

**Annual Management Report of the 2009 Southeast  
Alaska Commercial Purse Seine and Drift Gillnet  
Fisheries**

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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The following symbols and abbreviations, and others approved for the Syst me International d'Unit s (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics</b>	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	$H_A$
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	$e$
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, $\chi^2$ , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient (multiple)	R
milliliter	mL	west	W	correlation coefficient (simple)	r
millimeter	mm	copyright	©	covariance	cov
		corporate suffixes:		degree (angular)	°
<b>Weights and measures (English)</b>		Company	Co.	degrees of freedom	df
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	expected value	$E$
foot	ft	Incorporated	Inc.	greater than	>
gallon	gal	Limited	Ltd.	greater than or equal to	≥
inch	in	District of Columbia	D.C.	harvest per unit effort	HPUE
mile	mi	et alii (and others)	et al.	less than	<
nautical mile	nmi	et cetera (and so forth)	etc.	less than or equal to	≤
ounce	oz	exempli gratia (for example)	e.g.	logarithm (natural)	ln
pound	lb	Federal Information Code	FIC	logarithm (base 10)	log
quart	qt	id est (that is)	i.e.	logarithm (specify base)	log <sub>2</sub> , etc.
yard	yd	latitude or longitude	lat. or long.	minute (angular)	'
		monetary symbols (U.S.)	\$, ¢	not significant	NS
<b>Time and temperature</b>		months (tables and figures): first three letters	Jan, ..., Dec	null hypothesis	$H_0$
day	d	registered trademark	®	percent	%
degrees Celsius	°C	trademark	™	probability	P
degrees Fahrenheit	°F	United States (adjective)	U.S.	probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
degrees kelvin	K	United States of America (noun)	USA	probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
hour	h	U.S.C.	United States Code	second (angular)	"
minute	min	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard deviation	SD
second	s			standard error	SE
				variance	
<b>Physics and chemistry</b>				population	Var
all atomic symbols				sample	var
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				

***FISHERY MANAGEMENT REPORT NO.11-09***

**ANNUAL MANAGEMENT REPORT OF THE 2009 SOUTHEAST  
ALASKA COMMERCIAL PURSE SEINE AND DRIFT GILLNET  
FISHERIES**

by

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The Fishery Management Reports series was established in 1989 by the Division of Sport Fish for the publication of an overview of management activities and goals in a specific geographic area, and became a joint divisional series in 2004 with the Division of Commercial Fisheries. Fishery Management Reports are intended for fishery and other technical professionals, as well as lay persons. Fishery Management Reports are available through the Alaska State Library and on the Internet: <http://www.sf.adfg.state.ak.us/statewide/divreports/html/intersearch.cfm>. This publication has undergone regional peer review.

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## **ABSTRACT**

A total of 51.6 million salmon were harvested in the commercial salmon fisheries in the Southeast Alaska and Yakutat Region in 2009. The harvest by purse seine gear of 44.4 million fish included by harvest type: traditional fisheries (36.2 million); hatchery terminal area harvest (2.8 million); hatchery cost recovery (3.6 million); Annette Island (1.7 million) and miscellaneous (<0.1 million). Common property seine harvests of 39.1 million were somewhat below the most recent odd-year (2007) harvests of 46.5 million, and below the recent 10-year average harvest of 47.0 million. The drift gillnet gear harvest of 4.3 million fish by harvest type included: traditional fisheries (3.4 million); hatchery terminal harvest (0.6 million); and Annette Island (0.3 million). Common property drift gillnet harvests of 4.1 million were about equal to the 10-year average harvest of 4.0 million, but well above the average since statehood.

Key words: Commercial fisheries, Alaska Department of Fish and Game, Annual Management Report, purse seine, drift gillnet, Southeast Alaska, Chinook salmon, sockeye salmon, coho salmon, pink salmon, chum salmon, traditional harvests, common property harvests, terminal harvest area, cost recovery harvests, Annual Management Report, AMR

## **INTRODUCTION**

This report describes the 2009 Southeast Alaska salmon net fisheries including the purse seine, drift gillnet, hatchery cost recovery, Canadian Transboundary River, and Annette Island fisheries. A summary discussion of fishery management actions and outcomes is presented along with landing estimates compared to historical production. This annual report was formerly part of a report that summarized the Region 1 commercial, personal use, and subsistence fisheries as a report to the Alaska Board of Fisheries (BOF). An overview summary of the 2009 Southeast Alaska regional salmon fisheries (Tingley and Davidson 2010), as well as summaries of the 2009 Southeast Alaska regional troll fisheries (Lynch and Skannes 2010), and the 2009 Yakutat Area set gillnet fisheries (Woods and Zeiser 2011) are published as separate reports and together describe the 2009 salmon season.

## **PURSE SEINE FISHERIES**

During the 50-year period since the time of statehood (1960–2009) the purse seine fishery has accounted for approximately 80% of the total commercial common property salmon harvest in the Southeast Alaska region. Pink salmon is the primary species targeted by the purse seine fleet and therefore most management actions are based on inseason assessments of the abundance of pink salmon. Other salmon species are harvested incidental to the pink salmon purse seine fishery. On average, by species, the common property purse seine harvests since 1962 account for 5% of Chinook, 45% of sockeye, 16% of coho, 90% of pink, and 48% of chum salmon harvests in the region (Tingley and Davidson 2010). Long term average species composition of the purse seine fishery harvest in numbers of fish includes: <0.1% Chinook, 2.1% sockeye, 1.1% coho, 87.3% pink, and 9.4% chum salmon (Table 1).

Commercial salmon fishing regulation [5 AAC 33.310(a)] allows traditional purse seine fishing in Districts 1 (Sections 1-C, 1-D, 1-E, and 1-F only), 2, 3, 4, 5, 6 (Sections 6-C and 6-D only), 7, 9, 10, 11 (Sections 11-A and 11-D only), 12, 13, and 14 (Figure 1). Although these specified areas are traditionally open to purse seine fishing, regulations mandate that specific open areas and fishing periods be established by emergency order. Purse seining took place in 5 Terminal Harvest Areas (THA) and 12 hatchery cost recovery locations (Figure 2) as well as in the Annette Island Reserve in 2009. Traditional purse seine fisheries, fisheries in THAs, hatchery cost recovery fisheries, Canadian Transboundary River fisheries, and the Annette Island Reserve are discussed in separate sections of this report.

Districts 1 through 7 (Southern Southeast) and Districts 9 through 14 (Northern Southeast) are grouped for purposes of forecasting, harvest tabulation, and management. However, because both the northern and southern portions are included in the same salmon registration area, purse seine fishermen can move freely between districts based on run timing and abundance. Efforts are made to coordinate management actions regionally to account for seine effort distribution. Inseason assessments of pink salmon run strengths are determined from a combination of spawning escapement information from aerial surveys, foot surveys, observations from vessels, and from fishery performance data (i.e., catch per unit effort (CPUE)). In addition, the Alaska Department of Fish and Game (ADF&G) charters purse seine vessels to conduct test-fishing assessments to determine run strength in selected areas, and conducts dockside sampling to determine pink salmon sex ratios to help assess run timing. Inseason run strength evaluations are made by comparing inseason information with historic data.

In 2009 the total harvest by purse seine gear was 44.4 million salmon, and the total common property purse seine harvest was 39.1 million salmon (Table 2). Common property fisheries include traditional wild stock fisheries and terminal area fisheries where fishermen compete to harvest surplus returns. The total common property purse seine harvest included approximately 29,000 Chinook, 307,000 sockeye, 283,000 coho, 34.9 million pink, and 3.5 million chum salmon. Historical common property purse seine harvests in traditional and THA fisheries from 1980 to 2009 are presented in Table 1 for comparisons with long-term averages from 1960 to 2008, and during the recent 10-year period from 1998 to 2008. The 2009 season ranks as the 17<sup>th</sup> largest common property purse seine harvest in the 50-year period since Alaska statehood, and is about 32% above the long-term average harvest.

Initial exvessel values based on prices reported on fish tickets are presented for the purse seine fishery as well as other fisheries in the region for comparison in Table 3. At \$41.9 million exvessel value the purse seine fishery is the highest value salmon fishery in Southeast Alaska. Figure 3 presents recent trends in value. Values for the purse seine fishery have generally increased from a low in 2002 to current values that are more consistent with the 1990s decade. The total value includes \$24.1 million for Southern Southeast Alaska (Districts 1–7), \$8.9 million for Northern Southeast Alaska (Districts 9–14), and \$9.0 million for seine fisheries in Terminal Harvest Areas (THA). Comparing the seine fishery values shown in Table 3 with exvessel value estimates by the Commercial Fisheries Entry Commission (CFEC), based on both fish ticket prices and prices based on annual processor reports, the fishery value was 16% higher and the overall value for all commercial salmon fisheries combined increased by 10%. The initial fish ticket estimates for the purse seine fishery indicated that pink salmon were worth \$24.8 million, chum salmon were worth \$13.4 million, sockeye salmon were worth \$2.0 million, Chinook salmon were worth \$ 0.9 million, and coho salmon were worth \$0.8 million.

Total common property harvests in northern districts ranked 18<sup>th</sup> since statehood (Table 4), and harvests in southern districts ranked 15<sup>th</sup> since statehood (Table 5). Charts showing long-term harvest trends for pink, chum, sockeye, and coho salmon for the region are presented in Figure 4. Harvests for pink and chum salmon were above long term averages but below the recent 10-year averages. Harvests for sockeye and coho salmon were below both long term and recent averages. Compared with the recent 10-year average harvest by species, Chinook were 132% of the average, sockeye were 49%, coho were 82%, pink were 86%, and chum salmon were 65% (Table 1).

Table 2 presents a detailed breakdown of all 2009 purse seine harvests by species, fishery type, and district. Common property harvests include 36.2 million fish in traditional areas and 2.8

million fish in hatchery terminal areas. Cost recovery seine harvests to support privately operated salmon enhancement programs totaled 3.6 million salmon, of which 75% were chum salmon. Seine harvests reported by the Annette Island Reservation totaled 1.7 million salmon. Miscellaneous harvests of 41,000 salmon include test fisheries authorized by the department or illegally harvested fish, later confiscated by the Alaska Wildlife Troopers. Of the 36.2 million salmon harvested in traditional seine fisheries, 25.8 million were harvested in Southern Southeast districts and 10.5 million were harvested in Northern Southeast districts. The largest traditional area harvests took place in Districts 1, 12, 4, 3 and 2 which together accounted for 81% of traditional harvests.

The 2009 the purse seine fishery began on Sunday, June 21 in Districts 2 and 12 and included the Kendrick Bay THA, District 2 shoreline outside Kendrick Bay, Tenakee Inlet, the Hidden Falls THA, and the Point Augusta index fishery. Summaries of the 2009 purse seine fisheries dates and times are shown for northern Southeast, southern Southeast, and for THAs in Tables 6, 7, and 8. Concurrent purse seine fishery openings began May 15–June 10 in Neets Bay THA and May 1–June 12 in Anita Bay THA. Rotational gear fisheries began June 14 in the Neets Bay THA, June 13 in the Anita Bay THA, and May 31 in the Deep Inlet THA. The traditional summer pink salmon season ran through an August 27–28 fishing period in most districts. A single opening targeting fall chum salmon took place in Sitka Sound in Section 13-B on September 10. Concurrent gear openings resumed late in the season at Neets Bay THA and Anita Bay THA with no participation.

During the 2009 purse seine fishery 379 permits were issued and 256 permits were fished (updated from ADF&G IFDB database 1/3/11). Effort in 2009 increased by 44 permits compared with 2008, attributable to an improved pink forecast for the stronger odd-year cycle. Going into the 2008 season 35 permits were purchased in a buy-back program to initiate effort consolidation in the fishery.

Summary information for pink salmon escapements by subregion and district is presented in Tables 9, 10, and 11. Summary information for chum and sockeye salmon escapements is presented in Tables 12 and 13. Escapement information is described further in a later section of this report.

## **PURSE SEINE CHINOOK SALMON HARVEST**

Regulation [5AAC 33.392(a)] states that unless otherwise specified, Chinook salmon taken and retained must measure at least 28 inches from the tip of snout to tip of tail. This regulation applies to all purse seine, troll, and recreational fisheries, but not to the gillnet fisheries. Further, regulation [5ACC 29.060 (b)(1)] establishes a purse seine harvest allocation for Chinook salmon 28 inches or larger of 4.3% of the annual harvest ceiling established by the Pacific Salmon Treaty (PST). For the 2009 season, based on a coastwide Abundance Index of 1.33 derived by the Chinook Technical Committee, the Alaska annual harvest ceiling was 218,789 fish and resulted in a purse seine harvest allocation of 9,408 “Treaty” Chinook salmon. The Alaska Board of Fisheries (BOF) adopted the Chinook salmon harvest guidelines as part of an overall allocation scheme among commercial and sport users resulting from implementation of the PST. Regulation [5ACC 33.392(b)] states that a purse seine permit holder may take but may not sell Chinook salmon between the sizes of greater than 21 inches and less than 28 inches. Chinook salmon less than 28 inches do not count against the Chinook harvest quota. In addition, it is specified in regulation [5ACC 29.060(c)] that Chinook salmon produced by Alaska hatcheries do

not count against the seasonal harvest guideline, minus adjustments for pre-treaty hatchery production and estimation error.

The primary management tool used to limit purse seine harvests within the Chinook salmon harvest allocation is to establish fishing periods, by emergency order, when large Chinook salmon cannot be retained. When non-retention is implemented, such action is preferable either early or late in the season when the total salmon harvest rate is low. This allows for a more efficient release of large Chinook and minimizes the impact of incidental mortality. Retention of Chinook salmon 28 inches or larger is permitted as long as possible during the period when harvest rates for other species are high. Once the Chinook salmon seine allocation is harvested, non-retention is required. The total 2009 common property purse seine harvest (traditional and THA) of Chinook salmon was 29,888 fish, of which 28,922 were reported as 28 inches or larger and 966 as less than 28 inches (Table 1). The seine harvest of Alaska hatchery Chinook salmon is estimated at 15,973. Of these Alaska hatchery fish, 15,430 were designated as “hatchery add-on” Chinook salmon that did not count against the seasonal harvest guideline. For all districts 12,633 were caught in traditional fisheries (including 7,072 in District 4) and 16,289 were caught in hatchery terminal area fisheries. The total large Chinook harvest of 28,922 minus the add-on Chinook harvest translates into a Treaty Chinook salmon harvest of 13,582. As a result, the total purse seine harvest was 4,174 fish over the Chinook salmon treaty allocation for purse seine gear. This overage compares with a purse seine underage of 3,900 in 2008. The all gear U.S. harvest of Treaty Chinook was 2.0% below the all-gear quota.

## **NORTHERN SOUTHEAST ALASKA PURSE SEINE FISHERIES**

Purse seine fishing in Northern Southeast Alaska includes the fisheries that occur in Districts 9 through 14. Fishery management is driven primarily by pink salmon stock abundance, but also includes fisheries in hatchery terminal harvest areas. In 2009 traditional and THA purse seine harvests in Northern Southeast Alaska totaled 13.1 million fish, and included 6,500 Chinook, 65,000 sockeye, 37,000 coho, 10.6 million pink, and 2.4 million chum salmon (Tables 2 and 3). Common property harvests in Northern Southeast ranked 18<sup>th</sup> over the 50-year period since Alaska statehood. Harvests were below the recent 10-year average harvest and above the long-term average harvest. The harvests of Chinook, pink and chum salmon were above the long-term but below the most recent 10-year average harvests. The harvests of sockeye and coho, salmon were below both averages. The sockeye harvest increased considerably compared with only 5,600 in 2008 (the second lowest since statehood) but were only half of the long-term average harvest. Harvest of both pink and chum salmon increased considerably following a very low even year return in 2008.

### **Northern Southeast Alaska Inside Fisheries**

#### *District 9*

District 9 is divided into 2 sections. Section 9-A is managed from the Sitka office and 9-B from the Petersburg office. Section 9-A includes the waters of Chatham Strait off the eastern shoreline of Baranof Island south of the latitude of Point Gardner to Coronation Island. Section 9-B is 50 miles west of Petersburg and encompasses the waters of the western end of Frederick Sound and the southeast portion of Chatham Strait.

Section 9-A is comprised of two separate stock groups for management; Upper Section 9-A is managed for early to mid-run pink salmon returning to Red Bluff Bay, and Lower Section 9-A is

managed for late-run pink salmon returning to streams from Patterson Bay to Little Port Walter. This season, eight fishing periods were provided in Upper Section 9-A, beginning July 26 and ending August 24 (Table 6), based on strong returns of pink salmon to Red Bluff Bay. Earlier openings were restricted to north of the southern entrance of Red Bluff Bay in consideration of the Falls Lake subsistence sockeye fishery. On August 3 the open waters were expanded to the south and included the waters of Section 9-A north of the Hoggatt Bay Light. On August 15 the open waters were further expanded south to 56°40.00' N. latitude. On August 23–24 the final 39-hour opening included all of the waters of Section 9-A north of Armstrong Point with building escapements in Lower Section 9-A. The total harvest in Upper Section 9-A was 371,000 pink salmon with effort ranging from 2 to 7 boats. In Lower Section 9-A, open for only one 39-hour period, the harvest was 9,000 pink salmon by three boats. Pink salmon escapement indices for both stock groups in Section 9-A were above the mid-point of the management target ranges.

Major commercial fishing areas in Section 9-B include the waters adjacent to Admiralty Island between Eliza Harbor and Point Gardner and the waters adjacent to the western side of Kuiu Island from Kingsmill Point to Tebenkof Bay. The first opening in Section 9-B occurred on July 30 and 31 for 39 hours. Herring Bay and Eliza Harbor were opened north of southernmost tip of Carroll Island with the head of Eliza Harbor closed north of 57°12.46' latitude. The opening was intended to target a good showing of pink salmon returning to this area. Subsequently, this portion of Section 9-B was opened for two additional 39-hour openings. Effort was generally low with 3 to 13 boats fishing and harvest varied with an average of 3,400 to 8,500 pink salmon per boat. Open area expanded in Section 9-B for the fourth opening; however, time was limited to 15 hours. The Kuiu Island shoreline north of Point Ellis and south of Cornwallis Point opened for 15 hours on August 7 and the Eliza Harbor area opened on previous openings was opened for 15 hours on August 8. No boats fished along the Kuiu shoreline and only 3 boats fished the southeast Admiralty Island area. The Eliza Harbor/Herring Bay area continued to show improvements in escapement and the area was opened for an additional 39 hours on August 11 and 12 with the area open to commercial fishing in Eliza Harbor expanded to normal markers. Effort increased to 5 boats fishing in this area and harvests increased to an average of 22,300 pink salmon per boat. The Kuiu Island shoreline north of Swaine Point and south of the latitude of Cornwallis point was open for 15 hours on August 12. During this opening a surge of new fish were observed to have moved into Tebenkof, Malmsbury, and Rowan Bays. Effort was low with the 5 boats actively fishing averaging 10,800 pink salmon per boat. At this time pink salmon escapements to Saginaw, Security, Herring, and Eliza Bays were still building and escapement goals were expected to be met, thus the majority of section 9-B was open for 39 hours on August 15 and 16. Openings continued on a 2-day-on/2-day-off schedule for another three openings with the final opening occurring on August 27 and 28. Effort was minimal during these four openings with 1 to 21 boats fishing and harvests were generally low with peak average of 13,000 pink salmon per boat.

The 2009 harvest of all salmon in Section 9-B was below average. The pink salmon harvest of 642,900 fish was a little more than one-third the average annual harvest since statehood of 1,836,600 fish. The Section 9-B sockeye salmon harvest of 1,200 fish was below the average of 8,200 fish; the coho harvest of 4,000 fish was below the average of 21,900 fish; and the chum salmon harvest of 15,000 fish was below average of 129,200 fish.

Pink salmon returns to Section 9-B were non-typical. In some areas the pink salmon showed initial good indications, however as the season progressed the runs failed to develop. In other areas, the pink salmon came in later than normal and in one big surge with little following. Yet in other areas, pink salmon seemed to return in periodic waves. Overall, pink salmon escapement to District 9 was fair. The indexed escapement of 838,000 pink salmon was within the target range of 630,000 to 1,500,000 fish (Table 10). However, two out of the three Section 9-B stock groups indexed escapement were just below the lower end of the target ranges for those stocks (Table 11).

### ***District 10***

District 10 encompasses much of the waters of Frederick Sound and the southern portion of Stephens Passage. Its eastern boundary is about 15 miles northwest of Petersburg. Major fishing areas include the waters in and adjacent to Port Houghton and Windham Bay and the waters adjacent to the southeast side of Admiralty Island including Gambier Bay, Pybus Bay, and the Big Bend at the mouth of Seymour Canal.

District 10 had good pink salmon escapements during the 2007 parent-year. However, in season it was apparent that the return would be poorer than expected. The first 15-hour opening in the Petersburg-Wrangell Management Area occurred in District 10 on Sunday, June 28 (Table 6). The area opened did not include the Admiralty shoreline and Frederick Sound east of a line from Cape Fanshaw to Pinta Point. The same area was opened for 5 additional 15-hour openings with the final opening occurring on July 23. By that time it was evident the early return of pink salmon was mediocre. The effort and harvest were either non-existent or low during the first 3 openings in the district. The next 3 openings effort and harvest increased but were still below average. The Big Bend portion of District 10 was open north of Gambier Island Light for four 39 hour openings starting on August 3 and ending on August 16. Effort and harvest were minimal during these openings. The area in and around Pybus and Gambier Bays remained closed to commercial salmon fishing throughout the 2009 season.

The 2009 harvest of all salmon was below average; however, pink salmon escapement was within the target range for the district. The pink salmon harvest of 330,000 fish (Table 2) was well below the 878,000 fish average since statehood. Pink salmon escapement index of 599,000 fish was within the target range of 590,000 to 1,410,000 fish (Table 10). Even though the escapement index is within the goal range, the index was largely comprised of one system's escapement in which the escapement was exceptional. The Pybus Bay/Gambier Bay stock group was the only stock group that did not meet escapement goals (Table 11). The sockeye, coho, and chum salmon harvests were also well below average.

### ***District 11***

In District 11, Sections 11-A and 11-D are designated in regulation as areas that may be opened to purse seining by emergency order. Section 11-A has not been opened since statehood and Section 11-D, Seymour Canal, has opened infrequently. Seymour salmon stocks are intercepted in the District 10 and District 12 purse seine fisheries. The 2009 pink salmon return to northern inside waters was mixed. For District 11 overall, the pink salmon escapement index of 309,000 fish fell within the management target range of 270,000 to 650,000 fish (Table 10). However, for the two District 11 stock groups, the Seymour Canal stock, at 127,000 fish index count did not achieve the lower bound of the management target range of 160,000 to 400,000 while the Stephens Passage stock did achieve management objectives with an index count of 182,000 fish from a management target range of 110,000 to 250,000 fish (Table 11).

## ***District 12***

Many separate purse seine fisheries operate in the waters of District 12 due to its large size. Areas open to purse seining in 2009 included Tenakee Inlet, Point Augusta index area, West Admiralty Island shoreline, Southwest Admiralty Island shoreline (south of Point Samuel), Chichagof Island shoreline, Catherine Island/Kelp Bay shoreline, and the Hidden Falls THA. The District 12 common property commercial purse seine fishery harvested 6.8 million pink and 2.0 million chum salmon (Table 2). Management of the District 12 purse seine fishery in 2009 was conservative early in the season but liberalized in August when much of the seine effort had shifted to southern Districts.

### ***Point Augusta, Tenakee Inlet, and Basket Bay***

The District 12 traditional purse seine fishery opened on Sunday June 21 (Table 6) with Point Augusta and Tenakee Inlet areas open for 15 hours. Early Tenakee Inlet openings target wild summer chum salmon returns while the Point Augusta openings are intended to provide information on pink salmon run strength and timing.

The Point Augusta index fishery takes place along a one-mile stretch of the Chatham Strait shoreline on northeast Chichagof Island, and has been opened annually between late June and mid-July since 1992 to monitor pink salmon run strength to northern inside waters. In 2009 there were eight 15-hour openings between June 21 and July 26, and eight 39-hour openings between July 30 and August 28. Cumulative CPUE for the 15-hour openings through July 26 was 119% of average and varied from 58% to 231% of weekly averages. These harvest rates were much improved compared to recent years. Considering the healthy observed escapement of early run fish to terminal areas in Tenakee Inlet and Port Fredrick, indications were for a moderate to strong pink salmon return to northern inside waters. Point Augusta seine harvest totaled 331,000 pink salmon (63% of average) and 32,000 chum salmon (53% of average). The area was open for a total of 471 hours or 105% of the 10-year average 447 hours. The below average harvest can be explained in part by the below average fishing effort in this statistical area.

Pink salmon returning to Tenakee Inlet were moderately abundant during the 2009 season but proved difficult to catch. Salmon migration patterns were unusual as fish seemed to stay in deep water until they neared terminal area streams. Additionally, entry patterns to inside waters were inconsistent as schooling fish arrived in pulses rather than from a consistent flow. The pink salmon harvest of 397,000 fish was 49% of the 10-year average and the chum salmon harvest of 13,000 fish was 15% of average. The fishery was open to normal markers for most of the season and closed August 16. Purse seine effort averaged 6 boats, about half of the 10-year average, with a peak effort of 20 boats on July 23. Fishery openings totaled 237 hours, 77% of the 10-year average 307 hours. The 2009 pink salmon escapement index for this stock is 287,000 fish, within the management target range of 210,000 to 510,000 fish (Table 11).

The Chichagof Island shoreline south of South Passage Point, known as the Basket Bay fishery, was initially opened July 30 coinciding with the first 39-hour fishing period of the season for northern areas. A closed water area, approximately four miles between Little Basket Bay and Don's Creek, was in place to manage for sockeye escapement to Kook Lake and to provide for the Basket Bay subsistence fishery. Sockeye returns to Kook Lake have been monitored by a weir project funded and operated through the US Fish and Wildlife Service from 2005 through 2007. No such project was funded in 2008 or 2009. The purse seine fishery for this area harvested approximately 177,000 pink salmon and 6,300 chum salmon between July 30 and

August 28. This harvest represents 31% and 23% of the 10-year average pink and chum harvest. There were a total of 8 openings totaling 312 hours, 103% of the 10-year average 304 hours. Fishing effort was half of average with a peak effort of 5 boats on August 7. Pink salmon returning to streams in this area belong to the Freshwater Bay stock group and experienced good escapements with an index count of 146,000 fish, within the management target range of 80,000 to 180,000 fish (Table 11).

### ***Hawk Inlet Shoreline***

The western shoreline of Admiralty Island north of Point Marsden is known as the Hawk Inlet shoreline. A portion of salmon stocks returning to their natal streams in Lynn Canal, Stephens Passage, Seymour Canal, Frederick Sound, and Chatham Strait pass through this area after entering from the ocean through Icy Strait, and turn north or south depending on their ultimate destination. Purse seining along the Hawk Inlet shoreline has been controversial due to the presence of co-migrating sockeye salmon, many of which are destined to inside drift gillnet areas in Districts 11 and 15. The Hawk Inlet shoreline was closed during July between 1984 and 1988 by Board of Fisheries regulations. In 1989 the Board of Fisheries passed the northern southeast seine salmon fishery management plan [5 AAC 33.366] that restored seining along the Hawk Inlet shore and placed a harvest limit of 15,000 sockeye salmon for the fishery during July. The board authorized the department to manage the Hawk Inlet fishery in July such that any portion of the area north of Point Marsden may be opened when a harvestable abundance of pink salmon is observed, and specifies that open areas and time must consider conservation concerns for all species in the area. Due to the increasing presence of enhanced sockeye salmon, the BOF further clarified in 2006 that the sockeye harvest cap applied to only wild fish. The fishery has been opened in 1989, 1992–1994, 1999, 2001, 2003–2006 and 2009. A variety of run strength assessments are utilized to determine if a purse seine fishery is warranted and include:

- 1) Parent year pink salmon escapements: For Stephens Passage stock group, the 2007 parent year escapement index was 170,000 fish, within the management target range of 110,000 to 250,000 fish; The Seymour Canal stock group parent year escapement of 270,000 fish was near the midpoint of the management target range; the D15, Lynn Canal stock group was above the midpoint of the management target range; and the 2007 Taku River fish wheel pink salmon catch of 12,400 is 81% of the recent 10-year average of 15,300. Every stock group in the Juneau management area fell within or near the upper bound of the management target range in the 2007 parent year.
- 2) Standardized test fishing along the Hawk Inlet shoreline was conducted on June 26, July 3, July 10, and July 17, 2009. Pink salmon harvest was average to well above average for all days of test fishing. Purse seine openings for the Point Augusta index fishery between June 21 and July 12 resulted in pink salmon CPUE of 129%, 161%, 95%, and 100% of the recent 10-year average.
- 3) Aerial surveys of the Hawk Inlet shoreline conducted in early July indicated a consistent abundance of pink salmon. Local area pink salmon streams such as Wheeler Creek and Greens Creek were developing well for the timing.
- 4) District 15 drift gillnet pink salmon harvest for statistical week 27, 28, and 29 (June 28–July 18) was 171%, 187%, and 185% of average. These above average harvests occurred with a 6” mesh restriction for parts of the district (Section 15-C) and with time and area restrictions in place. District 11 gillnet pink salmon harvest for the same time frame ranged from 28% to

68% of the recent 10-year average; there were also time, area, and mesh restrictions in place for the District 11 fishery.

- 5) Taku River Canyon Island fish wheel cumulative catch of pink salmon through July 18 was 61% of average. Chilkat River fish wheel cumulative pink salmon catch through July 18 was twice the 10-year average.
- 6) Many anglers participating in the Juneau area sport fishery release rather than keep their pink salmon, nevertheless the pink salmon harvest rate for July 6–12 was 12 rod hours per pink salmon, below the 5-year average of 18 hours.

Overall assessment indicated common property openings for the Hawk Inlet purse seine fishery were warranted. However, the Department was closely monitoring the slower developing pink salmon returns to District 11. In addition, Chilkat River and Taku River sockeye salmon projections in middle to late July were indicating below average to weak returns in 2009. Therefore, Hawk Inlet purse seine openings targeting pink salmon were conservative in time and/or area. Initially Hawk Inlet opened Sunday July 12 for only 8 hours rather than the standard 15 hours. Lines were confined to the Admiralty Island shoreline between the latitude of Point Couverden and Point Marsden. The second Hawk Inlet opening coincided with the first mid-week purse seine opening of the season on Thursday July 16 and was limited to 10 hours, again reduced from the standard opening of 15 hours, in the same area. The following three openings were allowed the standard 15-hours. However, the northern line of the open area was moved from the latitude of Point Couverden approximately five miles south to the latitude of Hanus Reef. Hawk Inlet test fishing results clearly show that the rate of sockeye salmon harvest decreases from the northern most set at the latitude of False Point Retreat to the southernmost set at the Latitude of Hanus Reef. Minimizing the open area and focusing fishery openings to the south was necessary to reduce exploitation on poorly performing sockeye salmon stocks while maintaining some access to abundant northbound pink salmon. Adjacent shoreline south of Point Marsden on Admiralty Island was open on and after July 19, concurrent with Hawk Inlet openings, to harvest abundant south migrating pink salmon. The final Hawk Inlet opening occurred Sunday July 30 through Monday July 31. This opening coincided with the first regionwide 39-hour opening and was given the full 39 hours. Again the fishery was restricted to the Admiralty shoreline south of the latitude of Hanus Reef. The length of this final opening was based on two factors; 1) sockeye salmon harvest per-boat-hour was the lowest since this fishery began in 1989, and 2) pink salmon harvest per-boat-hour was above average and the third highest in the 11 years this fishery has taken place. Further, department sampling indicated a little over 8,000 wild sockeye salmon had been harvested prior to this opening, about half of the 15,000 allowed catch in July. A total of 1.5 million pink salmon, 17,401 sockeye salmon, and approximately 56,000 chum salmon were harvested during the July Hawk Inlet purse seine openings. This is the second largest harvest of pink salmon from commercial openings in July since the fishery was reinstated by the Board of Fisheries in 1989. The total wild sockeye harvest was 14,233 fish after subtracting the estimated 3,168 enhanced sockeye salmon from the total sockeye harvest. Sockeye salmon accounted for 1.1% of the total harvest, significantly below the historical average of 2.8%.

### ***West and Southwest Admiralty***

West Admiralty shoreline south of Point Marsden initially opened July 19 for 15-hours from Point Marsden to Point Hepburn. With fair to strong pink salmon runs developing in the Chatham Strait area, the southern boundary was moved to Parker Point July 26 and the fishery was further liberalized July 31 with implementation of 39-hour openings. Peak effort occurred July 30 through August 8, with 36 to 41 boats, over three openings, landing just shy of 2 million pink salmon. Total pink salmon harvest of 3.3 million fish represents 103% of the 10-year average. Chum salmon abundance was below average and the harvest of 93,000 fish represents only 56% of the 10-year average. Fishery openings totaled 375 hours compared to the 10-year average 421 hours. Escapement for the West Admiralty stock group was 55% of average although the 2009 escapement index of 64,000 fish fell within the management target range of 50,000 to 120,000 fish (Table 11).

Initially opened July 30 from Point Samuel to Point Gardner, Southwest Admiralty shoreline experienced eight commercial seine openings of 39-hours. Parent year escapements to the many streams in this area were remarkably strong in 2007 so expectations were for a significant harvestable surplus of pink salmon. Peak fishing effort occurred August 3–4 with 28 boats harvesting 430,000 pink salmon. A total of 1.3 million pink salmon and 26,000 chum salmon were harvested between July 30 and August 28. Pink salmon harvest was 111% and chum salmon 46% of 10-year average harvest. Fishery openings totaled 312 hours, 81% of the average 386 hours. Escapement for this stock group was good at 155,000 fish and near the midpoint of the management target range of 100,000 to 250,000 fish (Table 11). Recent 10-year average escapement for this stock group is 323,000 fish almost twice what was observed in 2009.

### **Catherine Island and Kelp Bay**

Section 12-A south of Point Hayes along the Catherine Island and Baranof Island shorelines is managed from the Sitka office. Within this area is the Hidden Falls Hatchery THA as well as several productive pink and chum salmon systems in Kelp Bay. In early to mid-July, Ralph's Creek in Middle Arm is monitored for summer chum salmon returns. The South Arm also produces summer chum however recent escapements to the South Arm have been at historically low levels. If the chum salmon escapement is adequate in the Middle Arm then Kelp Bay and the Catherine Island shoreline are typically opened south of the Point Lull Light providing additional area to harvest Hidden Falls Hatchery as well as harvest of wild stock chum salmon. This season, however, chum salmon returns to Kelp Bay were weak. By mid-July pink salmon returns to Kelp Bay streams were showing strength and Kelp Bay and the Catherine Island shoreline south of Point Thatcher was first opened July 16 and openings continued commensurate with regional seine openings through August 12. For the fishing period on July 26, lines were liberalized in Middle Arm to harvest a substantial buildup of excess pink salmon returning to Ralph's Creek. Lines in Kelp Bay were returned to normal markers for the following opening. By the end of July, the hatchery chum salmon return to Hidden Falls was completed, but the Hidden Falls THA continued to be open to target wild stock pink salmon beginning August 3. Beginning August 7, the entire shoreline of Section 12-A within the Sitka Management Area was opened for two 39-hour periods ending August 12. The total harvest was 460,000 pink salmon and 46,000 chum salmon with most of the chum salmon assumed to be hatchery fish. Approximately 73% of the pink salmon harvest occurred prior August 1 with most of that harvest occurring during the last two fishing periods in July. An additional 644,000 pink salmon were harvested in the Hidden Falls THA prior to August 1. The pink salmon escapement index for the Kelp Bay stock group

was above the upper range of the management target (Table 11). The chum salmon peak escapement count to Ralph's Creek in Middle Arm Kelp was 2,200, well below the 10-year average of 10,000.

### ***Section 13-C***

In Section 13-C, which includes Hoonah Sound and outer Peril Strait, the first 15-hour opening was scheduled for June 28 (Table 6) with minimal effort occurring during that opening. Using boundaries traditionally used during the early season, openings continued concurrent with regional seine openings through July 16. With escapements lagging, the open area was restricted to outer Peril Strait south of the latitude of the Point Benham Light for two 15-hour periods occurring July 19 and July 23. With improving escapements, on July 26, Section 13-C was again opened using the traditional early season boundaries with Saook Bay opened to normal markers. Aerial observations during the July 26 opening showed little indication of movement of additional pink salmon into the area and Section 13-C was closed for the remainder of the season. The total harvest for the season was 315,000 pink salmon and 31,000 chum salmon. Pink salmon escapements to Section 13-C were generally good with the escapement index value below the recent 10-year average but above the midpoint of the management target range (Table 10). There are two chum salmon escapement index streams in Section 13-C, including Rodman Bay and Saook Bay. The peak escapement count to Rodman Creek was only 6% of the recent 10-year average and in Saook Bay was only 10% of the recent 10-year average.

### ***District 14***

Several separate purse seine fisheries typically occur in District 14 due to the large size of Icy Strait. Fishing areas open in District 14 this year included the Whitestone shoreline, Excursion Inlet, Idaho Inlet, and Port Althorp. No seiners participated in the Idaho Inlet or Port Althorp openings in 2009. The Whitestone shoreline typically opens in mid- to late July to target middle run pink salmon stocks returning to Chatham Strait, Icy Strait, Lower Lynn Canal, and Stephens Passage. In 2009 this area opened initially July 16 for 15 hours but only in front of Port Fredrick where strong pink returns were occurring. Only three boats fished this opening and catch rates were slightly below average. There were three more 15-hour openings in July before transitioning to a 39-hour opening on July 30. Seven additional openings of 39-hours were maintained throughout August. The season closed after the last opening on August 27–28. The Whitestone shoreline openings totaled 372 hours, 84% of the 10-year average 443 hours. A total of 830,000 pink salmon and 30,000 chum salmon were harvested over 12 fishing periods between July 16 and August 28 (Table 2 and Table 6). The pink salmon harvest represents approximately 39% of the 10-year average harvest while the chum salmon harvest is 35% of the 10-year average. Fishing effort peaked July 19 with 30 boats but averaged only 6 boats throughout the remainder of the season. Poor fishery performance for this area is difficult to explain given the acceptable escapements to most local and Northern Inside pink salmon stock groups. It is possible that pink salmon entering inside waters through Icy Strait migrated offshore away from areas traditionally fished. The 2009 pink salmon escapement index of 208,000 fish for the north Chichagof stock group was within the management target range of 120,000 to 280,000 fish (Table 11).

## Northern Southeast Alaska Outside Fisheries

### *Section 13-A*

In Section 13-A, separate fisheries occurred in Lisianski Inlet, Portlock Harbor, Slocum Arm and Salisbury Sound. Pink salmon returns to Section 13-A streams were mixed in strength with Lisianski Inlet having the strongest returns. Lisianski Inlet was first opened on July 16 for 15 hours and subsequently was opened with extended hours for the remainder of the season due to limited effort. Lisianski was opened for 39 hours July 19–20 and July 22–23; 63 hours July 25–27 and July 29–August 1; opened continuously from August 2 to 24; and finally opened for 63 hours August 26–28. For two consecutive 63-hour periods beginning July 25 Lisianski Inlet was opened inside of normal markers to 57°52.73' N. latitude to harvest surplus pink salmon accumulated at the head of Lisianski Inlet. Beginning August 7, Stag Bay was opened to a line near mid-bay due to building escapement. The total harvest in the Lisianski Fishery was 626,000 pink salmon, the fourth largest harvest since statehood. The escapement index for the Lisianski stock group exceeded the upper management target range by nearly 100,000 fish (Table 11). Portlock Harbor, Slocum Arm and Salisbury Sound were first opened July 26 with opening commensurate with regional openings through August 16. A final 15-hour period was provided August 19 in Slocum Arm and Portlock Harbor with Salisbury Sound closed for the remainder of the season after August 16. This season no harvest was reported from Portlock Harbor which historically receives minimal effort. Approximately 278,000 pink salmon were harvested in Slocum Arm and 234,000 pink salmon were harvested in Salisbury Sound representing 45% and 32% of the recent 10-year average respectively

The escapement index for the Portlock stock group was well above the upper management target range for pink salmon. The chum salmon peak escapement count to Black River was 4,200 fish approximately 53% of the long-term average. The pink salmon escapement index for the Slocum Arm stock group was below the midpoint of the management target range. Chum salmon escapement counts to Slocum Arm area streams were well below recent 10-year average. The Salisbury Sound stock group pink salmon escapement index was at the lower end of the management target range.

### *Section 13-B*

Openings in Section 13-B may occur in six separate locations including Sitka Sound, Redoubt Bay, West Crawfish Inlet, Necker Bay, Whale Bay, and Redfish Bay. Sitka Sound, West Crawfish Inlet, and Whale Bay provide for directed harvest of wild pink and chum salmon, and Redoubt Bay, Necker Bay, and Redfish Bay for directed harvest of sockeye salmon.

Sitka Sound has two distinct purse seining areas which have different management considerations due to hatchery production. The southern portion of Sitka Sound includes the Eastern Channel/Silver Bay corridor with several productive pink salmon streams as well as very large returns of hatchery produced chum salmon returning to Medvejie Hatchery in Silver Bay and the Deep Inlet THA. Though there is no specific management plan for Eastern Channel purse seine fisheries, hatchery chum salmon allocation considerations are incorporated when providing traditional purse seine openings for pink salmon. Sitka Sound opened for directed pink salmon harvest beginning July 26 with openings continuing through August 16 synchronously with regional openings. Observations of early returning pink salmon in terminal areas suggested a possible strong return of pink salmon to Sitka Sound streams, however, there was limited follow through of additional fish throughout the season. More conservative boundaries than

traditionally used were imposed in the Starrigavan Bay and Katlian Bay area through most of the season. The total harvest was 169,000 pink salmon and 67,000 chum salmon. This harvest was 17% of the recent 10-year average harvest of 1.1 million pink salmon in Sitka Sound. Most of the chum salmon were harvested in southern Sitka Sound and assumed to be hatchery fish. Pink salmon escapements were very good with the escapement index for the Sitka Sound stock group near the upper range of the management target (Table 11).

