	5.7	6.8	5.3	6.2	5.5	6.3	5.9	6.5	5.1	7.2	6.3	6.2	6.1
19-Aug	7.0	6.6	6.8	6.0	6.8	5.9	7.6	6.3	7.1	5.5	6.2	5.9	6.5	6.0	7.1	5.3	7.2	6.4	6.4	6.3
26-Aug	7.1	6.9	7.0	6.1	7.4	6.2	8.0	6.3	7.2	5.4	6.5	6.2	6.7	6.2	7.4	5.4	7.6	6.8	6.7	6.5
2-Sep	7.6	7.2	7.4	6.3	7.6	6.7	8.7	6.4	7.5	5.4	6.6	6.5	7.0	6.4	7.8	5.7	7.7	7.4	6.9	6.7
9-Sep	7.8	7.4	7.7	6.7	7.9	7.2	9.0	6.6	7.8	5.5	6.8	6.4	7.2	6.5	8.0	6.0	7.9	7.5	7.1	6.9
16-Sep	7.9	7.5	7.7	6.9	8.0	7.4	9.1	6.6	8.1	5.6	6.8	6.7	7.5	6.5	8.1	6.3	8.1	7.5	7.3	7.0
23-Sep	7.9	7.6	7.9	6.9	7.9	9.3	–	6.7	8.4	5.9	7.6	6.7	7.4	6.3	8.4	6.4	8.2	8.5	7.3	7.2
30-Sep	7.6	7.8	8.6	–	–	–	–	6.9	–	–	7.8	7.2	7.6	6.5	8.6	6.3	8.7	8.1	7.5	7.5
Weighted average	6.9	6.5	6.6	5.7	6.4	5.8	7.4	5.8	6.9	5.4	5.8	5.5	6.3	5.9	6.6	5.1	7.0	6.4	6.2	6.0
Troll harvest (Millions)	1.3	1.2	1.9	2.0	1.4	1.4	1.3	1.6	1.3	1.3	1.2	2.4	2.2	1.2	1.4	2.1	0.9	1.0	1.6	1.6

Note: En dash indicates “no data”.

Table 9.–Southeast Alaska annual commercial hand troll salmon harvest in numbers of fish by species, 1975–2019.

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
2017	7,302	178	102,507	4,279	5,444	119,710
2018	3,952	107	37,646	2,405	5,702	49,812
2019	4,599	265	29,266	3,642	1,664	39,436
1975–2018 Average	22,985	888	163,374	70,839	8,809	266,894
2009–2018 Average	12,253	215	92,421	10,747	8,991	124,627

[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 to present, harvests are by season, October 1–September 30. Harvest for 1979 January 1–September 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, 1975–2019.

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
2017	122,282	5,248	2,045,508	49,490	397,399	2,619,927
2018	103,613	5,079	904,803	51,180	525,034	1,589,709
2019	104,765	5,995	944,062	66,782	267,913	1,389,517
1975–2018 Average	213,695	8,026	1,334,562	341,270	210,545	2,104,809
2009–2018 Average	198,833	4,774	1,488,615	190,151	460,448	2,342,821

[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, October 1–September 30. Harvest for 1979 January 1–September 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, 2019.

Gear/Fishery	Total harvest	Alaska hatchery harvest	Alaska hatchery add-on	Wild Terminal exclusion harvest	Wild Terminal exclusion/ Alaska hatchery add-on	Treaty harvest
Winter Troll	12,366	1,647	1,087	0	1,087	11,279
Spring Troll[a]	12,536	5,398	3,814	211	4,025	8,511
Summer Troll						
First Period	58,347	1,050	693	0	693	57,654
Second Period	24,699	478	315	0	315	24,384
LHF[b]	675	0	0	0	0	675
Summer Total[c]	83,726	1,528	1,008	0	1,008	82,718
Total Traditional Troll	108,628	8,573	5,909	211	6,120	102,508
Annette Island Troll	736	268	177	0	177	559
Total Troll Harvest	109,364	8,841	6,087	211	6,297	103,067
Purse Seine	21,367	12,506	12,011	0	12,011	9,356
Drift Gillnet	14,419	12,773	11,377	0	11,377	3,042
Setnet	246	0	0	0	0	246
Total Net[d]	36,032	25,280	23,387	0	23,387	12,644
Sport[d]	29,700	6,600	5,104	0	5,104	24,596
All-gear Total	175,096	40,721	34,578	211	34,789	140,307

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

[b] Allocated non-competitive limited harvest fishery (LHF) was conducted September 1–10.

[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, 1965–2019.

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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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
2017	130	25	155	54	209	30	179
2018	108	31	138	26	165	37	128
2019	109	36	145	30	175	35	140

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. En dash indicates "no data".

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

[b] Purse seine harvests from 1986–present do not include Chinook less than five 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 2019 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, harvest per landing, and Alaska hatchery percent of harvest by troll accounting year (October 1–September 30), 1985–2019.

	Early Winter (October–December)				Late Winter (January–April)				Total Winter (October–April)						
Year	Chinook	Permits	Landings	Harvest/ landing	Chinook	Permits	Landings	Harvest/ landing	Chinook	Permits	Landings	Harvest/ landing	Annual total	Winter % of annual total	Alaska hatchery % of harvest
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	56,538	464	3,923	14	355,570	16%	6%
2015	24,138	278	1,346	18	26,535	320	2,172	12	50,673	407	3,518	14	269,862	19%	5%
2016	29,363	360	1,910	15	22,928	309	2,050	11	52,291	429	3,960	13	276,432	19%	5%
2017	6,573	244	994	7	37,316	380	2,643	14	43,889	435	3,637	12	129,596	34%	7%
2018	7,398	258	1,032	7	4,569	200	782	6	11,967	329	1,814	7	107,565	11%	6%
2019	5,907	188	760	8	6,459	187	922	7	12,366	263	1,682	7	109,364	11%	13%
2014–2018 Avg	16,349	282	1,320	12	26,723	319	2,050	12	43,072	413	3,370	12	227,816	20%	6%
2009–2018 Avg	12,771	265	1,209	10	28,041	357	2,227	12	40,812	437	3,436	11	211,029	20%	9%

Note: Data include Annette Island troll harvest.

Table 14.–The number of Chinook salmon harvested and permits fished in the 2019 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
101-45	Mountain Point	23	6/4	6/5	2	29	244
		24	6/10	6/12	3	34	248
		25	6/17	6/20	4	39	604
		26	6/24	6/27	4	42	670
	Mountain Point Total				13	56	1,766
101-46	Rock Point	23	6/2	6/3	2	9	25
		24	6/9	6/10	2	12	110
		25	6/16	6/20	5	17	186
		26	6/23	6/27	5	23	261
	Rock Point Total				14	31	582
101-48	Carroll Inlet THA	22	6/1	6/1	1	*	*
		23	6/2	6/8	7	7	25
		24	6/9	6/15	7	6	47
		25	6/16	6/22	7	3	46
		26	6/23	6/29	7	*	*
		27	6/30	6/30	1	*	*
	Carroll Inlet THA Total				30	15	146
101-95	Neets Bay THA	24	6/15	6/15	1	*	*
		25	6/16	6/22	7	17	395
		26	6/23	6/29	7	*	*
		27	6/30	6/30	1	*	*
	Neets Bay THA Total				16	20	402
103-50	Bucareli Bay	18	5/1	5/2	2	24	126
		19	5/7	5/8	2	22	93
		20	5/14	5/15	2	27	156
		21	5/21	5/22	2	26	194
		22	5/28	5/29	2	24	101
		23	6/4	6/5	2	21	88
		24	6/11	6/12	2	16	72
		25	6/18	6/19	2	21	86
		26	6/25	6/26	2	9	32
	Bucareli Bay Total				18	50	948
103-60	Port Saint Nicholas	18	5/3	5/4	2	10	26
		19	5/5	5/6	2	4	15
		20	5/12	5/13	2	9	26
		21	5/19	5/20	2	10	36
		22	5/26	5/27	2	3	5
		23	6/2	6/3	2	4	11
		24	6/9	6/10	2	3	14
		25	6/16	6/17	2	5	15
		26	6/23	6/24	2	*	*
	Port Saint Nicholas Total				18	24	148
107-35	Anita Bay THA	22	6/1	6/1	1	*	*
		23	6/2	6/8	7	10	82
		24	6/9	6/15	7	3	28
		25	6/16	6/22	7	*	*
		26	6/23	6/29	7	*	*
		27	6/30	6/30	1	*	*
	Anita Bay THA Total				30	12	174

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Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
113-01	Western Channel	23	6/3	6/3	1	16	53
		24	6/10	6/10	1	14	55
		25	6/17	6/17	1	3	20
		26	6/24	6/25	2	18	114
	Western Channel Total				5	33	242
113-30	Redoubt Bay	18	5/3	5/4	2	12	84
		19	5/10	5/11	2	8	32
		20	5/15	5/16	2	9	42
		21	5/22	5/23	2	14	101
		22	5/29	5/30	2	16	139
		23	6/5	6/6	2	14	60
		24	6/12	6/13	2	4	9
		25	6/19	6/20	2	6	46
		26	6/26	6/27	2	8	60
	Redoubt Bay Total				18	40	573
113-32	Goddard	23	6/5	6/5	1	8	26
		24	6/12	6/12	1	*	*
		25	6/19	6/19	1	6	45
		26	6/26	6/26	1	*	*
	Goddard Area Total				4	14	76
113-33	Crawfish Inlet THA	22	6/1	6/1	1	7	16
		23	6/2	6/8	7	3	10
		24	6/9	6/15	7	*	*
		25	6/16	6/22	7	*	*
		26	6/23	6/29	7	7	90
		27	6/30	6/30	1	*	*
	Crawfish Inlet THA Total				30	16	116
113-35	Silver Bay THA	22	6/1	6/1	1	*	*
		23	6/2	6/8	7	*	*
		24	6/9	6/15	7	6	20
		25	6/16	6/22	7	8	97
		26	6/23	6/29	7	3	88
		27	6/30	6/30	1	*	*
	Silver Bay THA Total				30	14	207
113-41	Sitka Sound	18	5/1	5/3	3	21	148
		19	5/5	5/7	3	17	67
		20	5/12	5/18	4	18	57
		21	5/19	5/25	4	20	160
		22	5/26	6/1	4	22	164
		23	6/2	6/5	4	41	277
		24	6/9	6/12	4	55	478
		25	6/16	6/22	7	83	1,357
		26	6/23	6/29	7	44	241
		27	6/30	6/30	1	*	*
	Sitka Sound Total				41	112	2,949

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Table 14.–Page 3 of 3.

Stat area	Fishery name	Stat week	Open	Close	Days	Permits	Chinook
113-62	Salisbury Sound	18	5/3	5/4	2	3	17
		19	5/8	5/9	2	9	26
		20	5/17	5/18	2	11	67
		21	5/23	5/24	2	6	38
		22	5/30	5/31	2	11	120
		23	6/6	6/8	3	36	620
		24	6/12	6/15	4	59	952
		25	6/16	6/22	7	22	268
		26	6/23	6/29	7	14	240
		27	6/30	6/30	1	*	*
	Salisbury Sound Total				32	72	2,348
183-10	Yakutat Bay	18	5/1	5/1	1	7	23
		19	5/6	5/6	1	8	93
		20	5/13	5/13	1	13	94
		21	5/20	5/20	1	12	121
		22	5/27	5/27	1	14	151
		23	6/3	6/3	1	13	100
		24	6/13	6/13	1	7	77
		25	6/20	6/20	1	5	29
		26	6/27	6/27	1	4	61
	Yakutat Bay Total				9	27	749
Spring Fishery Total						265	10,369
Terminal Area Total						67	1,063
Spring Season Total						282	11,432

Note: * denotes confidential or no data. Totals given may or may not include individual weeks confidential data. Totals do not include Annette Island harvest or summer terminal harvest or effort.

Table 15.–Spring and terminal troll annual Chinook salmon fishery harvest, effort, and Alaska hatchery contributions, 1986–2019.

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	220	31	3	0	0	776	28	70
1987	4,488	1,545	34	7	0	0	4,488	34	103
1988	8,505	2,840	34	9	100	2	8,605	34	382
1989	2,366	690	39	11	913	4	3,279	49	161
1990	7,052	4,323	60	9	16	2	7,068	61	258
1991	13,984	6,205	44	10	5,863	1	19,847	61	559
1992	11,229	5,335	50	11	4,118	2	15,347	62	454
1993	15,826	6,235	41	12	2,853	3	18,679	49	443
1994	11,269	4,949	44	12	100	4	11,369	44	283
1995	21,750	13,909	64	15	1,333	4	23,083	66	377
1996	30,963	15,532	51	16	16,416	5	47,379	67	461
1997	32,791	14,326	41	18	9,931	6	42,722	57	476
1998	19,195	5,138	26	21	1,313	4	20,508	31	361
1999	18,351	8,411	48	21	2,367	5	20,718	52	339
2000	20,990	10,799	53	26	7,966	7	28,956	65	392
2001	28,250	15,349	54	24	7,081	5	35,331	63	435
2002	37,610	18,131	48	30	6,040	4	43,650	55	433
2003	35,452	12,331	35	26	3,840	5	39,292	41	382
2004	55,186	20,313	37	31	1,610	5	56,796	39	445
2005	58,421	18,182	31	32	2,280	5	60,701	34	498
2006	36,918	9,656	26	25	1,018	6	37,936	28	511
2007	48,476	18,320	38	23	1,310	5	49,786	39	539
2008	36,638	18,307	50	24	4,494	7	41,132	55	591
2009	32,581	12,284	38	27	278	7	32,859	38	557
2010	28,564	11,010	39	27	1,221	8	29,785	41	546
2011	38,936	15,586	40	28	2,144	8	41,080	43	592
2012	24,771	10,569	43	33	794	7	25,565	44	553
2013	37,308	14,419	39	32	979	8	38,287	40	590
2014	42,548	10,670	25	34	1,260	9	43,808	27	585
2015	53,720	17,870	33	34	779	8	54,499	34	609
2016	42,473	9,826	23	34	322	9	42,795	24	585
2017	17,386	2,981	17	31	863	8	18,249	21	436
2018	6,962	3,455	50	8	1,332	11	8,294	58	306
2019	10,369	4,147	40	10	1,943	11	12,312	49	296

Note: Does not include Annette Island harvest or Hatchery Access fishery harvest, which occurred in 1989–1992. Total permits fished includes spring troll effort and terminal effort during spring and summer for vessels that landed Chinook.

[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 Chinook harvest only.

Table 16.–Southeast Alaska troll Chinook salmon harvest-per-fleet-day during the general summer fishery, 1985–2019.

Year	Fishing period	Days	Chinook harvest[a]	Harvest/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%

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Year	Fishing period	Days	Chinook harvest[a]	Harvest/Fleet day	Permits[b]	Abundance index[c]	AK hatchery harvest	AK hatchery percent
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%
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%

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Year	Fishing period	Days	Chinook harvest[a]	Harvest/Fleet day	Permits[b]	Abundance index[c]	AK hatchery harvest	AK hatchery percent
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%
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%
2017	July 1–4	4	64,325	16,081	700	–	1,808	3%
	July 5–21 MSF[d]	17	2,680	158	365	–	135	5%
		4	67,005	16,751	–	1.31	1,950	3%
2018	July 1–14	14	58,992	4,214	616	–	3,319	6%
	August 15–19	5	27,742	5,548	565	–	1,007	4%
		19	86,734	4,565	–	0.92	4,326	5%
2019	July 1–5	5	58,347	11,669	592	–	1,050	2%
	August 13–14	2	24,699	12,350	530	–	478	2%
	September 1–10 LHF[e]	10	675	68	371	–	0	0%
		17	83,721	11,853	–	1.07	1,528	2%

Note: En dash indicates "no data".

[a] The general summer fishery does not include experimental, terminal, or hatchery access fisheries, which target Alaska hatchery stocks. Also, these harvest 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 (AI) given for 1984–2018 is the first post season AI and for 2019 is the preseason winter troll CPUE metric translated to the equivalent AI value. Prior to 2019, the AIs were estimated by the Chinook Technical Committee of the Pacific Salmon Commission.

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

[e] In 2019 a new Limited Harvest Fishery (LHF) was implemented under 5AAC (c)(2)(D), allocating 2 Chinook per permit during 10-day fishery.

Table 17.–Coho salmon mid-season closure dates and extensions, 1980–2019.

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	9/21–9/30	Districts 1–16 and 183 open (all state waters)*
2002	August 10–11	2	9/21–9/30	Entire region open except portion of Sitka Sound*
2003	No closure	0	9/21–9/30	Entire region open*
2004	August 10–11	2	9/21–9/30	Entire region open*
2005	August 10–13	4	None	–
2006	August 9–12	4	–	–
	August 23–27	5	9/21–9/30	Districts 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; Districts 12 and 14 open with area restrictions.
2013	No closure	0	9/21–9/30	Entire region open*
2014	August 10–13	4	9/21–9/30	Entire region open*
2015	No closure	0	9/21–9/30	Districts 3–11, 13, 16, 181, 183, 189, 191 open; Districts 1, 2, 12 and 14 open with area restrictions.
2016	August 9–12	4	9/21–9/30	Entire region open*
2017	No closure	0	9/21–9/30	Districts 103, 104, 181, 183, 189, 191, 152 open; Districts 113 and 154 open with area restrictions
2018	August 10–14	5	9/21–9/30	Entire region open except in Districts 1 and 2: waters south of latitude of Foggy Point are closed
2019	August 5–12	8	9/21–9/30	Entire region open*

Note: * = During these years, areas of high chinook abundance remained closed and Yakutat area closures were in effect during coho salmon extension periods. En dash indicates “no data”.

