Fishery Management Report No. 25-17

2024 Bristol Bay Area Annual Management Report

by

Travis Elison

Aaron Tiernan

Tim Sands

Stacy Vega

Cole Weaver

and

Jasmine Terry-Shindelman

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

Symbols and Abbreviations

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Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

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2024 BRISTOL BAY AREA ANNUAL MANAGEMENT REPORT

Travis Elison, Aaron Tiernan, Stacy Vega, Cole Weaver and Jasmine Terry-Shindelman
Alaska Department of Fish and Game, Division of Commercial Fisheries, Anchorage

and

Tim Sands
Alaska Department of Fish and Game, Division of Commercial Fisheries, Dillingham

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1565

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Travis Elison, Aaron Tiernan, Stacy Vega, Cole Weaver and Jasmine Terry-Shindelman
Alaska Department of Fish and Game, Division of Commercial Fisheries,
333 Raspberry Road, Anchorage, AK, 99518, USA

and

Tim Sands
Alaska Department of Fish and Game, Division of Commercial Fisheries,
546 Kenny Wren Road, P.O. Box 230, Dillingham, AK 99576, USA

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ABSTRACT

The *2024 Bristol Bay Area Annual Management Report* is the 63rd consecutive annual report of management activities of the Alaska Department of Fish and Game, Division of Commercial Fisheries staff in Bristol Bay. This report describes the information, decisions, and rationale used to manage the commercial salmon (sockeye *Oncorhynchus nerka*, Chinook *O. tshawytscha*, chum *O. keta*, pink *O. gorbuscha*, and coho *O. kisutch*) and Pacific herring (*Clupea pallasii*) fisheries in Bristol Bay each year. All 2024 commercial salmon harvest data are based on fish tickets; these data can change if more information becomes available. The 2024 inshore sockeye salmon run of 51.6 million fish was 36% above the preseason forecast of 37.9 million fish. Sockeye salmon dominated the inshore commercial harvest, totaling 31.7 million of the 32.3 million salmon commercially harvested. Total Bristol Bay sockeye salmon escapement was 20.0 million fish, and escapement goals were either met or exceeded in all systems with established goals. In total, 4,583 Chinook, 509,223 chum, 73,510 pink, and 30,472 coho salmon were also harvested in the commercial fishery. The Chinook salmon sonar estimate into the Nushagak River was 42,621, below the 55,000-fish lower end of the escapement goal range. The 2024 Togiak District herring preseason biomass forecast was 216,037 short tons. The Togiak District commercial herring fishery did not occur in 2024 because no processing companies participated.

Keywords: Pacific salmon *Oncorhynchus*, sockeye salmon *Oncorhynchus nerka*, Chinook salmon *O. tshawytscha*, chum salmon *O. keta*, coho salmon *O. kisutch*, pink salmon *O. gorbuscha*, Pacific herring *Clupea pallasii*, commercial fisheries, subsistence fisheries, exvessel value, harvest, Port Moller Test Fishery, genetics, Bristol Bay, Naknek, Kvichak, Egegik, Ugashik, Wood, Nushagak, Igushik, Togiak, Annual Management Report (AMR)

INTRODUCTION

MANAGEMENT AREA DESCRIPTION

The Bristol Bay management area (Area T) includes all coastal and inland waters east of a line from Cape Newenham to Cape Menshikof (Figure 1). The area includes 9 major river systems: Naknek, Kvichak, Alagnak, Egegik, Ugashik, Wood, Nushagak, Igushik, and Togiak. Collectively, these rivers are home to the largest commercial sockeye salmon *Oncorhynchus nerka* fishery in the world. Sockeye salmon are by far the most abundant salmon species that return to Bristol Bay each year, but Chinook *O. tshawytscha*, chum *O. keta*, coho *O. kisutch*, and, in even years, pink salmon *O. gorbuscha* returns are important to the fishery as well. The Bristol Bay area is divided into 5 management districts for salmon (Naknek-Kvichak, Egegik, Ugashik, Nushagak, and Togiak) that correspond to major river systems. The management objective for each river is to achieve salmon escapements within established escapement goal ranges (Table 1; Vega et al. 2022) while providing harvest opportunity for fish in excess of those ranges, consistent with regulatory management plans (5 AAC 06.355–5 AAC 06.369).

COMMERCIAL FISHING PERIODS

Commercial fishing periods in Bristol Bay are announced by emergency orders, except in Togiak where there is an established salmon fishing schedule in regulation. Management biologists use real-time fishery information to make fishery decisions with the intent of meeting the management objectives outlined above. Emergency orders (EOs) are made publicly available using the Alaska Department of Fish and Game (ADF&G) advisory announcement system, available at:

https://www.adfg.alaska.gov/index.cfm?adfg=cfnews.search.

OVERVIEW OF BRISTOL BAY SALMON FISHERIES

The 5 species of Pacific salmon found in Bristol Bay are the focus of major commercial, subsistence, and sport fisheries. Management of Bristol Bay salmon is primarily focused on the

inshore run of these species. The inshore run consisted of salmon harvested within the designated commercial fishing districts of Bristol Bay and those counted at area escapement projects. Annual commercial harvest for the most recent 20 years (2004–2023) averaged 33.2 million sockeye, 34,988 Chinook, 1.0 million chum, 523,056 pink (even years only), and 96,337 coho salmon for a total of 34.7 million salmon harvested (Appendices A3–A8). Since 2004, the annual exvessel value of the commercial salmon harvest within Bristol Bay has averaged $198.2 million. Sockeye salmon were the most valuable and averaged $196.7 million annually (Appendix A21). The average subsistence harvest from 2011 to 2020 was 117,035 salmon, which includes an average sockeye salmon harvest of 90,741 (Jones and Neufeld 2022). Sport fisheries harvested all species of salmon, but most effort was directed toward Chinook and coho salmon.

Management of the commercial fishery in Bristol Bay is focused on discrete stocks. Harvests are directed at terminal areas around the mouths of major river systems, and each stock is managed to achieve a spawning escapement goal based on sustained yield. Escapement goals are achieved by regulating fishing time and area by EO and/or adjusting weekly fishing schedules. Legal gear for the commercial salmon fishery includes both drift (150 fathoms) and set (50 fathoms) gillnets. The Alaska Board of Fisheries (BOF) passed a regulation in 2003 that allows 2 drift permit holders to fish concurrently from the same vessel and jointly operate up to 200 fathoms of drift gillnet gear. Drift gillnet permits are the most numerous in Bristol Bay, with a total of 1,862 permits, of which 1,670 were registered to fish in 2024 (Appendix A2). There are 952 set gillnet permits in Bristol Bay, and 824 made at least one delivery in 2024 (Appendix A2).

2024 COMMERCIAL SALMON FISHERY

RUN STRENGTH INDICATORS

Fishery managers in Bristol Bay have several early indicators of sockeye salmon run size. These include the preseason forecast, the South Alaska Peninsula commercial salmon fishery, an offshore test fishery operating from Port Moller, genetic stock identification, age composition information, early performance of the commercial fishery, inriver test fishery programs, and timely escapement information from a sonar project located on the Nushagak River and counting towers on the other Bristol Bay Rivers. These indicators are assessed based on the relative strengths of year classes, discrepancies from the forecast (relative to expected year class contributions), or differences in run timing, which are important to successful management of the commercial fishery. These pieces of information may not give a correct assessment of run size individually, but collectively they allow broad-scale examination of inseason data.

PRESEASON FORECASTS

Total inshore (excluding harvest in other areas) sockeye salmon production for Bristol Bay in 2024 was forecast to be 37.9 million (Vega 2023; Table 2). The Bristol Bay sockeye salmon inshore harvest was predicted to be 25.0 million fish (Table 2). Runs were expected to meet spawning escapement goals for all river systems in Bristol Bay.

The forecast for the sockeye salmon run to Bristol Bay in 2024 was the sum of individual predictions for nine river systems (Kvichak, Alagnak, Naknek, Egegik, Ugashik, Wood, Igushik, Nushagak, and Togiak) and four major age classes (age 1.2, 1.3, 2.2, and 2.3, plus age 0.3 and 1.4 for Nushagak; Table 3). Adult escapement and return data from brood years 1972–2019 were used in the analyses.

Forecasts for each age class returning to a river system were derived from models based on the relationship between adult returns of that age class and either total returns or sibling returns from the same brood years (Vega 2023). In general, models with statistically significant parameters and/or the best past performance (accuracy and precision) were chosen. Performance was evaluated using mean absolute deviation, mean absolute percent error, mean arctangent absolute percent error, and mean percent error between forecasted and observed returns. These performance metrics were calculated and considered for each model across the most recent 3-year and 5-year timeframes. In certain cases, competing models were averaged in a hybrid model approach. The forecast range is the upper and lower values of the 80% confidence interval for the total run forecast. The confidence bounds were calculated from the deviation of actual runs and run forecasts from 2004 through 2023.

PORT MOLLER TEST FISHERY

From 1967 to 1985, the ADF&G operated a test fishery near the community of Port Moller, approximately 150–200 miles southwest of the Bristol Bay fishing districts. A large vessel (70–100′) fished gillnets at specific stations on a transect line perpendicular to the migration path of sockeye salmon returning to Bristol Bay. Collected data were used to estimate strength, timing, age, and size composition of the run about six to nine days prior to arrival at the commercial fishing districts. The project was popular with the salmon industry because it gave an early indication of run size, which influenced production capacity and the price paid to commercial fishing participants. The project did not operate in 1986. The project was operated from 1987 through 2002 by the Fisheries Research Institute (FRI; University of Washington, Seattle WA), with financial assistance from industry. The project was then operated from 2003 to present by Bristol Bay Science and Research Institute (BBSRI), with financial and technical support from ADF&G and industry (Raborn et al. 2024).

Since 2018, the project has been using a second vessel to extend the sampling transect and further investigate migratory pathways traveled by returning sockeye salmon. In addition, some sites between traditional stations were sampled to assess possible patchiness of the run along the test fishing transect. A deeper net was deployed, beginning in 2019, to assess fish traveling deeper in the water column.

In 2024, the Port Moller Test Fishery (PMTF) operated from June 10 to July 9 (Figure 1). There were no complete days lost to weather in 2024; however, some stations were periodically missed due to rough seas. Between the two vessels, coverage was almost complete along a line between Port Moller and Cape Newenham for most of the project duration. Fish were present throughout the transect, with stations 6–10 having the highest mean station indices.

GENETICS

Over the last 20 years, ADF&G has built and tested a genetic baseline capable of identifying salmon stock compositions of mixed-fishery samples from within Bristol Bay. The genetics program has 2 primary objectives: (1) to provide managers, researchers, and permit holders with a preliminary estimate of stock compositions of sockeye salmon returning to Bristol Bay through the PMTF (Dann et al. 2013); and (2) to provide researchers with sockeye salmon stock composition estimates, by year, within fishing districts to estimate total runs and develop brood tables (Cunningham et al. 2018; Dann et al. 2011).

Genetic sampling was added to the PMTF in 2004. The intent was to use inseason genetic analysis to identify components of the annual sockeye salmon run in time to inform management decisions for individual stocks. Historically, ADF&G genetics staff completed analysis and delivered results in 3 to 5 days depending on several factors (e.g., timing of airline flights or weather on the fishing grounds). Prior to the 2021 season, an onboard genetics lab was installed on the R/V *Ocean Cat* to test the feasibility of genotyping at sea to reduce vessel transit time and provide more timely results (i.e., within 3 days of samples being taken) to management staff and fishery participants. This proved to be a success and has continued in subsequent seasons. The travel time for fish from Port Moller to Bristol Bay is approximately 6 to 9 days depending on several factors (e.g., district, water temperature, or wind). Therefore, results from genetic sampling are typically available before the fish they represent reach the fishing districts of Bristol Bay (Figure 2).

ECONOMICS AND MARKET PRODUCTION

In 2024, the exvessel value of inshore commercial salmon harvest was an estimated $128.3 million (Table 4), which was 35% below the $198.2 million 20-year average (2004–2023) (Appendix A21). The average sockeye salmon price in 2024 was $0.89/pound before incentives and postseason adjustments. Prices paid for the other salmon species ranged from $0.08/pound for pink salmon to $0.71/pound for Chinook salmon (Table 4).

During the 2024 season, 35 processors/buyers registered to process fish from Bristol Bay. Of those processors, 1 company canned, 35 froze, 10 exported fresh, and 2 extracted roe. Products were exported by air by 21 companies and exported by sea by 22 companies (Table 5).

RUN AND HARVEST PERFORMANCE BY SPECIES

Sockeye Salmon

The 2024 inshore sockeye salmon run of approximately 51.6 million fish was 36% above the preseason forecast of 37.9 million (Table 2). The sockeye salmon runs to the Egegik and Naknek Rivers came in under forecast, with the remaining river systems coming in above forecast in 2024 (Table 2). Sockeye salmon dominated the inshore commercial harvest, totaling 31.7 million fish, which is the 16th largest sockeye salmon harvest in Bristol Bay since harvest records began in 1893 (Table 6; Tiernan et al. 2023). However, this was the lowest sockeye salmon harvest since 2014 (Appendix A3). Sockeye salmon sustainable escapement goals (SEG) were met or exceeded in all systems with established goals (Tables 1 and 2; Vega et al. 2022).

The average weight of sockeye salmon (all ages) during the 2024 commercial fishing season was 4.5 pounds. This was just below the 20-year average (2004–2023) weight of 5.5 pounds (Appendix A19). Average weight decreased from a 6.0-pound average in 2013 as run sizes increased (Figure 3; Appendices A10 and A19).

Chinook Salmon

The 2024 inshore commercial harvest was 4,583 Chinook salmon (Table 6). Harvests in all five districts were below the 20-year average (2003–2022; Appendix A4). Harvest in the Nushagak District (the largest producer of Chinook salmon in Bristol Bay) was 2,438 fish, which was below the 20-year average (2004–2023) of 30,606 fish (Appendices A4 and A16). The inshore commercial harvest of Chinook salmon from 2021 to 2024 ranged from 7,983 to 4,583, which are the four lowest annual harvests since at least 1955 (Elison et al. 2024). The low harvest in recent

years correlates with reduced Chinook abundance and the implementation of conservative management strategies to reduce harvest and increase escapements.

The Nushagak River Chinook salmon inriver run estimate at Portage Creek Sonar was 42,621 fish, which does not meet the escapement goal of 55,000–120,000 (Tables 1 and 7; Appendix A16). However, it is likely that some Chinook salmon went undetected at the sonar because they were masked by the high sockeye salmon passage. It has been observed in previous years that when sockeye salmon passage is high at the sonar project site, test fishing nets become saturated; this situation has been shown to bias the Chinook salmon count low. This was supported by reported inseason sport fish catch rates along with postseason aerial surveys that indicated the run was larger than the final sonar count.

Chum Salmon

In 2024, the inshore commercial harvest of 509,223 chum salmon was above the past four years. Chum salmon harvests were below the 20-year averages (2004–2023) in all districts (Appendix A5). The Nushagak River sonar project is the only chum salmon escapement assessment project in Bristol Bay. The escapement of 286,464 fish was above the lower-bound SEG of 200,000 (Tables 1 and 7; Appendix A18).

Pink Salmon

Bristol Bay has a dominant even-year pink salmon cycle. In 2024, the bay wide pink salmon harvest was 77,731 fish (Table 6 and Appendix A6). There is a lower-bound SEG of 165,000 for even years only that is based on the Nushagak River sonar. However, the sonar project has not operated during the pink salmon run in recent years because of budget priorities.

Coho Salmon

The inshore commercial harvest of coho salmon was 31,021 fish, which was below the 20-year average (2004–2023) of 96,337 fish. The harvest was below average in all districts (Appendix A7). The largest commercial harvests of coho salmon were in the Egegik and Nushagak districts, where 7,176 and 22,078 fish were harvested, respectively (Table 6). There is an established SEG of 60,000–120,000 based on the Nushagak River sonar project; however, in 2024 the project operated until July 25 because of budget priorities and did not report a coho salmon count (Tables 1 and 7).

SEASON SUMMARY BY DISTRICT

Naknek-Kvichak District

The 2024 inshore run forecast for the rivers in the Naknek-Kvichak District was 15.0 million sockeye salmon, composed of a projected 6.9 million for escapement and 8.1 million for harvest. The forecast by river system was 6.5 million for the Kvichak River, 2.9 million for the Alagnak River, and 5.5 million for the Naknek River (Table 2). The SEG for the Naknek River is a range of 800,000–2.0 million sockeye salmon. The SEG for the Kvichak River is a range of 2.0–10.0 million sockeye salmon. The Alagnak River has a lower-bound SEG of 210,000 sockeye salmon (Table 1). The actual total run to the Naknek-Kvichak District in 2024 was 19.2 million sockeye salmon, consisting of a commercial harvest of 9.3 million and a total escapement of 9.9 million (Appendix A11).

The department does not forecast Chinook, chum, coho, or pink salmon for systems in Naknek-Kvichak District. Commercial harvest of Chinook salmon has remained relatively small because

of a mesh size restriction that prohibits gillnets with a mesh size larger than 5.5 inches from June 1 until July 22 in the Naknek-Kvichak, Egegik, and Ugashik Districts. Additionally, the *Naknek-Kvichak District Commercial Set and Drift Gillnet Sockeye Salmon Fisheries Management and Allocation Plan* (5 AAC 06.364(f)) directs the department to open commercial fishing periods for drift gillnets only between the 7-foot flood and 7-foot ebb tide stage for the conservation of Chinook salmon.

Sockeye salmon counting towers were operated on the Naknek, Kvichak, and Alagnak Rivers during the 2024 season. Fish counts started at the Naknek River tower on June 21, the Kvichak River tower on June 22, and the Alagnak River tower on July 1 (Table 8).

The early season fishing schedule opened fishing for both gear groups in the Naknek-Kvichak District. Fishing periods were from 9:00 AM Monday until 9:00 AM Friday, beginning 9:00 AM Monday, June 3, and ending 9:00 AM Friday, June 21. The first deliveries occurred on June 17, and the early season fishing schedule ended with a harvest of less than 2,000 sockeye salmon (Table 9). Beginning June 22, subsequent fishing periods were based on inseason indicators of abundance for the Naknek, Kvichak, and Alagnak Rivers.

Drift gillnet effort was expected to be low in the Naknek-Kvichak District early in the season because of recent high harvests and earlier run timing in other districts. Between 2017–2019 and 2021–2023, the Nushagak District experienced sockeye salmon harvests that were two to four times larger than the historical average (Appendix A14). The Wood River had a large forecast again for 2024 (Tables 2 and 3). The Nushagak and Egegik districts typically experience earlier run timing than the Naknek-Kvichak District, and this pattern has been amplified in the previous nine seasons when substantial harvests in the Naknek-Kvichak District did not occur until July. These trends in run sizes and run timing have led to a popular strategy for drift gillnetters to start the season in the Nushagak or Egegik district and transfer to Naknek-Kvichak or Ugashik district later in the season. Through June 28, 1,506 permits had registered to fish in Bristol Bay, but only 326 permits had registered to fish in the Naknek-Kvichak District (Table 10).

On June 23 and 24, district test fishing boats were sent out to Johnson Hill and Middle Bluff to check for buildups of fish. Fishing was slow on the 23rd and slightly better on the 24th. Early on the morning of June 25, a test boat found some fish and observed jumpers at the Naknek River mouth. A 7-hour period was announced for drift and set gillnets to open that afternoon. Harvest from this period was 22,816 sockeye salmon and 75 Chinook salmon, which was the highest daily harvest of Chinook salmon for the season (Table 9). Naknek River escapement improved only slightly with 3,336 fish passing the tower that day, and Kvichak River escapement was still under 1,000 total (Table 8). The district was closed on June 26, and escapements remained low. On the evening of June 27, there was a 7-hour period for both gear groups, and sockeye salmon harvest improved to almost 48,000. There was a 7.5-hour period on June 28 with a similar harvest. The district was closed on June 29 and opened again with both gear groups for an 8-hour period on June 30. The harvest was almost 87,000 sockeye salmon. Through July 4, there continued to be one fishing period per day for both gear groups, with the drift gillnet fleet restricted to the Naknek Section only. Daily harvest increased nearly each day with a harvest of 436,720 on July 4.

Through July 3, escapement on the Kvichak River was tracking the top end of the escapement goal (10 million) curve, Alagnak River escapements were tracking the forecast (1.8 million), and Naknek River escapements were below the lower bound of the escapement goal curve (800,000). Late on the morning of July 4, Naknek River passage increased to 16,000 fish per hour, so an

announcement was made to fish both tides on July 5 with drift gillnets restricted to the Naknek Section on the morning tide but fishing the full district on the evening tide. Sockeye salmon harvest from these periods was 697,525 with 462 permit holders registered to fish in the district (Tables 9 and 10). Naknek River sockeye salmon escapements on July 4 and 5 were 140,640 and 117,978, respectively. These large passages put the Naknek River escapement back on track to meet the escapement goal range with a season total of 318,540 (Table 8). On July 6, 7, and 8, fishing periods continued with drift gillnets fishing the Naknek Section on the morning high tide and the full district on the evening high tide. Fishing with set gillnets during this time was open continuously in the full district. The harvest was 552,454, 322,683, and 140,467 on July 6, 7, and 8, respectively.

On July 8, the Kvichak River daily escapement was 796,494 sockeye salmon, which brought the total to 2,419,152 and within the escapement goal range. Over 1 million sockeye salmon passed the Alagnak Tower from July 6 to 8, so escapement was well over the lower bound escapement goal of 210,000 (Tables 1 and 8). The Naknek River escapement from July 4 to 8 was 476,784, which brought the total to 536,706. The escapement was projected to reach 1.1 million based on late run timing. The assessment that it was late run timing was supported by the mixed stock analysis from the PMTF and the large escapements from July 4 to 8 (Table 8 and Figure 2). With escapement looking good for all 3 rivers, both the drift gillnet fleet fished for 2 periods per day in the full district while set gillnets were open continuously from July 9 to 12. Total harvest from these periods was 3,231,772, and daily harvest was almost 1.2 million on both July 10 and July 12 (Table 9). However, Naknek River escapement from July 9 to 12 was only 58,308. Through July 12, total escapement was 595,014, which was the lowest escapement for that date since 1973 (Tiernan 2023).

On the morning of July 12, it was announced that the set gillnet period would close at 1:00 AM July 13. An aerial survey of the district was conducted on July 12 during a southeast storm. Drift boats were concentrated on Dead Man Sands, and catches were heavy. On the evening of July 12, it was announced that drift gillnets would fish for a 7.5-hour period in the Kvichak Section only beginning at 6:00 AM July 13 and set gillnets in the Kvichak Section would be extended until 1:30 PM July 13. On the morning of July 13, harvest from July 12 was estimated at 1.1 million fish with 775 permits registered in the district (Table 10). The Naknek River escapement on July 12 was only 19,806, but escapement was expected to increase based on the large harvest the day before. An announcement was made to open the Kvichak Section only to drift gillnets and reopen the Naknek Section to set gillnets beginning at 7:00 PM July 13. After the announcement was made, an aerial survey of the district was conducted. Good catches were observed from both drift and set gillnets in the upper part of the Kvichak Section around Graveyard Point and The Salmon Flats. However, very few fish were observed getting caught by drift gillnets along the southern boundary of the Kvichak Section. Calls were made to fleet managers and reports from the fishing grounds confirmed what was observed from the aerial survey. A large pulse of fish had come through the district and there were very few fish coming into the district behind them. Naknek escapement through 4:00 PM was only 18,000 for a total of 613,000 sockeye salmon. With nearly 200,000 fish still needed to meet the lower bound of the escapement goal and very few fish entering the district, the tough decision was made to rescind the previously announced fishing periods that were scheduled to begin at 7:00 PM July 13. Fleet managers were notified starting around 4:00 PM, and the official announcement was made at the 6:00 PM announcement time. Enforcement reported that no one was observed fishing during the rescinded period.

When the announcement was made to close the district, Kvichak River escapement was at 4,553,622, and the inriver estimate was 555,000. Total escapement was projected to reach 7.5 million sockeye salmon based on late run timing. Alagnak River escapement was at 1,436,004. Aerial surveys were flown on the Naknek River, in poor conditions, to detect if a large pulse of fish entered the river on July 13 and 14, but few fish were seen.

With the District closed until further notice an announcement was made at 3:00 PM July 14 that the Alagnak River Special Harvest Area (ARSHA) would open to set gillnets for a 21-hour period beginning at 9:00 AM July 15. The ARSHA is a small shallow bottom area without a defined channel in the lower Alagnak River. The ARSHA had not been opened to commercial fishing since 2007. A long fishing period covering 2 tide cycles allowed set gillnetters time to familiarize themselves with the challenges of the tides and area. Harvest from this period was 35,053 sockeye salmon, 59 chum salmon, and 1 Chinook salmon.