Both pink and chum salmon returns to Whale Bay were inadequate to provide for seine openings in 2009. The pink salmon escapement index for the Whale Bay stock group was near the lower end of the management target range. The peak aerial survey count of chum salmon to the Great Arm head stream was 3,000 fish, about 22% of the recent 10-year average escapement. West Crawfish Inlet was opened only once for 39 hours, August 7–8, and there was no effort during the opening. The pink salmon escapement index value was at the lower end of the management target range for this stock group. The chum salmon peak aerial count was 3,500 fish or 29% of the recent 10-year average.

The Redoubt Bay and Lake Sockeye Salmon Management Plan [5 AAC 01.760] calls for commercial purse seine openings when the projected total escapement will exceed 40,000. This season the sockeye return was weak and the total weir count was 12,851 sockeye salmon which was slightly above the lower bound of the biological escapement goal. This compares to the recent ten-year average escapement of 43,000 sockeye salmon.

With a good accumulation of sockeye salmon in the terminal area, Redfish Bay was opened for two 14-hour periods on August 7 and August 11. There was only minimal effort and harvest in Redfish Bay. Sockeye salmon returns to Necker Bay were insufficient to support commercial harvests. Though aerial observations seldom provides meaningful enumeration of sockeye salmon abundance at Necker Bay, the “show” of sockeye salmon in the terminal area can provide a qualitative measure of the strength of the run. The lack of show during a number of aerial observations during the 2007 and 2008 seasons indicated a weak return of sockeye salmon to Necker Bay. The show of sockeye salmon in the terminal area of Necker Bay indicated a stronger abundance in 2009.

### **Northern Southeast Alaska Fall Chum Salmon Fishery**

Aerial surveys of the Excursion Inlet area in late August and early September of 2009 were inconclusive in determining abundance of fall chum salmon. Poor weather conditions and high water made it difficult to assess the status of this stock. Therefore Excursion Inlet was opened to fall chum salmon fishing for 15-hours on August 28 to test the waters and gain some valuable harvest information. This opening attracted 9 boats and resulted in a harvest of 5,700 fall chum salmon and approximately 10,000 pink salmon. Because the harvest rate was below average and escapement to Excursion River was not quantifiable, the department did not grant additional commercial openings in this area. Aerial surveys conducted later in September resulted in an escapement estimate of only 1,400 chum salmon. The outlook for 2010 is poor based on parent year escapements in 2005 and 2006 of 1,100 and 2,200 fish, well below the lower bound of the management target range of 4,000 to 18,000 fish.

Aerial surveys of Chaik Bay in late August and early September of 2009 did not indicate a harvestable surplus of fall chum salmon in the area. Therefore southwest Admiralty shoreline near Chaik Bay was not opened to fall chum salmon fishing. The peak chum salmon escapement

index count in 2009 was 900 fish on August 20. The 10-year average peak count for chum salmon counted after August 15 is 4,200 fish.

Due to weak runs of fall chum salmon returning to Security Bay in 2009 there were no directed commercial fishing openings for chum salmon returning to Security Bay. The indexed chum salmon escapement was within the target range for that return. The indexed chum salmon escapement to Port Camden was again below the target range for the two Port Camden returns.

## **SOUTHERN SOUTHEAST ALASKA PURSE SEINE FISHERIES**

Purse seine fishing in southern Southeast Alaska occurs in Districts 1 through 7. As in northern Southeast Alaska, fishery management is driven primarily by pink salmon stock abundance. However, during the early portion of the season, Pacific Salmon Treaty (PST) harvest sharing provisions, and the need to limit the harvest of Nass/Skeena River sockeye salmon in accordance with the PST drive management decisions in District 4.

Fisheries targeting species other than pink salmon include early season openings in lower District 2 to target Southern Southeast Regional Aquaculture Association's (SSRAA) Kendrick Bay summer chum, and a fall chum salmon fisheries in the Cholmondeley Sound area of District 2 and in Cordova Bay in Section 3-A.

In 2009 the common property purse seine harvest (traditional and THA) in southern Southeast Alaska totaled 25.9 million fish and ranked as the 15<sup>th</sup> largest harvest of the 50 years since Alaska statehood (Table 5). Total harvests were near the recent 10-year average and above the long-term average for all species in 2009. The harvest included 22,500 Chinook, 242,000 sockeye, 247,000 coho, 24.3 million pink, and 1.1 million chum salmon. Harvests of pink, coho and Chinook salmon were above both the long-term and near-term averages. Harvests of sockeye and chum salmon were below both averages.

### **Southern Southeast Alaska Outside Fishery**

#### *District 4*

District 4 includes all waters north of Cape Muzon, west of District 3, and south of a line from Helm Point on Coronation Island to Cape Lynch. District 4 is a mixed stock fishery and harvests fish bound for both southeast Alaska streams and fish bound for Canadian streams.

The June 30, 1999 revision of the PST agreement calls for the implementation of abundance based management in the District 4 purse seine fishery. The agreement allows the District 4 purse seine fishery to harvest 2.45 percent of the Annual Allowable Harvest (AAH) of Canadian Nass and Skeena sockeye prior to Statistical Week 31. The AAH is calculated as the total run of Nass and Skeena sockeye salmon minus either the escapement requirement of 1.1 million (200,000 Nass and 900,000 Skeena) or the actual inriver escapement, whichever is less.

The District 4 purse seine fishery opens the first Sunday in July; in 2009 the initial opening was July 5 during Statistical Week 28 (Table 7). The fishing plan for District 4 before Statistical Week 31 was based on the preseason Canadian Department of Fisheries and Oceans (DFO) sockeye salmon return forecast of 511,000 for the Nass and 2.3 million for the Skeena. Management actions took into account an apparent "overage" of sockeye salmon harvested by the United States in the District 4 fishery from the 1999 through the 2008 seasons.

In the 2009 treaty period, 15,971 sockeye were harvested in a 12-hour opening in Week 28; two 15-hour openings in Week 29; and two 15-hour openings in Week 30. This is the third lowest catch of sockeye salmon in the District 104 treaty period since the treaty was signed in 1985. The number of purse seine vessels fishing rose from 6 initially to 22 in the final individual opening during the treaty period. In past years 60% to 80% of treaty period sockeye have been of Nass and Skeena origin. Thus, we would anticipate that between 9,600 and 12,800 Nass and Skeena sockeye may have been harvested in the District 104 purse seine fishery during the treaty period. The final number of Nass and Skeena sockeye harvested, and the actual catch by stock, will not be available until catch, escapement, and stock composition estimates are finalized for the year.

Other purse seine fisheries are not bound by the PST and the fleet moves freely between districts, so seining opportunities elsewhere can affect the harvest and effort in District 4.

The average numbers of hours, boats and boat-days fished pre-week 31 in District 104 since the Pacific Salmon Treaty was signed in 1985 are down 55%, 57% and 82% respectively compared to the 1980–1984 period. The total pre-week 31 treaty period sockeye harvest is also down 39% despite a 280% increase in the average sockeye catch-per-boat-day since 1984. The seine fleet moves freely between districts as various species are harvested, so seining opportunities elsewhere can affect the effort and catch in District 104.

Fishing periods occurred more regularly after the treaty period ended (Table 7). District 4 was open for the first of nine 39-hour periods on July 26, Statistical Week 31, which started a 2-days-on/2-days-off fishing regime that remained in place for the remainder of the season. There were two 39-hour openings during Statistical Week 31. Effort increased from 28 vessels during the Treaty period to 54 vessels participating in the first opening of Statistical Week 31, occurring on July 26. Harvest rates were above average with seiners landing an average of 18,900 pink salmon per vessel. This was the season high for effort in a single District 4 opening during 2009. There were two 39-hour openings in Statistical Weeks 32. Effort decreased to 21 vessels during the August 3 opening, and 24 vessels on the second opening of the week beginning on August 7. Harvest rates during Statistical Week 32 were 22,100 pink salmon per vessel. Effort increased to 61 vessels during Statistical Week 33, and pink salmon harvest rates peaked at 27,200 pink salmon per vessel. There were 1,663,359 pink salmon landed during Statistical Week 33. Harvest rates and effort both continued to decline during Statistical Week 34. The season finished with two 39-hour openings in Statistical Week 35, with seiners landing an average of 7,000 pink salmon per vessel during the opening on August 23–24, and 9,800 pink salmon per vessel during the last opening occurring on August 27–28. Effort in District 4 was concentrated around Cape Chirikof, Cape Addington and Cape Ulitka.

In the 2009 season the District 4 purse seine fishery harvested 5.45 million pink salmon, 109,371 sockeye, 84,387 coho, 117,999 chum, and 7,072 Chinook salmon (Table 2). During the 2009 season, 92 purse seine vessels fished in District 4, up from a low of 60 in 2004, but this effort level remains below the 1985–2008 average of 172. In the 2009 District 4 purse seine fishery the harvest of all salmon species were below the 1985–2008 averages.

## **Southern Southeast Alaska Inside Fisheries**

### *District 1*

District 1 encompasses all waters east and north of a line from the southernmost tip of Caamano Point to 54°40' N. latitude 131° 45' W. longitude and north of the US/Canada border in Dixon

Entrance. Purse Seining primarily takes place in the waters of Revillagigedo Channel, which is immediately south of Ketchikan, and on the Gravina Island shoreline as the season progresses and escapements begin to improve. The run timing to Revillagigedo Channel is generally early and provides some of the first opportunity in the Ketchikan area for harvest of returning wild stock pink salmon.

The District 1 purse seine fishery opened on July 5 (Table 7) for 15 hours with normal early season lines, which included all waters of Section 1-F south of a line from Cone Island to Pt. Davidson, then due west to the District 2 boundary. Effort was low with 11 boats averaging 4,500 pink salmon per boat. There was only one 15-hour opening during Statistical Week 28. Two 15 hour openings occurred during statistical week 29 with both effort and catch rates increasing. For the opening occurring on July 12, 36 boats averaged 9,775 pink salmon per boat. The second opening of statistical week 29, occurring on July 16, had expanded lines which included the southern portion of the Gravina Island shoreline, 49 boats averaged 8,300 pink salmon per boat. Escapements into the early District 1 systems were progressing and the middle-run systems had adequate fish to support expanded lines. Statistical week 30 had two 15-hour openings. The second opening of the week occurring on July 23 saw lines moved into Brunn Pt., in Carroll Inlet to harvest an abundance of pink salmon along the Carroll Pt. shoreline. Harvest rates averaged 5,500 pink salmon per vessel with 57 vessels participation in this opening. Beginning Sunday, July 26, District 1 was open for the first of nine 39-hour openings. Harvest rates in the district remained strong and were above average for the rest of the season. There was particularly strong fishing around Cone Island and Bold Island in the Revillagigedo Channel, just south of Ketchikan. The McDonald Lake action plan dictates that the northern portion of the Gravina shore remain closed through statistical week 31, so the same lines remained in place for the two 39-hour openings in statistical week 31. During the first 39-hour period in Statistical Week 32, lines were expanded to include the entire Gravina shoreline. Effort and harvest both peaked with 63 vessels landing 2.45 million pink salmon for the week. These lines remained in place for the duration of the season. The last District 1 opening occurred on August 27 and 28 for 39 hours where 36 seiners landed 160,174 pink salmon or 4,500 pink salmon per vessel. District 1 was open for 23 days of fishing time in 14 openings for a total of 426 hours of open fishing time. 125 vessels fished in District 1 compared to the 1985–2008 average of 151 vessels.

The District 1 purse seine pink salmon harvest of approximately 7.8 million (Table 2) was 133% of the 1985–2008 Treaty period average of 5.8 million. Weekly harvests of pink salmon were above average with the exception of Statistical Week 34 where they were slightly below average. Indexed escapement to the district of 2.66 million pink salmon was within the management target range of 1.02 to 2.71 million (Table 10).

There were no purse seine openings in 2009 targeting McDonald Lake sockeye salmon in the upper west Behm Canal portion of the district. The estimated escapement into McDonald Lake in 2009 is 51,000 sockeye salmon (Table 13). This is the eighth time in the past nine years that the escapement goal has not been met. The biological escapement goal of 65,000–85,000 was changed during the 2006 board cycle to a sustainable escapement goal of 70,000–100,000 and was then changed again to a sustainable escapement goal of 55,000–120,000 during the 2009 board of fish cycle. The District 1 purse seine sockeye salmon harvest of 45,902 was 42% of the 1985–2008 average of 108,000.

There were no management actions taken during the 2009 salmon season due to Hugh Smith sockeye conservation. During the 2006 Board of Fisheries meetings in Ketchikan the board de-

listed Hugh Smith Lake sockeye salmon as a stock of concern, however the department still maintained the option to enact closures if the forecasting fell short of projecting the necessary escapement. At no point in the season did the Hugh Smith Lake projected sockeye run size fall below the escapement goal range, therefore no sockeye management closures were taken. Escapement into Hugh Smith Lake was approximately 9,483 sockeye salmon, within the escapement goal range of 8,000–18,000 (Table 13).

The District 1 purse seine chum salmon harvest of 176,760 was 55% of the 1985–2008 average. Chum harvests were below average for the entire season. The coho salmon harvest of 53,293 was 139% of the 1985–2008 average. Coho harvest was well above average during Statistical Weeks 33 and 34, and at or below average the rest of the season. The Chinook salmon harvest of 1,055 was 53% of the 1985–2008 average.

### *District 2*

District 2 includes all waters south of a line from Narrow Point to Lemesumer Point, west of District 1 and east of a line from Point Marsh Light to 54° 40' N. latitude, 132° 17.50 W. longitude. Fishing primarily takes place in Clarence Strait and does not usually occur in the 4 major inlets, which include Kasaan Bay, Cholmondeley Sound, Moira Sound and Thorne Bay, where productive salmon streams are located. The run timing for pink salmon entering District 2 is generally later than District 1. Hatchery chum salmon have been entering the district in large enough numbers to warrant early fishing time, as early as mid-June, for the seine fleet. These hatchery chums are returning to Kendrick Bay.

The waters of Kendrick Bay were open by regulation, continuously to purse seine harvest beginning, Sunday, June 15, Statistical Week 25. A limited portion of District 2 was opened beginning on June 21 in Statistical Week 26 and June 28 in Statistical Week 27 to access returns of SSRAA enhanced summer chum salmon to Kendrick Bay (Tables 7 and 8). The open area for this fishery consists of those waters in District 2 north of 54° 47.10 N. latitude (approximately ½ mile south of McLean Point Light) and south of the northern tip of Polk Island. These openings outside Kendrick were generally 87 hours, or 4 days, in duration each week and lasted for 3 weeks, occurring on Sunday through Wednesday each week. These openings target Kendrick Bay summer chum salmon at a time when few wild stock salmon are available, and are managed to maximize the quality of those chum salmon. 18 seine vessels fished the first opening and 36 fished the second with harvests for both weeks totaling 141,595 chum salmon.

The traditional fishery in District 2 targeting local stocks of pink salmon opened Sunday, July 5, Statistical Week 28 for 15 hours (Table 7). During this week there were 3 days of fishing in the district to target Kendrick Bay hatchery chum since the interception of pink salmon was low. Effort increased to 42 boats with the fleet landing 90,445 chum salmon for the week.

During the traditional fishing period there were 15 openings ranging from 15 to 39 hours in duration following earlier extended openings targeting enhanced summer chum returns. Pink salmon escapements into District 2 appeared to be progressing normally or even a little behind normal run timing during mid-July. There were three 15 hour openings that occurred during statistical weeks 28 and 29, pink catches were below average and the district was only open below the latitude of the northern tip of Polk Island. Two 15-hour openings occurred in the district during statistical week 30, at this time escapements were beginning to build in Kasaan Bay and Cholmondeley Sound and the open fishing area was expanded northward to the latitude of High Island Light. Harvest rates improved and 15 vessels averaged 11,600 pink salmon per

vessel for the 15-hour opening on July 23. Beginning Sunday, July 26, District 2 was open for the first of nine 39-hour openings. On the opening beginning on July 30, District 2 was open within two nautical miles of the Prince of Wales shoreline south of the latitude of Lyman Point. 45 boats made landings with catch rates of 12,760 pink salmon per vessel. There was a drop in catch rates and effort during the two 39-hour openings during statistical week 32. Effort and catch peaked during the opening beginning on August 11 with 47 vessels harvesting 907,500 pink salmon or 19,300 pink salmon per vessel. During this open period the fishing area was expanded north to the district boundary at Narrow Point and included a portion of the Ship Island shoreline to target pink salmon bound for West Behm Canal and Ernest Sound. These lines remained in effect for the last three openings in the district. The last opening in District 2 targeting pink salmon occurred on August 27 and 28 where 13 boats harvested 102,400 pink salmon or 7,900 pink salmon per vessel. A total of 128 purse seine vessels fished District 2, close to the 1985–2008 Treaty period average of 155. The district was open to fishing a total of 663 hours.

The District 2 purse seine harvest of 3.9 million pink salmon (Table 2) was 93% of the 1985–2008 average of 4.17 million. Chum salmon harvests in the District 2 purse seine fishery were well above average in the early portion of the season but below average after mid-season. The total season harvest of 418,308 chum salmon was 101% of the 1985–2008 average of 410,800. There was no directed fall chum fishery in District 2 during 2009. The District 2 sockeye harvest of 45,089 was 108% of the 1985–2008 average of 41,700, while the coho harvest of 49,635 was 103% of the average of 48,100. The Chinook salmon harvest of 1,429 fish was 370% of the average of 386. Indexed escapement to the district of 1.06 million pink salmon was above the management target range of 0.29–0.77 million (Table 10).

### *District 3*

District 3 encompasses all of the inside waters off of the west coast of Prince of Wales, from Pt. Marsh light on the south end to Aneskett Point on the north end. It has a large and diverse geographical range and is a very productive pink salmon producing area. Some of the main fishing areas include the waters of Cordova Bay, intercepting fish bound for Hetta, Nutkwa and Klakas Inlets in Section 3-A, the waters of Boca De Finas and San Christoval Channel in Section 3-B, and the outside waters of Sea Otter Sound in Section 3-C. The timing of District 3 is generally later and historically opens in Statistical Week 29 or 30.

The District 3 purse seine fishery initially opened Sunday, July 19 in Statistical Week 30 (Table 7). There were 11 openings, ranging from 15 to 39 hours each, prior to the regionwide traditional area purse seine closure after August 28. Harvests in District 3 started off the season below average with low effort for the first two 15 hour open periods occurring during Statistical Week 30. Escapements began to progress throughout the district and District 3 was open for the first 39-hour opening on Sunday, July 26. During this first 39-hour opening a portion of lower Cordova Bay was open in Section 3A, outer portions of section 3B, including Boca De Finas and Sea Otter Sound west of the longitude of the southernmost tip of Marble Island in Section 3-C. The 39-hour opening that began on Sunday, July 26 marked the first opening of a 2-day-on/2-day-off purse seine fishing schedule in the Ketchikan area and throughout southeast Alaska. Escapements continued to build and lines were slowly expanded in Section 3-A and 3-B, while the open area in Sea Otter Sound, Section 3-C, remained consistent. Catch rates peaked during the 39-hour opening beginning August 11, with catch rates of 18,530 pink salmon per boat. The lines in Cordova Bay were expanded into Nutkwa Inlet to harvest a buildup of pink salmon in the

area during this opening. Effort peaked during the 39-hour opening beginning on August 19, with 63 boats making landings in the district, catch rates were 9,760 pink salmon per boat. During this opening, lines were liberalized to normal markers throughout the district with an expanded open area past normal markers in Hetta Inlet due to large escapements to Portage Creek, the headstream in Hetta Inlet. The last opening targeting pink salmon in District 3 occurred on August 27 and 28 where 20 vessels landed 178,500 pink salmon or 8,900 pink salmon per vessel. The pink salmon run in District 3 appears to have had normal run timing yet the peak catches occurred during Statistical Week 32, which is early. The catches over the next two weeks were very stable but slightly below the week 32 catch. Harvests of sockeye remained below average throughout the season, with the exception of week 31 where they were above average. A total of 110 purse seine vessels fished in District 3, close to the 1985–2008 Treaty period average of 129. The district was open for a total of 381 hours.

The District 3 purse seine pink salmon harvest of 4.4 million fish (Table 2) was 109% of the 1985–2008 average of 4.0 million. Sockeye salmon harvests were average throughout the season; the seasonal harvest of approximately 21,046 was 90% of the 1985–2008 average of 23,000. The Coho salmon harvest of 40,848 was above the average of 30,671. Chum salmon harvests were above average during statistical week 31 and below average the rest of the season; the total season chum salmon harvest of 73,422 was 61% of the average of 120,000. The Chinook salmon harvest of 1,101 was 400% of the 1985–2008 average of 268. Indexed escapement to the district of 2.32 million pink salmon was within the management target range of 0.95–2.54 million (Table 10).

### *District 5*

District 5 encompasses the waters of western Sumner Strait, approximately 50 miles southwest of the community of Petersburg. Fisheries occur either inside the major bays, which include Affleck Canal, Port Beauclerc, Shakan Bay, and Shipley Bay, or in the more exposed waters along the eastern side of District 5 between Cape Pole and Point Baker.

The first opening in District 5 occurred on July 30 and 31 in Shakan Bay for 39 hours. No deliveries were made during this first commercial period. Effort was minimal during the next 39-hour opening starting on August 3 with only two boats fishing. Fishing area was expanded to include Port Beauclerc and the Hole-in-the-Wall shoreline for the third opening starting on August 7. Peak effort and catch occurred during this opening with 8 boats averaging 13,000 pink salmon and 300 chums per boat. Fishing area was expanded for the next opening starting August 11 to include the Trout Creek shoreline and Warren Channel with Affleck Canal remaining closed. Affleck Canal was opened for the following opening on August 15 and 16. District 5 was open in the same area on a two-day-on/two-day-off rotation until a final opening occurred on August 27 and 28. Effort levels and harvests were low throughout the season.

The 262,000 pink salmon harvest in District 5 (Table 2) was well below the average harvest since statehood of 409,000 fish. Chum salmon harvest of 8,400 fish was less than half the average of 23,200 fish. Coho and sockeye salmon harvests were small, as they usually are. The indexed pink salmon escapement of 380,000, near the middle of the management target range of 250,000 to 660,000 fish (Table 10).

### *District 6*

District 6 is divided into 4 sections for management purposes. Purse seining in District 6 is limited to Sections 6-C and 6-D. These purse seine portions of the district are between 15 and 30 miles southwest of Wrangell. Section 6-D includes most of the waters of northern Clarence Strait and the southern portion of Stikine Strait. Section 6-C is a small diamond shaped area adjacent to Screen Island and Lincoln Rock. Section 6-C together with the adjacent Screen Island shoreline of Section 6-D are the only waters in Southeast that may be fished simultaneously by the purse seine and drift gillnet fleets.

The first opening in District 6 occurred on July 30 and 31 for 39 hours when the waters off Mosman, Burnett, and McHenry Inlets were opened (Table 7). An opening in this area was earlier than normal and was intended to harvest a decent early showing of pink salmon. Effort and harvest were low with only 2 seiners fishing. The second opening on August 3 in District 6 was again for 39 hours and the open area expanded to include the Ratz Harbor shoreline south of Ratz Harbor Light and the Stikine Straits north of Point Harrington. There was a good early showing of pink salmon to the Ratz Harbor systems and systems south of Ratz Harbor as well as Steamer Bay. Only one boat participated in this opening with fair catches. The waters off Mosman, Burnett, and McHenry Inlets, as well as the Stikine Straits area were closed for the third 39-hour opening starting on August 7. It was apparent by this time the early showing of pink salmon in these areas had not developed and the run was likely to be poor. The Ratz Harbor shoreline remained open and an area off southwest Etolin Island was opened. Effort increased to 5 boats and catches remained weak. This area of District 6 remained the same for the next four openings. Effort varied between 2 and 7 boats and pink harvest was fair to good averaging 13,000 to 37,000 pink salmon per boat. The final opening in District 6 was a 39-hour opening starting on August 23. During this opening the area along southwest Etolin Island was closed and the area along the Ratz Harbor shoreline was expanded to include the entire Section 6-D portion of the Prince of Wales shoreline; however, no seiners participated.

The 2009 District 6 purse seine harvest of all salmon was below average and the escapement of pink salmon was within the target range. A total of 342,000 pink salmon were harvested (Table 2). This harvest was below the average annual harvest since statehood of 620,000 fish. Commercial harvest of other salmon species included 4,800 sockeye, which was below the average of 5,000 fish; coho harvest of 6,500 fish was below the average of 11,400 fish; and chum salmon harvest of 5,200 fish was below the historical average of 15,300 fish. The indexed pink salmon escapement in District 6 of 322,000 fish was within the management target range of 210,000 to 570,000 fish (Table 10). The Totem Bay stock group indexed escapement was just below the lower end of the target range for the stock and was the second consecutive year it was below the target range.

### *District 7*

District 7 encompasses the waters of Ernest Sound, Bradfield Canal, Zimovia Strait, and Eastern Passage. Purse seining primarily takes place in the waters of Ernest Sound, 20 to 40 miles south of the community of Wrangell. District 7 is divided into two sections for management purposes, Section 7-A (northern) and Section 7-B (southern). Streams in Section 7-A have early and middle runs of pink salmon; whereas Section 7-B streams are comprised largely of middle to late runs of pink salmon. The Section 7-A fishery is known as the Anan fishery since management actions in Section 7-A are mostly based on how the pink salmon return to Anan Creek is

developing. Historically, the District 7 purse seine fishery was primarily a pink salmon harvesting area. Beginning in 1997 chum salmon from enhancement facilities entered the district in large enough numbers to attract additional purse seiners to the area.

The Anan fishery (Section 7-A) opened for purse seining on July 5 for 15 hours (Table 7). Four additional 15-hour openings occurred through July 23 with the effort varying between 5 and 27 seiners each opening. Harvest rates on pink salmon were fair to good during these openings with average harvests ranging between 6,800 and 11,800 pink salmon per boat. The sixth and final opening in the Anan fishery was a 15-hour opening with the area reduced to south of the latitude of Kuakan Point on the northern tip of Deer Island. Chum salmon harvest was good and stayed consistent through all openings with average catch per boat ranging between 800 and 1,100 fish per opening. The Anan fishery closed after July 26 to increase overall escapements in the early and middle run systems. A total of 820,000 pink salmon and 112,000 chum salmon were harvested in the Anan fishery.

The first opening in Section 7-B was on July 30 and 31 for 39 hours. The fishing area during this first opening was restricted to an area north of a line from Ernest Point to Vixen Point. The purpose of this restriction was to reduce the harvest of McDonald Lake sockeye. Fishing was fair to good with 14 seiners averaging 11,500 pink salmon and 920 chums per boat. Sockeye harvests averaged 62 fish per boat. The second opening of Section 7-B was on August 3 and 4 for 39 hours with the area open expanded to include all of Section 7-B. Openings continued in Section 7-B until August 20 on two-day-on/two-day-off rotation. Harvest were fair to excellent ranging between 6,900 and 20,400 pink salmon per boat for the 6 openings in August. Effort varied between 6 and 22 seiners fishing. The peak opening, both in catch per boat and effort, was on August 3–4 when 22 seiners averaged 20,400 pink salmon and 700 chums per boat. A total of 1,337,000 pink salmon and 49,300 chum salmon were harvested in Section 7-B.

The 2009 harvest of all salmon species and escapement of pink salmon in District 7 were considered to be very good. A total of 2,157,000 pink salmon were harvested in 2009. (Table 2). This harvest was more than double the average annual harvest since statehood of 900,600 fish and was the 4<sup>th</sup> largest harvest on record. The 13,200 sockeye harvest was well above the average of 8,500 fish; the 8,900 coho harvest was above the average of 6,000 fish; and the 161,600 chum salmon harvest was double the average of 78,400 fish. The 2009 chum harvest was the sixth largest since 1992, which was before major chum enhancement started producing large numbers of fish that returned to release sites in District 7 and West Behm Canal. The indexed pink salmon escapement in the district of 429,000 fish was near the middle of the management target range of 260,000 to 690,000 fish (Table 10).

### **Southern Southeast Alaska Fall Chum Salmon Fishery**

There were no directed fall chum fisheries in southern southeast Alaska during 2009. This is the first time since statehood that there has been no directed fall chum fishery in Cholmondeley Sound.

## **SOUTHEAST ALASKA SALMON ESCAPEMENTS**

This section provides a regional review of pink, chum, and sockeye salmon escapements. A summary discussion of Chinook and coho salmon escapements is included in the Annual Management Report for the 2009 Southeast Alaska/Yakutat Salmon Troll Fisheries (Lynch et al. 2010).

## **PINK SALMON**

The total 2009 pink salmon escapement index of 12.7 million ranked 14<sup>th</sup> since 1960—76% of the recent 10-year average of 16.6 million (Table 9, Figure 5). Biological escapement goals were met for all three sub-regions in Southeast Alaska and escapements appeared to be well distributed across the region. Management targets for pink salmon were met for all 15 districts with management targets (Table 10) and, at a finer scale, for 41 of the 46 pink salmon stock groups (Table 11).

### **Southern Southeast Sub-region**

The Southern Southeast sub-region includes all of the area from Sumner Strait south to Dixon Entrance (Districts 1–8). The 2009 pink salmon harvest of 26.4 million was very close to the recent 10-year average. The escapement index value of 7.2 million fell within the escapement goal range of 3.0 to 8.0 million index fish (Figure 6). Escapement indices were within or exceeded management targets for all Districts and for 17 of 18 pink salmon stock groups within this sub-region.

### **Northern Southeast Inside Sub-region**

The Northern Southeast Inside sub-region includes all of the area on the inside waters north of Sumner Strait (Districts 9–12, 13 inside, 14, and 15). The 2009 pink salmon harvest of 10.2 million was 35% below the recent 10-year average. The escapement index value of 3.7 million fell within the escapement goal range of 2.5 to 6.0 million index fish (Figure 7). Escapement indices were within or exceeded management targets for all Districts and for 17 of 21 pink salmon stock groups within this sub-region.

### **Northern Southeast Outside Sub-region**

The Northern Southeast Outside sub-region includes all of the outer coasts of Chichagof and Baranof islands (District 13 outside). The pink salmon harvest of 1.4 million was 51% below the recent 10-year average. The escapement index value of 1.8 million fell within the escapement goal range of 0.75 to 2.50 million index fish, and escapement indices were within or exceeded management targets for all 7 pink salmon stock groups within this sub-region (Figure 8).

## **CHUM SALMON**

ADF&G has recently completed work to establish sustainable escapement goals for chum salmon in Southeast Alaska. Survey information from 88 Southeast Alaska chum salmon index streams was divided into appropriate stock groups by area and run-timing. For summer runs, which are typically harvested in mixed-stock fisheries, stocks were divided into aggregates of streams in Southern Southeast, Northern Southeast Inside, and Northern Southeast Outside sub-regions, as has been done for pink salmon. Escapement goals were also established for individual fall-run stocks that support, or have supported, a directed fishery.

Summer chum salmon runs were poor over most of the region and sustainable escapement goals were not met in all three sub-regions in Southeast Alaska (Figure 9, Table 12). Fall chum salmon returns were generally weak to average, with the exception of the Chilkat River, where the escapement of 337,000 chum salmon was close to double the upper bound of the sustainable escapement goal range. In 2009 ADF&G conducted the second year of a weir study at Disappearance Creek, in Cholmondeley Sound, to estimate the escapement of fall-run chum

salmon. The preliminary total escapement estimate to Disappearance Creek was approximately 62,000 and the weir count of 55,000 was one of the largest counts at that location compared to weir counts from 1965 to 1984.

## **SOCKEYE SALMON**

In 2009, sockeye salmon escapement targets were met for 7 of the 13 sockeye salmon systems in the region that currently have escapement goals (Table 13). The McDonald Lake sockeye salmon run was listed as a “stock of management concern” at the 2009 Board of Fisheries meeting and a new escapement goal range of 55,000 to 120,000 sockeye salmon was adopted at that time. The escapement at McDonald Lake in 2009 was under this new goal for the 4<sup>th</sup> consecutive year, but the final estimate of 51,000 fish was better than pre-season expectations that were based on the associated fall fry estimates. The escapement to Speel Lake was below the lower bound of the escapement goal for the third consecutive year.

## **DRIFT GILLNET FISHERIES**

Drift gillnet fishing is allowed by regulation [5AAC 33.310(c)] in District 1 (Sections 1-A and 1-B), District 6 (Sections 6-A, 6-B, 6-C, and 6-D), District 8, District 11 (Sections 11-B and 11-C), and District 15 (Sections 15-A, 15-B, and 15-C) (Figure 10). Regulations mandate that the specific open areas and fishing periods within these districts and sections be established by emergency order. Drift gillnet openings occurred in Terminal Harvest Areas (THA) in Nakat Inlet, Neets Bay, Anita Bay, Boat Harbor and Deep Inlet in 2009 (Figure 2). This section summarizes common property traditional drift gillnet fisheries. THA, hatchery cost recovery, and Annette Island fisheries are discussed in separate sections.

The 2009 drift gillnet fishery opened Monday, May 11 in Section 11-B beginning a 5-week period for the directed harvest of Taku River Chinook salmon returns under a harvest sharing agreements with Canada (Table 14). A directed fishery for Taku River Chinook salmon did not occur in 2008. There was no directed fishery for Stikine River Chinook in 2009. The traditional drift gillnet sockeye salmon fisheries began Monday, June 15 in District 6, and Sunday, June 21 in other districts. THA fisheries began with continuous, concurrent gear harvest periods in Neets Bay and Anita Bay May 15 and May 1, and continuous gillnet openings in Boat Harbor and Nakat Inlet (Table 15). In traditional fisheries management emphasis shifted to fall species on August 17 in Section 11-B, August 23 in District 15, and August 30 in Districts 1, 6, and 8. Traditional seasons ran through September 29 in Districts 1, 6 and 8, through October 7 in Districts 11 and through October 15 in District 11.

The 2009 drift gillnet common property fisheries (traditional and THA) harvested 4.1 million salmon. The total common property drift gillnet harvest consisted of around 23,000 Chinook, 408,000 sockeye, 321,000 coho, 567,000 pink, and 2,730,000 chum salmon (Tables 16 and 17). Harvest of Chinook salmon (including jacks) was 109% of the recent 10-year average of 21,100. Harvest of sockeye was 76% of the recent 10-year average harvest. Harvest of coho was 2% above the recent 10-year average harvest. Pink salmon harvest was 52% of the recent 10-year average harvest. Chum salmon harvest of 2.72 million was 132% of the recent 10-year average harvest of 2.07 million. The common property harvest catch composition by species included: 0.6% Chinook, 10% sockeye, 8% coho, 14% pink, and 67% chum salmon. Historical 1980–2009 drift gillnet traditional and THA harvests for each species are presented in Table 16. Figure 11 shows historical trends since 1960. The most notable trend is the large component of chum salmon in drift gillnet

fishery harvests since 1992. These harvests are attributable to hatchery production. The largest harvests in the history of the fishery have occurred in 1995 and 2006, when harvests neared 5 million overall, with a record of 3.1 million chum salmon harvested in 2006.

A breakdown of 2009 drift gillnet harvests by species, harvest type, and district is presented in Table 17. Common property harvests of 4.1 million include 3.4 million in traditional fisheries and 0.6 million in hatchery terminal areas. Cost recovery harvests by drift gillnet gear were minimal. Drift gillnet harvests from the Annette Island Reservation were 272,000 salmon. Traditional drift gillnet harvests by district included 572,000 from District 1, 690,000 from District 6, 288,000 from District 8, 1,080,000 from District 11, and 774,000 from District 15.

The drift gillnet fishery exvessel value was \$17.7 million in 2009 based on fish tickets (Table 2). This value include \$10.8 million of chum salmon, \$3.4 million of sockeye salmon, \$2.1 million of coho salmon, \$1.0 million of Chinook salmon, and \$0.4 million of pink salmon. After post-fishery analysis by CFEC, based on processor annual reports, the value increased 11%. Recent trends of value have been upward since a low point in 2002. Values in 2009 are consistent with values of \$15–20 million from 1985 to 1995 (Figure 12).

## **DRIFT GILLNET CHINOOK SALMON HARVESTS**

Regulations [5AAC 29.060(b)(2)] was modified at the 2006 BOF meeting to allocate 2.9% of the annual harvest ceiling for Chinook salmon for the drift gillnet fishery. The new regulation changed the gillnet allocation for Chinook from a fixed number of 7,600 to a percentage of the fluctuating annual all gear quota, excluding directed fisheries in Districts 8 and 11 and Alaska hatchery harvests above the pre-treaty 5,000 fish baseline and a risk factor apportioned between fisheries. The BOF adopted this harvest limit approach as an allocation measure to ensure that all user groups share in the Chinook salmon harvest limit specified by the Pacific Salmon Treaty (PST). The BOF has specified that inseason management measures for maintaining the harvest levels, if needed, may include early-season area closures for the protection of mature wild Chinook salmon and nighttime fishing restrictions to minimize the harvest of immature fish.

The drift gillnet fishery share of the 2009 all-gear Chinook salmon quota of 218,789 was determined to be 6,345 fish. The 2009 drift gillnet harvest of Chinook salmon totaled 25,221 fish (Table 16). Of these 2,256 were small (under 28 inches) and 22,965 were over 28 inches. Total gillnet harvest of large Chinook salmon included approximately 12,817 Alaska Hatchery fish, 4,019 terminal exclusion fish (Taku River). The hatchery “add-on” was calculated at 11,703 leaving around 7,870 Chinook designated as Treaty Harvest. As a result, the total drift gillnet harvest during the 2009 season was roughly 1,525 fish above the 6,345 Chinook salmon harvest cap. The all gear U.S. harvest of Treaty Chinook was 2.0% below the all-gear quota.

## **DISTRICT 1: TREE POINT**

The June 30, 1999 PST agreement calls for abundance based management of the District 1 (Tree Point) drift gillnet fishery. The agreement specifies a harvest of 13.8 percent of the Annual Allowable Harvest (AAH) of the Nass River sockeye run. For the 2009 season, Canadian Department of Fisheries and Oceans (DFO) forecast a total return of 511,000 Nass River sockeye salmon. The AAH is calculated as the total run of Nass sockeye salmon minus either the escapement requirement of 200,000 or the actual inriver escapement, whichever is less. The preseason AAH for 2009 Nass sockeye was therefore 42,918 fish.

The District 1 drift gillnet fishery opens by regulation on the third Sunday in June. During the early weeks of the fishery, management is based on the run strength of Alaska wild stock chum and sockeye salmon and on the strength of the Nass River sockeye salmon. Beginning in the third week of July, when pink salmon stocks begin to enter the fishery in large numbers, management emphasis shifts by regulation to that species. By regulation, the District 1 Pink Salmon Management Plan (PSMP) sets gillnet fishing time in this district in relation to the District 1 purse seine fishing time when both fleets are concurrently harvesting the same pink salmon stocks. The preliminary 2009 estimate of Nass River sockeye salmon harvested at Tree Point is 50,000 fish, slightly above the AAH.

In 2009 the District 1 drift gillnet fishery opened on June 21, statistical week 26 (Table 14). The fishery was open a total of 1,512 hours, slightly more than the 1985 to 2008 Treaty period average of 1,325. The fishery received four days of fishing time from the opening week through statistical week 30, it was extended to five days of fishing beginning in statistical week 31 because the purse seine fleet was open for at least three days of fishing in District 1 the same week. District 1 purse seine catches of pink salmon remained strong so the fishing time remained at five days each week through Statistical Week 35. During Statistical Week 36 it was reduced to four days. During statistical weeks 36–39 Tree Point was open for four days each week based on above average coho harvests. The last opening occurring on September 27, 2009, was a two-day opening. A total of 65 gillnet vessels fished in the district, 55% of the 1985–2008 average of 119 vessels.

Traditional Tree Point harvests in 2009 included 1,160 Chinook, 69,859 sockeye, 67,169 coho, 170,575 pink salmon and 263,035 chum salmon (Table 18). In 2009 the District 1 gillnet harvest of 69,859 sockeye salmon was 51% of the 1985–2008 treaty period average of 137,000. The cumulative sockeye harvest prior to the initiation of the PSMP in Week 30 was 41,175 fish, or about 59% of the season's total sockeye harvest. Sockeye salmon harvests were below average for most of the season, with the exception of the first open period, statistical week 26. The pink salmon harvest of 170,575 was about 32% of the treaty period average of 539,000. The chum salmon harvest of 263,035 was about 86% of the treaty period average of 306,000. The coho salmon harvest of 67,169 was 153% of the treaty period average of 43,920. The Chinook salmon harvest of 1,160 was about 78% of the treaty period average 1,489.

During the 2006 Board of Fisheries meetings in Ketchikan the board removed the designation of Hugh Smith Lake sockeye salmon as a stock of concern, however the department still maintained the option to enact closures if the forecasting fell short of projecting the necessary escapement. At no point in the season did the Hugh Smith projected run size fall below the escapement goal range, therefore no sockeye management closures were taken. Escapement into Hugh Smith Lake was approximately 9,483 sockeye salmon, below the escapement goal range of 8,000–18,000.

Beginning on August 31, Statistical Week 36, the District 1 gillnet fishery was managed on the strength of fall chum and coho salmon returns. Coho harvests were strong throughout the summer and continued to be strong throughout the fall portion of the Tree Point fishery. Fishing time was stable at 4 days a week through Statistical Week 39, during statistical week 39 catch rates dropped below average and the last opening during statistical week 40; Tree Point was only open two days. Coho escapements to the systems around Ketchikan were good.

## **DISTRICTS 6 AND 8: PRINCE OF WALES AND STIKINE**

### **Fishery Overview**

Drift gillnet fisheries occur in waters adjacent to Prince of Wales Island and the Stikine River in Districts 6 and 8. Waters open to commercial drift gillnet fishing in District 6 include Sections 6-A (Sumner Strait), 6-B, 6-C, and a portion of 6-D (Clarence Strait). The District 8 commercial drift gillnet fishery occurs in Section 8-A and Section 8-B, waters north and south of the Stikine flats. Management of these fisheries is interrelated due to their proximity and the migration patterns of stocks harvested in both areas. Salmon stocks of Stikine River origin, a major transboundary river originating in Canada, are harvested in both districts. Both preseason and inseason forecasts of Chinook and sockeye salmon returning to the Stikine River are produced. Management of Districts 6 and 8 through the first part of the season is largely based on these forecasts. Salmon species migrate through the districts at different times allowing management to target different species during different time periods throughout the season. Chinook salmon display the earliest run timing and initial early season management is based on returns of Chinook salmon to the Stikine River. In June as the Chinook salmon run begins to wane, management emphasis shifts and is based on the returns of sockeye salmon in the area. In August management actions are based on pink salmon returns and then switches to coho salmon for the remainder of the season. In 2009, the preseason forecast for Chinook salmon projected a weak run with minimal surplus available for commercial harvest. Inseason assessment of the Chinook salmon run was weaker than the preseason forecast and subsequently there were no directed Chinook salmon fisheries in either district. In 2009, all Chinook salmon commercially harvested in Districts 6 and 8 drift gillnet fisheries were incidental to the harvest of other salmon species.

