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Genetic Stock Composition of Chum Salmon Harvested in Commercial Salmon Fisheries of the South Alaska Peninsula, 2022–2024, Executive Summary

by

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

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

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ABSTRACT

The Alaska Department of Fish and Game conducted a large-scale study to estimate the age, length, stock compositions, and stock-specific harvests of chum salmon in the South Alaska Peninsula commercial fisheries in 2022–2024. The department has published a detailed report on the first 3 years of this project, which presents the results of analyses of 84 individual strata defined by time, area, and gear type, as well as 53 combinations of strata at different levels up to the South Alaska Peninsula as a whole. This document is an executive summary of the results, providing a concise overview and serving as a guide for interested parties and policymakers to locate information in the associated detailed report.

Keywords: South Alaska Peninsula, Area M, commercial fisheries, chum salmon, *Oncorhynchus keta*, stock composition, stock-specific harvest, mixed stock analysis, MSA, genetic stock identification, GSI, age composition, length composition, seine, gillnet

INTRODUCTION

The South Alaska Peninsula commercial salmon fishery occurs in the Alaska Peninsula Management Area and is regulated by multiple board-approved management plans. Large harvests of chum salmon in South Alaska Peninsula fisheries in 2021, corresponding with low returns of chum salmon to Western Alaska, raised concerns about the stock-specific harvests in South Alaska Peninsula fisheries. In response, the Alaska Department of Fish and Game (ADF&G) initiated a project with the primary objective of estimating stock, age, and length compositions, and stock-specific harvests, in South Alaska Peninsula fisheries during 2022–2026 (Dann et al. 2025). This report is an executive summary of results for 2022–2024.

Our objectives were to:

1. Collect genetic tissue (pelvic fin) from chum salmon caught in the major South Alaska Peninsula fisheries over the 2022–2024 fishing seasons from June to August to best represent harvest where and when significant catches of salmon occur.
2. Select subsamples of genetic tissues in proportion to catch within designated areas, gear types, and temporal strata.
3. Using genetic MSA techniques, estimate stock proportions and stock-specific harvests of chum salmon in the South Alaska Peninsula strata using reporting groups defined in an updated coastwide baseline.
4. Estimate the age and length composition of chum salmon sampled from South Alaska Peninsula fisheries.
5. Summarize stock-specific estimates of age, length, and day of year of harvest based upon genetic individual assignment.

METHODS

A total of 43,843 tissue samples representing annual harvests averaging 837,039 were collected from 3 port locations in 84 spatiotemporal strata of the South Alaska Peninsula fisheries in 2022–2024.

We estimated age and length compositions from over 40,000 chum salmon sampled from South Alaska Peninsula fisheries across multiple spatiotemporal levels as well as by gear type.

A total of 29,767 samples (averaging 1 of 84 fish harvested) were selected and genotyped to represent the 2022–2024 harvests using an updated coastwide baseline including 13 reporting groups or stocks at 96 genetic markers.

Standard mixed stock analysis methods were applied to estimate stock compositions and stock-specific harvests.

A stratified estimator approach based upon a hierarchical design was used to 'roll up' stock-specific harvests to multiple levels of time, gear, and area combinations up to the South Alaska Peninsula as a whole level.

We summarized the total harvests of chum salmon in Asia and Coastal Western Alaska (CWAK). We calculated the ratio of Asia to CWAK harvests in June, post-June, and the entire South Alaska Peninsula fishery to compare with results from the 2007–2009 Western Alaska Salmon Stock Identification Program (WASSIP).

We used genetic individual assignments to 5 broad reporting groups to characterize stock-specific ages, lengths at age, and day of year of harvest.

RESULTS

LENGTH AND AGE COMPOSITION

Of 44,642 chum salmon sampled for length, fish averaged 556 mm (range 299–798 mm, mid-eye to tail fork length). A total of 40,218 chum salmon were successfully aged, with age-0.3 being the most common (63.3%; Tables 12–14 in Dann et al. 2025).

NUMBERS OF CHUM SALMON HARVESTED, COLLECTED AND SELECTED FOR ANALYSIS

Between 2022 and 2024, chum salmon harvests averaged 400,320 (range 205,985–544,137) in the June fishery and 436,719 (range 124,674–915,341) in the post-June fishery (Table 1). A total of 29,767 samples were selected for genetic analysis, resulting in 1 out of every 84 harvested chum salmon being analyzed—an analysis rate far greater than most mixed stock analysis programs.