It was unfortunate that the Kvichak River was closed waters because the group of fish that entered the District on July 12 finally passed the inriver test fishery at Levelock by July 14, which estimated 1.5 million fish (Table 11). Of the 1,623 drift gillnet permits registered to fish in Bristol Bay, 828 were registered in the Naknek-Kvichak District and sitting on anchor in the Naknek River waiting to fish. The prospect of a second season with low exvessel value meant tensions were high (Appendix A21).

Fish passage at the Naknek River tower began to increase at 10:00 AM July 15, and by 2:00 PM, daily passage was up to 41,778 sockeye salmon with over 10,000 fish per hour in the most recent counts. Good numbers of fish were observed passing the dock in King Salmon, so the high passage rate was expected to continue. At 3:00 PM July 15, an announcement was made to open the Kvichak Section to drift gillnets and the Naknek-Kvichak District to set gillnets from 8:00 AM until 2:30 PM July 16. Drift gillnets fished another period in the Kvichak Section only from 9:30 PM July 16 until 6:00 AM July 17 while the set gillnet period was extended until 9:00 AM July 17. The fall fishing schedule of 9:00 AM Monday to 9:00 AM Sunday began July 17, opening the Naknek-Kvichak to drift gillnets.

The Naknek River escapement goal was met the afternoon of July 16. The tower operated through July 21 with a total escapement of 926,112 sockeye salmon. The Kvichak River tower counted through July 26 with a total escapement of 6,644,490 sockeye salmon. The Alagnak River tower counted through July 25 with a total escapement of 2,356,560 sockeye salmon (Table 8). Naknek and Kvichak River escapements were within the respective escapement goal ranges, and Alagnak River escapement was above the lower-bound escapement goal (Tables 1 and 2).

The total harvest of sockeye salmon was 9.3 million, 10% below the 20-year average (2004–2023) harvest of 10.3 million fish and the 12th highest harvest in those years (Appendix A3). The total harvest of Chinook salmon was 739 fish, and the 4th year in a row below the 20-year average (2004–2023) harvest of 1,743 and the lowest in the time series (Appendix A4). The chum salmon harvest of 68,787 fish was below the 20-year average (2004–2023) harvest of 203,103 (Appendix A5). The commercial harvest of pink and coho salmon was 4,235 and 557 respectively (Appendices A6 and A7). This harvest was processed by 21 processing companies that purchased fish in the Naknek-Kvichak District in 2024 (Table 5).

Egegik District

The 2024 Egegik River total inshore run of sockeye salmon was forecast to be approximately 5.54 million fish consisting of 4.44 million fish for harvest and 1.1 million fish for escapement. The Egegik River SEG range is 800,000–2.0 million fish. The actual total run to the Egegik River in 2024 was 4.53 million sockeye salmon, 23% below forecast, consisting of a harvest of 3.41 million and an escapement of 1.1 million (Table 2).

Commercial salmon fishing opened in the Egegik District on June 3, with a schedule of 9:00 AM Monday to 9:00 AM Wednesday, and 9:00 AM Thursday to 9:00 AM Friday. This schedule was developed to allow for Chinook salmon escapement while providing opportunity on early returning sockeye salmon. Effort and harvests were relatively small through the first couple weeks of the season (Table 12). The early season schedule closed on June 14, with subsequent openings being determined by inseason indicators of abundance.

Two assessment projects operate in the Egegik River and provide passage and escapement data used for timely management of the commercial fishery. The counting tower located at the outlet of Becherof Lake began operations the morning of Friday, June 17. Similar to the 2023 season, the water temperature at the tower site was notably cold at 5˚C. Daily counts were low for the first days of the season. Daily inriver test fishing, which provides an index of sockeye salmon passage into the lower Egegik River just upstream of Wolverine Creek, began operations on June 16. Initial catches indicated small numbers of fish entering the river. The district remained closed through June 16 (Tables 12).

Inseason assessment continued indicating small abundances of fish moving inriver, and therefore a conservative management approach was taken until improvement was seen. Single tide commercial periods were announced for June 17, 19, and 21 to gauge if fish were entering the district in greater numbers. Daily harvest increased with each period, and an approximate total of 87,000 fish were caught over those 3 days (Table 12). Over that same timeframe, escapement at the counting tower saw a small increase in numbers but was not sustained and the cumulative count through June 21 was 3,900 fish and tracking below the escapement goal curve (Table 13).

Inriver test fish indices began to increase the evening of June 21; however, subsequent escapements did not improve as expected. Three aerial surveys were flown between June 22 and June 27 over the lagoon located just below the tower site. Survey results indicated fish were holding in the lagoon with the abundance of those increasing with each flight, growing to an estimated 150,000 fish on June 27. The colder-than-normal river temperature was likely a significant factor, as it was the previous season. Four commercial fishing opportunities were then announced over that same timeframe, with a drift gillnet only period occurring on June 23 to balance gear allocation. Harvest totaled 416,000 sockeye salmon, which brought the season cumulative to 500,000 (Table 12). Additionally, escapement numbers began to increase midday on June 27. Over the next 36 hours, 175,000 sockeye were counted at the tower, bringing the season total, through June 28, to 188,000, which was above the lower-bound escapement goal curve (Table 13).

With escapement now progressing in the right direction, the management strategy transitioned to a more liberal approach. Additionally, overall effort had declined the week preceding June 28, leaving 239 drift gillnet permits registered in the district (Table 10). The fleet would remain small for the remainder of the season. Commercial fishing periods were announced for a single tide each day from June 30 through July 2. The cumulative harvest for this timeframe was 473,000 sockeye

salmon, nearly doubling the total harvest through June 28 (Table 12). Growing abundance signified that the peak may have been on the horizon. Credible reports also began to come in after the period on July 2 that large numbers of fish were building just outside of the district toward the south line and along the western edge. Daily escapements declined over the same three-day period; however, another 75,000 fish were counted by the tower, bringing the season total to 283,000 (Table 13). Escapement continued to track along the lower end of the escapement goal curve.

Commercial fishing began to be announced for 2 tides per day, starting July 3, as the inriver test fish indices began to pick up on July 2, indicating that escapements were likely to increase soon. Combined harvest from July 3 and July 4 was 930,000 sockeye salmon across 239 drift gillnet permits and proved to be the peak harvest days of the season (Tables 10 and 12). Inriver test fish catches remained high through July 4, and daily escapements increased on July 3. The 2 highest passage days at the tower were July 4 and 5, with 311,000 fish counted (Table 13) bringing the season total to 644,000 sockeye salmon. It became clear the lower bound of the escapement goal would be achieved soon.

Through the remainder of the allocation period, July 17 at 9:00 AM, commercial fishing opportunities continued to be announced on consecutive tides, and the district experienced a gradual decrease in salmon abundance within the commercial harvest and escapements. Between July 6 and July 17, cumulative harvest was 2.1 million sockeye salmon, and daily harvests ranged from 322,000 fish on July 6 to 106,000 on July 14 (Table 12). Daily escapements for this timeframe ranged from 135,000 fish on July 6 to 5,000 fish on July 11, with the lower-bound escapement goal of 800,000 fish being achieved on July 7 (Tables 1 and 13). By July 17, the total escapement stood at 1.1 million sockeye salmon. The transfer period was not waived through EO during the 2024 season, as the midpoint was not reached before July 17. Commercial fishing in Egegik District was liberalized to 24 hours per day from July 17 through July 28, with the fall schedule taking effect July 29.

Beginning July 17, numerous reports began to come in of multiple vessels fishing in closed waters along the northern end of the district. Such reports are a yearly occurrence once fishing is liberalized after the allocation period. The 2024 season experienced an increased number of reports, with some relaying upwards of 50 drift gillnet vessels fishing in closed waters. On July 25, commercial fishing with drift gillnet gear was closed in the Egegik District until 9:00 AM Monday, July 29, due to illegal fishing.

The 2024 total run of sockeye salmon to the Egegik District totaled 6.4 million, with a harvest of 5.3 million and an escapement of 1.1 million fish (Appendix A12). The run exhibited an average run timing. The midpoint of July 7 was near the 20-year average (2004–2023) of July 6. The harvest of all species in 2024 was 5.3 million fish (Table 12). The escapement goal of 800,000 to 2.0 million was achieved (Tables 1 and 8).

The 2024 Egegik sockeye salmon run was composed of mostly ocean-age-2 fish (Table 14), which originated from 2019 and 2020 escapements of 2.3 million and 2.4 million sockeye salmon, respectively (Appendix A1). Age-1.2 was above forecast, whereas age-1.3 and age-2.2 came in below forecast. Age-1.2 were the most abundant age class, making up 57.1% of the 2024 run (Tables 3 and 14).

During the period from June 1 to July 17 in 2024, a total of 367 hours were fished by the drift gillnet group and 436 hours were fished by the set gillnet group. This equates to 33.2% and 39.5%,

respectively, of the 1,104 available hours (Table 12). By the end of the allocation period on July 17, harvest percentages were at 77% drift gillnet and 23% set gillnet (Appendix A9).

The 2024 harvest of 5.3 million sockeye salmon in the Egegik District was below the 20-year average (2004–2023) of approximately 8.9 million fish (Appendix A3). The fishery harvested 82% of the run into the district, similar to the 20-year average (2004–2023) of 83% (Appendix A12). Harvest peaked at 474,000 fish on July 3 (Table 12). The highest daily escapement occurred on July 5 when 168,000 fish were counted (Table 8). Effort peaked on June 22, when 275 drift gillnet permits were registered in the district, including 81 dual permits (Table 10). There were 12 processors registered to purchase fish in the Egegik District in 2024 (Table 5).

The commercial harvest of other salmon species in the Egegik District was 41,000 fish, or about 0.01% of the total salmon harvest (Table 12). The Chinook salmon harvest was 262 fish, which was below the 20-year average (2004–2023) of 765 fish (Appendix A4). The district chum salmon harvest of 33,000 fish was below the 20-year average (2004–2023) of 76,000 fish (Appendix A5). Pink salmon harvest was 776 (Appendix A6). The coho salmon harvest of 7,000 fish was below the 20-year average (2004–2023) of 12,000 fish (Appendix A7).

Ugashik District

The 2024 Ugashik River total inshore run of sockeye salmon was forecast to be approximately 4.6 million fish, consisting of 3.6 million fish for harvest and 950,000 fish for escapement. The Ugashik River SEG range is 500,000 to 1.4 million fish (Table 1). The actual total run of sockeye salmon to the Ugashik District was 7.8 million fish, consisting of a harvest of 6.0 million and an escapement of 1.8 million (Table 2).

Commercial fishing in the Ugashik District opened on June 1 with a fishing schedule of 9:00 AM Monday to 9:00 AM Friday (Table 15). The preseason forecast for the Kvichak River allowed all fishing districts to start the season in their full districts, so the schedule of 4 days per week was continued until 9:00 AM Friday, June 21. Effort and harvests were relatively small during this timeframe (Table 15). Additional fishing opportunity beyond the scheduled time was dependent on inseason indicators of abundance. The first 2 genetic stock composition estimates from catches at the PMTF (June 19–22) indicated a higher-than-normal abundance of Ugashik bound fish for the date. (Figure 2). Genetic indicators were a positive sign; however, it could have been a week before those fish would have arrived. A commercial fishing period was announced for June 23 to provide insight on run entry and strength into the district. Harvest showed little signs of improvement, with 25,300 fish being harvested, mostly by drift gear along the outside portions of the district (Table 15).

There are 2 assessment projects that operate in the Ugashik River that provide passage and escapement data used for timely management of the commercial fishery. The Ugashik inriver test fishery operates about 3 miles upstream of Ugashik Village and provides a daily index of sockeye salmon passage into the lower part of the Ugashik River. It became operational on June 24. The counting tower project, used to assess escapement, located about 24 miles upstream of Ugashik Village at the outlet of Lower Ugashik Lake, began operations on June 27 (Table 16).

With low initial catches from the inriver test fishery and early commercial periods, a conservative management strategy was followed until inseason assessment data improved. Between June 25 and July 1, commercial periods were announced for a single tide every other day (Table 15). The number of registered drift gillnet permits grew from 123 on June 25 to 204 by July 1 (Table 10), a

substantial increase for the Ugashik District. The increase in permits was factored into the decision to fish every other day. Daily harvests from this time frame ranged from 66,000 on June 25 to 103,000 on June 29, a notable increase from the early portion of the season (Table 15). The same trend was also recorded at the assessment projects. Inriver test fish catches started to pick up on June 25, and corresponding escapements at the tower on June 28, indicating an approximate travel time of 3 days between projects. Cumulative escapement through July 1 was 32,000 fish, tracking near the upper end of the escapement goal curve (Table 16). Inriver test fish catches experienced a dip from June 30 to July 1, and the district was closed July 2, allowing additional fish to move inriver. The management strategy soon shifted to more liberal fishing opportunities with escapements trending in the right direction.

Beginning on July 2, abundances of sockeye began to slowly increase at both assessment projects. Passage rates at the counting tower began increasing in the morning, and a commercial period was announced for July 3. The harvest from this period was the highest to date at 219,000 fish, doubling the harvest from the previous period. Reports from the inside portion of the district suggested there was a strong push of fish that moved inriver, and the test fish data should increase in the coming days. A subsequent opportunity was announced for July 4; however, the length was shortened due to the increasing size of the drift fleet (Table 10). Harvest from this period increased from the previous day, even with the decrease in duration (Table 15). During the evening tide on July 4, inriver test fish experienced a big increase in catches, shifting the management strategy to one of liberal fishing. Commercial fishing continued July 5, and mid-way through the period, the department was notified that the set gillnet fleet was not fishing due to an industry-imposed suspension. A 4-hour extension to the drift gillnet fleet was announced. The total harvest from this period was 286,000, the highest to date (Table 15). The set gillnet fleets suspension continued into July 6, and another extension was announced for drift gillnet gear. Meanwhile, the inriver test fish continued to have high catch rates through this time and recorded one of their highest daily indices of the season on July 6 (Table 16).

The travel time between assessment projects experienced earlier in the season remained the same when the increase seen at the inriver test fishery on July 4 began moving past the tower on July 7. The count of 78,000 fish brought the cumulative count through July 7 to 273,000 fish, tracking well above the upper end of the escapement goal curve (Table 16). Daily escapements would continue increasing through July 9, when 206,000 fish were counted, and the lower bound of the escapement goal range was achieved. Daily escapements dropped after July 9 but remained elevated through July 18 (Table 16). Daily commercial fishing periods were announced through July 14 due to strong escapement, with 1.7 million sockeye salmon being harvested during that time (Table 15).

Commercial fishing was liberalized on July 15 to 24 hours per day until August 5, when the fall season schedule took effect. Throughout the rest of the season, another 1.1 million sockeye salmon were harvested, with the last deliveries occurring on August 2 (Table 15). By the end of the allocation period (July 17), set gillnet permit holders caught approximately 12% of the sockeye salmon harvest, and drift gillnet permit holders caught 88%. The allocation specified in the regulation is 10% set gillnet and 90% drift gillnet (Appendix A9). Between June 1 and July 17, set gillnet permit holders were provided a total of 539 hours of fishing time and drift gillnet permit holders were provided 496 hours (Table 15).

The Ugashik District commercial sockeye salmon catch was approximately 4.2 million fish, above the 20-year average (2004–2023) of 3.4 million fish (Appendix A3). The sockeye salmon

escapement to the Ugashik River of 1,759,776 fish exceeded the SEG range of 500,000–1.4 million fish (Tables 1 and 8). The 2024 total run of sockeye salmon to the Ugashik District of 6.0 million fish was below the 20-year average (2004–2023) of 4.7 million fish (Appendix A13). The 2024

Ugashik District sockeye salmon fishery harvested approximately 71% of the sockeye salmon run to the district, comparable to the 20-year (2004–2023) average harvest rate of 72% (Appendix A13). The midpoint of the escapement was July 12, equal to the most recent 20-year (2004–2023) average. There were 8 processors registered to purchase fish in the Ugashik District in the 2024 season (Table 5).

The harvest of 339 Chinook salmon was below the 20-year average (2004–2023) of 945 fish (Appendix A4). The chum salmon harvest of 42,818 fish was below the 20-year average (2004–2023) of 63,689 fish (Appendix A5). Historically, Chinook and chum salmon escapements have been assessed via aerial surveys in the Dog Salmon and King Salmon Rivers, major tributaries of the Ugashik River and the biggest producers of these species in the district. Pink salmon harvest was 20 fish (Appendix A6). The harvest of coho salmon was 424 fish (Appendix A7). Pink and coho are typically harvested incidentally to sockeye salmon (Appendix A7). In 2024, escapement surveys were not flown due to budget constraints.

Nushagak District

The 2024 inshore run forecast for the Nushagak District was 12.1 million sockeye salmon, with 7.6 million fish expected to return to Wood River, 3.4 million to the Nushagak River, and 1.1 million to the Igushik River (Table 2). The 2024 Nushagak District total inshore sockeye salmon run was 19.1 million fish, 57% above the preseason forecast of 12.1 million fish (Table 2 and Appendix A14). Commercial sockeye salmon harvest in the Nushagak District reached 12.3 million fish, 48% above the preseason projected surplus of 8.3 million fish and 23% above the 20-year average harvest of 10.0 million sockeye salmon (Table 2 and Appendices A3 and A14).

Escapement in the district's 3 major river systems was: 4,404,654 for Wood River, 1,723,374 for the Nushagak River, and 692,616 sockeye salmon for the Igushik River (Table 17). Igushik River sockeye salmon escapement was above the escapement goal range, 150,000–400,000, whereas Nushagak and Wood rivers' escapements were above the upper end of the Optimal Escapement Goal (OEG) ranges established by the Board, 370,000–1.4 million and 700,000–3.0 million respectively (Table 1 and Appendix A1).

There was no 2024 forecast for Nushagak District Chinook salmon. The preseason messaging for Chinook salmon management was to not expect directed openings due to lower-than-average Chinook salmon runs in recent years and their designation as a stock of concern.

The sonar escapement enumeration project at Portage Creek was fully operational on June 6 (Table 7). From the start, the Chinook salmon run tracked below historical passage expectations, a trend that continued throughout the season. The final Chinook salmon escapement index was 42,621 fish, which was below the inriver goal of 95,000 fish. The new *Nushagak District King Salmon Stock of Concern Management Plan* delayed early season fishing until higher sockeye salmon triggers were met. Sockeye salmon openings would have been triggered on June 21 under the previous regulations when 100,000 sockeye salmon were projected past the Wood River tower. Under the new action plan, commercial fishing did not start until late June 26, when both the triggers for Nushagak (210,000) and Wood rivers (780,000) were met. This additional delay in

starting the sockeye salmon fishery allowed for over 10,000 Chinook salmon to pass through the district and escape into the river.

Unfortunately, the Chinook salmon return to the Nushagak River was well below average. The peak daily escapement was June 28, and the midpoint of the escapement was June 29 (Table 7).

The Chinook salmon run produced a reported commercial harvest of 2,438 Chinook salmon in the Nushagak District (Table 18; Appendix A16). This harvest is 8% of the 20-year average harvest of 31,141 fish for the Nushagak District (Appendices A4 and A16). The Chinook salmon sonar index for the Nushagak River was 42,621, well below the 55,000-fish lower end of the escapement goal range (Table 1 and 7; Appendix A16).

Before the season, ADF&G released a preseason outlook to let stakeholders know the approach the department would be taking for management. The following is an excerpt from the Nushagak District preseason plan (Sands et al. 2024) that explains the strategy based on the stock of concern plan:

> There are three triggers that guide when to start fishing under the *Nushagak District King Salmon Stock of Concern Management Plan*. Commercial fishing with drift gillnets in the Nushagak District and set gillnets in the Nushagak Section may begin once any one of the following triggers is met:
>
> - The Nushagak River trigger is 210,000 sockeye salmon projected past the sonar.
> - The Wood River trigger is 780,000 sockeye salmon projected past the counting tower.
> - If neither of the above conditions are met by 9:00 AM June 28, then fishing may be allowed in the Nushagak District at that time.
>
> In addition to the triggers that regulate the start of fishing, the board adopted OEGs that are larger than department SEGs which reduce effort after commercial fishing starts. Those OEGs are structured such that 15% of the preseason forecast is added to the upper end of each SEG range. The lower bounds of both SEGs remain unchanged.
>
> - The 2024 upper bound of the Wood River OEG is 3.0 million sockeye salmon.
> - The 2024 upper bound of the Nushagak River OEG is 1.4 million sockeye salmon.
>
> The strategy for 2024 is to start directed sockeye salmon openings once one or more of the triggers have been met. From that point on, the department will make tide-by-tide decisions attempting to balance escapements of king, chum, and sockeye salmon with fishing opportunity. It is important to represent escapement from all parts of the run and achieve king and chum salmon minimum escapement goals, if possible. Set gillnet fishermen should expect to have occasional closures into the second week of July. Drift gillnet openings will be timed to give opportunity for king and chum salmon to pass through the district. Fishermen are asked to avoid areas where they may catch higher numbers of king and chum salmon.
>
> Commercial fishing openings will be scheduled based on sockeye salmon escapement levels in the Nushagak and Wood rivers. Mesh size will be limited to 5.5 inches or smaller beginning June 1 for the conservation of king salmon. If the run comes in as forecast, it is likely that the Wood River Special Harvest Area will be used in 2024 to harvest surplus sockeye salmon in the Wood River. In this case, fishing opportunity will be afforded to the gear type that is behind on harvest percentage relative to the allocation.

Nushagak Section

On June 22, staff communicated with processors that the weather forecast included strong winds for June 25, and it was likely the fleet would be put on short notice before then. On June 24 at 9:00 AM, an announcement was issued for possible fishing on the afternoon of June 25.

The announcement served as 24-hour notice of the first opening so the fleet would have ample warning. The morning of June 24, the cumulative sockeye salmon escapement was 92,400 in the Nushagak River and 154,000 in the Wood River (Tables 7 and 17). However, the daily escapement was decreasing instead of increasing. This was due in part to several days of calm weather between June 18 and 25. Throughout the day, department staff received numerous reports of jumpers in the district. These reports tracked the movement of fish from the south line, up Ekuk Beach, to Clark's Point, and then past the north line of the district. Department staff flew an aerial survey of the district on the evening of June 24 but were unable to see much in the turbid water of Nushagak Bay. A few jumpers were observed, but nothing to confirm a large body of fish moving through the district. In an attempt to confirm large numbers of fish headed through the district, staff requested BBSRI test boats fish above and below the commercial district.

The morning of June 25 dawned calm and foggy, too foggy for the test boat above the district to effectively fish because there were many boats anchored in the area to be fished. The report from the boats south of the district indicated slow fishing, suggesting few new fish moving into the district. The daily sockeye salmon escapement in both the Nushagak and Wood rivers continued to decrease on June 24 (those counts were received the morning of June 25). The wind increased throughout the day, and staff flew an aerial survey on the evening of June 25. The survey conditions were poor, with heavy wind and rough water. Surveyors could not see enough fish in the rivers to indicate escapement was increasing. Based on the continued slow escapement and the poor aerial survey, staff released an update at 8:00 PM on June 25 to notify the fleet that the earliest opening would be the afternoon of June 26.

On the morning of June 26, the escapement began increasing significantly. The Nushagak sonar saw 7,400 sockeye salmon pass on June 25 for a cumulative passage of 100,500, still below the 210,000 trigger. However, the counts showed 75,000 fish had passed the sonar between midnight and 10:00 AM, with the rate holding at about 15,000 fish per hour. The Wood River sockeye salmon escapement also increased with a June 25 escapement of 34,000 and an additional 29,000 between midnight and 6:00 AM. Staff projected meeting both the Nushagak and Wood River triggers to allow for commercial fishing in the Nushagak District. An announcement for set gillnet fishing was made at 9:00 AM on June 26, followed by an announcement at 12:00 PM that extended the set gillnet opening and opened the drift gillnet fishery (Table 18).

Once fishing began, openings occurred on every tide. At the same time, there were periods every day until July 4 where all drift and Nushagak Section set gillnet gear were out of the water to provide unfished opportunity for Chinook salmon to pass (Table 18). Staff considered weather, escapement information, harvest information and flew aerial surveys to try and find the best path to balance sockeye salmon harvest opportunity with Chinook and chum salmon conservation.

Wood River Special Harvest Area

The late start to commercial fishing resulted in more sockeye salmon escapement early in the season, triggering the Wood River Special Harvest Area (WRSHA) to open on June 29. At that time, the set gillnet fleet harvest percentage was less than the 26% allocation. Therefore, the

WRSHA was opened to commercial fishing with set gillnets starting at 7:00 AM June 29. The set gillnet fleet remained behind the allocation goal for the rest of the season and continued fishing in the WRSHA until it closed on July 21. The final harvest percentages were 75% drift gillnet and 25% set gillnet (Appendix A9).