The 2009 commercial gillnet harvest in District 6 was 1,625 Chinook, 111,984 sockeye, 144,569 coho, 143,589 pink, and 287,707 chum salmon for a total harvest of around 690,000 (Tables 17, 19). With the exception of pink salmon, all salmon harvests were near to above average. Harvest of Chinook salmon was 136%, sockeye salmon was 113%, coho salmon was 93%, and chum salmon was 1119% of the 10-year average harvests. Pink salmon harvest was less than half of the recent 10-year average. The preliminary estimate of Stikine River sockeye salmon harvested in District 6 was 35,425 fish or approximately 32% of the harvest. Neck Lake sockeye salmon contribution was estimated at 4,583 fish (4%) of the District 6 harvest. An estimated 980 Chinook salmon in the District 6 harvest (60%) were of Alaska hatchery origin. An estimated 73,889 coho salmon in the District 6 harvest were of Alaska hatchery origin, 51% of the total coho salmon harvest.

The District 6 drift gillnet fishery was open for 45 days from June 15 through September 29. Total fishing time was below the 1999–2008 average fishing time of 49 days. Sections 6-A, 6-B, and 6-C were open simultaneously each week throughout the season. Section 6-D was open by regulation from statistical weeks 25 through 31 and statistical weeks 37 through the end of the season. Weekly fishing effort in number of vessels fishing in District 6 was above the ten-year average for every week of the season with the exception of weeks 29 through 31 and week 35. The greatest effort in vessels fishing (99 boats), and the greatest number of boat days (297) both occurred in week 36. The total season effort was 3,253 boat days, above the ten-year average of 3,028 boat days.

The Sumner Strait fishery (Subdistricts 106-41 & -42) harvested an estimated 33,425 Stikine River sockeye salmon, 41% of the total sockeye salmon harvest in that subdistrict. The Clarence

Strait fishery (Subdistrict 106-30) harvested an estimated 2,000 Stikine River sockeye salmon, 7% of the total sockeye salmon harvest in that subdistrict.

The District 8 total season gillnet harvest (excluding the Chinook salmon test fishery) included 2,406 Chinook, 36,680 sockeye, 30,860 coho, 27,010 pink, and 190,800 chum salmon for a total harvest of around 288,000 salmon (Tables 17 and 20). Harvest of coho salmon was 121% and chum salmon was 200% while Chinook salmon was 29%, sockeye salmon was 83%, and pink salmon was 69% of the ten-year average harvests. The District 8 fishery harvested an estimated 28,726 Stikine River sockeye salmon, 78% of the District 8 sockeye salmon harvest. An estimated 28% (8,609 fish) of the District 8 coho salmon harvest was of Alaskan hatchery origin. Alaska hatchery Chinook salmon contribution in District 8 was estimated at 1,706 fish, 71% of the total harvest.

The District 8 fishery started on June 21 after being postponed two weeks for Stikine Chinook salmon conservation concerns. District 8 closed concurrently with District 106 on September 29. District 8 was open 47 days, which is exactly the 1999–2008 average when excluding the directed Chinook salmon fishery that took place the previous four seasons. The ten-year average days fished in District 8 including the directed Chinook salmon fisheries is 52 days. Weekly fishing effort in number of vessels fishing in District 8 was above average for all but four weeks. The season effort of 1,932 boat days was above the 1999–2008 average of 1,671 boat days.

The District 6 and 8 salmon fisheries are mixed stock salmon fisheries. Returns to the Stikine River were estimated for sockeye salmon in each district and the Stikine River Chinook salmon contribution was estimated for District 8. Proportions of Stikine River sockeye salmon in Districts 6 and 8 harvests were estimated inseason using both historical proportions of stock composition and inseason proportions of thermally marked fish from fry plants to Tahltan and Tuya Lakes. The proportion of Stikine River Chinook salmon harvested in the District 8 fishery was estimated by subtracting the contributions of non-Stikine origin fish determined from port sampling efforts.

### **Chinook (King) Salmon Fishery**

The directed Stikine River Chinook salmon drift gillnet fishery did not occur in 2009, the first season in the past five not to have a directed Chinook salmon fishery. The preseason run forecast of 32,000 large Stikine Chinook salmon resulted in a U.S. total allowable catch (TAC) of 390 fish. Fishermen and processors were notified that an inseason run estimate would be produced in late May and, if inseason indicators allowed, a limited directed fishery could occur.

Although the preseason forecast did not allow for a directed Chinook salmon commercial fishery, a test fishery was implemented with the primary purpose of developing a time series of data that could potentially correlate Chinook salmon harvest rates with run size. The test fishery harvested a total of 113 large Stikine Chinook salmon. The test fishery was designed for three boats to fish for a 24-hour period per week for seven weeks in three separate areas within District 8 starting the first Monday in May. Only four of the proposed test fishing periods occurred as the first inseason run estimate was substantially lower than the preseason forecast. This initial estimate, which came out on May 28, reduced the U.S. TAC to 100 fish. The test fishery was never reinstated due to the inseason run estimate and resulting TAC. It was discontinued prior to the peak of the Stikine Chinook salmon run through District 8 and information gained was incomplete. However, in the future this data, coupled with additional information, may give an additional indication of run strength and timing that is earlier than inriver indicators.

The total number of large Stikine Chinook salmon harvested by District 8 gillnetters from statistical weeks 26 through 29 incidental to the directed sockeye salmon fishery was approximately 500 fish. Due to Stikine Chinook salmon conservation concerns the initial sockeye salmon gillnet opening was postponed by one week in District 6 and by two weeks in District 8. Troll hatchery access openings were also reduced for Stikine Chinook salmon conservation in statistical weeks 23 through 25. Two of the three hatchery access areas (the two having the highest component of Stikine Chinook salmon in the harvests) within District 8 were reduced to one-day openings in statistical weeks 23 and 25 and were closed in statistical week 24. District 8 Spring troll fishery openings through the end of June resulted in a total harvest of 182 Stikine Chinook salmon. The District 8 sport fish Stikine Chinook salmon catch estimate from statistical weeks 18 through 29 was 761 fish. The preliminary cumulative U.S. harvest of large Stikine Chinook salmon through week 29, including the federal Stikine subsistence fishery and District 8 test fishery, was 1,587 fish. The preliminary postseason estimate of the total run was approximately 15,000 large Chinook salmon. A total run of this size results in no allowable harvest quotas for either the U.S. or Canada. Total Chinook salmon escapement to the Stikine River was estimated by mark and recapture information at approximately 11,100 fish, below the lower end goal of 14,000 fish. Little Tahltan River (which is the main indicator system on the Stikine River and has a weir) escapement decreased slightly from last year with approximately 2,354 fish counted this season. The ten-year average Chinook salmon count on this system is approximately 6,600 fish. Andrews Creek Chinook salmon escapement was slightly below the goal range this season with an escapement estimate of approximately 630 Chinook salmon.

### **Sockeye Salmon Fishery**

The District 6 gillnet season began at 12:00 noon on Monday, June 15 (statistical week 25), for an initial two-day period. The sockeye salmon fishery was originally planned to open the week prior (June 8). The initial opening was postponed for one week due to the ongoing concerns regarding Stikine Chinook salmon run strength. As a result of 2009 Board of Fish actions, the first two fishing periods targeting sockeye salmon open on Mondays to minimize interactions between commercial gillnetters and sport fishermen on weekends during the Stikine Chinook salmon run. There were no additional area closures implemented in District 6 for the initial opening and District 8 remained closed. Traditionally, the first sockeye salmon opening is two days. Decisions to extend fishing time are largely based on fishery information gathered by biologists conducting interviews with fishermen on the grounds during the openings. Sockeye salmon harvest rates proved to be exceptional during the opening and justified a one-day extension, which resulted in a total of three days of fishing for the week. Six boats fished in Clarence Strait (106-30) and 64 boats fished in Sumner Strait (106-41) for this initial sockeye salmon opening. The preseason Stikine Management Model (SMM) forecasted a Stikine River TAC of 206,107 and a Tahltan TAC of 118,857 sockeye salmon. Based on the SMM, the allocation to U.S. fisheries was 103,054 Stikine River sockeye salmon, which includes 59,429 Tahltan fish.

During statistical week 26 (June 21–June 27) effort consisted of 57 boats fishing in Sumner Strait, 14 boats fishing in Clarence Strait, and 42 boats fishing in District 8. This opening was the first in District 8. The opening was announced for three days in each district and was extended by an additional day in both districts due to above average sockeye salmon harvest rates. District 6 sockeye salmon harvest rates were slightly above the ten-year average while District 8 harvest rates, for those boats targeting sockeye salmon, were well above average. The trend of shifting

effort to the southern part of the district to target returns of Chinook and chum salmon to Anita Bay continued in 2009. This redistribution of effort away from the Stikine River creates a reduced district-wide average sockeye salmon harvest rate compared to other years. Additionally, portions of Sections 8-A and 8-B were closed due to Stikine Chinook salmon conservation concerns and limited fishing to waters away from the mouth of the river. The inseason sockeye salmon stock assessment for sub-district 106-41 indicated that 16% of the harvest was comprised of thermally marked Tahltan fish while 20% were Tuya fish; where as in District 108, 13% were thermally marked Tahltan fish and 34% were Tuya fish.

During statistical week 27 (June 28–July 4) effort consisted of 67 boats fishing in Sumner Strait, 23 boats fishing in Clarence Strait, and 65 boats fishing in District 8. Both districts were opened initially for three days this week due to solid sockeye salmon harvest rates in both districts the previous week and strong inriver indications. Effort targeting sockeye salmon in Section 8-B was minimal during this period as chum salmon harvest in District 6 had shown improvement. However, those boats targeting sockeye salmon in District 8 had well above average harvest rates. District 6 sockeye salmon harvest rates were not consistent with Clarence Strait having good harvest rates and Sumner Strait having below average harvest rates. With below average sockeye salmon harvest rates in Sumner Strait and above average harvest rates in the rest of Districts 6 and 8, a 24-hour midweek opening in District 8 was justified. The inseason sockeye salmon stock assessment for sub-district 106-41 for week 26 indicated that 1% of the harvest was comprised of thermally marked Tahltan fish while 7% were Tuya fish. The District 8 inseason stock assessment indicated that 19% of the harvest were thermally marked Tahltan fish and 22% Tuya fish. The first inseason Stikine River sockeye salmon run estimate was produced this week and resulted in a total run that was over 40,000 fish less than the preseason forecast. This estimate reduced the U.S. TAC to 84,000 Stikine sockeye salmon with 39,000 Tahltan fish. U.S. Tahltan sockeye salmon harvest estimate to date was 24,000 fish.

During statistical week 28 (July 5–July 11) Districts 6 and 8 were opened initially for three days. Effort consisted of 32 boats fishing in Clarence Strait, 53 boats in Sumner Strait, and a 68 boats fishing in District 8 for the week. Interviews conducted on the fishing grounds indicated that sockeye salmon harvest rates were near average in District 6 and above average for those boats targeting sockeye salmon in Section 8-B. Additionally, Anita Bay chum salmon harvest rates in District 8 began to increase significantly this week. With average to above average sockeye salmon harvest rates and a large proportion of the District 8 fleet targeting chum salmon, a 24-hour midweek opening was justified in District 8. The inseason percentage of thermally marked Tahltan sockeye salmon in sub-district 106-41 harvest fell to 1% while the marked Tuya fish contributed 3%. In District 8, marked Tahltan fish contributed 5% while marked Tuya fish contributed 16% of the harvest. The SSM estimate this week decreased the total Stikine sockeye salmon U.S. TAC to 63,000 fish with a Tahltan TAC of 39,000 fish. Estimated cumulative U.S. harvest of Tahltan sockeye salmon was 30,000 fish. The mainstem total run forecast remained similar to the previous week at around 53,000 fish resulting in a U.S. TAC of 11,000 fish. Estimated U.S. harvest of mainstem sockeye salmon to date was 6,000 fish.

During statistical week 29 (July 12–July 18) effort consisted of 24 boats in Clarence Strait, 28 boats in Sumner Strait, and 36 boats in District 8. Due to the McDonald Lake sockeye salmon conservation period, fishing time was reduced to two days in both districts this opening. Additional fishing time during the three week McDonald Lake sockeye salmon conservation period is conducted as a midweek opening in District 8. Effort fell substantially this week in both

districts due mainly to boats leaving for other areas. Sockeye salmon harvest rates were the best of the season in Districts 6 and 8 for the few boats targeting sockeye salmon. However, a preliminary inseason SSM lowered the sockeye salmon run estimate by nearly 30,000 fish, which resulted in the U.S. being over the Tahltan TAC. Even with low effort in both districts and well above average sockeye salmon harvest rates, no extra time was announced due to allocation concerns. Inseason sockeye salmon stock assessment for week 29 indicated that the thermally marked Tahltan fish contributed 0.6% of the District 6 harvest and 10% of the District 8 harvest. Marked Tuya fish contributed 1% and 6% in District 6 and 8, respectively. The SMM decreased the Tahltan terminal run estimate to 99,000 fish, with a U.S. TAC of 37,000 fish. Estimated U.S. Tahltan harvest by the end of this week was 31,500 sockeye salmon.

During statistical week 30 (July 19–July 25) effort consisted of 35 boats fishing in District 6 and 82 boats fishing in District 8. Both districts were initially opened for two days. Effort was at the lowest of the season thus far in District 6. Sockeye salmon harvest rates in 106-41 continued to be well above average. Poor weather caused reduced sockeye salmon harvest in 106-30; however, the total District 6 sockeye salmon harvest rates were above average. Only six boats were observed targeting sockeye salmon in Section 8-B on the survey and had well above average sockeye salmon harvest rates. This week had the highest chum salmon harvest rates in District 8 and the majority of the fleet continued to target returns to Anita Bay. The Tahltan sockeye salmon run was returning in record numbers upriver and more than 18,000 sockeye salmon had passed through the weir by this date. The mainstem component had also increased slightly over the last week. With a small fleet targeting sockeye salmon and reduced concerns for Stikine sockeye salmon run strength, a 48-hour midweek opening was announced in District 8. This midweek opening had much higher than anticipated effort because chum salmon fishing in the Juneau area was considerably slower and several boats transitioned to District 8 for the extended opening to target chum salmon. Inseason sockeye salmon stock assessment for week 30 indicated that marked Tahltan fish contributed 0% of the District 6 harvest and 11% of the District 8 harvest. The SMM estimated a U.S. Tahltan TAC of 34,000 sockeye salmon this week. U.S. harvest of Tahltan sockeye salmon through week 30 was estimated near 32,000 fish. The SMM estimated a U.S. mainstem harvest of 9,000 sockeye salmon with a U.S. TAC of 10,000 fish.

During statistical week 31 (July 26–August 1) effort consisted of 68 boats fishing in District 6 and 94 boats fishing in District 8. Both districts were opened initially for two days. Sockeye salmon harvest rates continued to be well above average for District 6 and above average for the limited effort targeting sockeye salmon in District 8. The model produced this week increased the mainstem run estimate to 59,000 fish, which brought the U.S. TAC to over 14,000 fish. Due to the small fleet targeting sockeye salmon and increased mainstem run estimate, a 24-hour midweek was announced in District 8. Marked Tahltan/Tuya sockeye salmon were nearly nonexistent in District 6 this week while 2% and 5% of the harvest consisted of marked Tahltan and Tuya fish in District 8, respectively. The SMM estimated the total Tahltan run size at 94,000 fish with a U.S. TAC of 35,000 fish. The final SMM estimated a total U.S. harvest of 64,579 Stikine sockeye salmon comprised of 33,537 Tahltan fish, 17,370 Tuya fish, and 13,672 mainstem fish. U.S. TAC for each component was 32,357 Tahltan fish, 15,381 Tuya fish, and 8,291 mainstem fish. This was the last week of sockeye salmon directed management in both districts.

The 2009 preliminary postseason run size estimate of Stikine-bound sockeye salmon is approximately 179,000 fish. This estimate includes: the Districts 6 and 8 estimated harvest of 64,151 Stikine sockeye salmon, the U.S. inriver subsistence fishery estimated harvest of 772 fish, the total Canadian Stikine inriver harvest of 49,202 fish (including test fishery harvest), the Tahltan Lake escapement of 30,673 fish, the estimated Tuya escapement of 12,066 fish, and the estimated Mainstem escapement of 22,230 fish. The postseason estimate of the total contribution of Stikine sockeye salmon to Districts 6 and 8 was 43% of the sockeye salmon harvest.

Peak escapement counts of sockeye salmon to “local” systems were generally average.

### **Pink Salmon Fishery**

During statistical weeks 32 through 35 (August 2–August 29), both Districts 6 and 8 were managed based on pink salmon abundance. Both districts were open for three days a week during this period; however, section 6-D was closed by regulation from week 32 through week 36. The region-wide preseason pink salmon forecast was substantial this year, yet returns to District 6 did not meet preseason expectations throughout the season. Pink salmon harvests in both districts are not likely true reflection of abundance due to low prices for pink salmon. Targeting of pink salmon in these districts can be effected by harvest of other more valuable species, which in turn may affect fishing patterns and methods. During the 2009 season, the fishing effort was generally well above the weekly 1999–2008 average effort in both districts throughout the pink salmon management period. It is thought that above average coho and chum salmon harvests were likely the catalysts behind this increased effort in both districts. Total pink salmon harvests were far below the ten year average in District 6 while District 8 had above average harvests rates during the pink salmon management period; however, total harvest was below average.

Pink salmon escapement goals were met in Southern Southeast as a whole, but District 6 was one of the weaker areas in the region.

### **Coho Salmon Fishery**

Coho salmon management typically commences in late August or early September in the District 6 and 8 gillnet fisheries. During statistical week 36 (August 30–September 5) the management emphasis changed from pink to coho salmon. Prior to the switch to coho salmon management, the District 6 fishery had harvested 96,011 coho salmon, approximately 66% of the total District 6 coho salmon harvest. Neck Lake/Burnett Inlet enhanced summer coho salmon returns made up a significant component of this early coho salmon harvest with an estimated contribution of 46,000 coho salmon in the District 6 fishery prior to statistical week 36. The average weekly Alaska hatchery coho salmon harvest rate in the District 6 fishery was above average until statistical week 36, at which point it remained below average the rest of the season. Total average weekly coho salmon harvest rates in District 6 were above average in statistical weeks 29 through 34 and were below average in openings before and after this period. In District 8, weekly coho salmon harvests were generally above average from statistical week 30 through the end of the season. Coho salmon harvests in both districts tapered off significantly the last two weeks of the season although harvest rates in District 8 were above average in the last opening. Both districts had three day openings from weeks 36 through 39 and ended with a two-day opening in week 40. The 2009 gillnet season in both districts ended at noon on Tuesday, September 29.

## **Chum Salmon Fishery**

Chum salmon harvested in both districts are caught incidental to target fisheries for sockeye, pink, and coho salmon. Alaska hatchery chum salmon returning to Anita Bay contributed significantly to chum salmon harvests in both districts and particularly harvests in District 8. Preliminary estimates indicate that Anita Bay chum salmon made up 18% of the total harvest in District 6 and 43% in District 8. Preliminary estimates also indicate that Neets Bay chum salmon made up 31% of the total chum salmon harvest in District 6.

## **DISTRICT 11: TAKU/SNETTISHAM**

### **Fishery Overview**

The District 11 Taku/Snettisham commercial drift gillnet fishery occurs in the waters of Section 11-B, including Taku Inlet, Port Snettisham, and Stephens Passage north of the latitude of Midway Island, and Section 11-C including the waters of Stephens Passage south of the latitude of Midway Island and north of a line from Point League to Point Hugh. If run strength is sufficient, the fishery targets Chinook salmon in May and early June, sockeye and summer chum salmon through mid-August, and coho and fall chum salmon in the fall. In 2009 a portion of Section 11-B was open for a directed Chinook salmon gillnet fishery during statistical weeks 20 to 24, to target returning Taku River Chinook salmon. Management actions for the directed Chinook salmon fishery were limited to time and area restrictions. Management of the summer sockeye and coho salmon fishery is based on the strength of returns of wild sockeye salmon stocks in the summer and wild stocks of coho and chum salmon in the fall. A stock assessment program conducted at Canyon Island on the Taku River provides inseason estimates of Taku River run strength through mark-recapture efforts. Douglas Island Pink and Chum Salmon Inc. (DIPAC) operate sockeye salmon escapement enumeration programs at Speel and Crescent lakes. Aerial and foot stream surveys are conducted to monitor the development of salmon escapement in other streams in the district. The 2009 season was the 10<sup>th</sup> year of a large return of adult hatchery sockeye salmon back to the DIPAC Snettisham Hatchery facility located inside Port Snettisham. The District 11 common property fishery, which includes both the traditional area and the Speel Arm SHA inside Port Snettisham, harvested 6,800 Chinook, 62,070 sockeye, 36,615 coho, 56,801 pink, and 918,350 chum salmon (Tables 17 and 21).

The Pacific Salmon Treaty (PST) affects management of the fishery because the Taku River, a major transboundary river extending into Canada, contributes substantial portions of the salmon harvested in District 11. The PST mandates that the Taku sockeye salmon fishery be primarily managed for Taku River spawning escapement needs. Annex IV of the PST provides a sliding harvest share based on documented enhanced sockeye returns resulting from joint U.S./Canada sockeye salmon enhancement projects in the Taku River drainage. This season's low return of Taku River enhanced sockeye established the 2009 harvest share for surplus Taku River sockeye salmon at 80% US and 20% Canada. The PST also has provisions for transboundary Taku River coho salmon specifying that the U.S. manage its fishery for an above-border run size minimum of 38,000 fish. In 2003 the BOF implemented regulations allowing a directed Chinook salmon fishery in Section 11-B, and in 2005, US and Canada reached a harvest sharing agreement as outlined in the PST for a directed Chinook salmon fishery to occur. As the result of a bilateral review, the escapement goal range for large Taku Chinook was established at 19,000 to 36,000 large Chinook salmon, with a point goal of 25,500 fish. The US Allowed Catch (AC) was determined by a Pacific Salmon Commission bilaterally agreed on formula based, during the

early season, on the preseason Taku Chinook salmon run forecast, and revised inseason based on the inseason run projection estimates generated from the Canyon Island mark-recapture program. The AC applies only to large Taku origin Chinook salmon over 28 inches in length (659 mm MEF). The U.S. harvest of the Taku Chinook salmon AC will not count towards the Southeast Alaska aggregate abundance-based management regimes (AABM) allocation although the historical base harvest of 940 Chinook salmon continues to be counted as treaty fish. The U.S. allowed catch is shared between gillnet, troll and sport fisheries occurring in District 11, with no set allocation for each user group. In January 2006 the BOF made changes slightly increasing the allowed areas for both gillnet and troll fisheries, adjusted the open periods for troll to three days in a week where the gillnet fishery is open for one day, and to five days in a week the gillnet fishery is open for two or more days. A seven inch minimum gillnet mesh restriction was also adopted for the directed Chinook fishery.

The 2009 District 11 traditional fishery was open for a total of 62 days from May 11 through October 15. Due to poor wild sockeye returns to Port Snettisham systems the Speel Arm SHA fishery was not opened for common property drift gillnetting in 2009. Participation in the District 11 fishery peaked in statistical week 31 with 179 boats fishing. Fishing effort, as measured by the total number of boats delivering fish each week multiplied by the number of days open to fishing, peaked for the common property fishery in statistical week 29. Total fishing effort for the 2009 common property drift gillnet fishery was 3,438 boat days, 96% of the 1999–2008 (10-year) average. Enhanced stocks contributed significant numbers to the harvest of both sockeye and chum salmon, and minor numbers to the harvest of other species.

Management actions used to conduct the District 11 drift gillnet fishery are limited to imposing time and area restrictions during the directed Chinook salmon fishery during statistical weeks 18–24, and time, area, and gear restrictions during statistical weeks 25–42 when the management emphasis is on sockeye and coho salmon.

### **Chinook Fishery**

The preseason terminal run forecast of 50,164 large Taku River Chinook salmon allowed a directed Chinook fishery in District 11 beginning the first Monday in May with a US Allowed Catch (AC) of 8,257 fish in addition to the 3,500 fish Base Level Catch (BLC). Due to forecast uncertainty, the first opening of the season was postponed until the second Monday in May, and the fishery opened for one day in statistical week 20 with the north line of the district pulled south to the latitude of Jaw Point. A fleet of 45 boats harvested 613 fish, of which 536 were large Taku Chinook. Previous directed Chinook fisheries occurred only in 2005 and 2006 and were managed for a higher escapement goal range so there is limited historical data with which to meaningfully compare this season with previous ones.

In statistical week 21 the fishery was again open for one day in the same reduced area and 43 boats harvested 290 fish, of which 228 were large Taku Chinook. The first inseason run estimate was generated and projected a terminal run of 47,510 large Taku Chinook, close to the preseason forecast and providing a US AC of 7,781 fish. In statistical week 22 the fishery was opened for one day beginning on Tuesday due to the Memorial Day holiday and to normal markers due to low over all harvest and adequate inriver indicators. Staff on the grounds monitoring the opening extended the fishery an additional day based on good fishery catch rates, the inseason estimate being close to the preseason estimate, adequate available AC, and this being one of the peak weeks of the run timing.

In statistical week 22, 55 boats harvested 1,627 fish, of which 1,373 were large Taku Chinook. The inseason estimate generated in statistical week 22 projected a terminal run of 50,043 large Chinook salmon which results in a US AC of 9,638 fish. In statistical week 23 the fishery was opened for one day, and again extended by staff on the grounds based on good catch rates, available AC and the run timing within the peak weeks of abundance.

In statistical week 23, 64 boats harvested 1,909 fish, of which 1,591 were large Taku Chinook. The third inseason estimate generated after the fishery in statistical week 23 projected a terminal run of 39,994 large Taku Chinook, reducing the US AC to 2,266 fish. The 20% decline in terminal run projection resulted in a 76% reduction of US AC. In statistical week 24 the fishery was opened for one day and 64 boats harvested 858 fish, 702 of which were large Taku Chinook. The fourth inseason estimate projected a terminal run of 37,361 large Taku Chinook, and a further reduction in US AC to 338 fish. Due to the significant drop in the inseason run strength estimate, there was no directed Chinook fishing in statistical week 25. Management emphasis for the District 11 drift gillnet fishery shifted to sockeye salmon beginning in statistical week 26, but the bilaterally agreed upon Chinook accounting period extends through statistical week 28.

### **Sockeye Fishery**

In statistical week 26, Section 11-B was opened for the average 3 days with the northern boundary restricted to the latitude of Jaw Point and a 6-inch maximum mesh restriction to conserve for Chinook salmon. 59 boats harvested 685 Chinook of which 253 were large Taku fish. The sockeye harvest was 50% and the sockeye CPUE was 57% of the ten-year average.

Fishing time for statistical week 27 was again three days in Section 11-B with the northern boundary restricted to the latitude of Jaw Point and a 6-inch maximum mesh restriction to conserve for Chinook salmon. 56 boats harvested 417 Chinook of which 64 were large Taku Chinook. The sockeye harvest was 30% and the sockeye CPUE was 55% of the ten-year average.

Fishing time for statistical week 28 was set for two days in Taku Inlet due to weak river indicators, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Limestone Inlet was opened concurrent with Stephens Passage to provide access to enhanced DIPAC chum salmon returning to this remote release site. Effort increased to 100 boats and 160 Chinook were harvested, none of which were large Taku fish. The total gillnet harvest of large Taku Chinook salmon for the directed Chinook fishery accounting period, statistical weeks 20–28 was 4,748 fish. Sockeye harvest and CPUE were respectively 38% and 43% of the ten-year average. The Section 11-B chum salmon harvest increased dramatically from the previous weeks 70% to 303% of the ten-year average.

Fishing time for statistical week 29 was again set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort increased to 158 boats and sockeye harvest and CPUE were 66% and 51% of the ten-year average. Analysis of otoliths revealed that 18% of the sockeye salmon harvest from Taku Inlet and 51% from Stephens Passage during this week were of DIPAC Snettisham hatchery origin. TBR enhanced sockeye salmon of Tatsamenie Lake origin contributed 0.8% of the harvest in Taku Inlet this week. The Section 11-B chum salmon harvest increased to 451% of the ten-year average.

Fishing time for statistical week 30 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Although the two days in Taku Inlet was based on overall Taku sockeye levels, it had been bilaterally agreed preseason to hold time in Taku Inlet to two days during weeks 30 through 32 to conserve for Tatsamenie origin sockeye, which were expected to have a poor return this season. Effort peaked for the season at 178 boats with sockeye harvest and CPUE of 52% and 37% of the ten-year average. Analysis of otoliths revealed that 24% from Taku Inlet and 53% of the sockeye salmon harvest from Stephens Passage during this week were of DIPAC Snettisham hatchery origin. TBR enhanced Tatsamenie Lake origin sockeye salmon contributed 0.8% to Taku Inlet and 0.8% to Stephens Passage harvests. The Section 11-B chum salmon harvest was 190% of the ten-year average.

Fishing time for statistical week 31 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort was 89 boats and sockeye harvest and CPUE were 42% and 62% of the ten-year average. Otolith analysis revealed that 25% of the sockeye salmon harvest from Taku Inlet and 53% from Stephens Passage during this week were of DIPAC Snettisham hatchery origin, and 0.3% of the harvest from Taku Inlet were of TBR enhanced Tatsamenie Lake origin. The Section 11-B chum salmon harvest was 179% of the ten-year average.

Fishing time for statistical week 32 was set for two days in Taku Inlet, and three days south of Circle Point in Stephens Passage with a six-inch minimum mesh restriction to conserve for wild Port Snettisham sockeye salmon while providing opportunity on enhanced summer chum salmon. Effort was 79 boats and sockeye harvest and CPUE were 26% and 45% of the ten-year average. Otolith analysis indicated that 47% of the sockeye salmon harvest from Taku Inlet and 64% of the harvest from Stephen's Passage were of DIPAC Snettisham hatchery origin. The Section 11-B chum salmon harvest was 167% of the ten-year average.

Fishing time for statistical 33 was set for two days in Section 11-B due to poor sockeye numbers, with the six-inch mesh restriction south of Circle Point removed. Effort was 59 boats and the sockeye harvest and CPUE were 19% and 45% of the ten-year average. Otolith analysis indicated 49% of the harvest from Taku Inlet was of DIPAC Snettisham hatchery origin. The Section 11-B chum salmon harvest was 225% of the ten-year average.

During the summer fishing season, fishing time in Stephens Passage south of the latitude of Circle Point often differs from that in Taku Inlet to target or conserve wild Taku and Port Snettisham sockeye salmon as well as effectively harvest the return of DIPAC hatchery summer chum and sockeye salmon. Limestone Inlet was opened to the inner markers from statistical week 28 through statistical week 34 to allow the harvest of remote released DIPAC hatchery chum salmon. Port Snettisham (Subdistricts 111-33, 111-34) was closed to fishing to limit harvest of wild Crescent and Speel Lake sockeye salmon runs. Beginning early in the season, assessment programs indicated weak sockeye salmon escapements to both Crescent and Speel Lakes. The Speel Arm SHA was not opened to common property fishing in the 2009 season.

## **Coho Fishery**

Beginning in statistical week 34, management emphasis in the District 11 drift gillnet fishery shifted to coho salmon. The fall drift gillnet season lasted nine weeks, beginning on August 17 in

statistical week 34, and lasting until October 15 in statistical week 42. Fishing time in Section 11-B during statistical week 34 was held to two days due to overall poor sockeye returns, and the opening was delayed until Monday, August 17<sup>th</sup> to accommodate the Golden North Salmon Derby taking place in Juneau area waters. Section 11-C was opened for two days due to adequate pink returns to Mainland systems. The coho salmon harvest was 43% of the ten-year average, but the CPUE was 207% of the average.

Fishing time in Sections 11-B and 11-C was set for 3 days in statistical week 35, with coho salmon harvest and CPUE 128% and 94% of the ten-year average. The first inseason coho estimate projected and inriver run of 138,000 fish.

Fishing time in Section 11-B was set for three days in statistical week 36 and coho harvest and CPUE were 266% and 172% of the ten year average. The second inseason coho estimate projected an inriver run of 107,000 fish, with 50,000 coho currently past all fisheries, exceeding the 38,000 PST minimum escapements.

Based on good coho catches in the District 11 fishery, being past the peak period of wild fall chum presence, and continued strong inseason coho estimates, openings of four days per week were held for the remainder of the season. The District 11 sockeye salmon harvest for the weeks 34–42 was 17% of the 10-year average. The coho salmon harvest in statistical weeks 37–42 was 101% the ten-year average. The final inseason coho estimate was for 113,700 fish inriver, with an escapement past all fisheries of 104,300 fish. The fall chum salmon harvest in statistical weeks 34–42 was 74% of the ten-year average. The District 11 drift gillnet fishery closed on October 15 in statistical week 42.

## **Summary**

The District 11 common property drift gillnet Chinook salmon harvest of 6,800 fish is 140% of the 10-year average harvest. Alaskan hatchery fish contributed 11% of the harvest as estimated by coded wire tag (CWT) analysis. The Taku River stock assessment program estimated a preliminary escapement of 20,020 large Chinook salmon, within the current escapement goal range of 19,000 to 36,000 large fish.

The District 11 common property drift gillnet sockeye salmon harvest was 62,070 fish, 38% of the 10-year average. Domestic hatchery sockeye salmon began to contribute to the fishery during statistical week 27 and added significant numbers to the harvests during statistical weeks 29 through 33. Drift gillnetters targeting returns of Snettisham Hatchery sockeye and Limestone Inlet hatchery chum salmon, increased the amount and percentage of fishing effort that occurred in Stephens Passage. The final contributions of Taku River and Port Snettisham wild sockeye salmon to the District 11 commercial drift gillnet harvest will not be known until post-season analyses of stock identification data are available. However, harvest of thermally marked sockeye salmon from fry-plants was estimated inseason by otolith analysis. Sockeye salmon from a joint U.S./Canada fry-planting program at Tatsamenie Lake contributed an estimated 232 fish to the fishery with 85% of these harvested in Taku Inlet. Contributions of domestic U.S. enhanced sockeye salmon to the District 11 common property drift gillnet fishery totaled 16,800 fish or 27% of the harvest. The District 11 drift gillnet fishery harvested 85% of the 52,000 wild sockeye salmon TAC for the Taku River. Stock composition estimates will be updated post season based on a combined analysis of otolith, scale pattern, and brain parasite incidence characteristics. The preliminary estimate of Taku River sockeye salmon escapement past all fisheries from the mark-recapture program was 71,840 fish, approximately equal to the lower

bound of the escapement goal range. Poor wild sockeye salmon escapements were apparent inside Port Snettisham. A total of 3,689 sockeye salmon, less than the 4,000 fish lower bound of the escapement goal range, were counted through the DIPAC operated weir on the outlet stream of Speel Lake. The escapement to Crescent Lake was monitored with DIPAC's split-beam hydro acoustic counter at the outlet of Crescent Lake again this year. The net upstream count of 1,256 fish was not separable by species. It is known that all species of Pacific salmon do enter Crescent Lake; however sockeye salmon is the predominant species. Though no formal goal exists for this system, the average peak aerial survey for 1987–2008 is approximately 7,100 fish. ADF&G and DIPAC will continue to work on the technical aspects of this program to improve the “usability” of this data.

Coho salmon stocks harvested in District 11 include runs to the Taku River, Port Snettisham, Stephens Passage, and local Juneau area streams as well as Alaskan hatcheries. The common property coho salmon drift gillnet harvest of 36,600 fish was 122% of the 10-year average. Alaskan hatchery coho salmon contributed 33 fish or less than a tenth of a percent of the District 11 common property harvest in 2009. The coho escapement for the Taku River was estimated to be approximately 104,000 fish, surpassing the minimum inriver goal of 38,000.

Coho salmon escapements to other streams in the district were mostly unknown.

The District 11 common property drift gillnet pink salmon harvest of 56,800 fish was 50% of the 10-year average. The escapement number to the Taku River was unknown. However, the number of pink salmon passing through the fish wheels at Canyon Island was used as an index of escapement. The total of 9,234 pink salmon caught in the fish wheels was 74% of the 2007 parent-year and was 60% the 1999–2007 odd-year average. Pink salmon escapement to the Taku River was characterized as below average.

The District 11 common property drift gillnet harvest of 918,350 chum salmon was 248% of the 10-year average and the largest on record. The summer chum salmon harvest of 915,100 fish comprised 99.7% of the season's harvest. The summer chum salmon run was considered to last through mid-August (statistical week 33) and was comprised mostly of domestic hatchery fish, with small numbers of wild stock. Chum salmon returning to the DIPAC facilities in Gastineau Channel and remote release site at Limestone Inlet contributed a major portion of the harvest but quantitative contribution estimates were not available. Approximately 62% of the District 11 drift gillnet chum salmon harvest was made in Taku Inlet, and 38% in Stephens Passage. The harvest of 3,100 fall chum salmon during statistical week 34 and later was 74% of the 10-year average. Most of these chum salmon are of wild Taku River origin. The escapement number to the Taku River was unknown. However, the chum salmon passing through the fish wheels at Canyon Island were used as an index of escapement. The 236 fish caught in the fish wheels in 2009 was 72% of the 10-year average. Chum salmon escapement to the Taku River was characterized as below average.

## **DISTRICT 15: LYNN CANAL**

### **Fishery Overview**

Drift gillnet fisheries in Lynn Canal occurs in the waters of District 15 encompassing Section 15-A (upper Lynn Canal), Section 15-C (lower Lynn Canal), and Section 15-B (Berners Bay). The fishery targets four major stocks of sockeye salmon (Chilkat Lake, Chilkoot Lake, Chilkat River mainstem and Berners River). Hatchery chum salmon are also important harvests during the first

four weeks of the summer season. This fishery targets coho and fall chum salmon into the fall season.

The District 15 traditional Lynn Canal drift gillnet fishery was opened for a total of 43 days between June 21 and October 7, 2009 (Table 14). The number of fishing days was below average (87% the 1999–2008 average of 60 days). Fishing effort totaled 4,384 boat-days (1.2 times the 1999–2008 average of 3,578 boat-days). The total number of permits participating in the 2009 Lynn Canal drift gillnet fishing season was well above average, (173 permits as compared to the previous 10-year average of 142 permits). The numbers of drift gillnet boats participating in the District 15 gillnet fishery each week were near or above average especially during the peak of the hatchery chum return where effort was well above average in Section 15-C. The increase in effort in this area at this time has been typical in recent years. The majority of the fleet targets hatchery chum salmon during the first month of this fishery.

A total harvest of 1.17 million salmon occurred during 2009 in the Lynn Canal (District 15) common property fishery (Tables 17 and 22). This harvest included 681 Chinook, 126,600 sockeye, 36,000 coho, 163,000 pink and 846,000 chum salmon. The harvests of sockeye, pink, and chum salmon were above the recent 10-year average and harvests of Chinook and coho salmon were below the 10-year average. The 2009 Chinook salmon harvest of 681 fish is slightly below average (93% of the previous 10-year average). The coho salmon harvest is 81% of the previous 10-year average. The harvest of sockeye, pink, and chum salmon is 1.1, 2.0, and 1.3 times the 10-year averages for these species, respectively.

Of the total district sockeye salmon harvest, approximately 17,000 Chilkoot Lake sockeye salmon were harvested as determined by scale pattern analysis. This estimate is 35% of the recent 10-year average and the second lowest harvest since 2001. The commercial harvest of Chilkat Lake sockeye salmon was approximately 85,000 fish, 1.6 times the 10-year average and the highest harvest since 1999. The estimated harvest of sockeye salmon originating from areas other than Chilkat and Chilkoot lakes in Lynn Canal was approximately 24,600 fish, 1.4 times the recent 10-year average. The majority of this harvest was from the mainstem Chilkat River and Berners Bay river systems.

The 2009 total District 15 chum salmon harvest of 846,000 fish is almost 1.3 times the previous 10-year average and the third highest commercial harvest on record for the district. Hatchery contributions of chum salmon from remote release sites at Boat Harbor and Amalga Harbor contributed an estimated 98% (based on otolith sampling of the catch) of the total summer chum harvest during statistical weeks 25 through 33 (June 21–August 15). An estimated 63,000 fall chum salmon was harvested in this fishery. Chum salmon harvest in the District from statistical weeks 34 through the end of the season (August 16 through October 7) are considered fall chum salmon and are predominantly Chilkat River drainage stocks. The 2009 catch of fall chum salmon just exceeded the recent 10-year average of 51,000 fish.

Coho salmon harvests for Lynn Canal totaled 36,000 fish. This harvest was approximately 1.2 times the recent 10-year average of 44,000 fish. Due to below average expectations for coho salmon return Berners Bay, (Section 15-B) was closed to commercial drift gillnet fishing in 2009.

## **Section 15-A Sockeye Fishery**

The 2009 Lynn Canal drift gillnet season was opened per regulation Sunday, June 21 (Table 14). Summer season management of Section 15-A was directed at harvesting large returns Chilkat Lake sockeye salmon while protecting expected poor returns of Chilkoot Lake sockeye salmon. Section 15-A was opened for two days south of the latitude of Seduction Point west of a line from Seduction Point to Talsani Island to Eldred Rock to Sullivan Rock Light to a point within two nautical miles of the western shoreline of Lynn Canal at the latitude of Point Sherman in the first week (June 21–June 22) of this fishery. Due to an expected below average return of Chilkat River Chinook salmon, Chilkat Inlet remained closed during the first two weeks of the fishing season. The eastern shoreline of Section 15-A was closed for most of the summer season to protect expected poor returns of Chilkoot Lake sockeye salmon while directing harvest on Chilkat River mainstem and Chilkat Lake sockeye salmon. This area was open four days in week 27 (June 28–July 4) and four days in week 28 (July 5–July 9) with Chilkat Inlet open south of the Glacier Point–Twin Coves line. The western area of section 15-A was open for three days each in weeks 29 through 31 with Chilkat Inlet open south of the latitude of Letnikof Light. All of Section 15-A south of the latitude of Seduction Point including Chilkat Inlet south of Letnikof Light was initially open for three days in week 32 (August 2–August 6) with a one-day extension to harvest the very strong Chilkat Lake sockeye salmon return. This area was open for three days in week 33 (August 9–August 14) with a two-day extension in the western area of Section 15-A including Chilkat Inlet south of the latitude of Letnikof Light. In week 34 (August 16–August 19), all of Section 15-A was open south of the latitude of Seduction Point with Chilkat Inlet open to the terminus of the Chilkat River for three days. Due to the very poor return of Chilkoot Lake sockeye salmon, Chilkoot Inlet north of the latitude of Seduction Point was not open for the duration of the summer season.