Table 1.–Commercial harvest, number of samples collected and selected for genetic analysis, and the ratio of harvests to number of samples selected for analysis (Harvest:Selected) by year and fishery in the South Alaska Peninsula fishery in 2022–2024.

			Number of samples		
Year	Fishery	Harvest	Collected	Selected	Harvest:Selected
2022	June	544,137	7,738	4,783	114
	Post-June	270,142	7,131	5,174	52
2023	June	205,985	7,150	4,879	42
	Post-June	915,341	9,159	6,025	152
2024	June	450,839	6,599	4,940	91
	Post-June	124,674	6,066	3,966	31
Average	June	400,320	7,162	4,867	82
	Post-June	436,719	7,452	5,055	86
Total		2,511,118	43,843	29,767	84

Source: Table 8 in Dann et al. (2025).

JUNE FISHERY STOCK COMPOSITION

Japan was the largest contributing stock to commercial harvests in the June fishery for 2 of 3 years, averaging 27.4% from 2022–2024 (range 22.2–30.0%; Table 2; Tables 16–18 and Figure 6 in Dann et al. 2025). Coastal Western Alaska was the second largest contributor to the June fishery for 2 of 3 years, averaging 24.3% (range 17.6–28.6%). Other major contributors included Russia (average 20.8%; range 17.0–28.0%) and BC/WA (average 10.4%; range 7.2–16.6%). No other stock averaged greater than 5% across 2022–2024.

Table 2.–Annual and mean stock composition and harvest estimates for South Alaska Peninsula area, June fishery, all strata, 2022–2024.

	Proportions (%)				Harvest			
Reporting Group	2022	2023	2024	Average	2022	2023	2024	Average
Japan	30.0	22.2	29.9	27.4	162,987	45,739	134,955	114,560
Russia	28.0	17.5	17.0	20.8	152,418	36,000	76,811	88,410
Kotzebue Sound	3.7	1.5	0.3	1.8	20,193	2,991	1,215	8,133
Coastal Western Alaska	17.6	28.6	26.6	24.3	95,474	58,923	119,930	91,442
Upper Yukon River	0.1	0.3	0.5	0.3	769	703	2,252	1,241
Northern Alaska Peninsula-east	1.2	1.1	1.9	1.4	6,482	2,292	8,442	5,739
Northern Alaska Peninsula-west	1.7	1.4	3.1	2.1	9,020	2,973	13,858	8,617
S. Alaska Pen./W. Kodiak I.	2.5	5.2	1.4	3.0	13,868	10,629	6,479	10,325
Kodiak	1.8	2.2	0.7	1.6	9,626	4,552	3,362	5,847
Cook Inlet	0.1	0.1	0.0	0.1	448	173	168	263
Prince William Sound	4.2	9.7	0.7	4.9	22,772	20,085	3,119	15,326
Southeast Alaska	1.8	3.0	1.1	2.0	9,883	6,118	5,085	7,028
BC/WA	7.4	7.2	16.6	10.4	40,004	14,863	74,933	43,267

Source: Summary of report Tables 16–18 in Dann et al. (2025).

Note: See the report tables (Table 16–18 in Dann et al. [2025]) for 90% credibility intervals.

POST-JUNE FISHERY STOCK COMPOSITION

South Alaska Peninsula/West Kodiak Island was the largest contributing stock to commercial harvests in the post-June fishery, averaging 51.6% from 2022–2024 (range 42.5–63.3%, Table 3; Tables 16–18 and Figure 7 in Dann et al. 2025). Kodiak, on average, contributed 11.2% (range 5.0–15.2%) to the post-June fishery. Other major contributors included BC/WA (average 10.1%; range 1.7–18.6%), Japan (average 8.9%; range 6.7–13.1%), and Russia (average 5.7%; range 4.7–7.6%). No other stock averaged greater than 5% across 2022–2024.

Table 3.–Annual and mean stock composition and harvest estimates for South Alaska Peninsula area, post-June fishery, all strata, 2022–2024.