Igushik Section

Igushik set gillnet fishing opened on June 14. Depending on the tide, the section remained open for 13.5–17 hours a day until June 25, when it went to continuous fishing for the rest of the season (Table 18). Although escapement into the Igushik River started slow, information from the commercial fishery indicated that escapement would increase soon, and additional fishing opportunity was warranted. Escapement past the Igushik tower did increase several days later and continued at an above-average pace exceeding the 150,000 lower end of the escapement goal on July 4 and the midpoint on July 11 (Table 17). The 692,586 total escapement ended well above the 150,000–400,000 escapement goal range (Table 1). The Igushik River was the final river in the district to exceed the midpoint of the escapement goal range, requiring the department to waive the transfer period into the Nushagak District.

Pink and Coho Salmon

The department does not operate the Portage Creek sonar to assess pink and coho salmon escapement because the exploitation rate is historically low, and there are currently no indicators of concern for these stocks. Additionally, fishing pressure drops significantly in the Nushagak district in the second week in July because many fishers follow the high sockeye numbers to the Eastside of Bristol Bay, a pattern that is becoming more pronounced in recent years. Without escapement data, the department uses harvest information to inform management decisions. The commercial pink and coho salmon harvests were well below the historical averages. The pink salmon harvest of 40,130 was 9.4% of the 20-year average (2004–2023), whereas the coho salmon harvest of 22,078 was 30.8% (Table 18; Appendix A6 and A7). The low harvests are also reflective of the lower-than-average fishing effort in 2024, and it is impossible to use them to get a true estimate of run strength. In 2024 fishing remained open until further notice as fishing effort was low and there were no concerns about the harvest rate.

The final chum salmon harvest was 316,655 (Table 18; Appendix A5). The final Nushagak District sockeye salmon harvest was 12,300,233 (Table 18; Appendix A3). Total reported Chinook salmon harvest was 2,438 (Table 18; Appendix A4).

Togiak District

The 2024 inshore run forecast for the Togiak River was 680,000 sockeye salmon, composed of a projected 160,000 fish escapement and 520,000 fish harvestable surplus (Table 2). Smaller sockeye salmon runs to the Kulukak River and other drainages account for a harvest of approximately 50,000 fish that are not included in the preseason forecast. The SEG for the Togiak River is 120,000–270,000 sockeye salmon. The total inshore run to the district was 936,336 sockeye salmon, coming in 11% above average relative to the last 20 years (Table 2; Appendix A15). The commercial harvest of 574,758 sockeye salmon was 5% below the 20-year average of 603,655 (Table 19; Appendix A3).

The Togiak District is managed differently than other districts in Bristol Bay. This district uses a fixed fishing schedule of 60 hours per week in the Kulukak Section, 4 days per week in the Togiak River Section (except for a peak fishing schedule of 5.5 days per week from July 1 to July 15) and

5 days per week in the Matogak, Osviak, and Cape Peirce sections. In addition, transferring into or out of the Togiak District is not allowed until the department announces the transfer restrictions are waived. This is required once the midpoint of the Togiak River escapement goal (195,000 sockeye salmon) is achieved.

Crew at the Togiak River counting tower began documenting escapement on July 5. Escapement counts started out relatively strong and remained steady for the entirety of the season. Fishing was extended to the maximum allowable 48 hours per week, starting in July. Escapement seemed to peak on July 24 and 25 with counts of 20,088 and 19,308 fish, respectively, but those counts were exceeded on August 1 and 2 with counts of 24,246 and 27,792 (Table 17). Escapement passed the midpoint of the escapement goal range at noon on July 25, so the department waived the Togiak District transfer period. Tower operations continued until August 6, which had a daily count of 12,492 sockeye. Escapement into Togiak Lake was 361,578 sockeye salmon, above the escapement goal range of 120,000–270,000 fish (Table 1 and 17; Appendix A1).

ADF&G does not forecast Chinook salmon for systems in the Togiak District. However, recent harvest trends indicate a below-average Chinook salmon run. As a result, the department managed the early portion of the season conservatively and monitored effort and Chinook salmon harvest closely. Fishing effort was low through June, with poor weather hampering fishing, resulting in low Chinook salmon harvest and no reductions in the fishing schedule in June. The total Chinook salmon harvest for the Togiak District was 805 fish, well below the 20-year average of 4,685 (Table 19; Appendices A4 and A17).

Harvests for all salmon species were below historical averages. The commercial Chinook salmon harvest of 805 fish represented only 17% of the 20-year average (2004–2023), and the chum salmon harvest of 47,970 fish was 33% of the 20-year average (2004–2023; Appendices A4 and A5). The pink salmon harvest of 32,570 represented almost 41% of the even-year average (2004–2023) and the coho salmon harvest of 786 was only 5% of the 20-year average (2004–2023; Appendices A6 and A7).

The sockeye harvest rate of 61% was also below the historical 20-year average of 72% (Appendix A15). In 2024, there was only one processor that bought fish before the district opened to all boats on July 25.

2024 BRISTOL BAY HERRING FISHERY

The Bristol Bay area includes all waters south of a line, extending west from Cape Newenham, east of the International Date Line in the Bering Sea, and north of a line extending west from Cape Menshikof. The Bristol Bay area is divided into 3 herring fishing districts: The Bay District, including all waters east of the longitude of Cape Constantine; the Togiak District, including all waters between the longitude of Cape Newenham and the longitude of Cape Constantine; and the General District, including all waters west of the longitude of Cape Newenham. Togiak District spans approximately 192 kilometers (Figure 4). Togiak village lies at the center of the district, 108 kilometers west of Dillingham.

Pacific herring (*Clupea pallasii*) have been documented throughout Bristol Bay, but a large concentration returns to the Togiak area each spring to spawn and is the focus of herring sac roe and spawn-on-kelp fisheries. In the Togiak District, herring are commercially harvested for sac roe using gillnets and purse seines, whereas herring spawn on rockweed kelp *(Fucus* spp.*)* is harvested by hand.

The herring sac roe fishery began in the Togiak District in 1967, followed by the first fishery for spawn on kelp in 1968. Effort and harvest levels remained low for the first 10 years of the fishery. Increased interest, favorable market conditions, and additional incentives provided by the Fishery Conservation and Management Act of 1976 (later becoming the Magnusson-Stevens Act) resulted in a rapid expansion of the Togiak herring fishery in 1977.

The Togiak herring fishery was the largest in Alaska, with an average harvest of 19,804 tons worth $2.5 million annually between 2004 and 2019 (Appendices B2 and B5). Given the volatile nature of the herring sac roe market, historic harvest and value are of limited utility when contemplating future harvest or value. Since 2020, sac roe harvest and value are confidential, and there was no fishery in 2023 or 2024 because of lack of interest (Appendices B2 and B5). No spawn-on-kelp fishery has occurred since 2003.

STOCK ASSESSMENT

Since 1978, ADF&G has conducted aerial surveys throughout the herring spawning migration to estimate abundance, timing, and distribution of Pacific herring in the Togiak District. Surveys are conducted after there is reasonable expectation that herring might be present in the Togiak area. Surveys occur several times a week after threshold biomass has been documented. Surveys are performed as weather, pilot availability, and funding allow.

Fundamental aerial survey techniques used in Togiak have remained largely unchanged since 1978 and are described in Lebida and Whitmore (1985). Herring school surface area is estimated through a handheld tube with a measured grid and a known focal length from a known altitude. Standard conversion factors of 1.52 tons (water depths of 16 ft or less), 2.58 tons (water depths between 16 and 26 ft), and 2.83 tons (water depths greater than 26 ft) per 538 ft^2 of surface area is applied to herring school surface areas to estimate the total biomass observed during each flight. ADF&G has transitioned to aerial survey data collection methods that use Geographic Information Systems (GIS), allowing real-time data entry and analysis. The GIS-based program, among other improvements, allows observers to use the survey aircraft to estimate length and width dimensions of very large herring schools, providing a more objective and reliable estimate. The department used these methods to assess spawning biomass while flying four different aerial surveys in 2024 (Table 20; Appendix B4).

Herring ages 2 through 20 have been observed in the Togiak District, but herring are generally considered to begin recruiting into the fishery at age 4 and to be fully recruited at age 9. Herring abundance is related to year class survival and is strongly driven by large recruitment events that occur approximately every 8 to 10 years.

SAC ROE HERRING FISHERY OVERVIEW

Fishing and Industry Participation

Unlike most herring fisheries in Alaska, the Togiak sac roe fishery is not a limited entry fishery. Gillnets, purse seines, and hand purse seines are legal gear. Because fishing effort is not limited, effort levels can vary substantially from year to year. Herring market conditions are one of the leading factors influencing effort each year, but other factors also influence fleet size. Herring prices paid to permit holders the prior year and run timing also affect effort. For over a decade, processors have utilized cooperative fleets for the purse seine fishery. Under limited markets,

processors choose the makeup of their fishing fleets to maximize their efficiency, thereby influencing the number of participants.

Fishing effort in the sac roe fishery increased through the late 1980s, decreased early in the 1990s, increased again to a peak in 1996, and has generally declined since that time (Appendix B1).

Gillnet effort peak with 461 vessels in 1996 and has declined to no participation since 2022. Purse seine participation followed a similar pattern that peaked with ~300 vessels between 1994–998 and has also declined to no participation in 2023 and 2024 (Appendix B1). The overall decline in participation is due to a lack of processing availability and market interest. Industry participation in the fishery peaked between 1979 and 1982, when 33 processors participated in the herring fishery. From 1994 through 1997, between 16 and 22 companies have purchased herring from Togiak. Since 1998, industry participation has steadily declined to a low of 4 companies in 2012 and 2015 to 2019 (Appendix B1). In 2020, the beginning of the COVID-19 pandemic, processor participation involved was one company. Processing interest increased a little with 2 companies participating in 2021 and 2022, but then no processors participated in 2023 or 2024 (Appendix B1). Processing capacity on the grounds has also declined from a high of 4,850 tons per day in 1996, to a low in 2007 of 1,420 tons per day. Capacity since 2020 is confidential (Appendix B1).

2024 Season Summary

The following is a summary of the 2024 Togiak herring fishery in the Togiak District, Bristol Bay. Herring are commercially harvested for sac roe using gillnet and purse seine gear when they migrate into the district to spawn, typically during the months of April and May. In July, a food and bait fishery also occurs near Dutch Harbor; this fishery is primarily composed of the Togiak herring stock, and the allocation is based on the forecasted biomass of Togiak herring. The Dutch Harbor fishery is summarized separately. All data included in this summary are preliminary.

Commercial Fishery

Togiak District herring fisheries are managed in accordance with the *Bristol Bay Herring Management Plan* (5 AAC 27.865), which specifies a maximum allowable exploitation rate of 20% and allocates the harvestable surplus among all the fisheries harvesting Togiak herring stocks. The 2024 preseason biomass forecast was 216,037 tons, with an exploitation rate of 20% (43,207 tons). The projected harvest guideline for each fishery was as follows: 1,500 tons of herring equivalent (350,000 lb of product) for the spawn-on-kelp fishery, 2,920 tons for the Dutch Harbor food and bait fishery, and the remaining 38,787 tons allocated to the sac roe fishery. The management plan further specifies that the department will manage the sac roe fishery so that 80% of the harvest is taken by purse seine (31,030 tons in 2024) and 20% of the harvest is taken by gillnet (7,757 tons in 2024).

The *Bristol Bay Herring Management Plan* and other regulations direct the department to conduct an orderly, manageable fishery and strive for the highest level of product value while minimizing waste.

Department staff took a poll of processing companies before the 2024 season to assess processing capacity and to inquire about additional concerns or issues. The poll indicated no companies intended to participate in the 2024 Togiak herring fishery.

Purse Seine

With no processor interest, the Togiak herring purse seine fishery did not open in 2024.

Gillnet

The Togiak herring gillnet fishery did not open in 2024 because there were no participants.

EXVESSEL VALUE / EXPLOITATION

With no Togiak harvest, any Dutch Harbor harvest would be confidential; information on exploitation from previous years is available (Appendix B2).

AGE COMPOSITION

No fishery means no samples were available in 2024, but data from previous years are available (Appendix B3).

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TABLES AND FIGURES

Table 1.–Summary of current escapement goals for salmon stocks in Bristol Bay Management Area; 2024.

System	Escapement goal	Enumeration method	Goal type	Initial year
CHINOOK SALMON				
Nushagak River	55,000–120,000	sonar	SEG	2013
	95,000	sonar	Inriver Run Goal	2012
CHUM SALMON				
Nushagak River	200,000	sonar	lower-bound SEG	2013
COHO SALMON				
Nushagak River	60,000–120,000	sonar	SEG	2013
PINK SALMON				
Nushagak River (even years only)	165,000	sonar	lower-bound SEG	2013
SOCKEYE SALMON				
Kvichak River	2,000,000–10,000,000	tower count	SEG	2010
Alagnak River	>210,000	tower count	lower-bound SEG	2018
Naknek River	800,000–2,000,000	tower count	SEG	2015
Egegik River	800,000–2,000,000	tower count	SEG	2015
Ugashik River	500,000–1,400,000	tower count	SEG	2015
Wood River	700,000–1,800,000	tower count	SEG	2015
	700,000–3,000,000	tower count	OEG	2023
Igushik River	150,000–400,000	tower count	SEG	2015
Nushagak River	370,000–900,000	sonar	SEG	2015
	370,000–1,400,000	sonar	OEG	2023
Togiak River	120,000–270,000	tower count	SEG	2007

Table 2.–Comparison of inshore sockeye salmon forecast versus actual run, escapement goals versus actual escapements, and projected versus actual commercial catch, by river system and district, in millions of fish, Bristol Bay, 2024.

	Inshore Run			Escapement		Inshore Catch		
River System[a]	Forecast[b]	Actual[c]	Percent Deviation[d]	Escapement Goal Range	Actual	Projected Harvest[b]	Actual[c]	Percent Deviation[d]
Kvichak River	6.50	11.95	84	2.00–10.00	6.64	2.50	5.31	112
Alagnak River	2.93	4.25	45	0.21 minimum	2.36	1.13	1.89	67
Naknek River	5.54	3.11	-44	0.80–2.00	0.93	4.44	2.18	-51
Egegik River	5.54	4.53	-18	0.80–2.00	1.11	4.44	3.41	-23
Ugashik River	4.64	7.78	68	0.50–1.40	1.76	3.69	6.02	63
Wood River	7.62	12.02	58	0.70–1.80	4.40	5.21	7.61	46
Igushik River	1.05	1.55	48	0.15–0.40	0.69	0.83	0.86	4
Nushagak River	3.40	5.51	62	0.37–0.90	1.71	2.24	3.80	70
Togiak River	0.68	0.93	37	0.12–0.27	0.36	0.52	0.57	10
TOTAL BRISTOL BAY[e]	37.90	51.61	36	5.65–19.09	19.97	25.01	31.65	27

[a] The Bristol Bay inshore forecast does not include several minor river systems, including the Snake River drainage in Nushagak District, and the Kulukak, Osviak, Matogak and Slug River systems in Togiak District. Catches, escapements, and total runs for these smaller systems are not included in this table so that forecast efficacy may be gauged. Totals may not equal column sums due to rounding.

[b] Does not include South Peninsula projected harvest.

[c] Catch and inshore run is based on postseason genetic mixed stock analysis and does not account for the district harvested. Includes personal use and test fishery catches.

[d] Percent deviation = ([Actual–Forecast] / Forecast) *100.

[e] Total may not equal sum of all districts due to rounding.

Table 3.–Forecast of total sockeye salmon returns by age class, river system and district, in millions of fish, Bristol Bay, 2024 (Vega 2023).

District and	2-Ocean			3-Ocean			
River System	1.2 (2020)	2.2 (2019)	Total	1.3 (2019)	2.3 (2018)	Total	Total
NAKNEK-KVICHAK DISTRICT							
Kvichak River	4.39	0.92	5.31	1.12	0.25	1.37	6.68
Alagnak River	1.30	0.17	1.47	1.46	0.08	1.54	3.01
Naknek River	2.55	0.41	2.96	2.38	0.37	2.75	5.71
	8.24	1.50	9.74	4.96	0.70	5.66	15.40
EGEGIK DISTRICT	1.81	2.46	4.27	0.61	0.82	1.43	5.70
UGASHIK DISTRICT	3.08	0.81	3.89	0.69	0.20	0.89	4.78
NUSHAGAK DISTRICT							
Wood River	4.81	0.24	5.05	2.52	0.27	2.79	7.84
Igushik River	0.39	0.01	0.40	0.66	0.02	0.68	1.08
Nushagak River[a]	1.04	0.13	1.17	2.18	0.04	2.22	3.50
	6.24	0.38	6.62	5.36	0.33	5.69	12.42
TOGIAK DISTRICT[b]	0.25	0.00	0.25	0.44	.01	0.45	0.70
TOTAL BRISTOL BAY[c,d]							
Number	19.62	5.15	24.77	12.06	2.06	14.12	39.00
Percent	50%	13%	64%	31%	5%	36%	100%

[a] Nushagak River forecast total includes minor contributions from age-0.3 and age-1.4 fish.

[b] Several smaller river systems are not forecasted. These systems contribute approximately 50,000 sockeye salmon to Togiak District harvest each year.

[c] Sockeye salmon of several minor age classes are expected to contribute an additional 1–2% to the total return; these fish are not accounted for in table.

[d] Total may not equal sum of all districts due to rounding.

Table 4.–Mean round weight, price per pound, and total exvessel value of the commercial salmon catch by species, Bristol Bay, 2024.

Species	Total catch (lb)	Mean weight (lb)	Mean price (lb)	Exvessel value ($)
Sockeye	143,425,702	4.5	0.89	127,648,874
Chinook	45,426	9.9	0.71	32,252
Chum	2,727,049	5.4	0.21	572,680
Pink	283,969	3.7	0.08	22,717
Coho	159,398	5.1	0.42	66,947
Total	146,641,543			128,343,472

Table 5.–Commercial salmon processors and buyers operating in Bristol Bay, 2024

	Name of Operator/Buyer	Base of Operations	District[a]	Type of processing[b]	Export
1	Alaska General Seafoods	Edmonds, WA	E,K,N	C,F	SEA
2	Alaska's Best Seafoods, LLC.	Dillingham, AK	N	F	SEA
3	Copper River Seafoods	Anchorage, AK	E,K,N	EF,F,RE	AIR,SEA
4	Diamond O Fish House	Naknek, AK	K	F	AIR
5	E&E (Coffee Point Seafoods)	Renton, WA	E,U	F	SEA
6	Freedom Fisheries LLC.	Naknek, AK	K	F	SEA
7	Friedman Family Fisheries	Baltimore, MD	N	F	SEA
8	George Joy	Warrenton, OR	E	EF	AIR
9	High Tide Fisheries	Duluth, MN	K	F	SEA
10	John Sidik	Lineolnville, ME	N	EF	AIR
11	Just Wild Salmon	College Place, WA	N	F	SEA
12	Kevin Cossairt	Nez Perce, ID	K	F	AIR
13	Kristene Stanford	Wasilla, AK	N	EF	AIR
14	Leader Creek Fisheries Inc.	Edmonds, WA	E,K,N,U	EF,F,RE	AIR,SEA
15	Nakeen Homepack LLC.	Polson, MT	K	F	AIR,SEA
16	Naknek Kvichak Wild Salmon	Igiugig, AK	K	F	AIR
17	North Pacific Seafoods Inc. (Togiak Fisheries)	Edmonds, WA	T	F	SEA
18	North Pacific Seafoods Inc.	Edmonds, WA	E,K,N,U	EF,F	AIR,SEA
19	North Soul	Palmer, AK	U	F	AIR
20	OBI Seafoods	Seattle, WA	E,K,N,T,U	C,EF,F	AIR,SEA
21	Salmon Shop LLC.	Wichita, KS	K	F	SEA
22	Sarah Salvucci	Anchorage, AK	U	F	AIR
23	Silver Bay Seafoods	Seattle, WA	E,K,N,U	F	SEA
24	Simply Wild Alaska Salmon	Miami, FL	N	F	AIR
25	Slack Tide	Bellingham, WA	K	F	AIR
26	Sunrise Salmon	Fergus Falls, MN	K	F	AIR,SEA
27	Trident Seafoods Corp.	Seattle, WA	E,K,N,U	F	SEA
28	Tulchina Fisheries	Naknek, AK	K	F	AIR
29	Two If By Seafoods	Saint John, WA	K	F	SEA
30	Victor Popa	Fallbrook, CA	E	F	SEA
31	Wild Alaska Salmon and Seafood	King Salmon, AK	K	EF, F	AIR,SEA
32	Wild Premium Salmon LLC	Raymond, WA	E	EF,F	AIR
33	Willbros Salmon Co.	Ruidoso, NM	K	F	AIR,SEA
34	Wilsons' Wild Salmon	Hailey, ID	K	F	SEA
35	Wyan McKinnis Ship for Brain	Palmer, AK	E	EF,F	AIR

[a] E = Egegik; K = Naknek-Kvichak; N = Nushagak; T = Togiak; U = Ugashik.

[b] Type of processing: C = canned; EF = export fresh; F = frozen; RE = roe extraction; S = cured.

Table 6.–Commercial salmon catch by district and species, in numbers of fish, Bristol Bay, 2024.

River System	Sockeye	Chinook	Chum	Pink	Coho	Total
Naknek-Kvichak District	9,251,442	739	68,787	4,235	557	9,325,760
Egegik District	5,287,249	262	32,993	776	7,176	5,328,456
Ugashik District	4,245,179	339	42,818	20	424	4,288,780
Nushagak District	12,300,233	2,438	316,655	40,130	22,078	12,681,534
Togiak District	574,758	805	47,970	32,570	786	656,889
Bristol Bay Total	31,658,861	4,583	509,223	77,731	31,021	32,281,419

Note: Based on fish tickets as of December 16, 2024. Does not include personal use or test fish harvest.

Table 7.–Daily and cumulative passage estimates by salmon species, Nushagak River sonar project, Bristol Bay, 2024.

	Sockeye		Chinook[a]		Chum	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
6/6	15	15	136	136	136	136
6/7	18	33	156	292	190	326
6/8	30	63	227	519	199	525
6/9	42	105	306	825	275	800
6/10	192	297	433	1,258	1,010	1,810
6/11	299	596	698	1,956	1,019	2,829
6/12	277	873	321	2,277	345	3,174
6/13	198	1,071	99	2,376	203	3,377
6/14	222	1,293	115	2,491	234	3,611
6/15	689	1,982	27	2,518	329	3,940
6/16	1,354	3,336	9	2,527	567	4,507
6/17	1,245	4,581	3	2,530	586	5,093
6/18	3,624	8,205	13	2,543	261	5,354
6/19	16,326	24,531	1,773	4,316	7,535	12,889
6/20	27,574	52,105	3,029	7,345	16,250	29,139
6/21	21,462	73,567	1,858	9,203	4,226	33,365
6/22	15,894	89,461	225	9,428	3,236	36,601
6/23	4,208	93,669	626	10,054	4,525	41,126
6/24	764	94,433	453	10,507	3,090	44,216
6/25	7,496	101,929	797	11,304	4,006	48,222
6/26	312,612	414,541	1,518	12,822	43,483	91,705
6/27	250,791	665,332	2,748	15,570	19,579	111,284
6/28	129,869	795,201	5,048	20,618	11,413	122,697
6/29	67,123	862,324	3,097	23,715	12,144	134,841
6/30	21,867	884,191	1,586	25,301	3,977	138,818
7/1	43,331	927,522	849	26,150	9,884	148,702
7/2	94,774	1,022,296	2,295	28,445	8,905	157,607
7/3	50,271	1,072,567	873	29,318	3,114	160,721
7/4	47,545	1,120,112	1,096	30,414	7,609	168,330
7/5	106,366	1,226,478	306	30,720	13,202	181,532
7/6	89,247	1,315,725	1,070	31,790	7,180	188,712
7/7	65,295	1,381,020	2,796	34,586	9,634	198,346
7/8	43,618	1,424,638	1,158	35,744	3,063	201,409
7/9	38,127	1,462,765	147	35,891	6,089	207,498
7/10	16,690	1,479,455	100	35,991	2,064	209,562
7/11	15,958	1,495,413	53	36,044	3,422	212,984
7/12	33,395	1,528,808	571	36,615	7,052	220,036

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Table 7.–Page 2 of 2.

	Sockeye		Chinook[a]		Chum	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7/13	35,808	1,564,616	1,206	37,821	3,123	223,159
7/14	36,718	1,601,334	98	37,919	6,442	229,601
7/15	18,719	1,620,053	597	38,516	1,937	231,538
7/16	27,105	1,647,158	1,831	40,347	5,378	236,916
7/17	18,478	1,665,636	1,390	41,737	7,460	244,376
7/18	11,121	1,676,757	429	42,166	5,133	249,509
7/19	8,879	1,685,636	0	42,166	5,892	255,401
7/20	9,208	1,694,844	94	42,260	5,998	261,399
7/21	5,396	1,700,240	85	42,345	4,732	266,131
7/22	4,731	1,704,971	84	42,429	6,225	272,356
7/23	4,167	1,709,138	43	42,472	5,373	277,729
7/24	7,717	1,716,855	92	42,564	4,267	281,996
7/25	6,519	1,723,374	57	42,621	4,468	286,464

Notes: All counts rounded to nearest whole fish; coho salmon were not counted in 2024.