## **Section 15-A Fall Chum and Coho Fishery**

Fall fishery management focused on the harvesting Chilkat River fall chum, coho and late run Chilkat Lake sockeye salmon in Section 15-A beginning in statistical week 35 (August 23). The section opened for two days each south of the latitude of Seduction Point in weeks 35 through 37 with Chilkat Inlet open for three days north of the latitude of Seduction Point and south of the latitude of Letnikof Light to harvest stronger than average Chilkat River drainage fall chum salmon and late run Chilkat Lake sockeye salmon. In week 38 all of Section 15-A was open south of the latitude of Mud Bay point in Chilkoot Inlet with Chilkat Inlet open south of the latitude of Letnikof Light. From week 39 through the end of the season through week 41, the same area was open for three days each except Chilkoot Inlet was open south of a line from Tanini Point to Taiya Point.

## **Section 15-B and 15-C Fisheries**

Due to below average expectations for Berners Bay coho salmon, Section 15-B did not open during the 2009 season.

Fishing effort in Lynn Canal during the summer season was concentrated in Section 15-C where the fleet targeted larger than average returns of hatchery summer chum salmon originating from remote release sites at Amalga Harbor and Boat Harbor. Two days of fishing were allowed in Section 15-C including the Boat Harbor terminal harvest area during the initial week of the season (June 21–June 23). The eastern side of Section 15-C was closed north of the latitude of Point Bridget to provide protection for expected poor returns of Chilkoot Lake sockeye salmon.

In addition, six inch minimum mesh size gear restriction was in place for most of the summer season in Section 15-C to reduce the harvest of Chilkoot Lake sockeye salmon while targeting hatchery chum salmon. The western side of Section 15-C north of the latitude of Danger point was also closed to protect wild Endicott River chum salmon and other wild salmon stocks to streams in this area of the district. The area north of Danger Point remained closed through statistical week 31 (July 27). In week 27 through week 30 (June 28–July 22), Section 15-C was open for two days each south of latitude Point Bridget and south of the latitude of Danger Point with an additional day each in what is known as the “postage stamp area” (south of a line from a point on the eastern shoreline of Lynn Canal at the latitude of Vanderbilt Reef light to Vanderbilt Reef light and east of a line from Vanderbilt Reef to the latitude of Little Island light). This area was open for an additional day to target hatchery chum salmon while reducing exploitation rates on the poor return of Chilkoot Lake sockeye salmon. In week 31 (July 26–July 29), three days were granted in all of Section 15-C south of the latitude of Point Sherman with the exception of an area within two nautical miles of the western shoreline of Lynn Canal north of the latitude of Lance Point. This closure was in place to protect returns of wild chum salmon to the Endicott River. Three days of fishing time in all of Section 15-C south of the latitude of Point Sherman and south of the latitude of Lance Point in Section 15-C was granted with a one day extension during week 32 (August 2–6). This area was open for three days each in week 33 (August 9–12). All of Section 15-C was open for 3 days in week 34 (August 16–19).

### **Section 15-C Fall Chum and Coho Fishery**

Section 15-C was managed for Lynn Canal coho and fall chum salmon from weeks 35 through the end of the season. All of Section 15-C was open for 2 days each in statistical weeks 35–37, and 3 days each in weeks 38 to the end of the season to target Chilkat River fall chum salmon and Lynn Canal bound coho salmon. Fall season effort in the entire district was above average in 2009. Coho and fall chum salmon harvests in 2009 were estimated at 32,800 and 61,500 fish, respectively. This harvest was below average for coho salmon and above average for fall chum salmon. Section 15-C closed for the season on October 8 (week 41).

### **District 15 Escapements**

The total sockeye salmon visual count through the Chilkoot River weir was 33,500 fish, which fell just below the escapement goal range of 38,000–86,000 fish. This weir count was 56% of the 1999–2008 average of 60,000 fish. In addition 12 Chinook, 10 coho, 34,300 pink and 164 chum salmon were enumerated at this weir. Weekly weir passage rates of Chilkoot Lake sockeye salmon were generally below average all season with the exception of statistical week 27 (June 28–July 4) where 4,167 (ten-year average is 2,487) sockeye salmon were enumerated. The pink salmon weir count was 84% of the historical odd year average of 41,000 fish. A large proportion of the pink salmon return spawns below the weir. Although the pink salmon weir count was below average, the 2009 pink salmon return to the Chilkoot River was strong.

DIDSON was used again in 2009 to enumerate sockeye through the Chilkat Lake weir. The weir was also used to capture returning Chilkat Lake sockeye salmon for age-sex and length composition sampling and to sample fish for tag ratios. Two fish wheels are used to capture salmon in the lower Chilkat River. All captured sockeye salmon at the fish wheels larger than 360 mm (MEF) are marked with fin clips and numbered T-bar tags and released. Recovery events are conducted at the Chilkat Lake weir site and on selected spawning ground locations on the Chilkat River mainstem to determine the ratio of tagged sockeye salmon in the population.

Fish wheel catch is also used to judge the relative strength of the salmon return during the migration. The total Chilkat Lake sockeye salmon DIDSON/weir count was 153,000 sockeye salmon. This count slightly exceeded the biological escapement goal range of 70,000–150,000 fish. The preliminary mark-recapture escapement estimate for Chilkat River mainstem sockeye salmon is 28,000 fish. The 2009 estimate is below the 1999–2008 average escapement estimate of 35,500 fish.

Preliminary mark-recapture escapement estimate for Chilkat River Chinook salmon is 4,799 age-1.3 and older Chinook salmon. This estimate is above the historical 1991–2008 average and well above the escapement goal range of 1,850–3,600 large fish.

Pink and chum salmon aerial and foot peak escapement counts conducted along streams on the western shorelines of Lynn Canal were generally near average for both species. Foot and aerial peak escapement counts for these species on the eastern side of Lynn Canal were generally above average for both species.

Fall chum salmon escapement based on fish wheel catch appeared to be slightly above average. The Board of Fisheries recommended a sustainable escapement goal range of 75,000 to 175,000 fall chum salmon to the Chilkat River drainage during the 2009 meeting in Sitka. Fall chum salmon escapement is measured by indexing the total fish wheel catch of this species. The index is based on a mark-recapture program from the years 2002–2004 where it was estimated that the lower Chilkat River fish wheel project catches 1.5% of this return annually. The 2009 fall chum salmon fish wheel catch of 5,049 fish from the lower Chilkat River fish wheel project indexed an estimated escapement of approximately 337,000 fish. The average index estimate for this species is 328,000 fish. The peak aerial survey count for chum salmon on the Klehini River was 6,500 fish. This peak survey count is just below the 1999–2008 average peak aerial survey count of 8,500 fish. The Chilkat River fall chum salmon escapement aerial surveys indicated that returns of this stock were near average in comparison to the recent 10-year average. A peak count of 25,000 chum salmon was observed in the Chilkat River in the fall of 2009. This peak aerial count is below the previous 10-year average of 32,700 fish.

Chilkat River coho escapements based on fish wheel catch was below average in 2009. The season total fish wheel catch of 2,029 fish 70% of the 1999–2008 average. Based on the expansion of index surveys conducted through the Chilkat River drainage, approximately 48,900 coho salmon returned to spawn in the Chilkat River drainage. This estimate is below the previous 10-year average but well within the biological escapement goal range of 30,000–70,000 fish.

Aerial surveys conducted at Berners Bay streams indicated a peak sockeye salmon escapement of 1,000 fish. The peak aerial count is just below the previous 10-year average of 1,400 fish. Berners River coho salmon escapements were estimated at approximately 6,870 fish. This stream count is near the mid-point of the biological escapement goal range of 4,000–9,200 fish.

The Boat Harbor proper area (west of department markers at the entrance to Boat Harbor) was opened on a continual basis from the start of the season (June 21) through week 37 (September 8). The remainder of the Boat Harbor area (those waters within two nautical miles of the western shoreline of Lynn Canal south of the latitude of Danger Point at 58°41.73' N. latitude and north of a point 2.4 miles north of Point Whidbey at 58°37.05' N. latitude) was opened continuously beginning in week 27 (June 28) through week 34 (August 20). As in previous years, the northern line of the Boat Harbor Terminal Harvest Area remained at the latitude of Danger Point through the summer season to protect Endicott River summer chum salmon and other wild salmon stocks

migrating through this area. The number of boats participating in this terminal harvest area each week was generally above average during the summer fishery. Commercial harvests of salmon from the Boat Harbor Terminal Harvest Area included 124 Chinook, 12,300 sockeye, 305,000 chum, 724 coho and 82,300 pink salmon. Harvests for all species were above average for this area.

## **HATCHERY HARVESTS**

Privately operated hatcheries contributed Chinook, sockeye, coho, pink, and chum salmon to the 2009 commercial drift gillnet and purse seine fisheries. Hatchery-produced salmon are harvested in traditional common property fisheries, common property hatchery terminal area fisheries, and in private hatchery cost recovery fisheries. Accurate harvest information is available from fish tickets for these harvest types. Management attention in traditional fisheries is directed on the harvest of wild stocks, although migrating enhanced fish contribute substantially to traditional area harvests. As enhanced fish enter terminal areas near hatchery release sites fishery management is directed on the harvest of hatchery-produced surplus returns. In most cases fisheries in terminal harvest areas are managed according to allocation plans approved by the Alaska Board of Fisheries. In several locations terminal harvest areas (THAs) must be managed in cooperation with hatchery organizations to provide for broodstock needs and cost recovery harvests. Harvests in hatchery Special Harvest Areas (SHAs) are opened so hatchery operators can harvest returning fish to pay for operating costs and to reserve sufficient broodstock to provide for egg take goals. For some terminal locations only cost recovery harvest takes place; for some locations both common property and cost recovery harvests occur; at other locations only common property harvests occur (Figure 2).

Hatchery contributions to common property fisheries are estimated by evaluation of Coded Wire Tag (CWT) recovery information, and through thermal otolith mark recoveries. CWT rates are specified in hatchery annual management plans, harvests are randomly sampled by ADF&G port sampling programs, and used to estimate hatchery-produced coho and Chinook salmon production. Thermal otolith marks are increasingly used to estimate chum or sockeye harvests in fisheries, or to evaluate the performance of differentially-marked groups returning to a release location. Thermal marking is advantageous since entire releases can be mass-marked, however, there is currently no comprehensive program in place to sample returning adults throughout the region. Beginning in 2006 SSRAA funded a program to sample salmon harvested in traditional fisheries in southern Southeast for otoliths at delivery locations in Ketchikan and Petersburg and from samples collected by ADF&G port sampling staff on board salmon tenders. DIPAC Inc. also conducts port sampling at delivery locations in northern Southeast Alaska. NSRAA conducts sampling primarily in THA fisheries.

In 2009, of the 51.6 million total all-gear salmon harvest, 85% were harvested in traditional fisheries, 7% in THA fisheries, and 8% in hatchery cost recovery fisheries (Tingley and Davidson 2010). Of 9.7 million chum produced in 2009, 60% were harvested in traditional areas, 30% were harvested in hatchery THAs, and 30% were harvested in cost recovery fisheries. Chum salmon harvests in 2009 in both purse seine and drift gillnet common property fisheries are in large part due to hatchery production.

In 2009 Southeast Alaska harvests of enhanced fish in common property (traditional and terminal area) fisheries, for combined gear types (includes troll gear), were estimated to account for 15% of overall harvests including: 23% of Chinook, 7% of sockeye, 19% of coho, 2% of

pink, and 88% of chum based on hatchery annual reports (White 2010). The combined value of these harvests is estimated at \$28 million.

## **TRADITIONAL COMMON PROPERTY HARVESTS**

Chinook salmon are intensively sampled in common property fisheries to provide for abundance based harvests allowed under the Pacific Salmon Treaty, to comply with allocations established for the different gear groups, and to manage spring troll and net fisheries for additional harvests of Chinook produced by Alaska hatchery programs. Harvest of hatchery Chinook by seine and gillnet fisheries combined was 54% of the common property Chinook harvest.

Coded wire tags are intensively sampled in various fisheries to provide this accounting. In 2009 purse seine fisheries harvested 29,012 Chinook in common property fisheries (Lynch, Skannes and Shaul, 1010). An estimated 15,973 of seine harvests of Chinook are estimated to be from Alaska hatcheries and 13,582 were designated as Treaty harvests. Seine Treaty harvests were 44% above the seine allocation of 9,408 Chinook. Purse seine harvests of 16,196 occurred in hatchery terminal harvest areas in Districts 1, 7, 12, and 13, and the largest harvest of Chinook, 7,072, occurred in the District 4 traditional fishery.

In 2009 drift gillnet fisheries harvested 23,592 large Chinook in common property fisheries (Lynch, Skannes and Shaul). An estimated 12,817 Chinook are estimated to be from Alaska hatcheries, 4,019 are designated as wild terminal exclusion (Taku River origin) harvests, and Treaty harvests around 7,870 Chinook were 24% above the 2009 gillnet allocation of 6,345 Chinook.

The total common property seine harvest of coho salmon in 2009 was 283,431 (Table 1). Of these 280,944 were harvested in traditional fisheries and only 2,487 were harvested in terminal areas. Hatchery coho salmon contributions to the purse seine fishery are estimated at 26,921 fish, or 9.5% of the total. 44% of enhanced coho harvests were in District 4, but significant harvests occurred in Districts 1 (20%), 2 (12%), and 12 (10%).

Drift gillnet fisheries harvested 320,910 coho salmon in common property fisheries, including 314,568 in traditional fisheries and only 6,342 in hatchery terminal areas. Enhanced coho contributions are estimated at 97,335, or 30% of harvests. Around 76% of enhanced coho were harvested in District 6, followed by 14% in District 1, and 9% in District 8. The overall estimated contribution of enhanced coho to combined seine and drift gillnet fisheries was 20.6%.

Of 307,436 sockeye harvested in common property purse seine fisheries in 2009 most (98.4%) were from traditional fisheries (Table 1). Very few enhanced sockeye are likely to have been harvested in common property purse seine fisheries in 2009.

Of 408,336 sockeye harvested in common property drift gillnet fisheries in 2009, 96.8% were harvested in traditional fisheries, and 13,242 were from hatchery terminal areas (Table 17). The major contribution of enhanced sockeye salmon was an estimated 17,818 sockeye from the DIPAC Port Snettisham Hatchery program to the District 11 drift gillnet fishery. Snettisham enhanced sockeye represented 30% of gillnet sockeye harvests in District 11. SSRAA estimated a total drift gillnet harvest of 4,450 sockeye from returns to Burnett Inlet and Neck Lake, primarily in District 6. These projects have been discontinued.

Other enhanced sockeye production is from joint enhancement activities in US-Canada Transboundary Rivers. Estimated enhanced sockeye harvests from Tatsamenie Lake in the Taku

River drainage in the District 11 drift gillnet fishery were only 253 fish, less than 0.4% of total sockeye harvested in District 11. The Tuya Lake enhancement project contributed around 17,370 sockeye to U.S. fisheries in Districts 6 and 8. Proportions of the Tahltan Lake harvests of 33,537 fish also originated from enhancement.

The regionwide common property seine harvest of pink salmon was 34.9 million fish in 2009. The only significant hatchery production of pink salmon is at the Port Armstrong Hatchery in Section 9-A. Commercial purse seine openings in District 9 harvested 1.0 million pink salmon, including harvests of 380,000 pink salmon from Section 9-A. It is likely that some proportion of these common property pink salmon harvests are from hatchery production.

Generally, the majority of harvests of chum salmon in Southeast Alaska are derived from hatchery production, and hatchery harvest estimates are determined by a combination of otolith sampling of commercial traditional and terminal area fisheries. Most, but not all chum salmon are thermally marked, and sometimes harvest estimates are based on expected proportions of returns to terminal areas instead of systematic sampling for otolith marks. Precise estimates of harvests in traditional common property fishery areas are not always known, so returns as reported in this section are based on hatchery operators' best estimates.

Common property purse seine harvests of 3.5 million chum salmon in 2009 were 83% of the most recent 10-year average harvest of 5.4 million (Table 1). Purse seine fisheries included 1.4 million from traditional fishery areas (39%) and 2.1 million from hatchery terminal harvest areas (61%) (Table 2). Total combined contributions estimated by SSRAA, NSRAA, and DIPAC to common property seine fisheries were 2,883,517 or 82% of total harvests.

In contrast with harvests in seine areas, drift gillnet harvests of 2.7 million chum salmon were 32% above the most recent 10-year average harvest of 2.1 million (Table 16). Harvests included 2.2 million in traditional fishery areas (81%) and 0.5 million from hatchery terminal areas (19%; Table 17). Total combined contributions estimated by NSRAA, SSRAA, and DIPAC to common property drift gillnet fisheries were 2,439,582 million chum or 89% of the common property drift gillnet harvest.

The three major hatchery organizations have also estimated contributions of 321,008 chum salmon to troll fisheries, representing 94% of combined troll harvests in 2009. All gear estimated hatchery contributions to common property chum salmon harvests of 5,644,107 of 6,575,829 fish harvested represents an overall contribution of 86%.

## **TERMINAL HARVEST AREA COMMON PROPERTY HARVESTS**

### **Nakat Inlet**

The Nakat Inlet Terminal Harvest Area (THA) (Subdistrict 101-10) was opened in 2009 for troll and gillnet gear to harvest enhanced chum and coho salmon returns produced by the Southern Southeast Regional Aquaculture Association (SSRAA). The Nakat Inlet THA was open continuously by regulation from June 1, Statistical Week 23, to November 10, Statistical Week 46 for gillnet and troll (Table 15). The drift gillnet fishery harvested 403 coho and 71,982 chum salmon (Table 24) in the Nakat Inlet THA. Although Nakat Inlet THA was open from June 1 through November 10 to troll gear, no documented landings occurred.

## **Neets Bay**

The Neets Bay THA (Subdistrict 101-95) is managed by the department, in consultation with SSRAA primarily to conduct cost recovery, but there is some opportunity for terminal harvest in common property fisheries. In 2009, nearly all of the fish returning to Neets Bay were harvested for cost recovery. Cost recovery totals were 761,810 chum salmon, 24,906 coho salmon, and 11,191 Chinook. The Neets Bay THA (Subdistrict 101-95) was opened for troll fisheries beginning on May 1, and then was open concurrently to all gear groups from May 15 through June 10 with very limited effort. The Neets Bay THA was next opened from June 11 to 24 on a rotational basis between the gillnet and seine fleets to target excess Chinook salmon (Tables 8 and 15). From October 4 to 14, the Neets Bay THA was opened on a rotational schedule. On Friday, October 16 the Neets Bay THA was open concurrently for all gear groups through the end of the season on November 10, with no landings. The combined harvest for both the gillnet and the purse seine fleet was 11,512 Chinook, 961 coho salmon, and 11,818 chum salmon, inside the THA (Tables 23 and 24).

## **Kendrick Bay**

The Kendrick Bay THA (Subdistrict 102-15) was opened in 2009 for access by the seine fleet to harvest returning chum salmon produced by SSRAA. The 2009 Kendrick Bay forecast was 544,000 summer chum salmon. The Kendrick Bay THA was opened continuously beginning June 15 for the purse seine fleet and remained open through September 30 (Table 8). 55 vessels took part in this fishery and harvested 1,692 sockeye, 929 coho, 24,594 pink, and 74,033 summer chum salmon (Table 23). Additional chum salmon returning to Kendrick Bay were harvested outside of the Kendrick Bay THA along the eastern shoreline of Prince of Wales Island during the 4 day chum salmon directed fisheries prior to statistical week 29 (July 11). Chum harvest in those openings totaled 240,832 chum salmon; of those chum salmon approximately 232,040 or 96.3% were of hatchery origin, with approximately 61% being Kendrick Bay enhanced chum salmon.

## **Anita Bay**

The Anita Bay Terminal Harvest Area (THA) (Statistical area 107-35) is opened each year to allow the harvest of surplus Chinook, chum, and coho salmon returns produced by Southern Southeast Regional Aquaculture Association (SSRAA). These fish are predominantly harvested by the drift gillnet and purse seine fleets. The Anita Bay THA is the only terminal common property hatchery fishery in Districts 5–10. The area was opened for concurrent net fisheries from May 1 through June 12. From June 13 through September 28 the fishery operated on a rotational basis with purse seine and drift gillnet fleets alternating openings with the purse seine fleet fishing first (Tables 8 and 15). Rotational fishery schedules were similar to the past 4 seasons, starting and ending at noon with the area closed for 24 hours between each fishery; however, fishing time differed this year from past seasons with the ratio between gillnet and seine changing to a one-to-one ratio. The gillnet fleet would fish for 24 hours followed by a 24-hour closure and be followed by the seine fleet fishing for 24 hours. In prior seasons, the gillnet fleet fished 48 hours and seine fleet fished 24 hours. The first gillnet effort in Anita Bay occurred May 10 and the first seine effort occurred June 18. The last fishing effort by seiners occurred August 17 and the last effort by gillnetters was September 29. Concurrent fisheries resumed on September 29 and ran through November 10 with no additional harvest reported. This was the sixth consecutive year that hatchery returns to the THA at Anita Bay were

harvested by the seine fleet since the release site was change from Earl West Cove to Anita Bay in 2001. Purse seiners harvested 2,602 Chinook, 187 sockeye, 213 coho, 15,746 pink, and 31,917 chum salmon from the Anita Bay THA in 2009 (Table 23). Gillnetters harvested 3,295 Chinook, 231 sockeye, 4,107 coho, 400 pink, and 28,521 chum salmon inside the THA (Table 24). The purse seine chum harvest was approximately 3,400 fish more than the gillnet harvest within the THA. Gillnetters harvested another 108,000 chum salmon in the waters of District 8 just north of Anita Bay during general openings traditionally managed to harvest returns of Stikine River sockeye. Seine effort was concentrated between July 19 and August 1 when returns of chum salmon had built up in the terminal area.

### **Speel Arm**

In District 11, the DIPAC midpoint forecast for total Snettisham Hatchery sockeye salmon returns in 2009 was 228,000 fish from their 2004 and 2005 brood year smolt releases. The actual return was 110,000 sockeye salmon including broodstock and jacks. Although the return would have provided sufficient fish to hold a common property drift gillnet fishery inside Port Snettisham in the Speel Arm SHA, wild sockeye salmon escapements to Speel and Crescent Lakes did not reach adequate levels to open the area. The final escapement to Speel Lake documented by the DIPAC operated weir was 3,689 sockeye salmon, below the minimum of the biological escapement goal range of 4,000–13,000. DIPAC's Snettisham Hatchery contributed an estimated 16,800 hatchery sockeye salmon to harvests in the District 11 traditional area commercial drift gillnet fishery.

### **Hidden Falls**

In District 12, the Northern Southeast Aquaculture Association (NSRAA) forecast a return to the Hidden Falls THA of 180,000 coho, 7,600 Chinook and 2.2 million chum salmon. The NSRAA board set the chum salmon cost recovery goal at 1.8 million pounds or approximately 225,000 fish and the broodstock goal was 140,000 fish. The Hidden Falls THA opened for purse seining on June 21 and again on June 28 (Table 8). Since a small troll fishery for hatchery Chinook salmon was ongoing in late June, Kasnyku Bay remained closed as provided under Hidden Falls Hatchery Terminal Harvest Management Plan (5AAC 33.374). Openings occurred weekly through July 12 with the first mid-week opening occurring on July 16. Openings continued on a Sunday/Thursday schedule through July 26 with a final 39-hour fishing period July 30–31. This season, based on observed fleet distribution, it was apparent that a majority of the chum salmon moved into the THA from the south and according to reports from fishermen, pink salmon were being caught in greater numbers while setting for north bound moving fish. The total harvest of chum salmon in the common property fishery was 1.74 million. Additionally 644,000 pink salmon, 3,200 coho salmon, 2,700 sockeye salmon and 800 coho salmon were harvested by July 31. After July 31 (August 3–4), the Hidden Falls THA remained open specifically to target wild stock pink salmon and harvests during this time period are reported as part of the harvest in the Kelp Bay/Catherine Island traditional seine fishery. The final hatchery cost recovery harvest was 288,000 chum salmon and 10,000 pink salmon. The total return of chum salmon to Hidden Falls was approximately 2.11 million slightly below the 2.21 million forecast.

### **Medvejie/Deep Inlet**

In District 13, the Northern Southeast Aquaculture Association (NSRAA) forecast a return to the Medvejie Hatchery in Silver Bay and the Deep Inlet THA of 1,200 coho, 42,100 Chinook and 1,160,000 chum salmon. Deep Inlet chum salmon are harvested in the Deep Inlet THA by purse

seine, gillnet and troll gear during scheduled opening times; by troll gear and purse seine gear outside of the THA; and by the NSRAA cost recovery fishery in the Deep Inlet and Silver Bay Special Harvest Areas (SHA).

The Alaska Board of Fisheries in 2009 changed the net fishery allocation in the Deep Inlet THA Management Plan from a 2:1 to a 1:1 time ratio of gillnet to seine beginning the third Sunday in June when chum salmon are the target species. The time ratio prior to the third week in Sunday would remain 2:1 gillnet to seine when hatchery Chinook salmon are the target species. The change of the time ratio of fishing time was for the purpose of bringing the two gear groups closer to their baseline allocation percentages of enhanced salmon value as specified under the Enhanced Salmon Allocation Management Plan (5 AAC 33.364). The new allocation plan for the Deep Inlet THA will sunset after the 2011 season.

The NSRAA Board decided at their March meeting in Sitka that this season's chum salmon cost recovery goals for the Silver Bay/Deep Inlet return was 1.04 million pounds or approximately 130,000 chum salmon. Also the broodstock goal was 60,000 chum salmon. This allowed for a projected common property harvest of approximately 970,000 chum salmon.

In accordance with the Deep Inlet Management Plan, rotational fishery schedules followed a 2:1 ratio of gillnet fishing time to purse seine fishing time beginning May 31 and changed to a 1:1 ratio beginning June 21. Additionally, the Board of Fisheries has allowed trolling to occur when net fisheries are closed and when trolling does not interfere with cost recovery. By emergency order, issued under 5AAC 39.265, harvesters participating in the Deep Inlet THA fishery were required to retain and utilize all salmon harvested during the 2009 season. This action was taken in order to promote full utilization of salmon, to prevent waste of salmon, to determine harvest patterns of incidentally harvested coho and sockeye salmon, and so the department and NSRAA have full and accurate reporting of returns. Purse seine and gillnet fishermen were also required to retain all Chinook salmon harvested in the Deep Inlet THA.

The common property rotational fishery began May 31 with 4 days gillnet to 2 days seine per week (Tables 8 and 15). The May/June fishing period primarily provides an opportunity to harvest Chinook salmon returning to the Medvejie Hatchery. In 2009, drift gillnet fishermen were required to fish with a minimum mesh size of 6 inches prior to June 20, to reduce the harvest of local wild sockeye salmon returning to Silver Bay. During the period of May 31–June 20, as many as 29 gillnet boats and 10 seine boats participated in the fishery. Seine effort was minimal until June 14 when 8 boats participated. The total harvest during this period was approximately 3,600 Chinook salmon, 50 sockeye salmon and 4,000 chum salmon. Beginning June 21, the schedule included seining on Sundays and Thursdays, gillnetting on Tuesdays and Wednesdays, and trolling Mondays, Fridays and Saturdays of each week. This schedule remained in effect through August 8 when the Deep Inlet THA was closed to common property fishing in order for NSRAA to achieve cost recovery goals. For the period June 28–August 8, the inner portion of Deep Inlet was closed to facilitate cost recovery harvests, however, by August 8 only 10% of the cost recovery goal had been achieved requiring closure of the entire Deep Inlet THA. During the Southeastern Alaska August troll coho closure, trolling remained open in the waters of Eastern Channel and portions of Sitka Sound August 12–16, in accordance with 5 AAC 129.112, to target hatchery chum salmon. On August 19, it was announced that the troll fishery would close in the waters of Eastern Channel and Silver Bay due to inadequate numbers of broodstock returning to the Medvejie Hatchery at that time. By August 27, numbers of broodstock accumulating at Medvejie Hatchery were improved and it was announced that

Eastern Channel would reopen to trolling on August 28 with Silver Bay remaining closed. On August 31, with cost recovery goals met, the Deep Inlet THA was opened beginning with trolling on September 1, seining on September 2 and gillnetting on September 4. The schedule for the remainder of the season included seining on Sundays and Thursdays, gillnetting on Tuesdays and Wednesdays and trolling on Mondays, Fridays and Saturdays of each week. The fishery was closed for the remainder of the season on October 3. For the season, the total harvests in the Deep Inlet THA included 4,500 Chinook salmon and 120,000 chum salmon by gillnet gear; 2,600 Chinook salmon and 277,000 chum salmon by purse seine gear; and 20 Chinook salmon and 3,000 chum salmon by troll gear. Trollers harvested an additional 109,000 chum salmon outside of the THA during the season with approximately 36,000 of those harvested during the August coho closure. Seiners harvested approximately 67,000 chum salmon in the traditional Sitka Sound seine pink salmon fishery.

There was some controversy concerning the short notice provided when reopening the fishery on September 1 to trolling. The preseason reopening plan, developed by the NSRAA Board, provided that trollers would get first access after cost recovery goals had been met providing the fleet with at least 24-hour notice prior to opening. The timing of the completion of cost recovery was on Saturday, August 28, and at that time it was apparent that a large number of mature chum salmon had quickly accumulated at the head of Deep Inlet. Two processors that had received fish from the cost recovery harvest had reported that a high percentage of the harvest was in an advanced stage of maturity and of poor quality. The department, in consultation with NSRAA staff, decided to minimize the additional loss of quality by opening the fishery to net gear as quickly as possible. In order to accomplish this it was necessary to open the fishery to troll gear on shorter notice.

### **Boat Harbor**

The Boat Harbor Terminal Harvest Area (THA) in Subdistrict 115-11 was opened to commercial drift gillnet gear in 2009 to harvest enhanced chum salmon returns produced by the Douglas Island Pink and Chum, Inc. (DIPAC). The Boat Harbor proper area (west of department markers at the entrance to Boat Harbor) was opened on a continual basis from the start of the season (June 21) through statistical week 37 (September 8). The remainder of the Boat Harbor area (those waters within 2 nautical miles of the western shoreline of Lynn Canal south of the latitude of Danger Point at 58°41.73' N. latitude and north of a point 2.4 miles north of Point Whidbey at 58°37.05' N. latitude) was opened for 48 hours beginning in statistical week 26 (June 21–June 23), then was opened continuously beginning in statistical week 27 through week 34 (June 28–August 20). The area was restricted to south of Lance Point beginning August 2 to protect local wild stocks. The drift gillnet fishery harvested approximately 120 Chinook, 12,100 sockeye, 466,000 chum salmon, 800 coho and 82,000 pink salmon. The chum salmon harvest in this THA was the third highest on record.

### **HATCHERY COST RECOVERY HARVESTS**

Hatchery cost recovery harvests were reported by 7 private non-profit hatchery permit holders from 15 locations during 2009 (Tables 25 and 26). Historical trends of cost recovery harvests are shown in Table 27. Total landings were approximately 4.0 million fish, 83% of the recent 10-year average harvest of 4.8 million. The harvest included 35,000 Chinook, 85,000 sockeye, 260,000 coho, 682,000 pink, and 2.9 million chum salmon. Chum salmon made up 73% of the total cost recovery harvest in the region in numbers of fish and were 85% of the recent 10-year

average harvest. The sockeye salmon harvest was 86% of the recent 10-year average. Coho harvest was 82% of the recent 10-year average harvest. Chinook harvests were 103% of the recent 10-year average. The pink salmon harvest was 78% of the recent 10-year average harvest.

2009 season cost recovery harvests are summarized by location, enhancement organization, and species in Tables 25 and 26; locations of hatchery special harvest areas are shown in Figure 2. The largest chum salmon harvests by location included 1,067,000 by DIPAC at Amalga Harbor, 762,000 by SSRAA at Neets Bay, 613,000 by DIPAC at Gastineau Channel, 288,000 by NSRAA at Hidden Falls, and 146,000 by NSRAA at Deep Inlet/Silver Bay. Pink salmon harvests were near average with 636,000 fish, and 93% of total cost recovery of pink salmon were harvested by Armstrong Keta, Inc. Coho cost recovery harvests were highest at the Hidden Falls Hatchery with 61,000, followed by Port Armstrong with 46,000, Neck Lake with 42,000, Neets Bay with 25,000, Mist Cove with 22,000, Gastineau Channel with 20,000, and Herring Cove with 15,000. Sockeye salmon harvests from the Speel Arm SHA were 83,000 fish near the recent 10-year average of 98,000. Chinook harvests in the region were near the recent 10-year average harvest. The largest harvests of Chinook salmon occurred at Neets Bay SHA with 11,200, Herring Cove with 10,900, and Silver Bay with 10,900.

SSRAA conducted cost recovery at the Neets Bay, Herring Cove, and Neck Lake and Burnett Inlet SHAs. Total harvest for all four locations included 762,000 chum, 88,000 coho, and 22,100 Chinook salmon.

DIPAC conducted cost recovery at the Amalga Harbor, Gastineau Channel, and Port Snettisham SHAs. Total harvest for all three locations included 1,679,000 chum, 20,300 coho, 85,000 sockeye, and 1,400 Chinook salmon.

NSRAA conducted cost recovery at the Deep Inlet, Hidden Falls, Silver Bay, and Mist Cove SHAs. Total harvest for the four locations included 434,000 chum, 10,000 pink, 96,000 coho, and 11,000 Chinook salmon.

Kake Nonprofit Fishery Corporation (KAKE) conducted cost recovery at the Southeast Cove SHA. Total harvest was 600 pink salmon.

Armstrong Keta, Inc (AKI) conducted cost recovery at the Port Armstrong SHA. Total harvest included 636,000 pink, 36,000 chum, 46,000 coho, and 500 Chinook salmon.

Prince of Wales Hatchery Association (POWHA) conducted cost recovery at the Klawock Lake SHA. Total harvest was 8,400 coho salmon.

Sheldon Jackson (SJ) conducted cost recovery at the Crescent Bay SHA. Total harvest was 19,700 pink and 1,700 chum salmon.

## **CANADIAN TRANSBOUNDARY RIVER FISHERIES**

### **INTRODUCTION**

Canadian aboriginal food fisheries have operated on the transboundary Stikine and Taku Rivers for many years. A small-scale commercial fishery has occurred on the upper Stikine River since 1975. In 1979 Canada initiated larger scale commercial fisheries in the lower portions of both the Taku and Stikine Rivers. Both drift and set gillnets are used in the lower river fisheries and one fish wheel has also been operated on the Taku River. The commercial fisheries are conducted primarily in the mainstem portions of the rivers by fishers using small skiffs. Commercial and

aboriginal food fisheries are included as part of the U.S./Canada Pacific Salmon Treaty (PST) which has provided for international harvest sharing arrangements between the two nations since 1985.

## **STIKINE RIVER**

For the Stikine River, the harvest-sharing objective for the sockeye salmon season was to equally share the TAC of Stikine River sockeye salmon. In the event that there were sockeye salmon surplus to spawning requirements at Tahltan Lake, attempts would be made to harvest some of the surplus. Directed Stikine Chinook salmon fisheries were conducted by Canada for the fifth consecutive year with the consent of both parties in accordance with the PST. Fishery openings were based on weekly run strength and the TAC as defined by the catch sharing agreement. Canada is allowed a harvest of 4,000 coho salmon in a directed coho salmon fishery. Both countries are to work to develop and implement an abundance-based approach to managing coho salmon on the Stikine River.

The preseason Chinook salmon forecast was used during weeks 19–22. After week 22, the average of the mark-recapture estimate and the Stikine Chinook Management Model (SCMM) were used to assist in determining weekly fishing plans. The weekly inputs to the model included: the catch and effort data from Kakwan Point, the District 108 sport, troll, and gillnet catch. The Canadian sport and gillnet catches were also added to the model. Because the number of tags released was a record low as was the Kakwan catch, other assessment tools were used post week 24 to generate a weekly run size. These methods included estimates using the cumulative CPUE in the Lower Stikine commercial fishery to calculate total run size based on the historical relationship of these data, and an estimate of the lower commercial fishery harvest rate to the current date and expanded by Chinook run timing (fraction through the fishery). The U.S. harvest share was insufficient to conduct a directed Chinook fishery in District 108. Weekly guideline quotas were established in Canada based on the historical run timing curves mentioned above. Joint Canadian and U.S. inseason predictions of terminal run size ranged from 38,000 to 43,000 Chinook salmon. Based on mark-recapture data from the inriver commercial fishery and stratified by statistical weeks, the preliminary postseason estimated terminal run size of Stikine Chinook salmon was 15,000 large Chinook salmon, 5,000 fish less than the final inseason estimate of 20,000 large Chinook salmon, and below the preseason forecast of 32,000 large Chinook salmon. The final inseason model run projected a Canadian AC of 2,300 large Chinook salmon. The 2009 Little Tahltan escapement of 2,245 fish represents approximately 20% of the total inriver escapement of 11,189 fish, compared to the average of approximately 17%.

Preseason forecasts of the Stikine River sockeye salmon run were used to guide the initial fishing patterns of the U.S. and Canadian fisheries as required by the Transboundary Rivers Annex of the PST. The preseason forecast was for a Stikine sockeye salmon run of 206,600 fish. In 2009, the preseason forecasts were used during statistical weeks 25 and 26. After this, inseason forecasts of total run size and TAC produced by the Stikine Management Model (SMM) were used to assist in determining weekly fishing plans. The weekly inputs to the model included: the harvest, effort, and stock composition (proportion Tahltan/Tuya from egg diameters, proportion Tuya from thermal mark analyses of otoliths) in the Canadian lower river test and commercial fisheries; harvests in the upper river aboriginal and commercial fisheries; the harvest, effort, and assumed stock composition in Subdistrict 106-41 (Sumner Strait); and the harvest and assumed stock composition in District 8 and Subdistrict 106-30 (Clarence Strait). Canada also

incorporated a regression and run reconstruction in their inseason sockeye forecasts. The weekly inputs to the Tahltan sockeye salmon regression model included the cumulative weekly CPUE of Tahltan Lake sockeye salmon (1998–08: from stat week 28 to 33 all correlations were significant and ranged from an  $r^2$  of 0.67 in week 28 to an  $r^2$  of 0.91 week 33). The weekly inputs to the Tahltan run reconstruction model included the total catch to date of Tahltan, Tuya and mainstem bound sockeye salmon which was expanded by a professional estimate of harvest rate (40–50%) and further expanded by the run fraction through the fishery.

In 2009 the estimated harvests from the combined Canadian commercial and aboriginal gillnet fisheries and sport fisheries in the Stikine River included: 2,283 large Chinook (includes 170 release mortalities), 738 jack Chinook (includes 77 release mortalities), 47,029 sockeye, 5,985 coho, 362 pink, and 193 chum salmon, and 237 steelhead (Table 28). A test fishery designed to target on Tuya bound fish at a site located in the mainstem Stikine River between the mouth of the Tahltan and the mouth of the Tuya River yielded a catch of 2,145 sockeye 37 Chinook salmon, and 1 jack Chinook. Sixteen Chinook were released. There was no Excess Salmon to Spawning Requirements (ESSR) harvest in the Tuya River in 2009, a total of 350 sockeye salmon were harvested for biological samples on the Tahltan River and 1,342 sockeye salmon were harvested in the lower Stikine River test fishery. The harvest of large Chinook salmon was 33% of the 1999–2008 average of 6,816 fish and the harvest of jack Chinook salmon was 60% of above the average of 1,235 jack Chinook salmon. The sockeye salmon harvest was 88% of the average of 47,029. An estimated 20,184 fish originating from U.S./Canada fry planting program were harvested in inriver fisheries, 41% of the total Canadian sockeye salmon harvest.

Twelve licensed gillnetters participated in the fishery throughout the season with a maximum of 12 licenses being active in any one week. Both set and drift gill netting techniques were used with the majority of the harvest taken in drift gillnets. The targeted Chinook salmon fishery was opened for a total of 7.5 days, below the recent 4 year average of 30 days. The fleet targeted sockeye salmon for a total of 28 days, below the recent 10-year average of 35 days. The coho salmon fishery was opened for a total of 19 days, above the recent 10-year average of 6 days. Maximum allowable mesh size was increased from 15.0 cm (5.9 inches) to 20.3 cm (8.0 inches) to facilitate harvest of Chinook salmon during the directed Chinook fishery.

A total of 30,673 sockeye salmon were counted through the Tahltan Lake weir in 2009, near the average of 29,577 fish. An estimated 4,479 fish (16%) originated from the fry-planting program. The number of planted fish is based on the proportion of thermal marked sockeye salmon otoliths in a random sample of fish collected at Tahltan weir (n=350). In 2009, 3,011 sockeye salmon were collected for broodstock for the fry-planting project. This leaves a spawning escapement of 27,312 sockeye salmon, which is within the escapement goal range of 18,000 to 30,000 fish.

The spawning escapements for the Mainstem and the Tuya stock groups are estimated indirectly by computing the ratio of Tahltan to Mainstem and Tuya components in the total inriver sockeye salmon run. Stock identification data are collected in the lower river commercial and test fisheries. The ratios of Tahltan:Mainstem and Tahltan:Tuya are applied to the estimated inriver Tahltan run size to develop an estimate of the total inriver sockeye salmon run. The escapements are estimated by subtracting the inriver harvests from the inriver run estimate. The 2009 escapement estimates are 22,777 Mainstem and 12,513 Tuya sockeye salmon. The Mainstem sockeye salmon spawn in tributaries and the mainstem of the Stikine River. The 2009 Mainstem spawning escapement was within the escapement goal range of 20,000 to 40,000 fish. The Tuya

fish are blocked from entering potential spawning grounds of the Tuya tributary by natural barriers, and in some years have been targeted in the Excess to Salmon Spawning Requirements (Excess Salmon to Spawning Requirements or ESSR fishery, which did not operate in 2009).