	Proportions (%)				Harvest			
Reporting Group	2022	2023	2024	Average	2022	2023	2024	Average
Japan	6.7	6.8	13.1	8.9	18,114	62,408	16,333	32,285
Russia	4.7	4.7	7.6	5.7	12,579	43,475	9,434	21,829
Kotzebue Sound	0.8	0.2	0.3	0.4	2,193	1,560	350	1,368
Coastal Western Alaska	2.7	2.5	2.8	2.7	7,178	23,253	3,475	11,302
Upper Yukon River	0.0	0.2	0.4	0.2	76	2,087	470	878
Northern Alaska Peninsula-east	0.7	0.8	2.5	1.3	2,005	7,438	3,076	4,173
Northern Alaska Peninsula-west	2.3	2.3	3.3	2.6	6,236	21,044	4,082	10,454
S. Alaska Pen./W. Kodiak I.	42.5	63.3	48.8	51.6	114,864	580,128	60,901	251,964
Kodiak	15.2	13.4	5.0	11.2	41,138	122,397	6,259	56,598
Cook Inlet	1.7	0.7	2.5	1.6	4,727	6,485	3,064	4,759
Prince William Sound	3.4	2.4	2.0	2.6	9,312	21,568	2,498	11,126
Southeast Alaska	0.5	0.9	1.8	1.1	1,406	8,417	2,184	4,002
BC/WA	18.6	1.7	10.1	10.1	50,375	15,720	12,584	26,226

Source: Tables 19–21 in Dann et al. (2025).

Note: See report tables (Tables 19–21 in Dann et al. [2025]) for 90% credibility intervals.

SOUTH ALASKA PENINSULA FISHERY STOCK COMPOSITION

Japan was the largest contributor to the overall South Alaska Peninsula fishery in 2 of 3 years, averaging 19.4% (range 9.6–26.3%; Table 4; Tables 22–24 and Figure 8 in Dann et al. 2025). South Alaska Peninsula/West Kodiak Island was the largest contributing stock to commercial harvests in the South Alaska Peninsula fishery in 1 of 3 years, averaging 26.7% from 2022–2024 (range 15.8–52.6%). Other major contributors included Russia (average 14.1%; range 7.1–20.3%), Coastal Western Alaska (average 13.8%; range 7.3–21.5%), BC/WA (average 9.7%; range 2.7–15.2%), and Kodiak (average 6.4%; range 1.7–11.3%). No other stock averaged greater than 5% across 2022–2024.

Table 4.–Annual and mean stock composition and harvest estimates for South Alaska Peninsula fishery, all strata, 2022–2024.

	Proportions (%)				Harvest			
Reporting Group	2022	2023	2024	Average	2022	2023	2024	Average
Japan	22.3	9.6	26.3	19.4	181,125	108,144	151,377	146,882
Russia	20.3	7.1	15.0	14.1	165,011	79,467	86,288	110,255
Kotzebue Sound	2.8	0.4	0.3	1.1	22,401	4,554	1,565	9,507
Coastal Western Alaska	12.6	7.3	21.5	13.8	102,688	82,170	123,457	102,772
Upper Yukon River	0.1	0.2	0.5	0.3	845	2,792	2,722	2,120
Northern Alaska Peninsula-east	1.0	0.9	2.0	1.3	8,488	9,732	11,527	9,916
Northern Alaska Peninsula-west	1.9	2.1	3.1	2.4	15,242	24,002	17,947	19,064
S. Alaska Pen./W. Kodiak I.	15.8	52.6	11.7	26.7	128,626	589,959	67,353	261,980
Kodiak	6.2	11.3	1.7	6.4	50,726	126,860	9,619	62,402
Cook Inlet	0.6	0.6	0.6	0.6	5,168	6,656	3,232	5,019
Prince William Sound	3.9	3.7	1.0	2.9	32,071	41,639	5,617	26,442
Southeast Alaska	1.4	1.3	1.3	1.3	11,286	14,529	7,272	11,029
BC/WA	11.1	2.7	15.2	9.7	90,308	30,578	87,576	69,487

Source: Tables 22–24 in Dann et al. (2025).

Note: See report tables (Tables 22–24 in Dann et al. [2025]) for 90% credibility intervals.