[a] Counts are considered inriver abundance estimates, not a final escapement.

Table 8.–Daily sockeye salmon escapement tower counts by river system, eastside Bristol Bay, 2024.

	Kvichak River		Naknek River		Alagnak River		Egegik River		Ugashik River	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
6/17	ND	ND	ND	ND	ND	ND	48	48	ND	ND
6/18	ND	ND	ND	ND	ND	ND	0	48	ND	ND
6/19	ND	ND	ND	ND	ND	ND	48	96	ND	ND
6/20	ND	ND	ND	ND	ND	ND	2,658	2,754	ND	ND
6/21	ND	ND	48	48	ND	ND	1,116	3,870	ND	ND
6/22	72	72	222	270	ND	ND	480	4,350	ND	ND
6/23	114	186	96	366	ND	ND	522	4,872	ND	ND
6/24	174	360	72	438	ND	ND	30	4,902	ND	ND
6/25	402	762	3,336	3,774	ND	ND	6,942	11,844	ND	ND
6/26	144	906	66	3,840	ND	ND	246	12,090	ND	ND
6/27	942	1,848	858	4,698	ND	ND	79,578	91,668	3,462	3,462
6/28	1,530	3,378	900	5,598	ND	ND	96,390	188,058	7,188	10,650
6/29	1,614	4,992	3,126	8,724	ND	ND	19,902	207,960	9,318	19,968
6/30	19,968	24,960	3,630	12,354	ND	ND	53,400	261,360	12,084	32,052
7/1	73,536	98,496	1,854	14,208	18,600	18,600	12,480	273,840	8,304	40,356
7/2	82,434	180,930	24,066	38,274	11,538	30,138	9,222	283,062	18,132	58,488
7/3	61,146	242,076	21,648	59,922	11,094	41,232	50,040	333,102	26,994	85,482
7/4	55,020	297,096	140,640	200,562	54,714	95,946	144,024	477,126	32,970	118,452
7/5	254,250	551,346	117,978	318,540	186,612	282,558	167,742	644,868	52,272	170,724
7/6	452,616	1,003,962	98,376	416,916	291,516	574,074	135,582	780,450	23,586	194,310
7/7	618,696	1,622,658	73,014	489,930	285,222	859,296	102,816	883,266	78,660	272,970
7/8	796,494	2,419,152	46,776	536,706	294,504	1,153,800	66,204	949,470	189,144	462,114
7/9	923,040	3,342,192	6,180	542,886	124,224	1,278,024	24,888	974,358	205,542	667,656

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Table 8.–Page 2 of 2.

	Kvichak River		Naknek River		Alagnak River		Egegik River		Ugashik River	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.	Daily	Cum.
7/10	660,918	4,003,110	4,356	547,242	28,980	1,307,004	9,594	983,952	107,928	775,584
7/11	278,256	4,281,366	27,966	575,208	11,436	1,318,440	5,148	989,100	104,460	880,044
7/12	131,712	4,413,078	19,806	595,014	59,304	1,377,744	16,224	1,005,324	97,422	977,466
7/13	140,544	4,553,622	35,736	630,750	58,260	1,436,004	15,066	1,020,390	86,856	1,064,322
7/14	139,248	4,692,870	35,214	665,964	103,452	1,539,456	13,266	1,033,656	100,266	1,164,588
7/15	324,636	5,017,506	83,718	749,682	173,916	1,713,372	16,422	1,050,078	94,140	1,258,728
7/16	341,202	5,358,708	137,334	887,016	218,076	1,931,448	23,430	1,073,508	107,442	1,366,170
7/17	557,508	5,916,216	29,172	916,188	224,142	2,155,590	18,108	1,091,616	128,484	1,494,654
7/18	465,648	6,381,864	5,874	922,062	100,194	2,255,784	13,134	1,104,750	74,406	1,569,060
7/19	122,460	6,504,324	666	922,728	18,786	2,274,570	2,472	1,107,222	36,912	1,605,972
7/20	22,728	6,527,052	1,320	924,048	5,946	2,280,516	828	1,108,050	32,760	1,638,732
7/21	15,144	6,542,196	2,064	926,112	8,352	2,288,868	1,356	1,109,406	32,022	1,670,754
7/22	18,252	6,560,448	ND	ND	11,736	2,300,604	2,100	1,111,506	32,262	1,703,016
7/23	20,532	6,580,980	ND	ND	18,786	2,319,390	942	1,112,448	25,062	1,728,078
7/24	26,838	6,607,818	ND	ND	25,686	2,345,076	1,560	1,114,008	21,462	1,749,540
7/25	25,896	6,633,714	ND	ND	11,484	2,356,560	ND	ND	10,236	1,759,776
7/26	10,776	6,644,490	ND	ND	ND	ND	ND	ND	ND	ND

Note: ND = no data, tower was not operational.

Table 9.–Commercial salmon catch by date and species, in numbers of fish, Naknek-Kvichak District, Bristol Bay, 2024.

	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
6/17[a]	15	15	2	2	–	–	–	–	–	–
6/18	24	24	1	4	239	2	6	0	0	247
6/19	24	24	6	11	926	9	12	0	0	947
6/20	24	24	13	11	548	2	16	0	0	566
6/21[a]	9	9	1	4	–	–	–	–	–	–
6/22	0	0	0	0	0	0	0	0	0	0
6/23	0	0	0	0	0	0	0	0	0	0
6/24	0	0	0	0	0	0	0	0	0	0
6/25[a]	7	7	125	70	22,816	75	364	0	0	23,255
6/26[a]	0	0	0	0	0	0	0	0	0	0
6/27[a]	7	7	208	104	47,773	24	487	0	0	48,284
6/28[a]	6	6	220	141	48,357	42	453	0	0	48,852
6/29[a]	1.5	1.5	5	6	1,683	2	12	0	0	1,697
6/30[a]	8.5	8.5	185	71	86,656	3	531	0	0	87,190
7/1[a]	8.5	8.5	278	111	129,884	15	860	0	0	130,759
7/2[a]	8.5	8.5	286	237	113,081	37	1,016	0	0	114,134
7/3[a]	8	8	321	340	389,872	68	1,479	0	0	391,419
7/4[a]	7.5	14	344	430	436,720	46	1,071	0	0	437,837
7/5[b]	16	24	532	470	697,525	47	2,043	0	0	699,615
7/6[b]	15	24	486	396	552,454	39	2,412	0	0	554,905
7/7[b]	15	24	556	426	322,683	32	1,038	0	0	323,753
7/8	14	24	555	311	140,467	26	866	0	0	141,359
7/9	13.5	24	848	257	548,478	24	2,326	0	0	550,828
7/10	15	24	999	479	1,157,279	46	4,260	0	0	1,161,585
7/11	14	24	743	361	331,317	23	1,283	0	0	332,623
7/12	13	24	847	422	1,194,648	41	3,899	0	0	1,198,588
7/13[c]	8.5	24	577	226	366,519	17	1,201	0	0	367,737
7/14	0	0	0	0	0	0	0	0	0	0
7/15[d]	0	15	0	140	34,912	1	59	0	0	34,972
7/16[d,e]	9	22.5	1,049	377	867,571	14	8,098	0	0	875,683
7/17[f]	22	24	842	325	434,153	20	4,551	0	0	438,724
7/18	24	24	781	246	335,485	12	4,050	0	0	339,547
7/19	24	24	442	132	145,713	11	2,302	0	0	148,026
7/20	24	24	588	158	272,037	11	5,751	0	0	277,799

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Table 9.–Page 2 of 2.

Date	Hours fished		Deliveries		Sockeye	Chinook	Chum	Pink	Coho	Total
	Drift	Set	Drift	Set						
7/21	9	9	109	39	77,702	1	1,547	0	0	79,250
7/22	15	15	408	154	260,033	17	8,060	2	0	268,112
7/23	24	24	284	173	135,128	16	4,281	0	0	139,425
7/24	24	24	223	116	50,119	9	2,023	33	0	52,184
7/25	24	24	175	87	26,618	3	1,440	65	6	28,132
7/26	24	24	48	45	8,607	1	335	85	15	9,043
7/27	24	24	29	25	3,736	0	105	47	2	3,890
7/28	9	9	3	6	345	1	0	0	0	346
7/29	15	15	3	0	–	–	–	–	–	–
7/30	24	24	15	24	2,762	0	179	310	17	3,268
7/31	24	24	3	8	1,561	0	31	96	9	1,697
8/1	24	24	4	12	1,654	0	165	959	115	2,893
8/2	24	24	7	14	1,683	0	123	1,086	199	3,091
8/3	24	24	1	6	–	–	–	–	–	–
8/4	9	9	0	3	–	–	–	–	–	–
8/5	15	15	1	2	–	–	–	–	–	–
8/6	24	24	0	2	–	–	–	–	–	–
8/7	24	24	1	2	–	–	–	–	–	–
8/8	24	24	0	2	–	–	–	–	–	–
8/9	24	24	0	1	–	–	–	–	–	–
Total	794	923	13,154	6,989	9,251,442	739	68,787	4,235	557	9,325,760

Note: An en dash indicates information was confidential because less than three permit holders or companies operated.

[a] Drift gillnet gear was open in the Naknek Section only.

[b] Drift gillnet gear was open in the Naknek Section only, during 1 of 2 periods.

[c] Drift and set gillnet was open in the Kvichak Section only.

[d] Alagnak River Special Harvest Area was open to set gillnets only.

[e] Drift gillnet was open in the Kvichak Section only.

[f] Drift gillnet was open in the Kvichak Section only during 1 of 2 periods.

Table 10.–Daily district registration of drift gillnet permit holders and dual vessel registration, by district, Bristol Bay, 2024.

	Naknek-Kvichak		Egegik		Ugashik		Nushagak		Togiak[a]	
Date	total	dual	total	dual	total	dual	total	dual	total	Total[b]
6/1	0	0	0	0	0	0	0	0	0	0
6/2	0	0	5	1	0	0	0	0	1	6
6/3	0	0	5	1	0	0	0	0	1	6
6/4	0	0	5	1	0	0	0	0	1	6
6/5	0	0	6	1	0	0	1	0	1	8
6/6	2	0	14	1	0	0	1	0	1	18
6/7	2	0	14	1	0	0	2	0	1	19
6/8	2	0	14	1	0	0	3	0	1	20
6/9	2	0	18	2	0	0	3	0	1	24
6/10	2	0	23	4	0	0	3	0	1	29
6/11	2	0	29	5	0	0	6	0	3	40
6/12	4	0	37	8	1	0	8	1	4	54
6/13	6	0	52	13	1	0	9	1	5	73
6/14	10	0	63	17	2	0	10	1	6	91
6/15	11	0	64	17	1	0	14	2	7	97
6/16	14	0	69	20	8	1	14	2	7	112
6/17	17	1	119	39	34	9	16	2	7	193
6/18	19	1	154	50	70	20	24	4	9	276
6/19	32	3	188	58	87	26	30	6	10	347
6/20	44	7	221	69	94	30	42	8	11	412
6/21	51	8	245	73	107	35	49	8	12	464
6/22	58	9	275	81	88	31	61	11	12	494
6/23	63	9	252	74	94	31	84	19	13	506
6/24	81	10	256	69	115	37	131	27	13	596
6/25	92	12	236	61	123	40	261	56	14	726
6/26	228	48	238	61	152	48	407	103	14	1,039
6/27	249	52	234	60	167	54	689	190	14	1,353
6/28	326	76	239	63	179	58	748	210	14	1,506
6/29	343	80	241	63	187	61	756	214	15	1,542
6/30	355	83	245	65	198	63	759	214	16	1,573
7/01	382	91	251	67	204	64	758	217	16	1,611
7/02	389	92	237	65	208	66	736	210	17	1,587
7/03	398	93	239	66	210	67	703	202	17	1,567
7/04	428	100	239	66	221	71	683	193	18	1,589
7/05	462	110	235	65	225	71	677	192	19	1,618
7/06	486	122	235	65	226	71	627	172	19	1,593
7/07	500	125	220	60	228	72	497	136	19	1,464
7/08	547	142	218	60	231	74	448	118	19	1,463
7/09	690	182	198	54	234	74	415	106	19	1,556
7/10	723	193	193	54	253	81	413	105	21	1,603
7/11	775	212	189	54	247	78	411	104	21	1,643
7/12	775	212	186	54	237	76	355	98	22	1,575
7/13	791	217	186	54	227	73	349	95	22	1,575
7/14	828	224	175	50	265	77	333	91	22	1,623
7/15	839	228	175	50	269	78	335	92	22	1,640
7/16	849	231	174	50	276	79	343	93	22	1,664
Average[c]	382	96	212	59	176	55	392	106	16	1,178

Note: Total permit sum includes dual boat registrations.

[a] Dual boat registration is not permitted by regulation in Togiak District.

[b] Total does not account for permits in transfer status.

[c] Seasonal averages calculated for June 16–July 16.

Table 11.–Comparison of daily sockeye escapement estimates by tower count and river test fish enumeration methods, Kvichak River, Bristol Bay 2024.

	Tower count		River test fishing				
				Index points		Estimated cumulative	Estimated
Date	Daily	Cum.	Fish per index (FPI)[a]	Daily	Cum.	escapement	river fish[b]
6/22	72	72	ND	ND	ND	ND	ND
6/23	114	186	ND	0	0	ND	ND
6/24	174	360	ND	6	6	ND	ND
6/25	402	762	ND	0	6	ND	ND
6/26	144	906	ND	5	10	ND	ND
6/27	942	1,848	ND	0	10	ND	ND
6/28	1,530	3,378	ND	9	19	ND	ND
6/29	1,614	4,992	ND	1,868	1,887	ND	ND
6/30	19,968	24,960	254	525	2,412	612,674	200,000
7/1	73,536	98,496	13	96	2,508	32,607	200,000
7/2	82,434	180,930	52	162	2,670	138,858	150,000
7/3	61,146	242,076	72	136	2,806	202,049	180,000
7/4	55,020	297,096	91	1,541	4,347	395,556	250,000
7/5	254,250	551,346	106	900	5,247	556,194	330,000
7/6	452,616	1,003,962	220	606	5,853	1,287,651	1,400,000
7/7	618,696	1,622,658	231	749	6,602	1,525,151	1,200,000
7/8	796,494	2,419,152	298	472	7,074	2,108,024	1,300,000
7/9	923,040	3,342,192	366	148	7,222	2,643,175	1,000,000
7/10	660,918	4,003,110	472	23	7,245	3,419,525	1,200,000
7/11	278,256	4,281,366	554	373	7,618	4,220,502	500,000
7/12	131,712	4,413,078	591	347	7,965	4,707,601	400,000
7/13	140,544	4,553,622	579	2,027	9,993	5,785,820	550,000
7/14	139,248	4,692,870	456	428	10,420	4,751,697	1,500,000
7/15	324,636	5,017,506	450	2,911	13,332	5,999,265	1,800,000
7/16	341,202	5,358,708	376	1,644	14,976	5,630,867	700,000
7/17	557,508	5,916,216	358	ND	ND	ND	1,100,000
7/18	465,648	6,381,864	ND	ND	ND	ND	ND
7/19	122,460	6,504,324	ND	ND	ND	ND	ND
7/20	22,728	6,527,052	ND	ND	ND	ND	ND
7/21	15,144	6,542,196	ND	ND	ND	ND	ND
7/22	18,252	6,560,448	ND	ND	ND	ND	ND
7/23	20,532	6,580,980	ND	ND	ND	ND	ND
7/24	26,838	6,607,818	ND	ND	ND	ND	ND
7/25	25,896	6,633,714	ND	ND	ND	ND	ND
7/26	10,776	6,644,490	ND	ND	ND	ND	ND

Note: ND = no data.

Table 12.–Commercial salmon catch by species, in numbers of fish, Egegik District, Bristol Bay, 2024.

	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
6/3	15	15	0	0	0	0	0	0	0	0
6/4	24	24	0	1	–	–	–	–	–	–
6/5	9	9	0	0	0	0	0	0	0	0
6/6	15	15	0	1	–	–	–	–	–	–
6/7	9	9	0	1	–	–	–	–	–	–
6/8	0	0	0	0	0	0	0	0	0	0
6/9	0	0	0	0	0	0	0	0	0	0
6/10	15	15	3	9	243	0	9	0	0	252
6/11	24	24	1	3	101	0	3	0	0	104
6/12	9	9	0	0	0	0	0	0	0	0
6/13	15	15	14	11	828	1	11	0	0	840
6/14	9	9	0	1	–	–	–	–	–	–
6/15	0	0	0	0	0	0	0	0	0	0
6/16	0	0	0	0	0	0	0	0	0	0
6/17	5	8	47	79	5,148	21	207	0	0	5,376
6/18	0	0	0	0	0	0	0	0	0	0
6/19	5.5	8	124	81	15,591	18	399	0	0	16,008
6/20	0	0	0	0	0	0	0	0	0	0
6/21	5	8	191	146	67,123	24	680	0	0	67,827
6/22	0	0	0	0	0	0	0	0	0	0
6/23	5	0	177	0	90,790	8	641	0	0	91,439
6/24	4	8	168	203	68,322	15	539	0	0	68,876
6/25	4	8	153	97	76,310	3	616	0	0	76,929
6/26	0	0	0	0	0	0	0	0	0	0
6/27	5	8	178	219	180,795	7	1,179	0	0	181,981
6/28	5	7	168	146	68,630	2	608	0	0	69,240
6/29	0	1	0	0	0	0	0	0	0	0
6/30	5	8	170	103	116,365	11	1,302	0	0	117,678
7/1	5	8	183	150	114,119	6	625	0	0	114,750
7/2	5	8	165	308	242,724	12	1,283	0	0	244,019
7/3	7.5	10.25	272	528	474,282	19	1,608	0	0	475,909
7/4	9	15	277	509	456,901	12	1,135	0	0	458,048
7/5	8.75	15	291	312	376,873	13	1,211	0	0	378,097
7/6	9.75	15.75	213	369	322,420	8	1,413	0	0	323,841

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	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
7/7	11.5	16	224	331	270,500	8	999	0	0	271,507
7/8	14	16	242	371	235,190	12	1,057	0	0	236,259
7/9	14	16	208	300	160,413	11	853	0	0	161,277
7/10	14	16	205	308	200,999	6	1,059	0	0	202,064
7/11	14	16	209	312	197,048	7	667	0	0	197,722
7/12	14	15.5	185	254	147,331	7	662	0	0	148,000
7/13	13.5	15	179	265	141,835	6	539	0	0	142,380
7/14	13.25	15.25	153	174	106,344	1	470	0	0	106,815
7/15	13.5	15.5	194	304	181,184	4	668	0	0	181,856
7/16	13	15	229	250	175,667	7	1,008	0	0	176,682
7/17	24	24	128	149	89,988	0	732	0	0	90,720
7/18	24	24	145	86	69,408	3	810	0	0	70,221
7/19	24	24	119	101	74,874	1	918	0	1	75,794
7/20	24	24	166	64	139,141	2	1,126	0	0	140,269
7/21	24	24	145	77	87,824	1	1,387	0	0	89,212
7/22	24	24	105	55	67,026	0	836	0	0	67,862
7/23	24	24	189	33	103,369	0	2,753	0	1	106,123
7/24	24	24	100	26	37,236	0	833	0	2	38,071
7/25[a]	17	24	56	19	16,202	0	613	0	0	16,815
7/26[a]	0	24	0	25	6,194	1	67	0	1	6,263
7/27[a]	0	24	0	33	8,392	1	63	0	0	8,456
7/28[a]	0	9	0	9	1,834	0	21	0	0	1,855
7/29	15	15	23	10	4,494	1	318	9	30	4,852
7/30	24	24	28	1	6,863	1	69	1	25	6,959
7/31	24	24	32	11	10,858	0	172	135	133	11,298
8/1	24	24	38	3	11,471	0	155	159	273	12,058
8/2	24	24	24	6	8,646	0	146	218	355	9,365
8/3	24	24	16	5	6,344	0	126	100	319	6,889
8/4	9	9	3	3	–	–	–	–	–	–
8/5	15	15	16	6	–	–	–	–	–	–
8/6	24	24	14	7	–	–	–	–	–	–
8/7	24	24	23	9	–	–	–	–	–	–
8/8	24	24	9	6	–	–	–	–	–	–
8/9	24	24	10	3	–	–	–	–	–	–
8/10	24	24	0	1	–	–	–	–	–	–
8/11	9	9	0	0	–	–	–	–	–	–
8/12	15	15	2	1	–	–	–	–	–	–

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Table 12.–Page 3 of 3.

	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
8/13	24	24	2	4	–	–	–	–	–	–
8/14	24	24	2	3	–	–	–	–	–	–
8/15	24	24	0	1	–	–	–	–	–	–
8/16	24	24	1	1	–	–	–	–	–	–
8/17	24	24	0	0	–	–	–	–	–	–
8/18	9	9	0	0	–	–	–	–	–	–
8/19	15	15	1	2	–	–	–	–	–	–
8/20	24	24	2	2	–	–	–	–	–	–
8/21	24	24	2	2	–	–	–	–	–	–
8/22	24	24	2	2	–	–	–	–	–	–
8/23	24	24	1	1	–	–	–	–	–	–
8/24	24	24	0	0	–	–	–	–	–	–
8/25	9	9	0	0	–	–	–	–	–	–
8/26	15	15	1	0	–	–	–	–	–	–
8/27	24	24	2	3	–	–	–	–	–	–
8/28	24	24	1	1	–	–	–	–	–	–
8/29	24	24	3	4	–	–	–	–	–	–
Totals	1,239	1,372	6,234	6,921	5,287,249	262	32,993	776	7,176	5,328,456

Note: En dash indicates confidential information due to less than 3 permits or companies.

[a] Illegal fishing closure for drift gillnet gear.

Table 13.–Comparison of daily sockeye escapement estimates by tower count and river test fish enumeration methods, Egegik River, Bristol Bay 2024.

	Tower count		River test fishing				
				Index points		Estimated cumulative	Estimated
Date	Daily	Cum.	Fish per index Pt[a]	Daily	Cum.	Escapement	River fish[b]
6/16	ND	ND	ND	86	86	ND	ND
6/17	48	48	ND	48	134	ND	ND
6/18	0	48	ND	99	234	ND	ND
6/19	48	96	ND	167	400	ND	ND
6/20	2,658	2,754	ND	24	424	ND	ND
6/21	1,116	3,870	ND	124	548	ND	ND
6/22	480	4,350	ND	373	920	ND	ND
6/23	522	4,872	ND	563	1,484	ND	ND
6/24	30	4,902	ND	353	1,837	ND	ND
6/25	6,942	11,844	ND	201	2,038	ND	ND
6/26	246	12,090	ND	551	2,589	ND	ND
6/27	79,578	91,668	ND	1,301	3,890	ND	ND
6/28	96,390	188,058	ND	335	4,225	ND	ND
6/29	19,902	207,960	ND	167	4,392	ND	ND
6/30	53,400	261,360	52	26	4,418	229,721	40,000
7/1	12,480	273,840	65	94	4,512	293,265	30,000
7/2	9,222	283,062	65	255	4,767	309,849	15,000
7/3	50,040	333,102	67	919	5,686	380,977	30,000
7/4	144,024	477,126	73	645	6,331	462,191	100,000
7/5	167,742	644,868	87	688	7,020	610,710	100,000
7/6	135,582	780,450	105	632	7,651	803,386	150,000
7/7	102,816	883,266	115	515	8,166	939,094	150,000
7/8	66,204	949,470	119	222	8,388	998,128	150,000
7/9	24,888	974,358	119	120	8,507	1,012,376	75,000
7/10	9,594	983,952	119	ND	ND	ND	30,000
7/11	5,148	989,100	ND	ND	ND	ND	ND
7/12	16,224	1,005,324	ND	ND	ND	ND	ND
7/13	15,066	1,020,390	ND	ND	ND	ND	ND
7/14	13,266	1,033,656	ND	ND	ND	ND	ND
7/15	16,422	1,050,078	ND	ND	ND	ND	ND
7/16	23,430	1,073,508	ND	ND	ND	ND	ND
7/17	18,108	1,091,616	ND	ND	ND	ND	ND
7/18	13,134	1,104,750	ND	ND	ND	ND	ND
7/19	2,472	1,107,222	ND	ND	ND	ND	ND
7/20	828	1,108,050	ND	ND	ND	ND	ND
7/21	1,356	1,109,406	ND	ND	ND	ND	ND
7/22	2,100	1,111,506	ND	ND	ND	ND	ND
7/23	942	1,112,448	ND	ND	ND	ND	ND
7/24	1,560	1,114,008	ND	ND	ND	ND	ND

Note: ND = no data

[a] No estimates produced before a time lag relationship could be established (6/30). A switch to smaller mesh size in 2023 makes comparisons with historical FPIs uninformative.

[b] Estimated river fish (ERF) was based on the river test fish cumulative escapement estimate less the cumulative tower count. On occasion, staff modify the ERF based on factors affecting sockeye catchability and other ancillary information.