Chinook salmon escapement was enumerated at the Little Tahltan weir where 2,245 large fish were counted in 2009, below the escapement goal range (2,700–5,300 with a point estimate of 3,300 large Chinook salmon). The mark-recapture estimate of an escapement of 11,020 large Chinook salmon to the Stikine River was the lowest on record, and 27% of the 1999–2008 average of 30,998 large fish.

Coho salmon aerial surveys of 6 index sites conducted in November totaled 2,275 fish, 58% of the average of 3,927 salmon.

## **TAKU RIVER**

The harvest sharing objective for Taku River sockeye salmon allows the US to harvest 80% of the TAC and Canada 20%. The harvest share is calculated on a sliding scale, dependent on the return of adult sockeye from the U.S./Canada fry planting program. Additionally, if the inriver escapement is projected to be above 100,000 sockeye, Canada may harvest up to 20% of the inriver projection over 100,000 sockeye. A fishery directed at Taku Chinook salmon is allowed when run-strength warrants. Management of the directed Chinook salmon fishery is abundance-based through an approach developed by the TBR committee. The U.S. directed coho salmon fishery is managed to ensure a minimum above border escapement of 38,000 fish, and Canada is allowed a harvest of Taku River coho on a sliding scale depending on the inseason projections of above border run size. Both countries are working to develop and implement an abundance-based approach to managing coho salmon on the Taku River.

The Taku River fishers harvested 6,931 large Chinook, 1,167 jack Chinook (fish less than 2.3 kg), 11,086 sockeye, and 5,803 coho salmon in 2009 (Table 29). The sockeye salmon harvest was 44% of the 1999–2008 average of 25,440 fish. Fish originating from fry plants contributed an estimated 81 fish to the harvest, comprising 1% of the total sockeye salmon harvest. The harvest of coho salmon was 17% above the average of 4,965 fish. The harvest of large Chinook salmon was 164% above the average (2,625 fish), while the harvest of jack Chinook salmon was 220% above the average of 365 fish. There were 98 days of fishing, 111% above the average of 46 days. The seasonal fishing effort of 459 boat-days was 30% above the average of 352 boat-days. As in recent years, both set and drift gill netting techniques were used with the majority of the harvest taken in drift gillnets. Maximum allowable mesh size was 20.4 cm.

Adult enumeration weirs operated at Little Trapper, Tatsamenie, Kuthai, and King Salmon Lakes to provide information on the distribution and abundance of discrete spawning stocks within the watershed. A mark-recapture program has been operated annually from 1984 to 2009 to estimate the above-border run size for sockeye salmon (i.e., border escapement); total spawning escapement is then estimated by subtracting the inriver harvest. The 2009 estimate of above border run is 83,071 sockeye salmon and the spawning escapement is estimated at 71,811 fish, which is within the escapement goal of 71,000 to 80,000 sockeye salmon. The Canadian harvest of 11,260 sockeye (excluding test fishery harvests) represented approximately 21% of the total TAC and above the Canadian TAC of 10,681 fish.

The Little Trapper Lake weir count of 5,552 sockeye salmon was 39% of the 1999–2008 average of 14,169 fish. A total of 109 fish were held for broodstock which left a spawning escapement of 5,443

fish. The Tatsamenie Lake weir count in 2009 was 2,032 sockeye salmon with, 23% of the average of 9,023 fish. A total of 741 fish were held for broodstock, which left a spawning escapement of 1,291 fish. The sockeye salmon count through the Kuthai Lake weir was 1,442 fish, 35% of the average count of 4,162 fish. The King Salmon Lake weir count was 55 compared to a range of 5 to 5,000 fish during its five prior years of operation.

A Chinook salmon mark-recapture study was again conducted in 2009. The above border Chinook salmon run estimate is 27,793 large (3-ocean and larger) fish. Accounting for inriver harvest results in a spawning escapement estimate of 20,762 large Chinook salmon, 55% of the average of 37,645 large fish, and below the escapement goal range of 30,000 to 55,000 fish.

Spawning escapement of coho salmon in the Canadian portion of the Taku drainage was estimated from the joint Canada/U.S. mark-recapture program. The above border run was estimated to be 13,716 fish and the spawning escapement was estimated at 103,950 fish. The spawning escapement was 97% of the average of 106,548 coho salmon and well-above the upper end of the interim escapement goal range (27,500 to 35,000 fish).

## **ANNETTE ISLAND FISHERIES**

Presidential proclamation established the Annette Island Fishery Reserve in 1916. It provides a 3,000-foot offshore zone wherein the reserve natives have exclusive fishing rights. Salmon are harvested by purse seine, gillnet, and troll gear. The Annette Island Fishery Reserve natives also have the right to use fish traps, however, traps have not been used on the Island since 1993. The small troll fleet harvests very modest numbers of Chinook and coho salmon. Most of the harvest in recent years has been taken by the gillnet fleet and purse seine fleet.

The total 2009 Annette Island salmon harvest by all gears totaled 720 Chinook, 15,000 sockeye, 46,000 coho, 1,726,000 pink, and 159,000 chum salmon. The Annette Island Reserve reported gillnet fishery harvests of 600 Chinook, 7,500 sockeye, 30,000 coho, 113,000 pink, and 120,000 chum salmon (Table 30). Gillnet harvests were below average for sockeye and pink salmon and near average for coho and chum salmon. The Annette Island Reserve reported purse seine fishery harvests of 50 Chinook, 7,500 sockeye, 15,000 coho, 1,612,000 pink, and 38,500 chum salmon (Table 31). Seine harvests were more than double the average for coho, pink, and chum salmon.

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## **TABLES**

Table 1.—Southeast Alaska annual commercial, common property, purse seine salmon harvest (from traditional and terminal areas), in numbers of salmon, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	11,701	-	510,956	184,570	11,869,988	1,002,478	13,579,693	35
1981	10,264	-	438,921	237,402	16,268,867	517,002	17,472,456	31
1982	30,529	-	445,385	397,349	22,048,891	828,444	23,750,598	25
1983	13,394	166	778,195	338,881	33,666,234	579,168	35,376,038	18
1984	20,762	-	457,160	350,017	21,070,834	2,433,749	24,332,522	24
1985	21,535	-	716,342	417,852	47,233,196	1,849,523	50,238,448	11
1986	12,113	1,158	587,730	568,410	42,788,318	2,198,907	46,156,636	15
1987	4,498	1,786	310,282	121,974	7,018,562	1,234,552	8,691,654	43
1988	11,137	1,028	654,748	157,003	8,825,252	1,625,435	11,274,603	40
1989	13,098	4,005	823,185	330,989	52,070,066	1,079,555	54,320,898	9
1990	11,323	3,454	965,918	372,471	27,915,150	1,062,522	30,330,838	21
1991	11,599	5,508	1,051,269	405,592	58,592,358	2,125,308	62,191,634	4
1992	18,024	2,296	1,336,889	488,399	29,769,079	3,193,433	34,808,120	19
1993	8,335	3,956	1,690,471	473,138	53,414,515	4,606,463	60,196,878	5
1994	14,824	6,265	1,430,610	967,691	51,280,083	6,376,472	60,075,945	6
1995	25,075	1,702	907,120	617,777	43,498,508	6,600,529	51,650,711	10
1996	22,224	931	1,514,523	441,457	61,649,487	8,918,577	72,547,199	2
1997	10,309	532	1,578,021	183,693	24,782,485	5,863,603	32,418,643	20
1998	14,469	1,698	732,790	464,716	38,436,679	9,406,979	49,057,331	13
1999	17,888	2,961	425,298	416,415	71,961,636	8,944,184	81,768,382	1
2000	20,703	1,341	489,221	206,479	18,156,691	8,306,257	27,180,692	23
2001	19,730	2,584	1,013,151	542,643	61,951,322	4,436,178	67,965,608	3
2002	17,145	1,580	154,478	469,680	42,137,936	3,110,330	45,891,149	16
2003	24,054	1,182	681,418	394,168	49,894,749	4,336,128	55,331,699	8
2004	39,297	687	900,557	399,267	42,596,809	5,684,447	49,621,064	12
2005	19,694	727	898,515	341,295	55,746,479	2,817,026	59,823,736	7
2006	24,730	1,240	413,938	109,498	10,117,941	5,614,232	16,281,579	32
2007	27,092	1,306	1,063,704	247,568	42,078,209	3,043,032	46,460,911	14
2008	15,488	530	74,389	208,196	14,297,381	3,215,231	17,811,215	30
<b>2009</b>	<b>28,922</b>	<b>966</b>	<b>307,436</b>	<b>283,431</b>	<b>34,946,847</b>	<b>3,502,998</b>	<b>39,070,600</b>	<b>17</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	14,021	992	620,046	327,886	25,843,572	2,785,572	29,592,089	
1999 to 2008 <sup>d</sup>	22,582	1,414	611,467	333,521	40,893,915	4,950,705	46,813,604	
<b>Max. harvest<sup>e</sup></b>	39,297	6,265	1,690,471	967,691	71,961,636	9,406,979		
Max. year	2004	1994	1993	1994	1999	1998		
<b>Min. harvest<sup>e</sup></b>	1,428	166	61,784	70,193	2,572,279	332,514		
Min. year	1976	1983	1975	1975	1960	1969		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 2.—2009 Southeast Alaska commercial purse seine salmon harvest by district, fishery, and species.

<b>Fishery</b>	<b>Chinook</b>	<b>Jacks</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>District 1</b>							
Traditional	1,055	32	45,902	53,293	7,787,995	176,760	8,065,037
Terminal Harvest Area	7,807	0	47	11	226	7,676	15,767
Annette Island	90	7	7,496	15,183	1,612,453	38,480	1,673,709
Hatchery Cost Recovery	22,138	0	0	39,891	1,684	761,810	825,523
<b>District 2</b>							
Traditional	1,429	61	45,089	49,635	3,898,700	418,308	4,413,222
Terminal Harvest Area	93	0	1,692	929	24,594	74,033	101,341
<b>District 3</b>							
Traditional	1,101	43	21,046	40,848	4,417,488	73,422	4,553,948
<b>District 4</b>							
Traditional	7,072	67	109,371	84,387	5,454,432	117,999	5,773,328
<b>District 5</b>							
Traditional	6	6	642	2,057	261,937	8,358	273,006
<b>District 6</b>							
Traditional	28	24	4,799	6,523	325,045	5,167	341,586
<b>District 7</b>							
Traditional	1,292	231	13,186	8,924	2,156,733	161,596	2,341,962
Terminal Harvest Area	2,579	23	187	213	15,746	31,917	50,665
<b>District 9</b>							
Traditional	32	46	2,244	6,258	1,022,909	22,294	1,053,783
Hatchery Cost Recovery	515	0	6	68,237	636,664	35,959	741,381
<b>District 10</b>							
Traditional	5	37	4,475	794	330,154	14,188	349,653
<b>District 11</b>							
Hatchery Cost Recovery	1,426	0	1,483	319	14,097	1,488,856	1,506,181
<b>District 12</b>							
Traditional	227	144	44,654	20,582	6,146,745	217,729	6,430,081
Terminal Harvest Area	3,207	239	2,665	787	643,969	1,742,298	2,393,165
Hatchery Cost Recovery	96	0	30	60,784	9,767	287,911	358,588
<b>District 13</b>							
Traditional	335	12	5,233	4,380	1,622,932	124,166	1,757,058
Terminal Harvest Area	2,603	0	327	547	7,708	277,492	288,677
Hatchery Cost Recovery	10,932	0	109	13,838	19,936	146,144	190,959
<b>District 14</b>							
Traditional	51	1	5,877	3,263	829,534	29,595	868,321
<b>Southern Subtotals D1-8</b>							
Traditional	11,983	464	240,035	245,667	24,302,330	961,610	25,762,089
Terminal Area Harvest	10,479	23	1,926	1,153	40,566	113,626	167,773
Annette Island	90	7	7,496	15,183	1,612,453	38,480	1,673,709
Hatchery Cost Recovery	22,138	0	0	48,270	1,684	761,810	833,902
Subtotal	44,690	494	249,457	310,273	25,957,033	1,875,526	28,437,473
<b>Northern Subtotals D9-14</b>							
Traditional	650	240	62,483	35,277	9,952,274	407,972	10,458,896
Terminal Area Harvest	5,810	239	2,992	1,334	651,677	2,019,790	2,681,842
Hatchery Cost Recovery	12,969	0	1,628	143,178	680,464	1,958,870	2,797,109
Subtotal	19,429	479	67,103	179,789	11,284,415	4,386,632	15,937,847
<b>Total Southeast</b>							
Traditional	12,633	704	302,518	280,944	34,254,604	1,369,582	36,220,985
Terminal Area Harvest	16,289	262	4,918	2,487	692,243	2,133,416	2,849,615
Subtotal (Traditional and THA)	28,922	966	307,436	283,431	34,946,847	3,502,998	39,070,600
Hatchery Cost Recovery	35,107	0	1,628	191,448	682,148	2,720,680	3,631,011
Annette Island	90	7	7,496	15,183	1,612,453	38,480	1,673,709
Miscellaneous	6	3	1,138	138	27,254	12,385	40,924
<b>Total</b>	<b>64,125</b>	<b>976</b>	<b>317,698</b>	<b>490,200</b>	<b>37,268,702</b>	<b>6,274,543</b>	<b>44,416,244</b>

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail; jacks are less than 28".

Table 3.—2009 Fishery Exvessel Value by area gear type and species, estimated by prices reported on fish tickets.

<b>Fishery</b>	<b>Chinook</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total Value</b>
<i>Purse Seine</i>						
Southern Seine	\$ 320,090	\$1,572,709	\$ 680,989	\$ 17,327,561	\$ 4,150,309	\$ 24,051,658
Northern Seine	\$ 11,580	\$ 413,138	\$ 120,506	\$ 7,006,401	\$ 1,340,188	\$ 8,891,813
Terminal Seine	\$ 578,585	\$ 41,877	\$ 6,165	\$ 434,031	\$ 7,914,539	\$ 8,975,198
<b>Total Seine Value</b>	<b>\$ 910,256</b>	<b>\$2,027,724</b>	<b>\$ 807,660</b>	<b>\$ 24,767,994</b>	<b>\$ 13,405,036</b>	<b>\$ 41,918,669</b>
<i>Drift Gillnet</i>						
Tree Point	\$ 33,742	\$ 519,751	\$ 392,939	\$ 116,673	\$ 1,249,942	\$ 2,313,047
Prince of Wales	\$ 59,066	\$ 860,797	\$ 867,260	\$ 122,317	\$ 1,166,607	\$ 3,076,047
Stikine	\$ 69,569	\$ 306,792	\$ 198,862	\$ 21,909	\$ 840,908	\$ 1,438,040
Taku	\$ 415,493	\$ 591,330	\$ 322,668	\$ 42,857	\$ 3,485,400	\$ 4,857,748
Lynn Canal	\$ 15,160	\$1,030,270	\$ 256,073	\$ 102,665	\$ 2,095,630	\$ 3,499,797
Terminal Gillnet	\$ 416,318	\$ 112,756	\$ 30,307	\$ 57,604	\$ 1,922,628	\$ 2,539,612
<b>Total Gillnet Value</b>	<b>\$ 1,009,348</b>	<b>\$3,421,697</b>	<b>\$ 2,068,108</b>	<b>\$ 464,025</b>	<b>\$ 10,761,115</b>	<b>\$ 17,724,293</b>
<i>Set Gillnet (Yakutat)</i>						
<b>Set Gillnet (Yakutat)</b>	<b>\$ 40,145</b>	<b>\$ 711,779</b>	<b>\$ 706,506</b>	<b>\$ 71,184</b>	<b>\$ 1,751</b>	<b>\$ 1,531,365</b>
<i>Troll</i>						
Winter Troll	\$ 2,587,585					\$ 2,587,585
Spring Troll	\$ 1,923,582	\$ 2,766	\$ 55,983	\$ 5,039	\$ 143,227	\$ 2,130,597
Summer Troll	\$ 3,787,002	\$ 17,118	\$ 10,568,107	\$ 45,030	\$ 1,006,124	\$ 15,423,381
<b>Total Troll Value</b>	<b>\$ 8,298,170</b>	<b>\$ 19,883</b>	<b>\$ 10,624,091</b>	<b>\$ 50,068</b>	<b>\$ 1,149,351</b>	<b>\$ 20,141,563</b>
<b>Annette Island Res.</b>	<b>\$ 35,066</b>	<b>\$ 113,672</b>	<b>\$ 197,895</b>	<b>\$ 1,309,769</b>	<b>\$ 649,460</b>	<b>\$ 2,305,862</b>
<b>Hatchery Cost Rec.</b>	<b>\$ 827,542</b>	<b>\$ 285,765</b>	<b>\$ 1,027,508</b>	<b>\$ 436,650</b>	<b>\$ 15,072,917</b>	<b>\$ 17,650,382</b>
<b>Miscellaneous</b>	<b>\$ 14,774</b>	<b>\$ 8,084</b>	<b>\$ 528</b>	<b>\$ 20,386</b>	<b>\$ 38,146</b>	<b>\$ 81,918</b>
<b>TOTAL VALUE</b>	<b>\$ 11,135,300</b>	<b>\$6,588,604</b>	<b>\$ 15,432,296</b>	<b>\$ 27,120,077</b>	<b>\$ 41,077,776</b>	<b>\$ 101,354,053</b>

Note: Fishery exvessel values calculated from reported fish ticket prices in this table provide only an initial estimate for fishery values. CFEC calculates exvessel values based on fish tickets and annual processor reports usually one year after the fishery is completed. At the time of this report (January 2011) the 2009 values have been reported by CFEC. Seine values increased by 16%, gillnet by 11%, troll by 14%, and set gillnet by 5%. Combined common property fisheries increased by \$10.3 million (10%) compared with this table. The CFEC website reports updates only for common property fisheries, but this table includes value estimates for all commercial harvests in the SE Alaska region.

Table 4.—Northern Southeast annual commercial, common property, purse seine salmon harvest (from traditional and terminal areas), in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	512	-	27,569	12,378	902,071	415,511	1,358,041	47
1981	2,280	-	60,750	44,016	4,428,712	282,754	4,818,512	31
1982	3,643	-	67,140	108,952	10,718,372	162,007	11,060,114	22
1983	2,672	106	60,516	54,457	5,323,586	271,365	5,712,702	30
1984	1,808	-	53,308	48,703	4,161,231	1,473,603	5,738,653	29
1985	7,996	-	99,242	77,561	19,343,125	1,011,367	20,539,291	8
1986	751	633	18,583	17,786	933,928	947,510	1,919,191	44
1987	643	1,038	77,112	28,425	3,852,989	833,647	4,793,854	32
1988	631	520	13,323	24,973	1,299,946	653,809	1,993,202	43
1989	547	2,191	98,365	56,522	11,969,441	336,503	12,463,569	19
1990	490	1,217	38,502	43,382	4,082,182	603,299	4,769,072	33
1991	1,859	2,845	72,281	105,849	16,970,650	1,063,401	18,216,885	10
1992	807	1,979	108,331	162,953	12,568,844	1,948,819	14,791,733	15
1993	1,513	3,445	162,153	114,213	16,914,761	3,004,370	20,200,455	9
1994	4,453	5,864	181,038	467,296	31,389,894	4,781,593	36,830,138	2
1995	24,217	927	67,414	223,204	5,409,068	4,310,379	10,035,209	23
1996	21,300	695	111,604	137,603	9,564,130	6,246,728	16,082,060	11
1997	6,275	407	51,465	68,142	11,776,742	3,534,803	15,437,834	13
1998	6,442	1,556	107,675	161,419	16,702,595	4,800,326	21,780,013	7
1999	13,843	2,309	104,204	232,408	35,180,383	6,148,309	41,681,456	1
2000	18,228	1,055	72,972	62,307	7,323,135	6,232,888	13,710,585	16
2001	12,099	1,275	170,705	116,404	13,328,220	2,203,419	15,832,122	12
2002	11,281	954	54,488	219,569	20,793,646	2,057,813	23,137,751	6
2003	6,894	371	146,108	96,735	22,380,951	2,864,976	25,496,035	5
2004	8,990	596	323,489	166,735	23,070,456	4,098,981	27,669,247	4
2005	4,437	335	163,058	133,199	28,624,647	1,835,247	30,760,923	3
2006	5,258	1,056	67,697	46,870	7,548,334	3,810,988	11,480,203	20
2007	7,323	730	90,682	56,240	11,943,703	1,242,118	13,340,796	17
2008	7,807	297	5,631	17,846	1,974,550	2,332,622	4,338,753	35
<b>2009</b>	<b>6,460</b>	<b>479</b>	<b>65,475</b>	<b>36,611</b>	<b>10,603,951</b>	<b>2,427,762</b>	<b>13,140,738</b>	<b>18</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	5,016	661	126,111	102,624	8,928,668	1,722,114	10,885,194	
1999 to 2008 <sup>d</sup>	9,616	898	119,903	114,831	17,216,803	3,282,736	20,744,787	
<b>Max. harvest<sup>e</sup></b>	24,217	5,864	353,618	467,296	35,180,383	6,246,728		
Max. harvest year	1995	1994	1965	1994	1999	1996		
<b>Min. harvest<sup>e</sup></b>	12	106	5,286	1,744	80,819	30,357		
Min. harvest year	1976	1983	1975	1976	1976	1977		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 5.—Southern Southeast Alaska annual commercial, common property, purse seine salmon harvest (from traditional and terminal areas), in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	11,189	-	483,387	172,192	10,967,917	586,967	12,221,652	30
1981	7,984	-	378,171	193,386	11,840,155	234,248	12,653,944	29
1982	26,886	-	378,245	288,397	11,330,519	666,437	12,690,484	28
1983	10,722	60	717,679	284,424	28,342,648	307,803	29,663,336	12
1984	18,954	-	403,852	301,314	16,909,603	960,146	18,593,869	21
1985	13,539	-	617,100	340,291	27,890,071	838,156	29,699,157	11
1986	11,362	525	569,147	550,624	41,854,390	1,251,397	44,237,445	3
1987	3,855	748	233,170	93,549	3,165,573	400,905	3,897,800	46
1988	10,506	508	641,425	132,030	7,525,306	971,626	9,281,401	35
1989	12,551	1,814	724,820	274,467	40,100,625	743,052	41,857,329	5
1990	10,833	2,237	927,416	329,089	23,832,968	459,223	25,561,766	16
1991	9,740	2,663	978,988	299,743	41,621,708	1,061,907	43,974,749	4
1992	17,217	317	1,228,558	325,446	17,200,235	1,244,614	20,016,387	20
1993	6,822	511	1,528,318	358,925	36,499,754	1,602,093	39,996,423	8
1994	10,371	401	1,249,572	500,395	19,890,189	1,594,879	23,245,807	17
1995	858	775	839,706	394,573	38,089,440	2,290,150	41,615,502	6
1996	924	236	1,402,919	303,854	52,085,357	2,671,849	56,465,139	1
1997	4,034	125	1,526,556	115,551	13,005,743	2,328,800	16,980,809	23
1998	8,027	142	625,115	303,297	21,734,084	4,606,653	27,277,318	14
1999	4,045	652	321,094	184,007	36,781,253	2,795,875	40,086,926	7
2000	2,475	286	416,249	144,172	10,833,556	2,073,369	13,470,107	27
2001	7,631	1,309	842,446	426,239	48,623,102	2,232,759	52,133,486	2
2002	5,864	626	99,990	250,111	21,344,290	1,052,517	22,753,398	18
2003	17,160	811	535,310	297,433	27,513,798	1,471,152	29,835,664	10
2004	30,307	91	577,068	232,532	19,526,353	1,585,466	21,951,817	19
2005	15,257	392	735,457	208,096	27,121,832	981,779	29,062,813	13
2006	19,472	184	346,241	62,628	2,569,607	1,803,244	4,801,376	42
2007	19,769	576	973,022	191,328	30,134,506	1,800,914	33,120,115	9
2008	7,681	233	68,758	190,350	12,322,831	882,609	13,472,462	26
<b>2009</b>	<b>22,462</b>	<b>487</b>	<b>241,961</b>	<b>246,820</b>	<b>24,342,896</b>	<b>1,075,236</b>	<b>25,929,862</b>	<b>15</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	9,004	331	493,933	225,259	16,914,835	1,063,423	18,706,785	
1999 to 2008 <sup>d</sup>	12,966	516	491,564	218,690	23,677,113	1,667,968	26,068,816	
<b>Max. harvest</b>	30,307	2,663	1,528,318	550,624	52,085,357	4,606,653		
Max. harvest year	2004	1991	1993	1986	1996	1998		
<b>Min. harvest</b>	858	60	49,124	22,228	448,928	35,467		
Min. harvest year	1995	1983	1971	1969	1967	1969		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 6.—Commercial purse seine fishing time, in hours open per day and statistical week by district and section, for Northern Southeast Alaska in 2009.

Week	Date	Day	Districts, Subdivided into Sections										
			9		10	11	12	13			14		
			A	B	All	D	A	A	B	C	A	B	C
26	21-Jun	Sun					15						
	22-Jun	Mon											
	23-Jun	Tue											
	24-Jun	Wed											
	25-Jun	Thu											
	26-Jun	Fri											
	27-Jun	Sat											
27	28-Jun	Sun			15		15				15		
	29-Jun	Mon											
	30-Jun	Tue											
	1-Jul	Wed											
	2-Jul	Thu											
	3-Jul	Fri											
	4-Jul	Sat											
28	5-Jul	Sun			15		15				15		
	6-Jul	Mon											
	7-Jul	Tue											
	8-Jul	Wed											
	9-Jul	Thu											
	10-Jul	Fri											
	11-Jul	Sat											
29	12-Jul	Sun			15		15				15		
	13-Jul	Mon											
	14-Jul	Tue											
	15-Jul	Wed											
	16-Jul	Thu			15		15	15			15		15
	17-Jul	Fri											
	18-Jul	Sat											
30	19-Jul	Sun			15		15	19			15		15
	20-Jul	Mon						20					
	21-Jul	Tue											
	22-Jul	Wed						19			19		
	23-Jul	Thu			15		15	20			15	20	15
	24-Jul	Fri											
	25-Jul	Sat							19				

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Table 6.–Page 2 of 3.

Week	Date	Day	Districts, Subdivided into Sections											
			9		10	11	12	13			14			
			A	B	All	D	A	A	B	C	A	B	C	
31	26-Jul	Sun	15						24	15	15		15	15
	27-Jul	Mon							20					
	28-Jul	Tue												
	29-Jul	Wed							19					
	30-Jul	Thu	19	19					24	19			19	19
	31-Jul	Fri	20	20					24	20			20	20
	1-Aug	Sat							20					
32	2-Aug	Sun							19					
	3-Aug	Mon	19	19		19			24	19	19		19	19
	4-Aug	Tue	20	20		20			24	20	20		20	20
	5-Aug	Wed							24					
	6-Aug	Thu							24					
	7-Aug	Fri	19	15		19			24	19	19		19	19
	8-Aug	Sat	20	15		20			24	20	20		20	20
33	9-Aug	Sun							24					
	10-Aug	Mon							24					
	11-Aug	Tue	19	19	19		19		24	19			19	19
	12-Aug	Wed	20	20	20		20		24	20			20	20
	13-Aug	Thu							24					
	14-Aug	Fri							24					
	15-Aug	Sat	19	19	19		19		24	19			19	19
34	16-Aug	Sun	20	20	20		20		24	20			20	20
	17-Aug	Mon							24					
	18-Aug	Tue							24					
	19-Aug	Wed	18	18					24				18	18
	20-Aug	Thu	21	21					24				21	21
	21-Aug	Fri							24					
	22-Aug	Sat							24					

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Table 6.–Page 3 of 3.

Week	Date	Day	Districts, Subdivided into Sections										
			9		10	11	12	13			14		
			A	B	All	D	A	A	B	C	A	B	C
35	23-Aug	Sun	18	18			18	24				18	18
	24-Aug	Mon	21	21			21	21				21	21
	25-Aug	Tue											
	26-Aug	Wed											
	27-Aug	Thu		18			18	24				18	18
	28-Aug	Fri		21			21	21				21	21
36	30-Aug	Sun											
	31-Aug	Mon											
	1-Sep	Tue											
	2-Sep	Wed											
	3-Sep	Thu											
	4-Sep	Fri											
	5-Sep	Sat											
37	6-Sep	Sun											
	7-Sep	Mon											
	8-Sep	Tue											
	9-Sep	Wed											
	10-Sep	Thu								12			
	11-Sep	Fri											
	12-Sep	Sat											

Table 7.—Commercial purse seine fishing time, in hours open per day and statistical week by district and section, for Southern Southeast Alaska in 2009.

Week	Date	Day	Districts, Subdivided into Sections										
			1 F	2 All	A	3 B	C	4 All	5 All	6 C	D	7 A	B
26	21-Jun	Sun		19									
	22-Jun	Mon		24									
	23-Jun	Tue		24									
	24-Jun	Wed		20									
	25-Jun	Thu											
	26-Jun	Fri											
	27-Jun	Sat											
27	28-Jun	Sun		19									
	29-Jun	Mon		24									
	30-Jun	Tue		24									
	1-Jul	Wed		20									
	2-Jul	Thu											
	3-Jul	Fri											
	4-Jul	Sat											
28	5-Jul	Sun	15	19					15				15
	6-Jul	Mon		24									
	7-Jul	Tue		24									
	8-Jul	Wed		20									
	9-Jul	Thu											
	10-Jul	Fri											
	11-Jul	Sat											
29	12-Jul	Sun	15	15					15				15
	13-Jul	Mon											
	14-Jul	Tue											
	15-Jul	Wed											
	16-Jul	Thu	15	15					15				15
	17-Jul	Fri											
	18-Jul	Sat											

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Week	Date	Day	Districts, Subdivided into Sections											
			1 F	2 All	A	3 B	C	4 All	5 All	C	6 D	7 A	B	
30	19-Jul	Sun	15	15	15	15			15				15	
	20-Jul	Mon												
	21-Jul	Tue												
	22-Jul	Wed												
	23-Jul	Thu	15	15	15	15	15	15					15	
	24-Jul	Fri												
	25-Jul	Sat												
31	26-Jul	Sun	19	19	19	15	19	19					15	
	27-Jul	Mon	20	20	20		20	20						
	28-Jul	Tue												
	29-Jul	Wed												
	30-Jul	Thu	19	19	19	19	19	19				19		19
	31-Jul	Fri	20	20	20	20	20	20				20		20
	1-Aug	Sat												
32	2-Aug	Sun												
	3-Aug	Mon	19	19	19	19	19	19	19		19		19	
	4-Aug	Tue	20	20	20	20	20	20	20		20		20	
	5-Aug	Wed												
	6-Aug	Thu												
	7-Aug	Fri	19	19	19	19	19	19	19		19		19	
	8-Aug	Sat	20	20	20	20	20	20	20		20		20	
	9-Aug	Sun												
33	10-Aug	Mon												
	11-Aug	Tue	19	19	19	19	19	19	19		19		19	
	12-Aug	Wed	20	20	20	20	20	20	20		20		20	
	13-Aug	Thu												
	14-Aug	Fri												
	15-Aug	Sat	19	19	19	19	19	19	19		19		19	

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Table 7.–Page 3 of 3.

Week	Date	Day	Districts, Subdivided into Sections										
			1 F	2 All	A	3 B	C	4 All	5 All	C	6 D	A	7 B
34	16-Aug	Sun	20	20	20	20	20	20	20	20	20	20	20
	17-Aug	Mon											
	18-Aug	Tue											
	19-Aug	Wed	18	18	18	18		18	18		18	18	18
	20-Aug	Thu	21	21	21	21		21	21		21	21	21
	21-Aug	Fri											
	22-Aug	Sat											
35	23-Aug	Sun	18	18	18	18	18	18	18	18	18	18	18
	24-Aug	Mon	21	21	21	21	21	21	21	21	21	21	21
	25-Aug	Tue											
	26-Aug	Wed											
	27-Aug	Thu	18	18	18	18	18	18	18	18	18	18	18
	28-Aug	Fri	21	21	21	21	21	21	21	21	21	21	21
	29-Aug	Sat											

Note: Sections 1-C,1-D, and 1-E did not open in 2009 and are omitted in table.

Table 8.—Commercial purse seine fishing time, in hours open per day and statistical week for Neets Bay, Kendrick Bay, Anita Bay, Hidden Falls, and Deep Inlet Terminal Harvest Areas (THA) in Southeast Alaska in 2009.

Week	Date	Day	Neets Bay <sup>a</sup>	Kendrick Bay	Anita Bay <sup>b</sup>	Hidden Falls	Deep Inlet
23	31-May	Sun	24				15
	1-Jun	Mon	24				
	2-Jun	Tue	24				
	3-Jun	Wed	24				15
	4-Jun	Thu	24				
	5-Jun	Fri	24				
	6-Jun	Sat	24				
24	7-Jun	Sun	24				15
	8-Jun	Mon	24				
	9-Jun	Tue	24				
	10-Jun	Wed	24				15
	11-Jun	Thu					
	12-Jun	Fri					
	13-Jun	Sat			12		
25	14-Jun	Sun	12		12		
	15-Jun	Mon	12	24			
	16-Jun	Tue		24			
	17-Jun	Wed		24	12		
	18-Jun	Thu		24	12		
	19-Jun	Fri	12	24			
	20-Jun	Sat	12	24			
26	21-Jun	Sun		24	12	15	15
	22-Jun	Mon		24	12		
	23-Jun	Tue	12	24			
	24-Jun	Wed	12	24			
	25-Jun	Thu		24	12		15
	26-Jun	Fri		24	12		
	27-Jun	Sat		24			
27	28-Jun	Sun		24		15	15
	29-Jun	Mon		24	12		
	30-Jun	Tue		24	12		
	1-Jul	Wed		24			
	2-Jul	Thu		24			15
	3-Jul	Fri		24	12		
	4-Jul	Sat		24	12		

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<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Neets Bay<sup>a</sup></b>	<b>Kendrick Bay</b>	<b>Anita Bay<sup>b</sup></b>	<b>Hidden Falls</b>	<b>Deep Inlet</b>
28	5-Jul	Sun		24		15	15
	6-Jul	Mon		24			
	7-Jul	Tue		24	12		
	8-Jul	Wed		24	12		
	9-Jul	Thu		24			15
	10-Jul	Fri		24			
	11-Jul	Sat		24	12		
29	12-Jul	Sun		24	12	15	15
	13-Jul	Mon		24			
	14-Jul	Tue		24			
	15-Jul	Wed		24	12		
	16-Jul	Thu		24	12	15	15
	17-Jul	Fri		24			
	18-Jul	Sat		24			
30	19-Jul	Sun		24	12	15	15
	20-Jul	Mon		24	12		
	21-Jul	Tue		24			
	22-Jul	Wed		24			
	23-Jul	Thu		24	12	15	15
	24-Jul	Fri		24	12		
	25-Jul	Sat		24			
31	26-Jul	Sun		24		15	15
	27-Jul	Mon		24	12		
	28-Jul	Tue		24	12		
	29-Jul	Wed		24			
	30-Jul	Thu		24		19	15
	31-Jul	Fri		24	12	20	
	1-Aug	Sat		24	12		
32	2-Aug	Sun		24			15
	3-Aug	Mon		24		19	
	4-Aug	Tue		24	12	20	
	5-Aug	Wed		24	12		
	6-Aug	Thu		24			15
	7-Aug	Fri		24			
	8-Aug	Sat		24	12		

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<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Neets Bay<sup>a</sup></b>	<b>Kendrick Bay</b>	<b>Anita Bay<sup>b</sup></b>	<b>Hidden Falls</b>	<b>Deep Inlet</b>
33	9-Aug	Sun		24	12		15
	10-Aug	Mon		24			
	11-Aug	Tue		24			
	12-Aug	Wed		24	12		
	13-Aug	Thu		24	12		15
	14-Aug	Fri		24			
	15-Aug	Sat		24			
34	16-Aug	Sun		24	12		15
	17-Aug	Mon		24	12		
	18-Aug	Tue		24			
	19-Aug	Wed		24			
	20-Aug	Thu		24	12		15
	21-Aug	Fri		24	12		
	22-Aug	Sat		24			
35	23-Aug	Sun		24			15
	24-Aug	Mon		24	12		
	25-Aug	Tue		24	12		
	26-Aug	Wed		24			
	27-Aug	Thu		24			15
	28-Aug	Fri		24	12		
	29-Aug	Sat		24	12		
36	30-Aug	Sun		24			15
	31-Aug	Mon		24			
	1-Sep	Tue		24	12		
	2-Sep	Wed		24	12		
	3-Sep	Thu		24			15
	4-Sep	Fri		24			
	5-Sep	Sat		24	12		
37	6-Sep	Sun		24	12		14
	7-Sep	Mon		24			
	8-Sep	Tue		24			
	9-Sep	Wed		24	12		
	10-Sep	Thu		24	12		14
	11-Sep	Fri		24			
	12-Sep	Sat		24			

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Table 8.–Page 4 of 4.

<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Neets Bay<sup>a</sup></b>	<b>Kendrick Bay</b>	<b>Anita Bay<sup>b</sup></b>	<b>Hidden Falls</b>	<b>Deep Inlet</b>
38	13-Sep	Sun		24	12		14
	14-Sep	Mon		24	12		
	15-Sep	Tue		24			
	16-Sep	Wed		24			
	17-Sep	Thu		24	12		14
	18-Sep	Fri		24	12		
	19-Sep	Sat		24			
39	20-Sep	Sun		24			14
	21-Sep	Mon		24	12		
	22-Sep	Tue		24	12		
	23-Sep	Wed		24			
	24-Sep	Thu		24			14
	25-Sep	Fri		24	12		
	26-Sep	Sat		24	12		
40	27-Sep	Sun		24			14
	28-Sep	Mon		24			
	29-Sep	Tue		24			
	30-Sep	Wed		24			
	1-Oct	Thu					14
	2-Oct	Fri					
	3-Oct	Sat					

<sup>a</sup> Neets Bay THA continuous, concurrent gear, openings from May 15 to June 10 and October 16 to November 10 are not all shown.

<sup>b</sup> Anita Bay THA continuous, concurrent gear, openings from May 1 to June 12 and September 29 to November 12 are not all shown.

Table 9.–2009 Southeast Alaska pink salmon escapement indices and biological escapement goals by sub–region (in millions of index fish).

<b>Sub-region</b>	<b>2009 Pink Salmon Index</b>	<b>Biological Escapement Goal</b>	
		<b>Lower Bound</b>	<b>Upper Bound</b>
Southern Southeast	7.2	3.0	8.0
Northern Southeast Inside	3.7	2.5	6.0
Northern Southeast Outside	1.8	0.75	2.50
<b>Total</b>	<b>12.7</b>		

Table 10.–Southeast Alaska pink salmon spawning escapement target ranges by district, for which the escapement index for each district and year was within (blank cells), above (+), or below (-) the management target range, from 2000 to 2009.

Sub-region	District	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Lower Management Target	Upper Management Target
SSE <sup>a</sup>	101		+	+	+		+		+			1.02	2.71
SSE	102	+	+	+	+		+		+	+	+	0.29	0.77
SSE	103		+	+	+	+	+		+			0.95	2.54
SSE	105		+	+	+		+	-				0.25	0.66
SSE	106		+		+	+	+					0.21	0.57
SSE	107		+		+		+					0.26	0.69
SSE	108	-	+		+	+	+			-		0.02	0.06
NSEI <sup>b</sup>	109						+			-		0.63	1.50
NSEI	110				+					-		0.59	1.41
NSEI	111									-		0.27	0.65
NSEI	112			+	+	+	+			-		0.53	1.26
NSEI	113				+				+	-		0.32	0.76
NSEI	114	-	+		+		+		+	-		0.15	0.35
NSEI	115						+			-	+	0.03	0.07
NSEO <sup>c</sup>	113				+		+					0.75	2.50

<sup>a</sup> SSE = Southern Southeast sub-region.

<sup>b</sup> NSEI = Northern Southeast Inside sub-region.

<sup>c</sup> NSEO = Northern Southeast Outside sub-region.

Table 11.— Southeast Alaska pink salmon spawning escapement target ranges by stock group (in millions), and years for which the escapement index for each stock group was within (blank cells), above (+), or below (-) the management target range, 2000–2009.

Sub-region	District	Stock Group	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Lower Management Target	Upper Management Target
SSE <sup>a</sup>	101	E Behm		+	+	+		+		+		+	0.67	1.77
SSE	101	Portland		+	+	+	+	+	-	+	-	+	0.10	0.28
SSE	101	W Behm		+		+			-	+	+		0.25	0.66
SSE	102	Kasaan	+	+	+	+		+		+	+	+	0.24	0.64
SSE	102	Moira					-			+	+	+	0.05	0.13
SSE	103	E Dall			+		+			+			0.13	0.36
SSE	103	Hetta	+		+			+		+	+		0.30	0.79
SSE	103	Klawock		+		+	+	+		+		+	0.42	1.11
SSE	103	Sea Otter Sound		+		+	+						0.10	0.28
SSE	105	Affleck Canal		+	+	+	+	+				-	0.14	0.38
SSE	105	Shiple Bay		+		+		+	-				0.11	0.28
SSE	106	Burnett		+	+	+		+		+			0.05	0.14
SSE	106	Ratz Harbor		+	+	+	+	+		+	+		0.04	0.12
SSE	106	Totem Bay		+		+	+	+			-	-	0.05	0.13
SSE	106	Whale Pass	-	+		+		+			-		0.07	0.18
SSE	107	Anan		+		+		+					0.21	0.57
SSE	107	Union Bay		+	+	+		+		+			0.05	0.12
SSE	108	Stikine	-	+		+	+	+				-	0.02	0.06
NSEI <sup>b</sup>	109	E Baranof					+	+	+		-		0.09	0.21
NSEI	109	Eliza Harbor						+			-	-	0.14	0.33
NSEI	109	Saginaw Bay			+		+	+			-	-	0.13	0.30
NSEI	109	SE Baranof			-	-	-	+			-		0.07	0.16
NSEI	109	Tebenkof			+	+							0.21	0.50
NSEI	110	Farragut Bay				+	+				-		0.02	0.04
NSEI	110	Houghton				+					-		0.38	0.90
NSEI	110	Portage Bay					+		-		-		0.03	0.07
NSEI	110	Pybus/Gambier					+	+			-	-	0.17	0.40
NSEI	111	Seymour Canal									-	-	0.16	0.40
NSEI	111	Stephens Passage			+			+			-		0.11	0.25

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Table 11.–Page 2 of 2.