Table 18.–Weekly troll chum salmon harvest and effort in Icy Straits/Homeshore, Neets Bay/West Behm Canal, Sitka Sound, Crawfish Inlet, and the regionwide totals, 2013–2019.

Icy Strait/Homeshore/Northern Chatham Strait

	2013		2014		2015		2016		2017		2018		2019	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	14,103	43	–	–	–	–	*	*	–	–	–	–	–	–
24	35,710	118	99	5	4,376	22	239	5	18	4	404	11	*	*
25	140,859	154	2,290	30	5,556	35	1,841	14	452	10	1,178	20	5,240	20
26	99,977	141	15,405	36	6,507	28	2,252	17	367	4	2,824	18	5,333	27
27	18,810	57	2,196	19	4,152	15	1,708	11	*	*	970	17	184	5
28	1,111	15	*	*	*	*	464	7	–	–	141	4	884	8
29	*	*	–	–	–	–	83	3	–	–	103	7	379	5
Total	311,236	193	19,990	51	20,970	61	6,591	38	970	15	5,620	44	12,031	38

Neets Bay/West Behm Canal

	2013		2014		2015		2016		2017		2018		2019	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
26	2,227	11	–	–	*	*	3,251	6	7,960	19	255	8	–	–
27	18,250	41	1,680	11	3,549	11	7,820	16	65,511	52	9,562	65	194	7
28	54,597	106	12,141	43	38,888	46	22,380	38	85,600	82	30,564	87	3,013	36
29	67,987	115	47,889	85	37,513	96	36,747	60	47,724	81	33,234	98	1,785	28
30	22,383	77	32,729	68	34,284	73	30,964	52	699	7	36,213	73	714	10
31	10,554	20	15,748	47	5,686	34	4,686	18	9,944	18	12,056	50	188	4
32	3,877	15	9,438	18	3,222	15	2,797	5	8,535	22	377	11	–	–
33	328	4	1,306	10	2,295	12	628	5	337	8	175	7	–	–
34	369	4	1,024	5	6,552	19	–	–	465	6	172	7	–	–
35	914	5	1,331	7	9,168	31	381	4	2,614	21	139	6	*	*
36	2,643	7	6,666	13	9,908	27	2,892	9	2,950	19	732	11	–	–
37	2,007	7	13,494	26	4,026	31	2,713	12	3,447	13	653	12	–	–
38	–	–	4,866	18	1,114	16	3,751	11	*	*	33	10	–	–
Total	186,701	137	148,330	98	156,212	114	119,010	72	235,786	95	124,183	120	5,929	45

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Table 18.–Page 2 of 3.

Sitka Sound/Deep Inlet

	2013		2014		2015		2016		2017		2018		2019	
Week	Harvest	Permits	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	–	–	–	–	*	*	–	–	–	–	–	–
29	5,531	18	–	–	1,443	8	*	*	–	–	–	–	*	*
30	33,582	46	–	–	–	–	*	*	778	5	–	–	175	5
31	80,843	94	522	4	874	8	*	*	30,497	55	324	5	443	11
32	122,081	101	9,485	34	42,235	55	1,004	7	83,547	100	31,719	83	18,947	80
33	153,748	106	198	8	106,052	123	385	7	28,402	78	42,027	88	8,671	32
34	42,120	78	180	3	51,361	109	*	*	7,326	44	24,786	65	3,403	29
35	1,198	8	871	5	13,074	42	12,703	22	4,334	25	20,191	60	572	7
36	*	*	*	*	2,157	23	4,572	16	147	3	2,203	25	*	*
Total	455,510	147	11,411	42	217,265	157	19,599	32	155,031	115	121,464	138	32,331	100

Crawfish Inlet

	2013		2014		2015		2016		2017		2018		2019	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
31	–	–	–	–	–	–	–	–	–	–	17,953	55	12,136	23
32	–	–	–	–	–	–	–	–	–	–	868	5	18,173	50
33	–	–	–	–	–	–	–	–	–	–	34,688	44	76,213	97
34	–	–	–	–	–	–	–	–	–	–	85,635	95	32,951	87
35	–	–	–	–	–	–	–	–	–	–	70,715	68	19,532	32
36	–	–	–	–	–	–	–	–	–	–	28,629	54	26,573	30
37	–	–	–	–	–	–	–	–	–	–	13,081	18	2,928	14
38	–	–	–	–	–	–	–	–	–	–	3,210	4	–	–
39	–	–	–	–	–	–	–	–	–	–	–	–	–	–
40	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Total	–	–	–	–	–	–	–	–	–	–	254,802	134	188,507	125

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Table 18.–Page 3 of 3.

Region														
	2013		2014		2015		2016		2017		2018		2019	
Week	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits	Harvest	Permits
23	14,105	44	*	*	–	–	13	8	–	–	–	–	–	–
24	35,727	120	151	8	4,392	27	322	17	19	5	230	6	*	*
25	141,851	162	2,359	32	5,627	47	1,993	26	457	12	1,190	22	5,240	20
26	109,594	167	15,453	40	6,525	31	5,534	35	8,323	23	2,599	24	5,334	28
27	41,355	101	4,089	33	7,806	29	9,523	33	65,516	56	13,073	95	578	21
28	63,492	137	12,523	49	39,207	48	22,852	47	85,676	84	34,470	100	4,420	49
29	74,708	139	47,893	86	40,081	109	37,648	65	47,899	84	34,401	101	2,783	39
30	56,088	123	32,764	72	34,515	75	31,075	55	1,748	15	39,192	75	2,372	24
31	92,533	117	16,414	55	7,151	44	4,752	20	41,504	74	31,777	107	13,559	38
32	127,392	117	20,126	58	48,225	74	3,802	12	93,468	121	33,898	96	37,709	101
33	154,152	111	1,546	19	110,616	136	1,021	13	28,812	86	79,245	101	84,971	111
34	44,037	84	1,297	9	59,622	132	291	3	7,844	50	114,055	137	36,354	101
35	2,112	13	2,240	13	23,453	77	13,328	27	7,081	46	92,385	117	20,183	40
36	2,817	9	11,464	28	13,315	55	7,485	25	3,097	22	32,411	77	26,661	33
37	2,156	8	13,494	26	4,026	31	2,719	13	3,456	14	13,940	24	2,952	16
38	*	*	4,866	18	1,121	17	3,751	11	*	*	3,290	11	*	*
Total	962,181	366	186,710	183	405,682	284	146,109	156	394,900	191	526,171	267	243,142	208

Note: Numbers for harvest and permits fished are based on vessels that targeted chum salmon. En dashes (–) mean no effort or harvest; * = confidential data.

Table 19.–Total Chinook salmon harvest and Alaska hatchery harvest by gear, 1985–2019.

	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	12,563
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	29,409
1989	13,171	2,298	9,948	4,106	798	0	235,716	16,366	31,071	5,859	291,032	28,685
1990	11,389	2,529	15,217	9,240	663	3	287,939	29,834	51,218	11,546	366,869	53,646
1991	13,793	2,618	19,254	11,849	1,747	40	264,106	37,498	60,492	18,022	359,462	70,055
1992	18,339	1,224	11,740	7,484	2,025	10	183,759	25,738	42,892	9,464	258,791	43,934
1993	8,364	1,751	18,280	11,378	1,311	0	226,866	18,226	49,246	8,321	304,103	39,677
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	68,520
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	33,706
1999	17,900	11,933	9,712	5,255	5,108	3,108	146,219	16,935	72,081	22,169	251,020	59,401
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	86,933
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	14,199	2,734	446	354,658	37,511	80,572	27,599	499,268	91,603
2005	19,867	7,233	47,620	5,469	688	0	338,451	35,678	86,575	25,178	493,202	73,558
2006	24,969	10,302	41,913	7,373	554	0	282,315	20,783	85,794	18,168	435,545	56,626
2007	27,267	11,068	25,152	12,742	1,269	0	268,146	30,409	82,849	22,822	404,683	77,041
2008	15,540	12,204	27,023	15,002	563	0	151,936	28,887	49,265	18,766	244,328	74,860
2009	29,012	16,241	19,015	9,865	411	0	175,644	20,455	69,565	24,988	293,647	71,549
2010	16,044	13,600	14,310	10,783	275	0	195,620	21,400	58,503	16,335	284,752	62,117
2011	26,404	17,700	21,294	15,799	532	0	242,569	25,207	66,575	14,325	357,374	73,032
2012	21,145	15,347	18,191	12,348	414	0	209,074	21,149	46,495	10,315	295,319	59,158
2013	23,104	17,059	27,316	22,613	900	0	149,541	17,934	56,392	15,387	257,252	72,993
2014	27,378	11,649	22,369	18,616	263	0	355,570	18,382	86,942	15,066	492,522	63,713
2015	30,274	18,582	22,982	17,925	462	0	269,862	22,110	79,759	16,822	403,339	75,439
2016	28,244	8,303	13,789	9,495	230	0	276,432	13,768	68,347	10,589	387,042	42,155
2017	10,958	8,074	13,772	10,911	367	0	129,649	8,646	52,306	10,782	207,052	38,412
2018	16,563	15,653	14,128	11,198	86	0	107,565	9,201	26,400	6,859	164,742	42,911
2019	21,367	12,506	14,419	12,774	246	0	109,364	8,841	29,700	6,600	175,096	40,721

Note: Data include terminal area and Annette Island harvests.

Table 20.–Annual troll coho salmon harvest and estimated wild and hatchery contributions, 1960–2019.

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

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Table 20.–Page 2 of 2.

Year	Total harvest	Wild contribution	Alaska hatchery	Other hatchery	Total hatchery	Percent hatchery
2001	1,843,997	1,472,486	367,856	3,655	371,511	20%
2002	1,310,060	973,936	335,229	895	336,124	26%
2003	1,220,782	934,291	283,723	2,767	286,491	23%
2004	1,915,066	1,602,704	307,638	4,723	312,362	16%
2005	2,036,104	1,701,804	329,687	4,613	334,300	16%
2006	1,360,267	1,143,672	215,729	866	216,595	16%
2007	1,376,753	1,071,758	304,144	851	304,995	22%
2008	1,273,716	1,002,963	269,789	964	270,753	21%
2009	1,590,259	1,342,777	246,040	1,442	247,482	16%
2010	1,342,092	1,057,087	284,112	892	285,005	21%
2011	1,302,926	959,039	343,330	557	343,887	26%
2012	1,200,150	906,923	292,239	987	293,227	24%
2013	2,376,100	1,643,066	731,971	1,063	733,034	31%
2014	2,227,696	1,607,184	618,812	1,700	620,512	28%
2015	1,241,090	872,564	368,270	256	368,526	30%
2016	1,386,634	1,048,766	335,770	2,098	337,868	24%
2017	2,148,015	1,759,542	387,578	895	388,473	18%
2018	944,405	629,002	315,019	384	315,403	33%
2019	965,893	651,941	313,459	493	313,952	33%
1989–1998 Avg	1,922,452	1,573,742	338,275	10,436	348,711	18%
1999–2018 Avg	1,574,637	1,218,056	354,083	2,498	356,581	23%

Note: Data include Annette Island troll harvests and excludes terminal area harvests. En dash indicates “no data”.

Table 21.–Wild Southeast Alaska and Transboundary rivers Chinook salmon estimates of escapement, 1975–2019.

	Southeast Alaska Stocks								Transboundary River Stocks		
Year	Situk River	Chilkat River	King Salmon River	Andrew Creek	Unuk River	Chickamin River[a]	Blossom River[a]	Keta River[a]	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	456	4,706	1,724	433	692	12,706	29,497	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	10,718	39,239	30,573
1981	702	–	90	536	3,532	1,824	615	990	8,587	49,559	36,057
1982	434	–	229	672	6,528	2,712	1,335	2,270	9,584	23,848	40,488
1983	592	–	245	366	5,436	2,845	2,279	2,474	10,344	9,794	6,424
1984	1,726	–	265	389	8,876	5,235	1,966	1,836	7,213	20,778	13,995
1985	1,521	–	175	624	5,721	4,541	2,744	1,878	6,087	35,916	16,037
1986	2,067	–	255	1,381	10,273	8,289	4,946	2,077	11,069	38,111	14,889
1987	1,379	–	196	1,537	9,533	4,631	5,221	2,312	11,276	28,935	24,632
1988	868	–	208	1,100	8,437	3,734	1,486	1,731	8,852	44,524	37,554
1989	637	–	240	1,034	5,552	4,437	1,331	3,477	10,178	40,329	24,282
1990	628	–	179	1,295	2,856	2,679	995	1,824	8,775	52,142	22,619
1991	889	5,882	134	780	3,165	2,313	925	819	11,667	51,645	23,206
1992	1,595	5,277	99	1,517	4,223	1,644	581	653	5,773	55,889	34,129
1993	952	4,463	266	2,067	5,160	1,848	1,173	1,090	13,917	66,125	58,962
1994	1,271	6,792	213	1,115	3,435	1,843	623	921	15,970	48,368	33,094
1995	4,330	3,768	147	669	3,730	1,691	840	527	24,772	33,805	16,784
1996	1,800	4,902	292	653	5,639	1,587	851	894	15,922	79,019	28,949
1997	1,878	8,089	362	571	2,970	1,292	511	740	12,494	114,938	26,996
1998	924	3,656	134	950	4,132	1,857	364	542	6,833	31,039	25,968
1999	1,461	2,258	304	1,180	3,914	2,337	820	831	14,615	16,786	19,947
2000	1,785	2,029	138	1,346	5,872	3,805	894	903	7,905	34,997	27,531
2001	562	4,514	149	2,055	10,541	5,177	789	1,032	6,705	46,644	63,523
2002	1,000	4,034	155	1,708	6,988	5,007	867	1,237	5,569	55,044	50,875
2003	2,163	5,631	119	1,160	5,546	4,579	786	969	5,904	36,435	46,824
2004	756	3,406	135	2,991	3,963	4,268	1,289	1,132	7,083	75,032	48,900

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Table 21.–Page 2 of 2.

	Southeast Alaska Stocks								Transboundary River Stocks		
Year	Situk River	Chilkat River	King Salmon River	Andrew Creek	Unuk River	Chickamin River	Blossom River	Keta River	Alsek River	Taku River	Stikine River
2005	610	3,361	143	1,979	4,742	4,257	1,722	1,496	4,390	38,599	39,833
2006	747	3,003	150	2,124	5,645	6,318	1,312	2,248	2,321	42,191	24,405
2007	677	1,435	181	1,736	5,668	4,242	522	936	2,827	14,749	14,560
2008	413	2,881	120	981	3,104	5,277	995	1,093	1,885	26,645	18,352
2009	902	4,406	109	628	3,157	2,902	476	659	6,239	22,761	12,972
2010	197	1,797	158	1,205	3,835	5,491	1,405	1,430	9,526	28,769	15,148
2011	240	2,674	192	936	3,195	4,052	569	671	6,850	19,672	14,511
2012	322	1,723	155	587	956	2,109	793	725	3,027	16,713	22,332
2013	912	1,719	94	920	1,135	2,223	987	1,484	4,992	18,002	16,784
2014	475	1,529	68	1261	1,691	3,097	840	1,321	3,357	23,532	24,374
2015	174	2,452	50	796	2,623	2,760	642	915	5,697	23,567	21,597
2016	329	1,380	149	402	1,463	964	522	1,342	2,514	9,177	10,554
2017	1,187	1,173	85	349	1,203	722	341	903	1,762	8,214	7,335
2018	420	873	30	482	1,971	2,052	1,087	1,662	4,312	7,271	8,603
2019	623	2,028	27	698	3,115	1,610	557	1,041	6,356	11,558	13,817
Lower	500	1,750	120	650	1,800	2,100	500	550	3,500	19,000	14,000
Upper	1,000	3,500	240	1,500	3,800	4,300	1,400	1,300	5,300	36,000	28,000

Note: Preliminary estimates, pending final report publication (for past 5 years). Spawning escapement goals are for large (≥660 mm mid-eye to fork length, or fish age 1.3 and older) fish, except for the Alsek River which is germane to fish age 1.2 and older and can include fish <660 mm mid-eye to fork length. En dash indicates “no data”.

Table 22.–Escapement goal performance for indicator coho salmon streams in Southeast Alaska (SEAK), 1993–2019.