Table 14.–Inshore run of sockeye salmon by age class, river system, and district, in thousands of fish, Bristol Bay, 2024.

District and river system[a]		1.2	2.2	Ocean-age-2	1.3	2.3	Ocean-age-3	1.4	Total[b]
NAKNEK-KVICHAK									
Kvichak River									
	Number	9,732	750	10,482	1,145	313	1,458	2	11,952
	Percent	81.4	6.3	87.7	9.6	2.6	12.2	0.0	99.9
Alagnak River									
	Number	3,396	277	3,673	545	22	567	5	4,245
	Percent	80.0	6.5	86.5	12.8	0.5	13.4	0.1	100.0
Naknek River									
	Number	1,506	417	1,923	911	232	1,143	37	3,105
	Percent	48.5	13.4	61.9	29.3	7.5	36.8	1.2	99.9
Total	Number	14,634	1,444	16,078	2,601	567	3,168	44	19,302
	Percent	75.8	7.5	83.3	13.5	2.9	16.4	0.2	99.9
EGEGIK RIVER									
	Number	2,587	1,040	192	182	570	752	24	4,527
	Percent	57.1	23.0	4.2	4.0	12.6	16.6	0.5	97.3
UGASHIK RIVER									
	Number	6,068	458	6,526	619	602	1,221	0	7,779
	Percent	78.0	5.9	83.9	8.0	7.7	15.7	0.0	99.6
NUSHAGAK									
Wood River									
	Number	10,035	439	10,474	1,428	94	1,522	7	12,017
	Percent	83.5	3.7	87.2	11.9	0.8	12.7	0.1	99.9
Igushik River									
	Number	1,116	31	1,147	387	11	398	1	1,549
	Percent	72.0	2.0	74.0	25.0	0.7	25.7	0.1	99.8
Nushagak River									
	Number	4,316	45	4,361	1,011	42	1,053	94	5,520
	Percent	78.2	0.8	79.0	18.3	0.8	19.1	1.7	99.8
Total	Number	15,467	515	15,982	2,826	147	2,973	102	19,086
	Percent	81.0	2.7	83.7	14.8	0.8	15.6	0.5	99.8
TOGIAK RIVER[c]									
	Number	631	12	643	279	5	284	1	929
	Percent	67.9	1.3	69.2	30.0	0.5	30.6	0.1	99.8
TOTAL BRISTOL BAY[d]									
	Number	39,386	3,470	39,421	6,507	1,890	8,398	171	51,624
	Percent	76.3	6.7	76.4	12.6	3.7	16.3	0.3	99.6

[a] Inshore run data does not include the South Peninsula catch of Bristol Bay sockeye or immature high seas bycatch.

[b] Totals do not include minor age classes; therefore, totals are greater than the sum of age classes listed.

[c] Does not include rivers other than Togiak River.

[d] Totals may not equal column sums due to rounding.

Table 15.–Commercial catch by date and species, in numbers of fish, Ugashik District, Bristol Bay, 2024.

	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
6/1	0	0	0	0	0	0	0	0	0	0
6/2	0	0	0	0	0	0	0	0	0	0
6/3	15	15	0	0	0	0	0	0	0	0
6/4	24	24	0	0	0	0	0	0	0	0
6/5	24	24	0	0	0	0	0	0	0	0
6/6	24	24	0	0	0	0	0	0	0	0
6/7	9	9	0	0	0	0	0	0	0	0
6/8	0	0	0	0	0	0	0	0	0	0
6/9	0	0	0	0	0	0	0	0	0	0
6/10	15	15	0	0	0	0	0	0	0	0
6/11	24	24	0	0	0	0	0	0	0	0
6/12	24	24	0	0	0	0	0	0	0	0
6/13	24	24	0	0	0	0	0	0	0	0
6/14	9	9	0	0	0	0	0	0	0	0
6/15	0	0	0	0	0	0	0	0	0	0
6/16	0	0	0	0	0	0	0	0	0	0
6/17	15	15	27	3	1,540	27	10	0	0	1,577
6/18	24	24	25	0	2,066	10	20	0	0	2,096
6/19	24	24	40	1	4,528	23	55	0	0	4,606
6/20	24	24	61	2	12,274	50	139	0	0	12,463
6/21	9	9	23	0	2,387	3	25	0	0	2,415
6/22	0	0	0	5	425	0	0	0	0	425
6/23	8	12	83	9	25,229	30	275	0	0	25,534
6/24	0	0	0	0	0	0	0	0	0	0
6/25	8	11	98	33	66,099	19	797	0	0	66,915
6/26	0	0	0	0	0	0	0	0	0	0
6/27	6	10	121	67	95,020	14	1,440	0	0	96,474
6/28	0	2	0	0	0	0	0	0	0	0
6/29	6	8.5	129	50	102,617	2	1,189	0	0	103,808
6/30	0	3.5	–	–	–	–	–	–	–	–
7/1	6	12	137	88	100,954	6	840	0	0	101,800
7/2	0	0	–	–	–	–	–	–	–	–
7/3	7	12	141	95	218,591	36	1,014	0	0	219,641
7/4	5	12	162	108	246,048	5	1,118	0	0	247,171
7/5	11	12	148	1	284,303	8	5,790	0	0	290,101
7/6	11	12	153	52	253,296	7	2,737	0	0	256,040
7/7	10	12	155	96	297,654	10	2,402	0	0	300,066
7/8	10	12	186	103	303,733	15	1,314	0	0	305,062
7/9	11.5	11.5	123	107	186,939	10	1,018	0	0	187,967
7/10	11.5	11.5	193	85	213,378	3	1,160	0	0	214,541
7/11	11	11	164	98	212,538	8	1,530	0	0	214,076
7/12	11.5	11.5	168	85	190,765	13	1,218	0	0	191,996

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Table 15.–Page 2 of 2.

	Hours fished		Deliveries							
Date	Drift	Set	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
7/13	11	11	152	73	204,947	6	2,007	0	0	206,960
7/14	15.5	15.5	76	0	83,011	0	675	0	0	83,686
7/15	24	24	222	101	237,101	5	2,181	0	0	239,287
7/16	24	24	170	66	184,817	4	1,755	0	0	186,576
7/17	24	24	207	87	170,427	2	2,099	0	62	172,590
7/18	24	24	167	17	129,660	4	1,536	0	0	131,200
7/19	24	24	232	27	162,594	3	2,176	0	0	164,773
7/20	24	24	139	37	57,643	0	1,414	0	0	59,057
7/21	24	24	132	32	60,541	2	1,219	0	0	61,762
7/22	24	24	141	33	42,602	1	945	0	1	43,549
7/23	24	24	72	14	22,652	2	528	1	0	23,183
7/24	24	24	49	15	12,619	3	375	0	6	13,003
7/25	24	24	32	8	9,250	0	353	0	4	9,607
7/26	24	24	27	8	11,899	1	419	0	0	12,319
7/27	24	24	17	4	6,942	1	192	0	0	7,135
7/28	24	24	15	0	6,406	0	116	0	0	6,522
7/29	24	24	5	0	1,228	0	48	0	0	1,276
7/30	24	24	11	0	5317	0	151	0	0	5,468
7/31	24	24	8	0	2,713	0	101	5	52	2,871
8/1	24	24	7	0	3,800	0	133	4	53	3,990
8/2	24	24	14	0	–	–	–	–	–	–
Totals	808	851	4,232	1,610	4,245,179	339	42,514	10	178	4,288,220

Note: En dashes indicate confidential information due to less than 3 permits or companies.

Table 16.–Comparison of daily sockeye escapement estimates by tower count and river test fish enumeration methods, Ugashik River, Bristol Bay 2024.

	Tower count		River test fishing				
				Index Points		Estimated cumulative	
Date	Daily	Cum.	Fish per index Pt[a]	Daily	Cum.	escapement	Estimated river fish[b]
6/24	ND	ND	ND	129	129	ND	ND
6/25	ND	ND	ND	199	329	ND	ND
6/26	ND	ND	ND	265	593	ND	ND
6/27	3462	3462	ND	194	787	ND	ND
6/28	7,188	10,650	ND	285	1,072	ND	ND
6/29	9,318	19,968	ND	262	1,334	ND	ND
6/30	12,084	32,052	ND	146	1,480	ND	ND
7/1	8,304	40,356	30	88	1,568	47,055	40,000
7/2	18,132	58,488	26	180	1,748	45,451	30,000
7/3	26,994	85,482	33	121	1,869	61,670	40,000
7/4	32,970	118,452	46	423	2,292	105,440	60,000
7/5	52,272	170,724	63	862	3,154	198,727	170,000
7/6	23,586	194,310	54	1,396	4,551	245,731	200,000
7/7	78,660	272,970	62	1,960	6,511	403,674	300,000
7/8	189,144	462,114	87	465	6,976	606,880	450,000
7/9	205,542	667,656	69	897	7,873	543,213	550,000
7/10	107,928	775,584	96	334	8,206	787,812	550,000
7/11	104,460	880,044	86	775	8,981	772,406	400,000
7/12	97,422	977,466	91	393	9,374	853,051	250,000
7/13	86,856	1,064,322	97	208	9,582	929,434	300,000
7/14	100,266	1,164,588	111	284	9,866	1,095,145	250,000
7/15	94,140	1,258,728	118	1,190	11,056	1,304,592	250,000
7/16	107,442	1,366,170	114	553	11,609	1,323,401	350,000
7/17	128,484	1,494,654	118	ND	ND	ND	350,000
7/18	74,406	1,569,060	ND	ND	ND	ND	ND
7/19	36,912	1,605,972	ND	ND	ND	ND	ND
7/20	32,760	1,638,732	ND	ND	ND	ND	ND
7/21	32,022	1,670,754	ND	ND	ND	ND	ND
7/22	32,262	1,703,016	ND	ND	ND	ND	ND
7/23	25,062	1,728,078	ND	ND	ND	ND	ND
7/24	21,462	1,749,540	ND	ND	ND	ND	ND
7/25	10,236	1,759,776	ND	ND	ND	ND	ND

Note: ND = no data

[a] No estimates produced before a time lag relationship could be established (7/1). A switch to smaller mesh size in 2023 makes comparisons with historical FPIs uninformative.

[b] Estimated river fish (ERF) was based on the river test fish cumulative escapement estimate less the cumulative tower count. On occasion, staff modify the ERF based on factors affecting sockeye catchability and other ancillary information.

Table 17.–Daily sockeye salmon escapement tower counts by river system, westside Bristol Bay, 2024.

	Wood River		Igushik River		Togiak River	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.
6/17	606	606	ND	ND	ND	ND
6/18	2,400	3,006	ND	ND	ND	ND
6/19	22,584	25,590	ND	ND	ND	ND
6/20	63,300	88,890	ND	ND	ND	ND
6/21	33,330	122,220	ND	ND	ND	ND
6/22	19,896	142,116	ND	ND	ND	ND
6/23	11,568	153,684	ND	ND	ND	ND
6/24	3,168	156,852	ND	ND	ND	ND
6/25	33,750	190,602	342	342	ND	ND
6/26	244,422	435,024	138	480	ND	ND
6/27	478,404	913,428	684	1,164	ND	ND
6/28	571,710	1,485,138	4,212	5,376	ND	ND
6/29	457,110	1,942,248	18,486	23,862	ND	ND
6/30	232,422	2,174,670	19,476	43,338	ND	ND
7/1	186,174	2,360,844	29,550	72,888	ND	ND
7/2	227,634	2,588,478	32,754	105,642	ND	ND
7/3	147,750	2,736,228	31,236	136,878	ND	ND
7/4	108,486	2,844,714	21,504	158,382	ND	ND
7/5	227,118	3,071,832	15,696	174,078	828	828
7/6	219,060	3,290,892	13,944	188,022	4,974	5,802
7/7	210,090	3,500,982	17,250	205,272	5,172	10,974
7/8	142,350	3,643,332	22,074	227,346	4,656	15,630
7/9	101,868	3,745,200	21,954	249,300	7,914	23,544
7/10	53,166	3,798,366	21,984	271,284	15,516	39,060
7/11	56,766	3,855,132	20,706	291,990	8,052	47,112
7/12	72,636	3,927,768	16,656	308,646	5,634	52,746
7/13	77,490	4,005,258	38,538	347,184	4,416	57,162
7/14	101,670	4,106,928	42,594	389,778	4,380	61,542
7/15	93,948	4,200,876	49,950	439,728	4,488	66,030
7/16	63,198	4,264,074	48,378	488,106	10,662	76,692
7/17	38,982	4,303,056	46,272	534,378	17,430	94,122
7/18	38,244	4,341,300	40,260	574,638	12,006	106,128
7/19	18,654	4,359,954	25,446	600,084	9,828	115,956
7/20	16,302	4,376,256	19,890	619,974	12,684	128,640
7/21	11,310	4,387,566	15,846	635,820	9,492	138,132

-continued-

Table 17.–Page 2 of 2.

	Wood River		Igushik River		Togiak River	
Date	Daily	Cum.	Daily	Cum.	Daily	Cum.
7/22	17,088	4,404,654	10,338	646,158	14,070	152,202
7/23	ND	ND	6,564	652,722	16,032	168,234
7/24	ND	ND	4,554	657,276	20,088	188,322
7/25	ND	ND	2,898	660,174	19,308	207,630
7/26	ND	ND	3,120	663,294	9,540	217,170
7/27	ND	ND	4,242	667,536	6,390	223,560
7/28	ND	ND	6,018	673,554	8,658	232,218
7/29	ND	ND	4,410	677,964	9,090	241,308
7/30	ND	ND	6,420	684,384	9,702	251,010
7/31	ND	ND	8,202	692,586	10,416	261,426
8/1	ND	ND	ND	692,586	24,246	285,672
8/2	ND	ND	ND	ND	27,792	313,464
8/3	ND	ND	ND	ND	13,374	326,838
8/4	ND	ND	ND	ND	9,180	336,018
8/5	ND	ND	ND	ND	13,068	349,086
8/6	ND	ND	ND	ND	12,492	361,578
8/7	ND	ND	ND	ND	ND	361,578

Note: ND = no data, tower not operational.

Table 18.–Commercial salmon catch by date and species, in numbers of fish, Nushagak District, Bristol Bay, 2024.

	Hours fished (drift/set)		Deliveries							
Date	Nushagak	Igushik	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
6/14	0/0	0/15	0	10	–	–	–	–	–	–
6/15	0/0	0/15	0	12	–	–	–	–	–	–
6/16	0/0	0/15	0	23	–	–	–	–	–	–
6/17	0/0	0/15	0	2	–	–	–	–	–	–
6/18	0/0	0/14	0	2	–	–	–	–	–	–
6/19	0/0	0/13.5	0	15	–	–	–	–	–	–
6/20	0/0	0/14.5	0	25	–	–	–	–	–	–
6/21	0/0	0/14	0	29	–	–	–	–	–	–
6/22	0/0	0/14.5	0	22	–	–	–	–	–	–
6/23	0/0	0/17	0	26	–	–	–	–	–	–
6/24	0/0	0/15	0	43	–	–	–	–	–	–
6/25	0/0	0/20.5	0	20	–	–	–	–	–	–
6/26	6/7.5	6/24	343	100	249,947	110	6,710	0	0	256,767
6/27	8/11	8/24	570	333	404,881	146	12,737	0	0	417,764
6/28	10/12.5	10/24	877	333	431,531	122	14,821	0	0	446,474
6/29[b]	10/12	10/24	771	349	715,724	143	26,164	1	0	742,032
6/30[a,b]	12/14	12/24	880	527	910,153	224	32,707	0	0	943,084
7/1[b]	11.5/14	11.5/24	828	466	595,362	204	22,345	2	0	617,913
7/2[b]	9.5/15	9.5/24	580	434	349,247	103	9,564	1	0	358,915
7/3[b]	12.5/18	12.5/24	836	452	643,372	155	17,968	2	0	661,497
7/4[b]	23.5/24	23.5/24	1,099	635	1,806,013	161	38,977	2	0	1,845,153
7/5[b]	24/24	24/24	632	463	956,116	114	15,341	1	0	971,572
7/6[b]	23/24	23/24	483	448	576,695	102	13,197	0	0	589,994
7/7[b]	15.5/24	15.5/24	445	535	485,291	78	11,916	1	0	497,286
7/8[a,b]	15.5/24	15.5/24	440	397	251,341	72	8,118	3	0	259,534
7/9[b]	19/24	19/24	480	364	491,384	88	13,112	1	3	504,588
7/10[b]	24/24	24/24	370	405	735,392	63	14,905	2	2	750,364
7/11[a,b]	24/24	24/24	334	475	329,244	46	6,869	8	0	336,167
7/12[b]	24/24	24/24	298	331	510,982	32	10,043	6	4	521,067
7/13[b]	24/24	24/24	215	389	223,344	15	3,041	2	9	226,411
7/14[b]	24/24	24/24	303	343	439,669	26	9,145	9	8	448,857
7/15[b]	24/24	24/24	325	476	358,835	20	7,711	108	7	366,681
7/16[b]	24/24	24/24	246	286	225,092	30	5,464	81	8	230,675
7/17[b]	24/24	24/24	192	379	159,418	24	3,662	253	34	163,391
7/18[b]	24/24	24/24	180	295	111,145	6	2,450	515	129	114,245
7/19[b]	24/24	24/24	118	150	64,612	9	1,857	543	71	67,092
7/20[b]	24/24	24/24	116	215	83,436	11	1,412	1,009	224	86,092
7/21[b]	24/24	24/24	59	160	55,524	34	1,189	2,405	505	59,657
7/22	24/24	24/24	84	112	44,598	7	1,656	3,967	708	50,936
7/23	24/24	24/24	39	77	23,085	10	1,206	1,342	454	26,097

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Table 18.–Page 2 of 2.

	Hours fished (drift/set)		Deliveries							
Date	Nushagak	Igushik	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
7/24	24/24	24/24	38	63	14,073	6	626	2,888	2,058	19,651
7/25	24/24	24/24	16	47	9,251	5	490	2,218	1,123	13,087
7/26	24/24	24/24	22	29	6,999	1	231	1,109	756	9,096
7/27	24/24	24/24	1	13	–	–	–	–	–	–
7/28	24/24	24/24	1	10	–	–	–	–	–	–
7/29	24/24	24/24	0	4	–	–	–	–	–	–
7/30	24/24	24/24	0	2	–	–	–	–	–	–
7/31	24/24	24/24	8	15	–	–	–	–	–	–
8/1	24/24	24/24	5	11	–	–	–	–	–	–
8/2	24/24	24/24	8	4	–	–	–	–	–	–
8/3	24/24	24/24	17	15	–	–	–	–	–	–
8/4	24/24	24/24	6	4	–	–	–	–	–	–
8/5	24/24	24/24	4	1	–	–	–	–	–	–
8/6	24/24	24/24	17	5	–	–	–	–	–	–
8/7	24/24	24/24	5	5	–	–	–	–	–	–
8/8	24/24	24/24	5	6	–	–	–	–	–	–
8/9	24/24	24/24	5	1	–	–	–	–	–	–
8/10	24/24	24/24	1	0	–	–	–	–	–	–
8/11	24/24	24/24	0	1	–	–	–	–	–	–
8/12	24/24	24/24	0	1	–	–	–	–	–	–
8/13	24/24	24/24	0	1	–	–	–	–	–	–
8/14	24/24	24/24	0	1	–	–	–	–	–	–
8/22	24/24	24/24	0	1	–	–	–	–	–	–
8/23	24/24	24/24	0	1	–	–	–	–	–	–
8/25	24/24	24/24	0	1	–	–	–	–	–	–
8/31	24/24	24/24	0	1	–	–	–	–	–	–
9/2	24/24	24/24	0	1	–	–	–	–	–	–
9/3	24/24	24/24	0	1	–	–	–	–	–	–
9/8	24/24	24/24	0	1	–	–	–	–	–	–
9/12	24/24	24/24	0	1	–	–	–	–	–	–
9/13	24/24	24/24	0	1	–	–	–	–	–	–
Total	1280/1328	1280/1599	12,302	10,406	12,300,233	2,438	316,655	40,130	22,078	12,681,534

Note: En dash indicates confidential information due to less than 3 permit holders or companies operating.

[a] Fishing extended until further notice.

[b] Setnet fishing in WRSHA was open between 6/29 – 7/21. Catch is included in the totals.

Table 19.–Commercial salmon catch by date and species, in numbers of fish, Togiak District, Bristol Bay, 2024.

	Deliveries							
Date	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
6/18	1	1	–	–	–	–	–	–
6/19	1	1	–	–	–	–	–	–
6/21	0	1	–	–	–	–	–	–
6/20	2	0	–	–	–	–	–	–
6/24	6	21	1,598	6	328	0	0	1,932
6/25	5	23	1,023	18	197	1	0	1,239
6/26	5	3	57	0	3	0	0	60
6/27	5	16	1,487	30	165	1	0	1,683
6/28	5	7	673	3	407	0	0	1,083
7/1	21	35	5,212	74	1,171	3	0	6,460
7/2	22	57	5,383	76	1,441	4	0	6,904
7/3	28	54	6,202	90	2,407	7	0	8,706
7/4	15	51	4,773	40	1,426	3	0	6,242
7/5	16	45	6,762	33	1,471	4	0	8,270
7/6	14	61	8,249	21	1,338	7	0	9,615
7/7	5	45	7,414	19	566	6	0	8,005
7/8	25	80	12,277	48	2,375	36	0	14,736
7/9	27	66	10,081	69	2,345	12	0	12,507
7/10	14	56	8,041	36	1,037	12	0	9,126
7/11	29	47	12,428	39	1,275	8	0	13,750
7/12	4	33	5,008	1	272	2	0	5,283
7/13	32	76	14,108	17	1,215	15	0	15,355
7/14	11	60	10,225	7	1,316	25	0	11,573
7/15	28	91	24,499	12	2,310	42	0	26,863
7/16	53	109	31,535	26	2,859	38	0	34,458
7/17	36	105	29,167	28	1,898	671	0	31,764
7/18	29	82	19,890	27	1,814	52	0	21,783
7/19	37	85	22,961	15	2,203	89	0	25,268
7/20	25	88	18,147	11	1,176	61	0	19,395
7/21	11	32	10,654	1	591	19	0	11,265
7/22	28	82	17,310	5	757	93	0	18,165
7/23	49	114	26,016	9	2,083	271	24	28,403
7/24	33	91	18,907	2	1,288	241	0	20,438
7/25	47	81	20,748	1	1,813	757	16	23,335
7/26	32	82	19,293	2	1,062	1,271	67	21,695
7/27	39	70	17,789	2	907	907	56	19,661
7/28	8	11	4,039	0	161	119	0	4,319
7/29	17	1	8,617	0	541	1,071	0	10,229
7/30	35	42	17,625	2	1,143	2,807	0	21,577
7/31	85	53	36,531	0	1,565	5,530	3	43,629

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Table 19.–Page 2 of 2.

	Deliveries							
Date	Drift	Set	Sockeye	Chinook	Chum	Pink	Coho	Total
8/1	53	65	25,491	1	1,027	4,196	3	30,718
8/2	29	56	18,886	0	509	2,693	30	22,118
8/3	44	46	19,027	2	514	3,798	57	23,398
8/4	1	4	1,170	0	8	117	0	1,295
8/5	30	21	10,446	0	235	1,836	29	12,546
8/6	42	40	14,719	0	214	2,744	104	17,781
8/7	12	56	6,201	0	179	1,272	66	7,718
8/8	3	46	4,907	0	82	680	66	5,735
8/9	7	19	3,496	0	55	439	72	4,062
8/12	12	11	2,374	0	25	281	60	2,740
8/13	7	24	2,124	0	61	280	99	2,564
8/14	0	15	759	0	14	49	34	856
Total	1,125	2,461	574,758	805	47,970	32,570	786	656,889

Note: En dashes indicate information is confidential due to less than 3 permit holders involved in fishery.

Table 20.–Daily observed estimates in short tons of herring, by index area, Togiak District, 2024.

			Estimated Biomass by Index Area [a]												
Date	Survey Rating [b]	Spawn	NUS	KUK	MET	NVK	UGL	TOG	TNG	MTG	OSK	PYT	CPN	HAG	Daily Total
8-May	ND	0.0	0	0	0	0	0	ND	ND	ND	ND	ND	ND	ND	0
13-May	3.4	15.3	868	8,300	1,775	6,606	5,802	8,217	11,378	20,384	543	ND	ND	810	64,683
14-May	2.7	10.6	109	13,609	5,226	17,690	3,335	13,893	7,793	ND	ND	ND	ND	ND	61,653
17-May	3.8	7.7	8,208	68	9,857	308	5,580	7,766	4,345	306	0	0	0	0	36,437
Total linear miles of spawn		33.6												Peak biomass estimate	64,683

Note: ND = no data, section not surveyed.

[a] Index areas: NUS – Nushagak Peninsula; KUK – Kulukak; MET – Metervik; NUK – Nunavachak; UGL – Ungalikthluk/Togiak; TOG – Togiak; TNG – Tongue Pt.; MTG – Matogak; HAG – Hagemeister; OSK – Osviak; PYT – Pyrite Point; CPN – Cape Newenham.