Sub-region	District	Stock Group	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Lower Management Target	Upper Management Target
NSEI	112	Freshwater Bay		+	+	+	+			+	-		0.08	0.18
NSEI	112	Kelp Bay		+		+		+	-	+		+	0.06	0.14
NSEI	112	Lower Lynn Canal		+		+		+	+		-	+	0.02	0.06
NSEI	112	SW Admiralty	+			+	+	+		+	-		0.10	0.25
NSEI	112	Tenakee		-	+			+			-		0.21	0.51
NSEI	112	W Admiralty	-			+	+	+	+		-		0.05	0.12
NSEI	113	Hoonah Sound				+				+	-		0.32	0.76
NSEI	114	Homesore		+		+	+	+					0.03	0.07
NSEI	114	N Chichagof	-	+		+		+		+	-		0.12	0.28
NSEI	115	Upper Lynn Canal						+			-	+	0.03	0.07
NSEO <sup>c</sup>	113	Lisianski	-	+		+		+		+		+	0.08	0.27
NSEO	113	Portlock		+	+	+	+	+	+	+	+	+	0.04	0.13
NSEO	113	Salisbury Sound		-							-		0.19	0.63
NSEO	113	Sitka Sound		+	+	+	+						0.21	0.70
NSEO	113	Slocum Arm		+		+							0.16	0.52
NSEO	113	W Crawfish		-	+		+	+	+	+			0.03	0.10
NSEO	113	Whale Bay		+	+	+	+	+		+			0.04	0.15

<sup>a</sup> SSE = Southern Southeast sub-region.  
<sup>b</sup> NSEI = Northern Southeast Inside sub-region.  
<sup>c</sup> NSEO = Northern Southeast Outside sub-region.

Table 12.—Sustainable escapement goals and escapement indices for Southeast Alaska chum salmon, 1980–2009 (in thousands).

<b>Stock</b>	<b>Southern Southeast</b>	<b>Northern Southeast Inside</b>	<b>Northern Southeast Outside</b>	<b>Cholmon-deley Sound</b>	<b>Port Camden</b>	<b>Security Bay</b>	<b>Excursion River</b>	<b>Chilkat River</b>
<b>Enumeration Method</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Peak Index</b>	<b>Estimated Escapement</b>
<b>Run-type</b>	<b>Summer</b>	<b>Summer</b>	<b>Summer</b>	<b>Fall</b>	<b>Fall</b>	<b>Fall</b>	<b>Fall</b>	<b>Fall</b>
<b>No. Streams</b>	<b>13</b>	<b>63</b>	<b>5</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
1980	76	N/A	N/A	26	6	14	35	N/A
1981	56	N/A	N/A	26	7	4	34	N/A
1982	22	60	10	8	5	12	2	N/A
1983	54	162	21	15	1	5	3	N/A
1984	79	159	78	40	10	19	8	N/A
1985	93	149	31	40	12	21	4	N/A
1986	87	141	30	28	14	12	9	N/A
1987	77	106	17	46	9	11	2	N/A
1988	201	162	19	36	7	16	4	N/A
1989	85	53	15	35	7	8	2	N/A
1990	64	107	28	30	4	20	5	275
1991	68	76	36	58	5	6	1	N/A
1992	91	153	25	37	5	19	3	N/A
1993	131	228	16	46	7	7	8	N/A
1994	111	272	14	43	5	5	4	30
1995	92	209	19	35	3	14	6	61
1996	222	931	30	62	5	19	9	59
1997	69	226	50	31	4	5	34	88
1998	147	197	19	59	6	32	8	130
1999	85	318	32	100	2	20	10	283
2000	95	443	96	36	3	13	17	270
2001	125	229	58	45		4	18	312
2002	55	397	19	39	0	6	5	206
2003	66	210	30	75	1	9	6	166
2004	74	242	86	60	3	13	5	310
2005	66	185	77	15	2	3	1	202
2006	76	282	57	54	2	15	2	704
2007	132	149	34	18	1	5	6	331
2008	13	99	46	50	1	12	8	451
<b>2009</b>	<b>41</b>	<b>107</b>	<b>15</b>	<b>39</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>337</b>
<b>Goal Range:</b>								
<b>Lower Bound</b>	<b>68</b>	<b>149</b>	<b>19</b>	<b>30</b>	<b>2</b>	<b>5</b>	<b>4</b>	<b>75</b>
<b>Upper Bound</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>7</b>	<b>15</b>	<b>18</b>	<b>170</b>

Note: survey estimates are based on peak aerial observations and do not represent total escapements.

Table 13.—Escapement estimates for Southeast Alaska sockeye salmon stocks in 2009, compared to escapement goals.

<b>Stock</b>	<b>Goal Type<sup>a</sup></b>	<b>Estimated Escapement or Index</b>	<b>Escapement Goal Range</b>	<b>Comment</b>	<b>Enumeration Method</b>
Hugh Smith Lake	OEG	9,483	8,000–18,000		Weir Count
McDonald Lake	SEG	51,000	55,000–120,000	Under goal	Expanded Peak Survey
Stikine–mainstem	SEG	23,000	20,000–40,000		Estimated
Stikine–Tahltan <sup>b</sup>	BEG	30,700	18,000–30,000		Weir Count
Speel Lake	BEG	3,700	4,000–13,000	Under goal	Weir Count
Taku–in-river	SEG	71,200	71,000–80,000		Mark-recapture
Redoubt Lake	OEG	12,851	7,000–25,000		Weir Count
Chilkoot Lake	SEG	33,537	38,000–86,000	Under goal	Weir Count
Chilkat Lake	BEG	153,000	70,000 to 150,000		Weir/Sonar Count
Situk River	BEG	83,959	30,000–70,000		Weir Count
Lost River	SEG	NA <sup>c</sup>	1,000		Peak Foot or Boat Survey
Klukshu River <sup>b</sup>	BEG	5,731	7,500–15,000	Under goal	Weir Count
East Alsek-Doame River	BEG	12,000	13,000–26,000	Under goal	Peak Aerial Survey

<sup>a</sup> Goal type includes optimal (OEG), sustainable (SEG), and biological (BEG) escapement goals.

<sup>b</sup> Spawning area is located in Canada.

<sup>c</sup> Not available

Table 14.—Commercial drift gillnet fishing time, in hours open per day and statistical week by district and section, for Southeast Alaska in 2009.

Week	Date	Day	Districts (Subdivided into Sections)														
			1			6				8		11		15			
			A	B	F	A	B	C	D	A	B	B	C	A	B	C	
20	10-May	Sun															
	11-May	Mon											12				
	12-May	Tue											12				
	13-May	Wed															
	14-May	Thu															
	15-May	Fri															
	16-May	Sat															
21	17-May	Sun															
	18-May	Mon											12				
	19-May	Tue											12				
	20-May	Wed															
	21-May	Thu															
	22-May	Fri															
	23-May	Sat															
22	24-May	Sun															
	25-May	Mon															
	26-May	Tue											12				
	27-May	Wed											24				
	28-May	Thu											12				
	29-May	Fri															
	30-May	Sat															
23	31-May	Sun															
	1-Jun	Mon											12				
	2-Jun	Tue											24				
	3-Jun	Wed											12				
	4-Jun	Thu															
	5-Jun	Fri															
	6-Jun	Sat															
24	7-Jun	Sun															
	8-Jun	Mon											12				
	9-Jun	Tue											12				
	10-Jun	Wed															
	11-Jun	Thu															
	12-Jun	Fri															
	13-Jun	Sat															
25	14-Jun	Sun															
	15-Jun	Mon				12	12	12	12								
	16-Jun	Tue				24	24	24	24								
	17-Jun	Wed				24	24	24	24								
	18-Jun	Thu				12	12	12	12								
	19-Jun	Fri															
	20-Jun	Sat															

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Table 14.–Page 2 of 4.

Week	Date	Day	Districts (Subdivided into Sections)														
			1			6				8		11		15			
			A	B	F	A	B	C	D	A	B	B	C	A	B	C	
26	21-Jun	Sun	12			12	12	12	12	12	12	12		12		12	
	22-Jun	Mon	24			24	24	24	24	24	24	24		24		24	
	23-Jun	Tue	24			24	24	24	24	24	24	24		12		12	
	24-Jun	Wed	24			24	24	24	24	24	24	12					
	25-Jun	Thu	12			12	12	12	12	12	12						
	26-Jun	Fri															
	27-Jun	Sat															
27	28-Jun	Sun	12			12	12	12	12	12	12	12		12		12	
	29-Jun	Mon	24			24	24	24	24	24	24	24		24		24	
	30-Jun	Tue	24			24	24	24	24	24	24	24		24		24	
	1-Jul	Wed	24			12	12	12	12	12	12	12		24		12	
	2-Jul	Thu	12			18				18	18			12			
	3-Jul	Fri				6				6	6						
	4-Jul	Sat															
28	5-Jul	Sun	12			12	12	12	12	12	12	12		12		12	
	6-Jul	Mon	24			24	24	24	24	24	24	24		24		24	
	7-Jul	Tue	24			24	24	24	24	24	24	24		24		24	
	8-Jul	Wed	24			12	12	12	12	12	12	12		24		12	
	9-Jul	Thu	12			18				18	18			12			
	10-Jul	Fri				6				6	6						
	11-Jul	Sat															
29	12-Jul	Sun	12			12	12	12	12	12	12	12		12		12	
	13-Jul	Mon	24			24	24	24	24	24	24	24		24		24	
	14-Jul	Tue	24			12	12	12	12	12	12	24		24		24	
	15-Jul	Wed	24									12		12		12	
	16-Jul	Thu	12														
	17-Jul	Fri															
	18-Jul	Sat															
30	19-Jul	Sun	12			12	12	12	12	12	12	12		12		12	
	20-Jul	Mon	24			24	24	24	24	24	24	24		24		24	
	21-Jul	Tue	24			12	12	12	12	12	12	24		24		24	
	22-Jul	Wed	24			18				18	18	12		12		12	
	23-Jul	Thu	12			24				24	24						
	24-Jul	Fri				6				6	6						
	25-Jul	Sat															
31	26-Jul	Sun	12			12	12	12	12	12	12	12		12		12	
	27-Jul	Mon	24			24	24	24	24	24	24	24		24		24	
	28-Jul	Tue	24			12	12	12	12	12	12	24		24		24	
	29-Jul	Wed	24			18				18	18	12		12		12	
	30-Jul	Thu	24			6				6	6						
	31-Jul	Fri	12														
	1-Aug	Sat															

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Table 14.–Page 3 of 4.

Week	Date	Day	Districts (Subdivided into Sections)														
			1			6				8		11			15		
			A	B	F	A	B	C	D	A	B	B	C	A	B	C	
32	2-Aug	Sun	12			12	12	12		12	12	12		12		12	
	3-Aug	Mon	24			24	24	24		24	24	24		24		24	
	4-Aug	Tue	24			24	24	24		24	24	24		24		24	
	5-Aug	Wed	24			12	12	12		12	12	12		24		24	
	6-Aug	Thu	24											12		12	
	7-Aug	Fri	12														
	8-Aug	Sat															
	33	9-Aug	Sun	12			12	12	12		12	12	12		12		12
10-Aug		Mon	24			24	24	24		24	24	24		24		24	
11-Aug		Tue	24			24	24	24		24	24	12		24		24	
12-Aug		Wed	24			12	12	12		12	12			24		12	
13-Aug		Thu	24											24			
14-Aug		Fri	12											12			
15-Aug		Sat															
34		16-Aug	Sun	12			12	12	12		12	12					
	17-Aug	Mon	24			24	24	24		24	24	12	12	12		12	
	18-Aug	Tue	24			24	24	24		24	24	24	24	24		24	
	19-Aug	Wed	24			12	12	12		12	12	12	12	24		24	
	20-Aug	Thu	24											12		12	
	21-Aug	Fri	12														
	22-Aug	Sat															
	35	23-Aug	Sun	12			12	12	12		12	12	12	12	12		12
24-Aug		Mon	24			24	24	24		24	24	24	24	24		24	
25-Aug		Tue	24			24	24	24		24	24	24	24	24		12	
26-Aug		Wed	24			12	12	12		12	12	12	12	12			
27-Aug		Thu	24														
28-Aug		Fri	12														
29-Aug		Sat															
36		30-Aug	Sun	12			12	12	12		12	12	12		12		12
	31-Aug	Mon	24			24	24	24		24	24	24		24		24	
	1-Sep	Tue	24			24	24	24		24	24	24		12		12	
	2-Sep	Wed	24			12	12	12		12	12	12					
	3-Sep	Thu	12														
	4-Sep	Fri															
	5-Sep	Sat															
	37	6-Sep	Sun	12			12	12	12	12	12	12	12		12		12
7-Sep		Mon	24			24	24	24	24	24	24	24		24		24	
8-Sep		Tue	24			24	24	24	24	24	24	24		24		12	
9-Sep		Wed	24			12	12	12	12	12	12	25		12			
10-Sep		Thu	12									12					
11-Sep		Fri															
12-Sep		Sat															

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Table 14.–Page 4 of 4.

Week	Date	Day	Districts (Subdivided into Sections)														
			1			6				8		11		15			
			A	B	F	A	B	C	D	A	B	B	C	A	B	C	
38	13-Sep	Sun	12			12	12	12	12	12	12	12		12		12	
	14-Sep	Mon	24			24	24	24	24	24	24	24		24		24	
	15-Sep	Tue	24			24	24	24	24	24	24	24		24		24	
	16-Sep	Wed	24			12	12	12	12	12	12	25		12		12	
	17-Sep	Thu	12									12					
	18-Sep	Fri															
	19-Sep	Sat															
39	20-Sep	Sun	12			12	12	12	12	12	12	12		12		12	
	21-Sep	Mon	24			24	24	24	24	24	24	24		24		24	
	22-Sep	Tue	24			24	24	24	24	24	24	24		24		24	
	23-Sep	Wed	24			12	12	12	12	12	12	25		12		12	
	24-Sep	Thu	12									12					
	25-Sep	Fri															
	26-Sep	Sat															
40	27-Sep	Sun	12			12	12	12	12	12	12	12		12		12	
	28-Sep	Mon	24			24	24	24	24	24	24	24		24		24	
	29-Sep	Tue	12			12	12	12	12	12	12	24		24		24	
	30-Sep	Wed										12		12		12	
	1-Oct	Thu															
	2-Oct	Fri															
	3-Oct	Sat															
41	4-Oct	Sun										12		12		12	
	5-Oct	Mon										24		24		24	
	6-Oct	Tue										24		24		24	
	7-Oct	Wed										24		12		12	
	8-Oct	Thu										12					
	9-Oct	Fri															
	10-Oct	Sat															
42	11-Oct	Sun										12					
	12-Oct	Mon										24					
	13-Oct	Tue										24					
	14-Oct	Wed										24					
	15-Oct	Thu										12					
	16-Oct	Fri															
	17-Oct	Sat															

Table 15.—Commercial drift gillnet fishing time, in hours open per day and statistical week for Nakat Inlet, Boat Harbor, Deep Inlet, Speel Arm, Neets Bay, and Anita Bay Terminal Harvest Areas (THA) in Southeast Alaska in 2009.

Week	Date	Day	Nakat Inlet <sup>a</sup>	Boat Harbor <sup>b</sup>	Deep Inlet	Neets Bay <sup>c</sup>	Anita Bay <sup>d</sup>
23	31-May	Sun				24	24
	1-Jun	Mon	24		15	24	24
	2-Jun	Tue	24		15	24	24
	3-Jun	Wed	24			24	24
	4-Jun	Thu	24		15	24	24
	5-Jun	Fri	24		15	24	24
	6-Jun	Sat	24			24	24
24	7-Jun	Sun	24			24	24
	8-Jun	Mon	24		15	24	24
	9-Jun	Tue	24		15	24	24
	10-Jun	Wed	24			24	24
	11-Jun	Thu	24		15	12	24
	12-Jun	Fri	24		15	24	12
	13-Jun	Sat	24			12	
25	14-Jun	Sun	24				
	15-Jun	Mon	24		15		12
	16-Jun	Tue	24		15	12	12
	17-Jun	Wed	24			24	
	18-Jun	Thu	24		15	12	
	19-Jun	Fri	24		15		12
	20-Jun	Sat	24				12
26	21-Jun	Sun	24	12		12	
	22-Jun	Mon	24	24		12	
	23-Jun	Tue	24	24	15		12
	24-Jun	Wed	24	24	15		12
	25-Jun	Thu	24	24			
	26-Jun	Fri	24	24			
	27-Jun	Sat	24	24			12
27	28-Jun	Sun	24	24			12
	29-Jun	Mon	24	24			
	30-Jun	Tue	24	24	15		
	1-Jul	Wed	24	24	15		12
	2-Jul	Thu	24	24			12
	3-Jul	Fri	24	24			
	4-Jul	Sat	24	24			
28	5-Jul	Sun	24	24			12
	6-Jul	Mon	24	24			12
	7-Jul	Tue	24	24	15		
	8-Jul	Wed	24	24	15		
	9-Jul	Thu	24	24			12
	10-Jul	Fri	24	24			12
	11-Jul	Sat	24	24			

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Table 15.–Page 2 of 4.

<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Nakat Inlet<sup>a</sup></b>	<b>Boat Harbor<sup>b</sup></b>	<b>Deep Inlet</b>	<b>Neets Bay<sup>c</sup></b>	<b>Anita Bay<sup>d</sup></b>
29	12-Jul	Sun	24	24			
	13-Jul	Mon	24	24			12
	14-Jul	Tue	24	24	15		12
	15-Jul	Wed	24	24	15		
	16-Jul	Thu	24	24			
	17-Jul	Fri	24	24			12
	18-Jul	Sat	24	24			12
30	19-Jul	Sun	24	24			
	20-Jul	Mon	24	24			
	21-Jul	Tue	24	24	15		12
	22-Jul	Wed	24	24	15		12
	23-Jul	Thu	24	24			
	24-Jul	Fri	24	24			
	25-Jul	Sat	24	24			12
31	26-Jul	Sun	24	24			12
	27-Jul	Mon	24	24			
	28-Jul	Tue	24	24	15		
	29-Jul	Wed	24	24	15		12
	30-Jul	Thu	24	24			12
	31-Jul	Fri	24	24			
	1-Aug	Sat	24	24			
32	2-Aug	Sun	24	24			12
	3-Aug	Mon	24	24			12
	4-Aug	Tue	24	24	15		
	5-Aug	Wed	24	24	15		
	6-Aug	Thu	24	24			12
	7-Aug	Fri	24	24			12
	8-Aug	Sat	24	24			
33	9-Aug	Sun	24	24			
	10-Aug	Mon	24	24			12
	11-Aug	Tue	24	24			12
	12-Aug	Wed	24	24			
	13-Aug	Thu	24	24			
	14-Aug	Fri	24	24			12
	15-Aug	Sat	24	24			12
34	16-Aug	Sun	24	24			
	17-Aug	Mon	24	24			
	18-Aug	Tue	24	24			12
	19-Aug	Wed	24	24			12
	20-Aug	Thu	24	24			
	21-Aug	Fri	24	24			
	22-Aug	Sat	24	24			12

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Table 15.–Page 3 of 4.

<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Nakat Inlet<sup>a</sup></b>	<b>Boat Harbor<sup>b</sup></b>	<b>Deep Inlet</b>	<b>Neets Bay<sup>c</sup></b>	<b>Anita Bay<sup>d</sup></b>
35	23-Aug	Sun	24	24			12
	24-Aug	Mon	24	24			
	25-Aug	Tue	24	24			
	26-Aug	Wed	24	24			12
	27-Aug	Thu	24	24			12
	28-Aug	Fri	24	24			
	29-Aug	Sat	24	24			
36	30-Aug	Sun	24	24			12
	31-Aug	Mon	24	24			12
	1-Sep	Tue	24	24			
	2-Sep	Wed	24	24			
	3-Sep	Thu	24	24			12
	4-Sep	Fri	24	24	14		12
	5-Sep	Sat	24	24			
37	6-Sep	Sun	24	24			
	7-Sep	Mon	24	24			12
	8-Sep	Tue	24	24	14		12
	9-Sep	Wed	24	24	14		
	10-Sep	Thu	24	24			
	11-Sep	Fri	24	24			12
	12-Sep	Sat	24	24			12
38	13-Sep	Sun	24	24			
	14-Sep	Mon	24	24			
	15-Sep	Tue	24	24	14		12
	16-Sep	Wed	24		14		12
	17-Sep	Thu	24				
	18-Sep	Fri	24				
	19-Sep	Sat	24				12
39	20-Sep	Sun	24				12
	21-Sep	Mon	24				
	22-Sep	Tue	24		14		
	23-Sep	Wed	24		14		12
	24-Sep	Thu	24				12
	25-Sep	Fri	24				
	26-Sep	Sat	24				
40	27-Sep	Sun	24				12
	28-Sep	Mon	24				12
	29-Sep	Tue	24		14		24
	30-Sep	Wed	24		14		24
	1-Oct	Thu	24				24
	2-Oct	Fri	24				24
	3-Oct	Sat	24				24

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Table 15.–Page 4 of 4.

<b>Week</b>	<b>Date</b>	<b>Day</b>	<b>Nakat Inlet<sup>a</sup></b>	<b>Boat Harbor<sup>b</sup></b>	<b>Deep Inlet</b>	<b>Neets Bay<sup>c</sup></b>	<b>Anita Bay<sup>d</sup></b>
41	4-Oct	Sun				12	24
	5-Oct	Mon				12	24
	6-Oct	Tue					24
	7-Oct	Wed					24
	8-Oct	Thu					24
	9-Oct	Fri					24
	10-Oct	Sat				12	24
42	11-Oct	Sun				12	24
	12-Oct	Mon					24
	13-Oct	Tue					24
	14-Oct	Wed					24
	15-Oct	Thu					24
	16-Oct	Fri				12	24
	17-Oct	Sat				24	24

<sup>a</sup> Nakat Inlet THA was open continuously by regulation from June 1 to November 10.

<sup>b</sup> Boat Harbor THA was open by regulation June 21 to September 15. Outer Boat Harbor THA by Emergency Order.

<sup>c</sup> Neets THA concurrent gear openings May 15-June 10 and October 16–November 10 are not shown.

<sup>d</sup> Anita Bay THA concurrent gear openings May 1-June 12 and September 29–November 10 are not shown.

Table 16.—Alaska total commercial, common property, drift gillnet salmon harvest (from traditional and terminal areas), in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	5,433	—	408,296	109,516	1,107,273	548,674	2,179,192	28
1981	6,317	—	438,824	114,535	1,264,900	270,231	2,094,807	29
1982	14,710	—	749,348	194,424	569,351	448,332	1,976,165	30
1983	4,598	—	586,574	210,332	1,209,372	516,639	2,527,515	26
1984	10,338	—	593,319	191,023	1,307,853	1,030,346	3,132,879	20
1985	10,386	—	830,238	309,380	1,832,570	1,134,446	4,117,020	9
1986	8,441	—	658,611	395,889	1,282,418	815,813	3,161,172	19
1987	8,430	—	736,200	165,249	1,359,526	747,363	3,016,768	22
1988	9,079	—	600,925	163,808	688,750	1,144,856	2,607,418	25
1989	9,579	—	893,976	234,423	2,769,875	542,846	4,450,699	3
1990	14,693	—	767,492	351,039	1,168,061	616,226	2,917,511	23
1991	18,456	1	711,874	545,376	820,409	707,277	2,803,393	24
1992	11,285	—	922,069	645,159	1,408,331	845,176	3,832,020	17
1993	18,011	—	1,021,899	417,681	1,087,670	1,401,186	3,946,447	11
1994	16,735	—	686,792	698,125	1,030,607	1,823,497	4,255,756	6
1995	13,342	—	640,971	415,158	1,337,764	2,478,672	4,885,907	1
1996	9,982	—	1,026,591	368,570	615,311	2,033,650	4,054,104	10
1997	11,006	—	645,516	131,240	1,384,200	1,689,474	3,861,436	15
1998	5,937	—	501,291	412,446	1,489,395	1,923,764	4,332,833	5
1999	8,983	—	545,681	351,598	1,274,672	2,166,260	4,347,194	4
2000	13,475	—	496,614	167,623	679,452	2,561,607	3,918,771	13
2001	13,644	—	687,476	294,441	1,568,859	1,576,881	4,141,301	8
2002	10,216	—	464,138	436,612	802,290	1,415,849	3,129,105	21
2003	10,704	—	598,679	434,234	1,354,839	1,528,198	3,926,654	12
2004	20,148	—	798,096	316,192	944,447	1,835,679	3,914,562	14
2005	49,901	5,853	462,209	272,873	1,530,243	1,511,570	3,832,649	16
2006	43,714	3,488	625,667	252,449	744,048	3,126,663	4,796,029	2
2007	26,215	3,852	501,627	175,246	984,250	2,484,769	4,175,959	7
2008	29,158	2,885	264,877	337,447	560,609	2,588,989	3,783,965	18
<b>2009</b>	<b>22,965</b>	<b>2,256</b>	<b>408,336</b>	<b>320,910</b>	<b>566,734</b>	<b>2,729,966</b>	<b>4,051,167</b>	<b>11</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	13,937	328	510,995	244,115	936,228	997,916	2,703,519	
1999 to 2008 <sup>d</sup>	22,616	4,020	544,506	303,872	1,044,371	2,079,969	3,996,942	
<b>Max. harvest<sup>e</sup></b>	49,901	5,853	1,026,591	698,125	2,769,875	3,126,663		
Max. harv. year	2005	2005	1996	1994	1989	2006		
<b>Min. harvest<sup>e</sup></b>	4,598	1	108,574	37,986	55,984	199,887		
Min. harv. year	1983	1991	1975	1960	1960	1960		

*Notes:*

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009

Table 17.—Southeast Alaska 2009 commercial drift gillnet salmon harvest, in numbers, by area, harvest type, and species.

<b>Fishery</b>	<b>Chinook<sup>a</sup></b>	<b>Jacks<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>District 1</b>							
Traditional (Tree Point)	1,160	0	69,859	67,169	170,575	263,035	571,798
Terminal Harvest Area	3,760	2	748	1,353	3,477	76,124	85,464
Annette Island	627	0	7,540	30,457	113,077	120,025	271,726
<b>District 6</b>							
Traditional (Prince of Wales)	1,625	513	111,984	144,569	143,589	287,707	689,987
<b>District 7</b>							
Terminal Harvest Area	3,246	49	231	4,107	400	28,521	36,554
<b>District 8</b>							
Traditional (Stikine)	2,406	424	36,680	30,860	27,010	190,800	288,180
<b>District 11</b>							
Traditional (Taku/Snettisham)	5,694	1,106	62,070	36,615	56,801	918,350	1,080,636
Terminal Harvest Area	0	0	0	0	0	0	0
<b>District 13</b>							
Terminal Harvest Area	4,555	0	170	417	1,825	119,719	126,686
<b>District 15</b>							
Traditional (Lynn Canal)	438	119	114,501	35,355	81,480	541,970	773,863
Terminal Harvest Area	81	43	12,093	465	81,577	303,740	397,999
<b>Subtotals</b>							
Traditional	11,323	2,162	395,094	314,568	479,455	2,201,862	3,404,464
Terminal Harvest Areas	11,642	94	13,242	6,342	87,279	528,104	646,703
<b>Common Property Total</b>							
Hatchery Cost Recovery	0	0	0	0	0	1,346	1,346
Annette Island	627	0	7,540	30,457	113,077	120,025	271,726
Miscellaneous	113	8	0	0	0	0	121
<b>Total</b>	<b>23,705</b>	<b>2,264</b>	<b>415,876</b>	<b>351,367</b>	<b>679,811</b>	<b>2,851,337</b>	<b>4,324,360</b>

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

Table 18.—Southeast Alaska annual Portland Canal / Tree Point (District 1) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	1,531	-	109,383	19,329	675,422	153,827	959,492	16
1981	1,448	-	104,853	19,125	433,735	38,527	597,688	33
1982	3,522	-	190,840	27,833	348,769	84,537	655,501	30
1983	1,113	-	135,903	41,556	773,126	139,411	1,091,109	10
1984	1,494	-	88,431	35,436	720,706	227,817	1,073,884	11
1985	2,787	-	173,101	52,973	691,462	256,368	1,176,691	7
1986	1,271	-	145,707	63,030	906,384	286,910	1,403,302	4
1987	2,077	-	107,595	38,113	583,295	188,790	919,870	20
1988	2,041	-	116,245	17,213	231,484	550,701	917,684	21
1989	2,015	-	145,210	32,873	1,349,929	310,345	1,840,372	1
1990	1,714	-	85,770	42,926	580,782	176,184	887,376	23
1991	2,077	-	131,509	70,359	600,733	185,863	990,541	14
1992	1,061	-	244,650	40,064	581,244	288,478	1,155,497	8
1993	1,249	-	394,137	32,588	481,316	389,823	1,299,113	5
1994	959	-	100,458	47,336	264,755	526,314	939,822	18
1995	1,024	-	164,336	54,769	791,392	734,344	1,745,865	2
1996	1,257	-	212,477	33,215	371,049	629,553	1,247,551	6
1997	1,608	-	169,614	28,229	380,957	409,591	989,999	15
1998	1,160	-	160,657	60,548	650,268	556,143	1,428,776	3
1999	1,844	-	160,053	64,534	611,613	181,674	1,019,718	13
2000	1,196	-	94,720	19,577	424,672	218,818	758,983	27
2001	1,393	-	80,440	36,420	521,645	252,438	892,336	22
2002	1,127	-	121,116	68,724	515,395	174,794	881,156	24
2003	829	-	105,878	97,538	626,916	322,608	1,153,769	9
2004	2,069	-	142,763	50,820	409,429	327,439	932,520	19
2005	1,701	10	80,027	65,353	559,296	252,630	959,017	17
2006	2,179	92	63,368	31,271	216,779	297,660	611,349	32
2007	1,966	91	68,170	29,890	360,986	389,744	850,847	26
2008	3,977	82	34,915	97,599	275,654	319,718	731,945	28
<b>2009</b>	<b>4,920</b>	<b>2</b>	<b>70,607</b>	<b>68,522</b>	<b>174,052</b>	<b>339,159</b>	<b>657,262</b>	<b>29</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	1,541	6	114,261	32,553	411,690	207,021	767,073	
1999 to 2008 <sup>d</sup>	1,828	69	95,145	56,173	452,239	273,752	879,164	
<b>Max. harvest<sup>e</sup></b>	<b>4,920</b>	<b>92</b>	<b>394,137</b>	<b>97,599</b>	<b>1,349,929</b>	<b>734,344</b>		
Max. harv.	2009	2006	1993	2008	1989	1995		
<b>Min. harvest<sup>e</sup></b>	<b>337</b>	<b>2</b>	<b>14,281</b>	<b>3,110</b>	<b>19,823</b>	<b>20,033</b>		
Min. harv. year	1970	2009	1960	1963	1960	1969		

Note: The data shown does not include Annette Island Reservation harvests.

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 19.—Southeast Alaska annual Prince of Wales (District 6) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 1980–2009.

<b>Year</b>	<b>Chinook<sup>a</sup></b>	<b>Jacks<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>	<b>Rank<sup>b</sup></b>
1980	580	-	107,422	16,666	45,662	26,291	196,621	48
1981	1,565	-	182,001	22,614	437,573	34,296	678,049	21
1982	1,671	-	193,817	45,218	26,087	18,906	285,699	42
1983	567	-	48,842	62,442	208,290	20,144	340,285	39
1984	895	-	91,664	48,244	343,633	70,599	555,035	28
1985	1,687	-	265,033	97,605	585,134	70,150	1,019,609	9
1986	1,705	-	145,714	205,598	308,942	82,621	744,580	17
1987	853	-	136,437	37,151	243,710	43,020	461,171	33
1988	2,961	-	92,532	14,419	69,619	69,675	249,206	44
1989	1,544	-	192,734	93,777	1,101,196	67,351	1,456,602	2
1990	2,108	-	185,808	167,196	319,216	73,238	747,566	16
1991	2,842	1	144,105	198,786	133,567	124,631	603,932	25
1992	1,374	-	203,158	299,884	94,278	140,471	739,165	18
1993	995	-	205,966	232,858	537,999	134,635	1,112,453	7
1994	754	-	211,076	272,692	180,391	176,221	841,134	13
1995	951	-	207,298	170,561	448,163	300,078	1,127,051	6
1996	644	-	311,100	224,129	188,035	283,290	1,007,198	10
1997	1,075	-	168,518	77,550	789,051	186,456	1,222,650	4
1998	518	-	113,435	273,197	502,655	332,022	1,221,827	5
1999	518	-	104,835	203,301	491,179	448,409	1,248,242	3
2000	1,220	-	90,076	96,207	156,619	199,836	543,958	29
2001	1,138	-	164,013	188,465	825,447	283,462	1,462,525	1
2002	446	-	56,135	226,560	82,951	112,541	478,633	32
2003	422	-	116,904	212,057	470,697	300,253	1,100,333	8
2004	2,735	-	116,259	138,631	245,237	110,574	613,436	24
2005	1,526	46	110,192	114,440	461,187	198,564	885,955	11
2006	1,737	211	91,980	69,015	149,907	268,436	581,286	27
2007	1,852	292	92,481	80,573	383,355	297,998	856,551	12
2008	1,049	570	30,533	116,074	90,217	102,156	340,599	38
<b>2009</b>	<b>1,625</b>	<b>513</b>	<b>111,984</b>	<b>144,569</b>	<b>143,589</b>	<b>287,707</b>	<b>689,987</b>	<b>20</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	1,386	23	109,490	98,347	316,473	109,766	635,484	
1999 to 2008 <sup>d</sup>	1,264	280	97,341	144,532	335,680	232,223	811,152	
<b>Max. harvest<sup>e</sup></b>	2,961	570	311,100	299,884	1,101,196	448,409		
Max. harv. year	1988	2008	1996	1992	1989	1999		
<b>Min. harvest<sup>e</sup></b>	46	1	10,354	336	1,246	502		
Min. harv. year	1960	1991	1960	1960	1960	1960		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 20.—Southeast Alaska annual Stikine (District 8) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	631	-	14,053	2,946	7,224	6,910	31,764	35
1981	283	-	8,833	1,403	1,466	3,594	15,579	41
1982	1,052	-	7,136	20,003	16,174	734	45,099	28
1983	47	-	178	15,369	4,171	675	20,440	39
1984	14	-	1,290	5,141	4,960	1,892	13,297	44
1985	20	-	1,066	4,936	5,329	2,004	13,355	43
1986	109	-	4,187	14,324	4,968	5,943	29,531	36
1987	201	-	1,620	1,015	3,331	949	7,116	46
1988	776	-	1,246	12	145	3,129	5,308	47
1989	388	-	10,083	4,261	27,640	3,375	45,747	27
1990	682	-	11,580	8,218	13,822	9,386	43,688	31
1991	1,366	-	17,987	15,629	6,406	5,977	47,365	26
1992	1,045	-	52,717	22,127	66,742	15,458	158,089	15
1993	1,799	-	76,874	14,307	39,661	22,504	155,145	16
1994	1,996	-	97,224	44,891	35,405	27,658	207,174	8
1995	1,702	-	76,756	17,834	37,788	54,296	188,376	11
1996	1,717	-	154,150	19,059	37,651	135,623	348,200	3
1997	2,566	-	93,039	2,140	65,745	38,913	202,403	9
1998	460	-	22,031	19,206	39,246	41,057	122,000	19
1999	1,049	-	36,601	28,437	48,552	117,196	231,835	6
2000	1,671	-	15,833	5,651	9,497	40,337	72,989	21
2001	7	-	610	10,731	11,012	5,397	27,757	38
2002	25	-	208	21,131	4,578	2,017	27,959	37
2003	312	-	42,158	38,795	76,113	51,701	209,079	7
2004	7,410	-	103,392	26,617	20,439	37,996	195,854	10
2005	24,293	2,677	99,465	42,203	106,395	150,121	425,154	2
2006	27,014	3,019	61,298	34,430	56,810	343,637	526,208	1
2007	14,627	2,836	70,580	19,880	39,872	177,547	325,342	4
2008	13,049	1,550	35,679	34,479	18,105	81,876	184,738	12
<b>2009</b>	<b>2,406</b>	<b>424</b>	<b>36,680</b>	<b>30,860</b>	<b>27,010</b>	<b>190,800</b>	<b>288,180</b>	<b>5</b>
<b>Averages</b>								
1962 to 2008 <sup>c</sup>	3,688	215	30,493	16,190	25,822	32,008	108,414	
1999 to 2008 <sup>d</sup>	8,946	2,521	46,582	26,235	39,137	100,783	222,692	
<b>Max. harvest<sup>e</sup></b>	27,014	3,019	154,150	44,891	114,555	343,637		
Max. harv. year	2006	2006	1996	1994	1964	2006		
<b>Min. harvest<sup>e</sup></b>	7	424	0	0	0	1		
Min. harv. year	2001	2009	1975	1975	1975	1975		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1962 to 2009. No harvest data in Alexander database for 1960 and 1962.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1962 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1962 to 2009.

Table 21.—Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 1960–2008.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	2,251	-	123,451	41,677	296,622	192,793	656,794	9
1981	1,721	-	49,942	26,711	254,856	76,438	409,668	24
1982	3,014	-	83,722	29,073	109,270	37,584	262,663	33
1983	888	-	31,821	21,455	66,239	15,264	135,667	42
1984	1,773	-	77,233	33,836	145,971	86,764	345,577	28
1985	2,632	-	88,093	55,518	311,305	106,900	564,448	15
1986	2,584	-	73,061	30,512	16,568	58,792	181,517	37
1987	2,076	-	75,212	35,219	363,439	121,660	597,606	12
1988	1,777	-	38,901	44,818	157,732	140,038	383,266	26
1989	1,811	-	74,019	51,812	180,639	36,979	345,260	29
1990	3,480	-	126,884	67,530	153,126	145,799	496,819	19
1991	3,214	-	109,471	126,576	74,170	160,422	473,853	20
1992	2,341	-	135,411	172,662	314,445	112,527	737,386	7
1993	6,748	-	171,383	65,539	17,083	166,478	427,231	22
1994	5,047	-	105,893	188,501	401,525	214,171	915,137	4
1995	4,660	-	103,362	83,606	41,228	349,949	582,805	14
1996	2,659	-	199,014	33,633	12,660	354,463	602,429	11
1997	2,804	-	94,745	3,515	51,424	176,864	329,352	30
1998	794	-	69,677	28,713	168,283	296,111	563,578	16
1999	1,949	-	79,686	17,308	59,316	429,359	587,618	13
2000	1,154	-	185,956	7,828	58,696	669,994	923,628	3
2001	1,698	-	293,043	22,646	123,026	237,122	677,535	8
2002	1,850	-	204,103	40,464	78,624	231,936	556,977	17
2003	1,467	-	238,160	24,338	114,166	170,874	549,005	18
2004	2,345	-	283,756	45,769	154,640	131,757	618,267	10
2005	20,195	3,106	106,048	21,289	182,778	93,700	427,116	23
2006	11,123	138	262,527	60,145	191,992	382,952	908,877	5
2007	1,223	229	112,241	22,394	100,375	590,169	826,631	6
2008	1,721	472	116,693	37,349	90,162	774,095	1,020,492	2
<b>2009</b>	<b>5,694</b>	<b>1,106</b>	<b>62,070</b>	<b>36,615</b>	<b>56,801</b>	<b>918,350</b>	<b>1,080,636</b>	<b>1</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	3,984	81	95,994	41,611	110,541	154,639	406,850	
1999 to 2008 <sup>d</sup>	4,473	986	188,221	29,953	115,378	371,196	709,615	
<b>Max. harvest<sup>e</sup></b>	20,195	3,106	293,043	188,501	401,525	918,350		
Max. harv. year	2005	2005	2001	1994	1994	2009		
<b>Min. harvest<sup>e</sup></b>	794	138	17,735	1,185	2,768	2,678		
Min. harv. year	1998	2006	1967	1975	1965	1975		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 22.—Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	Rank <sup>b</sup>
1980	440	-	53,987	28,898	82,343	168,853	334,521	40
1981	1,300	-	93,195	44,682	137,270	117,376	393,823	36
1982	5,451	-	273,833	72,297	69,051	306,571	727,203	19
1983	1,983	-	369,830	69,510	157,546	341,145	940,014	12
1984	6,099	-	334,582	68,215	78,000	642,268	1,129,164	6
1985	3,260	-	302,940	98,301	239,081	699,000	1,342,582	2
1986	2,772	-	289,905	82,121	38,115	381,382	794,295	15
1987	3,223	-	415,336	53,751	165,751	392,938	1,030,999	9
1988	1,257	-	351,799	81,536	208,404	377,583	1,020,579	10
1989	1,955	-	471,914	50,307	110,454	123,631	758,261	16
1990	670	-	357,418	63,005	101,099	210,510	732,702	18
1991	746	-	308,731	129,232	5,474	210,547	654,730	22
1992	610	-	286,035	108,753	351,562	245,247	992,207	11
1993	741	-	173,113	59,952	11,336	306,566	551,708	30
1994	980	-	171,729	140,764	147,277	685,449	1,146,199	5
1995	831	-	88,676	79,949	15,613	568,368	753,437	17
1996	642	-	149,578	52,658	2,607	415,930	621,415	25
1997	838	-	118,828	15,572	53,437	462,330	651,005	23
1998	682	-	134,937	26,118	32,351	160,669	354,757	38
1999	559	-	163,560	35,350	62,737	351,251	613,457	26
2000	297	-	109,560	35,638	21,001	759,357	925,853	13
2001	1,672	-	147,811	34,606	67,718	445,578	697,385	20
2002	582	-	82,014	77,941	88,044	665,398	913,979	14
2003	663	-	95,111	59,742	53,621	394,250	603,387	27
2004	805	-	151,245	51,960	98,341	745,450	1,047,801	8
2005	710	-	65,469	27,947	209,833	326,895	630,854	24
2006	343	1	145,579	55,133	94,700	1,094,246	1,390,002	1
2007	773	290	156,798	18,137	89,782	823,189	1,088,969	7
2008	560	99	46,655	46,932	26,034	1,072,135	1,192,415	3
<b>2009</b>	<b>519</b>	<b>162</b>	<b>126,594</b>	<b>35,820</b>	<b>163,057</b>	<b>845,710</b>	<b>1,171,862</b>	<b>4</b>
<b>Averages</b>								
1960 to 2008 <sup>c</sup>	1,437	8	161,754	54,353	64,134	360,476	642,162	
1999 to 2008 <sup>d</sup>	696	130	116,380	44,339	81,181	667,775	910,410	
<b>Max. harvest<sup>e</sup></b>	6,099	290	471,914	140,764	351,562	1,094,246		
Max. harv. year	1984	2007	1989	1994	1992	2006		
<b>Min. harvest<sup>e</sup></b>	276	1	18,491	10,964	1,760	58,562		
Min. harv. year	1963	2006	1975	1960	1960	1960		

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

<sup>b</sup> Rank is based on total harvest for years 1960 to 2009.