	Southeast Alaska									Yakutat			
Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake	Chilkat River	Montana Creek	Petersen Creek	Sitka Index	Ketchikan Index	Tawah Creek	Situk River	Tsiu/Tsivat River	All-Gear commercial harvest (millions)
1993	E	E	E	I	E	E	I	E	I	I	E	I	3.56
1994	E	E	E	E	E	E	E	E	E	E	E	E	5.52
1995	I	I	I	E	E	I	E	E	E	I	I	I	3.13
1996	E	I	I	I	I	I	E	E	E	I	I	I	2.99
1997	E	E	E	I	I	I	I	E	I	I	I	I	1.84
1998	E	I	E	I	I	I	I	E	I	NA	NA	NA	2.75
1999	E	E	E	E	E	I	E	I	I	NA	NA	NA	3.28
2000	E	E	I	I	E	I	I	E	E	NA	NA	I	1.69
2001	E	E	I	E	E	I	I	E	E	NA	NA	NA	2.95
2002	E	E	E	E	E	E	I	E	E	E	E	E	2.49
2003	E	E	E	E	E	I	I	E	E	E	I	NA	2.17
2004	I	E	E	I	E	U	E	E	E	I	E	NA	2.86
2005	I	I	E	E	I	U	I	E	E	U	U	I	2.77
2006	E	I	E	I	E	I	E	E	I	I	I	I	1.84
2007	I	U	I	E	U	U	I	E	I	I	I	I	1.91
2008	E	I	E	E	I	I	E	E	E	NA	NA	I	2.04
2009	I	I	I	E	I	I	I	E	I	E	I	I	2.38
2010	I	I	I	E	E	I	E	E	I	E	E	I	2.29
2011	E	I	I	E	I	I	I	E	I	U	I	I	2.08
2012	E	I	I	E	I	U	I	E	E	I	U	I	1.88
2013	E	I	I	E	I	U	I	E	E	I	E	E	3.60
2014	E	E	E	E	E	I	E	E	E	I	I	I	3.40
2015	E	E	E	I	I	E	I	E	E	NA	I	I	1.90
2016	I	I	NA	I	U	I	U	E	E	U	I	E	2.10
2017	I	I	NA	I	I	I	U	E	E	I	I	E	2.80
2018	U	U	NA	I	I	I	I	E	E	I	I	E	1.47
2019	I	E	NA	I	I	U	NA	E	I	I	E	NA	1.53

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

[a] The Sitka survey index is the sum of peak survey counts on five streams.

[b] The Ketchikan survey index is the sum of peak survey counts on 14 streams.

Table 23.–Escapement estimates for four Southeast Alaska coho salmon indicator stocks, 1980–2019.

Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake
1980	698	N/A	N/A	N/A
1981	646	N/A	N/A	N/A
1982	447	7,505	2,655	2,144
1983	694	9,840	1,931	1,487
1984	651	2,825	N/A	1,407
1985	942	6,169	2,324	903
1986	454	1,752	1,552	1,782
1987	668	3,260	1,694	1,117
1988	756	2,724	3,119	513
1989	502	7,509	2,176	433
1990	697	11,050	2,192	870
1991	808	11,530	2,761	1,836
1992	1,020	15,300	3,866	1,426
1993	859	15,670	4,202	832
1994	1,437	15,920	3,227	1,753
1995	460	4,945	2,446	1,781
1996	515	6,050	2,500	950
1997	609	10,050	4,718	732
1998	862	6,802	7,049	983
1999	845	9,920	3,800	1,246
2000	683	10,650	2,304	600
2001	842	19,290	2,209	1,580
2002	1,112	27,700	7,109	3,291
2003	585	10,110	6,789	1,510
2004	416	14,450	3,539	840
2005	450	5,220	4,257	1,732
2006	582	5,470	4,737	891
2007	352	3,915	2,567	1,244
2008	600	6,870	5,173	1,741
2009	360	4,230	2,181	2,281
2010	417	7,520	1,610	2,878
2011	517	6,050	1,908	2,137
2012	837	5,480	2,282	1,908
2013	736	6,280	1,573	3,048
2014	1,533	15,480	3,025	4,110
2015	577	9,940	3,281	944
2016	204	6,733	N/A	979
2017	283	7,040	N/A	1,266
2018	146	3,550	N/A	619
1980–2018 Average:	662	8,778	3,235	1,508
2019	345	9,405	N/A	1,239
Escapement Goal Range:	200–500	3,600–8,100	1,300–2,900	500–1,600

Table 24.–Northern Inside area coho salmon escapements, 1981–2019.

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	83,729
1993	859	1,352	112	2,323	15,670	58,217	119,330
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	60,768
2000	683	961	202	1,846	10,650	84,843	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	204,925	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	74,246
2008	600	405	660	1,665	6,870	56,369	95,226
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	70,871
2012	837	394	190	1,421	5,480	36,961	70,775
2013	736	367	126	1,229	6,280	51,324	68,117
2014	1,533	911	284	2,728	15,480	130,200	124,171
2015	577	1,204	202	1,983	9,940	47,930	60,178
2016	204	746	52	1,002	6,733	26,280	87,704
2017	283	634	20	937	7,040	34,742	57,868
2018	146	1,160	110	1,416	3,550	66,085	51,173
1981–2018 Average	661	859	248	1,767	8,778	69,864	89,237
2019	345	203	–	–	9,405	34,779	82,759
Goals:							
Point	340	–	–	–	–	50,000	–
Lower	200	400	100	–	3,600	30,000	50,000
Upper	500	1,200	250	–	8,100	70,000	90,000

Note: En dash indicates "no data".

[a] The listed Taku River lower bound is the inriver run threshold of 38,000 fish 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, 1982–2019.

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
2017	122	62	73	545	478	1,280	N/A
2018	88	174	134	569	537	1,502	N/A
2019	47	102	169	570	592	1,480	N/A
1982–2018 Average	161	136	110	520	450	1,377	3,280

[a] Total index is the sum of counts and interpolated values. Interpolated values are shown in bold italic print.

Table 26.–Southern inside (Ketchikan) area coho salmon escapement index, 1987–2019.

Year	Herman Creek	Grant Creek	Eulachon River	Klahini River	Indian River	Barrier Creek	King Creek	Choca Creek	Carroll River	Blossum River	Keta River	Marten River	Hugh Smith L. (weir)	Humpback Creek	Tombstone River	Total index
1987	92	***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
2017	40	167	540	***280***	850	***20***	100	240	285	3,100	2,450	1,675	1,266	830	980	12,823
2018	75	***55***	280	70	610	***95***	595	***110***	160	3,100	3,300	1,750	619	***1,800***	2,700	15,319
2019	***240***	***60***	***220***	***116***	***420***	***20***	***800***	***700***	***60***	2,200	570	1,410	1,239	***600***	500	9,155
1987–2018 Average	146	128	527	131	630	118	503	220	323	1,678	1,380	1,425	1,494	599	1,250	10,595

[a] Total index is the sum of counts and interpolated values. Interpolated values are shown in bold italic print.

Table 27.–Overall coho salmon percentage exploitation rates by indicator stock for all fisheries combined, 1982–2019.

Year	Auke Creek	Berners River	Hugh Smith Lake	Average	Ford Arm Lake
1982	40	–	65	–	43
1983	44	–	62	–	69
1984	41	–	65	–	–
1985	44	–	63	–	52
1986	53	–	59	–	62
1987	43	–	50	–	48
1988	37	–	65	–	48
1989	55	57	82	64	65
1990	53	63	82	66	58
1991	31	62	68	54	54
1992	46	62	71	59	59
1993	46	64	80	63	67
1994	53	74	81	70	72
1995	44	80	73	66	64
1996	55	70	76	67	57
1997	20	30	73	41	52
1998	39	66	78	61	56
1999	41	65	70	59	63
2000	30	45	55	43	71
2001	38	35	49	41	74
2002	27	39	39	35	53
2003	35	60	59	51	49
2004	44	51	66	54	71
2005	38	54	53	48	58
2006	34	60	54	49	52
2007	34	50	62	49	70
2008	39	47	54	46	53
2009	39	49	48	45	69
2010	46	61	47	51	64
2011	35	44	46	42	82
2012	22	31	54	36	63
2013	42	65	56	54	78
2014	20	37	47	35	72
2015	25	32	51	36	52
2016	25	28	62	38	–
2017	41	45	48	45	–
2018	56	49	53	53	–
2019	29	22	52	34	–
1989–2018 Average	38	52	61	51	63

Note: En dash indicates “no data”.

Table 28.–Overall coho salmon percentage exploitation rates by indicator stock for the Alaska troll fishery, 1982–2019.

Year	Auke Creek	Berners River	Ford Arm Lake	Hugh Smith Lake	Total Index
1982	20	–	41	45	34
1983	31	–	54	35	37
1984	34	–	–	31	37
1985	35	–	52	36	39
1986	43	–	61	37	44
1987	37	–	45	29	36
1988	25	–	47	28	31
1989	48	49	62	51	52
1990	43	41	57	38	43
1991	17	17	53	36	32
1992	32	31	56	38	39
1993	38	36	62	53	48
1994	35	35	60	46	44
1995	32	29	53	30	35
1996	39	42	53	40	43
1997	12	14	48	49	34
1998	31	42	49	41	41
1999	34	36	58	42	42
2000	24	20	57	36	35
2001	31	24	67	22	33
2002	18	15	38	16	21
2003	23	22	31	24	25
2004	27	29	64	41	40
2005	33	33	51	32	36
2006	22	24	39	36	32
2007	25	30	65	38	39
2008	30	24	41	19	27
2009	30	27	65	24	34
2010	25	27	48	22	29
2011	17	28	24	20	22
2012	20	21	46	20	25
2013	32	33	48	25	33
2014	14	14	46	24	24
2015	20	20	45	24	27
2016	7	8	–	31	24
2017	34	28	–	28	33
2018	20	13	–	17	22
2019	6	7	–	24	20
1982–2018 Average	28	27	51	33	34

Note: En dash indicates “no data”.

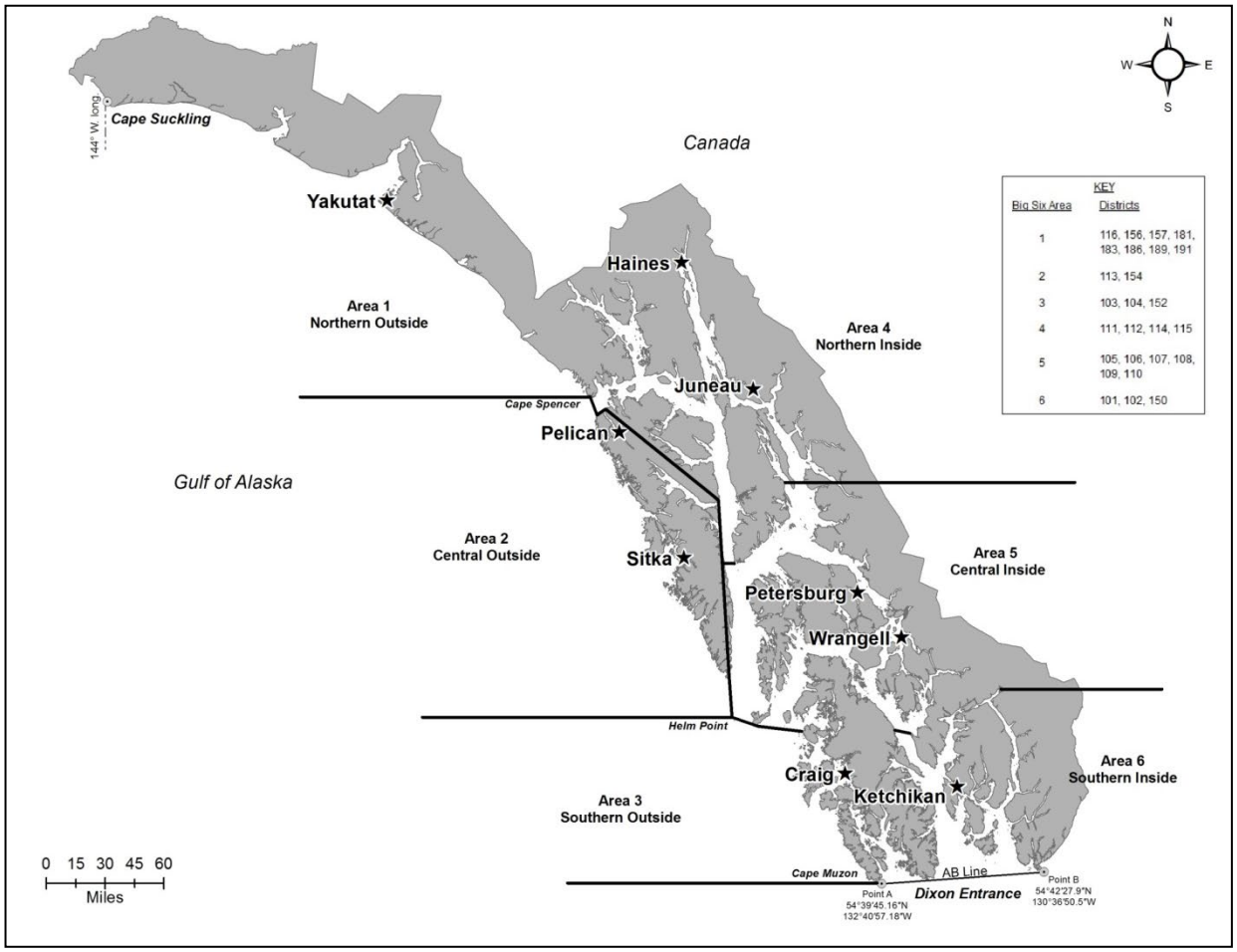

Figure 1.–Map of Southeast Alaska commercial troll fishing and Big Six management areas, Cape Suckling to Dixon Entrance.

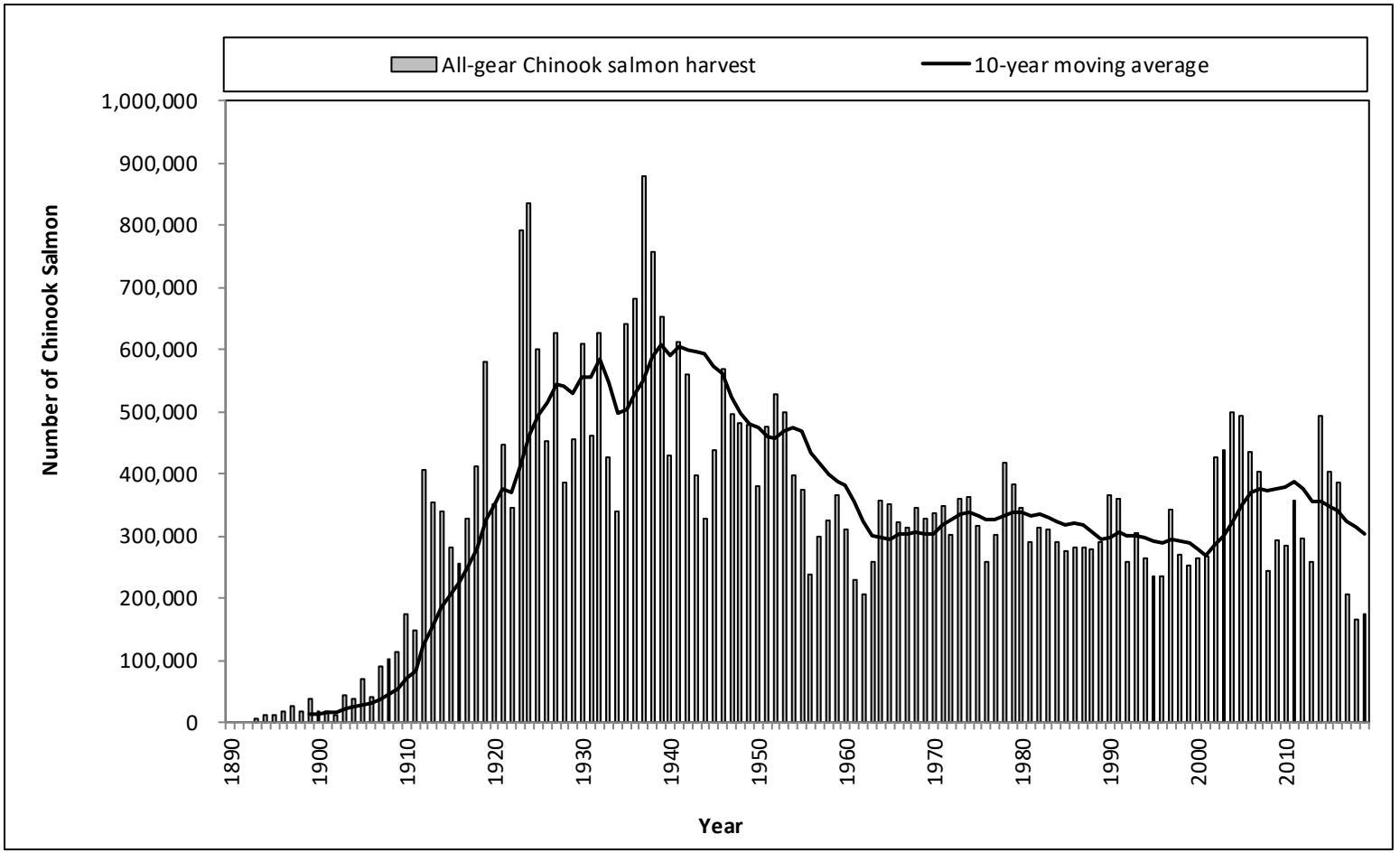

Figure 2.–All-gear harvests of Chinook salmon in common property fisheries, 1891–2019.