SUMMARY OF HARVESTS OF ASIA AND COASTAL WESTERN ALASKA CHUM SALMON

Harvests of both Asia and CWAK stocks were typically greater in the June fishery than in the post-June fishery. Harvests of Asia chum salmon averaged 202,931 in the June fishery across 2022–2024, 54,138 in the post-June fishery, and 257,116 across both fisheries in the South Alaska Peninsula area (Table 5; Table 25 in Dann et al. 2025). Harvests of CWAK chum salmon averaged 91,411 in the June fishery across 2022–2024, 11,311 in the post-June fishery, and 102,766 across both fisheries in the South Alaska Peninsula area (Table 5). The ratio of Asia to CWAK fish (Asia/CWAK) ranged from 1.39–7.41, was typically greatest in the post-June fishery, and averaged 2.53 across all harvests in the South Alaska Peninsula area in 2022–2024. This means that for every chum salmon harvested from CWAK, 2.53 chum salmon from Asia were harvested (Figure 19 in Dann et al. 2025).

Table 5.–Harvests of Asia and Coastal Western Alaska (CWAK) chum salmon in the June, post-June, and South Alaska Peninsula fisheries in 2022, 2023, and 2024. Mean harvest estimate, associated percentage of total chum harvested for each stock, and the ratio of Asia to CWAK harvests (Asia : CWAK) are reported. Annual totals from the Western Alaska Salmon Stock Identification Program (WASSIP) years are also provided.

		Asia		CWAK		
Year	Fishery	Harvest	% of Harvest	Harvest	% of Harvest	Asia : CWAK
2022	June	315,404	91%	95,462	93%	3.30
2022	Post-June	30,720	9%	7,190	7%	4.27
2023	June	81,706	44%	58,902	72%	1.39
2023	Post-June	105,946	56%	23,270	28%	4.55
2024	June	211,683	89%	119,869	97%	1.77
2024	Post-June	25,748	11%	3,473	3%	7.41
2007	All	101,357	100%	189,975	100%	0.53
2008	All	157,791	100%	222,251	100%	0.71
2009	All	196,142	100%	440,403	100%	0.45
2022	All	346,256	100%	102,685	100%	3.37
2023	All	187,517	100%	82,153	100%	2.28
2024	All	237,574	100%	123,459	100%	1.92

Source: Table 25 in Dann et al. (2025).

STOCK-SPECIFIC AGES, AGES AT LENGTH, AND DAY OF YEAR OF HARVEST

Five reporting groups were identified in individual assignment: Japan, Russia, Western Alaska, Gulf of Alaska, and BC/WA. Refer to the Introduction and Table 3 from Dann et al. (2025) of the primary report for a description of how fine and broad-scale reporting groups align.

Stock-specific Ages

A total of 24,618 individuals met assignment thresholds and had a valid age estimate (Table 26 in Dann et al. 2025). Across 2022–2024, more Japanese chum salmon were slightly younger in the post-June fishery than the June fishery, a trend consistent for all stocks in all years except for BC/WA, which did not show a difference in ages between the June and post-June fisheries. Chum salmon from BC/WA were generally the youngest stock harvested in the South Alaska Peninsula fishery (Table 26 and Figure 20 in Dann et al. 2025), whereas Russia and Western Alaska were the oldest stocks.

Stock-specific Lengths at Age

A total of 24,616 individuals met assignment thresholds and had a valid age estimate and length measurement (Table 27 in Dann et al. 2025). Trends in length at age were consistent among years, with Russia chum salmon generally being shorter at age than other stocks.

Stock-specific Day of Year of Harvest

A total of 24,618 individuals met assignment thresholds with a recorded date of harvest (Table 28 in Dann et al. 2025). When looking at the average day of year of harvest, Japan, Russia, and Western Alaska chum salmon were consistently harvested around days 175–176, which is June 24–25 in non-leap years. In contrast, Gulf of Alaska chum salmon were harvested on average on July 24, with BC/WA somewhat intermediate on June 30.

DISCUSSION

PROJECT SUMMARY

We collected 43,843 samples of tissue for genetic analysis from chum salmon harvested in the major South Alaska Peninsula fisheries over the 2022–2024 fishing seasons. Tissue samples were collected nearly every day when the fishery was open and deliveries occurred. From these samples, we selected 29,767 subsamples of genetic tissues in proportion to catch within 84 strata defined by designated time periods, areas, and gear type. We genotyped these samples for 96 genetic markers common to an updated coastwide baseline and used genetic MSA techniques to estimate stock proportions and stock-specific harvests of chum salmon in the South Alaska Peninsula strata.