<sup>c</sup> Equals the long-term average harvest. Harvests from 1960 to 1979 are included in average but not shown in table.

<sup>d</sup> Equals the recent 10-year average harvest.

<sup>e</sup> Minimum and maximums are based on species harvest from 1960 to 2009.

Table 23.—Annual common property purse seine harvests from terminal harvest areas (THA) in Southeast Alaska, 1990–2009.

THA Area	Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total
<b>Nakat Inlet</b>	1990	0	0	103	604	1,444	10,531	12,682
	1991	0	0	531	531	7,134	47,957	56,153
	1992	0	0	53	361	1,497	16,843	18,754
	1993	0	0	443	796	60,319	37,965	99,523
	1994	0	0	24	129	5,513	45,057	50,723
	1995	0	0	150	1,099	9,200	131,415	141,864
	1996	0	0	18	935	2,204	296,181	299,338
	1997	0	0	390	1,177	11,132	239,156	251,855
	1998	1	0	302	385	2,681	188,489	191,858
	1999	0	0	383	138	8,520	44,866	53,907
	2000	0	0	1,181	730	5,545	51,731	59,187
	2001	4	0	490	34	5,478	36,449	42,455
	2002	0	0	930	592	13,350	46,263	61,135
	2003	4	0	363	298	9,172	87,930	97,767
	2004	4	0	1,179	564	18,299	114,883	134,929
	2005	10	0	45	132	24,211	138,041	162,439
	2006	242	3	2,630	1,505	25,471	339,339	369,187
2007	0	0	3	1,172	459	13,084	14,718	
<b>Average 1991–2007</b>		15	–	512	621	11,757	104,788	117,693
<b>Neets Bay</b>	1998	63	5	1,135	141	8,918	891,029	901,286
	2000	23	0	0	0	8	984	1,015
	2002	607	0	2	42,365	0	9,156	52,130
	2003	310	0	2	15,077	20	45,969	61,378
	2004	1,379	0	0	5,968	0	5,711	13,058
	2005	2,572	0	2	6,308	4	1,083	9,969
	2006	777	0	0	0	0	14	791
	2007	208	0	1	6	5	189	409
	2008	4,911	0	3	2	0	235	5,151
	<b>2009</b>	<b>7,807</b>	<b>0</b>	<b>47</b>	<b>11</b>	<b>226</b>	<b>7,676</b>	<b>15,767</b>
<b>Average 1998–2008</b>		1,205	1	127	7,763	995	106,041	116,132
<b>Kendrick Bay</b>	1994	0	0	335	420	2,948	99,171	102,874
	1995	1	1	2,717	607	53,302	157,217	213,844
	1996	1	1	548	177	1,167	155,044	156,937
	1997	2	1	1,204	160	9,055	243,886	254,307
	1998	1	1	1,114	1,272	8,499	362,911	373,797
	1999	0	0	390	493	4,673	42,045	47,601
	2000	0	0	1,182	295	1,212	76,991	79,680
	2001	0	0	221	540	5,259	32,518	38,538
	2002	0	0	108	120	1,790	4,352	6,370
	2003	3	3	82	119	927	2,094	3,225
	2004	3	0	58	47	37	55	200
	2005	17	0	63	153	1,626	20,829	22,688
	2006	321	5	3,392	3,074	61,302	284,061	352,150
	2007	313	14	3,470	1,702	64,974	219,640	290,099
	2008	0	8	1,503	2,652	20,523	163,571	188,257
<b>2009</b>	<b>93</b>	<b>0</b>	<b>1,692</b>	<b>929</b>	<b>24,594</b>	<b>74,033</b>	<b>101,341</b>	
<b>Average 1994–2008</b>		42	2	1,092	789	15,820	124,292	142,038
<b>Klawock</b>	1990	0	0	2	112	60	4,596	4,770

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<b>THA Area</b>	<b>Year</b>	<b>Chinook<sup>a</sup></b>	<b>Jacks<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>Anita Bay</b>	2004	232	0	5	0	0	6	243
	2005	50	14	61	95	3,356	66,506	70,082
	2006	4,509	35	187	1,149	5,066	261,103	272,049
	2007	4,275	12	31	20	4,176	40,805	49,319
	2008	2,172	59	58	223	887	46,345	49,744
	<b>2009</b>	<b>2,579</b>	<b>23</b>	<b>187</b>	<b>213</b>	<b>15,746</b>	<b>31,917</b>	<b>50,665</b>
<b>Average 2004–2008</b>		2,248	24	68	297	2,697	82,953	88,287
<b>Earl West Cove</b>	1990	2,461	237	2	1	32	49	2,782
	1992	1,208	12	1	2,451	9	221	3,902
	1993	913	18	9	1	13	48	1,002
	1994	1,145	0	2	474	6	414	2,041
	1995	829	0	1	28	2	1,725	2,585
	1996	816	0	37	4	464	34,878	36,199
	1997	831	0	3	0	0	311	1,145
	1999	995	4	1	14	3	15,632	16,649
	2000	597	5	2	3	11	13,452	14,070
	2001	761	0	4	0	27	7,636	8,428
	2002	1,147	2	78	30	292	35,131	36,680
	2003	4,298	99	19	11	410	8,562	13,399
	2004	1,418	413	10	338	637	8,990	11,806
<b>Average 1990–2004</b>		1,185	–	12	224	175	9,582	11,178
<b>Port Armstrong</b>	1995	0	0	16	6,685	306,796	61	313,558
<b>Hidden Falls</b>	1990	5	174	3,487	773	207,188	257,987	469,614
	1992	501	658	8,235	1,943	450,867	734,129	1,196,333
	1993	1,075	1,372	15,940	8,016	1,979,613	1,471,182	3,477,198
	1994	3,446	1,046	13,081	11,738	1,479,866	2,842,059	4,351,236
	1995	21,431	792	9,049	20,908	284,234	3,213,002	3,549,416
	1996	19,785	204	9,106	4,991	335,538	3,375,359	3,744,983
	1997	5,494	297	3,090	2,491	450,001	1,376,980	1,838,353
	1998	5,616	643	5,428	11,964	751,632	1,851,116	2,626,399
	1999	12,070	1,580	6,811	18,151	1,417,199	2,338,575	3,794,386
	2000	17,609	840	7,391	1,761	225,173	2,742,107	2,994,881
	2001	11,109	1,077	8,556	5,463	455,412	1,098,670	1,580,287
	2002	9,300	491	3,095	11,972	336,382	1,225,544	1,586,784
	2003	4,304	73	2,659	920	524,819	1,357,104	1,889,879
	2004	4,088	92	6,225	11,457	1,339,387	1,156,394	2,517,643
	2005	1,241	40	1,170	1,392	383,367	250,077	637,287
	2006	3,907	677	6,924	3,416	537,646	1,710,387	2,262,957
2007	5,017	238	2,572	1,258	315,050	502,248	826,383	
2008	5,094	177	1,316	7,427	32,939	1,747,776	1,794,729	
<b>2009</b>	<b>3,207</b>	<b>239</b>	<b>2,665</b>	<b>787</b>	<b>643,969</b>	<b>1,742,298</b>	<b>2,393,165</b>	
<b>Average 1990–2008</b>		7,283	–	6,341	7,002	639,240	1,625,039	2,285,486

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<b>THA Area</b>	<b>Year</b>	<b>Chinook<sup>a</sup></b>	<b>Jacks<sup>a</sup></b>	<b> sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>Deep Inlet</b>	1992	12	0	5	3,038	537	168,270	171,862
	1993	29	14	425	3,196	58,834	458,223	520,721
	1994	39	3	887	3,370	20,249	395,917	420,465
	1995	2,488	6	1,485	3,130	25,573	523,373	556,055
	1996	1,344	0	758	667	98,458	1,076,558	1,177,785
	1997	420	0	1,750	545	144,320	817,008	964,043
	1998	337	0	1,881	582	376,039	1,069,499	1,448,338
	1999	385	20	1,221	547	105,181	2,137,457	2,244,811
	2000	372	3	476	1,111	260,755	1,831,459	2,094,176
	2001	548	0	408	415	72,174	222,198	295,743
	2002	775	0	164	199	92,241	118,558	211,937
	2003	404	3	631	145	63,173	379,575	443,931
	2004	250	6	766	452	56,862	629,459	687,795
	2005	405	10	930	331	161,611	410,610	573,897
	2006	431	9	2,141	1,722	224,118	965,713	1,194,134
	2007	1,586	18	424	954	15,733	110,348	129,063
	2008	2,618	81	329	1,864	152,799	322,008	479,699
	<b>2009</b>	<b>2,603</b>	<b>0</b>	<b>327</b>	<b>547</b>	<b>7,708</b>	<b>277,492</b>	<b>288,677</b>
<b>Average 1992–2008</b>		732	10	864	1,310	113,450	684,484	800,850

<sup>a</sup> Chinook salmon are 28” from the tip of snout to tip of tail, jacks are less than 28”.

Table 24.—Annual common property drift gillnet harvests from terminal harvest areas (THA) in Southeast Alaska, 1990–2009.

THA Area	Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total
<b>Nakat Inlet</b>	1990	4	0	79	33	196	2,198	2,510
	1991	0	0	17	40	203	1,969	2,229
	1992	2	0	1	63	36	6,403	6,505
	1993	0	0	39	80	144	6,506	6,769
	1994	2	0	81	322	307	36,113	36,825
	1995	1	0	42	1,095	1,885	100,441	103,464
	1996	0	0	74	46	14	27,474	27,608
	1997	2	0	140	2,542	264	58,361	61,309
	1998	0	0	145	282	552	27,053	28,032
	1999	0	0	25	8	168	2,879	3,080
	2000	0	0	69	1,368	689	19,697	21,823
	2001	14	0	399	425	3,908	32,719	37,465
	2002	5	0	763	1,252	2,859	16,408	21,287
	2003	2	0	615	2,413	5,544	39,261	47,835
	2004	24	0	406	518	1,988	24,892	27,828
	2005	10	0	299	86	2,870	12,848	16,113
	2006	20	0	598	1,187	3,818	26,113	31,736
	2007	95	10	1,348	2,387	20,994	156,552	181,386
	2008	69	14	802	1,607	4,488	79,725	86,705
	<b>2009</b>	<b>55</b>	<b>2</b>	<b>748</b>	<b>403</b>	<b>3,477</b>	<b>71,982</b>	<b>76,667</b>
<b>Average 1990–2008</b>		13	1	313	829	2,680	35,664	39,500
<b>Neets Bay</b>	1998	62	0	6	1	37	7,693	7,799
	2000	13	0	0	0	0	45	58
	2001	0	0	0	491	0	3	494
	2002	294	0	0	33,956	0	13,466	47,716
	2003	150	0	0	31,506	0	37,083	68,739
	2004	47	0	0	19,411	0	10,829	30,287
	2005	244	0	3	14,087	2	5,599	19,935
	2006	443	0	0	1,003	0	2,320	3,766
	2007	353	0	0	0	0	74	427
	2008	2,028	0	0	0	0	143	2,171
<b>2009</b>	<b>3,705</b>	<b>0</b>	<b>0</b>	<b>950</b>	<b>0</b>	<b>4,142</b>	<b>8,797</b>	
<b>Average 1998–2008</b>	363	-	1	10,046	4	7,726	18,139	
<b>Wrangell Narrows</b>	1990	0	0	3	2,961	30	6	3,000
	1991	787	0	1	626	1	1	1,416
	1992	19	0	3	949	30	3	1,004
	1993	3	0	11	1,820	39	34	1,907
	1994	0	0	28	4,830	397	195	5,450
	1996	0	0	0	489	0	0	489
<b>Average 1990–1996</b>	135	-	8	1,946	83	40	2,212	
<b>Earl West Cove</b>	1990	6,039	0	32	2,164	16	1,109	9,360
	1991	8,211	0	71	4,794	59	19,837	32,972
	1992	4,854	0	98	1,669	60	42,995	49,676
	1993	6,400	0	165	6,993	49	7,874	21,481
	1994	6,979	0	209	2,898	228	33,771	44,085
	1995	3,735	0	142	5,240	202	62,110	71,429
	1996	3,047	0	238	4,494	5	23,859	31,643
	1997	2,033	0	132	3,857	814	53,658	60,494
	1998	2,270	0	49	4,055	230	43,638	50,242
	1999	3,059	0	297	2,556	546	29,118	35,576
	2000	7,912	0	373	2,692	1,375	53,161	65,513
	2001	7,101	0	833	880	5,528	86,088	100,430
	2002	4,040	0	231	366	281	42,575	47,493
	2003	6,119	0	193	254	2,350	73,357	82,273
	2004	389	0	150	74	401	18,196	19,210
2005	4	0	0	0	0	31	35	
<b>Average 1990–2005</b>	4,512	-	201	2,687	759	36,961	45,120	

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Table 24.–Page 2 of 3.

THA Area	Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total
<b>Ohmer Creek</b>	1990	125	0	6	0	0	4	135
	1992	78	0	0	0	0	0	78
	1993	171	0	0	0	0	0	171
<b>Average 1990–1993</b>		125	–	2	0	0	1	128
<b>Anita Bay</b>	2002	0	0	0	917	0	4	921
	2003	52	0	33	1,268	330	2,263	3,946
	2004	1,457	0	359	2,221	136	43,197	47,370
	2005	553	14	554	1,239	1,970	57,146	61,476
	2006	613	14	264	969	986	88,043	90,889
	2007	3,303	17	194	3,202	1,865	92,576	101,157
	2008	1,741	64	88	3,480	376	28,651	34,400
	<b>2009</b>	<b>3,246</b>	<b>49</b>	<b>231</b>	<b>4,107</b>	<b>400</b>	<b>28,521</b>	<b>36,554</b>
<b>Average 2002–2008</b>		1,103	16	213	1,899	809	44,554	48,594
<b>Speel Arm</b>	1998	3	0	602	84	2,947	194	3,830
	1999	0	0	2,171	241	0	146	2,558
	2000	17	0	17,684	282	3,980	1,399	23,362
	2001	2	0	3,355	117	197	116	3,787
	2002	10	0	25,615	641	1,062	915	28,243
	2003	2	0	32,727	631	1,771	454	35,585
	2004	54	0	42,502	480	4,368	370	47,774
	2005	6	0	18,781	564	1,265	490	21,106
	2006	17	2	127,746	723	6,890	1,115	136,493
<b>Average 1998–2006</b>		13	–	30,131	418	2,498	578	33,637
<b>Deep Inlet</b>	1993	79	0	261	5,444	226	373,306	379,316
	1994	20	0	203	1,043	1,026	159,913	162,205
	1995	439	0	401	3,199	3,378	409,527	416,944
	1996	16	0	34	1,382	3,304	190,932	195,668
	1997	82	0	640	377	42,772	361,662	405,533
	1998	53	0	505	609	96,362	494,124	591,653
	1999	5	0	649	112	729	609,253	610,748
	2000	25	0	96	30	7,592	620,104	627,847
	2001	635	0	726	693	14,483	266,796	283,333
	2002	2,146	0	331	509	32,417	186,584	221,987
	2003	840	0	242	242	10,646	212,892	224,862
	2004	2,938	0	172	100	15,824	421,070	440,104
	2005	919	0	454	402	8,784	432,483	443,042
	2006	705	13	651	1,486	32,874	651,689	687,418
	2007	2,471	97	1,163	1,170	8,015	113,546	126,462
2008	7,062	48	314	1,534	60,064	213,581	282,603	
<b>2009</b>	<b>4,555</b>	<b>0</b>	<b>170</b>	<b>417</b>	<b>1,825</b>	<b>119,719</b>	<b>126,686</b>	
<b>Average 1993–2008</b>		1,152	10	428	1,146	21,156	357,341	381,233

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<b>THA Area</b>	<b>Year</b>	<b>Chinook<sup>a</sup></b>	<b>Jacks<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>Boat Harbor</b>	1995	257	0	7,510	556	9,814	176,495	194,632
	1996	32	0	3,346	113	249	73,725	77,465
	1997	61	0	7,561	114	20,475	187,354	215,565
	1998	171	0	11,162	159	8,129	72,154	91,775
	1999	72	0	6,969	104	22,172	118,346	147,663
	2000	30	0	13,313	698	3,674	256,267	273,982
	2001	151	0	22,859	176	22,293	102,734	148,213
	2002	43	0	7,987	420	19,497	156,845	184,792
	2003	28	0	3,824	121	5,866	71,677	81,516
	2004	40	0	7,647	73	9,697	163,411	180,868
	2005	28	0	2,629	82	36,922	94,336	133,997
	2006	17	0	4,876	373	9,845	398,671	413,782
	2007	92	0	12,524	199	16,638	258,869	288,322
	2008	100	30	12,120	817	15,376	466,248	494,691
	<b>2009</b>	<b>81</b>	<b>43</b>	<b>12,093</b>	<b>465</b>	<b>81,577</b>	<b>303,740</b>	<b>397,999</b>
<b>Average 1995–2008</b>		78	–	8,881	286	14,332	185,509	209,090

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

Table 25.—Southeast Alaska region 2009 private hatchery cost recovery salmon harvest by district, organization, special harvest area, and species.

District	Permit Holder <sup>a</sup>	Special Harvest Area	Chinook	Sockeye	Coho	Pink	Chum	Total
1	SSRAA	Herring Cove	10,947	0	14,985	0	0	25,932
	SSRAA	Neets Bay	11,191	0	24,906	1,684	761,810	799,591
3	POWHA	Klawock Lake	0	0	8,379	0	0	8,379
6	SSRAA	Burnett Inlet	0	0	6,750	0	0	6,750
	SSRAA	Neck Lake	0	0	41,598	0	0	41,598
9	KNFC	SE Cove	0	0	0	643	0	643
	AKI	Port Armstrong	515	6	46,480	635,915	35,955	718,871
	NSRAA	Mist Cove	0	0	21,757	224	4	21,985
11	DIPAC	Port Snettisham	0	83,421	0	0	0	83,421
	DIPAC	Gastineau Channel	1,426	421	20,322	3,302	612,852	638,323
	DIPAC	Amalga harbor	0	1,062	198	10,795	1,066,619	1,078,674
12	NSRAA	Hidden Falls	96	30	60,784	9,767	287,911	358,588
13	NSRAA	Silver Bay	10,861	0	0	0	0	10,861
	NSRAA	Deep Inlet	71	109	13,750	245	145,747	159,922
	SJC	Crescent Bay	0	0	88	19,691	1,743	21,522
<b>Total<sup>b</sup></b>			<b>35,107</b>	<b>85,048</b>	<b>259,997</b>	<b>682,266</b>	<b>2,912,641</b>	<b>3,975,060</b>

<sup>a</sup> Permit holder organization acronyms and names are as follows:

SSRAA: Southern Southeast Regional Aquaculture Association

POWHA: Prince of Wales Hatchery Association

KNFC: Kake Nonprofit Fishery Corporation

AKI: Armstrong Keta, Inc.

DIPAC: Douglas Island Pink and Chum, Inc.

NSRAA: Northern Southeast Regional Aquaculture Association

SJ: Sheldon Jackson

<sup>b</sup> Total harvest by gear includes seine (Table 2), gillnet (Table 16), and raceway/fish ladder harvest of 342,703 (9% of total).

Table 26.—Southeast Alaska region 2009 private hatchery cost recovery salmon harvest, by organization, and species.

<b>Permit Holder<sup>a</sup></b>	<b>Chinook</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
SSRAA	22,138	-	88,239	1,684	761,810	873,871
POWHA	-	-	8,379	-	-	8,379
KAKE	-	-	-	643	-	643
AKI	515	6	46,480	635,915	35,955	718,871
DIPAC	1,426	84,904	20,520	14,097	1,679,471	1,800,418
NSRAA	11,028	139	96,291	10,236	433,662	551,356
SJ	-	-	88	19,691	1,743	21,522
<b>Total</b>	<b>35,107</b>	<b>85,049</b>	<b>259,997</b>	<b>682,266</b>	<b>2,912,641</b>	<b>3,975,060</b>

<sup>a</sup> Permit holder organization acronyms and names are as follows:

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AKI: Armstrong Keta, Inc.

DIPAC: Douglas Island Pink and Chum, Inc.

NSRAA: Northern Southeast Regional Aquaculture Association

SJ: Sheldon Jackson

Table 27.–Southeast Alaska region private hatchery cost recovery harvest in numbers by species, 1977–2009.

Year	Chinook	Jacks	Sockeye	Coho	Pink	Chum	Total
1977	-	-	-	-	92,459	-	92,459
1978	-	-	-	-	-	-	-
1979	-	-	-	5,893	29,555	-	35,448
1980	-	-	-	-	-	752	752
1981	-	-	1	5,003	132,744	1	137,749
1982	-	-	1	12,514	7,346	778	20,639
1983	-	-	1	4,220	120,688	18,269	143,178
1984	937	-	7	26,856	169,795	453,204	650,799
1985	2,658	-	18	33,386	470,949	133,051	640,062
1986	1,093	-	6	143,799	61,178	161,792	367,868
1987	2,371	5	1,121	50,465	994,190	594,563	1,642,715
1988	8,276	1	85	4,039	115,729	512,809	640,939
1989	18,701	78	66	16,913	213,364	180,346	429,468
1990	21,878	298	75	113,779	880,750	375,092	1,391,872
1991	18,219	-	1,478	256,261	1,111,148	369,308	1,756,414
1992	16,695	28	2,108	268,913	2,111,411	695,451	3,094,606
1993	23,246	-	7,545	106,476	332,763	1,256,796	1,726,826
1994	17,498	70	3,322	150,248	3,457,270	1,678,031	5,306,439
1995	31,129	276	8,448	215,431	411,701	1,707,559	2,374,544
1996	33,496	-	6,636	164,662	609,316	4,536,244	5,350,354
1997	30,122	22	58,879	135,179	1,695,171	3,736,406	5,655,779
1998	15,943	-	34,590	234,675	1,411,511	4,004,257	5,700,976
1999	15,016	84	24,075	349,200	3,053,220	3,611,886	7,053,481
2000	31,358	1	107,244	215,937	176,215	4,231,270	4,762,025
2001	44,619	-	138,197	338,113	1,189,294	2,125,390	3,835,613
2002	28,445	-	36,859	749,889	853,059	2,710,351	4,378,603
2003	45,723	-	75,869	328,650	420,141	4,889,605	5,759,988
2004	62,470	-	210,665	221,721	933,287	3,550,119	4,978,262
2005	29,407	1	140,245	231,341	1,004,250	1,857,449	3,262,693
2006	12,764	30	124,109	246,062	377,353	4,920,845	5,681,163
2007	28,166	1	74,419	146,797	606,443	3,484,759	4,340,585
2008	41,799	-	53,981	340,538	83,099	3,017,712	3,537,129
<b>2009</b>	<b>35,107</b>	<b>-</b>	<b>85,049</b>	<b>259,997</b>	<b>682,266</b>	<b>2,912,641</b>	<b>3,975,060</b>
<b>Averages</b>							
1977 to 2008	18,188	28	34,689	159,905	722,669	1,712,940	2,648,420
1999 to 2008	33,977	12	98,566	316,825	869,636	3,439,939	4,758,954

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

Table 28.—Annual Canadian Stikine River commercial and food fisheries harvests, 1972–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total
1972	0	–	4,373	0	0	0	0
1973	200	–	3,670	0	0	0	0
1974	100	–	3,500	0	0	0	0
1975	1,202	–	2,252	50	0	0	0
1976	1,160	–	3,644	13	0	0	0
1977	162	–	6,310	0	0	0	0
1978	500	–	5,000	0	0	0	0
1979	1,562	63	13,534	10,720	1,994	424	264
1980	2,231	–	20,919	6,769	756	771	362
1981	1,404	–	27,017	2,867	3,857	1,128	284
1982	2,387	–	20,540	15,944	1,842	722	828
1983	1,418	645	21,120	6,173	1,120	304	714
1984 <sup>b</sup>	643	59	5,327	1	62	0	2
1985	1,111	185	25,464	2,175	2,356	536	240
1986	1,936	975	17,434	2,280	107	307	194
1987	2,201	444	9,615	5,731	646	459	219
1988	2,360	444	15,291	2,117	418	733	261
1989	2,669	289	20,032	6,098	825	674	127
1990	2,250	959	18,024	4,037	496	499	199
1991	1,511	660	22,763	2,648	394	208	71
1992	1,840	239	26,284	1,855	122	231	132
1993	1,803	308	47,197	2,616	29	395	67
1994	1,790	350	45,095	3,381	90	173	84
1995	1,646	860	53,467	3,418	48	263	270
1996	2,471	421	74,281	1,404	25	232	183
1997	4,483	286	65,559	401	269	222	33
1998	2,164	423	43,803	726	55	13	209
1999	2,916	1,264	38,055	181	11	8	14
2000	3,086	628	27,468	301	181	144	103
2001	1,491	103	25,600	233	78	56	30
2002	1,362	578	17,294	82	19	33	17
2003	1,396	1,057	58,784	190	850	112	0
2004	3,906	2,568	85,018	275	8	134	0
2005	19,898	1,276	85,890	276	0	39	0
2006	15,736	2,078	101,405	72	4	14	0
2007	10,505	1,727	60,013	52	0	2	0
2008	7,860	1,067	33,614	2,398	88	90	0
<b>2009</b>	<b>2,283</b>	<b>738</b>	<b>47,029</b>	<b>5,985</b>	<b>362</b>	<b>193</b>	<b>237</b>
<b>Averages</b>							
1972 to 2008	3,010	739	31,208	2,310	453	241	133
1999 to 2008	6,816	1,235	53,318	406	124	63	16

Note: Harvest of salmon that were Excess to Spawning Requirements are not included.

<sup>a</sup> Jacks as reported by fishery and loosely based on "small" fish ~2.5–3.0 kg; the jack catch may not correspond with the estimated jack catch based on sampling, i.e. jack<660 mid-eye-to-fork or <735 fl.

<sup>b</sup> There was no commercial fishery in 1984; only the food fishery harvest is shown.

Table 29.—Annual Canadian Taku River commercial and food fisheries harvests, 1979–2009.

Year	Chinook		Sockeye	Coho	Pink	Chum	Steelhead	Total
	Large <sup>a</sup>	Jacks <sup>a</sup>						
1979 <sup>b</sup>	97	0	13,578	6,006	13,661	15,474	254	49,070
1980	310	0	22,752	6,405	26,821	18,531	457	75,276
1981	159	0	10,922	3,607	10,771	5,591	108	31,158
1982	54	0	3,144	51	202	3	1	3,455
1983	165	400	17,056	8,390	1,874	1,760	213	29,858
1984	294	221	27,292	5,372	6,964	2,492	367	43,002
1985	330	24	14,411	1,792	3,373	136	32	20,098
1986	285	77	14,939	1,833	58	110	48	17,350
1987	127	106	13,650	5,712	6,250	2,270	223	28,338
1988	582	186	12,259	3,221	1,030	733	86	18,097
1989	901	139	18,598	3,022	695	42	24	23,421
1990	1,258	128	21,189	3,213	378	12	22	26,200
1991	1,177	432	25,217	3,435	296	2	5	30,564
1992	1,566	147	29,824	4,264	0	7	31	35,839
1993	1,644	171	33,357	3,041	16	15	11	38,255
1994	2,184	235	29,001	14,693	172	18	233	46,536
1995	1,647	298	32,711	13,738	2	8	209	48,613
1996	3,394	144	42,025	5,052	0	0	98	50,713
1997	2,834	84	24,352	2,690	0	1	160	30,121
1998	1,167	227	19,277	5,090	0	2	176	25,939
1999	958	257	21,063	4,887	0	0	81	27,246
2000	1,626	87	28,149	4,737	0	0	192	34,791
2001	1,583	118	47,870	3,068	0	25	8	52,672
2002	1,598	291	31,208	3,770	0	0	11	36,878
2003	2,171	784	32,997	3,584	4	0	27	39,567
2004	2,612	451	20,268	6,416	0	0	0	29,747
2005	7,611	821	21,858	5,086	0	0	1	35,377
2006	7,599	207	21,184	8,867	391	0	0	38,248
2007	1,041	440	16,525	5,276	0	0	0	23,282
2008	914	330	19,445	3,839	0	0	0	24,528
<b>2009</b>	<b>6,931</b>	<b>1,167</b>	<b>11,086</b>	<b>5,803</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>25,544</b>
<b>Averages</b>								
79–08	1,596	227	22,871	5,005	2,432	1,574	103	33,808
99–08	2,771	379	26,057	4,953	40	3	32	34,234

Notes:

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail; jacks are less than 28"

<sup>b</sup> 1979 is commercial catch only.

Table 30.—Annette Island Reserve annual commercial drift gillnet salmon harvest in numbers by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	
1980	38	–	15,775	2,565	191,854	38,779	249,011	
1981	211	–	25,594	5,092	214,052	24,366	269,315	
1982	267	–	43,475	6,712	162,244	26,814	239,512	
1983	170	–	21,994	7,887	212,944	17,444	260,439	
1984	39	–	23,707	8,240	404,360	71,610	507,956	
1985	292	–	50,899	22,933	407,577	76,225	557,926	
1986	98	–	27,941	52,834	512,733	96,945	690,551	
1987	527	–	47,469	24,042	223,337	86,831	382,206	
1988	579	–	26,555	7,138	364,430	115,825	514,527	
1989	369	–	33,194	21,266	823,081	52,717	930,627	
1990	524	–	43,998	26,764	615,560	75,372	762,218	
1991	798	–	39,353	55,803	296,036	76,844	468,834	
1992	455	–	56,494	54,289	548,384	90,043	749,665	
1993	269	–	76,054	28,199	456,453	65,223	626,198	
1994	183	–	36,458	46,433	339,070	133,206	555,350	
1995	122	–	37,502	41,662	773,781	118,922	971,989	
1996	237	–	22,549	36,039	139,085	115,385	313,295	
1997	461	–	20,720	25,485	114,664	141,511	302,841	
1998	270	–	11,549	29,012	435,816	175,598	652,245	
1999	729	–	16,757	42,662	265,072	84,101	409,321	
2000	2,560	–	11,802	14,173	205,224	132,793	366,552	
2001	3,447	–	15,813	43,642	340,071	105,505	508,478	
2002	1,268	–	21,875	55,071	289,332	62,186	429,732	
2003	692	–	3,935	33,059	103,496	46,431	187,613	
2004	1,523	–	14,661	23,269	172,504	76,862	288,819	
2005	1,132	–	6,374	25,005	108,522	44,853	185,886	
2006	506	3	8,101	25,404	137,321	131,510	302,845	
2007	853	41	13,318	28,795	242,444	153,080	438,531	
2008	606	2	3,813	40,022	299,685	135,988	480,116	
<b>2009</b>	<b>627</b>	<b>-</b>	<b>7,540</b>	<b>30,457</b>	<b>113,077</b>	<b>120,025</b>	<b>271,726</b>	
<b>Averages</b>								
1980 to 2008	663	663	15	26,818	28,741	324,108	88,723	469,055
1999 to 2008	1,332	1,332	15	11,645	33,110	216,367	97,331	359,789
<b>Max. harvest</b>	3,447	41	76,054	55,803	823,081	175,598	971,989	
Max. harv. year	2001	2007	1993	1991	1989	1998	1995	
<b>Min. harvest</b>	38	2	3,813	2,565	103,496	17,444	185,886	
Min. harv. year	1980	2008	2008	1980	2003	1983	2005	

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

Table 31.—Annette Island Reserve annual commercial purse seine salmon harvest in numbers by species, 1980–2009.

Year	Chinook <sup>a</sup>	Jacks <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total	
1980	3	–	1,861	909	464,336	17,272	484,381	
1981	4	–	1,316	1,100	245,151	4,747	252,318	
1982	18	–	2,430	3,024	422,196	12,635	440,303	
1983	3	–	5,939	3,335	999,270	4,996	1,013,543	
1984	15	–	9,559	11,288	502,465	27,055	550,382	
1985	47	–	6,133	3,919	494,115	9,105	513,319	
1986	19	–	5,500	20,309	851,282	13,938	891,048	
1987	5	–	618	9,204	28,584	17,991	56,402	
1988	5	–	2,373	1,431	491,507	11,503	506,819	
1989	73	–	14,572	2,127	1,231,281	12,216	1,260,269	
1990	34	–	7,732	6,863	478,392	8,349	501,370	
1991	2,194	–	5,068	6,262	543,316	4,954	561,794	
1992	315	–	3,417	16,736	338,375	11,727	370,570	
1993	29	–	14,807	3,868	735,899	8,953	763,556	
1994	15	–	5,157	2,409	158,961	3,135	169,677	
1995	11	–	18,001	9,695	1,151,375	14,456	1,193,538	
1996	1	–	7,310	5,548	728,714	10,905	752,478	
1997	29	–	20,645	5,281	295,390	25,062	346,407	
1998	34	–	5,005	10,455	363,480	39,083	418,057	
1999	10	–	5,110	6,511	631,342	16,230	659,203	
2000	2,202	–	10,727	4,016	713,056	32,176	762,177	
2001	709	–	25,432	13,413	1,655,144	20,950	1,715,648	
2002	550	–	12,946	9,809	1,073,942	21,252	1,118,499	
2003	80	4	3,871	6,820	466,016	9,618	486,409	
2004	336	2	16,081	5,884	543,146	20,785	586,234	
2005	173	–	6,911	6,777	489,527	13,631	517,019	
2006	239	1	12,807	4,815	126,099	28,672	172,633	
2007	175	2	6,260	5,007	603,712	37,400	652,556	
2008	52	–	1,957	7,452	626,445	21,987	657,893	
<b>2009</b>	<b>90</b>	<b>7</b>	<b>7,496</b>	<b>15,183</b>	<b>1,612,453</b>	<b>38,480</b>	<b>1,673,709</b>	
<b>Averages</b>								
1980 to 2008	254	254	2	8,260	6,699	601,811	16,579	633,604
1999 to 2008	453	453	2	10,210	7,050	692,843	22,270	732,827
<b>Max. harvest</b>	2,202	4	25,432	20,309	1,655,144	39,083	1,715,648	
Max. harv. year	2000	2003	2001	1986	2001	1998	2001	
<b>Min. harvest</b>	–	–	618	909	28,584	3,135	56,402	
Min. harv. year	–	–	1987	1980	1987	1994	1987	

<sup>a</sup> Chinook salmon are 28" from the tip of snout to tip of tail, jacks are less than 28".

## **FIGURES**

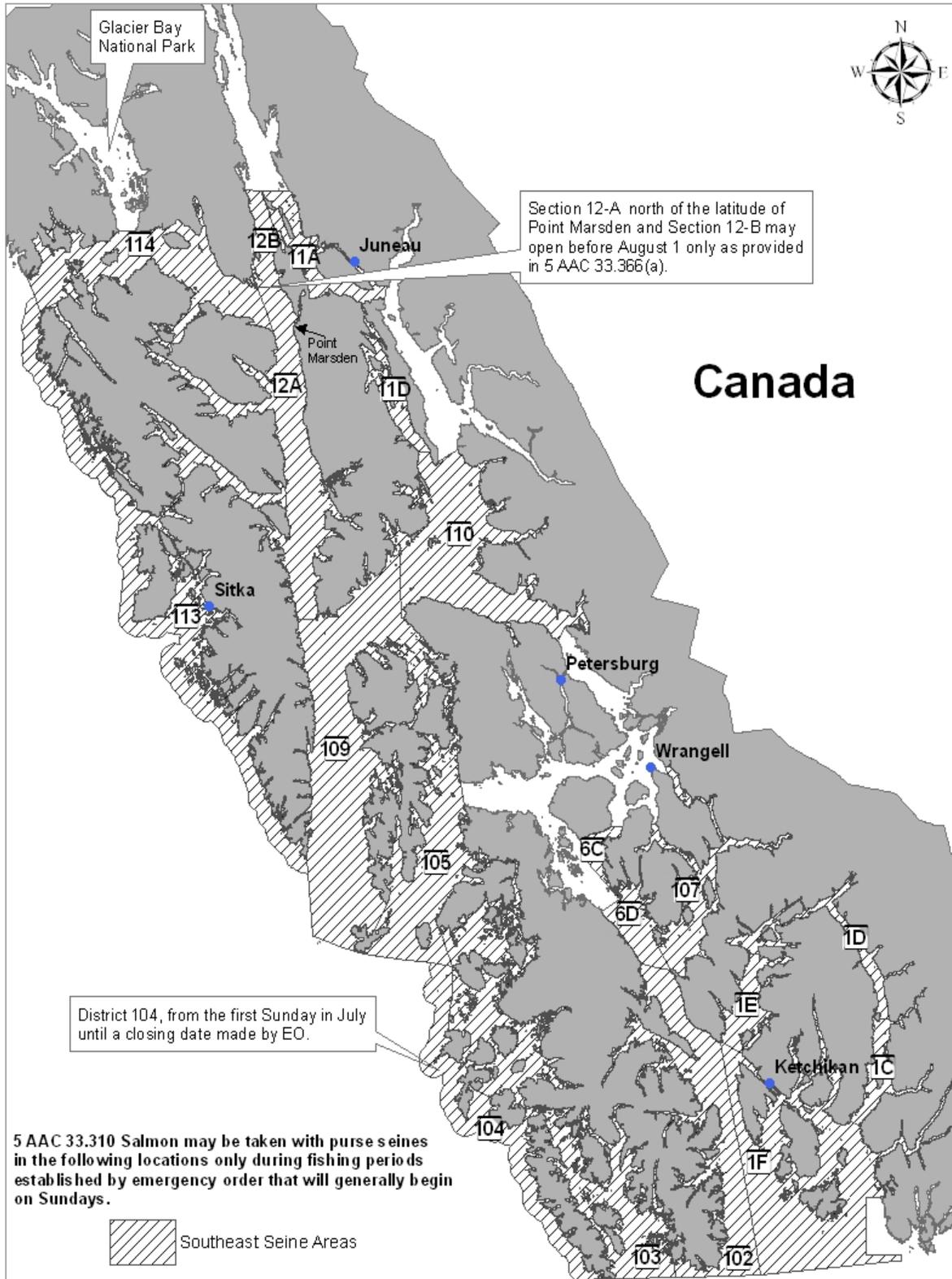


Figure 1.—Southeast Alaska purse seine fishing areas. Fishing periods areas are determined by emergency order.

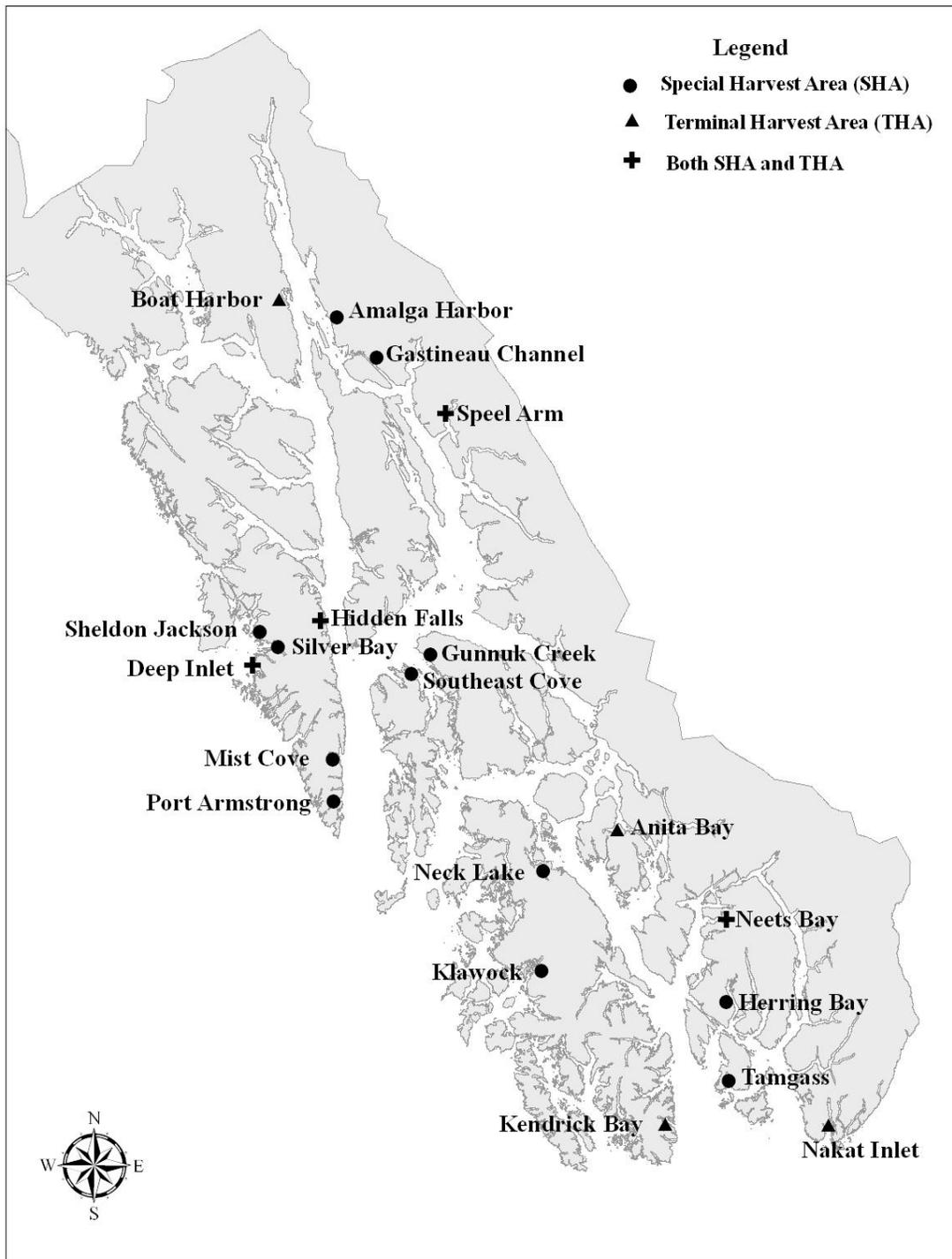


Figure 2.—Locations of terminal harvests in Southeast Alaska showing common property Terminal Harvest Areas (THAs), private hatchery cost recovery Special Harvest Areas (SHAs), and areas with both harvest types.