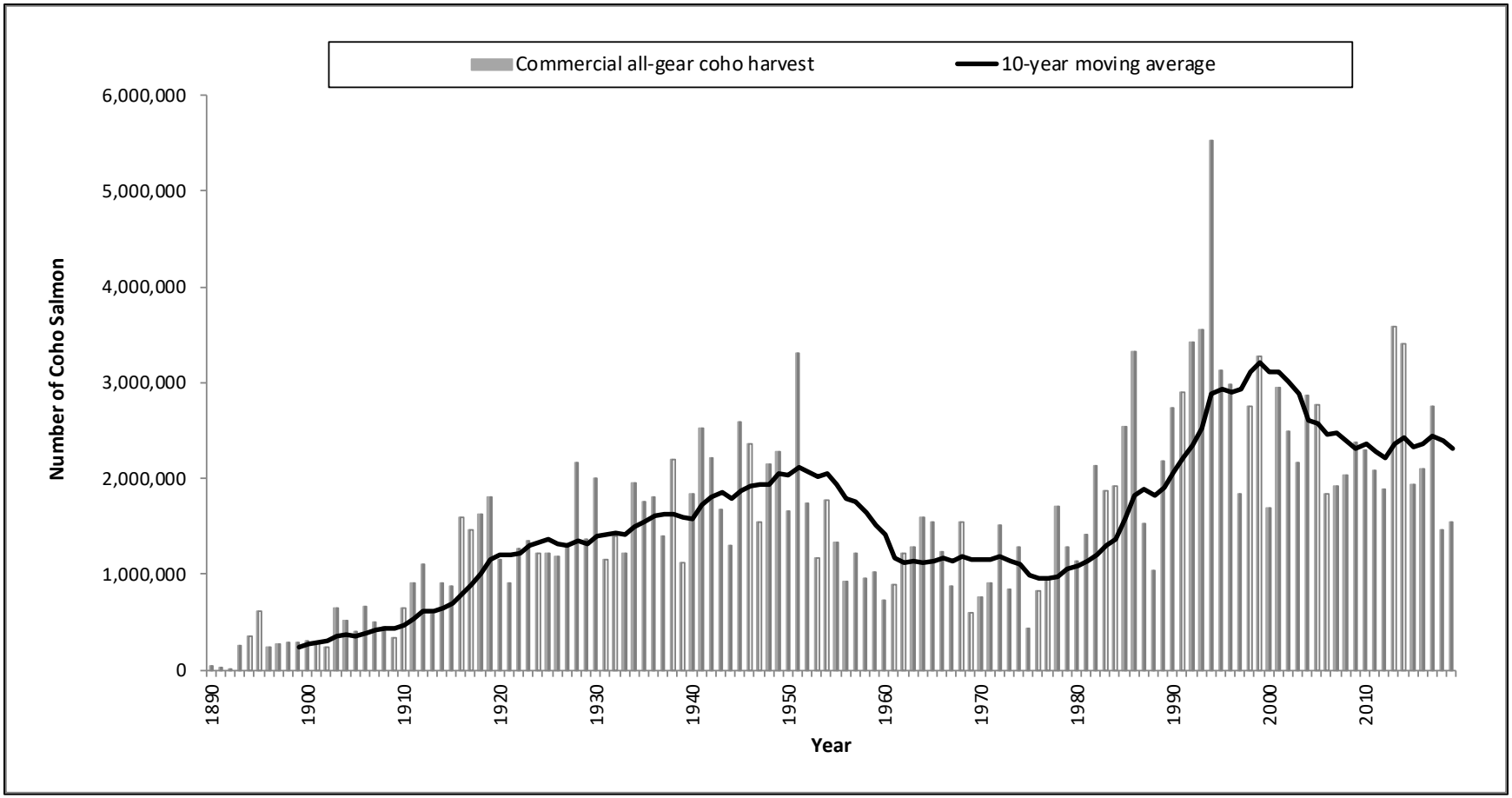

Figure 3.–Commercial all-gear harvests of coho salmon in common property fisheries, 1890–2019.

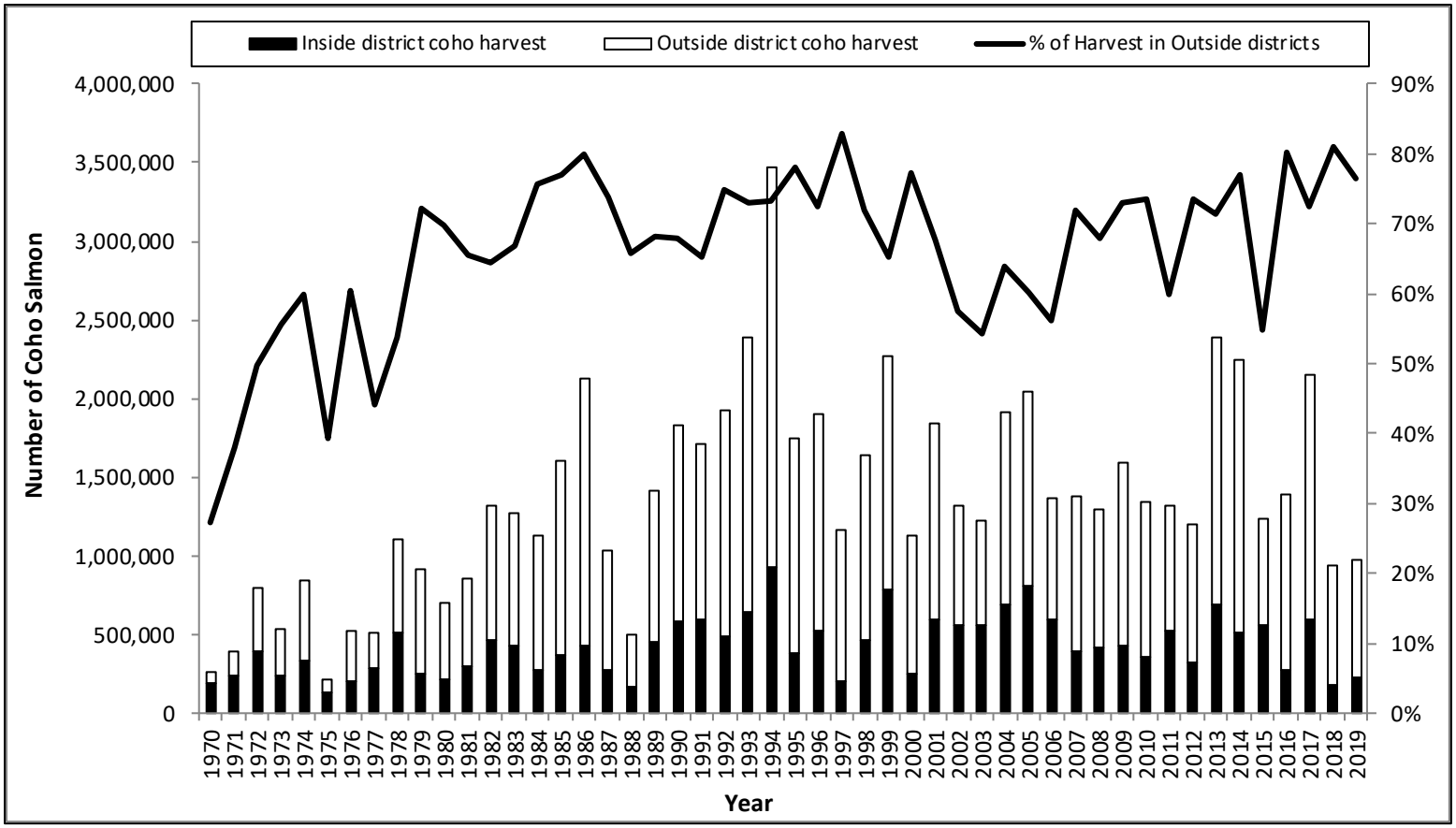

Figure 4.–Southeast Alaska troll coho salmon harvest in the outside (Gulf of Alaska) districts, the inside districts and the percentage of the harvest taken in the outside districts, 1970–2019.

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, and 115.

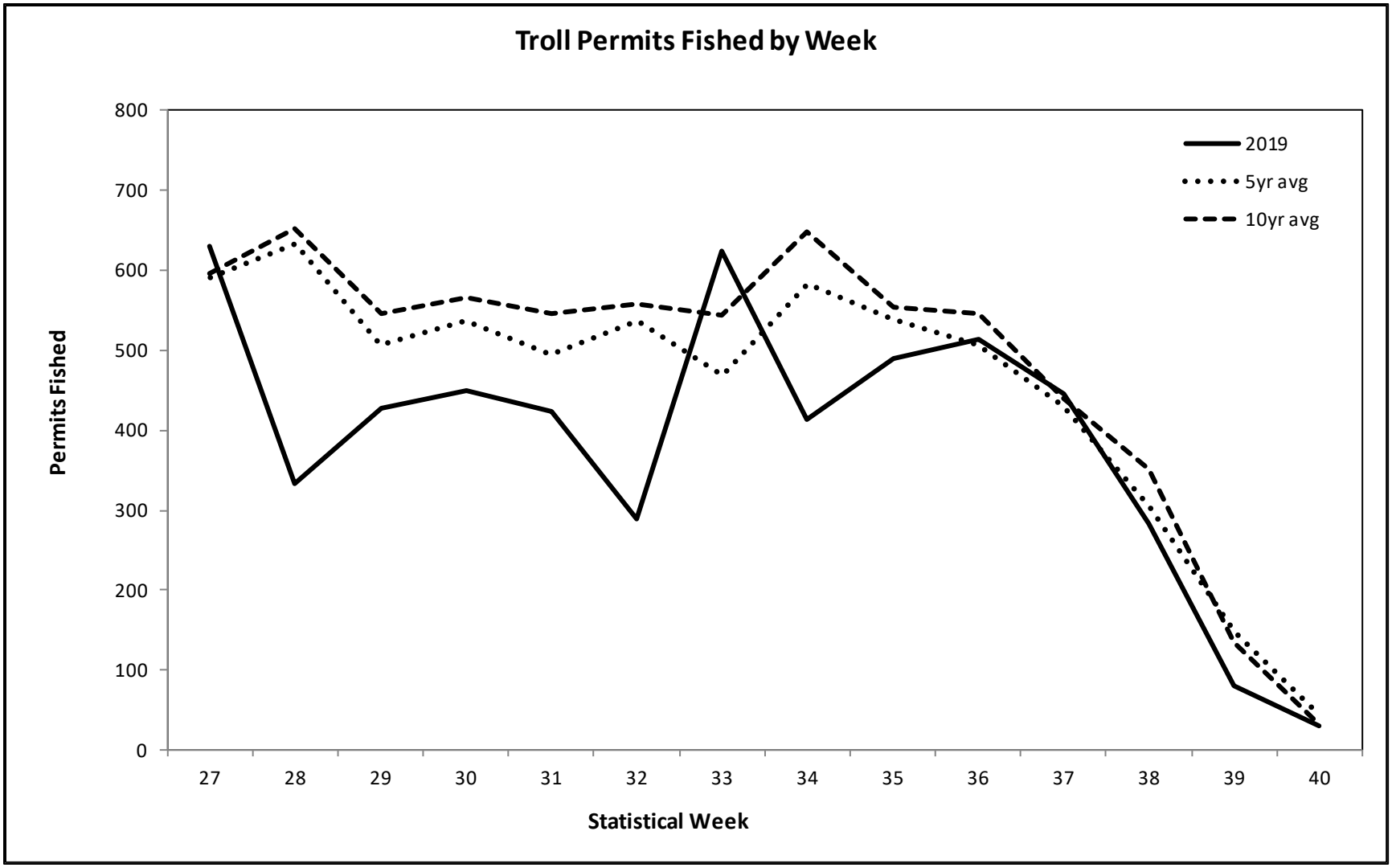

Figure 5.–Number of troll permits fished by week, 2019 vs. 5-year and 10-year averages.

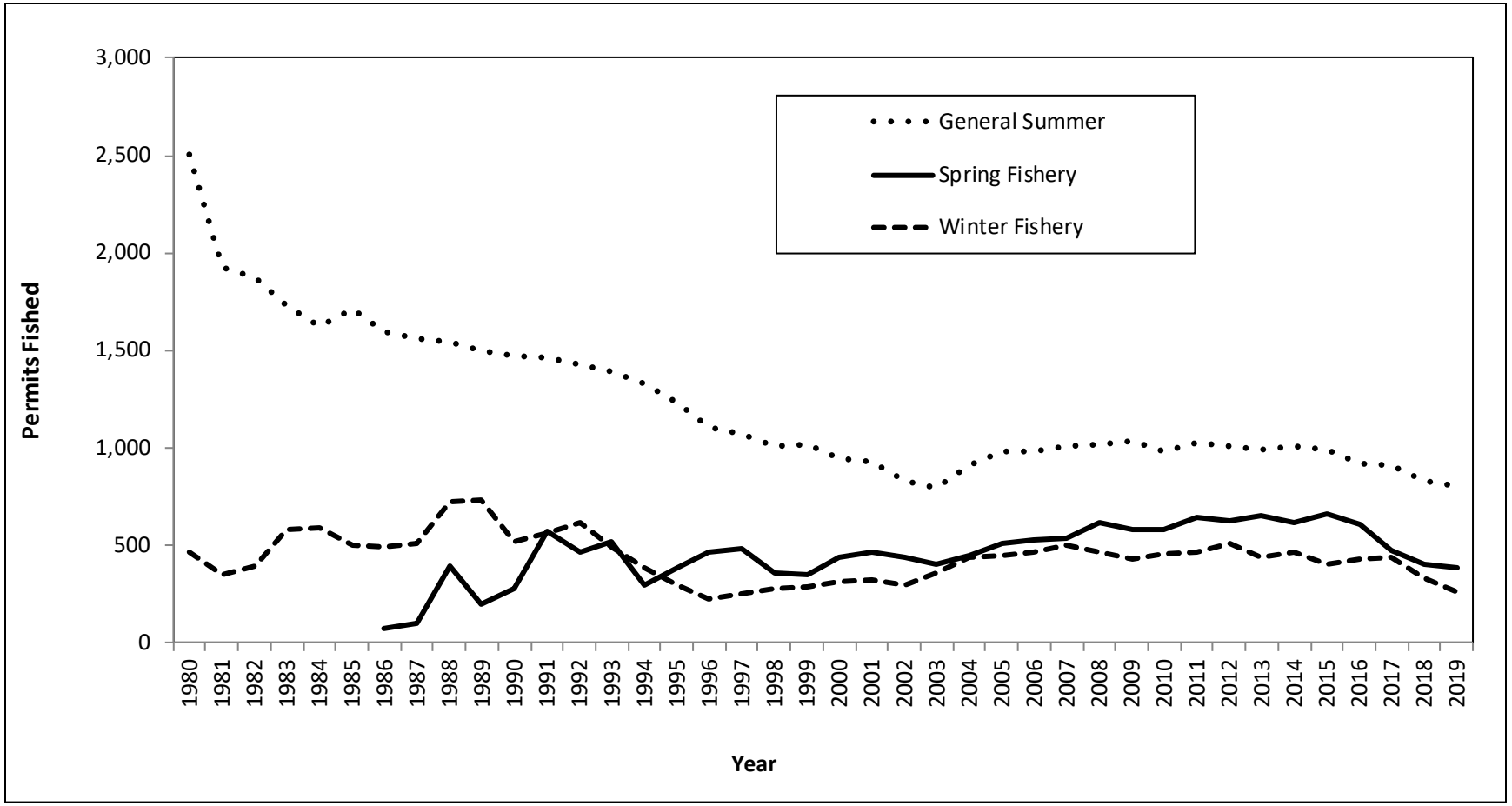

Figure 6.–Number of troll permits fished in the general summer, winter, and spring fisheries, 1980–2019.