[b] Average survey rating for all sections surveyed: 1= Excellent, 2 = Good, 3 = Fair, 4 = Poor, 5 = Unsatisfactory

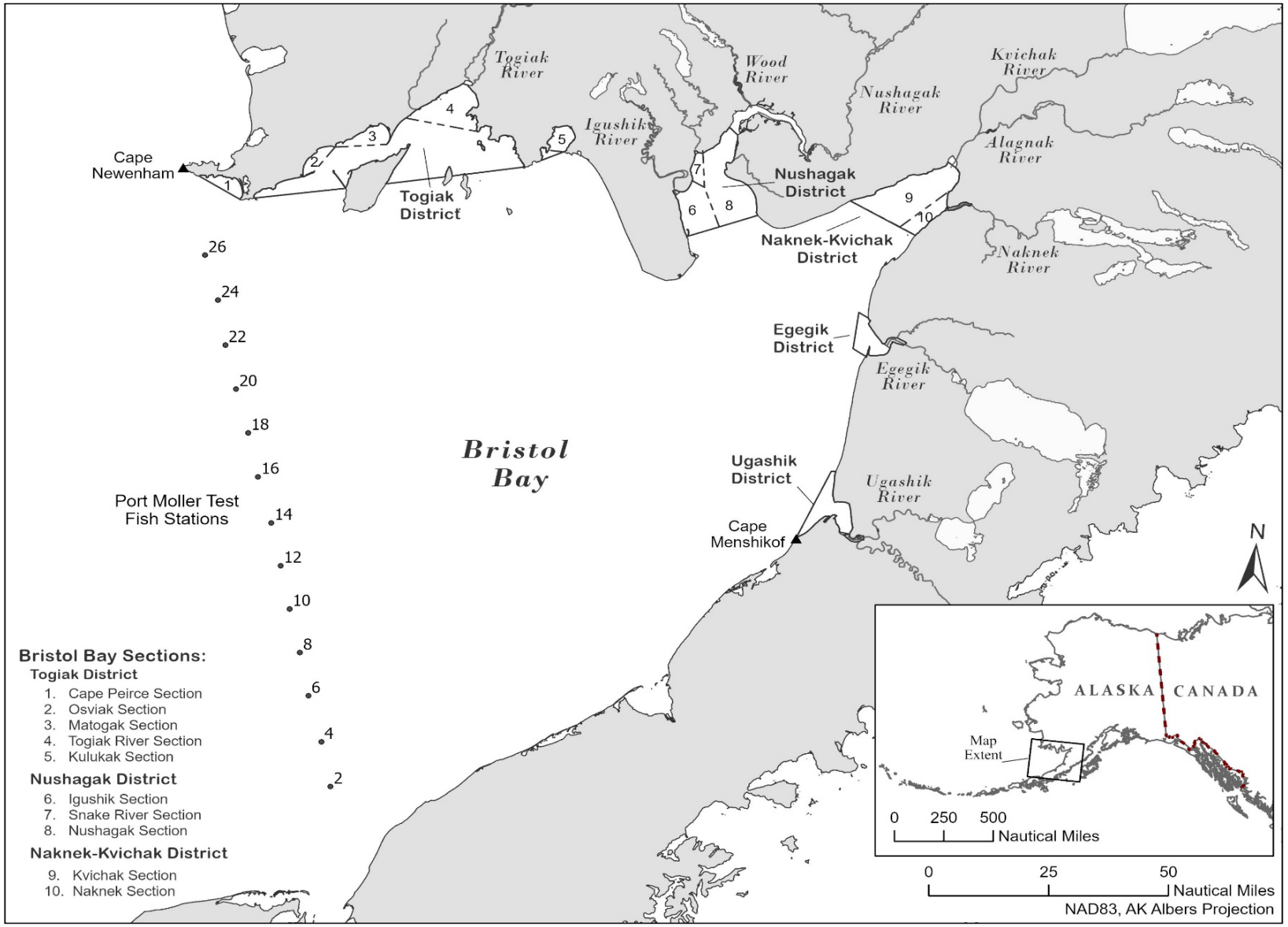

Figure 1.–Bristol Bay area commercial fisheries salmon management districts, sections, rivers, and the Port Moller Test Fishery Station.

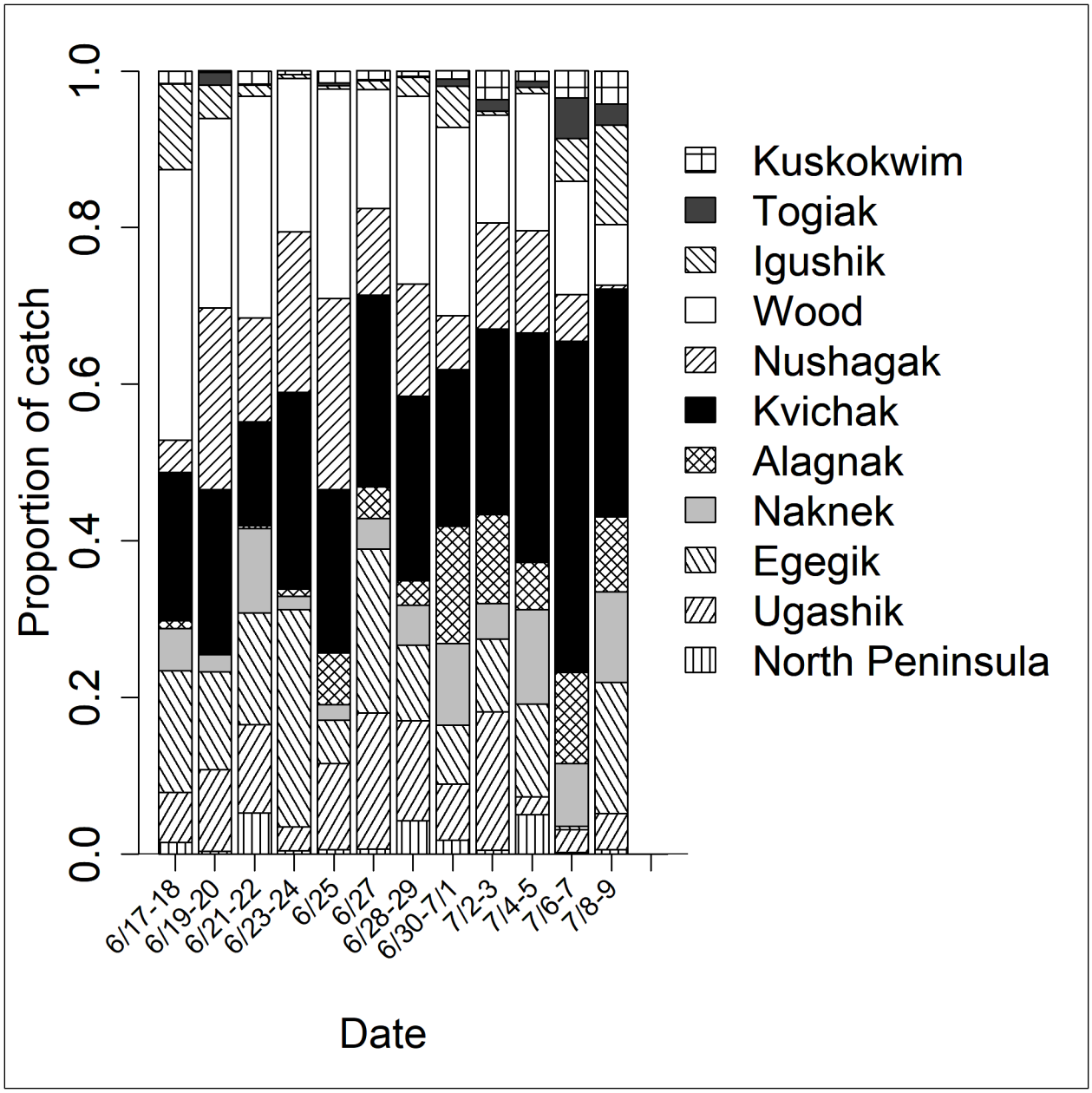

Figure 2.–Stock composition estimates for sockeye salmon sampled from the Port Moller Test Fishery, 2024.

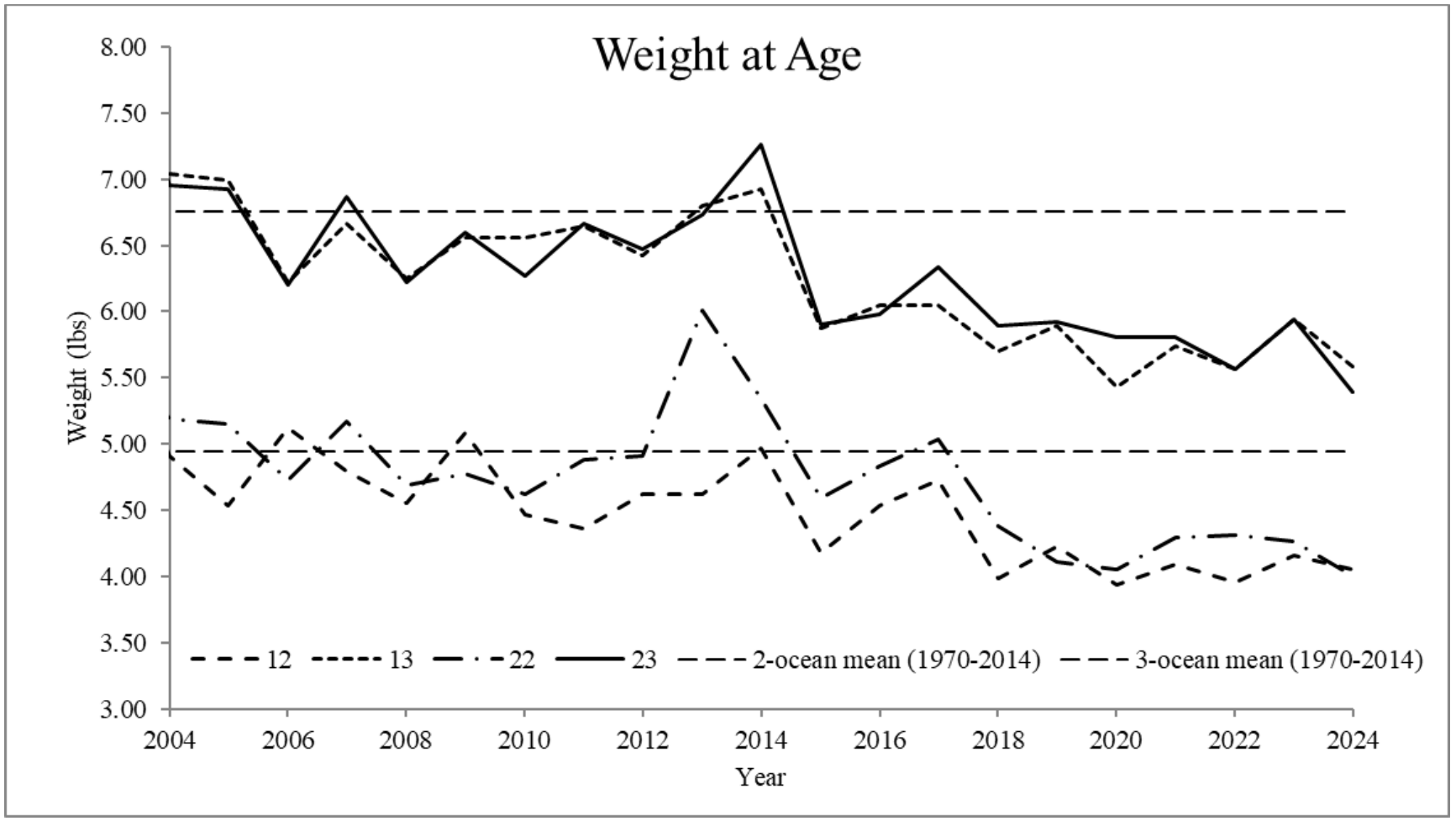

Figure 3.–Average weight (lb), by age class, of Bristol Bay sockeye salmon sampled in the commercial fishery catch, 2004–2024.

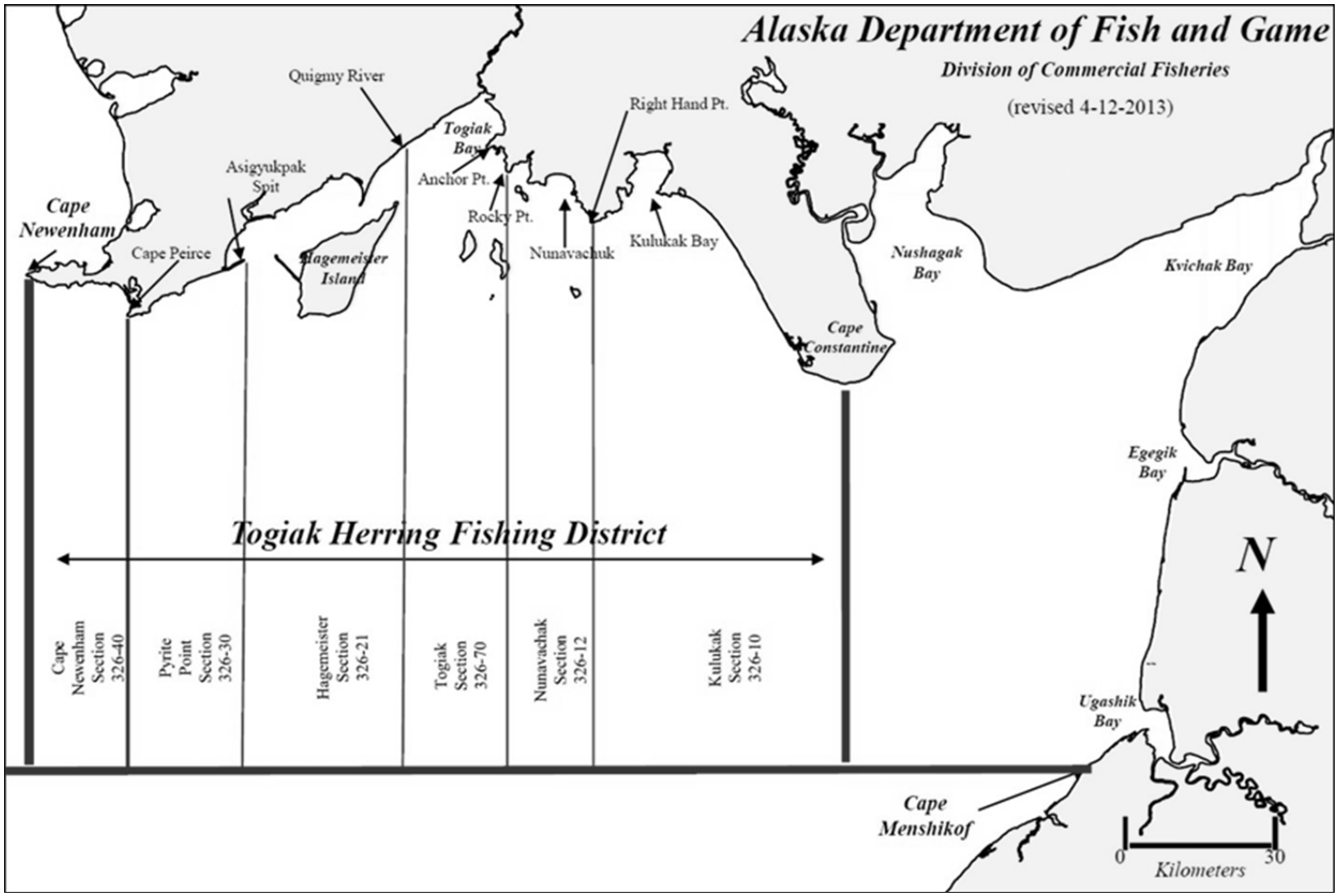

Figure 4.–Togiak Herring District, Bristol.

APPENDIX A: SALMON

Appendix A1.–Escapement of sockeye salmon by river system, Bristol Bay, 2004–2024.

	River[a]								
Year	Kvichak	Naknek	Alagnak[b]	Egegik	Ugashik	Nushagak[c]	Wood	Igushik	Togiak
2004	5,500,134	1,939,674	5,396,592	1,290,144	815,104	543,872	1,543,392	109,650	135,637
2005	2,320,332	2,744,622	4,218,990	1,621,734	799,612	1,106,703	1,496,550	365,712	155,778
2006	3,068,226	1,953,228	1,773,966	1,465,158	1,003,158	548,410	4,008,102	305,268	312,126
2007	2,810,208	2,945,304	2,466,414	1,432,500	2,599,186	518,041	1,528,086	415,452	269,646
2008	2,757,912	2,472,690	2,180,502	1,259,568	596,332	492,546	1,724,676	1,054,704	205,680
2009	2,266,140	1,169,466	970,818	1,146,276	1,364,338	484,149	1,319,232	514,188	313,946
2010	4,207,410	1,463,928	1,187,730	927,054	830,886	468,696	1,804,344	518,040	188,298
2011	2,264,352	1,177,074	883,794	961,200	1,029,853	428,191	1,098,006	421,380	190,970
2012	4,164,444	900,312	861,747	1,233,900	670,578	432,438	764,211	193,326	203,148
2013	2,088,576	938,160	1,095,950	1,113,630	898,110	894,148	1,183,348	387,036	128,118
2014	4,458,540	1,474,428	189,452	1,382,466	640,158	618,477	2,764,614	340,590	151,934
2015	7,348,572	1,920,954	5,452,026	2,160,792	1,564,638	796,684	1,941,474	651,172	218,700
2016	4,462,728	1,691,910	1,677,769	1,837,260	1,635,270	680,512	1,309,707	469,230	200,046
2017	3,163,404	1,899,972	2,041,824	2,600,982	1,186,446	2,852,308	4,274,224	578,700	190,098
2018	4,398,708	2,221,152	1,581,426	1,608,357	1,167,792	1,247,460	7,507,254	770,772	511,770
2019	2,371,242	2,911,470	820,458	2,340,210	1,547,748	709,431	2,073,276	256,074	351,846
2020	4,030,968	4,112,160	2,386,518	2,389,728	1,745,940	1,228,059	2,243,886	323,814	261,126
2021	4,703,520	2,796,534	3,236,904	1,832,196	2,859,930	4,697,299	4,410,156	878,952	280,836
2022	4,224,882	1,921,296	1,668,222	1,786,152	1,436,784	3,455,272	3,747,612	378,768	242,412
2023	3,751,686	1,156,206	1,099,050	1,562,700	1,128,896	1,772,676	2,648,616	542,496	268,218
2024	6,644,490	926,112	2,356,560	1,114,008	1,759,776	1,723,374	4,404,654	692,616	361,578
20-Year Avg.	3,718,099	1,990,527	2,059,508	1,597,600	1,276,038	1,198,769	2,469,538	473,766	239,017
2019–2023 Avg.	3,816,460	2,579,533	1,842,230	1,982,197	1,743,860	2,372,547	3,024,709	476,021	280,888

[a] Tower count unless otherwise noted.

[b] 2012–2016, aerial surveys were conducted, estimates were expanded by a factor of 2.55 (Clark 2005).

[c] Sonar estimate.

Appendix A2.–Salmon entry permit registration by gear and residency, Bristol Bay, 2004–2024.

	Drift Net[a]						Set Net[a]						Total
Year	Resident	Non-Resident	Drift total	Permits fished	% Fished	Interim use	Resident	Non-Resident	Set total	Permits fished	% Fished	Interim use	Drift and set
2004	912	948	1,860	1,426	77%	3	703	286	989	797	81%	1	2,849
2005	895	967	1,862	1,526	82%	3	688	300	988	829	84%	1	2,850
2006	893	966	1,859	1,567	84%	1	683	302	985	844	86%	0	2,844
2007	881	981	1,862	1,621	87%	1	672	311	983	836	85%	0	2,845
2008	887	976	1,863	1,636	88%	0	678	302	980	850	87%	0	2,843
2009	864	999	1,863	1,642	88%	0	674	307	981	855	87%	0	2,844
2010	866	997	1,863	1,731	93%	0	672	311	983	861	88%	0	2,846
2011	1005	857	1,862	1,747	94%	0	660	321	981	878	90%	0	2,843
2012	849	1,013	1,862	1,740	93%	0	654	325	979	883	90%	0	2,841
2013	862	1,000	1,862	1,709	92%	0	646	332	978	854	87%	0	2,840
2014	848	1,015	1,863	1,751	94%	0	636	341	977	881	90%	0	2,840
2015	834	1,030	1,864	1,744	94%	0	639	336	975	885	91%	0	2,839
2016	826	1,038	1,864	1,715	92%	0	637	336	973	858	88%	0	2,837
2017	842	1,021	1,863	1,728	93%	0	635	337	972	881	91%	0	2,835
2018	838	1,025	1,863	1,735	94%	0	634	336	970	879	91%	0	2,833
2019	840	1,022	1,862	1,767	95%	0	632	333	965	893	93%	0	2,827
2020	825	1,037	1,862	1,724	93%	0	627	337	964	841	87%	0	2,826
2021	832	1,030	1,862	1,753	94%	0	612	352	964	870	90%	0	2,826
2022	853	1,010	1,863	1,760	94%	0	608	354	962	851	88%	0	2,825
2023	855	1,009	1,864	1,703	91%	0	599	359	958	848	89%	0	2,822
2024	858	1,004	1,862	1,670	90%	0	584	368	952	824	87%	0	2,814
20-Year Avg.	865	997	1,862	1,686	91%	0	649	326	975	859	88%	0	2,838
2004–13 Avg.	891	970	1,862	1,635	88%	1	673	310	983	849	86%	0	2,845
2014–23 Avg.	839	1,024	1,863	1,738	93%	0	626	342	968	869	90%	0	2,831

Note: Limited Entry went into effect in 1974. Interim-use permits are included in the totals.

[a] Allowable permit gear: 150 fathoms for drift and 50 for set.

Appendix A3.–Sockeye salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004	4,715,070	10,209,227	3,139,229	6,104,048	437,234	24,604,808
2005	6,728,469	8,015,950	2,216,635	7,096,031	465,094	24,522,179
2006	7,151,741	7,408,983	2,429,637	10,876,552	626,442	28,493,355
2007	9,022,511	6,495,908	5,026,615	8,404,111	816,581	29,765,726
2008	10,381,844	7,403,885	2,334,022	6,903,157	651,315	27,674,223
2009	8,514,944	11,527,462	2,555,263	7,730,168	559,442	30,887,279
2010	10,858,209	5,070,816	4,031,832	8,424,030	667,850	29,052,737
2011	9,016,321	4,810,362	2,643,495	4,886,552	744,626	22,101,356
2012	10,152,917	5,062,390	2,418,653	2,663,014	622,909	20,919,883
2013	4,853,030	4,779,133	2,168,216	3,163,805	467,329	15,431,513
2014	13,791,290	6,928,621	1,511,416	6,448,463	443,287	29,123,077
2015	16,531,193	8,749,567	5,473,800	5,592,816	371,903	36,719,279
2016	13,466,245	8,739,699	6,630,231	8,109,797	645,797	37,591,769
2017	8,256,304	11,980,502	5,705,712	12,322,519	516,488	38,781,525
2018	8,917,710	5,149,621	2,771,945	24,230,150	867,770	41,937,196
2019	11,527,837	14,683,614	1,037,030	14,755,905	1,018,644	43,023,030
2020	14,311,034	13,364,669	2,598,269	8,860,302	445,572	39,579,846
2021	9,253,721	8,552,456	5,205,169	18,283,479	676,163	41,970,988
2022	14,362,397	16,543,931	6,321,339	22,718,969	584,812	60,531,448
2023	13,264,949	12,620,330	2,282,217	11,967,229	443,905	40,578,630
2024	9,251,442	5,287,249	4,245,179	12,300,233	574,758	31,658,861
2004–2023 Avg.	10,253,887	8,904,856	3,425,036	9,977,055	603,658	33,164,492
2014–2023 Avg.	12,368,268	10,731,301	3,953,713	13,328,963	601,434	40,983,679
2019–2023 Avg.	12,543,988	13,153,000	3,488,805	15,317,177	633,819	45,136,788

Appendix A4.–Chinook salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004[a]	1,496	1,632	891	96,759	9,310	114,280[a]
2005	1,458	486	1,818	62,764	10,605	77,131
2006	2,333	915	2,608	84,881	16,221	106,958
2007	1,520	528	1,473	51,831	7,769	63,121
2008	1,344	416	1,191	18,968	3,087	25,006
2009	1,026	308	948	24,693	4,397	31,372
2010	1,060	223	460	26,056	5,134	32,933
2011	1,962	567	372	26,927	6,650	36,478
2012	2,306	282	212	11,952	4,612	19,364
2013	1,360	144	52	10,213	2,642	14,411
2014	1,648	461	83	11,862	1,708	15,762
2015	2,926	753	226	50,675	2,663	57,243
2016	2,797	1,144	1,435	23,783	3,831	32,990
2017	2,477	866	1,219	32,194	4,643	41,399
2018	2,398	1,520	1,407	35,938	3,457	44,720
2019	2,743	3,344	2,062	21,509	3,568	33,226
2020	816	711	1,349	6,363	767	10,006
2021	990	475	444	4,306	729	6,944
2022	1,154	239	372	4,661	1,307	7,733
2023	1,036	286	271	5,785	605	7,983
2024	739	262	339	2,438	805	4,583
20-Year Avg.	1,743	765	945	30,606	4,685	34,988
2004–13 Avg.	1,587	550	1,003	41,504	7,043	45,197
2014–23 Avg.	1,899	980	887	19,708	2,328	25,801

[a] Total includes General District harvest of 4,624 fish.