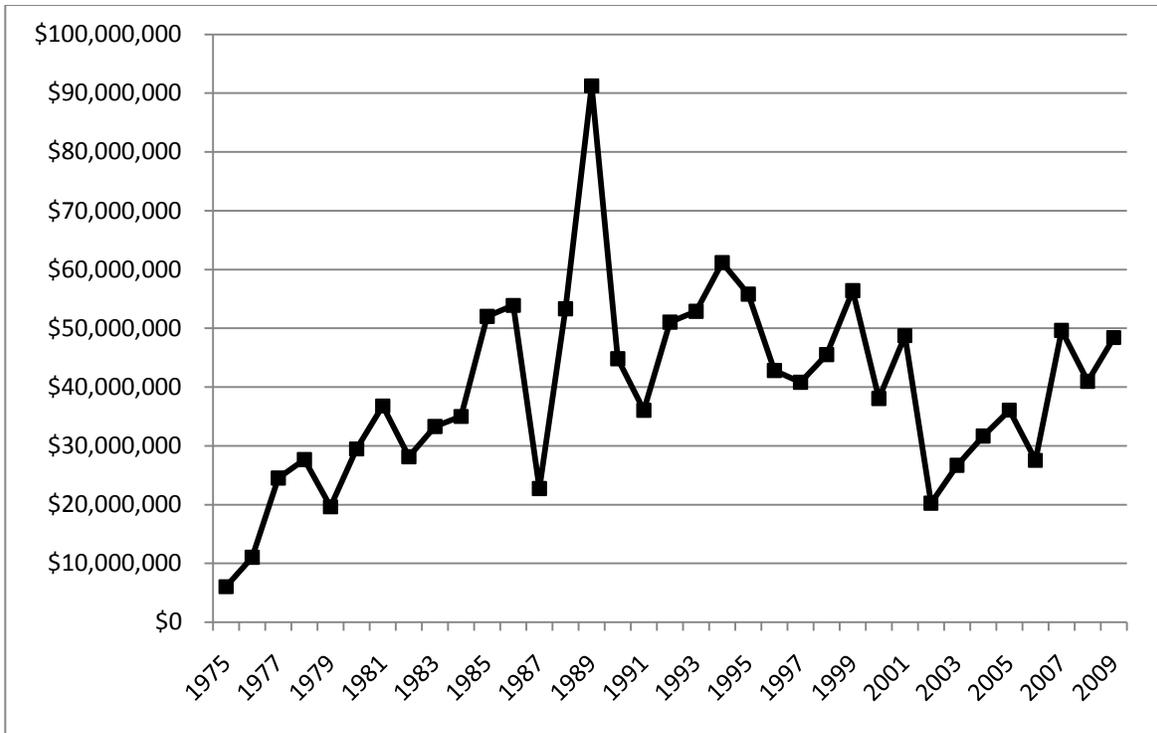


Figure 3.—Southeast Alaska purse seine fishery exvessel value (common property harvest), from 1975 to 2009.

*Note:* Fishery values are from Commercial Fisheries Entry Commission website, based on Processor Annual Reports and Fish Tickets.

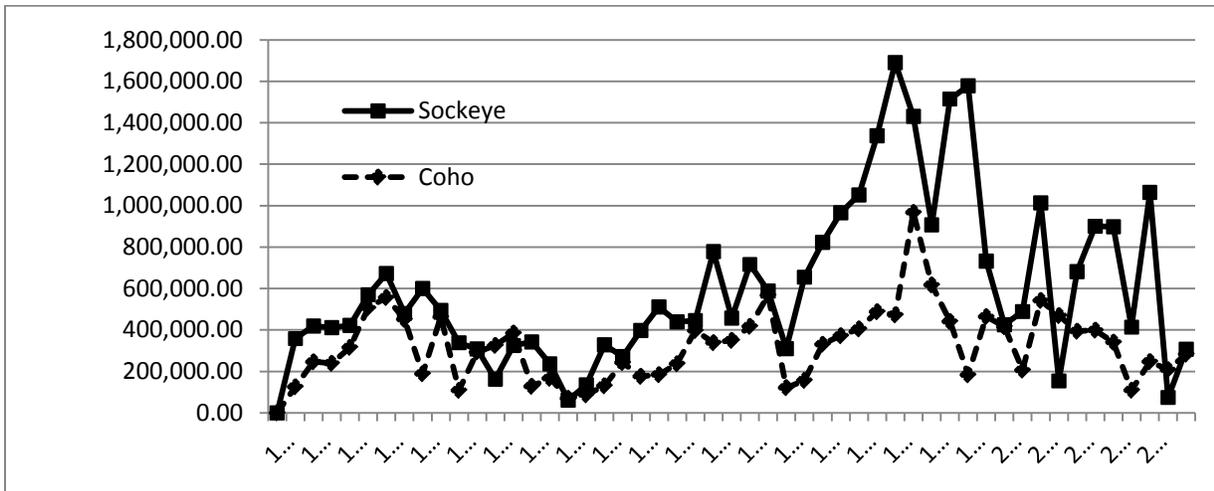
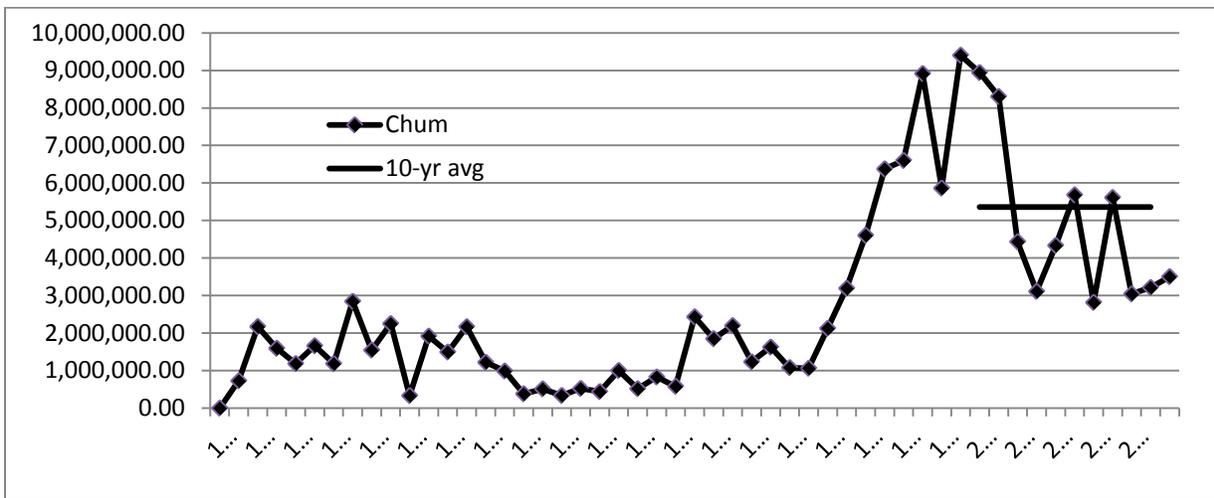
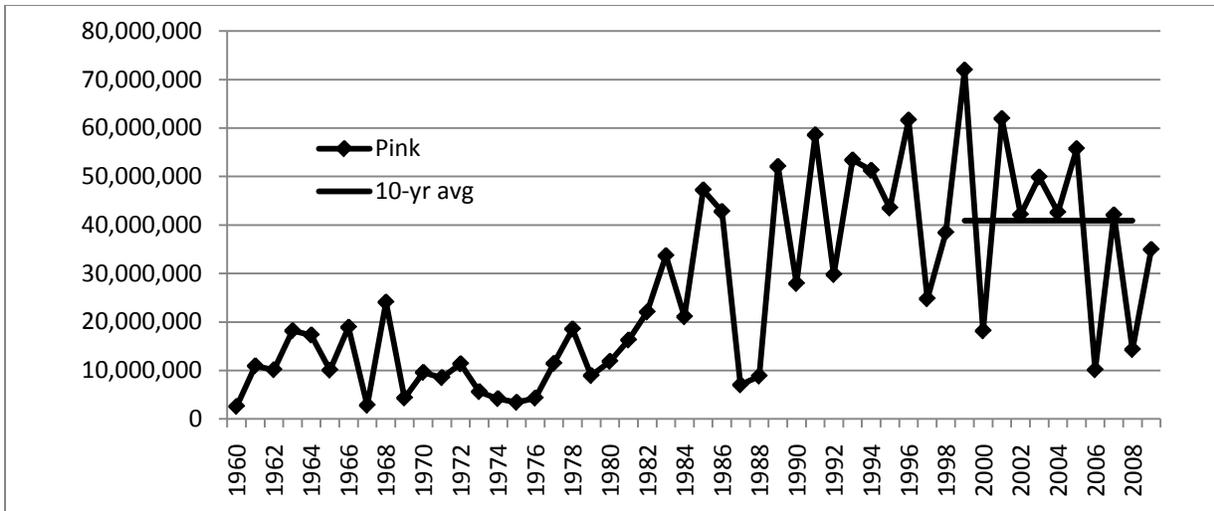
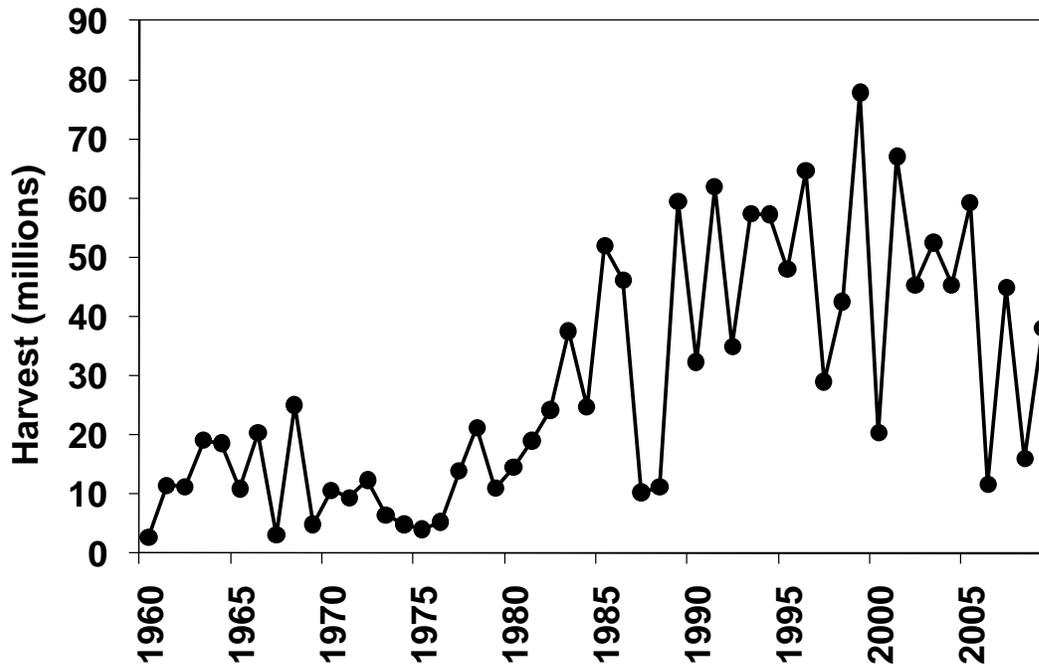


Figure 4.—Southeast Alaska Region annual common property purse seine salmon harvest (traditional and terminal harvest areas), in numbers of fish, by species, from 1960 to 2009.

### 2009 Pink Salmon Harvest - Southeast Alaska



### 2009 Pink Salmon Escapement Index: All Southeast Alaska Combined

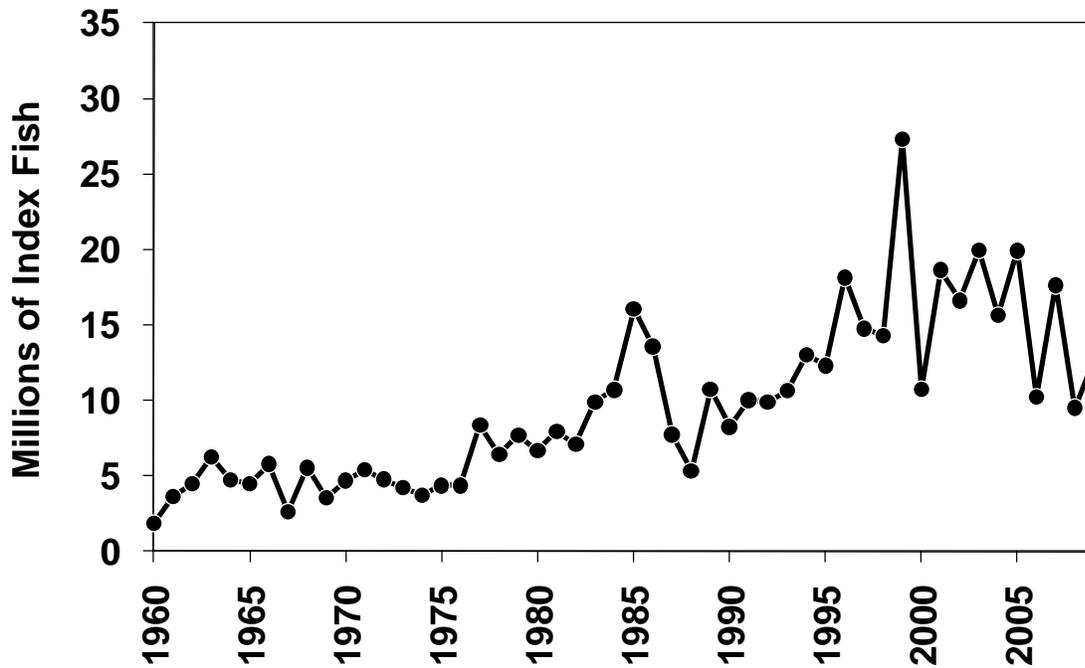


Figure 5.—Trends of pink salmon harvest and pink salmon escapement index for Southeast Alaska, all subregions combined, from 1960 to 2009.

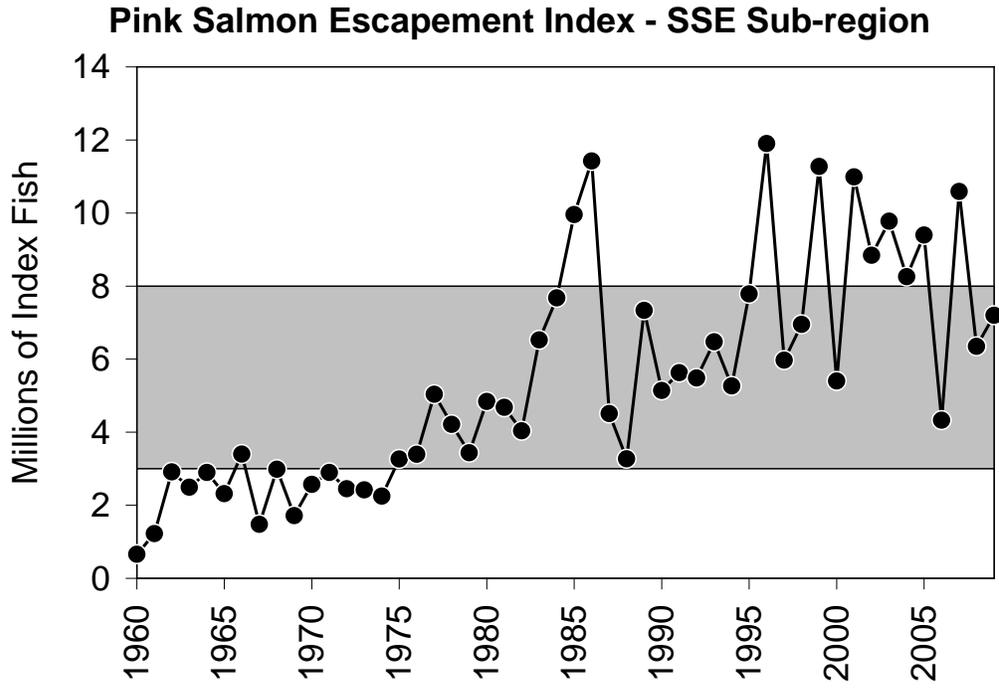
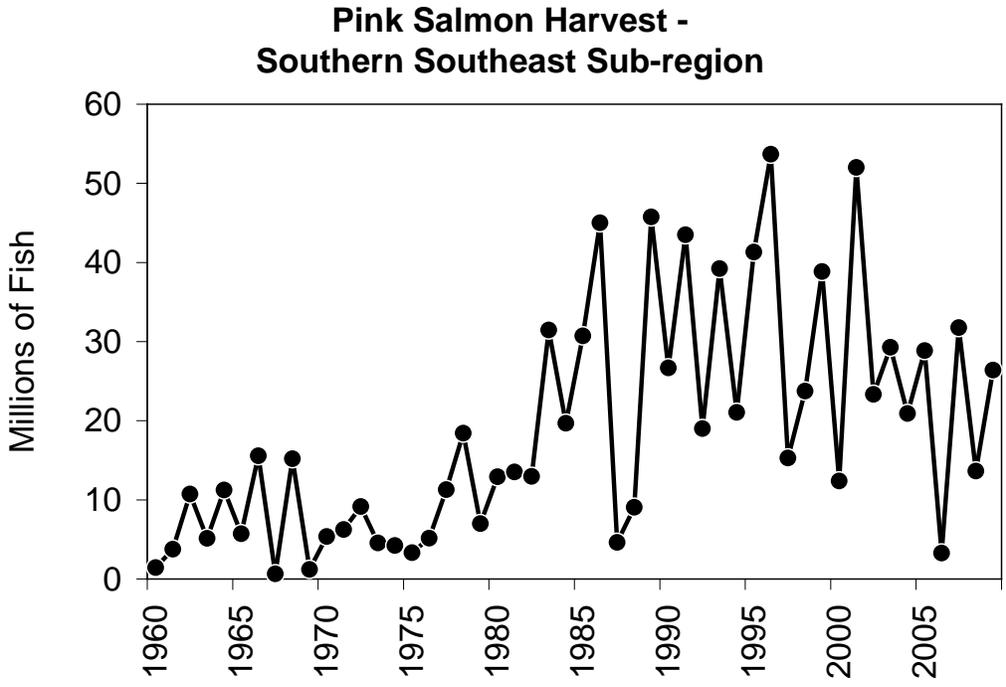
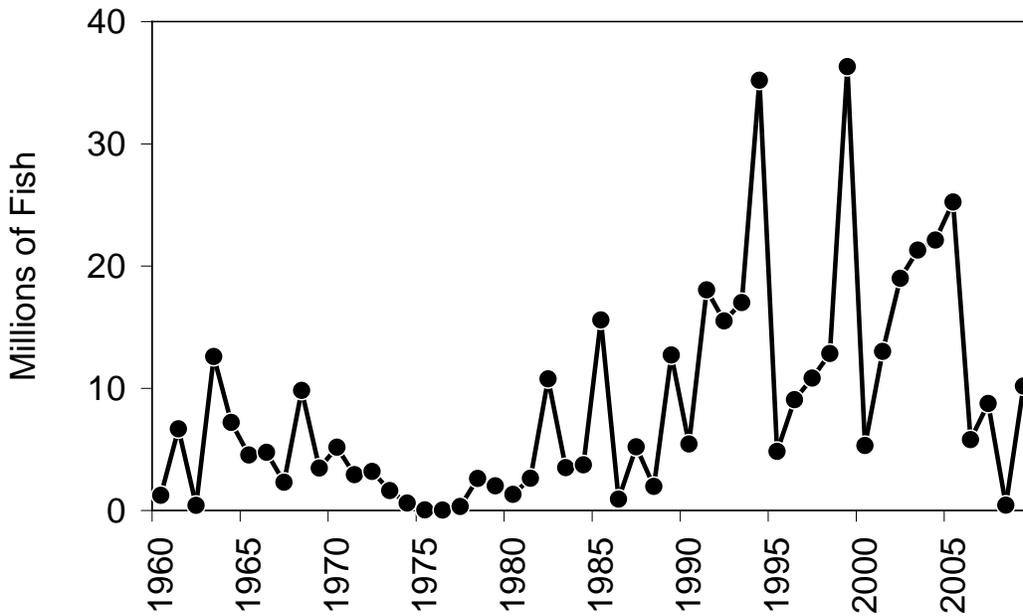


Figure 6.—Annual pink salmon escapement index for the Southern Southeast sub-region, 1960–2009 (Districts 101-108). The shaded area shows the escapement goal range of 3.0 million to 8.0 million index spawners.

### Pink Salmon Harvest - Northern Southeast Inside Sub-region



### Pink Salmon Escapement Index - NSEI Sub-region

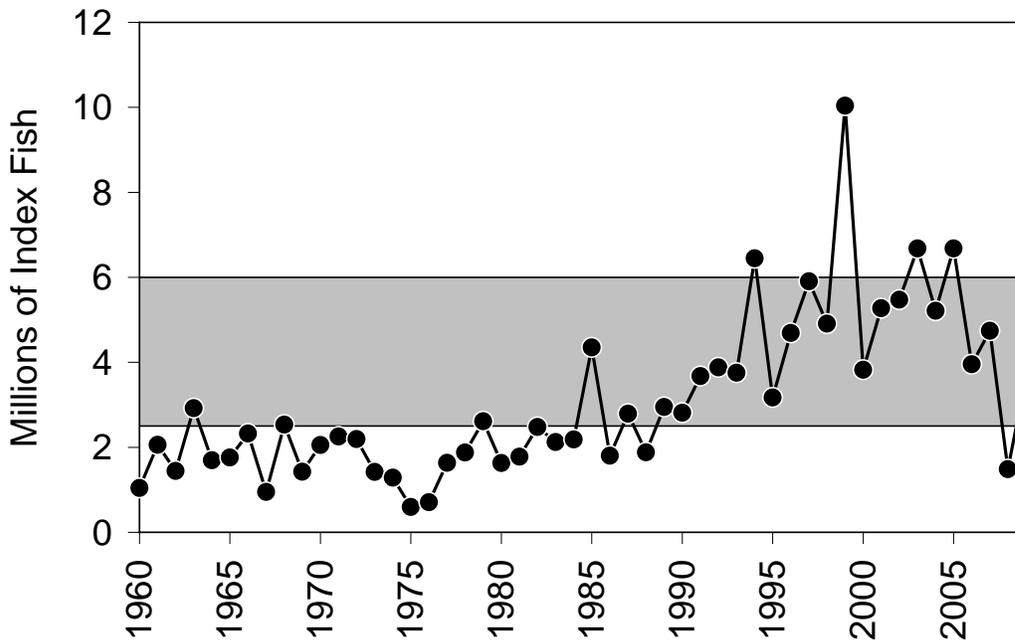
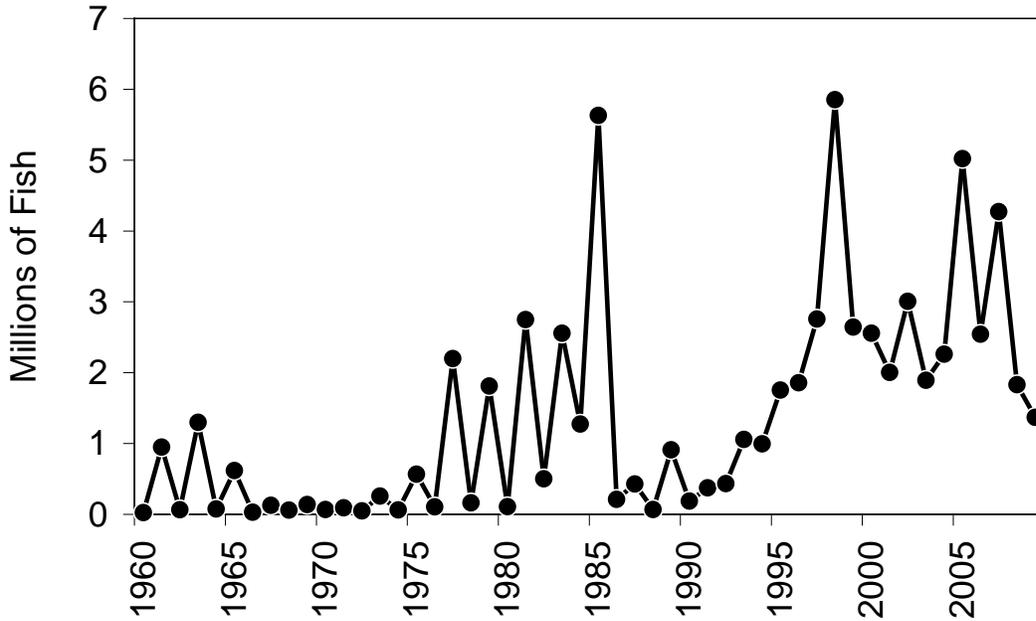


Figure 7.—Annual pink salmon harvest and escapement index for the Northern Southeast Inside sub-region, 1960–2009 (Districts 109–112, 114–115, and 113 subdistricts 51–59). The shaded area shows the escapement goal range of 2.5 million to 6.0 million index spawners.

### Pink Salmon Harvest - Northern Southeast Outside Sub-region



### Pink Salmon Escapement Index - NSEO Subregion

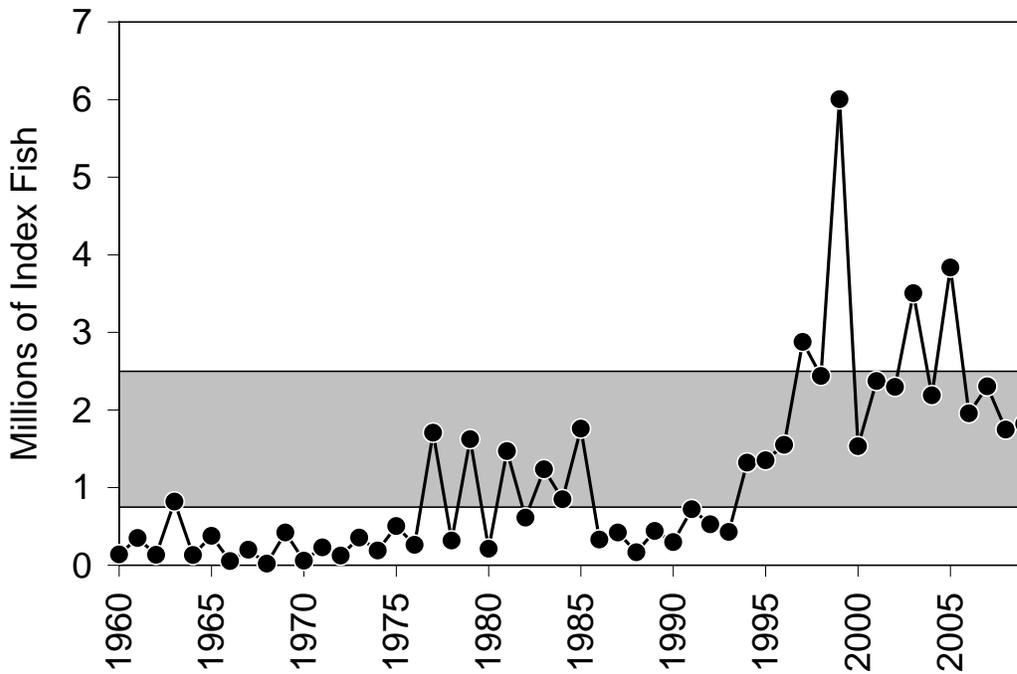


Figure 8.—Annual pink salmon escapement index for the Northern Southeast Outside subregion, 1960–2009 (District 113, subdistricts 22–44 and 62–96). The shaded area shows the escapement goal range of 0.75 million to 2.50 million index spawners.

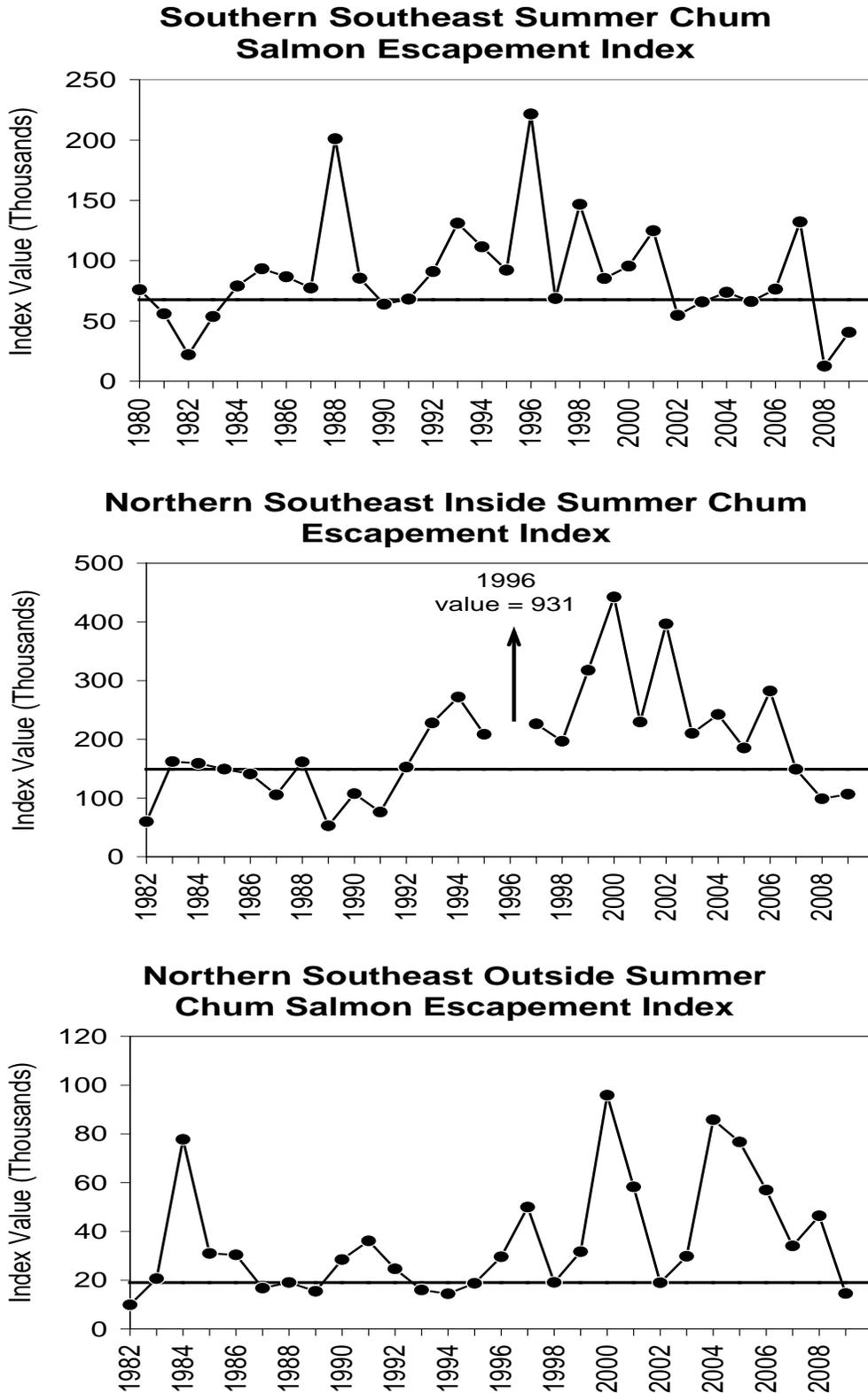


Figure 9.—Wild summer-run chum salmon escapement indices for the Southern Southeast stock group (1980–2009), Northern Southeast Inside stock group (1982–2009), and Northern Southeast Outside stock group (1982–2009). The solid lines show the sustainable escapement goal threshold for each stock.

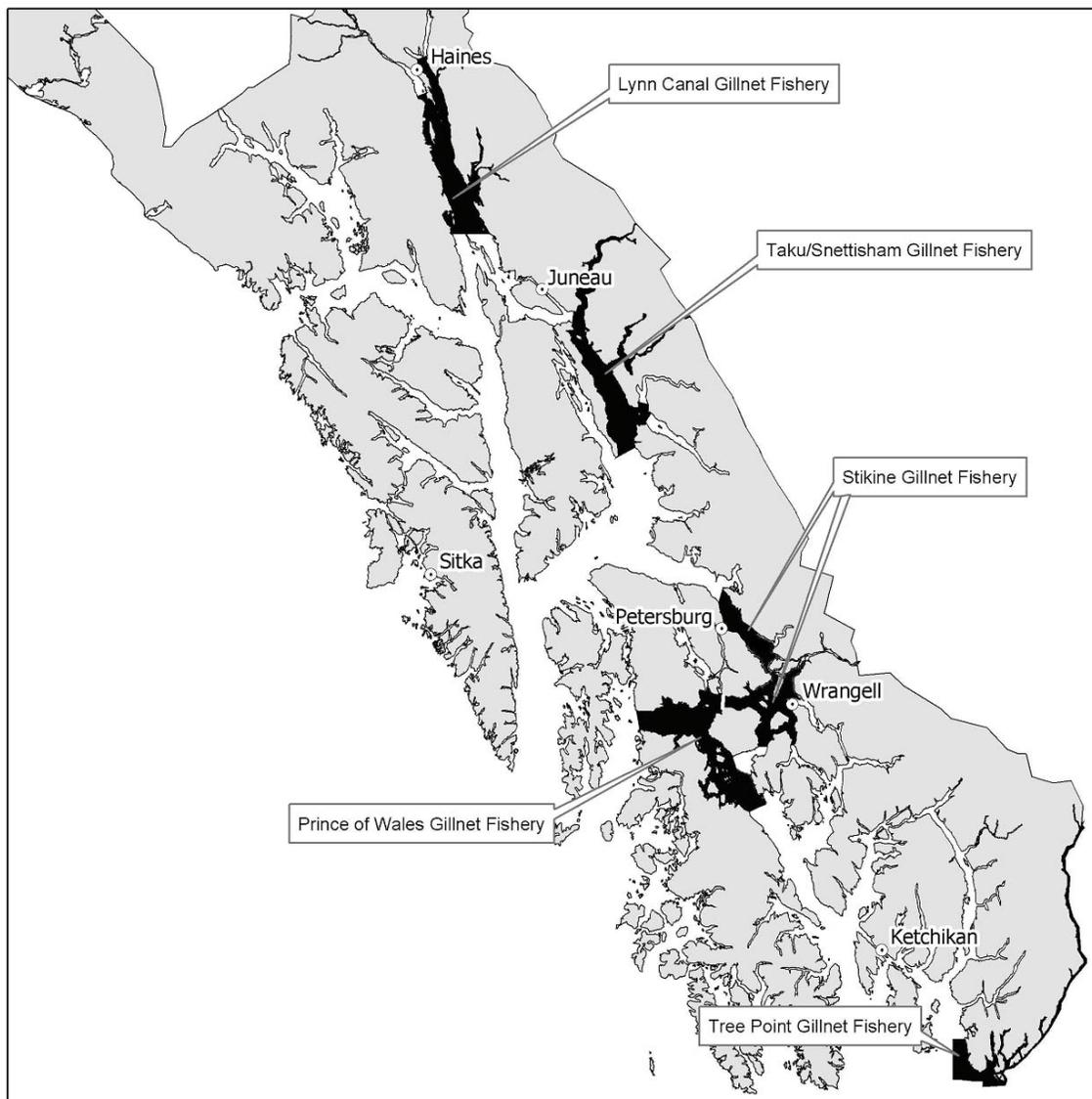


Figure 10.—Traditional drift gillnet fishing areas in Southeast Alaska.

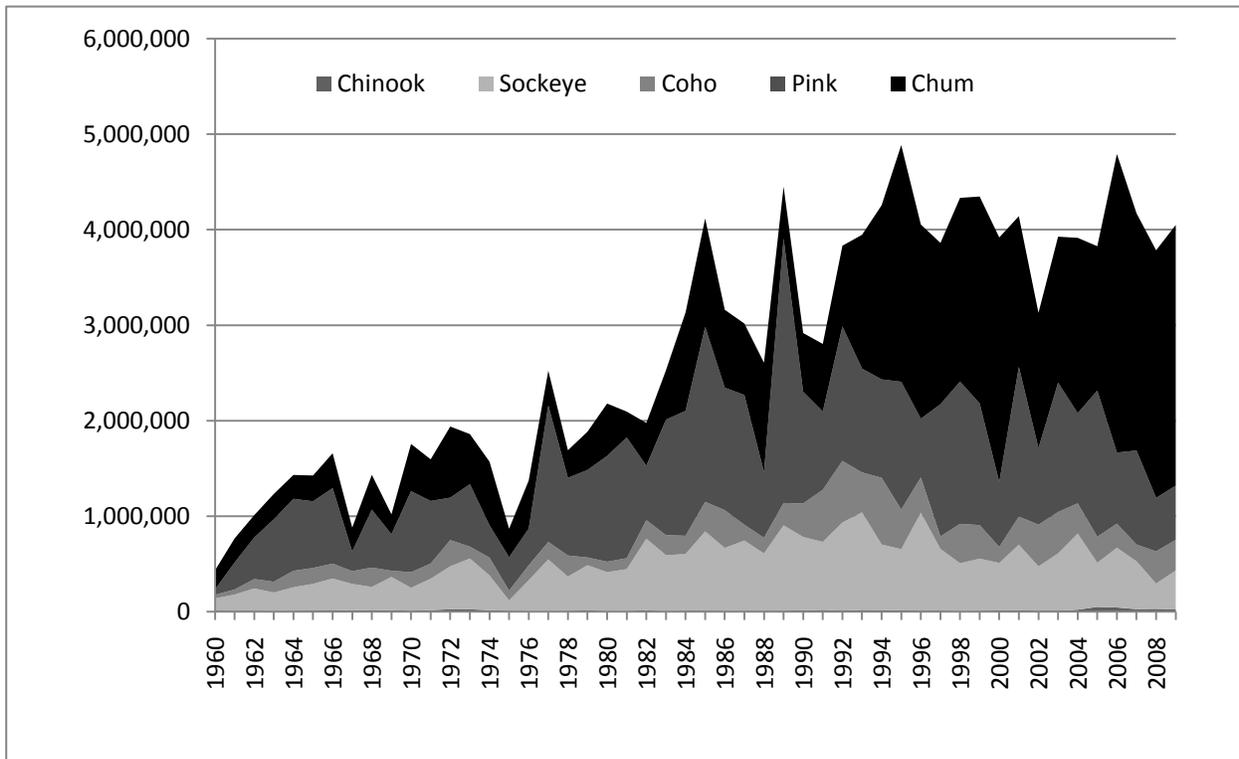


Figure 11.—Southeast Alaska annual total commercial drift gillnet salmon harvest from traditional and terminal harvest areas harvests, in numbers, by species, 1961 to 2009.

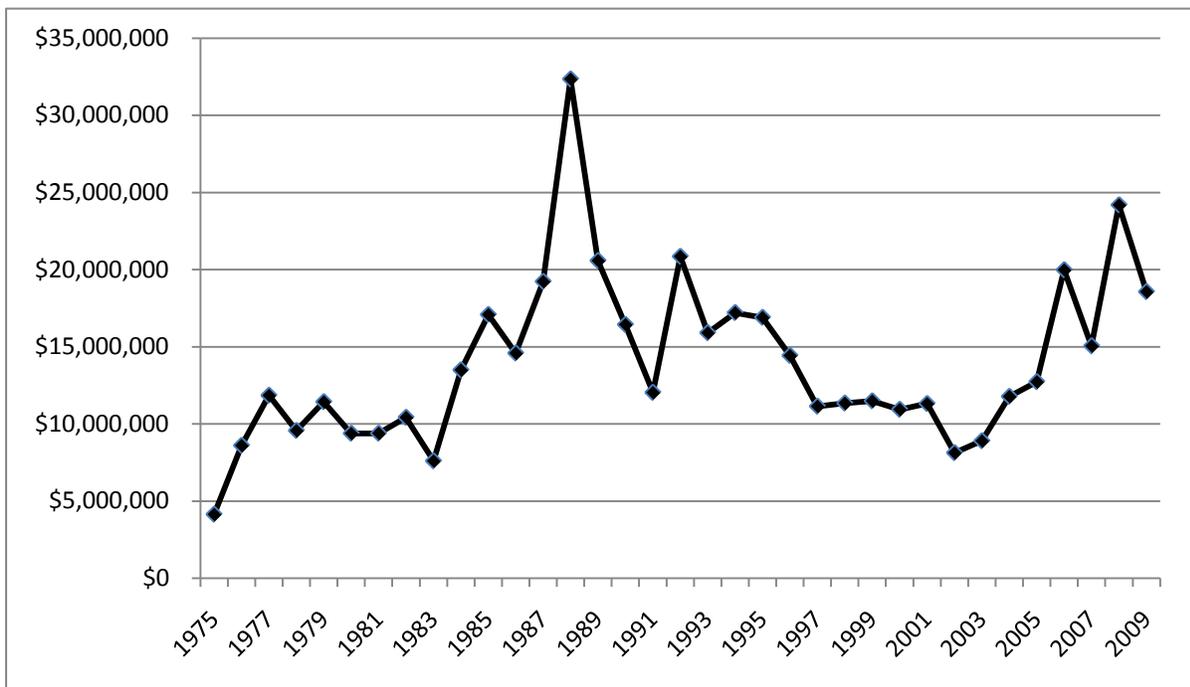


Figure 12.—Southeast Alaska drift gillnet fishery exvessel value (common property harvests) from 1975 to 2009.

*Note:* Fishery values are from Commercial Fisheries Entry Commission website, based on Processor Annual Reports and Fish Tickets.