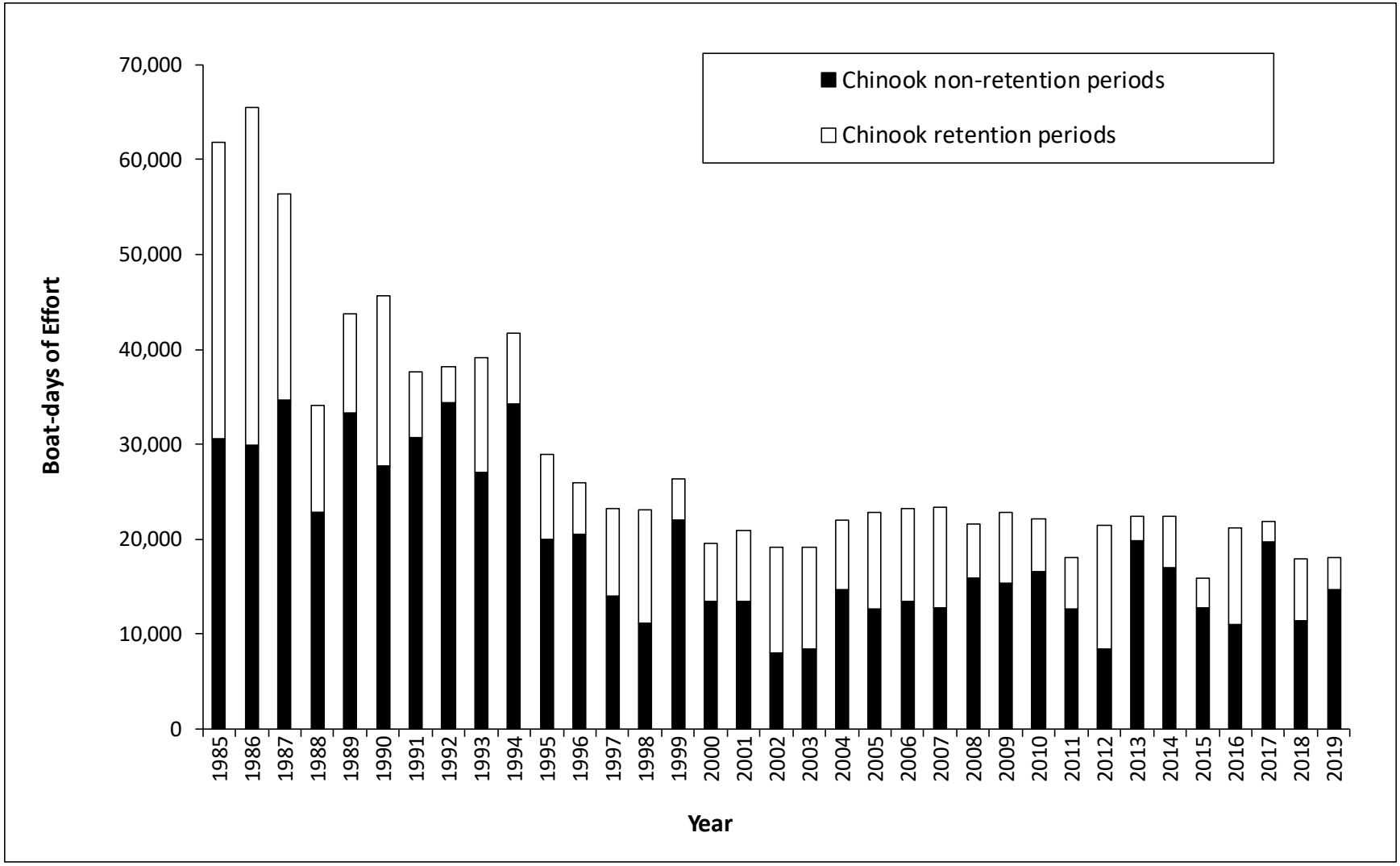

Figure 7.–General summer troll fishery boat-days of effort during Chinook salmon retention and non-retention fishing periods, 1985–2019.

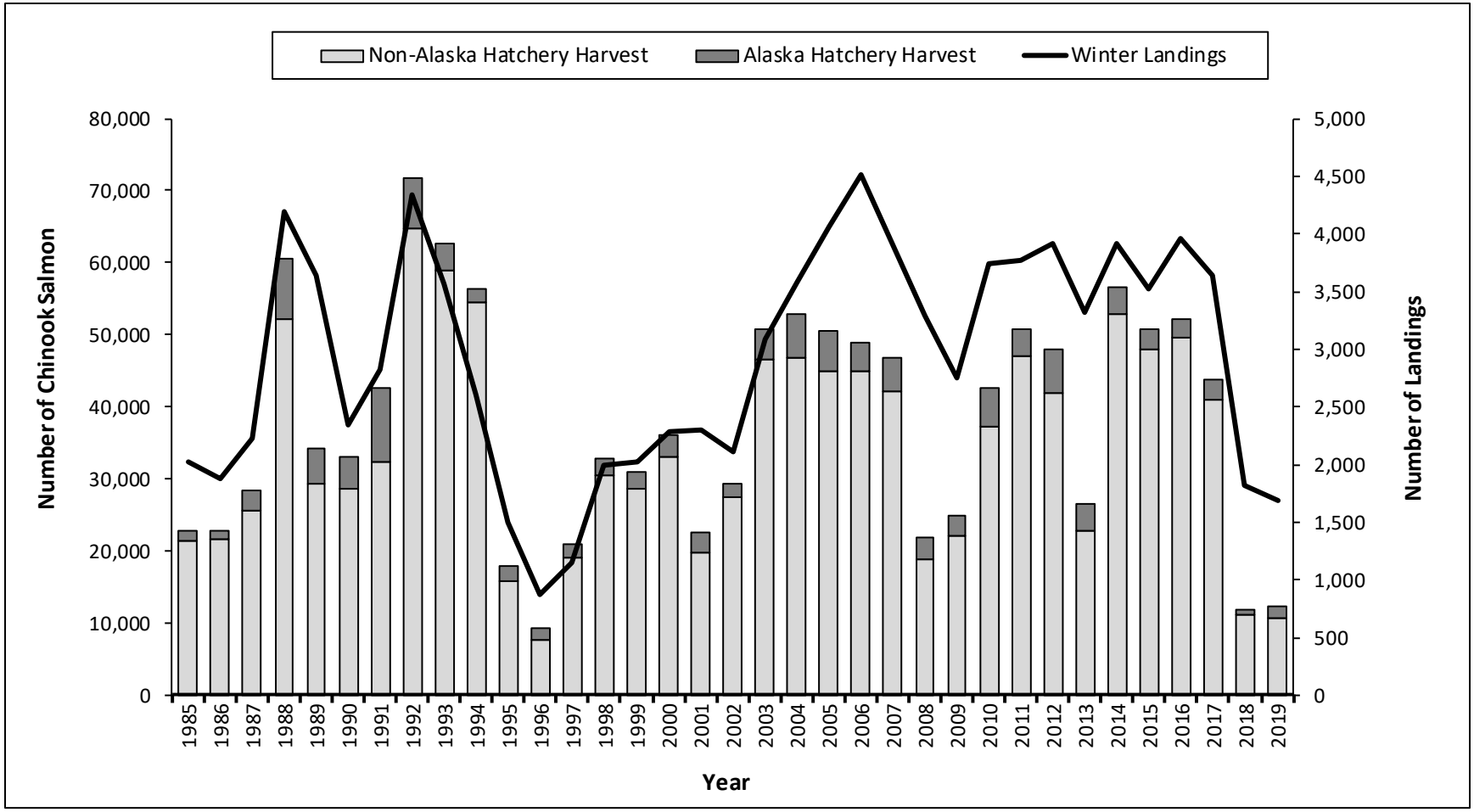

Figure 8.–Southeast Alaska winter troll fishery non-Alaska and Alaska hatchery Chinook salmon harvests and landings, 1985–2019.

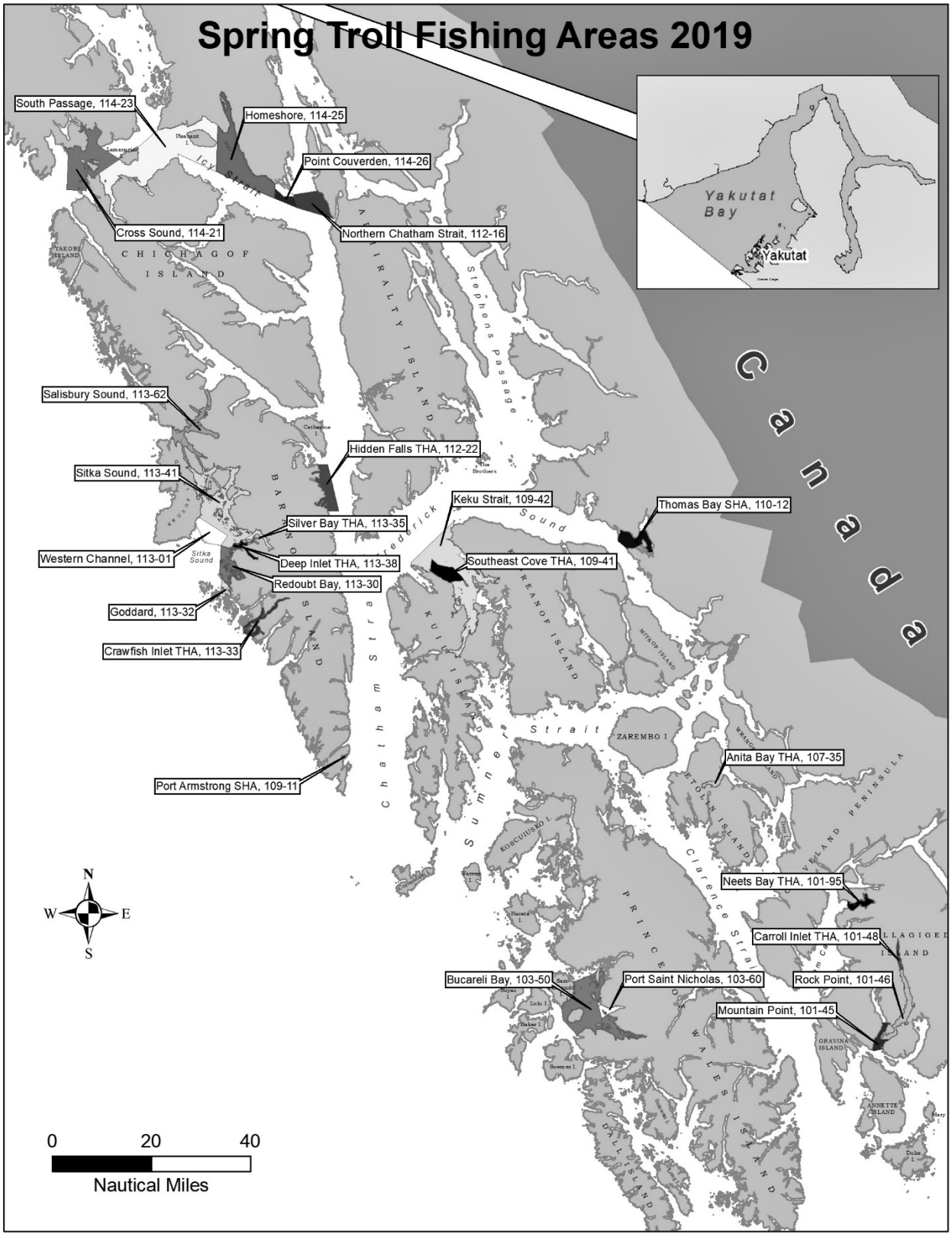

Figure 9.–Map of spring troll fishing areas, 2019.

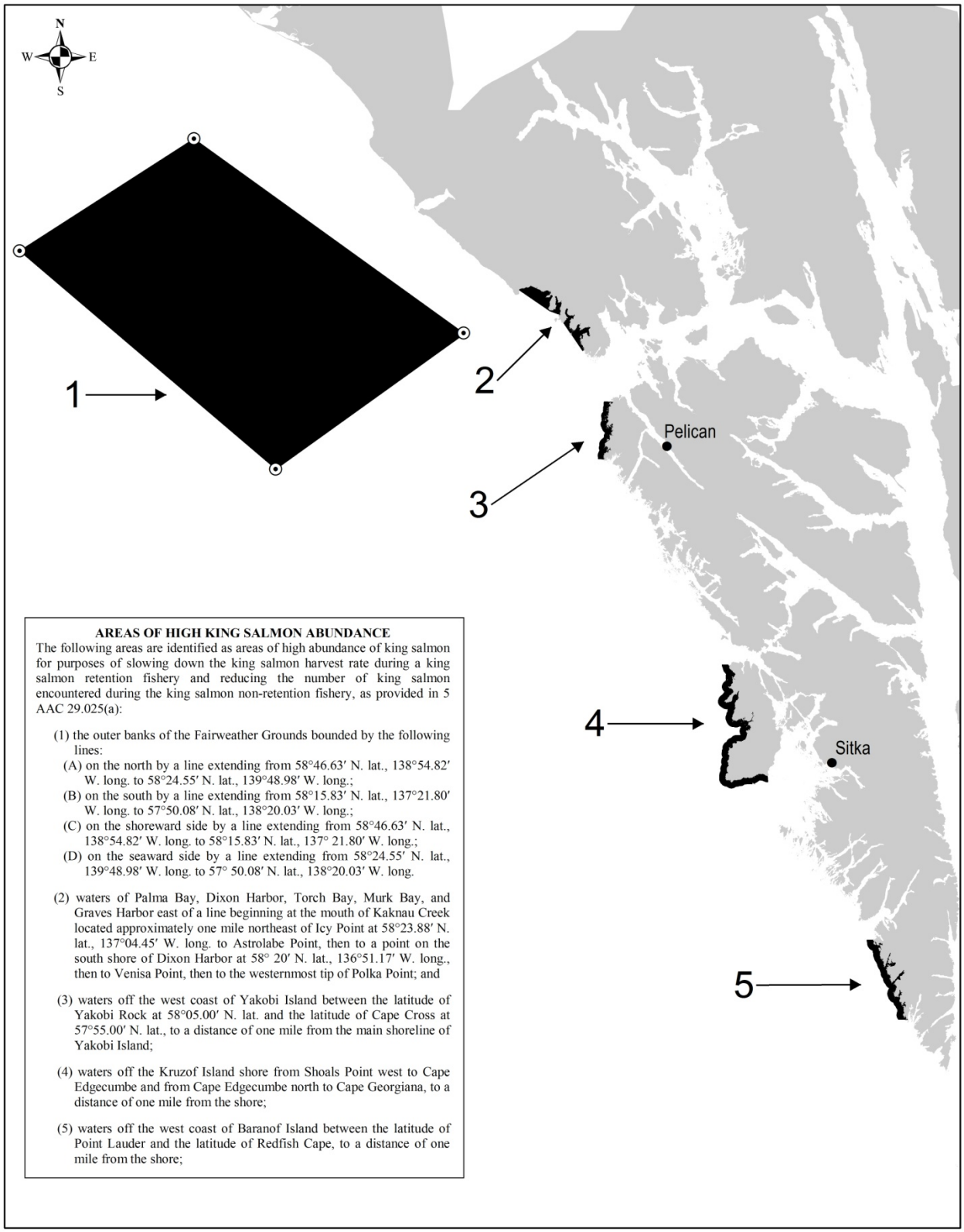

Figure 10.–Map of areas of high Chinook (king) salmon abundance (black shaded areas), which close during part of the summer fishery.

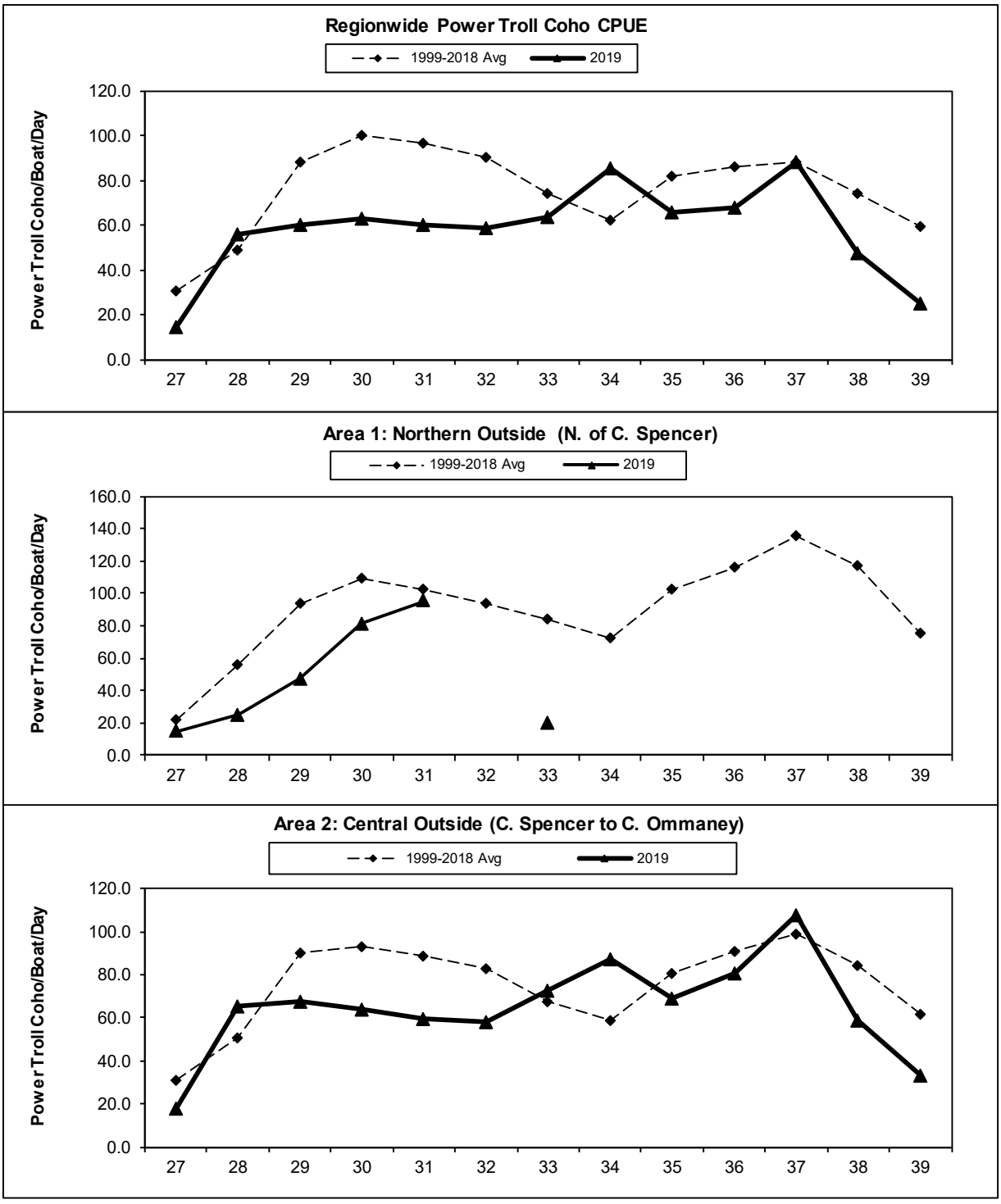

Figure 11.–Average power troll coho salmon CPUE by statistical week, comparing 2019 results with the 1999–2018 average, for the entire Southeast Alaska region ("Regionwide"), Northern Outside, and Central Outside (Areas 1 and 2).