Appendix A5.–Chum salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004	29,972	75,061	49,358	458,916	94,025	732,481
2005	204,777	62,029	39,513	966,069	124,695	1,397,083
2006	457,855	153,777	168,428	1,240,235	223,364	2,243,659
2007	383,927	157,991	242,025	953,292	202,486	1,939,721
2008	237,260	92,901	135,292	492,341	301,967	1,259,761
2009	255,520	118,212	64,974	745,161	141,375	1,325,242
2010	337,911	57,324	62,987	424,234	118,767	1,001,223
2011	218,710	39,246	34,287	296,909	113,234	702,386
2012	133,959	35,375	31,352	272,163	206,614	679,463
2013	272,754	36,792	32,624	586,117	209,946	1,138,233
2014[a]	87,188	33,173	19,677	242,261	100,195	482,531
2015	350,169	69,057	69,967	502,820	103,773	1,095,786
2016	237,035	74,641	72,534	397,761	187,508	969,479
2017	249,696	147,330	88,126	804,878	204,518	1,494,548
2018	310,872	75,524	71,854	1,020,227	158,329	1,636,806
2019	134,517	156,260	20,249	855,428	227,731	1,394,185
2020	36,381	50,055	16,339	136,605	53,510	292,890
2021	34,338	20,317	20,793	115,456	21,346	212,250
2022	34,124	28,033	16,176	172,370	52,770	303,473
2023	55,091	43,042	17,227	173,252	52,893	341,505
2024	68,787	32,993	42,818	316,655	47,970	509,223
20-year Avg.	203,103	76,307	63,689	542,825	144,952	1,032,135
2004–13 Avg.	253,265	82,871	86,084	643,544	173,647	1,241,925
2014–23 Avg.	152,941	69,743	41,294	442,106	116,257	822,345

[a] Includes 37 fish that were not assigned to a district.

Appendix A6.–Pink salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004[a]	7,749	0	187	26,150	18,293	52,380
2005	32	0	1	554	2,108	2,695
2006	25,149	700	0	39,011	80,748	145,608
2007	9	9	2	384	533	937
2008	20,682	1,033	16	138,284	125,409	285,424
2009	23	0	1	320	544	888
2010	8,237	1,655	0	1,289,970	39,734	1,339,596
2011	13	0	5	257	352	627
2012	3,535	285	0	877,466	28,055	909,341
2013	467	0	0	208	187	862
2014	7,473	4,835	227	1,166,997	118,682	1,298,214
2015	112	0	2	807	1,219	2,140
2016	12,058	343	1,498	537,525	217,190	768,614
2017	174	214	143	7,230	26,797	34,558
2018	30,507	2,742	971	142,287	67,747	244,254
2019	530	221	183	2,021	3,875	6,830
2020	1,345	1,755	381	26,216	42,216	71,913
2021	224	281	28	1,122	1,941	3,596
2022	18,925	4,317	362	31,405	60,205	115,214
2023	278	116	42	514	2,190	3,140
2024	4,235	776	20	40,130	32,570	77,731
20-Year Avg.	13,566	1,767	364	427,531	79,828	523,056
2004–12 Avg.	13,070	735	41	474,176	58,448	546,470
2014–22 Avg.	14,062	2,798	688	380,886	101,208	499,642

Note: Averages include even numbered years only.

[a] Total includes general District harvest of 1.

Appendix A7.–Coho salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004	2,142	2,324	4,744	47,706	15,463	72,379
2005	3,314	20,611	8,162	42,456	8	74,551
2006	5,163	26,788	3,087	44,385	449	79,872
2007	2,180	18,111	1,954	29,578	157	51,980
2008	7,059	29,682	2,220	76,932	1,159	117,052
2009	732	10,594	2,602	35,171	9,209	58,308
2010	901	9,984	407	72,909	24,065	108,266
2011	633	440	84	4,712	7,605	13,474
2012	431	2,493	0	97,382	15,977	116,283
2013	467	812	479	124,182	11,420	137,360
2014	646	11,473	435	242,604	32,134	287,292
2015	1,253	730	2,533	6,614	26,080	37,210
2016	1,110	546	171	79,538	9,346	90,711
2017	4,754	14,274	7	167,347	54,503	240,885
2018	11,549	21,139	1,633	84,320	43,243	161,884
2019	1,418	18,233	550	33,018	27,778	80,997
2020	1,033	26,342	818	76,133	10,095	114,421
2021	1,053	15,952	151	27,467	3,583	48,206
2022	1,039	10,730	11	5,155	1,100	18,035
2023	1,126	7,963	211	7,872	407	17,579
2024	557	7,176	424	22,078	786	31,021
20-Year Avg.	2,400	12,461	1,513	65,274	14,689	96,337
2004–13 Avg.	2,302	12,184	2,374	57,541	8,551	82,953
2014–23 Avg.	2,498	12,738	652	73,007	20,827	109,722

Appendix A8.–Total salmon commercial catch by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak	Togiak	Total
2004[a]	4,758,330	10,288,807	3,194,507	6,734,064	574,325	27,233,322
2005	6,940,395	8,099,368	2,266,400	8,168,138	602,660	26,076,961
2006	7,641,821	7,591,163	2,603,760	12,285,064	947,228	31,069,036
2007	9,414,797	6,674,941	5,272,187	9,440,219	1,027,528	31,829,672
2008	10,651,517	7,528,622	2,472,742	7,629,892	1,082,937	29,365,710
2009	8,774,759	11,658,846	2,623,819	8,774,759	714,804	32,546,987
2010	11,208,947	5,144,104	4,095,854	10,222,381	866,201	31,537,487
2011	9,240,963	4,853,480	2,678,405	5,216,149	872,551	22,403,764
2012	10,293,536	5,101,370	2,450,220	3,918,549	878,294	22,641,969
2013	5,127,632	4,816,881	2,201,371	3,884,525	691,600	16,722,009
2014 [b]	13,888,262	6,978,563	1,531,838	8,112,236	696,139	31,211,033
2015	16,885,517	8,819,956	5,546,460	6,152,464	505,638	37,910,035
2016	13,719,245	8,816,373	6,705,869	9,148,404	1,063,672	39,453,563
2017	8,513,405	12,143,186	5,795,207	13,334,168	806,949	40,592,915
2018	9,273,036	5,250,546	2,847,810	25,512,922	1,140,546	44,024,860
2019	11,667,045	14,861,672	1,060,074	15,667,881	1,281,596	44,538,268
2020	14,350,609	13,443,532	2,617,156	9,105,619	552,160	40,069,076
2021	9,290,326	8,589,035	5,226,585	18,431,830	703,762	42,241,538
2022	14,417,639	16,587,250	6,338,260	22,932,560	700,194	60,975,903
2023	13,322,480	12,671,737	2,299,968	12,154,652	500,000	40,948,837
2024	9,325,760	5,328,456	4,288,780	12,681,534	656,889	32,281,419
20-Year Avg.	10,469,013	8,995,972	3,491,425	10,841,324	810,439	34,669,647
2004–13 Avg.	8,405,270	7,175,758	2,985,927	7,627,374	825,813	27,142,692
2014–23 Avg.	12,532,756	10,816,185	3,996,923	14,055,274	795,066	42,196,603

[a] Total includes General District harvest.

[b] Total includes 3,995 fish that were not assigned to a district.

Appendix A9.–Commercial sockeye salmon catch, in percent, by gear type and district, Bristol Bay, 2004–2024.

	Naknek-Kvichak					Egegik		Ugashik		Nushagak					Togiak		Total	
		Setnet Sec.		NRSHA[a,c]							Setnet Sec.		WRSH[b]					
Year	Drift	Nak.	Kvi.	Drift	Set	Drift	Set	Drift	Set	Drift	Nush.	Igushik	Drift	Set	Drift	Set	Drift	Set
2004	79	11	10	88	12	86	14	88	12	84	15	1	ND	ND	55	45	79	21
2005	ND	ND	ND	81	19	82	18	87	13	84	14	2	ND	ND	56	44	66	34
2006	86	8	5	81	19	84	16	88	12	87	11	2	ND	ND	53	47	85	15
2007	82	12	6	80	12	84	16	92	8	80	17	3	ND	ND	59	41	81	19
2008	81	12	7	ND	ND	85	15	92	8	79	16	5	ND	ND	60	40	82	18
2009	80	12	9	ND	ND	85	15	87	13	76	20	4	ND	ND	60	40	82	18
2010	81	10	9	ND	ND	84	16	90	10	78	17	6	71	29	61	39	82	18
2011	84	10	7	ND	ND	83	17	87	13	76	16	7	ND	ND	60	40	81	19
2012	85	7	8	ND	ND	83	17	90	10	67	27	6	45	55	67	33	73	27
2013	84	9	7	ND	ND	85	15	90	10	78	17	5	ND	ND	65	35	84	16
2014	83	9	8	ND	ND	89	11	82	18	73	16	7	ND	ND	58	42	82	18
2015	84	8	8	ND	ND	81	19	91	9	69	22	9	ND	ND	50	50	81	19
2016	83	8	9	ND	ND	82	18	91	9	67	22	11	ND	ND	56	44	81	19
2017	70	17	13	ND	ND	87	13	92	8	76	18	4	ND	ND	56	44	80	20
2018	71	17	12	84	16	80	20	78	22	82	13	2	ND	100	51	49	81	19
2019	77	14	9	ND	ND	81	19	66	34	78	18	3	ND	100	49	51	79	21
2020	80	12	8	ND	ND	86	14	74	26	69	26	3	100	ND	47	53	79	21
2021	75	13	12	ND	ND	84	16	87	13	84	13	3	ND	100	44	56	81	19
2022	75	14	11	ND	ND	79	21	89	11	82	13	2	ND	100	51	49	80	20
2023	81	10	9	ND	ND	81	19	81	19	77	17	3	ND	100	38	62	79	21
2024	80	7	13	ND	ND	77	23	88	12	75	21	4	ND	100	55	45	79	21
2002–11 Avg.	83	11	7	77	22	84	16	89	11	80	16	3	69	31	59	41	80	20
2012–21 Avg.	79	11	9	84	16	84	16	84	16	74	19	5	73	89	54	46	80	20
Allocation[d]	84	8	8	84	16	86	14	90	10	74	20	6	NA	NA	NA	NA	NA	NA

Note: ND = no data,

[a] Naknek River Special Harvest Area (NRSHA), Naknek-Kvichak District; allocation plan enacted in December 2003.

[b] Wood River Special Harvest Area (WRSHA), Nushagak District.

[c] NRSHA prior to allocation plan; fishing periods were alternated between gear types.

[d] Inseason numbers are presented for 1998–present, because they were used to make management decisions regarding allocation.

Appendix A10.–Inshore total run of sockeye salmon by district, in numbers of fish, Bristol Bay, 2004–2024.

Year	Naknek-Kvichak	Egegik	Ugashik	Nushagak[a]	Togiak	Total
2003	8,976,478	3,443,622	2,539,136	8,961,928	967,859	24,889,023
2004	17,551,170	11,499,371	3,954,333	8,300,912	591,915	41,897,701
2005	16,012,449	9,637,684	3,016,247	10,064,993	620,872	39,352,245
2006	13,947,161	8,874,141	3,432,795	15,738,332	938,568	42,930,997
2007	17,244,437	7,928,408	7,625,801	10,865,690	1,086,227	44,750,563
2008	17,792,948	8,663,453	2,930,354	10,175,083	856,995	40,418,833
2009	12,921,368	12,673,738	3,919,601	10,047,737	873,388	40,435,832
2010	17,717,277	5,997,870	4,862,718	11,215,110	856,148	40,649,123
2011	13,341,541	5,771,562	3,673,348	6,834,129	935,596	30,556,176
2012	16,079,420	6,296,290	3,113,671	4,052,989	826,057	30,368,427
2013	9,148,587	5,950,083	3,070,893	5,648,098	621,670	24,439,331
2014	19,924,521	8,310,816	2,147,598	10,171,331	595,192	41,149,458
2015	31,565,141	10,631,593	7,038,933	8,983,050	590,604	58,809,321
2016	21,396,703	10,576,959	8,265,501	10,569,247	845,843	51,654,253
2017	15,361,504	14,581,484	6,892,158	20,027,749	711,818	57,574,713
2018	17,118,996	6,757,975	3,939,737	33,755,636	1,379,540	62,951,884
2019	17,638,837	17,023,824	2,584,778	17,794,604	1,370,490	56,412,533
2020	24,840,681	15,754,397	4,344,209	12,656,061	706,698	58,302,046
2021	19,990,679	10,384,206	8,065,099	28,269,886	956,999	67,666,869
2022	22,176,797	18,330,083	7,758,123	30,300,621	824,458	79,390,082
2023	19,271,891	14,182,994	3,411,113	16,931,017	712,123	54,509,138
20-Year Avg.	17,537,335	9,954,378	4,658,752	13,721,659	857,847	46,729,971
2003–12 Avg.	15,158,425	8,078,614	3,906,800	9,625,690	855,363	37,624,892
2013–22 Avg.	19,916,245	11,830,142	5,410,703	17,817,628	860,331	55,835,049

[a] Reflects a 2012 adjustment of Nushagak River sonar escapement estimates prior to 2006 to account for a transition in sonar technology in 2006 (Buck et al. 2012).

Appendix A11.–Inshore commercial catch and escapement of sockeye salmon in the Naknek-Kvichak District in numbers of fish, Bristol Bay, 2004–2024.

		Escapement				
Year	Catch	Kvichak[a]	Alagnak	Naknek[a]	Total	Total Run
2004	4,716,715	5,500,134	5,396,592[a]	1,939,374	12,836,100	17,551,170
2005	6,730,812	2,320,422	4,219,026[a]	2,744,622	9,284,070	15,990,456
2006	7,151,741	3,068,226	1,773,966[a]	1,953,228	6,795,420	13,949,170
2007	9,027,161	2,810,208	2,466,414[a]	2,945,304	8,221,926	17,244,437
2008	10,385,172	2,757,912	2,180,502[a]	2,472,690	7,411,104	17,792,948
2009	8,517,450	2,266,140	970,818[a]	1,169,466	4,406,424	12,925,769
2010	10,861,016	4,207,410	1,187,730[a]	1,463,928	6,859,068	17,720,084
2011	9,019,372	2,264,352	883,794[a]	1,177,074	4,325,220	13,344,592
2012	10,152,917	4,164,444	861,747[b]	900,312	5,926,503	16,079,420
2013	4,853,030	2,088,576	1,095,950[b]	938,160	4,122,686	8,975,716
2014	13,791,053	4,458,540	200,500[b]	1,474,428	6,133,468	19,924,521
2015	16,531,193	7,349,712	5,770,650[b]	1,920,954	15,041,316	31,572,509
2016	13,466,245	4,462,728	1,775,820[b]	1,691,910	7,930,458	21,396,703
2017	8,256,304	3,163,404	2,047,894[a]	1,899,426	7,110,724	15,367,028
2018	8,917,710	4,398,708	1,581,426[a]	2,221,152	8,201,286	17,118,996
2019	11,527,837	2,371,242	820,458[a]	2,911,470	6,103,170	17,631,007
2020	14,311,035	4,030,968	2,386,518[a]	4,112,160	10,529,646	24,840,861
2021	9,253,721	4,703,520	3,236,904[a]	2,796,534	10,736,958	19,990,679
2022	14,362,397	4,224,882	1,668,222[a]	1,921,296	7,814,400	22,176,797
2023	13,264,949	3,751,686	1,099,050[a]	1,156,206	6,006,942	19,271,891
2024	9,251,442	6,644,490	2,356,560[a]	926,112	9,927,162	19,178,604
20-Year Avg.	10,254,892	3,718,161	2,081,199	1,990,485	7,789,844	18,043,238
2004–13 Avg.	8,141,539	3,144,782	2,103,654	1,770,416	7,018,852	15,157,376
2014–23 Avg.	12,368,244	4,291,539	2,058,744	2,210,554	8,560,837	20,929,099

[a] Tower counts.

[b] Aerial surveys estimates expanded by a factor of 2.55 (Clark 2005).

Appendix A12.–Inshore commercial catch and escapement of sockeye salmon in the Egegik District, by river system, in numbers of fish, Bristol Bay, 2004–2024.

		Escapement			
Year	Catch	Egegik[a]	Shosky Creek[b]	King Salmon River[b]	Total Run
2004	10,209,227	1,290,144	ND	ND	11,499,371
2005	8,015,950	1,621,584	0	ND	9,637,534
2006	7,408,983	1,465,128	0	ND	8,874,111
2007	6,495,908	1,432,500	0	1,500	7,929,908
2008	7,403,885	1,259,568	0	250	8,663,703
2009	11,527,462	1,146,276	0	4	12,673,742
2010	5,070,816	926,904	ND	150	5,997,870
2011	4,810,362	961,200	ND	ND	5,771,562
2012	5,062,390	1,233,900	ND	300	6,296,590
2013	4,779,133	1,113,630	ND	ND	5,892,763
2014	6,928,621	1,382,466	ND	ND	8,311,087
2015	8,749,567	2,160,792	ND	ND	10,486,748
2016	8,739,699	1,837,260	ND	ND	10,576,959
2017	11,980,502	2,600,982	ND	ND	14,581,484
2018	5,149,621	1,608,354	ND	ND	6,757,975
2019	14,683,614	2,340,210	ND	ND	17,023,824
2020	13,364,669	2,389,728	ND	ND	15,754,397
2021	8,552,456	1,832,196	ND	ND	10,384,652
2022	16,543,931	1,786,152	ND	ND	18,330,083
2023	12,620,330	1,562,700	ND	ND	14,183,030
2024	5,287,249	1,114,008	ND	ND	6,401,257
20-Year Avg.	8,904,856	1,597,584	ND	ND	10,481,370
2004–13 Avg.	7,078,412	1,245,083	ND	ND	8,323,715
2014–23 Avg.	10,731,301	1,950,084	ND	ND	12,639,024

Note: ND = no data

[a] Tower count

[b] Aerial survey

Appendix A13.–Inshore commercial catch and escapement of sockeye salmon in the Ugashik District, by river system, in numbers of fish, Bristol Bay, 2004–2024.

		Escapement			
Year	Catch	Ugashik River[a]	King Salmon River[b]	Dog Salmon River[b]	Total run
2004	3,077,745	776,364	22,850	15,890	3,892,849
2005	2,216,906	779,172	ND	20,440	3,016,518
2006	2,428,334	978,718	ND	24,440	3,431,492
2007	4,996,077	2,523,686	5,420	70,020	7,595,203
2008	2,319,790	588,632	ND	7,700	2,916,122
2009	2,555,268	1,346,630	ND	17,920	3,919,818
2010	4,031,625	805,686	ND	25,200	4,862,511
2011	2,641,882	1,003,753	ND	26,100	3,671,735
2012	2,415,580	670,578	8	24,432	3,110,598
2013	2,168,216	898,110	ND	ND	3,066,326
2014	1,507,440	640,158	ND	ND	2,147,598
2015	5,473,800	1,564,638	ND	ND	7,038,438
2016	6,630,231	1,635,270	ND	ND	8,265,501
2017	5,705,712	1,186,446	ND	ND	6,892,158
2018	2,771,945	1,167,792	ND	ND	3,939,737
2019	1,037,030	1,547,748	ND	ND	2,584,778
2020	2,598,269	1,745,940	ND	ND	4,344,209
2021	5,205,169	2,859,930	ND	ND	8,065,099
2022	6,321,339	1,436,784	ND	ND	7,758,123
2023	2,282,217	1,128,896	ND	ND	3,411,113
2024	4,245,179	1,759,776	ND	ND	6,004,955
20-Year Avg.	3,419,229	1,264,247	9,426	25,794	4,696,496
2004–13 Avg.	2,885,142	1,037,133	9,426	25,794	3,948,317
2014–23 Avg.	3,953,315	1,491,360	ND	ND	5,444,675

Note: ND = no data

[a] Tower counts plus fish observed during postseason surveys.

[b] Aerial surveys

Appendix A14.–Inshore commercial catch and escapement of sockeye salmon in the Nushagak District by river system, in numbers of fish, Bristol Bay, 2004–2024.

		Escapement				
Year	Catch	Wood[a]	Igushik[a]	Nushagak[b,c]	Total	Total Run
2004	6,104,492	1,543,342	109,650	543,872	2,196,864	8,301,356
2005	7,096,296	1,496,550	365,709	1,106,703	2,968,962	10,065,258
2006	10,876,552	4,008,102	305,268	548,410	4,861,780	15,738,332
2007	8,404,532	1,528,086	415,452	518,041	2,461,579	10,866,111
2008	6,903,367	1,724,676	1,054,704	492,546	3,271,926	10,175,293
2009	7,731,518	1,319,232	514,188	484,149	2,317,569	10,049,087
2010	8,424,702	1,804,344	518,040	468,696	2,818,215	11,242,917
2011	4,887,305	1,098,006	421,380	428,191	1,968,744	6,856,049
2012	2,663,014	764,202	193,770	432,438	1,392,410	4,055,424
2013	3,163,805	1,183,348	387,744	894,172	2,466,552	5,630,357
2014	6,447,650	2,764,614	340,590	618,477	3,723,681	10,171,331
2015	5,593,702	1,941,474	651,172	796,648	3,389,294	8,982,996
2016	8,886,077	1,309,707	469,230	680,513	2,459,450	11,345,527
2017	12,322,519	4,274,224	578,700	2,852,306	7,705,230	20,027,749
2018	24,230,150	7,507,254	770,772	1,247,460	9,525,486	33,755,636
2019	14,755,905	2,073,276	256,074	709,349	3,038,699	17,794,604
2020	8,860,302	2,243,886	323,814	1,228,059	3,795,759	12,656,061
2021	18,283,479	4,410,156	878,952	4,697,299	9,986,407	28,269,886
2022	22,718,969	3,747,612	378,768	3,455,272	7,581,652	30,300,621
2023	11,967,229	2,648,616	542,496	1,772,676	4,963,788	16,931,017
2024	12,300,233	4,404,654	692,586	1,723,374	6,820,614	19,120,847
20-year Avg.	10,016,078	2,469,535	473,824	1,198,764	4,144,702	14,160,781
2004–13 Avg.	6,625,558	1,646,989	428,591	591,722	2,672,460	9,298,018
2014–23 Avg.	13,406,598	3,292,082	519,057	1,805,806	5,616,945	19,023,543

[a] Tower counts.

[b] Total escapements determined for the entire drainage using Nushagak River sonar (at Portage Creek) estimate.

[c] Nushagak River sonar escapement estimates prior to 2006 were adjusted after the 2012 season to account for a transition in sonar technology in 2006 (Buck et al. 2012)

Appendix A15.–Inshore commercial catch and escapement of sockeye salmon in the Togiak District by river system, in numbers of fish, Bristol Bay, 2004–2024.

Year	Catch[a]	Escapement[b]	Total Run
2004[c]	437,234	129,462	566,696
2005[c]	465,094	149,178	614,272
2006	626,442	312,126	938,568
2007	816,581	269,646	1,086,227
2008	651,315	205,680	856,995
2009	559,459	313,946	873,405
2010	667,885	190,970	858,855
2011	744,634	188,298	932,932
2012	622,820	203,148	825,968
2013	467,329	128,118	595,447
2014	443,258	151,934	595,192
2015	371,903	218,700	590,603
2016	645,797	200,046	845,843
2017	516,488	195,330	711,818
2018	867,770	511,770	1,379,540
2019	1,018,644	351,846	1,370,490
2020	445,572	261,126	706,698
2021	676,163	280,836	956,999
2022	584,812	242,412	827,224
2023	443,905	268,218	712,123
2024	574,758	361,578	936,336
20-Year Avg.	603,655	238,640	842,295
2004-13 Avg.	605,879	209,057	814,937
2014-23 Avg.	601,431	268,222	869,653

[a] Catches in all sections were combined.
[b] Tower count, unless otherwise noted.
[c] Aerial survey estimates included in escapement count.

Appendix A16.–Chinook salmon harvest, escapement and total runs in the Nushagak River, in numbers of fish, Bristol Bay, 2004–2024.