The extensive sampling and analyses of the 2022–2024 harvests resulted in genetic analysis of approximately 1 of every 84 fish harvested in 2022–2024, a much higher analysis rate than the 1 of every 125 fish harvested in the WASSIP years (Eggers et al. 2011). This analysis rate is higher than most MSA programs, resulting in well-represented estimates of stock-specific harvests. We also measured the length and estimated ages from 44,642 and 40,218 catch samples, respectively, providing estimates of age and length compositions of South Alaska Peninsula harvests, estimates of stock-specific ages, lengths at age, and day of year of harvest, as well as valuable context for interpretation of stock composition estimates and resource management.

STOCK-SPECIFIC PATTERNS OF HARVEST

We produced 84 sets of estimates of stock composition and stock-specific harvests at the individual strata level. To help readers identify stock-specific patterns of harvest among temporal periods, areas, gear types, and years, we summarized reporting group-specific stock composition and harvest estimates across all strata in Appendices G1–G13 (Dann et al. 2025) What follows are summaries of stock-specific trends observed in both proportions, indicating a stock's vulnerability, and in harvest, indicating overall impact, across strata defined by time, space, and gear types.

Japan

Chum salmon from Japan were most often observed in June and in seine harvests (Appendix G1 in Dann et al. 2025). When the Japan reporting group was observed in gillnet harvests, it was at a much higher rate in the Unimak and Southwestern districts than in the Southeastern and South Central districts. These trends were generally consistent across years. Considering harvests, there was a low harvest of Japan in the gillnet fleet (average 715; range 0–7,325), with slightly greater harvests in the Unimak and Southwestern Districts than in the Southeastern and South Central Districts, and harvests were greatest in late June.

Russia

Chum salmon from Russia were most often observed consistently in June and throughout early July (Appendix G2 in Dann et al. 2025). There were no great differences between gear types or areas, suggesting the Russia reporting group was equally vulnerable to both gear types and present in both areas. A majority of the harvest of Russia occurred in the seine fleet in June.

Kotzebue Sound

Chum salmon from Kotzebue Sound were not observed in large proportions except for in June of 2022 (average 3.9%; range 0.9–7.6%), and were not observed in high percentages during the post-

June fishery (average 0.3%; range 0.0–5.7%; Appendix G3 in Dann et al. 2025). There was low harvest of Kotzebue Sound chum salmon among strata (average 399; range 0–5,993).

Coastal Western Alaska

The highest observations of chum salmon from CWAK were generally in early June with declining contributions to harvest through time (Appendix G4 in Dann et al. 2025). The CWAK reporting group appeared more vulnerable to the gillnet fleet in the Unimak and Southwestern Districts than Southeastern and South Central Districts, but appeared equally vulnerable to the seine fleet in both areas. More CWAK chum salmon were harvested in the seine fleet and in the Unimak and Southwestern Districts.

Upper Yukon River

Chum salmon from the Upper Yukon River were not observed in large proportions except for minor contributions in July of 2024 in the Unimak and Southwestern districts (average 0.8%; range 0.0–2.6%; Appendix G5 in Dann et al. 2025). There was low harvest of Upper Yukon River chum salmon in South Alaska Peninsula fisheries (average 76; range 0–1,471).

Northern Alaska Peninsula-east

Chum salmon from the Northern Alaska Peninsula-east were not observed in large proportions, but when they were, it was often in late June and July, and in the Unimak and Southwestern Districts (Appendix G6 in Dann et al. 2025). There was low harvest of Northern Alaska Peninsula-east chum salmon among strata (average 354; range 1–2,630).

Northern Alaska Peninsula-west

Observations of chum salmon from the Northern Alaska Peninsula-west were minimal in early June, increasing to their greatest presence in late July, which was greatest in the Unimak and Southwestern Districts, and were generally larger in the gillnet fleet than the seine fleet (Appendix G7 in Dann et al. 2025). There was a low harvest of Northern Alaska Peninsula-west chum salmon, but harvests were greater in the seine fleet than the gillnet fleet (average 681; range 1–6,000).

South Alaska Peninsula/West Kodiak Island

Observations of chum salmon from South Alaska Peninsula/West Kodiak Island were minimal in early June but increased to the largest contributor to harvests in late July and August (Appendix G8 in Dann et al. 2025). South Alaska Peninsula/West Kodiak Island appeared more vulnerable to the gillnet fleet than the seine fleet and equally vulnerable in both areas. Far more South Alaska Peninsula/West Kodiak Island chum salmon were harvested in the seine fleet than the gillnet fleet, and in the Southeastern and South Central Districts, except in 2023 when harvests were greatest and roughly equal between areas.