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

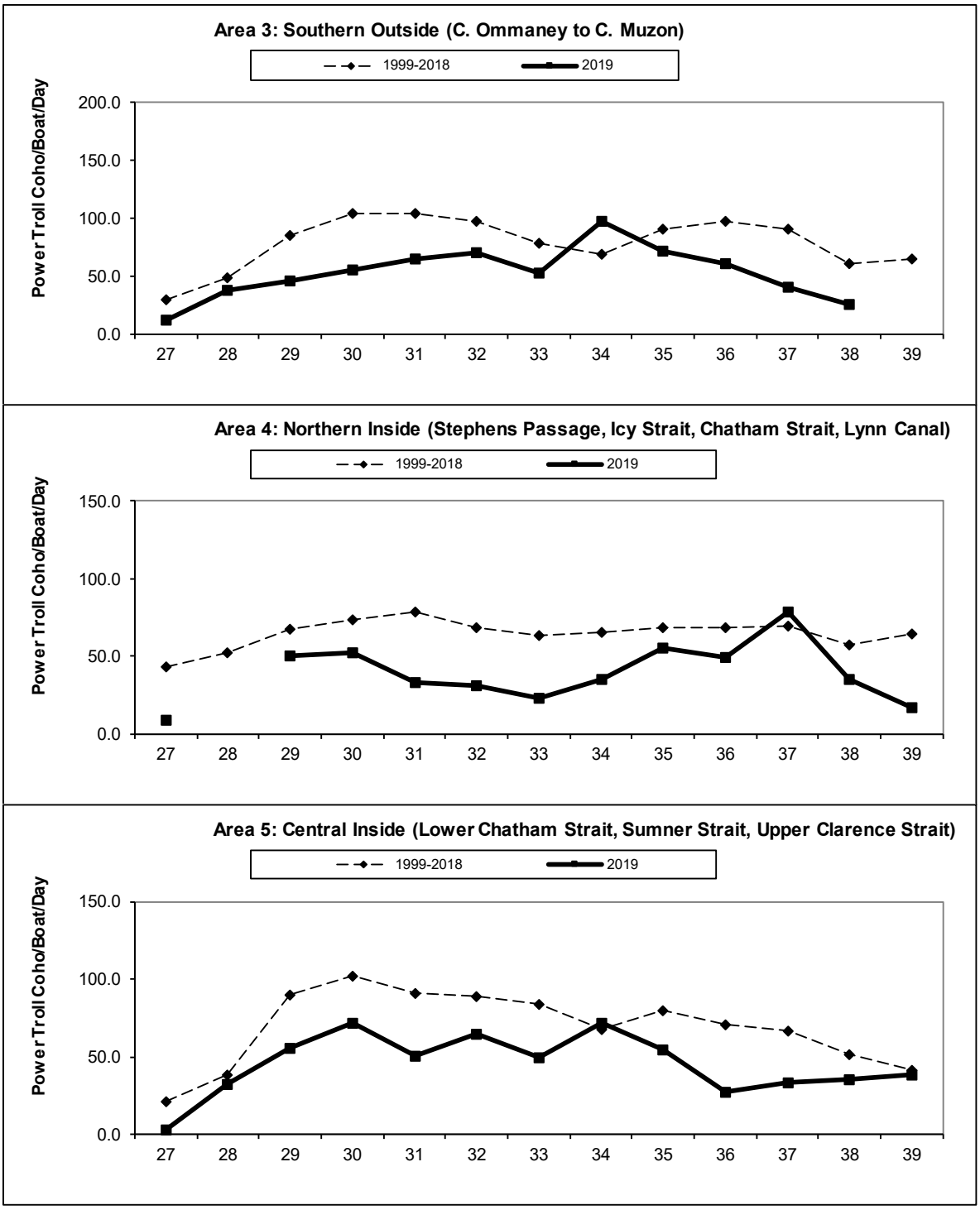

Figure 12.–Average power troll coho salmon CPUE by statistical week, comparing 2019 results with the 1999–2018 average, for Southeast Alaska: Southern Outside, Northern Inside, and Central Inside (Areas 3, 4, and 5).

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

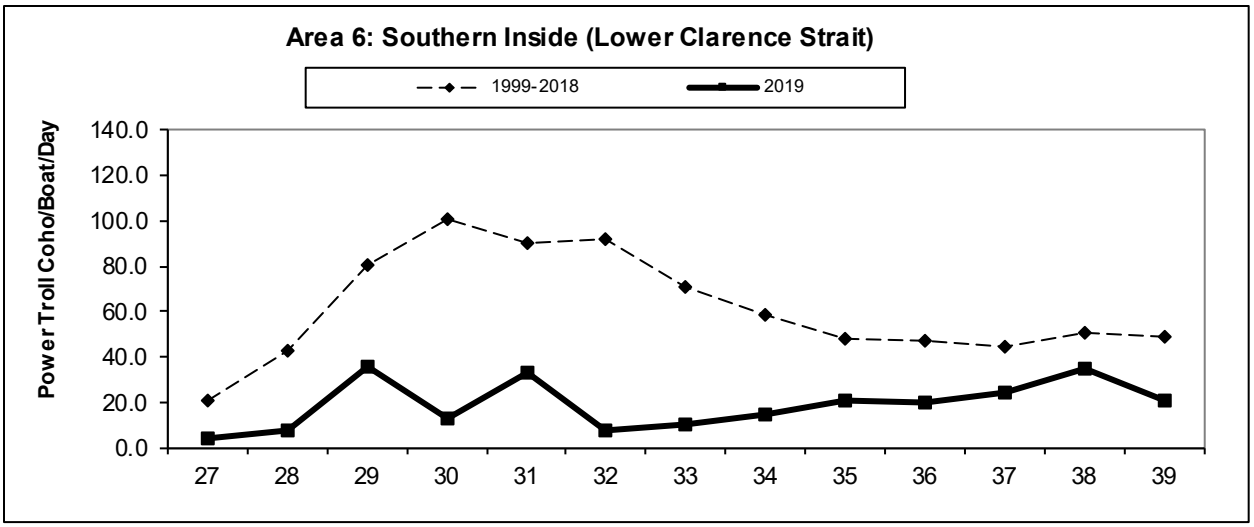

Figure 13.–Average power troll coho salmon CPUE by statistical week, comparing 2019 results with the 1999–2018 average, for Southeast Alaska: Southern Inside (Area 6).

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

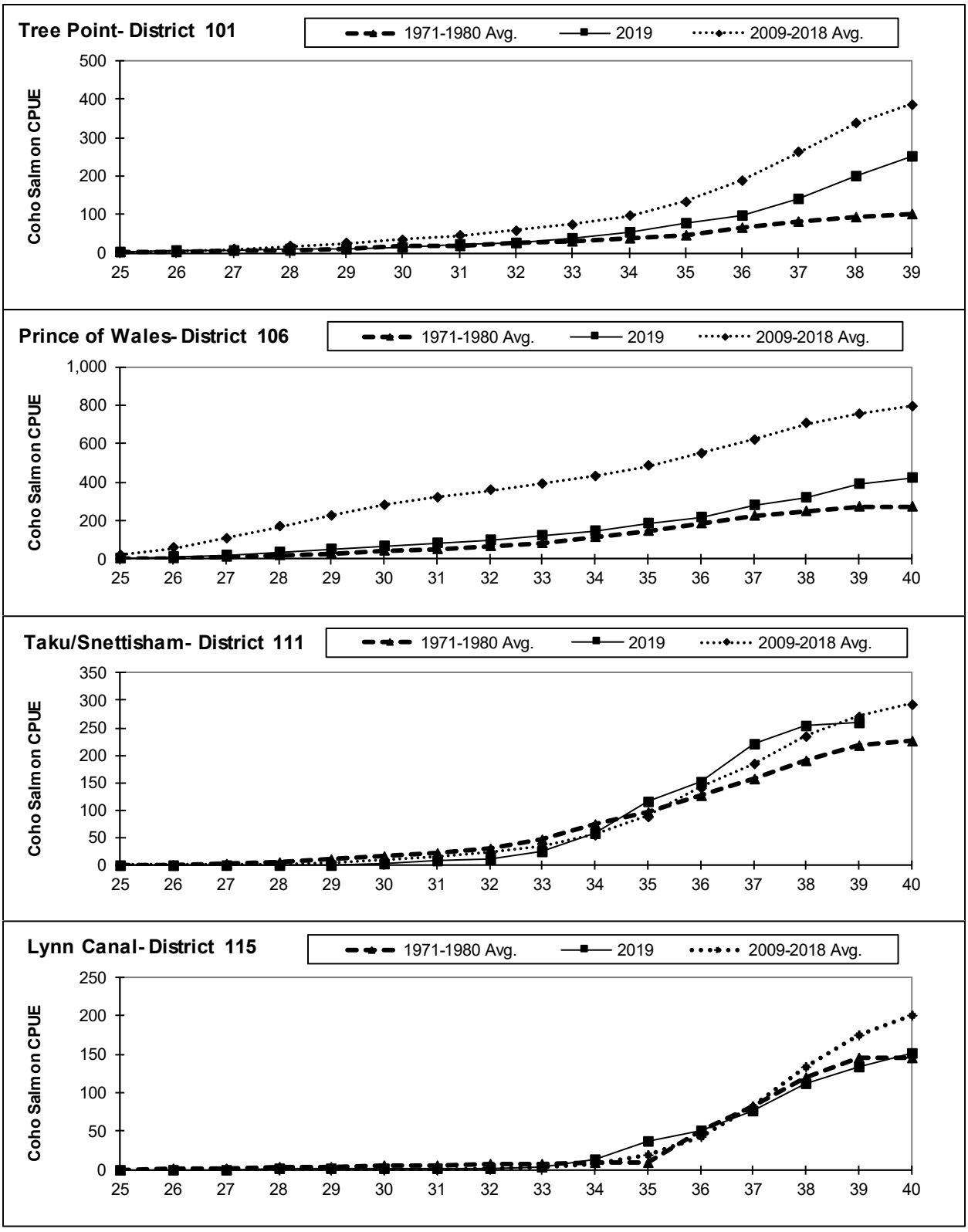

Figure 14.–Cumulative coho salmon CPUE by statistical week, comparing 2019 to the 1971–1980 and 2009–2018 averages, for the four indicator drift gillnet fisheries.

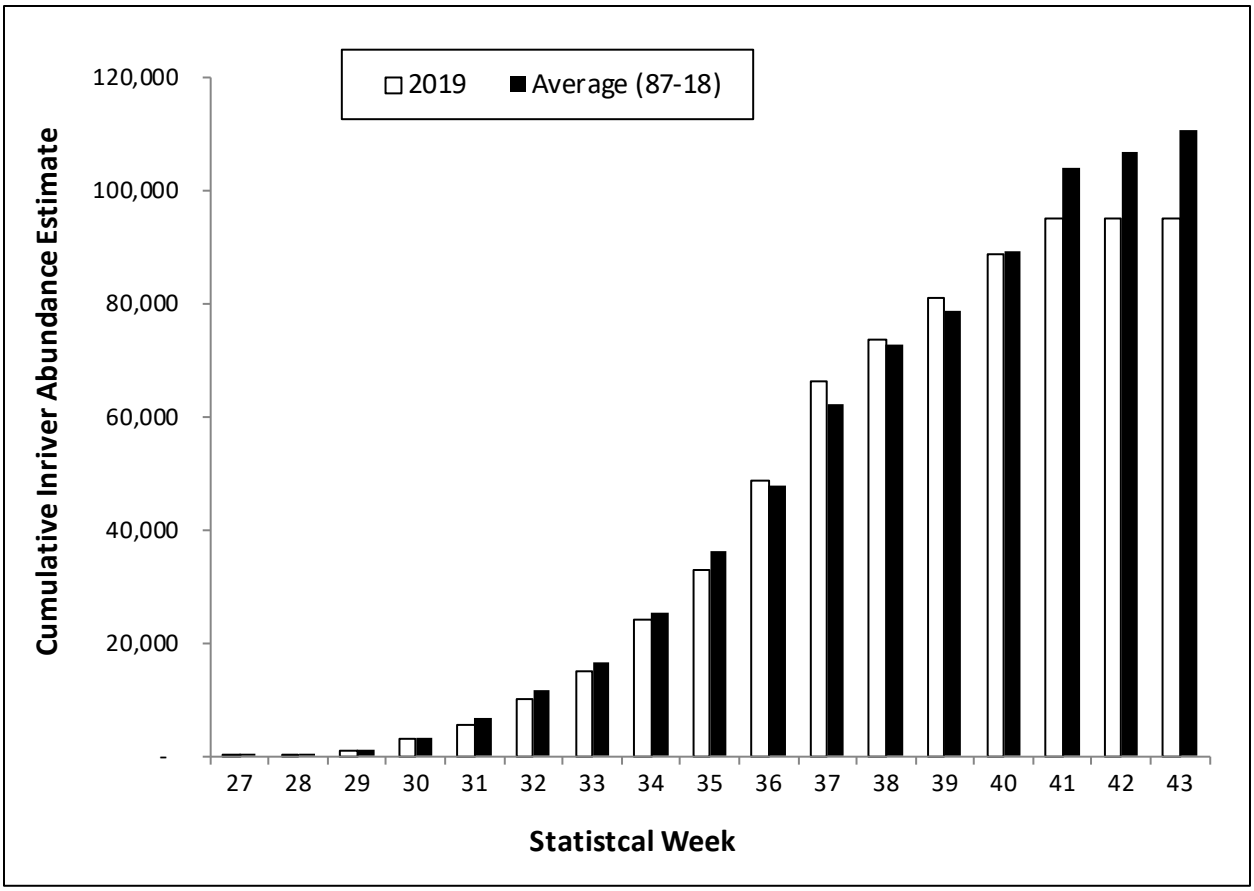

Figure 15.–Cumulative mark-recapture abundance estimates for Taku River coho salmon from Canyon Island fish wheels, for 2019 and the 1987–2018 average.

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

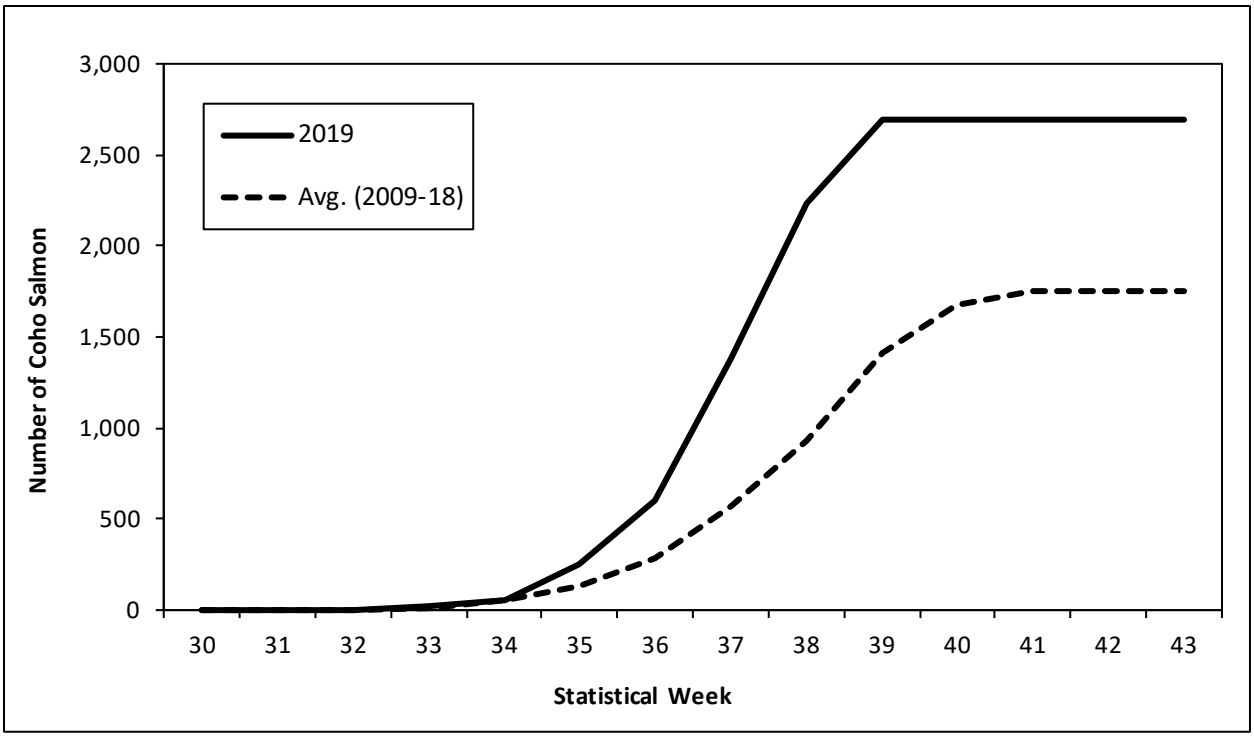

Figure 16.–Cumulative weekly harvest of coho salmon in the Chilkat River fish wheels, for 2019 and the 2009–2018 average.