	Harvests by fishery				Inriver	Spawning	Total
Year	Commercial[a]	Sport	Subsistence[b]	Total	abundance[c]	escapement[d]	run
2004	100,846	6,906	15,066	122,818	242,183	233,422	356,240
2005	62,764	8,565	12,422	83,751	234,123	223,950	307,701
2006	84,881	7,473	9,143	101,497	124,683	117,364	218,861
2007	51,831	9,669	12,975	74,475	60,459	50,960	125,435
2008	18,968	6,700	11,720	37,388	97,330	91,364	128,752
2009	24,693	6,354	12,108	43,155	81,480	74,781	117,936
2010	26,056	3,907	8,190	38,153	60,185[e]	56,092	94,245
2011	26,927	4,844	11,466	43,237	108,278[e]	101,995	145,232
2012	11,952	5,931	9,022	26,905	174,085[e]	167,589	194,494
2013	10,213	6,685	11,013	27,911	113,709	104,794	132,705
2014	11,868	6,260	14,268	32,396	70,460	62,679	95,075
2015	50,675	7,234	10,696	68,605	98,019	91,090	159,695
2016	24,937	8,411	13,764	47,112	125,368	118,077	165,189
2017	33,376	5,995	8,433	47,804	56,961	52,297	100,101
2018	36,626	8,192	8,752	53,570	97,239	91,354	144,924
2019	22,725	6,306	8,725	37,756	46,763	41,258	79,014
2020	7,452	1,950	6,990	16,392	43,032	40,313	56,705
2021	4,820	4,047	5,648	14,515	55,222	51,006	65,521
2022	5,431	3,421	5,444	14,296	44,434	40,571	54,867
2023	5,785	2,756	3,260	11,801	31,499	28,454	40,255
2024	2,438	3,696[f]	6,013[f]	12,147	42,621	40,669	52,816
20-Year Avg.	31,141	6,080	9,955	47,177	98,276	91,970	139,147
2004–13 Avg.	41,913	6,703	11,313	59,929	129,651	122,231	182,160

Note: 2021 Total run and spawning escapement are preliminary estimates, based on 5-year average harvests.

[a] Commercial harvest includes personal use reported from commercial harvest and fish caught in test fisheries.

[b] Subsistence harvest is intended to represent Nushagak River bound king salmon. It excludes upper Wood River and Igushik harvest.

[c] Inriver abundance estimated by sonar below the village of Portage Creek. Estimates prior to 2006 were adjusted after the 2012 season to account for a transition in sonar technology that occurred in 2006 (Buck et al 2012).

[d] Spawning escapement estimated from the following: 1997 – from comprehensive aerial surveys. 1992–1996, 1998–2020 – from inriver abundance estimated by sonar minus inriver sport and subsistence harvests above the sonar.

[e] Revised passage estimates for 2010, 2011, and 2012 are 60,185, 108,278, and 174,085 respectively.

[f] Data not available at the time of publication. Five-year average used.

Appendix A17.–Chinook salmon harvest, escapement, and total runs in the Togiak River drainage, in numbers of fish, Togiak District, Bristol Bay, 2004–2024.

	Harvests by Fishery				Spawning	Total
Year	Commercial	Sport[a]	Subsistence	Total	Escapement[b]	Run
2004	9,310	1,388	1,094	11,792	12,324	24,116
2005	10,605	1,734	1,528	13,867	10,200	24,067
2006	16,221	1,064	1,630	18,915	ND	–
2007	7,769	1,501	1,234	10,504	0[c]	–
2008	3,087	592	1,337	5,016	2,140[c]	–
2009	4,397	606	827	5,830	ND	–
2010	5,134	591	1,162	6,887	10,096[d]	16,983
2011	6,650	871	966	8,487	2,140	10,627
2012	4,612	859	933	6,404	1,503	7,907
2013	2,642	900	691	4,233	ND	–
2014	1,708	2,166	607	4,481	3,994	8,475
2015	2,663	983	876	4,522	2,922	7,444
2016	3,831	787	1,140	5,758	ND	–
2017	4,643	978	949	6,570	ND	–
2018	3,457	641	481	4,579	ND	–
2019	3,568	1,617	599	5,784	ND	–
2020	767	425	672	1,864	ND	–
2021	729	890	157	1,776	ND	–
2022	1,307	477	561	2,345	ND	–
2023	605	286	263	1,154	ND	–
2024	805	739[e,f]	450[e]	1,994	ND	–
20-Year Avg.	4,685	968	885	6,538	5,035	14,231
2004–13 Avg.	7,043	1,011	1,140	9,194	5,486	16,740
2014–23 Avg.	2,328	925	631	3,883	3,458	7,960

*Note*s: ND = no data, survey not conducted; en dashes indicate total run size cannot be determined in the absence of complete escapement data.

[a] Sport fish harvest estimate only includes the Togiak River Section.

[b] Spawning escapement estimated from comprehensive aerial surveys.

[c] Partial survey.

[d] USFWS radio telemetry-derived escapement estimate.

[e] Data not available at the time of publication. Five-year average used.

[f] Due to regulatory changes this is likely an overestimate of actual harvest.

Appendix A18.–Inshore commercial catch and escapement of chum salmon in the Nushagak and Togiak Districts, in numbers of fish, 2004–2024.

	Nushagak District			Togiak District		
Year	Catch	Escapement[a]	Total Run	Catch	Escapement[b]	Total Run
2004	458,916	360,265	819,181	94,025	103,810	197,835
2005	966,069	519,618	1,485,687	124,695	108,346	233,041
2006	1,240,235	661,003	1,901,238	223,364	26,900[c]	–
2007	953,292	161,483	1,114,775	202,486	ND	–
2008	492,341	326,300	818,641	301,967	279,580[c]	–
2009	745,161	438,481	1,183,642	141,375	ND	–
2010	424,234	273,914	698,148	118,767	ND	–
2011	296,909	248,278	545,187	113,234	ND	–
2012	272,163	364,499	636,662	206,614	ND	–
2013	340,881	623,326	628,134	208,786	ND	–
2014	242,261	552,797	795,058	100,195	ND	–
2015	502,981	288,929	791,910	103,773	ND	–
2016	397,761	419,810	817,571	187,508	ND	–
2017	804,878	415,488	1,220,366	204,518	ND	–
2018	1,020,227	811,283	1,831,510	158,329	ND	–
2019	855,428	651,164	1,506,592	227,731	ND	–
2020	136,605	112,731	249,336	53,510	ND	–
2021	115,456	125,352	240,808	21,346	ND	–
2022	172,370	116,692	289,062	52,770	ND	–
2023	173,252	110,379	283,631	52,893	ND	–
2024	316,655	286,464	603,119	47,970	ND	–
20-Year Avg.	530,571	379,090	892,857	144,894	129,659	21,544
2004–13 Avg.	619,020	397,717	983,129	173,531	129,659	43,088
2014–23 Avg.	442,122	360,463	802,584	116,257		

Notes: ND = no data, chum salmon spawning escapement survey did not occur; en dashes indicate total run size cannot be determined in the absence of complete escapement data.

[a] Escapement based on estimates from the Nushagak River sonar project at Portage Creek. Estimates prior to 2006 were adjusted after the 2012 season to account for a transition in sonar technology in 2006 (Buck et al. 2012).

[b] Escapement estimates based on aerial surveys. Estimate includes Togiak, Kulukak, Matogak, Osviak, Slug, Quigmy, Negukthlik, and Ungalikthluk Rivers except where noted.

[c] Partial survey count.

Appendix A19.–Average round weight (lb) of the commercial salmon catch by species, Bristol Bay, 2004–2024.

Year	Sockeye	Chinook	Chum	Pink	Coho
2004	5.8	15.4	6.6	4.1	6.8
2005	6.3	16.6	7.1	3.5	6.3
2006	5.7	17.0	7.7	3.7	6.4
2007	5.8	13.5	6.1	3.5	6.4
2008	5.8	15.5	6.5	3.6	6.5
2009	5.9	15.2	6.3	3.3	6.5
2010	5.5	14.7	6.4	3.2	8.9
2011	6.2	13.0	7.0	3.2	6.8
2012	5.7	13.9	6.7	3.1	5.4
2013	6.0	15.3	6.4	3.9	6.0
2014	5.6	15.4	6.1	3.7	6.4
2015	5.2	15.1	6.1	3.7	6.7
2016	5.4	12.6	6.0	4.0	5.8
2017	5.5	11.2	6.4	3.9	6.3
2018	5.1	10.5	6.3	3.6	6.5
2019	5.1	11.6	6.2	3.2	6.0
2020	5.1	9.6	6.0	3.3	5.5
2021	4.7	9.4	5.3	3.3	6.2
2022	5.0	9.0	5.5	3.4	6.1
2023	5.5	11.2	5.8	3.4	5.9
2024	4.5	9.9	5.4	3.7	5.1
20-Year Avg.	5.5	13.3	6.3	3.5	6.4
2004–13 Avg.	5.9	15.0	6.7	3.5	6.6
2014–23 Avg.	5.2	11.6	6.0	3.6	6.1

Appendix A20.–Average price paid in dollars per pound for salmon, by species, Bristol Bay, 2004–2024.

Year	Sockeye	Chinook	Chum	Pink	Coho
2004	0.51	0.37	0.09	0.09	0.31
2005	0.62	0.58	0.11	0.02	0.29
2006	0.66	0.71	0.12	0.03	0.38
2007	0.67	0.64	0.13	0.03	0.41
2008	0.75	0.83	0.17	0.17	0.55
2009	0.80	0.89	0.17	0.07	0.56
2010	1.07	1.18	0.28	0.36	0.66
2011	1.17	1.04	0.37	0.29	0.74
2012	1.18	1.31	0.34	0.39	0.55
2013	1.61	1.48	0.30	0.14	0.79
2014	1.35	1.32	0.41	0.24	0.84
2015	0.64	0.56	0.30	0.06	0.39
2016	0.96	0.84	0.30	0.18	0.58
2017	1.30	0.94	0.29	0.15	0.70
2018	1.60	1.02	0.37	0.27	0.68
2019	1.53	0.83	0.32	0.10	0.70
2020	1.09	0.92	0.30	0.09	0.80
2021	1.73	1.09	0.39	0.15	0.72
2022	1.39	1.12	0.40	0.15	0.53
2023	0.81	0.96	0.27	0.10	0.31
2024[a]	0.89	0.71	0.21	0.08	0.42
20-Year Avg.	1.07	0.93	0.27	0.15	0.57
2002–11 Avg.	0.90	0.90	0.21	0.16	0.52
2012–21 Avg.	1.24	0.96	0.34	0.15	0.63

Source: OCEANAK ADF&G Commercial Operators Annual Report (COAR) Buying Subject Area (available from https://www.adfg.alaska.gov/index.cfm?adfg=fishlicense.coar). ADF&G is not responsible for errors or deficiencies in reproduction, subsequent analysis, or interpretation.

Note: The exvessel value includes any post-season adjustments or bonuses paid after the fish was purchased. Prices represent a weighted average price per pound by species and area. Prices may reflect a mixture of gear types and delivery conditions.

[a] Price does not include postseason adjustments or bonuses.

Appendix A21.–Estimated exvessel value of the commercial salmon catch by species, in thousands of dollars, Bristol Bay, 2004–2024.

Year	Sockeye	Chinook	Chum	Pink[a]	Coho	Total[b]
2004	76,175	634	423	171	150	77,553
2005	96,044	720	946	0[d]	168	97,878
2006	110,372	1,240	1,441	19	191	113,263
2007	119,196	542	1,583	0[d]	120	121,441
2008	118,028	297	1,344	170	401	120,240
2009	142,457	387	1,347	0[d]	177	144,368
2010	176,784	495	1,743	1,567	470	181,059
2011	154,851	455	1,542	1	62	137,726
2012	139,675	338	1,475	860	345	142,693
2013	148,681	366	2,049	0[d]	654	151,750
2014	217,311	311	1,214	1,209	1,990	222,035
2015	123,547	347	1,758	0[d]	92	125,744
2016	192,349	361	1,688	547	312	195,257
2017	271,549	431	2,594	18	1,071	275,663
2018	345,093	477	2,891	238	720	349,419
2019	337,838	449	2,549	2	290	341,128
2020	219,336	87	487	21	436	220,367
2021	342,469	68	394	2	165	343,098
2022	419,277	86	645	60	41	420,109
2023	182,746	81	522	10	27	183,386
2024[c]	127,380	43	543	22	65	128,053
20 Year Avg.	196,689	409	1,432	245	394	198,209
2002–11 Avg.	128,226	547	1,389	279	274	128,797
2012–21 Avg.	265,152	270	1,474	211	514	267,621

Source: OCEANAK ADF&G Commercial Operators Annual Report (COAR) Buying Subject Area (available from https://www.adfg.alaska.gov/index.cfm?adfg=fishlicense.coar). ADF&G is not responsible for errors or deficiencies in reproduction, subsequent analysis, or interpretation.

Notes: The exvessel values are not adjusted for inflation. Values include any postseason adjustments or bonuses paid after the fish was purchased. Prices represent a weighted average price per pound by species and area. Prices may reflect a mixture of gear types and delivery conditions.

[a] Averages include even years only.

[b] Total may vary from actual sum due to rounding.

[c] Preliminary exvessel value does not include postseason adjustments or bonuses. Derived from preliminary season summary price per pound times commercial catch.

[d] 0 = value reported but <500

APPENDIX B: HERRING

Appendix B1.–Herring sac roe industry participation, fishing effort and harvest, Togiak District, 2004–2024.

Year	Number of Buyers	Daily Processing Capacity[a]	Gillnet					Purse Seine				Total Harvest[c]
			Fishery Dates	Effort[b]	Duration (hours)	Harvest[c]	Roe %	Effort[b]	Duration (hours)	Harvest[c]	Roe %	
2004	6	2,150	4/29-5/9	54	162	4,980	10.4	31	78.0	13,888	9.5	18,868
2005	8	2,330	4/30-5/8	56	149	5,841	11.2	33	83.0	15,071	9.6	20,912
2006	7	2,060	5/12-5/21	49	144	7,132	10.8	28	113.0	16,821	9.2	23,953
2007	5	1,420	5/10-5/25	25	366	4,012	11.2	21	244.0	13,120	10.0	17,132
2008	7	1,950	5/16-5/31	27	312	4,832	11.4	28	292.0	15,691	8.4	20,523
2009	6	2,015	5/16-5/31	32	314	4,140	10.2	21	266.0	12,967	10.3	17,107
2010	6	2,690	5/11-5/27	35	338	7,540	10.1	26	266.0	18,816	9.7	26,356
2011	5	2,413	5/8-5/31	25	318	5,907	12.1	22	268.0	16,970	9.6	22,877
2012	4	1,970	5/14-6/1	18	534	4,027	12.1	16	328.0	12,994	9.4	17,021
2013	6	2,675	5/11-5/28	37	408	8,244	10.9	26	224.0	19,366	9.0	27,610
2014	6	3,065	4/27-5/13	24	412	6,016	11.9	17	412.0	19,544	9.7	25,560
2015	4	1,880	4/27-5/11	6	328	1,156	11.1	16	328.0	20,240	11.3	21,396
2016	4	2,530	4/17-5/2	3	366	80	12.2	17	306.0	14,799	12.3	14,879
2017	4	1,950	4/28-5/12	15	342	1,342	12.0	19	195.0	15,787	11.4	17,129
2018	4	1,950	4/22-5/14	1	378	–	–	20	254.0	15,856	10.0	15,856
2019	4	2,100	4/16-5/03	3	376	–	–	19	234.0	22,542	11.8	22,542
2020	1	–	5/3-5/15	1	297	–	–	2	297.0	–	–	–
2021	2	–	5/3-5/15	3	204	–	–	10	262.0	–	–	–
2022	2	–	4/27-5/14	0	0	–	–	8	328.0	–	–	–
2023	0	0	ND	0	0	0	0	0	0	0	0	0
2024	0	0	ND	0	0	0	0	0	0	0	0	0
20-year Avg.	5	2,068	ND	21	287	4,350	11	19	239	15,557	9	19,395
2003–12 Avg.	6	2,167	ND	36	304	5,666	11	25	216	15,570	9	21,236
2013–22 Avg.	3	1,925	ND	6	270	1,719	9	13	262	15,538	10	16,766

Notes: ND = no data; en dashes indicate information is confidential due to participation level

[a] Number of tons per day based on companies registered.

[b] Total vessels fished.

[c] Harvest in tons; includes deadloss and test fish harvest

Appendix B2.–Exploitation of Togiak herring stock (in short tons), 2004–2024.

Year	Biomass Estimate[a] (short tons)	Dutch Harbor Food/Bait	Sac Roe				Total Harvest	Exploitation Rate
			Gillnet[b]	Purse Seine[c]	Waste[d]	Total[e]		
2004	143,124	1,258	4,980	13,785	103	18,765	20,023	14.0%
2005	108,585	1,154	5,841	14,287	784	20,128	21,282	19.6%
2006	129,976	953	7,132	16,321	500	23,453	24,406	18.8%
2007	134,566	1,214	4,012	12,800	320	16,812	18,026	13.4%
2008	136,495	1,536	4,832	15,691	ND	20,523	22,059	16.2%
2009	121,800	1,941	4,140	12,967	ND	17,107	19,048	15.6%
2010	146,775	1,938	7,540	18,816	ND	26,356	28,294	19.3%
2011	140,860	1,795	5,907	16,970	ND	22,877	24,672	17.5%
2012	123,745	1,807	4,027	12,994	ND	17,021	18,828	15.2%
2013	169,020	1,764	8,243	19,366	1,593	27,609	29,373	17.4%
2014	157,448	1,645	6,016	19,544	54	25,560	27,205	17.3%
2015	163,480	1,972	1,156	20,240	500	21,396	23,368	14.3%
2016	162,244	208	80	14,799	ND	14,879	15,087	9.3%
2017	130,852	1,270	1,342	15,787	466	17,129	18,399	14.1%
2018	136,756	1,188	–	15,856	ND	15,856	17,044	12.5%
2019	217,548	1,805	–	22,542	1,000	23,542	25,347	11.7%
2020	215,826	447	–	–	ND	ND	ND	ND
2021	236,742	–	–	–	ND	ND	12,068	5.1%
2022	357,536	–	0	–	0		11,754	3.3%
2023	319,590	–	0	0	0	0	0	0.0%
2024	228,807	–	0	0	0	0	0	0.0%
20-year Avg.	172,648	1,406	4,078	15,457	484	19,354	19,804	13.4%
2004–13 Avg.	135,495	1,536	5,665	15,400	660	21,065	22,601	16.7%
2014–23 Avg.	209,802	1,219	1,432	15,538	337	16,909	16,697	9.7%

Notes: ND = no data; en dash indicates data are confidential due to only 1 buyer.

[a] Preseason forecast unless peak biomass estimates inseason exceeded preseason forecast.

[b] Includes bait harvest.

[c] Includes test fish harvest.

[d] Aerial survey estimated waste.

[e] Does not include waste.

Appendix B3.–Age composition by weight of total inshore herring run, Togiak District, 2004–2024.

	Age Composition (%)						Spawning Biomass[a]
Year	≤ 4	5	6	7	8	≥ 9	(short tons)
2004	[b]	[b]	3.8	43.7	24.6	27.5	ND
2005	[b]	[b]	0.8	11	41.4	46.4	163,737
2006	1.8	5.4	2.8	5.4	25.9	58.7	179,580
2007	0.7	7.3	15.5	5.5	9.4	61.7	143,827
2008	6.2	9	14.6	15.5	8.1	46.5	136,839
2009	9.4	14.7	14.5	14.9	12.2	34	142,154
2010	1.4	16.1	18.1	13.2	13.2	38.3	146,913
2011	[b]	4	25.3	21.7	15.7	33.3	62,333
2012	0.5	6.6	16.9	35.8	17.6	22.7	167,738
2013	0.1	2	9.6	24.7	28.8	34.8	169,020
2014	0.7	4.3	9.6	23.5	27.6	34.3	203,267
2015	1.0	4.0	12.8	11.4	24.7	46.1	228,807
2016	ND	ND	ND	ND	ND	ND	136,993
2017	3.4	1.6	5.4	13.0	19.0	56.7	90,269
2018	10.3	15.3	7.5	12.7	16.8	37.4	16,001
2019	1.8	22.4	25.3	14.1	12.3	24.0	177,980
2020	12.7	14.4	22.4	20.3	11.0	19.2	177,337
2021	43.1	30.8	17.0	6.7	1.9	0.5	232,181
2022	7.9	24.4	34.5	9.7	16.1	7.4	89,635
2023	ND	ND	ND	ND	ND	ND	319,590[d]
2024[c]	ND	ND	ND	ND	ND	ND	228,807[d]

Note: ND = no data

[a] Includes commercial catch, escapement, and documented waste. Age contribution of the commercial purse seine harvest (by weight) was used to represent the total run.

[b] Contribution of age class is less than 0.5%.

[c] No commercial harvest sampling.

[d] Biomass estimate derived from aerial surveys.

Appendix B4.–Aerial survey estimates of herring biomass (in tons) and spawn deposition (in miles), Togiak District, 2004–2024.

Year	Preseason Forecast[a]	Biomass Estimate[b]	Spawn Estimate
2004	143,124	53,625	36
2005	96,029	163,737	28
2006	129,976	179,580	18
2007	134,566	143,827	19
2008	134,516	136,839	49
2009	121,800	142,154	15
2010	146,775	146,913	8
2011	140,860	62,333	36
2012	123,745	167,738	31
2013	169,094	169,020	47
2014	157,448	203,267	92
2015	163,480	228,807	63
2016	164,247	136,993	43
2017	130,852	90,269	ND
2018	136,756	16,001	ND
2019	217,548	177,980	71
2020	215,826	177,337	30
2021	236,742	232,181	59
2022	357,536	262,291	11
2023	316,203	319,590	8
2024	216,037	228,807	34
2004–2023 Avg.	171,856	160,524	37
2014–2023 Avg.	209,664	184,472	47

Note: ND = no data.

[a] Forecasts based on Age Structured Analysis through 2022.

Appendix B5.–Exvessel value of the commercial herring and spawn-on-kelp harvest, in thousands of dollars, Togiak District, 2004–2024.

Year	Herring Sac Roe	Total
2004	2,077	2,659
2005	3,308	3,308
2006	3,168	3,168
2007	2,254	2,254
2008	2,748	2,748
2009	2,803	2,803
2010	3,481	3,481
2011	2,555	2,555
2012	3,698	3,698
2013	4,204	4,204
2014	1,394	1,394
2015	1,031	1,031
2016	1,521	1,521
2017	1,907	1,907
2018	1,629	1,629
2019	1,706	1,706
2020	–	–
2021	–	–
2022	–	–
2023	ND	ND
2024	ND	ND
20-year Avg.	2,468	2,504
2004–13 Avg.	3,030	3,088
2014–19 Avg.	1,913	1,913

Notes: ND = no data, no buyers operated; en dashes indicate information is confidential. Exvessel value (value paid to the fishers) is derived by multiplying price/ton by the commercial harvest. Estimates do not include any postseason adjustments to fishers from processors and should therefore be treated as minimum estimates.

Appendix B6.–Guideline and actual harvests of herring sac roe (short tons) and spawn on kelp (lb), Togiak District, 2004–2024.

	Gillnet Sac Roe			Purse Seine Sac Roe		
Year	Guideline[a]	Actual	% Difference[b]	Guideline[a]	Actual[c]	% Difference[b]
2004	7,568	4,980	-34	17,658	13,888	-21
2005	5,667	5,841	3	13,224	15,071	14
2006	7,059	7,132	1	16,471	16,821	2
2007	7,090	4,012	-43	16,544	13,120	-21
2008	6,864	4,832	-30	16,017	15,602	-3
2009	6,378	4,167	-35	14,882	12,404	-17
2010	7,772	7,540	-3	18,134	18,816	4
2011	7,442	5,907	-21	17,364	16,970	-2
2012	6,487	4,027	-38	15,135	12,994	-14
2013	9,017	8,244	-9	21,040	19,366	-9
2014	8,367	6,468	-23	19,523	19,544	0
2015	8,704	1,220	-86	20,309	20,374	0
2016	8,635	80	-99	20,148	14,799	-27
2017	6,883	1,342	-81	16,060	15,787	-2
2018	7,212	–	–	16,829	15,856	-6
2019	5,386	–	–	24,800	23,542	-5
2020	7,750	–	–	30,999	–	–
2021	8,528	–	–	34,111	–	–
2022	13,021	0	-100	52,086	–	–
2023	11,484	0	-100	45,935	0	-100
2024	7,757	0	-100	38,787	0	-100
20-year Avg.	7,866	4,112	-44	22,363	15,586	-12
2004–13 Avg.	7,134	5,668	-21	16,647	15,505	-7
2014–23 Avg.	8,597	1,518	-81	28,080	15,700	-20

Note: En dashes indicate data could not be computed, confidential due to participation levels

[a] Harvest guideline derived from preseason forecast or inseason biomass estimate when larger.

[b] Actual minus guideline divided by guideline * 100.

[c] Includes dead loss and test fish harvest.