Kodiak

Observations of chum salmon from Kodiak were highest in late July and August, were higher in the Southeastern and South Central Districts, and did not differ consistently by gear type (Appendix G9 in Dann et al. 2025). Far more Kodiak chum salmon were harvested in the seine fleet than in the gillnet fleet, and in the Southeastern and South Central Districts.

Cook Inlet

Observations of chum salmon from Cook Inlet were greatest in late July, were higher in the Southeastern and South Central Districts, and were higher in the gillnet fleet (Appendix G10 in Dann et al. 2025). Cook Inlet chum salmon were not observed in the Unimak and Southwestern Districts, except for early July in the 2022 seine fleet. Harvest of Cook Inlet chum salmon was low but was greater in the seine fleet than the gillnet fleet and in the Southeastern and South Central Districts (average 179; range 0–2,417).

Prince William Sound

Observations of chum salmon from Prince William Sound were greatest in June and July and were higher in the gillnet fleet (Appendix G11 in Dann et al. 2025). The highest observations of Prince William Sound chum salmon in 2 of 3 years were in the gillnet harvests in June in the Southeastern and South Central Districts. Harvest of Prince William Sound chum salmon was low but was typically greater in the seine fleet than the gillnet fleet and in the Southeastern and South Central Districts (average 945; range 1–6,628).

Southeast Alaska

Observations of chum salmon from Southeast Alaska were consistently less than 5% except for 3 gillnet strata in the Unimak and Southwestern Districts (Appendix G12 in Dann et al. 2025). There were no apparent trends among time periods, areas, or gear types. Harvest of Southeast Alaska chum salmon was low but was typically greater in the seine fleet than the gillnet fleet (average 394; range 0–3,618).

British Columbia/Washington (BC/WA)

Observations of chum salmon from BC/WA were consistently greater in the seine fleet than the gillnet fleet in the Southeastern and South Central Districts but were roughly equal between gear types in the Unimak and Southwestern Districts (Appendix G13 in Dann et al. 2025). Harvest of BC/WA chum salmon was greater in the seine fleet than the gillnet fleet in late June, and in the Southeastern and South Central Districts.

WHERE TO FIND SPECIFIC RESULTS IN THE REPORT: DANN ET AL. (2025)

- The baseline and definition of reporting groups are described in Table 3 and Appendix A.
- The operational plan and final analysis design can be found in Tables 4–7 and 9–11.
- Daily summaries of harvest and samples collected and selected for analysis can be found in Appendix B, with annual fishery summaries in Table 8.
- Annual summaries of age and length composition can be found in Tables 12–14 and Figures 13–18, individual strata estimates in Appendix C, and stratified estimates in Appendix F.
- Annual fishery-level (June, post-June, South Alaska Peninsula) estimates of stock composition and stock-specific harvests can be found in Tables 16–24 and Figures 6–8, individual strata estimates in Appendix D and Figures 9–12, and stratified estimates in Appendix E.
- A summary of harvests of chum salmon from Asia and CWAK can be found in Table 25 and Figure 19.

- Summaries of stock-specific ages, lengths at age, and day of year of harvest based upon genetic individual assignment can be found in Tables 26–28 and Figures 20–22.
- Summary of June and post-June stock compositions in 2022–2024 in comparison with the WASSIP years (2007–2009) can be found in Table 29 and Figure 23.
- Reporting group-specific estimates of stock composition and stock-specific harvest for all 84 strata across time periods, gear types, areas, and years can be found in Appendix G.

FUTURE WORK

We plan to continue estimating stock composition, stock-specific harvests, and length- and age-composition of chum salmon harvested in South Alaska Peninsula commercial fisheries in 2025–2026. We expect to follow a similar sampling and analysis plan to provide context from contemporary years that reflect current ocean conditions, relative productivity among stocks, and migratory pathways of chum salmon. These additional years of data will allow for a more direct and intentional analysis of stock and age compositions to better understand relationships among measurements and how they vary across months, gear types, and areas of the South Alaska Peninsula fishery. Explicit modeling that incorporates both age and genetic marks to estimate stock-specific cohorts are being developed in other regions of Alaska and may provide useful information for South Alaska Peninsula, notably to pair estimates of stock-specific cohort abundances in state-managed fisheries with similar estimates from high seas surveys and bycatch observed in federally managed fisheries.

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