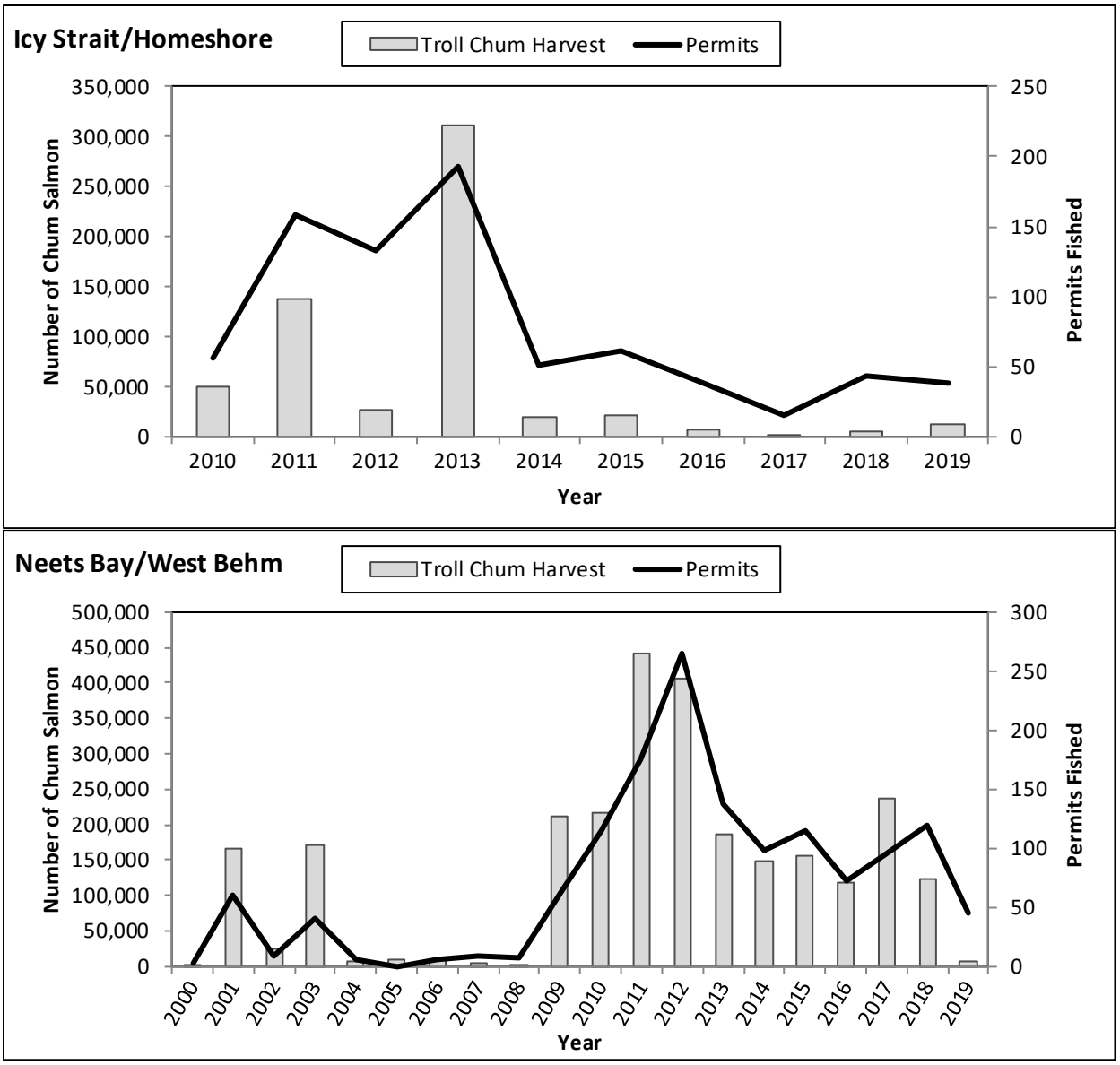

Figure 17.–Chum salmon harvest and effort in Icy Strait/Homeshore 2010–2019, Neets Bay/West Behm Canal 2000–2019, Sitka Sound 2000–2019, and 2018–2019 in Crawfish/West Crawfish Inlets. Harvest and effort based on all troll vessels that targeted chum.

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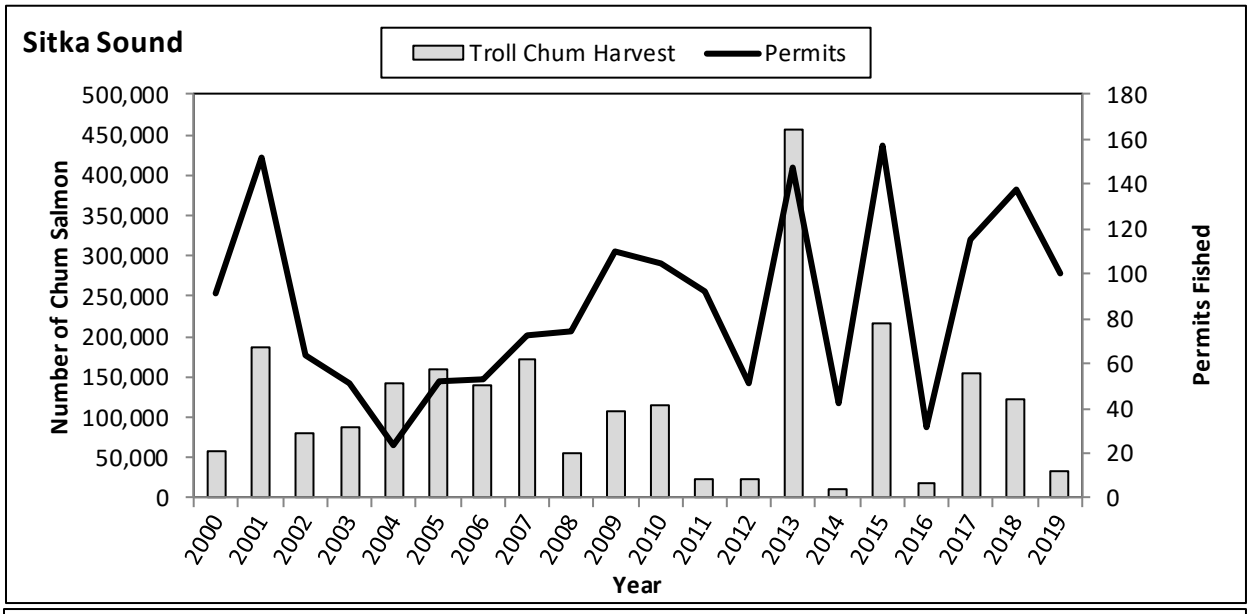
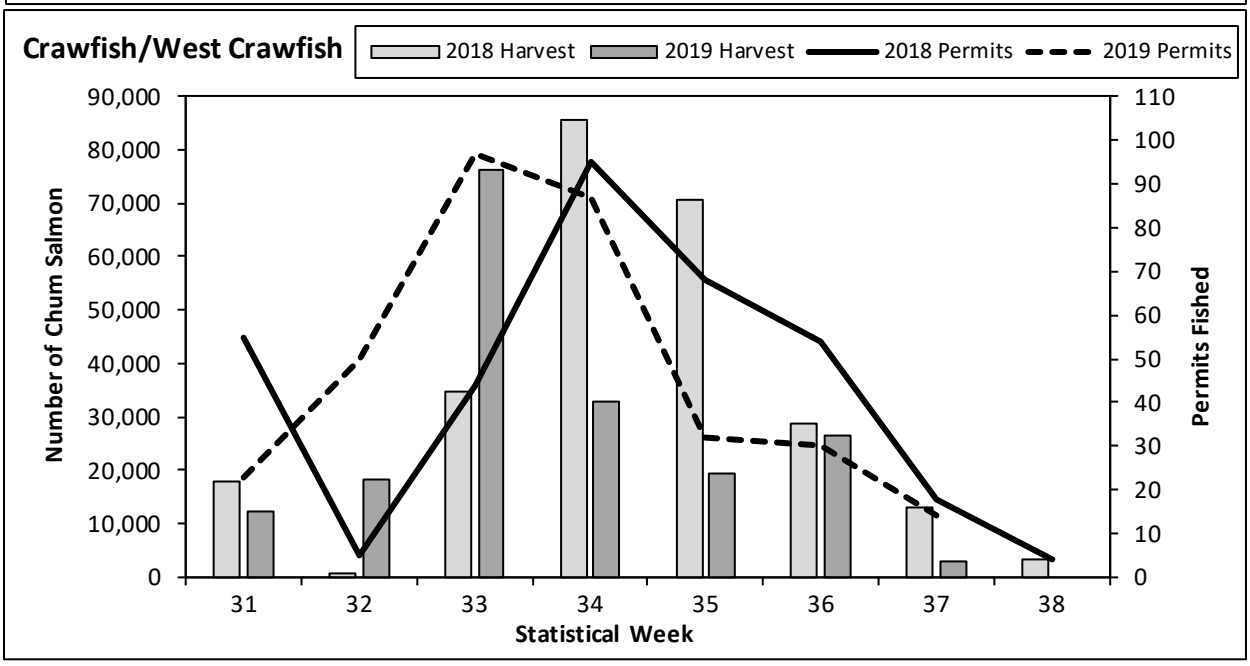
Figure 17.–Page 2 of 2.





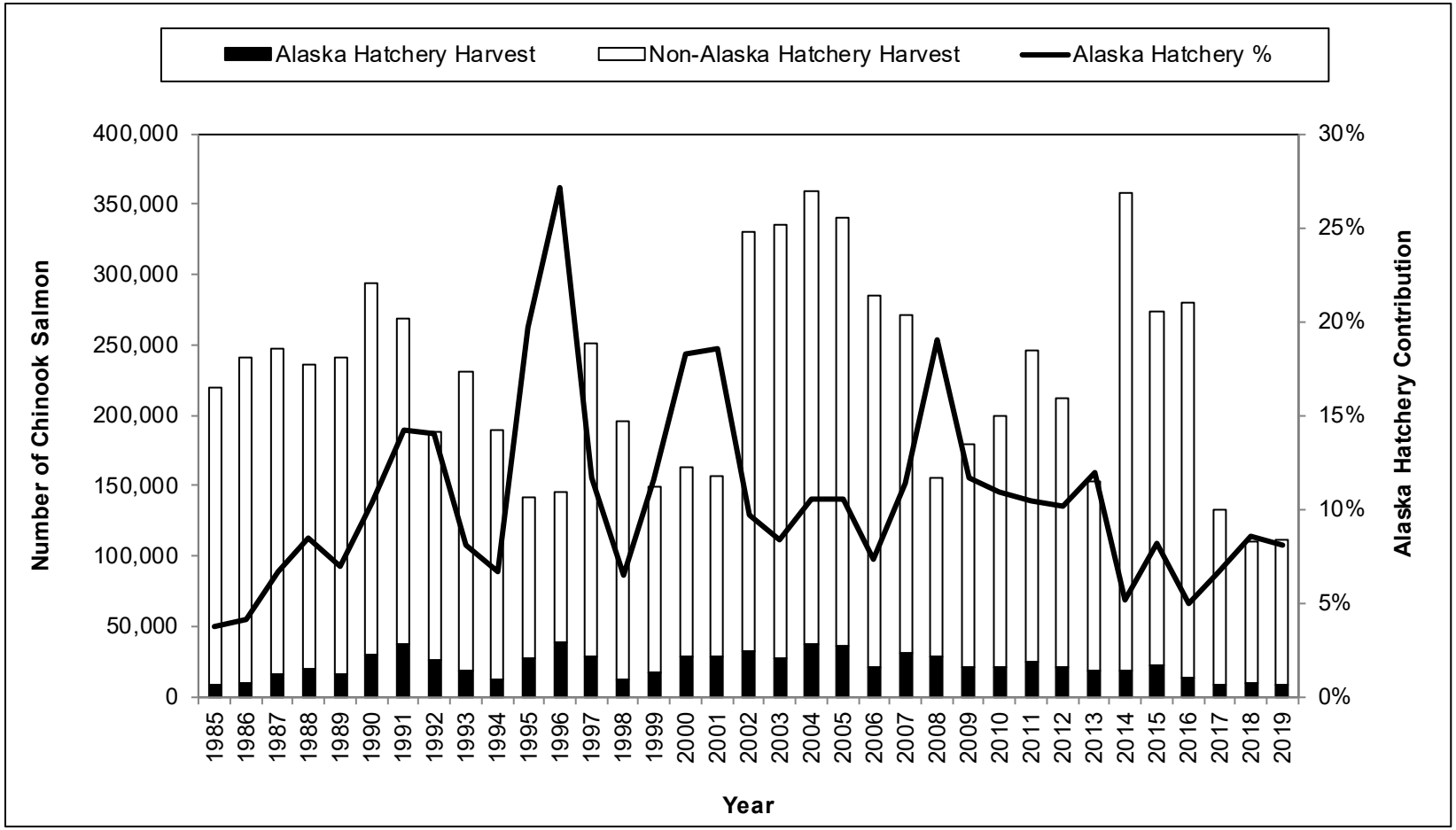


Figure 18.–Alaska hatchery Chinook salmon contributions to the Southeast Alaska troll fishery, 1985–2019.

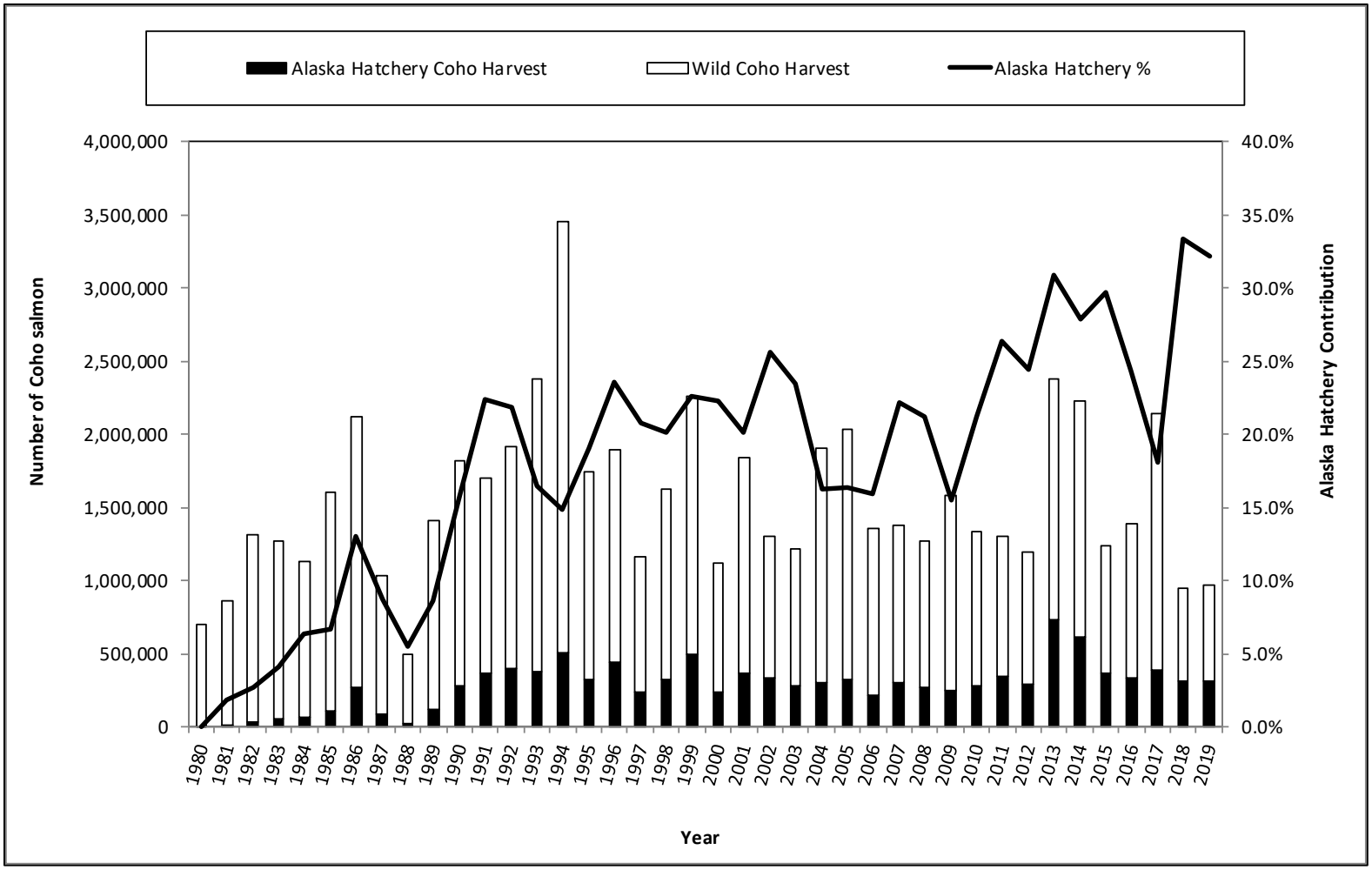


Figure 19.–Hatchery contributions of coho salmon from all sources to the Southeast Alaska troll fishery, 1980–2019.

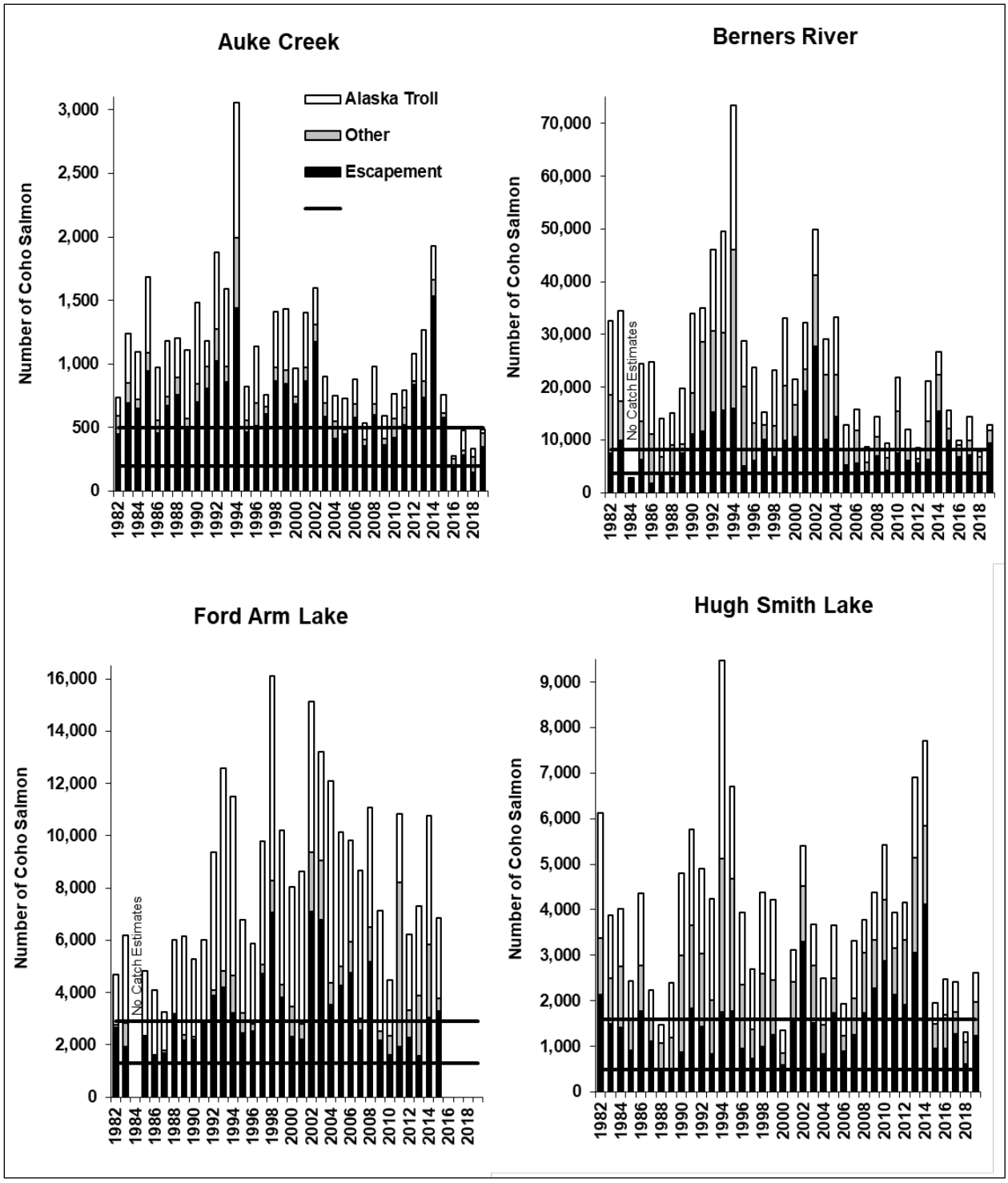


Figure 20.–Total run size, harvest, escapement, and BEG range for four wild Southeast Alaska coho salmon indicator stocks, 1982–2019.

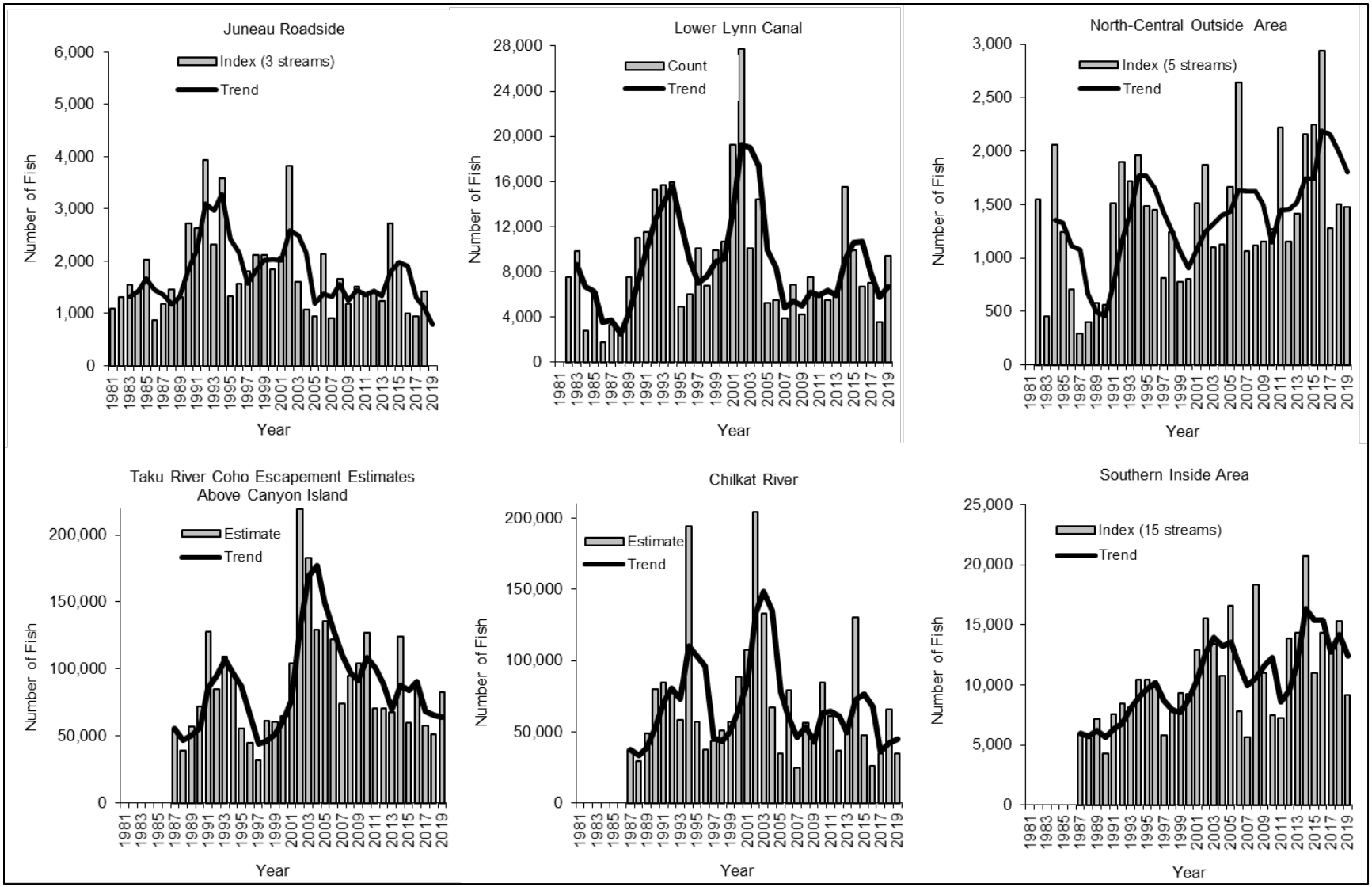


Figure 21.–Coho salmon escapement counts and estimates in index streams in six areas of Southeast Alaska, 1981–2019.

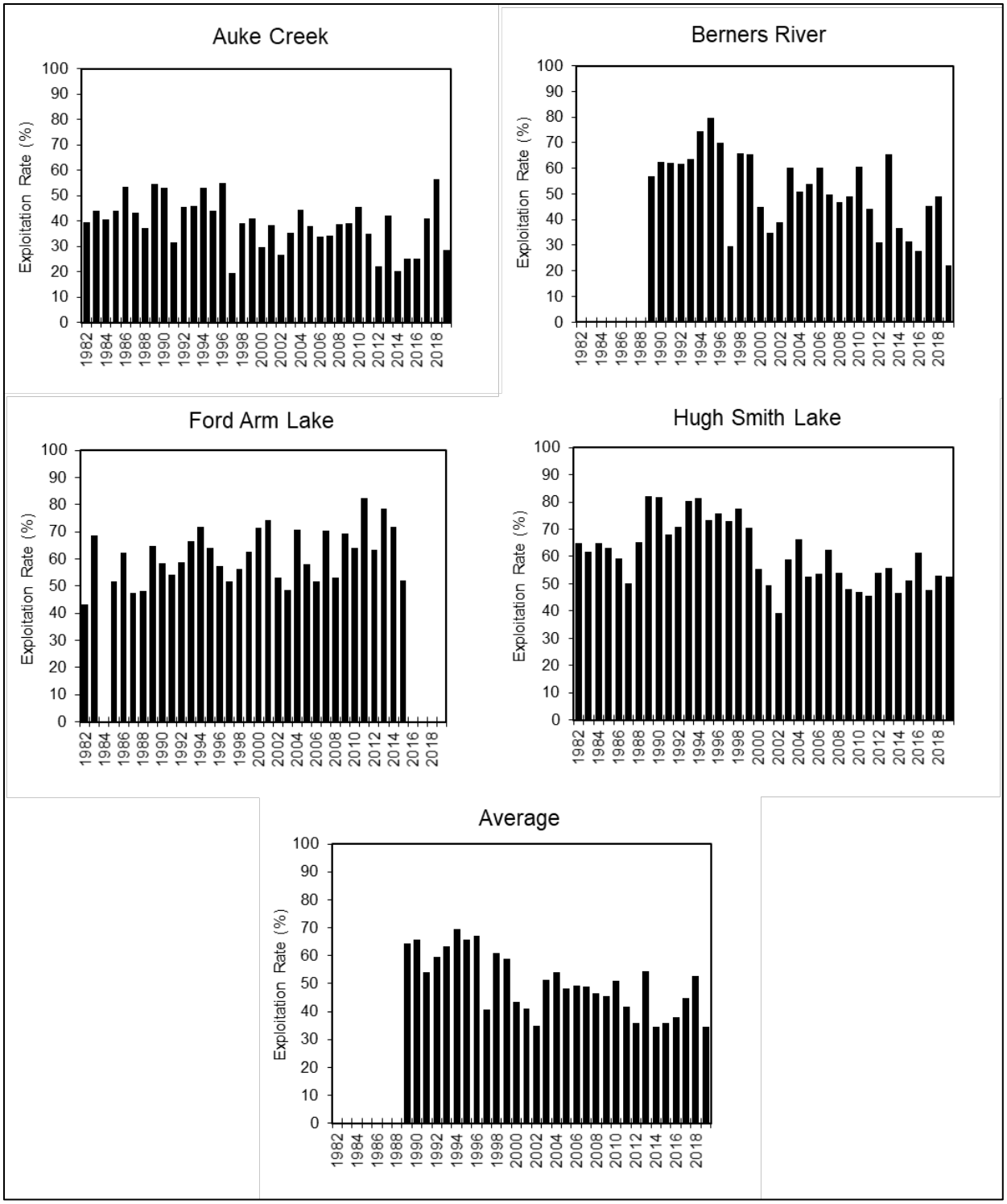


Figure 22.–Estimated total exploitation rates by all fisheries for four coded wire tagged Southeast Alaska coho salmon stocks, 1982–2019.

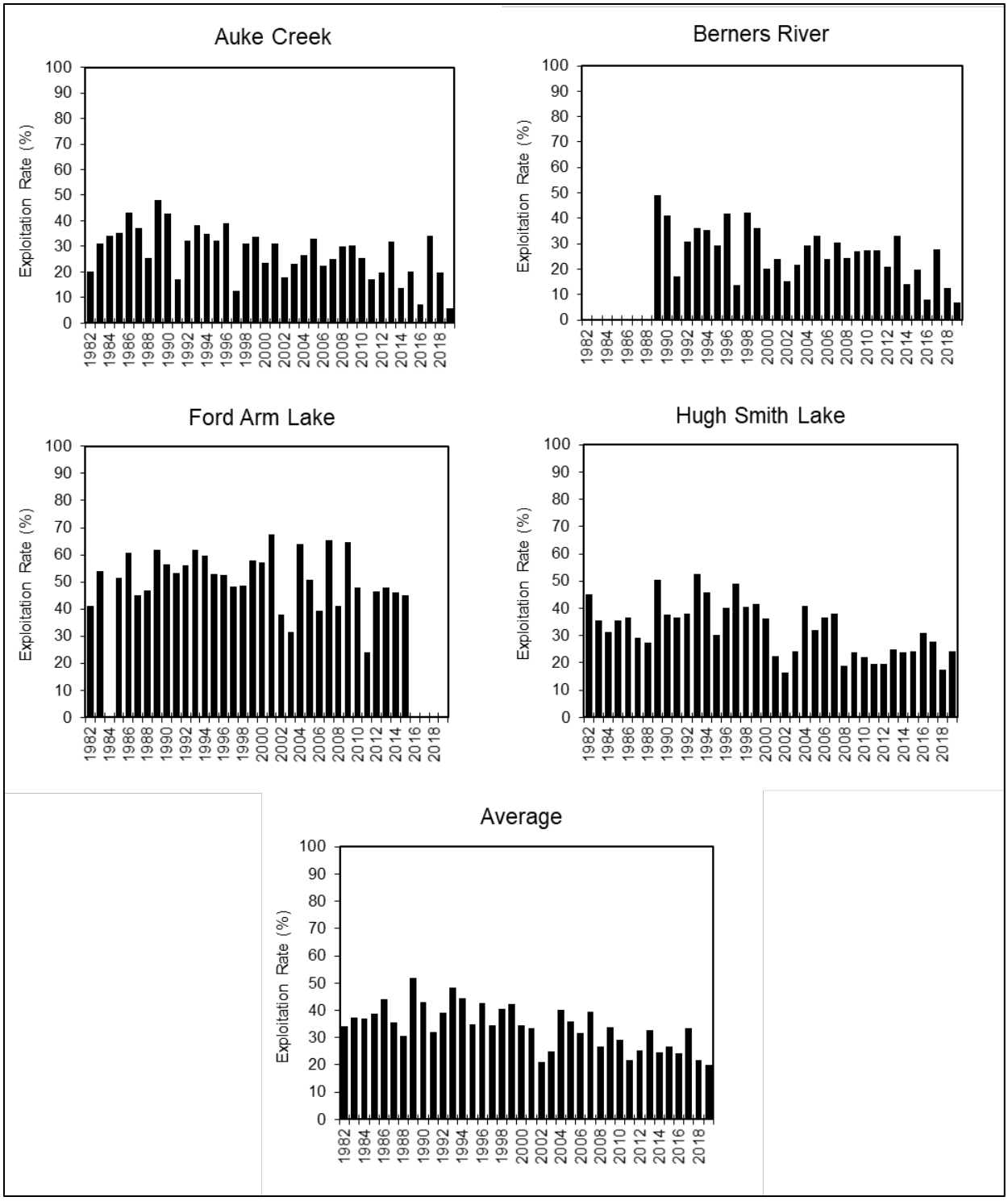


Figure 23.–Estimated exploitation rates by the Alaska troll fishery for four coded wire tagged Southeast Alaska coho salmon stocks, 1982–2019.